

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1708241

PO#

C012505850

November 13, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1708241

### Table of Contents

November 13, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	21
Notes and Definitions	31
Raw Data: 7H24011	32
Raw Data: 7J22009	70
Raw Data: 7J24016	190

**Total Pages – 295**



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 15:32

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-02E_17HC001_073117_POL_01_WB	1708241-01	Tissue	31-Jul-17 20:05	08-Aug-17 09:30
ES-02E_17HC001_073117_POL_02_WB	1708241-02	Tissue	31-Jul-17 20:05	08-Aug-17 09:30
ES-02E_17HC001_073117_POL_03_WB	1708241-03	Tissue	31-Jul-17 20:05	08-Aug-17 09:30
ES-02E_17HC001_073117_POL_04_WB	1708241-04	Tissue	31-Jul-17 20:05	08-Aug-17 09:30
ES-02E_17HC001_073117_POL_05_WB	1708241-05	Tissue	31-Jul-17 20:05	08-Aug-17 09:30
ESFP_17HC001_072817_POL_01_WB	1708241-06	Tissue	28-Jul-17 12:40	08-Aug-17 09:30
ESFP_17HC001_072817_POL_02_WB	1708241-07	Tissue	28-Jul-17 12:40	08-Aug-17 09:30
ESFP_17HC001_072817_POL_03_WB	1708241-08	Tissue	28-Jul-17 12:40	08-Aug-17 09:30
ESFP_17HC001_072817_POL_04_WB	1708241-09	Tissue	28-Jul-17 12:40	08-Aug-17 09:30
ESFP_17HC001_072817_POL_05_WB	1708241-10	Tissue	28-Jul-17 12:40	08-Aug-17 09:30
BFK_17HC001_073117_POL_01_WB	1708241-11	Tissue	31-Jul-17 19:30	08-Aug-17 09:30
BFK_17HC001_073117_POL_02_WB	1708241-12	Tissue	31-Jul-17 19:30	08-Aug-17 09:30
BFK_17HC001_073117_POL_03_WB	1708241-13	Tissue	31-Jul-17 19:30	08-Aug-17 09:30
BFK_17HC001_073117_POL_04_WB	1708241-14	Tissue	31-Jul-17 19:30	08-Aug-17 09:30
BFK_17HC001_073117_POL_05_WB	1708241-15	Tissue	31-Jul-17 19:30	08-Aug-17 09:30

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Project Number: WO-04A-050  
Project Manager: Denise King**Reported:**  
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## REVISED REPORT (11/13/17)

Report was revised per client request. Client added Methyl Mercury analysis to samples 1708241-01->05 and 1708241-11->15 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 -49 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 F708459 and analyzed in sequence 7H24011. Sample 1708241-01 was used as the source QC in batch F708459 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 batch F710421. These were analyzed in two sequences; 7J22009 and 7J24016. Sample 1708241-01 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 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

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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: 1708241

Client: AMEC Foster Wheeler

Date & Time Received: 8/8/17 9:30

Date Labeled: 8/8/17 Labeled By: [Signature]

Project: \_\_\_\_\_

Received By: LM

Label Verified By: [Signature]

# 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	

AMS 2017 C.O

TID:	CF:	°C	Date/time:	By:
5225	4		8/8/17 9:30	LM
Cooler 1:	-49.0°C	w/CF: -49.0°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:	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:	Y	

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

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1708241

AFW Eurofins Eurofins FGS WA  
WO 04A 53

### 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 # 3B16188052 04A 053				Preservation Codes				SF #:			
Project Manager: Rod Pendleton				P.O. #:								SCR #:			
Sampler: JB/DL				PWSID #:											
Phone #:				Quote #:											
State where samples were collected: ME				For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>											
Sample Identification		Date	Time	Grab	Composite	Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>	Foliage <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/>	Water <input type="checkbox"/> N-PCES <input type="checkbox"/> TIER/LO	Other: <input type="checkbox"/>	Total # of Containers	AP 10/10/10 2oz F. Freeze	Preservation Codes			
												H = HCl T = Thiourea N = HNO3 D = NaOH S = H2SO4 P = H2PO4 C = Other			
												Remarks			
1	ES-02E 17HC001 072817 POL_01_WB	7/31/2017	2005	X				X	1	X		7.0 grams Use volume for MS/MSD			
2	ES-02E 17HC001 072817 POL_02_WB	7/31/2017	2005	X				X	1	X		4.3 grams			
3	ES-02E 17HC001 072817 POL_03_WB	7/31/2017	2005	X				X	1	X		5 grams			
4	ES-02E 17HC001 072817 POL_04_WB	7/31/2017	2005	X				X	1	X		5.2 grams			
5	ES-02E 17HC001 072817 POL_05_WB	7/31/2017	2005	X				X	1	X		5.3 grams			
6	ESFP 17HC001 072817 POL_01_WB	7/28/2017	1240	X				X	1	X		5.5 gram			
7	ESFP 17HC001 072817 POL_02_WB	7/28/2017	1240	X				X	1	X		5.3 gram			
8	ESFP 17HC001 072817 POL_03_WB	7/28/2017	1240	X				X	1	X		5.8 gram			
9	ESFP 17HC001 072817 POL_04_WB	7/28/2017	1240	X				X	1	X		5.0 gram			
10	ESFP 17HC001 072817 POL_05_WB	7/28/2017	1240	X				X	1	X		5.4 gram			
11	BFK 17HC001 073117 POL_01_WB	7/31/2017	1930	X				X	1	X		5.2 gram			
12	BFK 17HC001 073117 POL_02_WB	7/31/2017	1930	X				X	1	X		3.8 gram			
13	BFK 17HC001 073117 POL_03_WB	7/31/2017	1930	X				X	1	X		4.0 gram			
14	BFK 17HC001 073117 POL_04_WB	7/31/2017	1930	X				X	1	X		3.4 gram			
15	BFK 17HC001 073117 POL_05_WB	7/31/2017	1930	X				X	1	X		2.9 gram			
Turnaround Time Requested (TAT) (please check)				Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: [Signature]				Date: 8/16/17 Time: 0845			
(Rush TAT is subject to laboratory approval and surcharges.)								Received by: [Signature]				Date: 8/16/17 Time: 2:45pm			
Notes:				8103-4444-8110				Relinquished by: [Signature]				Date: 8/16/17 Time: 9:30am			
FedEx # <del>8103-4444-8110</del>								Received by: [Signature]				Date: 8/17/17 Time: 9:30			
# of Containers: 1								Relinquished by:				Date:			
Sample disposal - Hold Equipment Boxes 1-4 until 30 days after delivery of report								Received by: [Signature]				Date:			
Report and EDD to: dense.king@amec.fw.com / 978 692 6633								Relinquished by:				Date:			
Data Package Options (please check if required)				High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>				Relinquished by Commercial Carrier:				Date:			
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: 49.0 °C			

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 15:32
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**ES-02E\_17HC001\_073117\_POL\_01\_WB**  
**1708241-01**

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)	6.2	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	10.3	0.291	2.59	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	
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Amy Goodall, Project Manager





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Project Number: WO-04A-050  
Project Manager: Denise King

Reported:  
13-Nov-17 15:32

ES-02E\_17HC001\_073117\_POL\_02\_WB  
1708241-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	11.8	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	24.6	0.411	3.67	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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Project Number: WO-04A-050  
Project Manager: Denise King

Reported:  
13-Nov-17 15:32

ES-02E\_17HC001\_073117\_POL\_03\_WB  
1708241-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	11.4	0.4	1.7	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	29.8	0.419	3.74	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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Amy Goodall, Project Manager



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Project Number: WO-04A-050  
Project Manager: Denise King

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**ES-02E\_17HC001\_073117\_POL\_04\_WB**  
**1708241-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	17.7	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	31.5	0.351	3.13	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**ES-02E\_17HC001\_073117\_POL\_05\_WB**  
**1708241-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	10.8	0.5	1.8	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	38.8	0.421	3.76	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**ESFP\_17HC001\_072817\_POL\_01\_WB**  
**1708241-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	12.9	0.386	3.45	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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Amy Goodall, Project Manager



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Project Manager: Denise King

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**ESFP\_17HC001\_072817\_POL\_02\_WB**  
**1708241-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	12.0	0.385	3.44	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**ESFP\_17HC001\_072817\_POL\_03\_WB**  
**1708241-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	9.71	0.422	3.77	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**ESFP\_17HC001\_072817\_POL\_04\_WB**  
**1708241-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	12.9	0.421	3.76	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**ESFP\_17HC001\_072817\_POL\_05\_WB**  
**1708241-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	8.94	0.360	3.22	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**BFK\_17HC001\_073117\_POL\_01\_WB**  
**1708241-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	9.5	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	17.6	0.432	3.85	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**BFK\_17HC001\_073117\_POL\_02\_WB**  
**1708241-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	8.7	0.5	2.0	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	21.2	0.424	3.79	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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**BFK\_17HC001\_073117\_POL\_03\_WB**  
**1708241-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	8.0	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	14.7	0.447	3.99	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	

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13-Nov-17 15:32

**BFK\_17HC001\_073117\_POL\_04\_WB**  
**1708241-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	3.4	0.5	2.0	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	12.4	0.388	3.47	ng/g	100	F708459	17-Aug-17	7H24011	23-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

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13-Nov-17 15:32

**BFK\_17HC001\_073117\_POL\_05\_WB**  
**1708241-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	9.5	0.5	1.9	ng/g	500	F710421	19-Oct-17	7J24016	23-Oct-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	18.3	0.410	3.66	ng/g	100	F708459	17-Aug-17	7H24011	23-Aug-17	EPA 1631B	



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Reported:  
13-Nov-17 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H24011 - F708459</b>											
<b>Cal Standard (7H24011-CAL1)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	0.513	-		ng/L	0.50100		102				
<b>Cal Standard (7H24011-CAL2)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	1.004	-		ng/L	1.0020		100				
<b>Cal Standard (7H24011-CAL3)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	5.024	-		ng/L	5.0100		100				
<b>Cal Standard (7H24011-CAL4)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	19.90	-		ng/L	20.040		99.3				
<b>Cal Standard (7H24011-CAL5)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	38.81	-		ng/L	40.080		96.8				
<b>Calibration Blank (7H24011-CCB1)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	0.039	-		ng/L							
<b>Calibration Blank (7H24011-CCB2)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	0.053	-		ng/L							
<b>Calibration Blank (7H24011-CCB3)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	0.038	-		ng/L							
<b>Calibration Blank (7H24011-CCB4)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	0.071	-		ng/L							
<b>Calibration Blank (7H24011-CCB5)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	0.073	-		ng/L							

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13-Nov-17 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H24011 - F708459</b>											
<b>Calibration Blank (7H24011-CCB6)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	0.047	-		ng/L							
<b>Calibration Blank (7H24011-CCB7)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	0.042	-		ng/L							
<b>Calibration Blank (7H24011-CCB8)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	0.073	-		ng/L							
<b>Calibration Blank (7H24011-CCB9)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	0.043	-		ng/L							
<b>Calibration Check (7H24011-CCV1)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	5.030	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7H24011-CCV2)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	4.957	-		ng/L	5.0000		99.1	77-123			
<b>Calibration Check (7H24011-CCV3)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	4.912	-		ng/L	5.0000		98.2	77-123			
<b>Calibration Check (7H24011-CCV4)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	5.060	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7H24011-CCV5)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	5.064	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7H24011-CCV6)</b> Prepared & Analyzed: 23-Aug-17											
Mercury	5.008	-		ng/L	5.0000		100	77-123			

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13-Nov-17 15:32

**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**

<b>Calibration Check (7H24011-CCV7)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	4.964	-		ng/L	5.0000		99.3	77-123			
<b>Calibration Check (7H24011-CCV8)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	4.922	-		ng/L	5.0000		98.4	77-123			
<b>Calibration Check (7H24011-CCV9)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	5.185	-		ng/L	5.0000		104	77-123			
<b>Instrument Blank (7H24011-IBL1)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7H24011-IBL2)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7H24011-IBL3)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7H24011-ICV1)</b>					Prepared & Analyzed: 23-Aug-17						
Mercury	4.956	-		ng/L	5.0000		99.1	79-121			

**Batch 7J22009 - F710421**

<b>Cal Standard (7J22009-CAL1)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		88.9				
<b>Cal Standard (7J22009-CAL2)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		95.8				

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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 15:32
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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
<b>Batch 7J22009 - F710421</b>											
<b>Cal Standard (7J22009-CAL3)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		108				
<b>Cal Standard (7J22009-CAL4)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		99.6				
<b>Cal Standard (7J22009-CAL5)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	4.3	-		ng/L	4.0040		107				
<b>Calibration Blank (7J22009-CCB1)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7J22009-CCB2)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7J22009-CCB3)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7J22009-CCB4)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7J22009-CCB5)</b>					Prepared & Analyzed: 20-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7J22009-CCB6)</b>					Prepared: 20-Oct-17 Analyzed: 21-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7J22009-CCB7)</b>					Prepared: 20-Oct-17 Analyzed: 21-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U

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Reported:  
13-Nov-17 15:32

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

<b>Calibration Check (7J22009-CCV1)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.4	67-133			
<b>Calibration Check (7J22009-CCV2)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.6	67-133			
<b>Calibration Check (7J22009-CCV3)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133			
<b>Calibration Check (7J22009-CCV4)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		95.1	67-133			
<b>Calibration Check (7J22009-CCV5)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.8	67-133			
<b>Calibration Check (7J22009-CCV6)</b>											
Prepared: 20-Oct-17 Analyzed: 21-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		90.0	67-133			
<b>Calibration Check (7J22009-CCV7)</b>											
Prepared: 20-Oct-17 Analyzed: 21-Oct-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.6	67-133			
<b>Instrument Blank (7J22009-IBL1)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7J22009-ICB1)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.006	-		ng/L							
<b>Initial Cal Check (7J22009-ICV1)</b>											
Prepared & Analyzed: 20-Oct-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	69-131			

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Project Number: WO-04A-050  
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13-Nov-17 15:32

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7J24016 - F710422</b>											
<b>Cal Standard (7J24016-CAL1)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		84.8				
<b>Cal Standard (7J24016-CAL2)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		91.3				
<b>Cal Standard (7J24016-CAL3)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	1.2	-		ng/L	1.0010		115				
<b>Cal Standard (7J24016-CAL4)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		101				
<b>Cal Standard (7J24016-CAL5)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	4.3	-		ng/L	4.0040		108				
<b>Calibration Blank (7J24016-CCB1)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7J24016-CCB2)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7J24016-CCB3)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7J24016-CCB4)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7J24016-CCB5)</b>					Prepared & Analyzed: 23-Oct-17						
Methyl Mercury (as Mercury)	0.0	-		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 7J24016 - F710422

<b>Calibration Blank (7J24016-CCB6)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.0	-		ng/L								U
<b>Calibration Check (7J24016-CCV1)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.5	67-133				
<b>Calibration Check (7J24016-CCV2)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		87.4	67-133				
<b>Calibration Check (7J24016-CCV3)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.1	67-133				
<b>Calibration Check (7J24016-CCV4)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.6	67-133				
<b>Calibration Check (7J24016-CCV5)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133				
<b>Calibration Check (7J24016-CCV6)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133				
<b>Instrument Blank (7J24016-IBL1)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L								U
<b>Initial Cal Blank (7J24016-ICB1)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.003	-		ng/L								
<b>Initial Cal Check (7J24016-ICV1)</b>												Prepared & Analyzed: 23-Oct-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	69-131				

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Project Number: WO-04A-050  
Project Manager: Denise King

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13-Nov-17 15:32

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F708459 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F708459-BLK1)</b>					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F708459-BLK2)</b>					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	0.102	0.090	0.800	ng/g							J
<b>Blank (F708459-BLK3)</b>					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F708459-BLK4)</b>					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	ND	0.081	0.726	ng/g							F-03, U
<b>Blank (F708459-BLK5)</b>					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	ND	0.089	0.794	ng/g							F-03, U
<b>LCS (F708459-BS1)</b>					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	8.108	0.090	0.800	ng/g	8.0160		101	75-125			
<b>LCS (F708459-BS2)</b>					Prepared: 17-Aug-17 Analyzed: 23-Aug-17						
Mercury	320.9	3.39	30.2	ng/g	382.50		83.9	75-125			
<b>LCS Dup (F708459-BSD1)</b>					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	
<b>Duplicate (F708459-DUP1)</b>					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	
<b>Matrix Spike (F708459-MS1)</b>					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			

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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**

<b>Matrix Spike (F708459-MS2)</b>		<b>Source: 1708241-01</b>		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			
<b>Matrix Spike Dup (F708459-MSD1)</b>		<b>Source: 1708118-03RE2</b>		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	
<b>Matrix Spike Dup (F708459-MSD2)</b>		<b>Source: 1708241-01</b>		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**

<b>Blank (F710421-BLK8)</b>		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F710421-BLK9)</b>		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F710421-BLKA)</b>		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F710421-BLKB)</b>		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.4	1.8	ng/g							F-03, U
<b>Blank (F710421-BLKC)</b>		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
<b>Blank (F710421-BLKD)</b>		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 15:32
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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 F710421 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F710421-BLKE)</b>		Prepared: 19-Oct-17 Analyzed: 23-Oct-17									
Methyl Mercury (as Mercury)	ND	0.5	1.8	ng/g							F-03, U
<b>LCS (F710421-BS3)</b>		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			
<b>LCS Dup (F710421-BSD3)</b>		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	
<b>Duplicate (F710421-DUP2)</b>		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	
<b>Matrix Spike (F710421-MS3)</b>		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			
<b>Matrix Spike (F710421-MS4)</b>		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			
<b>Matrix Spike Dup (F710421-MSD3)</b>		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	
<b>Matrix Spike Dup (F710421-MSD4)</b>		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	

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:**  
13-Nov-17 15:32

**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

**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						
<b>Corr. Mean RF</b>		<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>			
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

Sample			LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB				Comments	
Instrument	Analyst	Type								Correction?	RESP	InitialResult	FinalResult		InitialUnits
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	ng/L	
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	0.716	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	0.512	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	223.075	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	202.265	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	1708151-03	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	1708151-04	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	1708151-05	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	1708151-06	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	1708151-07	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	1708151-08	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	1708151-09	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	1708151-10	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	1708151-11	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	1708151-12	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	SAM	1708151-13	50	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-CCV2	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	CAL	SEQ-CCB2	1	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	1708151-14	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	1708151-15	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	1708151-16	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	1708151-17	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-MSD1	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-MS2	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	SAM	F708501-MSD2	400	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-BLK1	10	8/23/2017 11:22:33	73849-1.RAW	11:22:33 AM	9.99	2		9.7	0.088	0.883	ng/L	
Hg2600-3	DM2	BLK	F708500-BLK2	10	8/23/2017 11:26:41	73850-1.RAW	11:26:41 AM	6.42	2		6.2	0.056	0.559	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	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	CAL	SEQ-CCB3	1	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	F708500-BSD1	100	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	1707810-13	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	1707810-14	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	1707810-15	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	1707810-16	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	1707810-17	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	1707810-18	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	1707810-19	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	SAM	1707810-20	50	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-CCV4	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	0.075	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  
 R<sup>2</sup>: 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	Sample	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-BSD1	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			



## ANALYSIS SEQUENCE

7H24011

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 8/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708241-04 ✓	Hg-CVAFS-T-7030	36			
1708241-05 ✓	Hg-CVAFS-T-7030	37			
1708241-06 ✓	Hg-CVAFS-T-7030	38			
1708241-07 ✓	Hg-CVAFS-T-7030	39			
1708241-08 ✓	Hg-CVAFS-T-7030	40			
1708241-09 ✓	Hg-CVAFS-T-7030	41			
1708241-10 ✓	Hg-CVAFS-T-7030	42			
1708241-11 ✓	Hg-CVAFS-T-7030	43			
7H24011-CCV8 ✓	QC	44	1703679 ✓		
7H24011-CCB8 ✓	QC	45			
1708241-12 ✓	Hg-CVAFS-T-7030	46			
1708241-13 ✓	Hg-CVAFS-T-7030	47			
1708241-14 ✓	Hg-CVAFS-T-7030	48			
1708241-15 ✓	Hg-CVAFS-T-7030	49			
F708459-DUP1 ✓	QC	50			
F708459-MS1 ✓	QC	51			
F708459-MSD1 ✓	QC	52			
F708459-MS2 ✓	QC	53			
F708459-MSD2 ✓	QC	54			
7H24011-CCV9 ✓	QC	55	1703679 ✓		
7H24011-CCB9 ✓	QC	56			

Don Moorem 8/23/17  
 Samples Loaded By \_\_\_\_\_ Date \_\_\_\_\_

Don Moorem 8/24/17  
 Data Processed By \_\_\_\_\_ Date \_\_\_\_\_

**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

F708459

Eurofins Frontier Global Sciences, Inc.

2600-3  
8/23/17 DM

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/CH<sub>2</sub>Cl<sub>2</sub>: 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

HNO<sub>3</sub> 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 *CFES*

Glass Vial # 00068124 Boiling Chip lot # 1704424 \*Hotblock Position: L6

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	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 E2
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 <sup>ng</sup> /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			



**Failing Data Report - 7H24011**

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 Moxem      8/24/17  
Analyst Reviewed By      Date

[Signature]      8/24/17  
Peer Reviewed By      Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7H24012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 8/24/17* 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

49 of 295

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

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**

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

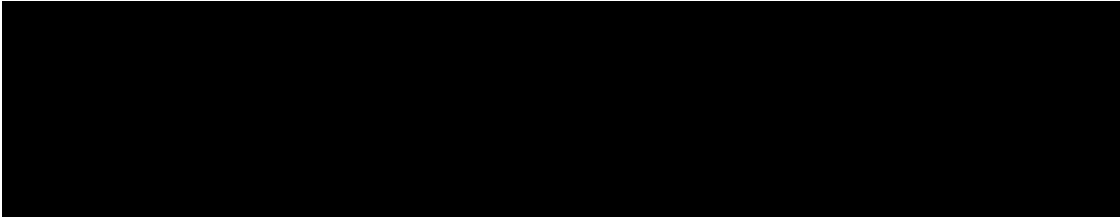
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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 #: 0842293  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	0.5733	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	0.5533	32			1708151-11
11	1708151-02	0.5429	33			
12	1708151-03	0.5609	34			
13	1708151-04	0.5794	35			
14	1708151-05	0.5562	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			

**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 <sub>2</sub> THg reductant	29-Jan-18 00:00
			1704959	7474 Potassium Bromate/Bromide Reagent	22-Aug-17 00:00

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**

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

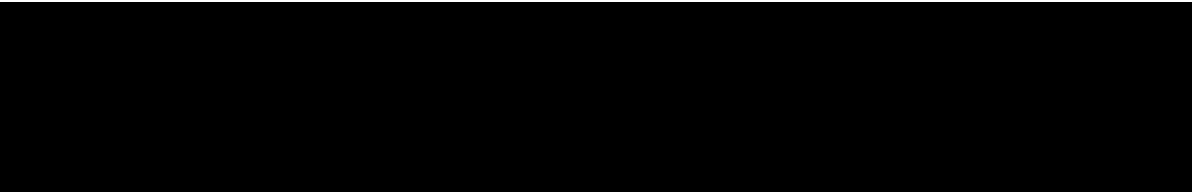
Eurofins Frontier Global Sciences, Inc.

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	-	-	-		SOX
1707810-14	BO-05_072617_SED_03-05	0.5746	200	-	-	-		SOX
1707810-15	BO-05_072617_SED_05-10	0.5486	200	-	-	-		SOX
1707810-16	W-21-High_072617_SED_03-05	0.5429	200	-	-	-		SOX
1707810-17	W-21-High_072617_SED_05-10	0.5592	200	-	-	-		SOX
1707810-18	W-21-Intertidal_072617_SED_03-05	0.5231	200	-	-	-		SOX
1707810-19	W-21-Intertidal_072617_SED_05-10	0.5314	200	-	-	-		SOX
1707810-20	W-21-UM-Central-E_072617_SED_03-05	0.5479	200	-	-	-		SOX
1707810-21	W-21-UM-Central-E_072617_SED_05-10	0.5421	200	-	-	-		SOX
1707810-22	W-21-Mid_072617_SED_03-05	0.589	200	-	-	-		SOX
1707810-23	W-21-Mid_072617_SED_05-10	0.5336	200	-	-	-		SOX → 100X
1707810-24	W-17-Intertidal_072617_SED_03-05	0.5664	200	-	-	-		SOX → SOX
1707810-25	W-17-Intertidal_072617_SED_05-10	0.5472	200	-	-	-		SOX
1707810-26	W-21-Low_072617_SED_03-05	0.5876	200	-	-	-		SOX
1707810-27	W-21-Low_072617_SED_05-10	0.5623	200	-	-	-		SOX → 100X
1707810-28	ADD-02_072517_SED_03-05	0.553	200	-	-	-		SOX → SOX
1707810-29	ADD-02_072517_SED_05-10	0.5731	200	-	-	-		SOX
1708086-01	AOI_21_080117_SS_N06_R1	0.5718	200	QC	-	-	MS/MSD	SOX
1708086-02	AOI_21_080117_SS_N06_R2	0.5385	200	-	-	-		SOX



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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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 MS2
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 MS2
15	F708500-MS2	0.5438	37			= 10,000 µg/L
16	1707810-22	0.5890	38			= 50 µg/L
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			
22	1707810-28	0.5530	44			8/22/17

**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)**

<b>Analyst:</b>	<u>DON MORAN</u>	<b>Sequence(s) #:</b>	<u>7H24011, 7H24012</u>
<b>Reviewer:</b>	<u>A 8/24/17</u>	<b>Dataset ID(s):</b>	<u>THG26003-170823-1</u>
<b>Date:</b>	<u>8/24/2017</u>	<b>WO (s) #:</b>	<u>1708086, 1708151, 1707810, 1708118, 1708241</u>
<b>Batch #(s):</b>	<u>F708501, F708500, F708459</u>		

• 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:** A 8/24/17

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 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            |                                     |
| (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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7H24011, 7H24012
<b>Reviewer:</b>	0 <i>R 8/24/17</i>	<b>Dataset ID(s):</b>	THG26003-170823-1
<b>Date:</b>	8/24/2017	<b>WO (s) #:</b>	1708086, 1708151, 1707810, 1708118, 1708241
<b>Batch #(s):</b>	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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7H24011, 7H24012
<b>Reviewer:</b> 0 <i>R 8/24/17</i>	<b>Dataset ID(s):</b> THG26003-170823-1
<b>Date:</b> 8/24/2017	<b>WO (s) #:</b> 1708086, 1708151, 1707810, 1708118, 1708241
<b>Batch #(s):</b> 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.**

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>A 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

*DM*

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES



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						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>	<b>Eff Factor</b>
545.57	+/- 43.90	8.0% RSD	545.57	<b>0.8690</b>

#### 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

72 of 295

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

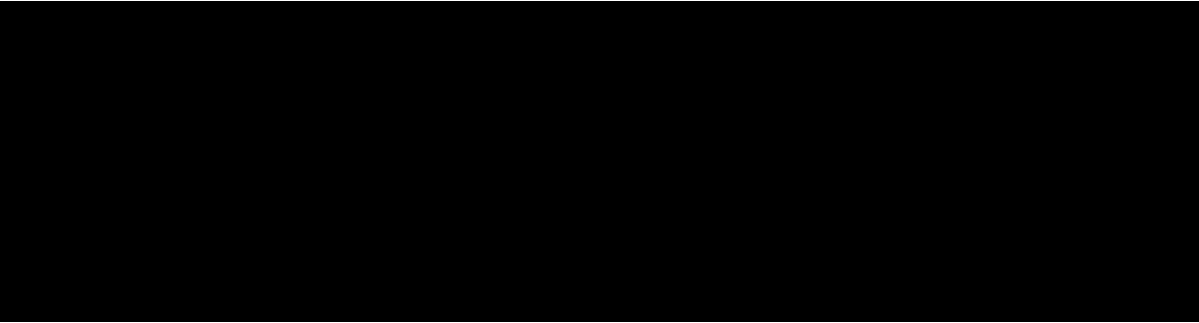
Eurofins Frontier Global Sciences, Inc.

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

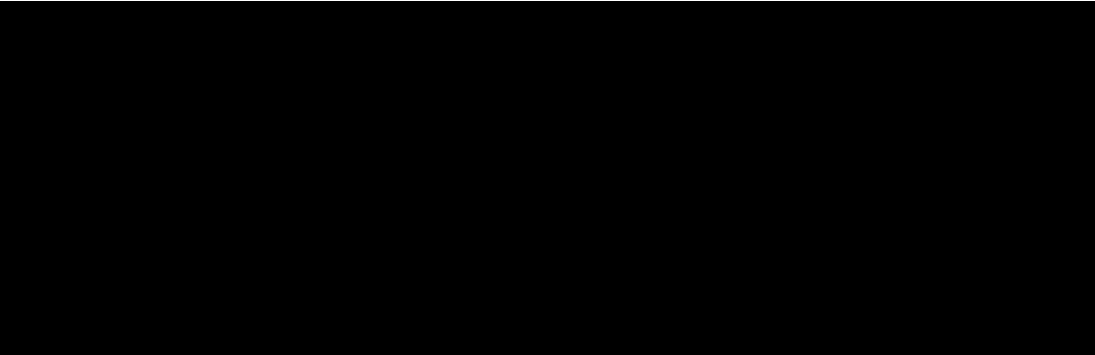
Eurofins Frontier Global Sciences, Inc.

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 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

Sample			LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Instrument	Analyst	Type													
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

<b>7J22009</b>
----------------

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

<b>7J22009</b>
----------------

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 Mrazem                              10/20/17      
 Samples Loaded By                      Date

    Dan Mrazem                              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	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

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

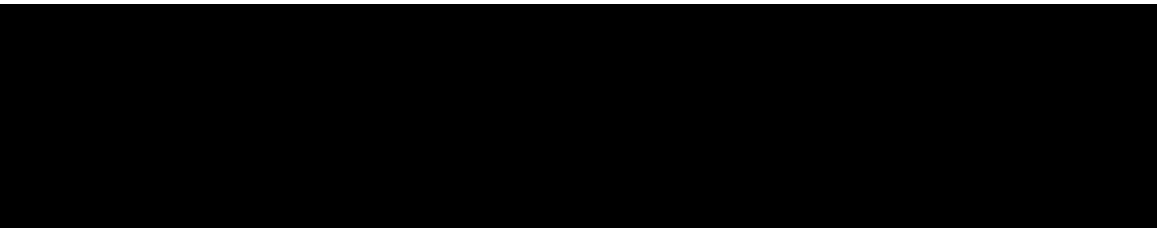
Eurofins Frontier Global Sciences, Inc.

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

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 -

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

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 Pipette SN#: NU09663 Calibration Date: 10/18/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01192 Calibration Date: 10/18/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: KOH/methanol: 1705897 Dispenser #: N/A  
 Glass Vial # 00088647 Boiling Chip lot # 1702551 \*Hotblock Position: AB

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 = DORIMY
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	DOR/MS/MSD
9	F710421 - BSD1	0.1275	31	1708241 - 12	0.255	source: 170818-01
10	<del>170888</del> 1708118 - 01	0.254	32	1708241 - 13	0.257	MS/MSD2
11	F710421 - DOR1	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 170818/170819
14	1708118 - 02	0.265	36			
15	1708118 - 03	0.288	37			
16	1708118 - 04	0.256	38			Blk 6-7 are Pre/Post blanks for 1708240 and 1708241
17	1708118 - 05	0.258	39			
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			

*CF*  
10/19/17

*CF*  
10/20/17

**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      10/22/17  
 Analyst Reviewed By      Date

[Signature]      10/23/17  
 Peer Reviewed By      Date



**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7J22008, 7J22009
<b>Reviewer:</b> <i>R 10/23/17</i>	<b>Dataset ID #:</b> MHG27001-171020-1, MHG27001-171020-2
<b>Date:</b> 10-22-17	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F710421, F710411	<b>Client(s):</b> 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 <span style="float:right"><input checked="" type="checkbox"/></span></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 <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(a) Reviewer: 100% of peak heights checked <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(b) Are there peak height errors? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(c) Error on a sample: Do peak heights, responses, &amp; initial results match corrected data? <input type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p>(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported? <input type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p>(e) Check standards &amp; reagents in sequence &amp; bench sheet for correct usage (i.e. expiries). <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p>(f) Check and compare masses (review prep bench sheet) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p>(g) Check and compare initial and final volumes <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p>(h) Do aliquots and dilutions written on benchsheet match those in Excel? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p>(i) Is the pH&gt;3.0 for all distilled samples? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p>(j) Is the sequence #, analyst, date, and instrument # on the QC page? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(k) Is the analysis status correct? (analyzed/initial review/reviewed) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(l) Original prep bench sheet added to data package? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(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 <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>3. High QA? WO#(s)/Client(s): _____ <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>4. Client specific QC? (if Yes, refer to Project Notes/LIMS) <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(a) Have the QC requirements been met for all WO#s? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>5. 20 or fewer samples in batch? _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>(b) 1 CCV and 1 CCB every 10 analytical runs? _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <span style="float:right"><input checked="" type="checkbox"/></span></p> <p><b>QA/QC Data Checked</b></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 <span style="float:right"><input checked="" type="checkbox"/></span></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 <span style="float:right"><input checked="" type="checkbox"/></span></p> <p>Comments: _____</p> <p>8. RSD CF (≤ 15%) <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <span style="float:right"><input type="checkbox"/></span></p> <p>Comments: _____</p> |
|---|

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7J22008, 7J22009
<b>Reviewer:</b>	0 <i>R 10/23/17</i>	<b>Dataset ID #:</b>	MHG27001-171020-1, MHG27001-171020-2
<b>Date:</b>	10/22/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F710421, F710411	<b>Client(s):</b>	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: <b>F710421-BS1, BS2, BSD2 FAILED. LOW RECOVERY</b>                                 |  |  |   |
| 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: <b>1710581-02 HIGH SAMPLE. ABOVE CAL5</b>  |  |  |   |
| 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7J22008, 7J22009
<b>Reviewer:</b>	0 R 10/23/17	<b>Dataset ID #:</b>	MHG27001-171020-1, MHG27001-171020-2
<b>Date:</b>	10/22/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F710421, F710411	<b>Client(s):</b>	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  NO  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  N/A
39. Date of analyst's SOP reading: 5/23/2016 Current SOP revision?  YES  NO  N/A
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

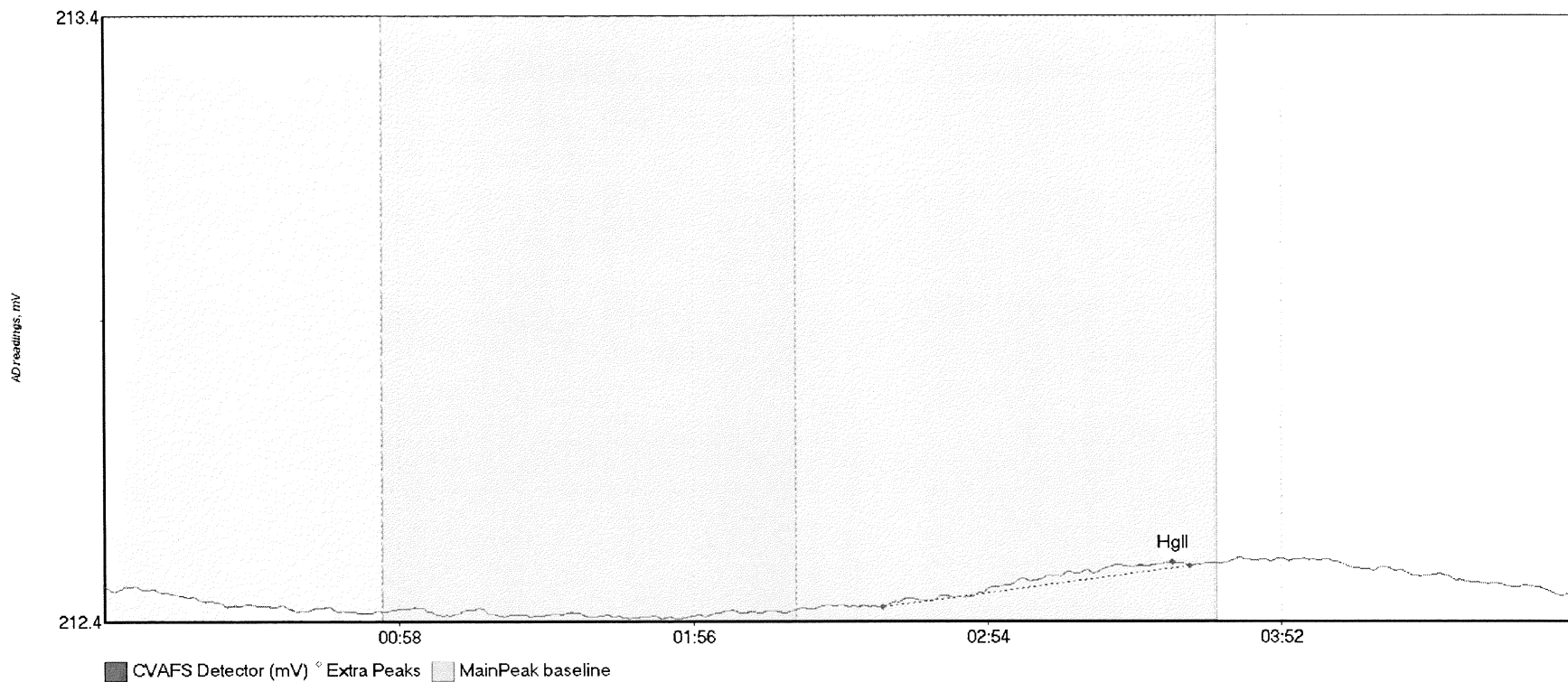
**Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**

- Additional Comments:  YES  NO

Sample/ID	Locator	Rinse	Dilute	Blank	ConcHq(µ)				ConcHq(µ)	ConcHq(µ)	Rec%	QA	RawData	RunEnd	PeakHq(µ)					Control (µg)	Flags	RunCount
					(p)	(p)	(p)	(p)							(R)	(R)	(R)	(R)	(R)			
Clean													26765-1.RAW	10:06:13	0.00	0.00	5.81	0.00	cleandrv	OK	1	
WS	A1												26766-1.RAW	10:16:43	8.68	0.00	1.63	0.00	psample10	OK	1	
SEQ-IBL1	A2		1										26767-1.RAW	10:27:14	6.52	0.00	6.19	0.00	psample10	OK	1	
SEQ-CAL1	A3		1										26768-1.RAW	10:37:45	4.08	24.27 *	1.77	0.00	psample10	OK	1	
SEQ-CAL2	A4		1										26769-1.RAW	10:48:16	6.61	104.65 *	6.72	0.00	psample10	OK	1	
SEQ-CAL3	A5		1										26770-1.RAW	10:58:46	8.27	591.99 *	10.62	0.00	psample10	OK	1	
SEQ-CAL4	A6		1										26771-1.RAW	11:09:17	8.70	1087.55 *	24.43	0.00	psample10	OK	1	
SEQ-CAL5	A7		1										26772-1.RAW	11:19:48	15.03	2333.65 *	51.04	0.00	psample10	CT	1	
SEQ-ICV1	A8		1										26773-1.RAW	11:30:19	5.96	280.11 *	5.67	0.00	psample10	CT	1	
SEQ-ICB1	A9		1										26774-1.RAW	11:40:49	4.81	3.13 *	0.00	0.00	psample10	OK	1	
F710411-BLK1	A10		1.25										26775-1.RAW	11:51:20	5.88	1.53 *	12.57	0.00	psample10	OK	1	
F710411-BLK2	A11		1.25										26776-1.RAW	12:01:51	4.03	0.78 *	5.58	0.00	psample10	OK	1	
F710411-BLK3	A12		1.25										26777-1.RAW	12:12:22	3.03	0.00 *	9.33	0.00	psample10	OK	1	
F710411-BS1	A13		1.25										26778-1.RAW	12:22:52	3.42	355.87 *	12.73	0.00	psample10	OK	1	
F710411-BSD1	A14		1.25										26779-1.RAW	12:33:23	6.26	391.93 *	13.81	0.00	psample10	OK	1	
F710411-DUP1	A15		1.25										26780-1.RAW	12:43:54	3.99	27.78 *	47.61	0.00	psample10	OK	1	
F710411-MS1	A16		1.25										26781-1.RAW	12:54:25	6.86	408.25 *	48.79	0.00	psample10	OK	1	
F710411-MSD1	A17		1.25										26782-1.RAW	13:04:55	6.34	358.46 *	30.18	0.00	psample10	OK	1	
F710411-MS2	A18		1.25										26783-1.RAW	13:15:26	6.75	336.74 *	25.58	0.00	psample10	OK	1	
F710411-MSD2	A19		1.25										26784-1.RAW	13:25:57	4.84	326.12 *	37.13	0.00	psample10	OK	1	
SEQ-CCV1	A20		1										26785-1.RAW	13:36:28	5.16	254.91 *	4.40	0.00	psample10	CT	1	
SEQ-CCB1	A21		1										26786-1.RAW	13:46:58	2.62	1.38 *	2.38	0.00	psample10	OK	1	
1710143-01	B1		1.25										26787-1.RAW	13:57:29	2.71	22.12 *	60.28	0.00	psample10	OK	1	
1710143-02	B2		1.25										26788-1.RAW	14:08:00	3.71	25.70 *	30.26	0.00	psample10	OK	1	
1710143-03	B3		1.25										26789-1.RAW	14:18:31	4.74	19.27 *	20.33	0.00	psample10	OK	1	
1710143-04	B4		1.25										26790-1.RAW	14:29:01	3.42	20.02 *	174.73	0.00	psample10	OK	1	
1710143-05	B5		1.25										26791-1.RAW	14:39:32	3.69	19.84 *	33.39	0.00	psample10	OK	1	
1710143-06	B6		1.25										26792-1.RAW	14:50:03	5.32	13.54 *	8.46	0.00	psample10	OK	1	
1710351-01	B7		1.25										26793-1.RAW	15:00:33	4.09	29.40 *	95.88	0.00	psample10	OK	1	
1710351-03	B8		1.25										26794-1.RAW	15:11:04	8.03	14.23 *	436.65	0.00	psample10	CT	1	
1710351-04	B9		1.25										26795-1.RAW	15:21:35	2.89	41.63 *	78.20	0.00	psample10	OK	1	
1710351-05	B10		1.25										26796-1.RAW	15:32:06	5.15	40.14 *	80.13	0.00	psample10	CT	1	
SEQ-CCV2	B11		1										26797-1.RAW	15:42:36	2.42	255.45 *	2.48	0.00	psample10	OK	1	
SEQ-CCB2	B12		1										26798-1.RAW	15:53:07	2.54	0.00 *	10.74	0.00	psample10	CT	1	
1710351-07	B13		1.25										26799-1.RAW	16:03:38	4.48	51.26 *	35.17	0.00	psample10	OK	1	
1710351-08	B14		1.25										26800-1.RAW	16:14:09	4.09	1.81 *	3.34	0.00	psample10	OK	1	
1710360-01	B15		1.25										26801-1.RAW	16:24:39	4.55	0.00 *	20.94	0.00	psample10	OK	1	
1710360-02	B16		1.25										26802-1.RAW	16:35:10	4.35	6.09 *	314.73	0.00	psample10	OK	1	
1710360-03	B17		1.25										26803-1.RAW	16:45:41	4.42	0.00 *	17.14	0.00	psample10	OK	1	
1710360-04	B18		1.25										26804-1.RAW	16:56:12	3.54	0.00 *	15.16	0.00	psample10	OK	1	
1710366-01RE1	B19		1.25										26805-1.RAW	17:06:42	0.99	20.17 *	58.80	0.00	psample10	OK	1	
1710478-02	B20		1.25										26806-1.RAW	17:17:13	3.12	12.05 *	26.01	0.00	psample10	OK	1	
1710581-01	B21		1.25										26807-1.RAW	17:27:44	11.08	486.91 *	2057.18	0.00	psample10	OK	1	
1710581-02	C1		1.25										26808-1.RAW	17:38:15	5493.16	4959.62 *	216093.96	0.00	psample10	CT	1	
SEQ-CCV3	C2		1										26809-1.RAW	17:48:45	138.30	281.90 *	1197.19	0.00	psample10	CT	1	
SEQ-CCB3	C3		1										26810-1.RAW	17:59:16	56.18	1.33 *	329.32	0.00	psample10	CT	1	
F710421-BLK1	C4		500										26811-1.RAW	18:09:46	38.05	0.00 *	181.21	0.00	psample10	OK	1	
F710421-BLK2	C5		500										26812-1.RAW	18:20:16	24.07	0.00 *	115.49	0.00	psample10	CT	1	
F710421-BLK3	C6		500										26813-1.RAW	18:30:46	19.04	0.00 *	85.80	0.00	psample10	CT	1	
*F710421-BLK4	C7		500										26814-1.RAW	18:41:17	15.80	0.00 *	60.77	0.00	psample10	OK	1	
*F710421-BLK5	C8		500										26815-1.RAW	18:51:48	15.66	0.00 *	55.61	0.00	psample10	CT	1	
*F710421-BLK6	C9		500										26816-1.RAW	19:02:18	12.33	0.00 *	39.38	0.00	psample10	OK	1	
*F710421-BLK7	C10		500										26817-1.RAW	19:12:49	6.19	0.00 *	41.40	0.00	psample10	OK	1	
F710421-BS1	C11		1000										26818-1.RAW	19:23:20	17.98	748.69 *	152.59	0.00	psample10	OK	1	
F710421-BSD1	C12		1000										26819-1.RAW	19:33:50	22.78	801.00 *	145.79	0.00	psample10	OK	1	
F710421-DUP1	C13		500										26820-1.RAW	19:44:21	15.73	123.30 *	282.21	0.00	psample10	OK	1	
SEQ-CCV4	C14		1										26821-1.RAW	19:54:52	12.31	259.54 *	20.36	0.00	psample10	CT	1	
SEQ-CCB4	C15		1										26822-1.RAW	20:05:22	11.15	1.21 *	18.04	0.00	psample10	OK	1	
F710421-MS1	C16		500										26823-1.RAW	20:15:53	14.11	661.36 *	305.83	0.00	psample10	OK	1	
F710421-MSD1	C17		500										26824-1.RAW	20:26:24	15.16	645.43 *	302.80	0.00	psample10	OK	1	
F710421-MS2	C18		500										26825-1.RAW	20:36:54	21.64	526.77 *	525.81	0.00	psample10	OK	1	
F710421-MSD2	C19		500										26826-1.RAW	20:47:25	26.88	605.33 *	508.43	0.00	psample10	CT	1	
1708118-01	C20		500										26827-1.RAW	20:57:56	14.44	129.03 *	298.98	0.00	psample10	OK	1	
1708118-02	C21		500										26828-1.RAW	21:08:27	13.32	100.64 *	264.96	0.00	psample10	OK	1	
1708118-03	A1		500										26829-1.RAW	21:18:57	13.02	161.91 *	330.36	0.00	psample10	OK	1	
1708118-04	A2		500										26830-1.RAW	21:29:28	18.47	136.81 *	309.13	0.00				

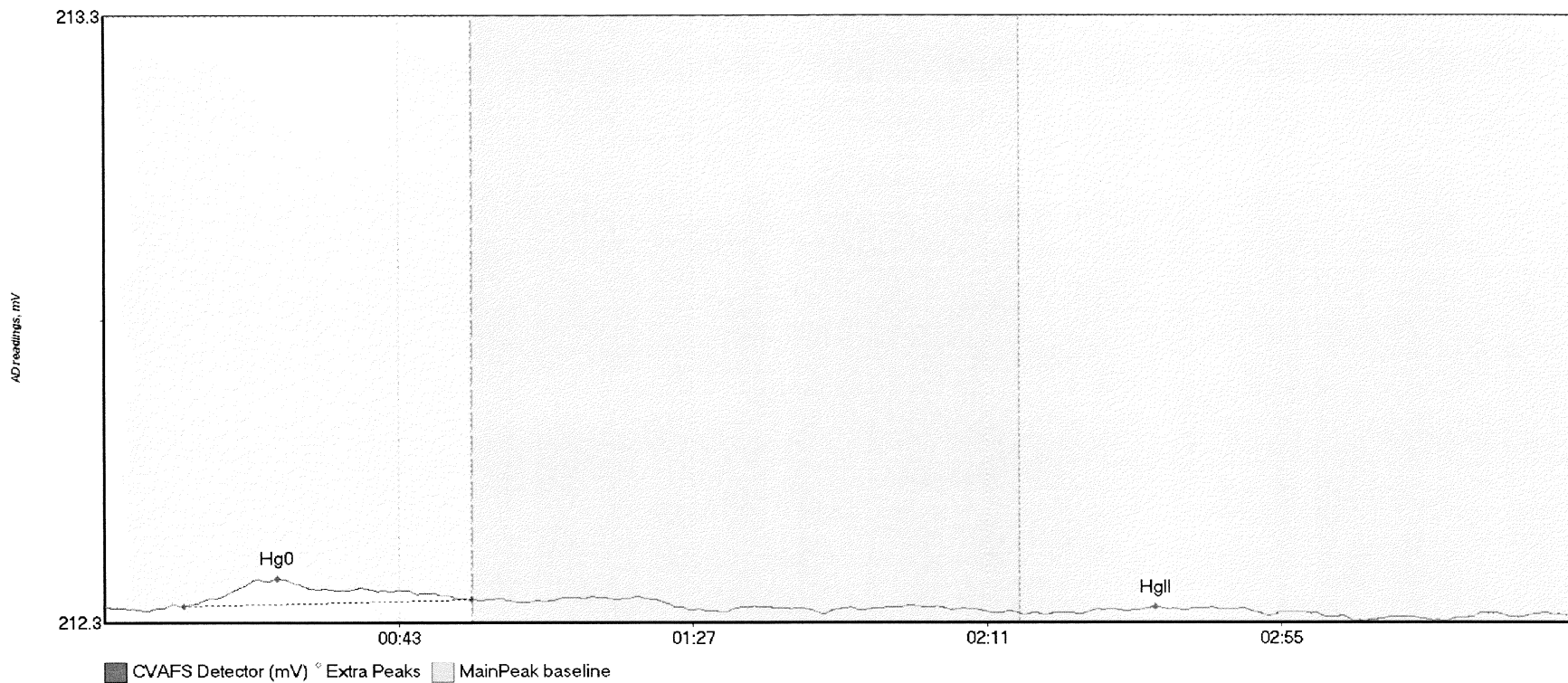
1708241-01	A11	500	26839-1.RAW	23:04:04	12.98	89.65	70.50	0.00	psample10	OK	1
1708241-02	A12	500	26840-1.RAW	23:14:35	11.60	151.15	185.53	0.00	psample10	OK	1
1708241-03	A13	500	26841-1.RAW	23:25:05	15.32	152.41	328.84	0.00	psample10	CT	1
1708241-04	A14	500	26842-1.RAW	23:35:36	14.47	213.70	329.90	0.00	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

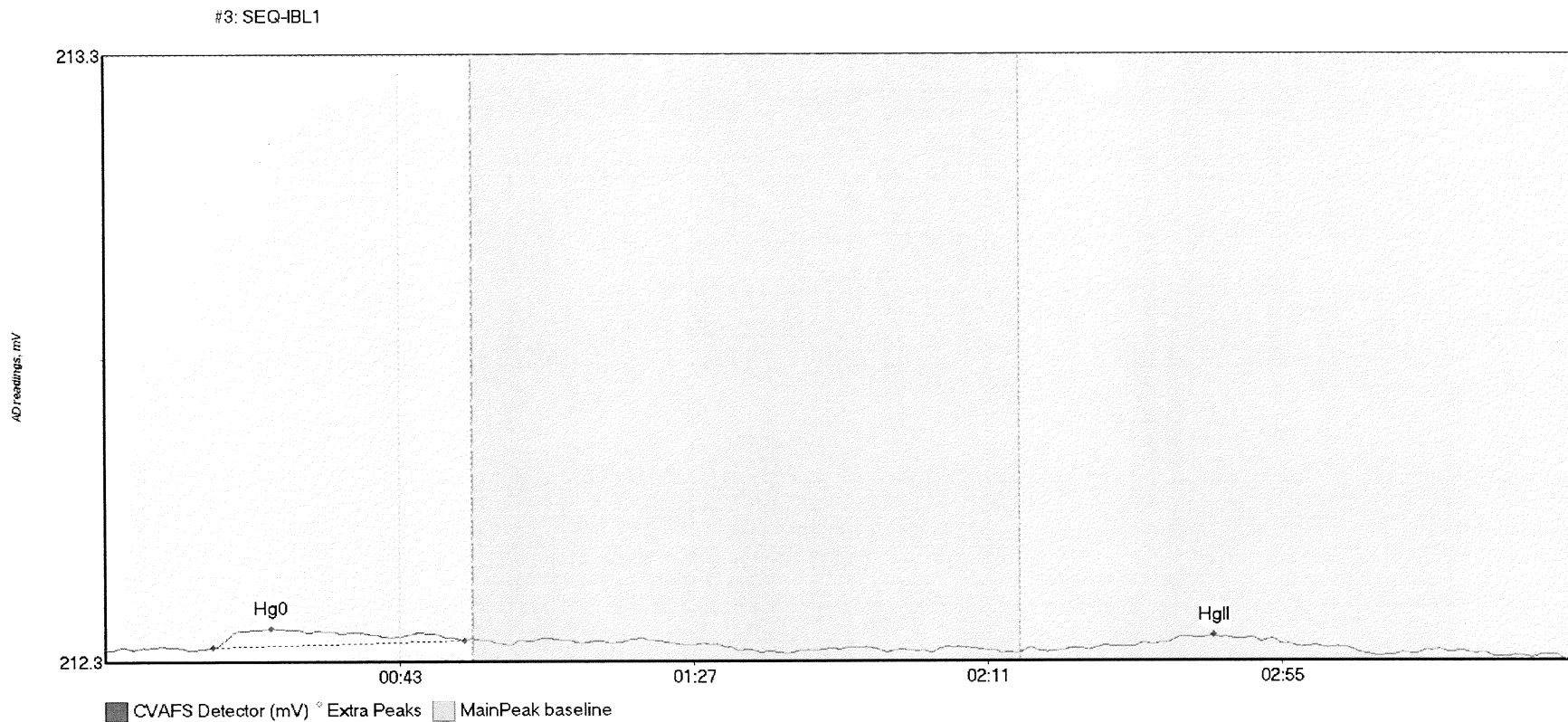


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	5.814	153.9	214.7	212.46	212.53	211.3	0.074	OK	212.4944	0.00	-0.01	017

#2: WS



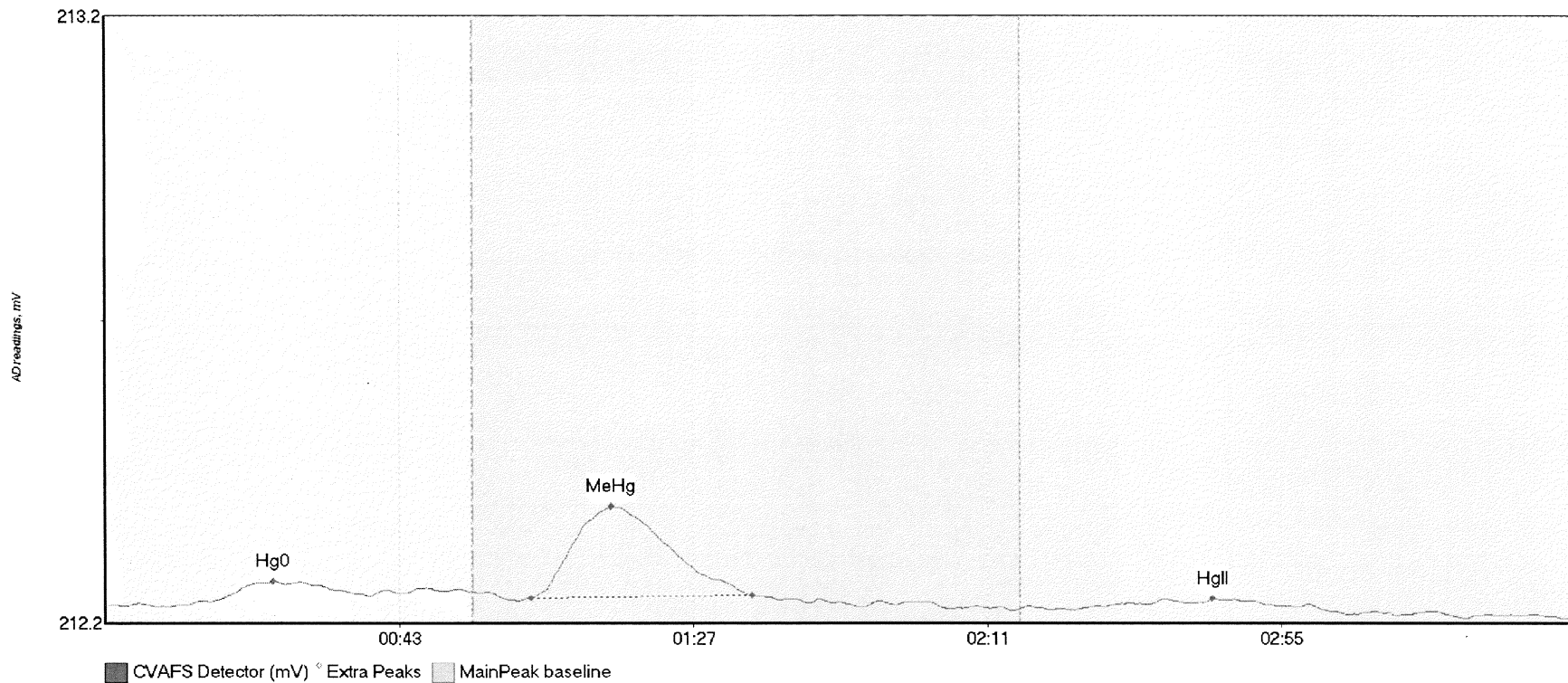
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	8.678	11.8	54.8	212.36	212.38	25.8	0.046	OK	212.3641	0.00	-0.01	017
WS HgII	1.631	146.0	172.2	212.35	212.36	157.2	0.013	OK	212.3641	0.00	-0.01	



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

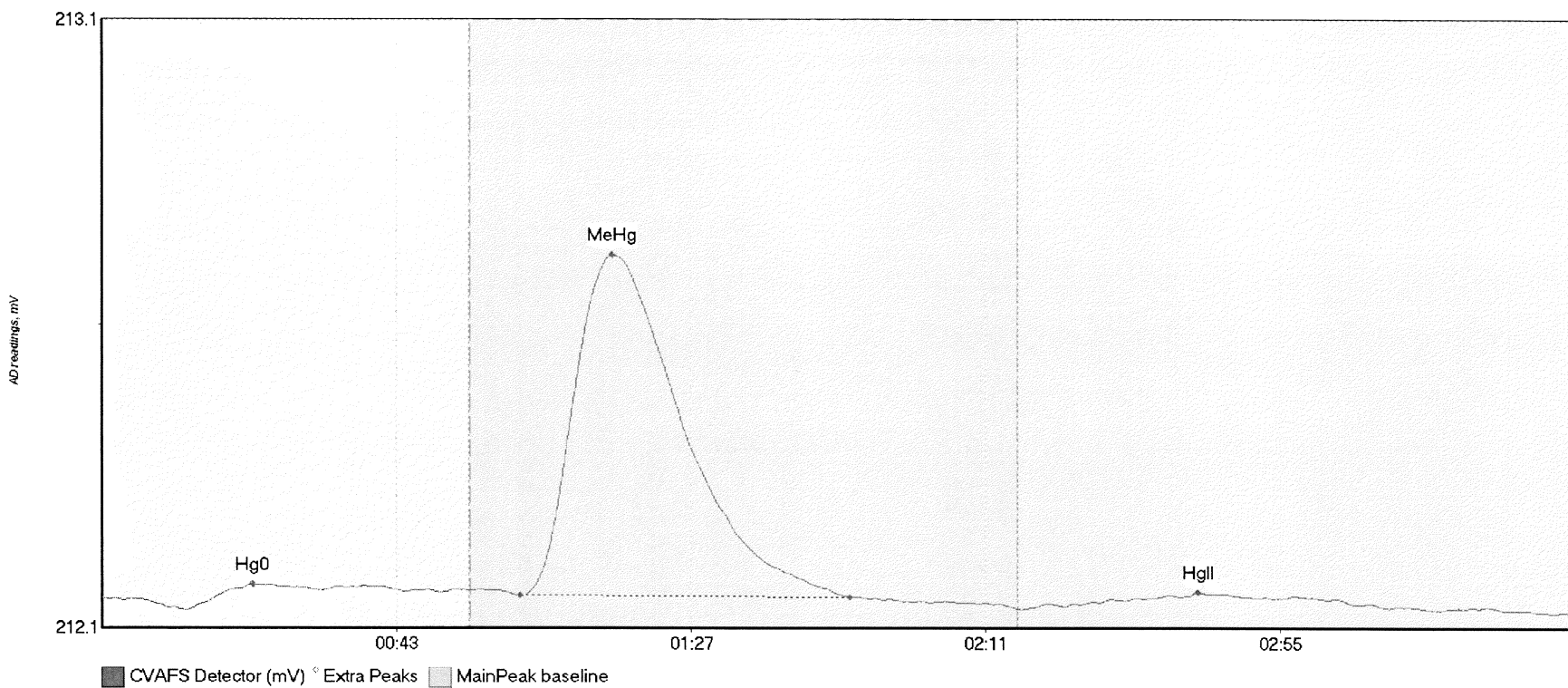


#4: SEQ-CAL1



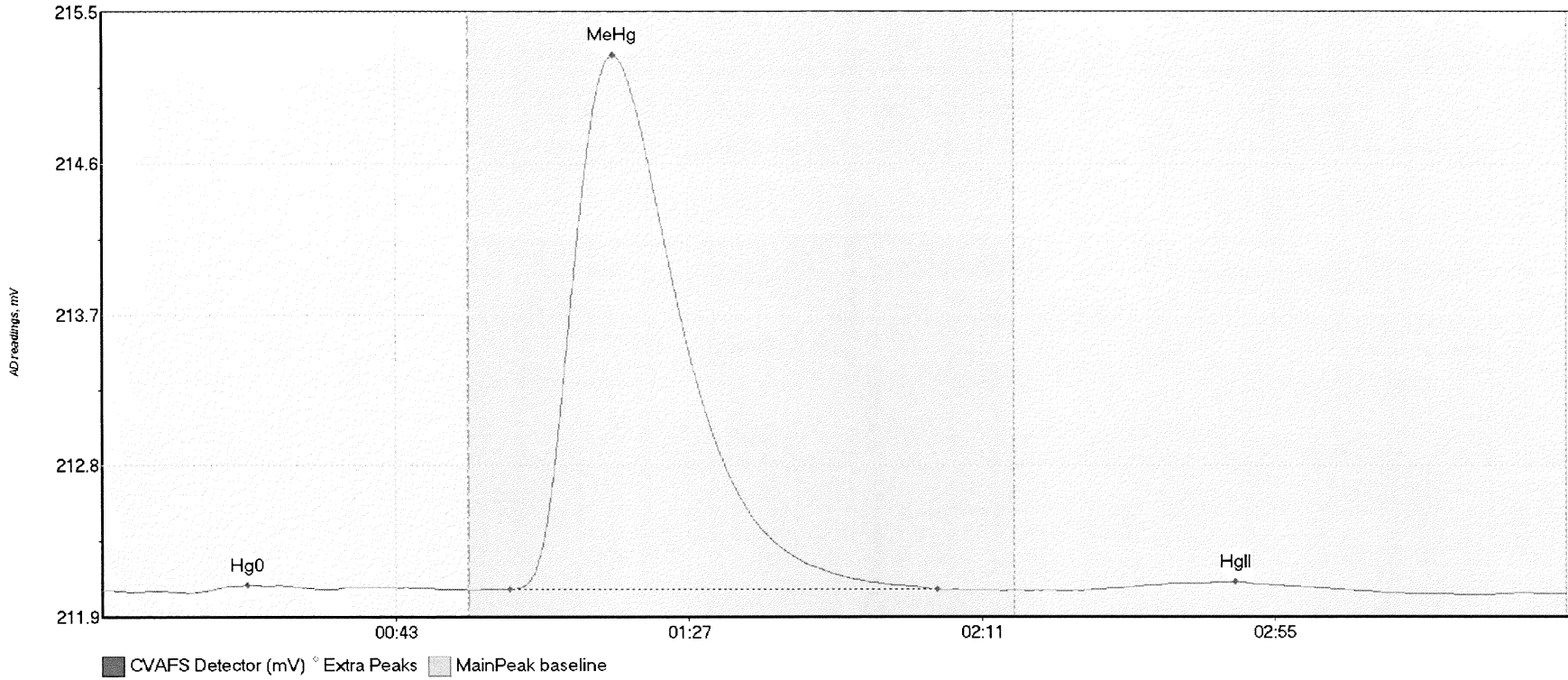
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	4.081	15.8	39.4	212.24	212.25	25.2	0.033	OK	212.2353	0.00	-0.02	
SEQ-CAL1 MeHg	24.270	63.7	96.8	212.25	212.25	75.7	0.150	OK	212.2353	0.00	-0.02	
SEQ-CAL1 HgII	1.772	149.5	175.2	212.23	212.23	165.8	0.013	OK	212.2353	0.00	-0.02	

#5: SEQ-CAL2



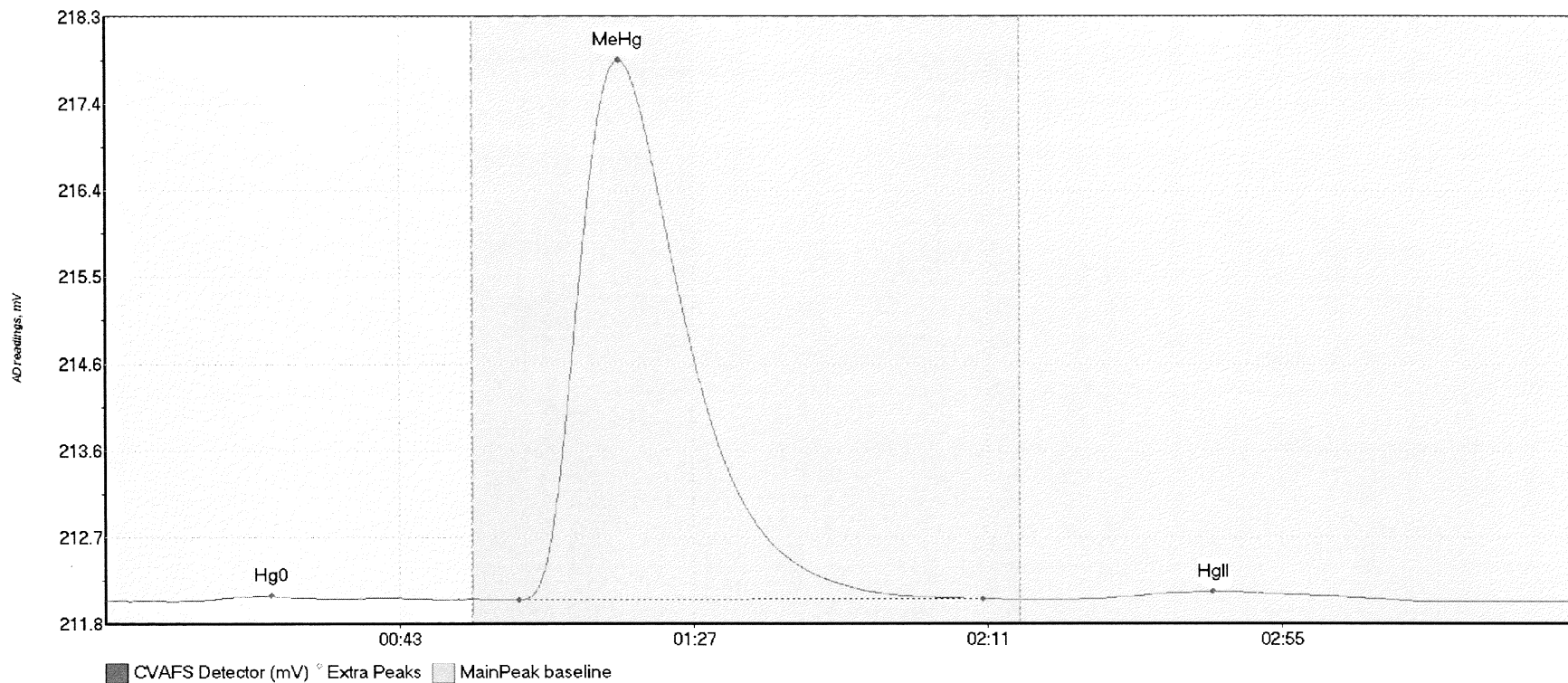
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	6.612	13.2	50.6	212.16	212.18	22.6	0.041	OK	212.1739	0.00	-0.02	
SEQ-CAL2 MeHg	104.651	62.5	111.8	212.18	212.18	76.3	0.562	OK	212.1739	0.00	-0.02	
SEQ-CAL2 HgII	6.720	143.7	192.3	212.16	212.16	163.7	0.024	OK	212.1739	0.00	-0.02	

#6: SEQ-CAL3



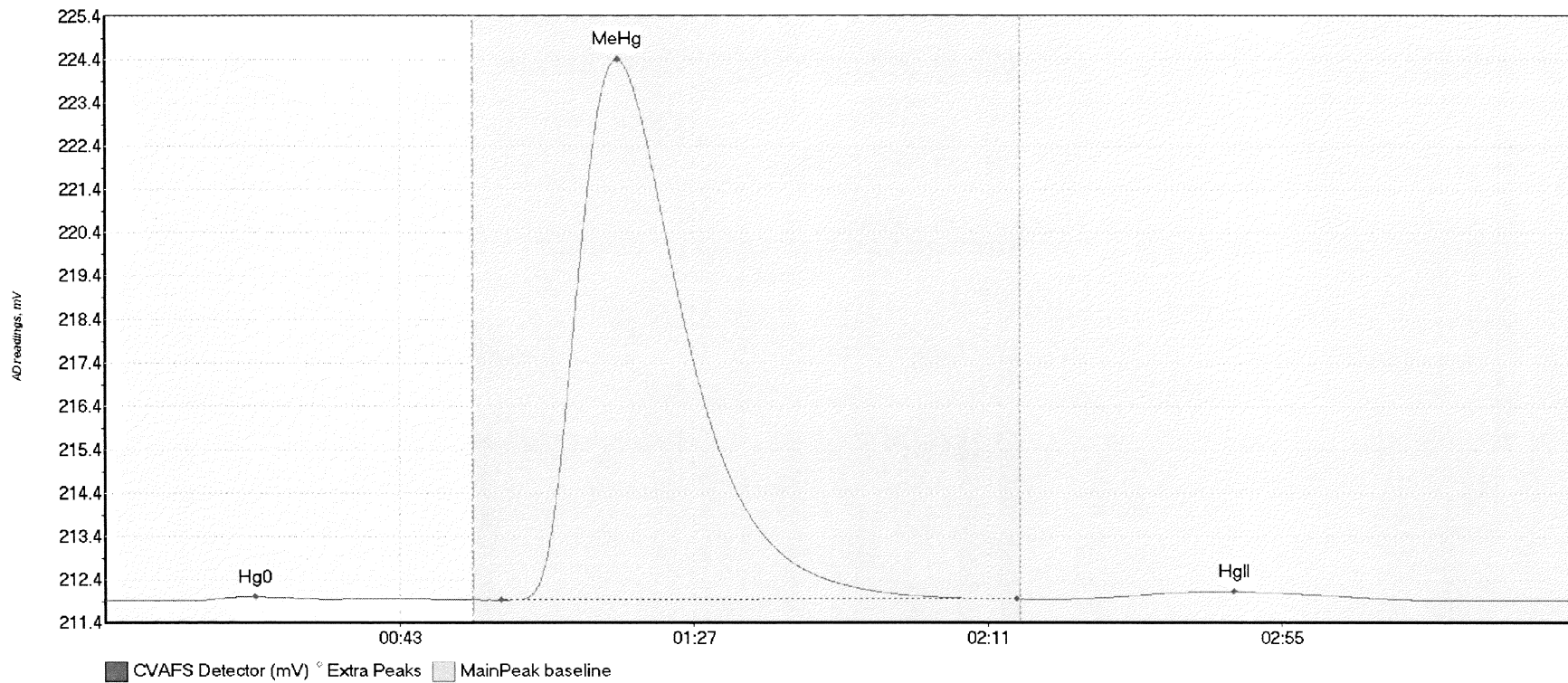
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	8.271	13.2	54.9	212.08	212.10	21.8	0.043	OK	212.0927	0.00	-0.02	
SEQ-CAL3 MeHg	591.990	61.2	125.3	212.10	212.10	76.8	3.145	OK	212.0927	0.00	-0.02	
SEQ-CAL3 HgII	10.624	149.7	189.0	212.10	212.09	170.2	0.043	OK	212.0927	0.00	-0.02	

#7: SEQ-CAL4



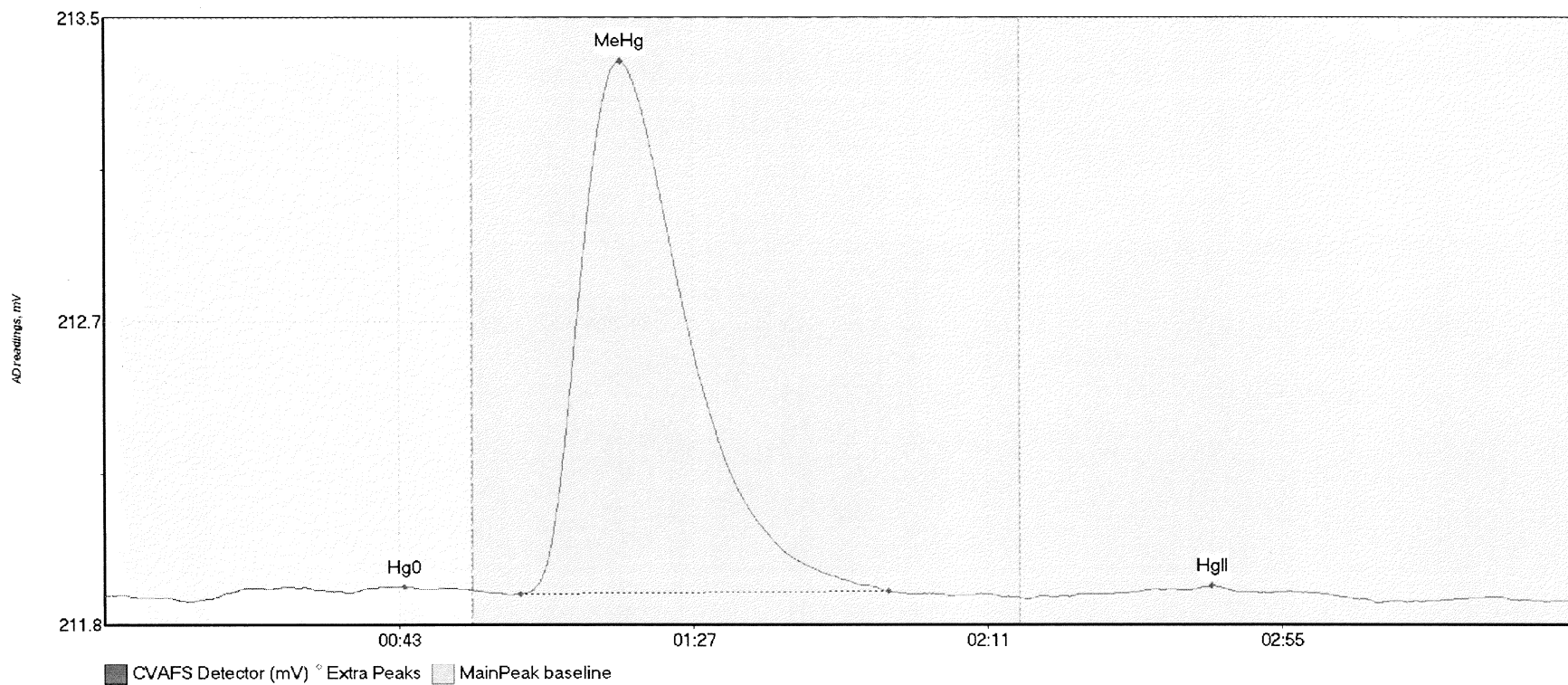
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	8.700	12.6	51.7	212.01	212.02	24.8	0.053	OK	212.0085	0.00	-0.01	
SEQ-CAL4 MeHg	1087.550	61.8	131.3	212.02	212.03	76.9	5.811	OK	212.0085	0.00	-0.01	
SEQ-CAL4 HgII	24.430	144.6	194.4	212.02	212.01	165.8	0.085	OK	212.0085	0.00	-0.01	

#8: SEQ-CAL5



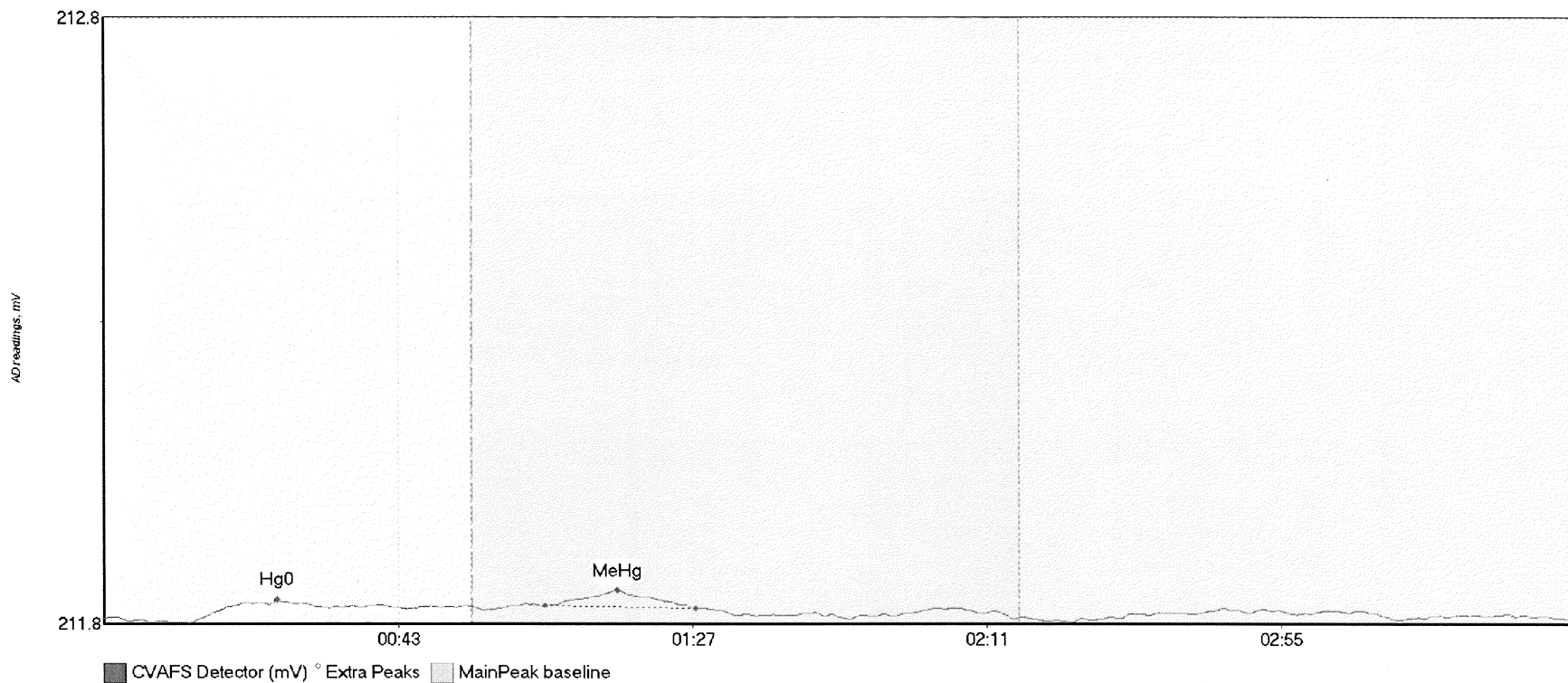
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	15.029	12.3	55.0	211.93	211.95	22.5	0.088	CT	211.9282	0.00	0.00	
SEQ-CAL5 MeHg	2333.648	59.1	136.3	211.94	211.97	76.7	12.428	OK	211.9282	0.00	0.00	
SEQ-CAL5 HgII	51.042	145.0	195.3	211.97	211.95	168.9	0.172	OK	211.9282	0.00	0.00	

#9: SEQ-ICV1



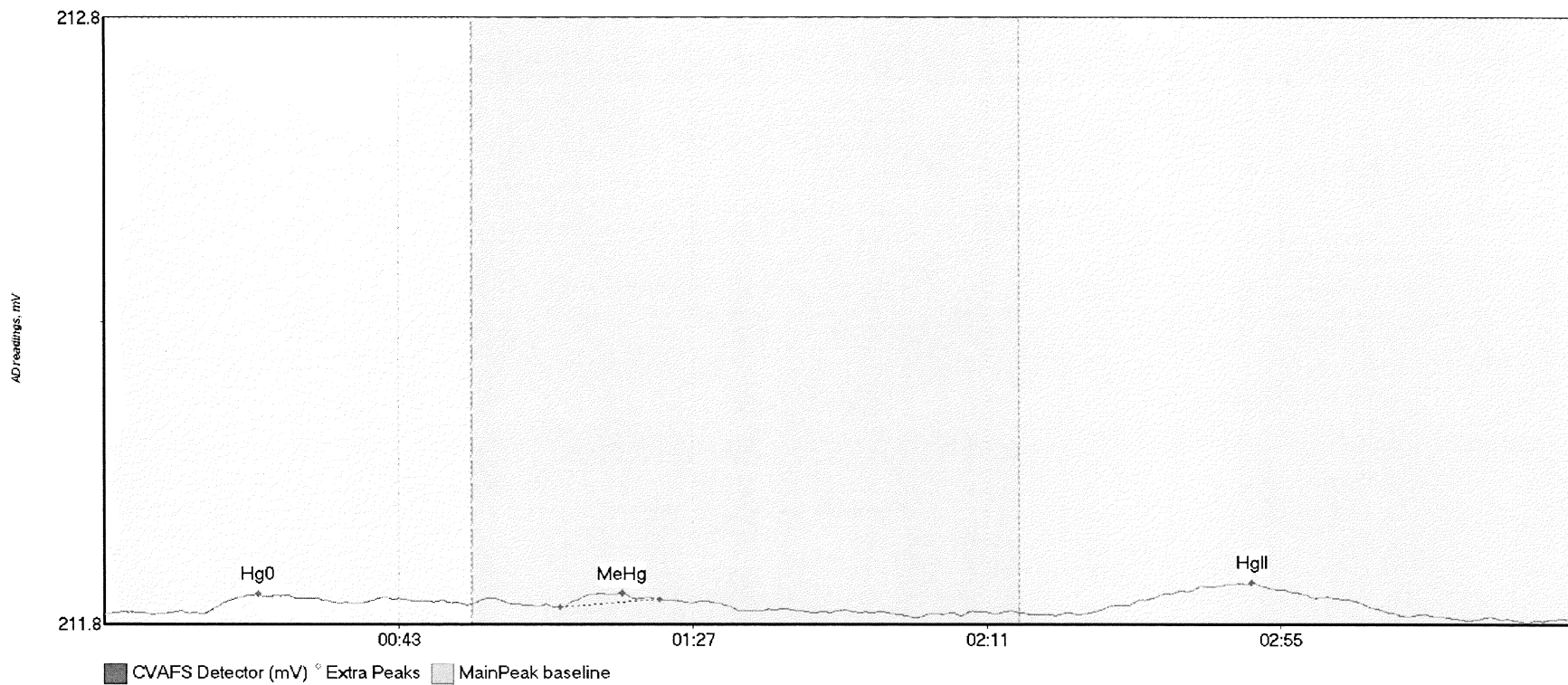
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	5.964	15.2	55.0	211.86	211.88	44.8	0.035	CT	211.8681	0.00	-0.01	
SEQ-ICV1 MeHg	280.112	62.1	117.2	211.87	211.88	77.1	1.522	OK	211.8681	0.00	-0.01	
SEQ-ICV1 HgII	5.669	144.3	184.9	211.87	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

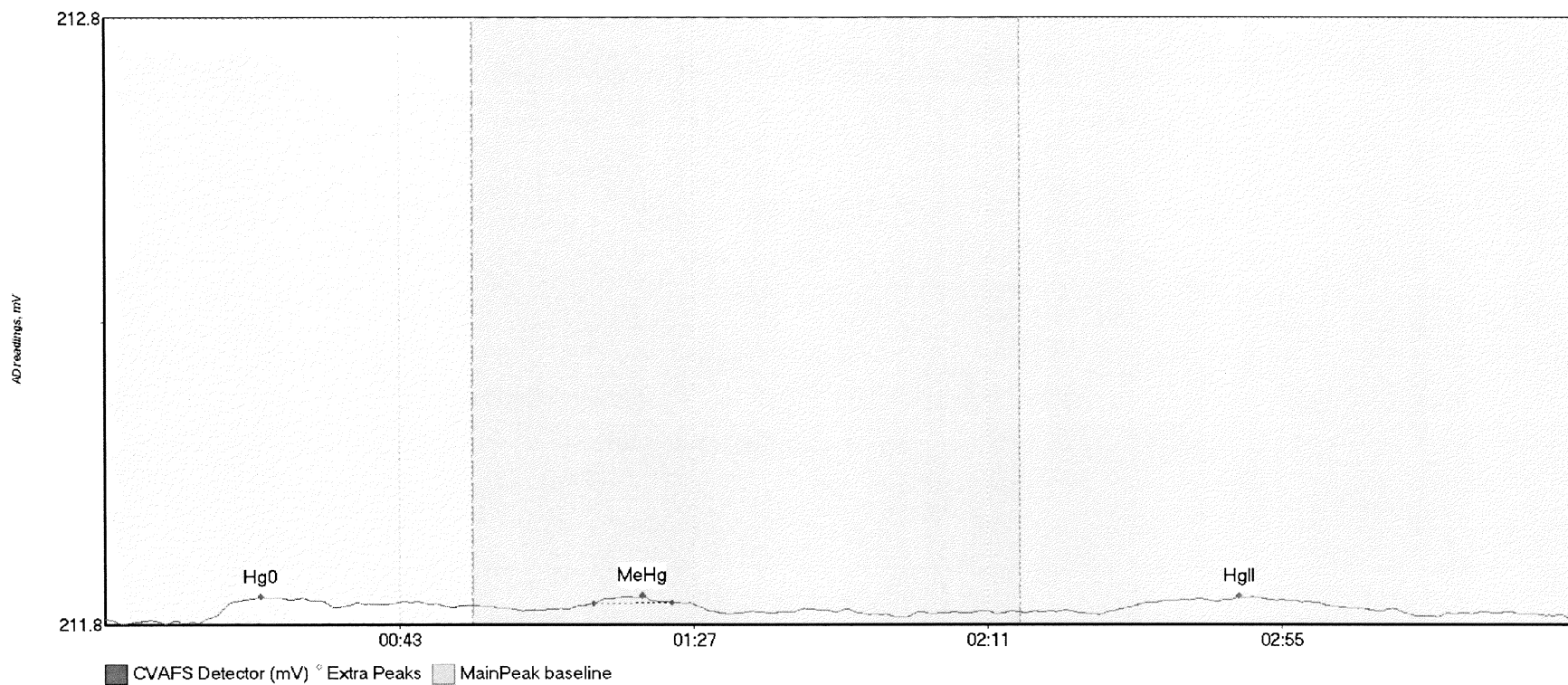
#11: F710411-BLK1



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	

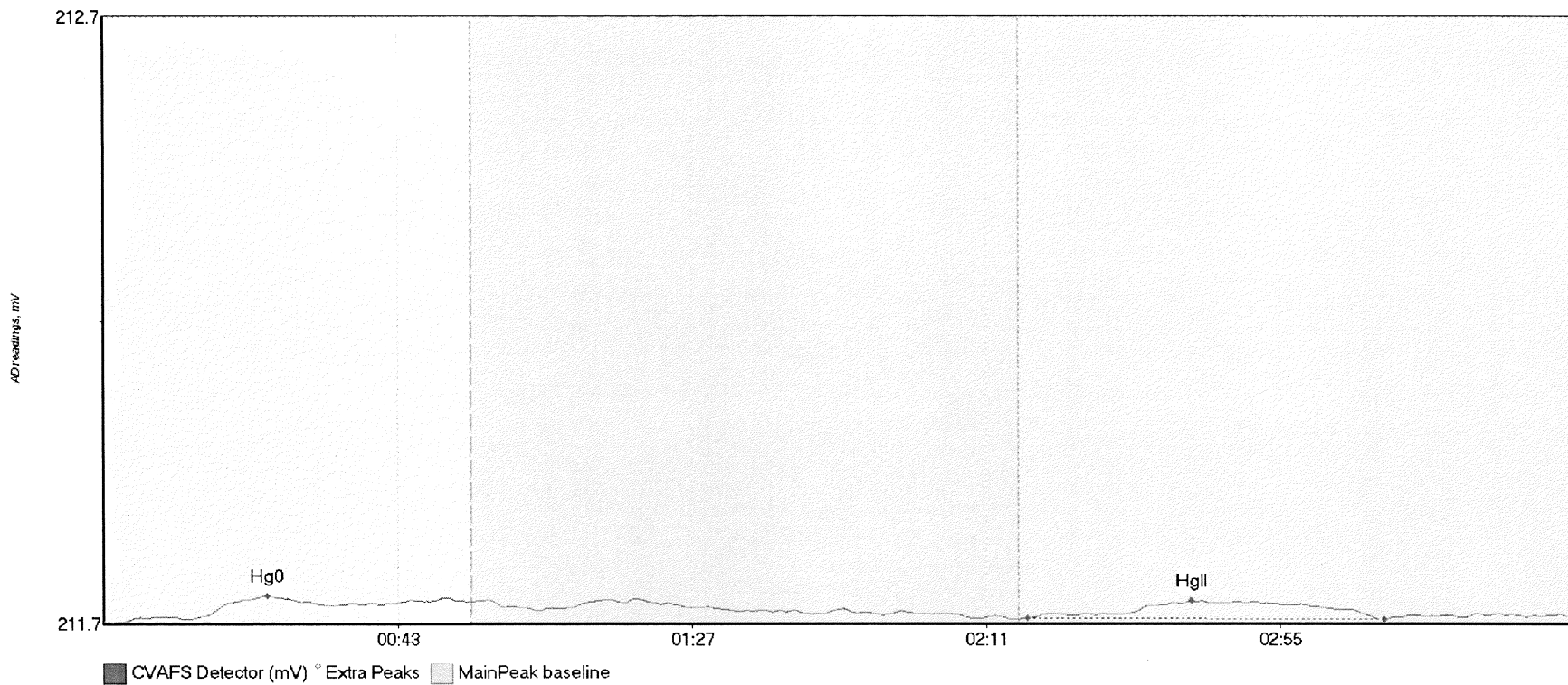


#12: F710411-BLK2



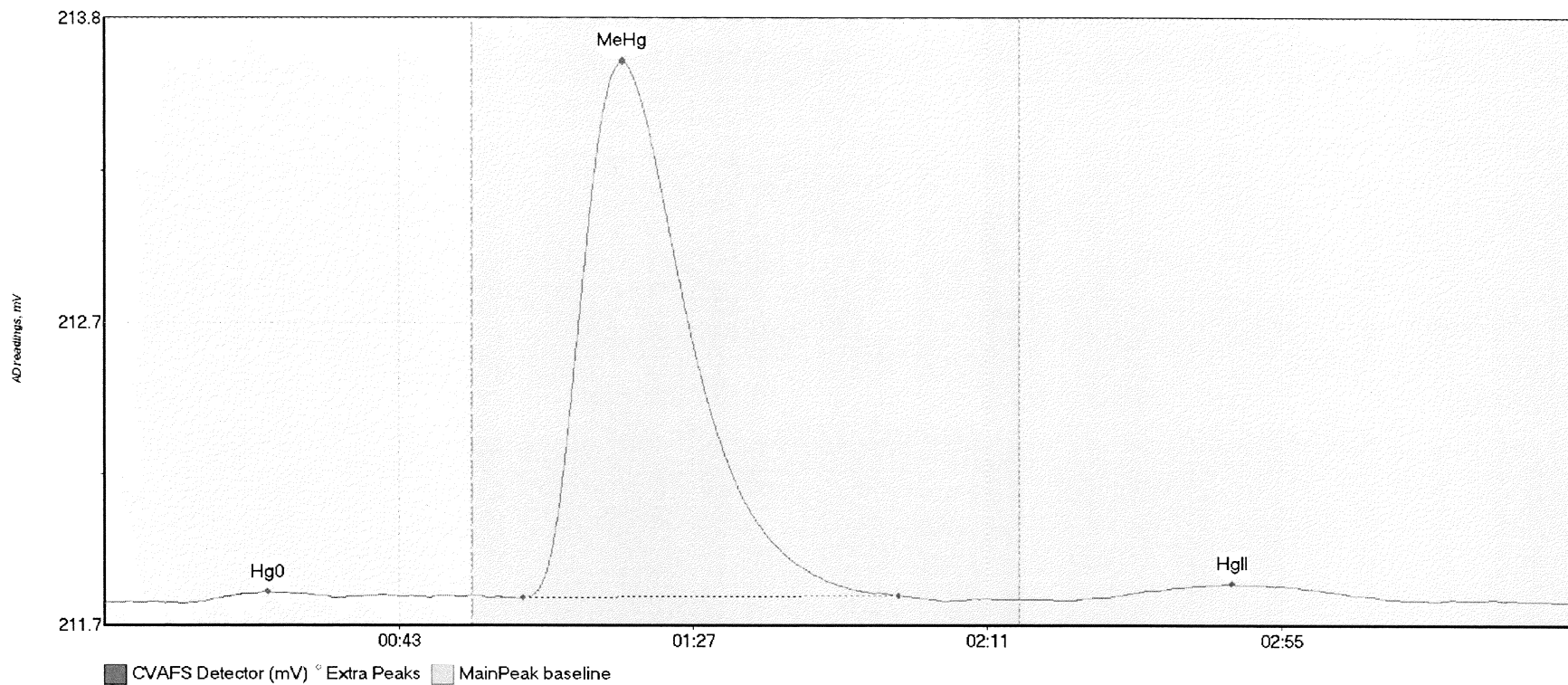
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK2 Hg	4.031	14.0	34.3	211.75	211.78	23.3	0.043	OK	211.7602	0.00	0.00	
F710411-BLK2 Me	0.780	73.0	84.8	211.79	211.79	80.3	0.012	OK	211.7602	0.00	0.00	
F710411-BLK2 Hg	5.583	151.0	190.6	211.77	211.77	169.6	0.023	OK	211.7602	0.00	0.00	

#13: F710411-BLK3



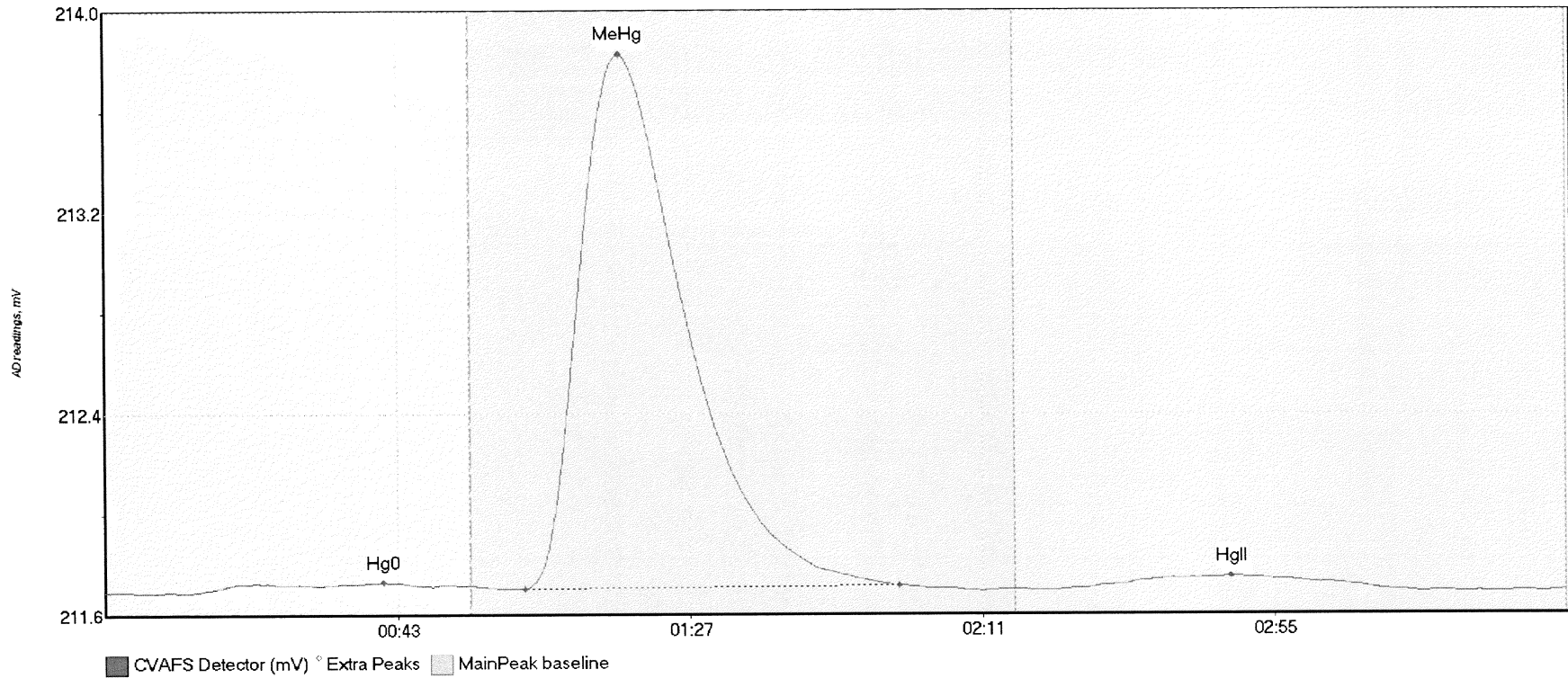
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BLK3 Hg	3.026	13.0	34.2	211.75	211.77	24.4	0.038	OK	211.7433	0.00	0.01	017
F710411-BLK3 Hg	9.328	138.2	191.6	211.75	211.75	162.8	0.029	OK	211.7433	0.00	0.01	

#14: F710411-BS1



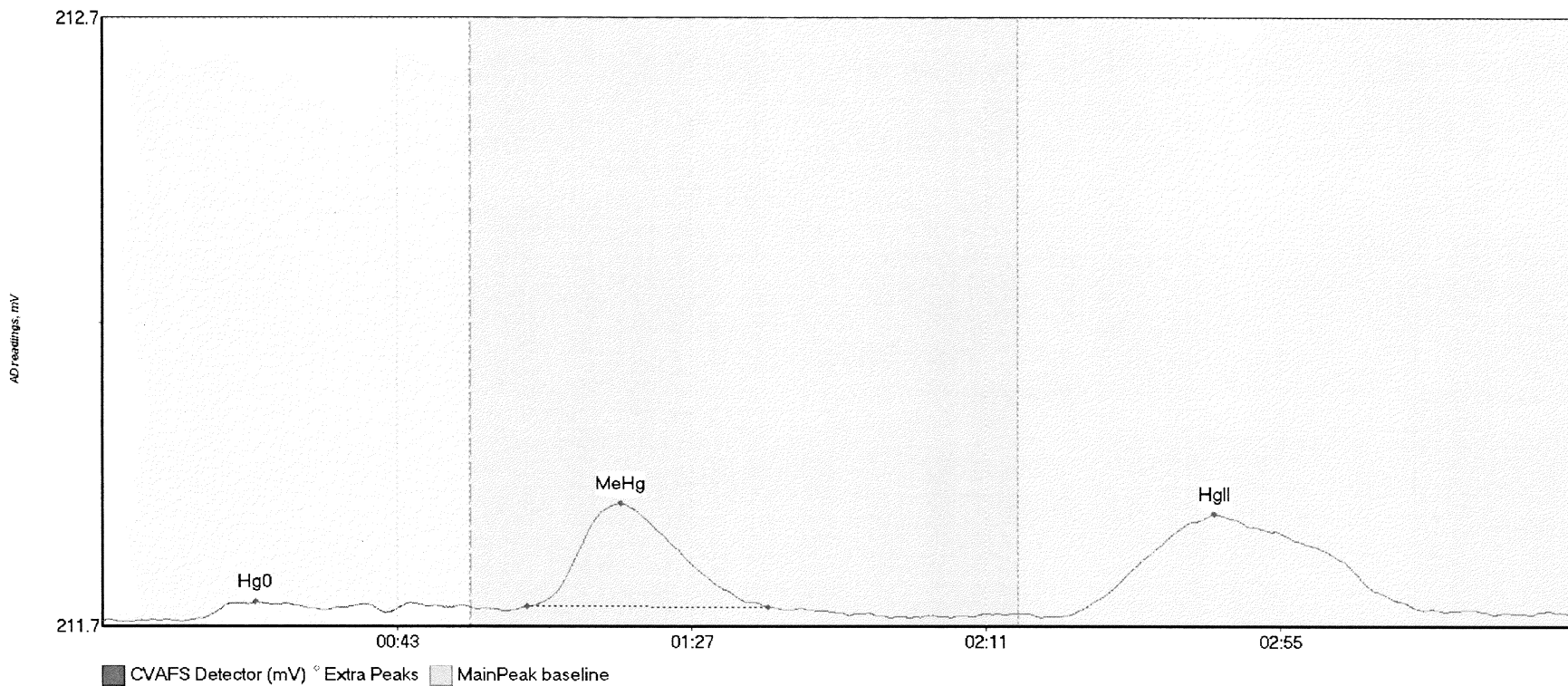
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BS1 Hg0	3.424	14.6	34.6	211.74	211.76	24.4	0.035	OK	211.7377	0.00	0.00	
F710411-BS1 MeH	355.872	62.6	118.8	211.75	211.76	77.5	1.932	OK	211.7377	0.00	0.00	
F710411-BS1 HgI	12.735	147.9	191.2	211.76	211.75	168.6	0.049	OK	211.7377	0.00	0.00	

#15: F710411-BSD1



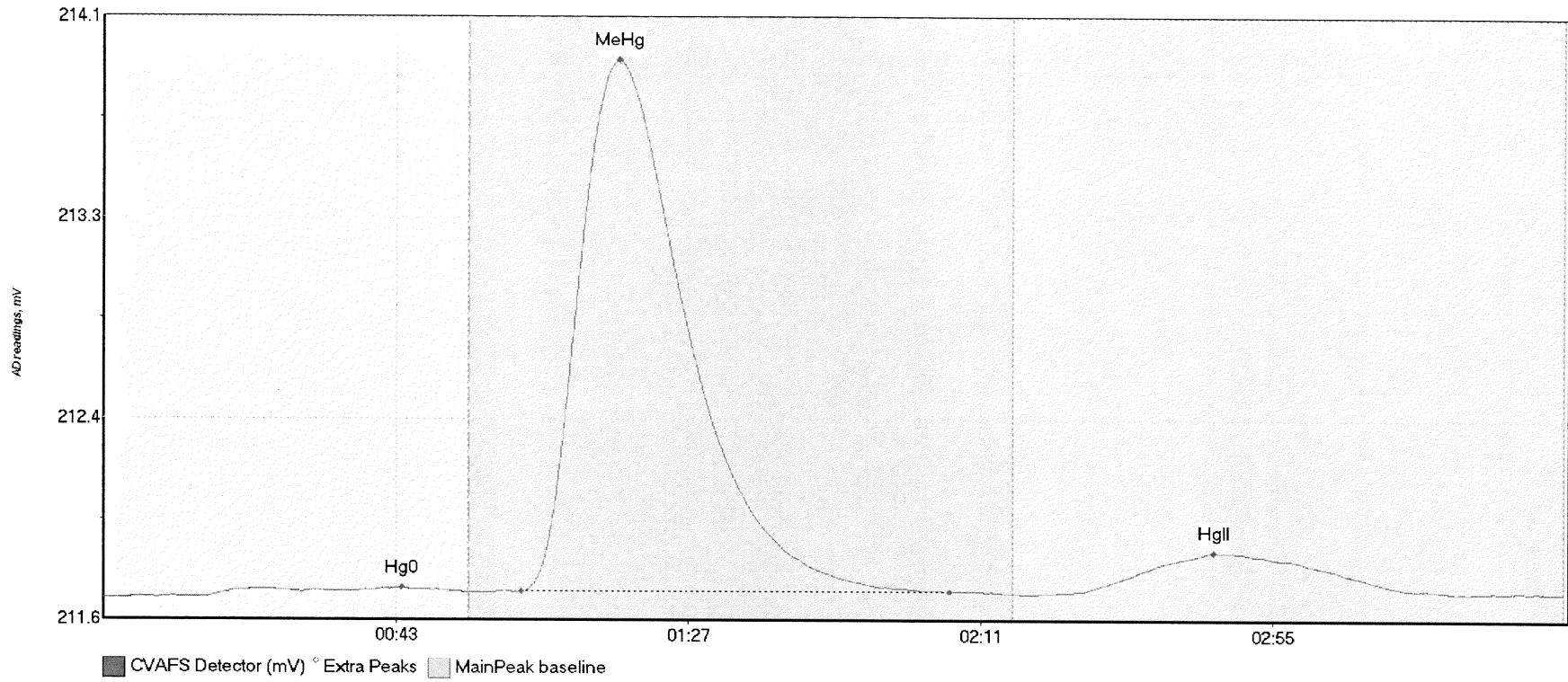
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-BSD1 Hg	6.263	12.8	49.1	211.72	211.75	41.9	0.040	OK	211.7265	0.00	0.00	
F710411-BSD1 Me	391.933	63.1	119.4	211.74	211.75	77.6	2.128	OK	211.7265	0.00	0.00	
F710411-BSD1 Hg	13.814	147.5	193.4	211.74	211.73	169.4	0.046	OK	211.7265	0.00	0.00	

#16: F710411-DUP1



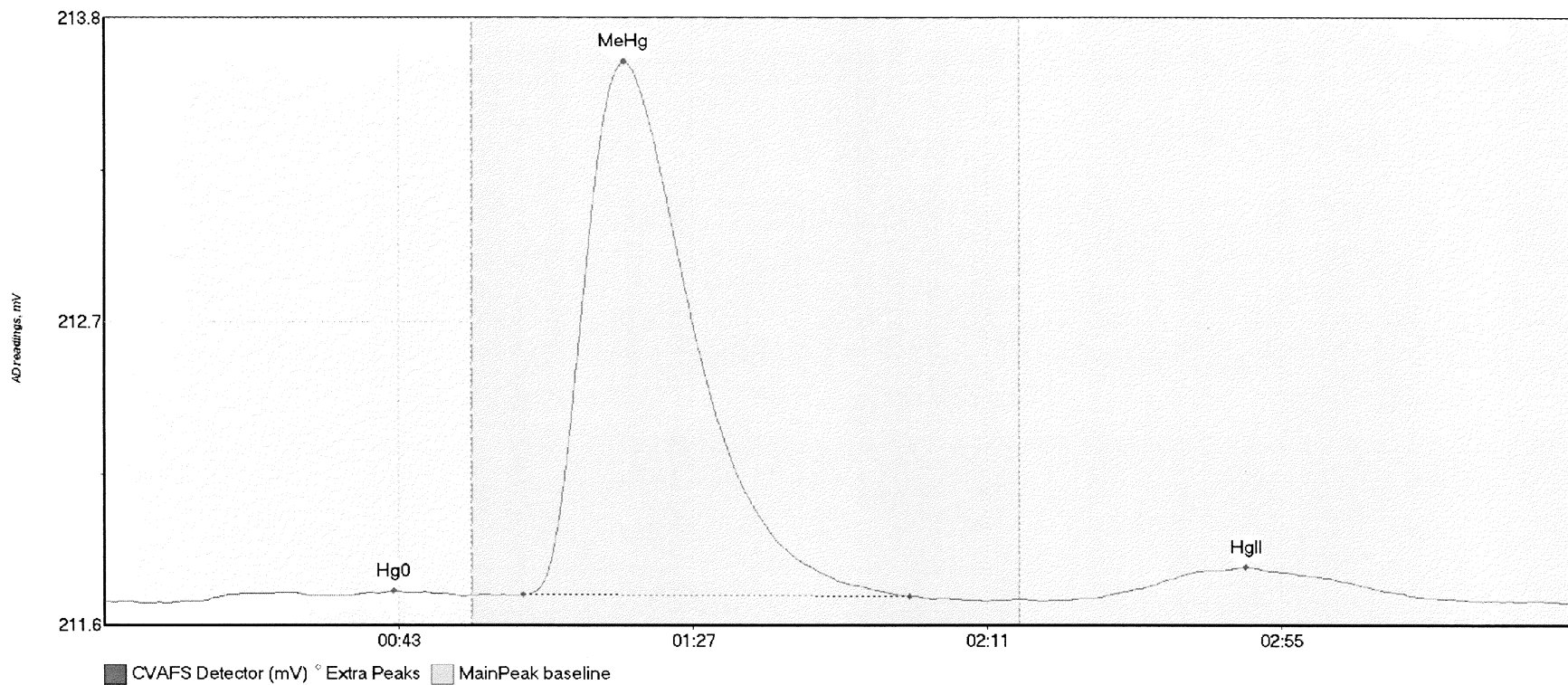
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-DUP1 Hg	3.987	14.8	42.3	211.71	211.72	22.9	0.026	OK	211.7084	0.00	0.01	
F710411-DUP1 Me	27.778	63.5	99.5	211.73	211.73	77.5	0.170	OK	211.7084	0.00	0.01	
F710411-DUP1 Hg	47.610	144.2	200.5	211.72	211.72	166.2	0.167	OK	211.7084	0.00	0.01	

#17: F710411-MS1



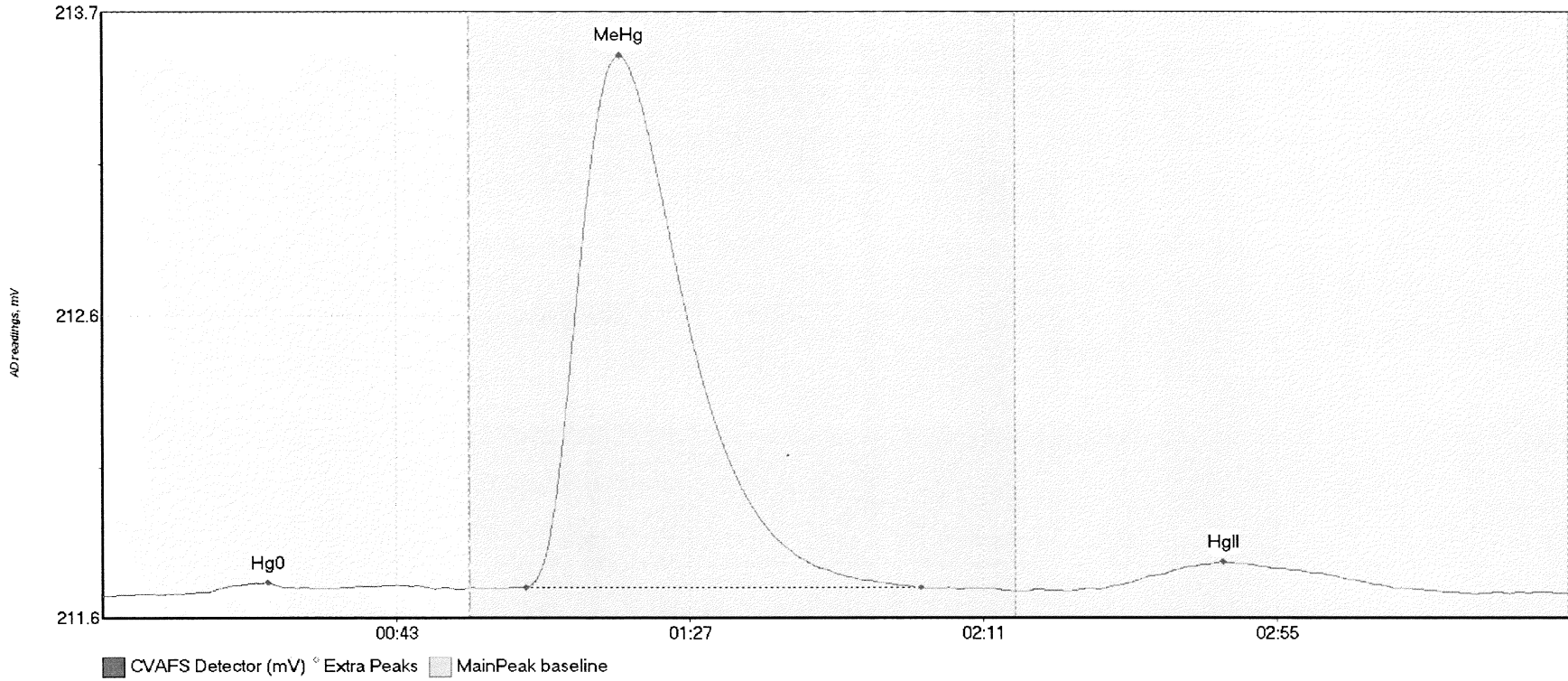
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MS1 Hg0	6.856	14.4	54.8	211.71	211.73	44.8	0.036	OK	211.7076	0.00	0.02	
F710411-MS1 MeH	408.252	62.9	127.3	211.74	211.74	77.6	2.165	OK	211.7076	0.00	0.02	
F710411-MS1 HgI	48.787	145.1	203.7	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	

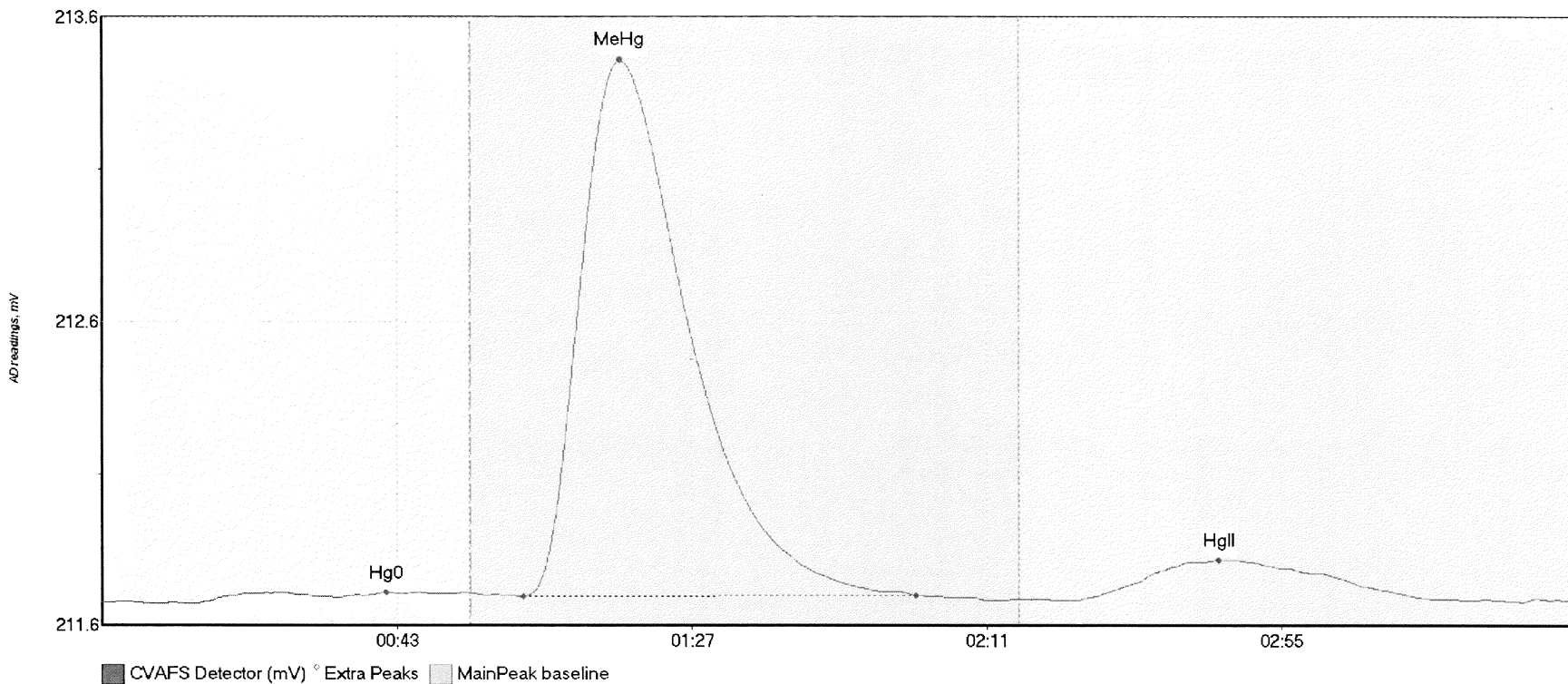
#19: F710411-MS2



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	

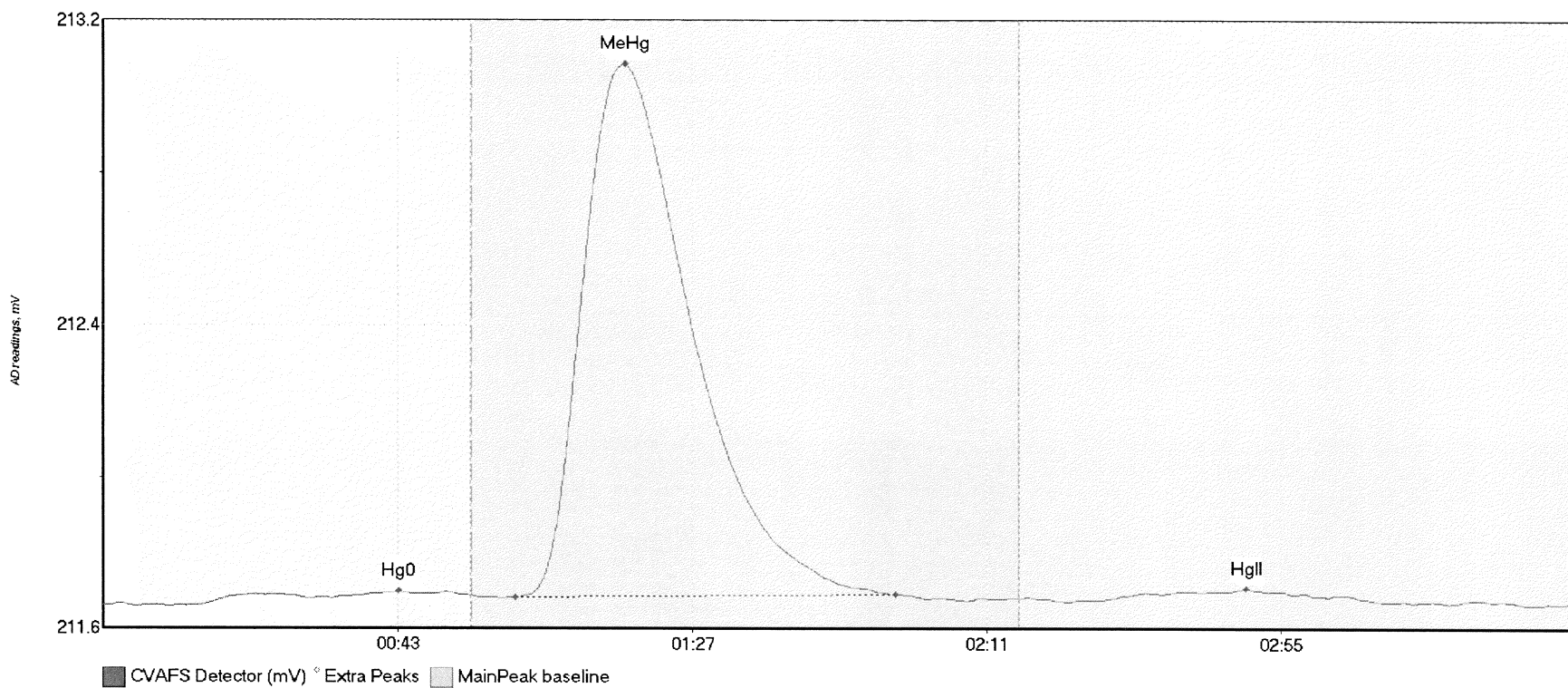


#20: F710411-MSD2



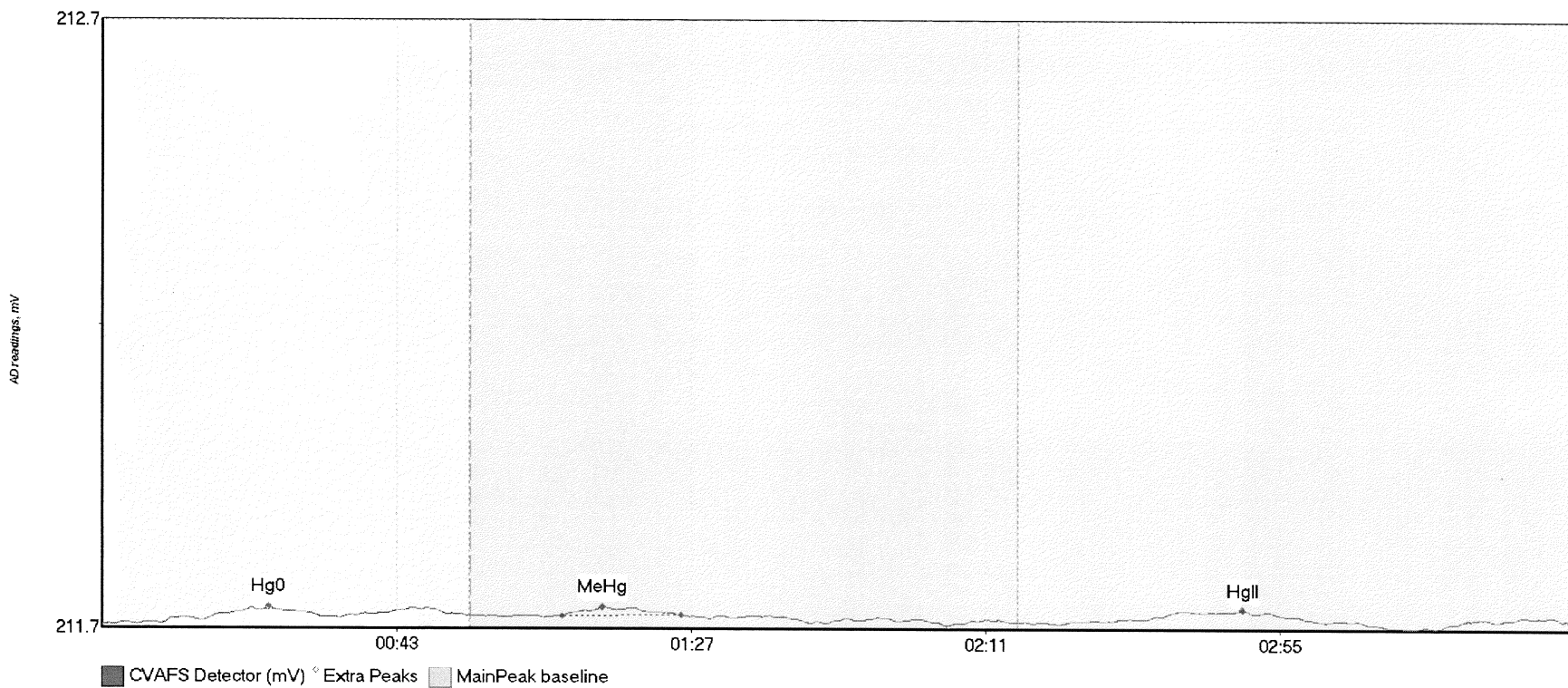
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710411-MSD2 Hg	4.842	13.9	52.4	211.69	211.73	42.5	0.037	OK	211.6986	0.00	0.01	
F710411-MSD2 Me	326.118	62.8	121.5	211.72	211.72	77.3	1.743	OK	211.6986	0.00	0.01	
F710411-MSD2 Hg	37.134	145.4	197.0	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	

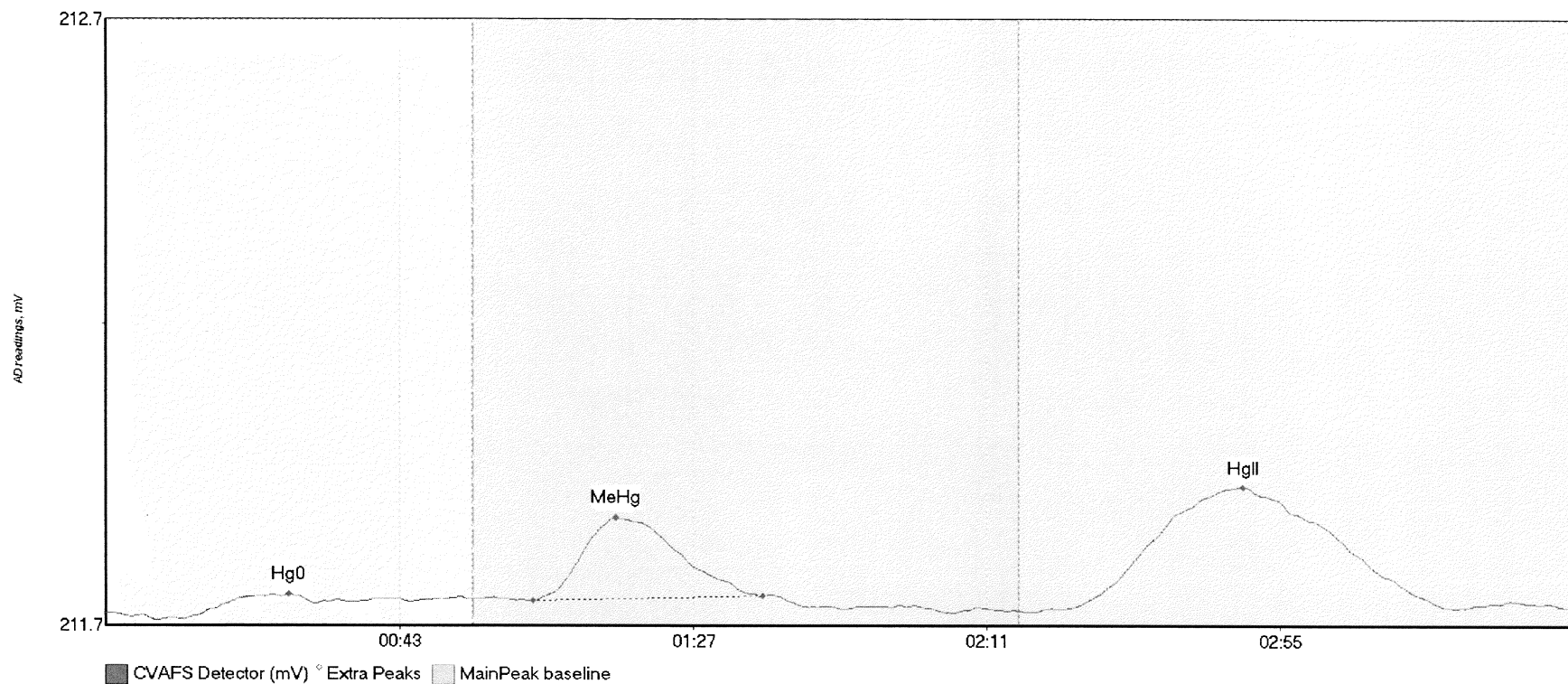
#22: SEQ-CCB1



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	

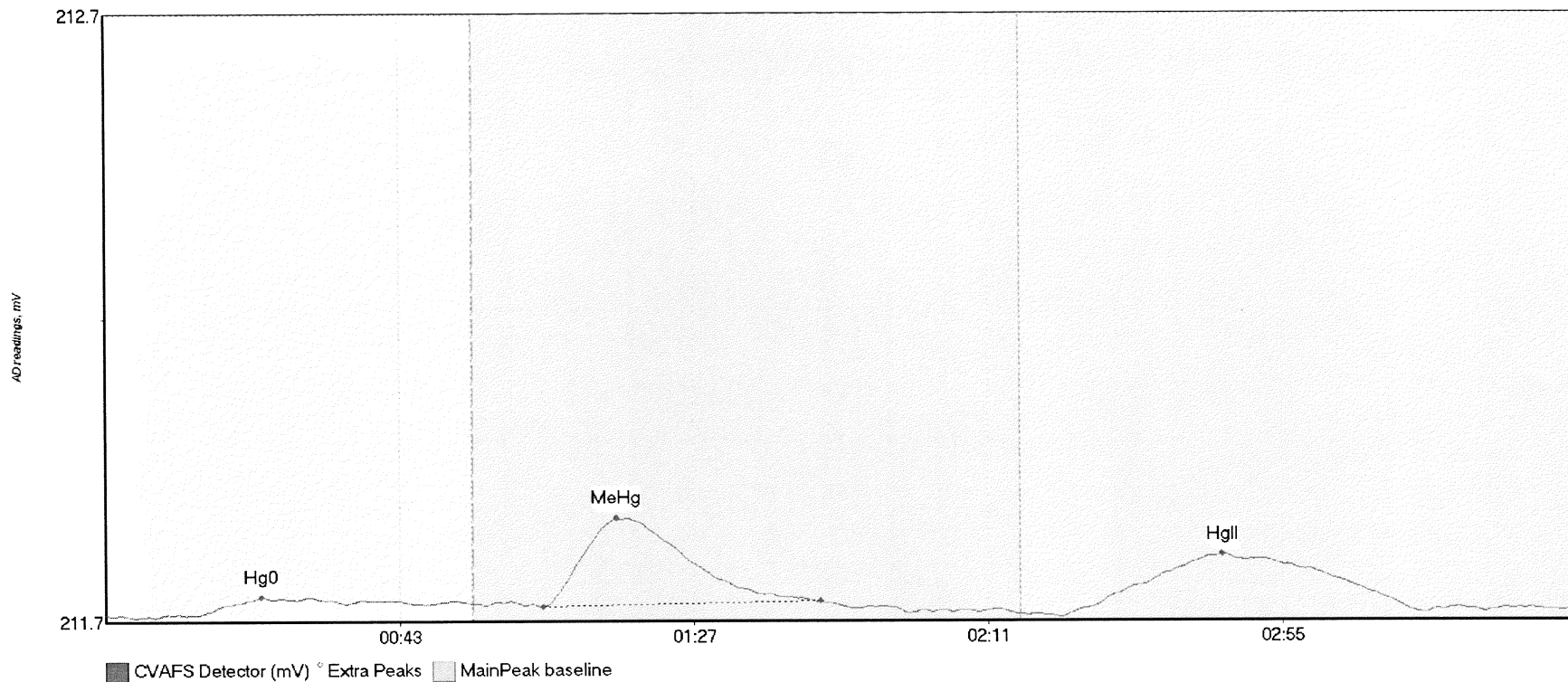
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#23: 1710143-01



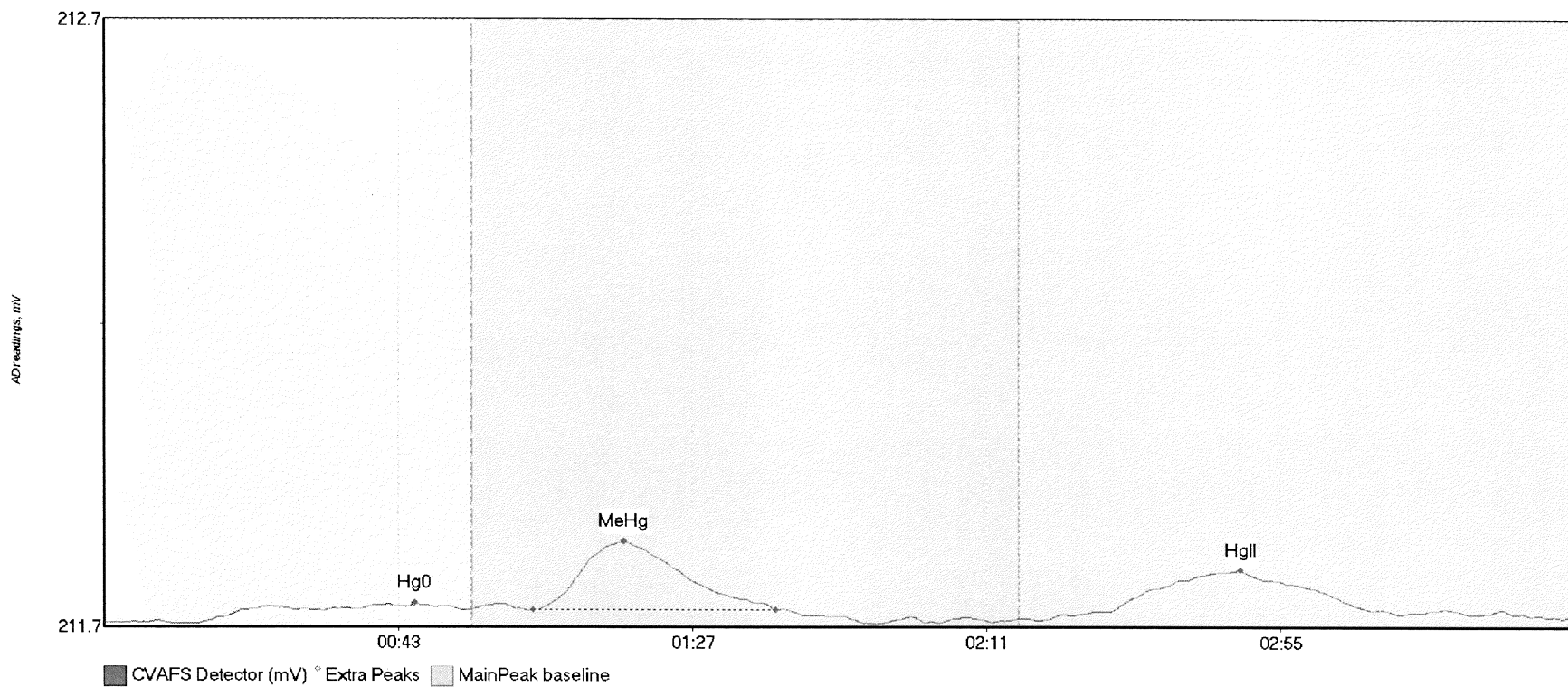
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-01 Hg0	2.708	14.0	31.5	211.69	211.70	27.4	0.034	OK	211.6890	0.00	0.01	
1710143-01 MeHg	22.119	64.0	98.4	211.71	211.72	76.4	0.137	OK	211.6890	0.00	0.01	
1710143-01 HgII	60.279	143.5	202.4	211.70	211.70	170.5	0.202	OK	211.6890	0.00	0.01	

#24: 1710143-02



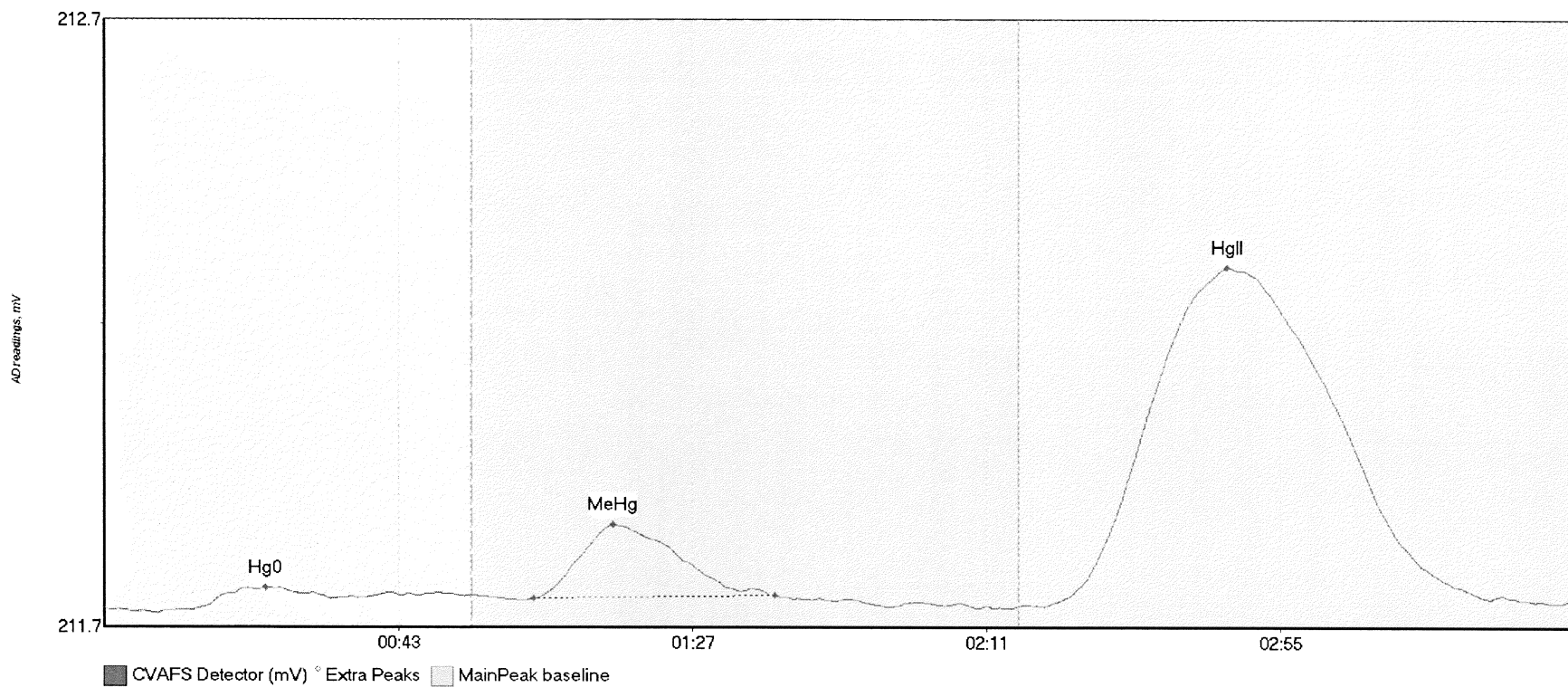
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-02 Hg0	3.705	15.3	47.9	211.70	211.71	23.3	0.024	OK	211.6909	0.00	0.01	
1710143-02 MeHg	25.695	65.4	106.9	211.70	211.71	76.5	0.146	OK	211.6909	0.00	0.01	
1710143-02 HgII	30.263	143.1	197.0	211.69	211.69	167.1	0.103	OK	211.6909	0.00	0.01	

#25: 1710143-03



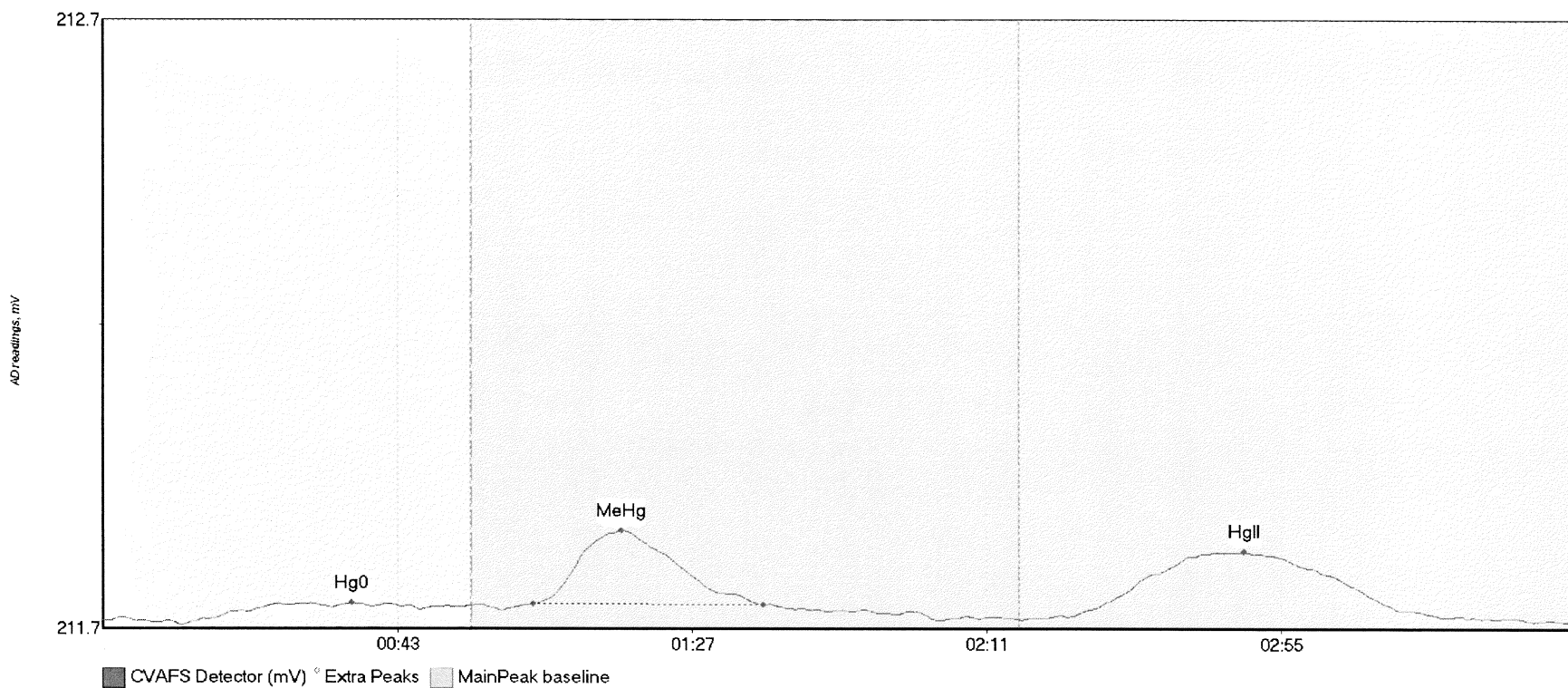
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710143-03 Hg0	4.737	14.9	54.3	211.70	211.72	46.4	0.029	OK	211.6972	0.00	0.01	
1710143-03 MeHg	19.274	64.1	100.5	211.72	211.72	77.7	0.114	OK	211.6972	0.00	0.01	
1710143-03 HgII	20.329	144.9	213.5	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	

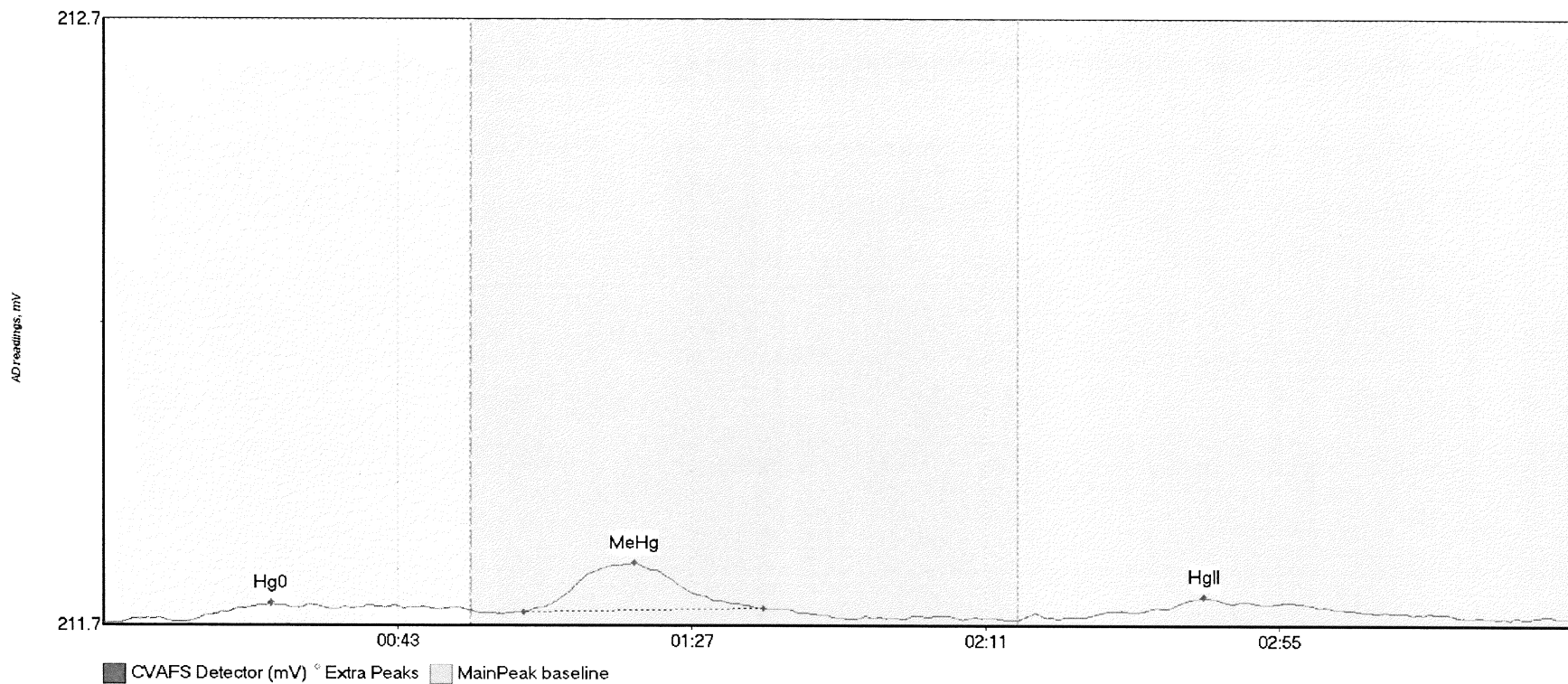
#27: 1710143-05



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	

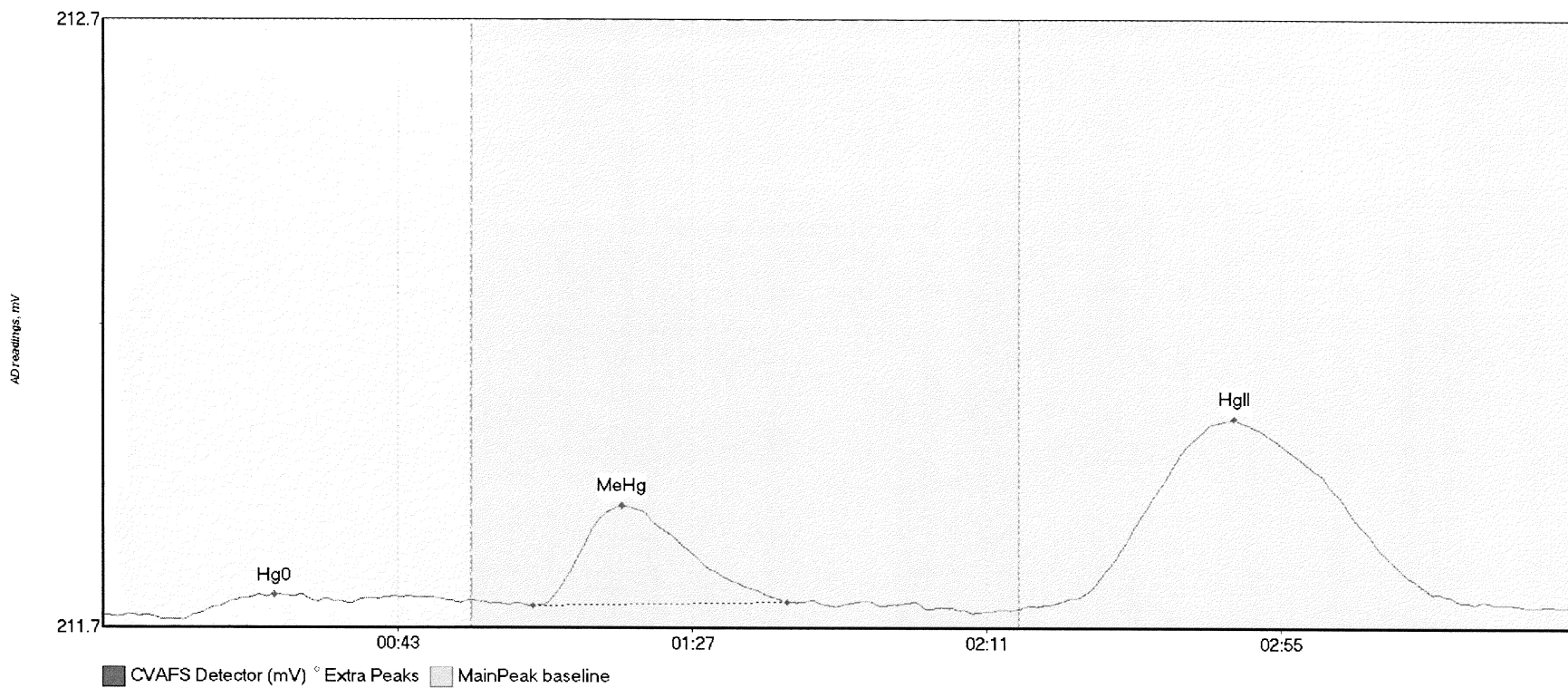


#28: 1710143-06



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	

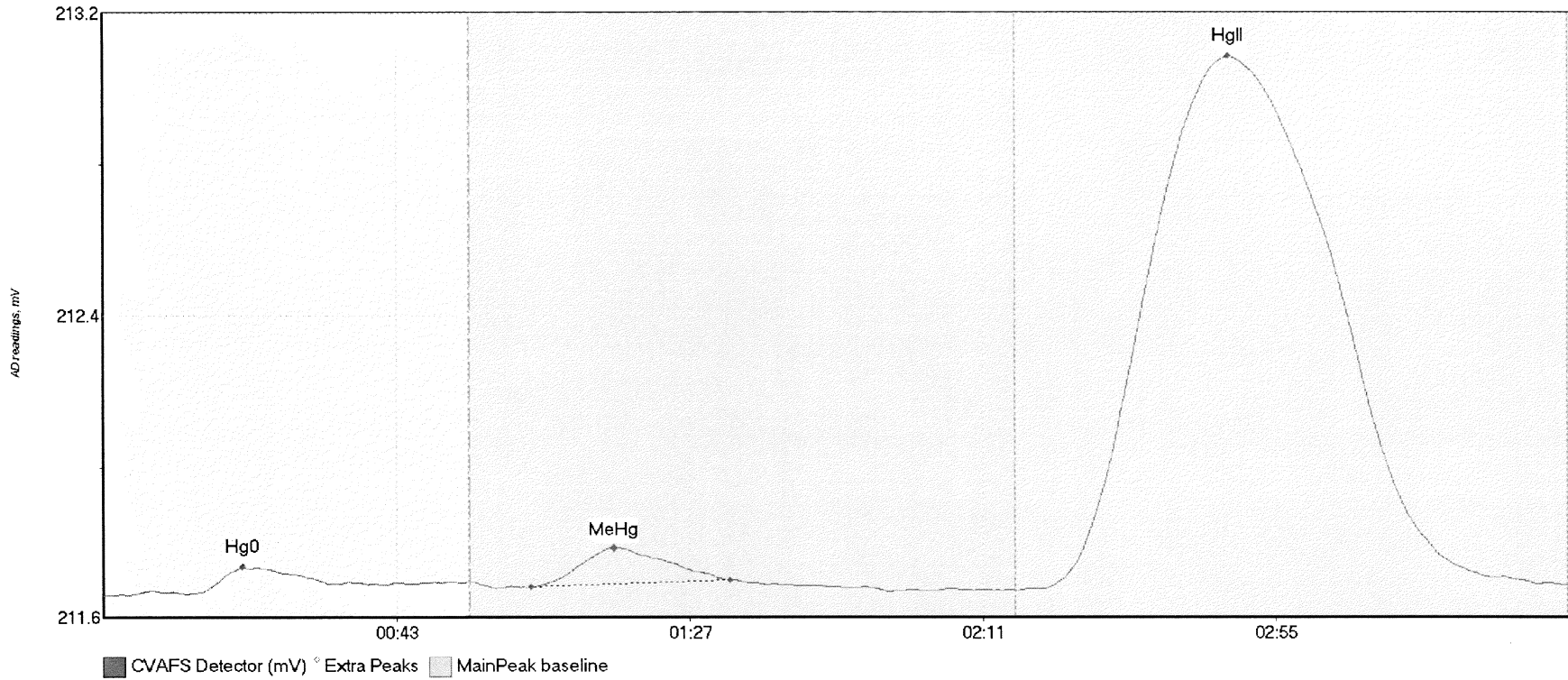
#29: 1710351-01



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	

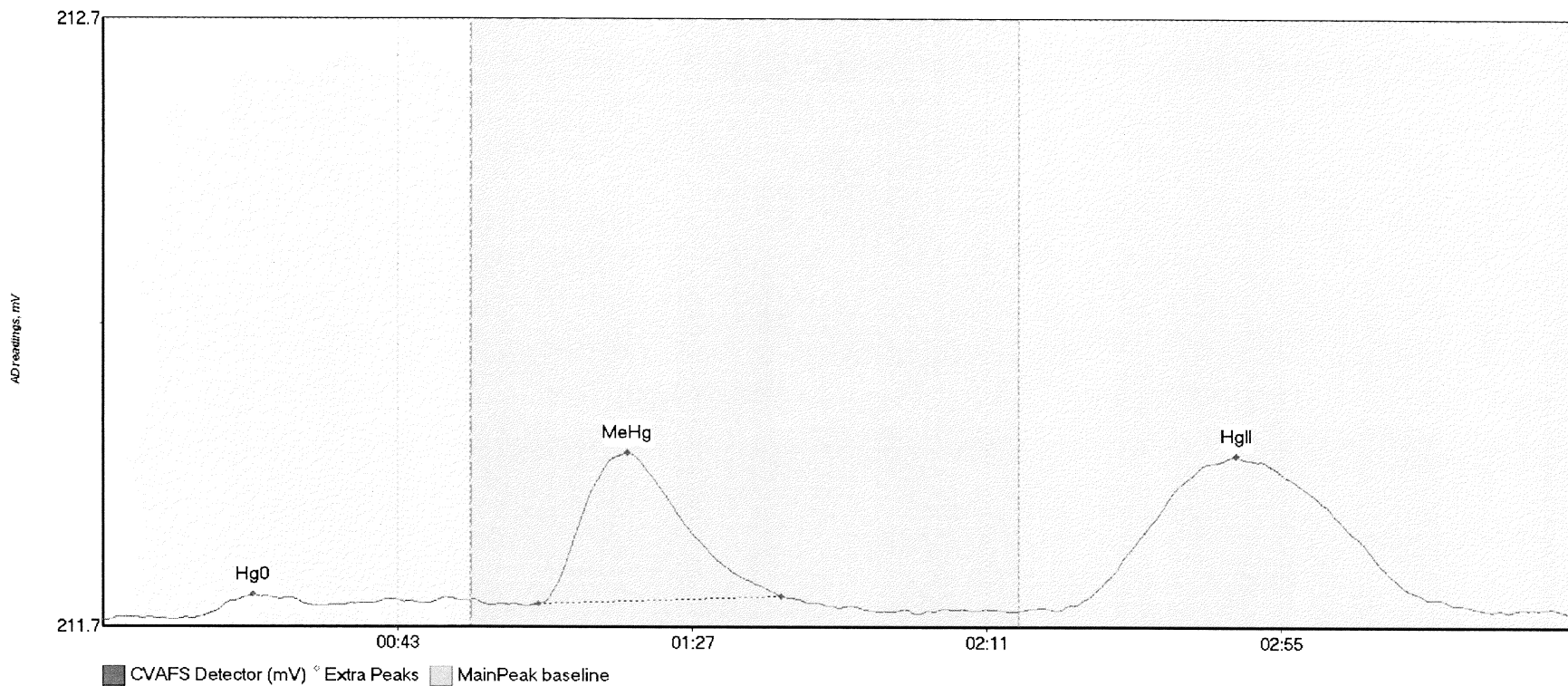
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#30: 1710351-03



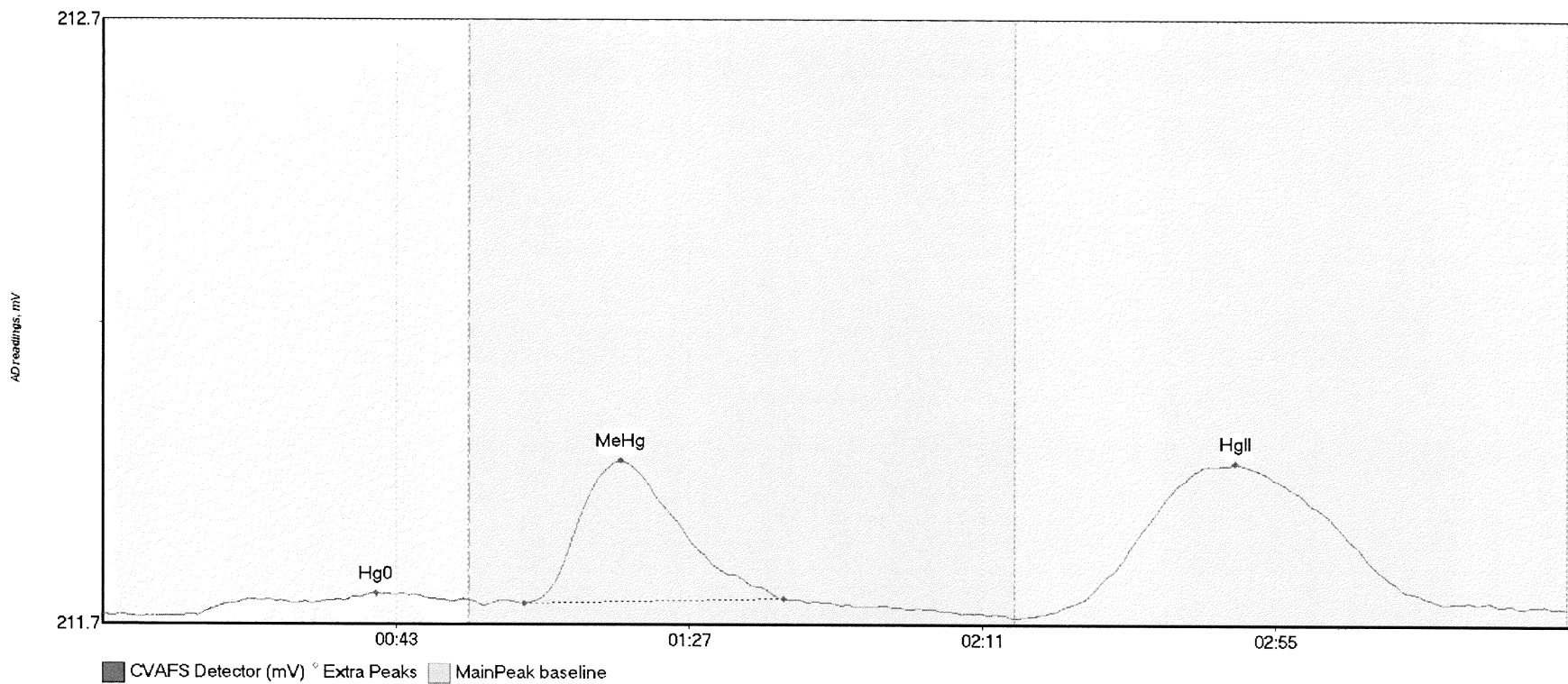
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-03 Hg0	8.025	12.7	41.8	211.69	211.71	20.9	0.069	OK	211.6824	0.00	0.03	
1710351-03 MeHg	14.226	64.1	94.0	211.70	211.72	76.6	0.105	OK	211.6824	0.00	0.03	
1710351-03 HgII	436.646	140.9	219.8	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	

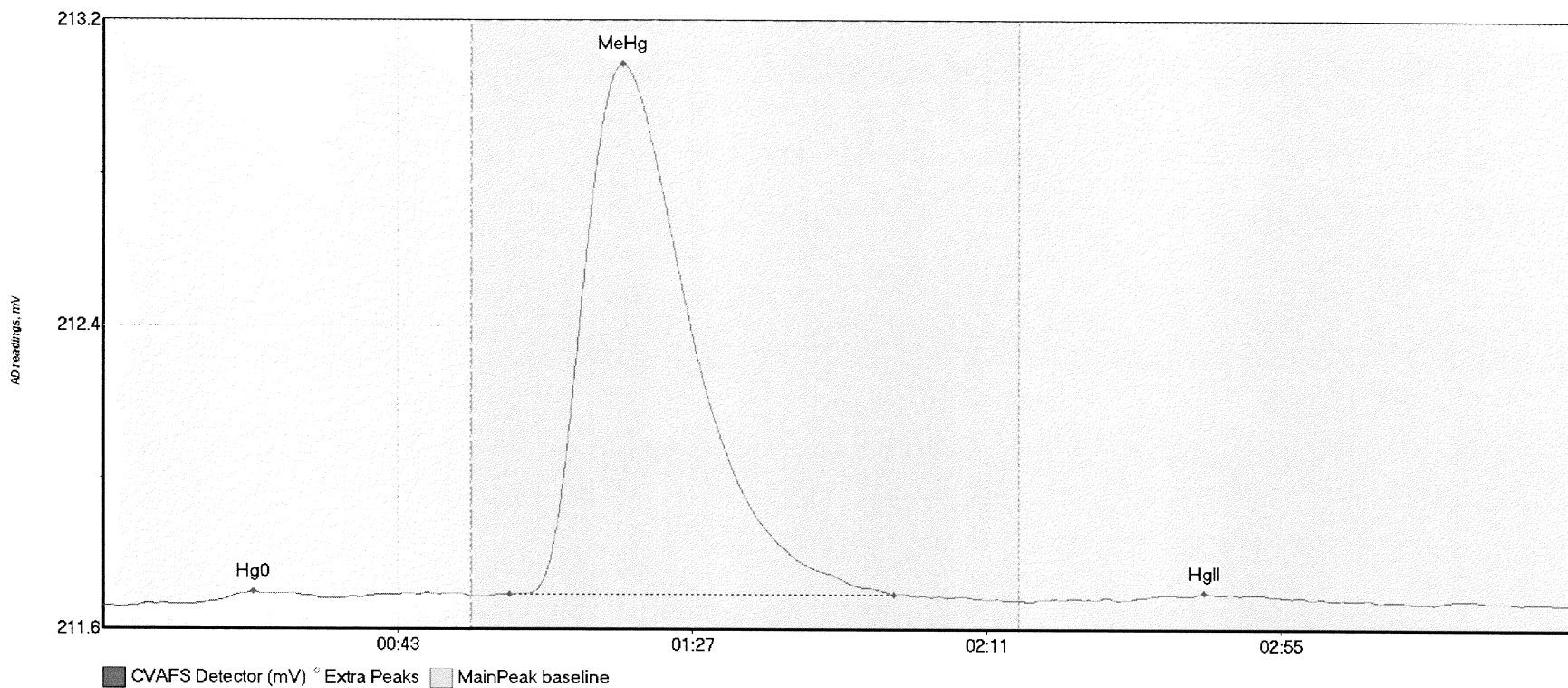
#32: 1710351-05



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	

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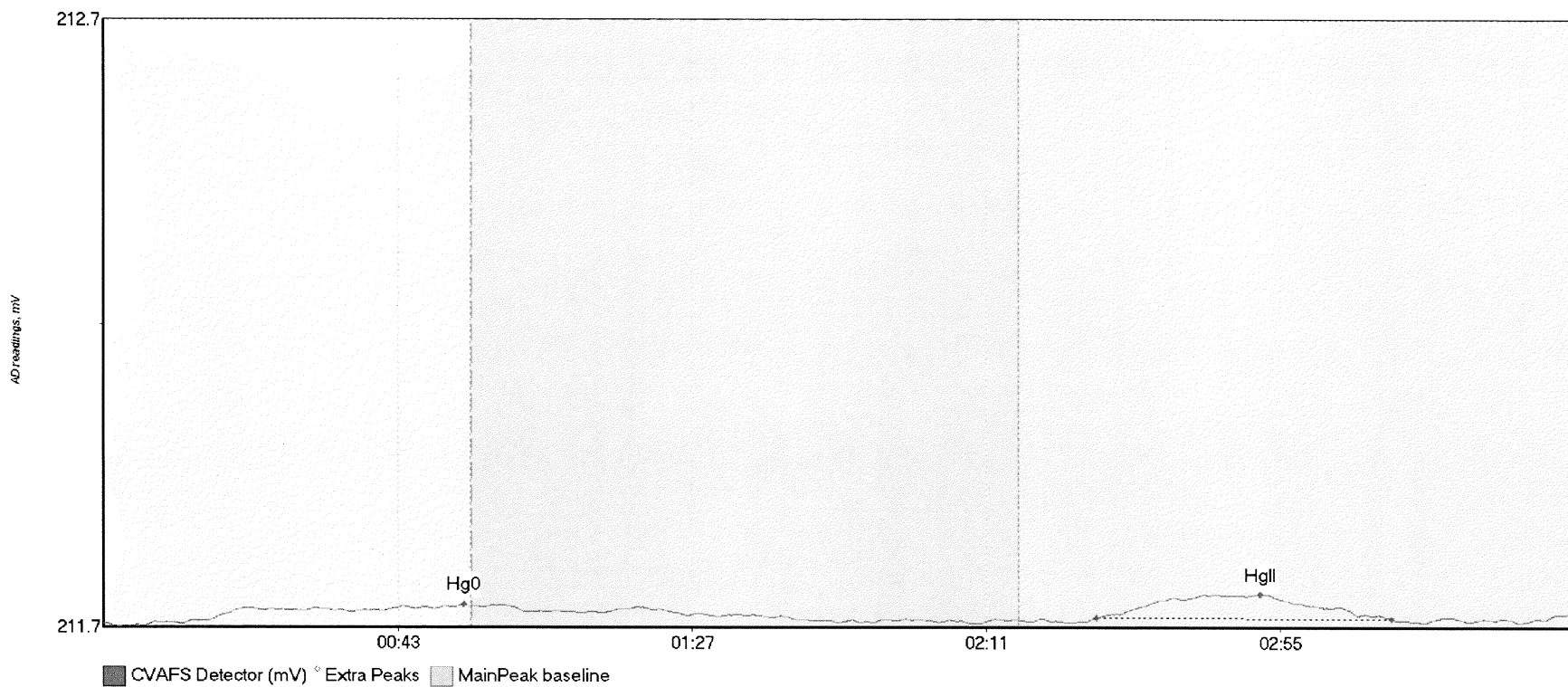
#33: SEQ-CCV2



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	

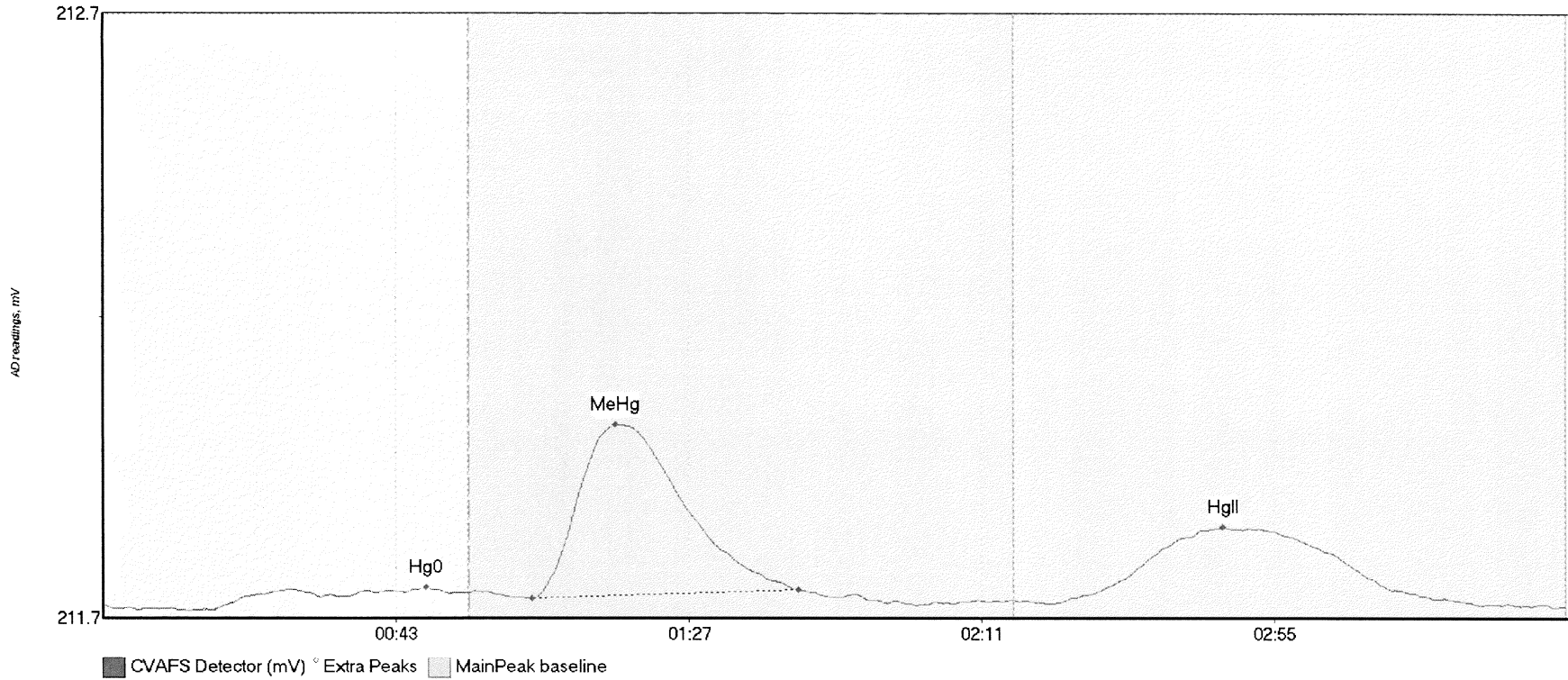
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#34: SEQ-CCB2



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

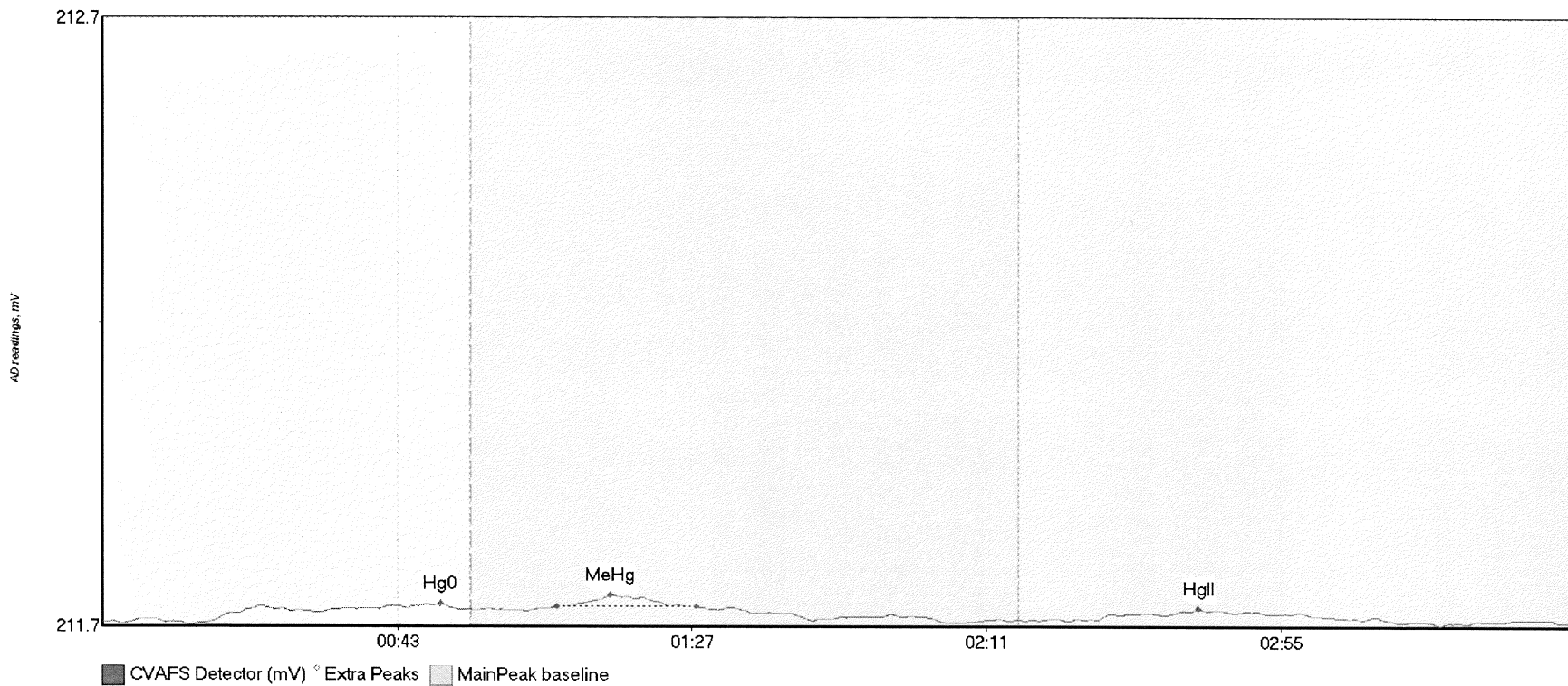
#35: 1710351-07



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	

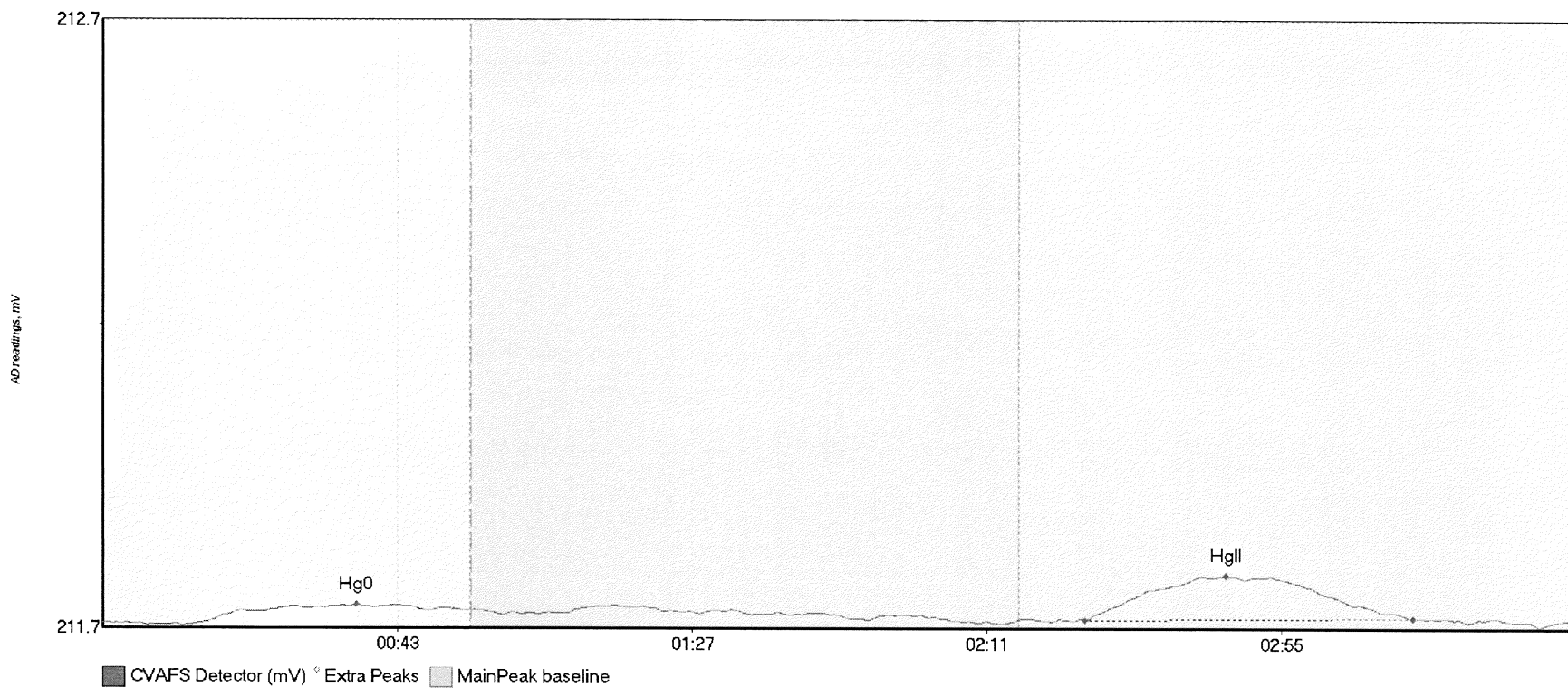


#36: 1710351-08



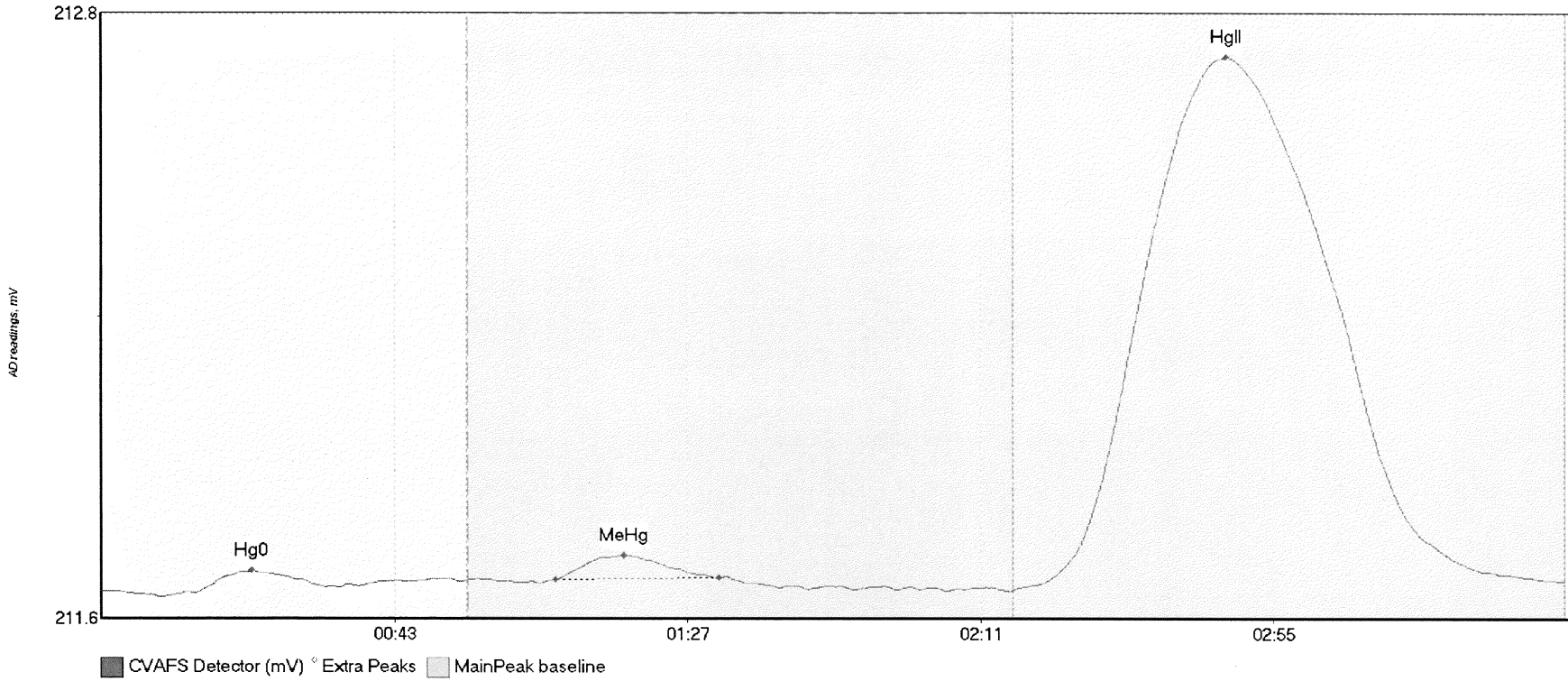
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710351-08 Hg0	4.092	15.6	53.3	211.68	211.70	50.4	0.030	OK	211.6841	0.00	0.00	
1710351-08 MeHg	1.806	67.9	88.8	211.71	211.71	75.9	0.019	OK	211.6841	0.00	0.00	
1710351-08 HgII	3.339	148.7	184.8	211.69	211.69	163.8	0.018	OK	211.6841	0.00	0.00	

#37: 1710360-01



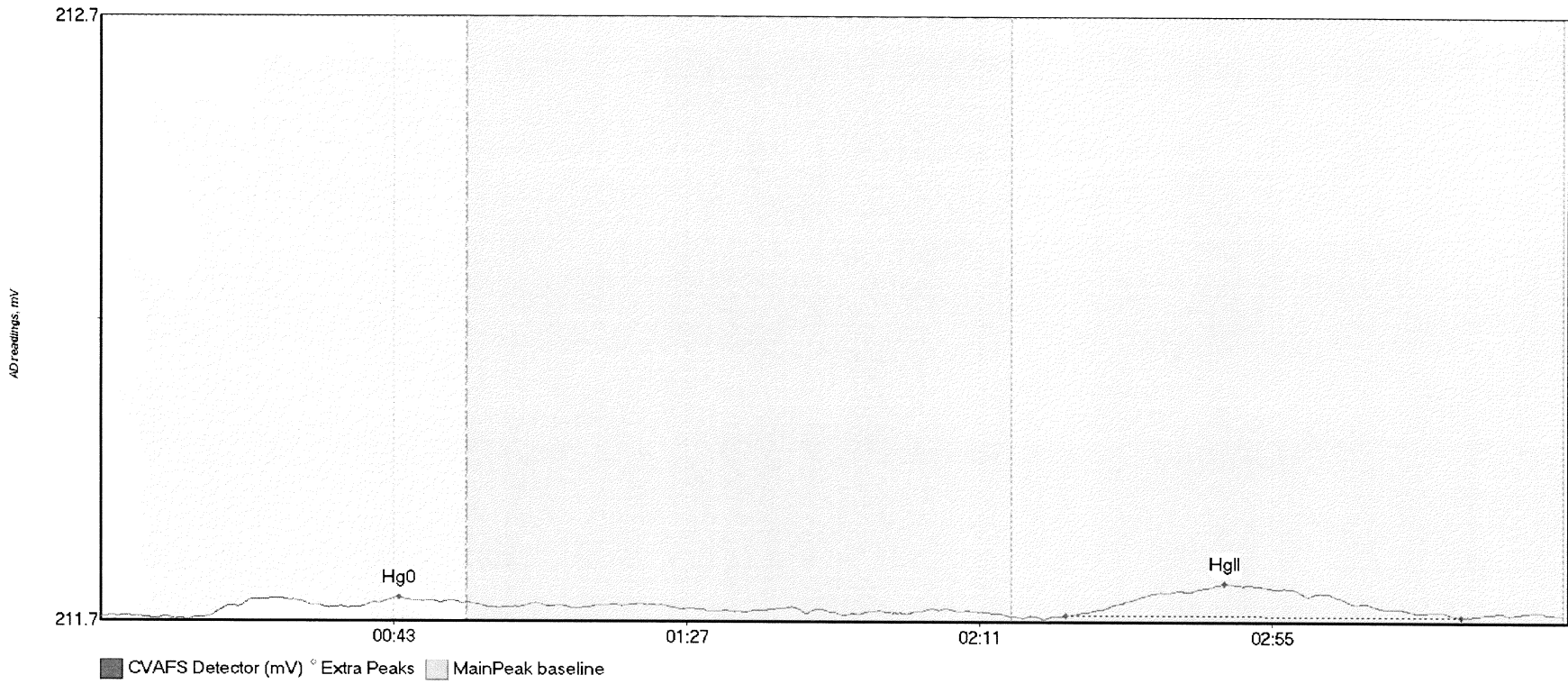
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-01 Hg0	4.550	13.3	48.6	211.67	211.70	37.9	0.032	OK	211.6765	0.00	0.00	
1710360-01 HgII	20.945	146.8	195.8	211.68	211.68	167.7	0.073	OK	211.6765	0.00	0.00	017

#38: 1710360-02



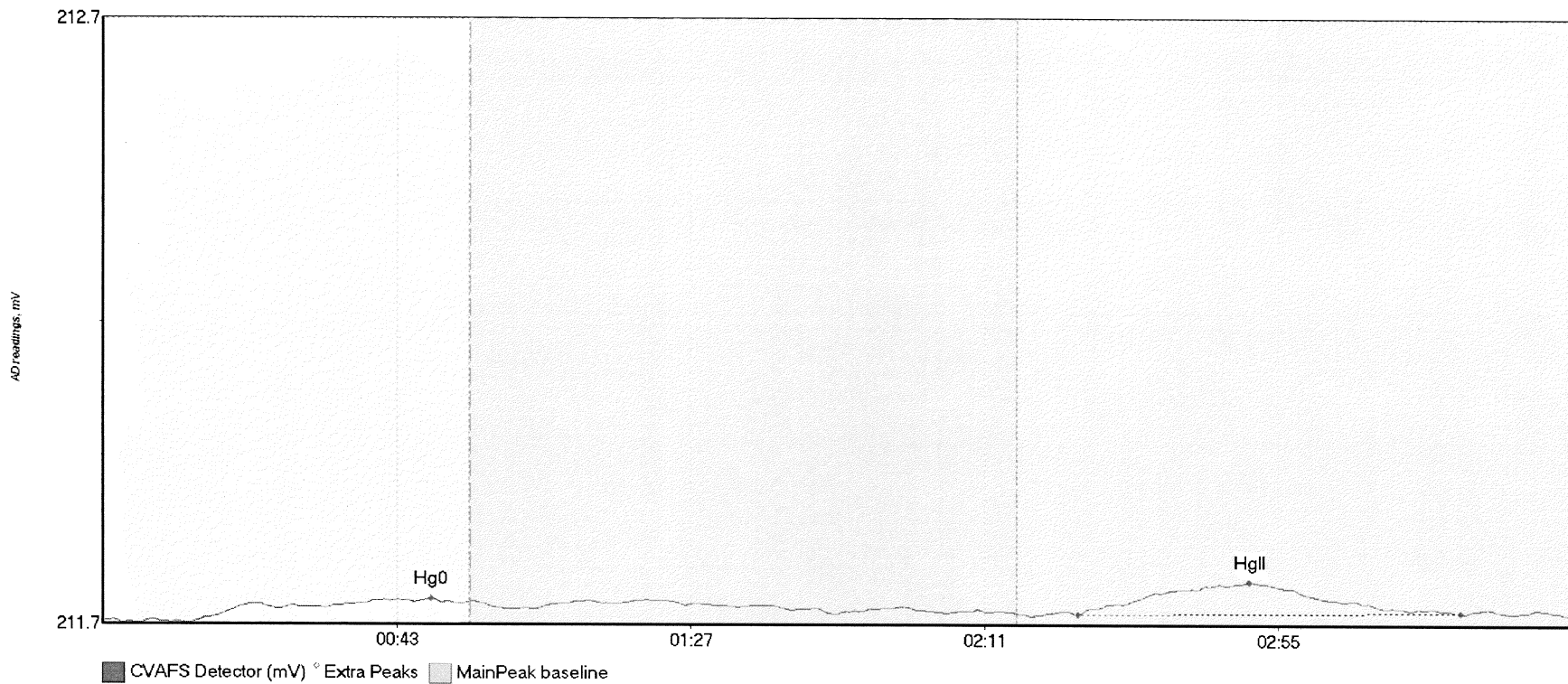
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-02 Hg0	4.345	13.9	35.7	211.68	211.69	22.6	0.041	OK	211.6827	0.00	0.02	
1710360-02 MeHg	6.093	68.1	92.8	211.70	211.71	78.5	0.045	OK	211.6827	0.00	0.02	
1710360-02 HgII	314.735	138.2	219.1	211.69	211.70	168.9	1.004	OK	211.6827	0.00	0.02	

#39: 1710360-03



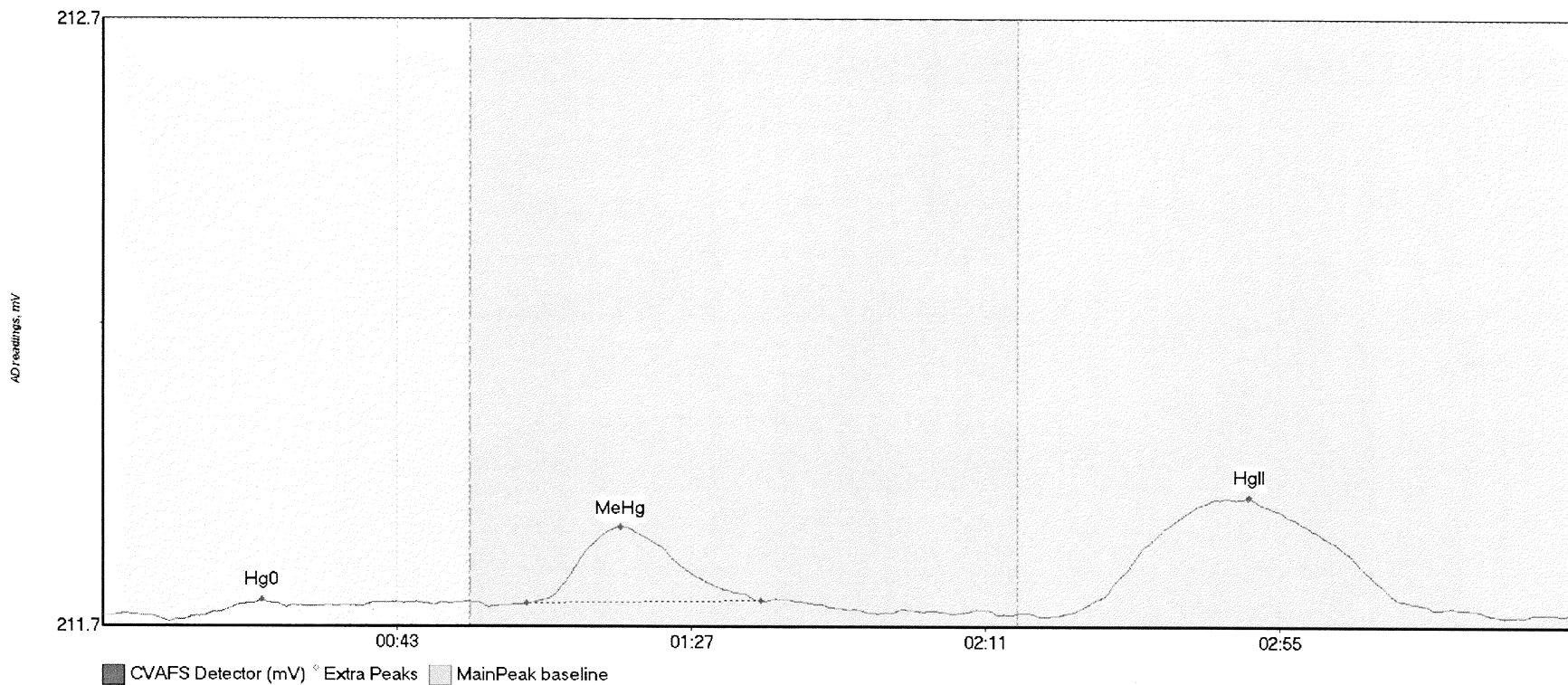
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-03 Hg0	4.420	15.8	54.2	211.68	211.71	44.9	0.033	OK	211.6832	0.00	0.01	
1710360-03 HgII	17.142	145.0	204.4	211.69	211.69	168.9	0.054	OK	211.6832	0.00	0.01	017

#40: 1710360-04



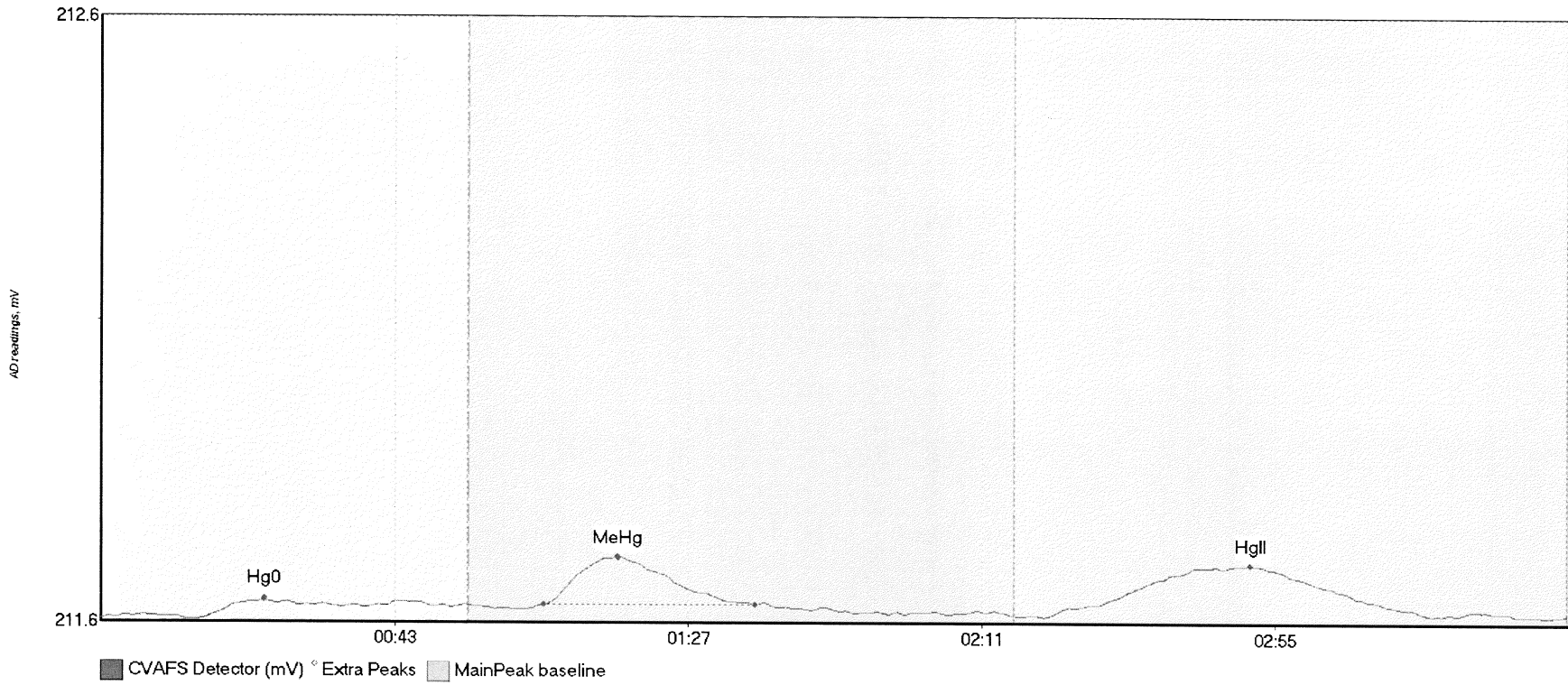
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710360-04 Hg0	3.540	16.0	53.8	211.68	211.71	49.2	0.030	OK	211.6797	0.00	0.01	
1710360-04 HgII	15.165	146.0	203.4	211.69	211.69	171.7	0.054	OK	211.6797	0.00	0.01	017

#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	

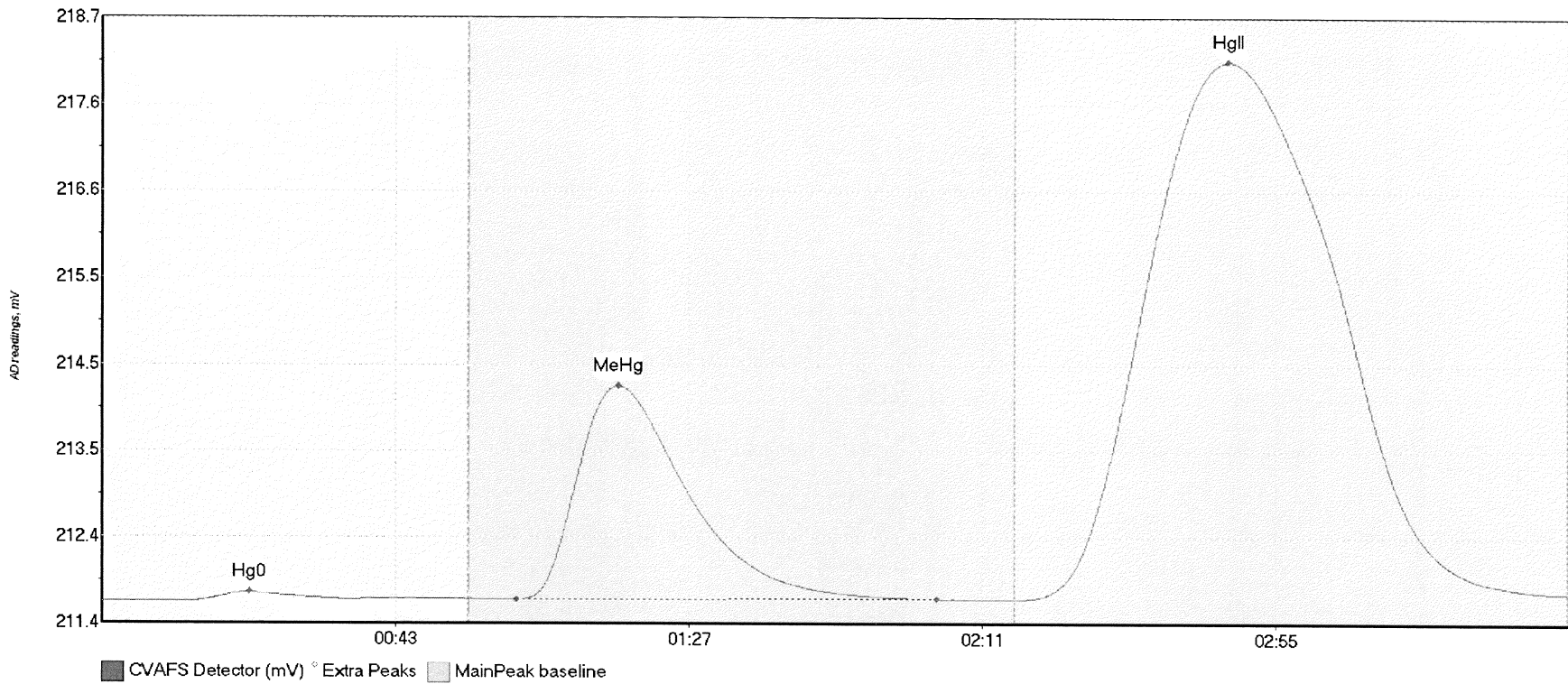
#42: 1710478-02



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

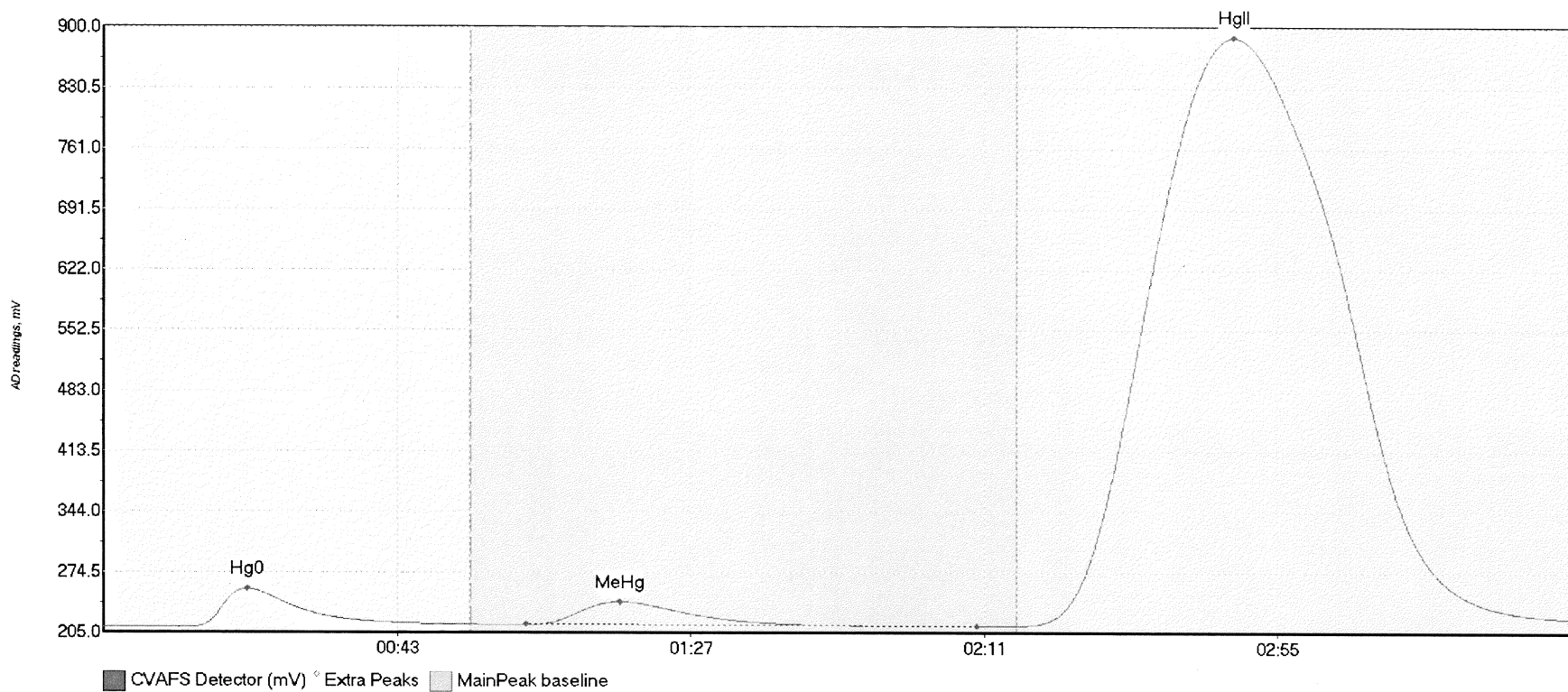


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710581-01 Hg0	11.078	10.7	37.6	211.64	211.67	22.1	0.107	OK	211.6443	0.00	0.11	
1710581-01 MeHg	486.910	62.1	125.2	211.67	211.68	77.4	2.573	OK	211.6443	0.00	0.11	
1710581-01 HgII	2057.180	137.8	218.5	211.67	211.75	168.9	6.470	OK	211.6443	0.00	0.11	

017

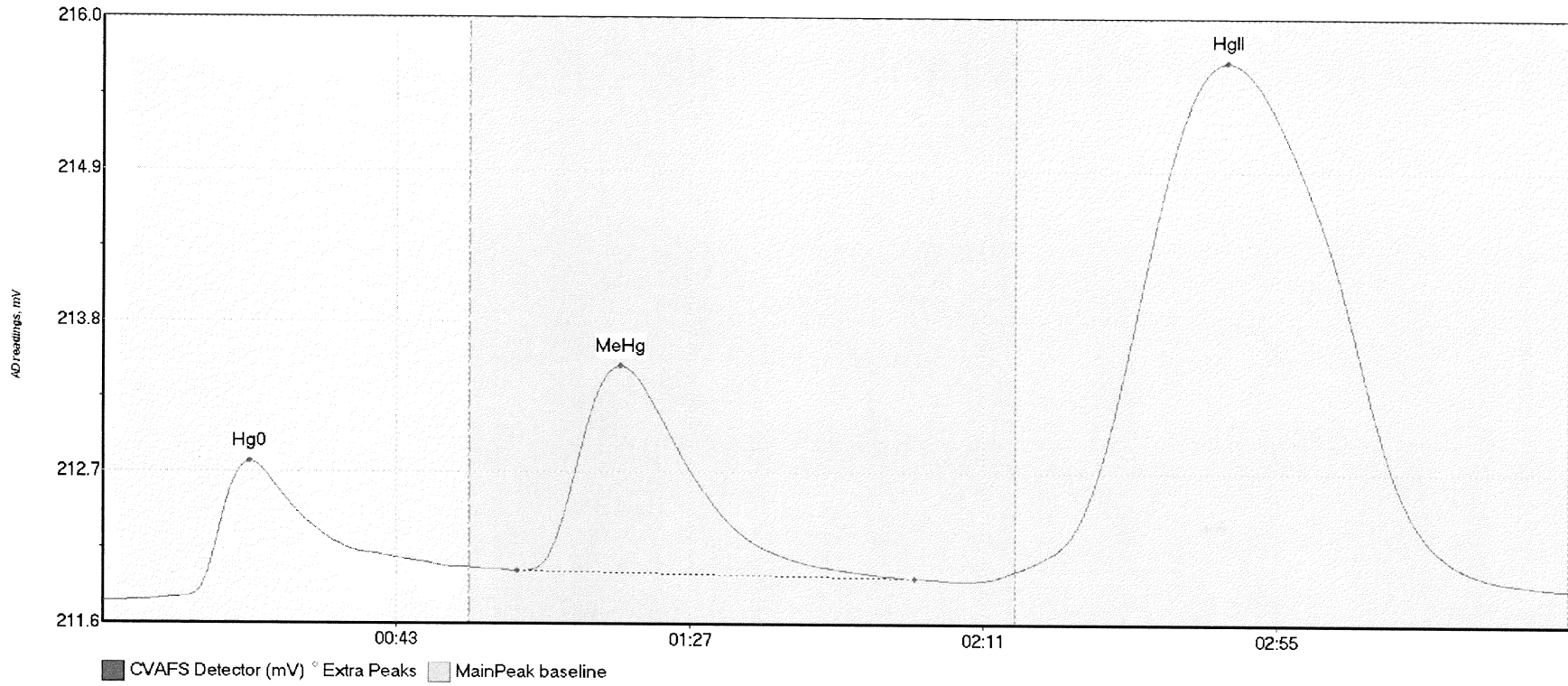


#44: 1710581-02



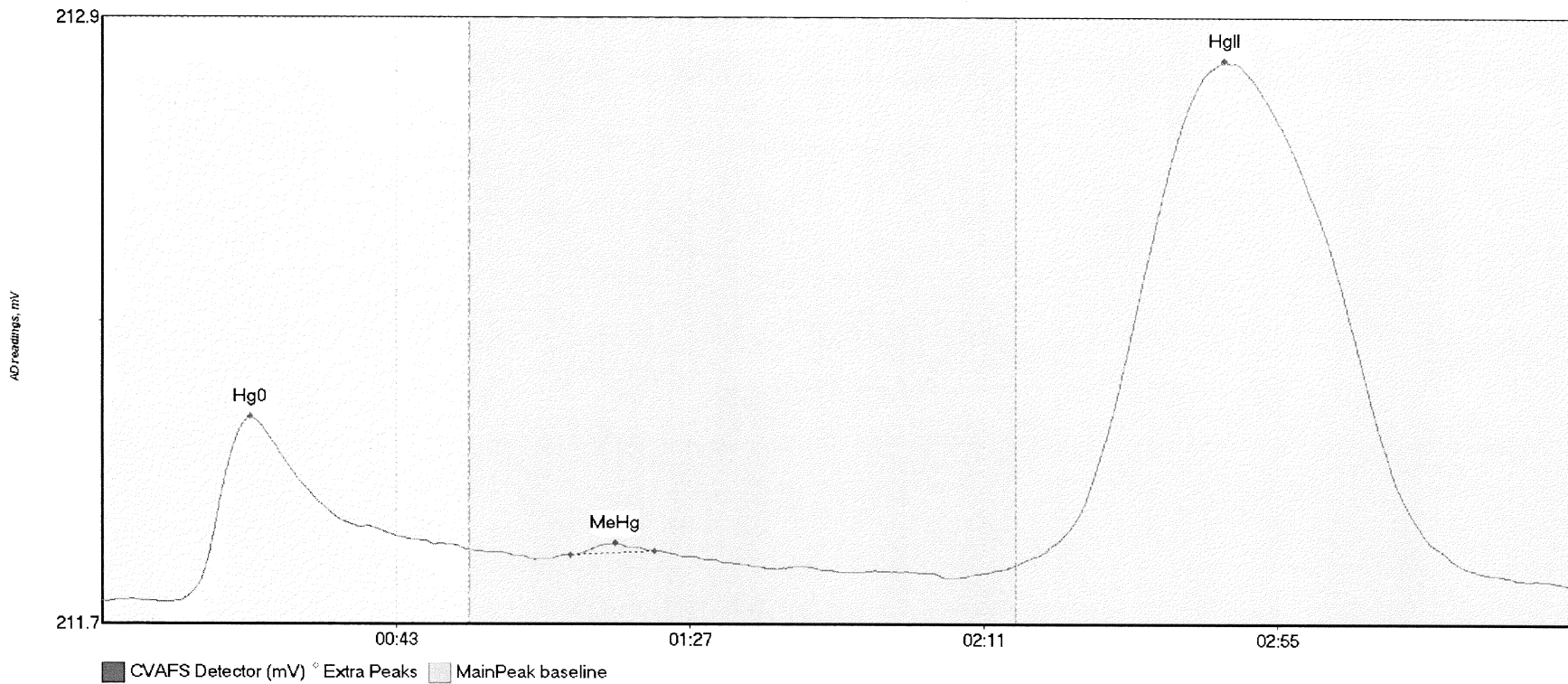
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710581-02 Hg0	5493.160	11.1	55.0	211.64	214.45	21.6	43.423	CT	211.6536	0.00	9.69	
1710581-02 MeHg	4959.624	63.3	130.9	213.85	212.47	77.5	26.322	OK	211.6536	0.00	9.69	
1710581-02 HgII	216093.962	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	

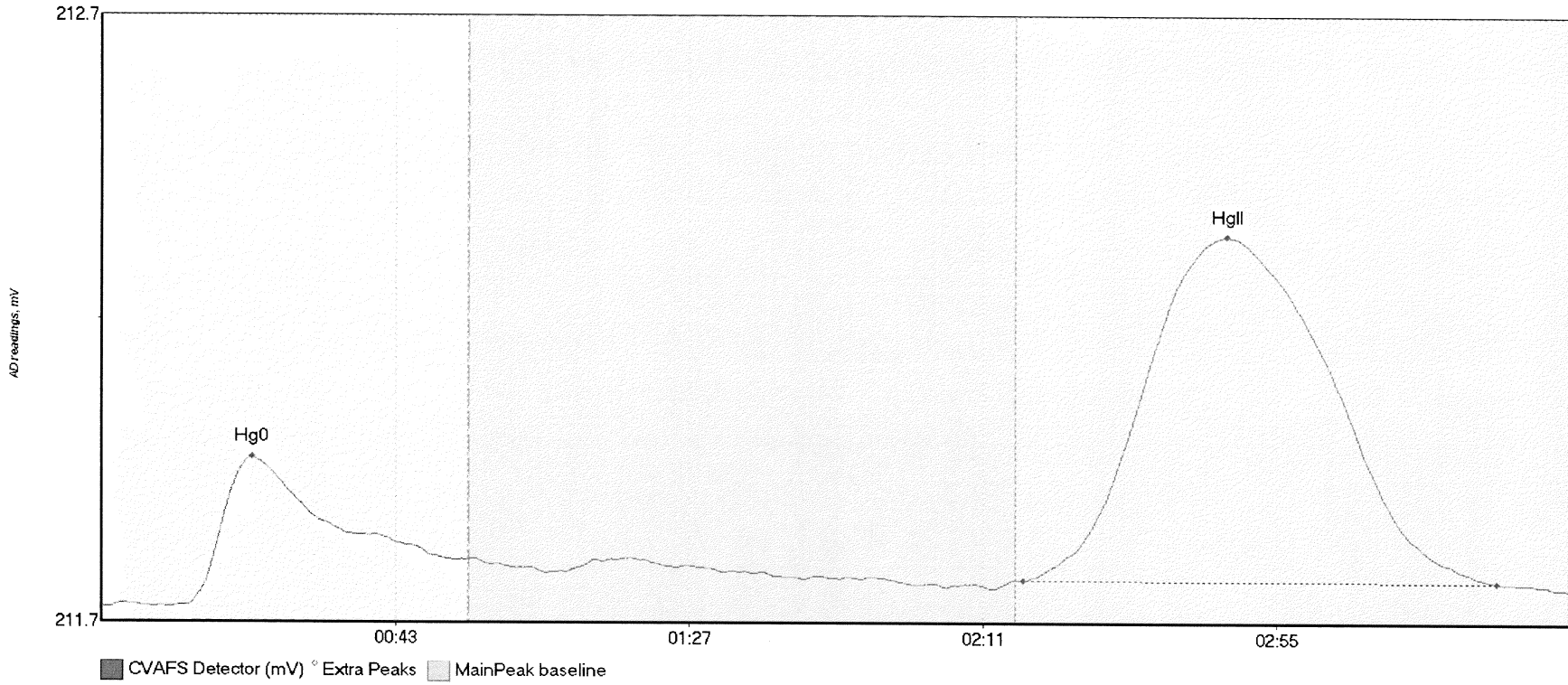
#46: SEQ-CCB3



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	

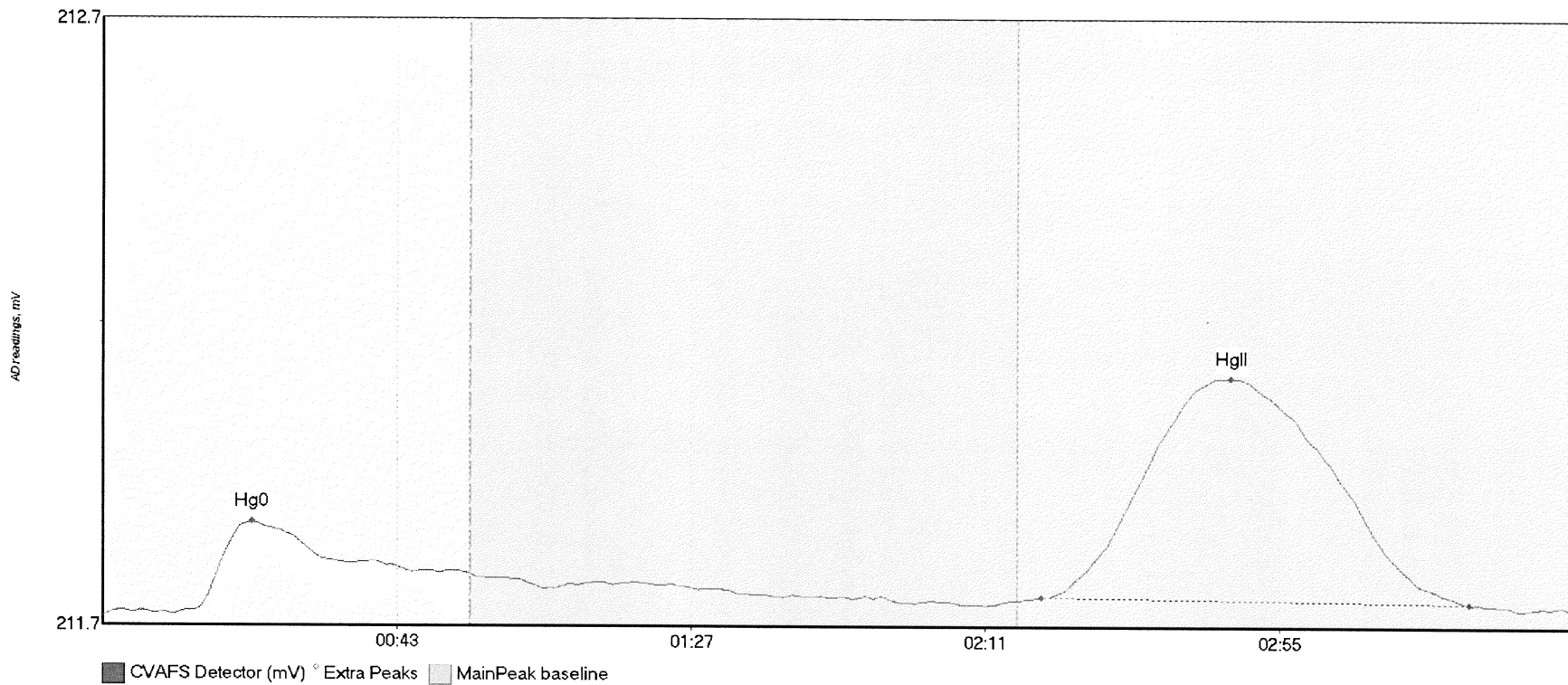
017

#47: F710421-BLK1



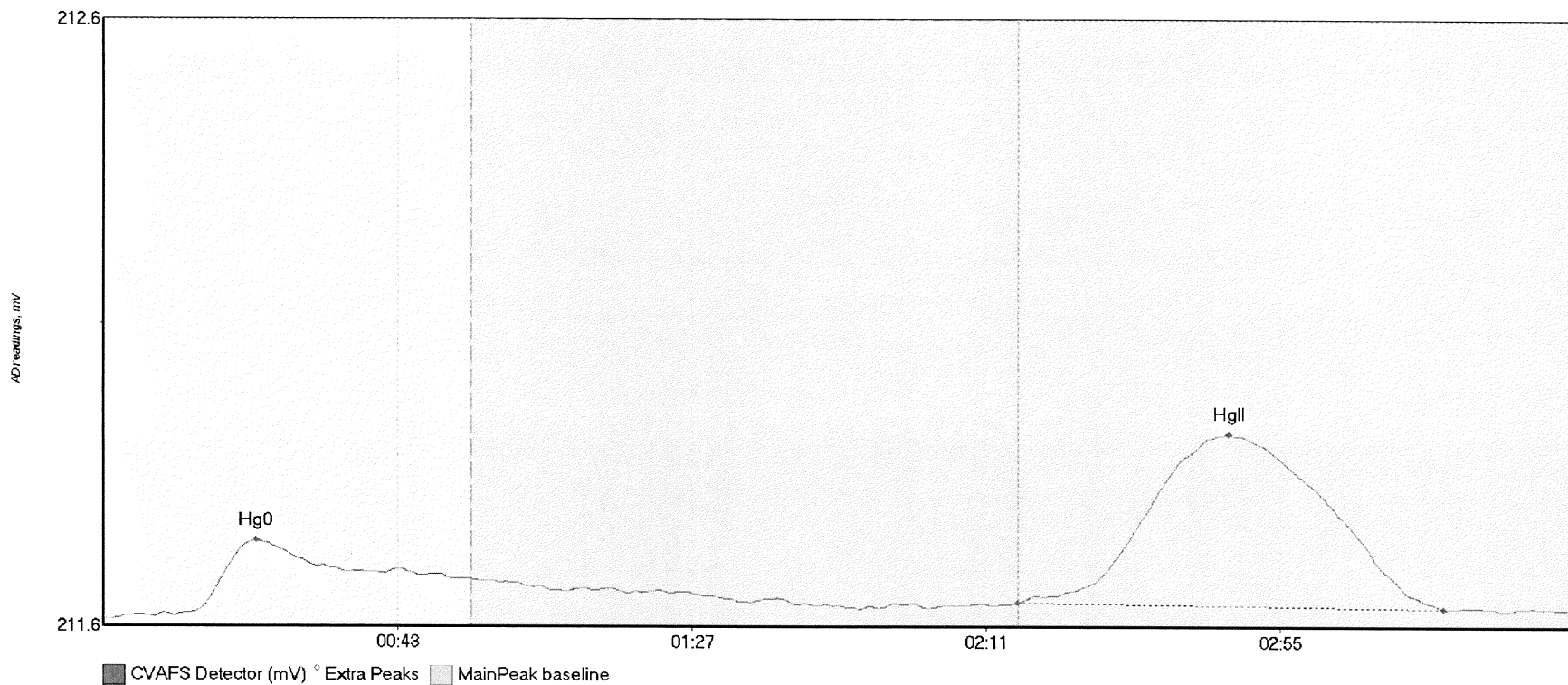
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK1 Hg	38.054	13.0	53.1	211.68	211.76	22.6	0.244	OK	211.6825	0.00	0.03	
F710421-BLK1 Hg	181.212	138.0	209.0	211.73	211.72	168.6	0.569	OK	211.6825	0.00	0.03	017

#48: F710421-BLK2



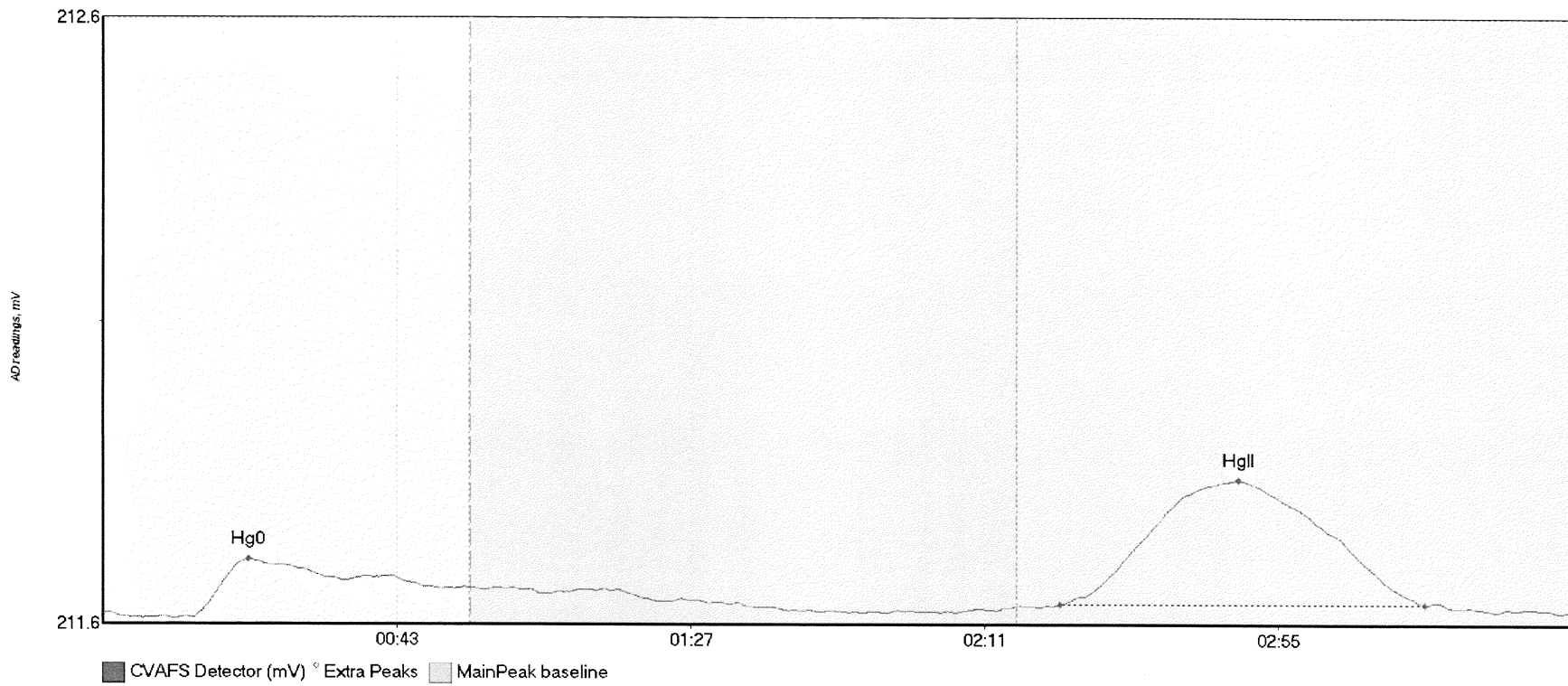
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK2 Hg	24.069	10.6	55.0	211.68	211.75	22.3	0.152	CT	211.6777	0.00	0.01	
F710421-BLK2 Hg	115.488	140.4	204.4	211.71	211.70	168.7	0.363	OK	211.6777	0.00	0.01	017

#49: F710421-BLK3



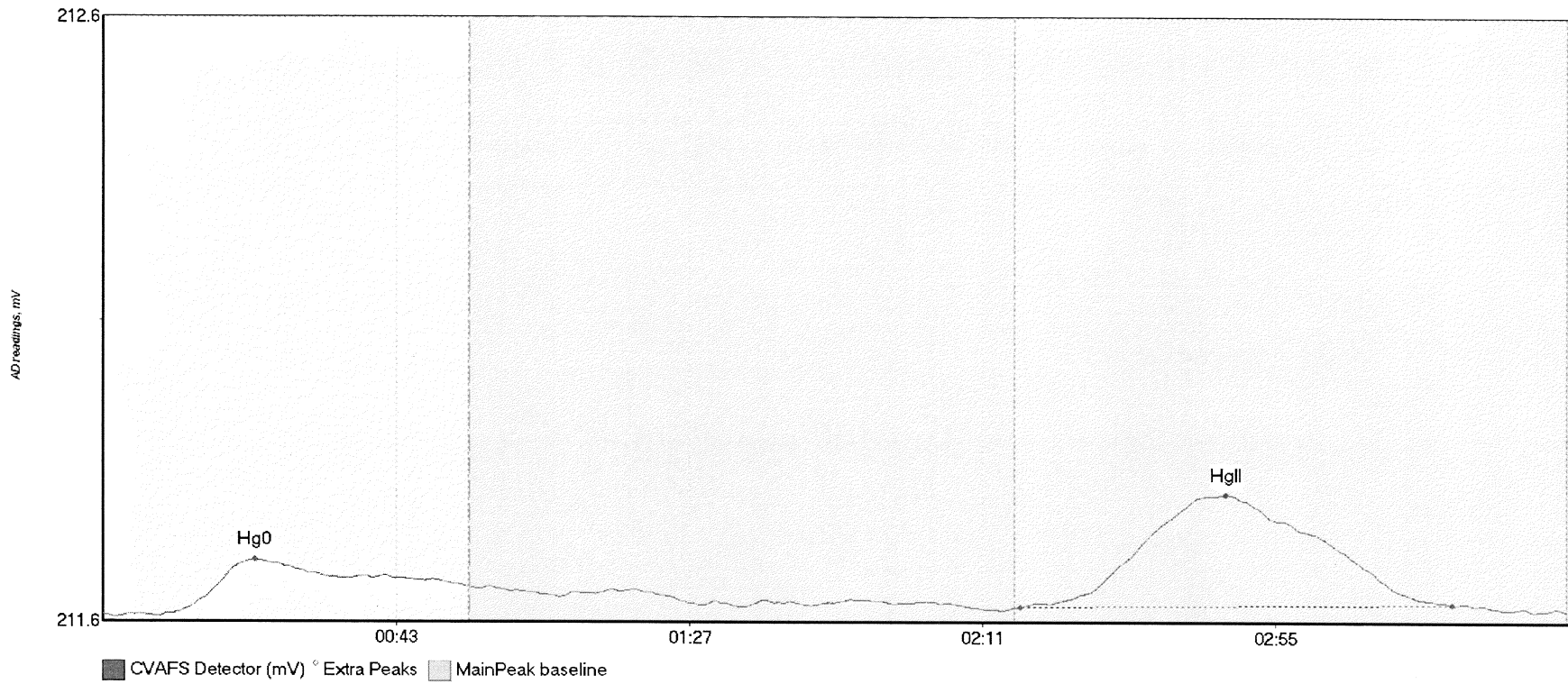
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK3 Hg	19.036	10.6	55.0	211.67	211.73	22.8	0.125	CT	211.6622	0.00	0.01	017
F710421-BLK3 Hg	85.796	136.8	200.4	211.69	211.68	168.3	0.279	OK	211.6622	0.00	0.01	

#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

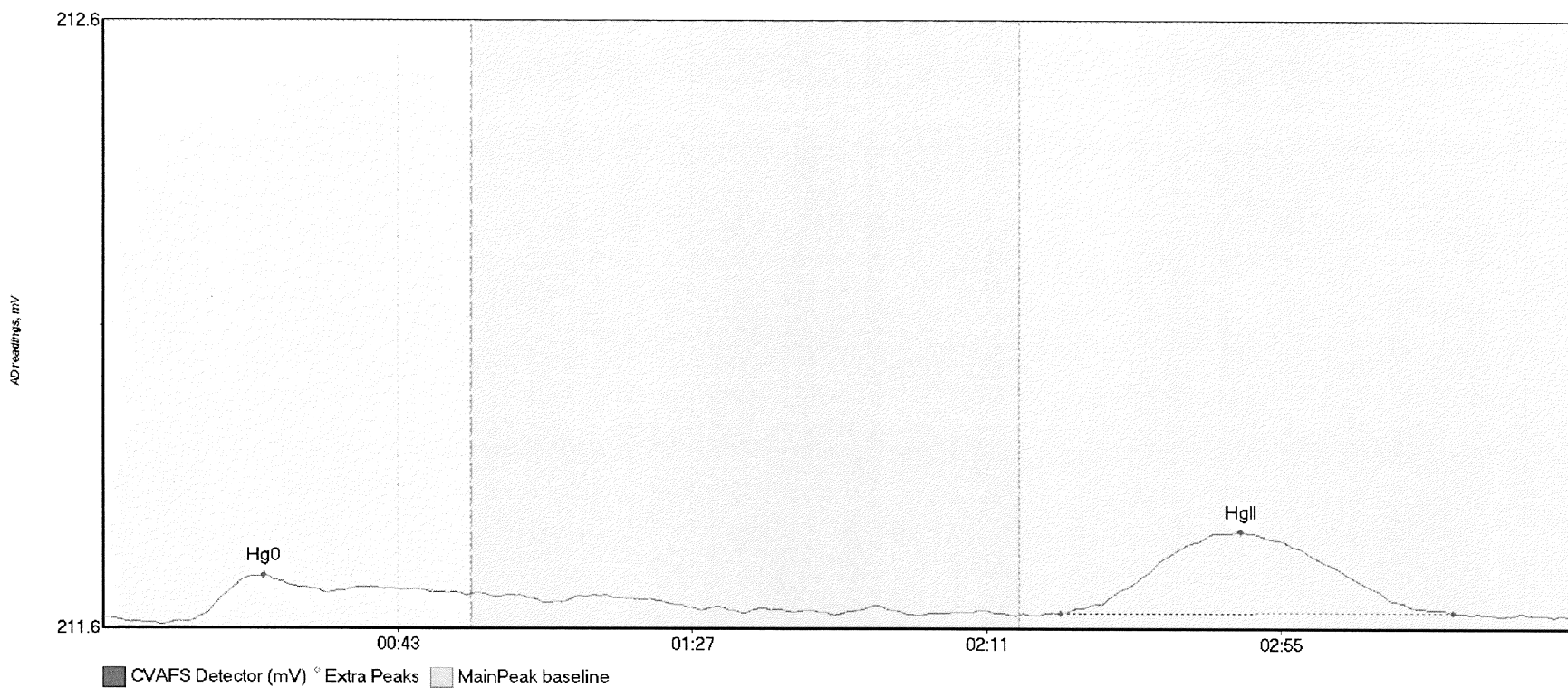
#51: \*F710421-BLK5



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

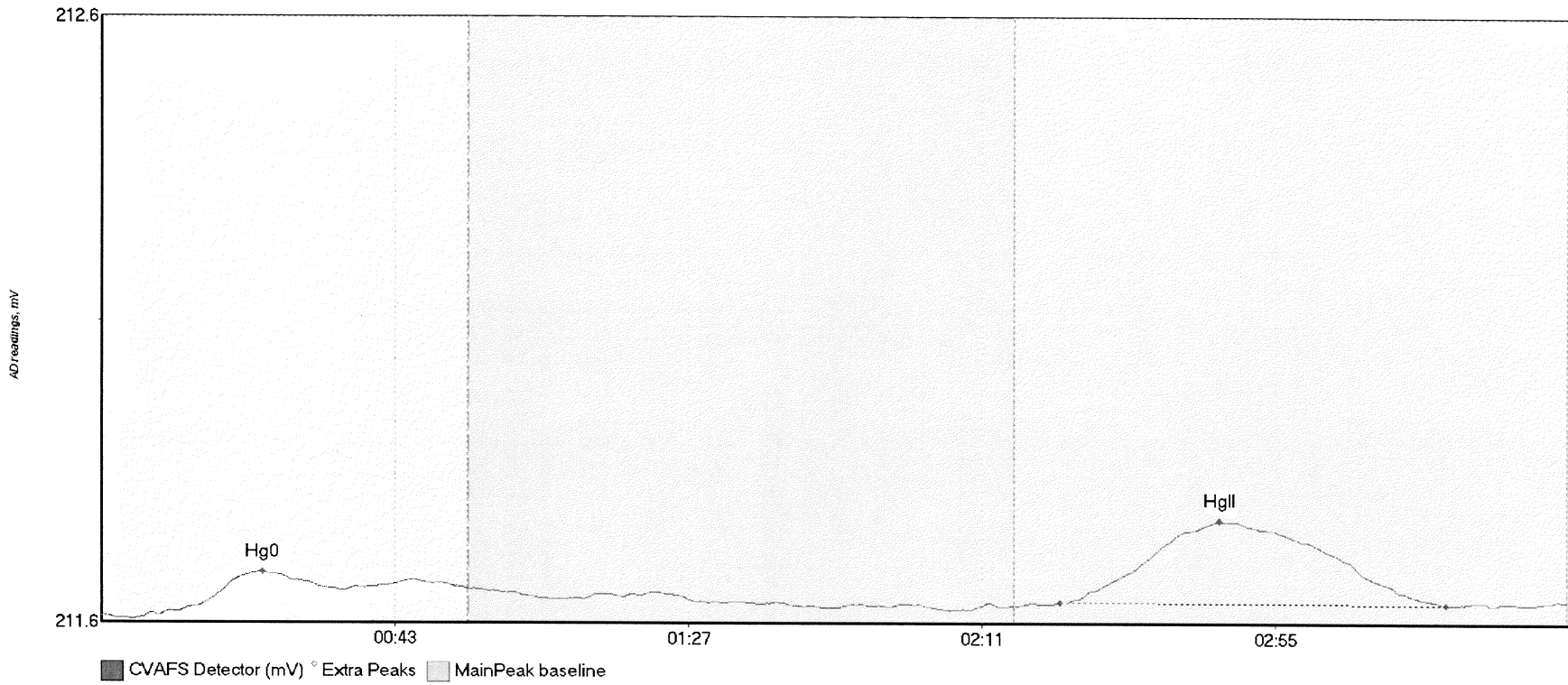


#52: \*F710421-BLK6



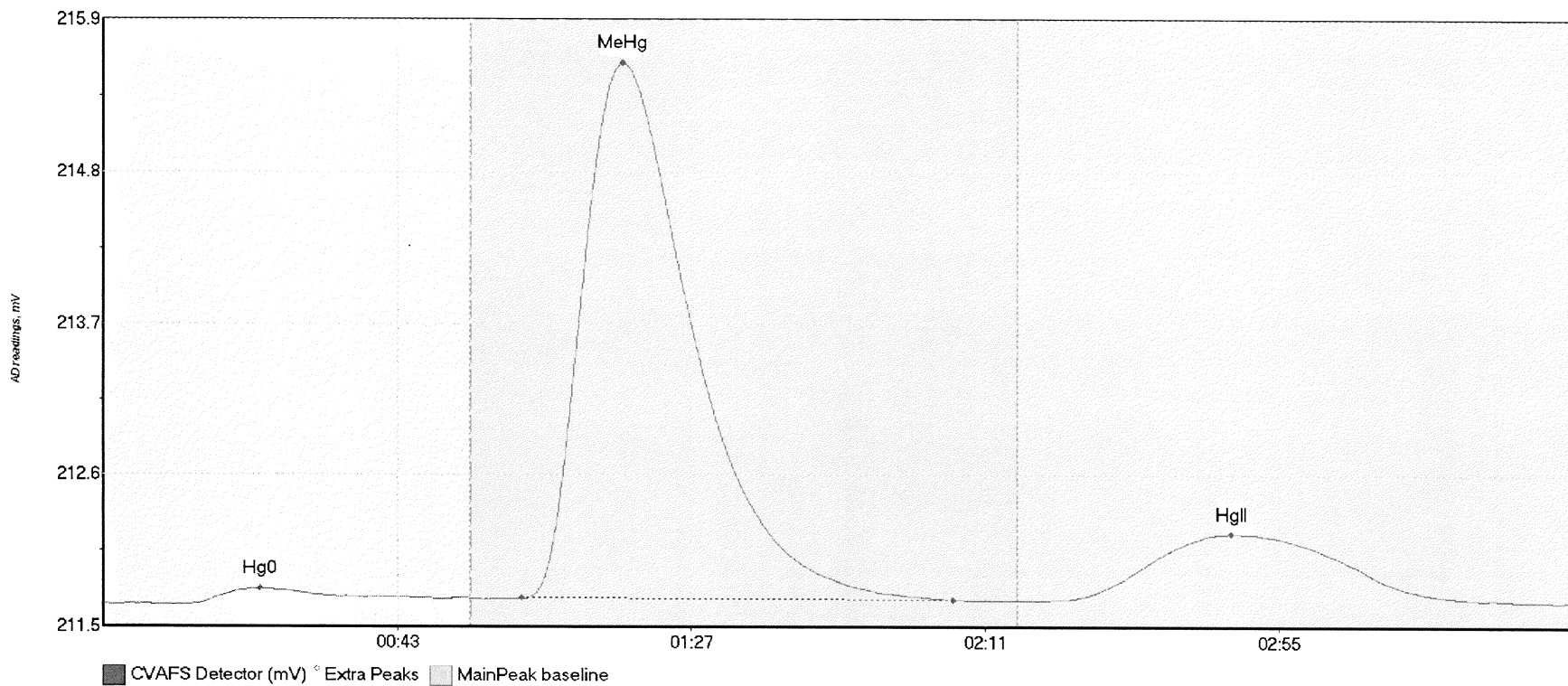
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK6 H	12.333	12.5	54.3	211.63	211.67	24.0	0.075	OK	211.6361	0.00	0.00	
*F710421-BLK6 H	39.383	143.0	201.8	211.64	211.64	170.1	0.135	OK	211.6361	0.00	0.00	017

#53: \*F710421-BLK7



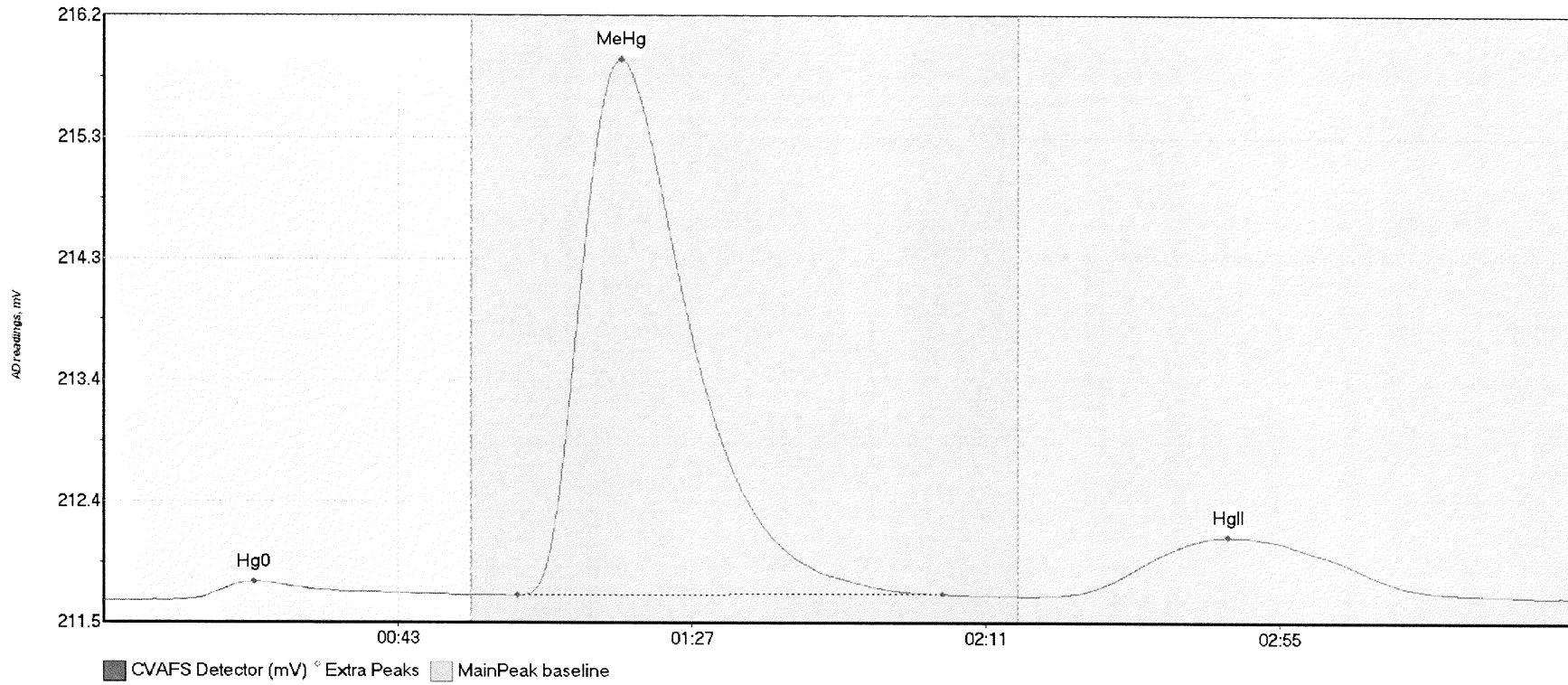
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLK7 H	6.190	8.5	36.5	211.63	211.67	24.2	0.071	OK	211.6297	0.00	0.02	017
*F710421-BLK7 H	41.400	143.7	201.6	211.65	211.65	167.6	0.135	OK	211.6297	0.00	0.02	

#54: F710421-BS1



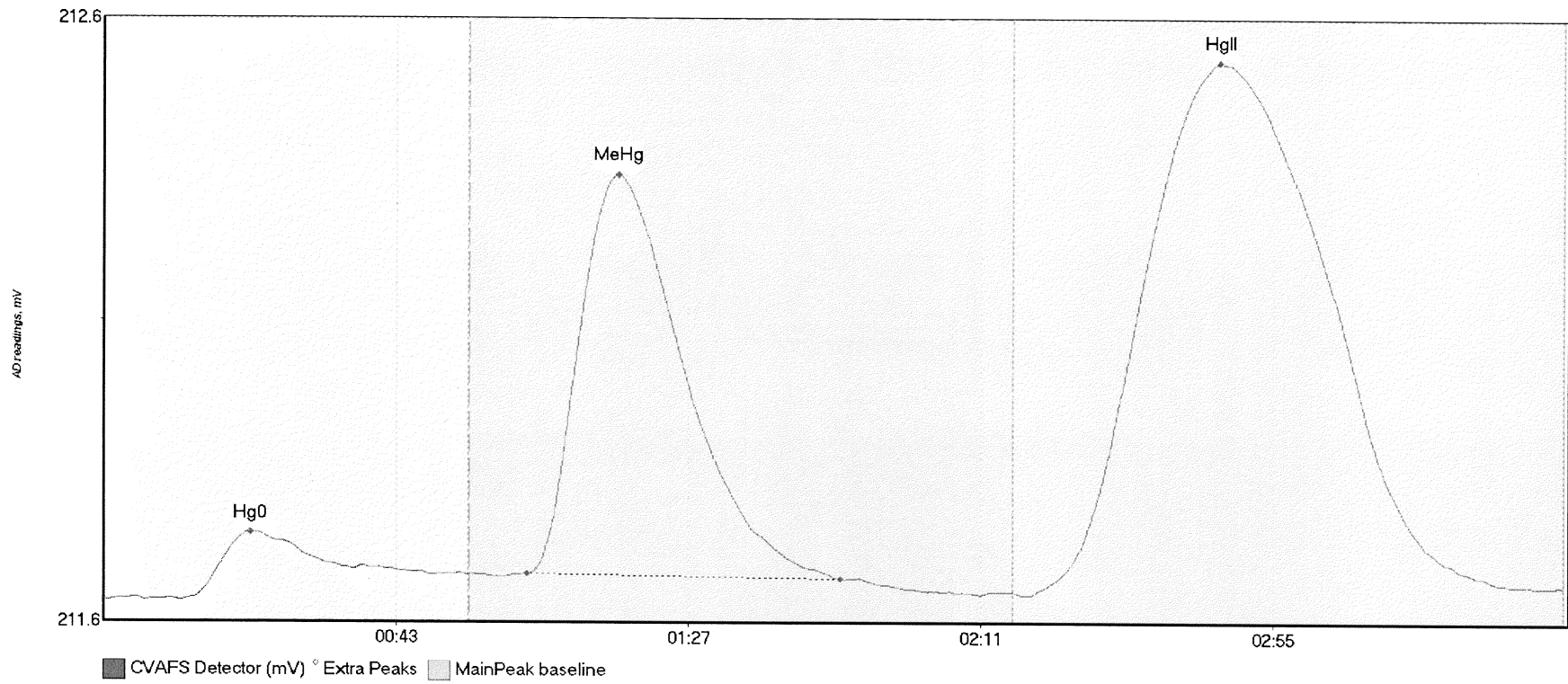
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS1 Hg0	17.579	11.6	51.2	211.63	211.68	23.4	0.117	OK	211.6401	0.00	0.01	
F710421-BS1 MeH	748.685	62.6	127.2	211.68	211.67	77.8	3.907	OK	211.6401	0.00	0.01	
F710421-BS1 HgI	152.588	143.1	206.4	211.67	211.67	168.9	0.483	OK	211.6401	0.00	0.01	

#55: F710421-BSD1



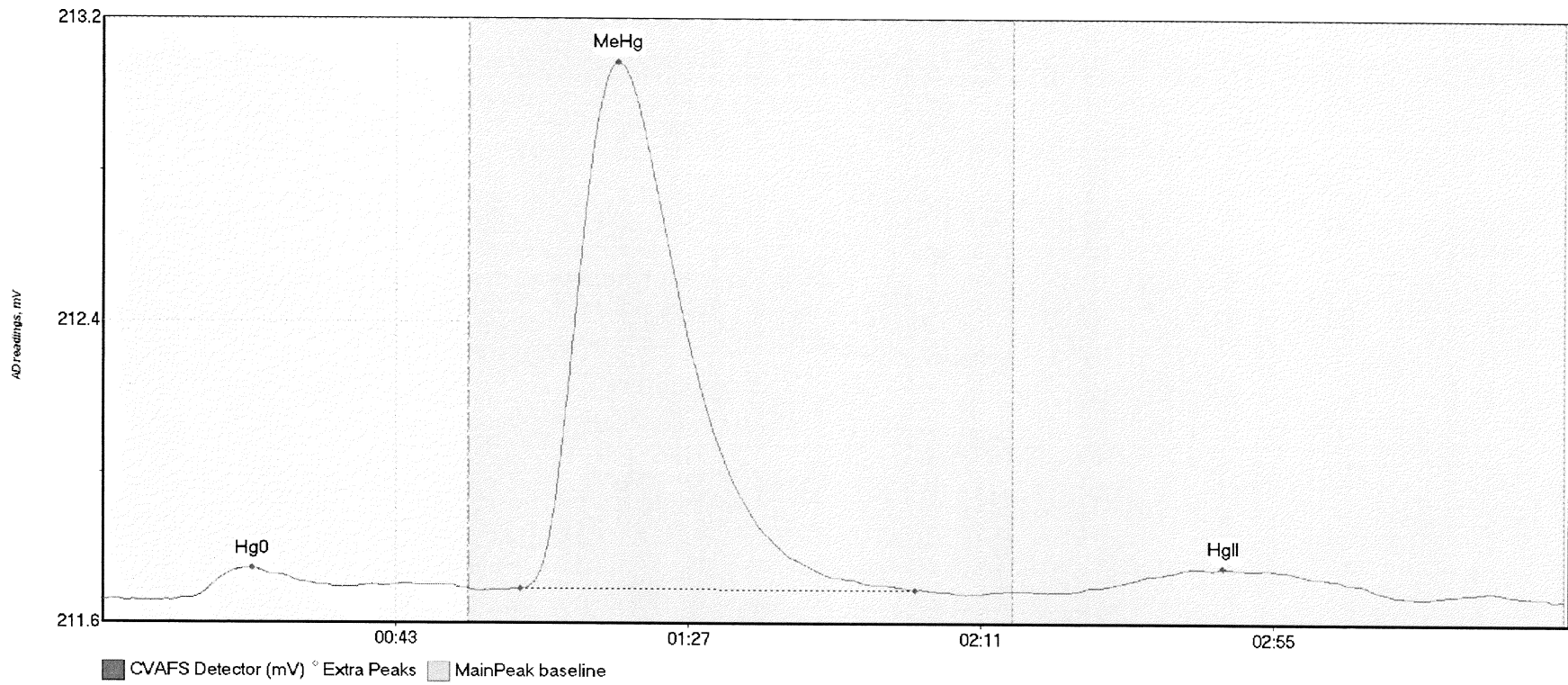
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD1 Hg	22.783	4.6	53.2	211.63	211.67	22.5	0.151	OK	211.6252	0.00	0.03	
F710421-BSD1 Me	801.005	61.9	125.6	211.67	211.68	77.4	4.238	OK	211.6252	0.00	0.03	
F710421-BSD1 Hg	145.792	141.4	209.7	211.67	211.66	168.3	0.469	OK	211.6252	0.00	0.03	

#56: F710421-DUP1



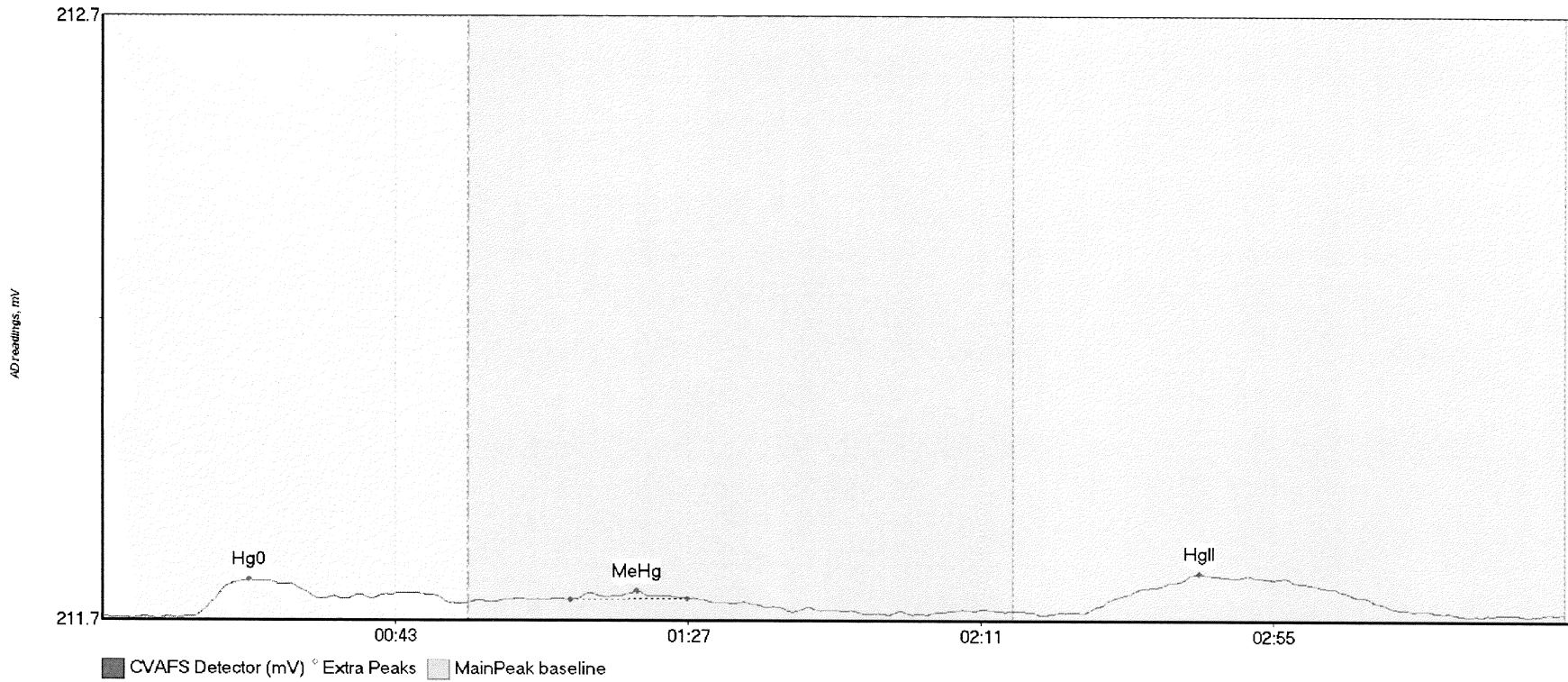
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-DUP1 Hg	15.733	13.3	49.3	211.64	211.68	22.2	0.111	OK	211.6369	0.00	0.02	
F710421-DUP1 Me	123.296	63.7	110.9	211.68	211.67	77.5	0.676	OK	211.6369	0.00	0.02	
F710421-DUP1 Hg	282.212	139.3	216.1	211.65	211.66	168.1	0.903	OK	211.6369	0.00	0.02	

#57: SEQ-CCV4



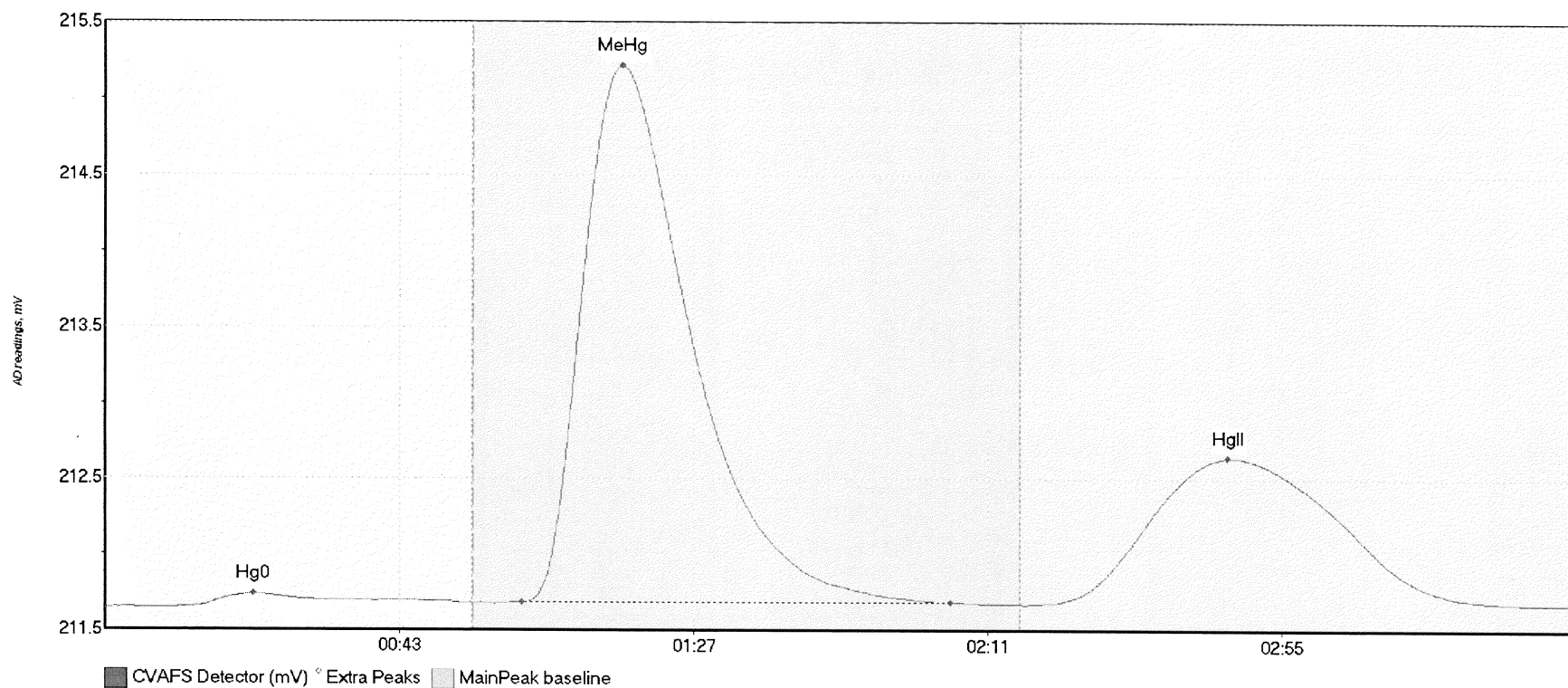
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	12.313	13.0	55.0	211.66	211.68	22.4	0.080	CT	211.6535	0.00	0.00	
SEQ-CCV4 MeHg	259.543	62.7	122.1	211.68	211.68	77.3	1.400	OK	211.6535	0.00	0.00	
SEQ-CCV4 HgII	20.361	146.1	194.3	211.68	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	

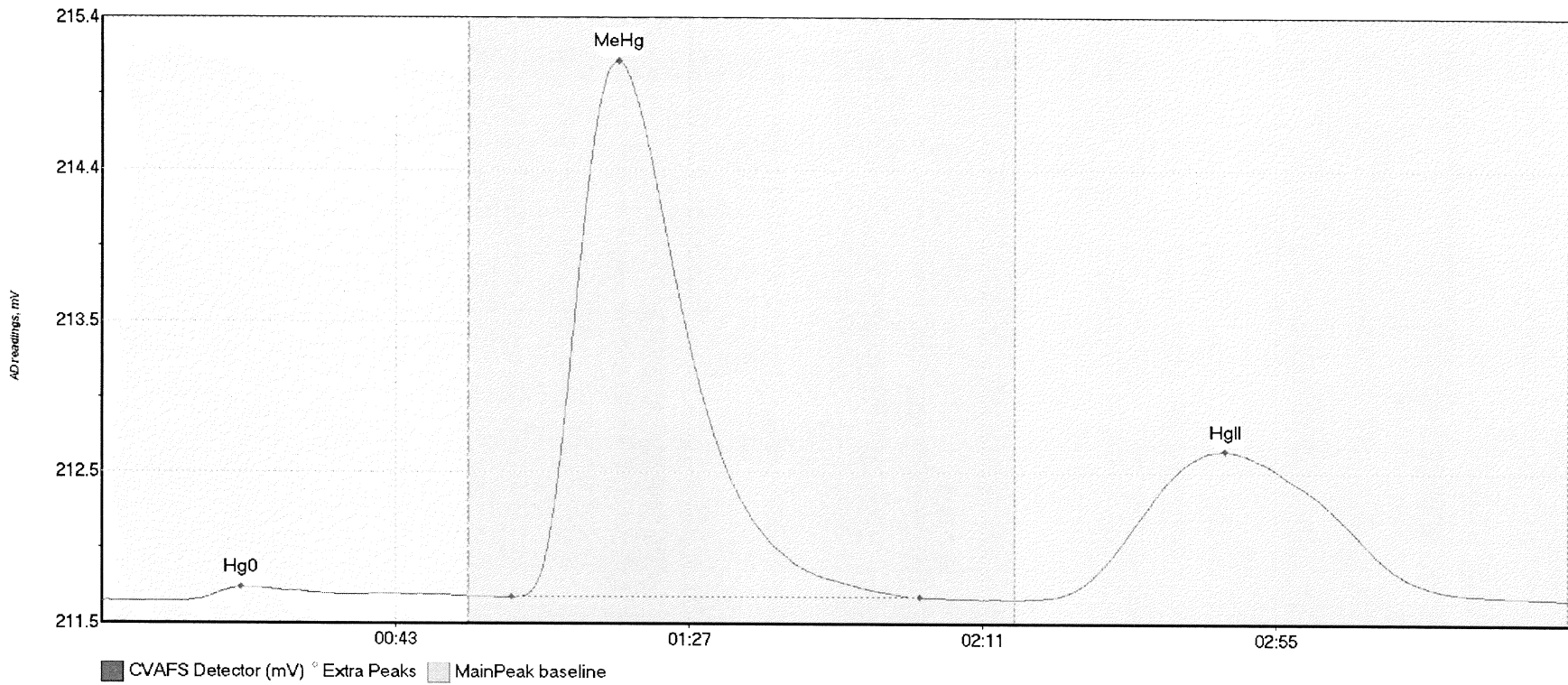
#59: F710421-MS1



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	

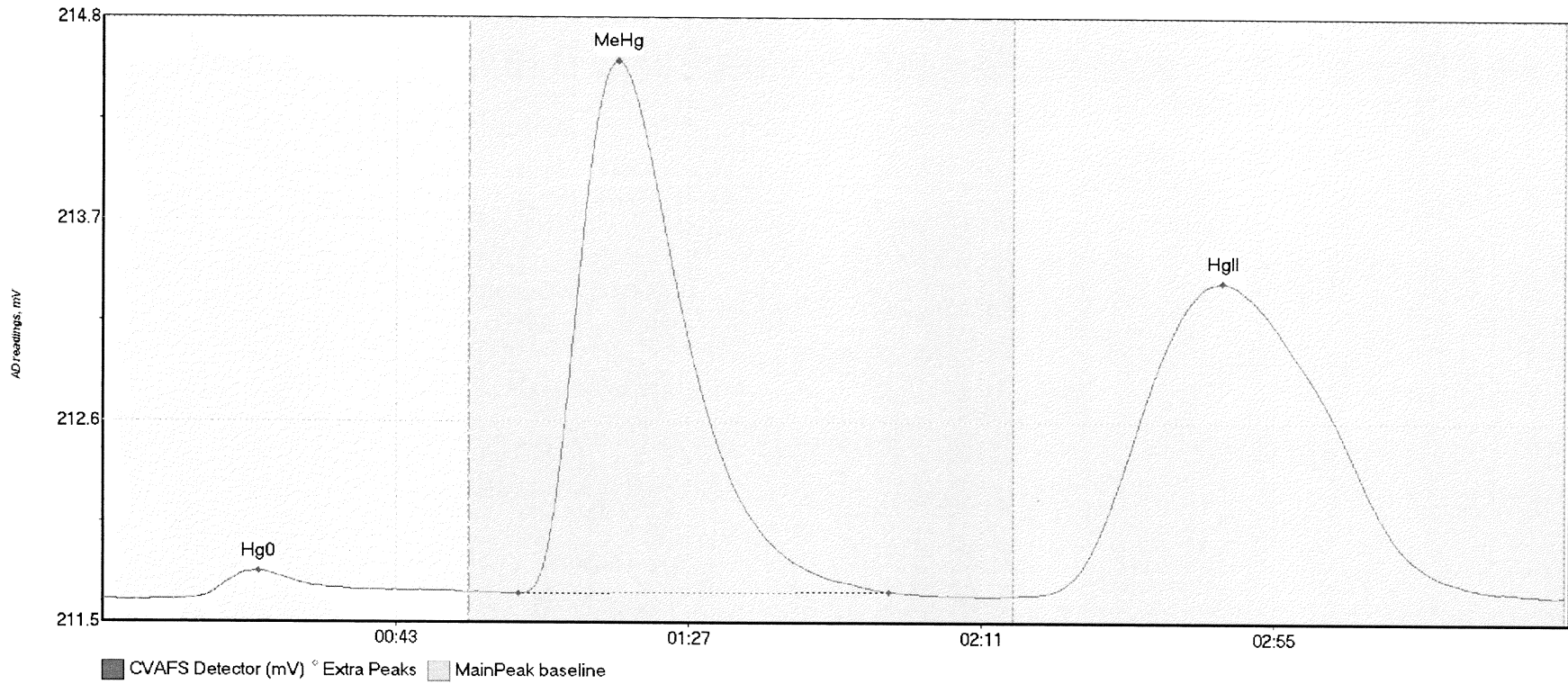


#60: F710421-MSD1



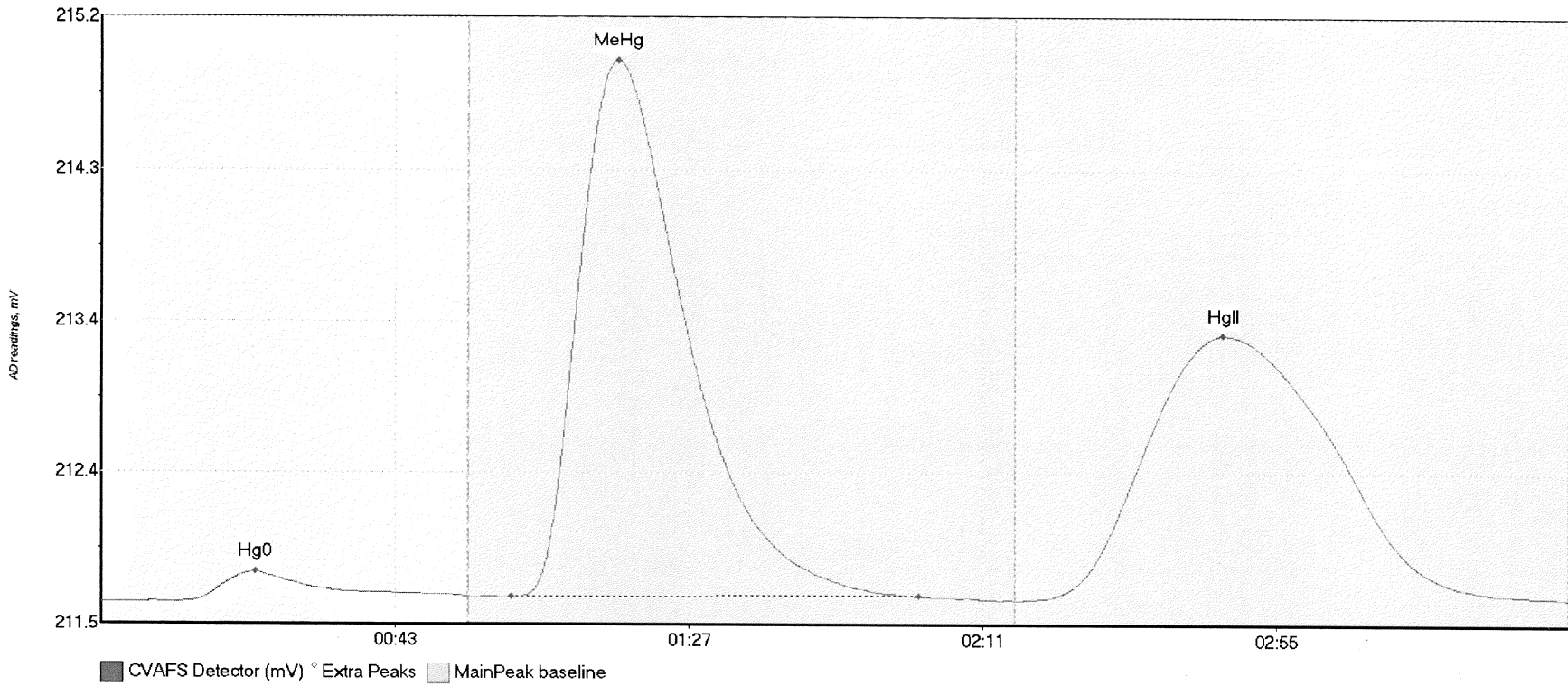
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD1 Hg	15.163	11.9	54.9	211.65	211.69	20.8	0.089	OK	211.6596	0.00	0.02	
F710421-MSD1 Me	645.432	61.5	122.6	211.68	211.68	77.4	3.437	OK	211.6596	0.00	0.02	
F710421-MSD1 Hg	302.804	137.6	219.5	211.67	211.67	168.4	0.957	OK	211.6596	0.00	0.02	

#61: F710421-MS2



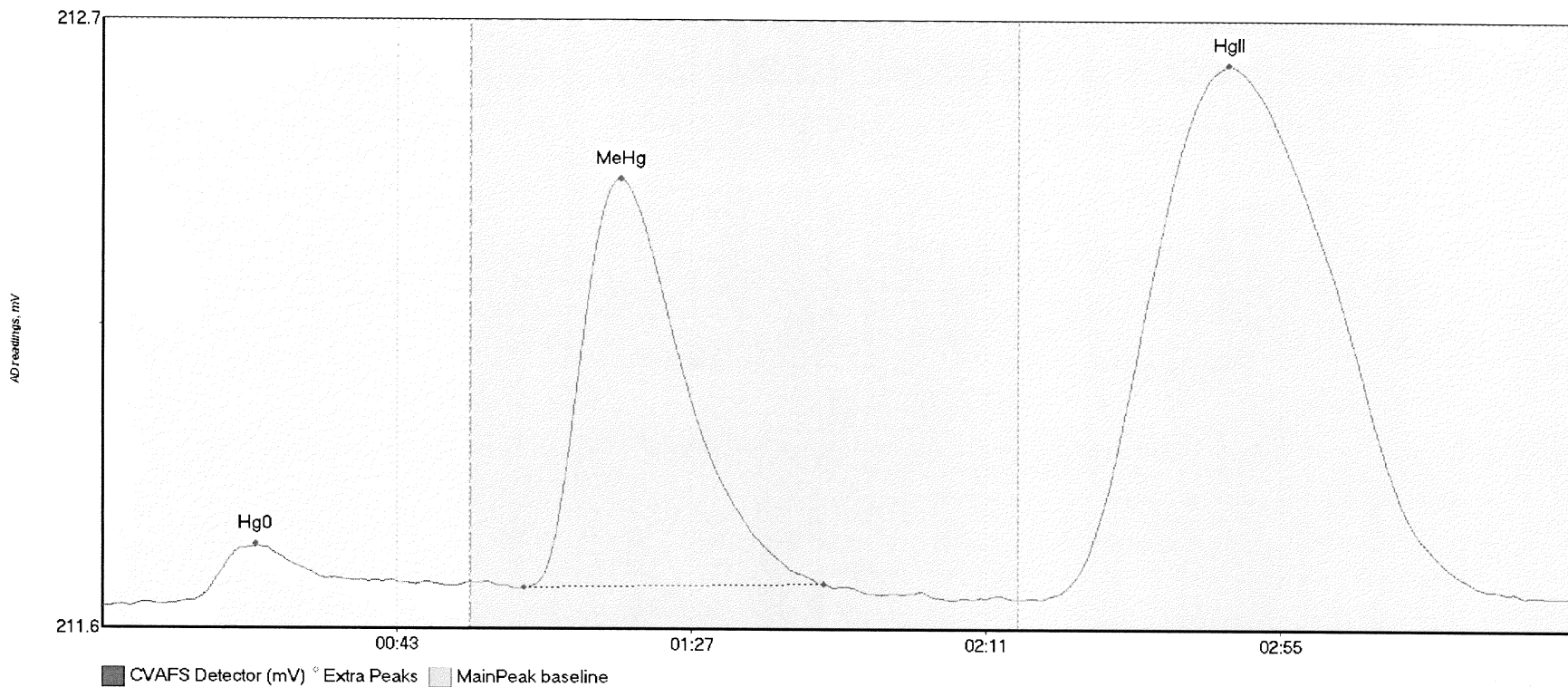
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS2 Hg0	21.643	10.7	54.9	211.65	211.69	23.4	0.152	OK	211.6515	0.00	0.02	
F710421-MS2 MeH	526.770	62.4	118.2	211.68	211.69	77.4	2.854	OK	211.6515	0.00	0.02	
F710421-MS2 HgI	525.813	140.1	216.9	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	

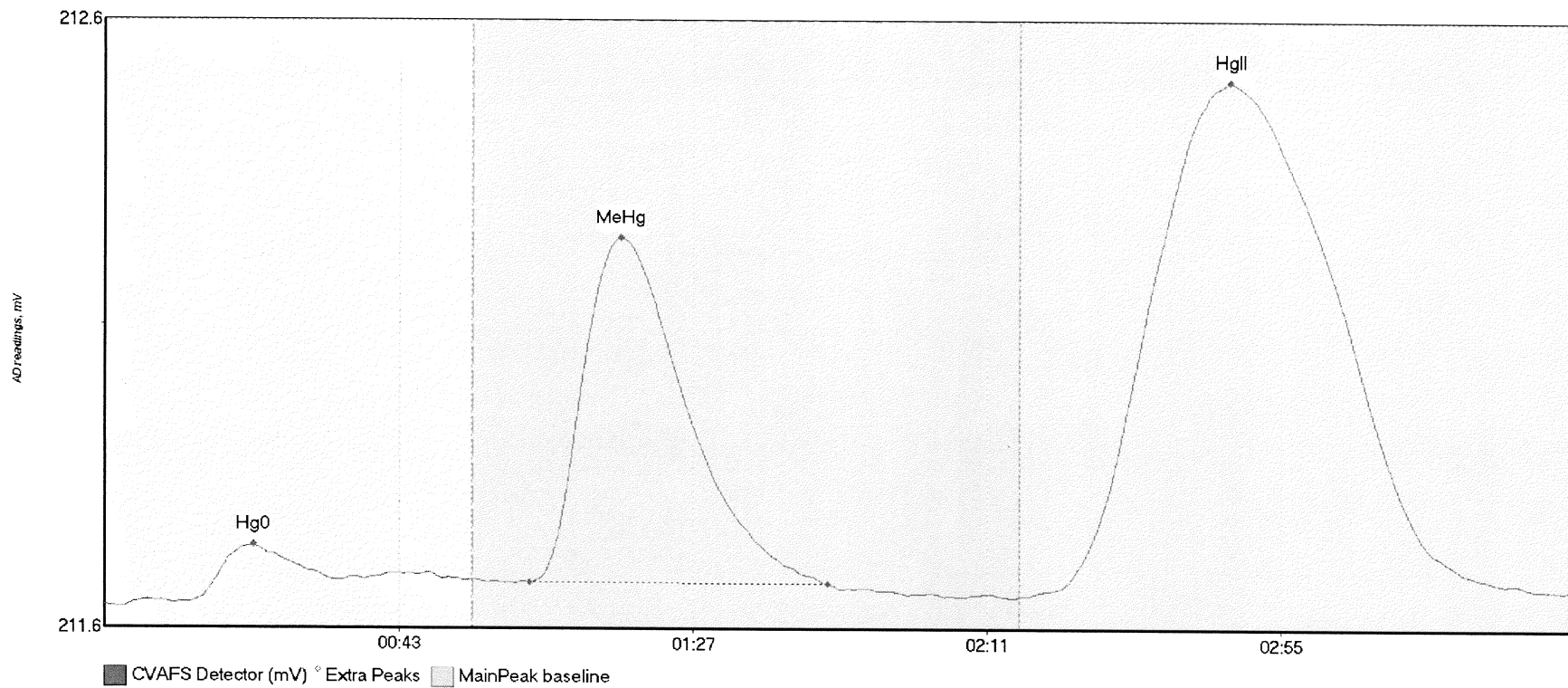
#63: 1708118-01



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	

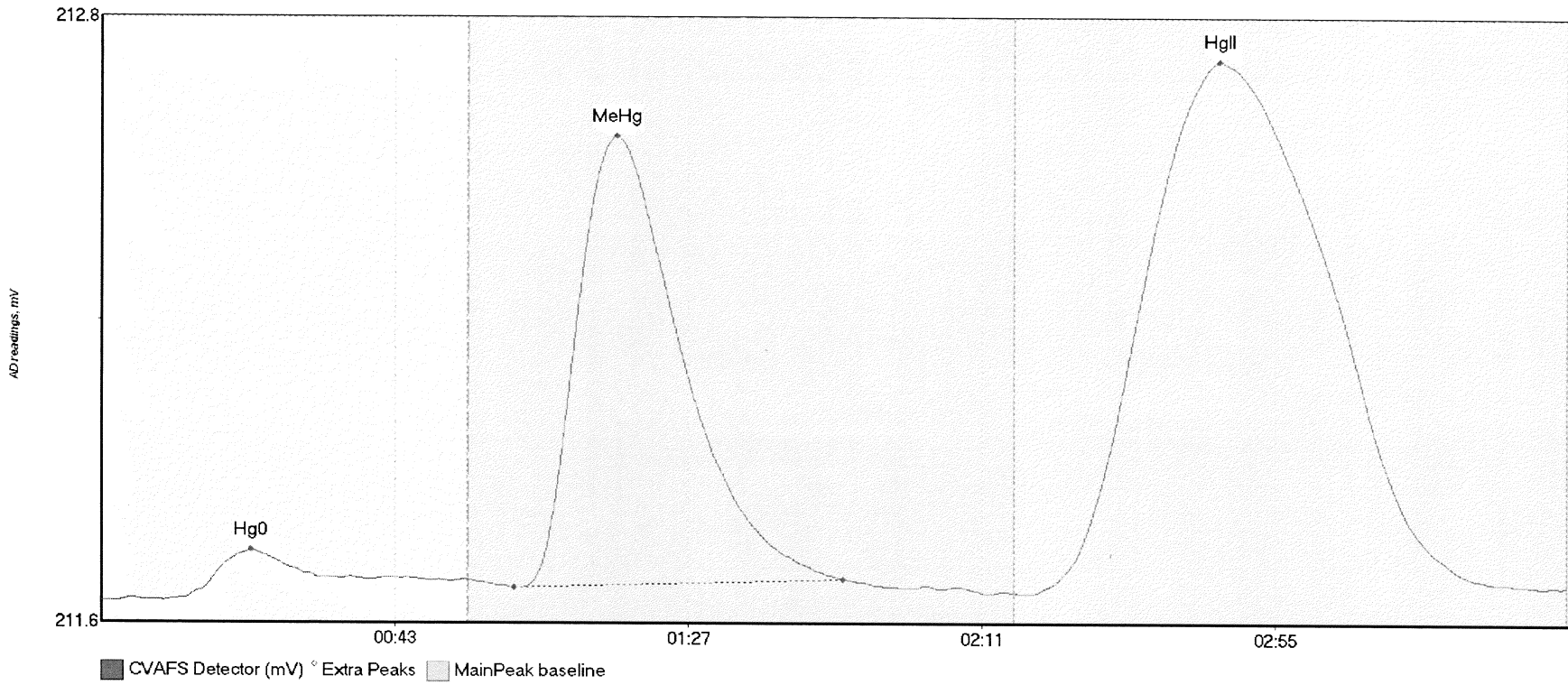
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#64: 1708118-02



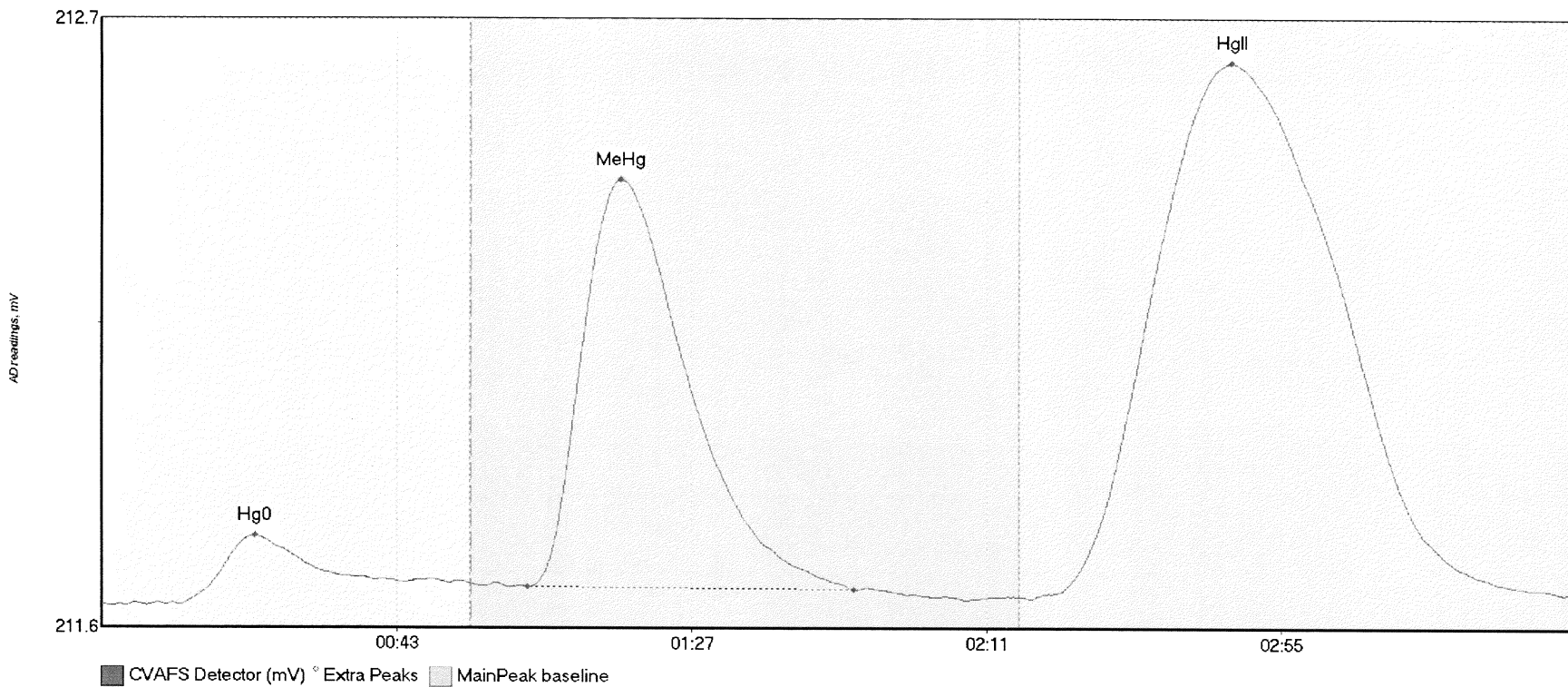
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-02 Hg0	13.315	10.5	53.9	211.63	211.67	22.3	0.095	OK	211.6255	0.00	0.03	
1708118-02 MeHg	100.642	63.6	108.2	211.66	211.66	77.2	0.567	OK	211.6255	0.00	0.03	
1708118-02 HgII	264.955	138.3	218.1	211.64	211.65	168.3	0.847	OK	211.6255	0.00	0.03	

#65: 1708118-03



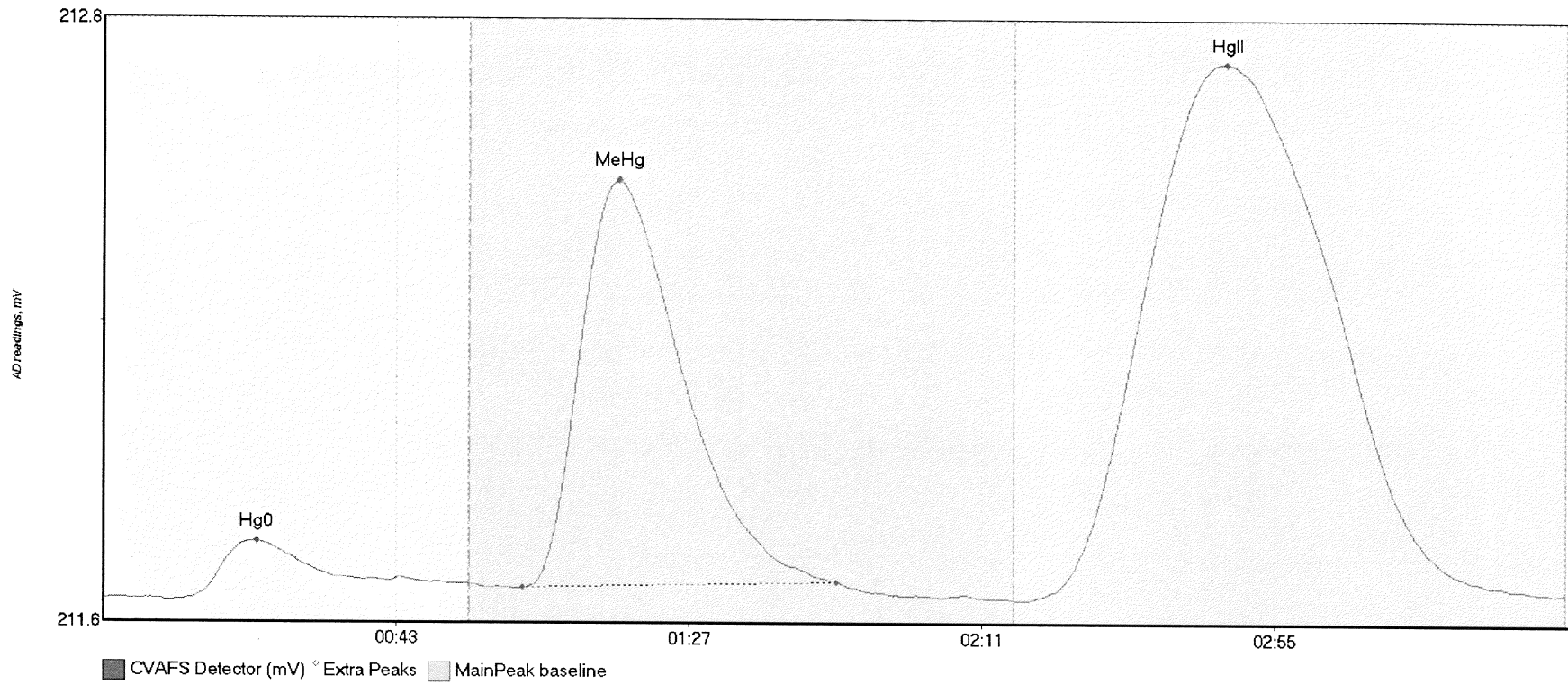
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-03 Hg0	13.022	11.0	52.3	211.62	211.65	22.4	0.096	OK	211.6130	0.00	0.03	
1708118-03 MeHg	161.906	61.9	111.1	211.64	211.66	77.3	0.900	OK	211.6130	0.00	0.03	
1708118-03 HgII	330.356	139.9	216.3	211.63	211.64	167.6	1.059	OK	211.6130	0.00	0.03	017

#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	

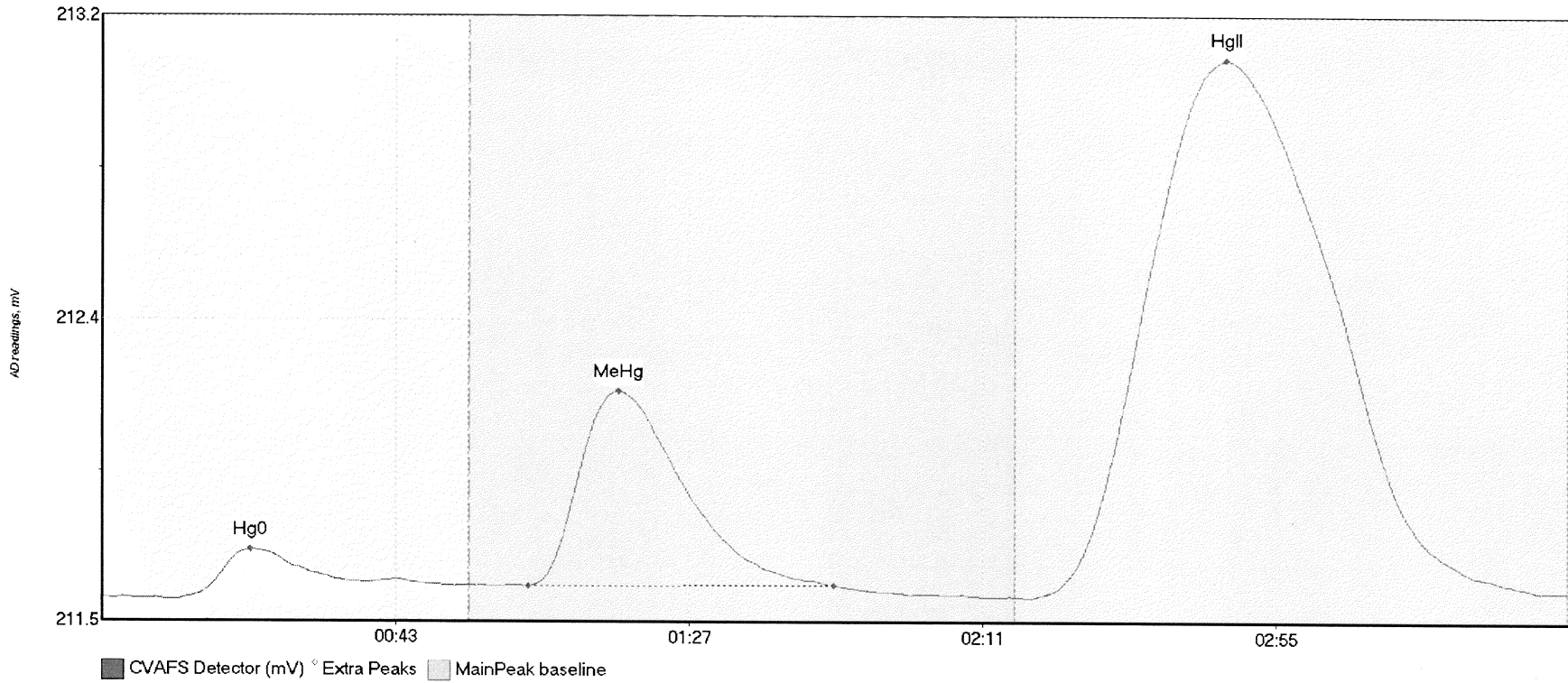
#67: 1708118-05



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	



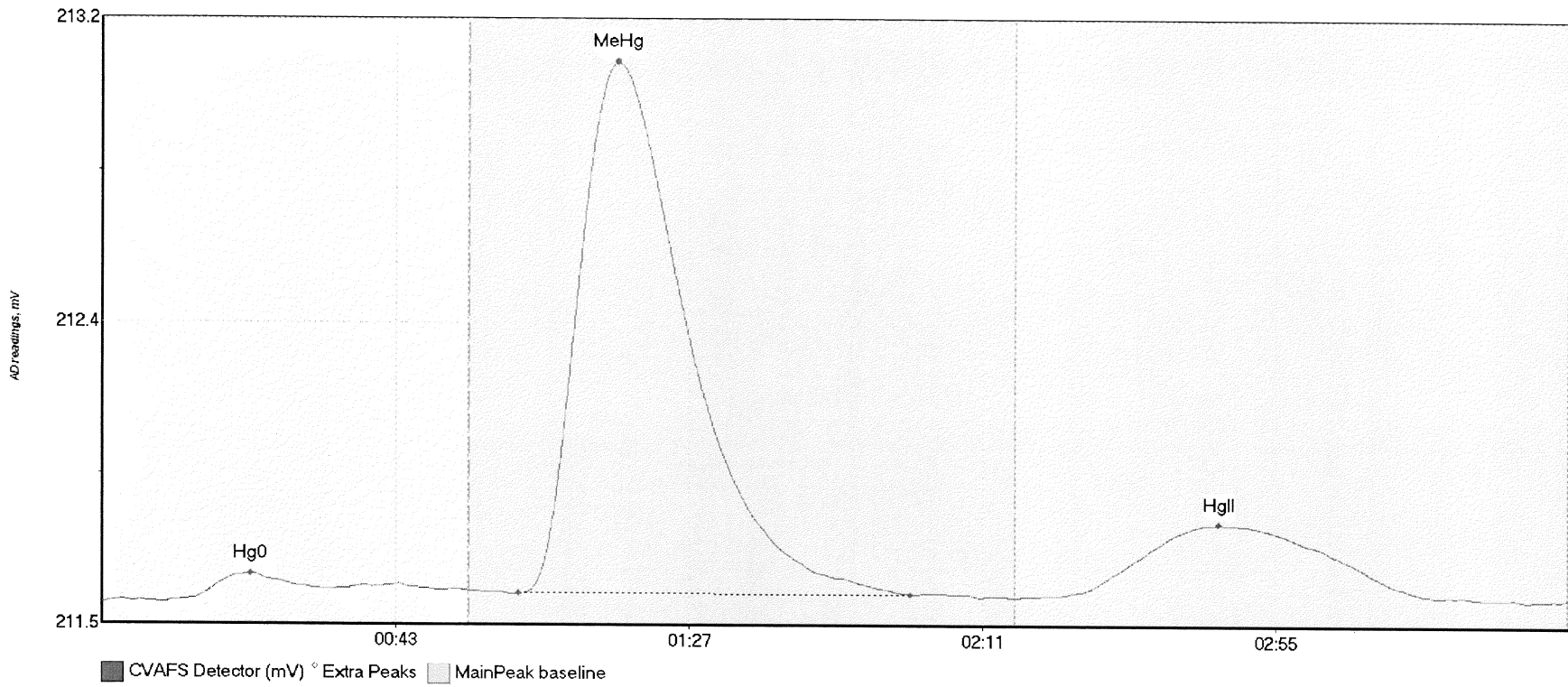
#68: 1708240-01



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	

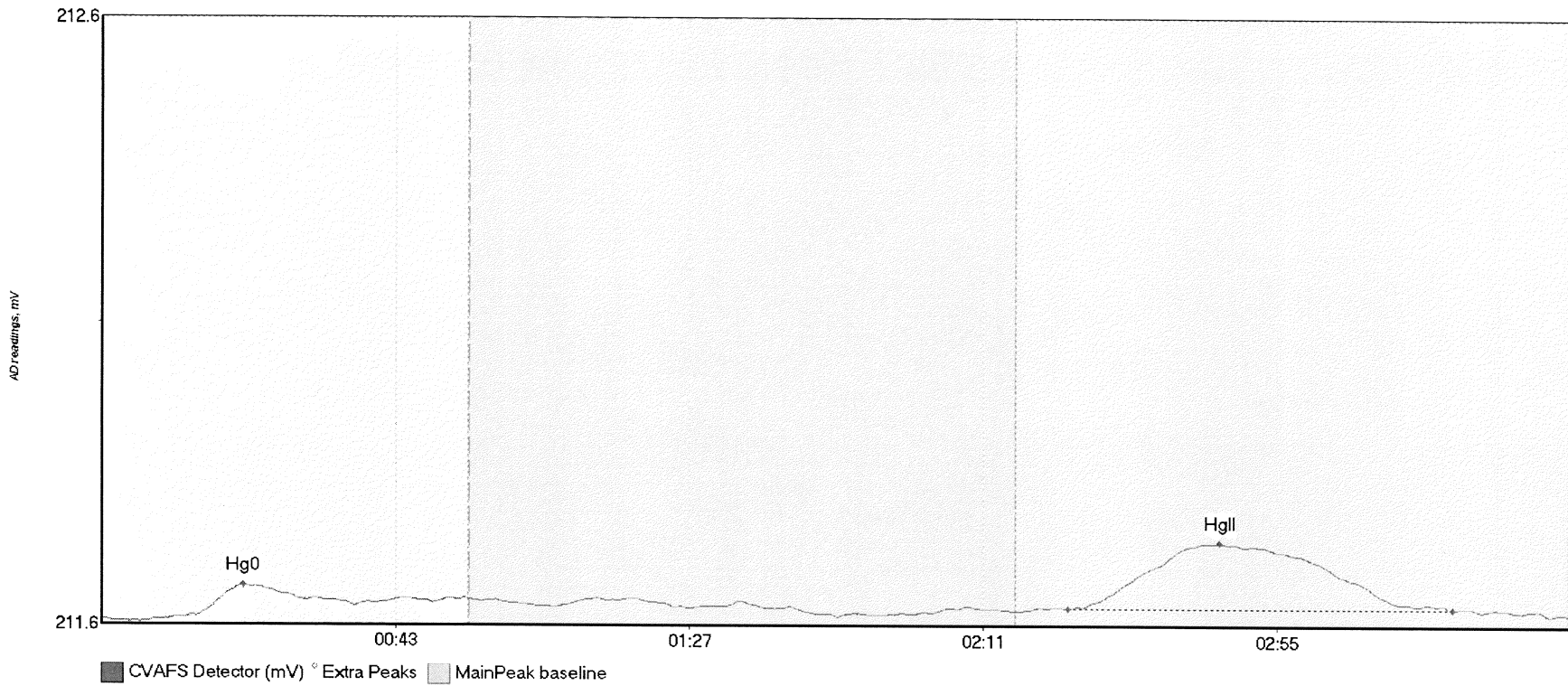
017

#69: SEQ-CCV5



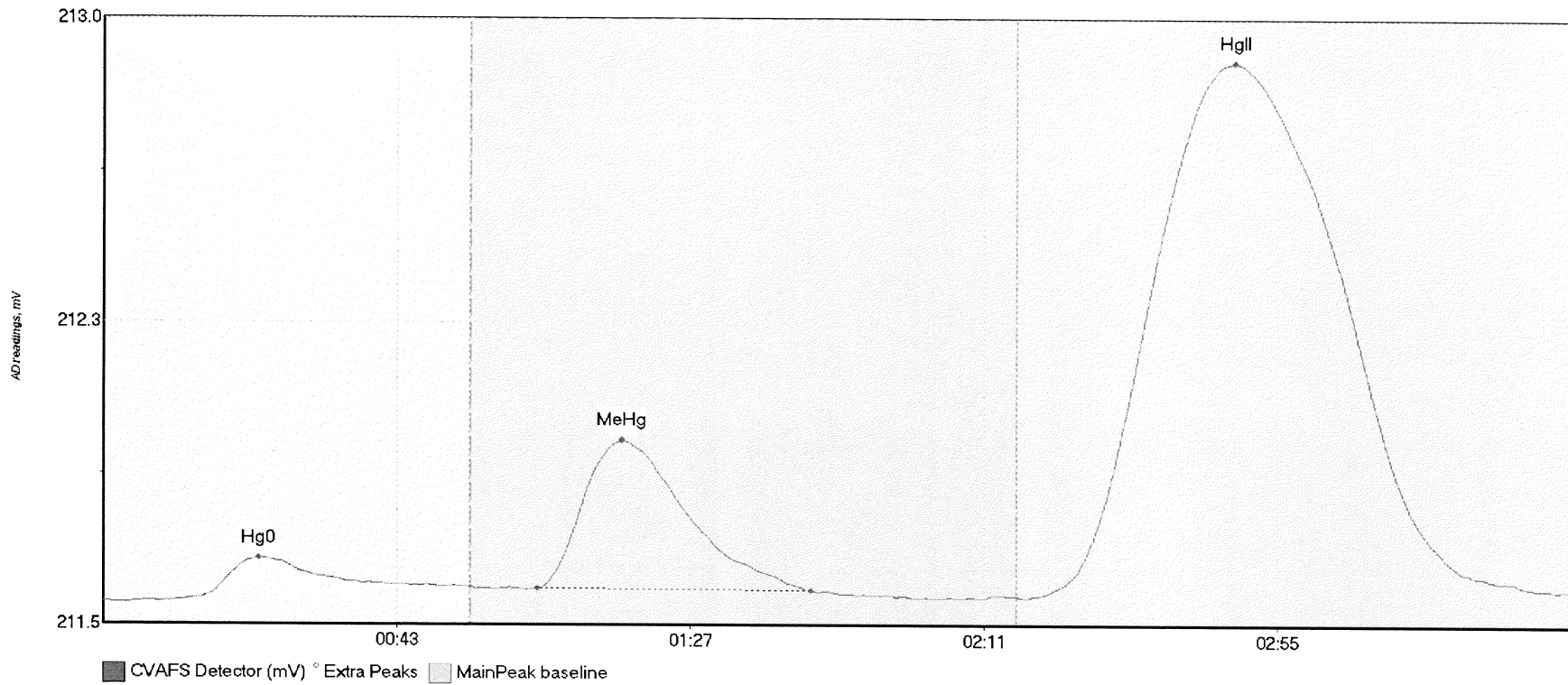
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	10.783	11.3	55.0	211.60	211.63	22.3	0.070	CT	211.6004	0.00	0.01	
SEQ-CCV5 MeHg	266.989	62.4	121.2	211.62	211.62	77.3	1.423	OK	211.6004	0.00	0.01	017
SEQ-CCV5 HgII	59.163	142.9	200.3	211.62	211.62	167.5	0.192	OK	211.6004	0.00	0.01	

#70: SEQ-CCB5



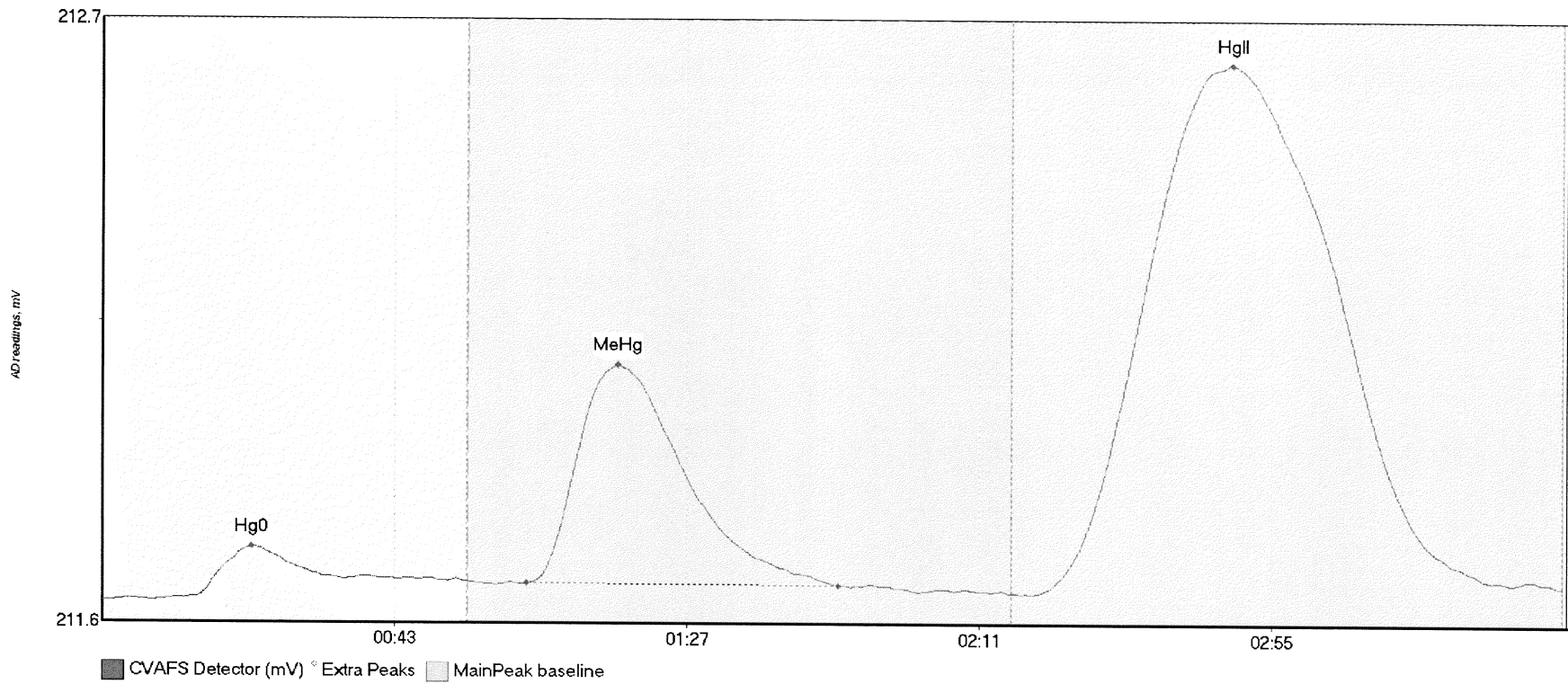
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.435	12.7	37.9	211.60	211.62	21.3	0.051	OK	211.5974	0.00	0.01	
SEQ-CCB5 HgII	32.870	144.8	202.4	211.62	211.62	167.4	0.109	OK	211.5974	0.00	0.01	017

#71: 1708240-02



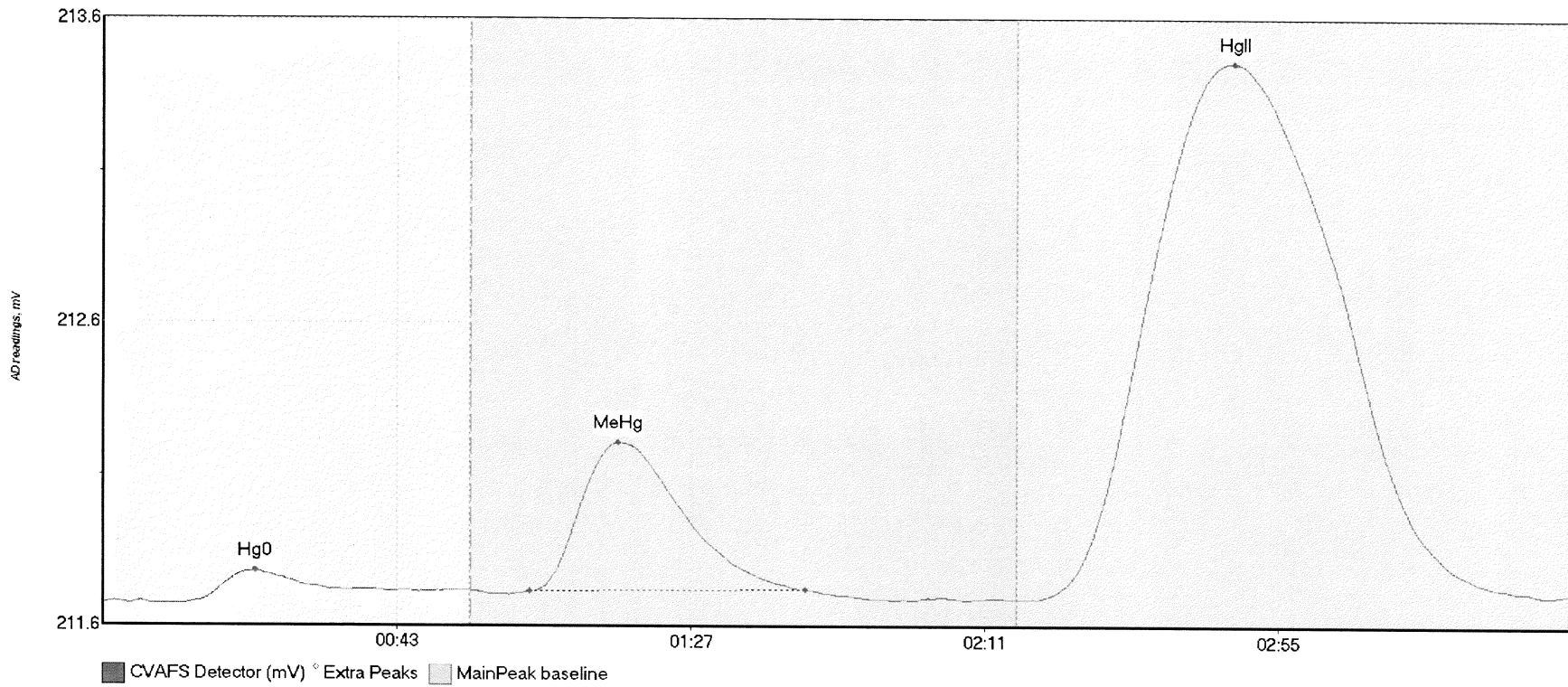
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-02 Hg0	14.961	9.9	55.0	211.61	211.64	23.3	0.103	CT	211.6051	0.00	0.03	
1708240-02 MeHg	63.878	65.0	106.0	211.64	211.63	77.8	0.357	OK	211.6051	0.00	0.03	
1708240-02 HgII	408.347	140.1	218.0	211.62	211.63	169.6	1.286	OK	211.6051	0.00	0.03	

#72: 1708240-03



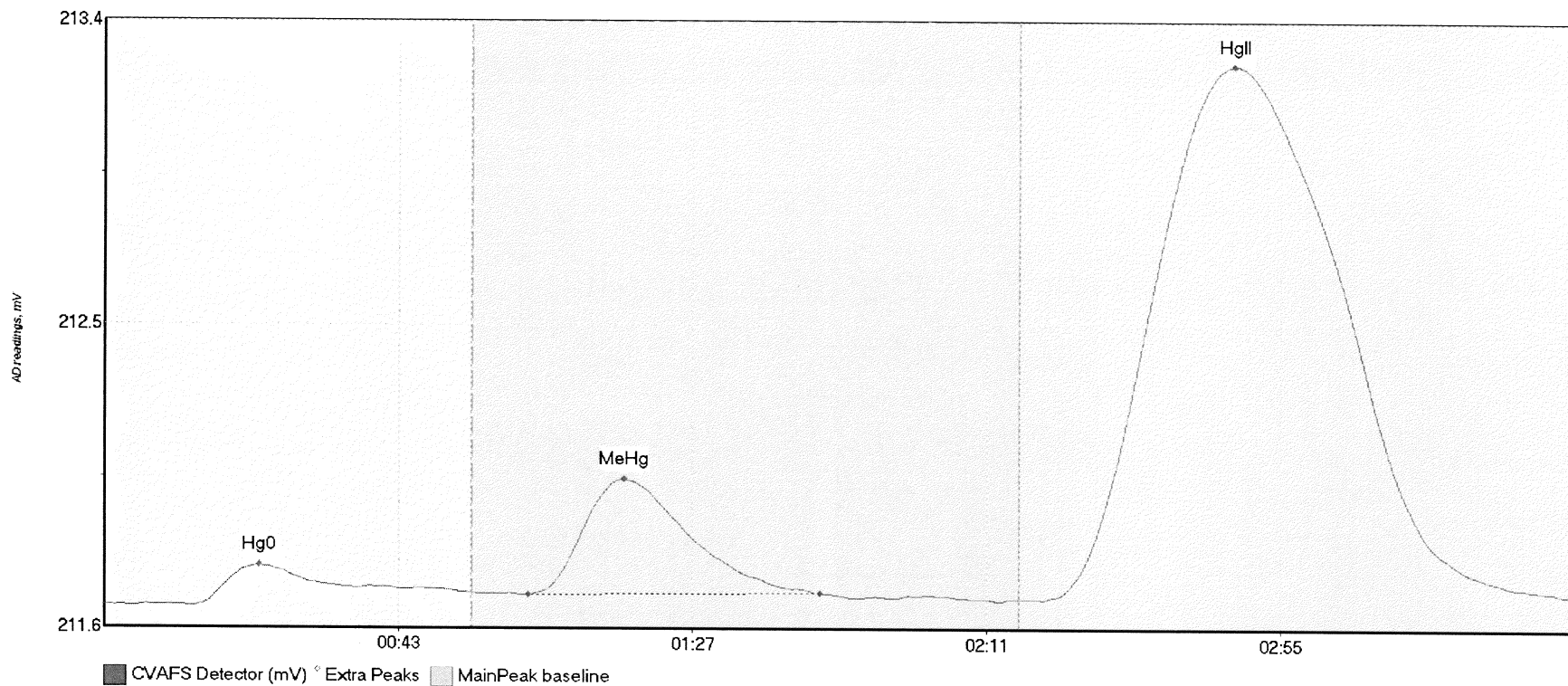
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-03 Hg0	12.751	12.3	54.8	211.63	211.66	22.5	0.092	OK	211.6216	0.00	0.03	
1708240-03 MeHg	73.318	63.8	110.8	211.65	211.65	77.6	0.393	OK	211.6216	0.00	0.03	
1708240-03 HgII	306.070	140.5	219.8	211.64	211.65	170.0	0.956	CT	211.6216	0.00	0.03	

#73: 1708240-04



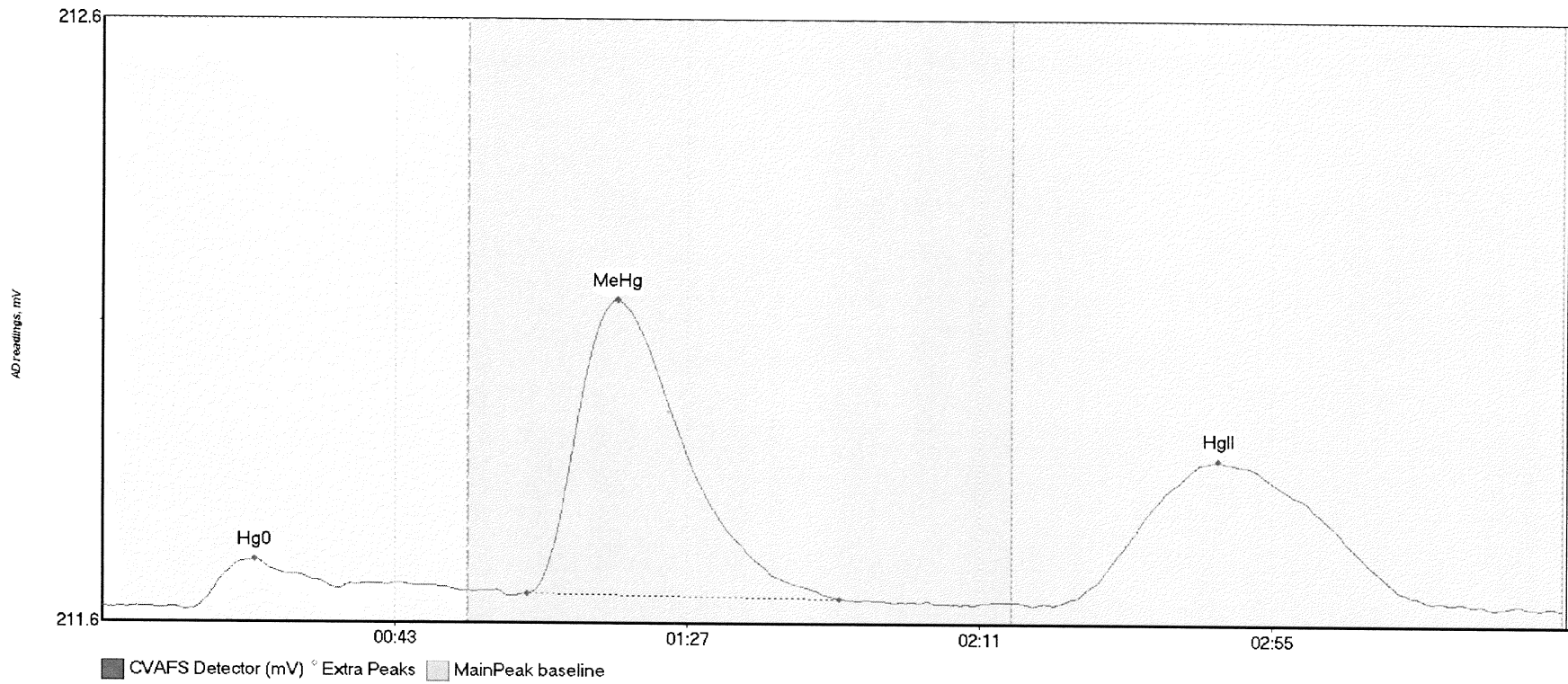
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-04 Hg0	13.215	12.2	47.2	211.64	211.68	22.9	0.108	OK	211.6406	0.00	0.03	
1708240-04 MeHg	88.064	63.8	105.1	211.68	211.68	77.2	0.507	OK	211.6406	0.00	0.03	
1708240-04 HgII	578.627	140.0	217.2	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	

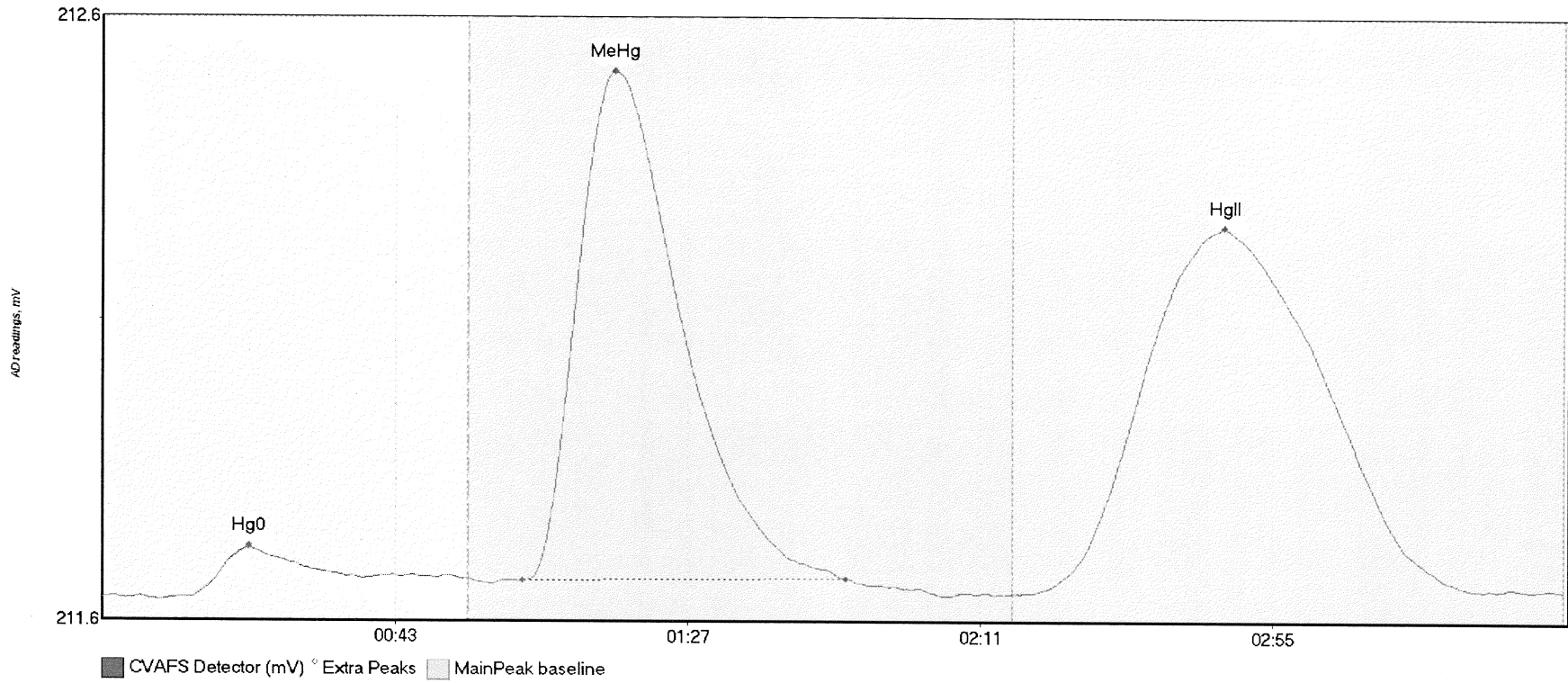
#75: 1708241-01



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	

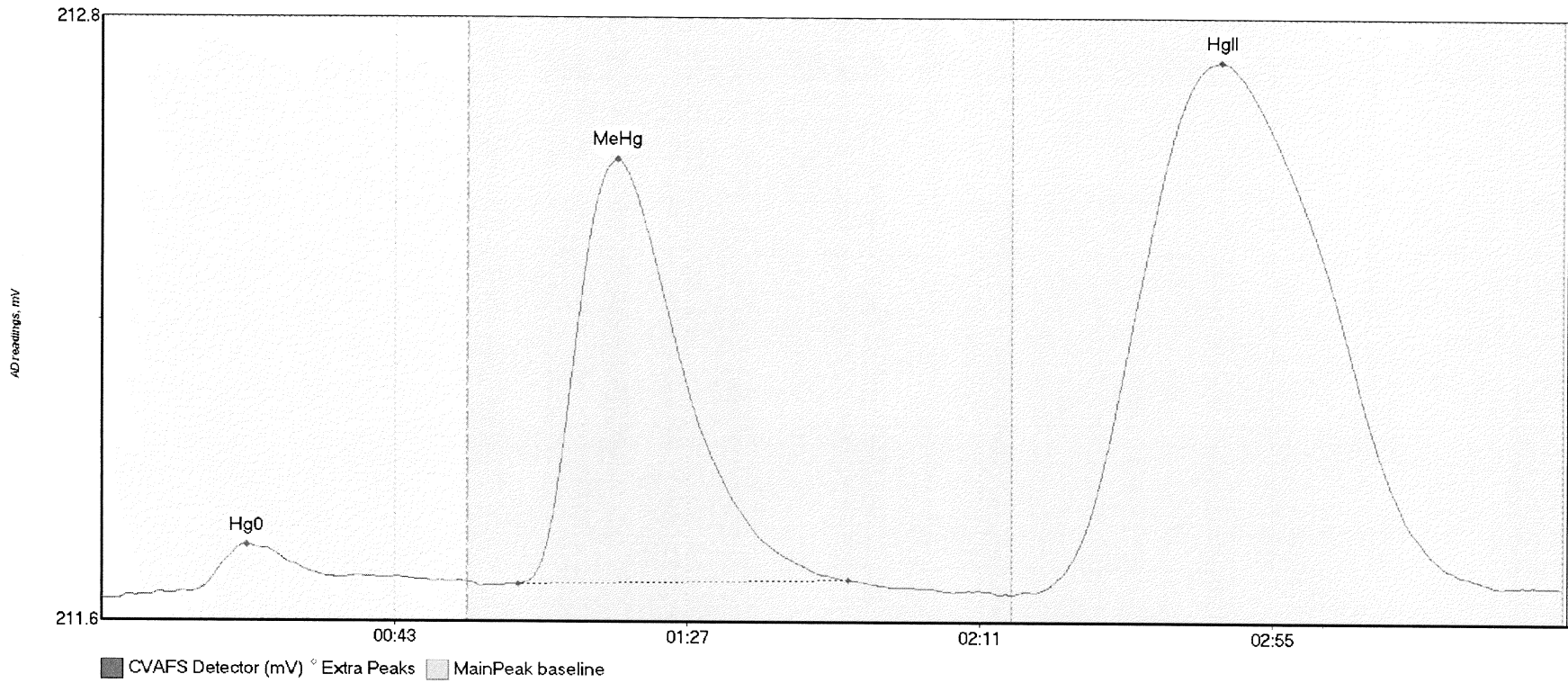


#76: 1708241-02



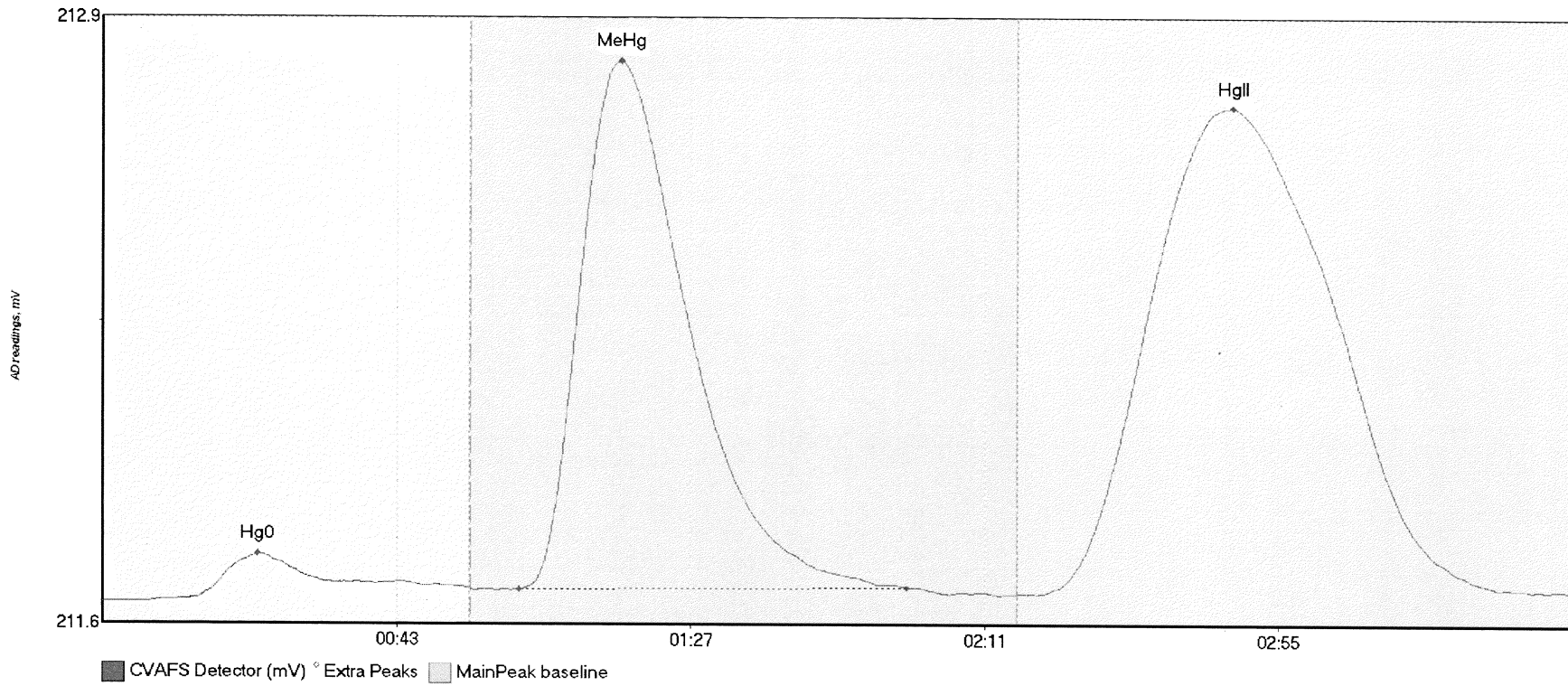
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-02 Hg0	11.598	12.9	54.1	211.66	211.69	22.0	0.082	OK	211.6556	0.00	0.01	
1708241-02 MeHg	151.153	63.1	111.7	211.68	211.69	77.0	0.844	OK	211.6556	0.00	0.01	
1708241-02 HgII	185.532	139.9	214.8	211.66	211.67	168.7	0.606	OK	211.6556	0.00	0.01	

#77: 1708241-03



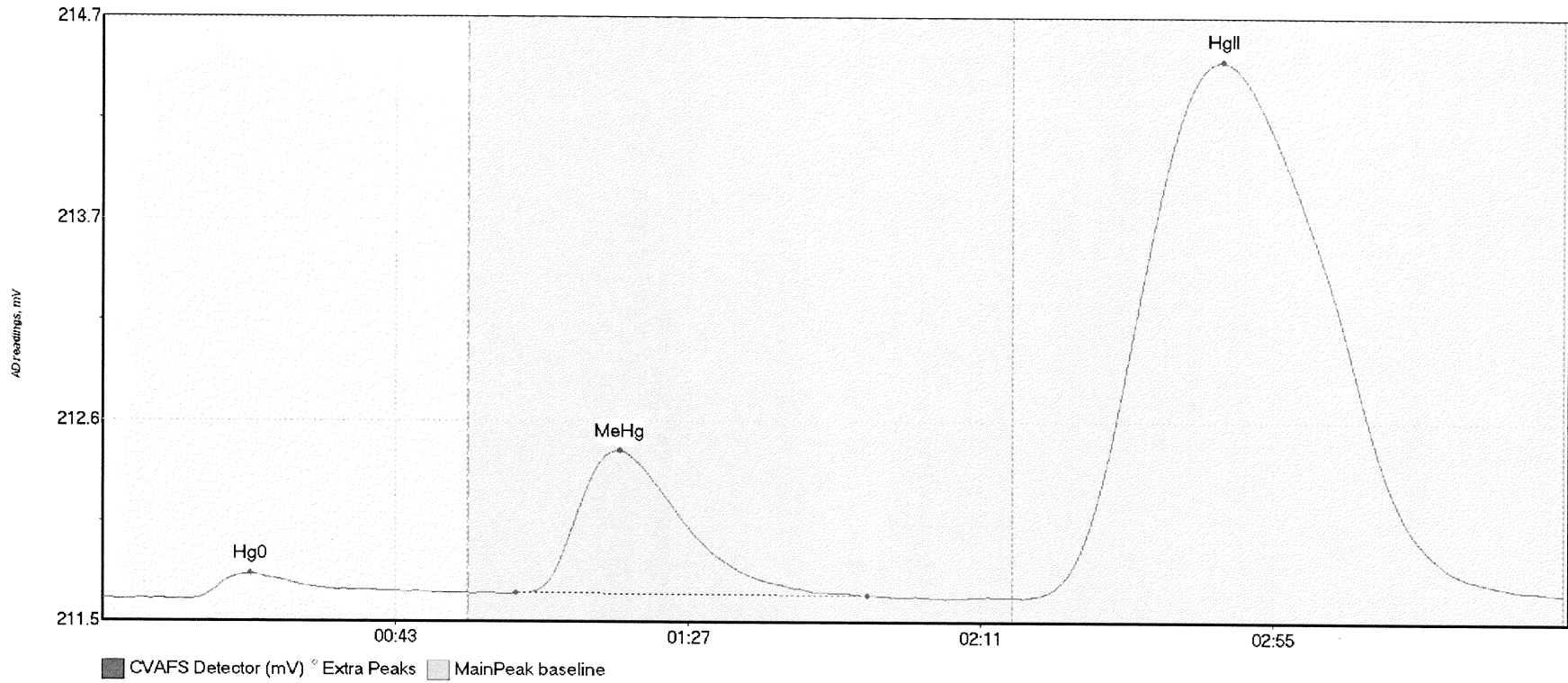
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-03 Hg0	15.324	2.1	55.0	211.65	211.68	21.8	0.108	CT	211.6468	0.00	0.03	
1708241-03 MeHg	152.415	62.6	112.3	211.68	211.68	77.4	0.838	OK	211.6468	0.00	0.03	017
1708241-03 HgII	328.844	140.2	219.8	211.66	211.67	168.3	1.048	CT	211.6468	0.00	0.03	

#78: 1708241-04



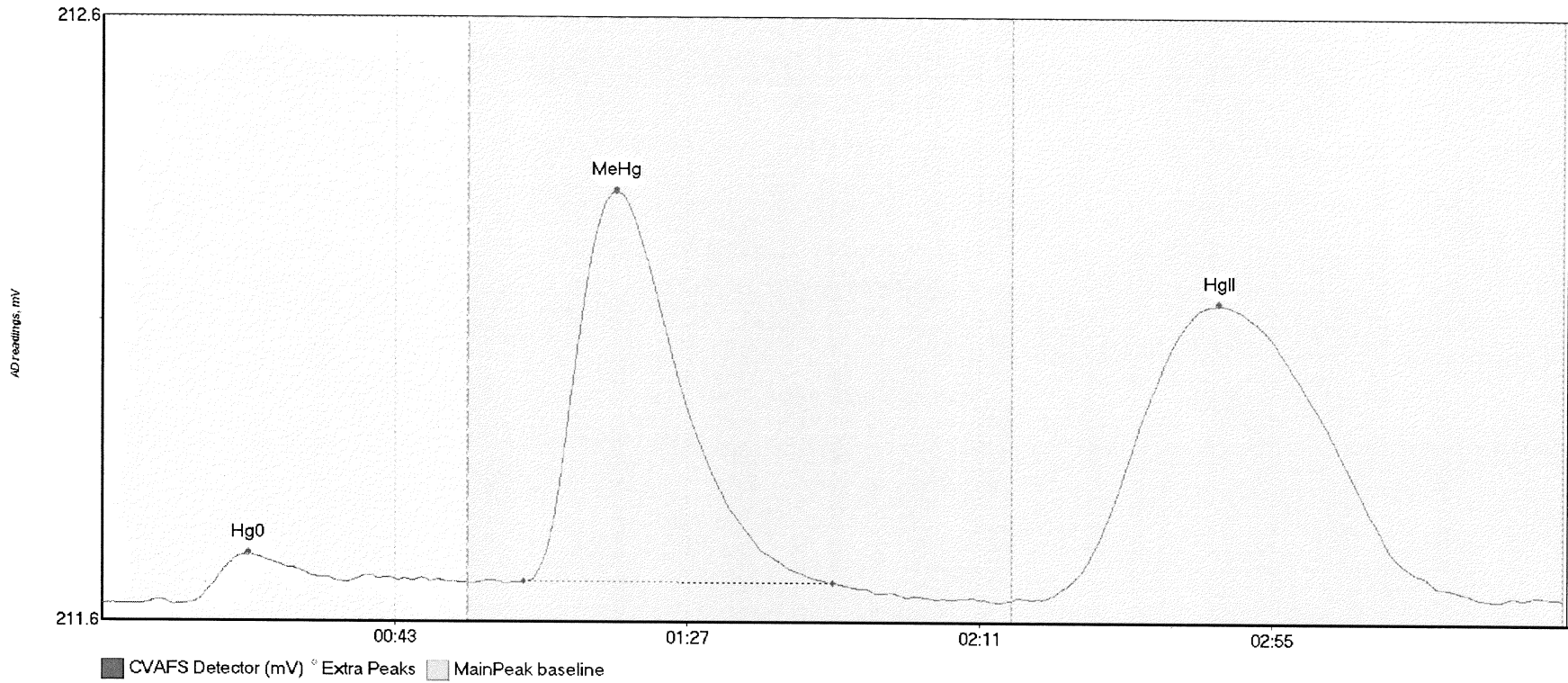
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-04 Hg0	14.465	10.5	55.0	211.66	211.68	23.2	0.098	CT	211.6511	0.00	0.03	
1708241-04 MeHg	213.703	62.3	120.3	211.68	211.68	77.6	1.146	OK	211.6511	0.00	0.03	
1708241-04 HgII	329.904	139.8	219.8	211.67	211.68	169.2	1.057	CT	211.6511	0.00	0.03	

#79: 1708241-05



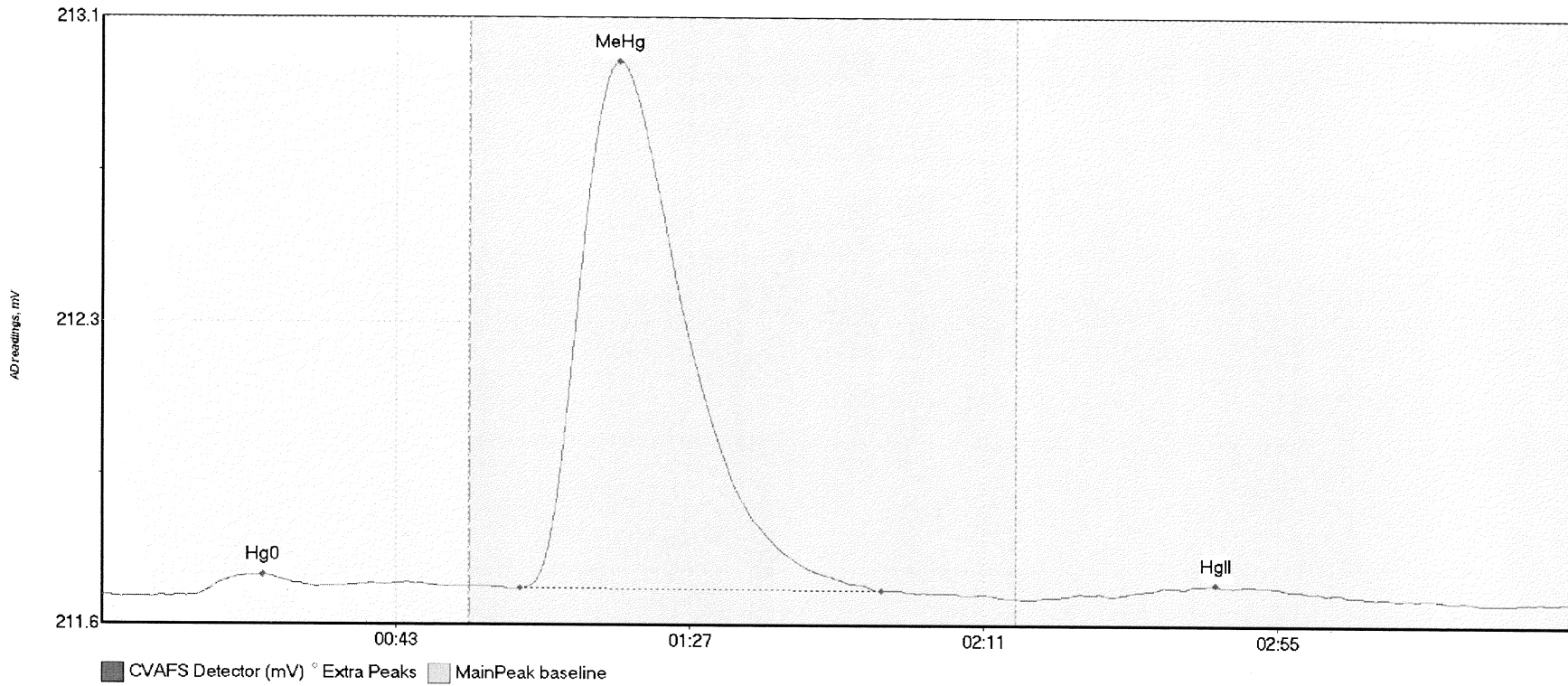
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-05 Hg0	19.237	13.0	52.1	211.65	211.69	22.3	0.136	OK	211.6602	0.00	0.03	
1708241-05 MeHg	137.844	62.1	115.0	211.69	211.68	77.7	0.761	OK	211.6602	0.00	0.03	
1708241-05 HgII	896.698	138.7	219.6	211.67	211.69	168.4	2.851	OK	211.6602	0.00	0.03	

#80: 1708241-11



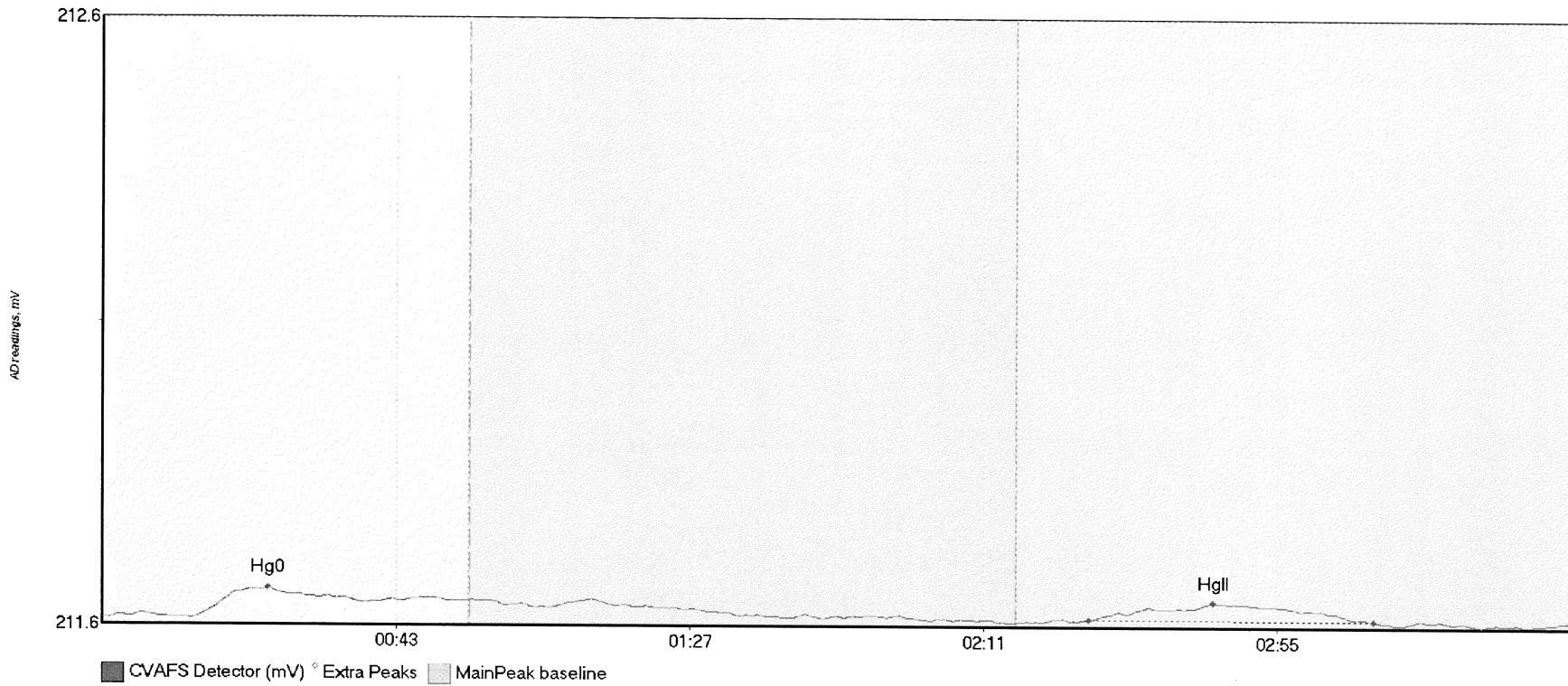
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-11 Hg0	12.210	13.2	55.0	211.64	211.67	22.0	0.081	CT	211.6360	0.00	0.01	
1708241-11 MeHg	114.696	63.4	109.9	211.67	211.67	77.3	0.647	OK	211.6360	0.00	0.01	
1708241-11 HgII	151.975	141.3	207.4	211.65	211.65	168.1	0.490	OK	211.6360	0.00	0.01	

#81: SEQ-CCV6



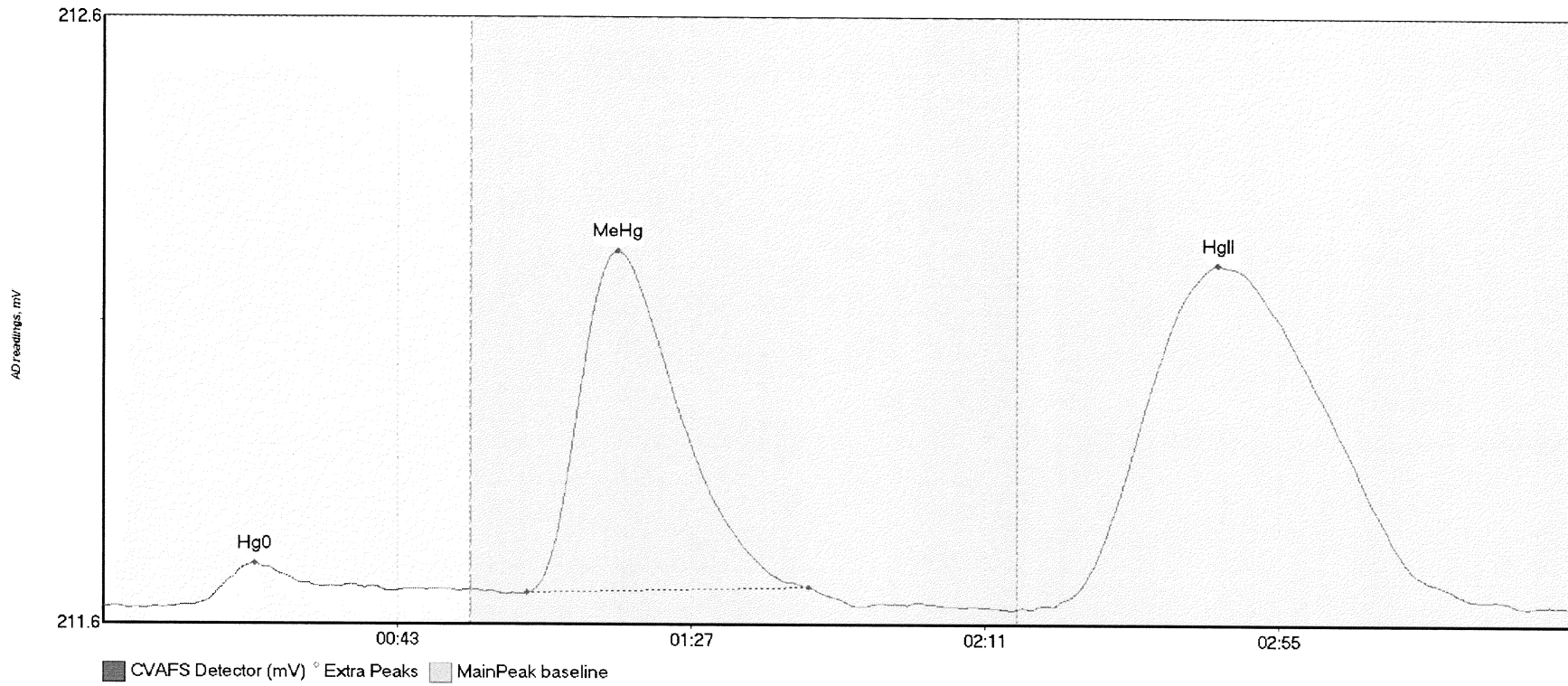
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	4.429	13.7	32.3	211.63	211.66	24.1	0.053	OK	211.6348	0.00	-0.01	
SEQ-CCV6 MeHg	245.624	62.6	116.8	211.65	211.65	77.5	1.344	OK	211.6348	0.00	-0.01	
SEQ-CCV6 HgII	6.839	144.3	187.8	211.63	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

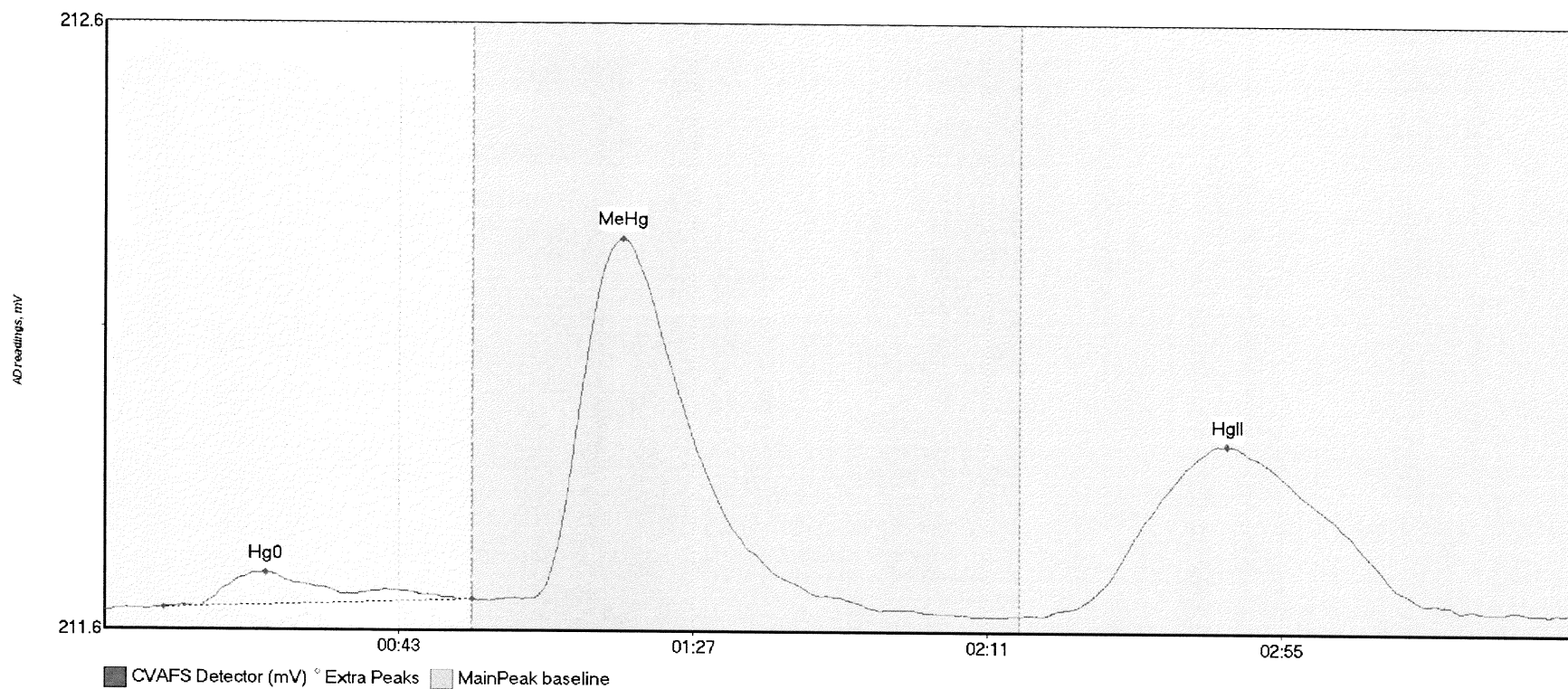


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-12 Hg0	8.889	13.3	53.1	211.61	211.63	22.7	0.068	OK	211.6067	0.00	0.00	
1708241-12 MeHg	95.580	63.4	105.6	211.63	211.64	77.0	0.563	OK	211.6067	0.00	0.00	
1708241-12 HgII	171.905	142.2	213.3	211.61	211.61	166.9	0.563	OK	211.6067	0.00	0.00	

017



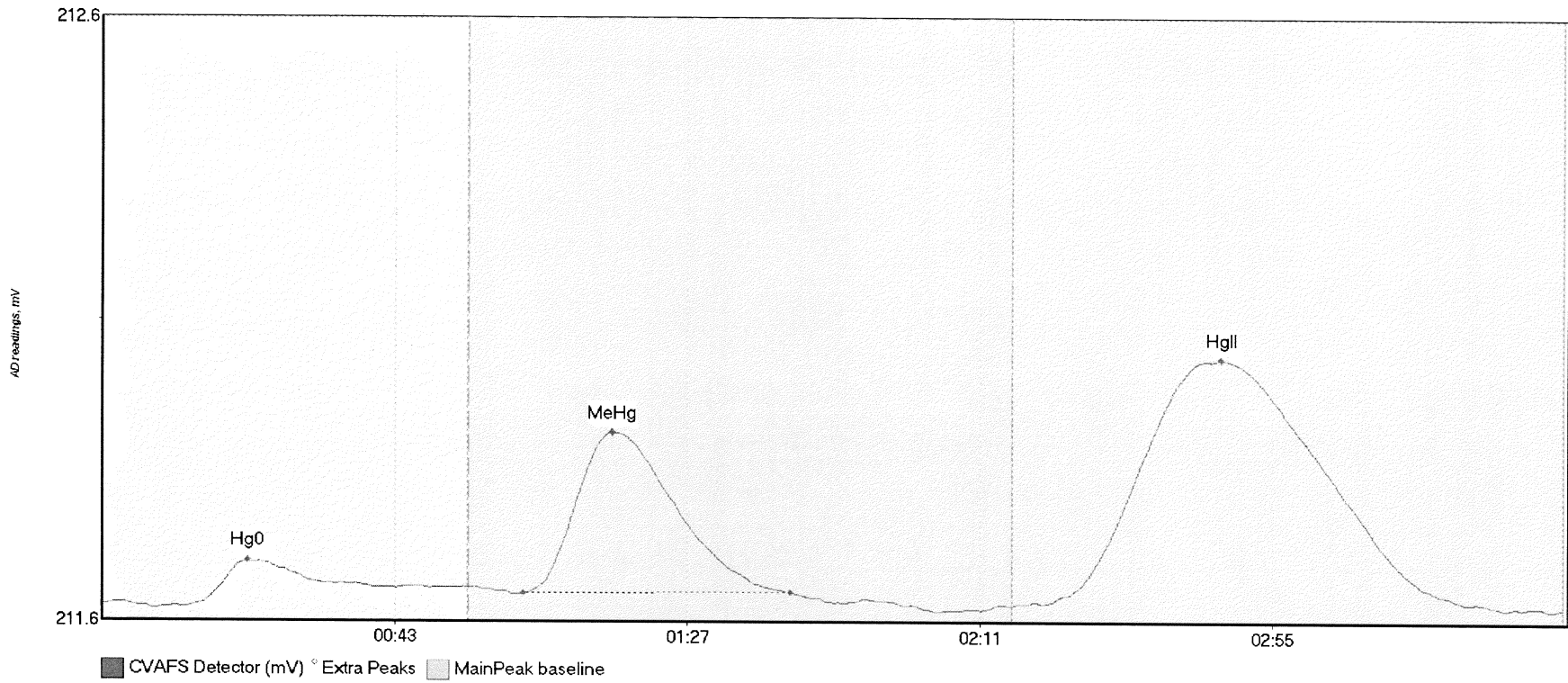
#84: 1708241-13



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	

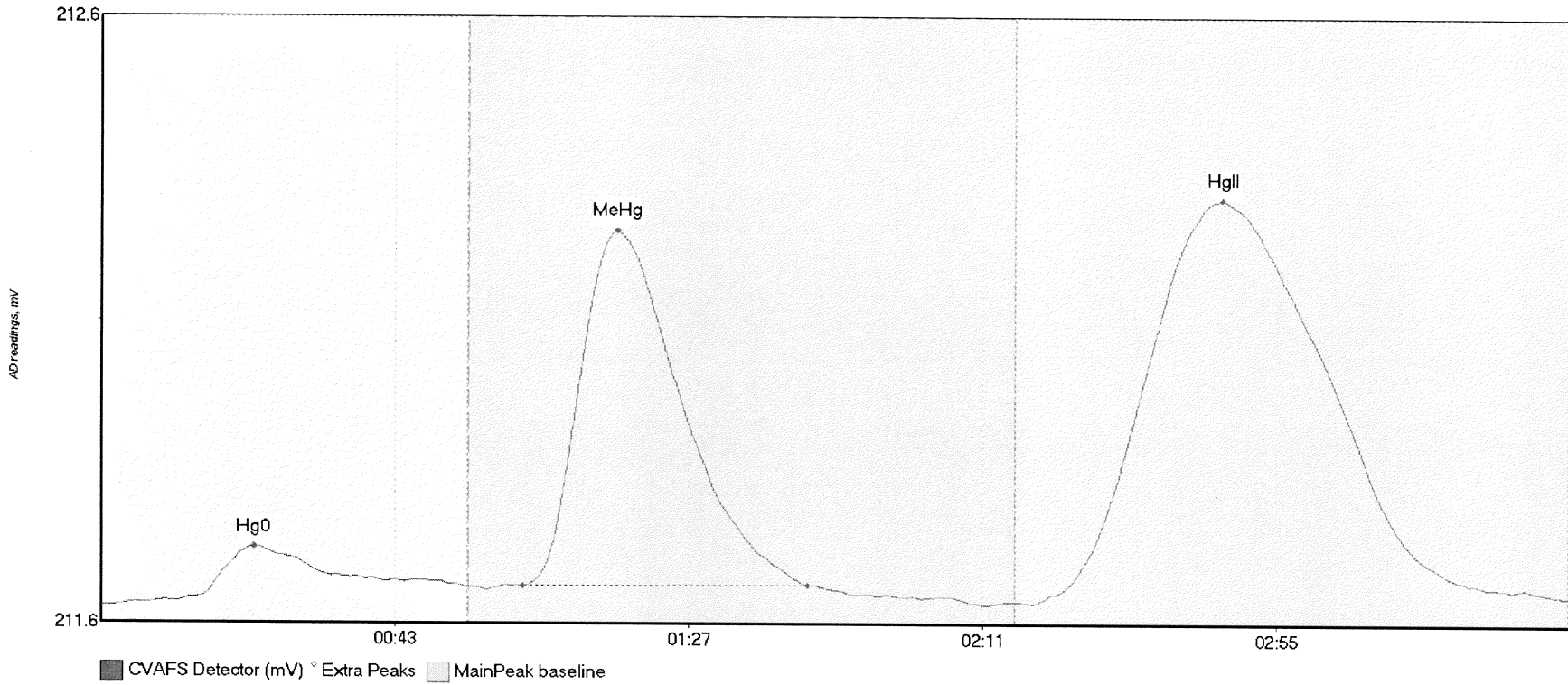
017

#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	

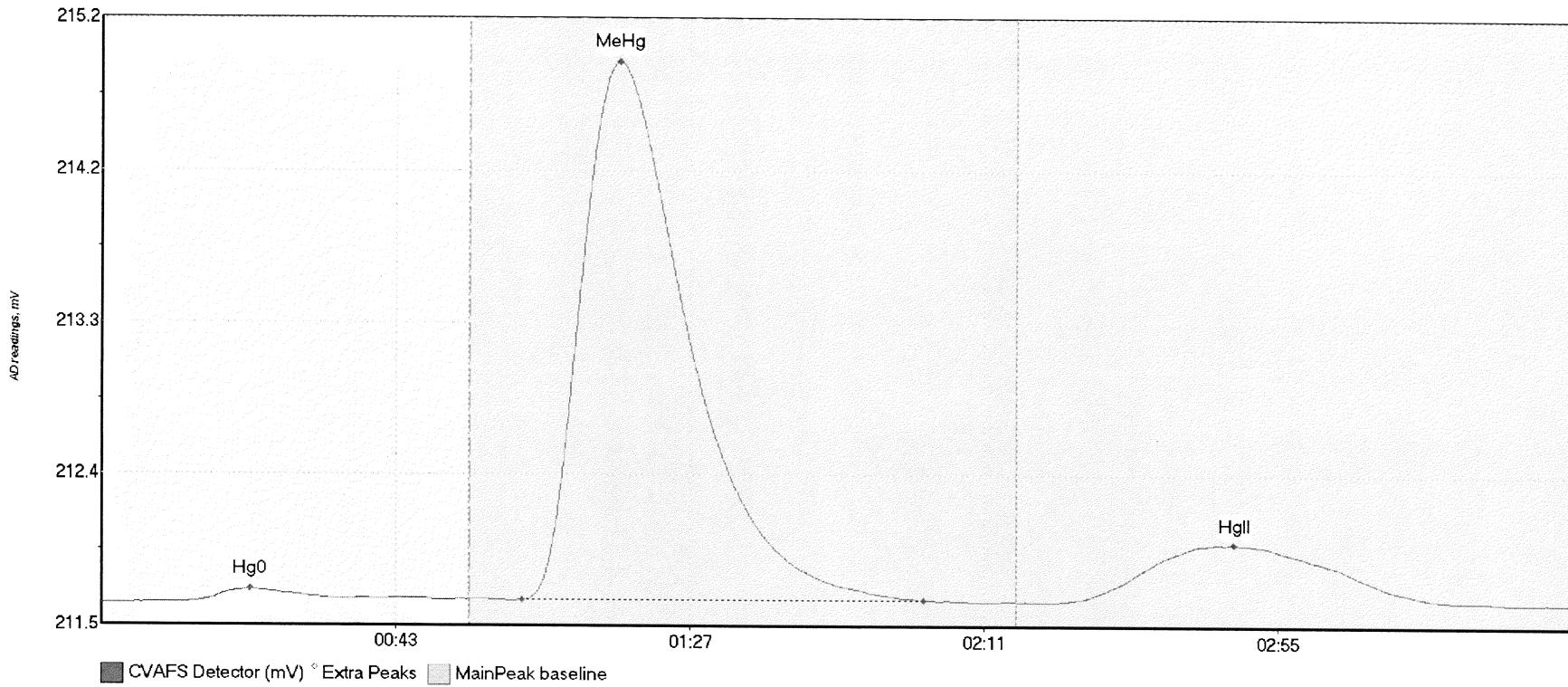
#86: 1708241-15



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	

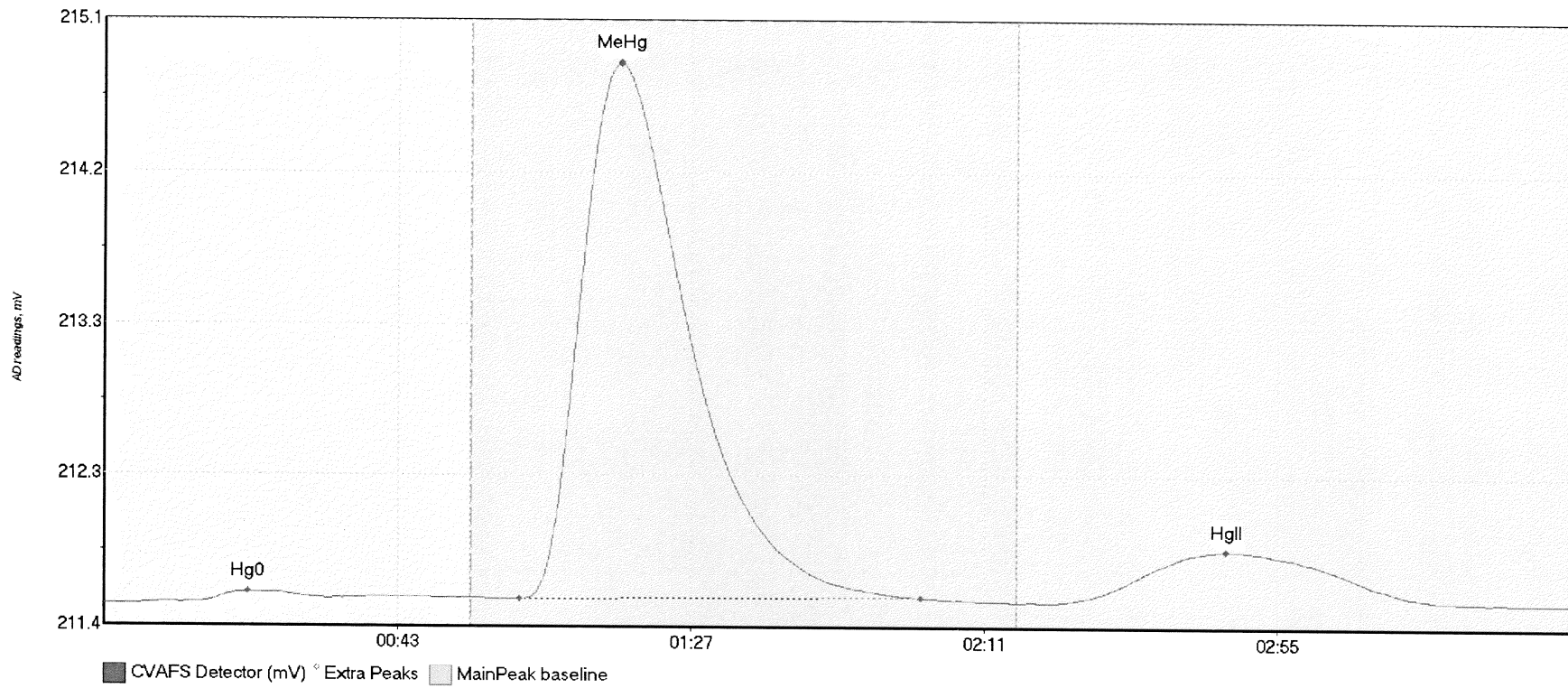
017

#87: F710421-BS2



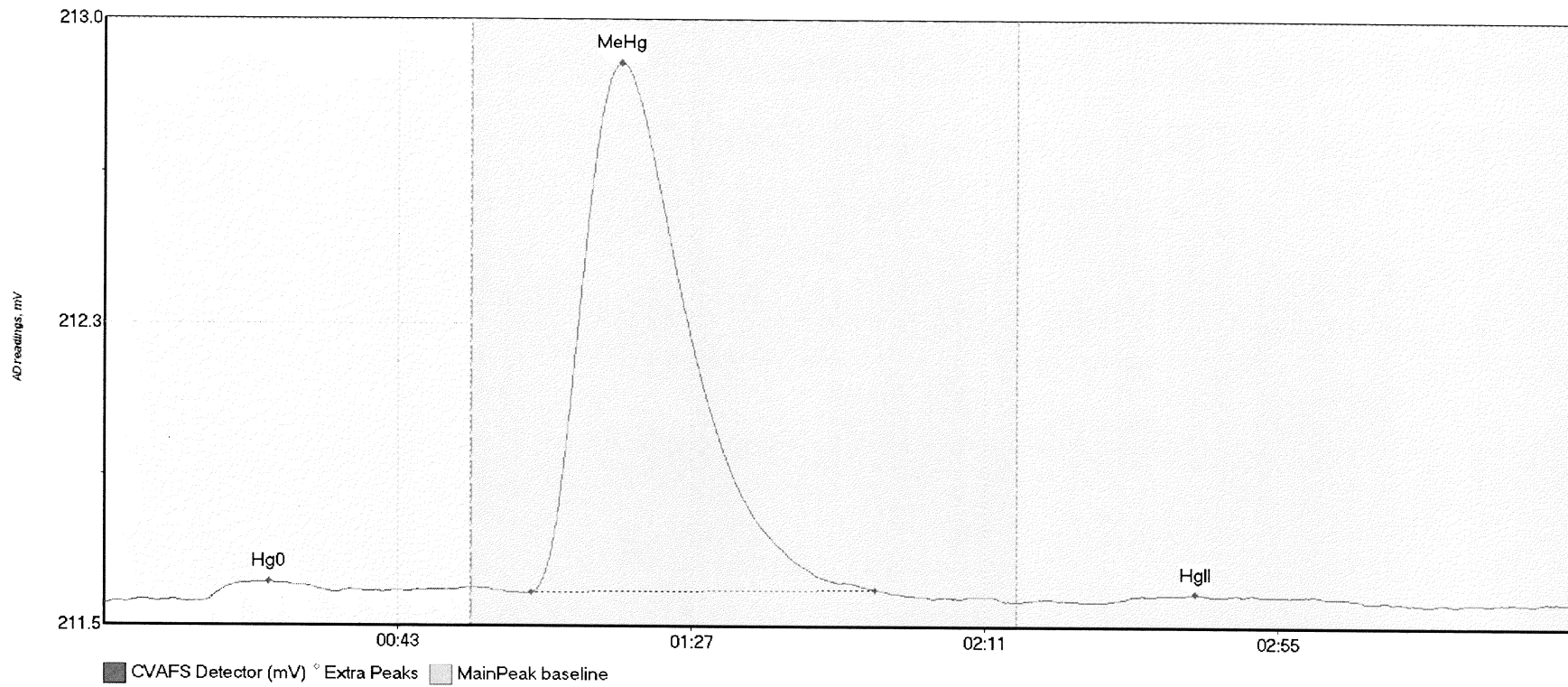
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BS2 Hg0	10.851	11.3	50.3	211.59	211.61	22.3	0.079	OK	211.5872	0.00	0.00	
F710421-BS2 MeH	608.390	62.8	123.0	211.61	211.61	77.5	3.297	OK	211.5872	0.00	0.00	
F710421-BS2 HgI	110.520	142.4	202.8	211.60	211.60	169.4	0.361	OK	211.5872	0.00	0.00	

#88: F710421-BSD2



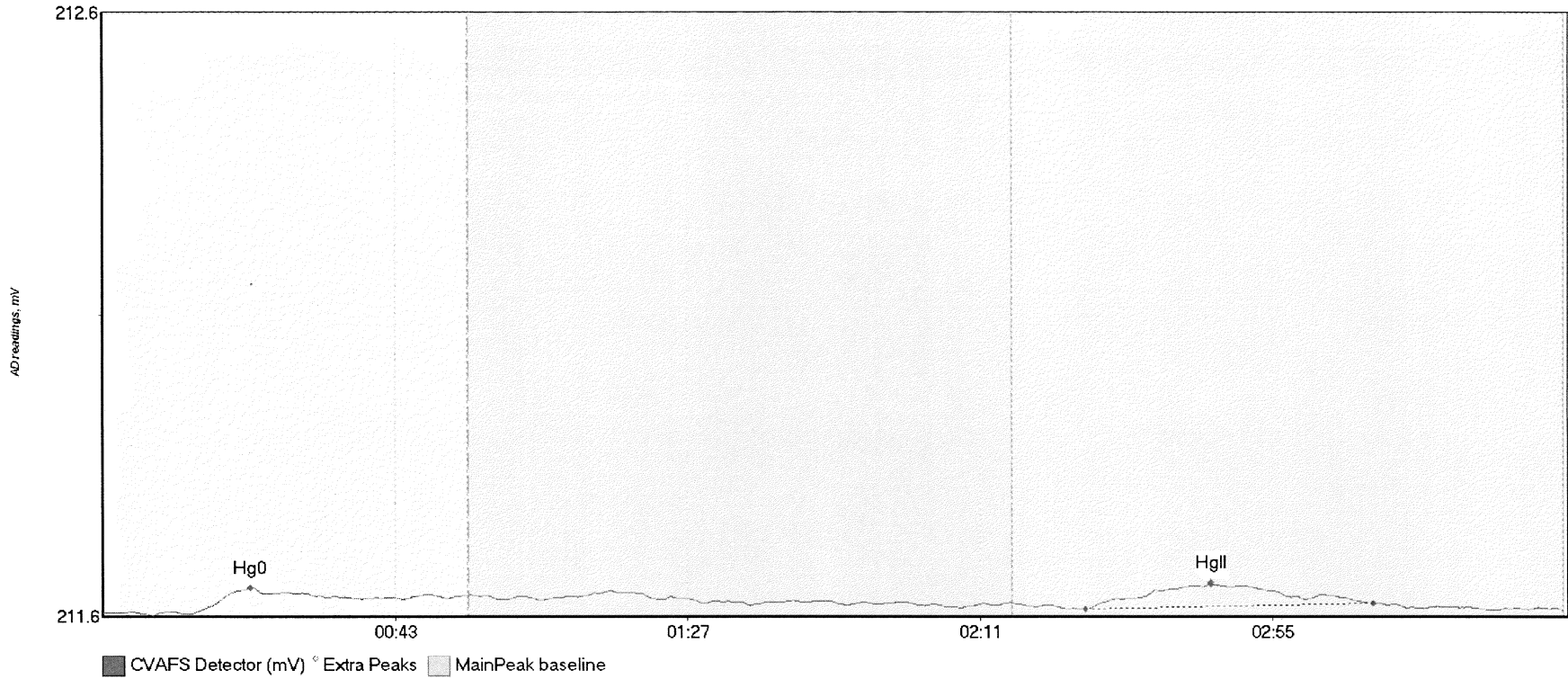
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BSD2 Hg	5.389	6.8	34.0	211.58	211.62	21.6	0.067	OK	211.5796	0.00	0.01	
F710421-BSD2 Me	591.646	62.3	122.5	211.61	211.62	77.4	3.185	OK	211.5796	0.00	0.01	
F710421-BSD2 Hg	95.981	142.4	204.2	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						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>
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	2		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	2		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	2		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	2		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	2		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	2		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

## ANALYSIS SEQUENCE

7J24016

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/23/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708241-11RE1 ✓	MHg-CVAFS-T-KOH	71			Added 10/23/2017 by DM2
1708241-12RE1 ✓	MHg-CVAFS-T-KOH	72			Added 10/23/2017 by DM2
1708241-13RE1 ✓	MHg-CVAFS-T-KOH	73			Added 10/23/2017 by DM2
1708241-14RE1 ✓	MHg-CVAFS-T-KOH	74			Added 10/23/2017 by DM2
1708241-15RE1 ✓	MHg-CVAFS-T-KOH	75			Added 10/23/2017 by DM2
7J24016-CCV6 ✓	QC	76	1705084	✓	
7J24016-CCB6 ✓	QC	77			

Dan Matern      10/23/17  
 Samples Loaded By      Date

Dan Matern      10/24/17  
 Data Processed By      Date

**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

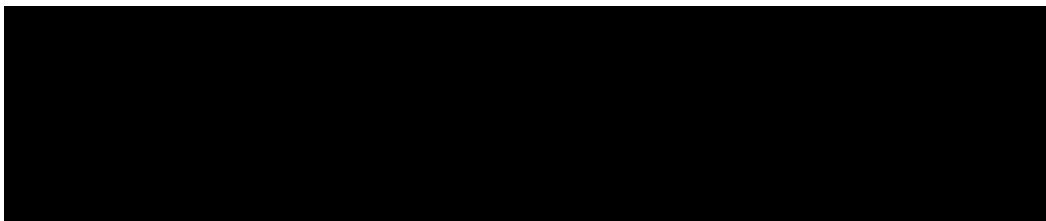
**Eurofins Frontier Global Sciences, Inc.**

**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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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	<del>F710422</del> F710422 - BLK1	0.276	23	170626 - 01	0.258	BS1/BSD1 = duplicate
2	F710422 - BLK2	0.283	24			LIMS: 1705427
3	F710422 - BLK3	0.262	25			Balance: 1g
4	F710422 - BLK4	0.287	26			Comments
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			
8	1708240 - 07	0.277	30			
9	1708240 - 08	0.264	31			BLK4 is filter blank for 170626-01
10	1708240 - 09	0.262	32			
11	1708240 - 10	0.278	33			
12	F710422 - DUP1	0.284	34			DUP1/MS1/MSD1 source: 1708240-10
13	F710422 - MS1	0.279	35			
14	F710422 - MSD1	0.267	36			MS2/MSD2 source: 1708240-15
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

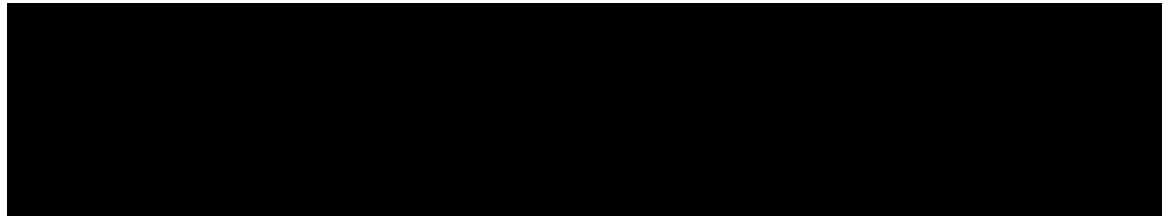
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 10/19/2017**

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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

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

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Due Date: 11/15/2017



## Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7J24016
<b>Reviewer:</b> <i>R 10/24/17</i>	<b>Dataset ID #:</b> MHG27001-171023-1
<b>Date:</b> 10/24/17	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F710422, F710421	<b>Client(s):</b> 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	<input checked="" type="checkbox"/>
(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"/>
(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"/>
(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"/>
(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"/>
(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"/>
(i) Is the pH>3.0 for all distilled samples? _____	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(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"/>
<b>QA/QC Data Checked</b>				
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"/>
Comments: _____				
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"/>
Comments: _____				
8. RSD CF (≤ 15%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: _____				

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7J24016
<b>Reviewer:</b>	0 <i>R 10/24/17</i>	<b>Dataset ID #:</b>	MHG27001-171023-1
<b>Date:</b>	10/24/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F710422, F710421	<b>Client(s):</b>	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)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7J24016
<b>Reviewer:</b> 0 <i>R 10/24/17</i>	<b>Dataset ID #:</b> MHG27001-171023-1
<b>Date:</b> 10/24/2017	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F710422, F710421	<b>Client(s):</b> 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



Methyl Mercury EPA1630  
 Operat: DM  
 Workst: MHG27  
 Method: 2010-01 R  
 Descrif: MHG27001-171023-1

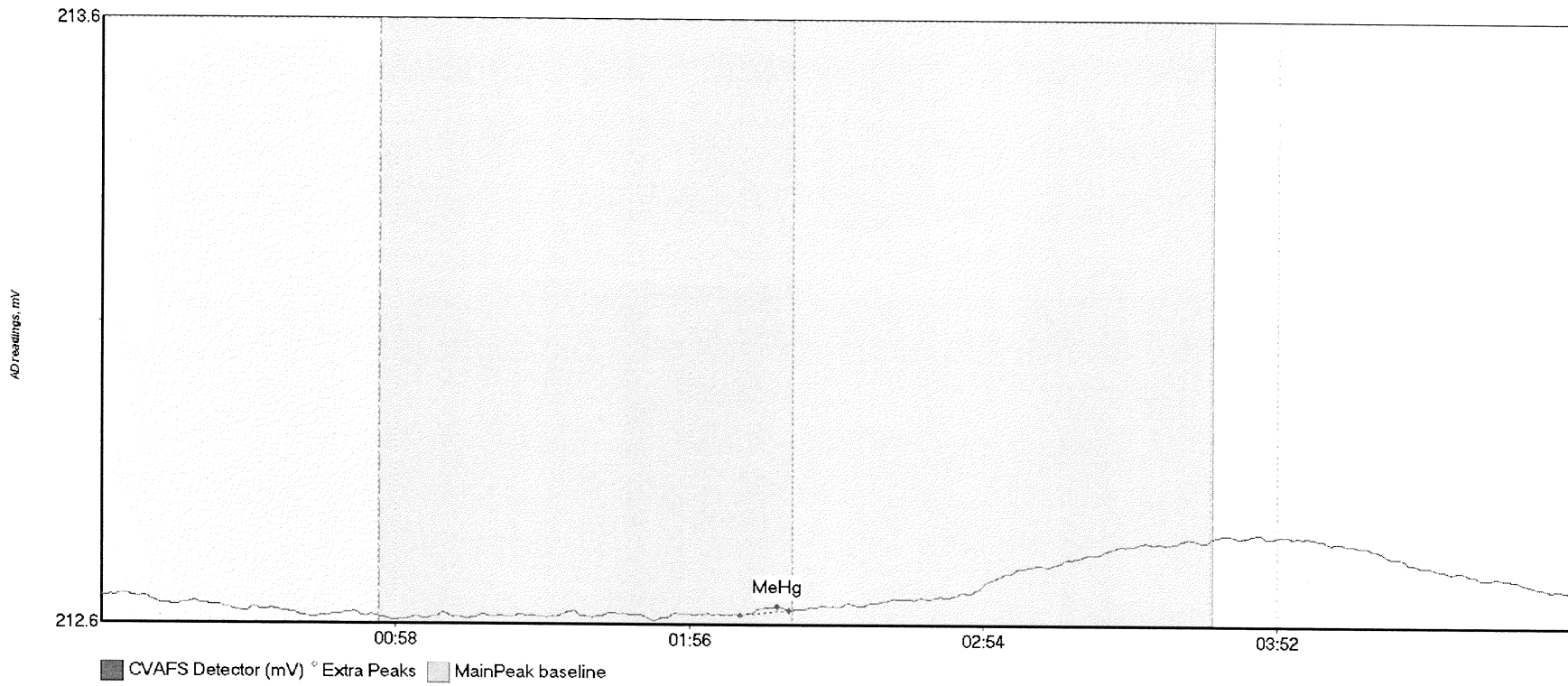
BlankSub:  
 CalibFactor:  
 R:  
 CalibEqn:  
 Status: Calblank error: Zero Pe  
 Run Date: #####  
 Run Time: 0:00:00  
 CalibAnalyte:

Blank SD:  
 Blank RSD%:  
 CF SD:  
 CF RSD%:

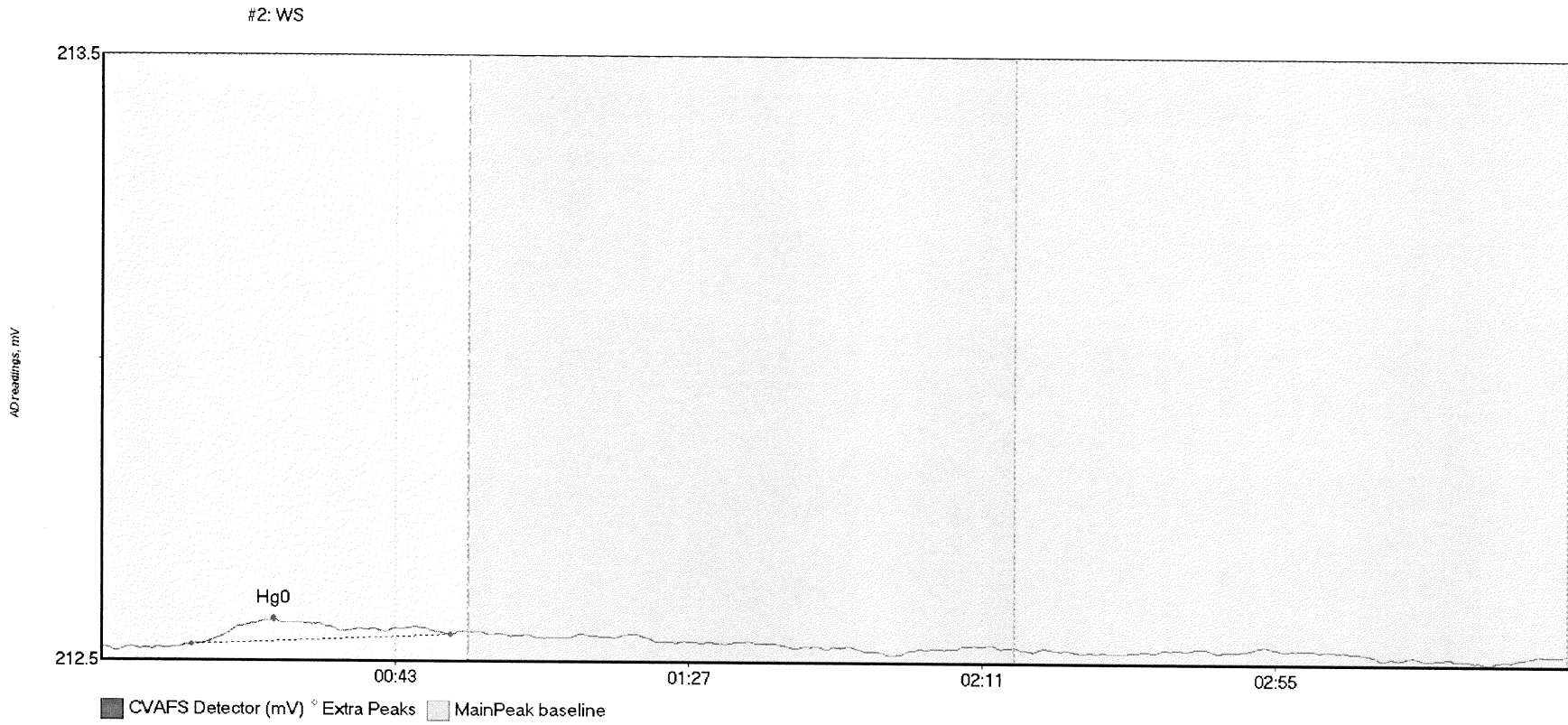
Sample/ID	Locator	Rinse	Dilute	Blank	ConcHq0(p)	ConcMeHgQ	ConcHq2(p)	ConcPrHQ(r)	Rec%	QA	RawData	RunEnd	PeakHq0 (Raw)	PeakMeHg (R)	PeakHq2(Raw)	PeakPrHQ(Raw)	Control (etf)	Flags	RunCount
Clear																			
WS	A1										26855-1.RAW	11:08:29	0.00	0.51	0.00	0.00	cleandry	OK	1
SEQ-IBL1	A2			1							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									

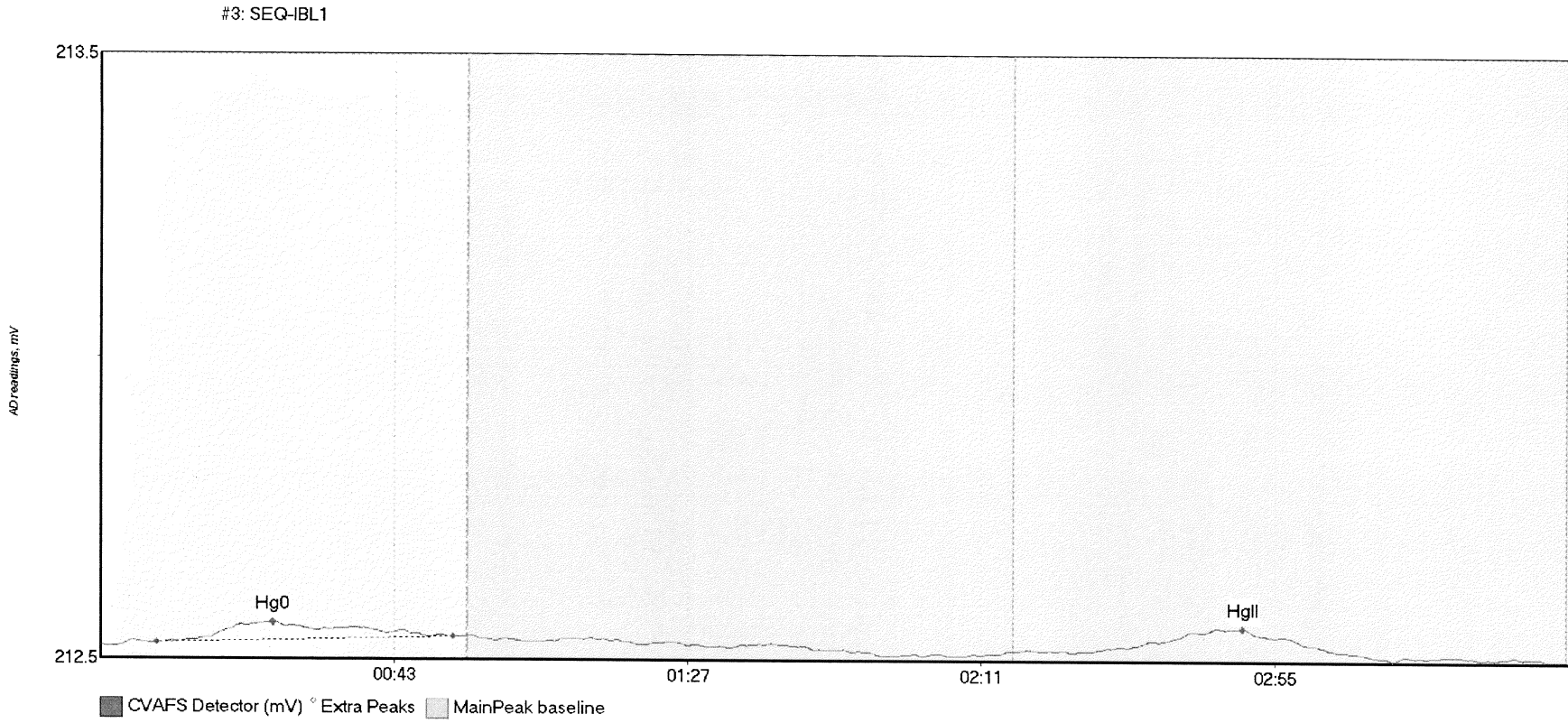
#1: Clean



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

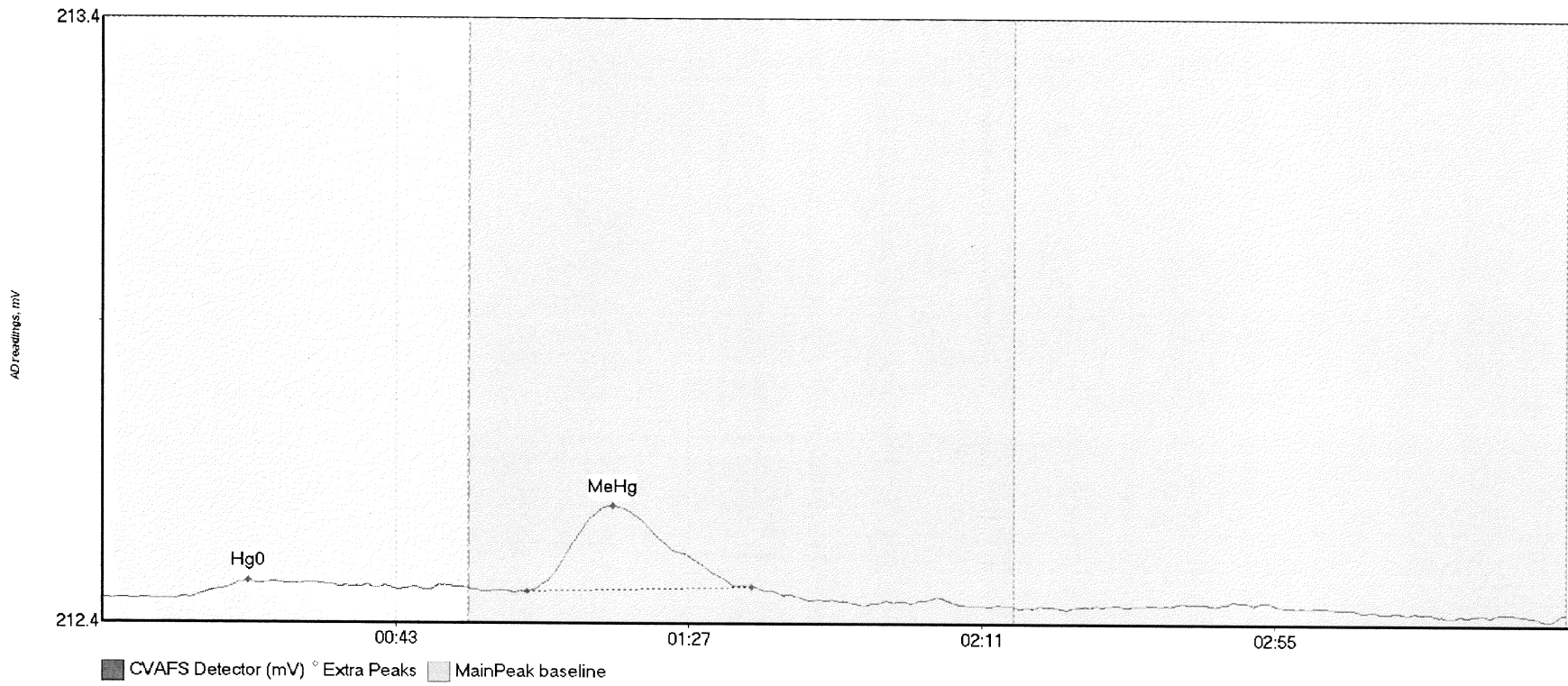


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS	7.073	13.4	52.3	212.56	212.57	25.7	0.042	OK	212.5524	0.00	-0.01	017



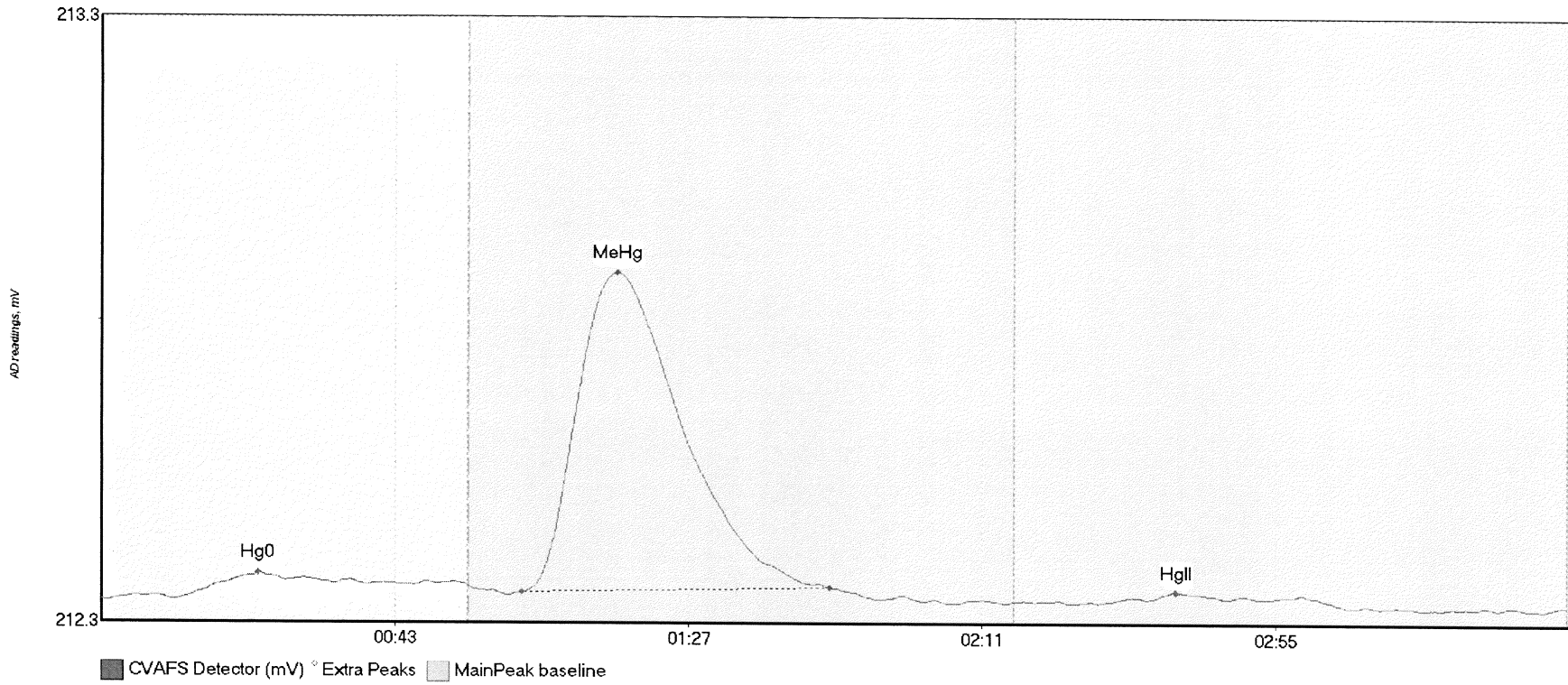
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.284	8.5	52.8	212.50	212.51	25.8	0.036	OK	212.4941	0.00	-0.02	
SEQ-IBL1 HgII	6.525	149.8	184.5	212.49	212.49	171.2	0.037	OK	212.4941	0.00	-0.02	017

#4: SEQ-CAL1



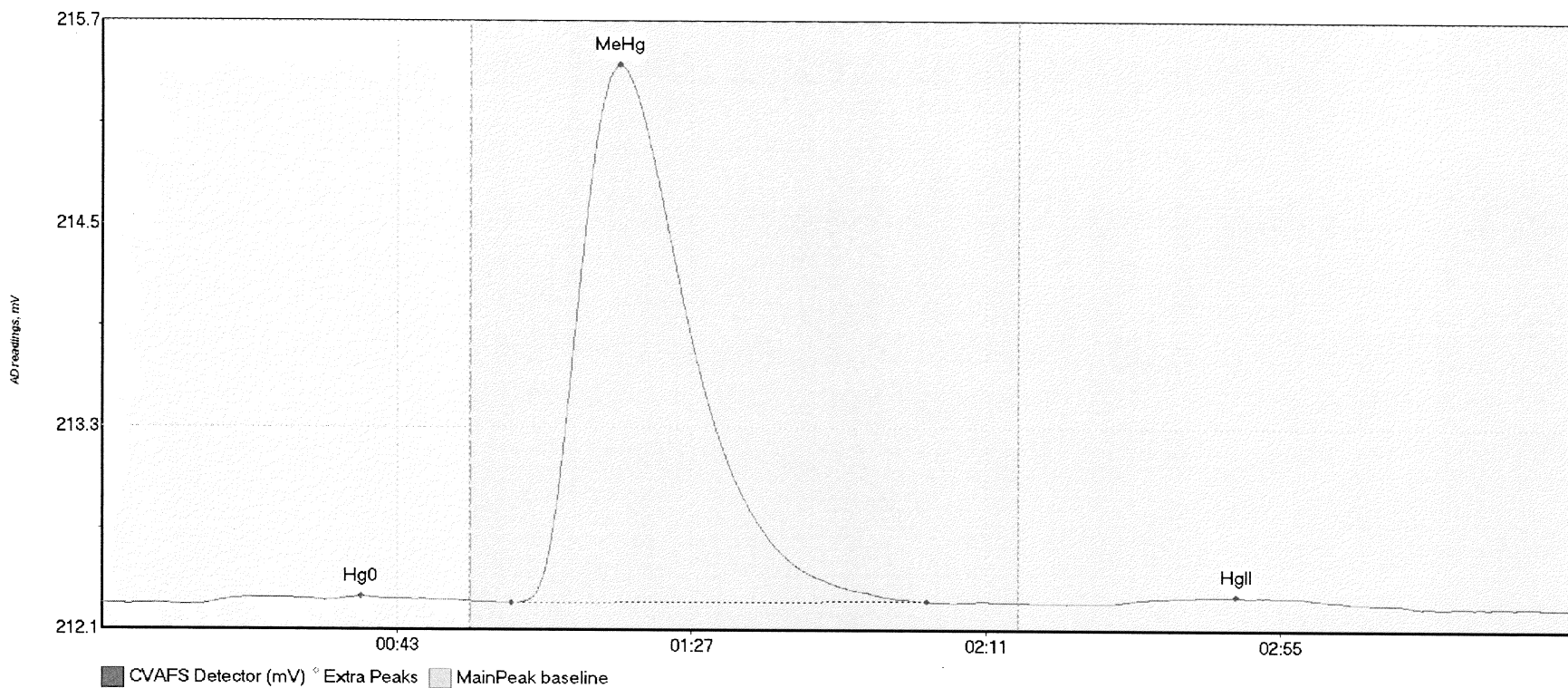
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	4.376	13.1	48.9	212.42	212.44	21.9	0.027	OK	212.4204	0.00	-0.02	
SEQ-CAL1 MeHg	22.096	63.7	97.4	212.43	212.44	76.6	0.142	OK	212.4204	0.00	-0.02	017

#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	

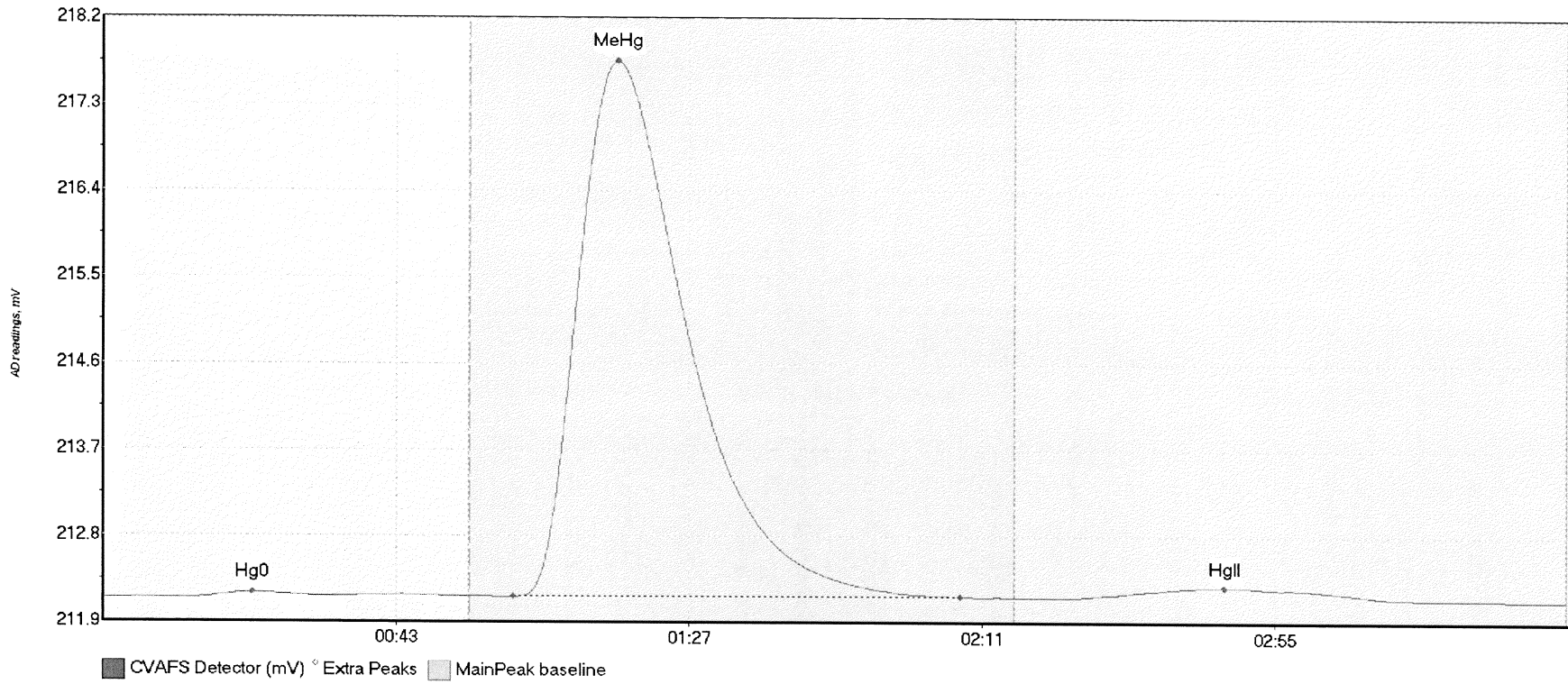
#6: SEQ-CAL3



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	

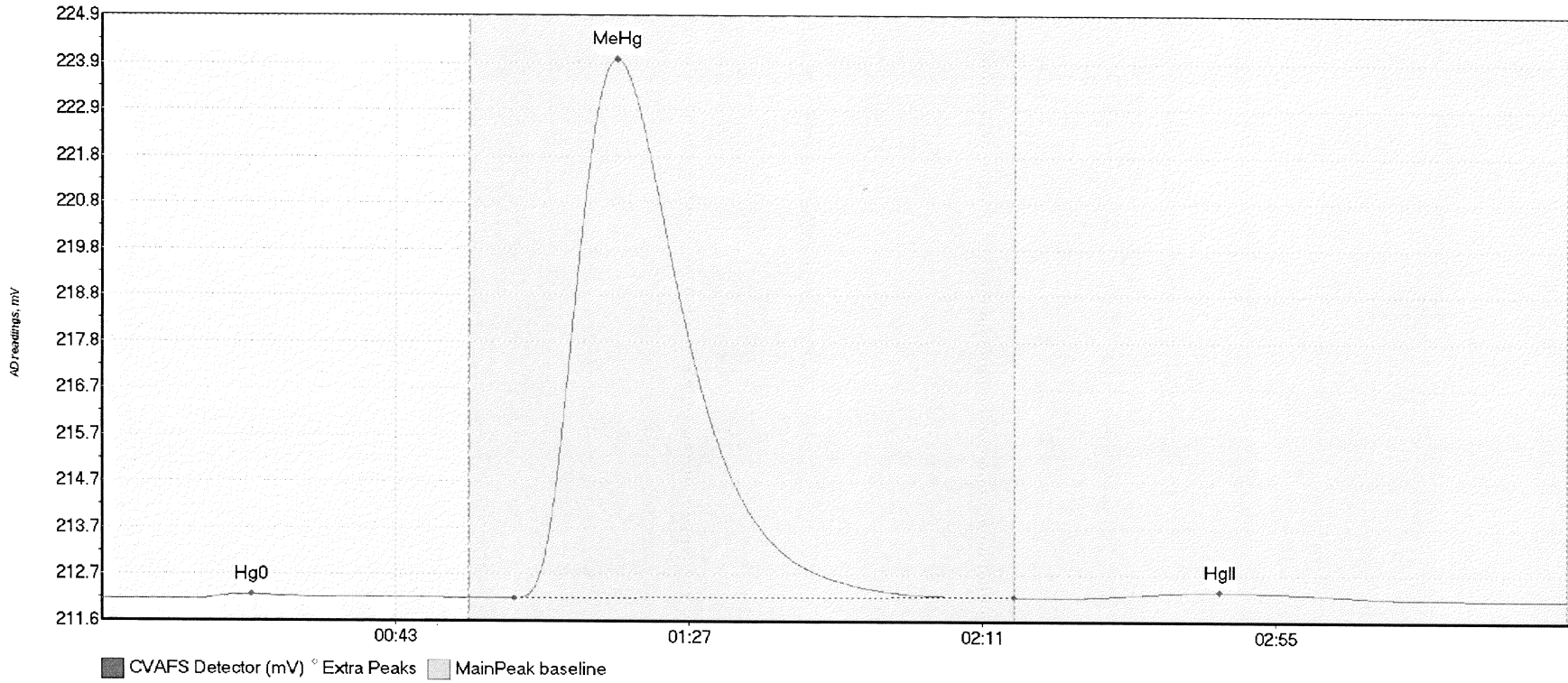


#7: SEQ-CAL4



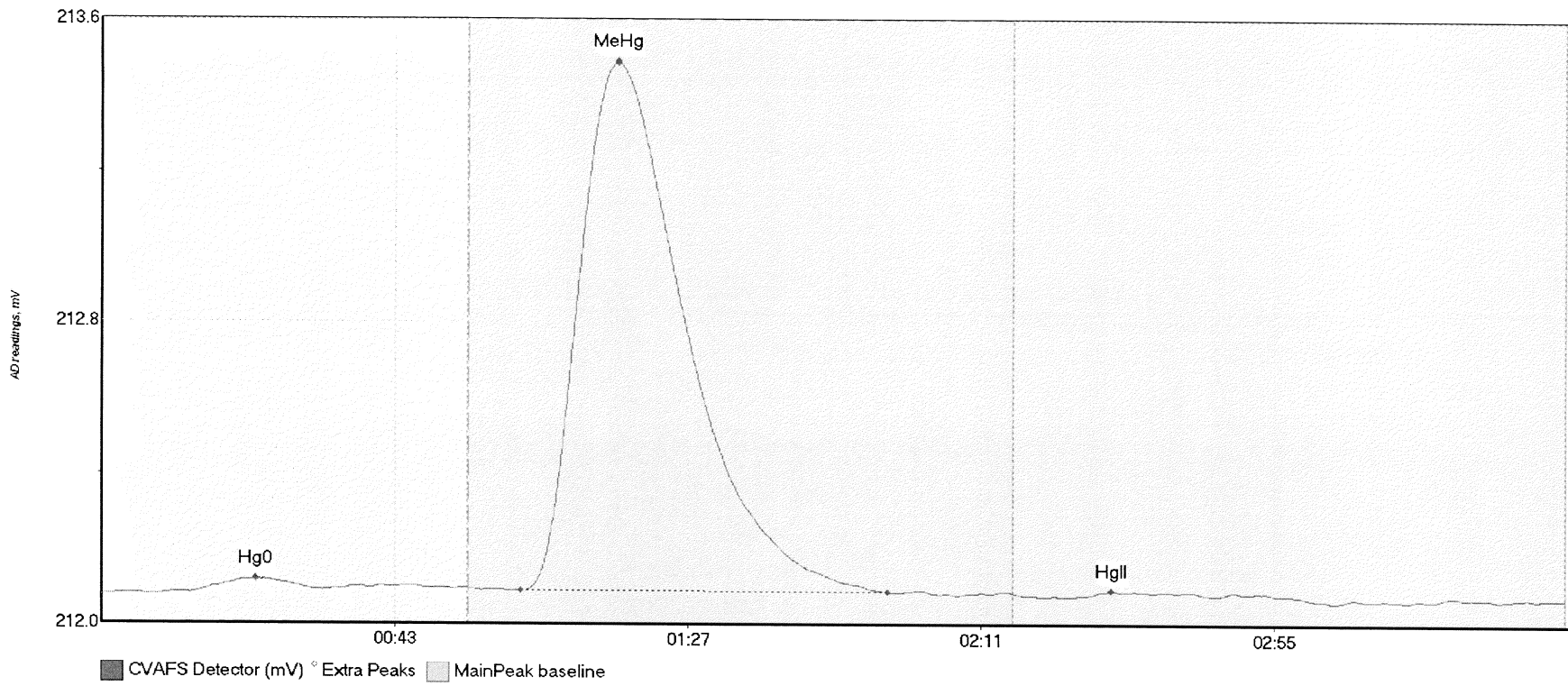
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	4.718	13.8	34.8	212.19	212.20	22.5	0.050	OK	212.1886	0.00	-0.02	
SEQ-CAL4 MeHg	1048.395	61.6	128.8	212.20	212.20	77.3	5.542	OK	212.1886	0.00	-0.02	
SEQ-CAL4 HgII	32.555	145.9	193.8	212.20	212.19	168.4	0.108	OK	212.1886	0.00	-0.02	

#8: SEQ-CAL5



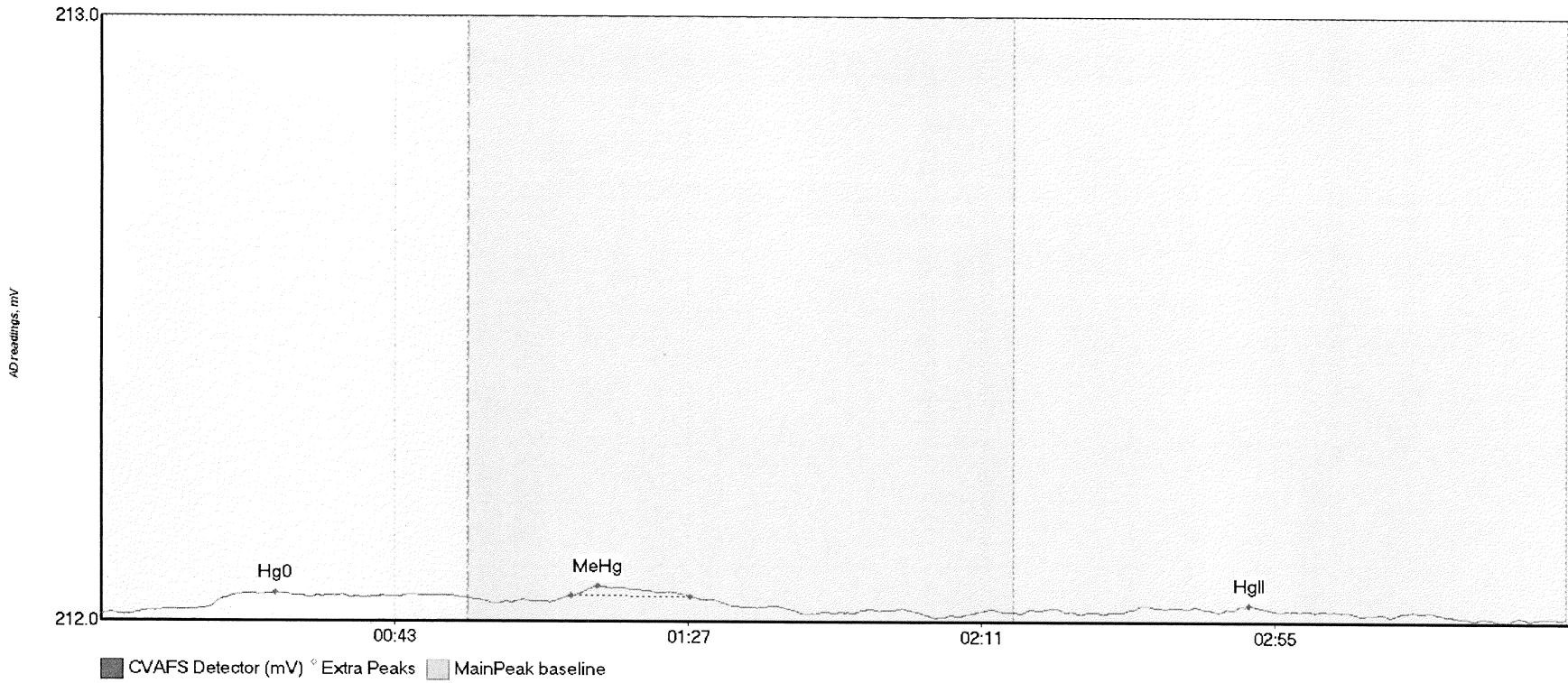
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	16.742	11.7	54.8	212.12	212.15	22.5	0.096	OK	212.1208	0.00	0.01	
SEQ-CAL5 MeHg	2248.586	61.7	136.8	212.14	212.18	77.2	11.807	CT	212.1208	0.00	0.01	017
SEQ-CAL5 HgII	37.213	147.6	195.7	212.18	212.15	167.6	0.119	OK	212.1208	0.00	0.01	

#9: SEQ-ICV1



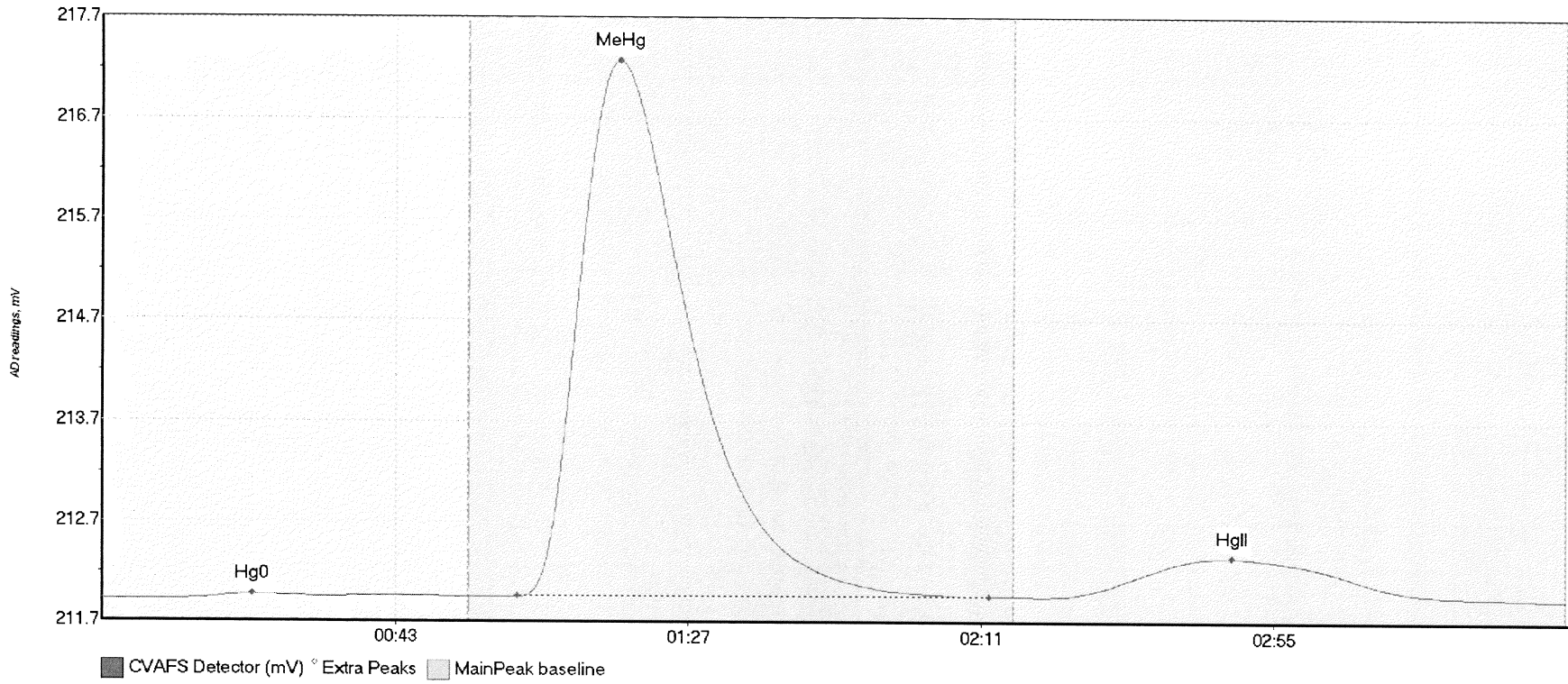
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-ICV1 Hg0	3.988	8.8	33.2	212.06	212.07	23.2	0.041	OK	212.0602	0.00	-0.01	
SEQ-ICV1 MeHg	269.005	62.9	118.0	212.07	212.07	77.4	1.457	OK	212.0602	0.00	-0.01	
SEQ-ICV1 HgII	0.225	147.8	153.6	212.06	212.07	151.6	0.013	OK	212.0602	0.00	-0.01	

#10: SEQ-ICB1



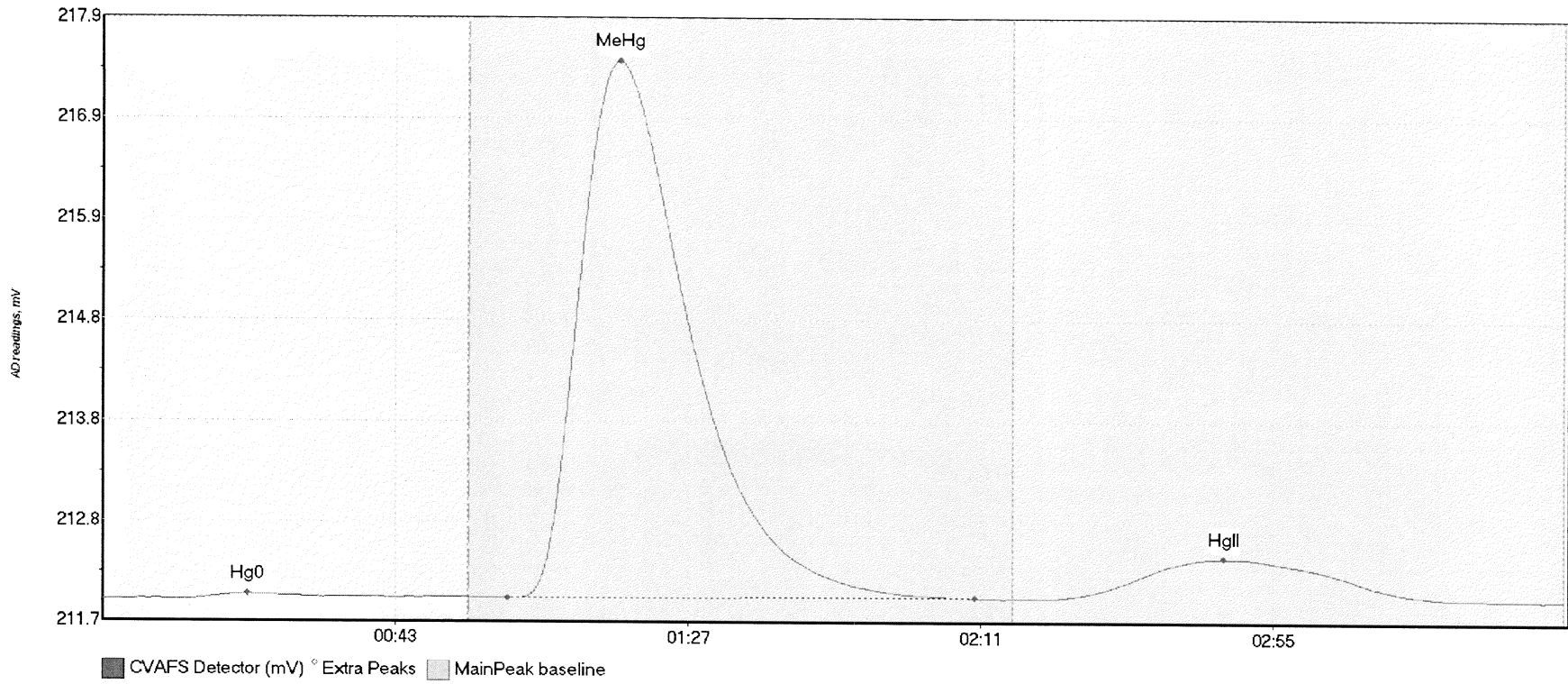
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	4.931	8.3	55.0	212.01	212.03	26.1	0.030	CT	212.0003	0.00	0.00	
SEQ-ICB1 MeHg	1.646	70.4	88.3	212.03	212.03	74.5	0.016	OK	212.0003	0.00	0.00	
SEQ-ICB1 HgII	0.565	167.6	176.9	212.00	212.00	172.2	0.011	OK	212.0003	0.00	0.00	

#11: F710422-BS1



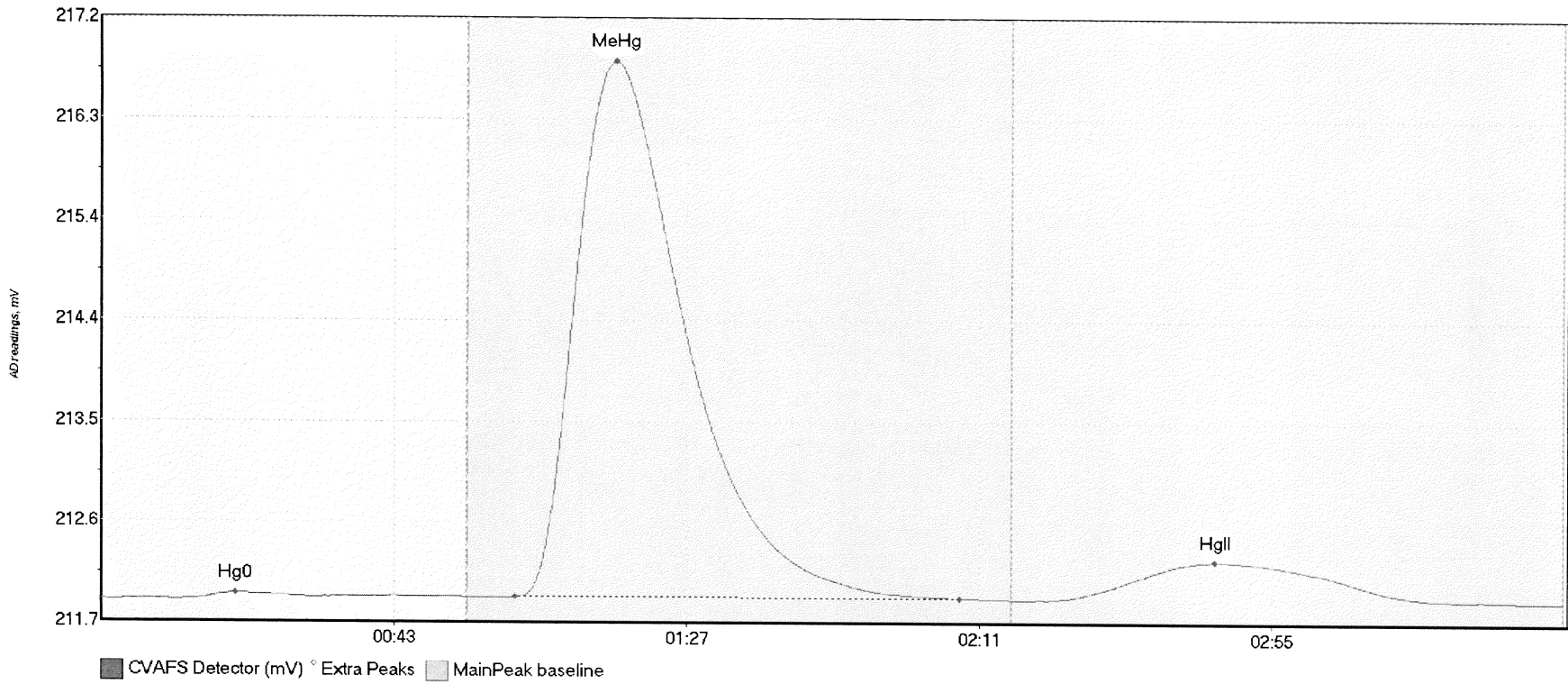
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BS1 Hg0	3.670	14.7	34.3	211.97	211.99	22.6	0.043	OK	211.9651	0.00	0.01	
F710422-BS1 MeH	1011.881	62.3	133.1	211.99	211.99	77.7	5.280	OK	211.9651	0.00	0.01	
F710422-BS1 HgI	121.966	143.9	204.8	212.00	211.99	169.8	0.391	OK	211.9651	0.00	0.01	

#12: F710422-BSD1



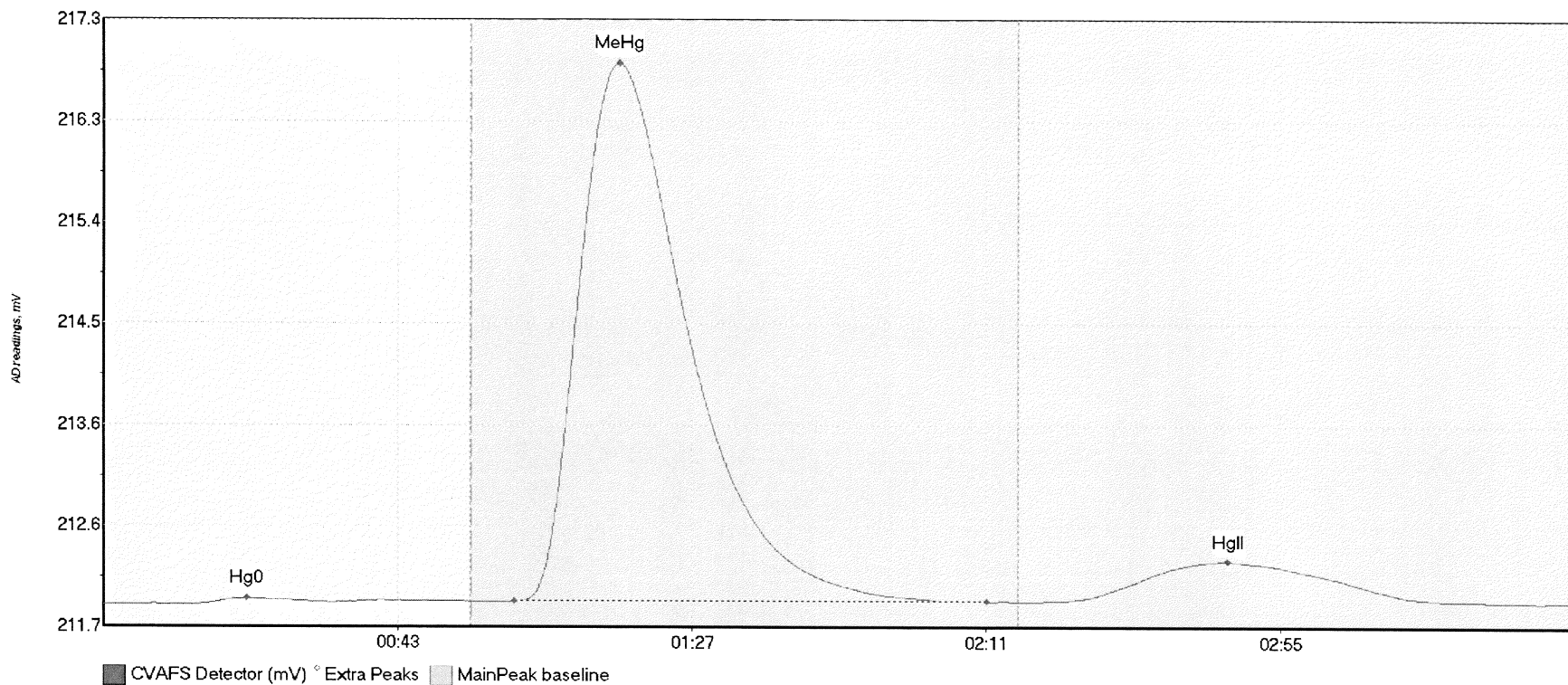
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BSD1 Hg	6.911	12.5	43.5	211.94	211.97	21.9	0.056	OK	211.9421	0.00	0.01	
F710422-BSD1 Me	1057.626	60.8	131.1	211.96	211.97	77.7	5.512	OK	211.9421	0.00	0.01	
F710422-BSD1 Hg	130.245	142.7	204.0	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	

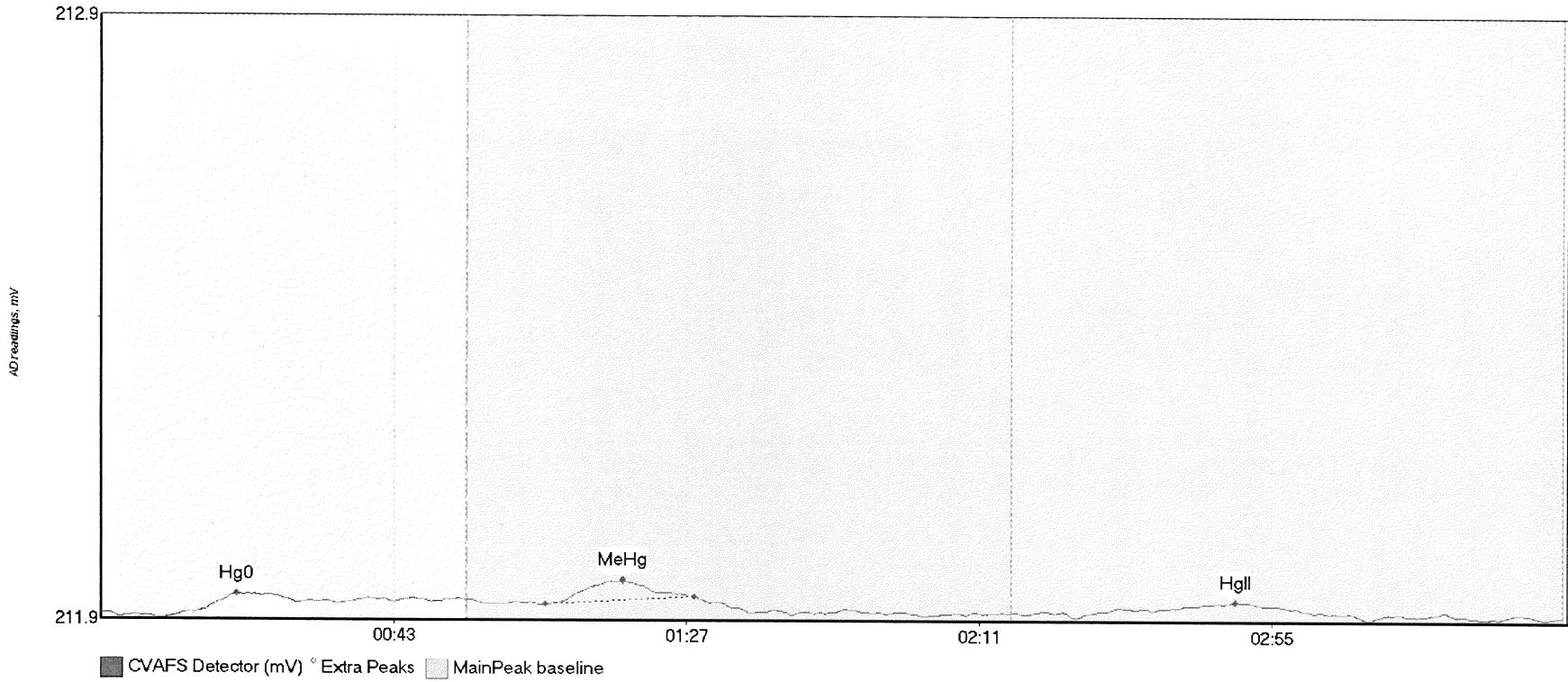
#14: F710421-BSD3



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	

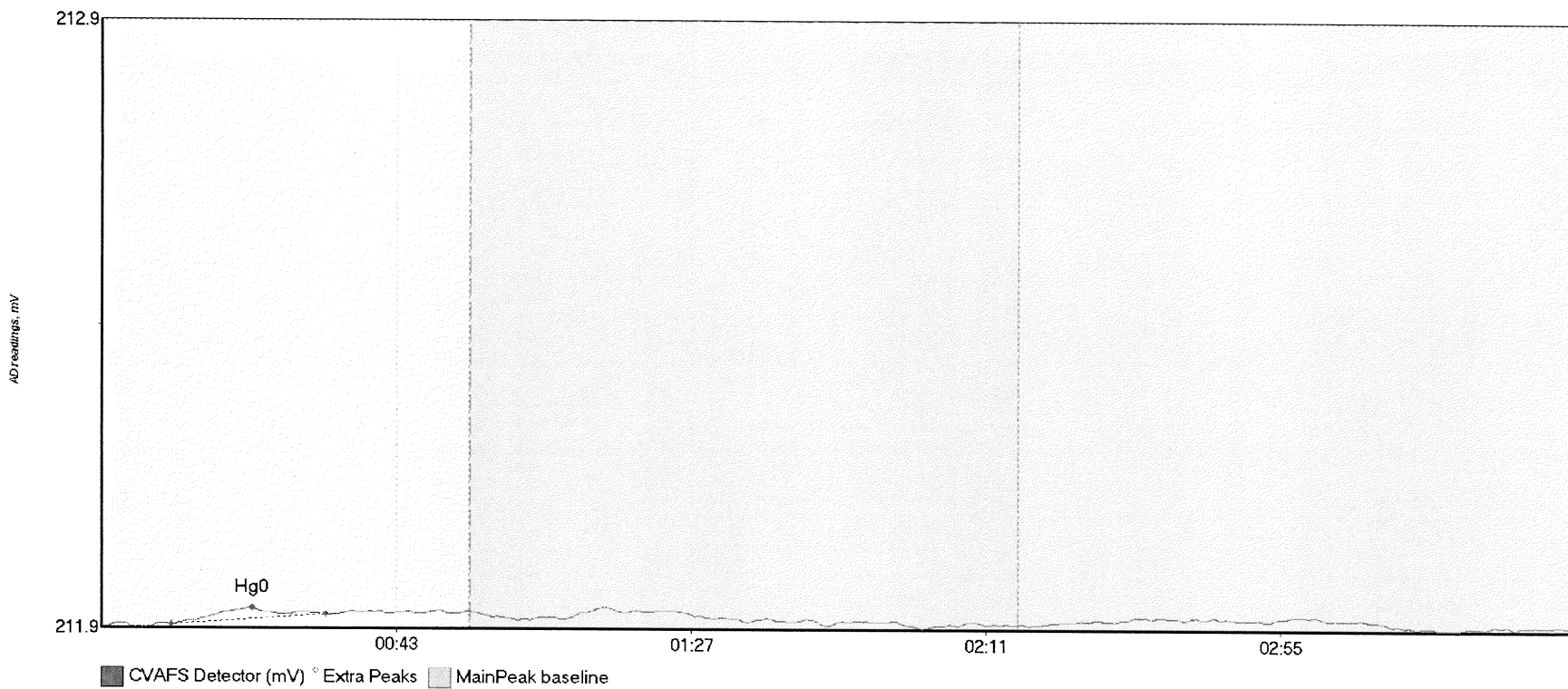


#15: F710422-BLK1



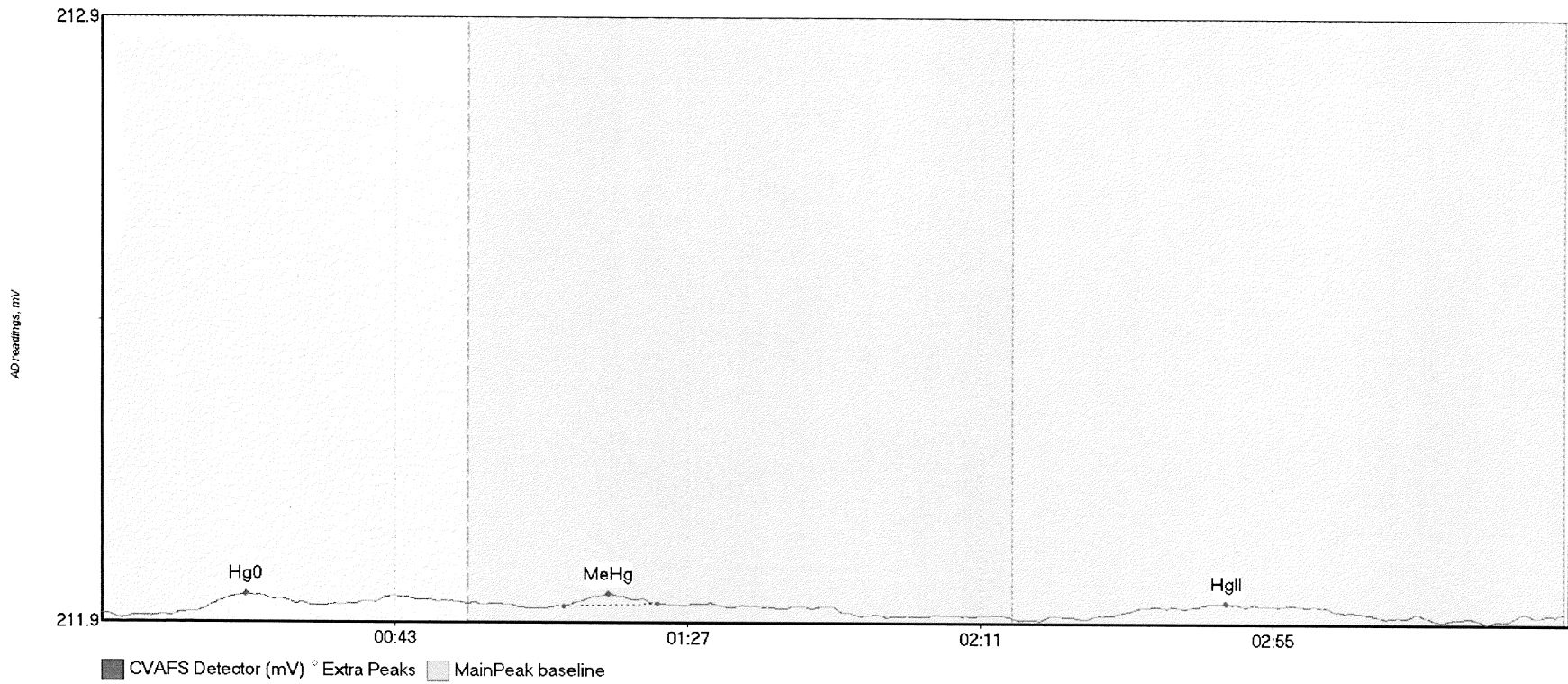
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK1 Hg	2.840	14.0	35.7	211.90	211.91	20.4	0.030	OK	211.8958	0.00	0.00	
F710422-BLK1 Me	3.707	66.9	89.1	211.91	211.92	78.4	0.039	OK	211.8958	0.00	0.00	
F710422-BLK1 Hg	1.903	158.2	181.0	211.90	211.90	170.6	0.015	OK	211.8958	0.00	0.00	

#16: F710422-BLK2



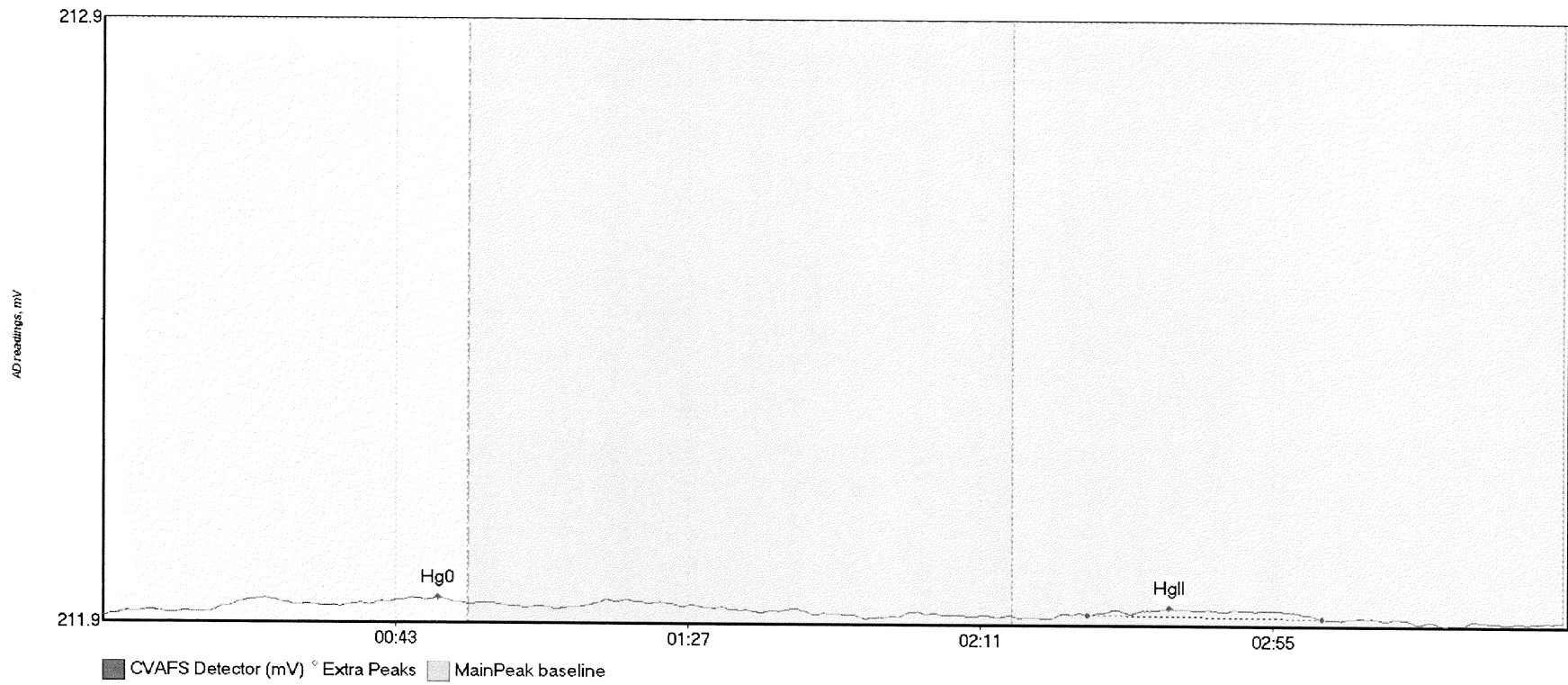
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK2	2.074	10.5	33.5	211.89	211.90	22.4	0.027	OK	211.8843	0.00	0.00	017

#17: F710422-BLK3



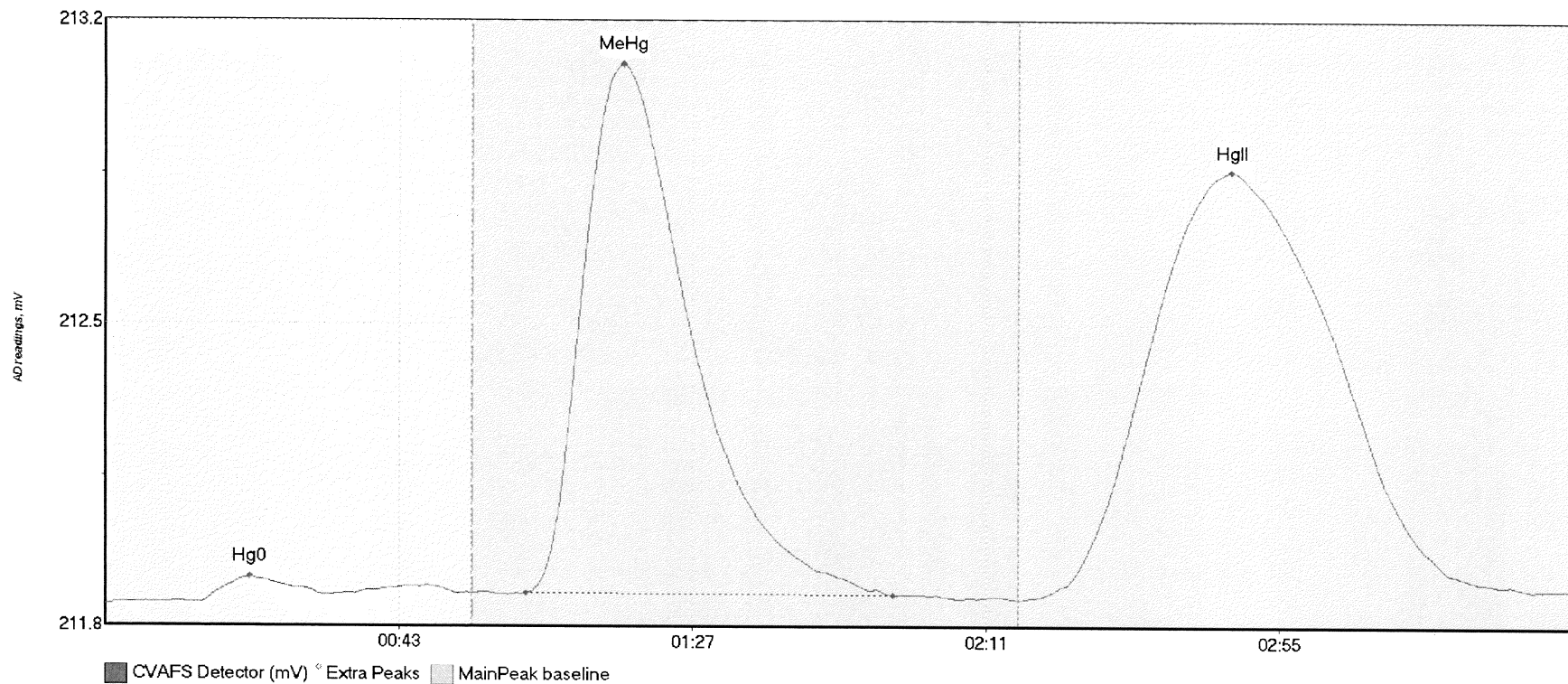
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-BLK3 Hg	2.409	14.1	31.7	211.88	211.90	21.6	0.029	OK	211.8819	0.00	0.00	
F710422-BLK3 Me	1.462	69.4	83.5	211.89	211.90	76.1	0.021	OK	211.8819	0.00	0.00	
F710422-BLK3 Hg	7.190	148.0	192.8	211.88	211.88	169.0	0.026	OK	211.8819	0.00	0.00	

#18: \*F710422-BLK4



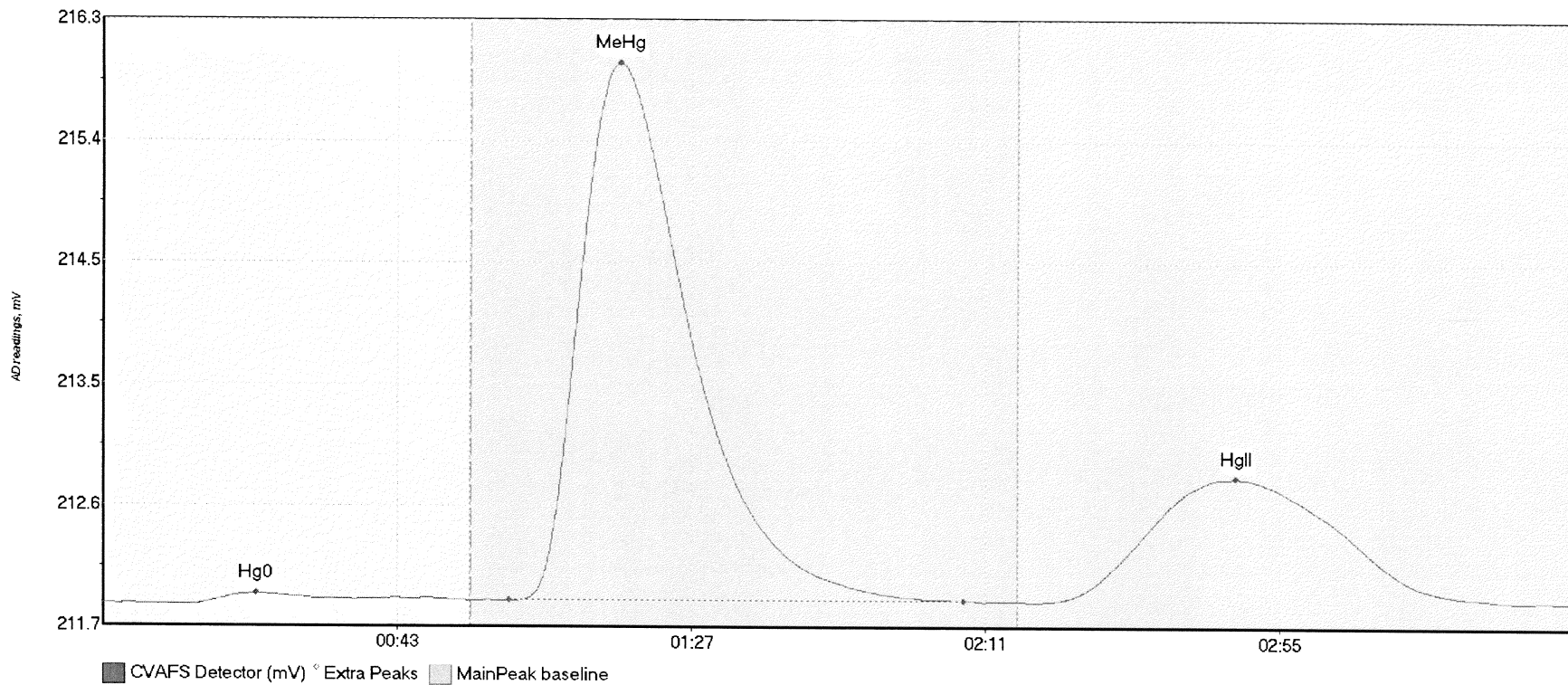
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710422-BLK4 H	3.782	15.8	55.0	211.87	211.89	50.4	0.026	CT	211.8694	0.00	0.00	
*F710422-BLK4 H	3.400	148.2	183.5	211.87	211.87	160.5	0.013	OK	211.8694	0.00	0.00	017

#19: F710422-DUP1



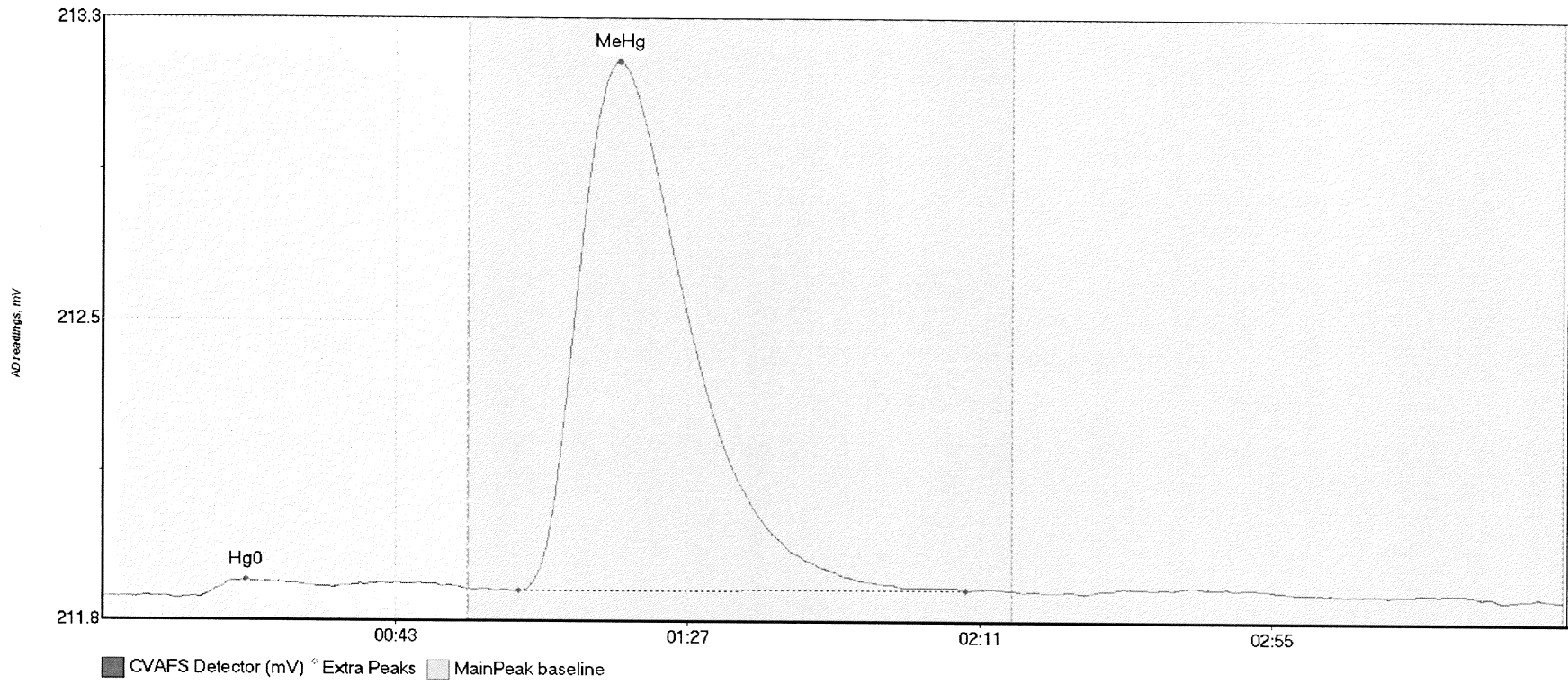
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-DUP1 Hg	5.114	13.6	33.5	211.86	211.88	21.6	0.058	OK	211.8593	0.00	0.04	
F710422-DUP1 Me	224.959	63.0	118.0	211.89	211.88	77.6	1.198	OK	211.8593	0.00	0.04	
F710422-DUP1 Hg	302.500	139.5	214.0	211.88	211.89	168.7	0.969	OK	211.8593	0.00	0.04	

#20: F710422-MS1



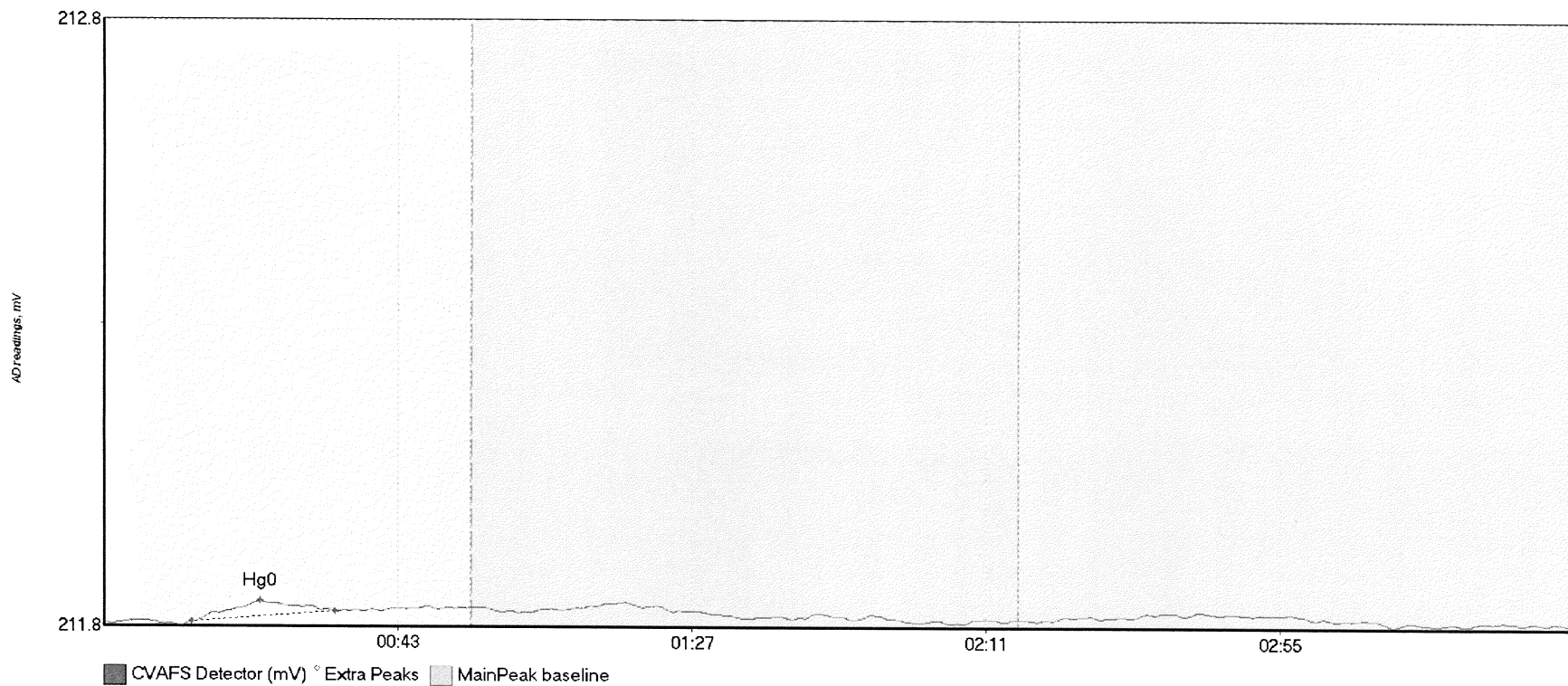
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MS1 Hg0	13.482	13.4	54.7	211.86	211.90	22.8	0.081	OK	211.8716	0.00	0.02	
F710422-MS1 MeH	778.261	60.7	128.8	211.89	211.90	77.3	4.103	OK	211.8716	0.00	0.02	
F710422-MS1 HgI	303.033	140.5	212.2	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

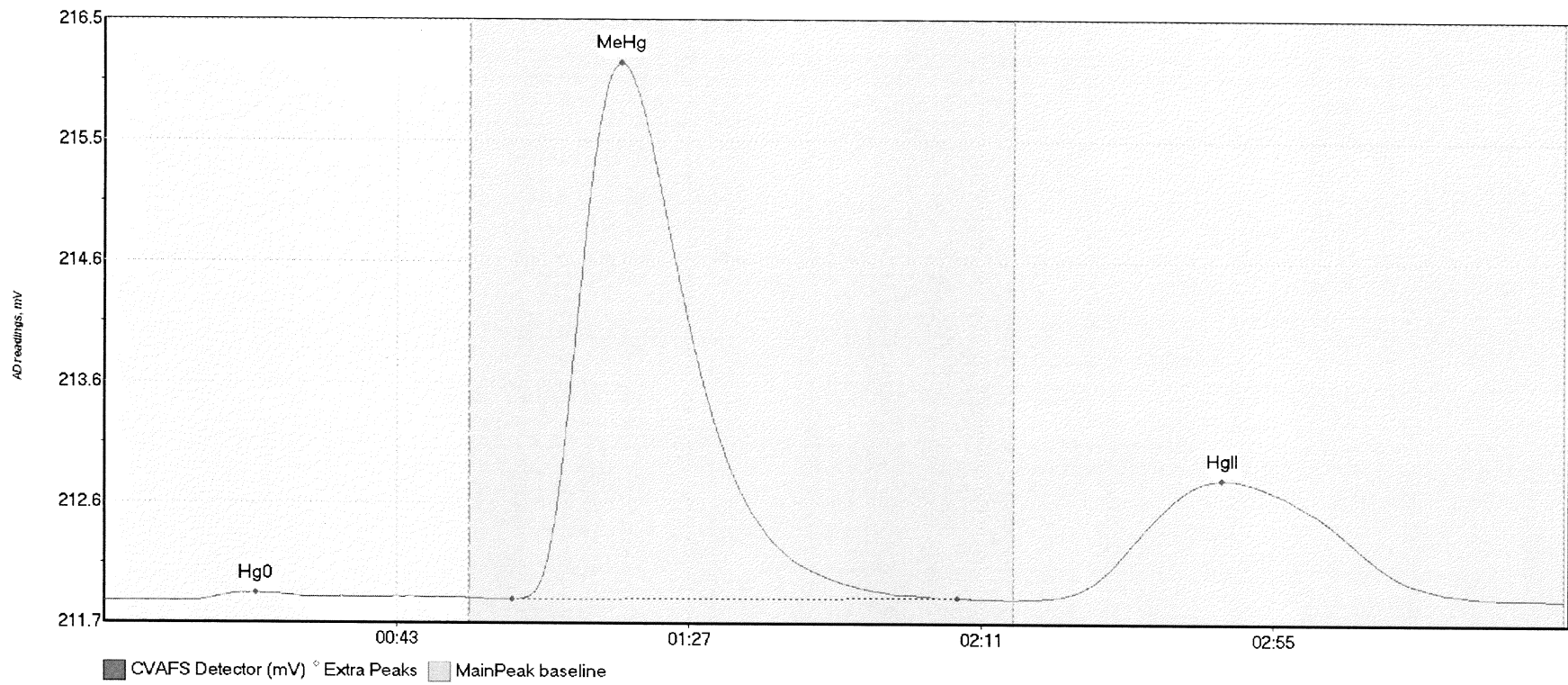
#22: SEQ-CCB1



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

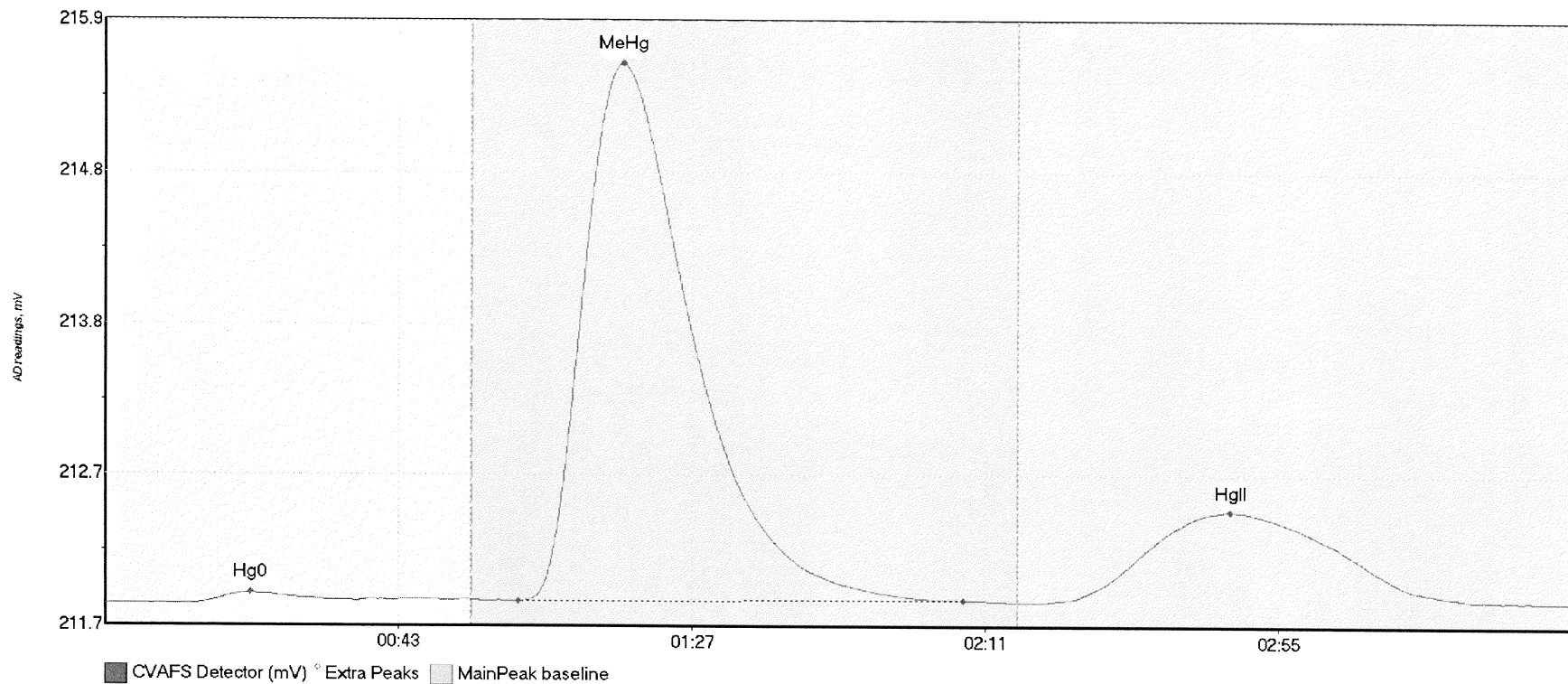


#23: F710422-MSD1



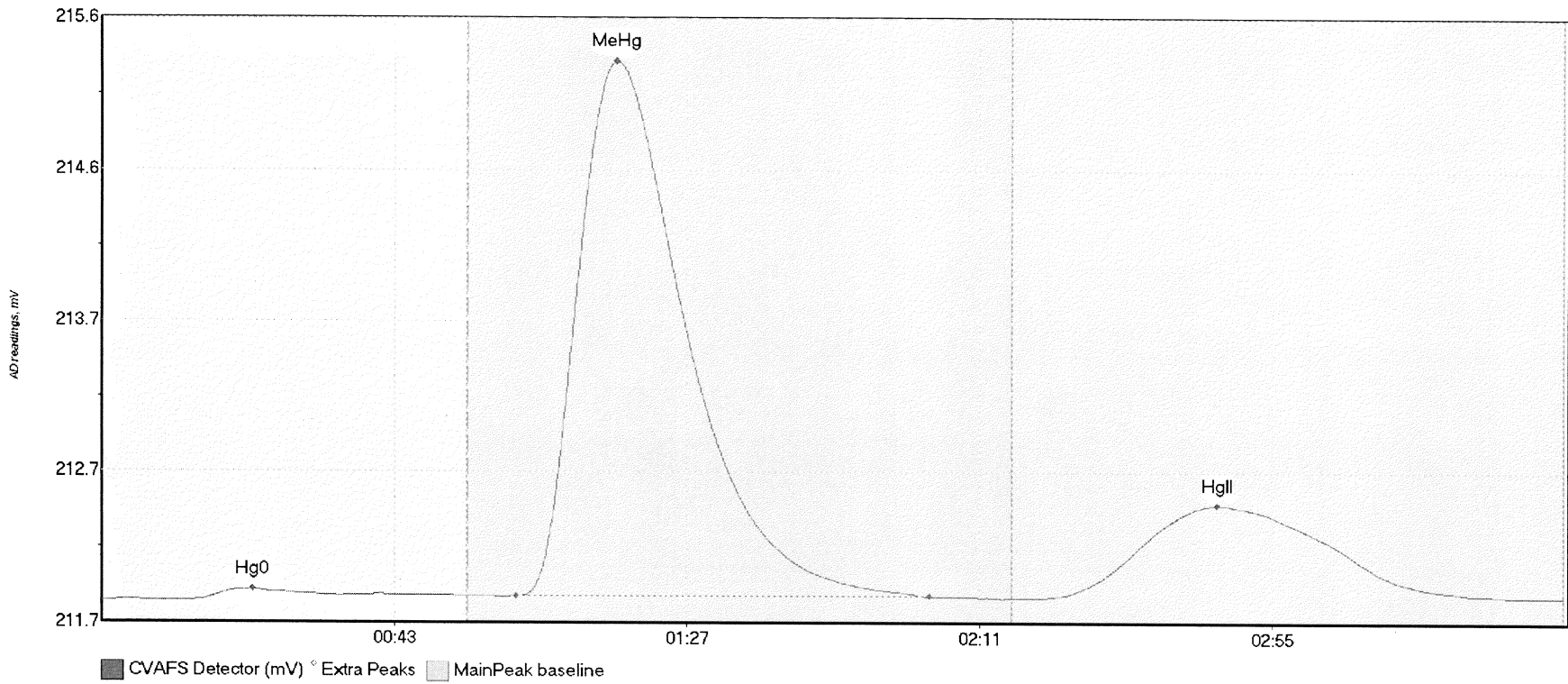
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MSD1 Hg	9.522	13.6	55.0	211.85	211.87	22.8	0.061	CT	211.8438	0.00	0.02	
F710422-MSD1 Me	819.165	61.4	128.5	211.86	211.87	77.8	4.285	OK	211.8438	0.00	0.02	
F710422-MSD1 Hg	306.463	138.5	218.2	211.87	211.87	168.3	0.958	OK	211.8438	0.00	0.02	

#24: F710422-MS2



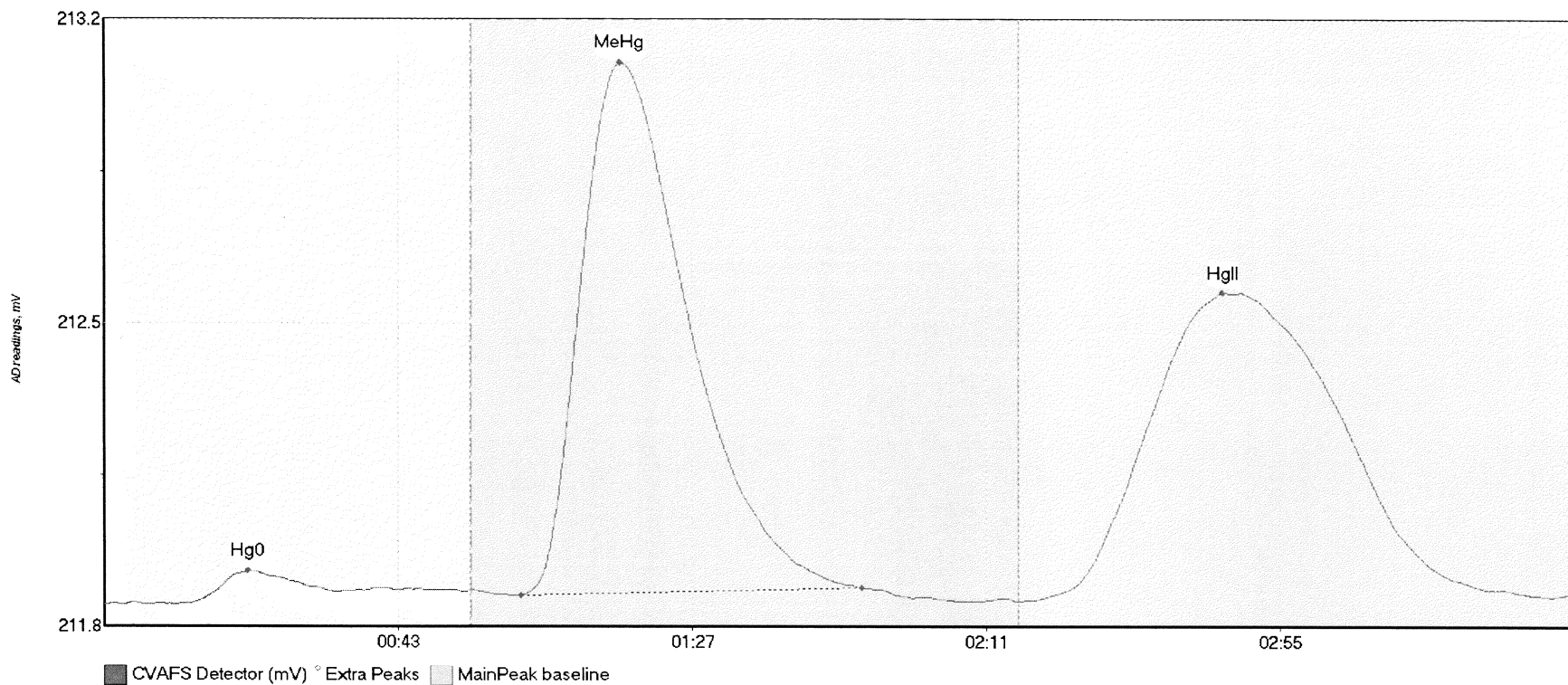
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MS2 Hg0	7.599	13.2	37.6	211.85	211.87	21.8	0.073	OK	211.8515	0.00	0.02	
F710422-MS2 MeH	695.855	62.0	128.7	211.87	211.88	77.7	3.704	OK	211.8515	0.00	0.02	
F710422-MS2 HgI	198.120	141.1	219.0	211.87	211.87	168.8	0.625	OK	211.8515	0.00	0.02	

#25: F710422-MSD2



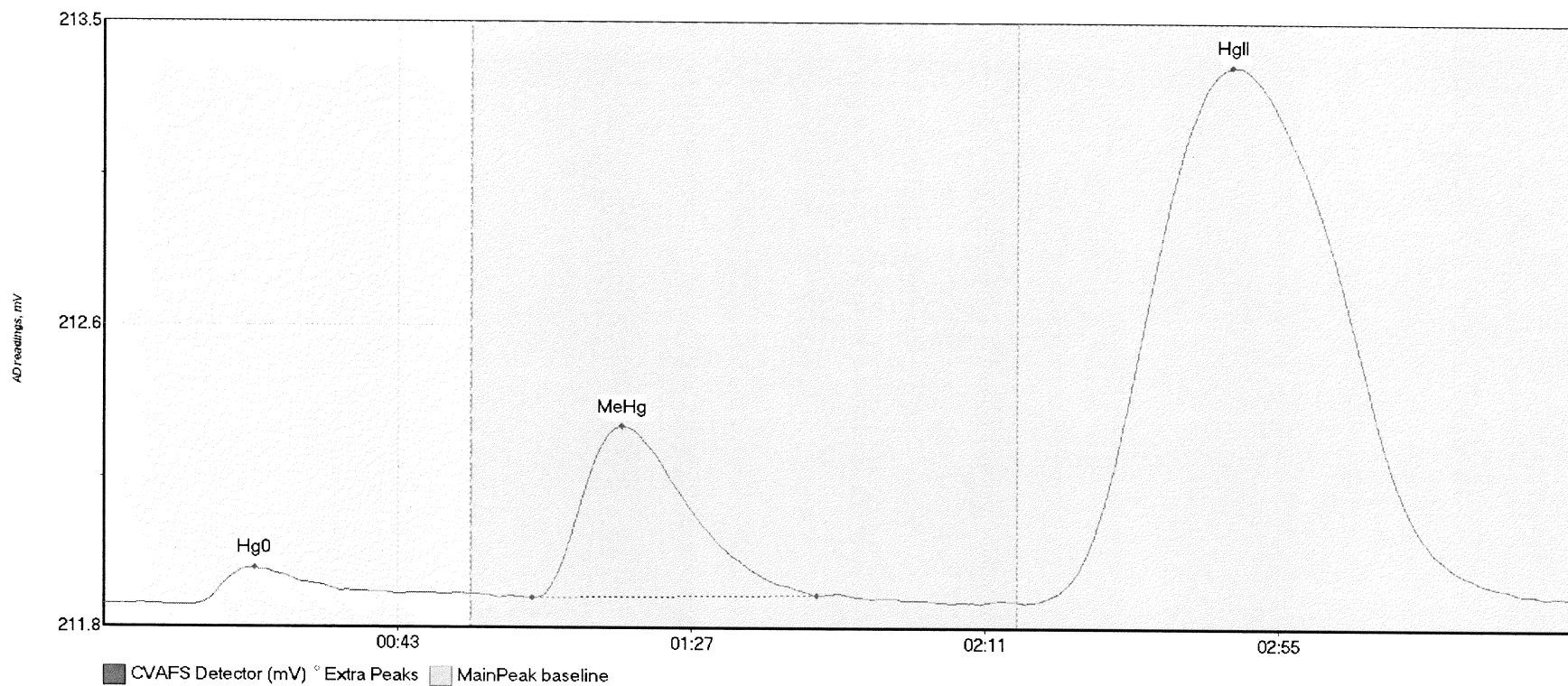
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710422-MSD2 Hg	10.674	12.7	54.9	211.85	211.88	22.7	0.072	OK	211.8512	0.00	0.02	
F710422-MSD2 Me	649.814	62.3	124.5	211.88	211.88	77.5	3.448	OK	211.8512	0.00	0.02	
F710422-MSD2 Hg	187.381	141.8	214.6	211.87	211.87	167.8	0.597	OK	211.8512	0.00	0.02	

#26: 1708240-06



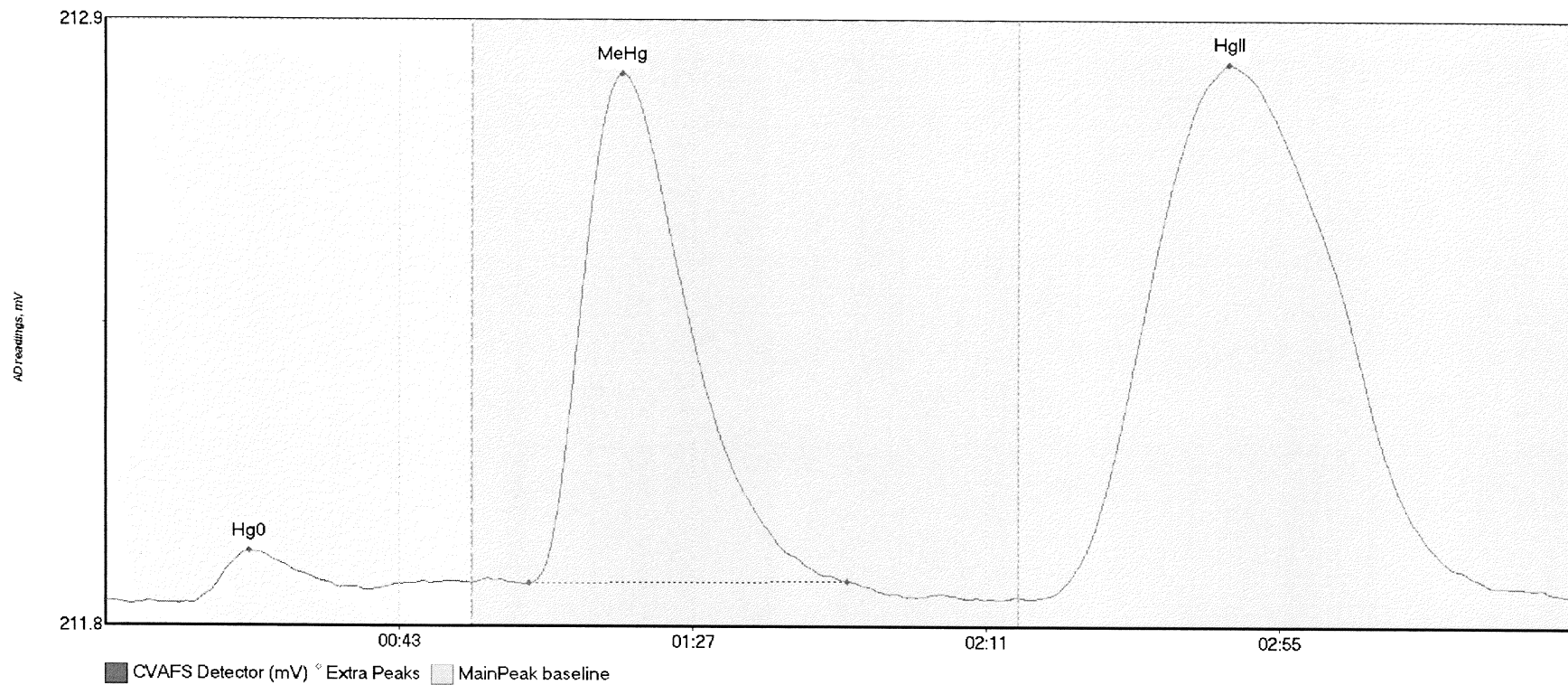
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-06 Hg0	10.640	12.9	53.8	211.86	211.88	21.6	0.075	OK	211.8550	0.00	0.02	
1708240-06 MeHg	226.606	62.5	113.4	211.87	211.89	77.2	1.228	OK	211.8550	0.00	0.02	
1708240-06 HgII	229.528	139.2	216.7	211.86	211.87	167.4	0.712	OK	211.8550	0.00	0.02	

#27: 1708240-07



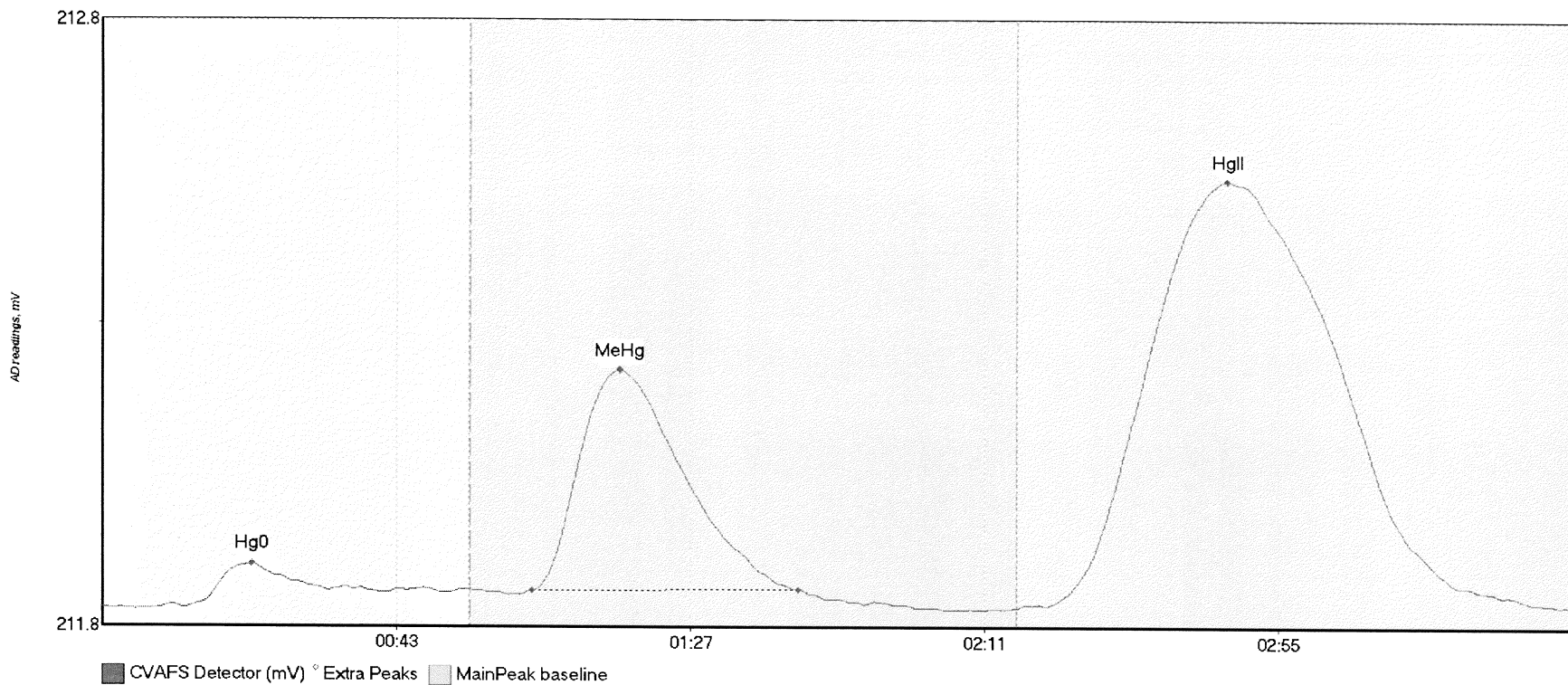
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-07 Hg0	13.080	12.9	44.4	211.86	211.89	22.6	0.103	OK	211.8585	0.00	0.03	
1708240-07 MeHg	87.355	64.2	106.9	211.88	211.88	77.6	0.480	OK	211.8585	0.00	0.03	
1708240-07 HgII	478.447	138.7	216.7	211.87	211.88	169.0	1.496	OK	211.8585	0.00	0.03	017

#28: 1708240-08



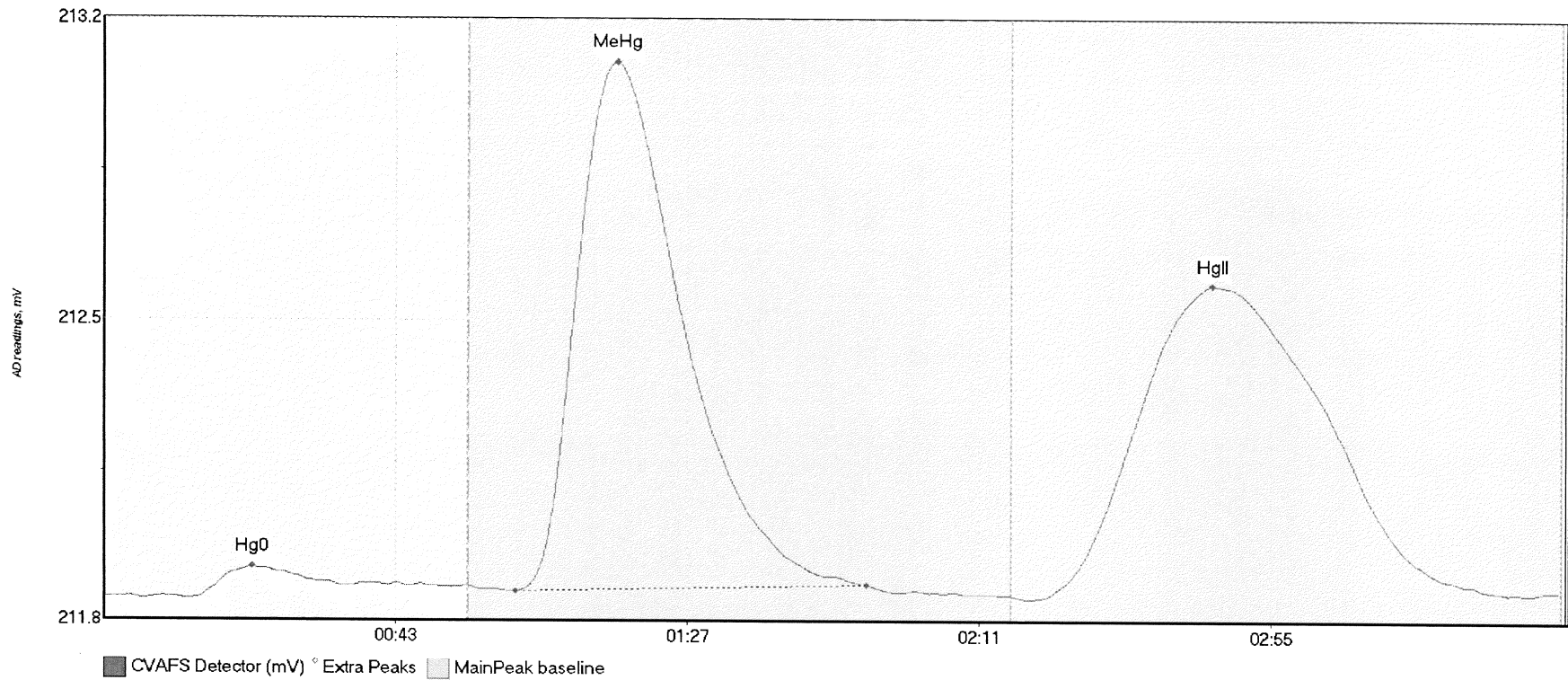
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-08 Hg0	10.015	12.9	39.2	211.85	211.87	21.6	0.090	OK	211.8534	0.00	0.01	
1708240-08 MeHg	161.104	63.6	111.2	211.88	211.89	77.5	0.890	OK	211.8534	0.00	0.01	
1708240-08 HgII	293.508	141.2	219.4	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	

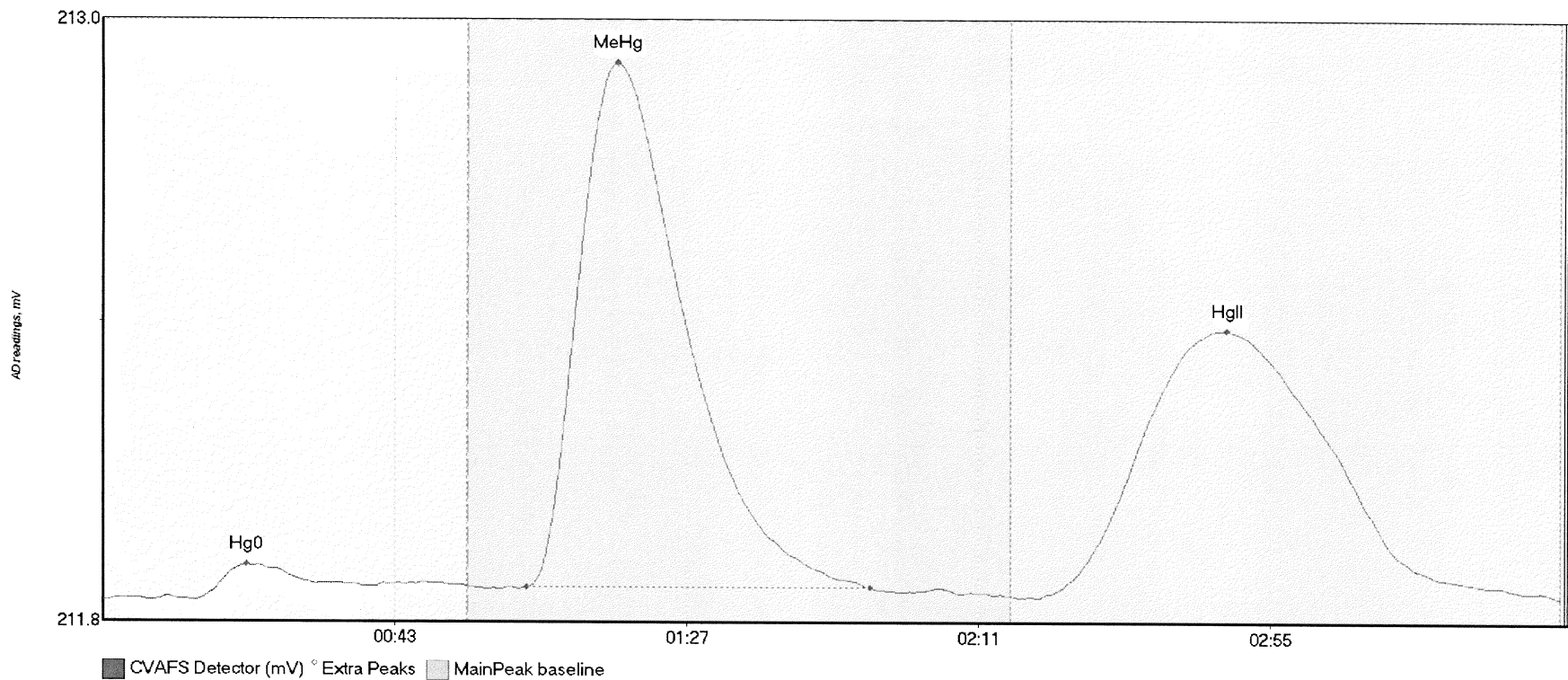
#30: 1708240-10



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	



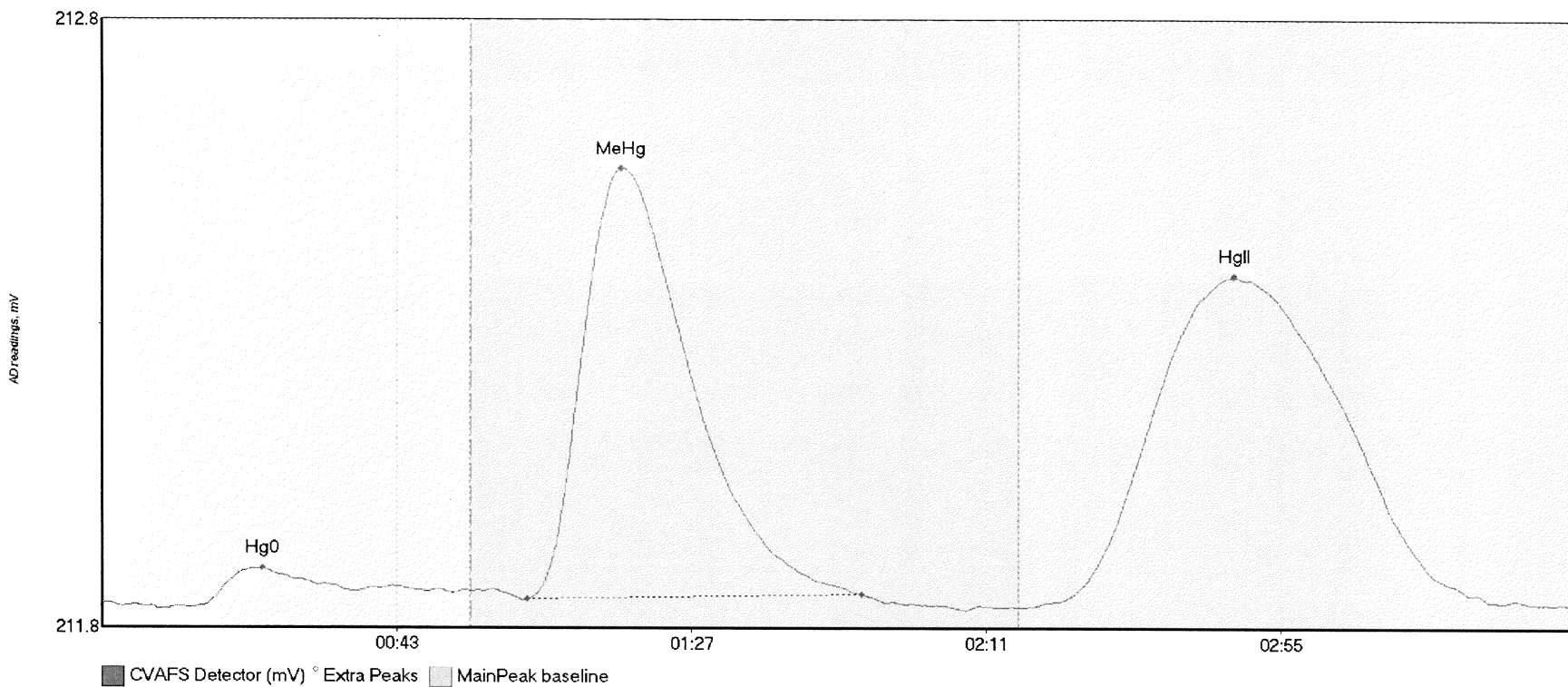
#31: 1708240-11



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	

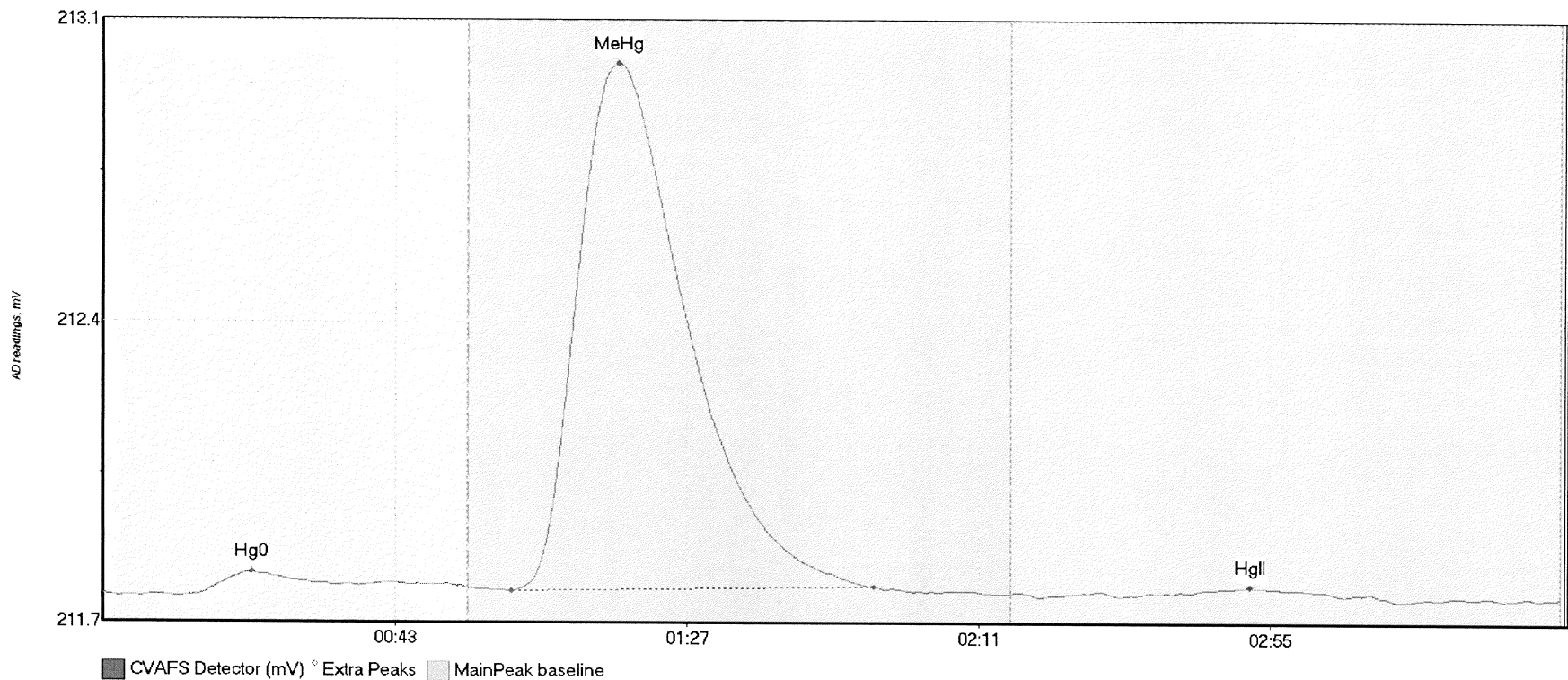
017

#32: 1708240-12



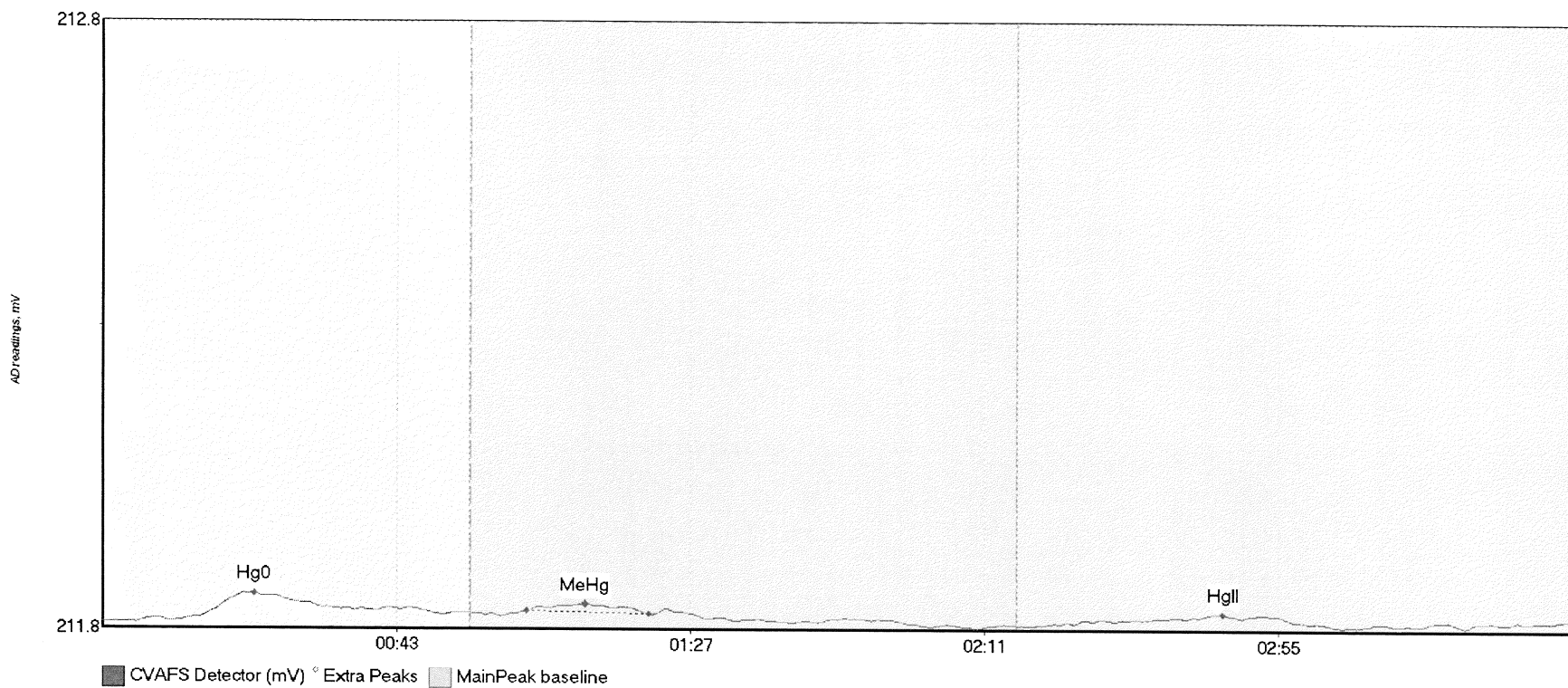
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-12 Hg0	9.040	15.0	52.3	211.81	211.83	24.0	0.061	OK	211.8182	0.00	0.00	
1708240-12 MeHg	131.757	63.4	113.4	211.82	211.83	77.5	0.709	OK	211.8182	0.00	0.00	
1708240-12 HgII	174.955	139.4	219.7	211.81	211.81	169.0	0.543	OK	211.8182	0.00	0.00	

#33: SEQ-CCV2



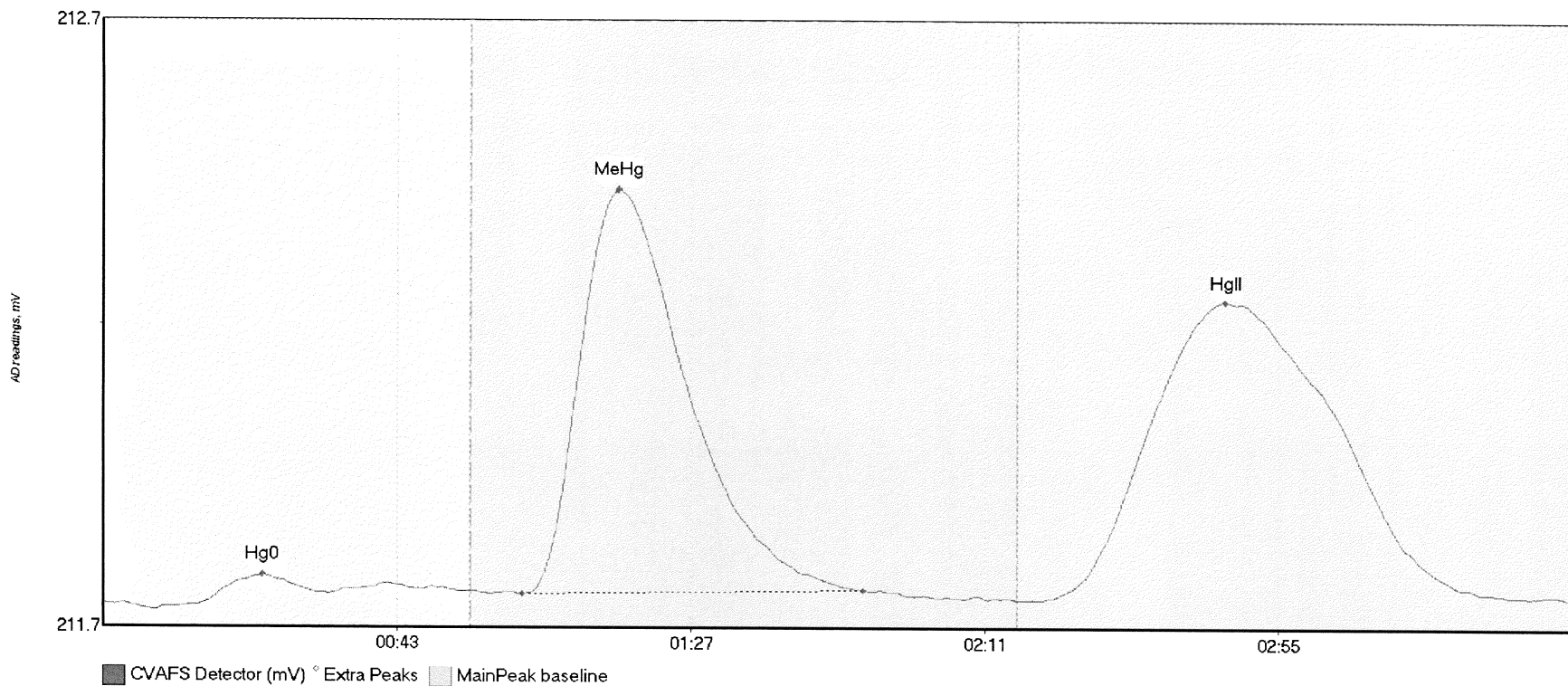
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	8.293	14.0	55.0	211.80	211.82	22.4	0.051	CT	211.8053	0.00	-0.01	
SEQ-CCV2 MeHg	227.784	61.6	116.2	211.81	211.82	77.7	1.199	OK	211.8053	0.00	-0.01	
SEQ-CCV2 HgII	1.204	164.3	183.1	211.81	211.81	173.0	0.012	OK	211.8053	0.00	-0.01	

#34: SEQ-CCB2



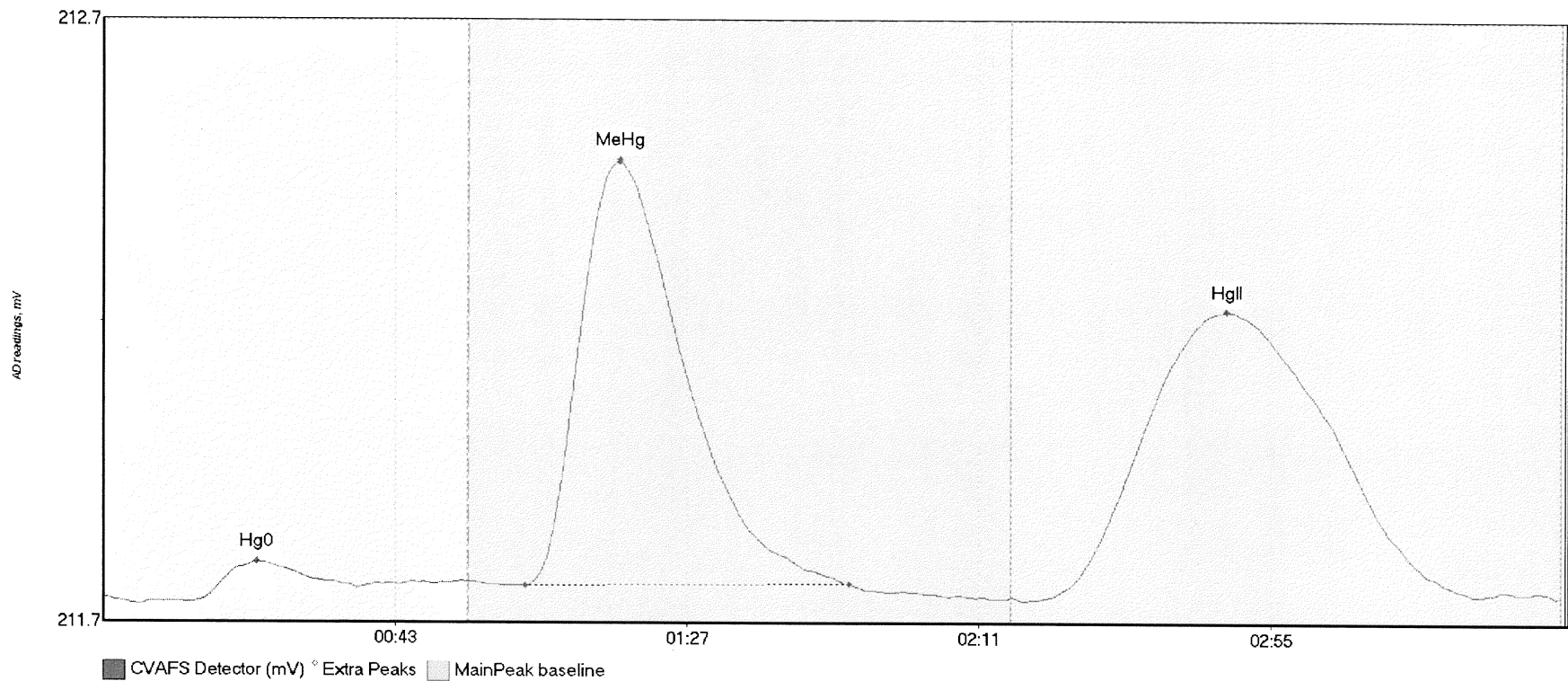
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	7.154	11.6	51.1	211.78	211.79	22.7	0.044	OK	211.7803	0.00	0.01	
SEQ-CCB2 MeHg	1.625	63.4	81.8	211.80	211.79	72.1	0.012	OK	211.7803	0.00	0.01	
SEQ-CCB2 HgII	3.285	145.4	180.9	211.78	211.78	167.7	0.017	OK	211.7803	0.00	0.01	

#35: 1708240-13



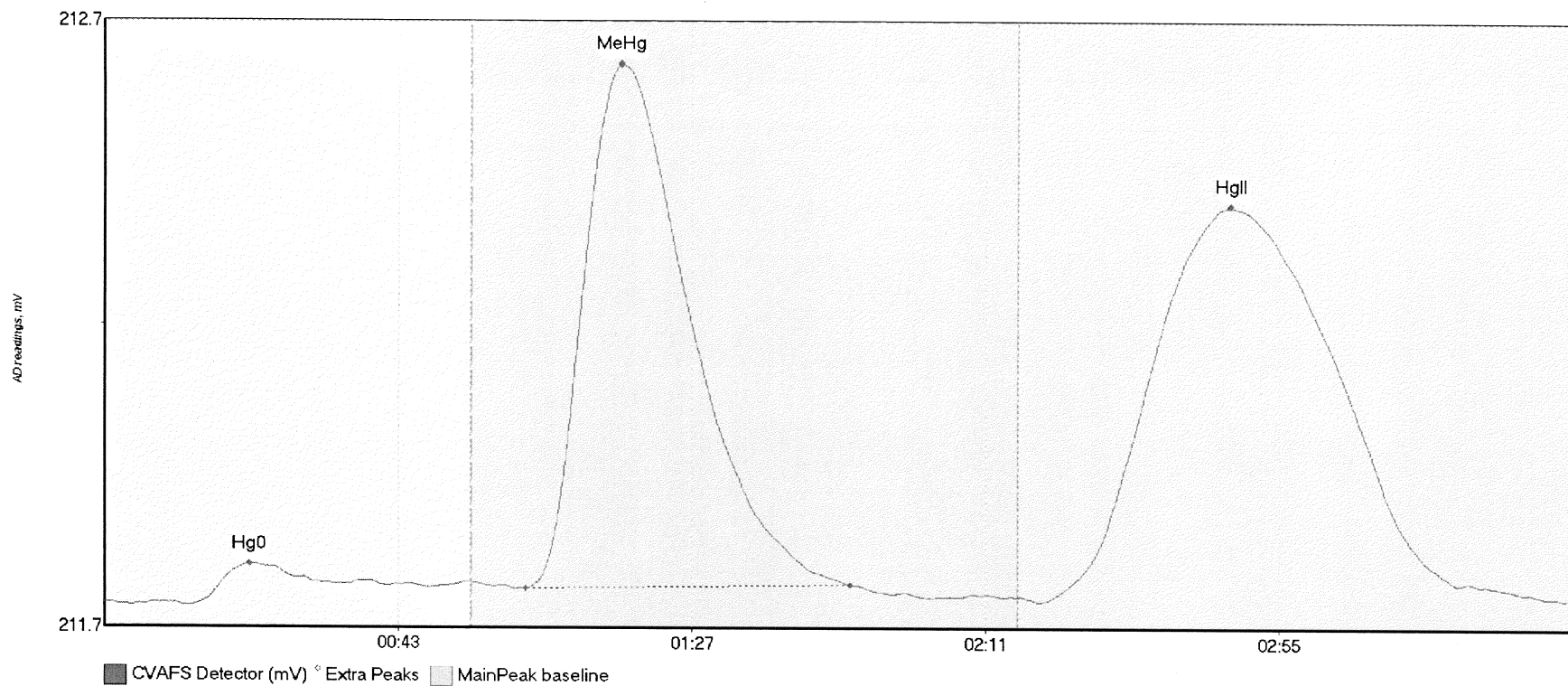
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-13 Hg0	4.112	14.2	33.8	211.77	211.79	23.9	0.049	OK	211.7742	0.00	0.01	
1708240-13 MeHg	122.568	62.7	113.7	211.79	211.80	77.2	0.667	OK	211.7742	0.00	0.01	
1708240-13 HgII	154.210	141.7	213.6	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	

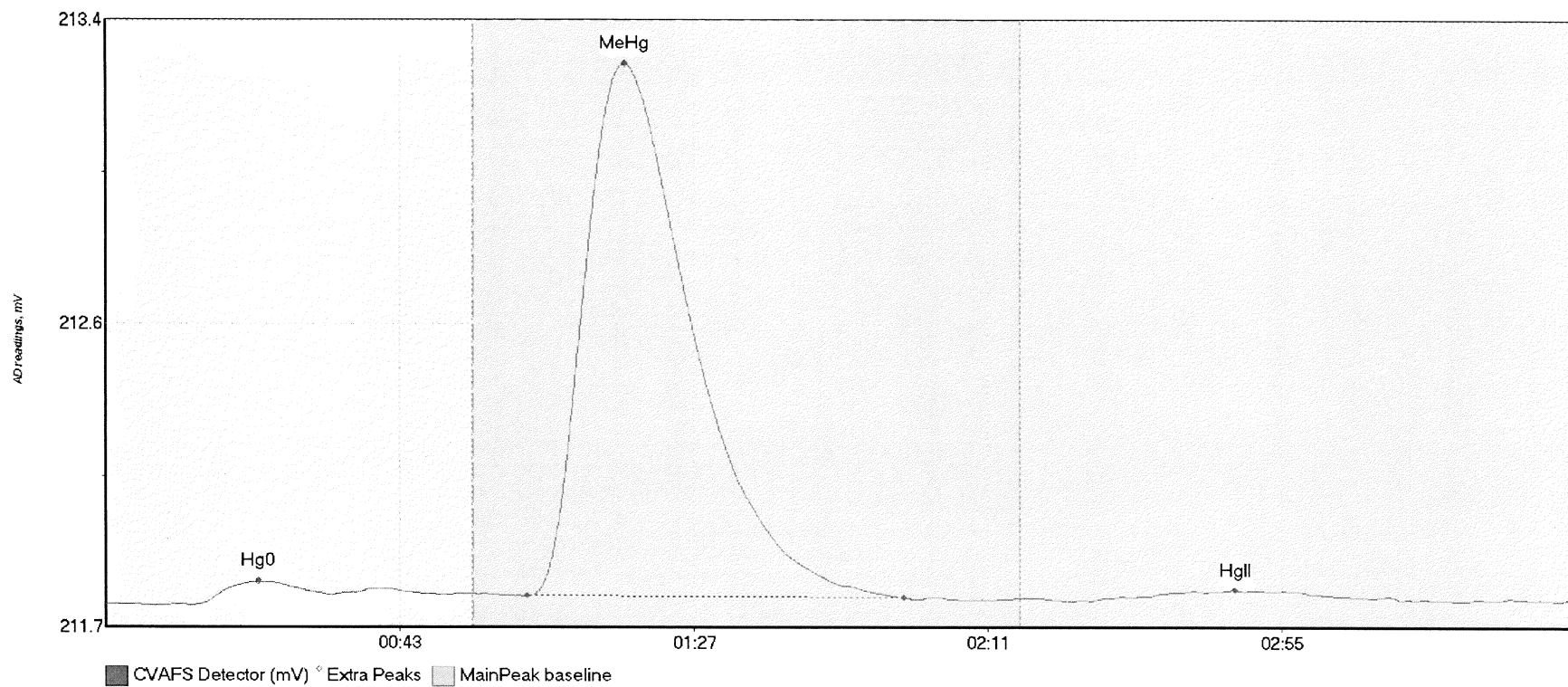
#37: 1708240-15



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	

017

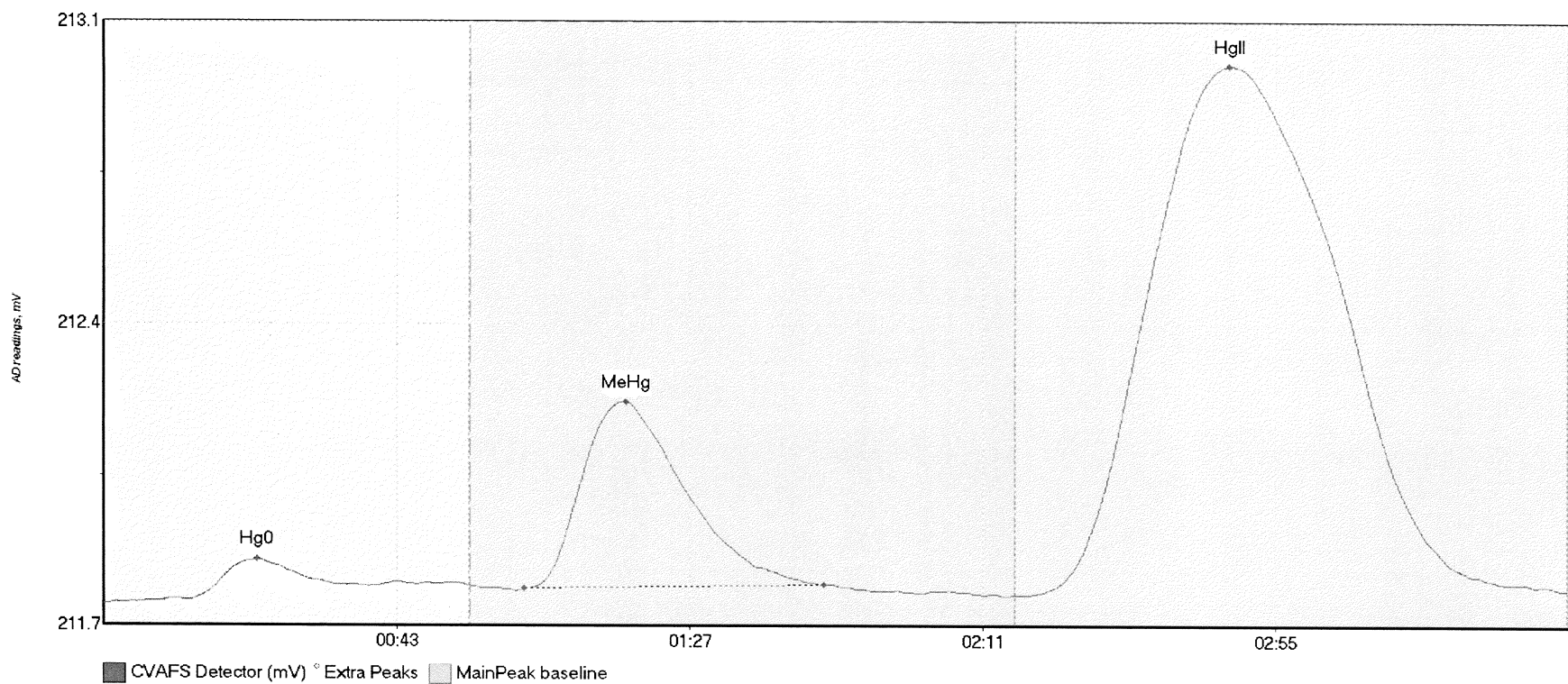
#38: 1710535-02



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	

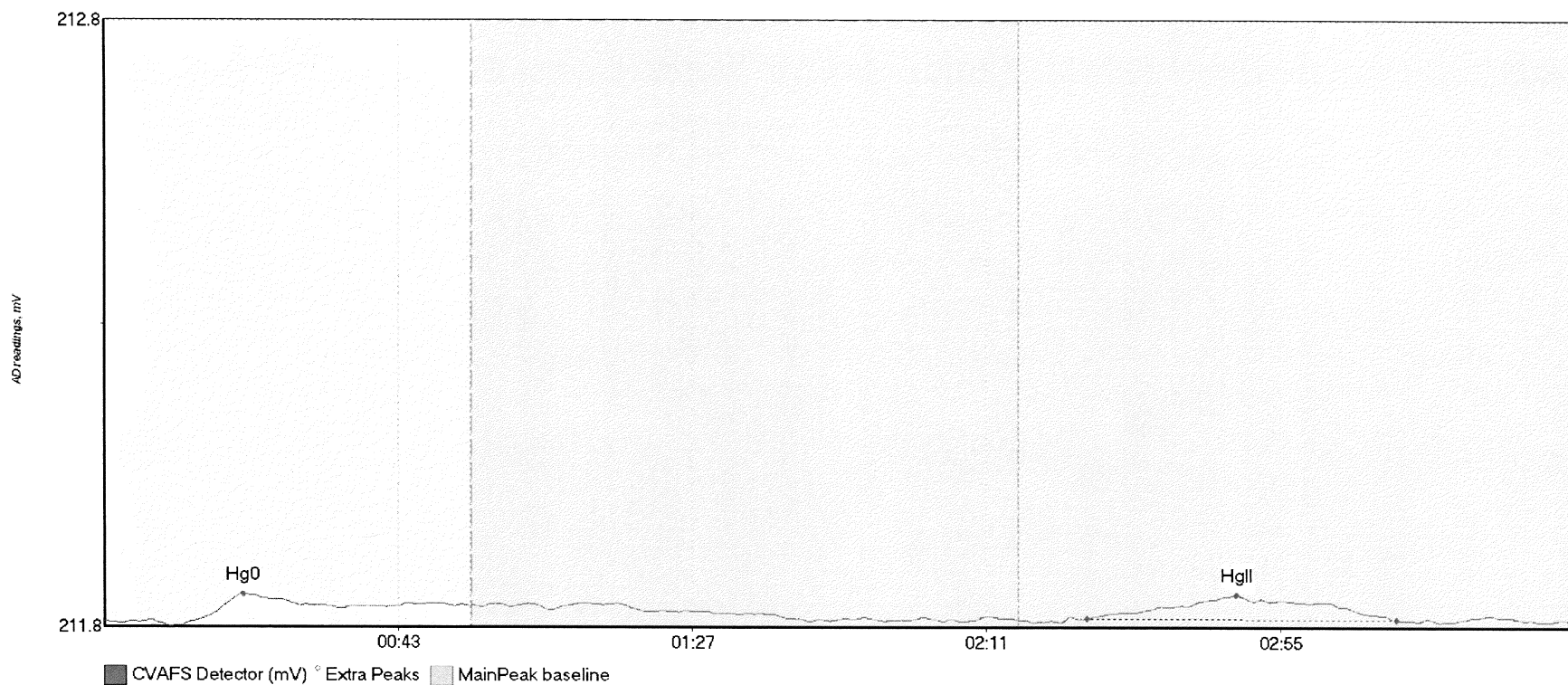


#39: 1710626-01



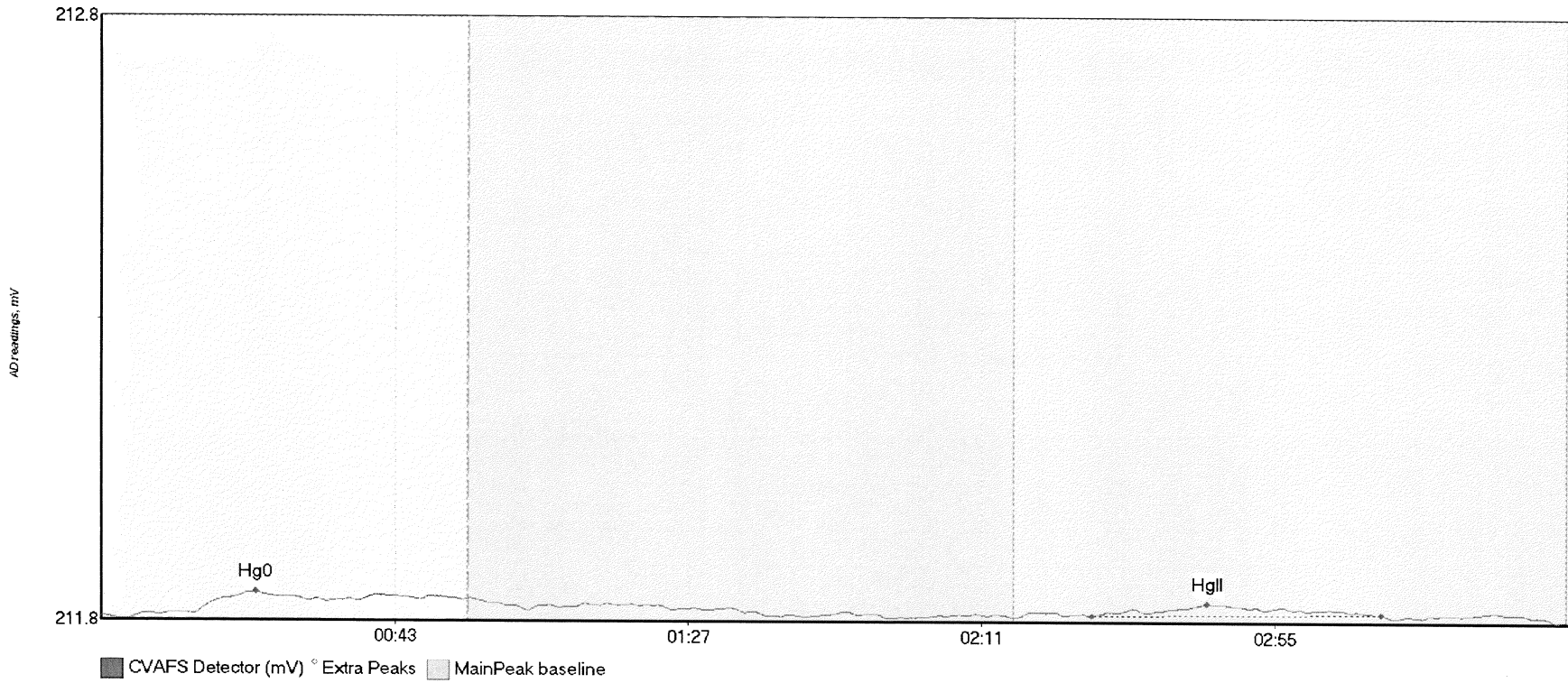
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1710626-01 Hg0	9.355	5.5	39.7	211.77	211.81	23.0	0.097	OK	211.7705	0.00	0.03	
1710626-01 MeHg	75.511	63.2	108.2	211.80	211.81	78.4	0.426	OK	211.7705	0.00	0.03	
1710626-01 HgII	386.862	138.8	219.6	211.79	211.80	169.1	1.207	OK	211.7705	0.00	0.03	

#40: F710421-BLK8



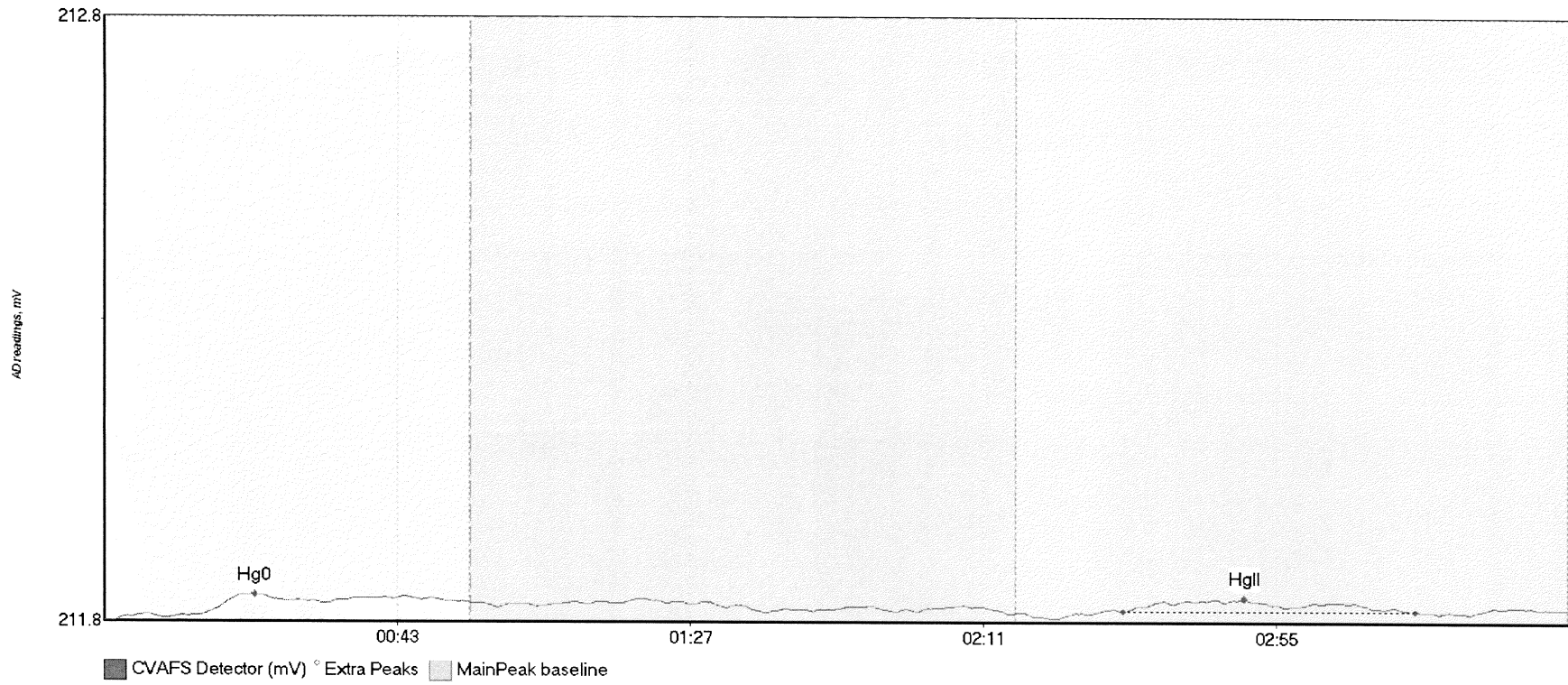
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK8 Hg	3.773	13.4	35.6	211.79	211.82	20.9	0.045	OK	211.7936	0.00	0.00	
F710421-BLK8 Hg	10.092	147.2	193.4	211.80	211.80	169.4	0.039	OK	211.7936	0.00	0.00	017

#41: F710421-BLK9



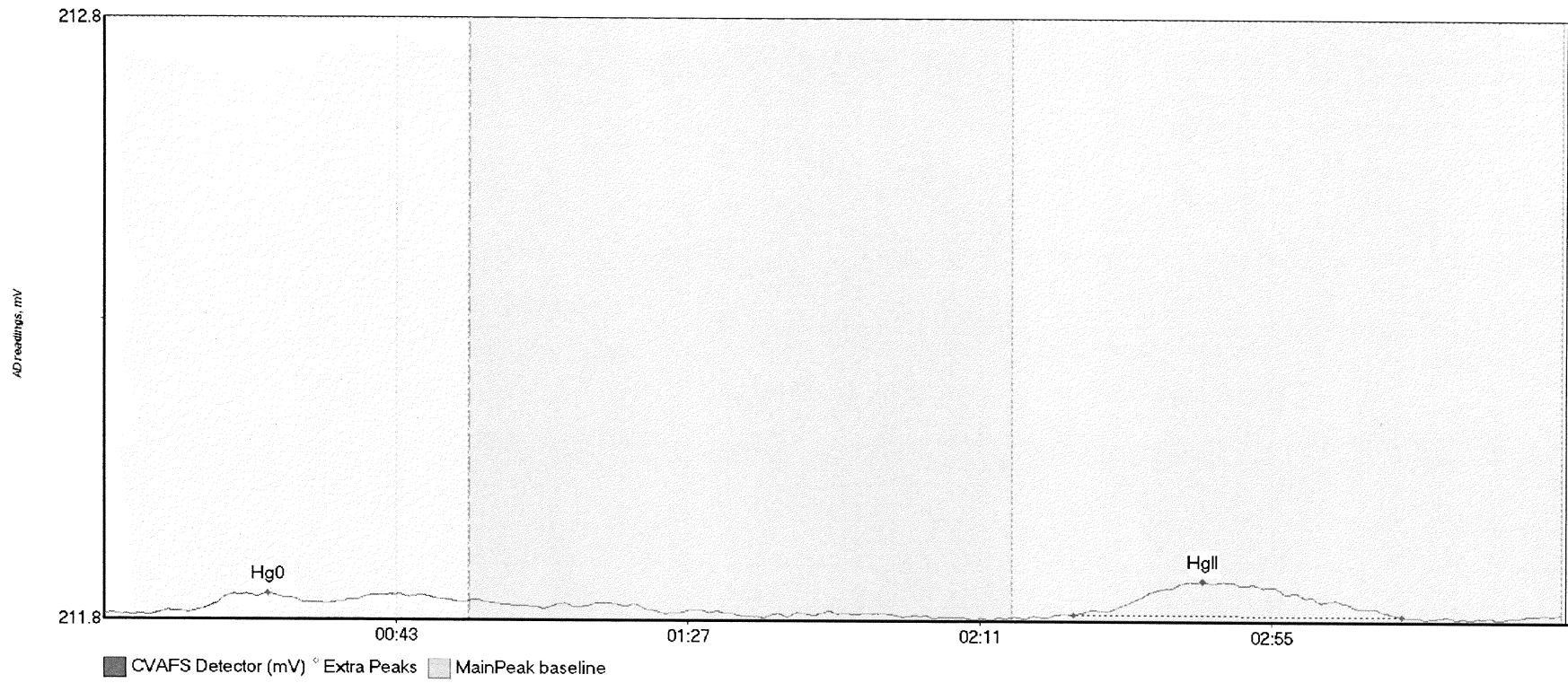
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLK9 Hg	2.883	14.0	33.6	211.79	211.81	23.1	0.036	OK	211.7823	0.00	0.00	
F710421-BLK9 Hg	4.419	148.6	192.0	211.78	211.79	165.9	0.021	OK	211.7823	0.00	0.00	017

#42: F710421-BLKA



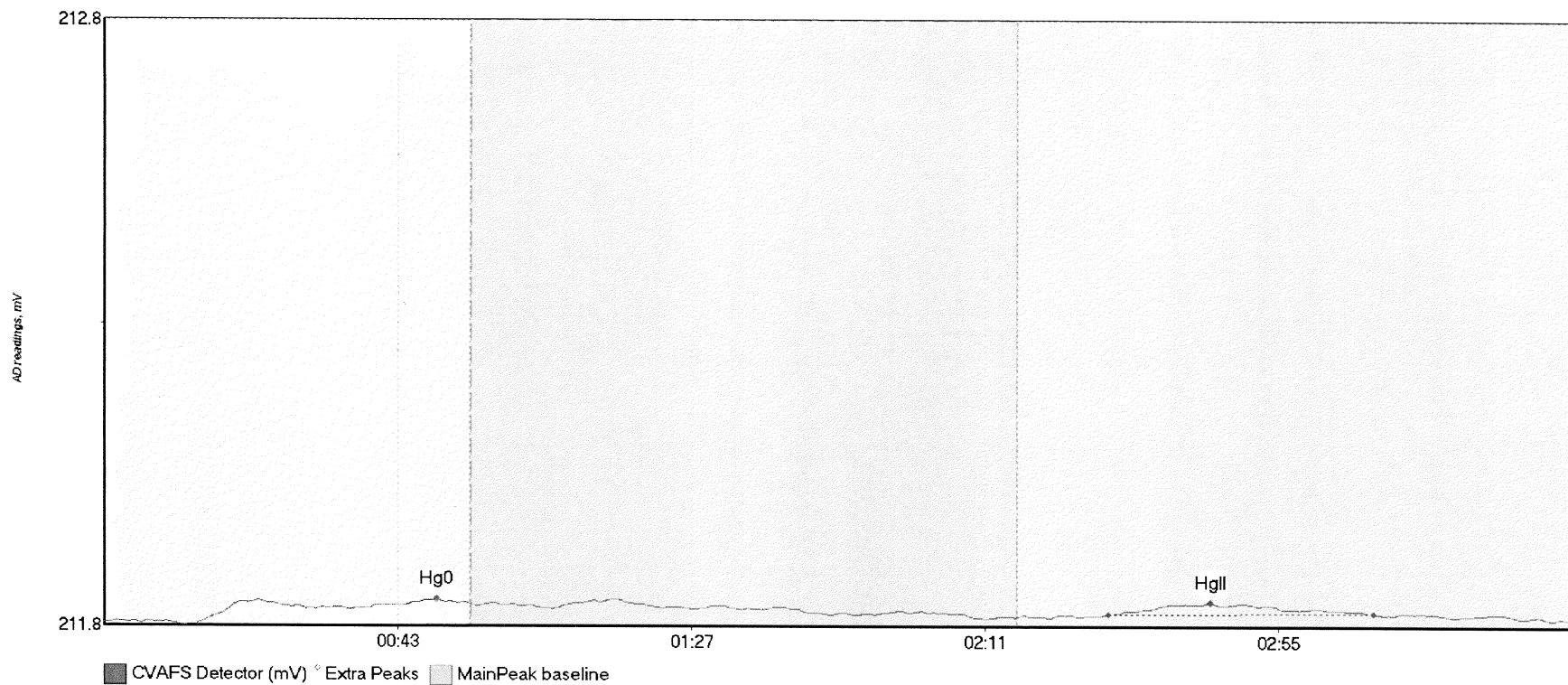
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-BLKA Hg	2.571	9.4	33.4	211.78	211.81	22.6	0.040	OK	211.7760	0.00	0.02	
F710421-BLKA Hg	5.395	153.0	196.9	211.79	211.79	171.2	0.020	OK	211.7760	0.00	0.02	117

#43: \*F710421-BLKB



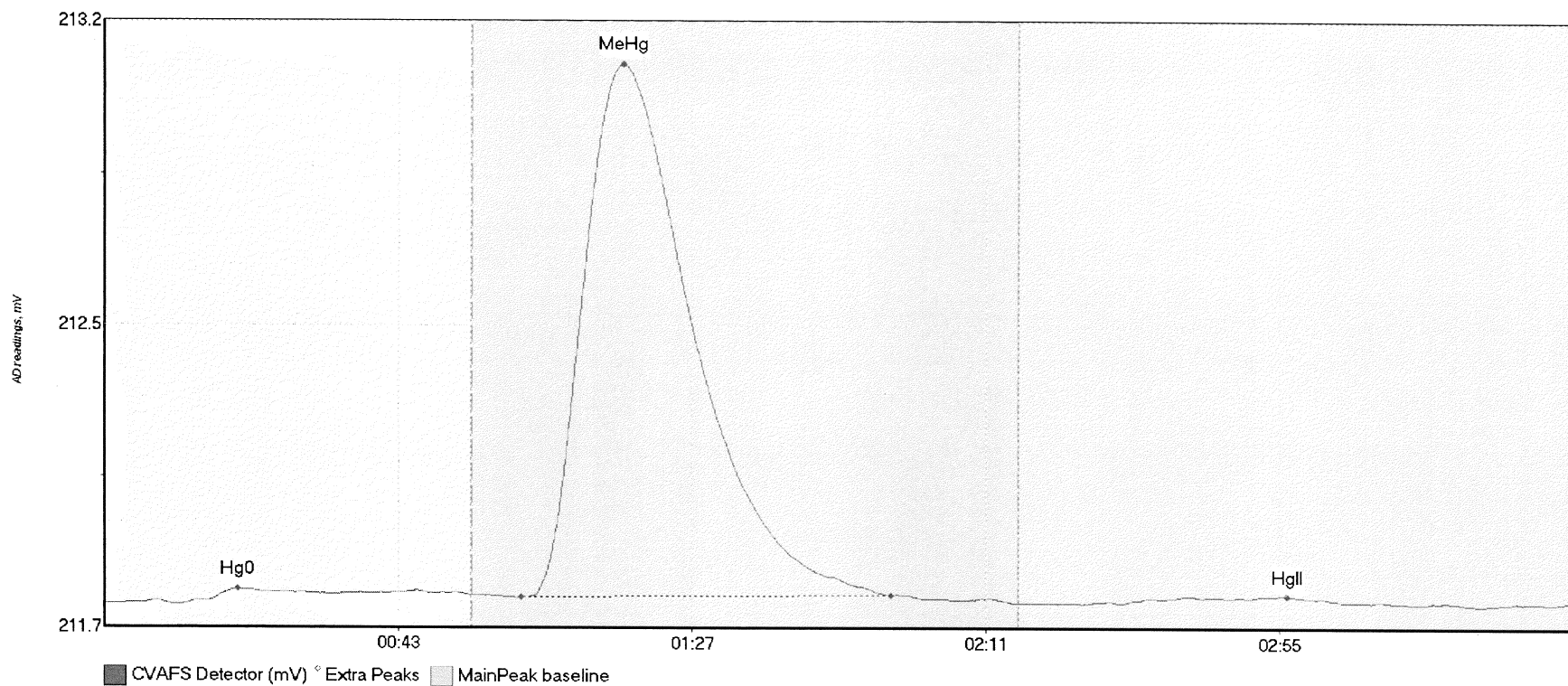
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKB H	2.777	12.6	33.8	211.79	211.81	24.7	0.031	OK	211.7881	0.00	0.00	
*F710421-BLKB H	15.283	146.1	195.8	211.79	211.79	165.6	0.055	OK	211.7881	0.00	0.00	017

#44: \*F710421-BLKC



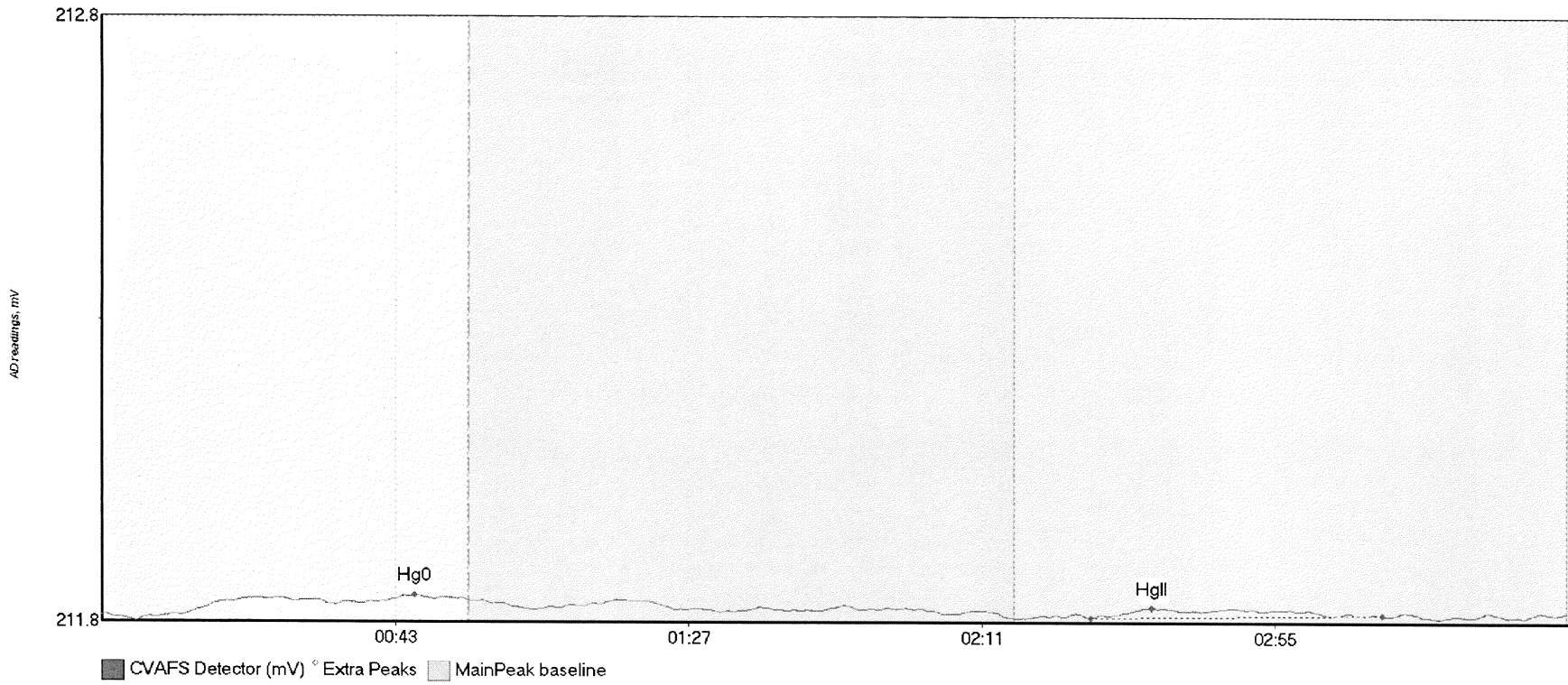
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKC H	5.457	13.4	55.0	211.78	211.81	49.9	0.040	CT	211.7847	0.00	0.01	
*F710421-BLKC H	4.041	150.6	190.3	211.80	211.80	165.9	0.019	OK	211.7847	0.00	0.01	017

#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	

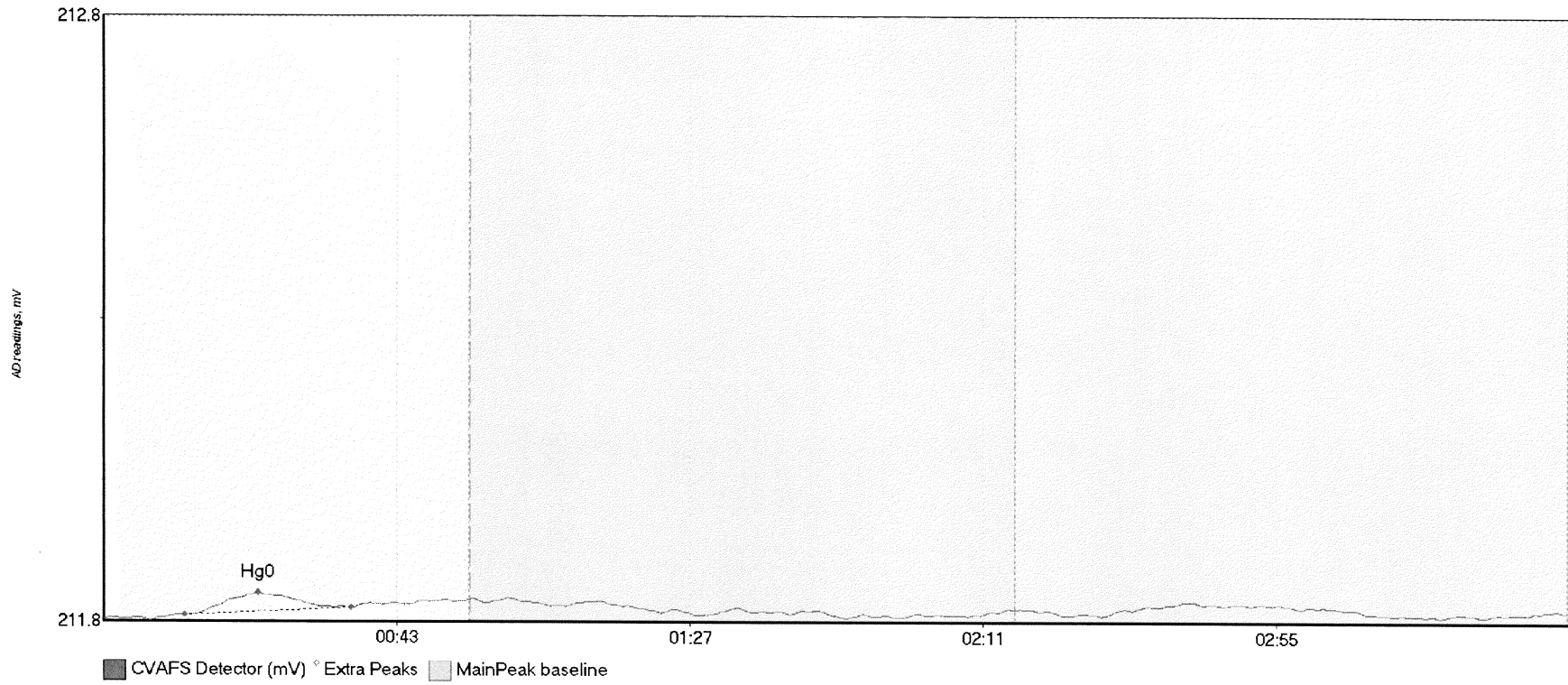
#46: SEQ-CCB3



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

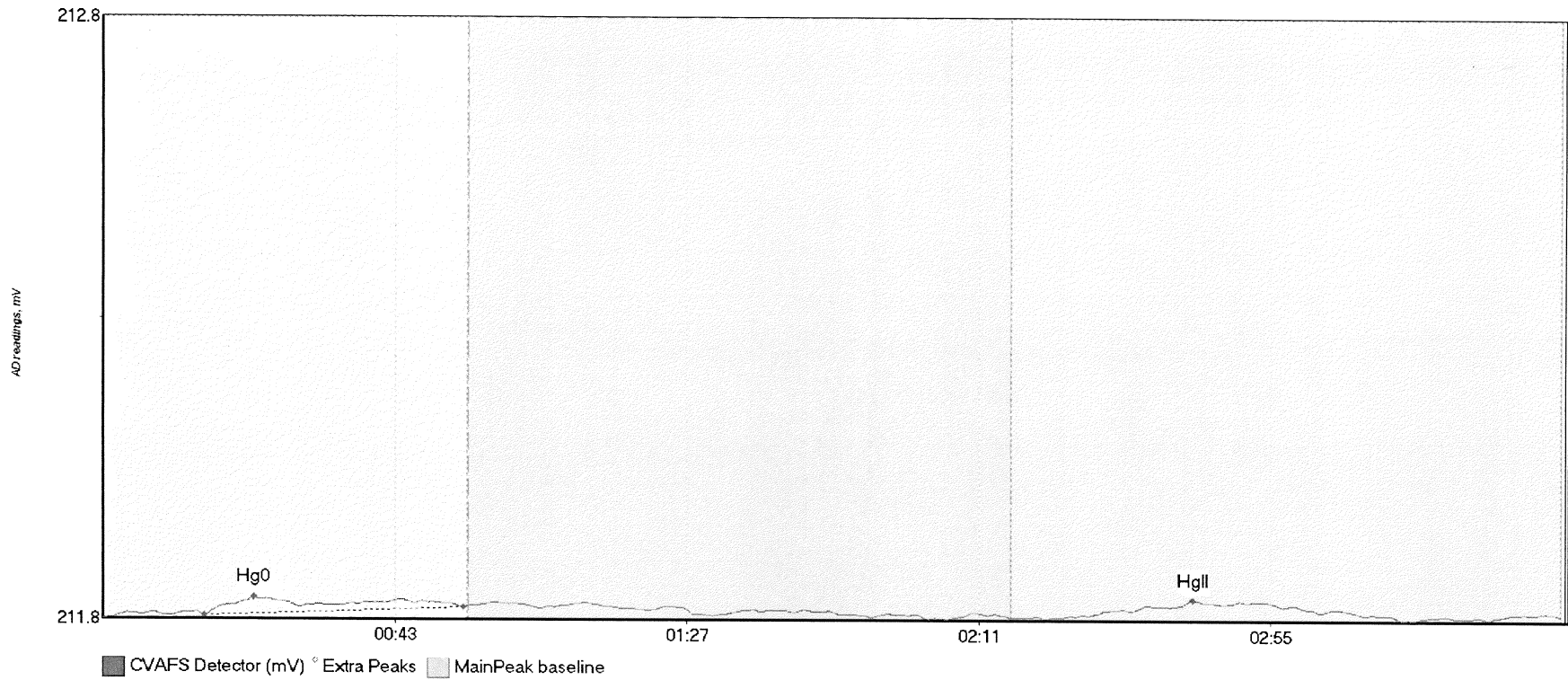


#47: \*F710421-BLKD



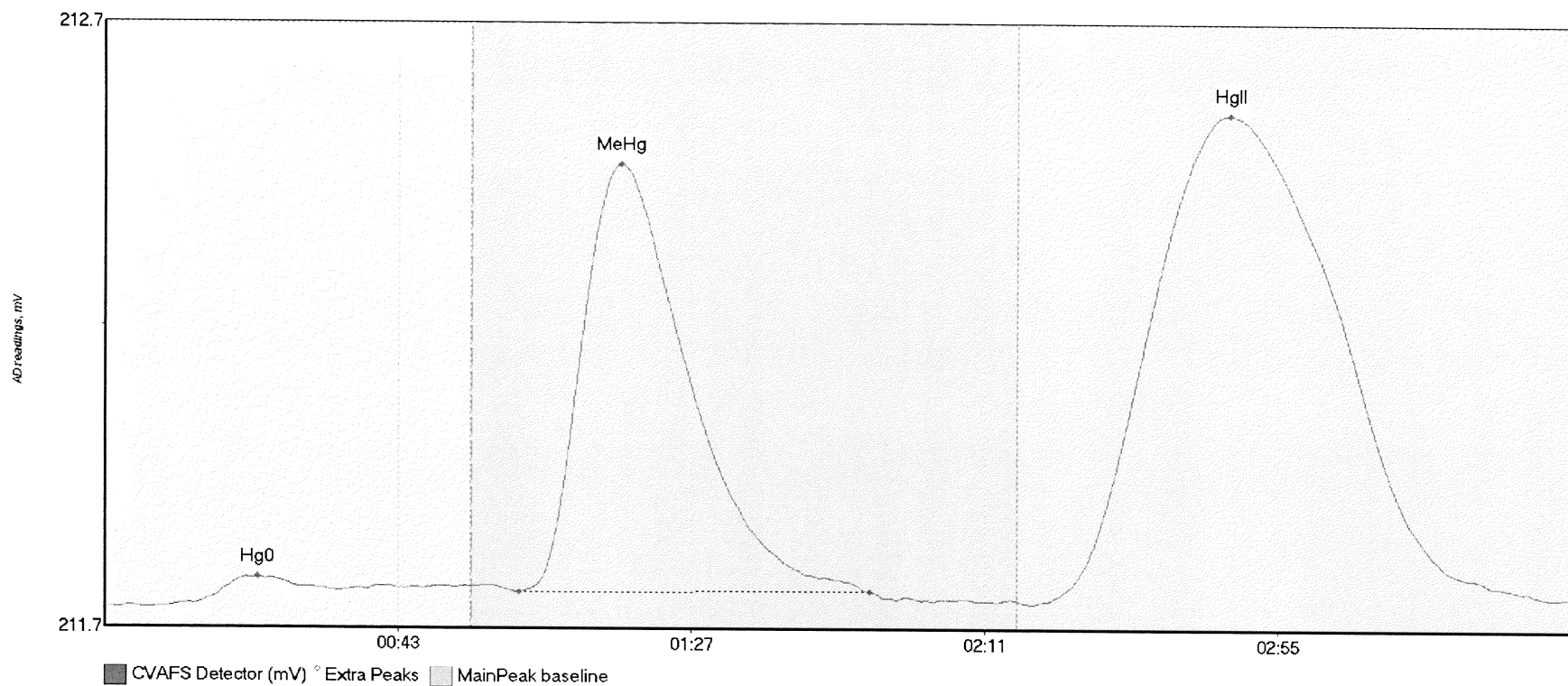
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKD	3.755	12.1	37.2	211.78	211.79	23.1	0.037	OK	211.7747	0.00	0.01	017

#48: \*F710421-BLKE



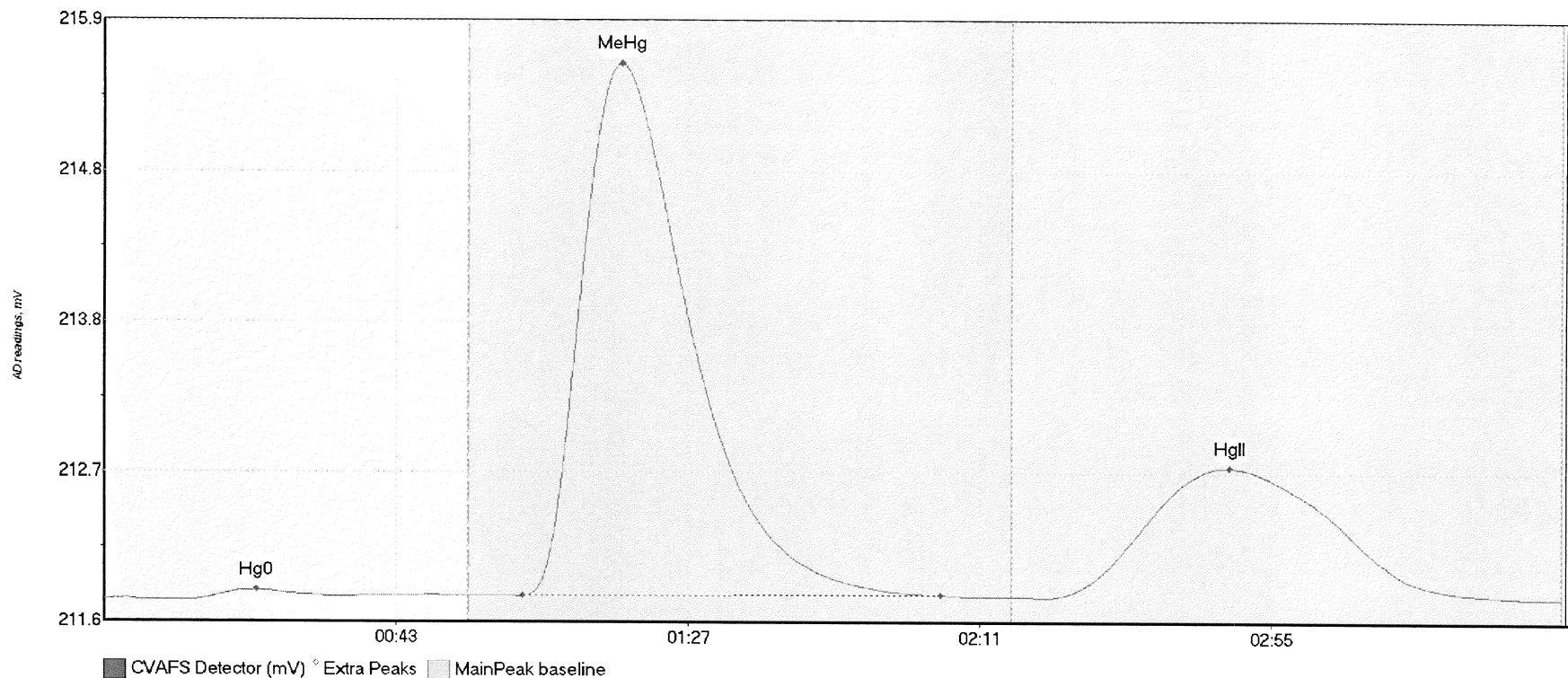
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F710421-BLKE H	5.160	15.3	54.3	211.78	211.79	22.7	0.029	OK	211.7733	0.00	0.01	
*F710421-BLKE H	5.872	148.5	190.1	211.78	211.78	164.3	0.026	OK	211.7733	0.00	0.01	017

#49: F710421-DUP2



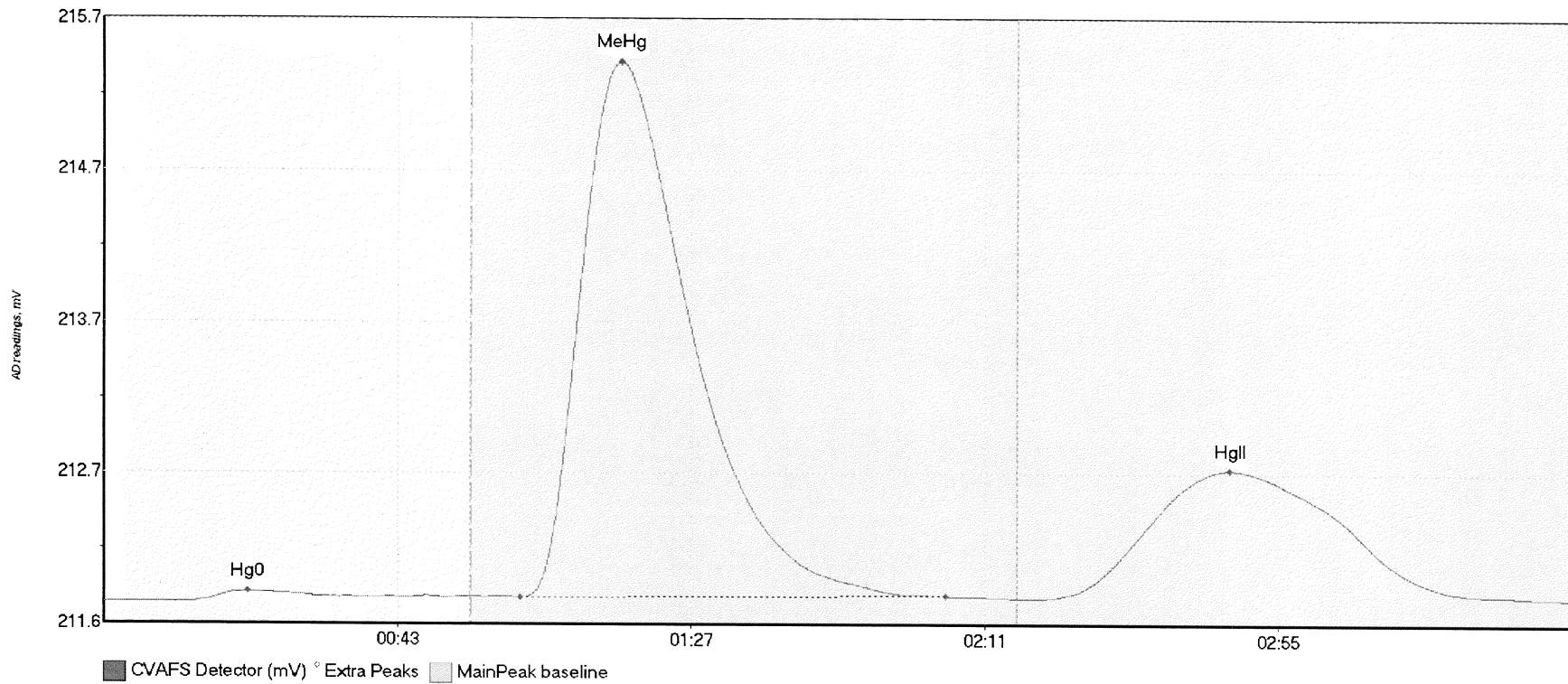
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-DUP2 Hg	3.900	13.5	35.2	211.79	211.81	23.0	0.043	OK	211.7824	0.00	0.02	
F710421-DUP2 Me	130.011	62.1	114.8	211.81	211.81	77.5	0.708	OK	211.7824	0.00	0.02	
F710421-DUP2 Hg	256.092	141.1	218.1	211.79	211.80	168.8	0.806	OK	211.7824	0.00	0.02	017

#50: F710421-MS3



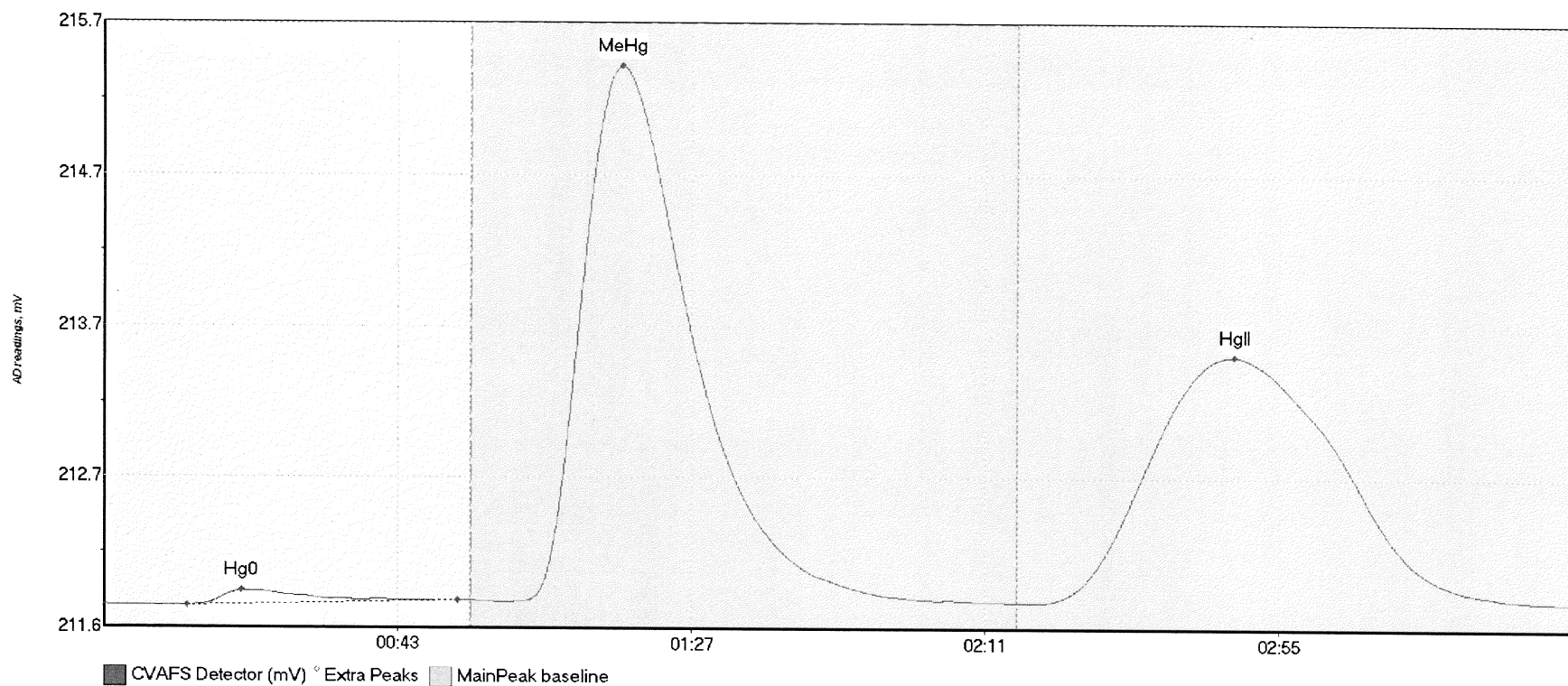
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS3 Hg0	6.616	11.8	34.1	211.79	211.82	23.0	0.075	OK	211.8013	0.00	0.01	
F710421-MS3 MeH	714.185	63.1	126.2	211.82	211.83	78.0	3.771	OK	211.8013	0.00	0.01	
F710421-MS3 HgI	291.920	141.7	213.2	211.81	211.82	169.8	0.927	OK	211.8013	0.00	0.01	

#51: F710421-MSD3



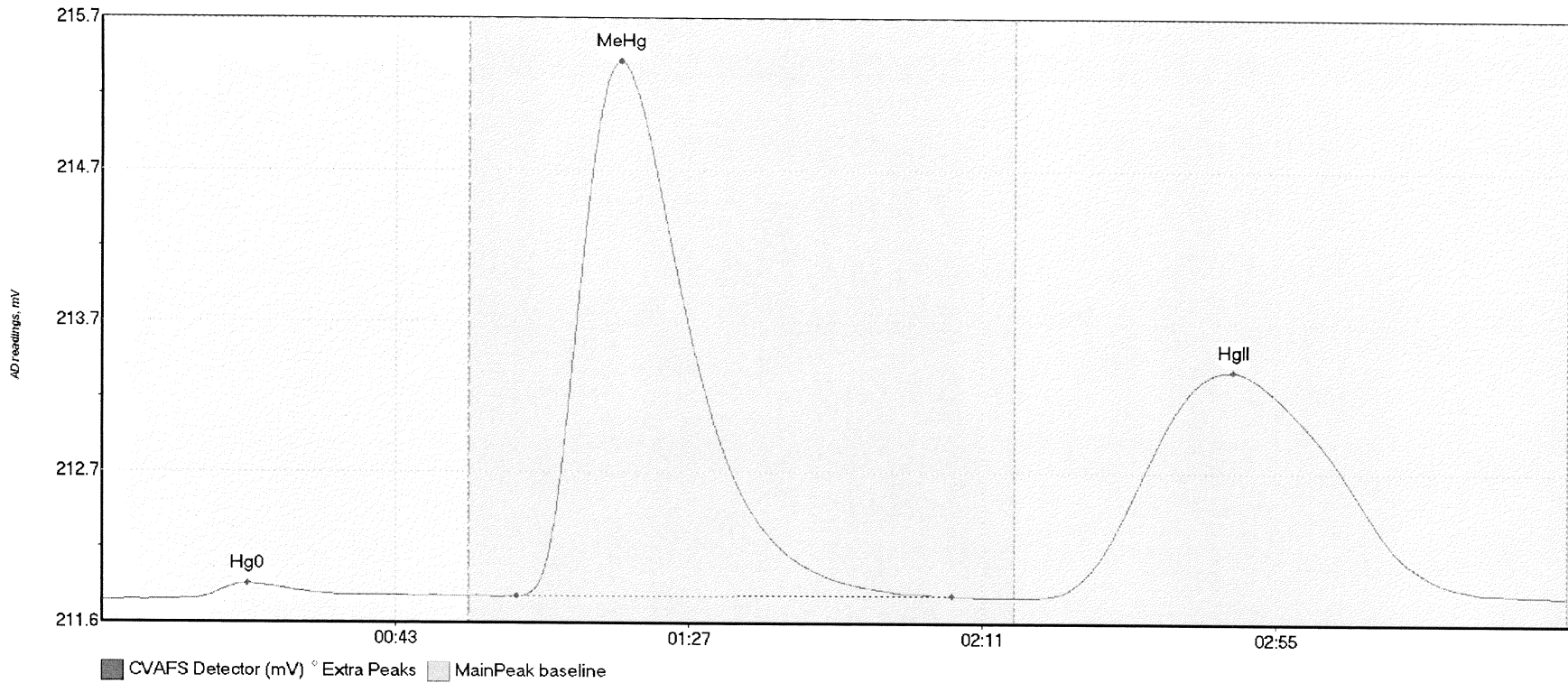
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MSD3 Hg	10.419	11.4	51.7	211.79	211.83	21.6	0.072	OK	211.7945	0.00	0.03	
F710421-MSD3 Me	689.627	62.5	126.1	211.82	211.84	77.6	3.625	OK	211.7945	0.00	0.03	
F710421-MSD3 Hg	280.911	140.0	216.3	211.82	211.82	168.8	0.875	OK	211.7945	0.00	0.03	

#52: F710421-MS4



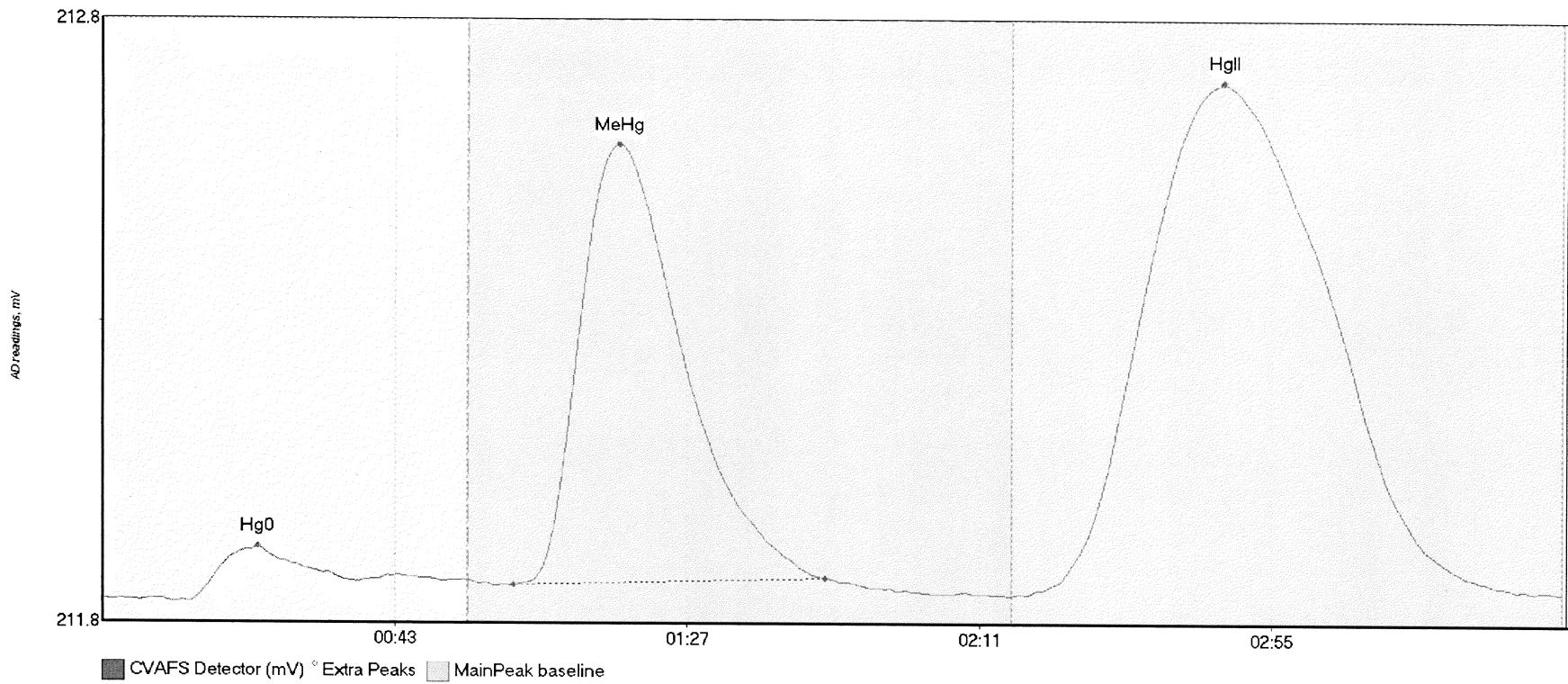
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F710421-MS4 Hg0	14.316	12.5	53.0	211.80	211.83	20.6	0.102	OK	211.8013	0.00	0.03	
F710421-MS4 MeH	685.130	61.7	124.8	211.83	211.84	77.6	3.625	OK	211.8013	0.00	0.03	
F710421-MS4 HgI	539.443	139.1	218.4	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	

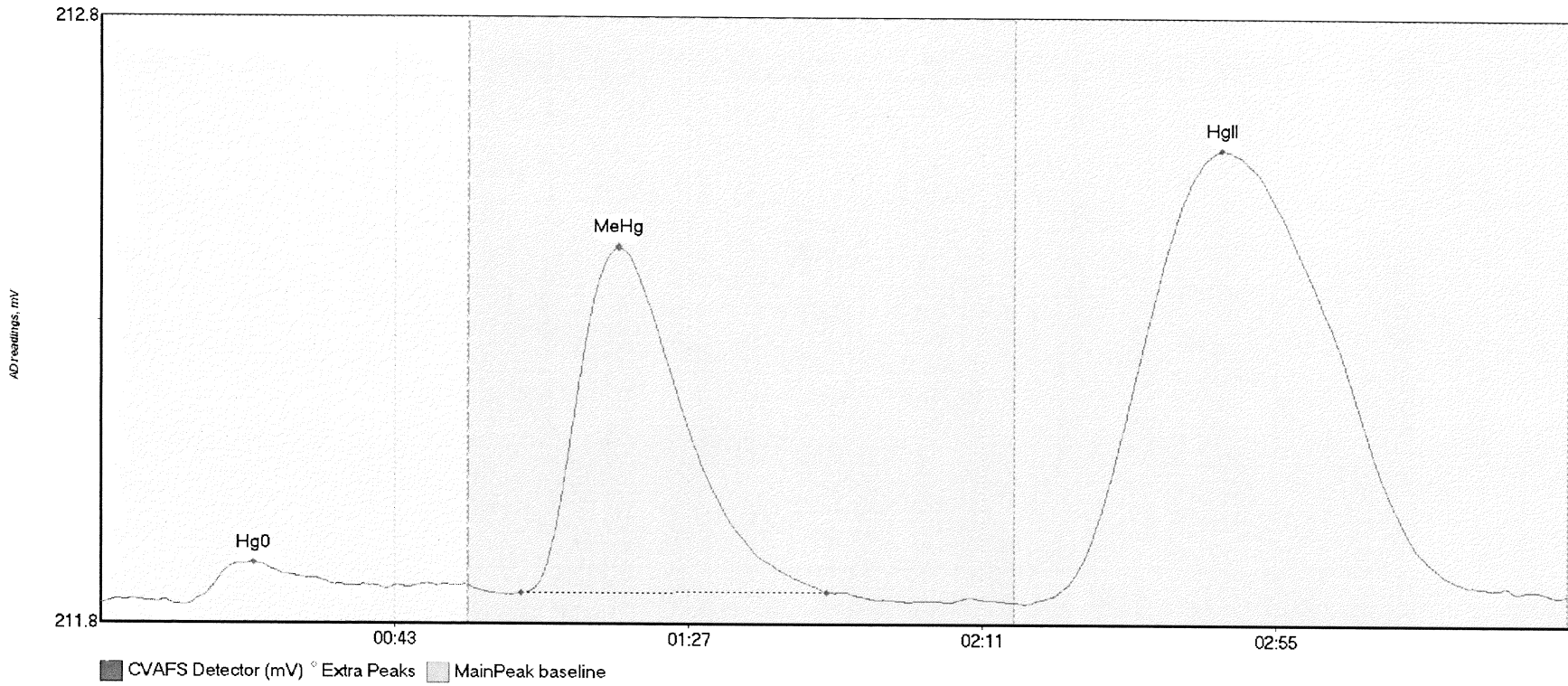
#54: 1708118-01RE1



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	

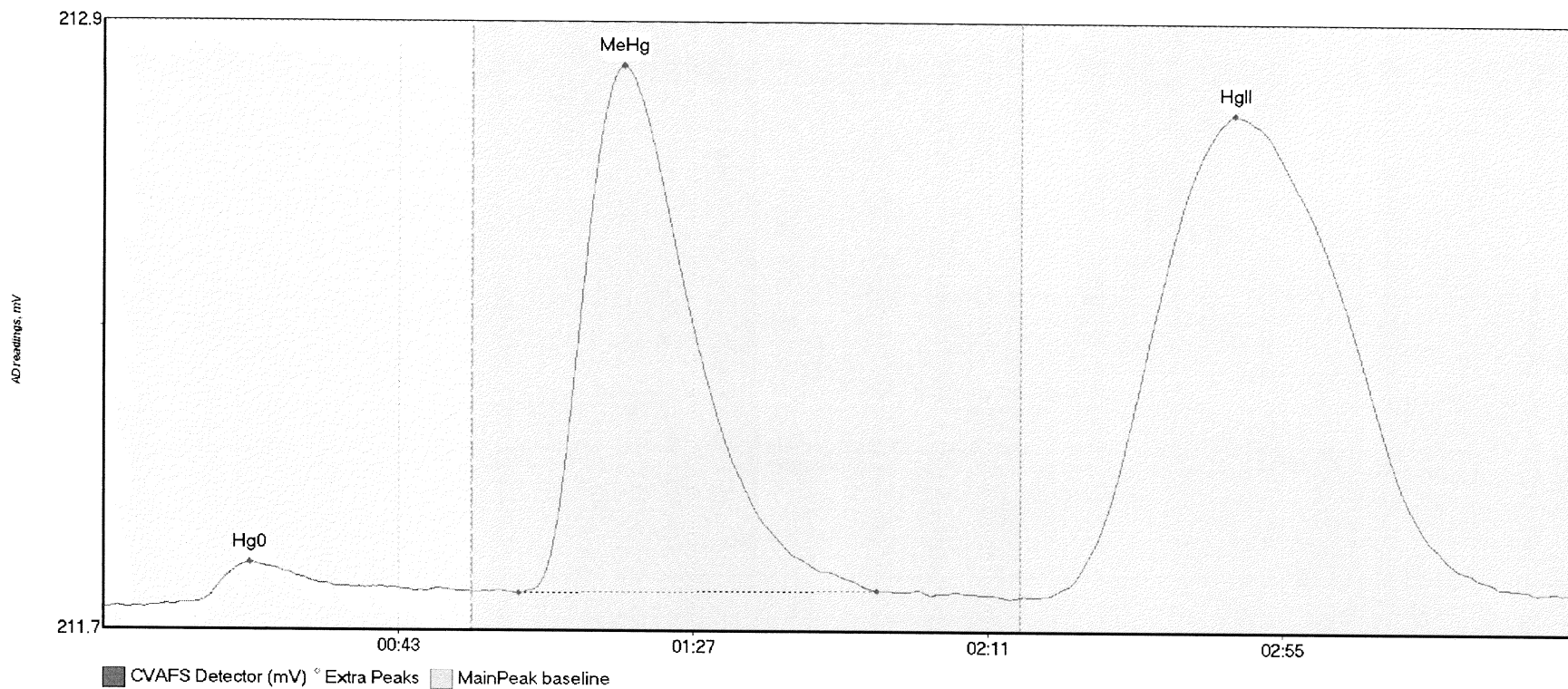


#55: 1708118-02RE1



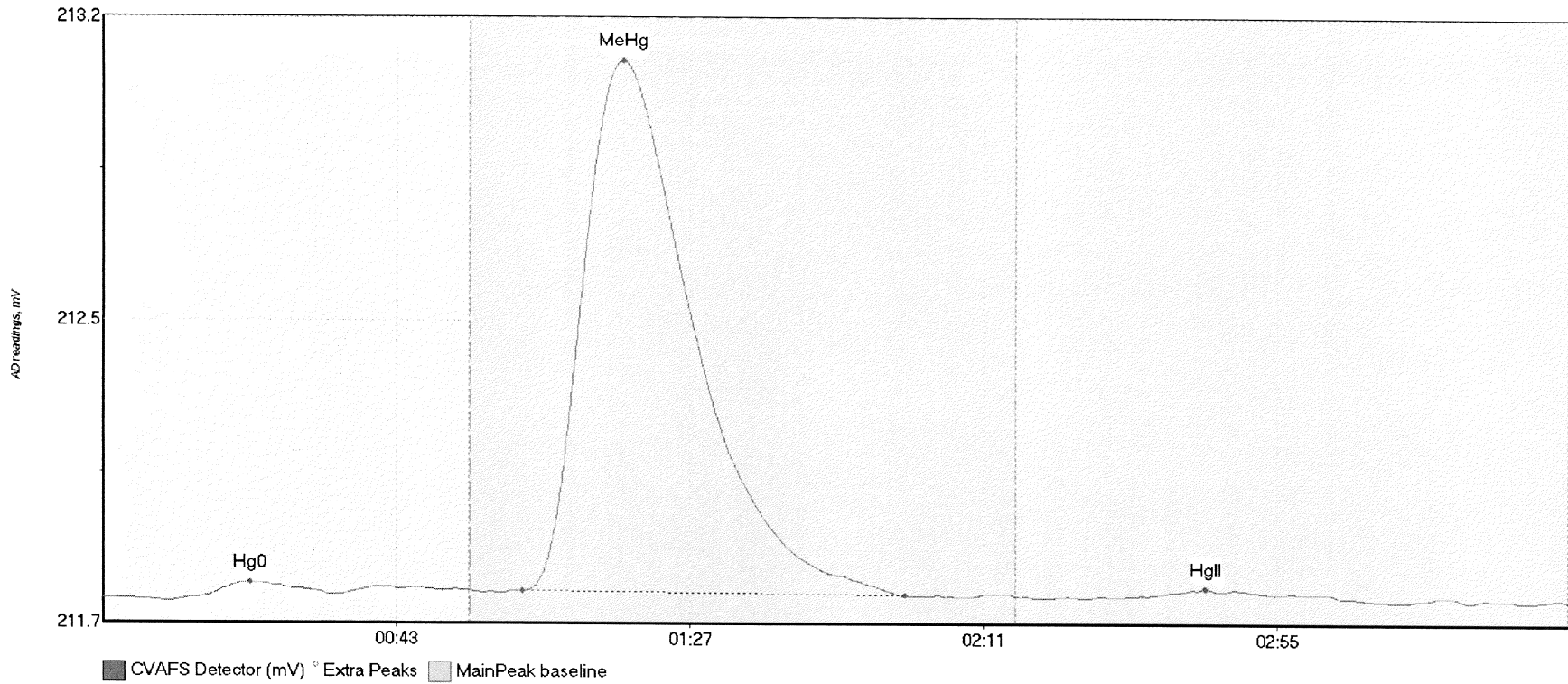
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-02RE1 H	8.672	12.8	42.8	211.79	211.81	22.8	0.070	OK	211.7900	0.00	0.02	
1708118-02RE1 M	103.625	62.9	108.7	211.81	211.81	77.5	0.571	OK	211.7900	0.00	0.02	
1708118-02RE1 H	237.034	138.8	218.8	211.79	211.80	167.8	0.750	OK	211.7900	0.00	0.02	

#56: 1708118-03RE1



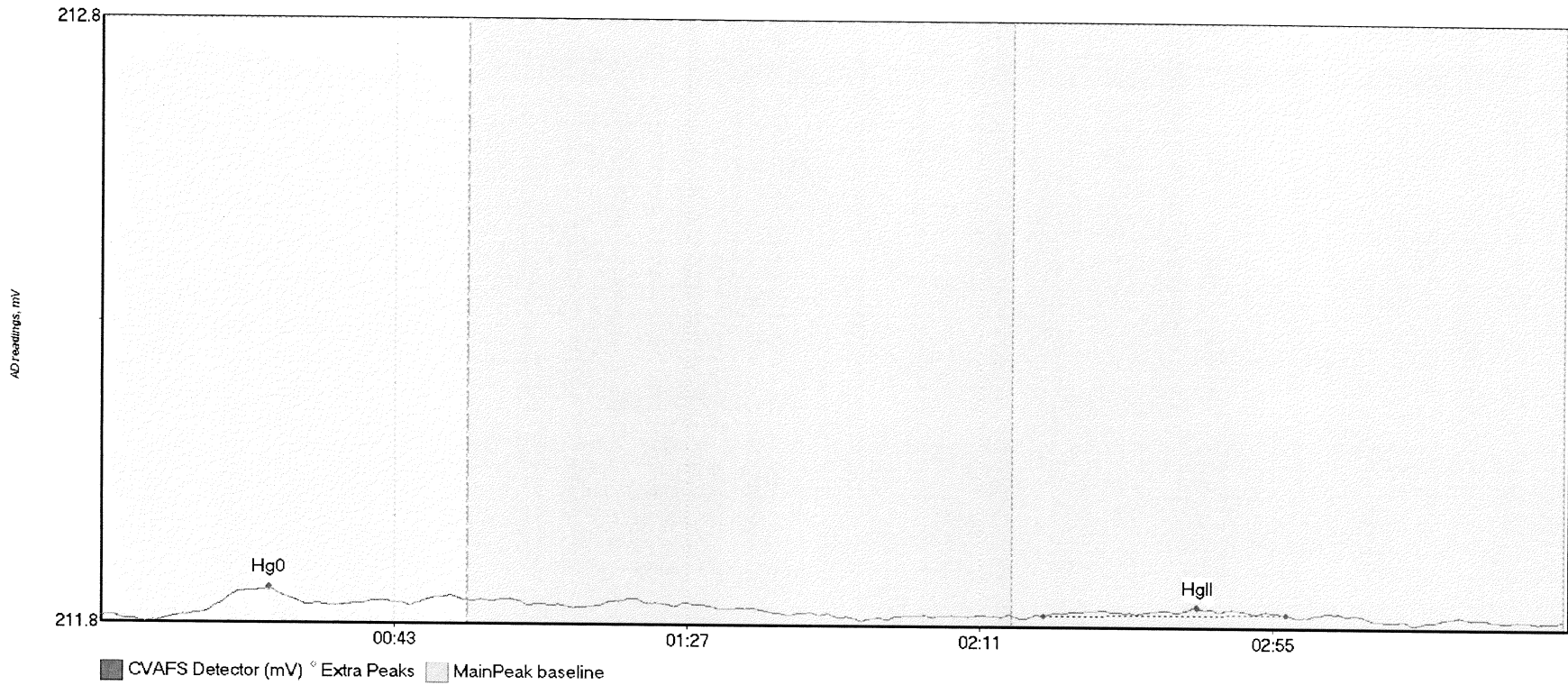
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-03RE1 H	12.137	8.1	55.0	211.80	211.82	21.9	0.084	CT	211.7918	0.00	0.04	
1708118-03RE1 M	189.696	62.0	115.5	211.82	211.83	77.6	1.015	OK	211.7918	0.00	0.04	
1708118-03RE1 H	294.353	140.6	214.2	211.82	211.83	168.8	0.926	OK	211.7918	0.00	0.04	

#57: SEQ-CCV4



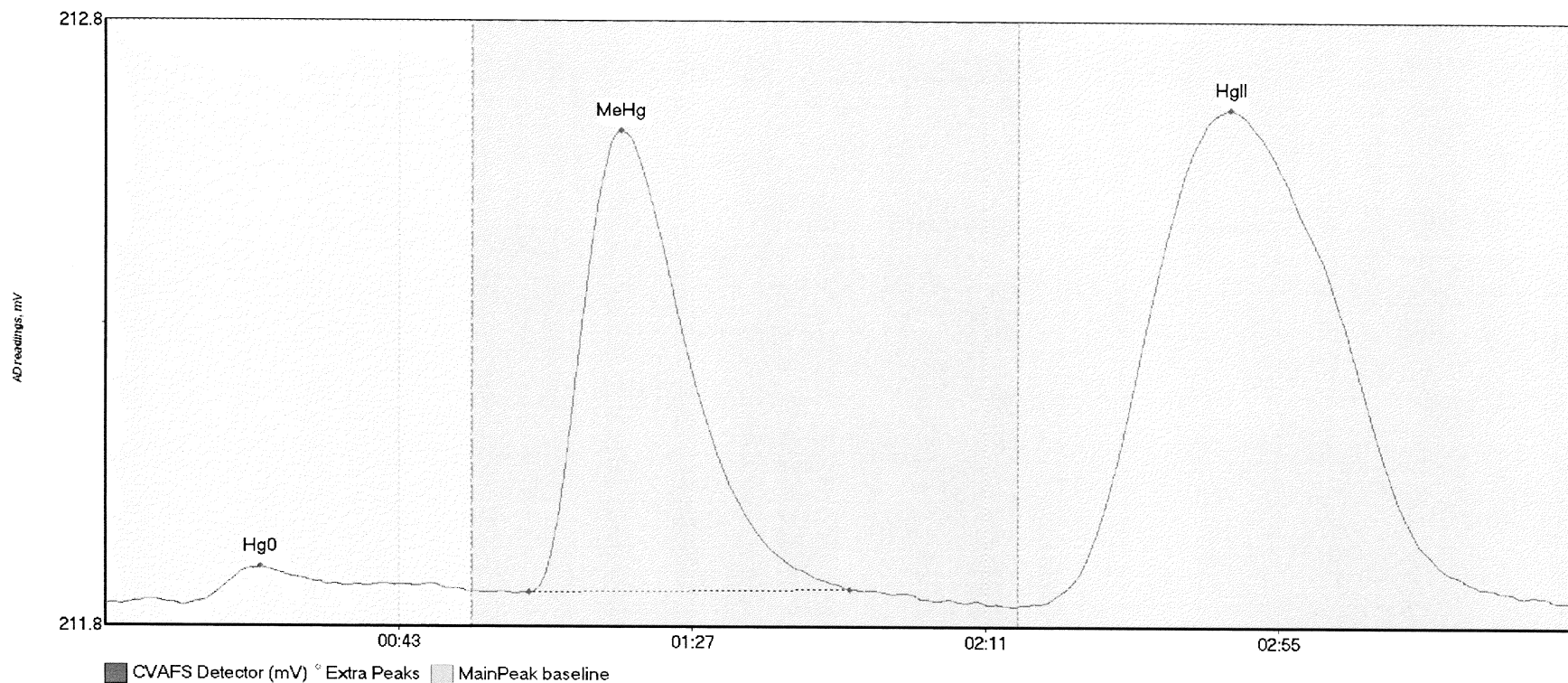
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	3.930	13.9	34.7	211.81	211.81	22.2	0.037	OK	211.8056	0.00	0.00	
SEQ-CCV4 MeHg	251.684	62.8	120.3	211.82	211.81	78.0	1.312	OK	211.8056	0.00	0.00	117
SEQ-CCV4 HgII	1.603	157.3	175.7	211.81	211.82	165.3	0.017	OK	211.8056	0.00	0.00	

#58: SEQ-CCB4



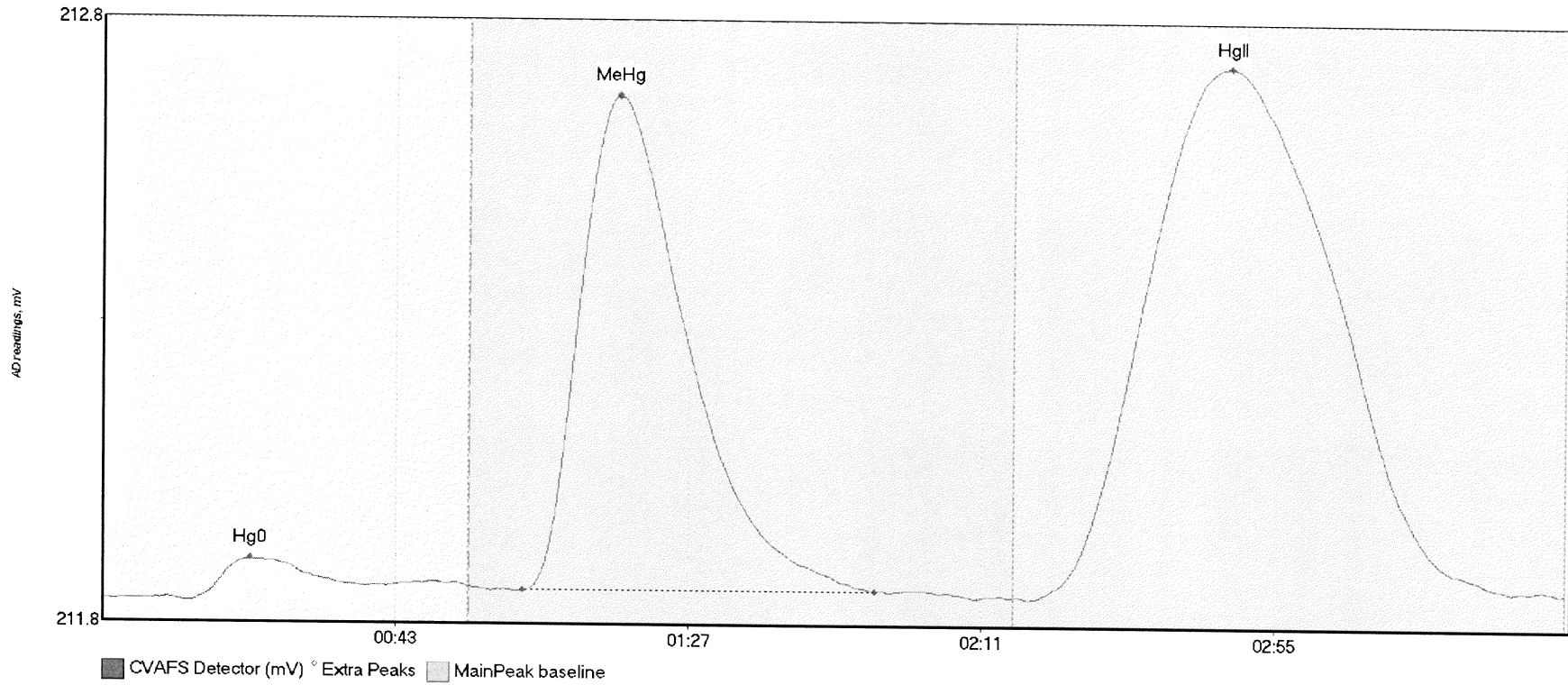
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.588	14.7	35.2	211.81	211.82	25.2	0.041	OK	211.8011	0.00	0.00	
SEQ-CCB4 HgII	2.415	141.6	178.0	211.81	211.81	164.6	0.016	OK	211.8011	0.00	0.00	017

#59: 1708118-04RE1



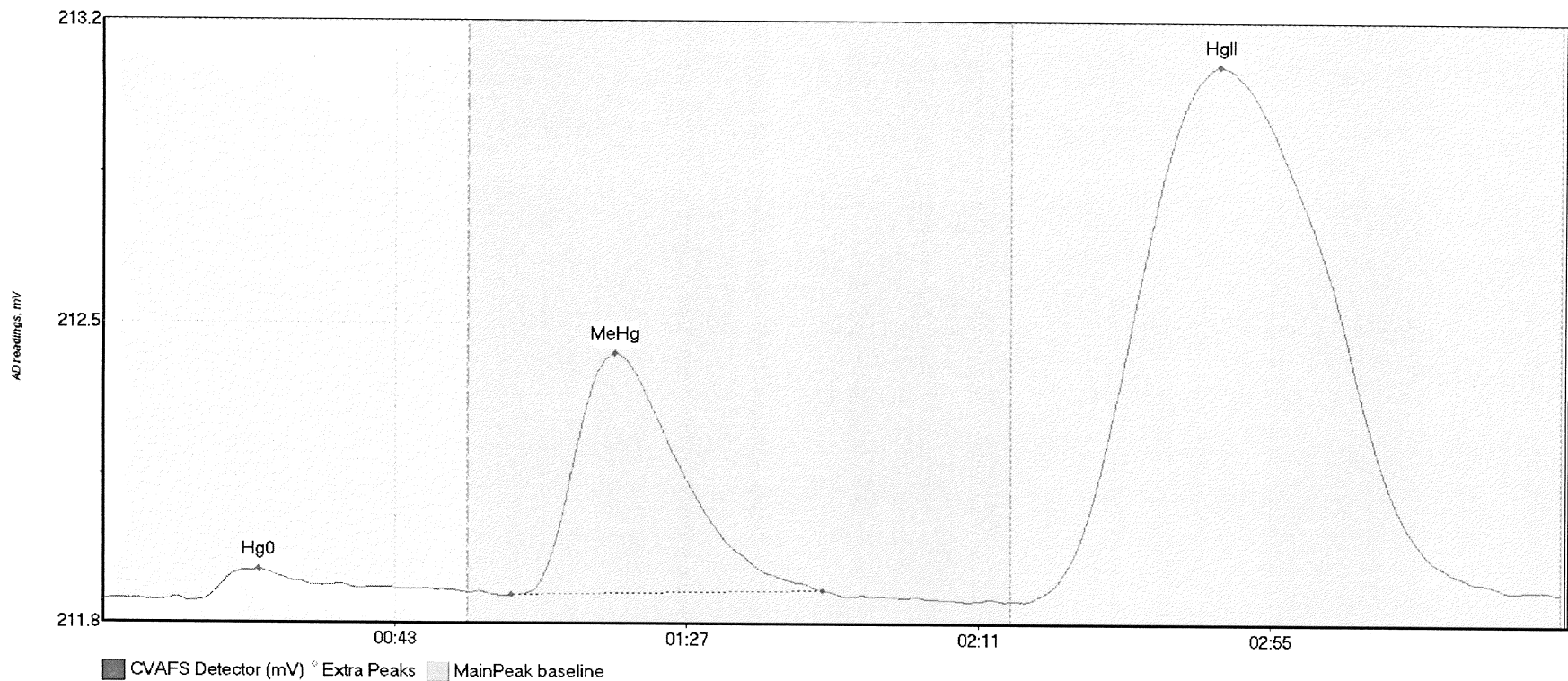
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-04RE1 H	9.465	14.7	54.7	211.81	211.82	23.3	0.056	OK	211.8033	0.00	0.01	
1708118-04RE1 M	138.469	63.6	111.6	211.82	211.83	77.3	0.763	OK	211.8033	0.00	0.01	
1708118-04RE1 H	261.105	140.9	218.5	211.81	211.81	168.7	0.817	OK	211.8033	0.00	0.01	017

#60: 1708118-05RE1



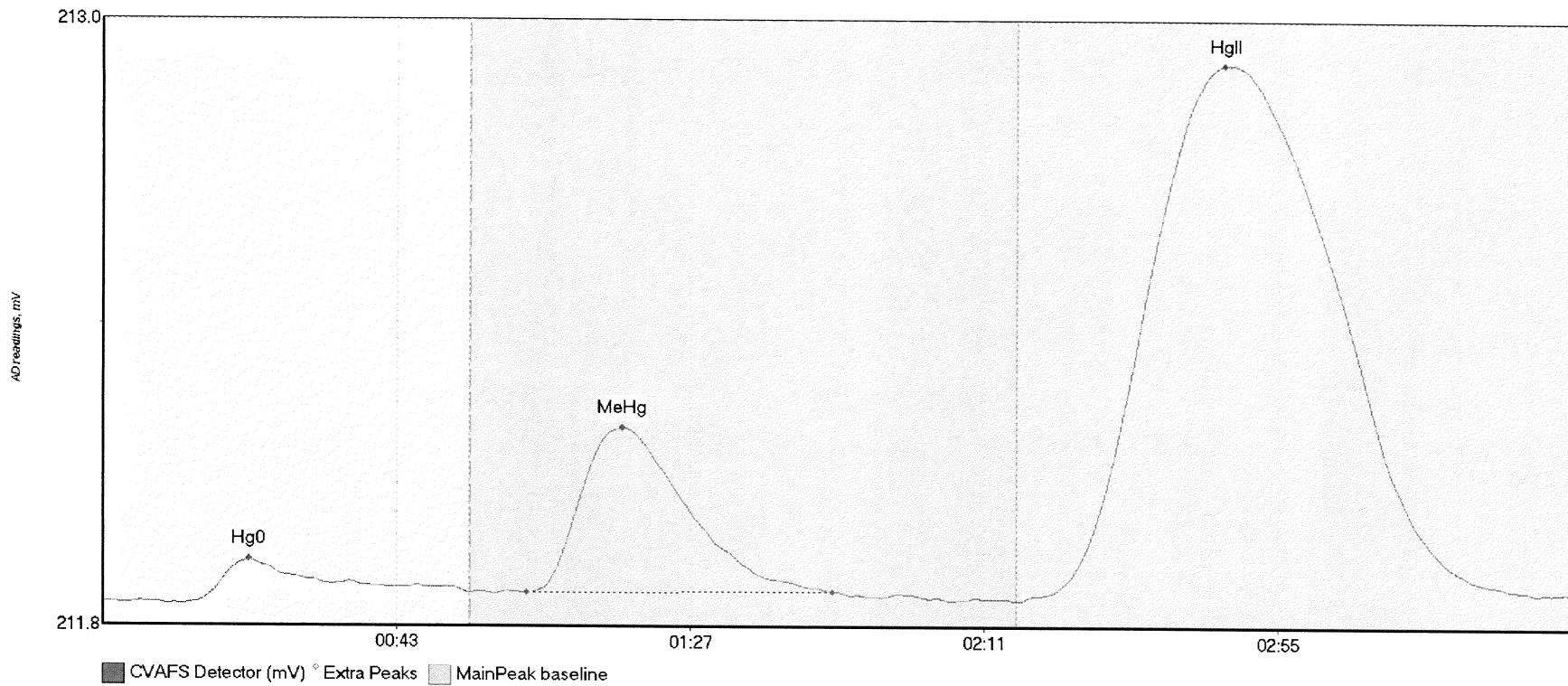
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708118-05RE1 H	11.660	13.2	55.0	211.80	211.83	22.1	0.076	CT	211.8067	0.00	0.02	
1708118-05RE1 M	165.022	63.0	116.0	211.82	211.83	77.5	0.888	OK	211.8067	0.00	0.02	
1708118-05RE1 H	304.678	139.8	219.2	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	017

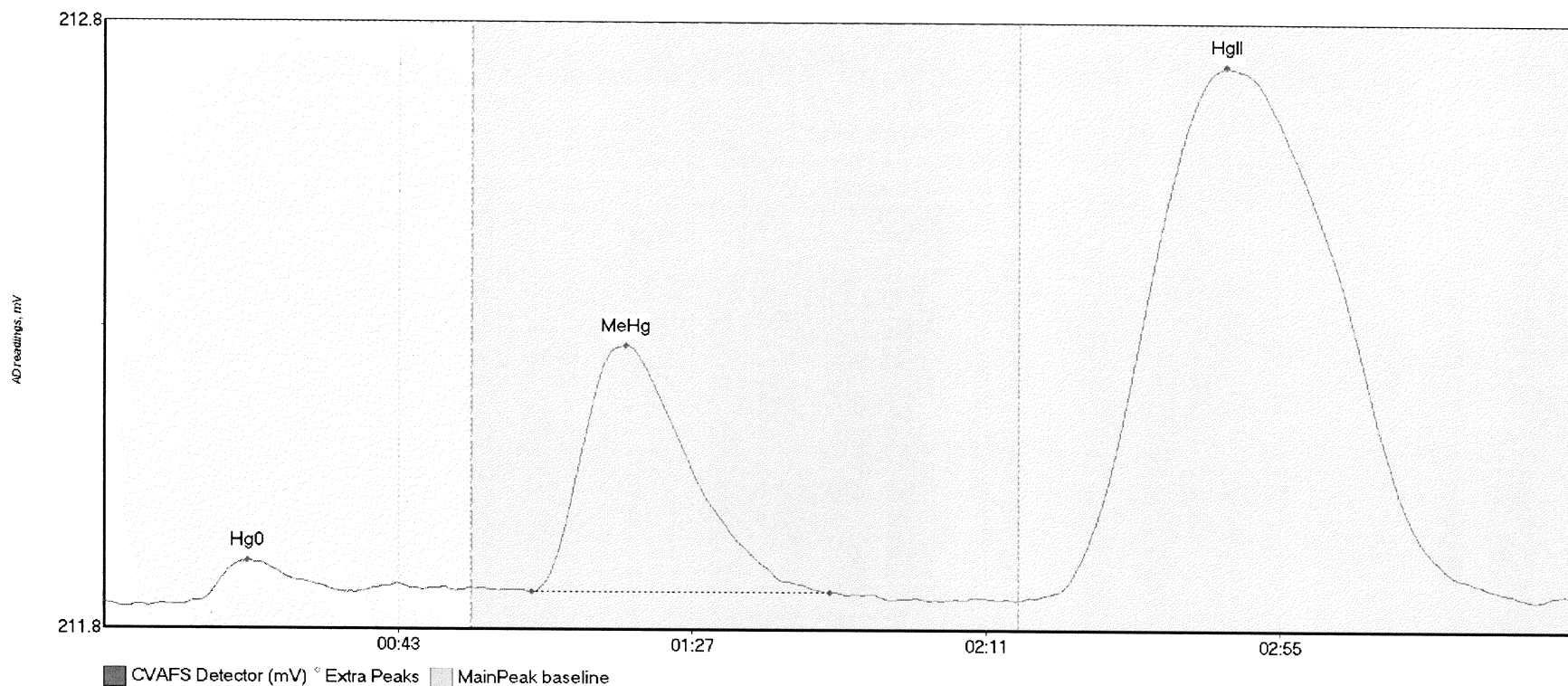
#62: 1708240-02RE1



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	

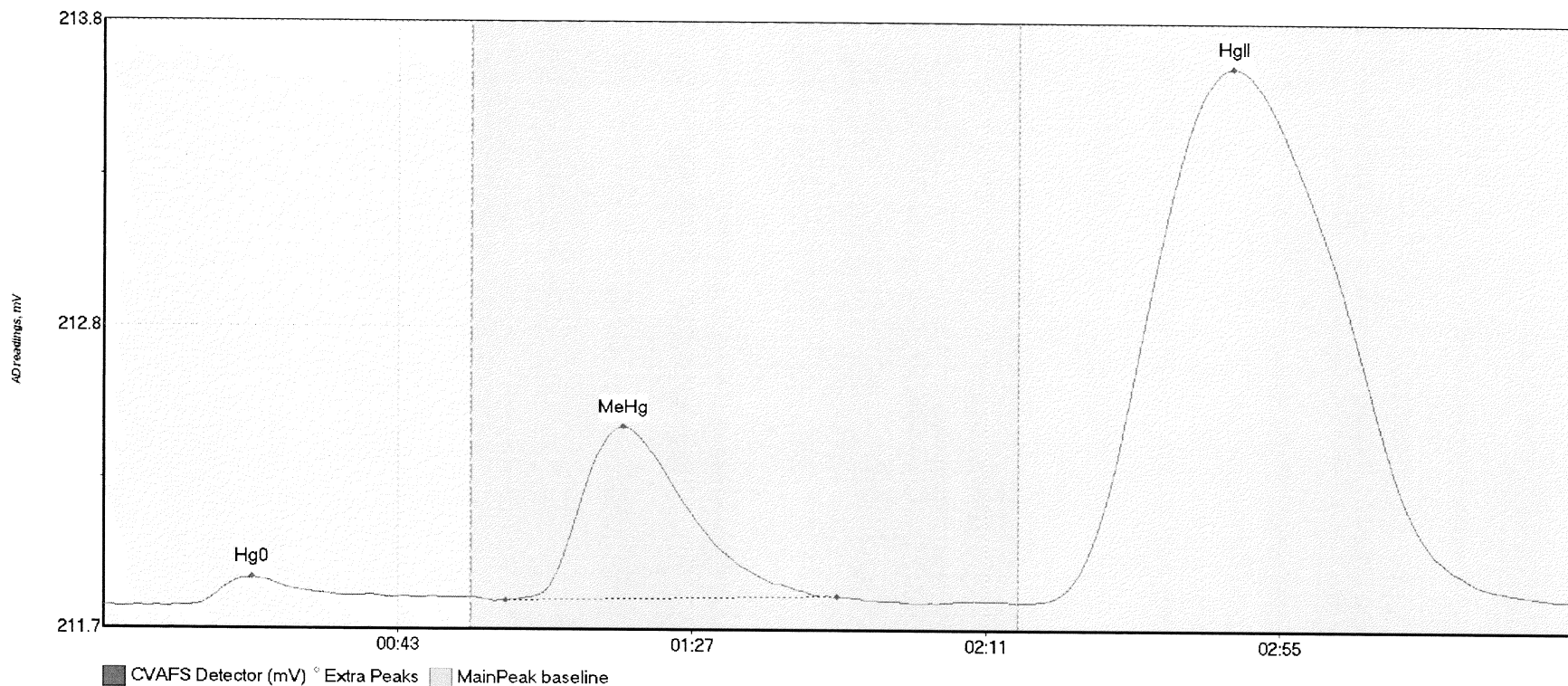


#63: 1708240-03RE1



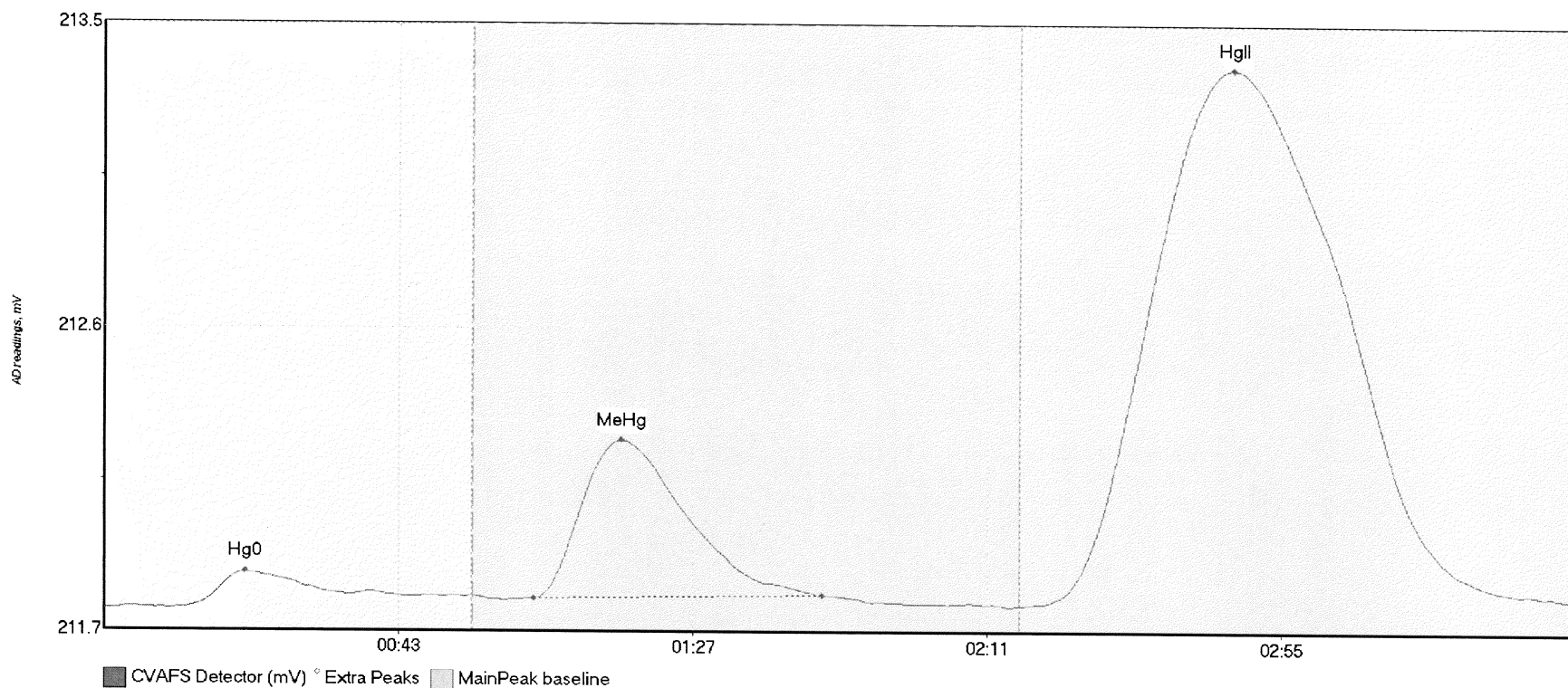
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-03RE1 H	7.367	14.1	37.5	211.81	211.83	21.5	0.071	OK	211.8094	0.00	0.02	
1708240-03RE1 M	81.171	64.0	108.6	211.83	211.83	78.0	0.442	OK	211.8094	0.00	0.02	
1708240-03RE1 H	304.955	139.3	212.5	211.82	211.82	167.8	0.952	OK	211.8094	0.00	0.02	

#64: 1708240-04RE1



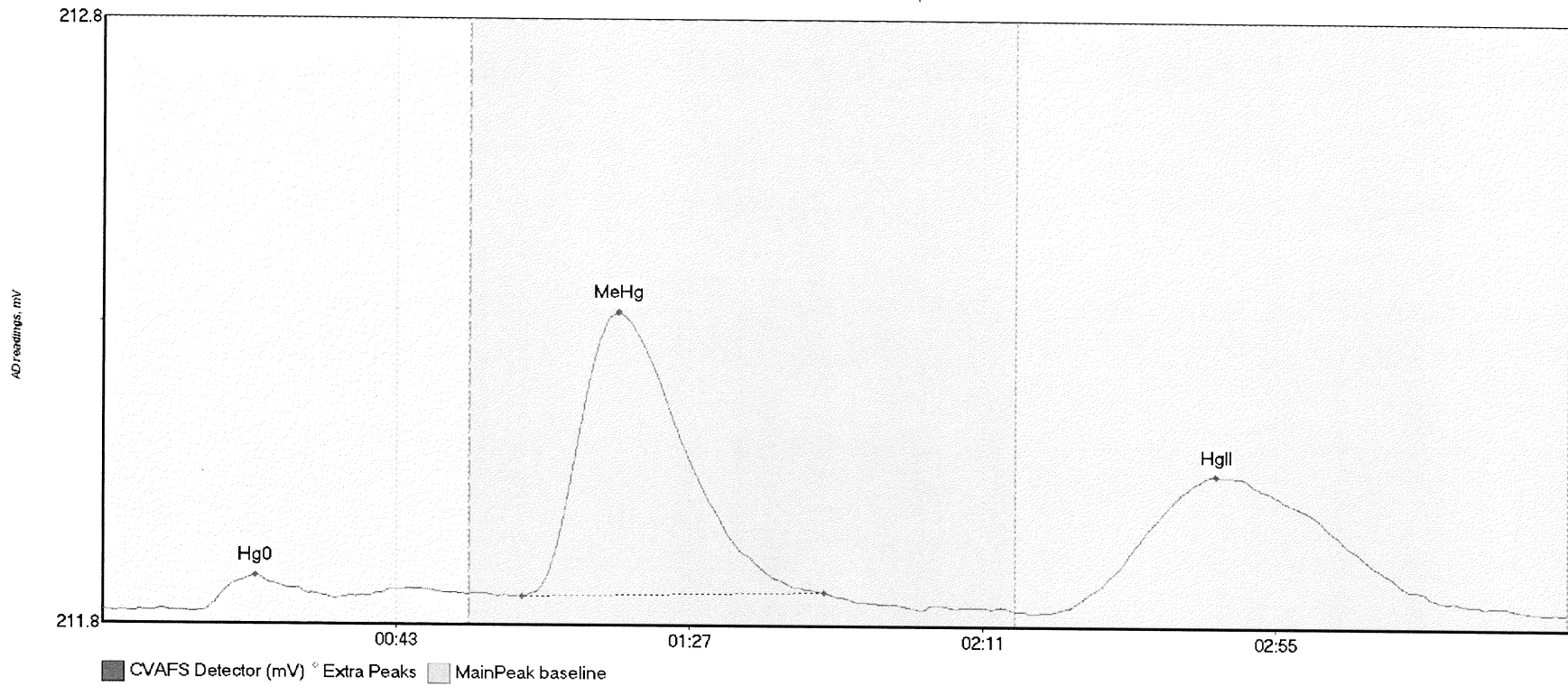
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-04RE1 H	13.011	12.7	52.5	211.81	211.83	22.1	0.096	OK	211.8053	0.00	0.03	
1708240-04RE1 M	110.105	60.1	109.7	211.83	211.84	77.7	0.604	OK	211.8053	0.00	0.03	
1708240-04RE1 H	590.355	140.3	219.8	211.82	211.83	168.9	1.860	CT	211.8053	0.00	0.03	

#65: 1708240-05RE1



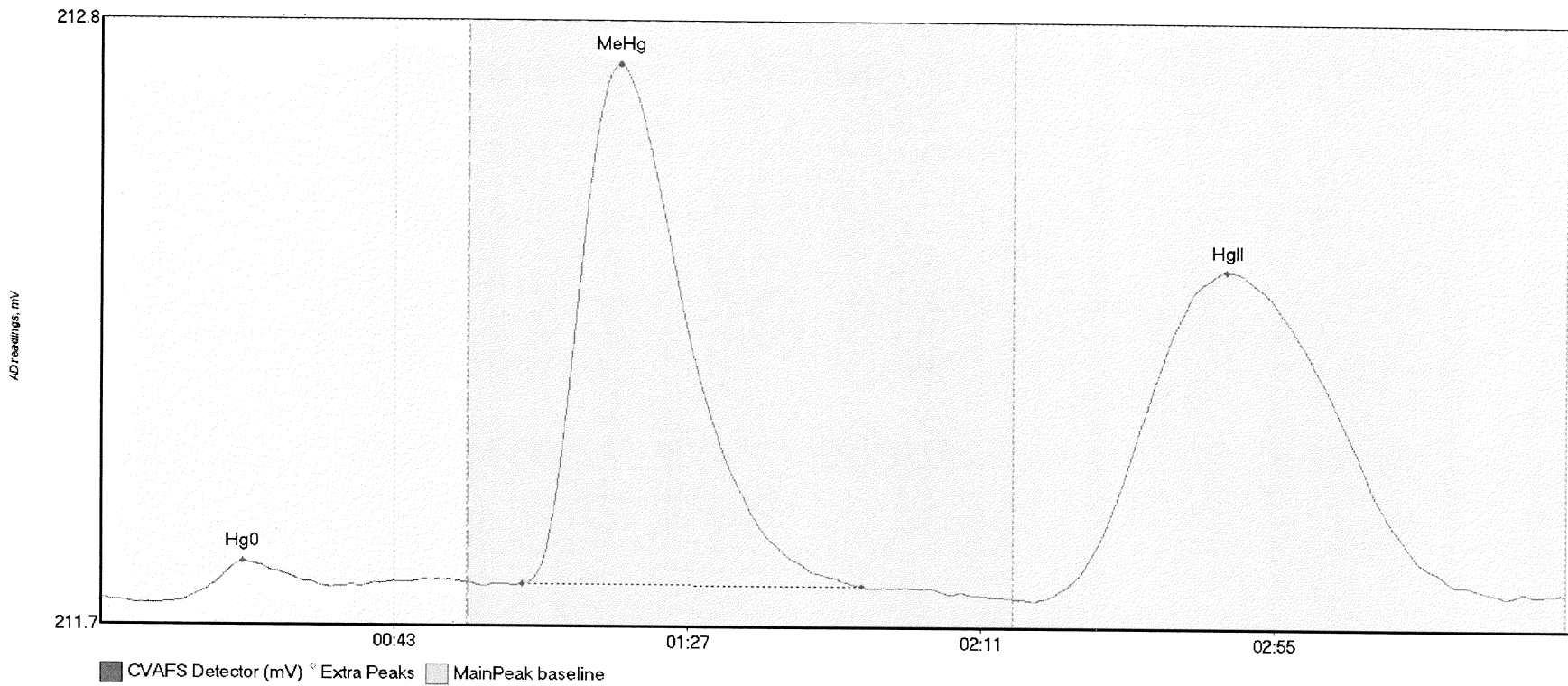
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708240-05RE1 H	13.588	11.7	45.3	211.80	211.83	21.2	0.105	OK	211.7926	0.00	0.03	
1708240-05RE1 M	84.782	64.2	107.3	211.82	211.83	77.3	0.475	OK	211.7926	0.00	0.03	
1708240-05RE1 H	509.209	139.9	219.4	211.81	211.83	168.7	1.603	OK	211.7926	0.00	0.03	

#66: 1708241-01RE1



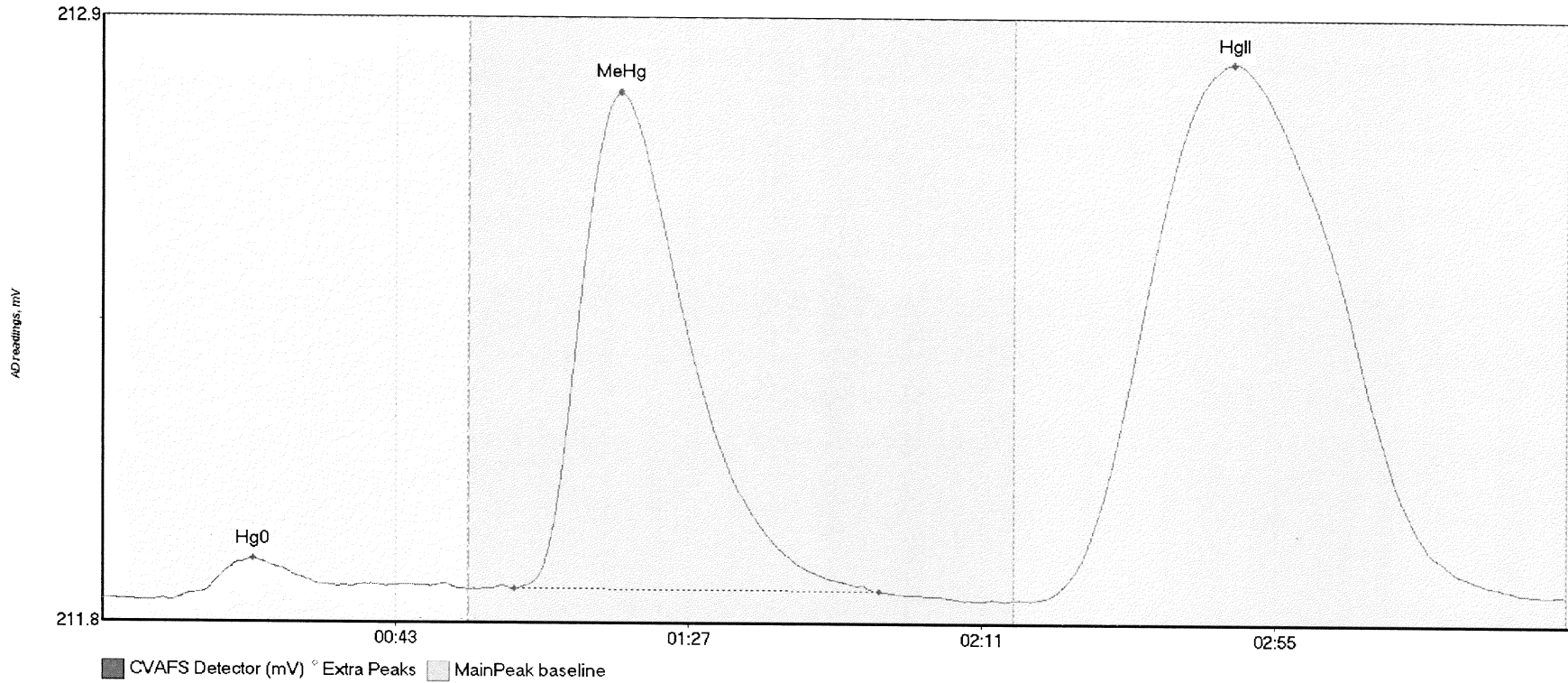
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-01RE1 H	5.028	15.1	34.8	211.79	211.81	22.9	0.058	OK	211.7903	0.00	0.00	
1708241-01RE1 M	83.441	62.9	108.1	211.81	211.82	77.3	0.469	OK	211.7903	0.00	0.00	
1708241-01RE1 H	71.186	142.5	213.2	211.79	211.80	167.0	0.226	OK	211.7903	0.00	0.00	017

#67: 1708241-02RE1



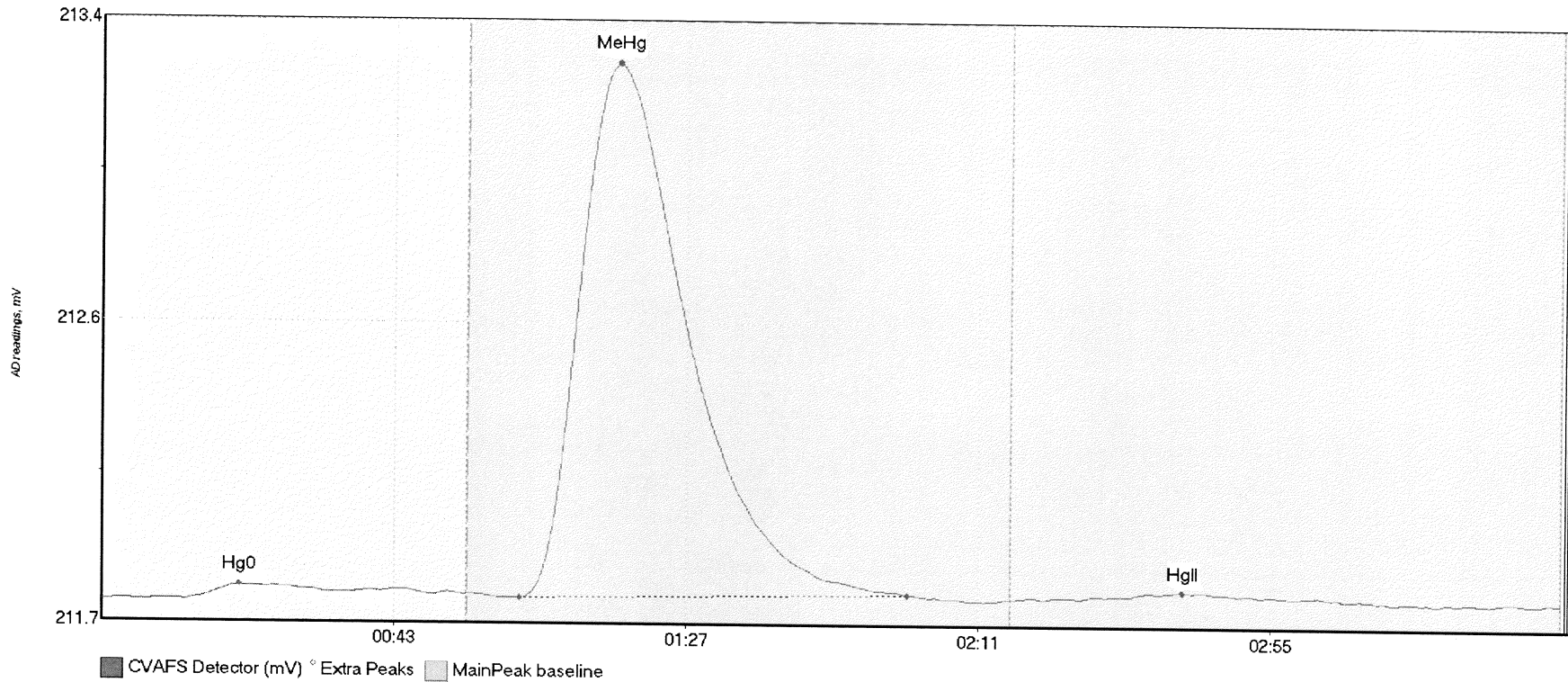
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-02RE1 H	6.152	11.5	34.4	211.79	211.81	21.3	0.068	OK	211.7913	0.00	0.02	
1708241-02RE1 M	165.284	63.2	114.1	211.82	211.82	77.7	0.902	OK	211.7913	0.00	0.02	
1708241-02RE1 H	179.980	141.3	210.7	211.80	211.80	168.7	0.570	OK	211.7913	0.00	0.02	

#68: 1708241-03RE1



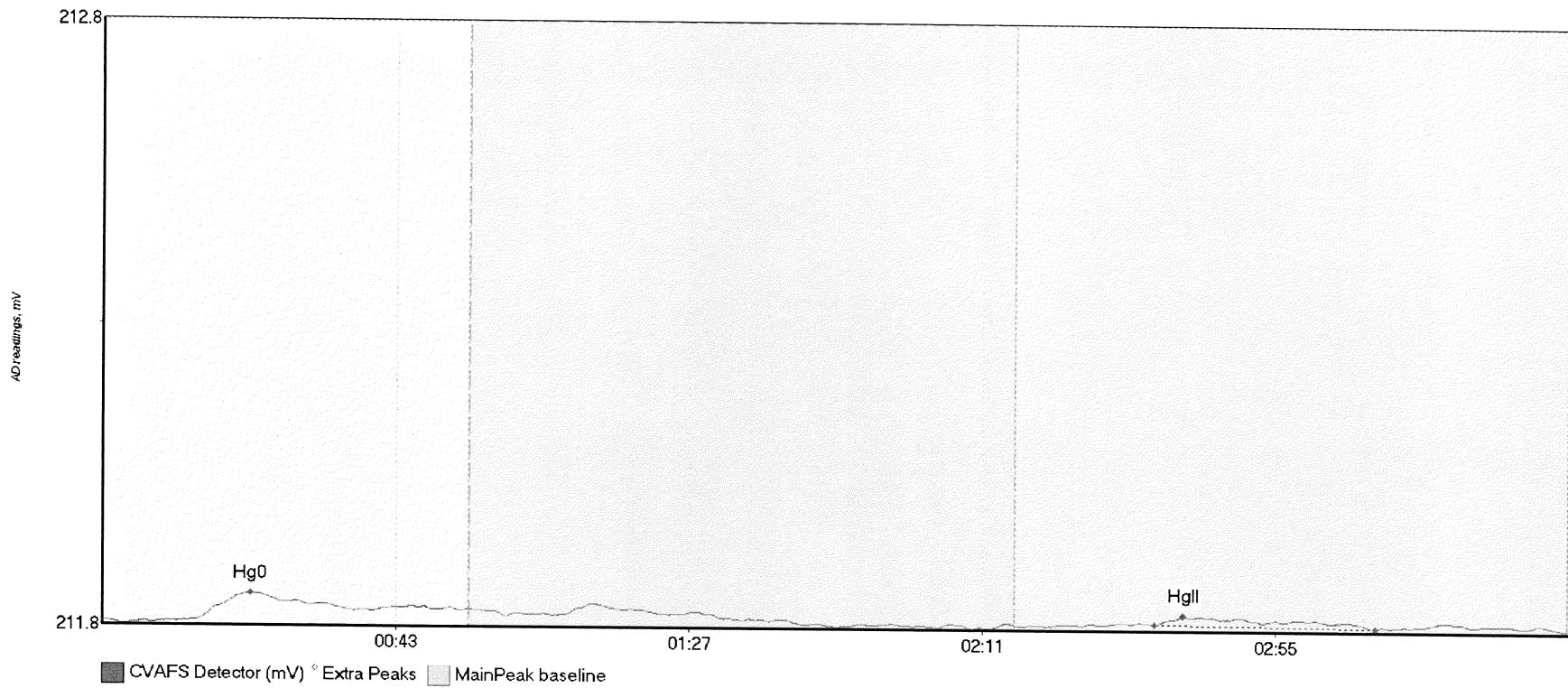
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-03RE1 H	11.305	10.2	55.0	211.80	211.82	22.6	0.077	CT	211.8002	0.00	0.01	
1708241-03RE1 M	169.801	61.8	116.6	211.82	211.82	77.8	0.907	OK	211.8002	0.00	0.01	
1708241-03RE1 H	312.661	140.8	217.0	211.80	211.81	169.7	0.982	OK	211.8002	0.00	0.01	017

#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	

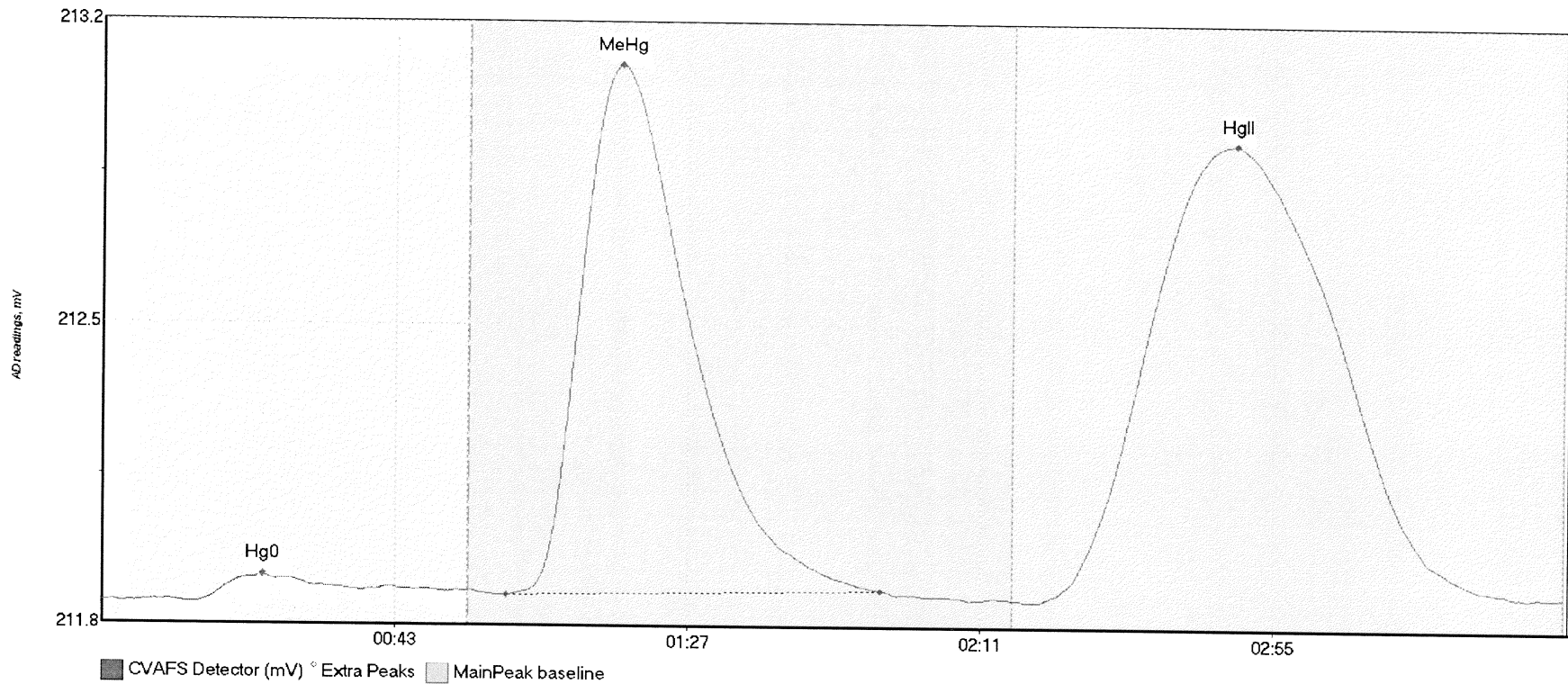
#70: SEQ-CCB5



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

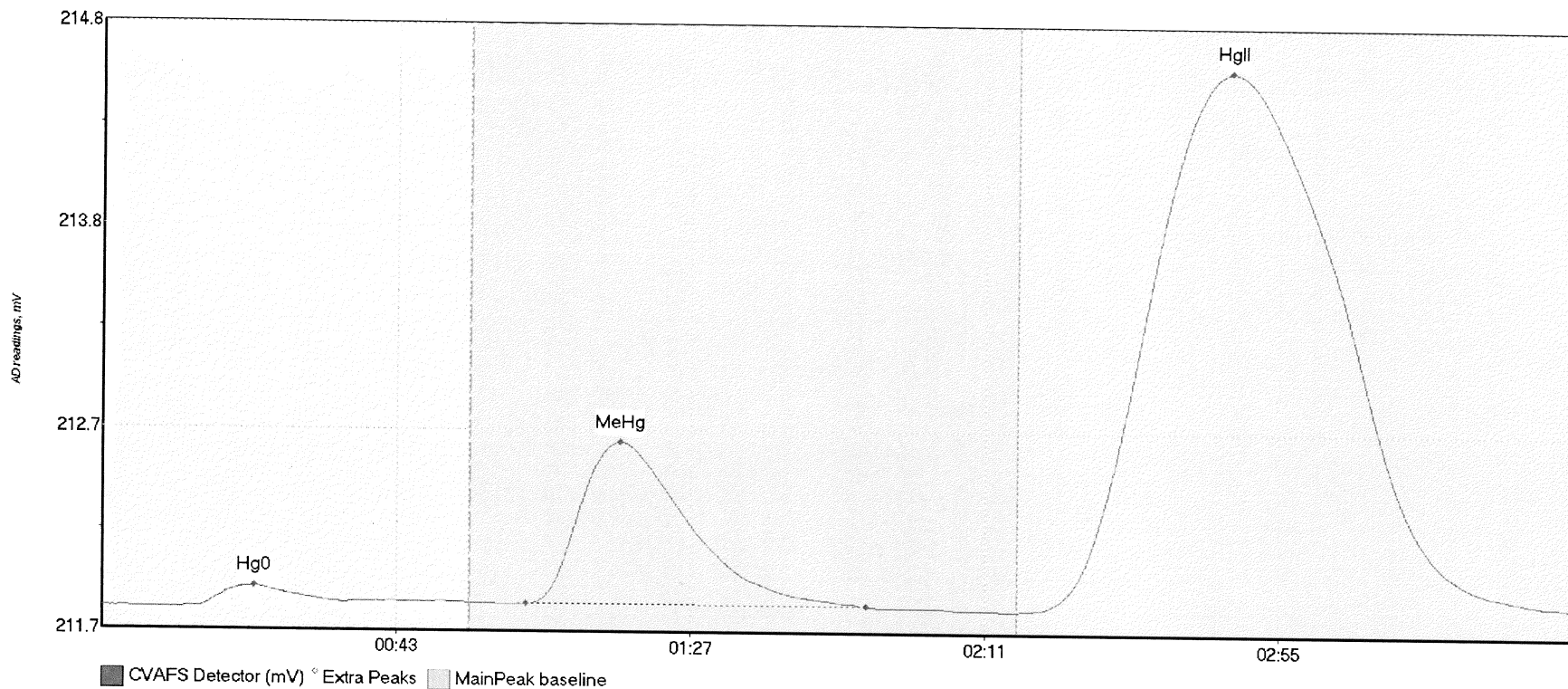


#71: 1708241-04RE1



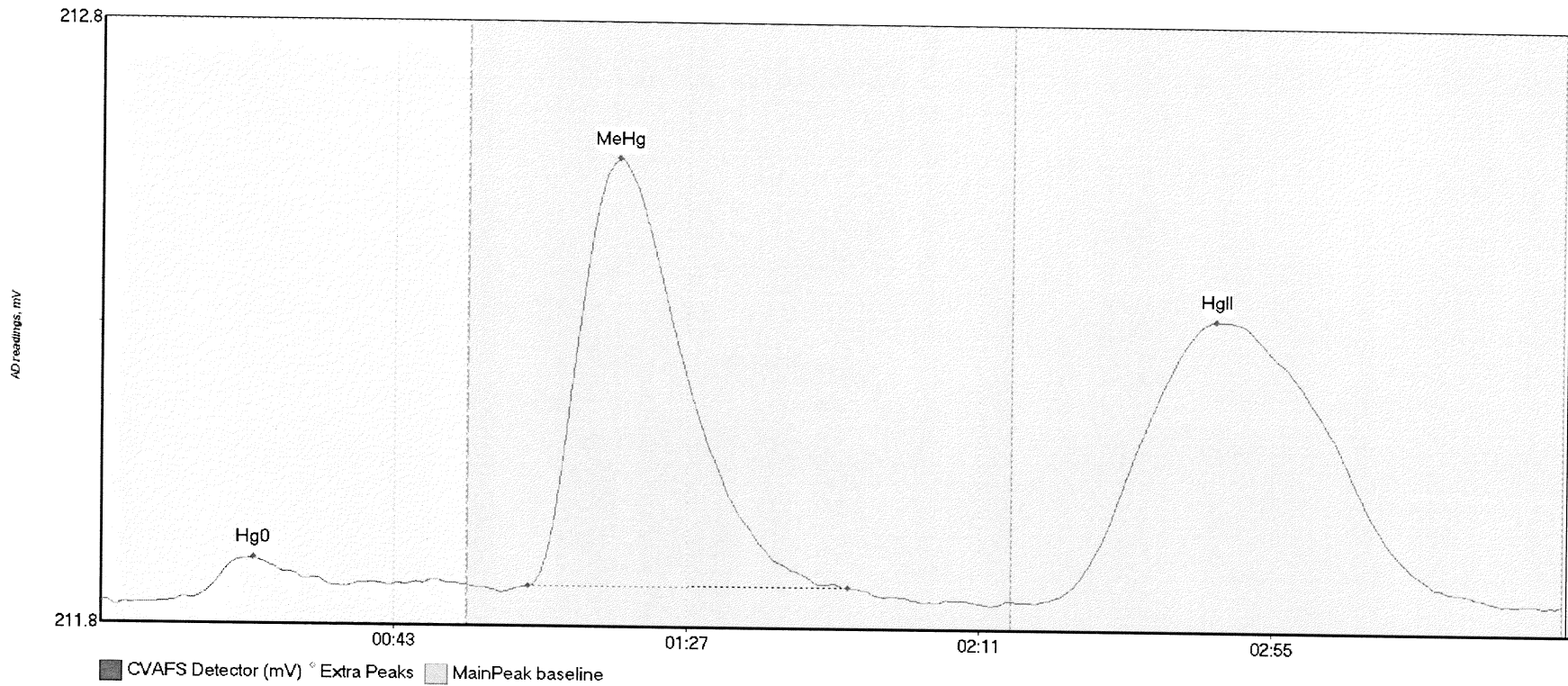
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-04RE1 H	9.556	14.1	51.6	211.81	211.84	24.1	0.066	OK	211.8118	0.00	0.03	
1708241-04RE1 M	240.258	60.7	117.0	211.83	211.84	77.9	1.277	OK	211.8118	0.00	0.03	
1708241-04RE1 H	350.788	140.6	214.7	211.82	211.84	170.3	1.107	OK	211.8118	0.00	0.03	

#72: 1708241-05RE1



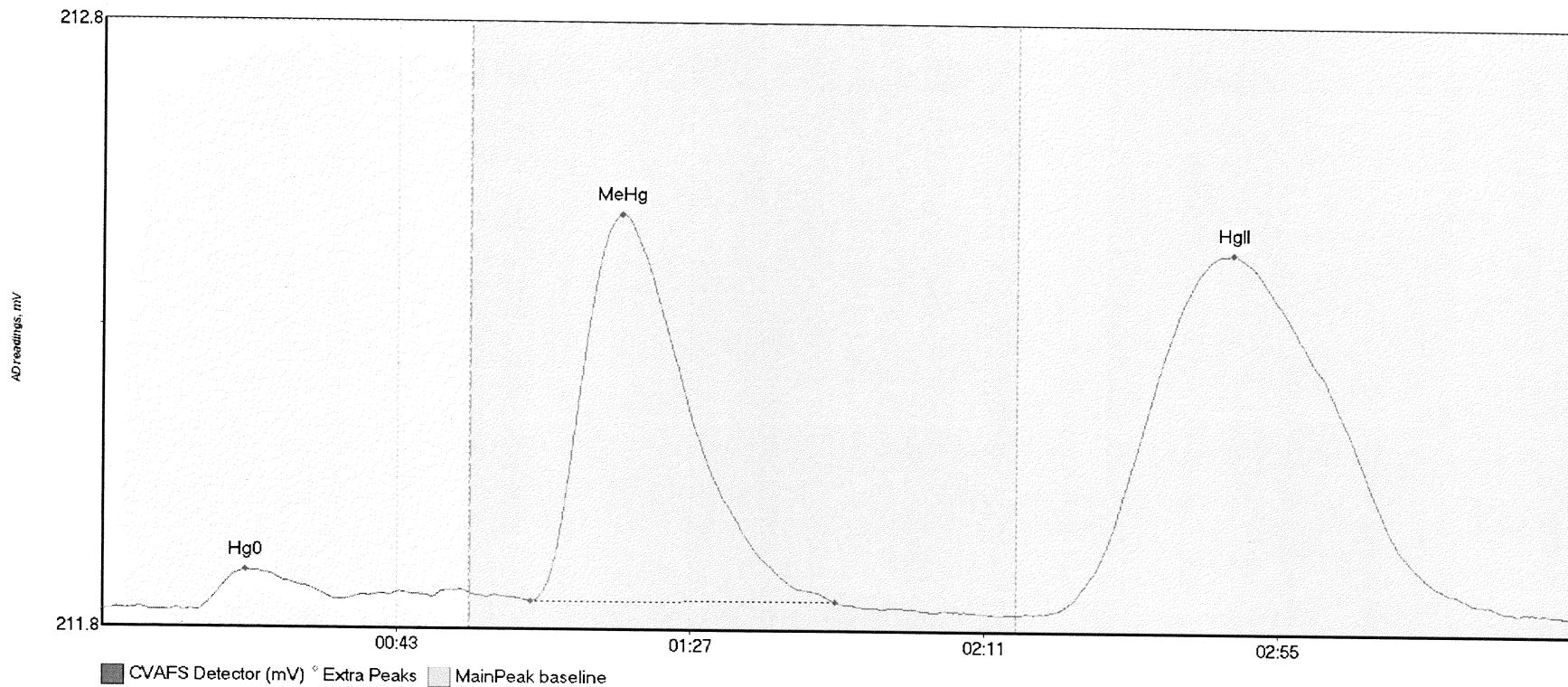
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-05RE1 H	14.061	13.4	55.0	211.82	211.85	22.7	0.107	CT	211.8194	0.00	0.03	
1708241-05RE1 M	153.081	63.5	114.3	211.84	211.84	77.5	0.825	OK	211.8194	0.00	0.03	
1708241-05RE1 H	876.267	139.3	219.4	211.82	211.85	168.8	2.745	OK	211.8194	0.00	0.03	

#73: 1708241-11RE1



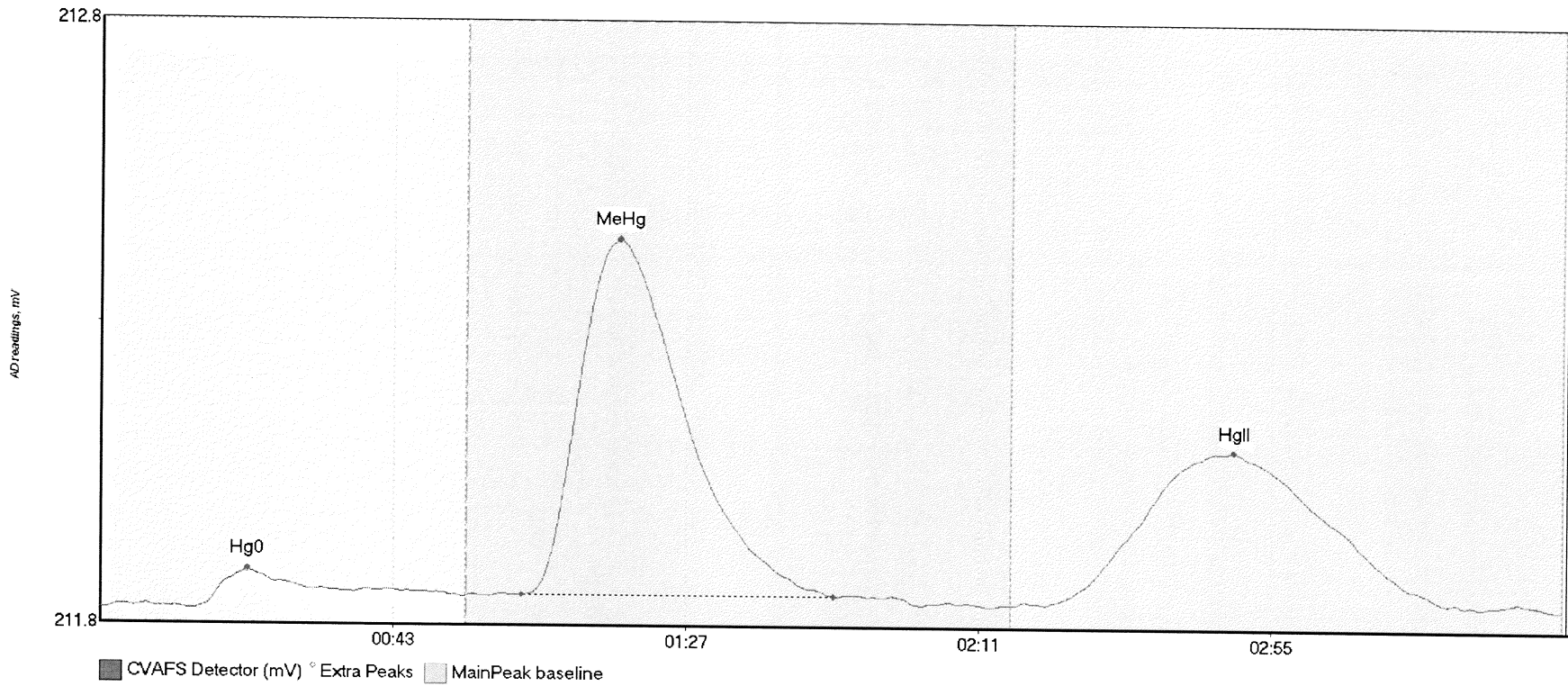
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-11RE1 H	6.878	10.5	36.2	211.82	211.84	22.9	0.072	OK	211.8163	0.00	0.01	
1708241-11RE1 M	128.740	64.1	112.3	211.84	211.85	77.6	0.711	OK	211.8163	0.00	0.01	
1708241-11RE1 H	147.456	142.4	209.9	211.83	211.83	167.4	0.466	OK	211.8163	0.00	0.01	

#74: 1708241-12RE1



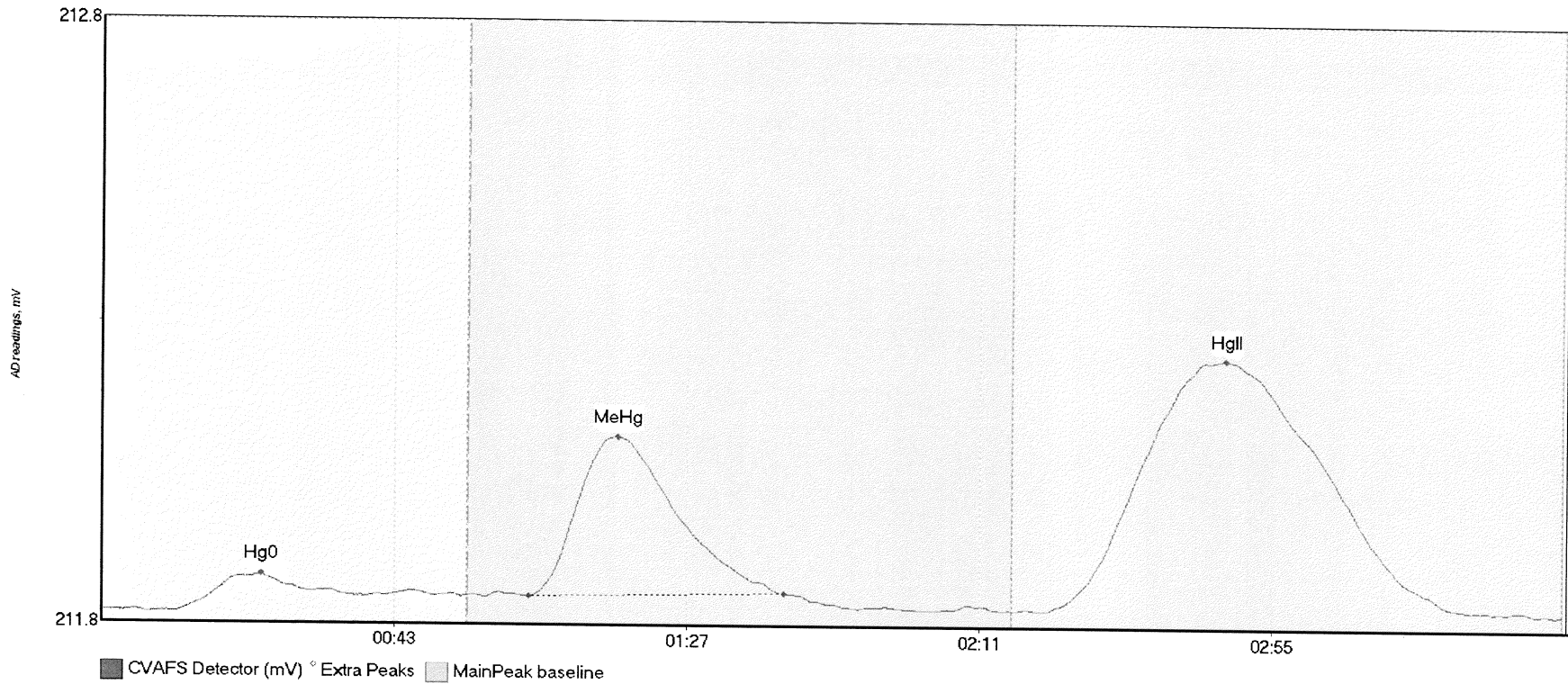
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-12RE1 H	7.011	14.2	35.2	211.81	211.83	21.4	0.067	OK	211.8086	0.00	0.00	
1708241-12RE1 M	115.135	64.1	109.7	211.83	211.83	77.6	0.639	OK	211.8086	0.00	0.00	
1708241-12RE1 H	185.075	141.0	218.0	211.81	211.81	169.2	0.596	OK	211.8086	0.00	0.00	

#75: 1708241-13RE1



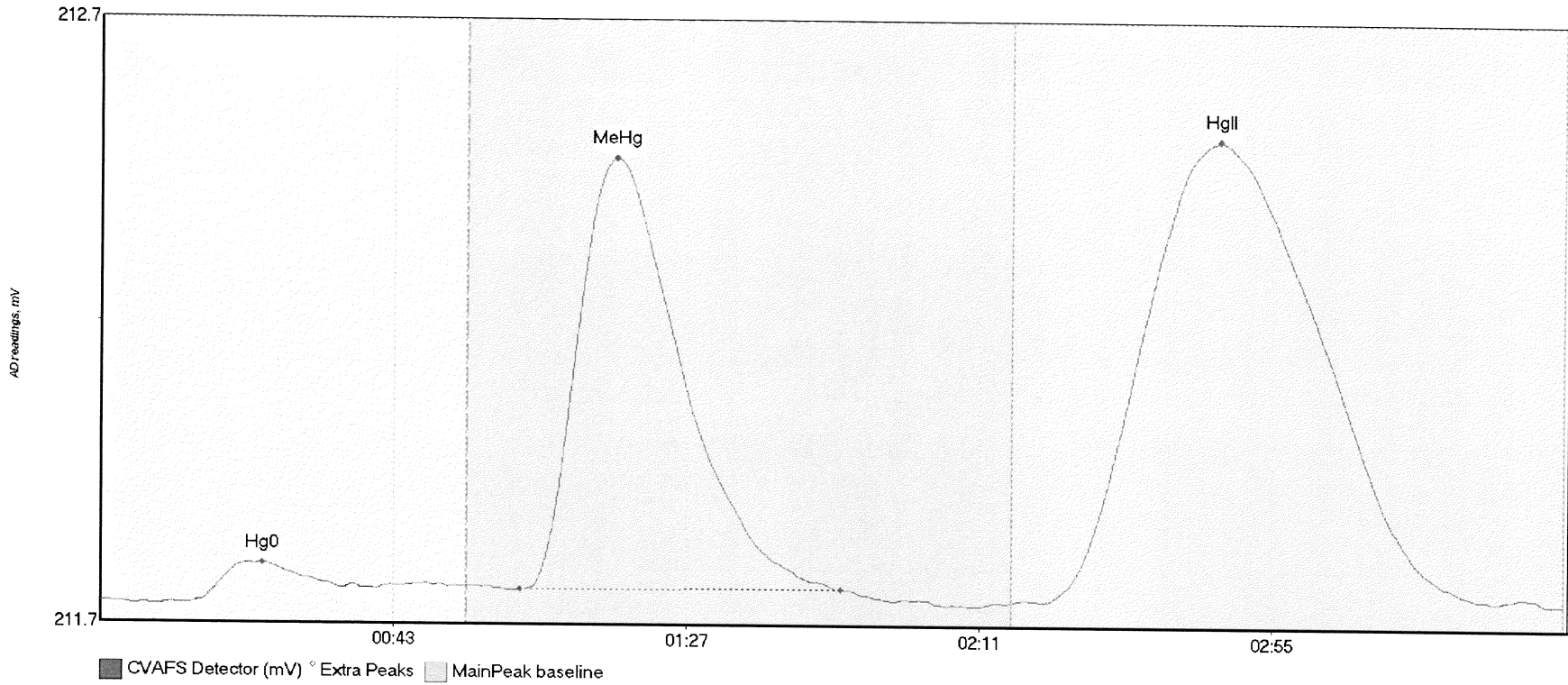
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-13RE1 H	9.657	14.2	54.5	211.80	211.82	22.0	0.063	OK	211.8024	0.00	0.01	
1708241-13RE1 M	106.418	63.3	110.1	211.83	211.83	77.9	0.589	OK	211.8024	0.00	0.01	
1708241-13RE1 H	78.528	142.2	205.2	211.82	211.82	170.3	0.255	OK	211.8024	0.00	0.01	

#76: 1708241-14RE1



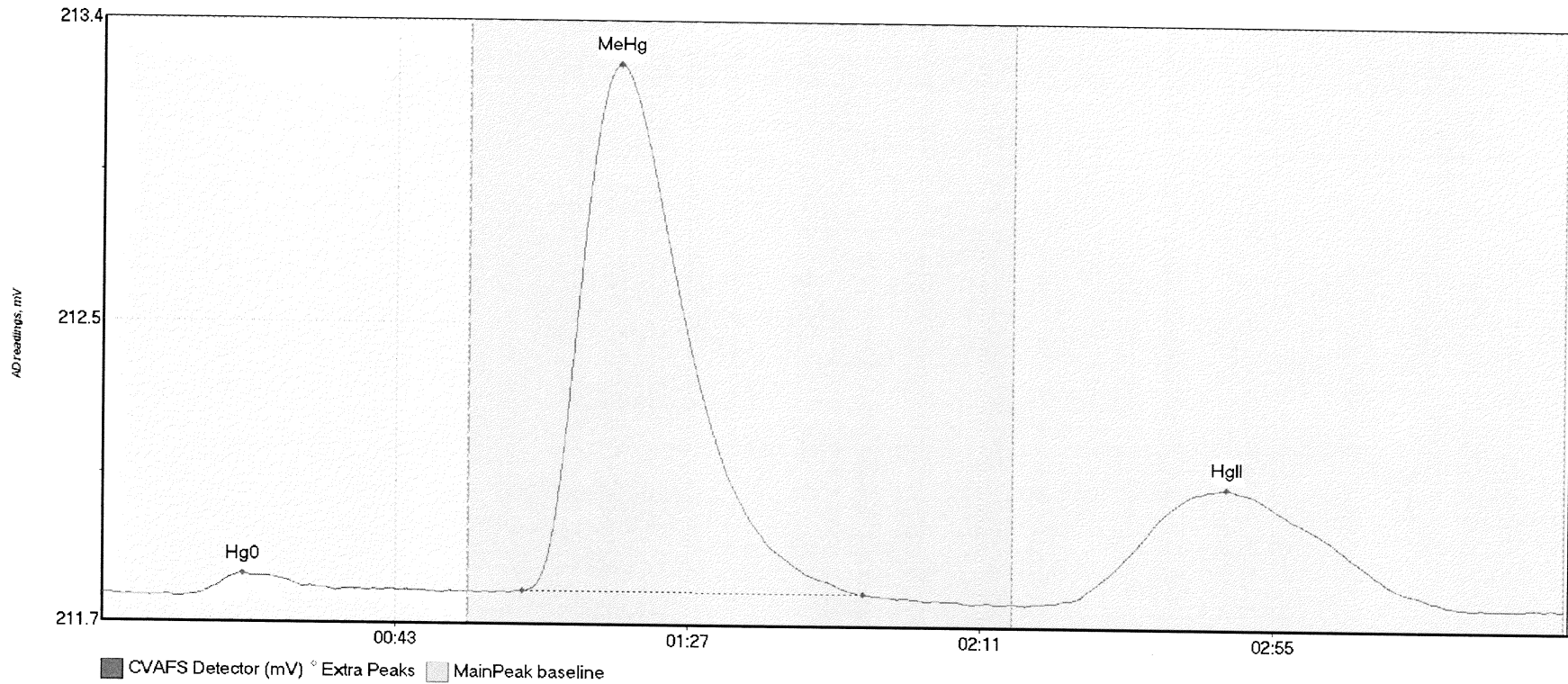
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708241-14RE1 H	6.756	11.0	40.0	211.79	211.82	24.0	0.061	OK	211.7961	0.00	0.00	
1708241-14RE1 M	44.898	64.2	102.6	211.82	211.83	77.6	0.265	OK	211.7961	0.00	0.00	
1708241-14RE1 H	127.605	141.6	206.1	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	

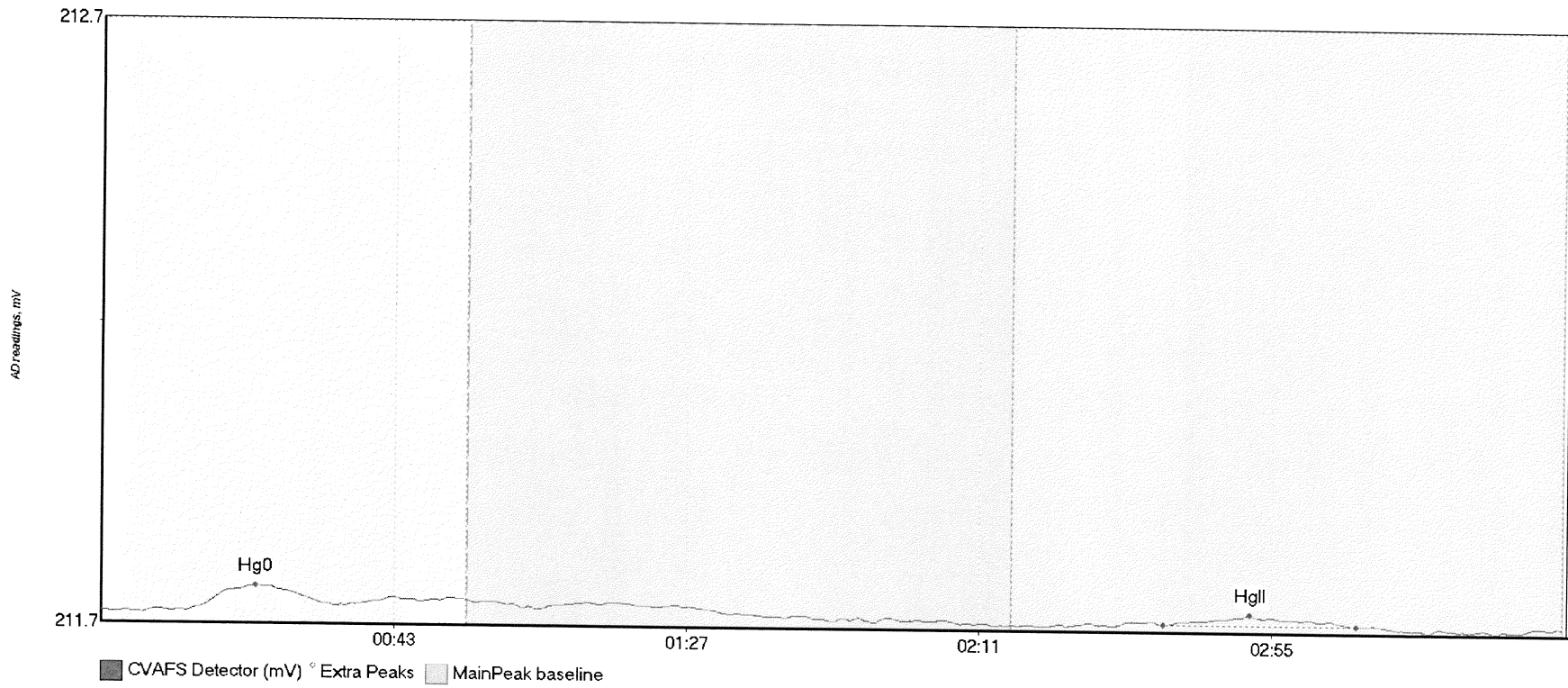
#78: SEQ-CCV6



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:

1708556

PO#

C012505850

September 21, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1708556

### Table of Contents

September 21, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	16
Notes and Definitions	20
Raw Data: 7I08006	21

Total Pages – 39



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

Reported:  
21-Sep-17 15:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-15_17HC001_081617_POL_01_WB	1708556-01	Tissue	16-Aug-17 16:30	23-Aug-17 09:20
ES-15_17HC001_081617_POL_02_WB	1708556-02	Tissue	16-Aug-17 16:30	23-Aug-17 09:20
ES-15_17HC001_081617_POL_03_WB	1708556-03	Tissue	16-Aug-17 16:30	23-Aug-17 09:20
ES-15_17HC001_081617_POL_04_WB	1708556-04	Tissue	16-Aug-17 16:30	23-Aug-17 09:20
ES-15_17HC001_081617_POL_05_WB	1708556-05	Tissue	16-Aug-17 16:30	23-Aug-17 09:20
VI-W_17HC001_081617_POL_01_WB	1708556-06	Tissue	16-Aug-17 16:00	23-Aug-17 09:20
VI-W_17HC001_081617_POL_02_WB	1708556-07	Tissue	16-Aug-17 16:00	23-Aug-17 09:20
VI-W_17HC001_081617_POL_03_WB	1708556-08	Tissue	16-Aug-17 16:00	23-Aug-17 09:20
VI-W_17HC001_081617_POL_04_WB	1708556-09	Tissue	16-Aug-17 16:00	23-Aug-17 09:20
VI-W_17HC001_081617_POL_05_WB	1708556-10	Tissue	16-Aug-17 16:00	23-Aug-17 09:20

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:**  
21-Sep-17 15:54

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 8/23/2017 9:20:00 AM . The samples were received intact, on-ice within a sealed cooler at -17.7 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 batch F708606 and analyzed in sequence 7I08006. Sample 1708556-05 was used as the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) 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.

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: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

definitions section of the report.

# Sample Receipt Checklist

EFGS Work Order: 1708556

Client: Amc

Date & Time Received: 8/23/17 920

Date Labeled: 8/23/17 Labeled By: LM

Project: \_\_\_\_\_

Received By: CSR

Label Verified By: MG

# 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:	CF:	+0.0 °C	Date/Time:	8/23/17 920	By:	CSR
Cooler 1:	-17.7 °C	w/CF: -17.7 °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>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):

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1708 556  
 ATF/ FL >>> Eurofins FGS WA  
 WD 04A.53

# Environmental Analysis Request/Chain of Custody

Eurofins

Page 1 of 1

Client: Arnee Foster Wheeler / 511 Congress St, Suite 200 Portland, ME 04101		PN # 3616160052 04A 055		Analyses Requested					
Project Name #: USDC Penobscot		P.O. #		Preservation Codes					
Project Manager: Rod Pendleton		PWSID #		SCR #					
Sampler: RB/BW		Quote #		H = HCl T = Trisulfide N = HNO <sub>3</sub> B = HClO <sub>4</sub> S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>2</sub> PO <sub>4</sub> O = Other					
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Remarks					
Sample Identification	Date	Collection		Composite	Matrix	Other:	Total # of Containers	Hg 1631e 2 oz P Freeze	
		Time	Grab						Soil <input type="checkbox"/>
1 ES-15_17HC001_081617_POL_01_WB	8/16/2017	1630	X	X			1		
2 ES-15_17HC001_081617_POL_02_WB	8/16/2017	1630	X	X			1		
3 ES-15_17HC001_081617_POL_03_WB	8/16/2017	1630	X	X			1		
4 ES-15_17HC001_081617_POL_04_WB	8/16/2017	1630	X	X			1		
5 ES-15_17HC001_081617_POL_05_WB	8/16/2017	1630	X	X			1		
6 V-W_17HC001_081617_POL_01_WB	8/16/2017	1600	X	X			1		
7 V-W_17HC001_081617_POL_02_WB	8/16/2017	1600	X	X			1		
8 V-W_17HC001_081617_POL_03_WB	8/16/2017	1600	X	X			1		
9 V-W_17HC001_081617_POL_04_WB	8/16/2017	1600	X	X			1		
10 V-W_17HC001_081617_POL_05_WB	8/16/2017	1600	X	X			1		
11									
12									
13									
14									
15									
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>							
(Rush TAT is subject to laboratory approval and surcharges.)									
Notes:		Fax # 8106-7906-0970		Relinquished by: <i>ASD</i>		Date: 8/21/17		Time: 9:30am	
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report		# of Coolers: 1		Relinquished by: <i>ASD</i>		Date: 8/21/17		Time: 9:30am	
Report and EDD to: Denise King@smethk.com / 978-692-8333		Standard <input checked="" type="checkbox"/>		Relinquished by: <i>ASD</i>		Date: 8/21/17		Time: 9:30am	
Data Package Options (please check if required):		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by: <i>ASD</i>		Date: 8/21/17		Time: 9:30am	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If Yes, format:		Relinquished by: <i>ASD</i>		Date: 8/21/17		Time: 9:30am	
Eurofins Frontier Global Sciences • 11720 Northcreek Pkwy N, Suite 400, Bohol, WA 98011 • 425-666-1966				Received by: <i>ASD</i>		Date: 8/18/17		Time: 4:30pm	
				Received by: <i>ASD</i>		Date: 8/23/17		Time: 9:20	
				Received by: <i>EF65</i>		Date:		Time:	
				Temperature upon receipt: _____ °C					

*WMA*  
 17.79C  
*Feddy*  
 920

8106 7906 0970





AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: WO-04A-050 Project Manager: Denise King	<b>Reported:</b> 21-Sep-17 15:54
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**ES-15\_17HC001\_081617\_POL\_01\_WB**  
**1708556-01**

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	42.0	1.45	13.0	ng/g	400	F708606	30-Aug-17	7I08006	07-Sep-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:**  
21-Sep-17 15:54

**ES-15\_17HC001\_081617\_POL\_02\_WB**  
**1708556-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	21.2	0.415	3.70	ng/g	100	F708606	30-Aug-17	7I08006	07-Sep-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:**  
21-Sep-17 15:54

**ES-15\_17HC001\_081617\_POL\_03\_WB**  
**1708556-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	30.5	1.41	12.6	ng/g	400	F708606	30-Aug-17	7I08006	07-Sep-17	EPA 1631B	

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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

**ES-15\_17HC001\_081617\_POL\_04\_WB**  
**1708556-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	32.0	1.72	15.3	ng/g	400	F708606	30-Aug-17	7I08006	07-Sep-17	EPA 1631B	

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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

**ES-15\_17HC001\_081617\_POL\_05\_WB**  
**1708556-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	21.7	0.427	3.82	ng/g	100	F708606	30-Aug-17	7I08006	07-Sep-17	EPA 1631B	

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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

**VI-W\_17HC001\_081617\_POL\_01\_WB**  
**1708556-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	23.8	0.403	3.60	ng/g	100	F708606	30-Aug-17	7I08006	07-Sep-17	EPA 1631B	

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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

**VI-W\_17HC001\_081617\_POL\_02\_WB**  
**1708556-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	19.6	0.439	3.92	ng/g	100	F708606	30-Aug-17	7I08006	07-Sep-17	EPA 1631B	

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271 Mill Road  
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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

**VI-W\_17HC001\_081617\_POL\_03\_WB  
1708556-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	16.9	0.375	3.35	ng/g	100	F708606	30-Aug-17	7I08006	07-Sep-17	EPA 1631B	





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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
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**VI-W\_17HC001\_081617\_POL\_04\_WB**  
**1708556-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	23.7	0.376	3.36	ng/g	100	F708606	30-Aug-17	7I08006	07-Sep-17	EPA 1631B	

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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

**VI-W\_17HC001\_081617\_POL\_05\_WB  
1708556-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	20.1	0.369	3.29	ng/g	100	F708606	30-Aug-17	7I08006	07-Sep-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:  
21-Sep-17 15:54

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7I08006 - F708606</b>											
<b>Cal Standard (7I08006-CAL1)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	0.514	-		ng/L	0.50100		103				
<b>Cal Standard (7I08006-CAL2)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	1.014	-		ng/L	1.0020		101				
<b>Cal Standard (7I08006-CAL3)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	4.956	-		ng/L	5.0100		98.9				
<b>Cal Standard (7I08006-CAL4)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	19.48	-		ng/L	20.040		97.2				
<b>Cal Standard (7I08006-CAL5)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	39.71	-		ng/L	40.080		99.1				
<b>Calibration Blank (7I08006-CCB1)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	0.042	-		ng/L							
<b>Calibration Blank (7I08006-CCB2)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	0.062	-		ng/L							
<b>Calibration Blank (7I08006-CCB3)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	0.157	-		ng/L							
<b>Calibration Blank (7I08006-CCB4)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	0.167	-		ng/L							
<b>Calibration Blank (7I08006-CCB5)</b>					Prepared & Analyzed: 07-Sep-17						
Mercury	0.173	-		ng/L							

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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

Reported:  
21-Sep-17 15:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7I08006 - F708606</b>											
<b>Calibration Blank (7I08006-CCB6)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	0.123	-		ng/L							
<b>Calibration Blank (7I08006-CCB7)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	0.238	-		ng/L							
<b>Calibration Blank (7I08006-CCB8)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	0.283	-		ng/L							
<b>Calibration Check (7I08006-CCV1)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	4.933	-		ng/L	5.0000		98.7	77-123			
<b>Calibration Check (7I08006-CCV2)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	4.848	-		ng/L	5.0000		97.0	77-123			
<b>Calibration Check (7I08006-CCV3)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	4.939	-		ng/L	5.0000		98.8	77-123			
<b>Calibration Check (7I08006-CCV4)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	4.979	-		ng/L	5.0000		99.6	77-123			
<b>Calibration Check (7I08006-CCV5)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	4.953	-		ng/L	5.0000		99.1	77-123			
<b>Calibration Check (7I08006-CCV6)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	4.995	-		ng/L	5.0000		99.9	77-123			
<b>Calibration Check (7I08006-CCV7)</b>											
Prepared & Analyzed: 07-Sep-17											
Mercury	5.089	-		ng/L	5.0000		102	77-123			

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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

Reported:  
21-Sep-17 15:54

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 7I08006 - F708606

Calibration Check (7I08006-CCV8)

Prepared & Analyzed: 07-Sep-17

Mercury	5.173	-		ng/L	5.0000		103	77-123			
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Instrument Blank (7I08006-IBL1)

Prepared & Analyzed: 07-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I08006-IBL2)

Prepared & Analyzed: 07-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7I08006-IBL3)

Prepared & Analyzed: 07-Sep-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7I08006-ICV1)

Prepared & Analyzed: 07-Sep-17

Mercury	5.056	-		ng/L	5.0000		101	79-121			
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Batch F708606 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F708606-BLK1)

Prepared: 30-Aug-17 Analyzed: 07-Sep-17

Mercury	0.210	0.090	0.800	ng/g							J
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Blank (F708606-BLK2)

Prepared: 30-Aug-17 Analyzed: 07-Sep-17

Mercury	0.182	0.090	0.800	ng/g							J
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Blank (F708606-BLK3)

Prepared: 30-Aug-17 Analyzed: 07-Sep-17

Mercury	0.138	0.090	0.800	ng/g							J
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Blank (F708606-BLK4)

Prepared: 30-Aug-17 Analyzed: 07-Sep-17

Mercury	ND	0.079	0.707	ng/g							FB, U
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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

Reported:  
21-Sep-17 15:54

**Quality Control Data**

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

**Batch F708606 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F708606-BLK5)</b>					Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	ND	0.085	0.763	ng/g							F-03, U
<b>Blank (F708606-BLK6)</b>					Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	ND	0.084	0.753	ng/g							F-03, U
<b>LCS (F708606-BS1)</b>					Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	7.775	0.090	0.800	ng/g	8.0160		97.0	75-125			
<b>LCS (F708606-BS2)</b>					Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	349.0	3.50	31.3	ng/g	382.50		91.3	75-125			
<b>LCS Dup (F708606-BSD1)</b>					Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	7.843	0.090	0.800	ng/g	8.0160		97.8	75-125	0.881	24	
<b>Duplicate (F708606-DUP1)</b>					Source: 1708556-05 Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	23.03	0.375	3.35	ng/g		24.67			6.88	24	
<b>Matrix Spike (F708606-MS1)</b>					Source: 1708556-05 Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	326.9	1.44	12.9	ng/g	321.75	24.67	93.9	71-125			
<b>Matrix Spike (F708606-MS2)</b>					Source: 1708556-08 Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	385.0	1.70	15.2	ng/g	379.65	20.48	96.0	71-125			
<b>Matrix Spike Dup (F708606-MSD1)</b>					Source: 1708556-05 Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	373.0	1.62	14.4	ng/g	360.88	24.67	96.5	71-125	2.74	24	
<b>Matrix Spike Dup (F708606-MSD2)</b>					Source: 1708556-08 Prepared: 30-Aug-17 Analyzed: 07-Sep-17						
Mercury	366.1	1.57	14.0	ng/g	350.26	20.48	98.7	71-125	2.73	24	

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271 Mill Road  
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Project: 2017 Penobscot Biota  
Project Number: WO-04A-050  
Project Manager: Denise King

**Reported:**  
21-Sep-17 15:54

**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.
- 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: September 07, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7108006

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	111.48 units	222.96	98.78 units	197.56	102.7 %Rec
SEQ-CAL2	1	1.00 ng/L	207.75 units	207.75	195.05 units	195.05	101.4 %Rec
SEQ-CAL3	1	5.00 ng/L	965.53 units	193.11	952.83 units	190.57	99.1 %Rec
SEQ-CAL4	1	20.00 ng/L	3758.82 units	187.94	3746.12 units	187.31	97.4 %Rec
SEQ-CAL5	1	40.00 ng/L	7648.18 units	191.20	7635.48 units	190.89	99.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF** 192.27   
 **Corr. St Dev RF** +/- 4.04   
 **Corr. RSD CF** 2.1% RSD   
 **Uncorr. Mean RF** 200.59

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	12.70 units	±1.85	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.207 ng/L	±0.456
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	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: BC 9/14/17



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	9/7/2017 8:46:24	84523-1.RAW	8:46:24 AM	12.33			-0.4	-0.002	-0.002	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	9/7/2017 8:50:33	84524-1.RAW	8:50:33 AM	14.71			2.0	0.010	0.010	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	9/7/2017 8:54:41	84525-1.RAW	8:54:41 AM	11.06			-1.6	-0.009	-0.009	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	9/7/2017 8:58:50	84526-1.RAW	8:58:50 AM	111.48			98.8	0.514	0.514	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	9/7/2017 9:02:58	84527-1.RAW	9:02:58 AM	207.75			195.1	1.014	1.014	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	9/7/2017 9:07:06	84528-1.RAW	9:07:06 AM	965.53			952.8	4.956	4.956	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	9/7/2017 9:11:15	84529-1.RAW	9:11:15 AM	3758.82			3746.1	19.483	19.483	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	9/7/2017 9:15:23	84530-1.RAW	9:15:23 AM	7648.18			7635.5	39.711	39.711	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	9/7/2017 9:19:32	84531-1.RAW	9:19:32 AM	984.82			972.1	5.056	5.056	ng/L	
Hg2600-2	BC	SAM	WS		9/7/2017 9:32:28	84532-1.RAW	9:32:28 AM	65.95		x	53.3	0.277	0.000	ng/L	
Hg2600-2	BC	BLK	F708623-BLK4	100	9/7/2017 9:36:37	84533-1.RAW	9:36:37 AM	24.74		x	12.0	0.063	6.262	ng/L	
Hg2600-2	BC	BLK	F708623-BLK5	100	9/7/2017 9:40:45	84534-1.RAW	9:40:45 AM	26.13		x	13.4	0.070	6.985	ng/L	
Hg2600-2	BC	BLK	F708623-BLK6	100	9/7/2017 9:44:53	84535-1.RAW	9:44:53 AM	24.45		x	11.8	0.061	6.111	ng/L	
Hg2600-2	BC	SAM	1708869-16B	100	9/7/2017 9:49:02	84536-1.RAW	9:49:02 AM	23.73		x	11.0	0.057	5.737	ng/L	
Hg2600-2	BC	SAM	1708869-17B	100	9/7/2017 9:53:10	84537-1.RAW	9:53:10 AM	21.86		x	9.2	0.048	4.764	ng/L	
Hg2600-2	BC	SAM	1708869-18B	100	9/7/2017 9:58:05	84538-2.RAW	9:58:05 AM	38.16		x	25.5	0.132	13.242	ng/L	
Hg2600-2	BC	SAM	1708869-19B	100	9/7/2017 10:02:14	84539-1.RAW	10:02:14 AM	24.25		x	11.6	0.060	6.007	ng/L	
Hg2600-2	BC	SAM	1708869-20B	100	9/7/2017 10:06:22	84540-1.RAW	10:06:22 AM	19.93		x	7.2	0.038	3.760	ng/L	
Hg2600-2	BC	SAM	1708869-21B	100	9/7/2017 10:10:30	84541-1.RAW	10:10:30 AM	21.29		x	8.6	0.045	4.468	ng/L	
Hg2600-2	BC	SAM	1708869-22B	100	9/7/2017 10:14:39	84542-1.RAW	10:14:39 AM	21.69		x	9.0	0.047	4.676	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	9/7/2017 10:18:47	84543-1.RAW	10:18:47 AM	961.13			948.4	4.933	4.933	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	9/7/2017 10:22:56	84544-1.RAW	10:22:56 AM	20.86			8.2	0.042	0.042	ng/L	
Hg2600-2	BC	SAM	1708869-23B	100	9/7/2017 10:27:04	84545-1.RAW	10:27:04 AM	28.90		x	16.2	0.084	8.425	ng/L	
Hg2600-2	BC	SAM	1708869-24B	100	9/7/2017 10:31:13	84546-1.RAW	10:31:13 AM	63.53		x	50.8	0.264	26.436	ng/L	
Hg2600-2	BC	SAM	1708869-25B	100	9/7/2017 10:35:21	84547-1.RAW	10:35:21 AM	27.36		x	14.7	0.076	7.625	ng/L	
Hg2600-2	BC	SAM	1708869-26B	100	9/7/2017 10:39:29	84548-1.RAW	10:39:29 AM	22.83		x	9.9	0.052	5.165	ng/L	
Hg2600-2	BC	SAM	1708869-28B	100	9/7/2017 10:43:38	84549-1.RAW	10:43:38 AM	24.07		x	11.4	0.059	5.913	ng/L	
Hg2600-2	BC	SAM	1708869-27B	100	9/7/2017 10:47:46	84550-1.RAW	10:47:46 AM	18.82		x	6.1	0.032	3.183	ng/L	
Hg2600-2	BC	SAM	1708869-30B	100	9/7/2017 10:51:55	84551-1.RAW	10:51:55 AM	23.35		x	10.7	0.055	5.539	ng/L	
Hg2600-2	BC	SAM	1708869-29B	100	9/7/2017 10:57:37	84552-2.RAW	10:57:37 AM	41.08		x	28.4	0.148	14.760	ng/L	
Hg2600-2	BC	BLK	F709217-BLK1	50	9/7/2017 11:01:46	84553-1.RAW	11:01:46 AM	18.85		x	6.2	0.032	1.599	ng/L	
Hg2600-2	BC	BLK	F709217-BLK2	50	9/7/2017 11:05:54	84554-1.RAW	11:05:54 AM	24.83		x	12.1	0.063	3.154	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	9/7/2017 11:10:02	84555-1.RAW	11:10:02 AM	944.87			932.2	4.848	4.848	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	9/7/2017 11:14:11	84556-1.RAW	11:14:11 AM	24.71			12.0	0.062	0.062	ng/L	
Hg2600-2	BC	SAM	F709217-BS1	400	9/7/2017 11:18:19	84557-1.RAW	11:18:19 AM	1207.50		x	1194.8	6.214	2485.622	ng/L	
Hg2600-2	BC	SAM	F709217-BSD1	400	9/7/2017 11:22:28	84558-1.RAW	11:22:28 AM	1366.22		x	1353.5	7.040	2815.818	ng/L	
Hg2600-2	BC	SAM	1708850-01RE1	50	9/7/2017 11:26:36	84559-1.RAW	11:26:36 AM	57.53		x	44.8	0.233	11.658	ng/L	
Hg2600-2	BC	SAM	1709132-01	50	9/7/2017 11:30:44	84560-1.RAW	11:30:44 AM	31.55		x	18.9	0.098	4.902	ng/L	
Hg2600-2	BC	SAM	F708623-DJUP1	50	9/7/2017 11:34:53	84561-1.RAW	11:34:53 AM	26.53		x	13.8	0.072	3.596	ng/L	
Hg2600-2	BC	SAM	F709217-MS1	400	9/7/2017 11:39:01	84562-1.RAW	11:39:01 AM	1096.37		x	1083.7	5.636	2254.431	ng/L	
Hg2600-2	BC	SAM	F709217-MSD1	400	9/7/2017 11:43:10	84563-1.RAW	11:43:10 AM	1372.21		x	1359.5	7.071	2828.279	ng/L	
Hg2600-2	BC	SAM	WS		9/7/2017 11:53:47	84564-1.RAW	11:53:47 AM	44.02		x	31.3	0.163	0.000	ng/L	
Hg2600-2	BC	SAM	F7090217-MS2	50	9/7/2017 11:57:56	84565-1.RAW	11:57:56 AM	519.49		x	506.8	2.636	131.789	ng/L	
Hg2600-2	BC	SAM	F709217-MSD2	50	9/7/2017 12:02:04	84566-1.RAW	12:02:04 PM	499.83		x	487.1	2.534	126.676	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	9/7/2017 12:06:13	84567-1.RAW	12:06:13 PM	962.31			949.6	4.939	4.939	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	9/7/2017 12:10:21	84568-1.RAW	12:10:21 PM	42.89			30.2	0.157	0.157	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	9/7/2017 12:48:26	84569-1.RAW	12:48:26 PM	86.26		x	73.6	0.383	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	9/7/2017 12:52:34	84570-1.RAW	12:52:34 PM	970.06			957.4	4.979	4.979	ng/L	
Hg2600-2	BC	BLK	F708606-BLK1	20	9/7/2017 12:56:43	84571-1.RAW	12:56:43 PM	44.77			32.1	0.167	0.167	ng/L	
Hg2600-2	BC	BLK	F708606-BLK2	20	9/7/2017 13:00:51	84572-1.RAW	1:00:51 PM	37.96		1	25.3	0.131	2.628	ng/L	
Hg2600-2	BC	BLK	F708606-BLK3	20	9/7/2017 13:05:00	84573-1.RAW	1:05:00 PM	34.53		1	21.8	0.114	2.271	ng/L	
Hg2600-2	BC	BLK	F708606-BLK4	20	9/7/2017 13:09:08	84574-1.RAW	1:09:08 PM	29.25		1	16.6	0.086	1.722	ng/L	
Hg2600-2	BC	SAM	*F708606-BLK5	20	9/7/2017 13:13:17	84575-1.RAW	1:13:17 PM	31.15		1	18.5	-0.014	-0.287	ng/L	
Hg2600-2	BC	SAM	*F708606-BLK6	20	9/7/2017 13:17:25	84576-1.RAW	1:17:25 PM	33.13		1	20.4	-0.004	-0.081	ng/L	
Hg2600-2	BC	SAM	*F708606-BLK6	20	9/7/2017 13:21:33	84577-1.RAW	1:21:33 PM	29.72		1	17.0	-0.022	-0.436	ng/L	
Hg2600-2	BC	SAM	F708606-BS1	20	9/7/2017 13:25:42	84578-1.RAW	1:25:42 PM	968.20		1	955.5	4.859	97.183	ng/L	
Hg2600-2	BC	SAM	F708606-BSD1	20	9/7/2017 13:29:50	84579-1.RAW	1:29:50 PM	976.47		1	963.8	4.902	98.043	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	F708606-BS2	400	9/7/2017 13:33:59	84580-1.RAW	1:33:59 PM	1086.69	1		1074.0	5.580	2232.086	ng/L	
Hg2600-2	BC	SAM	1708441-01	100	9/7/2017 13:38:07	84581-1.RAW	1:38:07 PM	3797.34	1		3784.6	19.662	1966.153	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	9/7/2017 13:42:16	84582-1.RAW	1:42:16 PM	984.97			952.3	4.953	4.953	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	9/7/2017 13:46:24	84583-1.RAW	1:46:24 PM	45.96			33.3	0.173	0.173	ng/L	
Hg2600-2	BC	SAM	1708556-01	400	9/7/2017 13:50:32	84584-1.RAW	1:50:32 PM	325.62	1		312.9	1.622	648.782	ng/L	
Hg2600-2	BC	SAM	1708556-02	400	9/7/2017 13:54:41	84585-1.RAW	1:54:41 PM	177.85	1		165.2	0.853	341.366	ng/L	
Hg2600-2	BC	SAM	1708556-03	400	9/7/2017 13:58:49	84586-1.RAW	1:58:49 PM	246.85	1		234.2	1.212	484.911	ng/L	
Hg2600-2	BC	SAM	1708556-04	400	9/7/2017 14:02:58	84587-1.RAW	2:02:58 PM	214.43	1		201.7	1.044	417.466	ng/L	
Hg2600-2	BC	SAM	1708556-05	400	9/7/2017 14:07:06	84588-1.RAW	2:07:06 PM	169.19	1		156.5	0.808	323.350	ng/L	
Hg2600-2	BC	SAM	1708556-06	400	9/7/2017 14:11:14	84589-1.RAW	2:11:14 PM	197.68	1		185.0	0.957	382.620	ng/L	
Hg2600-2	BC	SAM	1708556-07	400	9/7/2017 14:15:23	84590-1.RAW	2:15:23 PM	153.43	1		140.7	0.726	290.563	ng/L	
Hg2600-2	BC	SAM	1708556-08	400	9/7/2017 14:19:31	84591-1.RAW	2:19:31 PM	160.67	1		148.0	0.764	305.625	ng/L	
Hg2600-2	BC	SAM	1708556-09	400	9/7/2017 14:23:40	84592-1.RAW	2:23:40 PM	199.32	1		186.6	0.965	386.031	ng/L	
Hg2600-2	BC	SAM	1708556-10	400	9/7/2017 14:27:48	84593-1.RAW	2:27:48 PM	178.81	1		166.1	0.858	343.363	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	9/7/2017 14:31:57	84594-1.RAW	2:31:57 PM	973.18			960.5	4.995	4.995	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	9/7/2017 14:36:05	84595-1.RAW	2:36:05 PM	36.41			23.7	0.123	0.123	ng/L	
Hg2600-2	BC	SAM	WS		9/7/2017 14:47:04	84596-1.RAW	2:47:04 PM	36.70		x	24.0	0.125	0.000	ng/L	
Hg2600-2	BC	SAM	1708556-02RE1	100	9/7/2017 14:51:13	84597-1.RAW	2:51:13 PM	568.55	1		555.9	2.869	286.886	ng/L	
Hg2600-2	BC	SAM	1708556-05RE1	100	9/7/2017 14:55:21	84598-1.RAW	2:55:21 PM	564.72	1		552.0	2.849	284.894	ng/L	
Hg2600-2	BC	SAM	1708556-06RE1	100	9/7/2017 14:59:30	84599-1.RAW	2:59:30 PM	653.44	1		640.7	3.310	331.037	ng/L	
Hg2600-2	BC	SAM	1708556-07RE1	100	9/7/2017 15:03:38	84600-1.RAW	3:03:38 PM	496.75	1		484.1	2.495	249.544	ng/L	
Hg2600-2	BC	SAM	1708556-08RE1	100	9/7/2017 15:07:47	84601-1.RAW	3:07:47 PM	501.72	1		489.0	2.521	252.129	ng/L	
Hg2600-2	BC	SAM	1708556-09RE1	100	9/7/2017 15:11:55	84602-1.RAW	3:11:55 PM	697.28	1		684.6	3.538	353.838	ng/L	
Hg2600-2	BC	SAM	1708556-10RE1	100	9/7/2017 15:16:03	84603-1.RAW	3:16:03 PM	604.59	1		591.9	3.056	305.630	ng/L	
Hg2600-2	BC	SAM	F708606-DUP1	100	9/7/2017 15:20:12	84604-1.RAW	3:20:12 PM	677.48	1		664.8	3.435	343.540	ng/L	
Hg2600-2	BC	SAM	F708606-MS1	400	9/7/2017 15:24:20	84605-1.RAW	3:24:20 PM	2455.32	1		2442.6	12.698	5079.339	ng/L	
Hg2600-2	BC	SAM	F708606-MSD1	400	9/7/2017 15:28:29	84606-1.RAW	3:28:29 PM	2497.95	1		2485.3	12.920	5168.025	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	9/7/2017 15:32:37	84607-1.RAW	3:32:37 PM	991.13			978.4	5.089	5.089	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	9/7/2017 15:36:46	84608-1.RAW	3:36:46 PM	58.49			45.8	0.238	0.238	ng/L	
Hg2600-2	BC	SAM	F708606-MS2	400	9/7/2017 15:40:54	84609-1.RAW	3:40:54 PM	2451.01	1		2438.3	12.676	5070.372	ng/L	
Hg2600-2	BC	SAM	F708606-MSD2	400	9/7/2017 15:45:02	84610-1.RAW	3:45:02 PM	2525.77	1		2513.1	13.065	5225.900	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8	1	9/7/2017 15:49:11	84611-1.RAW	3:49:11 PM	1007.34			994.6	5.173	5.173	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8	1	9/7/2017 15:53:19	84612-1.RAW	3:53:19 PM	67.05			54.4	0.283	0.283	ng/L	

TotalMercury EPA1631  
 Operati BC  
 BlankS: 12.702  
 Calib Eqn: Conc = (Area-12.70  
 Run Date: 9/7/2017  
 Blank SD: 1.853609222  
 Worksh THg2600  
 CalibFa 192.27  
 Status: QC Warnings:6/QC E  
 Run Time: 14:42:55  
 Blank RSD%: 14.59276213  
 Method ##### R: 1  
 R<sup>2</sup>: 0.9999  
 CF SD: 4.033329953  
 Descrip THg26002-170907-1  
 CF RSD%: 2.097723147

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
clean				0.00	4.03					84518-1.RAW	8:26:59	775.20	Clean	OK	1
clean				0.00	0.00					84519-1.RAW	8:29:51	0.51	Clean	OK	1
ws				12.70	0.03					84520-1.RAW	8:33:59	17.72	Sample	OK	1
ws				12.70	0.00					84521-1.RAW	8:38:07	12.76	Sample	OK	1
ws				12.70	0.00					84522-1.RAW	8:42:16	7.71	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.06					84523-1.RAW	8:46:24	12.33	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.08					84524-1.RAW	8:50:33	14.71	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.06					84525-1.RAW	8:54:41	11.06	Sample	OK	1
SEQ-CAL1	A4		1	12.70	0.51			102.75		84526-1.RAW	8:58:50	111.48	Sample	OK	1
SEQ-CAL2	A5		1	12.70	1.01			101.44		84527-1.RAW	9:02:58	207.75	Sample	OK	1
SEQ-CAL3	A6		1	12.70	4.96			99.11		84528-1.RAW	9:07:06	965.53	Sample	OK	1
SEQ-CAL4	A7		1	12.70	19.48			97.42		84529-1.RAW	9:11:15	3758.82	Sample	OK	1
SEQ-CAL5	A8		1	12.70	39.71			99.28		84530-1.RAW	9:15:23	7648.18	Sample	OK	1
SEQ-ICV1	A9		1	12.70	5.06			101.12		84531-1.RAW	9:19:32	984.82	Sample	OK	1
WS				12.70	0.28					84532-1.RAW	9:32:28	65.95	Sample	OK	1
F708623-BLK4	A10		100	12.70	6.26					84533-1.RAW	9:36:37	24.74	Sample	OK	1
F708623-BLK5	A11		100	12.70	6.98					84534-1.RAW	9:40:45	26.13	Sample	OK	1
F708623-BLK6	A12		100	12.70	6.11					84535-1.RAW	9:44:53	24.45	Sample	OK	1
1708869-16B	A13		100	12.70	5.73					84536-1.RAW	9:49:02	23.73	Sample	OK	1
1708869-17B	A14		100	12.70	4.76					84537-1.RAW	9:53:10	21.86	Sample	OK	1
1708869-18B	A15		100	12.70	13.24					84538-2.RAW	9:58:05	38.16	Sample	OK	1
1708869-19B	A16		100	12.70	6.00					84539-1.RAW	10:02:14	24.25	Sample	OK	1
1708869-20B	A17		100	12.70	3.76					84540-1.RAW	10:06:22	19.93	Sample	OK	1
1708869-21B	A18		100	12.70	4.46					84541-1.RAW	10:10:30	21.29	Sample	OK	1
1708869-22B	A19		100	12.70	4.68					84542-1.RAW	10:14:39	21.69	Sample	OK	1
SEQ-CCV1	A20		1	12.70	4.93			98.66		84543-1.RAW	10:18:47	961.13	Sample	OK	1
SEQ-CCB1	A21		1	12.70	0.04			0.00		84544-1.RAW	10:22:56	20.86	Sample	OK	1
1708869-23B	B1		100	12.70	8.42					84545-1.RAW	10:27:04	28.90	Sample	OK	1
1708869-24B	B2		100	12.70	26.44					84546-1.RAW	10:31:13	63.53	Sample	OK	1
1708869-25B	B3		100	12.70	7.63					84547-1.RAW	10:35:21	27.36	Sample	OK	1
1708869-26B	B4		100	12.70	5.16					84548-1.RAW	10:39:29	22.63	Sample	OK	1
1708869-28B	B5		100	12.70	5.91					84549-1.RAW	10:43:38	24.07	Sample	OK	1
1708869-27B	B6		100	12.70	3.18					84550-1.RAW	10:47:46	18.82	Sample	OK	1
1708869-30B	B8		100	12.70	5.54					84551-1.RAW	10:51:55	23.35	Sample	OK	1
1708869-29B	B7		100	12.70	14.76					84552-2.RAW	10:57:37	41.08	Sample	OK	1
F709217-BLK1	B9		50	12.70	1.60					84553-1.RAW	11:01:46	18.85	Sample	OK	1
F709217-BLK2	B10		50	12.70	3.15					84554-1.RAW	11:05:54	24.83	Sample	OK	1
SEQ-CCV2	B11		1	12.70	4.85			96.96		84555-1.RAW	11:10:02	944.87	Sample	OK	1
SEQ-CCB2	B12		1	12.70	0.06			0.00		84556-1.RAW	11:14:11	24.71	Sample	OK	1
F709217-BS1	B13		400	12.70	2485.65					84557-1.RAW	11:18:19	1207.50	Sample	OK	1
F709217-BSD1	B14		400	12.70	2815.84					84558-1.RAW	11:22:28	1366.22	Sample	OK	1
1708850-01RE1	B15		50	12.70	11.66					84559-1.RAW	11:26:36	57.53	Sample	OK	1
1709132-01	B16		50	12.70	4.90					84560-1.RAW	11:30:44	31.55	Sample	OK	1

F708623-DUP1	B17	50	12.70	3.60		84561-1.RAW	11:34:53	26.53	Sample	OK	1
F709217-MS1	B18	400	12.70	2254.44	49051.02	84562-1.RAW	11:39:01	1096.37	Sample	OK	1
F709217-MSD1	B19	400	12.70	2828.30		84563-1.RAW	11:43:10	1372.21	Sample	OK	1
WS			12.70	0.16		84564-1.RAW	11:53:47	44.02	Sample	OK	1
F7090217-MS2	B20	50	12.70	131.79	6093.21	84565-1.RAW	11:57:56	519.49	Sample	OK	1
F709217-MSD2	B21	50	12.70	126.68		84566-1.RAW	12:02:04	499.83	Sample	OK	1
SEQ-CCV3	C1	1	12.70	4.94	98.78	84567-1.RAW	12:06:13	962.31	Sample	OK	1
SEQ-CCB3	C2	1	12.70	0.16	0.00	84568-1.RAW	12:10:21	42.89	Sample	OK	1
ws			12.70	0.38		84569-1.RAW	12:48:26	86.26	Sample	OK	1
SEQ-CCV4	C1	1	12.70	4.98	99.58	84570-1.RAW	12:52:34	970.06	Sample	OK	1
SEQ-CCB4	C2	1	12.70	0.17	0.00	84571-1.RAW	12:56:43	44.77	Sample	OK	1
F708606-BLK1	C3	20	12.70	2.63		84572-1.RAW	13:00:51	37.96	Sample	OK	1
F708606-BLK2	C4	20	12.70	2.27		84573-1.RAW	13:05:00	34.53	Sample	OK	1
F708606-BLK3	C5	20	12.70	1.72		84574-1.RAW	13:09:08	29.25	Sample	OK	1
F708606-BLK4	C6	20	12.70	1.92		84575-1.RAW	13:13:17	31.15	Sample	OK	1
F708606-BLK5	C7	20	12.70	2.12		84576-1.RAW	13:17:25	33.13	Sample	OK	1
F708606-BLK6	C8	20	12.70	1.77		84577-1.RAW	13:21:33	29.72	Sample	OK	1
F708606-BS1	C9	20	12.70	99.39		84578-1.RAW	13:25:42	968.20	Sample	OK	1
F708606-BSD1	C10	20	12.70	100.25		84579-1.RAW	13:29:50	976.47	Sample	OK	1
F708606-BS2	C11	400	12.70	2234.32		84580-1.RAW	13:33:59	1086.69	Sample	OK	1
1708441-01	C12	100	12.70	1968.38		84581-1.RAW	13:38:07	3797.34	Sample	OK	1
SEQ-CCV5	C13	1	12.70	4.95	99.05	84582-1.RAW	13:42:16	964.97	Sample	OK	1
SEQ-CCB5	C14	1	12.70	0.17	0.00	84583-1.RAW	13:46:24	45.96	Sample	OK	1
1708556-01	C15	400	12.70	651.00		84584-1.RAW	13:50:32	325.62	Sample	OK	1
1708556-02	C16	400	12.70	343.58		84585-1.RAW	13:54:41	177.85	Sample	OK	1
1708556-03	C17	400	12.70	487.13		84586-1.RAW	13:58:49	246.85	Sample	OK	1
1708556-04	C18	400	12.70	419.68		84587-1.RAW	14:02:58	214.43	Sample	OK	1
1708556-05	C19	400	12.70	325.55		84588-1.RAW	14:07:06	169.19	Sample	OK	1
1708556-06	C20	400	12.70	384.83		84589-1.RAW	14:11:14	197.68	Sample	OK	1
1708556-07	C21	400	12.70	292.77		84590-1.RAW	14:15:23	153.43	Sample	OK	1
1708556-08	A1	400	12.70	307.83		84591-1.RAW	14:19:31	160.67	Sample	OK	1
1708556-09	A2	400	12.70	388.23		84592-1.RAW	14:23:40	199.32	Sample	OK	1
1708556-10	A3	400	12.70	345.58		84593-1.RAW	14:27:48	178.81	Sample	OK	1
SEQ-CCV6	A4	1	12.70	5.00	99.91	84594-1.RAW	14:31:57	973.18	Sample	OK	1
SEQ-CCB6	A5	1	12.70	0.12	0.00	84595-1.RAW	14:36:05	36.41	Sample	OK	1
WS			12.70	0.12		84596-1.RAW	14:47:04	36.70	Sample	OK	1
1708556-02RE1	A6	100	12.70	289.09		84597-1.RAW	14:51:13	568.55	Sample	OK	1
1708556-05RE1	A7	100	12.70	287.10		84598-1.RAW	14:55:21	564.72	Sample	OK	1
1708556-06RE1	A8	100	12.70	333.24		84599-1.RAW	14:59:30	653.44	Sample	OK	1
1708556-07RE1	A9	100	12.70	251.75		84600-1.RAW	15:03:38	496.75	Sample	OK	1
1708556-08RE1	A10	100	12.70	254.34		84601-1.RAW	15:07:47	501.72	Sample	OK	1
1708556-09RE1	A11	100	12.70	356.05		84602-1.RAW	15:11:55	697.28	Sample	OK	1
1708556-10RE1	A12	100	12.70	307.84		84603-1.RAW	15:16:03	604.59	Sample	OK	1
F708606-DUP1	A13	100	12.70	345.75		84604-1.RAW	15:20:12	677.48	Sample	OK	1
F708606-MS1	A14	400	12.70	5081.58	1465.48	84605-1.RAW	15:24:20	2455.32	Sample	OK	1
F708606-MSD1	A15	400	12.70	5170.29		84606-1.RAW	15:28:29	2497.95	Sample	OK	1
SEQ-CCV7	A16	1	12.70	5.09	101.78	84607-1.RAW	15:32:37	991.13	Sample	OK	1
SEQ-CCB7	A17	1	12.70	0.24	0.00	84608-1.RAW	15:36:46	58.49	Sample	OK	1

F708606-MS2	A18	400	12.70	5072.62	226644.23	84609-1.RAW	15:40:54	2451.01	Sample	OK	1
F708606-MSD2	A19	400	12.70	5228.16		84610-1.RAW	15:45:02	2525.77	Sample	OK	1
SEQ-CCV8	A20	1	12.70	5.17	103.46	84611-1.RAW	15:49:11	1007.34	Sample	OK	1
SEQ-CCB8	A21	1				84612-1.RAW	15:53:19	67.05	Sample	OK	1

## ANALYSIS SEQUENCE

7108006

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 9/7/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7108006-IBL1	QC	1			
7108006-IBL2	QC	2			
7108006-IBL3	QC	3			
7108006-CAL1	QC	4	1704505		
7108006-CAL2	QC	5	1704506		
7108006-CAL3	QC	6	1704507		
7108006-CAL4	QC	7	1704508		
7108006-CAL5	QC	8	1704509		
7108006-ICV1	QC	9	1703679		
7108006-CCV1	QC	10	1703679		
7108006-CCB1	QC	11			
7108006-CCV2	QC	12	1703679		
7108006-CCB2	QC	13			
7108006-CCV3	QC	14	1703679		
7108006-CCB3	QC	15			
7108006-CCV4	QC	16	1703679		
7108006-CCB4	QC	17			
F708606-BLK1	QC	18			
F708606-BLK2	QC	19			
F708606-BLK3	QC	20			
F708606-BLK4	QC	21			
F708606-BLK5	QC	22			
F708606-BLK6	QC	23			
F708606-BS1	QC	24			
F708606-BSD1	QC	25			
F708606-BS2	QC	26			
1708441-01	Hg-CVAFS-T-7030	27			Scan all data for level IV report
7108006-CCV5	QC	28	1703679		
7108006-CCB5	QC	29			
1708556-01	Hg-CVAFS-T-7030	30			
1708556-02	Hg-CVAFS-T-7030	31			
1708556-03	Hg-CVAFS-T-7030	32			
1708556-04	Hg-CVAFS-T-7030	33			
1708556-05	Hg-CVAFS-T-7030	34			
1708556-06	Hg-CVAFS-T-7030	35			

Due Date: 9/14/2017

**ANALYSIS SEQUENCE**

**7108006**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 9/7/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708556-07	Hg-CVAFS-T-7030	36			
1708556-08	Hg-CVAFS-T-7030	37			
1708556-09	Hg-CVAFS-T-7030	38			
1708556-10	Hg-CVAFS-T-7030	39			
7108006-CCV6	QC	40	1703679		
7108006-CCB6	QC	41			
1708556-02RE1	Hg-CVAFS-T-7030	42			Added 9/8/2017 by BC
1708556-05RE1	Hg-CVAFS-T-7030	43			Added 9/8/2017 by BC
1708556-06RE1	Hg-CVAFS-T-7030	44			Added 9/8/2017 by BC
1708556-07RE1	Hg-CVAFS-T-7030	45			Added 9/8/2017 by BC
1708556-08RE1	Hg-CVAFS-T-7030	46			Added 9/8/2017 by BC
1708556-09RE1	Hg-CVAFS-T-7030	47			Added 9/8/2017 by BC
1708556-10RE1	Hg-CVAFS-T-7030	48			Added 9/8/2017 by BC
F708606-DUP1	QC	49			
F708606-MS1	QC	50			
F708606-MSD1	QC	51			
7108006-CCV7	QC	52	1703679		
7108006-CCB7	QC	53			
F708606-MS2	QC	54			
F708606-MSD2	QC	55			
7108006-CCV8	QC	56	1703679		
7108006-CCB8	QC	57			

*[Signature]* 9/8/17  
 Samples Loaded By                      Date

*[Signature]* 9/8/17  
 Data Processed By                      Date

10<sup>24</sup> 9/7/17  
 4/8 9/6/17  
 9/7/17

Due Date: 9/14/2017

**PREPARATION BENCH SHEET**

F708606

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 8/30/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708606-BLK1	Blank	0.25	20					
F708606-BLK2	Blank	0.25	20					
F708606-BLK3	Blank	0.25	20					
F708606-BLK4	Filter Blank 1708441	0.283	20					
F708606-BLK5	Pre Homogen Blank 1708556	0.2622	20					
F708606-BLK6	Post Homogen Blank 1708556	0.2657	20					
F708606-BS1	LCS	0.25	20	1704421	20			
F708606-BS2	DORM4	0.1279	20	1703305	128			
F708606-BSD1	LCS Dup	0.25	20	1704421	20			
F708606-DUP1	Duplicate [1708556-05]	0.2983	20					
F708606-MS1	Matrix Spike [1708556-05]	0.3108	20	1701763	100			
F708606-MS2	Matrix Spike [1708556-08]	0.2634	20	1701763	100			
F708606-MSD1	Matrix Spike Dup [1708556-05]	0.2771	20	1701763	100			
F708606-MSD2	Matrix Spike Dup [1708556-08]	0.2855	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
			1705145	3% SnCl2 THg reductant	11-Feb-18 00:00
			1705177	70/30 Digestion Acid	20-Feb-18 00:00
			1705245	5% BrCl	22-Jan-18 00:00



**PREPARATION BENCH SHEET**

F708606

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 8/30/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708441-01	OL-2651-01	0.1045	20	-	-	-	Scan all data for level IV report	
1708556-01	ES-15_17HC001_081617_POL_01_WB	0.3086	20	-	-	-		
1708556-02	ES-15_17HC001_081617_POL_02_WB	0.2701	20	-	-	-		
1708556-02RE1	ES-15_17HC001_081617_POL_02_WB	0.2701	20	-	-	-	Added 9/8/2017 by BC	Added 9/8/2017 by BC
1708556-03	ES-15_17HC001_081617_POL_03_WB	0.3179	20	-	-	-		
1708556-04	ES-15_17HC001_081617_POL_04_WB	0.2606	20	-	-	-		
1708556-05	ES-15_17HC001_081617_POL_05_WB	0.2621	20	QC	-	-	MS/MSD	
1708556-05RE1	ES-15_17HC001_081617_POL_05_WB	0.2621	20	QC	-	-	MS/MSD Added 9/8/2017 by BC	Added 9/8/2017 by BC
1708556-06	VI-W_17HC001_081617_POL_01_WB	0.2779	20	-	-	-		
1708556-06RE1	VI-W_17HC001_081617_POL_01_WB	0.2779	20	-	-	-	Added 9/8/2017 by BC	Added 9/8/2017 by BC
1708556-07	VI-W_17HC001_081617_POL_02_WB	0.2552	20	-	-	-		
1708556-07RE1	VI-W_17HC001_081617_POL_02_WB	0.2552	20	-	-	-	Added 9/8/2017 by BC	Added 9/8/2017 by BC
1708556-08	VI-W_17HC001_081617_POL_03_WB	0.2985	20	-	-	-		
1708556-08RE1	VI-W_17HC001_081617_POL_03_WB	0.2985	20	-	-	-	Added 9/8/2017 by BC	Added 9/8/2017 by BC
1708556-09	VI-W_17HC001_081617_POL_04_WB	0.298	20	-	-	-		
1708556-09RE1	VI-W_17HC001_081617_POL_04_WB	0.298	20	-	-	-	Added 9/8/2017 by BC	Added 9/8/2017 by BC
1708556-10	VI-W_17HC001_081617_POL_05_WB	0.3038	20	-	-	-		
1708556-10RE1	VI-W_17HC001_081617_POL_05_WB	0.3038	20	-	-	-	Added 9/8/2017 by BC	Added 9/8/2017 by BC

**PREPARATION BENCH SHEET**

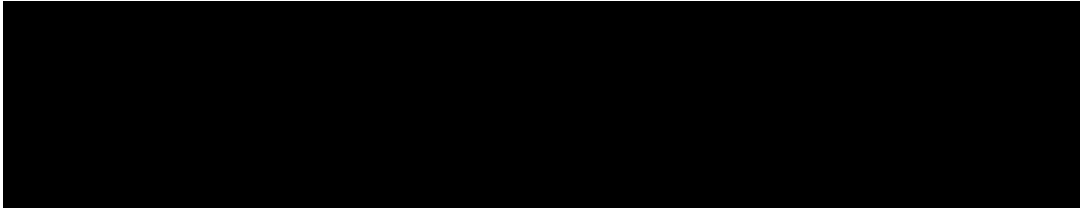
**F708606**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 8/30/2017**



PREPARATION BENCH SHEET

2600-2  
9/7/17 BC

F708606

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 8/30/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708606-BLK1	Blank	0.25	20					2.5 mL
F708606-BLK2	Blank	0.25	20					2.5 mL
F708606-BLK3	Blank	0.25	20					2.5 mL
F708606-BLK4	Filter Blank 1708441	0.283	20					2.5 mL
F708606-BLK5	Pre Homogen Blank 1708556	0.2622	20					2.5 mL
F708606-BLK6	Post Homogen Blank 1708556	0.2657	20					2.5 mL
F708606-BS1	LCS	0.25	20	1704421	20			2.5
F708606-BS2	DORM4	0.1279	20	1703305	128			125 µL
F708606-BSD1	LCS Dup	0.25	20	1704421	20			2.5 mL
F708606-DUP1	Duplicate [1708556-05]	0.2983	20					500 µL
F708606-MS1	Matrix Spike [1708556-05]	0.3108	20	1701763	100			125 µL
F708606-MS2	Matrix Spike [1708556-08]	0.2634	20	1701763	100			125 µL
F708606-MSD1	Matrix Spike Dup [1708556-05]	0.2771	20	1701763	100			125 µL
F708606-MSD2	Matrix Spike Dup [1708556-08]	0.2855	20	1701763	100			125 µL

<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	1705177	70/30 Digestion Acid	20-Feb-18 00:00
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-17 00:00	1705245	5% BrCl	22-Jan-18 00:00

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

1703182  
1705145  
1704516  
1704517

Due Date: 9/14/2017

PREPARATION BENCH SHEET

F708606

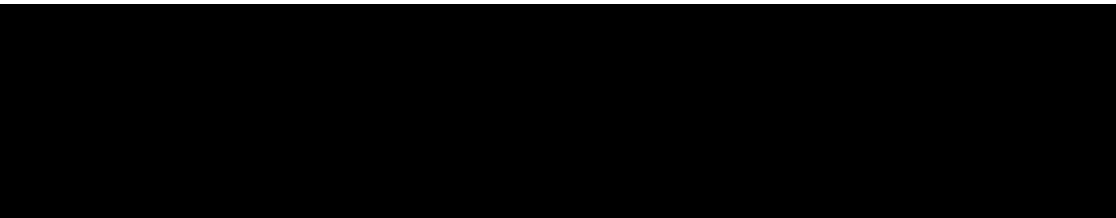
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 8/30/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708441-01	OL-2651-01	0.1045	20	-	-	-	Scan all data for level IV report <del>400X</del> 500uL	
1708556-01	ES-15_17HC001_081617_POL_01_WB	0.3086	20	-	-	-	<del>400X</del> 125 uL	
1708556-02	ES-15_17HC001_081617_POL_02_WB	0.2701	20	-	-	-	<del>400X</del> 125 uL → 500uL	
1708556-03	ES-15_17HC001_081617_POL_03_WB	0.3179	20	-	-	-	<del>400X</del> 125 uL	
1708556-04	ES-15_17HC001_081617_POL_04_WB	0.2606	20	-	-	-	<del>400X</del> 125 uL	
1708556-05	ES-15_17HC001_081617_POL_05_WB	0.2621	20	QC	-	-	MS/MSD <del>400X</del> 125 uL → 500uL	
1708556-06	VI-W_17HC001_081617_POL_01_WB	0.2779	20	-	-	-	<del>400X</del> 125 uL → 500uL	
1708556-07	VI-W_17HC001_081617_POL_02_WB	0.2552	20	-	-	-	<del>400X</del> 125 uL → 500uL	
1708556-08	VI-W_17HC001_081617_POL_03_WB	0.2985	20	-	-	-	<del>400X</del> 125 uL → 500uL	
1708556-09	VI-W_17HC001_081617_POL_04_WB	0.298	20	-	-	-	<del>400X</del> 125 uL → 500uL	
1708556-10	VI-W_17HC001_081617_POL_05_WB	0.3038	20	-	-	-	<del>400X</del> 125 uL → 500uL	



Technician: AMB Batch#: F 708606 Date: 8/30/17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 1709 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C

Time out: 20091901 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C

\*Time in can't be before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705245) Spike vol.: 100 <sup>(MS/MSD)</sup> µL (LIMS ID: 1701763)

Spike Witness: PL 8/30/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: DU 07852 Calibration Date: 8/25/17

HNO<sub>3</sub> LIMS ID: N/A

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

70/30 LIMS ID: 1705177

Dispenser #: 02K27494 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406623  yes

Glass Vial # 00067065, 00068124 Boiling Chip lot # 1704424 \*Hotblock Position: C6

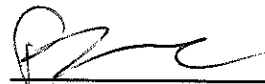
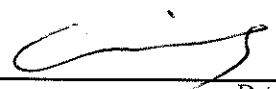
Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F708606-BLK1	0.2898	23	F708606-MSD2	0.2855	BS2=DORM4
2	F708606-BLK2	0.2517	24	1708556-09	0.2980	LIMS ID:
3	F708606-BLK3	0.2603	25	1708556-10	0.3038	1703305
4	F708606-BS1	0.2792	26			Comments
5	F708606-BSD1	0.2887	27			DUPI,MS1,MSD1
6	F708606-BS2	0.1279	28			SOURCE:
7	F708606-BLK4	0.2830	29			1708556-05
8	F708606-BLK5	0.2622	30			MS2,MSD2
9	F708606-BLK6	0.2657	31			SOURCE:
10	1708441-01	0.1045	32			1708556-08
11	1708556-01	0.3086	33			Sample
12	1708556-02	0.2701	34			1708441-01
13	1708556-03	0.3179	35			had v. low
14	1708556-04	0.2606	36			volume, was
15	1708556-05	0.2621	37			exhausted.
16	F708606-DUPI	0.2983	38			AMB 8-30-17
17	F708606-MS1	0.3108	39			BS1,BSD1
18	F708606-MSD1	0.2771	40			spiked w/20ml
19	1708556-06	0.2779	41			of 100ng/mL
20	1708556-07	0.2552	42			LIMS: 1704421
21	1708556-08	0.2985	43			AMB 8-30-17
22	F708606-MS2	0.2634	44			

AMB 8-30-17

# Failing Data Report - 7I08006

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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  9/8/17  
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)**

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	7108006
<b>Reviewer:</b>	<i>R 9/14/17</i>	<b>Dataset ID(s):</b>	THg26002-170907-2
<b>Date:</b>	9/8/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F708606		

• 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	Water
<input type="checkbox"/> Inorg Hg	NA	Water

**Analyst Initials:** BC      **Reviewer Initials:** R 9/14/17

- |   |   |  |                                     |                                     |
|---|---|--|-------------------------------------|-------------------------------------|
| 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7108006
<b>Reviewer:</b> 0 R 9/14/17	<b>Dataset ID(s):</b> THg26002-170907-2
<b>Date:</b> 9/8/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F708606	0

**Analyst Initials** BC      **Reviewer Initials** R 9/14/17

- |  |  |                               |   |                                     |
|--|--|-------------------------------|---|-------------------------------------|
| 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"/> |
| <b>QA/QC Data Checked</b>  |  |                               |   |                                     |
| 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 type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" 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 checked="" type="checkbox"/> YES  | <input 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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)**

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	7108006
<b>Reviewer:</b>	0 <i>R 9/14/17</i>	<b>Dataset ID(s):</b>	THg26002-170907-2
<b>Date:</b>	9/8/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F708606		0

**Analyst Initials** BC                      **Reviewer Initials** a 9/14/17

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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: _____ 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:

1709391

PO#

C012505850

October 1, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1709391

### Table of Contents

October 1, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	3
Analytical Results Report	6
Quality Control Results	11
Notes and Definitions	15
Raw Data: 7I26020	16

Total Pages – 52



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050 -  
Project Manager: Denise King

**Reported:**  
01-Oct-17 11:26

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_17HD001_091217_POL_01_WB	1709391-01	Tissue	12-Sep-17 16:30	14-Sep-17 09:35
FRB-01_17HD001_091217_POL_02_WB	1709391-02	Tissue	12-Sep-17 16:30	14-Sep-17 09:35
FRB-01_17HD001_091217_POL_03_WB	1709391-03	Tissue	12-Sep-17 16:30	14-Sep-17 09:35
FRB-01_17HD001_091217_POL_04_WB	1709391-04	Tissue	12-Sep-17 16:30	14-Sep-17 09:35
FRB-01_17HD001_091217_POL_05_WB	1709391-05	Tissue	12-Sep-17 16:30	14-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, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050 -  
Project Manager: Denise King

Reported:  
01-Oct-17 11:26

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/14/2017 9:35:00 AM . The samples were received intact, on-ice within two sealed coolers at -31.0 and 0.1 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 batch F709320 for total Mercury and analyzed in sequence 7126020. The lab did not use the client requested sample 1709391-05 as the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD), but did use sample 1709391-02.

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.*

# Sample Receipt Checklist

EFGS Work Order: \_\_\_\_\_



Client: Amec

Date & Time Received: 9/14/17 935

Date Labeled: 9/14/17 Labeled By: CSJ

Project: \_\_\_\_\_

Received By: CSJ

Label Verified By: nmv

# 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>5225</u>	CF: <u>0.0</u> °C	Date/time: <u>9/14/17 935</u>	By: <u>CSJ</u>
Cooler 1: <u>0.3</u> °C	w/ CF: <u>3.1</u> °C	Cooler 4: °C	w/ CF: °C
Cooler 2: <u>0.1</u> °C	w/ CF: <u>0.1</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:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</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):

Coolers 2; 7877 1928 7028

1709391

### Environmental Analysis Request/Chain of Custody



Client: Amec Foster Wheeler   511 Congress St. Suite 200 Portland, ME 04101				<b>Matrix</b>				<b>Analyses Requested</b>				<b>For Lab Use Only</b>		
Project Name/#: USDC Penobscot				<input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface				<b>Preservation Codes</b>				SF #:		
Project Manager: Rod Pendleton				<input type="checkbox"/> Sediment <input type="checkbox"/> Frittable <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Other:				<input type="checkbox"/> Hg <input type="checkbox"/> Hg <input type="checkbox"/> Hg <input type="checkbox"/> Hg <input type="checkbox"/> Hg				SCR #:		
Sampler: KB/EV				<input type="checkbox"/> Soil <input type="checkbox"/> Frittable <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Other:				<input type="checkbox"/> Hg <input type="checkbox"/> Hg <input type="checkbox"/> Hg <input type="checkbox"/> Hg <input type="checkbox"/> Hg				Preservation Codes H = HCl      T = Thiocyanate N = HNO <sub>3</sub> B = NaOH D = H <sub>2</sub> SO <sub>4</sub> P = H <sub>2</sub> PO <sub>4</sub> C = Citric		
Phone #:				Total # of Containers				Hg (631) x 2 oz P. Freeze				Remarks		
State where samples were collected: ME				For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>										
<b>Sample Identification</b>		<b>Collection</b>		Composite <input type="checkbox"/> Grab <input checked="" type="checkbox"/> Composite	Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Frittable <input type="checkbox"/> Water <input type="checkbox"/> NPDES <input type="checkbox"/> Other:	Total # of Containers Hg (631) x 2 oz P. Freeze								
	Date	Time	Grab											
1	FRB-C1_17H-D001_091217_POL_01_WB	9/12/2017	1630				X		X	1	X			18.7 grams
2	FRB-C1_17H-D001_091217_POL_02_WB	9/12/2017	1630				X		X	1	X			6.9 grams
3	FRB-C1_17H-D001_091217_POL_03_WB	9/12/2017	1630				X		X	1	X			6.3 grams
4	FRB-C1_17H-D001_091217_POL_04_WB	9/12/2017	1630				X		X	1	X			6.6 grams
5	FRB-C1_17H-D001_091217_POL_05_WB	9/12/2017	1630				X		X	1	X			10.6 grams Use volume for MS; MSD
6														
7														
8														
9														
10														
<b>Turnaround Time Requested (TAT)</b> (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>	#####	1630	<i>[Signature]</i>	9/14/17				
<b>Notes:</b>						Relinquished by:	Date	Time	Received by:	Date	Time			
FedEx # 5103 4444 <sup>4798</sup> # of Containers 1 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						Relinquished by:	Date	Time	Received by:	Date	Time			
						Relinquished by:	Date	Time	Received by:	Date	Time			
<b>Data Package Options</b> (please check if required)						Relinquished 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 _____														

NA  
-31.0°C  
Fidel  
935

8103 4444 4798



**Penob-Pol Depuration Log**

Polychaete Depuration Log

Frenchman's Bay - Jordan River

1709391

USDC Penobscot River
3616165052

**table1**

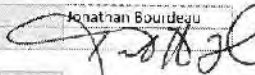
FRB-01	17HD001	01	09/12/2017 2000	09/13/2017 16005 - 10	4.2	Freeze	Yes	JB
FRB-01	17HD001	02	09/12/2017 2000	09/13/2017 16005 - 10	3.8	Freeze	Yes	JB
FRB-01	17HD001	03	09/12/2017 2000	09/13/2017 16005 - 10	3.6	Freeze	Yes	JB
FRB-01	17HD001	04	09/12/2017 2000	09/13/2017 16005 - 10	4.5	Freeze	Yes	JB
FRB-01	17HD001	05	09/12/2017 2000	09/13/2017 16005 - 10	4.6	Freeze	Yes	JB

**More to log?**

No

**table2**


**Submit Form**

Jonathan Bourdeau  
 for Jonathan Bourdeau with permission

**Technical Review Team**

rache.desmond@amecfcw.com; julie.palozzi@amecfcw.com; louse.venne@amecfcw.com; brad.wolfe@amecfcw.com

**Email**

Kendra.bavor@amecfcw.com;  
 jonathan.bourdeau@amecfcw.com



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050 -  
Project Manager: Denise King

**Reported:**  
01-Oct-17 11:26

**FRB-01\_17HD001\_091217\_POL\_01\_WB**  
**1709391-01**

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

**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	8.82	0.397	3.54	ng/g	100	F709320	18-Sep-17	7I26020	25-Sep-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:**  
01-Oct-17 11:26

**FRB-01\_17HD001\_091217\_POL\_02\_WB**  
**1709391-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	7.66	0.381	3.40	ng/g	100	F709320	18-Sep-17	7I26020	25-Sep-17	EPA 1631B	

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050 -  
Project Manager: Denise King

**Reported:**  
01-Oct-17 11:26

**FRB-01\_17HD001\_091217\_POL\_03\_WB**  
**1709391-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	7.40	0.370	3.30	ng/g	100	F709320	18-Sep-17	7I26020	25-Sep-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:**  
01-Oct-17 11:26

**FRB-01\_17HD001\_091217\_POL\_04\_WB**  
**1709391-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	8.10	0.377	3.37	ng/g	100	F709320	18-Sep-17	7I26020	25-Sep-17	EPA 1631B	

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050 -  
Project Manager: Denise King

**Reported:**  
01-Oct-17 11:26

**FRB-01\_17HD001\_091217\_POL\_05\_WB**  
**1709391-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	7.17	0.393	3.51	ng/g	100	F709320	18-Sep-17	7I26020	25-Sep-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: 01-Oct-17 11:26
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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
<b>Batch 7126020 - F709320</b>											
<b>Cal Standard (7126020-CAL1)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	0.512	-		ng/L	0.50100		102				
<b>Cal Standard (7126020-CAL2)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	1.040	-		ng/L	1.0020		104				
<b>Cal Standard (7126020-CAL3)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	4.925	-		ng/L	5.0100		98.3				
<b>Cal Standard (7126020-CAL4)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	19.90	-		ng/L	20.040		99.3				
<b>Cal Standard (7126020-CAL5)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	38.21	-		ng/L	40.080		95.3				
<b>Calibration Blank (7126020-CCB1)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	0.171	-		ng/L							
<b>Calibration Blank (7126020-CCB2)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	0.156	-		ng/L							
<b>Calibration Blank (7126020-CCB3)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	0.226	-		ng/L							
<b>Calibration Blank (7126020-CCB4)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	0.218	-		ng/L							
<b>Calibration Blank (7126020-CCB5)</b> Prepared & Analyzed: 25-Sep-17											
Mercury	0.185	-		ng/L							

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Project Number: WO-04A-050 -  
Project Manager: Denise King

Reported:  
01-Oct-17 11:26

Quality Control Data

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

Batch 7126020 - F709320

<b>Calibration Blank (7126020-CCB6)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	0.225	-		ng/L							
<b>Calibration Blank (7126020-CCB7)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	0.269	-		ng/L							
<b>Calibration Blank (7126020-CCB8)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	0.156	-		ng/L							
<b>Calibration Blank (7126020-CCB9)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	0.153	-		ng/L							
<b>Calibration Check (7126020-CCV1)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	4.865	-		ng/L	5.0000		97.3	77-123			
<b>Calibration Check (7126020-CCV2)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	4.903	-		ng/L	5.0000		98.1	77-123			
<b>Calibration Check (7126020-CCV3)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	4.937	-		ng/L	5.0000		98.7	77-123			
<b>Calibration Check (7126020-CCV4)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	4.932	-		ng/L	5.0000		98.6	77-123			
<b>Calibration Check (7126020-CCV5)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	4.855	-		ng/L	5.0000		97.1	77-123			
<b>Calibration Check (7126020-CCV6)</b>											
Prepared & Analyzed: 25-Sep-17											
Mercury	4.989	-		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: WO-04A-050 - Project Manager: Denise King	Reported: 01-Oct-17 11:26
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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
<b>Batch 7I26020 - F709320</b>											
<b>Calibration Check (7I26020-CCV7)</b>					Prepared & Analyzed: 25-Sep-17						
Mercury	5.152	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (7I26020-CCV8)</b>					Prepared & Analyzed: 25-Sep-17						
Mercury	4.958	-		ng/L	5.0000		99.2	77-123			
<b>Calibration Check (7I26020-CCV9)</b>					Prepared & Analyzed: 25-Sep-17						
Mercury	5.067	-		ng/L	5.0000		101	77-123			
<b>Instrument Blank (7I26020-IBL1)</b>					Prepared & Analyzed: 25-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7I26020-IBL2)</b>					Prepared & Analyzed: 25-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7I26020-IBL3)</b>					Prepared & Analyzed: 25-Sep-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7I26020-ICV1)</b>					Prepared & Analyzed: 25-Sep-17						
Mercury	5.113	-		ng/L	5.0000		102	79-121			
<b>Batch F709320 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F709320-BLK1)</b>					Prepared: 18-Sep-17 Analyzed: 25-Sep-17						
Mercury	0.370	0.090	0.800	ng/g							J
<b>Blank (F709320-BLK2)</b>					Prepared: 18-Sep-17 Analyzed: 25-Sep-17						
Mercury	0.287	0.090	0.800	ng/g							J

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050 -  
Project Manager: Denise King

Reported:  
01-Oct-17 11:26

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F709320 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F709320-BLK3)</b> Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	0.234	0.090	0.800	ng/g							J
<b>Blank (F709320-BLK4)</b> Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	ND	0.061	0.546	ng/g							F-03, U
<b>Blank (F709320-BLK5)</b> Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	ND	0.056	0.500	ng/g							F-03, U
<b>Blank (F709320-BLK6)</b> Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	ND	0.119	1.07	ng/g							FB, U
<b>LCS (F709320-BS1)</b> Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	8.003	0.090	0.800	ng/g	8.0160		99.8	75-125			
<b>LCS Dup (F709320-BSD1)</b> Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	8.054	0.090	0.800	ng/g	8.0160		100	75-125	0.633	24	
<b>Duplicate (F709320-DUP1)</b> Source: 1709391-01 Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	9.005	0.404	3.61	ng/g		8.819			2.08	24	
<b>Matrix Spike (F709320-MS1)</b> Source: 1709391-02 Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	325.6	1.57	14.0	ng/g	351.25	7.656	90.5	71-125			
<b>Matrix Spike Dup (F709320-MSD1)</b> Source: 1709391-02 Prepared: 18-Sep-17 Analyzed: 25-Sep-17											
Mercury	321.5	1.53	13.7	ng/g	342.11	7.656	91.8	71-125	1.35	24	





AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: WO-04A-050 -  
Project Manager: Denise King

**Reported:**  
01-Oct-17 11:26

**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.
- 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

THg26002-170925-1

Analysis Datasheet for Total Mercury

Date of Analysis: September 25, 2017

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7126018, 7126019, 7126020

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	100.80 units	201.59	95.58 units	191.17	102.4 %Rec
SEQ-CAL2	1	1.00 ng/L	199.32 units	199.32	194.11 units	194.11	104.0 %Rec
SEQ-CAL3	1	5.00 ng/L	924.39 units	184.88	919.18 units	183.84	98.5 %Rec
SEQ-CAL4	1	20.00 ng/L	3719.25 units	185.96	3714.04 units	185.70	99.5 %Rec
SEQ-CAL5	1	40.00 ng/L	7136.41 units	178.41	7131.20 units	178.28	95.5 %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**  
 186.62            +/- 5.22            3.3% RSD            190.03

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	5.21 units	±3.90	0.03 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	8.194 ng/L	±1.610
BLK	2	3	0.051 ng/L	±0.013
BLK	3	1	1.825 ng/L	
BLK	4	3	3.712 ng/L	±0.857
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: pr 9/26/17

Instrument	Analyst	Sample		Dilution	Analyzed	File ID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	Initial Result	Final Result	Initial Units	Comments
		Type	Lab Number												
Hg2600-2	BC	CAL	SEQ-IBL1		9/25/2017 8:53:29	85754-1.RAW	8:53:29 AM	0.79			-4.4	-0.024	-0.024	ng/L	
Hg2600-2	RC	CAL	SEQ-IBL2		9/25/2017 8:57:38	85755-1.RAW	8:57:38 AM	8.1			2.9	0.016	0.016	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3		9/25/2017 9:01:46	85756-1.RAW	9:01:46 AM	6.74			1.5	0.008	0.008	ng/L	
Hg2600-2	RC	CAL	SEQ-CAL1		9/25/2017 9:05:54	85757-1.RAW	9:05:54 AM	100.80			95.5	0.512	0.512	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2		9/25/2017 9:10:03	85758-1.RAW	9:10:03 AM	199.32			194.1	1.040	1.040	ng/L	
Hg2600-2	RC	CAL	SEQ-CAL3		9/25/2017 9:14:11	85759-1.RAW	9:14:11 AM	924.39			919.2	4.925	4.925	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4		9/25/2017 9:18:20	85760-1.RAW	9:18:20 AM	3719.25			3714.0	19.902	19.902	ng/L	
Hg2600-2	RC	CAL	SEQ-CAL5		9/25/2017 9:22:28	85761-1.RAW	9:22:28 AM	7136.41			7131.2	38.213	38.213	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1		9/25/2017 9:26:38	85762-1.RAW	9:26:38 AM	958.33			954.1	5.113	5.113	ng/L	
Hg2600-2	RC	SAM	ws		9/25/2017 9:44:21	85763-1.RAW	9:44:21 AM	41.21		X	36.0	0.193	0.000	ng/L	
Hg2600-2	BC	BLK	F709395-BLK1	100	9/25/2017 9:48:29	85764-1.RAW	9:48:29 AM	19.97		1	14.8	0.079	7.310	ng/L	
Hg2600-2	BC	BLK	F709395-BLK2	100	9/25/2017 9:52:37	85765-1.RAW	9:52:37 AM	23.74		1	18.5	0.099	9.928	ng/L	
Hg2600-2	BC	BLK	F709395-BLK3	100	9/25/2017 9:56:48	85766-1.RAW	9:56:48 AM	17.80		1	12.6	0.067	6.745	ng/L	
Hg2600-2	BC	SAM	F709395-BS1	400	9/25/2017 10:02:13	85767-2.RAW	10:02:13 AM	861.90		1	856.7	4.570	1828.028	ng/L	
Hg2600-2	BC	SAM	F709395-BS2	400	9/25/2017 10:06:22	85768-1.RAW	10:06:22 AM	879.59		1	874.4	4.665	1865.856	ng/L	
Hg2600-2	BC	SAM	1709556-01	2500	9/25/2017 10:10:30	85769-1.RAW	10:10:30 AM	10332.06		1	10326.8	55.333	138333.210	ng/L	
Hg2600-2	BC	SAM	1709556-02	2500	9/25/2017 10:14:39	85770-1.RAW	10:14:39 AM	11117.53		1	11112.3	59.542	148855.592	ng/L	
Hg2600-2	BC	SAM	1709557-01	2500	9/25/2017 10:18:47	85771-1.RAW	10:18:47 AM	937.42		1	932.2	4.992	12479.946	ng/L	
Hg2600-2	BC	SAM	1709557-02	2500	9/25/2017 10:22:58	85772-1.RAW	10:22:58 AM	643.87		1	638.2	3.416	8540.805	ng/L	
Hg2600-2	RC	SAM	1709559-01	2500	9/25/2017 10:27:04	85773-1.RAW	10:27:04 AM	49.89		1	44.7	0.236	590.387	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1		9/25/2017 10:31:12	85774-1.RAW	10:31:12 AM	913.05			907.8	4.865	4.865	ng/L	
Hg2600-2	RC	CAL	SEQ-CCB1		9/25/2017 10:35:21	85775-1.RAW	10:35:21 AM	57.00			31.9	0.171	0.171	ng/L	
Hg2600-2	BC	SAM	1709559-02	2500	9/25/2017 10:39:29	85776-1.RAW	10:39:29 AM	40.57		1	35.4	0.186	465.532	ng/L	
Hg2600-2	RC	SAM	WS		9/25/2017 10:45:36	85777-1.RAW	10:45:36 AM	31.91		X	26.7	0.143	0.000	ng/L	
Hg2600-2	BC	SAM	1709556-01B	100	9/25/2017 10:49:44	85778-1.RAW	10:49:44 AM	66.81		1	61.6	0.248	24.811	ng/L	
Hg2600-2	BC	SAM	1709556-02B	100	9/25/2017 10:53:53	85779-1.RAW	10:53:53 AM	79.76		1	73.5	0.312	31.215	ng/L	
Hg2600-2	BC	SAM	1709557-01B	100	9/25/2017 10:58:01	85780-1.RAW	10:58:01 AM	278.44		1	271.2	1.371	137.147	ng/L	
Hg2600-2	BC	SAM	1709557-02B	100	9/25/2017 11:02:10	85781-1.RAW	11:02:10 AM	30.95		1	25.7	0.056	5.598	ng/L	
Hg2600-2	BC	SAM	1709559-01B	100	9/25/2017 11:06:18	85782-1.RAW	11:06:18 AM	59.56		1	54.3	0.209	20.928	ng/L	
Hg2600-2	RC	SAM	1709559-02B	100	9/25/2017 11:10:26	85783-1.RAW	11:10:26 AM	51.15		1	45.9	0.164	16.422	ng/L	
Hg2600-2	BC	SAM	ws		9/25/2017 11:24:00	85784-1.RAW	11:24:00 AM	38.66		X	33.4	0.179	0.000	ng/L	
Hg2600-2	BC	SAM	1709556-01C	5000	9/25/2017 11:28:09	85785-1.RAW	11:28:09 AM	3520.14		1	3514.9	18.833	94165.686	ng/L	
Hg2600-2	BC	SAM	1709556-02C	5000	9/25/2017 11:32:17	85786-1.RAW	11:32:17 AM	3623.26		1	3518.1	18.850	94249.525	ng/L	
Hg2600-2	BC	SAM	1709557-01C	2500	9/25/2017 11:36:26	85787-1.RAW	11:36:26 AM	925.42		1	1920.2	10.286	25715.508	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2		9/25/2017 11:40:34	85788-1.RAW	11:40:34 AM	920.13			914.9	4.903	4.903	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2		9/25/2017 11:44:42	85789-1.RAW	11:44:42 AM	34.41			29.2	0.156	0.156	ng/L	
Hg2600-2	BC	SAM	1709557-02C	2500	9/25/2017 11:48:51	85790-1.RAW	11:48:51 AM	934.00		1	1928.8	10.332	25830.361	ng/L	
Hg2600-2	BC	SAM	1709559-01C	2500	9/25/2017 11:52:59	85791-1.RAW	11:52:59 AM	971.24		1	1965.0	10.532	26329.342	ng/L	
Hg2600-2	BC	SAM	1709559-02C	2500	9/25/2017 11:57:08	85792-1.RAW	11:57:08 AM	197.18		1	1972.0	10.564	26408.924	ng/L	
Hg2600-2	BC	SAM	1709556-01RE1	10000	9/25/2017 12:01:16	85793-1.RAW	12:01:16 PM	2431.80		1	2426.6	13.002	130020.699	ng/L	
Hg2600-2	BC	SAM	1709556-02RE1	10000	9/25/2017 12:05:24	85794-1.RAW	12:05:24 PM	2441.61		1	2436.4	13.055	130546.640	ng/L	
Hg2600-2	BC	SAM	1709557-01RE1	2500	9/25/2017 12:09:33	85795-1.RAW	12:09:33 PM	911.00		1	905.8	4.850	12126.042	ng/L	
Hg2600-2	BC	SAM	1709559-01RE1	400	9/25/2017 12:13:41	85796-1.RAW	12:13:41 PM	80.33		1	64.1	0.430	172.104	ng/L	
Hg2600-2	BC	SAM	1709559-02RE1	400	9/25/2017 12:17:50	85797-1.RAW	12:17:50 PM	113.35		1	108.4	0.561	224.245	ng/L	
Hg2600-2	BC	SAM	F709386-DJP1	2500	9/25/2017 12:21:58	85798-1.RAW	12:21:58 PM	873.99		1	669.8	3.580	8950.971	ng/L	
Hg2600-2	BC	SAM	F709386-MS1	2500	9/25/2017 12:26:07	85799-1.RAW	12:26:07 PM	2475.22		1	2470.0	13.232	33080.747	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3		9/25/2017 12:30:15	85800-1.RAW	12:30:15 PM	926.32			921.4	4.937	4.937	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3		9/25/2017 12:34:23	85801-1.RAW	12:34:23 PM	47.39			42.2	0.226	0.226	ng/L	
Hg2600-2	BC	SAM	F709535-MSD1	2500	9/25/2017 12:38:32	85802-1.RAW	12:38:32 PM	2452.21		1	2447.0	13.109	32772.468	ng/L	
Hg2600-2	BC	SAM	WS		9/25/2017 12:53:17	85803-1.RAW	12:53:17 PM	23.87		X	118.7	0.636	0.000	ng/L	
Hg2600-2	BC	SAM	1709559-01RE2	100	9/25/2017 12:57:26	85804-1.RAW	12:57:26 PM	157.02		1	151.8	0.752	73.153	ng/L	
Hg2600-2	BC	SAM	1709559-02RE2	100	9/25/2017 13:01:34	85805-1.RAW	1:01:34 PM	268.37		1	253.8	1.278	127.785	ng/L	
Hg2600-2	BC	SAM	1709557-01BRC1	100	9/25/2017 13:05:42	85806-1.RAW	1:05:42 PM	275.58		1	270.4	1.367	135.685	ng/L	
Hg2600-2	BC	SAM	WS		9/25/2017 13:11:40	85807-1.RAW	1:11:40 PM	25.01		X	23.8	0.128	0.000	ng/L	
Hg2600-2	BC	BLK	F709415-BLK1		9/25/2017 13:15:48	85808-1.RAW	1:15:48 PM	15.99		2	10.8	0.058	0.058	ng/L	
Hg2600-2	BC	BLK	F709415-BLK2		9/25/2017 13:19:57	85809-1.RAW	1:19:57 PM	16.21		2	11.0	0.059	0.059	ng/L	
Hg2600-2	BC	BLK	F709415-BLK3		9/25/2017 13:24:06	85810-1.RAW	1:24:06 PM	11.84		2	6.6	0.036	0.036	ng/L	

Sample				Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Instrument	Analyst	Type	LabNumber												
Hg2600-2	BC	BLK	F709415-BLK4	10	9/25/2017 13:28:14	B5811-1.RAW	1:28:14 PM	39.25	3		34.1	0.182	1.825	ng/L	
Hg2600-2	BC	SAM	F709415-BS1		9/25/2017 13:32:22	B5812-1.RAW	1:32:22 PM	2732.02	2		2726.8	14.561	14.561	ng/L	
Hg2600-2	BC	SAM	F709415-BSD1		9/25/2017 13:36:30	B5813-1.RAW	1:36:30 PM	2888.88	2		2863.7	15.294	15.294	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4		9/25/2017 13:40:39	B5814-1.RAW	1:40:39 PM	925.55			920.3	4.932	4.932	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4		9/25/2017 13:44:47	B5815-1.RAW	1:44:47 PM	45.85			40.6	0.218	0.218	ng/L	
Hg2600-2	BC	SAM	1709034-01		9/25/2017 13:48:56	B5816-1.RAW	1:48:56 PM	113.71			108.5	0.531	0.531	ng/L	
Hg2600-2	BC	SAM	1709034-02		9/25/2017 13:53:04	B5817-1.RAW	1:53:04 PM	114.95	2		109.7	0.537	0.537	ng/L	
Hg2600-2	BC	SAM	1709034-03		9/25/2017 13:57:13	B5818-1.RAW	1:57:13 PM	112.88	2		107.7	0.526	0.526	ng/L	
Hg2600-2	BC	SAM	1709034-04		9/25/2017 14:01:21	B5819-1.RAW	2:01:21 PM	153.29	2		148.1	0.743	0.743	ng/L	
Hg2600-2	BC	SAM	1709034-05		9/25/2017 14:05:29	B5820-1.RAW	2:05:29 PM	242.57	2		237.4	1.221	1.221	ng/L	
Hg2600-2	BC	SAM	1709034-06		9/25/2017 14:09:38	B5821-1.RAW	2:09:38 PM	59.820/8959	2		48.5	0.210	0.210	ng/L	
Hg2600-2	BC	SAM	1709134-01		9/25/2017 14:13:46	B5822-1.RAW	2:13:46 PM	24.65	2		19.4	0.053	0.053	ng/L	
Hg2600-2	BC	SAM	1709134-02		9/25/2017 14:17:55	B5823-1.RAW	2:17:55 PM	4931.01	2		4925.8	26.344	26.344	ng/L	
Hg2600-2	BC	SAM	1709134-03		9/25/2017 14:22:03	B5824-1.RAW	2:22:03 PM	1056.82	2		1051.6	5.584	5.584	ng/L	
Hg2600-2	BC	SAM	1709526-01		9/25/2017 14:26:11	B5825-1.RAW	2:26:11 PM	83.91	2		78.7	0.371	0.371	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5		9/25/2017 14:30:20	B5826-1.RAW	2:30:20 PM	911.77			906.1	4.855	4.855	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5		9/25/2017 14:34:29	B5827-1.RAW	2:34:29 PM	39.66			34.4	0.185	0.185	ng/L	
Hg2600-2	BC	SAM	1709526-02		9/25/2017 14:38:37	B5828-1.RAW	2:38:37 PM	183.82	2		178.6	0.906	0.906	ng/L	
Hg2600-2	BC	SAM	1709526-03		9/25/2017 14:42:45	B5829-1.RAW	2:42:45 PM	2377.92	2		2372.7	12.663	12.663	ng/L	
Hg2600-2	BC	SAM	1709526-04		9/25/2017 14:46:53	B5830-1.RAW	2:46:53 PM	1733.54	2		1728.3	9.211	9.211	ng/L	
Hg2600-2	BC	SAM	1709560-01		9/25/2017 14:51:02	B5831-1.RAW	2:51:02 PM	559.93	2		554.7	2.922	2.922	ng/L	
Hg2600-2	BC	SAM	1709560-02		9/25/2017 14:55:10	B5832-1.RAW	2:55:10 PM	27.84	2		22.6	0.071	0.071	ng/L	
Hg2600-2	BC	SAM	1709560-03		9/25/2017 14:59:19	B5833-1.RAW	2:59:19 PM	1031.21	2		1026.0	5.447	5.447	ng/L	
Hg2600-2	BC	SAM	1709560-04		9/25/2017 15:03:27	B5834-1.RAW	3:03:27 PM	27.02	2		21.8	0.066	0.066	ng/L	
Hg2600-2	BC	SAM	1709560-05	10	9/25/2017 15:07:36	B5835-1.RAW	3:07:36 PM	837.12	3		831.9	4.275	4.275	ng/L	
Hg2600-2	BC	SAM	1709560-06		9/25/2017 15:11:45	B5836-1.RAW	3:11:45 PM	27.82	2		22.6	0.070	0.070	ng/L	
Hg2600-2	BC	SAM	F709415-DUP1		9/25/2017 15:15:54	B5837-1.RAW	3:15:54 PM	4952.53	2		4947.3	26.460	26.460	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6		9/25/2017 15:19:53	B5838-1.RAW	3:19:53 PM	936.34			931.1	4.989	4.989	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6		9/25/2017 15:23:52	B5839-1.RAW	3:23:52 PM	47.29			42.1	0.225	0.225	ng/L	
Hg2600-2	BC	SAM	F709415-MS1		9/25/2017 15:27:51	B5840-1.RAW	3:27:51 PM	1152.35	2		1147.1	6.096	6.096	ng/L	
Hg2600-2	BC	SAM	F709415-MSD1		9/25/2017 15:31:50	B5841-1.RAW	3:31:50 PM	1165.08	2		1159.9	6.154	6.154	ng/L	
Hg2600-2	BC	SAM	F709415-MS2		9/25/2017 15:35:49	B5842-1.RAW	3:35:49 PM	5111.54	2		5106.3	27.312	27.312	ng/L	
Hg2600-2	BC	SAM	F709415-MSD2		9/25/2017 15:39:48	B5843-1.RAW	3:39:48 PM	5053.68	2		5048.5	27.002	27.002	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7		9/25/2017 15:43:47	B5844-1.RAW	3:43:47 PM	966.72			961.5	5.152	5.152	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7		9/25/2017 15:47:46	B5845-1.RAW	3:47:46 PM	55.36			50.1	0.259	0.259	ng/L	
Hg2600-2	BC	BLK	F709320-BLK1	20	9/25/2017 15:51:45	B5846-1.RAW	3:51:45 PM	48.37	4		43.2	0.231	0.231	ng/L	
Hg2600-2	BC	BLK	F709320-BLK2	20	9/25/2017 15:55:44	B5847-1.RAW	4:01:44 PM	38.66	4		33.4	0.179	0.179	ng/L	
Hg2600-2	BC	BLK	F709320-BLK3	20	9/25/2017 15:59:43	B5848-1.RAW	4:05:43 PM	32.51	4		27.3	0.146	0.146	ng/L	
Hg2600-2	BC	SAM	*F709320-BLK4	20	9/25/2017 16:03:42	B5849-1.RAW	4:09:42 PM	33.00	4		27.8	-0.037	-0.734	ng/L	
Hg2600-2	BC	SAM	*F709320-BLK5	20	9/25/2017 16:07:41	B5850-1.RAW	4:13:41 PM	26.37	4		21.2	-0.072	-1.444	ng/L	
Hg2600-2	BC	SAM	*F709320-BLK6	20	9/25/2017 16:11:40	B5851-1.RAW	4:17:40 PM	28.10	4		22.9	0.063	-1.259	ng/L	
Hg2600-2	BC	SAM	F709320-BS1		9/25/2017 16:15:39	B5852-1.RAW	4:21:39 PM	973.27	4		968.1	5.002	100.035	ng/L	
Hg2600-2	BC	SAM	F709320-BSD1		9/25/2017 16:19:38	B5853-1.RAW	4:25:38 PM	979.20	4		974.0	5.034	100.671	ng/L	
Hg2600-2	BC	SAM	1709033-01	50	9/25/2017 16:23:37	B5854-1.RAW	4:30:37 PM	1187.88	4		1182.7	6.203	313.155	ng/L	
Hg2600-2	BC	SAM	1709179-01	50	9/25/2017 16:27:36	B5855-1.RAW	4:34:36 PM	1581.53	4		1576.3	8.372	418.624	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8		9/25/2017 16:31:35	B5856-1.RAW	4:38:35 PM	930.56			925.3	4.558	4.958	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8		9/25/2017 16:35:34	B5857-1.RAW	4:42:34 PM	34.41			29.2	0.156	0.156	ng/L	
Hg2600-2	BC	SAM	1709391-01	100	9/25/2017 16:39:33	B5858-1.RAW	4:46:33 PM	244.28	4		239.1	1.244	124.396	ng/L	
Hg2600-2	BC	SAM	1709391-02	100	9/25/2017 16:43:32	B5859-1.RAW	4:50:32 PM	221.96	4		216.8	1.124	112.434	ng/L	
Hg2600-2	BC	SAM	1709391-03	100	9/25/2017 16:47:31	B5860-1.RAW	4:54:31 PM	221.11	4		215.9	1.120	111.980	ng/L	
Hg2600-2	BC	SAM	1709391-04	100	9/25/2017 16:51:30	B5861-1.RAW	4:58:30 PM	236.55	4		231.3	1.203	120.254	ng/L	
Hg2600-2	BC	SAM	1709391-05	100	9/25/2017 16:55:29	B5862-1.RAW	5:02:29 PM	202.64	4		197.4	1.021	102.082	ng/L	
Hg2600-2	BC	SAM	F709320-DUP1	100	9/25/2017 17:03:28	B5863-1.RAW	5:07:28 PM	245.05	4		239.8	1.248	124.809	ng/L	
Hg2600-2	BC	SAM	F709320-MS1	400	9/25/2017 17:07:27	B5864-1.RAW	5:11:27 PM	2169.39	4		2164.2	11.588	4635.011	ng/L	
Hg2600-2	BC	SAM	F709320-MSD1	400	9/25/2017 17:11:26	B5865-1.RAW	5:15:26 PM	2199.44	4		2194.2	11.749	4699.406	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9		9/25/2017 17:15:25	B5866-1.RAW	5:19:25 PM	950.79			945.6	5.067	5.067	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9		9/25/2017 17:19:24	B5867-1.RAW	5:23:24 PM	33.85			28.6	0.153	0.153	ng/L	

Total Mercury  
EPA1631

Operat: BC  
 Worksf: 1/19/2011  
 Method: #1111 R: 0.9998  
 Descrpt: 1709559-1/70923-1

Blank# 5.2107  
 Calib Eqn: 186.62  
 Status: 0.9998  
 R#: 0.9998

Conc = (Area 5.2107) Run Date: 9/25/2017  
 QC Warning: 6/OC I Run Time: 15:03:38  
 Blank SD: 3.895304288  
 Blank RSD%: 71.75515117  
 CF SD: 6.232339559  
 CF RSD%: 3.334752037

Sample ID	Localiz	Reps	Dilute	Blank	Conc (ppb)	MS%	Final Conc	R6%	QA	Raw Data	RunEnd	Peak (ppb)	Control (ug)	Flags	RunCount
clean				0.00	0.41					85749-1.RAW	8:34.04	1583.21	Clean	OK	1
clean				0.00	0.01					85750-1.RAW	8:38:55	1.77	Clean	OK	1
ws				5.21	0.03					85751-1.RAW	8:41.04	11.18	Sample	OK	1
ws				5.21	0.02					85752-1.RAW	8:45:12	8.21	Sample	OK	1
ws				5.21	0.01					85753-1.RAW	8:49:21	7.48	Sample	OK	1
SEQ-HL1	A1		1	0.00	0.00					85754-1.RAW	8:53:29	0.73	Sample	OK	1
SEQ-HL2	A2		1	0.00	0.04					85755-1.RAW	8:57:38	8.11	Sample	OK	1
SEQ-HL3	A3		1	0.00	0.04					85756-1.RAW	9:01:46	8.74	Sample	OK	1
SEQ-CAL1	A4		1	5.21	0.51			122.44		85757-1.RAW	9:05:54	100.80	Sample	OK	1
SEQ-CAL2	A5		1	5.21	1.04			104.01		85758-1.RAW	9:10:03	199.32	Sample	OK	1
SEQ-CAL3	A6		1	5.21	4.93			99.51		85759-1.RAW	9:14:11	624.35	Sample	OK	1
SEQ-CAL4	A7		1	5.21	19.90			99.51		85760-1.RAW	9:18:20	9719.20	Sample	OK	1
SEQ-CAL5	A8		1	5.21	38.21			95.33		85761-1.RAW	9:22:28	7186.41	Sample	OK	1
SEQ-CV1	A9		1	5.21	6.11			102.78		85762-1.RAW	9:26:36	959.33	Sample	OK	1
ws				5.21	0.19					85763-1.RAW	9:44:21	41.21	Sample	OK	1
F709385-BLK1	A10		100	5.21	7.81					85764-1.RAW	9:48:29	19.97	Sample	OK	1
F709385-BLK2	A11		100	5.21	9.93					85765-1.RAW	9:52:37	23.74	Sample	OK	1
F709385-BLK3	A12		100	5.21	6.74					85766-1.RAW	9:56:45	17.80	Sample	OK	1
F709385-BSD1	A13		400	5.21	1836.22					85787-2.RAW	10:02:13	861.90	Sample	OK	1
F709385-BSD1	A14		400	5.21	1874.09					85768-1.RAW	10:06:22	879.56	Sample	OK	1
1709559-01	A15		2500	5.21	3834.40					85769-1.RAW	10:10:30	10332.06	Sample	OK	1
1709559-02	A16		2500	5.21	48883.79					85770-1.RAW	10:14:39	11117.53	Sample	OK	1
1709559-01	A17		2500	5.21	2489.14					85771-1.RAW	10:18:47	937.42	Sample	OK	1
1709559-02	A18		2500	5.21	8549.00					85772-1.RAW	10:22:56	643.37	Sample	OK	1
1709559-01	A19		2500	5.21	598.58					85773-1.RAW	10:27:04	49.89	Sample	OK	1
SEQ-CV1	A20		1	5.21	4.88			97.29		85774-1.RAW	10:31:12	913.05	Sample	OK	1
SEQ-COB1	A21		1	5.21	3.17			0.00		85775-1.RAW	10:35:21	37.06	Sample	OK	1
1709559-02	B1		2500	5.21	473.73					85776-1.RAW	10:39:29	40.57	Sample	OK	1
WS				5.21	3.14					85777-1.RAW	10:43:36	31.91	Sample	OK	1
1709559-01B	B2		100	5.21	33.01					85778-1.RAW	10:47:44	88.81	Sample	OK	1
1709559-02B	B3		100	5.21	39.41					85779-1.RAW	10:51:53	78.76	Sample	OK	1
1709559-01B	B4		100	5.21	145.34					85780-1.RAW	10:56:01	278.44	Sample	OK	1
1709559-02B	B5		100	5.21	13.79					85781-1.RAW	11:00:10	30.95	Sample	OK	1
1709559-01B	B6		100	5.21	20.12					85782-1.RAW	11:04:18	59.58	Sample	OK	1
1709559-02B	B7		100	5.21	24.62					85783-1.RAW	11:08:26	51.15	Sample	OK	1
ws				5.21	0.15					85784-1.RAW	11:24:00	38.88	Sample	OK	1
1709559-01C	B8		5000	5.21	94173.88					85785-1.RAW	11:28:08	3520.14	Sample	OK	1
1709559-02C	B9		5000	5.21	94257.72					85786-1.RAW	11:32:17	3523.28	Sample	OK	1
1709559-01C	B10		2500	5.21	23723.70					85787-1.RAW	11:36:26	1925.42	Sample	OK	1
SEQ-CV2	B11		1	5.21	4.60			98.05		85788-1.RAW	11:40:34	820.13	Sample	OK	1
SEQ-COB2	B12		1	5.21	0.16			0.00		85789-1.RAW	11:44:42	34.41	Sample	OK	1
1709559-02C	B13		2500	5.21	28828.56					85790-1.RAW	11:48:51	1934.00	Sample	OK	1
1709559-01C	B14		2500	5.21	20327.54					85791-1.RAW	11:52:59	1971.24	Sample	OK	1
1709559-02C	B15		2500	5.21	26417.12					85792-1.RAW	11:57:08	1977.18	Sample	OK	1
1709559-01RE1	B16		10000	5.21	126028.05					85793-1.RAW	12:01:16	2431.50	Sample	OK	1
1709559-02RE1	B17		10000	5.21	135564.83					85794-1.RAW	12:05:24	2441.61	Sample	OK	1
1709559-01RE1	B18		2500	5.21	12134.24					85795-1.RAW	12:09:32	911.00	Sample	OK	1
1709559-01RE1	B19		400	5.21	180.30					85796-1.RAW	12:13:41	39.35	Sample	OK	1
1709559-02RE1	B20		400	5.21	232.44					85797-1.RAW	12:17:50	113.65	Sample	OK	1
F709385-DLP1	B21		2500	5.21	8959.16					85798-1.RAW	12:21:58	673.99	Sample	OK	1
F709385-MS1	C1		2500	5.21	33068.94			569.29		85799-1.RAW	12:26:07	2475.22	Sample	OK	1
SEQ-CV3	C2		1	5.21	4.94			98.75		85800-1.RAW	12:30:15	820.62	Sample	OK	1
SEQ-COB3	C3		1	5.21	0.23			0.00		85801-1.RAW	12:34:23	47.89	Sample	OK	1
F709385-MED1	C4		2500	5.21	32780.66					85802-1.RAW	12:38:32	2452.21	Sample	OK	1
WS				5.21	0.64					85803-1.RAW	12:42:40	123.87	Sample	OK	1
1709559-01RE2	C5		100	5.21	81.35					85804-1.RAW	12:46:49	157.02	Sample	OK	1
1709559-02RE2	C6		100	5.21	135.98					85805-1.RAW	12:50:57	258.97	Sample	OK	1
1709559-01BRE1	C7		100	5.21	44.88					85806-1.RAW	12:55:06	245.98	Sample	OK	1
WS				5.21	0.73					85807-1.RAW	12:59:14	29.01	Sample	OK	1
F709415-BLK1	C8		1	5.21	0.06					85808-1.RAW	13:03:23	15.99	Sample	OK	1
F709415-BLK2	C9		1	5.21	0.06					85809-1.RAW	13:07:31	16.21	Sample	OK	1
F709415-BLK3	C10		1	5.21	0.04					85810-1.RAW	13:11:40	11.84	Sample	OK	1
F709415-BLK4	C11		10	5.21	1.92					85811-1.RAW	13:15:48	39.26	Sample	OK	1
F709415-BSD1	C12		1	5.21	16.31					85812-1.RAW	13:19:57	2732.02	Sample	OK	1
SEQ-CV4	C13		1	5.21	15.35					85813-1.RAW	13:24:05	2868.88	Sample	OK	1
SEQ-COB4	C14		1	5.21	4.93			98.63		85814-1.RAW	13:28:14	925.55	Sample	OK	1
SEQ-COB4	C15		1	5.21	0.22			0.00		85815-1.RAW	13:32:22	45.86	Sample	OK	1

1709034-C1	C18	1	5.21	0.58		85816-1.RAW	13:48:56	113.71	Sample	OK	1
1709034-C2	C17	1	5.21	0.59		85817-1.RAW	13:53:04	114.98	Sample	OK	1
1709034-C3	C18	1	5.21	0.58		85818-1.RAW	13:57:13	112.85	Sample	OK	1
1709034-C4	C19	1	5.21	0.79		85819-1.RAW	14:01:21	163.28	Sample	OK	1
1709034-C5	C20	1	5.21	1.27		85820-1.RAW	14:05:29	242.57	Sample	OK	1
1709034-C6	C21	1	5.21	0.26		85821-1.RAW	14:09:38	53.82	Sample	OK	1
1709134-D1	A1	1	5.21	0.10		85822-1.RAW	14:13:46	24.65	Sample	OK	1
1709134-C2	A2	1	5.21	26.39		85823-1.RAW	14:17:55	4621.01	Sample	FD	1
1709134-C3	A3	1	5.21	5.64		85824-1.RAW	14:22:03	1056.82	Sample	OK	1
1709526-01	A4	1	5.21	0.42		85825-1.RAW	14:26:11	83.81	Sample	OK	1
SEQ-CCV3	A5	1	5.21	4.86	97.10	85826-1.RAW	14:30:20	911.27	Sample	OK	1
SEQ-CCB5	A6	1	5.21	0.18	0.00	85827-1.RAW	14:34:28	36.66	Sample	OK	1
1709526-02	A7	1	5.21	0.96		85828-1.RAW	14:38:37	183.82	Sample	OK	1
1709526-03	A8	1	5.21	12.71		85829-1.RAW	14:42:45	2377.97	Sample	OK	1
1709526-04	A9	1	5.21	9.26		85830-1.RAW	14:46:53	1733.54	Sample	OK	1
1709560-01	A10	1	5.21	2.97		85831-1.RAW	14:51:02	559.93	Sample	OK	1
1709560-02	A11	1	5.21	0.2		85832-1.RAW	14:55:10	27.84	Sample	OK	1
1709560-03	A12	1	5.21	5.50		85833-1.RAW	14:59:19	1031.21	Sample	OK	1
1709560-04	A13	1	5.21	0.12		85834-2.RAW	15:03:27	27.02	Sample	OK	1
1709560-05	A14	10	5.21	44.58		85835-1.RAW	15:11:55	637.12	Sample	OK	1
1709560-06	A15	1	5.21	3.12		85836-1.RAW	15:16:04	27.82	Sample	OK	1
F7094-5-DUP1	A16	1	5.21	25.51		85837-1.RAW	15:20:13	4952.53	Sample	OK	1
SEQ-CCV6	A17	1	5.21	4.39	99.79	85838-1.RAW	15:24:21	936.34	Sample	OK	1
SEQ-CCB6	A18	1	5.21	0.23	0.00	85839-1.RAW	15:28:30	47.29	Sample	OK	1
F709415-MS1	A19	1	5.21	6.15	501.60	85840-1.RAW	15:32:38	1152.35	Sample	OK	1
F709415-MSD1	A20	1	5.21	0.22		85841-1.RAW	15:36:46	1165.08	Sample	OK	1
F709415-MS2	A21	1	5.21	27.36	333.07	85842-1.RAW	15:40:55	5111.54	Sample	OK	1
F709415-MSD2	B1	1	5.21	27.05		85843-1.RAW	15:45:03	5053.68	Sample	OK	1
SEQ-CCV7	B2	1	5.21	5.15	103.05	85844-1.RAW	15:49:12	968.72	Sample	OK	1
SEQ-CCB7	B3	1	5.21	0.27	0.00	85845-1.RAW	15:53:21	55.36	Sample	OK	1
F709320-BLK1	B4	20	5.21	4.63		85846-1.RAW	15:57:30	48.37	Sample	OK	1
F709320-BLK2	B5	20	5.21	3.56		85847-1.RAW	16:01:38	38.56	Sample	OK	1
F709320-BLK3	B6	20	5.21	2.88		85848-1.RAW	16:05:46	32.51	Sample	OK	1
*F709320-BLK4	B7	20	5.21	2.88		85849-1.RAW	16:09:55	33.00	Sample	OK	1
*F709320-BLK5	B8	20	5.21	2.27		85850-1.RAW	16:14:03	28.37	Sample	OK	1
*F709320-BLK6	B9	20	5.21	2.45		85851-1.RAW	16:18:12	25.10	Sample	OK	1
F709320-BS1	B10	20	5.21	163.75		85852-1.RAW	16:22:20	973.27	Sample	OK	1
F709320-MSD1	B11	20	5.21	164.88		85853-1.RAW	16:26:29	919.20	Sample	OK	1
1709033-01	B12	50	5.21	316.87		85854-1.RAW	16:30:37	1187.58	Sample	OK	1
1709179-01	B13	50	5.21	422.34		85855-1.RAW	16:34:46	1591.53	Sample	OK	1
SEQ-CCV8	B14	1	5.21	4.96	99.17	85856-1.RAW	16:38:54	930.56	Sample	OK	1
SEQ-CCB8	B15	1	5.21	0.16	0.00	85857-1.RAW	16:43:03	34.41	Sample	OK	1
1709391-01	B16	100	5.21	128.11		85858-1.RAW	16:47:11	244.25	Sample	OK	1
1709391-02	B17	100	5.21	116.15		85859-1.RAW	16:51:19	221.96	Sample	OK	1
1709391-03	B18	100	5.21	115.69		85860-1.RAW	16:55:28	221.11	Sample	OK	1
1709391-04	B19	100	5.21	123.97		85861-1.RAW	16:59:36	236.55	Sample	OK	1
1709391-05	B20	100	5.21	105.79		85862-1.RAW	17:03:45	202.84	Sample	OK	1
F709320-DUP1	B21	100	5.21	128.52		85863-1.RAW	17:07:53	245.05	Sample	OK	1
F709320-MS1	C1	400	5.21	4628.72	3931.45	85864-1.RAW	17:12:02	2169.39	Sample	OK	1
F709320-MSD1	C2	400	5.21	4703.12		85865-1.RAW	17:16:10	2199.44	Sample	OK	1
SEQ-CCV9	C3	1	5.21	5.07	101.34	85866-1.RAW	17:20:18	950.75	Sample	OK	1
SEQ-CCB9	C4	1	5.21	0.15	0.00	85867-1.RAW	17:24:27	33.65	Sample	OK	1



ANALYSIS SEQUENCE

QUALITY ASSURANCE

7126020

PEER-REVIEWED



Instrument: Hg2600-2 *2 m 9/26/17*

INITIALS: *2 m 9/26/17* Analyzed: 9/25/2017

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7126020-IBL1 ✓	QC	1			
7126020-IBL2 ✓	QC	2			
7126020-IBL3 ✓	QC	3			
7126020-CAL1 ✓	QC	4	1704505	✓	
7126020-CAL2 ✓	QC	5	1704506	✓	
7126020-CAL3 ✓	QC	6	1704507	✓	
7126020-CAL4 ✓	QC	7	1704508	✓	
7126020-CAL5 ✓	QC	8	1704509	✓	
7126020-ICV1 ✓	QC	9	1705628	✓	
7126020-CCV1 ✓	QC	10	1705628	✓	
7126020-CCB1 ✓	QC	11			
7126020-CCV2 ✓	QC	12	1705628	✓	
7126020-CCB2 ✓	QC	13			
7126020-CCV3 ✓	QC	14	1705628	✓	
7126020-CCB3 ✓	QC	15			
7126020-CCV4 ✓	QC	16	1705628	✓	
7126020-CCB4 ✓	QC	17			
7126020-CCV5 ✓	QC	18	1705628	✓	
7126020-CCB5 ✓	QC	19			
7126020-CCV6 ✓	QC	20	1705628	✓	
7126020-CCB6 ✓	QC	21			
7126020-CCV7 ✓	QC	22	1705628	✓	
7126020-CCB7 ✓	QC	23			
F709320-BLK1 ✓	QC	24			
F709320-BLK2 ✓	QC	25			
F709320-BLK3 ✓	QC	26			
F709320-BLK4 ✓	QC	27			
F709320-BLK5 ✓	QC	28			
F709320-BLK6 ✓	QC	29			
F709320-BS1 ✓	QC	30			
F709320-BSD1 ✓	QC	31			
1709033-01 ✓	Hg-CVAFS-T-7030	32			Scan all data for level IV report
1709179-01 ✓	Hg-CVAFS-T-7030	33			Scan all data for level IV report
7126020-CCV8 ✓	QC	34	1705628	✓	
7126020-CCB8 ✓	QC	35			

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/25/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709391-01 ✓	Hg-CVAFS-T-7030	36			
1709391-02 ✓	Hg-CVAFS-T-7030	37			
1709391-03 ✓	Hg-CVAFS-T-7030	38			
1709391-04 ✓	Hg-CVAFS-T-7030	39			
1709391-05 ✓	Hg-CVAFS-T-7030	40			
F709320-DUPI ✓	QC	41			
F709320-MS1 ✓	QC	42			
F709320-MSD1 ✓	QC	43			
7126020-CCV9 ✓	QC	44	1705628	✓	
7126020-CCB9 ✓	QC	45			

Beck 9/26/17  
Samples Loaded By Date  
10-2-2 9/25/17

Beck 9/26/17  
Data Processed By Date

**PREPARATION BENCH SHEET**

F709320

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 9/18/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709320-BLK1	Blank	0.25	20					
F709320-BLK2	Blank	0.25	20					
F709320-BLK3	Blank	0.25	20					
F709320-BLK4	Prep Blank	0.3662	20					
F709320-BLK5	Post Blank	0.4001	20					
F709320-BLK6	Filter Blank	0.375	40					
F709320-BS1	Blank Spike	0.25	20	1704421	20			
F709320-BSD1	Blank Spike Dup	0.25	20	1704421	20			
F709320-DUP1	Duplicate [1709391-01]	0.2772	20					
F709320-MS1	Matrix Spike [1709391-02]	0.2847	20	1701763	100			
F709320-MSD1	Matrix Spike Dup [1709391-02]	0.2923	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
1704421	THg 100ng/mL Primary Spiking Standard	21-Oct-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
			1705539	70/30 Digestion Acid	12-Mar-18 00:00
			1705552	3% SnCl2 THg reductant	05-Mar-18 00:00
			1705600	5% BrCl	22-Jan-18 00:00

**PREPARATION BENCH SHEET**

F709320

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 9/18/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709033-01	OL-2655-01	0.2716	20	-	-	-	Scan all data for level IV report	
1709179-01	OL-2661-01	0.1806	20	-	-	-	Scan all data for level IV report	
1709391-01	FRB-01_17HD001_091217_POL_01_WB	0.2821	20	-	-	-		
1709391-02	FRB-01_17HD001_091217_POL_02_WB	0.2937	20	-	-	-		
1709391-03	FRB-01_17HD001_091217_POL_03_WB	0.3027	20	-	-	-		
1709391-04	FRB-01_17HD001_091217_POL_04_WB	0.2968	20	-	-	-		
1709391-05	FRB-01_17HD001_091217_POL_05_WB	0.2849	20	-	-	-		



PREPARATION BENCH SHEET

200-2  
9/25/17 OM

F709320

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 9/18/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709320-BLK1	Blank	0.25	20					20X -
F709320-BLK2	Blank	0.25	20					20X -
F709320-BLK3	Blank	0.25	20					20X -
F709320-BLK4	Prep Blank	0.3662	20					20X -
F709320-BLK5	Post Blank	0.4001	20					20X -
F709320-BLK6	Filter Blank	0.375	40					20X -
F709320-BS1	Blank Spike	0.25	20	1704421	20			20X -
F709320-BSD1	Blank Spike Dup	0.25	20	1704421	20			20X -
F709320-DUP1	Duplicate [1709391-01]	0.2772	20					100X -
F709320-MS1	Matrix Spike [1709391-02]	0.2847	20	1701763	100			400X -
F709320-MSD1	Matrix Spike Dup [1709391-02]	0.2923	20	1701763	100			400X -

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1704421	THg 100ng/mL Primary Spiking Standard

<u>Expiration:</u>
22-Sep-17 00:00
21-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>
1704424	Boiling Chips for AFS prep
1705539	70/30 Digestion Acid
1705600	5% BrCl

<u>Expiration:</u>
21-Jan-18 00:00
12-Mar-18 00:00
22-Jan-18 00:00

1703152  
1704516  
1704517  
1705552

Due Date: 10/2/2017

PREPARATION BENCH SHEET

F709320

Eurofins Frontier Global Sciences, Inc.

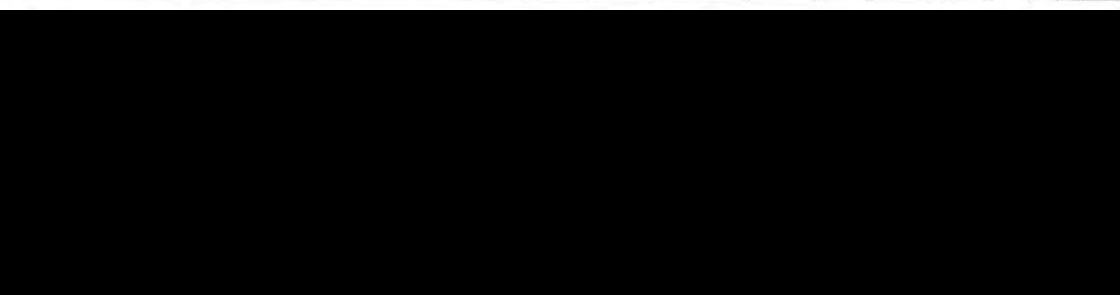
2600-2  
9/25/17 DM

Matrix: Tissue

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

Prepared: 9/18/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709033-01	OL-2655-01	0.2716	20	-	-	-	Scan all data for level IV report	50x /
1709179-01	OL-2661-01	0.1806	20	-	-	-	Scan all data for level IV report	60x /
1709391-01	FRB-01_17HD001_091217_POL_01_WB	0.2821	20	-	-	-		100x /
1709391-02	FRB-01_17HD001_091217_POL_02_WB	0.2937	20	-	-	-		100x /
1709391-03	FRB-01_17HD001_091217_POL_03_WB	0.3027	20	-	-	-		100x /
1709391-04	FRB-01_17HD001_091217_POL_04_WB	0.2968	20	-	-	-		100x /
1709391-05	FRB-01_17HD001_091217_POL_05_WB	0.2849	20	-	-	-		100x /



Technician: Dwyer Batch#: F709320 Date: 9-18-17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 13:45 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C  
 Time out: 15:45 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1705600) Spike vol.: 100 µL (LIMS ID: 1701763)  
 Spike Witness: DM 9/18/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0607652 Calibration Date: 9/12/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1705539 Dispenser #: 021027494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  yes  
 Glass Vial # 06068124 Boiling Chip lot # 1704424 \*Hotblock Position: 5/5 L, 5  
9/18/17

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 type="checkbox"/> g	CRM LIMS ID <input checked="" type="checkbox"/> N/A
1	F709320 Blk1	0.2555	23	/		
2	F709320 Blk2	0.2611	24			
3	F709320 Blk3	0.2525	25			
4	F709320 Blk4	0.3662	26			
5	F709320 Blk5	0.4001	27			
6	F709320 Blank6	0.3750	28			
7	1709033-01	0.2716	29			
8	1709179-01	0.1806	30			
9	1709391-01	0.2821	31			
10	F709320-Dup	0.2772	32			
11	1709391-02	0.2937	33			
12	F709320 MS1	0.2847	34			
13	F709320 MS01	0.2923	35			
14	1709391-03	0.3027	36			
15	1709391-04	0.2968	37			
16	1709391-05	0.2899	38			
17	F709320 BS1	0.2862	39			
18	F709320 BS01	0.3027	40			
19			41			
20			42			
21			43			
22			44			

Comments  
 F709320  
 BS1 BS01  
 = 20ul  
 1704421  
 F709320  
 Pre/post blank  
 1709391-01/5  
 Blank 4, 5.  
 F709320  
 Blank 6  
 1709033-01  
 1709179-01  
 1709391-01  
 1709179-01  
 0.1806 g.  
 not enough mercury  
 sample exhausted.  
 9/18/17  
 Dispenser #  
 9/19/17 vst

# Failing Data Report - 7126020

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. I.C.I.	Rec. U.C.L.	RPD	RPD Limit	Over Cal	Failure	Qualifier
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*[Handwritten Signature]*

9/26/17

Analyst Reviewed By

Date

*[Handwritten Signature]*

9/26/17

Peer Reviewed By

Date



## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7126018

PEER-REVIEWED

Instrument: Hg2600-3

2/26/17



INITIALS:

R 9/26/17

Analyzed: 9/25/2017

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7126018-IBL1 ✓	QC	1			
7126018-IBL2 ✓	QC	2			
7126018-IBL3 ✓	QC	3			
7126018-CAL1 ✓	QC	4	1704505	✓	
7126018-CAL2 ✓	QC	5	1704506	✓	
7126018-CAL3 ✓	QC	6	1704507	✓	
7126018-CAL4 ✓	QC	7	1704508	✓	
7126018-CAL5 ✓	QC	8	1704509	✓	
7126018-ICV1 ✓	QC	9	1705628	✓	
F709385-BLK1 ✓	QC	10			
F709385-BLK2 ✓	QC	11			
F709385-BLK3 ✓	QC	12			
F709385-BS1 ✓	QC	13			
F709385-BSD1 ✓	QC	14			
1709556-01 ✓	Hg_FSTM_TRAP_A	15			
1709556-02 ✓	Hg_FSTM_TRAP_A	16			
1709557-01 ✓	Hg_FSTM_TRAP_A	17			AFS - Take photos of trap if heavy particulate present and send to PM
1709557-02 ✓	Hg_FSTM_TRAP_A	18			AFS - Take photos of trap if heavy particulate present and send to PM
1709559-01 ✓	Hg_FSTM_TRAP_A	19			AFS - Take photos of trap if heavy particulate present and send to PM
7126018-CCV1 ✓	QC	20	1705628	✓	
7126018-CCB1 ✓	QC	21			
1709559-02 ✓	Hg_FSTM_TRAP_A	22			AFS - Take photos of trap if heavy particulate present and send to PM
7126018-CCV2 ✓	QC	23	1705628	✓	
7126018-CCB2 ✓	QC	24			
1709556-01RE1 ✓	Hg_FSTM_TRAP_A	25			Added 9/26/2017 by BC
1709556-02RE1 ✓	Hg_FSTM_TRAP_A	26			Added 9/26/2017 by BC
1709557-01RE1 ✓	Hg_FSTM_TRAP_A	27			Added 9/26/2017 by BC
1709559-01RE1 ✓	Hg_FSTM_TRAP_A	28			Added 9/26/2017 by BC
1709559-02RE1 ✓	Hg_FSTM_TRAP_A	29			Added 9/26/2017 by BC
F709385-DUP1 ✓	QC	30			
F709385-MS1 ✓	QC	31			
7126018-CCV3 ✓	QC	32	1705628	✓	
7126018-CCB3 ✓	QC	33			
F709385-MSD1 ✓	QC	34			
1709559-01RE2 ✓	Hg_FSTM_TRAP_A	35			Added 9/26/2017 by BC

Due Date: 9/26/2017

29 of 52

Page 1 of 2

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/25/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709559-02RE2 /	Hg_FSTM_TRAP_A	36			Added 9/26/2017 by BC
7126018-CCV4 /	QC	37	1705628	/	
7126018-CCB4 /	QC	38			

Becis 9/26/17  
Samples Loaded By                      Date  
*loaded 9/25/17*

Becis 9/26/17  
Data Processed By                      Date

**PREPARATION BENCH SHEET**

F709385

**Eurofins Frontier Global Sciences, Inc.**

**Matrix:** Air

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

**Prepared:** 9/22/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F709385-BLK1	Blank	1	100					
F709385-BLK2	Blank	1	100					
F709385-BLK3	Blank	1	100					
F709385-BS1	LCS	1	100	1705554	200			
F709385-BSD1	LCS Dup	1	100	1705554	200			
F709385-DUPI	Duplicate [1709557-02] ✓	1	100					
F709385-MS1	Matrix Spike [1709557-02] ✓	0.0002	0.02	1704422	50 ✓			[Spk] 1 Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓
F709385-MSD1	Matrix Spike Dup [1709557-02] ✓	0.0002	0.02	1704422	50			[Spk] 1 Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>
1704422	THg 10ng/mL Calibration Standard
1705554	THg 1.000ng/mL Secondary Spiking Standard

<u>Expiration:</u>
21-Oct-17 00:00
18-Mar-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
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
1705600	5% BrCl	22-Jan-18 00:00
1705602	70/30 Digestion Acid	17-Mar-18 00:00
1705742	5% BrCl	22-Jan-18 00:00

**PREPARATION BENCH SHEET**

F709385

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 9/22/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1709556-01	EFGS08646 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1888.07 L	
1709556-01RE1	EFGS08646 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1888.07 L Added 9/26	Added 9/26/2017 by BC
1709556-02	EFGS08665 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1889.32 L	
1709556-02RE1	EFGS08665 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1889.32 L Added 9/26	Added 9/26/2017 by BC
1709557-01	EFGS09145 Unit 4 Trap A 9/6/17-9/13/17	1	100	-	-	-	Sample Volume: 4124 AFS - Take photo	
1709557-01RE1	EFGS09145 Unit 4 Trap A 9/6/17-9/13/17	1	100	-	-	-	Sample Volume: 4124 Added 9/26/2017	Added 9/26/2017 by BC
1709557-02	EFGS09150 Unit 4 Trap B 9/6/17-9/13/17	1	100	-	-	-	Sample Volume: 3068 AFS - Take photo	
1709559-01	EFGS09100 31/32 Trap A 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 433.5 AFS - Take photo	
1709559-01RE1	EFGS09100 31/32 Trap A 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 433.5 Added 9/26/201	Added 9/26/2017 by BC
1709559-01RE2	EFGS09100 31/32 Trap A 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 433.5 Added 9/26/201	Added 9/26/2017 by BC
1709559-02	EFGS09208 31/32 Trap B 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 340.9 AFS - Take photo	
1709559-02RE1	EFGS09208 31/32 Trap B 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 340.9 Added 9/26/201	Added 9/26/2017 by BC
1709559-02RE2	EFGS09208 31/32 Trap B 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 340.9 Added 9/26/201	Added 9/26/2017 by BC

2600-2  
 BC 9/26/17

PREPARATION BENCH SHEET

F709385

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 9/22/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F709385-BLK1	Blank	1	100					500ul
F709385-BLK2	Blank	1	100					500ul
F709385-BLK3	Blank	1	100					300ul
F709385-BS1	LCS	1	100					125ul
F709385-BSD1	LCS Dup	1	100					125ul
F709385-DUP1	Duplicate 1704557-02	1	100					20ul
F709385-MS1	Matrix Spike 1704557-02	1	100	1704422	50			20ul
F709385-MSD1	Matrix Spike Dup 1704557-02	1	100	1704422	50			20ul

Standard ID(s):      Description:      Expiration:

500ul = 100X  
 125ul = 400X  
 20ul = 2500X  
 10ul = 5000X  
 5ul = 10000X

1704516  
 1704517  
 1705552  
 1703182

Due Date: 9/26/2017

PREPARATION BENCH SHEET

2600-2  
BC 9/26/17

F709385

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 9/22/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1709556-01	EFGS08646 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1888.07 L 20ml → 5ml	100ml	10ml
1709556-02	EFGS08665 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1889.32 L 20ml → 5ml	500ml	10ml
1709557-01	EFGS09145 Unit 4 Trap A 9/6/17-9/13/17	1	100	-	-	-	Sample Volume: 4124 AFS - Take phot 20ml → 20ml	500ml → 100ml	20ml
1709557-02	EFGS09150 Unit 4 Trap B 9/6/17-9/13/17	1	100	-	-	-	Sample Volume: 3068 AFS - Take phot 20ml	500ml	20ml
1709559-01	EFGS09100 31/32 Trap A 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 433.5 AFS - Take phot 20ml → 125ml → 50ml	500ml	20ml
1709559-02	EFGS09208 31/32 Trap B 9/13/17-9/14/17	1	100	-	-	-	Sample Volume: 540.9 AFS - Take phot 20ml → 125ml → 50ml	500ml	20ml



Trap Digestions

Name: WFF Date: 9/22/17 Batch ID: F709385  
 Work Order(s): 1709556, 1709557, 1709559 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: 11:20, start temp (°C): 57.0 (raw) 56.8 (w/ CF)  
 end time: 13:20, end temp (°C): 68.0 (raw) 67.8 (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)
F709385	100
F709385	100
F709385	100
F709385	100
F709385	100
1709556	100
1709556	100
1709556	100
1709556	100
1709556	100
1709556	100
1709556	100
1709557	100
1709557	100
1709557	100
1709557	100
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1709559	100
1709559	100
1709559	100
1709559	100
1709559	100
1709559	100
1709559	100

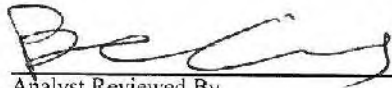
Spike ID: 1705554  
 Spike Amount (µL): 200  
 Spike Witness: BC 9/22/17  
 BrCl ID: 1705600, 1705742  
 70/30: 1705602  
 Other: N/A  
 Thermometer: 14545  
 Dispensers: 02K27494   
 04N73497   
 Other 15406623  
 Pipette ID: 0407852  
 Cal. Date: 9/20/17  
 Vials and Jars lot# 00068732  
 Trap Material Lot#: 1704097  
 Loader Mass Verified:  Yes  No

*WFF*  
9/22/17

Comments:  
 1709556: all c-beds spiked @ 12000ug-  
 1709557 and 1709559: all c-beds spiked @ 2700ug  
 BrCl added by AMB  
 on 9/22/17. AMB  
 9/22/17

# Failing Data Report - 7126018

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1709556-01	Hg_FSTM_TRAP_A	13833	125.00				ng/Trap						FAIL-OVER	PASS	E -
1709556-02	Hg_FSTM_TRAP_A	14886	125.00				ng/Trap						FAIL-OVER	PASS	E -

  
 Analyst Reviewed By \_\_\_\_\_  
 Date 9/26/17

  
 Peer Reviewed By \_\_\_\_\_  
 Date 9/26/17



ANALYSIS SEQUENCE

QUALITY ASSURANCE

PEER-REVIEWED

7126019



INITIALS:

*R* 9/26/17

Analyzed: 9/25/2017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7126019-IBL1 ✓	QC	1			
7126019-IBL2 ✓	QC	2			
7126019-IBL3 ✓	QC	3			
7126019-CAL1 ✓	QC	4	1704505 ✓		
7126019-CAL2 ✓	QC	5	1704506 ✓		
7126019-CAL3 ✓	QC	6	1704507 ✓		
7126019-CAL4 ✓	QC	7	1704508 ✓		
7126019-CAL5 ✓	QC	8	1704509 ✓		
7126019-ICV1 ✓	QC	9	1705628 ✓		
7126019-CCV1 ✓	QC	10	1705628 ✓		
7126019-CCB1 ✓	QC	11			
7126019-CCV2 ✓	QC	12	1705628 ✓		
7126019-CCB2 ✓	QC	13			
7126019-CCV3 ✓	QC	14	1705628 ✓		
7126019-CCB3 ✓	QC	15			
F709415-BLK1 ✓	QC	16			
F709415-BLK2 ✓	QC	17			
F709415-BLK3 ✓	QC	18			
F709415-BLK4 ✓	QC	19			
F709415-BS1 ✓	QC	20			
F709415-BSD1 ✓	QC	21			
7126019-CCV4 ✓	QC	22	1705628 ✓		
7126019-CCB4 ✓	QC	23			
1709034-01 ✓	Hg-CVAFS-W-1631	24			Scan all data for level IV report
1709034-02 ✓	Hg-CVAFS-W-1631	25			Scan all data for level IV report
1709034-03 ✓	Hg-CVAFS-W-1631	26			Scan all data for level IV report
1709034-04 ✓	Hg-CVAFS-W-1631	27			Scan all data for level IV report
1709034-05 ✓	Hg-CVAFS-W-1631	28			Scan all data for level IV report
1709034-06 ✓	Hg-CVAFS-W-1631	29			Scan all data for level IV report
1709134-01 ✓	Hg-CVAFS-W-1631	30			client specific reporting limits
1709134-02 ✓	Hg-CVAFS-W-1631	31			client specific reporting limits
1709134-03 ✓	Hg-CVAFS-W-1631	32			client specific reporting limits
1709526-01 ✓	Hg-CVAFS-W-1631	33			scan all data for Level IV report
7126019-CCV5 ✓	QC	34	1705628 ✓		
7126019-CCB5 ✓	QC	35			

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 9/25/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709526-02 ✓	Hg-CVAFS-W-1631	36			scan all data for Level IV report
1709526-03 ✓	Hg-CVAFS-W-1631	37			scan all data for Level IV report
1709526-04 ✓	Hg-CVAFS-W-1631	38			scan all data for Level IV report
1709560-01 ✓	Hg-CVAFS-W-1631	39			
1709560-02 ✓	Hg-CVAFS-W-1631	40			
1709560-03 ✓	Hg-CVAFS-W-1631	41			
1709560-04 ✓	Hg-CVAFS-W-1631	42			
1709560-05 ✓	Hg-CVAFS-W-1631	43			
1709560-06 ✓	Hg-CVAFS-W-1631	44			
F709415-DUP1 ✓	QC	45			
7I26019-CCV6 ✓	QC	46	1705628	✓	
7I26019-CCB6 ✓	QC	47			
F709415-MS1 ✓	QC	48			
F709415-MSD1 ✓	QC	49			
F709415-MS2 ✓	QC	50			
F709415-MSD2 ✓	QC	51			
7I26019-CCV7 ✓	QC	52	1705628	✓	
7I26019-CCB7 ✓	QC	53			

Boeing 9/26/17  
Samples Loaded By Date

Boeing 9/26/17  
Data Processed By Date

10-dca 9/25/17

**PREPARATION BENCH SHEET**

F709415

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 9/25/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Extraction Comments
F709415-BLK1	Blank	100	101					
F709415-BLK2	Blank	100	101					
F709415-BLK3	Blank	100	101					
F709415-BLK4	Blank	10	20 ✓					
F709415-BS1	LCS	50	50.5	1705054	100			
F709415-BSD1	LCS Dup	50	50.5	1705054	100			
F709415-DUP1	Duplicate [1709134-02] ✓	100	101					
F709415-MS1	Matrix Spike [1709034-05] ✓	49.50495	50	1704422	25 ✓			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓
F709415-MS2	Matrix Spike [1709526-04] ✓	49.50495	50	1704422	100 ✓			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓
F709415-MSD1	Matrix Spike Dup [1709034-05] ✓	49.50495	50	1704422	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL ✓
F709415-MSD2	Matrix Spike Dup [1709526-04] ✓	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-Oct-17 00:00	1704515	0.2 N BRCL JULY 2017	22-Jan-18 00:00
		21-Aug-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**

F709415

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 9/25/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1709034-01	OL-2654-01	100	101	-	-	-	Scan all data for level IV report	
1709034-02	OL-2654-02	100	101	-	-	-	Scan all data for level IV report	
1709034-03	OL-2654-03	100	101	-	-	-	Scan all data for level IV report	
1709034-04	OL-2654-04	100	101	-	-	-	Preservation Blank Created Scan all dat	
1709034-05	OL-2654-05	100	101	-	-	-	Preservation Blank Created Scan all dat	
1709034-06	OL-2654-06	100	101	-	-	-	Preservation Blank Created Scan all dat	
1709134-01	Field Blank	100	101	-	-	-	client specific reporting limits	
1709134-02	YRWWTP Influent	100	101	-	-	-	client specific reporting limits	
1709134-03	YRWWTP Effluent	100	101	-	-	-	client specific reporting limits	
1709526-01	1710210-01	100	101	-	-	-	scan all data for Level IV report	
1709526-02	1710210-02	100	101	-	-	-	scan all data for Level IV report	
1709526-03	1710210-03	100	101	-	-	-	scan all data for Level IV report	
1709526-04	1710210-04	100	101	-	-	-	scan all data for Level IV report	
1709560-01	Lagoons	100	101	-	-	-		
1709560-02	Lagoons Field Blank	100	101	-	-	-		
1709560-03	Clarifier	100	101	-	-	-		
1709560-04	Clarifier Field Blank	100	101	-	-	-		
1709560-05	A149	10	20	-	-	-		
1709560-06	A149 Blank	100	101	-	-	-		

**PREPARATION BENCH SHEET**

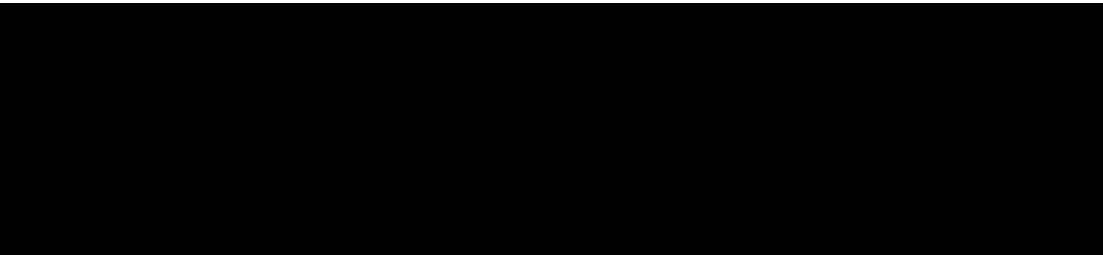
F709415

**Eurofins Frontier Global Sciences, Inc.**

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/25/2017



Due Date: 9/26/2017

2600-2

PREPARATION BENCH SHEET

F709415

BC 9/25/17

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/25/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F709415-BLK1	Blank	100	101					50mL
F709415-BLK2	Blank	100	101					50mL
F709415-BLK3	Blank	100	101					50mL
F709415-BLK4	Blank	<del>100</del>	<del>101</del>					5mL
F709415-BS1	LCS	100	101					50mL
F709415-BSD1	LCS Dup	100	101					50mL
F709415-DUP1	Duplicate 1709134-02	100	101					50mL
F709415-MS1	Matrix Spike 1709024-05	100	101	1704422	25			50mL
F709415-MS2	Matrix Spike 1709526-05	100	101	1704422	100			50mL
F709415-MSD1	Matrix Spike Dup 1709034-05	100	101	1704422	25			50mL
F709415-MSD2	Matrix Spike Dup 1709526-05	100	101	1704422	100			50mL

Standard ID(s): Description:

Expiration:

50mL = 1X  
5mL = 10X

1704515  
1704516  
1704517  
1703102  
1705552

PREPARATION BENCH SHEET

2600-2  
BC 9/25/17

F709415

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/25/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs	Raw Data	Sample Comments	Analysis Comments
1709034-01	OL-2654-01	100	101	-	-	-	Scan all data for level IV report	50mL
1709034-02	OL-2654-02	100	101	-	-	-	Scan all data for level IV report	50mL
1709034-03	OL-2654-03	100	101	-	-	-	Scan all data for level IV report	50mL
1709034-04	OL-2654-04	100	101	-	-	-	Preservation Blank Created Scan all dat	50mL
1709034-05	OL-2654-05	100	101	-	-	-	Preservation Blank Created Scan all dat	50mL
1709034-06	OL-2654-06	100	101	-	-	-	Preservation Blank Created Scan all dat	50mL
1709134-01	Field Blank	100	101	-	-	-	client specific reporting limits	50mL
1709134-02	YRWWTP Influent	100	101	-	-	-	client specific reporting limits	50mL
1709134-03	YRWWTP Effluent	100	101	-	-	-	client specific reporting limits	50mL
1709526-01	1710210-01	100	101	-	-	-	scan all data for Level IV report	50mL
1709526-02	1710210-02	100	101	-	-	-	scan all data for Level IV report	50mL
1709526-03	1710210-03	100	101	-	-	-	scan all data for Level IV report	50mL
1709526-04	1710210-04	100	101	-	-	-	scan all data for Level IV report	50mL
1709560-01	Lagoons	100	101	-	-	-		50 mL
1709560-02	Lagoons Field Blank	100	101	-	-	-		50mL
1709560-03	Clarifier	100	101	-	-	-		50mL
1709560-04	Clarifier Field Blank	100	101	-	-	-		50mL
1709560-05	A149	100	101	-	-	-		50mL
1709560-06	A149 Blank	100	101	-	-	-		50mL

01040  
010302  
030203

Due Date: 9/26/2017

PREPARATION BENCH SHEET

F709415

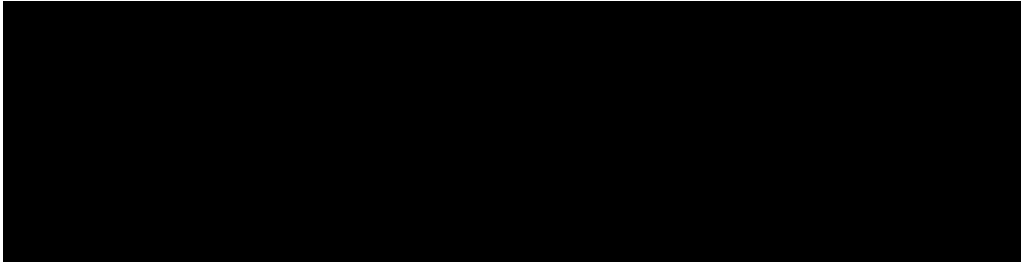
Eurofins Frontier Global Sciences, Inc.

2600-2  
BC 9/25/17

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 9/25/2017







# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: mw Date: 9/6/17 Time Completed: 1435

Work Orders: 1709108  
1709134

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1704575  
Pipette SN: 507631  
Cal. Date: 9/6/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1709108-01A	300	3.0	Y			
1709108-02A	300	3.0	Y			
1709108-03A	300	3.0	Y			
1709108-04A	300	3.0	Y			
1709108-05B	10	10	Y			
1709108-06A	300	3.0	Y			
1709134-01B	175	1.75	Y			
1709134-02B	300	3.0	Y			
1709134-03B	300	3.0	Y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); opacity: 0.5;"></div> <p style="font-size: 2em; font-weight: bold; margin: 0;">mw 9/6/17</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: \_\_\_\_\_

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: Ba Date: 9/21/17 Time Completed: 1420

Work Orders: 1709527 1709560  
1709526 1709522 1709573

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1709515

Pipette SN: 507031

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
1709527-01B	300	3.00	Y			
1709527-02B	300	3.00	Y			
1709527-03B	300	3.00	Y			
1709527-04B	300	3.00	Y			
1709527-05B	300	3.00	Y			
1709527-06B	300	3.00	Y			
1709527-07B	300	3.00	Y			
1709526-01A	300	3.00	Y			
1709526-02A	300	3.00	Y			
1709526-03A	300	3.00	Y			
1709526-04A	300	3.00	Y			
1709522-01B	300	3.00	Y			
1709522-02B	300	3.00	Y			
1709522-03B	300	3.00	Y			
1709522-04B	300	3.00	Y			
1709522-05B	300	3.00	Y			
1709522-06B	300	3.00	Y			
1709522-07B	300	3.00	Y			
1709560-01A	300	3.00	Y			
1709560-02A	300	3.00	Y			
1709560-03A	300	3.00	Y			
1709560-04A	300	3.00	Y			
1709560-05B	10	10	Y			
1709560-06A	300	3.00	Y			
1709573-02A	300	3.00	Y			
1709573-04A	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: \_\_\_\_\_



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

Analyst: <u>BC</u>	Sequence(s) #: <u>7126018, 7126019, 7126020</u>
Reviewer: <u>PL 9/26/17</u>	Dataset ID(s): <u>THg26002-170925-1</u>
Date: <u>9/26/2017</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F709385, F709415, F709320</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 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: PL 9/26/17

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

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7126018, 7126019, 7126020
<b>Reviewer:</b> 0 <i>R 9/26/17</i>	<b>Dataset ID(s):</b> THg26002-170925-1
<b>Date:</b> 9/26/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F709385, F709415, F709320	0

**Analyst Initials** BC                      **Reviewer Initials** R 9/26/17

- 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: Samples off curve
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)**

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	7126018, 7126019, 7126020
<b>Reviewer:</b>	0 <i>PC 9/26/17</i>	<b>Dataset ID(s):</b>	THg26002-170925-1
<b>Date:</b>	9/26/2017	<b>WO (s) #:</b>	Various
<b>Batch #(s):</b>	F709385, F709415, F709320		0

**Analyst Initials** BC **Reviewer Initials** PC 9/26/17

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  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/CDQC: \_\_\_\_\_ 1/11/17, 1/27/17 \_\_\_\_\_ IDOC/CDQC 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: 4/20/17, 4/27/17, 5/9/17 LOD within last 3 months?  YES  NO
39. Date of LOQ: 4/20/17, 4/27/17, 5/9/17 LOQ within last 3 months?  YES  NO

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





# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1709622

PO#

C012505850

October 13, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1709622

### Table of Contents

October 13, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	26
Notes and Definitions	32
Raw Data: 7J10017	33

**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:  
13-Oct-17 13:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_17SN001_091417_RAS_01_WB	1709622-01	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_02_WB	1709622-02	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_03_WB	1709622-03	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_04_WB	1709622-04	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_05_WB	1709622-05	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_06_WB	1709622-06	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_07_WB	1709622-07	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_08_WB	1709622-08	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_09_WB	1709622-09	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_10_WB	1709622-10	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_11_WB	1709622-11	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_12_WB	1709622-12	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_13_WB	1709622-13	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_14_WB	1709622-14	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_15_WB	1709622-15	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_16_WB	1709622-16	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_17_WB	1709622-17	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_18_WB	1709622-18	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_19_WB	1709622-19	Tissue	14-Sep-17 16:00	22-Sep-17 10:25
ES-13_17SN001_091417_RAS_20_WB	1709622-20	Tissue	14-Sep-17 16:00	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, 01824Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.055  
Project Manager: Denise King**Reported:**  
13-Oct-17 13:16

## 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; F710226 and F710227. Per client request, sample 1709622-02 was used as the QC source in batch F710226. These samples were analyzed in sequence 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 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.055  
Project Manager: Denise King

**Reported:**  
13-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.

---

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: AMSC Foster Wheeler

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

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>1709622</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:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</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>	

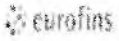
Anomalies/Non-conformances (attach additional pages if needed):

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

**1709622**



1709622



Frontier Global Services

# Environmental Analysis Request/Chain of Custody

Client: <b>Amed Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101</b>		Project Name#: <b>USDC Penobscot</b>		PN #: <b>3616186052.04A 055</b>		Matrix: <input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface		Analyses Requested					For Lab Use Only					
Project Manager: <b>Rod Pendleton</b>		P.O. #: <b>C012508850</b>		Sampler: <b>JB</b>		PW/SID #: _____		Preservation Codes					SR#: _____					
Phone #: _____		Quote #: _____		State where samples were collected: <b>ME</b>		For Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>		Total # of Containers <small>Hg, Pb, Cr, and 18% Zn bag tissue</small>					SR#: _____					
													SR#: _____					
Sample Identification		Collection		Grab	Composite	Soil	Water	Other	Total # of Containers						Preservation Codes		Remarks	
		Date	Time												Soil	Water		Other
1	ES-13_175N001_091417_RAS_01_WB	091417	15:00	X				X	1	X								use volume for MS / MSD
2	ES-13_175N001_091417_RAS_02_WB	091417	15:00	X				X	1	X								
3	ES-13_175N001_091417_RAS_03_WB	091417	15:00	X				X	1	X								
4	ES-13_175N001_091417_RAS_04_WB	091417	15:00	X				X	1	X								
5	ES-13_175N001_091417_RAS_05_WB	091417	15:00	X				X	1	X								
6	ES-13_175N001_091417_RAS_06_WB	091417	15:00	X				X	1	X								
7	ES-13_175N001_091417_RAS_07_WB	091417	15:00	X				X	1	X								
8	ES-13_175N001_091417_RAS_08_WB	091417	15:00	X				X	1	X								
9	ES-13_175N001_091417_RAS_09_WB	091417	15:00	X				X	1	X								
10	ES-13_175N001_091417_RAS_10_WB	091417	15:00	X				X	1	X								
11	ES-13_175N001_091417_RAS_11_WB	091417	15:00	X				X	1	X								
12	ES-13_175N001_091417_RAS_12_WB	091417	15:00	X				X	1	X								
13	ES-13_175N001_091417_RAS_13_WB	091417	15:00	X				X	1	X								
14	ES-13_175N001_091417_RAS_14_WB	091417	15:00	X				X	1	X								
15	ES-13_175N001_091417_RAS_15_WB	091417	15:00	X				X	1	X								
16	ES-13_175N001_091417_RAS_16_WB	091417	15:00	X				X	1	X								
17	ES-13_175N001_091417_RAS_17_WB	091417	15:00	X				X	1	X								
18	ES-13_175N001_091417_RAS_18_WB	091417	15:00	X				X	1	X								
19	ES-13_175N001_091417_RAS_19_WB	091417	15:00	X				X	1	X								
20	ES-13_175N001_091417_RAS_20_WB	091417	15:00	X				X	1	X								
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/>		Rush <input type="checkbox"/>		Relinquished by: <b>KP</b>		Date	Time	Received by:	Date	Time						
Notes:		(Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by:		Date	Time	Received by:	Date	Time						
FedEx # <u>3103 4444 4868</u>		# of Containers <u>2</u>		Sample disposal - Hold Equipment: Banks 1-4 until 30 days after delivery of report.		Relinquished by:		Date	Time	Received by:	Date	Time						
Report and EDD to: <u>denise.king@amachw.com / 578-652-8833</u>						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					
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format: _____				EDD # _____		FedEx _____		Other _____								



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 13:16

**ES-13\_17SN001\_091417\_RAS\_01\_WB**  
**1709622-01**

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	30.7	1.60	14.3	ng/g	400	F710226	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_02\_WB**  
**1709622-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	87.8	1.79	16.0	ng/g	400	F710227	05-Oct-17	7J10017	09-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:**  
13-Oct-17 13:16

**ES-13\_17SN001\_091417\_RAS\_03\_WB**  
**1709622-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	42.2	1.78	15.9	ng/g	400	F710226	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_04\_WB**  
**1709622-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	35.5	1.79	16.0	ng/g	400	F710226	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_05\_WB**  
**1709622-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	29.9	1.59	14.2	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_06\_WB**  
**1709622-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	76.7	1.57	14.0	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_07\_WB**  
**1709622-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	78.8	1.65	14.8	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_08\_WB**  
**1709622-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	32.7	1.60	14.3	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_09\_WB**  
**1709622-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	26.4	1.73	15.4	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_10\_WB  
1709622-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	37.4	1.65	14.7	ng/g	400	F710227	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 13:16

**ES-13\_17SN001\_091417\_RAS\_11\_WB  
1709622-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	37.5	1.58	14.1	ng/g	400	F710227	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 13:16

**ES-13\_17SN001\_091417\_RAS\_12\_WB**  
**1709622-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	29.8	1.79	16.0	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_13\_WB**  
**1709622-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	63.1	1.56	13.9	ng/g	400	F710227	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 13:16

**ES-13\_17SN001\_091417\_RAS\_14\_WB**  
**1709622-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	43.5	1.67	14.9	ng/g	400	F710227	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
13-Oct-17 13:16

**ES-13\_17SN001\_091417\_RAS\_15\_WB**  
**1709622-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	39.1	1.72	15.4	ng/g	400	F710227	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota  
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Project Manager: Denise King

**Reported:**  
13-Oct-17 13:16

**ES-13\_17SN001\_091417\_RAS\_16\_WB**  
**1709622-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	34.8	1.60	14.3	ng/g	400	F710227	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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Project: 2017 Penobscot Biota  
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Project Manager: Denise King

**Reported:**  
13-Oct-17 13:16

**ES-13\_17SN001\_091417\_RAS\_17\_WB**  
**1709622-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	56.6	1.53	13.7	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_18\_WB  
1709622-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	40.2	1.72	15.4	ng/g	400	F710227	05-Oct-17	7J10017	09-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 13:16

**ES-13\_17SN001\_091417\_RAS\_19\_WB  
1709622-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	38.1	1.57	14.0	ng/g	400	F710227	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 13:16

**ES-13\_17SN001\_091417\_RAS\_20\_WB**  
**1709622-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	30.1	1.59	14.2	ng/g	400	F710227	05-Oct-17	7J10017	09-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 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
<b>Batch 7J10017 - F710226</b>											
<b>Cal Standard (7J10017-CAL1)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	0.513	-		ng/L	0.50100		102				
<b>Cal Standard (7J10017-CAL2)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	1.034	-		ng/L	1.0020		103				
<b>Cal Standard (7J10017-CAL3)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	5.002	-		ng/L	5.0100		99.8				
<b>Cal Standard (7J10017-CAL4)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	19.38	-		ng/L	20.040		96.7				
<b>Cal Standard (7J10017-CAL5)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	38.87	-		ng/L	40.080		97.0				
<b>Calibration Blank (7J10017-CCB1)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	0.043	-		ng/L							
<b>Calibration Blank (7J10017-CCB2)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	0.018	-		ng/L							
<b>Calibration Blank (7J10017-CCB3)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	0.027	-		ng/L							
<b>Calibration Blank (7J10017-CCB4)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	0.074	-		ng/L							
<b>Calibration Blank (7J10017-CCB5)</b> Prepared & Analyzed: 09-Oct-17											
Mercury	0.084	-		ng/L							

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Chelmsford MA, 01824

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

Reported:  
13-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 7J10017 - F710226

<b>Calibration Blank (7J10017-CCB6)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.057	-		ng/L								
<b>Calibration Blank (7J10017-CCB7)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.073	-		ng/L								
<b>Calibration Blank (7J10017-CCB8)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.083	-		ng/L								
<b>Calibration Blank (7J10017-CCB9)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.089	-		ng/L								
<b>Calibration Blank (7J10017-CCBA)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.051	-		ng/L								
<b>Calibration Check (7J10017-CCV1)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.763	-		ng/L	5.0000		95.3	77-123				
<b>Calibration Check (7J10017-CCV2)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.881	-		ng/L	5.0000		97.6	77-123				
<b>Calibration Check (7J10017-CCV3)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.840	-		ng/L	5.0000		96.8	77-123				
<b>Calibration Check (7J10017-CCV4)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.897	-		ng/L	5.0000		97.9	77-123				
<b>Calibration Check (7J10017-CCV5)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.677	-		ng/L	5.0000		93.5	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 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 7J10017 - F710226

<b>Calibration Check (7J10017-CCV6)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	4.825	-		ng/L	5.0000		96.5	77-123			
<b>Calibration Check (7J10017-CCV7)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	4.702	-		ng/L	5.0000		94.0	77-123			
<b>Calibration Check (7J10017-CCV8)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	4.858	-		ng/L	5.0000		97.2	77-123			
<b>Calibration Check (7J10017-CCV9)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	5.031	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7J10017-CCVA)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	4.957	-		ng/L	5.0000		99.1	77-123			
<b>Instrument Blank (7J10017-IBL1)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J10017-IBL2)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J10017-IBL3)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7J10017-ICV1)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	4.986	-		ng/L	5.0000		99.7	79-121			

Batch F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F710226-BLK1)</b>					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	0.177	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 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
<b>Batch F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F710226-BLK2)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F710226-BLK3)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F710226-BLK4)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
<b>Blank (F710226-BLK5)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
<b>Blank (F710226-BLK6)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
<b>Blank (F710226-BLK7)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							F-03, U
<b>LCS (F710226-BS1)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	8.256	0.090	0.800	ng/g	8.0160		103	75-125			
<b>LCS (F710226-BS2)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	322.0	3.58	32.0	ng/g	373.70		86.2	75-125			
<b>LCS Dup (F710226-BSD1)</b> 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	
<b>Duplicate (F710226-DUP1)</b> 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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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 13:16

**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 F710226 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike (F710226-MS1)</b>		<b>Source: 1709620-06</b>			Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	481.9	1.61	14.4	ng/g	359.71	109.1	104	71-125			
<b>Matrix Spike (F710226-MS2)</b>		<b>Source: 1709621-02</b>			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			
<b>Matrix Spike Dup (F710226-MSD1)</b>		<b>Source: 1709620-06</b>			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	
<b>Matrix Spike Dup (F710226-MSD2)</b>		<b>Source: 1709621-02</b>			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	

**Batch F710227 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F710227-BLK4)</b>					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F710227-BLK5)</b>					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F710227-BLK6)</b>					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>LCS (F710227-BS3)</b>					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	7.647	0.090	0.800	ng/g	8.0160		95.4	75-125			
<b>LCS (F710227-BS4)</b>					Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	341.8	3.53	31.5	ng/g	373.70		91.5	75-125			

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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 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 F710227 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>LCS Dup (F710227-BSD3)</b>		Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	8.001	0.090	0.800	ng/g	8.0160		99.8	75-125	4.53	24	
<b>Duplicate (F710227-DUP1)</b>		Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	64.23	1.69	15.1	ng/g		87.83			31.0	24	QR-07
<b>Duplicate (F710227-DUP3)</b>		Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	85.13	1.79	16.0	ng/g		87.83			3.12	24	AD
<b>Matrix Spike (F710227-MS1)</b>		Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	403.3	1.71	15.3	ng/g	381.68	87.83	82.6	71-125			
<b>Matrix Spike (F710227-MS2)</b>		Source: 1709623-02RE1 Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	320.6	1.55	13.8	ng/g	346.02	14.60	88.4	71-125			
<b>Matrix Spike Dup (F710227-MSD1)</b>		Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	379.3	1.53	13.7	ng/g	342.47	87.83	85.1	71-125	2.93	24	
<b>Matrix Spike Dup (F710227-MSD2)</b>		Source: 1709623-02RE1 Prepared: 05-Oct-17 Analyzed: 09-Oct-17									
Mercury	313.1	1.63	14.5	ng/g	363.64	14.60	82.1	71-125	7.43	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:**  
13-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.
- 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 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 13:16:40	86866-1.RAW	1:16:40 PM	30.24			5.4	0.027	0.027	ng/L	
Hg2600-2	BC	SAM	1709621-01RE1	20	10/9/2017 13:20:48	86867-1.RAW	1:20:48 PM	7496.90	1	x	22.6	0.116	0.000	ng/L	
Hg2600-2	BC	SAM	1709621-02RE1	20	10/9/2017 13:24:56	86868-1.RAW	1:24:56 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?						
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 15:22:23	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	
												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 R<sup>2</sup>: 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	

ws			7.66	0.12		86866-1.RAW	13:25:38	30.24	Sample	OK	1	
1709621-01RE1	C4	20	7.66	766.08		86867-1.RAW	13:29:46	7496.90	Sample	OK	1	
1709621-02RE1	C5	20	7.66	214.97		86868-1.RAW	13:33:54	2109.17	Sample	OK	1	
F710226-DUP1	C6	400	7.66	1658.89		86869-1.RAW	13:38:03	818.53	Sample	OK	1	
F710226-MS1	C7	400	7.66	6699.75	403.63	86870-1.RAW	13:42:11	3282.51	Sample	OK	1	
F710226-MSD1	C8	400	7.66	6395.78		86871-1.RAW	13:46:20	3133.92	Sample	OK	1	
F710226-MS2	C9	400	7.66	4756.64	74.35	86872-1.RAW	13:50:28	2332.71	Sample	OK	1	
F710226-MSD2	C10	400	7.66	4865.38		86873-1.RAW	13:54:37	2385.86	Sample	OK	1	
1709621-01RE2	C11	400	7.66	895.94		86874-1.RAW	13:58:45	445.60	Sample	OK	1	
1709621-02RE2	C12	400	7.66	279.36		86875-1.RAW	14:02:54	144.21	Sample	OK	1	
1709621-03RE1	C13	20	7.66	2.51		86876-1.RAW	14:07:02	32.22	Sample	OK	1	
SEQ-CCV4	C14	1	7.66	4.90	97.94	86877-1.RAW	14:11:10	965.12	Sample	OK	1	
SEQ-CCB4	C15	1	7.66	0.07	0.00	86878-1.RAW	14:15:19	22.15	Sample	OK	1	
*F710227-BLK1	C16	20	7.66	1.10		86879-1.RAW	14:19:27	18.38	Sample	OK	1	
*F710227-BLK2	C17	20	7.66	0.75		86880-1.RAW	14:23:36	15.01	Sample	OK	1	
*F710227-BLK3	C18	20	7.66	0.99		86881-1.RAW	14:27:44	17.33	Sample	OK	1	
F710227-BS1	C19	20	7.66	98.67		86882-1.RAW	14:31:53	972.26	Sample	OK	1	
F710227-BSD1	C20	20	7.66	101.12		86883-1.RAW	14:36:01	996.22	Sample	OK	1	
F710227-BS2	C21	400	7.66	2193.44		86884-1.RAW	14:40:09	1079.81	Sample	OK	1	
ws	B1	400	7.66	1061.59		86885-1.RAW	14:44:18	526.56	Sample	OK	1	WRONG LOCATION
ws	B2	400	7.66	1084.33		86886-1.RAW	14:48:26	537.68	Sample	OK	1	WRONG LOCATION
ws	B3	400	7.66	886.19		86887-1.RAW	14:52:35	440.83	Sample	OK	1	WRONG LOCATION
ws	B4	400	7.66	2279.02		86888-1.RAW	14:56:43	1121.65	Sample	OK	1	WRONG LOCATION
ws	B5	1	7.66	2.53	50.65	86889-1.RAW	15:00:52	502.84	Sample	OK	1	WRONG LOCATION
ws	B6	1	7.66	2.10	0.00	86890-1.RAW	15:05:00	417.53	Sample	OK	1	WRONG LOCATION
ws	B7	400	7.66	1115.25		86891-1.RAW	15:09:09	552.79	Sample	OK	1	WRONG LOCATION
ws	B8	400	7.66	1623.15		86892-1.RAW	15:13:17	801.05	Sample	OK	1	WRONG LOCATION
ws	B9	400	7.66	1657.92		86893-1.RAW	15:17:26	818.05	Sample	OK	1	WRONG LOCATION
ws			7.66	2.41		86895-1.RAW	15:32:23	478.40	Sample	OK	1	WRONG LOCATION
SEQ-CCV5	B1	1	7.66	4.68	93.54	86896-1.RAW	15:36:31	922.10	Sample	OK	1	
SEQ-CCB5	B2	1	7.66	0.08	0.00	86897-1.RAW	15:40:40	24.10	Sample	OK	1	
1709622-02	A1	400	7.66	1098.80		86898-1.RAW	15:44:48	544.75	Sample	OK	1	
1709622-05	A2	400	7.66	422.78		86899-1.RAW	15:48:56	214.31	Sample	OK	1	
1709622-06	A3	400	7.66	1093.81		86900-1.RAW	15:53:05	542.31	Sample	OK	1	
1709622-07	A4	400	7.66	1068.99		86901-1.RAW	15:57:13	530.18	Sample	OK	1	
1709622-08	A5	400	7.66	458.99		86902-1.RAW	16:01:22	232.01	Sample	OK	1	
1709622-09	A6	400	7.66	342.49		86903-1.RAW	16:05:30	175.07	Sample	OK	1	
1709622-10	A7	400	7.66	509.93		86904-1.RAW	16:09:39	256.91	Sample	OK	1	
1709622-11	A8	400	7.66	533.07		86905-1.RAW	16:13:47	268.22	Sample	OK	1	
1709622-12	A9	400	7.66	372.95		86906-1.RAW	16:17:56	189.95	Sample	OK	1	
1709622-13	A10	400	7.66	909.14		86907-1.RAW	16:22:04	452.05	Sample	OK	1	
SEQ-CCV6	A11	1	7.66	4.82	96.50	86908-1.RAW	16:26:13	951.03	Sample	OK	1	
SEQ-CCB6	A12	1	7.66	0.06	0.00	86909-1.RAW	16:30:21	18.86	Sample	OK	1	
1709622-14	A13	400	7.66	584.30		86910-1.RAW	16:34:29	293.26	Sample	OK	1	
1709622-15	A14	400	7.66	509.43		86911-1.RAW	16:38:37	256.67	Sample	OK	1	
1709622-16	A15	400	7.66	487.50		86912-1.RAW	16:42:45	245.95	Sample	OK	1	
1709622-17	A16	400	7.66	827.22		86913-1.RAW	16:46:53	412.01	Sample	OK	1	
F710227-BLK4	A17	20	7.66	1.06		86914-1.RAW	16:51:01	17.98	Sample	OK	1	
F710227-BLK5	A18	20	7.66	0.96		86915-1.RAW	16:55:10	17.03	Sample	OK	1	
F710227-BLK6	A19	20	7.66	0.86		86916-1.RAW	16:59:18	16.06	Sample	OK	1	
F710227-BS3	A20	20	7.66	96.55		86917-1.RAW	17:03:27	951.49	Sample	OK	1	
F710227-BSD3	A21	20	7.66	100.97		86918-1.RAW	17:07:35	994.78	Sample	OK	1	
F710227-BS4	B1	400	7.66	2171.68		86919-1.RAW	17:11:43	1069.17	Sample	OK	1	
SEQ-CCV7	B2	1	7.66	4.70	94.04	86920-1.RAW	17:15:52	926.97	Sample	OK	1	
SEQ-CCB7	B3	1	7.66	0.07	0.00			21.86	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

39 of 62

Page 1 of 4

## 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

40 of 62

Page 2 of 4

## 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

41 of 62

Page 3 of 4

**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

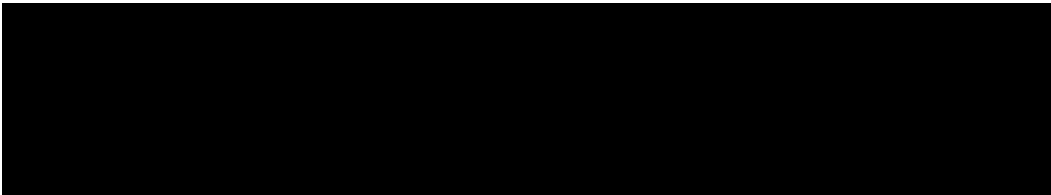
**Eurofins Frontier Global Sciences, Inc.**

**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% SnCl <sub>2</sub> 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

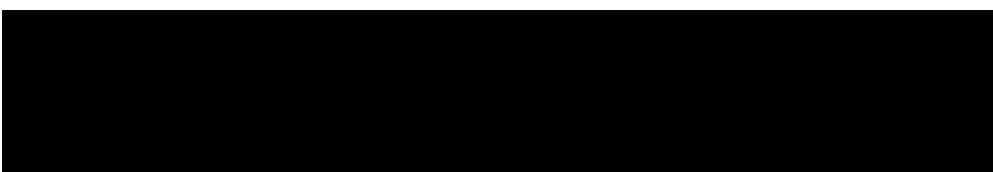
**Eurofins Frontier Global Sciences, Inc.**

**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

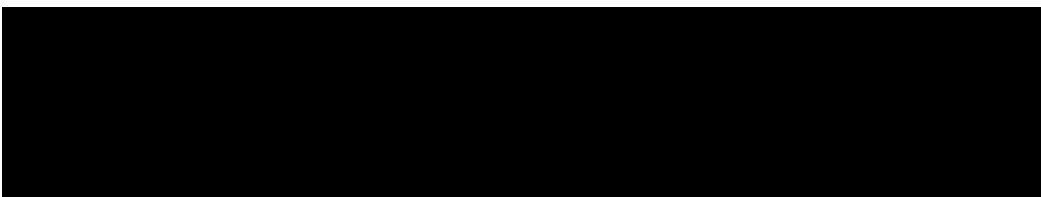
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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#: 6.19/10000 Calibrated?  Yes  No Therm.#: 40918012 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  
 HNO<sub>3</sub> 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 = DORM4 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

Blk 1, Blk 2, Blk 3, BS1, BSD1, BS2 return as Blk 4, Blk 5, Blk 6, BS 3, BSD3, BS4

OVER-AD 400X  
1709622-02

DUP3 2.75g 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

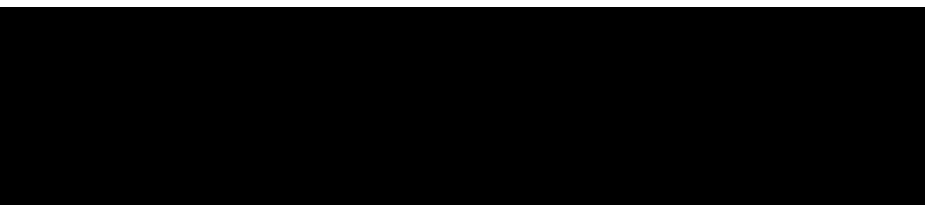
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 <sup>ms/MSD</sup> 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

HNO<sub>3</sub> 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7J10017
<b>Reviewer:</b> <u>DM</u>	<b>Dataset ID(s):</b> THg26002-171009-1
<b>Date:</b> 10/10/2017	<b>WO (s) #:</b> _____
<b>Batch #(s):</b> F710226, F710227	

● 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:** 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 checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet)   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <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 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 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7J10017
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26002-171009-1
<b>Date:</b> 10/10/2017	<b>WO (s) #:</b> 0
<b>Batch #(s):</b> F710226, F710227	0

Analyst Initials BC                      Reviewer Initials EDM

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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>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 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)**

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	7J10017
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THg26002-171009-1
<b>Date:</b>	10/10/2017	<b>WO (s) #:</b>	0
<b>Batch #(s):</b>	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.**





Reviewed 11/03/2017  
Elizabeth Penta  
Wood. PLC

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1709623

PO#

C012505850

October 21, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1709623

### Table of Contents

October 21, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	26
Notes and Definitions	35
Raw Data: 7J10017	36
Raw Data: 7J20012	66

**Total Pages – 99**



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 14:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_17SN001_091217_RAS_01_WB	1709623-01	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_02_WB	1709623-02	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_03_WB	1709623-03	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_04_WB	1709623-04	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_05_WB	1709623-05	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_06_WB	1709623-06	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_07_WB	1709623-07	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_08_WB	1709623-08	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_09_WB	1709623-09	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_10_WB	1709623-10	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_11_WB	1709623-11	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_12_WB	1709623-12	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_13_WB	1709623-13	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_14_WB	1709623-14	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_15_WB	1709623-15	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_16_WB	1709623-16	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_17_WB	1709623-17	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_18_WB	1709623-18	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_19_WB	1709623-19	Tissue	12-Sep-17 14:00	22-Sep-17 10:25
FRB-01_17SN001_091217_RAS_20_WB	1709623-20	Tissue	12-Sep-17 14:00	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, 01824Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.055  
Project Manager: Denise King**Reported:**  
21-Oct-17 14:14

## 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; F710227 and F710250. Sample 1709623-02 was used as the QC source in batch F710227. These samples were analyzed in two sequences; 7J10017 and 7J20012.

## 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.*



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 14:14

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>FC.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: _____	w/CF: _____ °C
Cooler 2: <u>-21.73</u>	w/CF: <u>-21.63</u>	°C	Cooler 5: _____	w/CF: _____ °C
Cooler 3: _____	w/CF: _____	°C	Cooler 6: _____	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

1709623



1709623

### Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 811 Congress St, Suite 200 Portland, ME 04101				<b>Matrix</b>				<b>Analyses Requested</b>								<b>For Lab Use Only</b>											
Project Name: USDC Penobscot				FN # 3616166052.04A.055				<input type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue				<b>Preservation Codes</b>								SF # _____							
Project Manager: Rod Pendleton				P.O. # C012505850				<input type="checkbox"/> Porewater <input type="checkbox"/> G-round <input type="checkbox"/> Surface												SCR # _____							
Sampler: JB				PWSID # _____				<input type="checkbox"/> Water <input type="checkbox"/> SPDES <input type="checkbox"/> Other:												Preservation Codes							
Phone # _____				QJ018 # _____				<input type="checkbox"/> Composite												1 = HQ 2 = HQ/SPES							
State where samples were collected: ME For Compliance Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				3 = HQ/SP 4 = HQ/SP							
																				5 = HQ/SP 6 = HQ/SP							
																				7 = Other							
																				<b>Remarks</b>							
<b>Sample Identification</b>				<b>Collection</b>		<b>Grab</b>		<b>Composite</b>		<b>Soil</b>		<b>Water</b>		<b>Other:</b>		<b>Total # of Containers</b>											
				<b>Date</b>		<b>Time</b>																					
1 FRB-01_175N001_091217_RAS_01_WB				091217		17:00		X						X		1											
2 FRB-01_175N001_091217_RAS_02_WB				091217		17:00		X						X		1											
3 FRB-01_175N001_091217_RAS_03_WB				091217		17:00		X						X		1										use volume for MS/ MSD	
4 FRB-01_175N001_091217_RAS_04_WB				091217		17:00		X						X		1											
5 FRB-01_175N001_091217_RAS_05_WB				091217		17:00		X						X		1											
6 FRB-01_175N001_091217_RAS_06_WB				091217		17:00		X						X		1											
7 FRB-01_175N001_091217_RAS_07_WB				091217		17:00		X						X		1											
8 FRB-01_175N001_091217_RAS_08_WB				091217		17:00		X						X		1											
9 FRB-01_175N001_091217_RAS_09_WB				091217		17:00		X						X		1											
10 FRB-01_175N001_091217_RAS_10_WB				091217		17:00		X						X		1											
11 FRB-01_175N001_091217_RAS_11_WB				091217		17:00		X						X		1											
12 FRB-01_175N001_091217_RAS_12_WB				091217		17:00		X						X		1											
13 FRB-01_175N001_091217_RAS_13_WB				091217		17:00		X						X		1											
14 FRB-01_175N001_091217_RAS_14_WB				091217		17:00		X						X		1											
16 FRB-01_175N001_091217_RAS_15_WB				091217		17:00		X						X		1											
18 FRB-01_175N001_091217_RAS_17_WB				091217		17:00		X						X		1											
18 FRB-01_175N001_091217_RAS_18_WB				091217		17:00		X						X		1											
18 FRB-01_175N001_091217_RAS_19_WB				091217		17:00		X						X		1											
20 FRB-01_175N001_091217_RAS_20_WB				091217		17:00		X						X		1											
<b>Turnaround Time Requested (TAT) (please check)</b>				Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <i>[Signature]</i>				Date: 9/21/2017		Time: 1630		Received by:		Date:		Time:							
(Rush TAT is subject to laboratory approval and surcharges.)																											
<b>Notes:</b>																											
FedEx # 8133 4644 4646				# of Coolers 2																							
Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report.				Report and EDD to: ceoise.sing@amec.fw.com / 978-622-6633																							
<b>Data Package Options (please check if required)</b>				High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>																							
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format: _____																											
												Relinquished by Commercial Carrier:															
												JPS _____ FedEx _____ Other _____															
																Temperature upon receipt: _____ °C											



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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 14:14

**FRB-01\_17SN001\_091217\_RAS\_01\_WB**  
**1709623-01**

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	18.1	0.216	1.93	ng/g	50	F710227	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	
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Project Number: 3616166052.04A.055  
Project Manager: Denise King

**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_02\_WB  
1709623-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	14.6	0.220	1.96	ng/g	50	F710227	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_03\_WB  
1709623-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	6.88	0.199	1.77	ng/g	50	F710227	05-Oct-17	7J10017	09-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_04\_WB**  
**1709623-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	22.2	0.403	3.60	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	



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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_05\_WB**  
**1709623-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	10.8	0.421	3.76	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_06\_WB**  
**1709623-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	14.5	0.429	3.83	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_07\_WB**  
**1709623-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	26.2	0.394	3.52	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_08\_WB**  
**1709623-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	24.6	0.427	3.82	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	



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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_09\_WB  
1709623-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	8.20	0.436	3.89	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_10\_WB  
1709623-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	10.6	0.446	3.98	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_11\_WB  
1709623-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	10.9	0.412	3.68	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_12\_WB**  
**1709623-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	6.57	0.088	0.784	ng/g	20	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_13\_WB**  
**1709623-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	9.38	0.409	3.65	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_14\_WB  
1709623-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	19.0	0.448	4.00	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	



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21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_15\_WB**  
**1709623-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	7.29	0.088	0.787	ng/g	20	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_16\_WB**  
**1709623-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	15.7	0.419	3.75	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_17\_WB**  
**1709623-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	12.2	0.410	3.66	ng/g	100	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_18\_WB  
1709623-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	7.36	0.202	1.81	ng/g	50	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	



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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_19\_WB  
1709623-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	7.98	0.211	1.88	ng/g	50	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:14

**FRB-01\_17SN001\_091217\_RAS\_20\_WB  
1709623-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	11.8	0.221	1.98	ng/g	50	F710250	06-Oct-17	7J20012	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 14:14
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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
<b>Batch 7J10017 - F710226</b>											
<b>Cal Standard (7J10017-CAL1)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	0.513	-		ng/L	0.50100		102				
<b>Cal Standard (7J10017-CAL2)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	1.034	-		ng/L	1.0020		103				
<b>Cal Standard (7J10017-CAL3)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	5.002	-		ng/L	5.0100		99.8				
<b>Cal Standard (7J10017-CAL4)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	19.38	-		ng/L	20.040		96.7				
<b>Cal Standard (7J10017-CAL5)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	38.87	-		ng/L	40.080		97.0				
<b>Calibration Blank (7J10017-CCB1)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	0.043	-		ng/L							
<b>Calibration Blank (7J10017-CCB2)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	0.018	-		ng/L							
<b>Calibration Blank (7J10017-CCB3)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	0.027	-		ng/L							
<b>Calibration Blank (7J10017-CCB4)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	0.074	-		ng/L							
<b>Calibration Blank (7J10017-CCB5)</b>					Prepared & Analyzed: 09-Oct-17						
Mercury	0.084	-		ng/L							

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Project Manager: Denise King

Reported:  
21-Oct-17 14:14

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

<b>Calibration Blank (7J10017-CCB6)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.057	-		ng/L								
<b>Calibration Blank (7J10017-CCB7)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.073	-		ng/L								
<b>Calibration Blank (7J10017-CCB8)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.083	-		ng/L								
<b>Calibration Blank (7J10017-CCB9)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.089	-		ng/L								
<b>Calibration Blank (7J10017-CCBA)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	0.051	-		ng/L								
<b>Calibration Check (7J10017-CCV1)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.763	-		ng/L	5.0000		95.3	77-123				
<b>Calibration Check (7J10017-CCV2)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.881	-		ng/L	5.0000		97.6	77-123				
<b>Calibration Check (7J10017-CCV3)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.840	-		ng/L	5.0000		96.8	77-123				
<b>Calibration Check (7J10017-CCV4)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.897	-		ng/L	5.0000		97.9	77-123				
<b>Calibration Check (7J10017-CCV5)</b>												Prepared & Analyzed: 09-Oct-17
Mercury	4.677	-		ng/L	5.0000		93.5	77-123				

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Reported:  
21-Oct-17 14:14

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

<b>Calibration Check (7J10017-CCV6)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	4.825	-		ng/L	5.0000		96.5	77-123			
<b>Calibration Check (7J10017-CCV7)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	4.702	-		ng/L	5.0000		94.0	77-123			
<b>Calibration Check (7J10017-CCV8)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	4.858	-		ng/L	5.0000		97.2	77-123			
<b>Calibration Check (7J10017-CCV9)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	5.031	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7J10017-CCVA)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	4.957	-		ng/L	5.0000		99.1	77-123			
<b>Instrument Blank (7J10017-IBL1)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J10017-IBL2)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J10017-IBL3)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7J10017-ICV1)</b>											
Prepared & Analyzed: 09-Oct-17											
Mercury	4.986	-		ng/L	5.0000		99.7	79-121			

Batch 7J20012 - F710250

<b>Cal Standard (7J20012-CAL1)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.493	-		ng/L	0.50100		98.4				

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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 14:14

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 7J20012 - F710250

<b>Cal Standard (7J20012-CAL2)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	1.008	-		ng/L	1.0020		101				
<b>Cal Standard (7J20012-CAL3)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	5.056	-		ng/L	5.0100		101				
<b>Cal Standard (7J20012-CAL4)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	19.88	-		ng/L	20.040		99.2				
<b>Cal Standard (7J20012-CAL5)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	40.04	-		ng/L	40.080		99.9				
<b>Calibration Blank (7J20012-CCB1)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.087	-		ng/L							
<b>Calibration Blank (7J20012-CCB2)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.050	-		ng/L							
<b>Calibration Blank (7J20012-CCB3)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.050	-		ng/L							
<b>Calibration Blank (7J20012-CCB4)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.044	-		ng/L							
<b>Calibration Blank (7J20012-CCB5)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.132	-		ng/L							
<b>Calibration Blank (7J20012-CCB6)</b>						Prepared & Analyzed: 19-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.055 Project Manager: Denise King	Reported: 21-Oct-17 14:14
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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
<b>Batch 7J20012 - F710250</b>											
<b>Calibration Blank (7J20012-CCB7)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.025	-		ng/L							
<b>Calibration Blank (7J20012-CCB8)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.059	-		ng/L							
<b>Calibration Blank (7J20012-CCB9)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.113	-		ng/L							
<b>Calibration Blank (7J20012-CCBA)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.069	-		ng/L							
<b>Calibration Check (7J20012-CCV1)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	5.071	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7J20012-CCV2)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	4.889	-		ng/L	5.0000		97.8	77-123			
<b>Calibration Check (7J20012-CCV3)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	4.875	-		ng/L	5.0000		97.5	77-123			
<b>Calibration Check (7J20012-CCV4)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	4.819	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (7J20012-CCV5)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	5.170	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (7J20012-CCV6)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	4.986	-		ng/L	5.0000		99.7	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 14:14
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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
<b>Batch 7J20012 - F710250</b>											
<b>Calibration Check (7J20012-CCV7)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.845	-		ng/L	5.0000		96.9	77-123			
<b>Calibration Check (7J20012-CCV8)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.936	-		ng/L	5.0000		98.7	77-123			
<b>Calibration Check (7J20012-CCV9)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.855	-		ng/L	5.0000		97.1	77-123			
<b>Calibration Check (7J20012-CCVA)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	5.005	-		ng/L	5.0000		100	77-123			
<b>Instrument Blank (7J20012-IBL1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20012-IBL2)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20012-IBL3)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7J20012-ICV1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	5.129	-		ng/L	5.0000		103	79-121			
<b>Batch F710227 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F710227-BLK4)</b>					Prepared: 05-Oct-17 Analyzed: 09-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: 21-Oct-17 14:14
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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
<b>Batch F710227 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F710227-BLK5)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F710227-BLK6)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	ND	0.090	0.800	ng/g							U
<b>LCS (F710227-BS3)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	7.647	0.090	0.800	ng/g	8.0160		95.4	75-125			
<b>LCS (F710227-BS4)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	341.8	3.53	31.5	ng/g	373.70		91.5	75-125			
<b>LCS Dup (F710227-BSD3)</b> Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	8.001	0.090	0.800	ng/g	8.0160		99.8	75-125	4.53	24	
<b>Duplicate (F710227-DUP1)</b> Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	64.23	1.69	15.1	ng/g		87.83			31.0	24	QR-07
<b>Duplicate (F710227-DUP3)</b> Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	85.13	1.79	16.0	ng/g		87.83			3.12	24	AD
<b>Matrix Spike (F710227-MS1)</b> Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	403.3	1.71	15.3	ng/g	381.68	87.83	82.6	71-125			
<b>Matrix Spike (F710227-MS2)</b> Source: 1709623-02RE1 Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	320.6	1.55	13.8	ng/g	346.02	14.60	88.4	71-125			
<b>Matrix Spike Dup (F710227-MSD1)</b> Source: 1709622-02 Prepared: 05-Oct-17 Analyzed: 09-Oct-17											
Mercury	379.3	1.53	13.7	ng/g	342.47	87.83	85.1	71-125	2.93	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 14:14
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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 F710227 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike Dup (F710227-MSD2)</b>		<b>Source: 1709623-02RE1</b>			Prepared: 05-Oct-17 Analyzed: 09-Oct-17						
Mercury	313.1	1.63	14.5	ng/g	363.64	14.60	82.1	71-125	7.43	24	

**Batch F710250 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F710250-BLK1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.300	0.090	0.800	ng/g							J

<b>Blank (F710250-BLK2)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.162	0.090	0.800	ng/g							J

<b>Blank (F710250-BLK3)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.178	0.090	0.800	ng/g							J

<b>Blank (F710250-BLK4)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	ND	0.076	0.683	ng/g							F-03, U

<b>Blank (F710250-BLK5)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	ND	0.077	0.687	ng/g							F-03, U

<b>LCS (F710250-BS1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	7.560	0.090	0.800	ng/g	8.0160		94.3	75-125			

<b>LCS (F710250-BS2)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	341.1	3.47	31.0	ng/g	373.70		91.3	75-125			

<b>LCS Dup (F710250-BSD1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	7.705	0.090	0.800	ng/g	8.0160		96.1	75-125	1.89	24	

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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 14:14

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 F710250 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Duplicate (F710250-DUP1)</b>		<b>Source: 1709626-02</b>			Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	35.18	0.214	1.91	ng/g		35.98			2.27	24	
<b>Matrix Spike (F710250-MS1)</b>		<b>Source: 1709626-02</b>			Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	352.5	1.65	14.7	ng/g	367.65	35.98	86.1	71-125			
<b>Matrix Spike (F710250-MS2)</b>		<b>Source: 1709625-01</b>			Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	386.5	1.68	15.0	ng/g	375.94	78.62	81.9	71-125			
<b>Matrix Spike Dup (F710250-MSD1)</b>		<b>Source: 1709626-02</b>			Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	348.2	1.62	14.4	ng/g	361.01	35.98	86.5	71-125	0.477	24	
<b>Matrix Spike Dup (F710250-MSD2)</b>		<b>Source: 1709625-01</b>			Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	414.7	1.73	15.4	ng/g	386.10	78.62	87.0	71-125	6.08	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 14:14

### 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 #: 7J10017

#### 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		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 15:22:23	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-CCBB	1	10/9/2017 18:56:10	86943-1.RAW	6:56:10 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 R<sup>2</sup>: 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	

ws			7.66	0.12									
1709621-01RE1	C4	20	7.66	766.08			86866-1.RAW	13:25:38	30.24	Sample	OK	1	
1709621-02RE1	C5	20	7.66	214.97			86867-1.RAW	13:29:46	7496.90	Sample	OK	1	
F710226-DUP1	C6	400	7.66	1658.89			86868-1.RAW	13:33:54	2109.17	Sample	OK	1	
F710226-MS1	C7	400	7.66	6699.75	403.63		86869-1.RAW	13:38:03	818.53	Sample	OK	1	
F710226-MSD1	C8	400	7.66	6395.78			86870-1.RAW	13:42:11	3282.51	Sample	OK	1	
F710226-MS2	C9	400	7.66	4756.64	74.35		86871-1.RAW	13:46:20	3133.92	Sample	OK	1	
F710226-MSD2	C10	400	7.66	4865.38			86872-1.RAW	13:50:28	2332.71	Sample	OK	1	
1709621-01RE2	C11	400	7.66	895.94			86873-1.RAW	13:54:37	2385.86	Sample	OK	1	
1709621-02RE2	C12	400	7.66	279.36			86874-1.RAW	13:58:45	445.60	Sample	OK	1	
1709621-03RE1	C13	20	7.66	2.51			86875-1.RAW	14:02:54	144.21	Sample	OK	1	
SEQ-CCV4	C14	1	7.66	4.90	97.94		86876-1.RAW	14:07:02	32.22	Sample	OK	1	
SEQ-CCB4	C15	1	7.66	0.07	0.00		86877-1.RAW	14:11:10	965.12	Sample	OK	1	
*F710227-BLK1	C16	20	7.66	1.10			86878-1.RAW	14:15:19	22.15	Sample	OK	1	
*F710227-BLK2	C17	20	7.66	0.75			86879-1.RAW	14:19:27	18.38	Sample	OK	1	
*F710227-BLK3	C18	20	7.66	0.99			86880-1.RAW	14:23:36	15.01	Sample	OK	1	
F710227-BS1	C19	20	7.66	98.67			86881-1.RAW	14:27:44	17.33	Sample	OK	1	
F710227-BSD1	C20	20	7.66	101.12			86882-1.RAW	14:31:53	972.26	Sample	OK	1	
F710227-BS2	C21	400	7.66	2193.44			86883-1.RAW	14:36:01	996.22	Sample	OK	1	
ws	B1	400	7.66	1061.59			86884-1.RAW	14:40:09	1079.81	Sample	OK	1	
ws	B2	400	7.66	1084.33			86885-1.RAW	14:44:18	526.56	Sample	OK	1	WRONG LOCATION
ws	B3	400	7.66	886.19			86886-1.RAW	14:48:26	537.68	Sample	OK	1	WRONG LOCATION
ws	B4	400	7.66	2279.02			86887-1.RAW	14:52:35	440.83	Sample	OK	1	WRONG LOCATION
ws	B5	1	7.66	2.53	50.65		86888-1.RAW	14:56:43	1121.65	Sample	OK	1	WRONG LOCATION
ws	B6	1	7.66	2.10	0.00		86889-1.RAW	15:00:52	502.84	Sample	OK	1	WRONG LOCATION
ws	B7	400	7.66	1115.25			86890-1.RAW	15:05:00	417.53	Sample	OK	1	WRONG LOCATION
ws	B8	400	7.66	1623.15			86891-1.RAW	15:09:09	552.79	Sample	OK	1	WRONG LOCATION
ws	B9	400	7.66	1657.92			86892-1.RAW	15:13:17	801.05	Sample	OK	1	WRONG LOCATION
ws			7.66	2.41			86893-1.RAW	15:17:26	818.05	Sample	OK	1	WRONG LOCATION
SEQ-CCV5	B1	1	7.66	4.68	93.54		86895-1.RAW	15:32:23	478.40	Sample	OK	1	
SEQ-CCB5	B2	1	7.66	0.08	0.00		86896-1.RAW	15:36:31	922.10	Sample	OK	1	
1709622-02	A1	400	7.66	1098.80			86897-1.RAW	15:40:40	24.10	Sample	OK	1	
1709622-05	A2	400	7.66	422.78			86894-2.RAW	15:44:48	544.75	Sample	OK	1	
1709622-06	A3	400	7.66	1093.81			86898-1.RAW	15:48:56	214.31	Sample	OK	1	
1709622-07	A4	400	7.66	1068.99			86899-1.RAW	15:53:05	542.31	Sample	OK	1	
1709622-08	A5	400	7.66	458.99			86900-1.RAW	15:57:13	530.18	Sample	OK	1	
1709622-09	A6	400	7.66	342.49			86901-1.RAW	16:01:22	232.01	Sample	OK	1	
1709622-10	A7	400	7.66	509.93			86902-1.RAW	16:05:30	175.07	Sample	OK	1	
1709622-11	A8	400	7.66	533.07			86903-1.RAW	16:09:39	256.91	Sample	OK	1	
1709622-12	A9	400	7.66	372.95			86904-1.RAW	16:13:47	268.22	Sample	OK	1	
1709622-13	A10	400	7.66	909.14			86905-1.RAW	16:17:56	189.95	Sample	OK	1	
SEQ-CCV6	A11	1	7.66	4.82	96.50		86906-1.RAW	16:22:04	452.05	Sample	OK	1	
SEQ-CCB6	A12	1	7.66	0.06	0.00		86907-1.RAW	16:26:13	951.03	Sample	OK	1	
1709622-14	A13	400	7.66	584.30			86908-1.RAW	16:30:21	18.86	Sample	OK	1	
1709622-15	A14	400	7.66	509.43			86909-1.RAW	16:34:29	293.26	Sample	OK	1	
1709622-16	A15	400	7.66	487.50			86910-1.RAW	16:38:37	256.67	Sample	OK	1	
1709622-17	A16	400	7.66	827.22			86911-1.RAW	16:42:45	245.95	Sample	OK	1	
F710227-BLK4	A17	20	7.66	1.06			86912-1.RAW	16:46:53	412.01	Sample	OK	1	
F710227-BLK5	A18	20	7.66	0.96			86913-1.RAW	16:51:01	17.98	Sample	OK	1	
F710227-BLK6	A19	20	7.66	0.86			86914-1.RAW	16:55:10	17.03	Sample	OK	1	
F710227-BS3	A20	20	7.66	96.55			86915-1.RAW	16:59:18	16.06	Sample	OK	1	
F710227-BSD3	A21	20	7.66	100.97			86916-1.RAW	17:03:27	951.49	Sample	OK	1	
F710227-BS4	B1	400	7.66	2171.68			86917-1.RAW	17:07:35	994.78	Sample	OK	1	
SEQ-CCV7	B2	1	7.66	4.70	94.04		86918-1.RAW	17:11:43	1069.17	Sample	OK	1	
SEQ-CCB7	B3	1	7.66	0.07	0.00		86919-1.RAW	17:15:52	926.97	Sample	OK	1	
							86920-1.RAW	17:20:00	21.86	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

42 of 99

Page 1 of 4

## 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

43 of 99

Page 2 of 4

## 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

44 of 99

Page 3 of 4

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

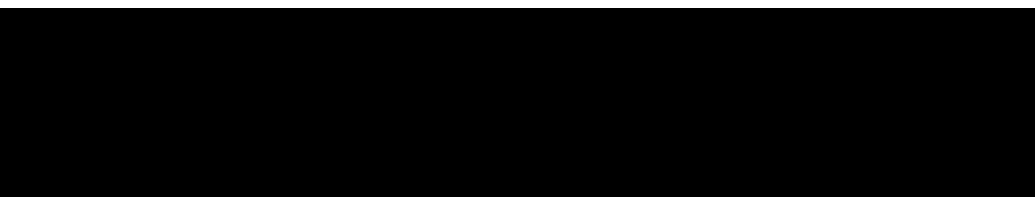
**Eurofins Frontier Global Sciences, Inc.**

**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

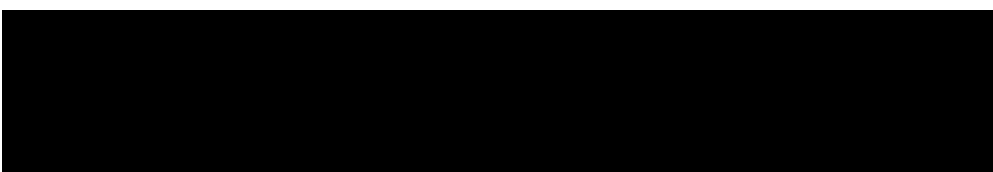
**Eurofins Frontier Global Sciences, Inc.**

**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

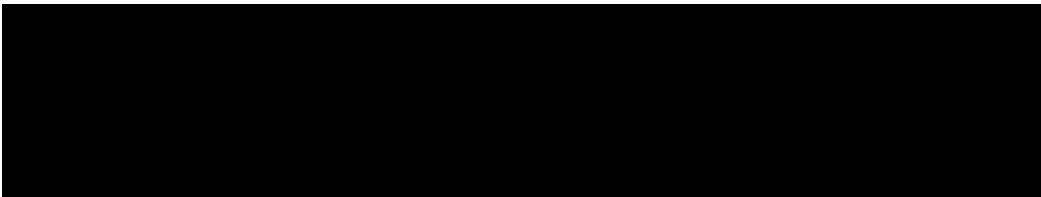
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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#: 6.19/DOHNY Calibrated?  Yes  No Therm.#: 48918012 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  
 HNO<sub>3</sub> 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

OVER-AD 400X  
1709622-02

DUP3 2.7ml 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	

PREPARATION BENCH SHEET

2600-2

F710227

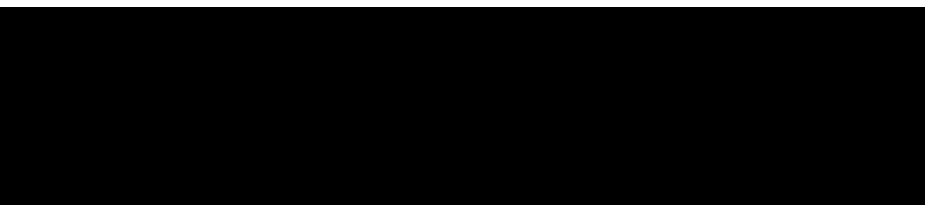
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 <sup>ms/MSD</sup> 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

HNO<sub>3</sub> 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 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7J10017
<b>Reviewer:</b> <u>DM</u>	<b>Dataset ID(s):</b> THg26002-171009-1
<b>Date:</b> 10/10/2017	<b>WO (s) #:</b> _____
<b>Batch #(s):</b> F710226, F710227	

● 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:** 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 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7J10017
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26002-171009-1
<b>Date:</b> 10/10/2017	<b>WO (s) #:</b> 0
<b>Batch #(s):</b> 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7J10017
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26002-171009-1
<b>Date:</b> 10/10/2017	<b>WO (s) #:</b> 0
<b>Batch #(s):</b> 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 |
| <b>Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs</b>   |  |                               |   |
| 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.**

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

BC DM

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES



Analysis Datasheet for Total Mercury

Date of Analysis: October 19, 2017  
Instrument #: Hg2600-3  
LIMS Sequence #: 7J20012, 7J20013

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	108.07 units	216.14	100.64 units	201.28	98.6 %Rec
SEQ-CAL2	1	1.00 ng/L	213.04 units	213.04	205.61 units	205.61	100.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1039.20 units	207.84	1031.77 units	206.35	101.1 %Rec
SEQ-CAL4	1	20.00 ng/L	4063.38 units	203.17	4055.95 units	202.80	99.4 %Rec
SEQ-CAL5	1	40.00 ng/L	8177.09 units	204.43	8169.66 units	204.24	100.1 %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**  
 204.06            +/- 2.06            1.0% RSD            208.92

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.43 units	±1.00	0.04 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	6.676 ng/L	±2.192
BLK	2	3	8.975 ng/L	±3.772
BLK	3	3	2.665 ng/L	±0.945
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: B 10/20/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	CAL	SEQ-IBL1	1	10/19/2017 10:30:20	78087-1.RAW	10:30:20 AM	8.38	1		0.9	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	10/19/2017 10:34:29	78088-1.RAW	10:34:29 AM	6.38	1		-1.0	-0.005	-0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	10/19/2017 10:38:37	78089-1.RAW	10:38:37 AM	7.52	1		0.1	0.000	0.000	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	10/19/2017 10:42:46	78090-1.RAW	10:42:46 AM	108.07	1		100.6	0.493	0.493	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	10/19/2017 10:46:54	78091-1.RAW	10:46:54 AM	213.04	1		205.6	1.008	1.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	10/19/2017 10:51:03	78092-1.RAW	10:51:03 AM	1039.20	1		1031.8	5.056	5.056	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	10/19/2017 10:55:11	78093-1.RAW	10:55:11 AM	4063.38	1		4056.0	19.877	19.877	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	10/19/2017 10:59:19	78094-1.RAW	10:59:19 AM	8177.09	1		8169.7	40.036	40.036	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	10/19/2017 11:03:28	78095-1.RAW	11:03:28 AM	1054.03	1		1046.6	5.129	5.129	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK1	100	10/19/2017 11:07:36	78096-1.RAW	11:07:36 AM	26.20	1		18.8	0.092	0.199	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK2	100	10/19/2017 11:11:45	78097-1.RAW	11:11:45 AM	18.85	1		11.4	0.056	5.598	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK3	100	10/19/2017 11:15:53	78098-1.RAW	11:15:53 AM	18.10	1		10.7	0.052	5.231	ng/L	
Hg2600-3	DM2	SAM	F710364-BS1	400	10/19/2017 11:20:02	78099-1.RAW	11:20:02 AM	4612.57	1		4605.1	22.551	9020.480	ng/L	
Hg2600-3	DM2	SAM	F710364-BSD1	400	10/19/2017 11:24:10	78100-1.RAW	11:24:10 AM	4492.31	1		4484.9	21.962	8784.746	ng/L	
Hg2600-3	DM2	SAM	1710236-02	100	10/19/2017 11:28:18	78101-1.RAW	11:28:18 AM	11074.03	1		11066.6	54.166	5416.608	ng/L	
Hg2600-3	DM2	SAM	1710236-04	100	10/19/2017 11:32:27	78102-1.RAW	11:32:27 AM	72.92	1		65.5	0.254	25.418	ng/L	
Hg2600-3	DM2	SAM	1710236-06	100	10/19/2017 11:36:35	78103-1.RAW	11:36:35 AM	401.69	1		394.3	1.865	186.536	ng/L	
Hg2600-3	DM2	SAM	1710236-08	100	10/19/2017 11:40:44	78104-1.RAW	11:40:44 AM	66.04	1		58.6	0.220	22.048	ng/L	
Hg2600-3	DM2	SAM	1710236-02B	100	10/19/2017 11:44:52	78105-1.RAW	11:44:52 AM	367.69	1		360.3	1.699	169.871	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	10/19/2017 11:49:01	78106-1.RAW	11:49:01 AM	1042.14	1		1034.7	5.071	5.071	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	10/19/2017 11:53:09	78107-1.RAW	11:53:09 AM	25.15	1		17.7	0.087	0.087	ng/L	
Hg2600-3	DM2	SAM	1710236-04B	100	10/19/2017 11:57:18	78108-1.RAW	11:57:18 AM	25.55	1		18.1	0.022	2.206	ng/L	
Hg2600-3	DM2	SAM	1710236-06B	100	10/19/2017 12:01:26	78109-1.RAW	12:01:26 PM	25.62	1		18.2	0.022	2.239	ng/L	
Hg2600-3	DM2	SAM	1710236-08B	100	10/19/2017 12:05:34	78110-1.RAW	12:05:34 PM	19.08	1		11.6	-0.010	-0.968	ng/L	
Hg2600-3	DM2	SAM	1710236-02RE1	400	10/19/2017 12:09:43	78111-1.RAW	12:09:43 PM	2734.47	1		2727.0	13.347	5338.969	ng/L	
Hg2600-3	DM2	SAM	1710236-04RE1	100	10/19/2017 12:13:50	78112-1.RAW	12:13:50 PM	33.33	1		25.9	0.060	6.019	ng/L	
Hg2600-3	DM2	SAM	F710364-DUP1	100	10/19/2017 12:17:58	78113-1.RAW	12:17:58 PM	319.00	1		311.6	1.460	146.010	ng/L	
Hg2600-3	DM2	SAM	F710364-MS1	100	10/19/2017 12:22:06	78114-1.RAW	12:22:06 PM	1363.60	1		1356.2	6.579	657.930	ng/L	
Hg2600-3	DM2	SAM	F710364-MSD1	100	10/19/2017 12:26:15	78115-1.RAW	12:26:15 PM	1351.71	1		1344.3	6.521	652.100	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK1	100	10/19/2017 12:30:23	78116-1.RAW	12:30:23 PM	30.33	2		22.9	0.112	11.225	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK2	100	10/19/2017 12:34:32	78117-1.RAW	12:34:32 PM	30.04	2		22.6	0.111	11.081	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	10/19/2017 12:38:40	78118-1.RAW	12:38:40 PM	1004.97	1		997.5	4.889	4.889	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	10/19/2017 12:42:48	78119-1.RAW	12:42:48 PM	17.73	1		10.3	0.050	0.050	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK3	100	10/19/2017 12:46:57	78120-1.RAW	12:46:57 PM	16.86	2		9.4	0.046	4.621	ng/L	
Hg2600-3	DM2	SAM	F710398-BS1	400	10/19/2017 12:51:05	78121-1.RAW	12:51:05 PM	956.65	2		949.2	4.629	1851.722	ng/L	
Hg2600-3	DM2	SAM	F710398-BSD1	400	10/19/2017 12:55:14	78122-1.RAW	12:55:14 PM	964.08	2		956.7	4.666	1866.285	ng/L	
Hg2600-3	DM2	SAM	1710524-02	2500	10/19/2017 12:59:22	78123-1.RAW	12:59:22 PM	5294.81	2		5287.4	25.908	64769.229	ng/L	
Hg2600-3	DM2	SAM	1710573-01	2500	10/19/2017 13:03:30	78124-1.RAW	1:03:30 PM	467.83	2		460.4	2.253	5631.631	ng/L	
Hg2600-3	DM2	SAM	1710573-02	2500	10/19/2017 13:07:39	78125-1.RAW	1:07:39 PM	412.23	2		404.8	1.980	4950.386	ng/L	
Hg2600-3	DM2	SAM	1710575-01	2500	10/19/2017 13:11:47	78126-1.RAW	1:11:47 PM	1143.73	2		1136.3	5.565	13912.388	ng/L	
Hg2600-3	DM2	SAM	1710575-02	2500	10/19/2017 13:15:56	78127-1.RAW	1:15:56 PM	1013.45	2		1006.0	4.927	12316.299	ng/L	
Hg2600-3	DM2	SAM	1710591-01	2500	10/19/2017 13:20:04	78128-1.RAW	1:20:04 PM	932.74	2		925.3	4.531	11327.426	ng/L	
Hg2600-3	DM2	SAM	1710591-02	2500	10/19/2017 13:24:13	78129-1.RAW	1:24:13 PM	839.33	2		831.9	4.073	10183.073	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	10/19/2017 13:28:21	78130-1.RAW	1:28:21 PM	1002.25	1		994.8	4.875	4.875	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	10/19/2017 13:32:29	78131-1.RAW	1:32:29 PM	17.67	1		10.2	0.050	0.050	ng/L	
Hg2600-3	DM2	SAM	1710593-01	2500	10/19/2017 13:36:38	78132-1.RAW	1:36:38 PM	532.31	2		524.9	2.569	6421.563	ng/L	
Hg2600-3	DM2	SAM	1710593-02	2500	10/19/2017 13:40:46	78133-1.RAW	1:40:46 PM	578.19	2		570.8	2.793	6983.676	ng/L	
Hg2600-3	DM2	SAM	1710524-02B	100	10/19/2017 13:44:55	78134-1.RAW	1:44:55 PM	118.51	2		111.1	0.455	45.459	ng/L	
Hg2600-3	DM2	SAM	1710573-01B	100	10/19/2017 13:49:03	78135-1.RAW	1:49:03 PM	62.93	2		55.5	0.182	18.223	ng/L	
Hg2600-3	DM2	SAM	1710573-02B	100	10/19/2017 13:53:11	78136-1.RAW	1:53:11 PM	33.20	2		25.8	0.037	3.653	ng/L	
Hg2600-3	DM2	SAM	1710575-01B	100	10/19/2017 13:57:20	78137-1.RAW	1:57:20 PM	29.80	2		22.4	0.020	1.987	ng/L	
Hg2600-3	DM2	SAM	1710575-02B	100	10/19/2017 14:01:28	78138-1.RAW	2:01:28 PM	44.43	2		37.0	0.092	9.159	ng/L	
Hg2600-3	DM2	SAM	1710591-01B	100	10/19/2017 14:05:37	78139-1.RAW	2:05:37 PM	22.66	2		15.2	-0.015	-1.509	ng/L	
Hg2600-3	DM2	SAM	1710591-02B	100	10/19/2017 14:09:45	78140-1.RAW	2:09:45 PM	25.25	2		17.8	-0.002	-0.241	ng/L	
Hg2600-3	DM2	SAM	1710593-01B	100	10/19/2017 14:13:53	78141-1.RAW	2:13:53 PM	40.18	2		32.7	0.071	7.073	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	10/19/2017 14:18:02	78142-1.RAW	2:18:02 PM	990.78	1		983.3	4.819	4.819	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	10/19/2017 14:22:10	78143-1.RAW	2:22:10 PM	16.42	1		9.0	0.044	0.044	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	1710593-02B	100	10/19/2017 14:26:19	78144-1.RAW	2:26:19 PM	32.52	2		25.1	0.033	3.320	ng/L	
Hg2600-3	DM2	SAM	1710524-02C	5000	10/19/2017 14:30:27	78145-1.RAW	2:30:27 PM	5840.48	2		5833.1	28.584	142917.980	ng/L	
Hg2600-3	DM2	SAM	1710573-01C	2500	10/19/2017 14:34:36	78146-1.RAW	2:34:36 PM	1879.69	2		1872.3	9.172	22928.926	ng/L	
Hg2600-3	DM2	SAM	1710573-02C	2500	10/19/2017 14:38:44	78147-1.RAW	2:38:44 PM	1977.07	2		1969.6	9.649	24122.016	ng/L	
Hg2600-3	DM2	SAM	1710575-01C	2500	10/19/2017 14:42:52	78148-1.RAW	2:42:52 PM	1956.22	2		1948.8	9.547	23866.528	ng/L	
Hg2600-3	DM2	SAM	1710575-02C	2500	10/19/2017 14:47:01	78149-1.RAW	2:47:01 PM	2101.42	2		2094.0	10.258	25645.444	ng/L	
Hg2600-3	DM2	SAM	1710591-01C	400	10/19/2017 14:51:09	78150-1.RAW	2:51:09 PM	4370.63	2		4363.2	21.360	8543.931	ng/L	
Hg2600-3	DM2	SAM	1710591-02C	400	10/19/2017 14:55:18	78151-1.RAW	2:55:18 PM	4055.80	2		4048.4	19.817	7926.789	ng/L	
Hg2600-3	DM2	SAM	1710593-01C	400	10/19/2017 14:59:26	78152-1.RAW	2:59:26 PM	4348.85	2		4341.4	21.253	8501.241	ng/L	
Hg2600-3	DM2	SAM	1710593-02C	400	10/19/2017 15:03:35	78153-1.RAW	3:03:35 PM	4347.11	2		4339.7	21.245	8497.819	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	10/19/2017 15:07:43	78154-1.RAW	3:07:43 PM	1062.386993			1055.0	5.170	5.170	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	10/19/2017 15:11:51	78155-1.RAW	3:11:51 PM	34.27			26.8	0.132	0.132	ng/L	
Hg2600-3	DM2	SAM	1710591-01RE1	2500	10/19/2017 15:16:00	78156-1.RAW	3:16:00 PM	948.01	2		940.6	4.606	11514.516	ng/L	
Hg2600-3	DM2	SAM	1710591-02RE1	2500	10/19/2017 15:20:08	78157-1.RAW	3:20:08 PM	862.18	2		854.7	4.185	10462.930	ng/L	
Hg2600-3	DM2	SAM	1710593-01RE1	2500	10/19/2017 15:24:17	78158-1.RAW	3:24:17 PM	535.48	2		528.1	2.584	6460.417	ng/L	
Hg2600-3	DM2	SAM	1710593-02RE1	2500	10/19/2017 15:28:25	78159-1.RAW	3:28:25 PM	587.44	2		580.0	2.839	7097.043	ng/L	
Hg2600-3	DM2	SAM	1710524-02RE1C	5000	10/19/2017 15:32:33	78160-1.RAW	3:32:33 PM	5929.67	2		5922.2	29.021	145103.428	ng/L	
Hg2600-3	DM2	SAM	F710398-DUP1	2500	10/19/2017 15:36:42	78161-1.RAW	3:36:42 PM	1173.27	2		1165.8	5.710	14274.352	ng/L	
Hg2600-3	DM2	SAM	F710398-MS1	2500	10/19/2017 15:40:50	78162-1.RAW	3:40:50 PM	5276.44	2		5269.0	25.818	64544.187	ng/L	
Hg2600-3	DM2	SAM	F710398-MSD1	2500	10/19/2017 15:44:59	78163-1.RAW	3:44:59 PM	5264.13	2		5256.7	25.757	64393.302	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK1	20	10/19/2017 15:49:07	78164-1.RAW	3:49:07 PM	45.69	3		38.3	0.188	3.750	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK2	20	10/19/2017 15:53:15	78165-1.RAW	3:53:15 PM	28.03	3		20.6	0.101	2.019	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	10/19/2017 15:57:24	78166-1.RAW	3:57:24 PM	1024.83			1017.4	4.986	4.986	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	10/19/2017 16:01:32	78167-1.RAW	4:01:32 PM	28.55			21.1	0.103	0.103	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK3	20	10/19/2017 16:05:41	78168-1.RAW	4:05:41 PM	30.14	3		22.7	0.111	2.226	ng/L	
Hg2600-3	DM2	SAM	*F710250-BLK4	20	10/19/2017 16:09:49	78169-1.RAW	4:09:49 PM	33.81	3		26.4	-0.004	-0.080	ng/L	
Hg2600-3	DM2	SAM	*F710250-BLK5	20	10/19/2017 16:13:58	78170-1.RAW	4:13:58 PM	22.17	3		14.7	-0.061	-1.220	ng/L	
Hg2600-3	DM2	SAM	F710250-BS1	20	10/19/2017 16:18:06	78171-1.RAW	4:18:06 PM	998.84	3		991.4	4.725	94.505	ng/L	
Hg2600-3	DM2	SAM	F710250-BSD1	20	10/19/2017 16:22:14	78172-1.RAW	4:22:14 PM	1017.25	3		1009.8	4.815	96.310	ng/L	
Hg2600-3	DM2	SAM	F710250-BS2	400	10/19/2017 16:26:23	78173-1.RAW	4:26:23 PM	1132.04	3		1124.6	5.505	2201.838	ng/L	
Hg2600-3	DM2	SAM	1709623-04	100	10/19/2017 16:30:31	78174-1.RAW	4:30:31 PM	642.55	3		635.1	3.086	308.580	ng/L	
Hg2600-3	DM2	SAM	1709623-05	100	10/19/2017 16:34:40	78175-1.RAW	4:34:40 PM	305.82	3		298.4	1.436	143.563	ng/L	
Hg2600-3	DM2	SAM	1709623-06	100	10/19/2017 16:38:48	78176-1.RAW	4:38:48 PM	400.16	3		392.7	1.898	189.794	ng/L	
Hg2600-3	DM2	SAM	1709623-07	100	10/19/2017 16:42:57	78177-1.RAW	4:42:57 PM	772.09	3		764.7	3.721	372.062	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	10/19/2017 16:47:05	78178-1.RAW	4:47:05 PM	996.06			988.6	4.845	4.845	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	10/19/2017 16:51:13	78179-1.RAW	4:51:13 PM	12.60			5.2	0.025	0.025	ng/L	
Hg2600-3	DM2	SAM	1709623-08	100	10/19/2017 16:55:22	78180-1.RAW	4:55:22 PM	671.32	3		663.9	3.227	322.680	ng/L	
Hg2600-3	DM2	SAM	1709623-09	100	10/19/2017 16:59:30	78181-1.RAW	4:59:30 PM	227.78	3		220.4	1.053	105.321	ng/L	
Hg2600-3	DM2	SAM	1709623-10	100	10/19/2017 17:03:39	78182-1.RAW	5:03:39 PM	283.52	3		276.1	1.326	132.635	ng/L	
Hg2600-3	DM2	SAM	1709623-11	100	10/19/2017 17:07:47	78183-1.RAW	5:07:47 PM	316.15	3		308.7	1.486	148.627	ng/L	
Hg2600-3	DM2	SAM	1709623-12	100	10/19/2017 17:11:55	78184-1.RAW	5:11:55 PM	189.20	3		181.8	0.864	86.415	ng/L	
Hg2600-3	DM2	SAM	1709623-13	100	10/19/2017 17:16:04	78185-1.RAW	5:16:04 PM	275.22	3		267.8	1.286	128.567	ng/L	
Hg2600-3	DM2	SAM	1709623-14	100	10/19/2017 17:20:12	78186-1.RAW	5:20:12 PM	498.08	3		490.6	2.378	237.782	ng/L	
Hg2600-3	DM2	SAM	1709623-15	100	10/19/2017 17:24:21	78187-1.RAW	5:24:21 PM	209.08	3		201.6	0.962	96.154	ng/L	
Hg2600-3	DM2	SAM	1709623-16	100	10/19/2017 17:28:29	78188-1.RAW	5:28:29 PM	440.97	3		433.5	2.098	209.794	ng/L	
Hg2600-3	DM2	SAM	1709623-17	100	10/19/2017 17:32:38	78189-1.RAW	5:32:38 PM	353.23	3		345.8	1.668	166.799	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	10/19/2017 17:36:46	78190-1.RAW	5:36:46 PM	1014.76			1007.3	4.936	4.936	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	10/19/2017 17:40:54	78191-1.RAW	5:40:54 PM	19.55			12.1	0.059	0.059	ng/L	
Hg2600-3	DM2	SAM	1709623-18	50	10/19/2017 17:45:03	78192-1.RAW	5:45:03 PM	434.18	3		426.7	2.038	101.901	ng/L	
Hg2600-3	DM2	SAM	1709623-19	50	10/19/2017 17:49:11	78193-1.RAW	5:49:11 PM	451.22	3		443.8	2.122	106.078	ng/L	
Hg2600-3	DM2	SAM	1709623-20	50	10/19/2017 17:53:20	78194-1.RAW	5:53:20 PM	627.30	3		619.9	2.984	149.221	ng/L	
Hg2600-3	DM2	SAM	1709625-01	50	10/19/2017 17:57:28	78195-1.RAW	5:57:28 PM	4413.99	3		4406.6	21.541	1077.073	ng/L	
Hg2600-3	DM2	SAM	1709626-02	50	10/19/2017 18:01:36	78196-1.RAW	6:01:36 PM	1956.81	3		1949.4	9.500	474.991	ng/L	
Hg2600-3	DM2	SAM	1709626-03	50	10/19/2017 18:05:45	78197-1.RAW	6:05:45 PM	3854.63	3		3847.2	18.800	940.013	ng/L	
Hg2600-3	DM2	SAM	1709623-12RE1	20	10/19/2017 18:09:53	78198-1.RAW	6:09:53 PM	889.46	3		882.0	4.189	83.784	ng/L	
Hg2600-3	DM2	SAM	F710250-DUP1	50	10/19/2017 18:14:02	78199-1.RAW	6:14:02 PM	1898.99	3		1891.6	9.216	460.823	ng/L	
Hg2600-3	DM2	SAM	F710250-MS1	400	10/19/2017 18:18:10	78200-1.RAW	6:18:10 PM	2454.11	3		2446.7	11.983	4793.400	ng/L	
Hg2600-3	DM2	SAM	F710250-MSD1	400	10/19/2017 18:22:19	78201-1.RAW	6:22:19 PM	2469.20	3		2461.8	12.057	4822.983	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	10/19/2017 18:26:27	78202-1.RAW	6:26:27 PM	998.07			990.6	4.855	4.855	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	10/19/2017 18:30:35	78203-1.RAW	6:30:35 PM	30.49			23.1	0.113	0.113	ng/L	
Hg2600-3	DM2	SAM	F710250-MS2	400	10/19/2017 18:34:44	78204-1.RAW	6:34:44 PM	2631.36	3		2623.9	12.852	5140.862	ng/L	
Hg2600-3	DM2	SAM	F710250-MSD2	400	10/19/2017 18:38:52	78205-1.RAW	6:38:52 PM	2748.41	3		2741.0	13.426	5370.311	ng/L	
Hg2600-3	DM2	SAM	1709623-15RE1	20	10/19/2017 18:43:01	78206-1.RAW	6:43:01 PM	978.76	3		971.3	4.627	92.536	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	10/19/2017 18:47:09	78207-1.RAW	6:47:09 PM	1028.64			1021.2	5.005	5.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	10/19/2017 18:51:17	78208-1.RAW	6:51:17 PM	21.47			14.0	0.069	0.069	ng/L	

TotalMercury EPA1631 Operat DM Works THg260i Methoc ##### R: Descrip THg26003-171019-1  
 BlankS 7.4284 CalibFa 204.06 1 R²: 1  
 Calib Eqn: Conc = (Area-7.4284) / (204.06 - 7.4284) \* 1  
 Status: QC Warnings:4/QC F Run Time: 10:08:03  
 Blank SD: 1.000574677  
 Blank RSD%: 13.46952602  
 CF SD: 2.064034023  
 CF RSD%: 1.011497989

Sample/D	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	3.92					78082-1.RAW	10:10:55	799.66	Clean	OK	1
Clean										78083-1.RAW	10:13:47	0.00	Clean	NP	1
WS				7.43	0.00					78084-1.RAW	10:17:55	7.84	Sample	OK	1
WS				7.43	0.00					78085-1.RAW	10:22:03	7.09	Sample	OK	1
WS				7.43	0.00					78086-1.RAW	10:26:12	5.74	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					78087-1.RAW	10:30:20	8.38	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.03					78088-1.RAW	10:34:29	6.38	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					78089-1.RAW	10:38:37	7.52	Sample	OK	1
SEQ-CAL1	A4		1	7.43	0.49			98.64		78090-1.RAW	10:42:46	108.07	Sample	OK	1
SEQ-CAL2	A5		1	7.43	1.01			100.76		78091-1.RAW	10:46:54	213.04	Sample	OK	1
SEQ-CAL3	A6		1	7.43	5.06			101.13		78092-1.RAW	10:51:03	1039.20	Sample	OK	1
SEQ-CAL4	A7		1	7.43	19.88			99.38		78093-1.RAW	10:55:11	4063.38	Sample	FB	1
SEQ-CAL5	A8		1	7.43	40.04			100.09		78094-1.RAW	10:59:19	8177.09	Sample	FB	1
SEQ-ICV1	A9		1	7.43	5.13			102.58		78095-1.RAW	11:03:28	1054.03	Sample	OK	1
F710364-BLK1	A10		100	7.43	9.20					78096-1.RAW	11:07:36	26.20	Sample	OK	1
F710364-BLK2	A11		100	7.43	5.60					78097-1.RAW	11:11:45	18.85	Sample	OK	1
F710364-BLK3	A12		100	7.43	5.23					78098-1.RAW	11:15:53	18.10	Sample	OK	1
F710364-BS1	B1		400	7.43	9027.16					78099-1.RAW	11:20:02	4612.57	Sample	OK	1
F710364-BSD1	B2		400	7.43	8791.42					78100-1.RAW	11:24:10	4492.31	Sample	OK	1
1710236-02	B3		100	7.43	5423.28					78101-1.RAW	11:28:18	11074.03	Sample	FB	1
1710236-04	B4		100	7.43	32.09					78102-1.RAW	11:32:27	72.92	Sample	OK	1
1710236-06	B5		100	7.43	193.21					78103-1.RAW	11:36:35	401.69	Sample	OK	1
1710236-08	B6		100	7.43	28.72					78104-1.RAW	11:40:44	66.04	Sample	OK	1
1710236-02B	B7		100	7.43	176.55					78105-1.RAW	11:44:52	367.69	Sample	OK	1
SEQ-CCV1	B8		1	7.43	5.07			101.41		78106-1.RAW	11:49:01	1042.14	Sample	OK	1
SEQ-CCB1	B9		1	7.43	0.09			0.00		78107-1.RAW	11:53:09	25.15	Sample	OK	1
1710236-04B	B10		100	7.43	8.88					78108-1.RAW	11:57:18	25.55	Sample	OK	1
1710236-06B	B11		100	7.43	8.92					78109-1.RAW	12:01:26	25.62	Sample	OK	1
1710236-08B	B12		100	7.43	5.71					78110-1.RAW	12:05:34	19.08	Sample	OK	1
1710236-02RE1	C1		400	7.43	5345.65					78111-1.RAW	12:09:43	2734.47	Sample	OK	1
1710236-04RE1	C2		100	7.43	12.70					78112-1.RAW	12:13:50	33.33	Sample	OK	1
F710364-DUP1	C3		100	7.43	152.69					78113-1.RAW	12:17:58	319.00	Sample	OK	1
F710364-MS1	C4		100	7.43	664.61			432.44		78114-1.RAW	12:22:06	1363.60	Sample	OK	1
F710364-MSD1	C5		100	7.43	658.78					78115-1.RAW	12:26:15	1351.71	Sample	OK	1
F710398-BLK1	C6		100	7.43	11.22					78116-1.RAW	12:30:23	30.33	Sample	OK	1
F710398-BLK2	C7		100	7.43	11.08					78117-1.RAW	12:34:32	30.04	Sample	OK	1
SEQ-CCV2	C8		1	7.43	4.89			97.77		78118-1.RAW	12:38:40	1004.97	Sample	OK	1
SEQ-CCB2	C9		1	7.43	0.05			0.00		78119-1.RAW	12:42:48	17.73	Sample	OK	1
F710398-BLK3	C10		100	7.43	4.62					78120-1.RAW	12:46:57	16.86	Sample	OK	1
F710398-BS1	C11		400	7.43	1860.70					78121-1.RAW	12:51:05	956.65	Sample	OK	1
F710398-BSD1	C12		400	7.43	1875.26					78122-1.RAW	12:55:14	964.08	Sample	OK	1
1710524-02	D1		2500	7.43	64778.20					78123-1.RAW	12:59:22	5294.81	Sample	OK	1
1710573-01	D2		2500	7.43	5640.61					78124-1.RAW	13:03:30	467.83	Sample	OK	1
1710573-02	D3		2500	7.43	4959.36					78125-1.RAW	13:07:39	412.23	Sample	OK	1
1710575-01	D4		2500	7.43	13921.36					78126-1.RAW	13:11:47	1143.73	Sample	OK	1
1710575-02	D5		2500	7.43	12325.27					78127-1.RAW	13:15:56	1013.45	Sample	OK	1
1710591-01	D6		2500	7.43	11336.40					78128-1.RAW	13:20:04	932.74	Sample	OK	1
1710591-02	D7		2500	7.43	10192.05					78129-1.RAW	13:24:13	839.33	Sample	OK	1
SEQ-CCV3	D8		1	7.43	4.88			97.50		78130-1.RAW	13:28:21	1002.25	Sample	OK	1
SEQ-CCB3	D9		1	7.43	0.05			0.00		78131-1.RAW	13:32:29	17.67	Sample	OK	1
1710593-01	D10		2500	7.43	6430.54					78132-1.RAW	13:36:38	532.31	Sample	OK	1
1710593-02	D11		2500	7.43	6992.65					78133-1.RAW	13:40:46	578.19	Sample	OK	1
1710524-02B	D12		100	7.43	54.43					78134-1.RAW	13:44:55	118.51	Sample	OK	1
1710573-01B	A1		100	7.43	27.20					78135-1.RAW	13:49:03	62.93	Sample	OK	1
1710573-02B	A2		100	7.43	12.63					78136-1.RAW	13:53:11	33.20	Sample	OK	1
1710575-01B	A3		100	7.43	10.96					78137-1.RAW	13:57:20	29.80	Sample	OK	1
1710575-02B	A4		100	7.43	18.13					78138-1.RAW	14:01:28	44.43	Sample	OK	1
1710591-01B	A5		100	7.43	7.47					78139-1.RAW	14:05:37	22.66	Sample	OK	1
1710591-02B	A6		100	7.43	8.73					78140-1.RAW	14:09:45	25.25	Sample	OK	1
1710593-01B	A7		100	7.43	16.05					78141-1.RAW	14:13:53	40.18	Sample	OK	1

SEQ-CCV4	A8	1	7.43	4.82	96.38	78142-1.RAW	14:18:02	990.78	Sample	OK	1
SEQ-CCB4	A9	1	7.43	0.04	0.00	78143-1.RAW	14:22:10	16.42	Sample	OK	1
1710593-02B	A10	100	7.43	12.30		78144-1.RAW	14:26:19	32.52	Sample	OK	1
1710524-02C	A11	5000	7.43	142926.96		78145-1.RAW	14:30:27	5840.48	Sample	OK	1
1710573-01C	A12	2500	7.43	22937.90		78146-1.RAW	14:34:36	1879.69	Sample	OK	1
1710573-02C	B1	2500	7.43	24130.99		78147-1.RAW	14:38:44	1977.07	Sample	OK	1
1710575-01C	B2	2500	7.43	23875.50		78148-1.RAW	14:42:52	1956.22	Sample	OK	1
1710575-02C	B3	2500	7.43	25654.42		78149-1.RAW	14:47:01	2101.42	Sample	OK	1
1710591-01C	B4	400	7.43	8552.91		78150-1.RAW	14:51:09	4370.63	Sample	OK	1
1710591-02C	B5	400	7.43	7935.76		78151-1.RAW	14:55:18	4055.80	Sample	OK	1
1710593-01C	B6	400	7.43	8510.22		78152-1.RAW	14:59:26	4348.85	Sample	FB	1
1710593-02C	B7	400	7.43	8506.79		78153-1.RAW	15:03:35	4347.11	Sample	OK	1
SEQ-CCV5	B8	1	7.43	5.17	103.40	78154-1.RAW	15:07:43	1062.39	Sample	OK	1
SEQ-CCB5	B9	1	7.43	0.13	0.00	78155-1.RAW	15:11:51	34.27	Sample	OK	1
1710591-01RE1	B10	2500	7.43	11523.49		78156-1.RAW	15:16:00	948.01	Sample	OK	1
1710591-02RE1	B11	2500	7.43	10471.91		78157-1.RAW	15:20:08	862.18	Sample	OK	1
1710593-01RE1	B12	2500	7.43	6469.39		78158-1.RAW	15:24:17	535.48	Sample	OK	1
1710593-02RE1	C1	2500	7.43	7106.02		78159-1.RAW	15:28:25	587.44	Sample	OK	1
1710524-02RE1	C2	5000	7.43	145112.40		78160-1.RAW	15:32:33	5929.67	Sample	OK	1
F710398-DUP1	C3	2500	7.43	14283.33		78161-1.RAW	15:36:42	1173.27	Sample	OK	1
F710398-MS1	C4	2500	7.43	64553.16	451.92	78162-1.RAW	15:40:50	5276.44	Sample	FB	1
F710398-MSD1	C5	2500	7.43	64402.28		78163-1.RAW	15:44:59	5264.13	Sample	FB	1
F710250-BLK1	C6	20	7.43	3.75		78164-1.RAW	15:49:07	45.69	Sample	OK	1
F710250-BLK2	C7	20	7.43	2.02		78165-1.RAW	15:53:15	26.03	Sample	OK	1
SEQ-CCV6	C8	1	7.43	4.99	99.72	78166-1.RAW	15:57:24	1024.83	Sample	OK	1
SEQ-CCB6	C9	1	7.43	0.10	0.00	78167-1.RAW	16:01:32	28.55	Sample	OK	1
F710250-BLK3	C10	20	7.43	2.23		78168-1.RAW	16:05:41	30.14	Sample	OK	1
*F710250-BLK4	C11	20	7.43	2.59		78169-1.RAW	16:09:49	33.81	Sample	OK	1
*F710250-BLK5	C12	20	7.43	1.45		78170-1.RAW	16:13:58	22.17	Sample	OK	1
F710250-BS1	D1	20	7.43	97.17		78171-1.RAW	16:18:06	998.84	Sample	OK	1
F710250-BSD1	D2	20	7.43	98.97		78172-1.RAW	16:22:14	1017.25	Sample	OK	1
F710250-BS2	D3	400	7.43	2204.50		78173-1.RAW	16:26:23	1132.04	Sample	OK	1
1709623-04	D4	100	7.43	311.24		78174-1.RAW	16:30:31	642.55	Sample	OK	1
1709623-05	D5	100	7.43	146.23		78175-1.RAW	16:34:40	305.82	Sample	OK	1
1709623-06	D6	100	7.43	192.46		78176-1.RAW	16:38:48	400.16	Sample	OK	1
1709623-07	D7	100	7.43	374.73		78177-1.RAW	16:42:57	772.09	Sample	OK	1
SEQ-CCV7	D8	1	7.43	4.84	96.90	78178-1.RAW	16:47:05	996.06	Sample	OK	1
SEQ-CCB7	D9	1	7.43	0.03	0.00	78179-1.RAW	16:51:13	12.60	Sample	OK	1
1709623-08	D10	100	7.43	325.35		78180-1.RAW	16:55:22	671.32	Sample	OK	1
1709623-09	D11	100	7.43	107.99		78181-1.RAW	16:59:30	227.78	Sample	OK	1
1709623-10	D12	100	7.43	135.30		78182-1.RAW	17:03:39	283.52	Sample	OK	1
1709623-11	A1	100	7.43	151.29		78183-1.RAW	17:07:47	316.15	Sample	OK	1
1709623-12	A2	100	7.43	89.08		78184-1.RAW	17:11:55	189.20	Sample	OK	1
1709623-13	A3	100	7.43	131.23		78185-1.RAW	17:16:04	275.22	Sample	OK	1
1709623-14	A4	100	7.43	240.45		78186-1.RAW	17:20:12	498.08	Sample	OK	1
1709623-15	A5	100	7.43	98.82		78187-1.RAW	17:24:21	209.08	Sample	OK	1
1709623-16	A6	100	7.43	212.46		78188-1.RAW	17:28:29	440.97	Sample	OK	1
1709623-17	A7	100	7.43	169.46		78189-1.RAW	17:32:38	353.23	Sample	OK	1
SEQ-CCV8	A8	1	7.43	4.94	98.73	78190-1.RAW	17:36:46	1014.76	Sample	OK	1
SEQ-CCB8	A9	1	7.43	0.06	0.00	78191-1.RAW	17:40:54	19.55	Sample	OK	1
1709623-18	A10	50	7.43	104.57		78192-1.RAW	17:45:03	434.18	Sample	OK	1
1709623-19	A11	50	7.43	108.74		78193-1.RAW	17:49:11	451.22	Sample	OK	1
1709623-20	A12	50	7.43	151.89		78194-1.RAW	17:53:20	627.30	Sample	OK	1
1709625-01	B1	50	7.43	1079.74		78195-1.RAW	17:57:28	4413.99	Sample	OK	1
1709626-02	B2	50	7.43	477.66		78196-1.RAW	18:01:36	1956.81	Sample	OK	1
1709626-03	B3	50	7.43	942.68		78197-1.RAW	18:05:45	3854.63	Sample	OK	1
1709623-12RE1	B4	20	7.43	86.45		78198-1.RAW	18:09:53	889.46	Sample	OK	1
F710250-DUP1	B5	50	7.43	463.49		78199-1.RAW	18:14:02	1898.99	Sample	OK	1
F710250-MS1	B6	400	7.43	4796.06	1032.55	78200-1.RAW	18:18:10	2454.11	Sample	OK	1
F710250-MSD1	B7	400	7.43	4825.65		78201-1.RAW	18:22:19	2469.20	Sample	OK	1
SEQ-CCV9	B8	1	7.43	4.85	97.09	78202-1.RAW	18:26:27	998.07	Sample	OK	1
SEQ-CCB9	B9	1	7.43	0.11	0.00	78203-1.RAW	18:30:35	30.49	Sample	OK	1
F710250-MS2	B10	400	7.43	5143.53	243421.32	78204-1.RAW	18:34:44	2631.36	Sample	OK	1
F710250-MSD2	B11	400	7.43	5372.98		78205-1.RAW	18:38:52	2748.41	Sample	OK	1
1709623-15RE1	B12	20	7.43	95.20		78206-1.RAW	18:43:01	978.76	Sample	OK	1



SEQ-CCVA	C1	1	7.43	5.00	78207-1.RAW	18:47:09	1028.64 Sample	OK	1
SEQ-CCBA	C2	1	7.43	0.07	78208-1.RAW	18:51:17	21.47 Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE  
PEER-REVIEWED

7J20013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R*

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20013-IBL1 ✓	QC	1			
7J20013-IBL2 ✓	QC	2			
7J20013-IBL3 ✓	QC	3			
7J20013-CAL1 ✓	QC	4	1704505 ✓		
7J20013-CAL2 ✓	QC	5	1704506 ✓		
7J20013-CAL3 ✓	QC	6	1704507 ✓		
7J20013-CAL4 ✓	QC	7	1704508 ✓		
7J20013-CAL5 ✓	QC	8	1704509		
7J20013-ICV1 ✓	QC	9	1705628 ✓		
F710364-BLK1 ✓	QC	10			
F710364-BLK2 ✓	QC	11			
F710364-BLK3 ✓	QC	12			
F710364-BS1 ✓	QC	13			
F710364-BSD1 ✓	QC	14			
1710236-02 ✓	Hg_FSTM_TRAP_A	15			
1710236-04 ✓	Hg_FSTM_TRAP_A	16			
1710236-06 ✓	Hg_FSTM_TRAP_A	17			
1710236-08 ✓	Hg_FSTM_TRAP_A	18			
7J20013-CCV1 ✓	QC	19	1705628		
7J20013-CCB1 ✓	QC	20			
1710236-02RE1 ✓	Hg_FSTM_TRAP_A	21			Added 10/20/2017 by DM2
1710236-04RE1 ✓	Hg_FSTM_TRAP_A	22			Added 10/20/2017 by DM2
F710364-DUP1 ✓	QC	23			
F710364-MS1 ✓	QC	24			
F710364-MSD1 ✓	QC	25			
F710398-BLK1 ✓	QC	26			
F710398-BLK2 ✓	QC	27			
7J20013-CCV2 ✓	QC	28	1705628		
7J20013-CCB2 ✓	QC	29			
F710398-BLK3 ✓	QC	30			
F710398-BS1 ✓	QC	31			
F710398-BSD1 ✓	QC	32			
1710524-02 ✓	Hg_FSTM_TRAP_A	33			
1710573-01 ✓	Hg_FSTM_TRAP_A	34			AFS - Take photos of trap if heavy particulate present and send to PM
1710573-02 ✓	Hg_FSTM_TRAP_A	35			AFS - Take photos of trap if heavy particulate present and send to PM

## ANALYSIS SEQUENCE

7J20013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710575-01 ✓	Hg_FSTM_TRAP_A	36			AFS - Take photos of trap if heavy particulate present and send to PM
1710575-02 ✓	Hg_FSTM_TRAP_A	37			AFS - Take photos of trap if heavy particulate present and send to PM
1710591-01 ✓	Hg_FSTM_TRAP_A	38			
1710591-02 ✓	Hg_FSTM_TRAP_A	39			
7J20013-CCV3 ✓	QC	40	1705628	✓	
7J20013-CCB3 ✓	QC	41			
1710593-01 ✓	Hg_FSTM_TRAP_A	42			
1710593-02 ✓	Hg_FSTM_TRAP_A	43			
7J20013-CCV4 ✓	QC	44	1705628	✓	
7J20013-CCB4 ✓	QC	45			
7J20013-CCV5 ✓	QC	46	1705628	✓	
7J20013-CCB5 ✓	QC	47			
1710591-01RE1 ✓	Hg_FSTM_TRAP_A	48			Added 10/20/2017 by DM2
1710591-02RE1 ✓	Hg_FSTM_TRAP_A	49			Added 10/20/2017 by DM2
1710593-01RE1 ✓	Hg_FSTM_TRAP_A	50			Added 10/20/2017 by DM2
1710593-02RE1 ✓	Hg_FSTM_TRAP_A	51			Added 10/20/2017 by DM2
F710398-DUP1 ✓	QC	52			
F710398-MS1 ✓	QC	53			
F710398-MSD1 ✓	QC	54		✓	
7J20013-CCV6 ✓	QC	55	1705628		
7J20013-CCB6 ✓	QC	56			

Dan Moseem

10/19/17

Samples Loaded By

Date

Dan Moseem

10/20/17

Data Processed By

Date

Due Date: 10/20/2017

73 of 99

Page 2 of 2

**PREPARATION BENCH SHEET**

F710364

**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
F710364-BLK1	Blank	1	20					
F710364-BLK2	Blank	1	20					
F710364-BLK3	Blank	1	20					
F710364-BS1	LCS	1	20	1705554	200			
F710364-BSD1	LCS Dup	1	20	1705554	200			
F710364-DUP1	Duplicate [1710236-06] ✓	1	20					
F710364-MS1	Matrix Spike [1710236-06] ✓	0.025	0.5	1704422	25 ✓			[Spk] 1Trap->20mL; 20mL->20mL; Spiked 0.5mL ✓
F710364-MSD1	Matrix Spike Dup [1710236-06] ✓	0.025	0.5	1704422	25			[Spk] 1Trap->20mL; 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
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
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

**PREPARATION BENCH SHEET**

F710364

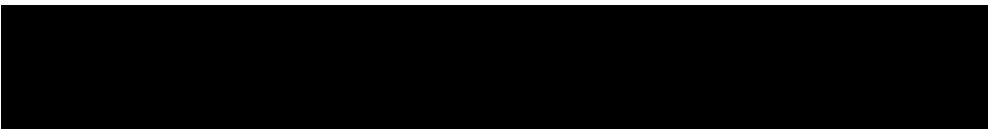
**Eurofins Frontier Global Sciences, Inc.**

**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
1710236-02	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L	
1710236-02RE1	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L Added 10/20/201	Added 10/20/2017 by DM2
1710236-04	SID0156105	1	20	-	-	-	Sample Volume: None	
1710236-04RE1	SID0156105	1	20	-	-	-	Sample Volume: None Added 10/20/20	Added 10/20/2017 by DM2
1710236-06	SID0156107	1	20	-	-	-	Sample Volume: 2 L	
1710236-08	SID0156110	1	20	-	-	-	Sample Volume: 2 L	



PREPARATION BENCH SHEET

200-3  
10/19/17 DM

F710364

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
F710364-BLK1	Blank	1	20					100X -
F710364-BLK2	Blank	1	20					100X -
F710364-BLK3	Blank	1	20					100X -
F710364-BS1	LCS	1	20	1705554	200			400X -
F710364-BSD1	LCS Dup	1	20	1705554	200			400X -
F710364-DUP1	Duplicate 1710236-06	1	20					100X -
F710364-MS1	Matrix Spike 1710236-06	1	20	1704422	25			100X -
F710364-MSD1	Matrix Spike Dup 1710236-06	1	20	1704422	25			100X -

Standard ID(s): 1705554  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 18-Mar-18 00:00

1703182  
1705610  
1705611  
1706142

PREPARATION BENCH SHEET

2L00-3

10/19/17 DM

F710364

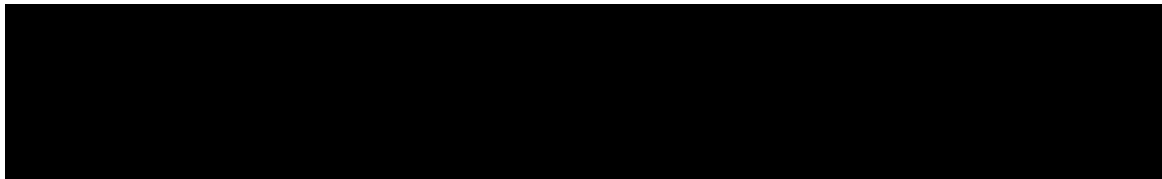
Eurofins Frontier Global Sciences, Inc.

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
1710236-02	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L	
1710236-04	SID0156105	1	20	-	-	-	Sample Volume: None	
1710236-06	SID0156107	1	20	-	-	-	Sample Volume: 2 L	
1710236-08	SID0156110	1	20	-	-	-	Sample Volume: 2 L	



Trap Digestions

Name: RL Date: 10/16/17 Batch ID: F710364  
Work Order(s): 1710236 Analysis:  Total Hg  Other \_\_\_\_\_  
Sample Matrix:  FSTM  KCI  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): 54.0 (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)
F710364-BLk1	20
F710364-BLk2	20
F710364-BLk3	20
F710364-BS1	20
F710364-BS D1	20
1710236-01 FSTM A	20
1710236-01 FSTM B	20
1710236-02 FSTM A	20
1710236-02 FSTM B	20
1710236-03 FSTM A	20
1710236-03 FSTM B	20
1710236-04 FSTM A	20
1710236-04 FSTM B	20

Spike ID: 1705554  
Spike Amount (µL): 200  
Spike Witness: 10/16/17 BL  
BrCl ID: 1706079  
70/30: 1706064  
Other: ya  
Thermometer: 13698  
Dispensers: 02K27494   
04N73497   
Other: 15406623

Pipette ID: 0007852  
Cal. Date: 10/16/17  
Vials and Jars lot# 00068647  
Trap Material Lot#: 1704097  
Loader Mass Verified:  Yes  No

Comments:

*10/16/17 DM*



**PREPARATION BENCH SHEET**

F710398

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710398-BLK1	Blank	1	100					
F710398-BLK2	Blank	1	100					
F710398-BLK3	Blank	1	100					
F710398-BS1	LCS	1	100	1705554	200			
F710398-BSD1	LCS Dup	1	100	1705554	200			
F710398-DUP1	Duplicate [1710575-01]	1	100					
F710398-MS1	Matrix Spike [1710575-01]	0.0002	0.02	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F710398-MSD1	Matrix Spike Dup [1710575-01]	0.0002	0.02	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<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	1704096	FSTM Lot 170707A	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
			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
			1706194	5% BrCl	14-Mar-18 00:00

**PREPARATION BENCH SHEET**

F710398

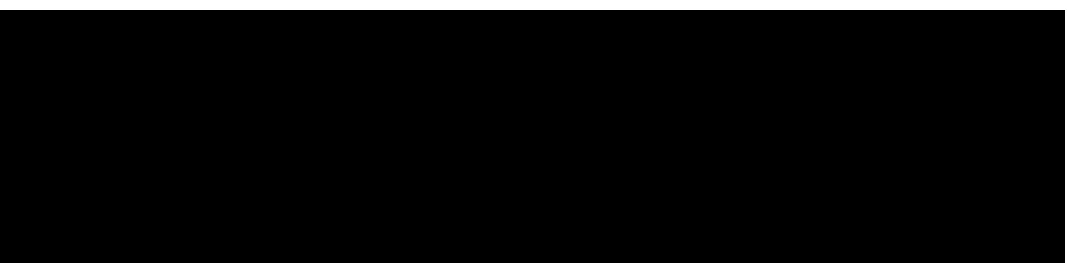
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710524-02	EFGS09358 Trap B	1	100	-	-	-	2791.74 L	
1710524-02RE1	EFGS09358 Trap B	1	100	-	-	-	2791.74 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710573-01	EFGS10025 31/32 Trap A 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 989.8 L AFS - Take ph	
1710573-02	EFGS10078 31/32 Trap B 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 836.7 L AFS - Take ph	
1710575-01	EFGS10028 Unit 31/32 Trap A 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1143.488 AFS - Take p	
1710575-02	EFGS10152 Unit 31/32 Trap B 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1013.855 AFS - Take p	
1710591-01	EFGS08929 Trap A	1	100	-	-	-	2453.81 L	
1710591-01RE1	EFGS08929 Trap A	1	100	-	-	-	2453.81 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710591-02	EFGS09466 Trap B	1	100	-	-	-	2453.34 L	
1710591-02RE1	EFGS09466 Trap B	1	100	-	-	-	2453.34 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710593-01	EFGS08923 Trap A	1	100	-	-	-	1826.16 L	
1710593-01RE1	EFGS08923 Trap A	1	100	-	-	-	1826.16 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710593-02	EFGS08969 Trap B	1	100	-	-	-	1825.13 L	
1710593-02RE1	EFGS08969 Trap B	1	100	-	-	-	1825.13 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2



**PREPARATION BENCH SHEET**

F710398

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

**Due Date: 10/20/2017**

PREPARATION BENCH SHEET

2600-3  
10/19/17 DM

F710398

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/18/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710398-BLK1	Blank	1	100					100X -
F710398-BLK2	Blank	1	100					100X -
F710398-BLK3	Blank	1	100					100X -
F710398-BS1	LCS	1	100	1705554	200			400X -
F710398-BSD1	LCS Dup	1	100	1705554	200			400X -
F710398-MS1	Matrix Spike 1710575-01	1	100	1704422	100			2500X -
F710398-MSD1	Matrix Spike Dup 1710575-01	1	100	1704422	100			2500X -

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

Expiration: 18-Mar-18 00:00

Reagent ID(s): 1704096, 1706064, 1706079, 1706194  
Description: FSTM Lot 170707A, 70/30 Digestion Acid, 5% BrCl

Expiration: 06-Jul-18 00:00, 09-Apr-18 00:00, 14-Mar-18 00:00

DUPI - source 1710575-01  
2500X

1703182  
1705610  
1705611  
1706142

PREPARATION BENCH SHEET

2100-3  
10/19/17 DM

F710398

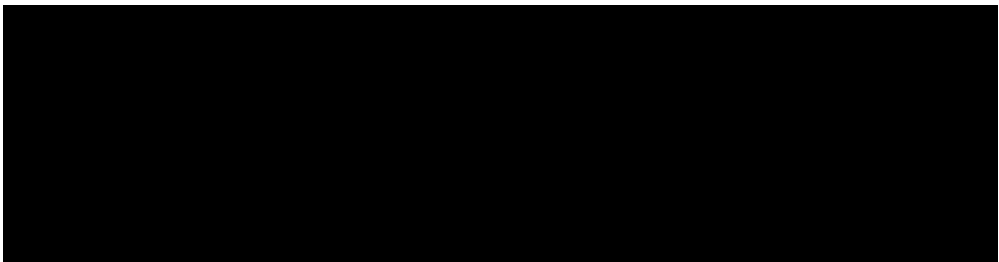
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/18/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1710524-02	EFGS09358 Trap B	1	100	-	-	-	2791.74 L 2500X	100X	500X → 5000X
1710573-01	EFGS10025 31/32 Trap A 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 989.8 L AFS - Take ph 2500X	100X	2500X
1710573-02	EFGS10078 31/32 Trap B 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 936.7 L AFS - Take ph 2500X	100X	2500X
1710575-01	EFGS10028 Unit 31/32 Trap A 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1143.488 AFS - Take I 2500X	100X	2500X
1710575-02	EFGS10152 Unit 31/32 Trap AB 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1013.855 AFS - Take I 2500X	100X	2500X
1710591-01	EFGS08929 Trap A	1	100	-	-	-	2453.81 L 2500X → 2500X	100X	400X
1710591-02	EFGS09466 Trap B	1	100	-	-	-	2453.34 L 2500X → 2500X	100X	400X
1710593-01	EFGS08923 Trap A	1	100	-	-	-	1826.16 L 2500X → 2500X	100X	400X
1710593-02	EFGS08969 Trap B	1	100	-	-	-	1825.13 L 2500X → 2500X	100X	400X



### Trap Digestions

Name: WTF Date: 10/18/17 Batch ID: F710398

Work Order(s): 1710524, 1710573, 1710575 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: 14:15, start temp (°C): 54.0 (raw) 53.8 (w/ CF)  
 end time: 16:15, end temp (°C): 54.0 (raw) 53.8 (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)	
F710398	-	Blk1	100	
F710398	-	Blk2	100	Spike ID: <u>1705554</u>
F710398	-	Blk3	100	Spike Amount (µL): <u>200</u>
F710398	-	BS1	100	Spike Witness: <u>DM 10/18/17</u>
F710398	-	BSD1	100	
1710524	-	02A	100	
1710524	-	02B	100	BrCl ID: <u>1706079, 1706194</u>
1710524	-	02C	100	70/30: <u>1706064</u>
1710573	-	01A	100	Other: <u>N/A</u>
1710573	-	01B	100	
1710573	-	01C	100	Thermometer: <u>14545</u>
1710573	-	02A	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1710573	-	02B	100	04N73497 <input type="checkbox"/>
1710573	-	02C	100	Other <u>15406623</u> <input checked="" type="checkbox"/> Yes
1710575	-	01A	100	
1710575	-	01B	100	
1710575	-	01C	100	Pipette ID: <u>Mull619</u>
1710575	-	02A	100	Cal. Date: <u>10/18/17</u>
1710575	-	02B	100	
1710575	-	02C	100	
1710591	-	01A	100	Vials and Jars lot# <u>00068842, 00068835</u>
1710591	-	01B	100	Trap Material Lot#: <u>1704096</u>
1710591	-	01C	100	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1710591	-	02A	100	
1710591	-	02B	100	
1710591	-	02C	100	Comments:
1710593	-	01A	100	1710524: C-bed spiked @ 16,000ug.
1710593	-	01B	100	1710573: All c-beds spiked @ 2,700ug.
1710593	-	01C	100	1710575: All c-beds spiked @ 2,700ug.
1710593	-	01C	100	1710591: All c-beds spiked @ 900ug
1710593	-	02A	100	(says 20ug on shipping tube but cal and trap spike logbook contradict)
1710593	-	02B	100	
1710593	-	02C	100	1710593: All c-beds spiked @ 900ug.
<del>1710593</del>				
<del>1710593</del>				

*WTF*  
10/18/17

*WTF* 10/18/17

10/18/17

# Failing Data Report - 7J20013

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710236-02	Hg_FSTM_TRAP_A	108.33	1.00				ng/Trap						FAIL-OVER	PASS	E -
F710364-DUP1	Hg_FSTM_TRAP_A	2.92	1.00	3.73	3.73		ng/Trap				24.4	24.00	PASS-OVER	FAIL-DUP	QR-07 -

Don M. Mason  
 Analyst Reviewed By

10/20/17  
 Date

[Signature]  
 Peer Reviewed By

10/20/17  
 Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE  
PEER-REVIEWED

7J20012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *AL 10/20/17*  
Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20012-IBL1 ✓	QC	1			
7J20012-IBL2 ✓	QC	2			
7J20012-IBL3 ✓	QC	3			
7J20012-CAL1 ✓	QC	4	1704505 ✓		
7J20012-CAL2 ✓	QC	5	1704506 ✓		
7J20012-CAL3 ✓	QC	6	1704507 ✓		
7J20012-CAL4 ✓	QC	7	1704508 ✓		
7J20012-CAL5 ✓	QC	8	1704509 ✓		
7J20012-ICV1 ✓	QC	9	1705628 ✓		
7J20012-CCV1 ✓	QC	10	1705628 ✓		
7J20012-CCB1 ✓	QC	11			
7J20012-CCV2 ✓	QC	12	1705628 ✓		
7J20012-CCB2 ✓	QC	13			
7J20012-CCV3 ✓	QC	14	1705628 ✓		
7J20012-CCB3 ✓	QC	15			
7J20012-CCV4 ✓	QC	16	1705628 ✓		
7J20012-CCB4 ✓	QC	17			
7J20012-CCV5 ✓	QC	18	1705628 ✓		
7J20012-CCB5 ✓	QC	19			
F710250-BLK1 ✓	QC	20			
F710250-BLK2 ✓	QC	21			
7J20012-CCV6 ✓	QC	22	1705628 ✓		
7J20012-CCB6 ✓	QC	23			
F710250-BLK3 ✓	QC	24			
F710250-BLK4 ✓	QC	25			
F710250-BLK5 ✓	QC	26			
F710250-BS1 ✓	QC	27			
F710250-BSD1 ✓	QC	28			
F710250-BS2 ✓	QC	29			
1709623-04 ✓	Hg-CVAFS-T-7030	30			
1709623-05 ✓	Hg-CVAFS-T-7030	31			
1709623-06 ✓	Hg-CVAFS-T-7030	32			
1709623-07 ✓	Hg-CVAFS-T-7030	33			
7J20012-CCV7 ✓	QC	34	1705628 ✓		
7J20012-CCB7 ✓	QC	35			



**ANALYSIS SEQUENCE**

**7J20012**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 10/19/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709623-08	Hg-CVAFS-T-7030	36			
1709623-09	Hg-CVAFS-T-7030	37			
1709623-10	Hg-CVAFS-T-7030	38			
1709623-11	Hg-CVAFS-T-7030	39			
1709623-12	Hg-CVAFS-T-7030	40			
1709623-13	Hg-CVAFS-T-7030	41			
1709623-14	Hg-CVAFS-T-7030	42			
1709623-15	Hg-CVAFS-T-7030	43			
1709623-16	Hg-CVAFS-T-7030	44			
1709623-17	Hg-CVAFS-T-7030	45			
7J20012-CCV8	QC	46	1705628		
7J20012-CCB8	QC	47			
1709623-18	Hg-CVAFS-T-7030	48			
1709623-19	Hg-CVAFS-T-7030	49			
1709623-20	Hg-CVAFS-T-7030	50			
1709625-01	Hg-CVAFS-T-7030	51			
1709626-02	Hg-CVAFS-T-7030	52			
1709626-03	Hg-CVAFS-T-7030	53			
1709623-12RE1	Hg-CVAFS-T-7030	54			Added 10/20/2017 by DM2
F710250-DUP1	QC	55			
F710250-MS1	QC	56			
F710250-MSD1	QC	57			
7J20012-CCV9	QC	58	1705628		
7J20012-CCB9	QC	59			
F710250-MS2	QC	60			
F710250-MSD2	QC	61			
1709623-15RE1	Hg-CVAFS-T-7030	62			Added 10/20/2017 by DM2
7J20012-CCVA	QC	63	1705628		
7J20012-CCBA	QC	64			

Dan Morem      10/19/17  
 Samples Loaded By      Date

Dan Morem      10/20/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F710250

**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
F710250-BLK1	Blank	0.25	20					
F710250-BLK2	Blank	0.25	20					
F710250-BLK3	Blank	0.25	20					
F710250-BLK4	Blank	0.293	20					Pre-homogenization Blank for 1709624, 1709625, 1709626
F710250-BLK5	Blank	0.291	20					Post-homogenization Blank for 1709624, 1709625, 1709626
F710250-BS1	LCS	0.25	20	1704421	20			
F710250-BS2	DORM4	0.1291	20	1705412	129.1			
F710250-BSD1	LCS Dup	0.25	20	1704421	20			
F710250-DUP1	Duplicate [1709626-02]	0.262	20					
F710250-MS1	Matrix Spike [1709626-02]	0.272	20	1705554	100			
F710250-MS2	Matrix Spike [1709625-01]	0.266	20	1705554	100			
F710250-MSD1	Matrix Spike Dup [1709626-02]	0.277	20	1705554	100			
F710250-MSD2	Matrix Spike Dup [1709625-01]	0.259	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**

F710250

**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
1709623-04	FRB-01_17SN001_091217_RAS_04_WB	0.278	20	-	-	-		
1709623-05	FRB-01_17SN001_091217_RAS_05_WB	0.266	20	-	-	-		
1709623-06	FRB-01_17SN001_091217_RAS_06_WB	0.261	20	-	-	-		
1709623-07	FRB-01_17SN001_091217_RAS_07_WB	0.284	20	-	-	-		
1709623-08	FRB-01_17SN001_091217_RAS_08_WB	0.262	20	-	-	-		
1709623-09	FRB-01_17SN001_091217_RAS_09_WB	0.257	20	-	-	-		
1709623-10	FRB-01_17SN001_091217_RAS_10_WB	0.251	20	-	-	-		
1709623-11	FRB-01_17SN001_091217_RAS_11_WB	0.272	20	-	-	-		
1709623-12	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-		
1709623-12RE1	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709623-13	FRB-01_17SN001_091217_RAS_13_WB	0.274	20	-	-	-		
1709623-14	FRB-01_17SN001_091217_RAS_14_WB	0.25	20	-	-	-		
1709623-15	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-		
1709623-15RE1	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709623-16	FRB-01_17SN001_091217_RAS_16_WB	0.267	20	-	-	-		
1709623-17	FRB-01_17SN001_091217_RAS_17_WB	0.273	20	-	-	-		
1709623-18	FRB-01_17SN001_091217_RAS_18_WB	0.277	20	-	-	-		
1709623-19	FRB-01_17SN001_091217_RAS_19_WB	0.266	20	-	-	-		
1709623-20	FRB-01_17SN001_091217_RAS_20_WB	0.253	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710250

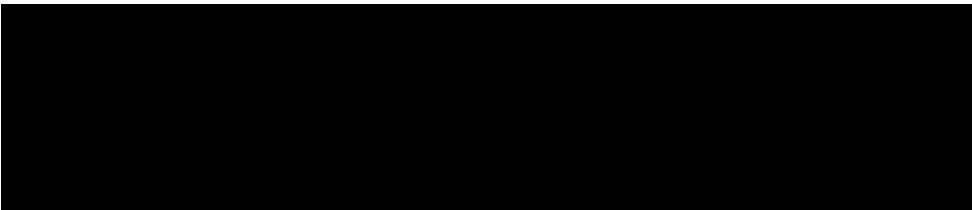
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709625-01	ES-FP_17SN001_091417_RAS_01_WB	0.274	20	QC	-	-	MS/MSD	
1709626-02	OB-01_17SN001_091617_RAS_02_WB	0.264	20	-	-	-		
1709626-03	OB-01_17SN001_091617_RAS_03_WB	0.261	20	-	-	-		



PREPARATION BENCH SHEET

2600-3  
10/19/17 DM

F710250

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
F710250-BLK1	Blank	0.25	20					20X
F710250-BLK2	Blank	0.25	20					20X
F710250-BLK3	Blank	0.25	20					20X
F710250-BLK4	Blank	0.293	20					Pre-homogenization Blank for 1709624, 1709625, 1709626 20X
F710250-BLK5	Blank	0.291	20					Post-homogenization Blank for 1709624, 1709625, 1709626 20X
F710250-BS1	LCS	0.25	20	1704421	20			20X
F710250-BS2	DORM4	0.1291	20	1705412	129.1			400X
F710250-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710250-DUP1	Duplicate [1709626-02]	0.262	20					50X
F710250-MS1	Matrix Spike [1709626-02]	0.272	20	1705554	100			400X
F710250-MS2	Matrix Spike [1709625-01]	0.266	20	1705554	100			400X
F710250-MSD1	Matrix Spike Dup [1709626-02]	0.277	20	1705554	100			400X
F710250-MSD2	Matrix Spike Dup [1709625-01]	0.259	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  
1705211  
1706142

PREPARATION BENCH SHEET

2600.3  
10/19/17 DM

F710250

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
1709623-04	FRB-01_17SN001_091217_RAS_04_WB	0.278	20	-	-	-		100X -
1709623-05	FRB-01_17SN001_091217_RAS_05_WB	0.266	20	-	-	-		100X -
1709623-06	FRB-01_17SN001_091217_RAS_06_WB	0.261	20	-	-	-		100X -
1709623-07	FRB-01_17SN001_091217_RAS_07_WB	0.284	20	-	-	-		100X -
1709623-08	FRB-01_17SN001_091217_RAS_08_WB	0.262	20	-	-	-		100X -
1709623-09	FRB-01_17SN001_091217_RAS_09_WB	0.257	20	-	-	-		100X -
1709623-10	FRB-01_17SN001_091217_RAS_10_WB	0.251	20	-	-	-		100X -
1709623-11	FRB-01_17SN001_091217_RAS_11_WB	0.272	20	-	-	-		100X -
1709623-12	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-		100X → 20X -
1709623-13	FRB-01_17SN001_091217_RAS_13_WB	0.274	20	-	-	-		100X -
1709623-14	FRB-01_17SN001_091217_RAS_14_WB	0.25	20	-	-	-		100X -
1709623-15	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-		100X → 20X -
1709623-16	FRB-01_17SN001_091217_RAS_16_WB	0.267	20	-	-	-		100X -
1709623-17	FRB-01_17SN001_091217_RAS_17_WB	0.273	20	-	-	-		100X -
1709623-18	FRB-01_17SN001_091217_RAS_18_WB	0.277	20	-	-	-		50X -
1709623-19	FRB-01_17SN001_091217_RAS_19_WB	0.266	20	-	-	-		50X -
1709623-20	FRB-01_17SN001_091217_RAS_20_WB	0.253	20	-	-	-		50X -
1709625-01	ES-FP_17SN001_091417_RAS_01_WB	0.274	20	QC	-	-	MS/MSD	50X -
1709626-02	OB-01_17SN001_091617_RAS_02_WB	0.264	20	-	-	-		50X -

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2000.3  
10/19/17 DM

F710250

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709626-03	OB-01_17SN001_091617_RAS_03_WB	0.261	20	-	-	-	50%
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Technician: WPF

Batch#: F710250

Date: 10/6/17

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/CH<sub>2</sub>Cl<sub>2</sub>: 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#: 6.14 (DORM4) Calibrated?  Yes  No Therm.#: 140418612 Calibrated?  Yes  No

\*Time in: 17:00 Actual Temp. (raw): 80.1 °C w/ CF: 79.6 °C

Time out: 1900 Actual Temp. (raw): 82.3 °C w/ CF: 81.8 °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: AMB 10/6/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MUN619 Calibration Date: 10/2/17

HNO<sub>3</sub> 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

Glass Vial # 00068647 Boiling Chip lot # 1702551 \*Hotblock Position: N

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	F710250 - Blk1	0.255	23	1709623 - 20	0.253	BS2=DORM4
2	F710250 - Blk2	0.286	24	<del>1709623 - 02</del> <del>1709624 - 01</del>	<del>0.253</del>	Source: 1705412
3	F710250 - Blk3	0.258	25	<del>1709623 - 02</del>	<del>0.253</del>	
4	F710250 - BS1	0.268	26	F710250 - Dup1	0.262	Comments
5	F710250 - BSD1	0.258	27	F710250 - MS1	0.272	Dup/MS1/MSD1
6	F710250 - BS2	0.1291	28	F710250 - MSD1	0.277	Source: 1709624-02
7	1709623 - 04	0.278	29	1709625 - 01	0.274	MS/MSD2
8	1709623 - 05	0.266	30	F710250 - MS2	0.266	Source: 1709625-01
9	1709623 - 06	0.261	31	F710250 - MSD2	0.259	BS1/BSD1 spilled
10	1709623 - 07	0.284	32	1709626 - 02	0.264	20µl of 1709622
11	1709623 - 08	0.262	33	1709628 - 03	0.261	
12	1709623 - 09	0.257	34	F710250 - Blk4	0.293	taken out of batch
13	1709623 - 10	0.251	35	F710250 - Blk5	0.291	
14	1709623 - 11	0.272	36			Blk 4+5 are Pre/Post blanks
15	1709623 - 12	0.255	37			for 1709624
16	1709623 - 13	0.274	38			1709625, 1709626
17	1709623 - 14	0.250	39			Pre/Post blanks
18	1709623 - 15	0.254	40			for 1709623 are in batch
19	1709623 - 16	0.267	41			F710266
20	1709623 - 17	0.273	42			
21	1709623 - 18	0.277	43			
22	1709623 - 19	0.266	44			



**Failing Data Report - 7J20012**

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 M. [Signature]  
Analyst Reviewed By

10/20/17  
Date

[Signature]  
Peer Reviewed By

10/20/17  
Date

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

Analyst:	DON MORAN	Sequence(s) #:	7J20012, 7J20013
Reviewer:	<u>DM 10/20/17</u>	Dataset ID(s):	THG26003-171019-1
Date:	10/20/2017	WO (s) #:	VARIOUS
Batch #(s):	F710250, F710398, F710364		

• 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 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 type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg0	NA	NA
<input type="checkbox"/> Inorg Hg	NA	NA

Analyst Initials: DM

Reviewer Initials: DM 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?<br>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<br>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?<br>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 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7J20012, 7J20013
<b>Reviewer:</b>	0 <i>R 10/20/17</i>	<b>Dataset ID(s):</b>	THG26003-171019-1
<b>Date:</b>	10/20/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F710250, F710398, F710364		0

Analyst Initials *DM*                      Reviewer Initials *R 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: *1710236-02 HIGH SAMPLE. ABOVE CAL5. F710364-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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7J20012, 7J20013
<b>Reviewer:</b>	0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b>	THG26003-171019-1
<b>Date:</b>	10/20/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F710250, F710398, F710364		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 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 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: _____ 12/15/16, 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: _____ 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 11/03/2017  
Elizabeth Penta  
Wood. PLC

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1709624

PO#

C012505850

October 21, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1709624

### Table of Contents

October 21, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	11
Notes and Definitions	15
Raw Data: 7J20014	16

**Total Pages – 59**



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 14:41

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-05_17SN001_091517_RAS_01_WB	1709624-01	Tissue	15-Sep-17 11:26	22-Sep-17 10:25
OB-05_17SN001_091517_RAS_02_WB	1709624-02	Tissue	15-Sep-17 11:26	22-Sep-17 10:25
OB-05_17SN001_091517_RAS_03_WB	1709624-03	Tissue	15-Sep-17 11:26	22-Sep-17 10:25
OB-05_17SN001_091517_RAS_04_WB	1709624-04	Tissue	15-Sep-17 11:26	22-Sep-17 10:25
OB-05_17SN001_091517_RAS_05_WB	1709624-05	Tissue	15-Sep-17 11:26	22-Sep-17 10:25

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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 14:41

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 9/22/2017 10:25:00 AM . TSamples 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.

EFGS received two samples in this work order, but per client request split these samples into additional samples. Sample 1709624-01 was split into sample 1709624-03. Sample 1709624-02 was split into samples 1709624-04 and 1709624-05.

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 F710260 and analyzed in sequence 7J20014. No samples from this work order were used as the source sample for batch QC.

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 14:41

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: AMBC 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: BSW

# 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>170404 RB</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:	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

**1709624**



1709624



### Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analysis Requested												For Lab Use Only	
Project Name/#: USDC Penobscot		PN # 36161660E2.C4A.055		Preservation Codes												SF #: _____	
Project Manager: Rod Pericleo		P.O. # C012505850														SCR #: _____	
Sampler: JB		P.W.S.D. #:														Personal Colors	
Phone #:		Quote #:														H-HQ T-Threats	
State where samples were collected: ME For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																G-HQZ B-HQZ	
																S-H2O P-H2O	
																O-Other	
																Remarks	
Sample Identification		Collection															
1 CB-05_175N001_091517_RAS_01_WB		091517 11:26														use volume for MS/MSD	
2 CB-05_175N001_091517_RAS_02_WB		091517 11:26															
3																	
20																	
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>		9/21/2017		1530									
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:													
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes format: _____				JPS _____ FedEx _____ Other _____										Temperature upon receipt _____ °C			

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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 14:41

**OB-05\_17SN001\_091517\_RAS\_01\_WB**  
**1709624-01**

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

**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	72.1	0.446	3.98	ng/g	100	F710260	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 14:41

**OB-05\_17SN001\_091517\_RAS\_02\_WB  
1709624-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	64.4	0.444	3.97	ng/g	100	F710260	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 14:41

**OB-05\_17SN001\_091517\_RAS\_03\_WB**  
**1709624-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	83.5	0.446	3.98	ng/g	100	F710260	06-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 14:41

**OB-05\_17SN001\_091517\_RAS\_04\_WB**  
**1709624-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	96.5	0.443	3.95	ng/g	100	F710260	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 14:41

**OB-05\_17SN001\_091517\_RAS\_05\_WB**  
**1709624-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	83.9	0.432	3.86	ng/g	100	F710260	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 14:41
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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
<b>Batch 7J20014 - F710387</b>											
<b>Cal Standard (7J20014-CAL1)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.528	-		ng/L	0.50100		105				
<b>Cal Standard (7J20014-CAL2)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.998	-		ng/L	1.0020		99.6				
<b>Cal Standard (7J20014-CAL3)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	5.090	-		ng/L	5.0100		102				
<b>Cal Standard (7J20014-CAL4)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	19.16	-		ng/L	20.040		95.6				
<b>Cal Standard (7J20014-CAL5)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	38.81	-		ng/L	40.080		96.8				
<b>Calibration Blank (7J20014-CCB1)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.100	-		ng/L							
<b>Calibration Blank (7J20014-CCB2)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.086	-		ng/L							
<b>Calibration Blank (7J20014-CCB3)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.105	-		ng/L							
<b>Calibration Blank (7J20014-CCB4)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.102	-		ng/L							
<b>Calibration Blank (7J20014-CCB5)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.099	-		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 14:41

Quality Control Data

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

Batch 7J20014 - F710387

<b>Calibration Blank (7J20014-CCB6)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.063	-		ng/L							
<b>Calibration Blank (7J20014-CCB7)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.081	-		ng/L							
<b>Calibration Blank (7J20014-CCB8)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.101	-		ng/L							
<b>Calibration Check (7J20014-CCV1)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.827	-		ng/L	5.0000		96.5	77-123			
<b>Calibration Check (7J20014-CCV2)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.636	-		ng/L	5.0000		92.7	77-123			
<b>Calibration Check (7J20014-CCV3)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.853	-		ng/L	5.0000		97.1	77-123			
<b>Calibration Check (7J20014-CCV4)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.851	-		ng/L	5.0000		97.0	77-123			
<b>Calibration Check (7J20014-CCV5)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.985	-		ng/L	5.0000		99.7	77-123			
<b>Calibration Check (7J20014-CCV6)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.674	-		ng/L	5.0000		93.5	77-123			
<b>Calibration Check (7J20014-CCV7)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.695	-		ng/L	5.0000		93.9	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
<b>Batch 7J20014 - F710387</b>											
<b>Calibration Check (7J20014-CCV8)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.792	-		ng/L	5.0000		95.8	77-123			
<b>Instrument Blank (7J20014-IBL1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20014-IBL2)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20014-IBL3)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7J20014-ICV1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	5.021	-		ng/L	5.0000		100	79-121			
<b>Batch F710260 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F710260-BLK1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.227	0.090	0.800	ng/g							J
<b>Blank (F710260-BLK2)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.154	0.090	0.800	ng/g							J
<b>Blank (F710260-BLK3)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.103	0.090	0.800	ng/g							J
<b>LCS (F710260-BS1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	7.977	0.090	0.800	ng/g	8.0160		99.5	75-125			

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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: 21-Oct-17 14:41
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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 F710260 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS (F710260-BS2)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	305.5	3.51	31.3	ng/g	373.70		81.8	75-125			
<b>LCS Dup (F710260-BSD1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	7.300	0.090	0.800	ng/g	8.0160		91.1	75-125	8.86	24	
<b>Duplicate (F710260-DUP1)</b>					Source: 1709626-18 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	48.06	0.389	3.47	ng/g		44.77			7.09	24	
<b>Matrix Spike (F710260-MS1)</b>					Source: 1709626-18 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	359.9	1.72	15.4	ng/g	384.62	44.77	81.9	71-125			
<b>Matrix Spike (F710260-MS2)</b>					Source: 1709626-04 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	393.4	1.68	15.0	ng/g	374.53	77.37	84.4	71-125			
<b>Matrix Spike Dup (F710260-MSD1)</b>					Source: 1709626-18 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	358.8	1.62	14.4	ng/g	361.01	44.77	87.0	71-125	6.00	24	
<b>Matrix Spike Dup (F710260-MSD2)</b>					Source: 1709626-04 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	401.0	1.68	15.0	ng/g	374.53	77.37	86.4	71-125	2.37	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:**  
21-Oct-17 14:41**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.
- 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: DM 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	1709626-19	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-6.663 Run Date: ##### Blank SD: 1.688847051  
 Works 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

Sample/ID	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-CCV1	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			

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			

<u>Standard ID(s):</u> 1705879	<u>Description:</u> EFGS-PREP SPIKE1/2, plus Hg	<u>Expiration:</u> 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

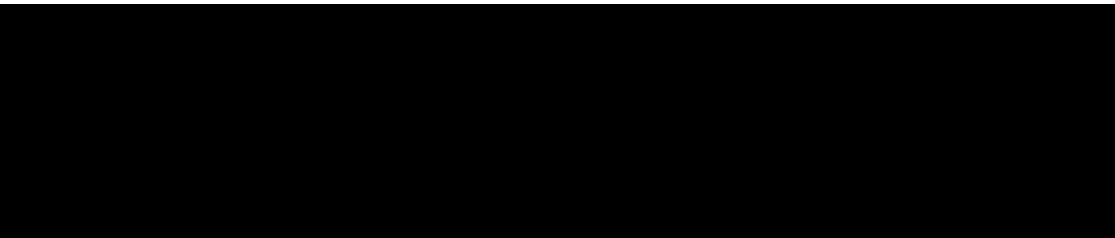
**Eurofins Frontier Global Sciences, Inc.**

**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? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<u>DM</u>	<u>PZ</u>
<b>Data cannot be reported without a current IDOC/CDOC. If YES, notify supervisor and technician immediately.</b>		
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 <input type="checkbox"/> N/A	<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 <input type="checkbox"/> N/A	<u>✓</u>	<u>✓</u>
6. Samples per Batch? <b>Check QC Requirements</b> <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>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

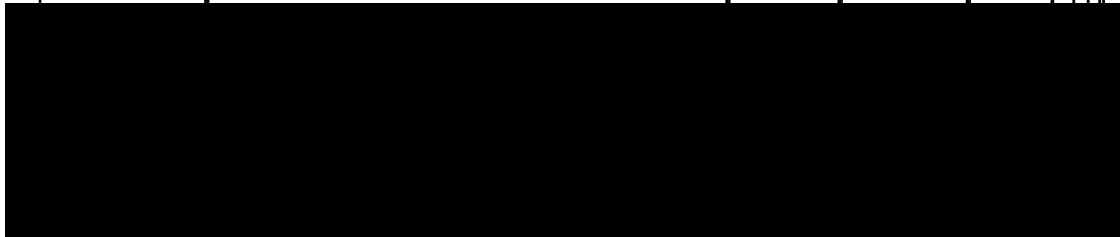
Eurofins Frontier Global Sciences, Inc.

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 <sup>imp 10/18/2017</sup> ~~LIMS ID~~ 2256094  
 Lot No. 2256094

Batch continued on next page?  Yes  No

1° Tech.: WMP 2° Tech.: WAL Date/Time In: 10/18/2017 1500

Date/Time Out: 10/18/2017 0900 <sup>by timer</sup>

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	BD	0.5665	BC	✓	Shared with F710405 BSI
5	NA	X079	1710556-01	EJ	1.2980	Food (F)	✓	
6	NA	N371	1710556-01 DUPI	E	1.0977	F	✓	
7	NA	N476	1710556-01 MS1	EF	1.2078	F	✓	
8	NA	X015	1710556-01 MS21	ET	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	T Hg	<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 <sub>3</sub>	7.5	1705879

1 Combined Spike ID: AL = 1705879 ; Batches: F710400/401/405  
 2 Combined Spike ID: \_\_\_\_\_ ; Batches: \_\_\_\_\_ WMP 10/18/2017

Batch continued on next page?  Yes  No

# Ceutical Digestions

Batch/TM/Hg (circle one): F710401/405

Boiling Chips <sup>MMP10/15/2017</sup> LIMS ID 22569044  
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-B11	N/A	0.5347	Boiling Chips (BC)	-	} Dry MMP10/15/2017 BLK1
2	N/A	N395	F710401-B12	N/A	0.9051	BC	-	
3	X119	N396	F710401-B31	N/A	0.5380	BC	-	
4	TH041	X070	F710401-BSD1	N/A	0.7508	BC	-	} Dry MMP10/15/2017
5	N/A	N451	1710574-05	A	0.8152	Liquid (L)	-	
6	N/A	X001	1710574-05D401	A	0.9815	L	-	
7	TH046	TH039	1710574-05MS1	A	0.9468	L	-	MS1
8	TH035	X197	1710574-05MS1	A	1.0877	L	-	MSD1 Dry MMP10/15/2017
9	NA	N412	1710216-01	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

33 of 59

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

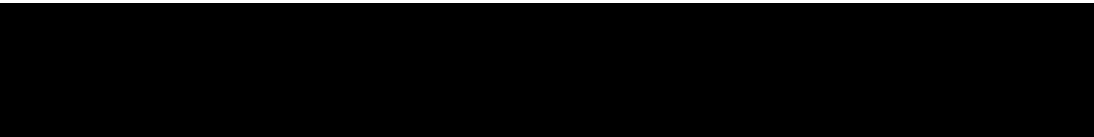
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 <sup>us / usD</sup> 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

HNO<sub>3</sub> LIMS ID: N/A

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

70/30 LIMS ID: 1706064

Dispenser #: 2347 <sup>10/17/17</sup> Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406603 TF 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			B52 = 80004
2	F710387 - BLK2	0.2687	24			B52 = 1705412
3	F710387 - BLK3	0.2707	25			
4	F710387 - B51	0.2681	26			<b>Comments</b>
5	F710387 - B501	0.2577	27			B5/B501 spiked with 20ml of 1704421
6	F710387 - B52	0.1253	28			
7	1709628 - 15	0.2873	29			
8	F710387 - DUP1	0.2815	30			DUP1 MS1 / MSB1
9	F710387 - MS1	0.2626	31			B501: 1709628-15
10	F710387 - MSB1	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	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	-	-	-		

PREPARATION BENCH SHEET

F710260

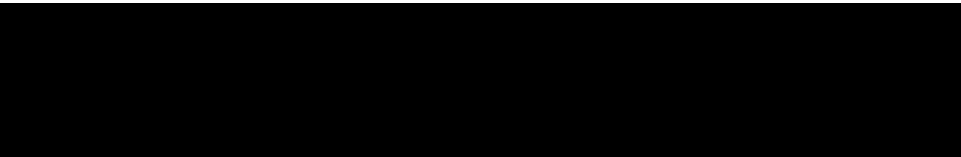
Eurofins Frontier Global Sciences, Inc.

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

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
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

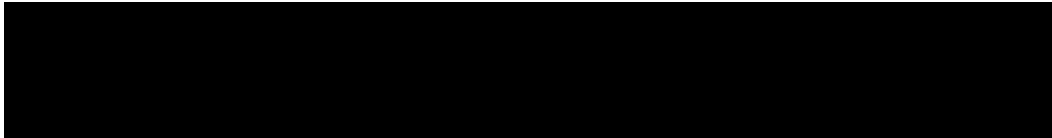
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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	<del>F710260 - DUP1</del>	<del>w/F 10/9/17</del>	31	1709626 - 18	0.285	MS2/MSD2
10	<del>MS1</del>	<del>w/F 10/9/17</del>	32	F710260 - DUP1	0.288	Source: 1709626-04
11	<del>MSD1</del>	<del>w/F 10/9/17</del>	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 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

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2000-2  
10/19/17 DM

F710262

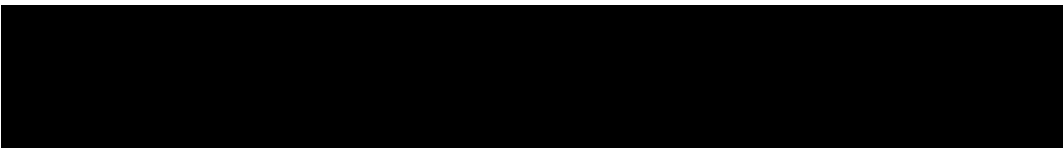
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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(DSRM4) 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  
 HNO<sub>3</sub> 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 = DSRM4 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	<b>Comments</b>
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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20014, 7J20015
<b>Reviewer:</b> 0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b> THG26002-171019-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7J20014, 7J20015
<b>Reviewer:</b>	0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b>	THG26002-171019-1
<b>Date:</b>	10/20/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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 type="checkbox"/> NO   | <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 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: _____ 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.**



Reviewed 11/03/2017  
Elizabeth Penta  
Wood. PLC

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1709625

PO#

C012505850

October 21, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1709625

### Table of Contents

October 21, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	26
Notes and Definitions	34
Raw Data: 7J20012	35
Raw Data: 7J20017	69

**Total Pages – 86**



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 14:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-FP_17SN001_091417_RAS_01_WB	1709625-01	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_02_WB	1709625-02	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_03_WB	1709625-03	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_04_WB	1709625-04	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_05_WB	1709625-05	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_06_WB	1709625-06	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_07_WB	1709625-07	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_08_WB	1709625-08	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_09_WB	1709625-09	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_10_WB	1709625-10	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_11_WB	1709625-11	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_12_WB	1709625-12	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_13_WB	1709625-13	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_14_WB	1709625-14	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_15_WB	1709625-15	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_16_WB	1709625-16	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_17_WB	1709625-17	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_18_WB	1709625-18	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_19_WB	1709625-19	Tissue	14-Sep-17 14:00	22-Sep-17 10:25
ES-FP_17SN001_091417_RAS_20_WB	1709625-20	Tissue	14-Sep-17 14:00	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, 01824Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.055  
Project Manager: Denise King**Reported:**  
21-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.

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; F710250 and F710251. Sample 1709625-01 was used as the QC source in batch F710250. Sample 1709625-02 was used as the QC source in batch F710251. These samples were analyzed in two sequences; 7J20012 and 7J20017.

## 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 14:51

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 Peter 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:  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>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:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</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>Y</u>	

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

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

1709625









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 14:51

**ES-FP\_17SN001\_091417\_RAS\_01\_WB**  
**1709625-01**

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	78.6	0.204	1.82	ng/g	50	F710250	06-Oct-17	7J20012	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 14:51

**ES-FP\_17SN001\_091417\_RAS\_02\_WB**  
**1709625-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	92.6	0.192	1.71	ng/g	50	F710251	06-Oct-17	7J20017	20-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 14:51

**ES-FP\_17SN001\_091417\_RAS\_03\_WB**  
**1709625-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	68.2	0.388	3.46	ng/g	100	F710251	06-Oct-17	7J20017	20-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 14:51

**ES-FP\_17SN001\_091417\_RAS\_04\_WB**  
**1709625-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	174	0.426	3.80	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	



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

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_05\_WB**  
**1709625-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	92.2	0.393	3.51	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_06\_WB**  
**1709625-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	83.2	0.434	3.88	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_07\_WB**  
**1709625-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	207	0.407	3.64	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_08\_WB**  
**1709625-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	128	0.429	3.83	ng/g	100	F710251	06-Oct-17	7J20017	20-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 14:51

**ES-FP\_17SN001\_091417\_RAS\_09\_WB**  
**1709625-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	185	0.393	3.51	ng/g	100	F710251	06-Oct-17	7J20017	20-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 14:51

**ES-FP\_17SN001\_091417\_RAS\_10\_WB**  
**1709625-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	156	0.388	3.46	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_11\_WB**  
**1709625-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	75.7	0.409	3.65	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_12\_WB**  
**1709625-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	43.0	0.393	3.51	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_13\_WB**  
**1709625-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	36.6	0.441	3.94	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_14\_WB**  
**1709625-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	39.0	0.397	3.55	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_15\_WB**  
**1709625-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	34.2	0.390	3.48	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_16\_WB**  
**1709625-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	52.0	0.418	3.73	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	



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**ES-FP\_17SN001\_091417\_RAS\_17\_WB**  
**1709625-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	34.1	0.444	3.97	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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Project Number: 3616166052.04A.055  
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**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_18\_WB  
1709625-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	42.5	0.406	3.62	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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

**Reported:**  
21-Oct-17 14:51

**ES-FP\_17SN001\_091417\_RAS\_19\_WB**  
**1709625-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	31.7	0.434	3.88	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	

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Project Manager: Denise King

**Reported:**  
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**ES-FP\_17SN001\_091417\_RAS\_20\_WB**  
**1709625-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	43.6	0.436	3.89	ng/g	100	F710251	06-Oct-17	7J20017	20-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 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
<b>Batch 7J20012 - F710250</b>											
<b>Cal Standard (7J20012-CAL1)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.493	-		ng/L	0.50100		98.4				
<b>Cal Standard (7J20012-CAL2)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	1.008	-		ng/L	1.0020		101				
<b>Cal Standard (7J20012-CAL3)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	5.056	-		ng/L	5.0100		101				
<b>Cal Standard (7J20012-CAL4)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	19.88	-		ng/L	20.040		99.2				
<b>Cal Standard (7J20012-CAL5)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	40.04	-		ng/L	40.080		99.9				
<b>Calibration Blank (7J20012-CCB1)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.087	-		ng/L							
<b>Calibration Blank (7J20012-CCB2)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.050	-		ng/L							
<b>Calibration Blank (7J20012-CCB3)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.050	-		ng/L							
<b>Calibration Blank (7J20012-CCB4)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.044	-		ng/L							
<b>Calibration Blank (7J20012-CCB5)</b> Prepared & Analyzed: 19-Oct-17											
Mercury	0.132	-		ng/L							

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21-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 7J20012 - F710250

<b>Calibration Blank (7J20012-CCB6)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.103	-		ng/L								
<b>Calibration Blank (7J20012-CCB7)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.025	-		ng/L								
<b>Calibration Blank (7J20012-CCB8)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.059	-		ng/L								
<b>Calibration Blank (7J20012-CCB9)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.113	-		ng/L								
<b>Calibration Blank (7J20012-CCBA)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.069	-		ng/L								
<b>Calibration Check (7J20012-CCV1)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	5.071	-		ng/L	5.0000		101	77-123				
<b>Calibration Check (7J20012-CCV2)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.889	-		ng/L	5.0000		97.8	77-123				
<b>Calibration Check (7J20012-CCV3)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.875	-		ng/L	5.0000		97.5	77-123				
<b>Calibration Check (7J20012-CCV4)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.819	-		ng/L	5.0000		96.4	77-123				
<b>Calibration Check (7J20012-CCV5)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	5.170	-		ng/L	5.0000		103	77-123				

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21-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 7J20012 - F710250

<b>Calibration Check (7J20012-CCV6)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.986	-		ng/L	5.0000		99.7	77-123				
<b>Calibration Check (7J20012-CCV7)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.845	-		ng/L	5.0000		96.9	77-123				
<b>Calibration Check (7J20012-CCV8)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.936	-		ng/L	5.0000		98.7	77-123				
<b>Calibration Check (7J20012-CCV9)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.855	-		ng/L	5.0000		97.1	77-123				
<b>Calibration Check (7J20012-CCVA)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	5.005	-		ng/L	5.0000		100	77-123				
<b>Instrument Blank (7J20012-IBL1)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (7J20012-IBL2)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (7J20012-IBL3)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	ND	0.004	0.040	ng/L							U	
<b>Initial Cal Check (7J20012-ICV1)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	5.129	-		ng/L	5.0000		103	79-121				

Batch 7J20017 - F710251

<b>Cal Standard (7J20017-CAL1)</b>												Prepared & Analyzed: 20-Oct-17
Mercury	0.511	-		ng/L	0.50100		102					

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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
<b>Batch 7J20017 - F710251</b>											
<b>Cal Standard (7J20017-CAL2)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	0.990	-		ng/L	1.0020		98.8				
<b>Cal Standard (7J20017-CAL3)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	5.002	-		ng/L	5.0100		99.8				
<b>Cal Standard (7J20017-CAL4)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	19.99	-		ng/L	20.040		99.7				
<b>Cal Standard (7J20017-CAL5)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	39.54	-		ng/L	40.080		98.6				
<b>Calibration Blank (7J20017-CCB1)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	0.057	-		ng/L							
<b>Calibration Blank (7J20017-CCB2)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	0.043	-		ng/L							
<b>Calibration Blank (7J20017-CCB3)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	0.093	-		ng/L							
<b>Calibration Blank (7J20017-CCB4)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	0.111	-		ng/L							
<b>Calibration Check (7J20017-CCV1)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	4.782	-		ng/L	5.0000		95.6	77-123			
<b>Calibration Check (7J20017-CCV2)</b>											
	Prepared & Analyzed: 20-Oct-17										
Mercury	4.909	-		ng/L	5.0000		98.2	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 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 7J20017 - F710251

<b>Calibration Check (7J20017-CCV3)</b>					Prepared & Analyzed: 20-Oct-17						
Mercury	5.016	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (7J20017-CCV4)</b>					Prepared & Analyzed: 20-Oct-17						
Mercury	4.963	-		ng/L	5.0000		99.3	77-123			
<b>Instrument Blank (7J20017-IBL1)</b>					Prepared & Analyzed: 20-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20017-IBL2)</b>					Prepared & Analyzed: 20-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20017-IBL3)</b>					Prepared & Analyzed: 20-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7J20017-ICV1)</b>					Prepared & Analyzed: 20-Oct-17						
Mercury	5.101	-		ng/L	5.0000		102	79-121			

Batch F710250 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F710250-BLK1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.300	0.090	0.800	ng/g							J
<b>Blank (F710250-BLK2)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.162	0.090	0.800	ng/g							J
<b>Blank (F710250-BLK3)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.178	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 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 F710250 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F710250-BLK4)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	ND	0.076	0.683	ng/g							F-03, U
<b>Blank (F710250-BLK5)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	ND	0.077	0.687	ng/g							F-03, U
<b>LCS (F710250-BS1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	7.560	0.090	0.800	ng/g	8.0160		94.3	75-125			
<b>LCS (F710250-BS2)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	341.1	3.47	31.0	ng/g	373.70		91.3	75-125			
<b>LCS Dup (F710250-BSD1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	7.705	0.090	0.800	ng/g	8.0160		96.1	75-125	1.89	24	
<b>Duplicate (F710250-DUP1)</b>					Source: 1709626-02 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	35.18	0.214	1.91	ng/g		35.98			2.27	24	
<b>Matrix Spike (F710250-MS1)</b>					Source: 1709626-02 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	352.5	1.65	14.7	ng/g	367.65	35.98	86.1	71-125			
<b>Matrix Spike (F710250-MS2)</b>					Source: 1709625-01 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	386.5	1.68	15.0	ng/g	375.94	78.62	81.9	71-125			
<b>Matrix Spike Dup (F710250-MSD1)</b>					Source: 1709626-02 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	348.2	1.62	14.4	ng/g	361.01	35.98	86.5	71-125	0.477	24	
<b>Matrix Spike Dup (F710250-MSD2)</b>					Source: 1709625-01 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	414.7	1.73	15.4	ng/g	386.10	78.62	87.0	71-125	6.08	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 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 F710251 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F710251-BLK1)</b>												Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	0.174	0.090	0.800	ng/g								J	
<b>Blank (F710251-BLK2)</b>												Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	ND	0.090	0.800	ng/g								U	
<b>Blank (F710251-BLK3)</b>												Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	ND	0.090	0.800	ng/g								U	
<b>LCS (F710251-BS1)</b>												Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	7.406	0.090	0.800	ng/g	8.0160		92.4	75-125					
<b>LCS (F710251-BS2)</b>												Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	350.6	3.53	31.5	ng/g	373.70		93.8	75-125					
<b>LCS Dup (F710251-BSD1)</b>												Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	7.559	0.090	0.800	ng/g	8.0160		94.3	75-125	2.04	24			
<b>Duplicate (F710251-DUP1)</b>												Source: 1709625-02 Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	100.1	0.404	3.61	ng/g		92.60			7.78	24			
<b>Matrix Spike (F710251-MS1)</b>												Source: 1709625-02 Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	443.3	1.72	15.3	ng/g	383.14	92.60	91.5	71-125					
<b>Matrix Spike (F710251-MS2)</b>												Source: 1709626-01 Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	391.3	1.74	15.6	ng/g	389.11	45.25	88.9	71-125					
<b>Matrix Spike Dup (F710251-MSD1)</b>												Source: 1709625-02 Prepared: 06-Oct-17 Analyzed: 20-Oct-17	
Mercury	468.1	1.74	15.6	ng/g	389.11	92.60	96.5	71-125	5.28	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	<b>Reported:</b> 21-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 F710251 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike Dup (F710251-MSD2)</b>		<b>Source: 1709626-01</b>				Prepared: 06-Oct-17	Analyzed: 20-Oct-17				
Mercury	386.2	1.74	15.6	ng/g	389.11	45.25	87.6	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 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.
- 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 19, 2017  
Instrument #: Hg2600-3  
LIMS Sequence #: 7J20012, 7J20013

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	108.07 units	216.14	100.64 units	201.28	98.6 %Rec
SEQ-CAL2	1	1.00 ng/L	213.04 units	213.04	205.61 units	205.61	100.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1039.20 units	207.84	1031.77 units	206.35	101.1 %Rec
SEQ-CAL4	1	20.00 ng/L	4063.38 units	203.17	4055.95 units	202.80	99.4 %Rec
SEQ-CAL5	1	40.00 ng/L	8177.09 units	204.43	8169.66 units	204.24	100.1 %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**  
 204.06            +/- 2.06            1.0% RSD            208.92

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.43 units	±1.00	0.04 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	6.676 ng/L	±2.192
BLK	2	3	8.975 ng/L	±3.772
BLK	3	3	2.665 ng/L	±0.945
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: B 10/20/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	CAL	SEQ-IBL1	1	10/19/2017 10:30:20	78087-1.RAW	10:30:20 AM	8.38	1		0.9	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	10/19/2017 10:34:29	78088-1.RAW	10:34:29 AM	6.38	1		-1.0	-0.005	-0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	10/19/2017 10:38:37	78089-1.RAW	10:38:37 AM	7.52	1		0.1	0.000	0.000	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	10/19/2017 10:42:46	78090-1.RAW	10:42:46 AM	108.07	1		100.6	0.493	0.493	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	10/19/2017 10:46:54	78091-1.RAW	10:46:54 AM	213.04	1		205.6	1.008	1.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	10/19/2017 10:51:03	78092-1.RAW	10:51:03 AM	1039.20	1		1031.8	5.056	5.056	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	10/19/2017 10:55:11	78093-1.RAW	10:55:11 AM	4063.38	1		4056.0	19.877	19.877	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	10/19/2017 10:59:19	78094-1.RAW	10:59:19 AM	8177.09	1		8169.7	40.036	40.036	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	10/19/2017 11:03:28	78095-1.RAW	11:03:28 AM	1054.03	1		1046.6	5.129	5.129	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK1	100	10/19/2017 11:07:36	78096-1.RAW	11:07:36 AM	26.20	1		18.8	0.092	0.199	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK2	100	10/19/2017 11:11:45	78097-1.RAW	11:11:45 AM	18.85	1		11.4	0.056	5.598	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK3	100	10/19/2017 11:15:53	78098-1.RAW	11:15:53 AM	18.10	1		10.7	0.052	5.231	ng/L	
Hg2600-3	DM2	SAM	F710364-BS1	400	10/19/2017 11:20:02	78099-1.RAW	11:20:02 AM	4612.57	1		4605.1	22.551	9020.480	ng/L	
Hg2600-3	DM2	SAM	F710364-BSD1	400	10/19/2017 11:24:10	78100-1.RAW	11:24:10 AM	4492.31	1		4484.9	21.962	8784.746	ng/L	
Hg2600-3	DM2	SAM	1710236-02	100	10/19/2017 11:28:18	78101-1.RAW	11:28:18 AM	11074.03	1		11066.6	54.166	5416.608	ng/L	
Hg2600-3	DM2	SAM	1710236-04	100	10/19/2017 11:32:27	78102-1.RAW	11:32:27 AM	72.92	1		65.5	0.254	25.418	ng/L	
Hg2600-3	DM2	SAM	1710236-06	100	10/19/2017 11:36:35	78103-1.RAW	11:36:35 AM	401.69	1		394.3	1.865	186.536	ng/L	
Hg2600-3	DM2	SAM	1710236-08	100	10/19/2017 11:40:44	78104-1.RAW	11:40:44 AM	66.04	1		58.6	0.220	22.048	ng/L	
Hg2600-3	DM2	SAM	1710236-02B	100	10/19/2017 11:44:52	78105-1.RAW	11:44:52 AM	367.69	1		360.3	1.699	169.871	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	10/19/2017 11:49:01	78106-1.RAW	11:49:01 AM	1042.14	1		1034.7	5.071	5.071	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	10/19/2017 11:53:09	78107-1.RAW	11:53:09 AM	25.15	1		17.7	0.087	0.087	ng/L	
Hg2600-3	DM2	SAM	1710236-04B	100	10/19/2017 11:57:18	78108-1.RAW	11:57:18 AM	25.55	1		18.1	0.022	2.206	ng/L	
Hg2600-3	DM2	SAM	1710236-06B	100	10/19/2017 12:01:26	78109-1.RAW	12:01:26 PM	25.62	1		18.2	0.022	2.239	ng/L	
Hg2600-3	DM2	SAM	1710236-08B	100	10/19/2017 12:05:34	78110-1.RAW	12:05:34 PM	19.08	1		11.6	-0.010	-0.968	ng/L	
Hg2600-3	DM2	SAM	1710236-02RE1	400	10/19/2017 12:09:43	78111-1.RAW	12:09:43 PM	2734.47	1		2727.0	13.347	5338.969	ng/L	
Hg2600-3	DM2	SAM	1710236-04RE1	100	10/19/2017 12:13:50	78112-1.RAW	12:13:50 PM	33.33	1		25.9	0.060	6.019	ng/L	
Hg2600-3	DM2	SAM	F710364-DUP1	100	10/19/2017 12:17:58	78113-1.RAW	12:17:58 PM	319.00	1		311.6	1.460	146.010	ng/L	
Hg2600-3	DM2	SAM	F710364-MS1	100	10/19/2017 12:22:06	78114-1.RAW	12:22:06 PM	1363.60	1		1356.2	6.579	657.930	ng/L	
Hg2600-3	DM2	SAM	F710364-MSD1	100	10/19/2017 12:26:15	78115-1.RAW	12:26:15 PM	1351.71	1		1344.3	6.521	652.100	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK1	100	10/19/2017 12:30:23	78116-1.RAW	12:30:23 PM	30.33	2		22.9	0.112	11.225	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK2	100	10/19/2017 12:34:32	78117-1.RAW	12:34:32 PM	30.04	2		22.6	0.111	11.081	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	10/19/2017 12:38:40	78118-1.RAW	12:38:40 PM	1004.97	1		997.5	4.889	4.889	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	10/19/2017 12:42:48	78119-1.RAW	12:42:48 PM	17.73	1		10.3	0.050	0.050	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK3	100	10/19/2017 12:46:57	78120-1.RAW	12:46:57 PM	16.86	2		9.4	0.046	4.621	ng/L	
Hg2600-3	DM2	SAM	F710398-BS1	400	10/19/2017 12:51:05	78121-1.RAW	12:51:05 PM	956.65	2		949.2	4.629	1851.722	ng/L	
Hg2600-3	DM2	SAM	F710398-BSD1	400	10/19/2017 12:55:14	78122-1.RAW	12:55:14 PM	964.08	2		956.7	4.666	1866.285	ng/L	
Hg2600-3	DM2	SAM	1710524-02	2500	10/19/2017 12:59:22	78123-1.RAW	12:59:22 PM	5294.81	2		5287.4	25.908	64769.229	ng/L	
Hg2600-3	DM2	SAM	1710573-01	2500	10/19/2017 13:03:30	78124-1.RAW	1:03:30 PM	467.83	2		460.4	2.253	5631.631	ng/L	
Hg2600-3	DM2	SAM	1710573-02	2500	10/19/2017 13:07:39	78125-1.RAW	1:07:39 PM	412.23	2		404.8	1.980	4950.386	ng/L	
Hg2600-3	DM2	SAM	1710575-01	2500	10/19/2017 13:11:47	78126-1.RAW	1:11:47 PM	1143.73	2		1136.3	5.565	13912.388	ng/L	
Hg2600-3	DM2	SAM	1710575-02	2500	10/19/2017 13:15:56	78127-1.RAW	1:15:56 PM	1013.45	2		1006.0	4.927	12316.299	ng/L	
Hg2600-3	DM2	SAM	1710591-01	2500	10/19/2017 13:20:04	78128-1.RAW	1:20:04 PM	932.74	2		925.3	4.531	11327.426	ng/L	
Hg2600-3	DM2	SAM	1710591-02	2500	10/19/2017 13:24:13	78129-1.RAW	1:24:13 PM	839.33	2		831.9	4.073	10183.073	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	10/19/2017 13:28:21	78130-1.RAW	1:28:21 PM	1002.25	1		994.8	4.875	4.875	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	10/19/2017 13:32:29	78131-1.RAW	1:32:29 PM	17.67	1		10.2	0.050	0.050	ng/L	
Hg2600-3	DM2	SAM	1710593-01	2500	10/19/2017 13:36:38	78132-1.RAW	1:36:38 PM	532.31	2		524.9	2.569	6421.563	ng/L	
Hg2600-3	DM2	SAM	1710593-02	2500	10/19/2017 13:40:46	78133-1.RAW	1:40:46 PM	578.19	2		570.8	2.793	6983.676	ng/L	
Hg2600-3	DM2	SAM	1710524-02B	100	10/19/2017 13:44:55	78134-1.RAW	1:44:55 PM	118.51	2		111.1	0.455	45.459	ng/L	
Hg2600-3	DM2	SAM	1710573-01B	100	10/19/2017 13:49:03	78135-1.RAW	1:49:03 PM	62.93	2		55.5	0.182	18.223	ng/L	
Hg2600-3	DM2	SAM	1710573-02B	100	10/19/2017 13:53:11	78136-1.RAW	1:53:11 PM	33.20	2		25.8	0.037	3.653	ng/L	
Hg2600-3	DM2	SAM	1710575-01B	100	10/19/2017 13:57:20	78137-1.RAW	1:57:20 PM	29.80	2		22.4	0.020	1.987	ng/L	
Hg2600-3	DM2	SAM	1710575-02B	100	10/19/2017 14:01:28	78138-1.RAW	2:01:28 PM	44.43	2		37.0	0.092	9.159	ng/L	
Hg2600-3	DM2	SAM	1710591-01B	100	10/19/2017 14:05:37	78139-1.RAW	2:05:37 PM	22.66	2		15.2	-0.015	-1.509	ng/L	
Hg2600-3	DM2	SAM	1710591-02B	100	10/19/2017 14:09:45	78140-1.RAW	2:09:45 PM	25.25	2		17.8	-0.002	-0.241	ng/L	
Hg2600-3	DM2	SAM	1710593-01B	100	10/19/2017 14:13:53	78141-1.RAW	2:13:53 PM	40.18	2		32.7	0.071	7.073	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	10/19/2017 14:18:02	78142-1.RAW	2:18:02 PM	990.78	1		983.3	4.819	4.819	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	10/19/2017 14:22:10	78143-1.RAW	2:22:10 PM	16.42	1		9.0	0.044	0.044	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	1710593-02B	100	10/19/2017 14:26:19	78144-1.RAW	2:26:19 PM	32.52	2		25.1	0.033	3.320	ng/L	
Hg2600-3	DM2	SAM	1710524-02C	5000	10/19/2017 14:30:27	78145-1.RAW	2:30:27 PM	5840.48	2		5833.1	28.584	142917.980	ng/L	
Hg2600-3	DM2	SAM	1710573-01C	2500	10/19/2017 14:34:36	78146-1.RAW	2:34:36 PM	1879.69	2		1872.3	9.172	22928.926	ng/L	
Hg2600-3	DM2	SAM	1710573-02C	2500	10/19/2017 14:38:44	78147-1.RAW	2:38:44 PM	1977.07	2		1969.6	9.649	24122.016	ng/L	
Hg2600-3	DM2	SAM	1710575-01C	2500	10/19/2017 14:42:52	78148-1.RAW	2:42:52 PM	1956.22	2		1948.8	9.547	23866.528	ng/L	
Hg2600-3	DM2	SAM	1710575-02C	2500	10/19/2017 14:47:01	78149-1.RAW	2:47:01 PM	2101.42	2		2094.0	10.258	25645.444	ng/L	
Hg2600-3	DM2	SAM	1710591-01C	400	10/19/2017 14:51:09	78150-1.RAW	2:51:09 PM	4370.63	2		4363.2	21.360	8543.931	ng/L	
Hg2600-3	DM2	SAM	1710591-02C	400	10/19/2017 14:55:18	78151-1.RAW	2:55:18 PM	4055.80	2		4048.4	19.817	7926.789	ng/L	
Hg2600-3	DM2	SAM	1710593-01C	400	10/19/2017 14:59:26	78152-1.RAW	2:59:26 PM	4348.85	2		4341.4	21.253	8501.241	ng/L	
Hg2600-3	DM2	SAM	1710593-02C	400	10/19/2017 15:03:35	78153-1.RAW	3:03:35 PM	4347.11	2		4339.7	21.245	8497.819	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	10/19/2017 15:07:43	78154-1.RAW	3:07:43 PM	1062.386993			1055.0	5.170	5.170	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	10/19/2017 15:11:51	78155-1.RAW	3:11:51 PM	34.27			26.8	0.132	0.132	ng/L	
Hg2600-3	DM2	SAM	1710591-01RE1	2500	10/19/2017 15:16:00	78156-1.RAW	3:16:00 PM	948.01	2		940.6	4.606	11514.516	ng/L	
Hg2600-3	DM2	SAM	1710591-02RE1	2500	10/19/2017 15:20:08	78157-1.RAW	3:20:08 PM	862.18	2		854.7	4.185	10462.930	ng/L	
Hg2600-3	DM2	SAM	1710593-01RE1	2500	10/19/2017 15:24:17	78158-1.RAW	3:24:17 PM	535.48	2		528.1	2.584	6460.417	ng/L	
Hg2600-3	DM2	SAM	1710593-02RE1	2500	10/19/2017 15:28:25	78159-1.RAW	3:28:25 PM	587.44	2		580.0	2.839	7097.043	ng/L	
Hg2600-3	DM2	SAM	1710524-02RE1C	5000	10/19/2017 15:32:33	78160-1.RAW	3:32:33 PM	5929.67	2		5922.2	29.021	145103.428	ng/L	
Hg2600-3	DM2	SAM	F710398-DUP1	2500	10/19/2017 15:36:42	78161-1.RAW	3:36:42 PM	1173.27	2		1165.8	5.710	14274.352	ng/L	
Hg2600-3	DM2	SAM	F710398-MS1	2500	10/19/2017 15:40:50	78162-1.RAW	3:40:50 PM	5276.44	2		5269.0	25.818	64544.187	ng/L	
Hg2600-3	DM2	SAM	F710398-MSD1	2500	10/19/2017 15:44:59	78163-1.RAW	3:44:59 PM	5264.13	2		5256.7	25.757	64393.302	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK1	20	10/19/2017 15:49:07	78164-1.RAW	3:49:07 PM	45.69	3		38.3	0.188	3.750	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK2	20	10/19/2017 15:53:15	78165-1.RAW	3:53:15 PM	28.03	3		20.6	0.101	2.019	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	10/19/2017 15:57:24	78166-1.RAW	3:57:24 PM	1024.83			1017.4	4.986	4.986	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	10/19/2017 16:01:32	78167-1.RAW	4:01:32 PM	28.55			21.1	0.103	0.103	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK3	20	10/19/2017 16:05:41	78168-1.RAW	4:05:41 PM	30.14	3		22.7	0.111	2.226	ng/L	
Hg2600-3	DM2	SAM	*F710250-BLK4	20	10/19/2017 16:09:49	78169-1.RAW	4:09:49 PM	33.81	3		26.4	-0.004	-0.080	ng/L	
Hg2600-3	DM2	SAM	*F710250-BLK5	20	10/19/2017 16:13:58	78170-1.RAW	4:13:58 PM	22.17	3		14.7	-0.061	-1.220	ng/L	
Hg2600-3	DM2	SAM	F710250-BS1	20	10/19/2017 16:18:06	78171-1.RAW	4:18:06 PM	998.84	3		991.4	4.725	94.505	ng/L	
Hg2600-3	DM2	SAM	F710250-BSD1	20	10/19/2017 16:22:14	78172-1.RAW	4:22:14 PM	1017.25	3		1009.8	4.815	96.310	ng/L	
Hg2600-3	DM2	SAM	F710250-BS2	400	10/19/2017 16:26:23	78173-1.RAW	4:26:23 PM	1132.04	3		1124.6	5.505	2201.838	ng/L	
Hg2600-3	DM2	SAM	1709623-04	100	10/19/2017 16:30:31	78174-1.RAW	4:30:31 PM	642.55	3		635.1	3.086	308.580	ng/L	
Hg2600-3	DM2	SAM	1709623-05	100	10/19/2017 16:34:40	78175-1.RAW	4:34:40 PM	305.82	3		298.4	1.436	143.563	ng/L	
Hg2600-3	DM2	SAM	1709623-06	100	10/19/2017 16:38:48	78176-1.RAW	4:38:48 PM	400.16	3		392.7	1.898	189.794	ng/L	
Hg2600-3	DM2	SAM	1709623-07	100	10/19/2017 16:42:57	78177-1.RAW	4:42:57 PM	772.09	3		764.7	3.721	372.062	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	10/19/2017 16:47:05	78178-1.RAW	4:47:05 PM	996.06			988.6	4.845	4.845	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	10/19/2017 16:51:13	78179-1.RAW	4:51:13 PM	12.60			5.2	0.025	0.025	ng/L	
Hg2600-3	DM2	SAM	1709623-08	100	10/19/2017 16:55:22	78180-1.RAW	4:55:22 PM	671.32	3		663.9	3.227	322.680	ng/L	
Hg2600-3	DM2	SAM	1709623-09	100	10/19/2017 16:59:30	78181-1.RAW	4:59:30 PM	227.78	3		220.4	1.053	105.321	ng/L	
Hg2600-3	DM2	SAM	1709623-10	100	10/19/2017 17:03:39	78182-1.RAW	5:03:39 PM	283.52	3		276.1	1.326	132.635	ng/L	
Hg2600-3	DM2	SAM	1709623-11	100	10/19/2017 17:07:47	78183-1.RAW	5:07:47 PM	316.15	3		308.7	1.486	148.627	ng/L	
Hg2600-3	DM2	SAM	1709623-12	100	10/19/2017 17:11:55	78184-1.RAW	5:11:55 PM	189.20	3		181.8	0.864	86.415	ng/L	
Hg2600-3	DM2	SAM	1709623-13	100	10/19/2017 17:16:04	78185-1.RAW	5:16:04 PM	275.22	3		267.8	1.286	128.567	ng/L	
Hg2600-3	DM2	SAM	1709623-14	100	10/19/2017 17:20:12	78186-1.RAW	5:20:12 PM	498.08	3		490.6	2.378	237.782	ng/L	
Hg2600-3	DM2	SAM	1709623-15	100	10/19/2017 17:24:21	78187-1.RAW	5:24:21 PM	209.08	3		201.6	0.962	96.154	ng/L	
Hg2600-3	DM2	SAM	1709623-16	100	10/19/2017 17:28:29	78188-1.RAW	5:28:29 PM	440.97	3		433.5	2.098	209.794	ng/L	
Hg2600-3	DM2	SAM	1709623-17	100	10/19/2017 17:32:38	78189-1.RAW	5:32:38 PM	353.23	3		345.8	1.668	166.799	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	10/19/2017 17:36:46	78190-1.RAW	5:36:46 PM	1014.76			1007.3	4.936	4.936	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	10/19/2017 17:40:54	78191-1.RAW	5:40:54 PM	19.55			12.1	0.059	0.059	ng/L	
Hg2600-3	DM2	SAM	1709623-18	50	10/19/2017 17:45:03	78192-1.RAW	5:45:03 PM	434.18	3		426.7	2.038	101.901	ng/L	
Hg2600-3	DM2	SAM	1709623-19	50	10/19/2017 17:49:11	78193-1.RAW	5:49:11 PM	451.22	3		443.8	2.122	106.078	ng/L	
Hg2600-3	DM2	SAM	1709623-20	50	10/19/2017 17:53:20	78194-1.RAW	5:53:20 PM	627.30	3		619.9	2.984	149.221	ng/L	
Hg2600-3	DM2	SAM	1709625-01	50	10/19/2017 17:57:28	78195-1.RAW	5:57:28 PM	4413.99	3		4406.6	21.541	1077.073	ng/L	
Hg2600-3	DM2	SAM	1709626-02	50	10/19/2017 18:01:36	78196-1.RAW	6:01:36 PM	1956.81	3		1949.4	9.500	474.991	ng/L	
Hg2600-3	DM2	SAM	1709626-03	50	10/19/2017 18:05:45	78197-1.RAW	6:05:45 PM	3854.63	3		3847.2	18.800	940.013	ng/L	
Hg2600-3	DM2	SAM	1709623-12RE1	20	10/19/2017 18:09:53	78198-1.RAW	6:09:53 PM	889.46	3		882.0	4.189	83.784	ng/L	
Hg2600-3	DM2	SAM	F710250-DUP1	50	10/19/2017 18:14:02	78199-1.RAW	6:14:02 PM	1898.99	3		1891.6	9.216	460.823	ng/L	
Hg2600-3	DM2	SAM	F710250-MS1	400	10/19/2017 18:18:10	78200-1.RAW	6:18:10 PM	2454.11	3		2446.7	11.983	4793.400	ng/L	
Hg2600-3	DM2	SAM	F710250-MSD1	400	10/19/2017 18:22:19	78201-1.RAW	6:22:19 PM	2469.20	3		2461.8	12.057	4822.983	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	10/19/2017 18:26:27	78202-1.RAW	6:26:27 PM	998.07			990.6	4.855	4.855	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	10/19/2017 18:30:35	78203-1.RAW	6:30:35 PM	30.49			23.1	0.113	0.113	ng/L	
Hg2600-3	DM2	SAM	F710250-MS2	400	10/19/2017 18:34:44	78204-1.RAW	6:34:44 PM	2631.36	3		2623.9	12.852	5140.862	ng/L	
Hg2600-3	DM2	SAM	F710250-MSD2	400	10/19/2017 18:38:52	78205-1.RAW	6:38:52 PM	2748.41	3		2741.0	13.426	5370.311	ng/L	
Hg2600-3	DM2	SAM	1709623-15RE1	20	10/19/2017 18:43:01	78206-1.RAW	6:43:01 PM	978.76	3		971.3	4.627	92.536	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	10/19/2017 18:47:09	78207-1.RAW	6:47:09 PM	1028.64			1021.2	5.005	5.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	10/19/2017 18:51:17	78208-1.RAW	6:51:17 PM	21.47			14.0	0.069	0.069	ng/L	

TotalMercury EPA1631 Operat DM Works THg260i Methoc ##### Descrip THg26003-171019-1  
 BlankS 7.4284 CalibFa 204.06 1 R2: 1  
 Calib Eqn: Conc = (Area-7.4284) / (204.06 - 7.4284) \* 1  
 Status: QC Warnings:4/QC F Run Time: 10:08:03  
 Blank SD: 1.000574677  
 Blank RSD%: 13.46952602  
 CF SD: 2.064034023  
 CF RSD%: 1.011497989

Sample/D	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	3.92					78082-1.RAW	10:10:55	799.66	Clean	OK	1
Clean										78083-1.RAW	10:13:47	0.00	Clean	NP	1
WS				7.43	0.00					78084-1.RAW	10:17:55	7.84	Sample	OK	1
WS				7.43	0.00					78085-1.RAW	10:22:03	7.09	Sample	OK	1
WS				7.43	0.00					78086-1.RAW	10:26:12	5.74	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					78087-1.RAW	10:30:20	8.38	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.03					78088-1.RAW	10:34:29	6.38	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					78089-1.RAW	10:38:37	7.52	Sample	OK	1
SEQ-CAL1	A4		1	7.43	0.49			98.64		78090-1.RAW	10:42:46	108.07	Sample	OK	1
SEQ-CAL2	A5		1	7.43	1.01			100.76		78091-1.RAW	10:46:54	213.04	Sample	OK	1
SEQ-CAL3	A6		1	7.43	5.06			101.13		78092-1.RAW	10:51:03	1039.20	Sample	OK	1
SEQ-CAL4	A7		1	7.43	19.88			99.38		78093-1.RAW	10:55:11	4063.38	Sample	FB	1
SEQ-CAL5	A8		1	7.43	40.04			100.09		78094-1.RAW	10:59:19	8177.09	Sample	FB	1
SEQ-ICV1	A9		1	7.43	5.13			102.58		78095-1.RAW	11:03:28	1054.03	Sample	OK	1
F710364-BLK1	A10		100	7.43	9.20					78096-1.RAW	11:07:36	26.20	Sample	OK	1
F710364-BLK2	A11		100	7.43	5.60					78097-1.RAW	11:11:45	18.85	Sample	OK	1
F710364-BLK3	A12		100	7.43	5.23					78098-1.RAW	11:15:53	18.10	Sample	OK	1
F710364-BS1	B1		400	7.43	9027.16					78099-1.RAW	11:20:02	4612.57	Sample	OK	1
F710364-BSD1	B2		400	7.43	8791.42					78100-1.RAW	11:24:10	4492.31	Sample	OK	1
1710236-02	B3		100	7.43	5423.28					78101-1.RAW	11:28:18	11074.03	Sample	FB	1
1710236-04	B4		100	7.43	32.09					78102-1.RAW	11:32:27	72.92	Sample	OK	1
1710236-06	B5		100	7.43	193.21					78103-1.RAW	11:36:35	401.69	Sample	OK	1
1710236-08	B6		100	7.43	28.72					78104-1.RAW	11:40:44	66.04	Sample	OK	1
1710236-02B	B7		100	7.43	176.55					78105-1.RAW	11:44:52	367.69	Sample	OK	1
SEQ-CCV1	B8		1	7.43	5.07			101.41		78106-1.RAW	11:49:01	1042.14	Sample	OK	1
SEQ-CCB1	B9		1	7.43	0.09			0.00		78107-1.RAW	11:53:09	25.15	Sample	OK	1
1710236-04B	B10		100	7.43	8.88					78108-1.RAW	11:57:18	25.55	Sample	OK	1
1710236-06B	B11		100	7.43	8.92					78109-1.RAW	12:01:26	25.62	Sample	OK	1
1710236-08B	B12		100	7.43	5.71					78110-1.RAW	12:05:34	19.08	Sample	OK	1
1710236-02RE1	C1		400	7.43	5345.65					78111-1.RAW	12:09:43	2734.47	Sample	OK	1
1710236-04RE1	C2		100	7.43	12.70					78112-1.RAW	12:13:50	33.33	Sample	OK	1
F710364-DUP1	C3		100	7.43	152.69					78113-1.RAW	12:17:58	319.00	Sample	OK	1
F710364-MS1	C4		100	7.43	664.61			432.44		78114-1.RAW	12:22:06	1363.60	Sample	OK	1
F710364-MSD1	C5		100	7.43	658.78					78115-1.RAW	12:26:15	1351.71	Sample	OK	1
F710398-BLK1	C6		100	7.43	11.22					78116-1.RAW	12:30:23	30.33	Sample	OK	1
F710398-BLK2	C7		100	7.43	11.08					78117-1.RAW	12:34:32	30.04	Sample	OK	1
SEQ-CCV2	C8		1	7.43	4.89			97.77		78118-1.RAW	12:38:40	1004.97	Sample	OK	1
SEQ-CCB2	C9		1	7.43	0.05			0.00		78119-1.RAW	12:42:48	17.73	Sample	OK	1
F710398-BLK3	C10		100	7.43	4.62					78120-1.RAW	12:46:57	16.86	Sample	OK	1
F710398-BS1	C11		400	7.43	1860.70					78121-1.RAW	12:51:05	956.65	Sample	OK	1
F710398-BSD1	C12		400	7.43	1875.26					78122-1.RAW	12:55:14	964.08	Sample	OK	1
1710524-02	D1		2500	7.43	64778.20					78123-1.RAW	12:59:22	5294.81	Sample	OK	1
1710573-01	D2		2500	7.43	5640.61					78124-1.RAW	13:03:30	467.83	Sample	OK	1
1710573-02	D3		2500	7.43	4959.36					78125-1.RAW	13:07:39	412.23	Sample	OK	1
1710575-01	D4		2500	7.43	13921.36					78126-1.RAW	13:11:47	1143.73	Sample	OK	1
1710575-02	D5		2500	7.43	12325.27					78127-1.RAW	13:15:56	1013.45	Sample	OK	1
1710591-01	D6		2500	7.43	11336.40					78128-1.RAW	13:20:04	932.74	Sample	OK	1
1710591-02	D7		2500	7.43	10192.05					78129-1.RAW	13:24:13	839.33	Sample	OK	1
SEQ-CCV3	D8		1	7.43	4.88			97.50		78130-1.RAW	13:28:21	1002.25	Sample	OK	1
SEQ-CCB3	D9		1	7.43	0.05			0.00		78131-1.RAW	13:32:29	17.67	Sample	OK	1
1710593-01	D10		2500	7.43	6430.54					78132-1.RAW	13:36:38	532.31	Sample	OK	1
1710593-02	D11		2500	7.43	6992.65					78133-1.RAW	13:40:46	578.19	Sample	OK	1
1710524-02B	D12		100	7.43	54.43					78134-1.RAW	13:44:55	118.51	Sample	OK	1
1710573-01B	A1		100	7.43	27.20					78135-1.RAW	13:49:03	62.93	Sample	OK	1
1710573-02B	A2		100	7.43	12.63					78136-1.RAW	13:53:11	33.20	Sample	OK	1
1710575-01B	A3		100	7.43	10.96					78137-1.RAW	13:57:20	29.80	Sample	OK	1
1710575-02B	A4		100	7.43	18.13					78138-1.RAW	14:01:28	44.43	Sample	OK	1
1710591-01B	A5		100	7.43	7.47					78139-1.RAW	14:05:37	22.66	Sample	OK	1
1710591-02B	A6		100	7.43	8.73					78140-1.RAW	14:09:45	25.25	Sample	OK	1
1710593-01B	A7		100	7.43	16.05					78141-1.RAW	14:13:53	40.18	Sample	OK	1

SEQ-CCV4	A8	1	7.43	4.82	96.38	78142-1.RAW	14:18:02	990.78	Sample	OK	1
SEQ-CCB4	A9	1	7.43	0.04	0.00	78143-1.RAW	14:22:10	16.42	Sample	OK	1
1710593-02B	A10	100	7.43	12.30		78144-1.RAW	14:26:19	32.52	Sample	OK	1
1710524-02C	A11	5000	7.43	142926.96		78145-1.RAW	14:30:27	5840.48	Sample	OK	1
1710573-01C	A12	2500	7.43	22937.90		78146-1.RAW	14:34:36	1879.69	Sample	OK	1
1710573-02C	B1	2500	7.43	24130.99		78147-1.RAW	14:38:44	1977.07	Sample	OK	1
1710575-01C	B2	2500	7.43	23875.50		78148-1.RAW	14:42:52	1956.22	Sample	OK	1
1710575-02C	B3	2500	7.43	25654.42		78149-1.RAW	14:47:01	2101.42	Sample	OK	1
1710591-01C	B4	400	7.43	8552.91		78150-1.RAW	14:51:09	4370.63	Sample	OK	1
1710591-02C	B5	400	7.43	7935.76		78151-1.RAW	14:55:18	4055.80	Sample	OK	1
1710593-01C	B6	400	7.43	8510.22		78152-1.RAW	14:59:26	4348.85	Sample	FB	1
1710593-02C	B7	400	7.43	8506.79		78153-1.RAW	15:03:35	4347.11	Sample	OK	1
SEQ-CCV5	B8	1	7.43	5.17	103.40	78154-1.RAW	15:07:43	1062.39	Sample	OK	1
SEQ-CCB5	B9	1	7.43	0.13	0.00	78155-1.RAW	15:11:51	34.27	Sample	OK	1
1710591-01RE1	B10	2500	7.43	11523.49		78156-1.RAW	15:16:00	948.01	Sample	OK	1
1710591-02RE1	B11	2500	7.43	10471.91		78157-1.RAW	15:20:08	862.18	Sample	OK	1
1710593-01RE1	B12	2500	7.43	6469.39		78158-1.RAW	15:24:17	535.48	Sample	OK	1
1710593-02RE1	C1	2500	7.43	7106.02		78159-1.RAW	15:28:25	587.44	Sample	OK	1
1710524-02RE1	C2	5000	7.43	145112.40		78160-1.RAW	15:32:33	5929.67	Sample	OK	1
F710398-DUP1	C3	2500	7.43	14283.33		78161-1.RAW	15:36:42	1173.27	Sample	OK	1
F710398-MS1	C4	2500	7.43	64553.16	451.92	78162-1.RAW	15:40:50	5276.44	Sample	FB	1
F710398-MSD1	C5	2500	7.43	64402.28		78163-1.RAW	15:44:59	5264.13	Sample	FB	1
F710250-BLK1	C6	20	7.43	3.75		78164-1.RAW	15:49:07	45.69	Sample	OK	1
F710250-BLK2	C7	20	7.43	2.02		78165-1.RAW	15:53:15	26.03	Sample	OK	1
SEQ-CCV6	C8	1	7.43	4.99	99.72	78166-1.RAW	15:57:24	1024.83	Sample	OK	1
SEQ-CCB6	C9	1	7.43	0.10	0.00	78167-1.RAW	16:01:32	28.55	Sample	OK	1
F710250-BLK3	C10	20	7.43	2.23		78168-1.RAW	16:05:41	30.14	Sample	OK	1
*F710250-BLK4	C11	20	7.43	2.59		78169-1.RAW	16:09:49	33.81	Sample	OK	1
*F710250-BLK5	C12	20	7.43	1.45		78170-1.RAW	16:13:58	22.17	Sample	OK	1
F710250-BS1	D1	20	7.43	97.17		78171-1.RAW	16:18:06	998.84	Sample	OK	1
F710250-BSD1	D2	20	7.43	98.97		78172-1.RAW	16:22:14	1017.25	Sample	OK	1
F710250-BS2	D3	400	7.43	2204.50		78173-1.RAW	16:26:23	1132.04	Sample	OK	1
1709623-04	D4	100	7.43	311.24		78174-1.RAW	16:30:31	642.55	Sample	OK	1
1709623-05	D5	100	7.43	146.23		78175-1.RAW	16:34:40	305.82	Sample	OK	1
1709623-06	D6	100	7.43	192.46		78176-1.RAW	16:38:48	400.16	Sample	OK	1
1709623-07	D7	100	7.43	374.73		78177-1.RAW	16:42:57	772.09	Sample	OK	1
SEQ-CCV7	D8	1	7.43	4.84	96.90	78178-1.RAW	16:47:05	996.06	Sample	OK	1
SEQ-CCB7	D9	1	7.43	0.03	0.00	78179-1.RAW	16:51:13	12.60	Sample	OK	1
1709623-08	D10	100	7.43	325.35		78180-1.RAW	16:55:22	671.32	Sample	OK	1
1709623-09	D11	100	7.43	107.99		78181-1.RAW	16:59:30	227.78	Sample	OK	1
1709623-10	D12	100	7.43	135.30		78182-1.RAW	17:03:39	283.52	Sample	OK	1
1709623-11	A1	100	7.43	151.29		78183-1.RAW	17:07:47	316.15	Sample	OK	1
1709623-12	A2	100	7.43	89.08		78184-1.RAW	17:11:55	189.20	Sample	OK	1
1709623-13	A3	100	7.43	131.23		78185-1.RAW	17:16:04	275.22	Sample	OK	1
1709623-14	A4	100	7.43	240.45		78186-1.RAW	17:20:12	498.08	Sample	OK	1
1709623-15	A5	100	7.43	98.82		78187-1.RAW	17:24:21	209.08	Sample	OK	1
1709623-16	A6	100	7.43	212.46		78188-1.RAW	17:28:29	440.97	Sample	OK	1
1709623-17	A7	100	7.43	169.46		78189-1.RAW	17:32:38	353.23	Sample	OK	1
SEQ-CCV8	A8	1	7.43	4.94	98.73	78190-1.RAW	17:36:46	1014.76	Sample	OK	1
SEQ-CCB8	A9	1	7.43	0.06	0.00	78191-1.RAW	17:40:54	19.55	Sample	OK	1
1709623-18	A10	50	7.43	104.57		78192-1.RAW	17:45:03	434.18	Sample	OK	1
1709623-19	A11	50	7.43	108.74		78193-1.RAW	17:49:11	451.22	Sample	OK	1
1709623-20	A12	50	7.43	151.89		78194-1.RAW	17:53:20	627.30	Sample	OK	1
1709625-01	B1	50	7.43	1079.74		78195-1.RAW	17:57:28	4413.99	Sample	OK	1
1709626-02	B2	50	7.43	477.66		78196-1.RAW	18:01:36	1956.81	Sample	OK	1
1709626-03	B3	50	7.43	942.68		78197-1.RAW	18:05:45	3854.63	Sample	OK	1
1709623-12RE1	B4	20	7.43	86.45		78198-1.RAW	18:09:53	889.46	Sample	OK	1
F710250-DUP1	B5	50	7.43	463.49		78199-1.RAW	18:14:02	1898.99	Sample	OK	1
F710250-MS1	B6	400	7.43	4796.06	1032.55	78200-1.RAW	18:18:10	2454.11	Sample	OK	1
F710250-MSD1	B7	400	7.43	4825.65		78201-1.RAW	18:22:19	2469.20	Sample	OK	1
SEQ-CCV9	B8	1	7.43	4.85	97.09	78202-1.RAW	18:26:27	998.07	Sample	OK	1
SEQ-CCB9	B9	1	7.43	0.11	0.00	78203-1.RAW	18:30:35	30.49	Sample	OK	1
F710250-MS2	B10	400	7.43	5143.53	243421.32	78204-1.RAW	18:34:44	2631.36	Sample	OK	1
F710250-MSD2	B11	400	7.43	5372.98		78205-1.RAW	18:38:52	2748.41	Sample	OK	1
1709623-15RE1	B12	20	7.43	95.20		78206-1.RAW	18:43:01	978.76	Sample	OK	1

SEQ-CCVA	C1	1	7.43	5.00	78207-1.RAW	18:47:09	1028.64 Sample	OK	1
SEQ-CCBA	C2	1	7.43	0.07	78208-1.RAW	18:51:17	21.47 Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE  
PEER-REVIEWED

7J20013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 10/20/17*  
Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20013-IBL1 ✓	QC	1			
7J20013-IBL2 ✓	QC	2			
7J20013-IBL3 ✓	QC	3			
7J20013-CAL1 ✓	QC	4	1704505 ✓		
7J20013-CAL2 ✓	QC	5	1704506 ✓		
7J20013-CAL3 ✓	QC	6	1704507 ✓		
7J20013-CAL4 ✓	QC	7	1704508 ✓		
7J20013-CAL5 ✓	QC	8	1704509		
7J20013-ICV1 ✓	QC	9	1705628 ✓		
F710364-BLK1 ✓	QC	10			
F710364-BLK2 ✓	QC	11			
F710364-BLK3 ✓	QC	12			
F710364-BS1 ✓	QC	13			
F710364-BSD1 ✓	QC	14			
1710236-02 ✓	Hg_FSTM_TRAP_A	15			
1710236-04 ✓	Hg_FSTM_TRAP_A	16			
1710236-06 ✓	Hg_FSTM_TRAP_A	17			
1710236-08 ✓	Hg_FSTM_TRAP_A	18			
7J20013-CCV1 ✓	QC	19	1705628		
7J20013-CCB1 ✓	QC	20			
1710236-02RE1 ✓	Hg_FSTM_TRAP_A	21			Added 10/20/2017 by DM2
1710236-04RE1 ✓	Hg_FSTM_TRAP_A	22			Added 10/20/2017 by DM2
F710364-DUP1 ✓	QC	23			
F710364-MS1 ✓	QC	24			
F710364-MSD1 ✓	QC	25			
F710398-BLK1 ✓	QC	26			
F710398-BLK2 ✓	QC	27			
7J20013-CCV2 ✓	QC	28	1705628		
7J20013-CCB2 ✓	QC	29			
F710398-BLK3 ✓	QC	30			
F710398-BS1 ✓	QC	31			
F710398-BSD1 ✓	QC	32			
1710524-02 ✓	Hg_FSTM_TRAP_A	33			
1710573-01 ✓	Hg_FSTM_TRAP_A	34			AFS - Take photos of trap if heavy particulate present and send to PM
1710573-02 ✓	Hg_FSTM_TRAP_A	35			AFS - Take photos of trap if heavy particulate present and send to PM

## ANALYSIS SEQUENCE

7J20013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710575-01 ✓	Hg_FSTM_TRAP_A	36			AFS - Take photos of trap if heavy particulate present and send to PM
1710575-02 ✓	Hg_FSTM_TRAP_A	37			AFS - Take photos of trap if heavy particulate present and send to PM
1710591-01 ✓	Hg_FSTM_TRAP_A	38			
1710591-02 ✓	Hg_FSTM_TRAP_A	39			
7J20013-CCV3 ✓	QC	40	1705628	✓	
7J20013-CCB3 ✓	QC	41			
1710593-01 ✓	Hg_FSTM_TRAP_A	42			
1710593-02 ✓	Hg_FSTM_TRAP_A	43			
7J20013-CCV4 ✓	QC	44	1705628	✓	
7J20013-CCB4 ✓	QC	45			
7J20013-CCV5 ✓	QC	46	1705628	✓	
7J20013-CCB5 ✓	QC	47			
1710591-01RE1 ✓	Hg_FSTM_TRAP_A	48			Added 10/20/2017 by DM2
1710591-02RE1 ✓	Hg_FSTM_TRAP_A	49			Added 10/20/2017 by DM2
1710593-01RE1 ✓	Hg_FSTM_TRAP_A	50			Added 10/20/2017 by DM2
1710593-02RE1 ✓	Hg_FSTM_TRAP_A	51			Added 10/20/2017 by DM2
F710398-DUP1 ✓	QC	52			
F710398-MS1 ✓	QC	53			
F710398-MSD1 ✓	QC	54		✓	
7J20013-CCV6 ✓	QC	55	1705628		
7J20013-CCB6 ✓	QC	56			

Dan Moseem

10/19/17

Samples Loaded By

Date

Dan Moseem

10/20/17

Data Processed By

Date

**PREPARATION BENCH SHEET**

F710364

**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
F710364-BLK1	Blank	1	20					
F710364-BLK2	Blank	1	20					
F710364-BLK3	Blank	1	20					
F710364-BS1	LCS	1	20	1705554	200			
F710364-BSD1	LCS Dup	1	20	1705554	200			
F710364-DUP1	Duplicate [1710236-06] ✓	1	20					
F710364-MS1	Matrix Spike [1710236-06] ✓	0.025	0.5	1704422	25 ✓			[Spk] 1Trap->20mL; 20mL->20mL; Spiked 0.5mL ✓
F710364-MSD1	Matrix Spike Dup [1710236-06] ✓	0.025	0.5	1704422	25			[Spk] 1Trap->20mL; 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
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
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

**PREPARATION BENCH SHEET**

F710364

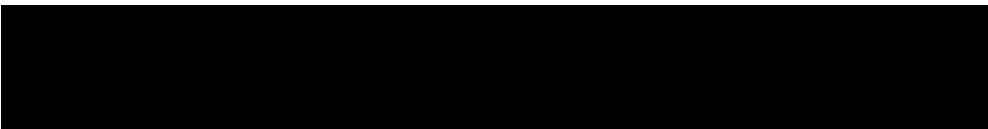
**Eurofins Frontier Global Sciences, Inc.**

**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
1710236-02	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L	
1710236-02RE1	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L Added 10/20/201	Added 10/20/2017 by DM2
1710236-04	SID0156105	1	20	-	-	-	Sample Volume: None	
1710236-04RE1	SID0156105	1	20	-	-	-	Sample Volume: None Added 10/20/20	Added 10/20/2017 by DM2
1710236-06	SID0156107	1	20	-	-	-	Sample Volume: 2 L	
1710236-08	SID0156110	1	20	-	-	-	Sample Volume: 2 L	





PREPARATION BENCH SHEET

200-3  
10/19/17 DM

F710364

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
F710364-BLK1	Blank	1	20					100X -
F710364-BLK2	Blank	1	20					100X -
F710364-BLK3	Blank	1	20					100X -
F710364-BS1	LCS	1	20	1705554	200			400X -
F710364-BSD1	LCS Dup	1	20	1705554	200			400X -
F710364-DUP1	Duplicate 1710236-06	1	20					100X -
F710364-MS1	Matrix Spike 1710236-06	1	20	1704422	25			100X -
F710364-MSD1	Matrix Spike Dup 1710236-06	1	20	1704422	25			100X -

Standard ID(s): 1705554  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 18-Mar-18 00:00

1703182  
1705610  
1705611  
1706142

PREPARATION BENCH SHEET

2L00-3

10/19/17 DM

F710364

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
1710236-02	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L	
1710236-04	SID0156105	1	20	-	-	-	Sample Volume: None	
1710236-06	SID0156107	1	20	-	-	-	Sample Volume: 2 L	
1710236-08	SID0156110	1	20	-	-	-	Sample Volume: 2 L	

**A**

100X → 400X ✓

100X → 100X ✓

100X ✓

100X ✓

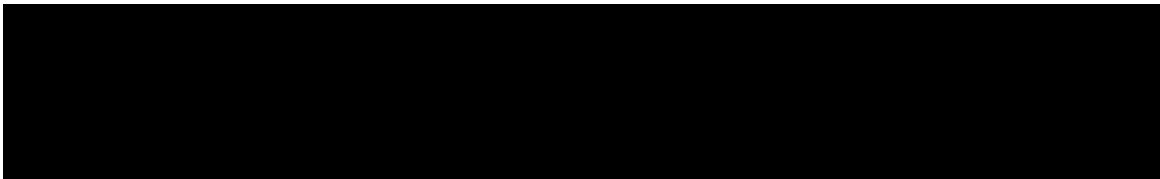
**B**

100X ✓

100X ✓

100X ✓

100X ✓



Trap Digestions

Name: R

Date: 10/16/17

Batch ID: F710364

Work Order(s): 1710236

Analysis:  Total Hg  Other

Sample Matrix:  FSTM  KCI  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): 54.0 (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)
F710364-BLk1	20
F710364-BLk2	20
F710364-BLk3	20
F710364-BS1	20
F710364-BS01	20
1710236-01 FSTM A	20
1710236-01 FSTM B	20
1710236-02 FSTM A	20
1710236-02 FSTM B	20
1710236-03 FSTM A	20
1710236-03 FSTM B	20
1710236-04 FSTM A	20
1710236-04 FSTM B	20
/	

10/16/17 DM

Spike ID: 1705554  
Spike Amount (µL): 200  
Spike Witness: 10/16/17 YH  
BrCl ID: 1706079  
70/30: 1706064  
Other: ya  
Thermometer: 13698  
Dispensers: 02K27494   
              04N73497   
Other: 15406623  
Pipette ID: 0207852  
Cal. Date: 10/16/17  
Vials and Jars lot# 00068647  
Trap Material Lot#: 1704097  
Loader Mass Verified:  Yes  No

Comments:

**PREPARATION BENCH SHEET**

F710398

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710398-BLK1	Blank	1	100					
F710398-BLK2	Blank	1	100					
F710398-BLK3	Blank	1	100					
F710398-BS1	LCS	1	100	1705554	200			
F710398-BSD1	LCS Dup	1	100	1705554	200			
F710398-DUP1	Duplicate [1710575-01]	1	100					
F710398-MS1	Matrix Spike [1710575-01]	0.0002	0.02	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F710398-MSD1	Matrix Spike Dup [1710575-01]	0.0002	0.02	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<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	1704096	FSTM Lot 170707A	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
			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
			1706194	5% BrCl	14-Mar-18 00:00

**PREPARATION BENCH SHEET**

F710398

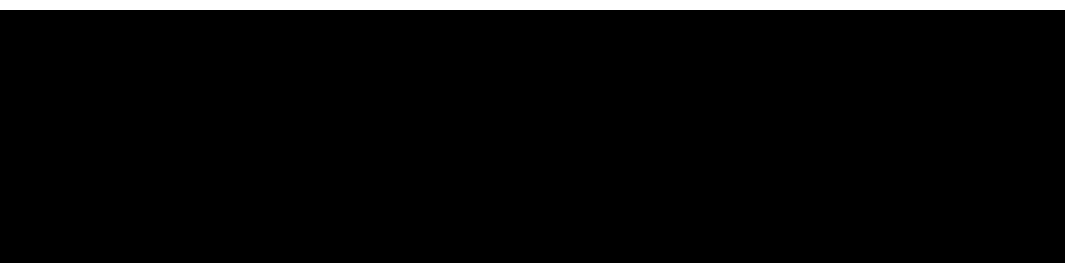
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710524-02	EFGS09358 Trap B	1	100	-	-	-	2791.74 L	
1710524-02RE1	EFGS09358 Trap B	1	100	-	-	-	2791.74 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710573-01	EFGS10025 31/32 Trap A 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 989.8 L AFS - Take ph	
1710573-02	EFGS10078 31/32 Trap B 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 836.7 L AFS - Take ph	
1710575-01	EFGS10028 Unit 31/32 Trap A 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1143.488 AFS - Take p	
1710575-02	EFGS10152 Unit 31/32 Trap B 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1013.855 AFS - Take p	
1710591-01	EFGS08929 Trap A	1	100	-	-	-	2453.81 L	
1710591-01RE1	EFGS08929 Trap A	1	100	-	-	-	2453.81 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710591-02	EFGS09466 Trap B	1	100	-	-	-	2453.34 L	
1710591-02RE1	EFGS09466 Trap B	1	100	-	-	-	2453.34 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710593-01	EFGS08923 Trap A	1	100	-	-	-	1826.16 L	
1710593-01RE1	EFGS08923 Trap A	1	100	-	-	-	1826.16 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710593-02	EFGS08969 Trap B	1	100	-	-	-	1825.13 L	
1710593-02RE1	EFGS08969 Trap B	1	100	-	-	-	1825.13 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2



**PREPARATION BENCH SHEET**

F710398

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

**Due Date: 10/20/2017**

PREPARATION BENCH SHEET

2600-3  
10/19/17 DM

F710398

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/18/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710398-BLK1	Blank	1	100					100X -
F710398-BLK2	Blank	1	100					100X -
F710398-BLK3	Blank	1	100					100X -
F710398-BS1	LCS	1	100	1705554	200			400X -
F710398-BSD1	LCS Dup	1	100	1705554	200			400X -
F710398-MS1	Matrix Spike 1710575-01	1	100	1704422	100			2500X -
F710398-MSD1	Matrix Spike Dup 1710575-01	1	100	1704422	100			2500X -

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

Expiration: 18-Mar-18 00:00

Reagent ID(s):  
1704096 FSTM Lot 170707A  
1706064 70/30 Digestion Acid  
1706079 5% BrCl  
1706194

Expiration:  
06-Jul-18 00:00  
09-Apr-18 00:00  
14-Mar-18 00:00

DUPI - source 1710575-01  
2500X

1703182  
1705610  
1705611  
1706142

PREPARATION BENCH SHEET

2100-3  
10/19/17 DM

F710398

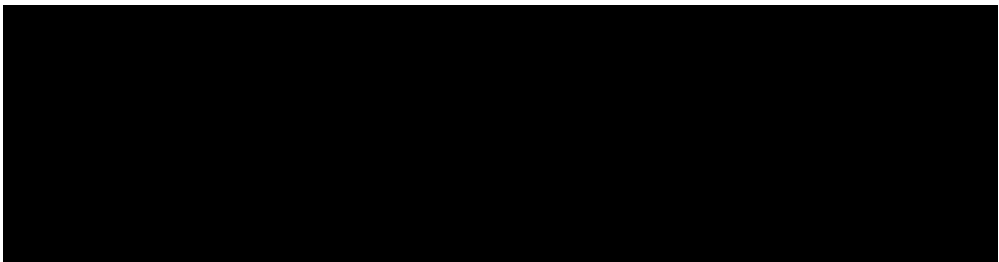
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/18/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1710524-02	EFGS09358 Trap B	1	100	-	-	-	2791.74 L 2500X	100X	500X → 5000X
1710573-01	EFGS10025 31/32 Trap A 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 989.8 L AFS - Take ph 2500X	100X	2500X
1710573-02	EFGS10078 31/32 Trap B 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 936.7 L AFS - Take ph 2500X	100X	2500X
1710575-01	EFGS10028 Unit 31/32 Trap A 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1143.488 AFS - Take I 2500X	100X	2500X
1710575-02	EFGS10152 Unit 31/32 Trap AB 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1013.855 AFS - Take I 2500X	100X	2500X
1710591-01	EFGS08929 Trap A	1	100	-	-	-	2453.81 L 2500X → 2500X	100X	400X
1710591-02	EFGS09466 Trap B	1	100	-	-	-	2453.34 L 2500X → 2500X	100X	400X
1710593-01	EFGS08923 Trap A	1	100	-	-	-	1826.16 L 2500X → 2500X	100X	400X
1710593-02	EFGS08969 Trap B	1	100	-	-	-	1825.13 L 2500X → 2500X	100X	400X





### Trap Digestions

Name: WTF Date: 10/18/17 Batch ID: F710398

Work Order(s): 1710524, 1710573, 1710575 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: 14:15, start temp (°C): 54.0 (raw) 53.8 (w/ CF)  
 end time: 16:15, end temp (°C): 54.0 (raw) 53.8 (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)	
F710398	-	Blu1	100	
F710398	-	Blu2	100	Spike ID: <u>1705554</u>
F710398	-	Blu3	100	Spike Amount (µL): <u>200</u>
F710398	-	BS1	100	Spike Witness: <u>DM 10/18/17</u>
F710398	-	BSD1	100	
1710524	-	02A	100	
1710524	-	02B	100	BrCl ID: <u>1706079, 1706194</u>
1710524	-	02C	100	70/30: <u>1706064</u>
1710573	-	01A	100	Other: <u>N/A</u>
1710573	-	01B	100	
1710573	-	01C	100	Thermometer: <u>14545</u>
1710573	-	02A	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1710573	-	02B	100	04N73497 <input type="checkbox"/>
1710573	-	02C	100	Other <u>15406623</u> <input checked="" type="checkbox"/> Yes
1710575	-	01A	100	
1710575	-	01B	100	
1710575	-	01C	100	Pipette ID: <u>Mull619</u>
1710575	-	02A	100	Cal. Date: <u>10/18/17</u>
1710575	-	02B	100	
1710575	-	02C	100	
1710591	-	01A	100	Vials and Jars lot# <u>00068842, 00068835</u>
1710591	-	01B	100	Trap Material Lot#: <u>1704096</u>
1710591	-	01C	100	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1710591	-	02A	100	
1710591	-	02B	100	
1710591	-	02C	100	Comments:
1710593	-	01A	100	1710524: C-bed spiked @ 16,000ug.
1710593	-	01B	100	1710573: All c-beds spiked @ 2,700ug.
1710593	-	01C	100	1710575: All c-beds spiked @ 2,700ug.
1710593	-	01C	100	1710591: All c-beds spiked @ 900ug
1710593	-	02A	100	(says 20ug on shipping tube but cal and trap spike logbook contradict)
1710593	-	02B	100	
1710593	-	02C	100	1710593: All c-beds spiked @ 900ug.
<del>1710593</del>				
<del>1710593</del>				

*cut*  
10/18/17

*WTF 10/18/17*

*10/18/17*

**Failing Data Report - 7J20013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710236-02	Hg_FSTM_TRAP_A	108.33	1.00				ng/Trap						FAIL-OVER	PASS	E -
F710364-DUP1	Hg_FSTM_TRAP_A	2.92	1.00	3.73	3.73		ng/Trap				24.4	24.00	PASS-OVER	FAIL-DUP	QR-07 -

Don M. Mason  
 Analyst Reviewed By  
 10/20/17  
 Date

[Signature]  
 Peer Reviewed By  
 10/20/17  
 Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE  
PEER-REVIEWED

7J20012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *AL 10/20/17*  
Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20012-IBL1 ✓	QC	1			
7J20012-IBL2 ✓	QC	2			
7J20012-IBL3 ✓	QC	3			
7J20012-CAL1 ✓	QC	4	1704505 ✓		
7J20012-CAL2 ✓	QC	5	1704506 ✓		
7J20012-CAL3 ✓	QC	6	1704507 ✓		
7J20012-CAL4 ✓	QC	7	1704508 ✓		
7J20012-CAL5 ✓	QC	8	1704509 ✓		
7J20012-ICV1 ✓	QC	9	1705628 ✓		
7J20012-CCV1 ✓	QC	10	1705628 ✓		
7J20012-CCB1 ✓	QC	11			
7J20012-CCV2 ✓	QC	12	1705628 ✓		
7J20012-CCB2 ✓	QC	13			
7J20012-CCV3 ✓	QC	14	1705628 ✓		
7J20012-CCB3 ✓	QC	15			
7J20012-CCV4 ✓	QC	16	1705628 ✓		
7J20012-CCB4 ✓	QC	17			
7J20012-CCV5 ✓	QC	18	1705628 ✓		
7J20012-CCB5 ✓	QC	19			
F710250-BLK1 ✓	QC	20			
F710250-BLK2 ✓	QC	21			
7J20012-CCV6 ✓	QC	22	1705628 ✓		
7J20012-CCB6 ✓	QC	23			
F710250-BLK3 ✓	QC	24			
F710250-BLK4 ✓	QC	25			
F710250-BLK5 ✓	QC	26			
F710250-BS1 ✓	QC	27			
F710250-BSD1 ✓	QC	28			
F710250-BS2 ✓	QC	29			
1709623-04 ✓	Hg-CVAFS-T-7030	30			
1709623-05 ✓	Hg-CVAFS-T-7030	31			
1709623-06 ✓	Hg-CVAFS-T-7030	32			
1709623-07 ✓	Hg-CVAFS-T-7030	33			
7J20012-CCV7 ✓	QC	34	1705628 ✓		
7J20012-CCB7 ✓	QC	35			

**ANALYSIS SEQUENCE**

**7J20012**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 10/19/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709623-08	Hg-CVAFS-T-7030	36			
1709623-09	Hg-CVAFS-T-7030	37			
1709623-10	Hg-CVAFS-T-7030	38			
1709623-11	Hg-CVAFS-T-7030	39			
1709623-12	Hg-CVAFS-T-7030	40			
1709623-13	Hg-CVAFS-T-7030	41			
1709623-14	Hg-CVAFS-T-7030	42			
1709623-15	Hg-CVAFS-T-7030	43			
1709623-16	Hg-CVAFS-T-7030	44			
1709623-17	Hg-CVAFS-T-7030	45			
7J20012-CCV8	QC	46	1705628		
7J20012-CCB8	QC	47			
1709623-18	Hg-CVAFS-T-7030	48			
1709623-19	Hg-CVAFS-T-7030	49			
1709623-20	Hg-CVAFS-T-7030	50			
1709625-01	Hg-CVAFS-T-7030	51			
1709626-02	Hg-CVAFS-T-7030	52			
1709626-03	Hg-CVAFS-T-7030	53			
1709623-12RE1	Hg-CVAFS-T-7030	54			Added 10/20/2017 by DM2
F710250-DUP1	QC	55			
F710250-MS1	QC	56			
F710250-MSD1	QC	57			
7J20012-CCV9	QC	58	1705628		
7J20012-CCB9	QC	59			
F710250-MS2	QC	60			
F710250-MSD2	QC	61			
1709623-15RE1	Hg-CVAFS-T-7030	62			Added 10/20/2017 by DM2
7J20012-CCVA	QC	63	1705628		
7J20012-CCBA	QC	64			

Dan Morem      10/19/17  
 Samples Loaded By      Date

Dan Morem      10/20/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F710250

**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
F710250-BLK1	Blank	0.25	20					
F710250-BLK2	Blank	0.25	20					
F710250-BLK3	Blank	0.25	20					
F710250-BLK4	Blank	0.293	20					Pre-homogenization Blank for 1709624, 1709625, 1709626
F710250-BLK5	Blank	0.291	20					Post-homogenization Blank for 1709624, 1709625, 1709626
F710250-BS1	LCS	0.25	20	1704421	20			
F710250-BS2	DORM4	0.1291	20	1705412	129.1			
F710250-BSD1	LCS Dup	0.25	20	1704421	20			
F710250-DUP1	Duplicate [1709626-02]	0.262	20					
F710250-MS1	Matrix Spike [1709626-02]	0.272	20	1705554	100			
F710250-MS2	Matrix Spike [1709625-01]	0.266	20	1705554	100			
F710250-MSD1	Matrix Spike Dup [1709626-02]	0.277	20	1705554	100			
F710250-MSD2	Matrix Spike Dup [1709625-01]	0.259	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**

F710250

**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
1709623-04	FRB-01_17SN001_091217_RAS_04_WB	0.278	20	-	-	-		
1709623-05	FRB-01_17SN001_091217_RAS_05_WB	0.266	20	-	-	-		
1709623-06	FRB-01_17SN001_091217_RAS_06_WB	0.261	20	-	-	-		
1709623-07	FRB-01_17SN001_091217_RAS_07_WB	0.284	20	-	-	-		
1709623-08	FRB-01_17SN001_091217_RAS_08_WB	0.262	20	-	-	-		
1709623-09	FRB-01_17SN001_091217_RAS_09_WB	0.257	20	-	-	-		
1709623-10	FRB-01_17SN001_091217_RAS_10_WB	0.251	20	-	-	-		
1709623-11	FRB-01_17SN001_091217_RAS_11_WB	0.272	20	-	-	-		
1709623-12	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-		
1709623-12RE1	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709623-13	FRB-01_17SN001_091217_RAS_13_WB	0.274	20	-	-	-		
1709623-14	FRB-01_17SN001_091217_RAS_14_WB	0.25	20	-	-	-		
1709623-15	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-		
1709623-15RE1	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709623-16	FRB-01_17SN001_091217_RAS_16_WB	0.267	20	-	-	-		
1709623-17	FRB-01_17SN001_091217_RAS_17_WB	0.273	20	-	-	-		
1709623-18	FRB-01_17SN001_091217_RAS_18_WB	0.277	20	-	-	-		
1709623-19	FRB-01_17SN001_091217_RAS_19_WB	0.266	20	-	-	-		
1709623-20	FRB-01_17SN001_091217_RAS_20_WB	0.253	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710250

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709625-01	ES-FP_17SN001_091417_RAS_01_WB	0.274	20	QC	-	-	MS/MSD	
1709626-02	OB-01_17SN001_091617_RAS_02_WB	0.264	20	-	-	-		
1709626-03	OB-01_17SN001_091617_RAS_03_WB	0.261	20	-	-	-		



**PREPARATION BENCH SHEET**

2600-3  
10/19/17 DM

F710250

**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
F710250-BLK1	Blank	0.25	20					20X
F710250-BLK2	Blank	0.25	20					20X
F710250-BLK3	Blank	0.25	20					20X
F710250-BLK4	Blank	0.293	20					Pre-homogenization Blank for 1709624, 1709625, 1709626 20X
F710250-BLK5	Blank	0.291	20					Post-homogenization Blank for 1709624, 1709625, 1709626 20X
F710250-BS1	LCS	0.25	20	1704421	20			20X
F710250-BS2	DORM4	0.1291	20	1705412	129.1			400X
F710250-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710250-DUP1	Duplicate [1709626-02]	0.262	20					50X
F710250-MS1	Matrix Spike [1709626-02]	0.272	20	1705554	100			400X
F710250-MS2	Matrix Spike [1709625-01]	0.266	20	1705554	100			400X
F710250-MSD1	Matrix Spike Dup [1709626-02]	0.277	20	1705554	100			400X
F710250-MSD2	Matrix Spike Dup [1709625-01]	0.259	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  
1705211  
1706142

Due Date: 10/20/2017



PREPARATION BENCH SHEET

2600.3  
10/19/17 DM

F710250

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
1709623-04	FRB-01_17SN001_091217_RAS_04_WB	0.278	20	-	-	-		100X -
1709623-05	FRB-01_17SN001_091217_RAS_05_WB	0.266	20	-	-	-		100X -
1709623-06	FRB-01_17SN001_091217_RAS_06_WB	0.261	20	-	-	-		100X -
1709623-07	FRB-01_17SN001_091217_RAS_07_WB	0.284	20	-	-	-		100X -
1709623-08	FRB-01_17SN001_091217_RAS_08_WB	0.262	20	-	-	-		100X -
1709623-09	FRB-01_17SN001_091217_RAS_09_WB	0.257	20	-	-	-		100X -
1709623-10	FRB-01_17SN001_091217_RAS_10_WB	0.251	20	-	-	-		100X -
1709623-11	FRB-01_17SN001_091217_RAS_11_WB	0.272	20	-	-	-		100X -
1709623-12	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-		100X → 20X -
1709623-13	FRB-01_17SN001_091217_RAS_13_WB	0.274	20	-	-	-		100X -
1709623-14	FRB-01_17SN001_091217_RAS_14_WB	0.25	20	-	-	-		100X -
1709623-15	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-		100X → 20X -
1709623-16	FRB-01_17SN001_091217_RAS_16_WB	0.267	20	-	-	-		100X -
1709623-17	FRB-01_17SN001_091217_RAS_17_WB	0.273	20	-	-	-		100X -
1709623-18	FRB-01_17SN001_091217_RAS_18_WB	0.277	20	-	-	-		50X -
1709623-19	FRB-01_17SN001_091217_RAS_19_WB	0.266	20	-	-	-		50X -
1709623-20	FRB-01_17SN001_091217_RAS_20_WB	0.253	20	-	-	-		50X -
1709625-01	ES-FP_17SN001_091417_RAS_01_WB	0.274	20	QC	-	-	MS/MSD	50X -
1709626-02	OB-01_17SN001_091617_RAS_02_WB	0.264	20	-	-	-		50X -

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2000.3  
10/19/17 DM

F710250

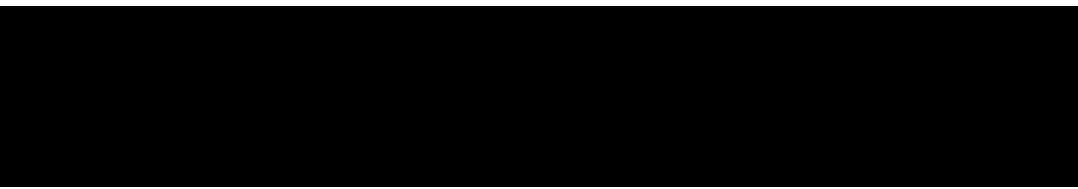
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709626-03	OB-01_17SN001_091617_RAS_03_WB	0.261	20	-	-	-	50%
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Technician: WPF

Batch#: F710250

Date: 10/6/17

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 (DORM) Calibrated?  Yes  No Therm.#: 140418612 Calibrated?  Yes  No

\*Time in: 17:00 Actual Temp. (raw): 80.1 °C w/ CF: 79.6 °C

Time out: 1900 Actual Temp. (raw): 82.3 °C w/ CF: 81.8 °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: AMB 10/6/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MUN619 Calibration Date: 10/2/17

HNO<sub>3</sub> LIMS ID: N/A

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

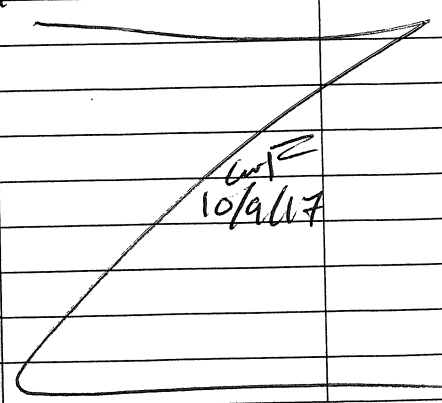
70/30 LIMS ID: 1705927

Dispenser #: 0262749 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406623

Glass Vial # 00068647 Boiling Chip lot # 1702551 \*Hotblock Position: N

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	F710250 - Blk1	0.255	23	1709623 - 20	0.253	BS2=DORM4
2	F710250 - Blk2	0.286	24	<del>1709623 - 02</del> <del>1709624 - 01</del>	WPF 10/6/17	Source: 1705412
3	F710250 - Blk3	0.258	25	<del>1709624 - 02</del>	WPF 10/6/17	
4	F710250 - BS1	0.268	26	F710250 - Dup1	0.262	<b>Comments</b>
5	F710250 - BSD1	0.258	27	F710250 - MS1	0.272	Dup/MS1/MSD1
6	F710250 - BS2	0.1291	28	F710250 - MSD1	0.277	Source: 1709624-02
7	1709623 - 04	0.278	29	1709625 - 01	0.274	MS/MSD2
8	1709623 - 05	0.266	30	F710250 - MS2	0.266	Source: 1709625-01
9	1709623 - 06	0.261	31	F710250 - MSD2	0.259	BS1/BSD1 spilled
10	1709623 - 07	0.284	32	1709626 - 02	0.264	20µl of 1709622
11	1709623 - 08	0.262	33	1709628 - 03	0.261	
12	1709623 - 09	0.257	34	F710250 - Blk4	0.293	taken out of
13	1709623 - 10	0.251	35	F710250 - Blk5	0.291	batch
14	1709623 - 11	0.272	36			Blk4+5 are
15	1709623 - 12	0.255	37			Pre/Post blanks
16	1709623 - 13	0.274	38			for 1709624
17	1709623 - 14	0.250	39			1709625, 1709626
18	1709623 - 15	0.254	40			
19	1709623 - 16	0.267	41			Pre/Post blanks
20	1709623 - 17	0.273	42			for 1709623 are
21	1709623 - 18	0.277	43			in batch
22	1709623 - 19	0.266	44			F710266

\*Hotblock diagram located in back of logbook

**Failing Data Report - 7J20012**

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 M. [Signature]  
Analyst Reviewed By

10/20/17  
Date

[Signature]  
Peer Reviewed By

10/20/17  
Date

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20012, 7J20013
<b>Reviewer:</b> <u>DM 10/20/17</u>	<b>Dataset ID(s):</b> THG26003-171019-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F710250, F710398, F710364	

● 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:** DM 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?<br>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<br>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?<br>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 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7J20012, 7J20013
<b>Reviewer:</b>	0 <i>R 10/20/17</i>	<b>Dataset ID(s):</b>	THG26003-171019-1
<b>Date:</b>	10/20/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F710250, F710398, F710364		0

Analyst Initials *DM*                      Reviewer Initials *R 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: *1710236-02 HIGH SAMPLE. ABOVE CAL5. F710364-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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7J20012, 7J20013
<b>Reviewer:</b>	0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b>	THG26003-171019-1
<b>Date:</b>	10/20/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F710250, F710398, F710364		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 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 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: _____ 12/15/16, 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: _____ 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

THg26002-171020-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 20, 2017  
Instrument #: Hg2600-2  
LIMS Sequence #: 7J20017

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	103.40 units	206.80	88.89 units	177.78	102.2 %Rec
SEQ-CAL2	1	1.00 ng/L	186.66 units	186.66	172.15 units	172.15	99.0 %Rec
SEQ-CAL3	1	5.00 ng/L	884.51 units	176.90	870.00 units	174.00	100.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3490.93 units	174.55	3476.42 units	173.82	99.9 %Rec
SEQ-CAL5	1	40.00 ng/L	6891.04 units	172.28	6876.53 units	171.91	98.8 %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**  
 173.93            +/- 2.35            1.3% RSD            183.44

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	14.51 units	±3.54	0.08 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.915 ng/L	±1.119
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	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: PC 10/20/17

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	10/20/2017 6:53:49	87796-1.RAW	6:53:49	13.90	-			-0.6	-0.004	-0.004	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/20/2017 6:57:57	87797-1.RAW	6:57:57	18.32	-			3.8	0.022	0.022	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/20/2017 7:02:06	87798-1.RAW	7:02:06	11.31	-			-3.2	-0.018	-0.018	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/20/2017 7:06:14	87799-1.RAW	7:06:14	103.40	-			88.9	0.511	0.511	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/20/2017 7:10:22	87800-1.RAW	7:10:22	186.66	-			172.2	0.990	0.990	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/20/2017 7:14:31	87801-1.RAW	7:14:31	884.51	-			870.0	5.002	5.002	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/20/2017 7:18:39	87802-1.RAW	7:18:39	3490.93	-			3476.4	19.987	19.987	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/20/2017 7:22:48	87803-1.RAW	7:22:48	6891.04	-			6876.5	39.536	39.536	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/20/2017 7:26:56	87804-1.RAW	7:26:56	901.80	-			887.3	5.101	5.101	ng/L	
Hg2600-2	BC	SAM	1709625-02	50	10/20/2017 7:31:05	87805-1.RAW	7:31:05	4720.45	-	1		4705.9	27.038	1351.889	ng/L	
Hg2600-2	BC	BLK	F710251-BLK1	20	10/20/2017 7:35:14	87806-1.RAW	7:35:14	33.40	-	1		18.9	0.109	2.172	ng/L	
Hg2600-2	BC	BLK	F710251-BLK2	20	10/20/2017 7:39:23	87807-1.RAW	7:39:23	19.24	-	1		4.7	0.027	0.544	ng/L	
Hg2600-2	BC	BLK	F710251-BLK3	20	10/20/2017 7:43:31	87808-1.RAW	7:43:31	14.76	-	1		0.3	0.001	0.029	ng/L	
Hg2600-2	BC	SAM	F710251-BS1	20	10/20/2017 7:47:39	87809-1.RAW	7:47:39	827.61	-	1		813.1	4.629	92.581	ng/L	
Hg2600-2	BC	SAM	F710251-BSD1	20	10/20/2017 7:51:48	87810-1.RAW	7:51:48	844.20	-	1		829.7	4.724	94.488	ng/L	
Hg2600-2	BC	SAM	F710251-BS2	400	10/20/2017 7:55:56	87811-1.RAW	7:55:56	981.43	-	1		966.9	5.557	2222.759	ng/L	
Hg2600-2	BC	SAM	1709625-03	100	10/20/2017 8:00:05	87812-1.RAW	8:00:05	1730.59	-	1		1716.1	9.857	985.722	ng/L	
Hg2600-2	BC	SAM	1709625-04	100	10/20/2017 8:04:13	87813-1.RAW	8:04:13	3995.50	-	1		3981.0	22.879	2287.894	ng/L	
Hg2600-2	BC	SAM	1709625-05	100	10/20/2017 8:08:22	87814-1.RAW	8:08:22	2300.46	-	1		2285.9	13.134	1313.355	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/20/2017 8:12:30	87815-1.RAW	8:12:30	846.29	-			831.8	4.782	4.782	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/20/2017 8:16:39	87816-1.RAW	8:16:39	24.38	-			9.9	0.057	0.057	ng/L	
Hg2600-2	BC	SAM	1709625-06	100	10/20/2017 8:20:47	87817-1.RAW	8:20:47	1883.94	-	1		1869.4	10.739	1073.888	ng/L	
Hg2600-2	BC	SAM	1709625-07	100	10/20/2017 8:24:55	87818-1.RAW	8:24:55	4964.92	-	1		4950.4	28.452	2845.246	ng/L	
Hg2600-2	BC	SAM	1709625-08	100	10/20/2017 8:29:04	87819-1.RAW	8:29:04	2918.22	-	1		2903.7	16.685	1668.527	ng/L	
Hg2600-2	BC	SAM	1709625-09	100	10/20/2017 8:33:12	87820-1.RAW	8:33:12	4602.89	-	1		4588.4	26.371	2637.107	ng/L	
Hg2600-2	BC	SAM	1709625-10	100	10/20/2017 8:37:21	87821-1.RAW	8:37:21	3946.64	-	1		3932.1	22.598	2259.805	ng/L	
Hg2600-2	BC	SAM	1709625-11	100	10/20/2017 8:41:29	87822-1.RAW	8:41:29	1820.28	-	1		1805.8	10.373	1037.283	ng/L	
Hg2600-2	BC	SAM	1709625-12	100	10/20/2017 8:45:37	87823-1.RAW	8:45:37	1081.38	-	1		1066.9	6.125	612.466	ng/L	
Hg2600-2	BC	SAM	1709625-13	100	10/20/2017 8:49:46	87824-1.RAW	8:49:46	825.42	-	1		810.9	4.653	465.305	ng/L	
Hg2600-2	BC	SAM	1709625-14	100	10/20/2017 8:53:54	87825-1.RAW	8:53:54	971.34	-	1		956.8	5.492	549.198	ng/L	
Hg2600-2	BC	SAM	1709625-15	100	10/20/2017 8:58:03	87826-1.RAW	8:58:03	869.20	-	1		854.7	4.905	490.477	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/20/2017 9:02:11	87827-1.RAW	9:02:11	868.28	-			853.8	4.909	4.909	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/20/2017 9:06:20	87828-1.RAW	9:06:20	21.91	-			7.4	0.043	0.043	ng/L	
Hg2600-2	BC	SAM	1709625-16	100	10/20/2017 9:10:28	87829-1.RAW	9:10:28	1227.23	-	1		1212.7	6.963	696.318	ng/L	
Hg2600-2	BC	SAM	1709625-17	100	10/20/2017 9:14:36	87830-1.RAW	9:14:36	763.44	-	1		748.9	4.297	429.669	ng/L	
Hg2600-2	BC	SAM	1709625-18	100	10/20/2017 9:18:45	87831-1.RAW	9:18:45	1035.86	-	1		1021.3	5.863	586.293	ng/L	
Hg2600-2	BC	SAM	1709625-19	100	10/20/2017 9:22:53	87832-1.RAW	9:22:53	726.25	-	1		711.7	4.083	408.291	ng/L	
Hg2600-2	BC	SAM	1709625-20	100	10/20/2017 9:27:02	87833-1.RAW	9:27:02	991.16	-	1		976.6	5.606	560.595	ng/L	
Hg2600-2	BC	SAM	1709626-01	100	10/20/2017 9:31:10	87834-1.RAW	9:31:10	1078.64	-	1		1064.1	6.109	610.887	ng/L	
Hg2600-2	BC	SAM	F710251-DUP1	100	10/20/2017 9:35:18	87835-1.RAW	9:35:18	2427.34	-	1		2412.8	13.863	1386.305	ng/L	
Hg2600-2	BC	SAM	F710251-MS1	400	10/20/2017 9:39:27	87836-1.RAW	9:39:27	2530.61	-	1		2516.1	14.464	5785.448	ng/L	
Hg2600-2	BC	SAM	F710251-MSD1	400	10/20/2017 9:43:35	87837-1.RAW	9:43:35	2630.48	-	1		2616.0	15.038	6015.130	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/20/2017 9:47:44	87838-1.RAW	9:47:44	2201.42	-	1		2186.9	12.571	5028.399	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/20/2017 9:51:52	87839-1.RAW	9:51:52	886.93	-			872.4	5.016	5.016	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/20/2017 9:56:01	87840-1.RAW	9:56:01	30.66	-			16.1	0.093	0.093	ng/L	
Hg2600-2	BC	SAM	F710251-MSD2	400	10/20/2017 10:00:09	87841-1.RAW	10:00:09	2172.67	-	1		2158.2	12.406	4962.298	ng/L	
Hg2600-2	BC	BLK	F710366-BLK1	10	10/20/2017 10:04:17	87842-1.RAW	10:04:17	34.99	-	x		20.5	0.118	1.177	ng/L	
Hg2600-2	BC	BLK	F710366-BLK2	10	10/20/2017 10:08:26	87843-1.RAW	10:08:26	19.13	-	x		4.6	0.027	0.265	ng/L	
Hg2600-2	BC	SAM	F710366-BS1	10	10/20/2017 10:12:34	87844-1.RAW	10:12:34	3384.85	-	x		3370.3	19.377	193.773	ng/L	
Hg2600-2	BC	SAM	F710366-BSD1	10	10/20/2017 10:16:43	87845-1.RAW	10:16:43	3339.99	-	x		3325.5	19.119	191.194	ng/L	
Hg2600-2	BC	SAM	1709837-08	10	10/20/2017 10:20:51	87846-1.RAW	10:20:51	763.35	-	x		748.8	4.305	43.054	ng/L	
Hg2600-2	BC	SAM	1709837-09	10	10/20/2017 10:25:00	87847-1.RAW	10:25:00	799.96	-	x		785.4	4.516	45.158	ng/L	
Hg2600-2	BC	SAM	1709837-10	10	10/20/2017 10:29:08	87848-1.RAW	10:29:08	731.76	-	x		717.3	4.124	41.237	ng/L	
Hg2600-2	BC	SAM	1709837-11	10	10/20/2017 10:33:16	87849-1.RAW	10:33:16	710.22	-	x		695.7	4.000	39.999	ng/L	
Hg2600-2	BC	SAM	1709837-12	10	10/20/2017 10:37:25	87850-1.RAW	10:37:25	737.21	-	x		722.7	4.155	41.551	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/20/2017 10:41:33	87851-1.RAW	10:41:33	877.66	-			863.1	4.963	4.963	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/20/2017 10:45:42	87852-1.RAW	10:45:42	33.81	-			19.3	0.111	0.111	ng/L	

TotalMercury EPA1631  
**Operat** BC **BlankS** 14.511 **Calib Eqn:** Conc = (Area-14.51 **Run Date:** ##### **Blank SD:** 3.542419209  
**Worksh** THg2600 **CalibFa** 173.93 **Status:** QC Warnings:3/QC E **Run Time:** 6:31:32 **Blank RSD%:** 24.41223513  
**Method** ##### **R:** 1 **R<sup>2</sup>:** 1 **CF SD:** 2.346824894  
**Descrip** THg26002-171020-1 **CF RSD%:** 1.349271917

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	3.85					87791-1.RAW	6:34:24	670.05	Clean	OK	1
Clean				0.00	0.01					87792-1.RAW	6:37:15	2.20	Clean	OK	1
ws				14.51	0.00					87793-1.RAW	6:41:24	13.77	Sample	OK	1
ws				14.51	0.00					87794-1.RAW	6:45:32	4.63	Sample	OK	1
ws				14.51	0.00					87795-1.RAW	6:49:40	5.56	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.08					87796-1.RAW	6:53:49	13.90	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.11					87797-1.RAW	6:57:57	18.32	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.07					87798-1.RAW	7:02:06	11.31	Sample	OK	1
SEQ-CAL1	A4		1	14.51	0.51			102.21		87799-1.RAW	7:06:14	103.40	Sample	OK	1
SEQ-CAL2	A5		1	14.51	0.99			98.98		87800-1.RAW	7:10:22	186.66	Sample	OK	1
SEQ-CAL3	A6		1	14.51	5.00			100.04		87801-1.RAW	7:14:31	884.51	Sample	OK	1
SEQ-CAL4	A7		1	14.51	19.99			99.94		87802-1.RAW	7:18:39	3490.93	Sample	OK	1
SEQ-CAL5	A8		1	14.51	39.54			98.84		87803-1.RAW	7:22:48	6891.04	Sample	OK	1
SEQ-ICV1	A9		1	14.51	5.10			102.03		87804-1.RAW	7:26:56	901.80	Sample	OK	1
1709625-02	A10		50	14.51	1352.80					87805-1.RAW	7:31:05	4720.45	Sample	OK	1
F710251-BLK1	A11		20	14.51	2.17					87806-1.RAW	7:35:14	33.40	Sample	OK	1
F710251-BLK2	A12		20	14.51	0.54					87807-1.RAW	7:39:23	19.24	Sample	OK	1
F710251-BLK3	A13		20	14.51	0.03					87808-1.RAW	7:43:31	14.76	Sample	OK	1
F710251-BS1	A14		20	14.51	93.50					87809-1.RAW	7:47:39	827.61	Sample	OK	1
F710251-BSD1	A15		20	14.51	95.40					87810-1.RAW	7:51:48	844.20	Sample	OK	1
F710251-BS2	A16		400	14.51	2223.67					87811-1.RAW	7:55:56	981.43	Sample	OK	1
1709625-03	A17		100	14.51	986.64					87812-1.RAW	8:00:05	1730.59	Sample	OK	1
1709625-04	A18		100	14.51	2288.81					87813-1.RAW	8:04:13	3995.50	Sample	OK	1
1709625-05	A19		100	14.51	1314.27					87814-1.RAW	8:08:22	2300.46	Sample	OK	1
SEQ-CCV1	A20		1	14.51	4.78			95.64		87815-1.RAW	8:12:30	846.29	Sample	OK	1
SEQ-CCB1	A21		1	14.51	0.06			0.00		87816-1.RAW	8:16:39	24.38	Sample	OK	1
1709625-06	B1		100	14.51	1074.80					87817-1.RAW	8:20:47	1883.94	Sample	OK	1
1709625-07	B2		100	14.51	2846.16					87818-1.RAW	8:24:55	4964.92	Sample	OK	1
1709625-08	B3		100	14.51	1669.44					87819-1.RAW	8:29:04	2918.22	Sample	OK	1
1709625-09	B4		100	14.51	2638.02					87820-1.RAW	8:33:12	4602.89	Sample	OK	1
1709625-10	B5		100	14.51	2260.72					87821-1.RAW	8:37:21	3946.64	Sample	OK	1
1709625-11	B6		100	14.51	1038.20					87822-1.RAW	8:41:29	1820.28	Sample	OK	1
1709625-12	B7		100	14.51	613.38					87823-1.RAW	8:45:37	1081.38	Sample	OK	1
1709625-13	B8		100	14.51	466.22					87824-1.RAW	8:49:46	825.42	Sample	OK	1
1709625-14	B9		100	14.51	550.11					87825-1.RAW	8:53:54	971.34	Sample	OK	1
1709625-15	B10		100	14.51	491.39					87826-1.RAW	8:58:03	869.20	Sample	OK	1
SEQ-CCV2	B11		1	14.51	4.91			98.17		87827-1.RAW	9:02:11	868.28	Sample	OK	1
SEQ-CCB2	B12		1	14.51	0.04			0.00		87828-1.RAW	9:06:20	21.91	Sample	OK	1
1709625-16	B13		100	14.51	697.23					87829-1.RAW	9:10:28	1227.23	Sample	OK	1
1709625-17	B14		100	14.51	430.58					87830-1.RAW	9:14:36	763.44	Sample	OK	1
1709625-18	B15		100	14.51	587.21					87831-1.RAW	9:18:45	1035.86	Sample	OK	1
1709625-19	B16		100	14.51	409.21					87832-1.RAW	9:22:53	726.25	Sample	OK	1
1709625-20	B17		100	14.51	561.51					87833-1.RAW	9:27:02	991.16	Sample	OK	1

1709626-01	B18	100	14.51	611.80		87834-1.RAW	9:31:10	1078.64	Sample	OK	1
F710251-DUP1	B19	100	14.51	1387.22		87835-1.RAW	9:35:18	2427.34	Sample	OK	1
F710251-MS1	B20	400	14.51	5786.36	416.82	87836-1.RAW	9:39:27	2530.61	Sample	OK	1
F710251-MSD1	B21	400	14.51	6016.05		87837-1.RAW	9:43:35	2630.48	Sample	OK	1
F710251-MS2	C1	400	14.51	5029.31	83.57	87838-1.RAW	9:47:44	2201.42	Sample	OK	1
SEQ-CCV3	C2	1	14.51	5.02	100.32	87839-1.RAW	9:51:52	886.93	Sample	OK	1
SEQ-CCB3	C3	1	14.51	0.09	0.00	87840-1.RAW	9:56:01	30.66	Sample	OK	1
F710251-MSD2	C4	400	14.51	4963.21		87841-1.RAW	10:00:09	2172.67	Sample	OK	1
F710366-BLK1	C5	10	14.51	1.18		87842-1.RAW	10:04:17	34.99	Sample	OK	1
F710366-BLK2	C6	10	14.51	0.27		87843-1.RAW	10:08:26	19.13	Sample	OK	1
F710366-BS1	C7	10	14.51	193.77		87844-1.RAW	10:12:34	3384.85	Sample	OK	1
F710366-BSD1	C8	10	14.51	191.19		87845-1.RAW	10:16:43	3339.99	Sample	OK	1
1709837-08	C9	10	14.51	43.05		87846-1.RAW	10:20:51	763.35	Sample	OK	1
1709837-09	C10	10	14.51	45.16		87847-1.RAW	10:25:00	799.96	Sample	OK	1
1709837-10	C11	10	14.51	41.24		87848-1.RAW	10:29:08	731.76	Sample	OK	1
1709837-11	C12	10	14.51	40.00		87849-1.RAW	10:33:16	710.22	Sample	OK	1
1709837-12	C13	10	14.51	41.55		87850-1.RAW	10:37:25	737.21	Sample	OK	1
SEQ-CCV4	C14	1	14.51	4.96	99.25	87851-1.RAW	10:41:33	877.66	Sample	OK	1
SEQ-CCB4	C15	1	14.51	0.11	0.00	87852-1.RAW	10:45:42	33.81	Sample	OK	1
1709837-13	C16	10	14.51	41.19		87853-1.RAW	10:49:50	730.92	Sample	OK	1
1709837-14	C17	10	14.51	52.50		87854-1.RAW	10:53:58	927.74	Sample	OK	1
1709837-15	C18	10	14.51	172.30		87855-1.RAW	10:58:07	3011.44	Sample	OK	1
1709837-16	C19	10				87856-1.RAW	11:02:15	889.64	Sample	OK	1
1709837-17	C20	10				87857-1.RAW	11:06:24	673.45	Sample	OK	1

## ANALYSIS SEQUENCE

7J20017

QUALITY ASSURANCE  
PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R 10/20/17*  
Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20017-IBL1 ✓	QC	1			
7J20017-IBL2 ✓	QC	2			
7J20017-IBL3 ✓	QC	3			
7J20017-CAL1 ✓	QC	4	1704505	✓	
7J20017-CAL2 ✓	QC	5	1704506	✓	
7J20017-CAL3 ✓	QC	6	1704507	✓	
7J20017-CAL4 ✓	QC	7	1704508	✓	
7J20017-CAL5 ✓	QC	8	1704509	✓	
7J20017-ICV1 ✓	QC	9	1705628	✓	
1709625-02 ✓	Hg-CVAFS-T-7030	10			
F710251-BLK1 ✓	QC	11			
F710251-BLK2 ✓	QC	12			
F710251-BLK3 ✓	QC	13			
F710251-BS1 ✓	QC	14			
F710251-BSD1 ✓	QC	15			
F710251-BS2 ✓	QC	16			
1709625-03 ✓	Hg-CVAFS-T-7030	17			
1709625-04 ✓	Hg-CVAFS-T-7030	18			
1709625-05 ✓	Hg-CVAFS-T-7030	19			
7J20017-CCV1 ✓	QC	20	1705628	✓	
7J20017-CCB1 ✓	QC	21			
1709625-06 ✓	Hg-CVAFS-T-7030	22			
1709625-07 ✓	Hg-CVAFS-T-7030	23			
1709625-08 ✓	Hg-CVAFS-T-7030	24			
1709625-09 ✓	Hg-CVAFS-T-7030	25			
1709625-10 ✓	Hg-CVAFS-T-7030	26			
1709625-11 ✓	Hg-CVAFS-T-7030	27			
1709625-12 ✓	Hg-CVAFS-T-7030	28			
1709625-13 ✓	Hg-CVAFS-T-7030	29			
1709625-14 ✓	Hg-CVAFS-T-7030	30			
1709625-15 ✓	Hg-CVAFS-T-7030	31			
7J20017-CCV2 ✓	QC	32	1705628	✓	
7J20017-CCB2 ✓	QC	33			
1709625-16 ✓	Hg-CVAFS-T-7030	34			
1709625-17 ✓	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

## ANALYSIS SEQUENCE

7J20017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709625-18 ✓	Hg-CVAFS-T-7030	36			
1709625-19 ✓	Hg-CVAFS-T-7030	37			
1709625-20 ✓	Hg-CVAFS-T-7030	38			
1709626-01 ✓	Hg-CVAFS-T-7030	39			
F710251-DUP1 ✓	QC	40			
F710251-MS1 ✓	QC	41			
F710251-MSD1 ✓	QC	42			
F710251-MS2 ✓	QC	43			
7J20017-CCV3 ✓	QC	44	1705628		
7J20017-CCB3 ✓	QC	45		✓	
F710251-MSD2 ✓	QC	46			
7J20017-CCV4 ✓	QC	47	1705628	✓	
7J20017-CCB4 ✓	QC	48			

P. Cing 10/20/17  
Samples Loaded By Date

Dan Moore 10/20/17  
Data Processed By Date

**PREPARATION BENCH SHEET**

F710251

**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
F710251-BLK1	Blank	0.25	20					
F710251-BLK2	Blank	0.25	20					
F710251-BLK3	Blank	0.25	20					
F710251-BS1	LCS	0.25	20	1704421	20			
F710251-BS2	DORM4	0.1268	20	1705412	126.8			
F710251-BSD1	LCS Dup	0.25	20	1704421	20			
F710251-DUP1	Duplicate [1709625-02]	0.277	20					
F710251-MS1	Matrix Spike [1709625-02]	0.261	20	1705554	100			
F710251-MS2	Matrix Spike [1709626-01]	0.257	20	1705554	100			
F710251-MSD1	Matrix Spike Dup [1709625-02]	0.257	20	1705554	100			
F710251-MSD2	Matrix Spike Dup [1709626-01]	0.257	20	1705554	100			

<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
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
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**

F710251

**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
1709625-02	ES-FP_17SN001_091417_RAS_02_WB	0.292	20	-	-	-		
1709625-03	ES-FP_17SN001_091417_RAS_03_WB	0.289	20	-	-	-		
1709625-04	ES-FP_17SN001_091417_RAS_04_WB	0.263	20	-	-	-		
1709625-05	ES-FP_17SN001_091417_RAS_05_WB	0.285	20	-	-	-		
1709625-06	ES-FP_17SN001_091417_RAS_06_WB	0.258	20	-	-	-		
1709625-07	ES-FP_17SN001_091417_RAS_07_WB	0.275	20	-	-	-		
1709625-08	ES-FP_17SN001_091417_RAS_08_WB	0.261	20	-	-	-		
1709625-09	ES-FP_17SN001_091417_RAS_09_WB	0.285	20	-	-	-		
1709625-10	ES-FP_17SN001_091417_RAS_10_WB	0.289	20	-	-	-		
1709625-11	ES-FP_17SN001_091417_RAS_11_WB	0.274	20	-	-	-		
1709625-12	ES-FP_17SN001_091417_RAS_12_WB	0.285	20	-	-	-		
1709625-13	ES-FP_17SN001_091417_RAS_13_WB	0.254	20	-	-	-		
1709625-14	ES-FP_17SN001_091417_RAS_14_WB	0.282	20	-	-	-		
1709625-15	ES-FP_17SN001_091417_RAS_15_WB	0.287	20	-	-	-		
1709625-16	ES-FP_17SN001_091417_RAS_16_WB	0.268	20	-	-	-		
1709625-17	ES-FP_17SN001_091417_RAS_17_WB	0.252	20	-	-	-		
1709625-18	ES-FP_17SN001_091417_RAS_18_WB	0.276	20	-	-	-		
1709625-19	ES-FP_17SN001_091417_RAS_19_WB	0.258	20	-	-	-		
1709625-20	ES-FP_17SN001_091417_RAS_20_WB	0.257	20	-	-	-		



PREPARATION BENCH SHEET

F710251

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709626-01	OB-01_17SN001_091617_RAS_01_WB	0.27	20	QC	-	-	MS/MSD	
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BC 10/29/17  
2600-2

PREPARATION BENCH SHEET

F710251

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
F710251-BLK1	Blank	0.25	20					20x ✓
F710251-BLK2	Blank	0.25	20					20x ✓
F710251-BLK3	Blank	0.25	20					20x ✓
F710251-BS1	LCS	0.25	20	1704421	20			20x ✓
F710251-BS2	DORM4	0.1268	20	1705412	126.8			400x ✓
F710251-BSD1	LCS Dup	0.25	20	1704421	20			20x ✓
F710251-DUP1	Duplicate [1709625-02]	0.277	20					100x ✓
F710251-MS1	Matrix Spike [1709625-02]	0.261	20	1705554	100			400x ✓
F710251-MS2	Matrix Spike [1709626-01]	0.257	20	1705554	100			400x ✓
F710251-MSD1	Matrix Spike Dup [1709625-02]	0.257	20	1705554	100			400x ✓
F710251-MSD2	Matrix Spike Dup [1709626-01]	0.257	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

20x = 2.5mL  
100x = 500µL  
400x = 125µL

1705616  
1705611  
1703182  
1706142

Due Date: 10/20/2017

BC 10/20/17  
2600-2

PREPARATION BENCH SHEET

F710251

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
1709625-02	ES-FP_17SN001_091417_RAS_02_WB	0.292	20	-	-	-	50X -	
1709625-03	ES-FP_17SN001_091417_RAS_03_WB	0.289	20	-	-	-	100X -	
1709625-04	ES-FP_17SN001_091417_RAS_04_WB	0.263	20	-	-	-	100X -	
1709625-05	ES-FP_17SN001_091417_RAS_05_WB	0.285	20	-	-	-	100X -	
1709625-06	ES-FP_17SN001_091417_RAS_06_WB	0.258	20	-	-	-	100X -	
1709625-07	ES-FP_17SN001_091417_RAS_07_WB	0.275	20	-	-	-	100X -	
1709625-08	ES-FP_17SN001_091417_RAS_08_WB	0.261	20	-	-	-	100X -	
1709625-09	ES-FP_17SN001_091417_RAS_09_WB	0.285	20	-	-	-	100X -	
1709625-10	ES-FP_17SN001_091417_RAS_10_WB	0.289	20	-	-	-	100X -	
1709625-11	ES-FP_17SN001_091417_RAS_11_WB	0.274	20	-	-	-	100X -	
1709625-12	ES-FP_17SN001_091417_RAS_12_WB	0.285	20	-	-	-	100X -	
1709625-13	ES-FP_17SN001_091417_RAS_13_WB	0.254	20	-	-	-	100X -	
1709625-14	ES-FP_17SN001_091417_RAS_14_WB	0.282	20	-	-	-	100X -	
1709625-15	ES-FP_17SN001_091417_RAS_15_WB	0.287	20	-	-	-	100X -	
1709625-16	ES-FP_17SN001_091417_RAS_16_WB	0.268	20	-	-	-	100X -	
1709625-17	ES-FP_17SN001_091417_RAS_17_WB	0.252	20	-	-	-	100X -	
1709625-18	ES-FP_17SN001_091417_RAS_18_WB	0.276	20	-	-	-	100X -	
1709625-19	ES-FP_17SN001_091417_RAS_19_WB	0.258	20	-	-	-	100X -	
1709625-20	ES-FP_17SN001_091417_RAS_20_WB	0.257	20	-	-	-	100X -	

Due Date: 10/20/2017

BC 10/20/17  
2600-2

PREPARATION BENCH SHEET

F710251

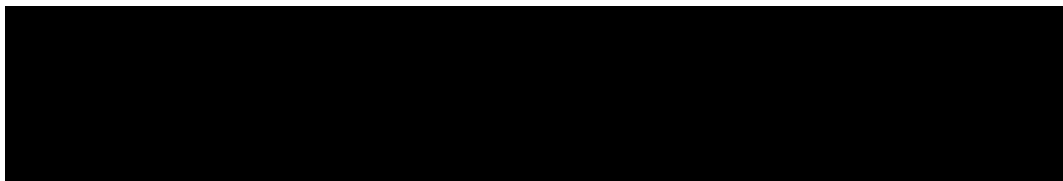
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709626-01	OB-01_17SN001_091617_RAS_01_WB	0.27	20	QC	-	-	MS/MSD 100X -
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Technician: CWF Batch#: F710251 Date: 10/6/17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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#: 6.19 (DORM) Calibrated?  Yes  No Therm.#: 140418012 Calibrated?  Yes  No

\*Time in: 17:00 Actual Temp. (raw): 80.1 °C w/ CF: 79.6 °C  
 Time out: 19:00 Actual Temp. (raw): 82.3 °C w/ CF: 81.8 °C

\*Time in can't begin before target temperature is reached  
 Final vol.: 20 mL (LIMS ID: 705959) Spike vol.: 100 µL (LIMS ID: 1705954)  
 Spike Witness: AMB 10/16/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: uuuu619 Calibration Date: 10/2/17  
 HNO<sub>3</sub> 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 #: 15408623  Yes  
 Glass Vial # 00068647 Boiling Chip lot # 1702551 \*Hotblock Position: N1

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	F710251 - BLK1	0.283	23 <sup>w/</sup> <del>10/16/17</del>	<del>F710251</del> - 15	0.287	BS2 = DORM LIMS: 1705412
2	F710251 - BLK2	0.277	24	1709625 - 16	0.268	
3	F710251 - BLK3	0.289	25	1709625 - 17	0.252	
4	F710251 - BS1	0.274	26	1709625 - 18	0.276	Comments
5	F710251 - BSD1	0.263	27	1709625 - 19	0.258	DUP1/MS1/MSD1 source: 1709625-02
6	F710251 - BS2	0.268	28	1709625 - 20	0.257	
7	1709625 - 02	0.292	29	1709626 - 01	0.270	MS2/MSD2 source: 1709626-01
8	F710251 - DUPI	0.277	30	F710251 - MS2	0.257	
9	F710251 - MS1	0.261	31	F710251 - MSD2	0.257	BS1/BSD1 spiked @ 20µL of 1704421 <sup>w/</sup> <del>10/16/17</del>
10	F710251 - MSD1	0.257	32			
11 <sup>w/</sup> <del>10/16/17</del>	<del>1709625</del> <del>F710251</del> - 03	0.289	33			Pre/Post blanks for <sup>w/</sup> <del>10/16/17</del>
12	1709625 - 04	0.263	34			1709625/1709626 are in batch F710250
13	1709625 - 05	0.285	35			
14	1709625 - 06	0.258	36			
15	1709625 - 07	0.275	37			
16	1709625 - 08	0.261	38			
17	1709625 - 09	0.285	39			
18	1709625 - 10	0.289	40			
19	1709625 - 11	0.274	41			
20	1709625 - 12	0.285	42			
21	1709625 - 13	0.254	43			
22	1709625 - 14	0.282	44			

# Failing Data Report - 7J20017

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 Motem      10/20/17  
Analyst Reviewed By      Date

[Signature]      10/20/17  
Peer Reviewed By      Date

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

<b>Analyst:</b> <u>DON MORAN</u>	<b>Sequence(s) #:</b> <u>7J20017</u>
<b>Reviewer:</b> <u>PC 10/20/17</u>	<b>Dataset ID(s):</b> <u>THG26002-171020-1</u>
<b>Date:</b> <u>10/20/2017</u>	<b>WO (s) #:</b> <u>1709625, 1709626</u>
<b>Batch #(s):</b> <u>F710251</u>	

● **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:** PC 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?<br>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<br>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 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?<br>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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20017
<b>Reviewer:</b> 0 <i>PC 10/20/17</i>	<b>Dataset ID(s):</b> THG26002-171020-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> 1709625, 1709626
<b>Batch #(s):</b> F710251	0

**Analyst Initials** DM                      **Reviewer Initials** PC 10/20/17

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20017
<b>Reviewer:</b> 0 <i>R 10/20/17</i>	<b>Dataset ID(s):</b> THG26002-171020-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> 1709625, 1709626
<b>Batch #(s):</b> F710251	0

**Analyst Initials** DM **Reviewer Initials** R 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 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: _____ <i>1-27-17</i> _____ 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: _____ <i>5-20-17</i> _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <i>7/28/2017</i> _____ LOD within last 3 months?                                   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <i>7/28/2017</i> _____ 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.**

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

Analyst:	DON MORAN	Sequence(s) #:	7J20017
Reviewer:	0 <i>R. [signature]</i>	Dataset ID(s):	THG26002-171020-1
Date:	10/20/2017	WO (s) #:	1709625, 1709626
Batch #(s):	F710251		0

*DM*

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1709626

PO#

C012505850

October 21, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1709626

### Table of Contents

October 21, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	26
Notes and Definitions	39
Raw Data: 7J20012	40
Raw Data: 7J20017	74
Raw Data: 7J20014	92

Total Pages – 135



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 15:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-01_17SN001_091617_RAS_01_WB	1709626-01	Tissue	16-Sep-17 13:06	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_02_WB	1709626-02	Tissue	16-Sep-17 13:06	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_03_WB	1709626-03	Tissue	16-Sep-17 13:06	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_04_WB	1709626-04	Tissue	16-Sep-17 13:06	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_05_WB	1709626-05	Tissue	16-Sep-17 13:06	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_06_WB	1709626-06	Tissue	16-Sep-17 13:06	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_07_WB	1709626-07	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_08_WB	1709626-08	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_09_WB	1709626-09	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_10_WB	1709626-10	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_11_WB	1709626-11	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_12_WB	1709626-12	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_13_WB	1709626-13	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_14_WB	1709626-14	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_15_WB	1709626-15	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_16_WB	1709626-16	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_17_WB	1709626-17	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_18_WB	1709626-18	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_19_WB	1709626-19	Tissue	16-Sep-17 11:00	22-Sep-17 10:25
OB-01_17SN001_091617_RAS_20_WB	1709626-20	Tissue	16-Sep-17 11:00	22-Sep-17 10:25

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271 Mill Road  
Chelmsford MA, 01824Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.055  
Project Manager: Denise King**Reported:**  
21-Oct-17 15:23

## 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 four batches; F710250, F710251, F710260, and F710262. Sample 1709626-02 was used as the QC source in batch F710250. Sample 1709626-01 was used as the QC source in batch F710251. Samples 1709626-04 and 1709626-18 were used as the QC source in batch F710260. Sample 1709626-19 was used as the QC source in batch F710262. These samples were analyzed in three sequences; 7J20012, 7J20017, 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.

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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---

Amy Goodall, Project Manager



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

**Reported:**  
21-Oct-17 15:23

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.

---

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---

Amy Goodall, Project Manager

# Sample Receipt Checklist

Client: AMSC Peter 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:	<u>Y</u>	
Custody Seals are present and intact:	<u>Y</u>	
Custody seals signed:	<u>Y</u>	

TID: <u>170404 RB</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:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</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>Y</u>	

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

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

1709626





1709626

### Environmental Analysis Request/Chain of Custody

Client: <b>Ameo Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101</b>		Matrix: <input type="checkbox"/> Tissue <input type="checkbox"/> <input type="checkbox"/>		Analyses Requested								For Lab Use Only				
Project Name#: <b>USDC Penobscot</b>		PN #: <b>3616166052.04A.055</b>		Preservation Codes								SF #: _____				
Project Manager: <b>Rod Pendleton</b>		P.O. #: <b>C012505850</b>										SCR #: _____				
Sampler: <b>JE</b>		PWSID #: _____										Remarks				
Phone #: _____		Quote #: _____										Preservation Codes: A = HCL, T = Tissue/Date N = HNO3, B = BioCH S = H2O2, P = H2O2 C = Cont.				
State where samples were collected: <b>ME</b>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>														
Sample Identification		Collection		Matrix		Total # of Containers										
Date	Time	Grab	Composite	Soil	Water	Other	Mg (Bottle) (per 100% Ziploc)									
1	091617 07:45	X			X		1	X								
2	091617 08:00	X			X		1	X								
3	091617 08:05	X			X		1	X								
4	091617 08:05	X			X		1	X								
5	091617 08:10	X			X		1	X								
6	091617 08:15	X			X		1	X								
7	091617 08:00	X			X		1	X								
8	091617 08:05	X			X		1	X								
9	091617 08:05	X			X		1	X								
10	091617 08:05	X			X		1	X								
11	091617 08:05	X			X		1	X								
12	091617 08:05	X			X		1	X								
13	091617 08:05	X			X		1	X								
14	091617 08:05	X			X		1	X								
15	091617 08:05	X			X		1	X								
16	091617 08:05	X			X		1	X								
17	091617 08:05	X			X		1	X								
18	091617 08:05	X			X		1	X								
19	091617 08:05	X			X		1	X								
20	091617 08:05	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: 9/21/2017		Time: 1630		Received by:		Date: _____		Time: _____		
Notes:				Relinquished by:		Date:		Time:		Received by:		Date:		Time:		
FedEx # <u>8 03 4444 4846</u>		# of Copies <u>2</u>		Relinquished by:		Date:		Time:		Received by:		Date:		Time:		
Sample disposal - Hold Equipment Blankets 1-4 until 90 days after delivery of report. Report and EDC to: Denise.king@amfco.com / 578-822-6633				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:		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: _____														



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 15:23

**OB-01\_17SN001\_091617\_RAS\_01\_WB**  
**1709626-01**

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

**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	45.3	0.415	3.70	ng/g	100	F710251	06-Oct-17	7J20017	20-Oct-17	EPA 1631B	
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Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.055  
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**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_02\_WB**  
**1709626-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	36.0	0.212	1.89	ng/g	50	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	



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

**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_03\_WB**  
**1709626-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	72.0	0.215	1.92	ng/g	50	F710250	06-Oct-17	7J20012	19-Oct-17	EPA 1631B	



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Project Manager: Denise King

**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_04\_WB**  
**1709626-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	77.4	0.423	3.77	ng/g	100	F710260	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 15:23

**OB-01\_17SN001\_091617\_RAS\_05\_WB**  
**1709626-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	46.5	0.404	3.61	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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Project Manager: Denise King

**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_06\_WB**  
**1709626-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	39.7	0.434	3.88	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager



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**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_07\_WB**  
**1709626-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	52.1	0.399	3.56	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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Amy Goodall, Project Manager





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**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_08\_WB**  
**1709626-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	42.7	0.421	3.76	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_09\_WB**  
**1709626-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	38.2	0.421	3.76	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_10\_WB**  
**1709626-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	47.5	0.401	3.58	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_11\_WB**  
**1709626-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	61.7	0.407	3.64	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_12\_WB**  
**1709626-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	42.5	0.415	3.70	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_13\_WB**  
**1709626-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	49.8	0.410	3.66	ng/g	100	F710260	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 15:23

**OB-01\_17SN001\_091617\_RAS\_14\_WB**  
**1709626-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	49.6	0.412	3.68	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_15\_WB**  
**1709626-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	45.3	0.427	3.82	ng/g	100	F710260	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 15:23

**OB-01\_17SN001\_091617\_RAS\_16\_WB**  
**1709626-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	49.2	0.399	3.56	ng/g	100	F710260	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 15:23

**OB-01\_17SN001\_091617\_RAS\_17\_WB**  
**1709626-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	46.9	0.415	3.70	ng/g	100	F710260	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	

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271 Mill Road  
Chelmsford MA, 01824

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

**Reported:**  
21-Oct-17 15:23

**OB-01\_17SN001\_091617\_RAS\_18\_WB**  
**1709626-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	44.8	0.393	3.51	ng/g	100	F710260	06-Oct-17	7J20014	19-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 15:23

**OB-01\_17SN001\_091617\_RAS\_19\_WB**  
**1709626-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	47.8	0.399	3.56	ng/g	100	F710262	06-Oct-17	7J20014	19-Oct-17	EPA 1631B	



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 15:23

**OB-01\_17SN001\_091617\_RAS\_20\_WB**  
**1709626-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	45.3	0.392	3.50	ng/g	100	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 15:23

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7J20012 - F710250</b>											
<b>Cal Standard (7J20012-CAL1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	0.493	-		ng/L	0.50100		98.4				
<b>Cal Standard (7J20012-CAL2)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	1.008	-		ng/L	1.0020		101				
<b>Cal Standard (7J20012-CAL3)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	5.056	-		ng/L	5.0100		101				
<b>Cal Standard (7J20012-CAL4)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	19.88	-		ng/L	20.040		99.2				
<b>Cal Standard (7J20012-CAL5)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	40.04	-		ng/L	40.080		99.9				
<b>Calibration Blank (7J20012-CCB1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	0.087	-		ng/L							
<b>Calibration Blank (7J20012-CCB2)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	0.050	-		ng/L							
<b>Calibration Blank (7J20012-CCB3)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	0.050	-		ng/L							
<b>Calibration Blank (7J20012-CCB4)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	0.044	-		ng/L							
<b>Calibration Blank (7J20012-CCB5)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	0.132	-		ng/L							

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

Reported:  
21-Oct-17 15:23

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 7J20012 - F710250

<b>Calibration Blank (7J20012-CCB6)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.103	-		ng/L								
<b>Calibration Blank (7J20012-CCB7)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.025	-		ng/L								
<b>Calibration Blank (7J20012-CCB8)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.059	-		ng/L								
<b>Calibration Blank (7J20012-CCB9)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.113	-		ng/L								
<b>Calibration Blank (7J20012-CCBA)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	0.069	-		ng/L								
<b>Calibration Check (7J20012-CCV1)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	5.071	-		ng/L	5.0000		101	77-123				
<b>Calibration Check (7J20012-CCV2)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.889	-		ng/L	5.0000		97.8	77-123				
<b>Calibration Check (7J20012-CCV3)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.875	-		ng/L	5.0000		97.5	77-123				
<b>Calibration Check (7J20012-CCV4)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	4.819	-		ng/L	5.0000		96.4	77-123				
<b>Calibration Check (7J20012-CCV5)</b>												Prepared & Analyzed: 19-Oct-17
Mercury	5.170	-		ng/L	5.0000		103	77-123				

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Project: 2017 Penobscot Biota  
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Project Manager: Denise King

Reported:  
21-Oct-17 15:23

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 7J20012 - F710250

<b>Calibration Check (7J20012-CCV6)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.986	-		ng/L	5.0000		99.7	77-123			
<b>Calibration Check (7J20012-CCV7)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.845	-		ng/L	5.0000		96.9	77-123			
<b>Calibration Check (7J20012-CCV8)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.936	-		ng/L	5.0000		98.7	77-123			
<b>Calibration Check (7J20012-CCV9)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	4.855	-		ng/L	5.0000		97.1	77-123			
<b>Calibration Check (7J20012-CCVA)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	5.005	-		ng/L	5.0000		100	77-123			
<b>Instrument Blank (7J20012-IBL1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20012-IBL2)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20012-IBL3)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7J20012-ICV1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	5.129	-		ng/L	5.0000		103	79-121			

Batch 7J20014 - F710387

<b>Cal Standard (7J20014-CAL1)</b>					Prepared & Analyzed: 19-Oct-17						
Mercury	0.528	-		ng/L	0.50100		105				

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Project: 2017 Penobscot Biota  
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Reported:  
21-Oct-17 15:23

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

<b>Cal Standard (7J20014-CAL2)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.998	-		ng/L	1.0020		99.6				
<b>Cal Standard (7J20014-CAL3)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	5.090	-		ng/L	5.0100		102				
<b>Cal Standard (7J20014-CAL4)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	19.16	-		ng/L	20.040		95.6				
<b>Cal Standard (7J20014-CAL5)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	38.81	-		ng/L	40.080		96.8				
<b>Calibration Blank (7J20014-CCB1)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.100	-		ng/L							
<b>Calibration Blank (7J20014-CCB2)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.086	-		ng/L							
<b>Calibration Blank (7J20014-CCB3)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.105	-		ng/L							
<b>Calibration Blank (7J20014-CCB4)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.102	-		ng/L							
<b>Calibration Blank (7J20014-CCB5)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.099	-		ng/L							
<b>Calibration Blank (7J20014-CCB6)</b>						Prepared & Analyzed: 19-Oct-17					
Mercury	0.063	-		ng/L							

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Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.055  
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Reported:  
21-Oct-17 15:23

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

<b>Calibration Blank (7J20014-CCB7)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.081	-		ng/L							
<b>Calibration Blank (7J20014-CCB8)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	0.101	-		ng/L							
<b>Calibration Check (7J20014-CCV1)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.827	-		ng/L	5.0000		96.5	77-123			
<b>Calibration Check (7J20014-CCV2)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.636	-		ng/L	5.0000		92.7	77-123			
<b>Calibration Check (7J20014-CCV3)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.853	-		ng/L	5.0000		97.1	77-123			
<b>Calibration Check (7J20014-CCV4)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.851	-		ng/L	5.0000		97.0	77-123			
<b>Calibration Check (7J20014-CCV5)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.985	-		ng/L	5.0000		99.7	77-123			
<b>Calibration Check (7J20014-CCV6)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.674	-		ng/L	5.0000		93.5	77-123			
<b>Calibration Check (7J20014-CCV7)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.695	-		ng/L	5.0000		93.9	77-123			
<b>Calibration Check (7J20014-CCV8)</b>											
Prepared & Analyzed: 19-Oct-17											
Mercury	4.792	-		ng/L	5.0000		95.8	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 7J20014 - F710387

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 7J20017 - F710251

Cal Standard (7J20017-CAL1)											
											Prepared & Analyzed: 20-Oct-17
Mercury	0.511	-		ng/L	0.50100		102				
Cal Standard (7J20017-CAL2)											
											Prepared & Analyzed: 20-Oct-17
Mercury	0.990	-		ng/L	1.0020		98.8				
Cal Standard (7J20017-CAL3)											
											Prepared & Analyzed: 20-Oct-17
Mercury	5.002	-		ng/L	5.0100		99.8				
Cal Standard (7J20017-CAL4)											
											Prepared & Analyzed: 20-Oct-17
Mercury	19.99	-		ng/L	20.040		99.7				
Cal Standard (7J20017-CAL5)											
											Prepared & Analyzed: 20-Oct-17
Mercury	39.54	-		ng/L	40.080		98.6				

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

Reported:  
21-Oct-17 15:23

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7J20017 - F710251</b>											
<b>Calibration Blank (7J20017-CCB1)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	0.057	-		ng/L							
<b>Calibration Blank (7J20017-CCB2)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	0.043	-		ng/L							
<b>Calibration Blank (7J20017-CCB3)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	0.093	-		ng/L							
<b>Calibration Blank (7J20017-CCB4)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	0.111	-		ng/L							
<b>Calibration Check (7J20017-CCV1)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	4.782	-		ng/L	5.0000		95.6	77-123			
<b>Calibration Check (7J20017-CCV2)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	4.909	-		ng/L	5.0000		98.2	77-123			
<b>Calibration Check (7J20017-CCV3)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	5.016	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (7J20017-CCV4)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	4.963	-		ng/L	5.0000		99.3	77-123			
<b>Instrument Blank (7J20017-IBL1)</b> Prepared & Analyzed: 20-Oct-17											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7J20017-IBL2)</b> Prepared & Analyzed: 20-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 7J20017 - F710251**

<b>Instrument Blank (7J20017-IBL3)</b>				Prepared & Analyzed: 20-Oct-17							
Mercury	ND	0.004	0.040	ng/L							U

<b>Initial Cal Check (7J20017-ICV1)</b>				Prepared & Analyzed: 20-Oct-17							
Mercury	5.101	-		ng/L	5.0000		102	79-121			

**Batch F710250 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F710250-BLK1)</b>				Prepared: 06-Oct-17 Analyzed: 19-Oct-17							
Mercury	0.300	0.090	0.800	ng/g							J

<b>Blank (F710250-BLK2)</b>				Prepared: 06-Oct-17 Analyzed: 19-Oct-17							
Mercury	0.162	0.090	0.800	ng/g							J

<b>Blank (F710250-BLK3)</b>				Prepared: 06-Oct-17 Analyzed: 19-Oct-17							
Mercury	0.178	0.090	0.800	ng/g							J

<b>Blank (F710250-BLK4)</b>				Prepared: 06-Oct-17 Analyzed: 19-Oct-17							
Mercury	ND	0.076	0.683	ng/g							F-03, U

<b>Blank (F710250-BLK5)</b>				Prepared: 06-Oct-17 Analyzed: 19-Oct-17							
Mercury	ND	0.077	0.687	ng/g							F-03, U

<b>LCS (F710250-BS1)</b>				Prepared: 06-Oct-17 Analyzed: 19-Oct-17							
Mercury	7.560	0.090	0.800	ng/g	8.0160		94.3	75-125			

<b>LCS (F710250-BS2)</b>				Prepared: 06-Oct-17 Analyzed: 19-Oct-17							
Mercury	341.1	3.47	31.0	ng/g	373.70		91.3	75-125			



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 15:23
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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 F710250 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS Dup (F710250-BSD1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	7.705	0.090	0.800	ng/g	8.0160		96.1	75-125	1.89	24	
<b>Duplicate (F710250-DUP1)</b>					Source: 1709626-02 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	35.18	0.214	1.91	ng/g		35.98			2.27	24	
<b>Matrix Spike (F710250-MS1)</b>					Source: 1709626-02 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	352.5	1.65	14.7	ng/g	367.65	35.98	86.1	71-125			
<b>Matrix Spike (F710250-MS2)</b>					Source: 1709625-01 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	386.5	1.68	15.0	ng/g	375.94	78.62	81.9	71-125			
<b>Matrix Spike Dup (F710250-MSD1)</b>					Source: 1709626-02 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	348.2	1.62	14.4	ng/g	361.01	35.98	86.5	71-125	0.477	24	
<b>Matrix Spike Dup (F710250-MSD2)</b>					Source: 1709625-01 Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	414.7	1.73	15.4	ng/g	386.10	78.62	87.0	71-125	6.08	24	

**Batch F710251 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F710251-BLK1)</b>					Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	0.174	0.090	0.800	ng/g							J
<b>Blank (F710251-BLK2)</b>					Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F710251-BLK3)</b>					Prepared: 06-Oct-17 Analyzed: 20-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: 21-Oct-17 15:23
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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
<b>Batch F710251 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>LCS (F710251-BS1)</b>					Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	7.406	0.090	0.800	ng/g	8.0160		92.4	75-125			
<b>LCS (F710251-BS2)</b>					Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	350.6	3.53	31.5	ng/g	373.70		93.8	75-125			
<b>LCS Dup (F710251-BSD1)</b>					Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	7.559	0.090	0.800	ng/g	8.0160		94.3	75-125	2.04	24	
<b>Duplicate (F710251-DUP1)</b>					Source: 1709625-02 Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	100.1	0.404	3.61	ng/g		92.60			7.78	24	
<b>Matrix Spike (F710251-MS1)</b>					Source: 1709625-02 Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	443.3	1.72	15.3	ng/g	383.14	92.60	91.5	71-125			
<b>Matrix Spike (F710251-MS2)</b>					Source: 1709626-01 Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	391.3	1.74	15.6	ng/g	389.11	45.25	88.9	71-125			
<b>Matrix Spike Dup (F710251-MSD1)</b>					Source: 1709625-02 Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	468.1	1.74	15.6	ng/g	389.11	92.60	96.5	71-125	5.28	24	
<b>Matrix Spike Dup (F710251-MSD2)</b>					Source: 1709626-01 Prepared: 06-Oct-17 Analyzed: 20-Oct-17						
Mercury	386.2	1.74	15.6	ng/g	389.11	45.25	87.6	71-125	1.50	24	
<b>Batch F710260 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F710260-BLK1)</b>					Prepared: 06-Oct-17 Analyzed: 19-Oct-17						
Mercury	0.227	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 15:23

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F710260 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F710260-BLK2)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.154	0.090	0.800	ng/g							J
<b>Blank (F710260-BLK3)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.103	0.090	0.800	ng/g							J
<b>LCS (F710260-BS1)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	7.977	0.090	0.800	ng/g	8.0160		99.5	75-125			
<b>LCS (F710260-BS2)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	305.5	3.51	31.3	ng/g	373.70		81.8	75-125			
<b>LCS Dup (F710260-BSD1)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	7.300	0.090	0.800	ng/g	8.0160		91.1	75-125	8.86	24	
<b>Duplicate (F710260-DUP1)</b> Source: 1709626-18 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	48.06	0.389	3.47	ng/g		44.77			7.09	24	
<b>Matrix Spike (F710260-MS1)</b> Source: 1709626-18 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	359.9	1.72	15.4	ng/g	384.62	44.77	81.9	71-125			
<b>Matrix Spike (F710260-MS2)</b> Source: 1709626-04 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	393.4	1.68	15.0	ng/g	374.53	77.37	84.4	71-125			
<b>Matrix Spike Dup (F710260-MSD1)</b> Source: 1709626-18 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	358.8	1.62	14.4	ng/g	361.01	44.77	87.0	71-125	6.00	24	
<b>Matrix Spike Dup (F710260-MSD2)</b> Source: 1709626-04 Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	401.0	1.68	15.0	ng/g	374.53	77.37	86.4	71-125	2.37	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 15:23

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F710262 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F710262-BLK1)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.322	0.090	0.800	ng/g							J
<b>Blank (F710262-BLK2)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.148	0.090	0.800	ng/g							J
<b>Blank (F710262-BLK3)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	0.125	0.090	0.800	ng/g							J
<b>LCS (F710262-BS1)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	7.914	0.090	0.800	ng/g	8.0160		98.7	75-125			
<b>LCS (F710262-BS2)</b> Prepared: 06-Oct-17 Analyzed: 19-Oct-17											
Mercury	316.0	3.51	31.4	ng/g	373.70		84.6	75-125			
<b>LCS Dup (F710262-BSD1)</b> 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	
<b>Duplicate (F710262-DUP1)</b> 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	
<b>Matrix Spike (F710262-MS1)</b> 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			
<b>Matrix Spike (F710262-MS2)</b> 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			
<b>Matrix Spike Dup (F710262-MSD1)</b> 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	

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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	<b>Reported:</b> 21-Oct-17 15:23
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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 F710262 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike Dup (F710262-MSD2)</b>		<b>Source: 1709627-01RE1</b>	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 15:23

### 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 19, 2017  
Instrument #: Hg2600-3  
LIMS Sequence #: 7J20012, 7J20013

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	108.07 units	216.14	100.64 units	201.28	98.6 %Rec
SEQ-CAL2	1	1.00 ng/L	213.04 units	213.04	205.61 units	205.61	100.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1039.20 units	207.84	1031.77 units	206.35	101.1 %Rec
SEQ-CAL4	1	20.00 ng/L	4063.38 units	203.17	4055.95 units	202.80	99.4 %Rec
SEQ-CAL5	1	40.00 ng/L	8177.09 units	204.43	8169.66 units	204.24	100.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF 204.06    Corr. St Dev RF +/- 2.06    Corr. RSD CF 1.0% RSD    Uncorr. Mean RF 208.92

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.43 units	±1.00	0.04 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	6.676 ng/L	±2.192
BLK	2	3	8.975 ng/L	±3.772
BLK	3	3	2.665 ng/L	±0.945
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: B 10/20/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	CAL	SEQ-IBL1	1	10/19/2017 10:30:20	78087-1.RAW	10:30:20 AM	8.38	1		0.9	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	10/19/2017 10:34:29	78088-1.RAW	10:34:29 AM	6.38	1		-1.0	-0.005	-0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	10/19/2017 10:38:37	78089-1.RAW	10:38:37 AM	7.52	1		0.1	0.000	0.000	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	10/19/2017 10:42:46	78090-1.RAW	10:42:46 AM	108.07	1		100.6	0.493	0.493	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	10/19/2017 10:46:54	78091-1.RAW	10:46:54 AM	213.04	1		205.6	1.008	1.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	10/19/2017 10:51:03	78092-1.RAW	10:51:03 AM	1039.20	1		1031.8	5.056	5.056	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	10/19/2017 10:55:11	78093-1.RAW	10:55:11 AM	4063.38	1		4056.0	19.877	19.877	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	10/19/2017 10:59:19	78094-1.RAW	10:59:19 AM	8177.09	1		8169.7	40.036	40.036	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	10/19/2017 11:03:28	78095-1.RAW	11:03:28 AM	1054.03	1		1046.6	5.129	5.129	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK1	100	10/19/2017 11:07:36	78096-1.RAW	11:07:36 AM	26.20	1		18.8	0.092	0.199	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK2	100	10/19/2017 11:11:45	78097-1.RAW	11:11:45 AM	18.85	1		11.4	0.056	5.598	ng/L	
Hg2600-3	DM2	BLK	F710364-BLK3	100	10/19/2017 11:15:53	78098-1.RAW	11:15:53 AM	18.10	1		10.7	0.052	5.231	ng/L	
Hg2600-3	DM2	SAM	F710364-BS1	400	10/19/2017 11:20:02	78099-1.RAW	11:20:02 AM	4612.57	1		4605.1	22.551	9020.480	ng/L	
Hg2600-3	DM2	SAM	F710364-BSD1	400	10/19/2017 11:24:10	78100-1.RAW	11:24:10 AM	4492.31	1		4484.9	21.962	8784.746	ng/L	
Hg2600-3	DM2	SAM	1710236-02	100	10/19/2017 11:28:18	78101-1.RAW	11:28:18 AM	11074.03	1		11066.6	54.166	5416.608	ng/L	
Hg2600-3	DM2	SAM	1710236-04	100	10/19/2017 11:32:27	78102-1.RAW	11:32:27 AM	72.92	1		65.5	0.254	25.418	ng/L	
Hg2600-3	DM2	SAM	1710236-06	100	10/19/2017 11:36:35	78103-1.RAW	11:36:35 AM	401.69	1		394.3	1.865	186.536	ng/L	
Hg2600-3	DM2	SAM	1710236-08	100	10/19/2017 11:40:44	78104-1.RAW	11:40:44 AM	66.04	1		58.6	0.220	22.048	ng/L	
Hg2600-3	DM2	SAM	1710236-02B	100	10/19/2017 11:44:52	78105-1.RAW	11:44:52 AM	367.69	1		360.3	1.699	169.871	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	10/19/2017 11:49:01	78106-1.RAW	11:49:01 AM	1042.14	1		1034.7	5.071	5.071	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	10/19/2017 11:53:09	78107-1.RAW	11:53:09 AM	25.15	1		17.7	0.087	0.087	ng/L	
Hg2600-3	DM2	SAM	1710236-04B	100	10/19/2017 11:57:18	78108-1.RAW	11:57:18 AM	25.55	1		18.1	0.022	2.206	ng/L	
Hg2600-3	DM2	SAM	1710236-06B	100	10/19/2017 12:01:26	78109-1.RAW	12:01:26 PM	25.62	1		18.2	0.022	2.239	ng/L	
Hg2600-3	DM2	SAM	1710236-08B	100	10/19/2017 12:05:34	78110-1.RAW	12:05:34 PM	19.08	1		11.6	-0.010	-0.968	ng/L	
Hg2600-3	DM2	SAM	1710236-02RE1	400	10/19/2017 12:09:43	78111-1.RAW	12:09:43 PM	2734.47	1		2727.0	13.347	5338.969	ng/L	
Hg2600-3	DM2	SAM	1710236-04RE1	100	10/19/2017 12:13:50	78112-1.RAW	12:13:50 PM	33.33	1		25.9	0.060	6.019	ng/L	
Hg2600-3	DM2	SAM	F710364-DUP1	100	10/19/2017 12:17:58	78113-1.RAW	12:17:58 PM	319.00	1		311.6	1.460	146.010	ng/L	
Hg2600-3	DM2	SAM	F710364-MS1	100	10/19/2017 12:22:06	78114-1.RAW	12:22:06 PM	1363.60	1		1356.2	6.579	657.930	ng/L	
Hg2600-3	DM2	SAM	F710364-MSD1	100	10/19/2017 12:26:15	78115-1.RAW	12:26:15 PM	1351.71	1		1344.3	6.521	652.100	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK1	100	10/19/2017 12:30:23	78116-1.RAW	12:30:23 PM	30.33	2		22.9	0.112	11.225	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK2	100	10/19/2017 12:34:32	78117-1.RAW	12:34:32 PM	30.04	2		22.6	0.111	11.081	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	10/19/2017 12:38:40	78118-1.RAW	12:38:40 PM	1004.97	1		997.5	4.889	4.889	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	10/19/2017 12:42:48	78119-1.RAW	12:42:48 PM	17.73	1		10.3	0.050	0.050	ng/L	
Hg2600-3	DM2	BLK	F710398-BLK3	100	10/19/2017 12:46:57	78120-1.RAW	12:46:57 PM	16.86	2		9.4	0.046	4.621	ng/L	
Hg2600-3	DM2	SAM	F710398-BS1	400	10/19/2017 12:51:05	78121-1.RAW	12:51:05 PM	956.65	2		949.2	4.629	1851.722	ng/L	
Hg2600-3	DM2	SAM	F710398-BSD1	400	10/19/2017 12:55:14	78122-1.RAW	12:55:14 PM	964.08	2		956.7	4.666	1866.285	ng/L	
Hg2600-3	DM2	SAM	1710524-02	2500	10/19/2017 12:59:22	78123-1.RAW	12:59:22 PM	5294.81	2		5287.4	25.908	64769.229	ng/L	
Hg2600-3	DM2	SAM	1710573-01	2500	10/19/2017 13:03:30	78124-1.RAW	1:03:30 PM	467.83	2		460.4	2.253	5631.631	ng/L	
Hg2600-3	DM2	SAM	1710573-02	2500	10/19/2017 13:07:39	78125-1.RAW	1:07:39 PM	412.23	2		404.8	1.980	4950.386	ng/L	
Hg2600-3	DM2	SAM	1710575-01	2500	10/19/2017 13:11:47	78126-1.RAW	1:11:47 PM	1143.73	2		1136.3	5.565	13912.388	ng/L	
Hg2600-3	DM2	SAM	1710575-02	2500	10/19/2017 13:15:56	78127-1.RAW	1:15:56 PM	1013.45	2		1006.0	4.927	12316.299	ng/L	
Hg2600-3	DM2	SAM	1710591-01	2500	10/19/2017 13:20:04	78128-1.RAW	1:20:04 PM	932.74	2		925.3	4.531	11327.426	ng/L	
Hg2600-3	DM2	SAM	1710591-02	2500	10/19/2017 13:24:13	78129-1.RAW	1:24:13 PM	839.33	2		831.9	4.073	10183.073	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	10/19/2017 13:28:21	78130-1.RAW	1:28:21 PM	1002.25	1		994.8	4.875	4.875	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	10/19/2017 13:32:29	78131-1.RAW	1:32:29 PM	17.67	1		10.2	0.050	0.050	ng/L	
Hg2600-3	DM2	SAM	1710593-01	2500	10/19/2017 13:36:38	78132-1.RAW	1:36:38 PM	532.31	2		524.9	2.569	6421.563	ng/L	
Hg2600-3	DM2	SAM	1710593-02	2500	10/19/2017 13:40:46	78133-1.RAW	1:40:46 PM	578.19	2		570.8	2.793	6983.676	ng/L	
Hg2600-3	DM2	SAM	1710524-02B	100	10/19/2017 13:44:55	78134-1.RAW	1:44:55 PM	118.51	2		111.1	0.455	45.459	ng/L	
Hg2600-3	DM2	SAM	1710573-01B	100	10/19/2017 13:49:03	78135-1.RAW	1:49:03 PM	62.93	2		55.5	0.182	18.223	ng/L	
Hg2600-3	DM2	SAM	1710573-02B	100	10/19/2017 13:53:11	78136-1.RAW	1:53:11 PM	33.20	2		25.8	0.037	3.653	ng/L	
Hg2600-3	DM2	SAM	1710575-01B	100	10/19/2017 13:57:20	78137-1.RAW	1:57:20 PM	29.80	2		22.4	0.020	1.987	ng/L	
Hg2600-3	DM2	SAM	1710575-02B	100	10/19/2017 14:01:28	78138-1.RAW	2:01:28 PM	44.43	2		37.0	0.092	9.159	ng/L	
Hg2600-3	DM2	SAM	1710591-01B	100	10/19/2017 14:05:37	78139-1.RAW	2:05:37 PM	22.66	2		15.2	-0.015	-1.509	ng/L	
Hg2600-3	DM2	SAM	1710591-02B	100	10/19/2017 14:09:45	78140-1.RAW	2:09:45 PM	25.25	2		17.8	-0.002	-0.241	ng/L	
Hg2600-3	DM2	SAM	1710593-01B	100	10/19/2017 14:13:53	78141-1.RAW	2:13:53 PM	40.18	2		32.7	0.071	7.073	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	10/19/2017 14:18:02	78142-1.RAW	2:18:02 PM	990.78	1		983.3	4.819	4.819	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	10/19/2017 14:22:10	78143-1.RAW	2:22:10 PM	16.42	1		9.0	0.044	0.044	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	1710593-02B	100	10/19/2017 14:26:19	78144-1.RAW	2:26:19 PM	32.52	2		25.1	0.033	3.320	ng/L	
Hg2600-3	DM2	SAM	1710524-02C	5000	10/19/2017 14:30:27	78145-1.RAW	2:30:27 PM	5840.48	2		5833.1	28.584	142917.980	ng/L	
Hg2600-3	DM2	SAM	1710573-01C	2500	10/19/2017 14:34:36	78146-1.RAW	2:34:36 PM	1879.69	2		1872.3	9.172	22928.926	ng/L	
Hg2600-3	DM2	SAM	1710573-02C	2500	10/19/2017 14:38:44	78147-1.RAW	2:38:44 PM	1977.07	2		1969.6	9.649	24122.016	ng/L	
Hg2600-3	DM2	SAM	1710575-01C	2500	10/19/2017 14:42:52	78148-1.RAW	2:42:52 PM	1956.22	2		1948.8	9.547	23866.528	ng/L	
Hg2600-3	DM2	SAM	1710575-02C	2500	10/19/2017 14:47:01	78149-1.RAW	2:47:01 PM	2101.42	2		2094.0	10.258	25645.444	ng/L	
Hg2600-3	DM2	SAM	1710591-01C	400	10/19/2017 14:51:09	78150-1.RAW	2:51:09 PM	4370.63	2		4363.2	21.360	8543.931	ng/L	
Hg2600-3	DM2	SAM	1710591-02C	400	10/19/2017 14:55:18	78151-1.RAW	2:55:18 PM	4055.80	2		4048.4	19.817	7926.789	ng/L	
Hg2600-3	DM2	SAM	1710593-01C	400	10/19/2017 14:59:26	78152-1.RAW	2:59:26 PM	4348.85	2		4341.4	21.253	8501.241	ng/L	
Hg2600-3	DM2	SAM	1710593-02C	400	10/19/2017 15:03:35	78153-1.RAW	3:03:35 PM	4347.11	2		4339.7	21.245	8497.819	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	10/19/2017 15:07:43	78154-1.RAW	3:07:43 PM	1062.386993			1055.0	5.170	5.170	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	10/19/2017 15:11:51	78155-1.RAW	3:11:51 PM	34.27			26.8	0.132	0.132	ng/L	
Hg2600-3	DM2	SAM	1710591-01RE1	2500	10/19/2017 15:16:00	78156-1.RAW	3:16:00 PM	948.01	2		940.6	4.606	11514.516	ng/L	
Hg2600-3	DM2	SAM	1710591-02RE1	2500	10/19/2017 15:20:08	78157-1.RAW	3:20:08 PM	862.18	2		854.7	4.185	10462.930	ng/L	
Hg2600-3	DM2	SAM	1710593-01RE1	2500	10/19/2017 15:24:17	78158-1.RAW	3:24:17 PM	535.48	2		528.1	2.584	6460.417	ng/L	
Hg2600-3	DM2	SAM	1710593-02RE1	2500	10/19/2017 15:28:25	78159-1.RAW	3:28:25 PM	587.44	2		580.0	2.839	7097.043	ng/L	
Hg2600-3	DM2	SAM	1710524-02RE1C	5000	10/19/2017 15:32:33	78160-1.RAW	3:32:33 PM	5929.67	2		5922.2	29.021	145103.428	ng/L	
Hg2600-3	DM2	SAM	F710398-DUP1	2500	10/19/2017 15:36:42	78161-1.RAW	3:36:42 PM	1173.27	2		1165.8	5.710	14274.352	ng/L	
Hg2600-3	DM2	SAM	F710398-MS1	2500	10/19/2017 15:40:50	78162-1.RAW	3:40:50 PM	5276.44	2		5269.0	25.818	64544.187	ng/L	
Hg2600-3	DM2	SAM	F710398-MSD1	2500	10/19/2017 15:44:59	78163-1.RAW	3:44:59 PM	5264.13	2		5256.7	25.757	64393.302	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK1	20	10/19/2017 15:49:07	78164-1.RAW	3:49:07 PM	45.69	3		38.3	0.188	3.750	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK2	20	10/19/2017 15:53:15	78165-1.RAW	3:53:15 PM	28.03	3		20.6	0.101	2.019	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	10/19/2017 15:57:24	78166-1.RAW	3:57:24 PM	1024.83			1017.4	4.986	4.986	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	10/19/2017 16:01:32	78167-1.RAW	4:01:32 PM	28.55			21.1	0.103	0.103	ng/L	
Hg2600-3	DM2	BLK	F710250-BLK3	20	10/19/2017 16:05:41	78168-1.RAW	4:05:41 PM	30.14	3		22.7	0.111	2.226	ng/L	
Hg2600-3	DM2	SAM	*F710250-BLK4	20	10/19/2017 16:09:49	78169-1.RAW	4:09:49 PM	33.81	3		26.4	-0.004	-0.080	ng/L	
Hg2600-3	DM2	SAM	*F710250-BLK5	20	10/19/2017 16:13:58	78170-1.RAW	4:13:58 PM	22.17	3		14.7	-0.061	-1.220	ng/L	
Hg2600-3	DM2	SAM	F710250-BS1	20	10/19/2017 16:18:06	78171-1.RAW	4:18:06 PM	998.84	3		991.4	4.725	94.505	ng/L	
Hg2600-3	DM2	SAM	F710250-BSD1	20	10/19/2017 16:22:14	78172-1.RAW	4:22:14 PM	1017.25	3		1009.8	4.815	96.310	ng/L	
Hg2600-3	DM2	SAM	F710250-BS2	400	10/19/2017 16:26:23	78173-1.RAW	4:26:23 PM	1132.04	3		1124.6	5.505	2201.838	ng/L	
Hg2600-3	DM2	SAM	1709623-04	100	10/19/2017 16:30:31	78174-1.RAW	4:30:31 PM	642.55	3		635.1	3.086	308.580	ng/L	
Hg2600-3	DM2	SAM	1709623-05	100	10/19/2017 16:34:40	78175-1.RAW	4:34:40 PM	305.82	3		298.4	1.436	143.563	ng/L	
Hg2600-3	DM2	SAM	1709623-06	100	10/19/2017 16:38:48	78176-1.RAW	4:38:48 PM	400.16	3		392.7	1.898	189.794	ng/L	
Hg2600-3	DM2	SAM	1709623-07	100	10/19/2017 16:42:57	78177-1.RAW	4:42:57 PM	772.09	3		764.7	3.721	372.062	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	10/19/2017 16:47:05	78178-1.RAW	4:47:05 PM	996.06			988.6	4.845	4.845	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	10/19/2017 16:51:13	78179-1.RAW	4:51:13 PM	12.60			5.2	0.025	0.025	ng/L	
Hg2600-3	DM2	SAM	1709623-08	100	10/19/2017 16:55:22	78180-1.RAW	4:55:22 PM	671.32	3		663.9	3.227	322.680	ng/L	
Hg2600-3	DM2	SAM	1709623-09	100	10/19/2017 16:59:30	78181-1.RAW	4:59:30 PM	227.78	3		220.4	1.053	105.321	ng/L	
Hg2600-3	DM2	SAM	1709623-10	100	10/19/2017 17:03:39	78182-1.RAW	5:03:39 PM	283.52	3		276.1	1.326	132.635	ng/L	
Hg2600-3	DM2	SAM	1709623-11	100	10/19/2017 17:07:47	78183-1.RAW	5:07:47 PM	316.15	3		308.7	1.486	148.627	ng/L	
Hg2600-3	DM2	SAM	1709623-12	100	10/19/2017 17:11:55	78184-1.RAW	5:11:55 PM	189.20	3		181.8	0.864	86.415	ng/L	
Hg2600-3	DM2	SAM	1709623-13	100	10/19/2017 17:16:04	78185-1.RAW	5:16:04 PM	275.22	3		267.8	1.286	128.567	ng/L	
Hg2600-3	DM2	SAM	1709623-14	100	10/19/2017 17:20:12	78186-1.RAW	5:20:12 PM	498.08	3		490.6	2.378	237.782	ng/L	
Hg2600-3	DM2	SAM	1709623-15	100	10/19/2017 17:24:21	78187-1.RAW	5:24:21 PM	209.08	3		201.6	0.962	96.154	ng/L	
Hg2600-3	DM2	SAM	1709623-16	100	10/19/2017 17:28:29	78188-1.RAW	5:28:29 PM	440.97	3		433.5	2.098	209.794	ng/L	
Hg2600-3	DM2	SAM	1709623-17	100	10/19/2017 17:32:38	78189-1.RAW	5:32:38 PM	353.23	3		345.8	1.668	166.799	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	10/19/2017 17:36:46	78190-1.RAW	5:36:46 PM	1014.76			1007.3	4.936	4.936	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	10/19/2017 17:40:54	78191-1.RAW	5:40:54 PM	19.55			12.1	0.059	0.059	ng/L	
Hg2600-3	DM2	SAM	1709623-18	50	10/19/2017 17:45:03	78192-1.RAW	5:45:03 PM	434.18	3		426.7	2.038	101.901	ng/L	
Hg2600-3	DM2	SAM	1709623-19	50	10/19/2017 17:49:11	78193-1.RAW	5:49:11 PM	451.22	3		443.8	2.122	106.078	ng/L	
Hg2600-3	DM2	SAM	1709623-20	50	10/19/2017 17:53:20	78194-1.RAW	5:53:20 PM	627.30	3		619.9	2.984	149.221	ng/L	
Hg2600-3	DM2	SAM	1709625-01	50	10/19/2017 17:57:28	78195-1.RAW	5:57:28 PM	4413.99	3		4406.6	21.541	1077.073	ng/L	
Hg2600-3	DM2	SAM	1709626-02	50	10/19/2017 18:01:36	78196-1.RAW	6:01:36 PM	1956.81	3		1949.4	9.500	474.991	ng/L	
Hg2600-3	DM2	SAM	1709626-03	50	10/19/2017 18:05:45	78197-1.RAW	6:05:45 PM	3854.63	3		3847.2	18.800	940.013	ng/L	
Hg2600-3	DM2	SAM	1709623-12RE1	20	10/19/2017 18:09:53	78198-1.RAW	6:09:53 PM	889.46	3		882.0	4.189	83.784	ng/L	
Hg2600-3	DM2	SAM	F710250-DUP1	50	10/19/2017 18:14:02	78199-1.RAW	6:14:02 PM	1898.99	3		1891.6	9.216	460.823	ng/L	
Hg2600-3	DM2	SAM	F710250-MS1	400	10/19/2017 18:18:10	78200-1.RAW	6:18:10 PM	2454.11	3		2446.7	11.983	4793.400	ng/L	
Hg2600-3	DM2	SAM	F710250-MSD1	400	10/19/2017 18:22:19	78201-1.RAW	6:22:19 PM	2469.20	3		2461.8	12.057	4822.983	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	10/19/2017 18:26:27	78202-1.RAW	6:26:27 PM	998.07			990.6	4.855	4.855	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	10/19/2017 18:30:35	78203-1.RAW	6:30:35 PM	30.49			23.1	0.113	0.113	ng/L	
Hg2600-3	DM2	SAM	F710250-MS2	400	10/19/2017 18:34:44	78204-1.RAW	6:34:44 PM	2631.36	3		2623.9	12.852	5140.862	ng/L	
Hg2600-3	DM2	SAM	F710250-MSD2	400	10/19/2017 18:38:52	78205-1.RAW	6:38:52 PM	2748.41	3		2741.0	13.426	5370.311	ng/L	
Hg2600-3	DM2	SAM	1709623-15RE1	20	10/19/2017 18:43:01	78206-1.RAW	6:43:01 PM	978.76	3		971.3	4.627	92.536	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	10/19/2017 18:47:09	78207-1.RAW	6:47:09 PM	1028.64			1021.2	5.005	5.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	10/19/2017 18:51:17	78208-1.RAW	6:51:17 PM	21.47			14.0	0.069	0.069	ng/L	

TotalMercury EPA1631 Operat DM Works THg260i Methoc ##### Descrip THg26003-171019-1  
 BlankS 7.4284 CalibFa 204.06 1 R2: 1  
 Calib Eqn: Conc = (Area-7.4284) / (204.06 - 7.4284) \* 1  
 Status: QC Warnings:4/QC F Run Time: 10:08:03  
 Blank SD: 1.000574677  
 Blank RSD%: 13.46952602  
 CF SD: 2.064034023  
 CF RSD%: 1.011497989

Sample/D	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	3.92					78082-1.RAW	10:10:55	799.66	Clean	OK	1
Clean										78083-1.RAW	10:13:47	0.00	Clean	NP	1
WS				7.43	0.00					78084-1.RAW	10:17:55	7.84	Sample	OK	1
WS				7.43	0.00					78085-1.RAW	10:22:03	7.09	Sample	OK	1
WS				7.43	0.00					78086-1.RAW	10:26:12	5.74	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					78087-1.RAW	10:30:20	8.38	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.03					78088-1.RAW	10:34:29	6.38	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					78089-1.RAW	10:38:37	7.52	Sample	OK	1
SEQ-CAL1	A4		1	7.43	0.49			98.64		78090-1.RAW	10:42:46	108.07	Sample	OK	1
SEQ-CAL2	A5		1	7.43	1.01			100.76		78091-1.RAW	10:46:54	213.04	Sample	OK	1
SEQ-CAL3	A6		1	7.43	5.06			101.13		78092-1.RAW	10:51:03	1039.20	Sample	OK	1
SEQ-CAL4	A7		1	7.43	19.88			99.38		78093-1.RAW	10:55:11	4063.38	Sample	FB	1
SEQ-CAL5	A8		1	7.43	40.04			100.09		78094-1.RAW	10:59:19	8177.09	Sample	FB	1
SEQ-ICV1	A9		1	7.43	5.13			102.58		78095-1.RAW	11:03:28	1054.03	Sample	OK	1
F710364-BLK1	A10		100	7.43	9.20					78096-1.RAW	11:07:36	26.20	Sample	OK	1
F710364-BLK2	A11		100	7.43	5.60					78097-1.RAW	11:11:45	18.85	Sample	OK	1
F710364-BLK3	A12		100	7.43	5.23					78098-1.RAW	11:15:53	18.10	Sample	OK	1
F710364-BS1	B1		400	7.43	9027.16					78099-1.RAW	11:20:02	4612.57	Sample	OK	1
F710364-BSD1	B2		400	7.43	8791.42					78100-1.RAW	11:24:10	4492.31	Sample	OK	1
1710236-02	B3		100	7.43	5423.28					78101-1.RAW	11:28:18	11074.03	Sample	FB	1
1710236-04	B4		100	7.43	32.09					78102-1.RAW	11:32:27	72.92	Sample	OK	1
1710236-06	B5		100	7.43	193.21					78103-1.RAW	11:36:35	401.69	Sample	OK	1
1710236-08	B6		100	7.43	28.72					78104-1.RAW	11:40:44	66.04	Sample	OK	1
1710236-02B	B7		100	7.43	176.55					78105-1.RAW	11:44:52	367.69	Sample	OK	1
SEQ-CCV1	B8		1	7.43	5.07			101.41		78106-1.RAW	11:49:01	1042.14	Sample	OK	1
SEQ-CCB1	B9		1	7.43	0.09			0.00		78107-1.RAW	11:53:09	25.15	Sample	OK	1
1710236-04B	B10		100	7.43	8.88					78108-1.RAW	11:57:18	25.55	Sample	OK	1
1710236-06B	B11		100	7.43	8.92					78109-1.RAW	12:01:26	25.62	Sample	OK	1
1710236-08B	B12		100	7.43	5.71					78110-1.RAW	12:05:34	19.08	Sample	OK	1
1710236-02RE1	C1		400	7.43	5345.65					78111-1.RAW	12:09:43	2734.47	Sample	OK	1
1710236-04RE1	C2		100	7.43	12.70					78112-1.RAW	12:13:50	33.33	Sample	OK	1
F710364-DUP1	C3		100	7.43	152.69					78113-1.RAW	12:17:58	319.00	Sample	OK	1
F710364-MS1	C4		100	7.43	664.61			432.44		78114-1.RAW	12:22:06	1363.60	Sample	OK	1
F710364-MSD1	C5		100	7.43	658.78					78115-1.RAW	12:26:15	1351.71	Sample	OK	1
F710398-BLK1	C6		100	7.43	11.22					78116-1.RAW	12:30:23	30.33	Sample	OK	1
F710398-BLK2	C7		100	7.43	11.08					78117-1.RAW	12:34:32	30.04	Sample	OK	1
SEQ-CCV2	C8		1	7.43	4.89			97.77		78118-1.RAW	12:38:40	1004.97	Sample	OK	1
SEQ-CCB2	C9		1	7.43	0.05			0.00		78119-1.RAW	12:42:48	17.73	Sample	OK	1
F710398-BLK3	C10		100	7.43	4.62					78120-1.RAW	12:46:57	16.86	Sample	OK	1
F710398-BS1	C11		400	7.43	1860.70					78121-1.RAW	12:51:05	956.65	Sample	OK	1
F710398-BSD1	C12		400	7.43	1875.26					78122-1.RAW	12:55:14	964.08	Sample	OK	1
1710524-02	D1		2500	7.43	64778.20					78123-1.RAW	12:59:22	5294.81	Sample	OK	1
1710573-01	D2		2500	7.43	5640.61					78124-1.RAW	13:03:30	467.83	Sample	OK	1
1710573-02	D3		2500	7.43	4959.36					78125-1.RAW	13:07:39	412.23	Sample	OK	1
1710575-01	D4		2500	7.43	13921.36					78126-1.RAW	13:11:47	1143.73	Sample	OK	1
1710575-02	D5		2500	7.43	12325.27					78127-1.RAW	13:15:56	1013.45	Sample	OK	1
1710591-01	D6		2500	7.43	11336.40					78128-1.RAW	13:20:04	932.74	Sample	OK	1
1710591-02	D7		2500	7.43	10192.05					78129-1.RAW	13:24:13	839.33	Sample	OK	1
SEQ-CCV3	D8		1	7.43	4.88			97.50		78130-1.RAW	13:28:21	1002.25	Sample	OK	1
SEQ-CCB3	D9		1	7.43	0.05			0.00		78131-1.RAW	13:32:29	17.67	Sample	OK	1
1710593-01	D10		2500	7.43	6430.54					78132-1.RAW	13:36:38	532.31	Sample	OK	1
1710593-02	D11		2500	7.43	6992.65					78133-1.RAW	13:40:46	578.19	Sample	OK	1
1710524-02B	D12		100	7.43	54.43					78134-1.RAW	13:44:55	118.51	Sample	OK	1
1710573-01B	A1		100	7.43	27.20					78135-1.RAW	13:49:03	62.93	Sample	OK	1
1710573-02B	A2		100	7.43	12.63					78136-1.RAW	13:53:11	33.20	Sample	OK	1
1710575-01B	A3		100	7.43	10.96					78137-1.RAW	13:57:20	29.80	Sample	OK	1
1710575-02B	A4		100	7.43	18.13					78138-1.RAW	14:01:28	44.43	Sample	OK	1
1710591-01B	A5		100	7.43	7.47					78139-1.RAW	14:05:37	22.66	Sample	OK	1
1710591-02B	A6		100	7.43	8.73					78140-1.RAW	14:09:45	25.25	Sample	OK	1
1710593-01B	A7		100	7.43	16.05					78141-1.RAW	14:13:53	40.18	Sample	OK	1

SEQ-CCV4	A8	1	7.43	4.82	96.38	78142-1.RAW	14:18:02	990.78	Sample	OK	1
SEQ-CCB4	A9	1	7.43	0.04	0.00	78143-1.RAW	14:22:10	16.42	Sample	OK	1
1710593-02B	A10	100	7.43	12.30		78144-1.RAW	14:26:19	32.52	Sample	OK	1
1710524-02C	A11	5000	7.43	142926.96		78145-1.RAW	14:30:27	5840.48	Sample	OK	1
1710573-01C	A12	2500	7.43	22937.90		78146-1.RAW	14:34:36	1879.69	Sample	OK	1
1710573-02C	B1	2500	7.43	24130.99		78147-1.RAW	14:38:44	1977.07	Sample	OK	1
1710575-01C	B2	2500	7.43	23875.50		78148-1.RAW	14:42:52	1956.22	Sample	OK	1
1710575-02C	B3	2500	7.43	25654.42		78149-1.RAW	14:47:01	2101.42	Sample	OK	1
1710591-01C	B4	400	7.43	8552.91		78150-1.RAW	14:51:09	4370.63	Sample	OK	1
1710591-02C	B5	400	7.43	7935.76		78151-1.RAW	14:55:18	4055.80	Sample	OK	1
1710593-01C	B6	400	7.43	8510.22		78152-1.RAW	14:59:26	4348.85	Sample	FB	1
1710593-02C	B7	400	7.43	8506.79		78153-1.RAW	15:03:35	4347.11	Sample	OK	1
SEQ-CCV5	B8	1	7.43	5.17	103.40	78154-1.RAW	15:07:43	1062.39	Sample	OK	1
SEQ-CCB5	B9	1	7.43	0.13	0.00	78155-1.RAW	15:11:51	34.27	Sample	OK	1
1710591-01RE1	B10	2500	7.43	11523.49		78156-1.RAW	15:16:00	948.01	Sample	OK	1
1710591-02RE1	B11	2500	7.43	10471.91		78157-1.RAW	15:20:08	862.18	Sample	OK	1
1710593-01RE1	B12	2500	7.43	6469.39		78158-1.RAW	15:24:17	535.48	Sample	OK	1
1710593-02RE1	C1	2500	7.43	7106.02		78159-1.RAW	15:28:25	587.44	Sample	OK	1
1710524-02RE1	C2	5000	7.43	145112.40		78160-1.RAW	15:32:33	5929.67	Sample	OK	1
F710398-DUP1	C3	2500	7.43	14283.33		78161-1.RAW	15:36:42	1173.27	Sample	OK	1
F710398-MS1	C4	2500	7.43	64553.16	451.92	78162-1.RAW	15:40:50	5276.44	Sample	FB	1
F710398-MSD1	C5	2500	7.43	64402.28		78163-1.RAW	15:44:59	5264.13	Sample	FB	1
F710250-BLK1	C6	20	7.43	3.75		78164-1.RAW	15:49:07	45.69	Sample	OK	1
F710250-BLK2	C7	20	7.43	2.02		78165-1.RAW	15:53:15	26.03	Sample	OK	1
SEQ-CCV6	C8	1	7.43	4.99	99.72	78166-1.RAW	15:57:24	1024.83	Sample	OK	1
SEQ-CCB6	C9	1	7.43	0.10	0.00	78167-1.RAW	16:01:32	28.55	Sample	OK	1
F710250-BLK3	C10	20	7.43	2.23		78168-1.RAW	16:05:41	30.14	Sample	OK	1
*F710250-BLK4	C11	20	7.43	2.59		78169-1.RAW	16:09:49	33.81	Sample	OK	1
*F710250-BLK5	C12	20	7.43	1.45		78170-1.RAW	16:13:58	22.17	Sample	OK	1
F710250-BS1	D1	20	7.43	97.17		78171-1.RAW	16:18:06	998.84	Sample	OK	1
F710250-BSD1	D2	20	7.43	98.97		78172-1.RAW	16:22:14	1017.25	Sample	OK	1
F710250-BS2	D3	400	7.43	2204.50		78173-1.RAW	16:26:23	1132.04	Sample	OK	1
1709623-04	D4	100	7.43	311.24		78174-1.RAW	16:30:31	642.55	Sample	OK	1
1709623-05	D5	100	7.43	146.23		78175-1.RAW	16:34:40	305.82	Sample	OK	1
1709623-06	D6	100	7.43	192.46		78176-1.RAW	16:38:48	400.16	Sample	OK	1
1709623-07	D7	100	7.43	374.73		78177-1.RAW	16:42:57	772.09	Sample	OK	1
SEQ-CCV7	D8	1	7.43	4.84	96.90	78178-1.RAW	16:47:05	996.06	Sample	OK	1
SEQ-CCB7	D9	1	7.43	0.03	0.00	78179-1.RAW	16:51:13	12.60	Sample	OK	1
1709623-08	D10	100	7.43	325.35		78180-1.RAW	16:55:22	671.32	Sample	OK	1
1709623-09	D11	100	7.43	107.99		78181-1.RAW	16:59:30	227.78	Sample	OK	1
1709623-10	D12	100	7.43	135.30		78182-1.RAW	17:03:39	283.52	Sample	OK	1
1709623-11	A1	100	7.43	151.29		78183-1.RAW	17:07:47	316.15	Sample	OK	1
1709623-12	A2	100	7.43	89.08		78184-1.RAW	17:11:55	189.20	Sample	OK	1
1709623-13	A3	100	7.43	131.23		78185-1.RAW	17:16:04	275.22	Sample	OK	1
1709623-14	A4	100	7.43	240.45		78186-1.RAW	17:20:12	498.08	Sample	OK	1
1709623-15	A5	100	7.43	98.82		78187-1.RAW	17:24:21	209.08	Sample	OK	1
1709623-16	A6	100	7.43	212.46		78188-1.RAW	17:28:29	440.97	Sample	OK	1
1709623-17	A7	100	7.43	169.46		78189-1.RAW	17:32:38	353.23	Sample	OK	1
SEQ-CCV8	A8	1	7.43	4.94	98.73	78190-1.RAW	17:36:46	1014.76	Sample	OK	1
SEQ-CCB8	A9	1	7.43	0.06	0.00	78191-1.RAW	17:40:54	19.55	Sample	OK	1
1709623-18	A10	50	7.43	104.57		78192-1.RAW	17:45:03	434.18	Sample	OK	1
1709623-19	A11	50	7.43	108.74		78193-1.RAW	17:49:11	451.22	Sample	OK	1
1709623-20	A12	50	7.43	151.89		78194-1.RAW	17:53:20	627.30	Sample	OK	1
1709625-01	B1	50	7.43	1079.74		78195-1.RAW	17:57:28	4413.99	Sample	OK	1
1709626-02	B2	50	7.43	477.66		78196-1.RAW	18:01:36	1956.81	Sample	OK	1
1709626-03	B3	50	7.43	942.68		78197-1.RAW	18:05:45	3854.63	Sample	OK	1
1709623-12RE1	B4	20	7.43	86.45		78198-1.RAW	18:09:53	889.46	Sample	OK	1
F710250-DUP1	B5	50	7.43	463.49		78199-1.RAW	18:14:02	1898.99	Sample	OK	1
F710250-MS1	B6	400	7.43	4796.06	1032.55	78200-1.RAW	18:18:10	2454.11	Sample	OK	1
F710250-MSD1	B7	400	7.43	4825.65		78201-1.RAW	18:22:19	2469.20	Sample	OK	1
SEQ-CCV9	B8	1	7.43	4.85	97.09	78202-1.RAW	18:26:27	998.07	Sample	OK	1
SEQ-CCB9	B9	1	7.43	0.11	0.00	78203-1.RAW	18:30:35	30.49	Sample	OK	1
F710250-MS2	B10	400	7.43	5143.53	243421.32	78204-1.RAW	18:34:44	2631.36	Sample	OK	1
F710250-MSD2	B11	400	7.43	5372.98		78205-1.RAW	18:38:52	2748.41	Sample	OK	1
1709623-15RE1	B12	20	7.43	95.20		78206-1.RAW	18:43:01	978.76	Sample	OK	1



SEQ-CCVA	C1	1	7.43	5.00	78207-1.RAW	18:47:09	1028.64 Sample	OK	1
SEQ-CCBA	C2	1	7.43	0.07	78208-1.RAW	18:51:17	21.47 Sample	OK	1

## ANALYSIS SEQUENCE

QUALITY ASSURANCE  
PEER-REVIEWED

7J20013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *R 10/20/17*  
Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20013-IBL1 ✓	QC	1			
7J20013-IBL2 ✓	QC	2			
7J20013-IBL3 ✓	QC	3			
7J20013-CAL1 ✓	QC	4	1704505 ✓		
7J20013-CAL2 ✓	QC	5	1704506 ✓		
7J20013-CAL3 ✓	QC	6	1704507 ✓		
7J20013-CAL4 ✓	QC	7	1704508 ✓		
7J20013-CAL5 ✓	QC	8	1704509		
7J20013-ICV1 ✓	QC	9	1705628 ✓		
F710364-BLK1 ✓	QC	10			
F710364-BLK2 ✓	QC	11			
F710364-BLK3 ✓	QC	12			
F710364-BS1 ✓	QC	13			
F710364-BSD1 ✓	QC	14			
1710236-02 ✓	Hg_FSTM_TRAP_A	15			
1710236-04 ✓	Hg_FSTM_TRAP_A	16			
1710236-06 ✓	Hg_FSTM_TRAP_A	17			
1710236-08 ✓	Hg_FSTM_TRAP_A	18			
7J20013-CCV1 ✓	QC	19	1705628		
7J20013-CCB1 ✓	QC	20			
1710236-02RE1 ✓	Hg_FSTM_TRAP_A	21			Added 10/20/2017 by DM2
1710236-04RE1 ✓	Hg_FSTM_TRAP_A	22			Added 10/20/2017 by DM2
F710364-DUP1 ✓	QC	23			
F710364-MS1 ✓	QC	24			
F710364-MSD1 ✓	QC	25			
F710398-BLK1 ✓	QC	26			
F710398-BLK2 ✓	QC	27			
7J20013-CCV2 ✓	QC	28	1705628		
7J20013-CCB2 ✓	QC	29			
F710398-BLK3 ✓	QC	30			
F710398-BS1 ✓	QC	31			
F710398-BSD1 ✓	QC	32			
1710524-02 ✓	Hg_FSTM_TRAP_A	33			
1710573-01 ✓	Hg_FSTM_TRAP_A	34			AFS - Take photos of trap if heavy particulate present and send to PM
1710573-02 ✓	Hg_FSTM_TRAP_A	35			AFS - Take photos of trap if heavy particulate present and send to PM

Due Date: 10/20/2017

46 of 135

Page 1 of 2

## ANALYSIS SEQUENCE

7J20013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1710575-01 ✓	Hg_FSTM_TRAP_A	36			AFS - Take photos of trap if heavy particulate present and send to PM
1710575-02 ✓	Hg_FSTM_TRAP_A	37			AFS - Take photos of trap if heavy particulate present and send to PM
1710591-01 ✓	Hg_FSTM_TRAP_A	38			
1710591-02 ✓	Hg_FSTM_TRAP_A	39			
7J20013-CCV3 ✓	QC	40	1705628	✓	
7J20013-CCB3 ✓	QC	41			
1710593-01 ✓	Hg_FSTM_TRAP_A	42			
1710593-02 ✓	Hg_FSTM_TRAP_A	43			
7J20013-CCV4 ✓	QC	44	1705628	✓	
7J20013-CCB4 ✓	QC	45			
7J20013-CCV5 ✓	QC	46	1705628	✓	
7J20013-CCB5 ✓	QC	47			
1710591-01RE1 ✓	Hg_FSTM_TRAP_A	48			Added 10/20/2017 by DM2
1710591-02RE1 ✓	Hg_FSTM_TRAP_A	49			Added 10/20/2017 by DM2
1710593-01RE1 ✓	Hg_FSTM_TRAP_A	50			Added 10/20/2017 by DM2
1710593-02RE1 ✓	Hg_FSTM_TRAP_A	51			Added 10/20/2017 by DM2
F710398-DUP1 ✓	QC	52			
F710398-MS1 ✓	QC	53			
F710398-MSD1 ✓	QC	54		✓	
7J20013-CCV6 ✓	QC	55	1705628		
7J20013-CCB6 ✓	QC	56			

Dan Moseem

10/19/17

Samples Loaded By

Date

Dan Moseem

10/20/17

Data Processed By

Date

**PREPARATION BENCH SHEET**

F710364

**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
F710364-BLK1	Blank	1	20					
F710364-BLK2	Blank	1	20					
F710364-BLK3	Blank	1	20					
F710364-BS1	LCS	1	20	1705554	200			
F710364-BSD1	LCS Dup	1	20	1705554	200			
F710364-DUP1	Duplicate [1710236-06] ✓	1	20					
F710364-MS1	Matrix Spike [1710236-06] ✓	0.025	0.5	1704422	25 ✓			[Spk] 1Trap->20mL; 20mL->20mL; Spiked 0.5mL ✓
F710364-MSD1	Matrix Spike Dup [1710236-06] ✓	0.025	0.5	1704422	25			[Spk] 1Trap->20mL; 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
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
			1706142	3% SnCl2 THg reductant	03-Apr-18 00:00

**PREPARATION BENCH SHEET**

F710364

**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
1710236-02	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L	
1710236-02RE1	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L Added 10/20/201	Added 10/20/2017 by DM2
1710236-04	SID0156105	1	20	-	-	-	Sample Volume: None	
1710236-04RE1	SID0156105	1	20	-	-	-	Sample Volume: None Added 10/20/20	Added 10/20/2017 by DM2
1710236-06	SID0156107	1	20	-	-	-	Sample Volume: 2 L	
1710236-08	SID0156110	1	20	-	-	-	Sample Volume: 2 L	



PREPARATION BENCH SHEET

200-3  
10/19/17 DM

F710364

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
F710364-BLK1	Blank	1	20					100X -
F710364-BLK2	Blank	1	20					100X -
F710364-BLK3	Blank	1	20					100X -
F710364-BS1	LCS	1	20	1705554	200			400X -
F710364-BSD1	LCS Dup	1	20	1705554	200			400X -
F710364-DUP1	Duplicate 1710236-06	1	20					100X -
F710364-MS1	Matrix Spike 1710236-06	1	20	1704422	25			100X -
F710364-MSD1	Matrix Spike Dup 1710236-06	1	20	1704422	25			100X -

Standard ID(s): 1705554  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 18-Mar-18 00:00

1703182  
1705610  
1705611  
1706142

PREPARATION BENCH SHEET

2L00-3

10/19/17 DM

F710364

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
1710236-02	SID0156102	1	20	-	-	-	Sample Volume: 0.3 L	
1710236-04	SID0156105	1	20	-	-	-	Sample Volume: None	
1710236-06	SID0156107	1	20	-	-	-	Sample Volume: 2 L	
1710236-08	SID0156110	1	20	-	-	-	Sample Volume: 2 L	

**A**

100X → 400X ✓

100X → 100X ✓

100X ✓

100X ✓

**B**

100X ✓

100X ✓

100X ✓

100X ✓





**PREPARATION BENCH SHEET**

F710398

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710398-BLK1	Blank	1	100					
F710398-BLK2	Blank	1	100					
F710398-BLK3	Blank	1	100					
F710398-BS1	LCS	1	100	1705554	200			
F710398-BSD1	LCS Dup	1	100	1705554	200			
F710398-DUP1	Duplicate [1710575-01]	1	100					
F710398-MS1	Matrix Spike [1710575-01]	0.0002	0.02	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F710398-MSD1	Matrix Spike Dup [1710575-01]	0.0002	0.02	1704422	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL

<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	1704096	FSTM Lot 170707A	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
			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
			1706194	5% BrCl	14-Mar-18 00:00

**PREPARATION BENCH SHEET**

F710398

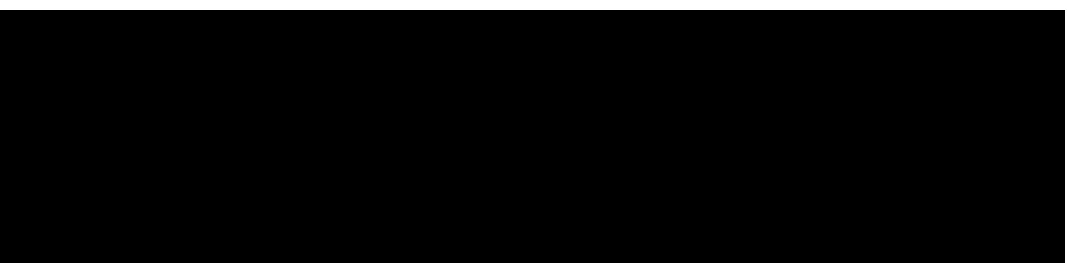
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1710524-02	EFGS09358 Trap B	1	100	-	-	-	2791.74 L	
1710524-02RE1	EFGS09358 Trap B	1	100	-	-	-	2791.74 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710573-01	EFGS10025 31/32 Trap A 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 989.8 L AFS - Take ph	
1710573-02	EFGS10078 31/32 Trap B 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 836.7 L AFS - Take ph	
1710575-01	EFGS10028 Unit 31/32 Trap A 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1143.488 AFS - Take p	
1710575-02	EFGS10152 Unit 31/32 Trap B 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1013.855 AFS - Take p	
1710591-01	EFGS08929 Trap A	1	100	-	-	-	2453.81 L	
1710591-01RE1	EFGS08929 Trap A	1	100	-	-	-	2453.81 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710591-02	EFGS09466 Trap B	1	100	-	-	-	2453.34 L	
1710591-02RE1	EFGS09466 Trap B	1	100	-	-	-	2453.34 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710593-01	EFGS08923 Trap A	1	100	-	-	-	1826.16 L	
1710593-01RE1	EFGS08923 Trap A	1	100	-	-	-	1826.16 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1710593-02	EFGS08969 Trap B	1	100	-	-	-	1825.13 L	
1710593-02RE1	EFGS08969 Trap B	1	100	-	-	-	1825.13 L Added 10/20/2017 by DM2	Added 10/20/2017 by DM2



**PREPARATION BENCH SHEET**

F710398

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/18/2017**

**Due Date: 10/20/2017**

PREPARATION BENCH SHEET

2600-3  
10/19/17 DM

F710398

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/18/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F710398-BLK1	Blank	1	100					100X -
F710398-BLK2	Blank	1	100					100X -
F710398-BLK3	Blank	1	100					100X -
F710398-BS1	LCS	1	100	1705554	200			400X -
F710398-BSD1	LCS Dup	1	100	1705554	200			400X -
F710398-MS1	Matrix Spike 1710575-01	1	100	1704422	100			2500X -
F710398-MSD1	Matrix Spike Dup 1710575-01	1	100	1704422	100			2500X -

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

Expiration: 18-Mar-18 00:00

Reagent ID(s): 1704096, 1706064, 1706079, 1706194  
Description: FSTM Lot 170707A, 70/30 Digestion Acid, 5% BrCl

Expiration: 06-Jul-18 00:00, 09-Apr-18 00:00, 14-Mar-18 00:00

DUPI - source 1710575-01  
2500X

1703182  
1705610  
1705611  
1706142

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2100-3  
10/19/17 DM

F710398

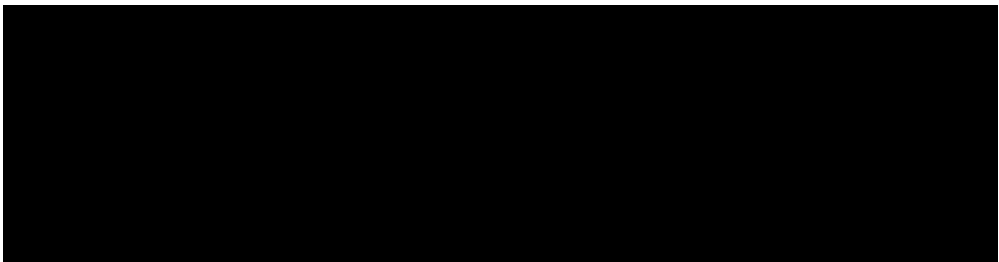
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/18/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1710524-02	EFGS09358 Trap B	1	100	-	-	-	2791.74 L 2500X	100X	500X → 5000X
1710573-01	EFGS10025 31/32 Trap A 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 989.8 L AFS - Take ph 250X	100X	2500X
1710573-02	EFGS10078 31/32 Trap B 10/5/17-10/7/17	1	100	-	-	-	Sample Volume: 936.7 L AFS - Take ph 250X	100X	2500X
1710575-01	EFGS10028 Unit 31/32 Trap A 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1143.488 AFS - Take I 250X	100X	2500X
1710575-02	EFGS10152 Unit 31/32 Trap AB 10/7/17-10/10/17	1	100	-	-	-	Sample Volume: 1013.855 AFS - Take I 250X	100X	2500X
1710591-01	EFGS08929 Trap A	1	100	-	-	-	2453.81 L 2500X → 25000X	100X	400X
1710591-02	EFGS09466 Trap B	1	100	-	-	-	2453.34 L 2500X → 2500X	100X	400X
1710593-01	EFGS08923 Trap A	1	100	-	-	-	1826.16 L 2500X → 2500X	100X	400X
1710593-02	EFGS08969 Trap B	1	100	-	-	-	1825.13 L 2500X → 2500X	100X	400X



### Trap Digestions

Name: WTF Date: 10/18/17 Batch ID: F710398

Work Order(s): 1710524, 1710573, 1710575 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: 14:15, start temp (°C): 54.0 (raw) 53.8 (w/ CF)  
 end time: 16:15, end temp (°C): 54.0 (raw) 53.8 (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)	
F710398	-	Blk1	100	
F710398	-	Blk2	100	Spike ID: <u>1705554</u>
F710398	-	Blk3	100	Spike Amount (µL): <u>200</u>
F710398	-	BS1	100	Spike Witness: <u>DM 10/18/17</u>
F710398	-	BSD1	100	
1710524	-	02A	100	
1710524	-	02B	100	BrCl ID: <u>1706079, 1706194</u>
1710524	-	02C	100	70/30: <u>1706064</u>
1710573	-	01A	100	Other: <u>N/A</u>
1710573	-	01B	100	
1710573	-	01C	100	Thermometer: <u>14545</u>
1710573	-	02A	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1710573	-	02B	100	04N73497 <input type="checkbox"/>
1710573	-	02C	100	Other <u>15406623</u> <input checked="" type="checkbox"/> Yes
1710575	-	01A	100	
1710575	-	01B	100	
1710575	-	01C	100	Pipette ID: <u>Mull619</u>
1710575	-	02A	100	Cal. Date: <u>10/18/17</u>
1710575	-	02B	100	
1710575	-	02C	100	
1710591	-	01A	100	Vials and Jars lot# <u>00068842, 00068835</u>
1710591	-	01B	100	Trap Material Lot#: <u>1704096</u>
1710591	-	01C	100	Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1710591	-	02A	100	
1710591	-	02B	100	
1710591	-	02C	100	Comments:
1710593	-	01A	100	1710524: C-bed spiked @ 16,000ug.
1710593	-	01B	100	1710573: All c-beds spiked @ 2,700ug.
1710593	-	01C	100	1710575: All c-beds spiked @ 2,700ug.
1710593	-	01C	100	1710591: All c-beds spiked @ 900ug
1710593	-	02A	100	(says 20ug on shipping tube but cal and trap spike logbook contradict)
1710593	-	02B	100	
1710593	-	02C	100	1710593: All c-beds spiked @ 900ug.
<del>1710593</del>				
<del>1710593</del>				

cut  
10/18/17

WTF 10/18/17

10/18/17

**Failing Data Report - 7J20013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1710236-02	Hg_FSTM_TRAP_A	108.33	1.00				ng/Trap						FAIL-OVER	PASS	E -
F710364-DUP1	Hg_FSTM_TRAP_A	2.92	1.00	3.73	3.73		ng/Trap				24.4	24.00	PASS-OVER	FAIL-DUP	QR-07 -

Don M. Mason  
 Analyst Reviewed By

10/20/17  
 Date

[Signature]  
 Peer Reviewed By

10/20/17  
 Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE  
PEER-REVIEWED

7J20012

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: *AL 10/20/17*  
Analyzed: 10/19/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20012-IBL1 ✓	QC	1			
7J20012-IBL2 ✓	QC	2			
7J20012-IBL3 ✓	QC	3			
7J20012-CAL1 ✓	QC	4	1704505 ✓		
7J20012-CAL2 ✓	QC	5	1704506 ✓		
7J20012-CAL3 ✓	QC	6	1704507 ✓		
7J20012-CAL4 ✓	QC	7	1704508 ✓		
7J20012-CAL5 ✓	QC	8	1704509 ✓		
7J20012-ICV1 ✓	QC	9	1705628 ✓		
7J20012-CCV1 ✓	QC	10	1705628 ✓		
7J20012-CCB1 ✓	QC	11			
7J20012-CCV2 ✓	QC	12	1705628 ✓		
7J20012-CCB2 ✓	QC	13			
7J20012-CCV3 ✓	QC	14	1705628 ✓		
7J20012-CCB3 ✓	QC	15			
7J20012-CCV4 ✓	QC	16	1705628 ✓		
7J20012-CCB4 ✓	QC	17			
7J20012-CCV5 ✓	QC	18	1705628 ✓		
7J20012-CCB5 ✓	QC	19			
F710250-BLK1 ✓	QC	20			
F710250-BLK2 ✓	QC	21			
7J20012-CCV6 ✓	QC	22	1705628 ✓		
7J20012-CCB6 ✓	QC	23			
F710250-BLK3 ✓	QC	24			
F710250-BLK4 ✓	QC	25			
F710250-BLK5 ✓	QC	26			
F710250-BS1 ✓	QC	27			
F710250-BSD1 ✓	QC	28			
F710250-BS2 ✓	QC	29			
1709623-04 ✓	Hg-CVAFS-T-7030	30			
1709623-05 ✓	Hg-CVAFS-T-7030	31			
1709623-06 ✓	Hg-CVAFS-T-7030	32			
1709623-07 ✓	Hg-CVAFS-T-7030	33			
7J20012-CCV7 ✓	QC	34	1705628 ✓		
7J20012-CCB7 ✓	QC	35			



**ANALYSIS SEQUENCE**

**7J20012**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 10/19/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709623-08	Hg-CVAFS-T-7030	36			
1709623-09	Hg-CVAFS-T-7030	37			
1709623-10	Hg-CVAFS-T-7030	38			
1709623-11	Hg-CVAFS-T-7030	39			
1709623-12	Hg-CVAFS-T-7030	40			
1709623-13	Hg-CVAFS-T-7030	41			
1709623-14	Hg-CVAFS-T-7030	42			
1709623-15	Hg-CVAFS-T-7030	43			
1709623-16	Hg-CVAFS-T-7030	44			
1709623-17	Hg-CVAFS-T-7030	45			
7J20012-CCV8	QC	46	1705628		
7J20012-CCB8	QC	47			
1709623-18	Hg-CVAFS-T-7030	48			
1709623-19	Hg-CVAFS-T-7030	49			
1709623-20	Hg-CVAFS-T-7030	50			
1709625-01	Hg-CVAFS-T-7030	51			
1709626-02	Hg-CVAFS-T-7030	52			
1709626-03	Hg-CVAFS-T-7030	53			
1709623-12RE1	Hg-CVAFS-T-7030	54			Added 10/20/2017 by DM2
F710250-DUP1	QC	55			
F710250-MS1	QC	56			
F710250-MSD1	QC	57			
7J20012-CCV9	QC	58	1705628		
7J20012-CCB9	QC	59			
F710250-MS2	QC	60			
F710250-MSD2	QC	61			
1709623-15RE1	Hg-CVAFS-T-7030	62			Added 10/20/2017 by DM2
7J20012-CCVA	QC	63	1705628		
7J20012-CCBA	QC	64			

Dan Morem      10/19/17  
 Samples Loaded By      Date

Dan Morem      10/20/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F710250

**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
F710250-BLK1	Blank	0.25	20					
F710250-BLK2	Blank	0.25	20					
F710250-BLK3	Blank	0.25	20					
F710250-BLK4	Blank	0.293	20					Pre-homogenization Blank for 1709624, 1709625, 1709626
F710250-BLK5	Blank	0.291	20					Post-homogenization Blank for 1709624, 1709625, 1709626
F710250-BS1	LCS	0.25	20	1704421	20			
F710250-BS2	DORM4	0.1291	20	1705412	129.1			
F710250-BSD1	LCS Dup	0.25	20	1704421	20			
F710250-DUP1	Duplicate [1709626-02]	0.262	20					
F710250-MS1	Matrix Spike [1709626-02]	0.272	20	1705554	100			
F710250-MS2	Matrix Spike [1709625-01]	0.266	20	1705554	100			
F710250-MSD1	Matrix Spike Dup [1709626-02]	0.277	20	1705554	100			
F710250-MSD2	Matrix Spike Dup [1709625-01]	0.259	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**

F710250

**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
1709623-04	FRB-01_17SN001_091217_RAS_04_WB	0.278	20	-	-	-		
1709623-05	FRB-01_17SN001_091217_RAS_05_WB	0.266	20	-	-	-		
1709623-06	FRB-01_17SN001_091217_RAS_06_WB	0.261	20	-	-	-		
1709623-07	FRB-01_17SN001_091217_RAS_07_WB	0.284	20	-	-	-		
1709623-08	FRB-01_17SN001_091217_RAS_08_WB	0.262	20	-	-	-		
1709623-09	FRB-01_17SN001_091217_RAS_09_WB	0.257	20	-	-	-		
1709623-10	FRB-01_17SN001_091217_RAS_10_WB	0.251	20	-	-	-		
1709623-11	FRB-01_17SN001_091217_RAS_11_WB	0.272	20	-	-	-		
1709623-12	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-		
1709623-12RE1	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709623-13	FRB-01_17SN001_091217_RAS_13_WB	0.274	20	-	-	-		
1709623-14	FRB-01_17SN001_091217_RAS_14_WB	0.25	20	-	-	-		
1709623-15	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-		
1709623-15RE1	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-	Added 10/20/2017 by DM2	Added 10/20/2017 by DM2
1709623-16	FRB-01_17SN001_091217_RAS_16_WB	0.267	20	-	-	-		
1709623-17	FRB-01_17SN001_091217_RAS_17_WB	0.273	20	-	-	-		
1709623-18	FRB-01_17SN001_091217_RAS_18_WB	0.277	20	-	-	-		
1709623-19	FRB-01_17SN001_091217_RAS_19_WB	0.266	20	-	-	-		
1709623-20	FRB-01_17SN001_091217_RAS_20_WB	0.253	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710250

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709625-01	ES-FP_17SN001_091417_RAS_01_WB	0.274	20	QC	-	-	MS/MSD	
1709626-02	OB-01_17SN001_091617_RAS_02_WB	0.264	20	-	-	-		
1709626-03	OB-01_17SN001_091617_RAS_03_WB	0.261	20	-	-	-		



PREPARATION BENCH SHEET

2600-3  
10/19/17 DM

F710250

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
F710250-BLK1	Blank	0.25	20					20X
F710250-BLK2	Blank	0.25	20					20X
F710250-BLK3	Blank	0.25	20					20X
F710250-BLK4	Blank	0.293	20					Pre-homogenization Blank for 1709624, 1709625, 1709626 20X
F710250-BLK5	Blank	0.291	20					Post-homogenization Blank for 1709624, 1709625, 1709626 20X
F710250-BS1	LCS	0.25	20	1704421	20			20X
F710250-BS2	DORM4	0.1291	20	1705412	129.1			400X
F710250-BSD1	LCS Dup	0.25	20	1704421	20			20X
F710250-DUP1	Duplicate [1709626-02]	0.262	20					50X
F710250-MS1	Matrix Spike [1709626-02]	0.272	20	1705554	100			400X
F710250-MS2	Matrix Spike [1709625-01]	0.266	20	1705554	100			400X
F710250-MSD1	Matrix Spike Dup [1709626-02]	0.277	20	1705554	100			400X
F710250-MSD2	Matrix Spike Dup [1709625-01]	0.259	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  
1705211  
1706142

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600.3  
10/19/17 DM

F710250

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
1709623-04	FRB-01_17SN001_091217_RAS_04_WB	0.278	20	-	-	-		100X -
1709623-05	FRB-01_17SN001_091217_RAS_05_WB	0.266	20	-	-	-		100X -
1709623-06	FRB-01_17SN001_091217_RAS_06_WB	0.261	20	-	-	-		100X -
1709623-07	FRB-01_17SN001_091217_RAS_07_WB	0.284	20	-	-	-		100X -
1709623-08	FRB-01_17SN001_091217_RAS_08_WB	0.262	20	-	-	-		100X -
1709623-09	FRB-01_17SN001_091217_RAS_09_WB	0.257	20	-	-	-		100X -
1709623-10	FRB-01_17SN001_091217_RAS_10_WB	0.251	20	-	-	-		100X -
1709623-11	FRB-01_17SN001_091217_RAS_11_WB	0.272	20	-	-	-		100X -
1709623-12	FRB-01_17SN001_091217_RAS_12_WB	0.255	20	-	-	-		100X → 20X -
1709623-13	FRB-01_17SN001_091217_RAS_13_WB	0.274	20	-	-	-		100X -
1709623-14	FRB-01_17SN001_091217_RAS_14_WB	0.25	20	-	-	-		100X -
1709623-15	FRB-01_17SN001_091217_RAS_15_WB	0.254	20	-	-	-		100X → 20X -
1709623-16	FRB-01_17SN001_091217_RAS_16_WB	0.267	20	-	-	-		100X -
1709623-17	FRB-01_17SN001_091217_RAS_17_WB	0.273	20	-	-	-		100X -
1709623-18	FRB-01_17SN001_091217_RAS_18_WB	0.277	20	-	-	-		50X -
1709623-19	FRB-01_17SN001_091217_RAS_19_WB	0.266	20	-	-	-		50X -
1709623-20	FRB-01_17SN001_091217_RAS_20_WB	0.253	20	-	-	-		50X -
1709625-01	ES-FP_17SN001_091417_RAS_01_WB	0.274	20	QC	-	-	MS/MSD	50X -
1709626-02	OB-01_17SN001_091617_RAS_02_WB	0.264	20	-	-	-		50X -

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2600.3  
10/19/17 DM

F710250

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709626-03	OB-01_17SN001_091617_RAS_03_WB	0.261	20	-	-	-	50%
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Technician: WPF

Batch#: F710250

Date: 10/6/17

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 (DORM) Calibrated?  Yes  No Therm.#: 140418612 Calibrated?  Yes  No

\*Time in: 17:00 Actual Temp. (raw): 80.1 °C w/ CF: 79.6 °C

Time out: 1900 Actual Temp. (raw): 82.3 °C w/ CF: 81.8 °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: AMB 10/6/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MUN619 Calibration Date: 10/2/17

HNO<sub>3</sub> LIMS ID: N/A

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

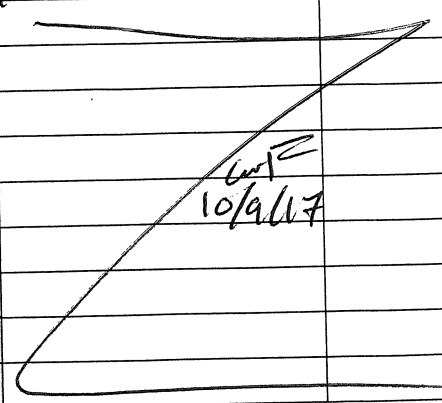
70/30 LIMS ID: 1705927

Dispenser #: 0262749 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406623

Glass Vial # 00068647 Boiling Chip lot # 1702551 \*Hotblock Position: N

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	F710250 - Blk1	0.255	23	1709623 - 20	0.253	BS2=DORM4
2	F710250 - Blk2	0.286	24	<del>1709623 - 02</del> <del>1709624 - 01</del>	WPF 10/6/17	Source: 1705412
3	F710250 - Blk3	0.258	25	<del>1709624 - 02</del>	WPF 10/6/17	
4	F710250 - BS1	0.268	26	F710250 - Dup1	0.262	<b>Comments</b>
5	F710250 - BSD1	0.258	27	F710250 - MS1	0.272	Dup/MS1/MSD1
6	F710250 - BS2	0.1291	28	F710250 - MSD1	0.277	Source: 1709624-02
7	1709623 - 04	0.278	29	1709625 - 01	0.274	MS/MSD2
8	1709623 - 05	0.266	30	F710250 - MS2	0.266	Source: 1709625-01
9	1709623 - 06	0.261	31	F710250 - MSD2	0.259	BS1/BSD1 spilled
10	1709623 - 07	0.284	32	1709626 - 02	0.264	20µl of 1709622
11	1709623 - 08	0.262	33	1709628 - 03	0.261	
12	1709623 - 09	0.257	34	F710250 - Blk4	0.293	taken out of
13	1709623 - 10	0.251	35	F710250 - Blk5	0.291	batch
14	1709623 - 11	0.272	36			Blk4+5 are
15	1709623 - 12	0.255	37			Pre/Post blanks
16	1709623 - 13	0.274	38			for 1709624
17	1709623 - 14	0.250	39			1709625, 1709626
18	1709623 - 15	0.254	40			
19	1709623 - 16	0.267	41			Pre/Post blanks
20	1709623 - 17	0.273	42			for 1709623 are
21	1709623 - 18	0.277	43			in batch
22	1709623 - 19	0.266	44			F710266

\*Hotblock diagram located in back of logbook



**Failing Data Report - 7J20012**

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 M. [Signature]  
Analyst Reviewed By  
10/20/17  
Date

[Signature]  
Peer Reviewed By  
10/20/17  
Date

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20012, 7J20013
<b>Reviewer:</b> <u>DM 10/20/17</u>	<b>Dataset ID(s):</b> THG26003-171019-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F710250, F710398, F710364	

● 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:** DM 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 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7J20012, 7J20013
<b>Reviewer:</b>	0 <i>R 10/20/17</i>	<b>Dataset ID(s):</b>	THG26003-171019-1
<b>Date:</b>	10/20/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F710250, F710398, F710364		0

Analyst Initials *DM*                      Reviewer Initials *R 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: *1710236-02 HIGH SAMPLE. ABOVE CAL5. F710364-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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20012, 7J20013
<b>Reviewer:</b> 0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b> THG26003-171019-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F710250, F710398, F710364	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 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 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: _____ 12/15/16, 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: _____ 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.**

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20012, 7J20013
<b>Reviewer:</b> 0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b> THG26003-171019-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F710250, F710398, F710364	0

*DM*

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES



Frontier Global Sciences

THg26002-171020-1

Analysis Datasheet for Total Mercury

Date of Analysis: October 20, 2017  
Instrument #: Hg2600-2  
LIMS Sequence #: 7J20017

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	103.40 units	206.80	88.89 units	177.78	102.2 %Rec
SEQ-CAL2	1	1.00 ng/L	186.66 units	186.66	172.15 units	172.15	99.0 %Rec
SEQ-CAL3	1	5.00 ng/L	884.51 units	176.90	870.00 units	174.00	100.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3490.93 units	174.55	3476.42 units	173.82	99.9 %Rec
SEQ-CAL5	1	40.00 ng/L	6891.04 units	172.28	6876.53 units	171.91	98.8 %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**  
 173.93            +/- 2.35            1.3% RSD            183.44

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	14.51 units	±3.54	0.08 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.915 ng/L	±1.119
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	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: PC 10/20/17

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	10/20/2017 6:53:49	87796-1.RAW	6:53:49	13.90	-			-0.6	-0.004	-0.004	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	10/20/2017 6:57:57	87797-1.RAW	6:57:57	18.32	-			3.8	0.022	0.022	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	10/20/2017 7:02:06	87798-1.RAW	7:02:06	11.31	-			-3.2	-0.018	-0.018	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	10/20/2017 7:06:14	87799-1.RAW	7:06:14	103.40	-			88.9	0.511	0.511	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	10/20/2017 7:10:22	87800-1.RAW	7:10:22	186.66	-			172.2	0.990	0.990	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	10/20/2017 7:14:31	87801-1.RAW	7:14:31	884.51	-			870.0	5.002	5.002	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	10/20/2017 7:18:39	87802-1.RAW	7:18:39	3490.93	-			3476.4	19.987	19.987	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	10/20/2017 7:22:48	87803-1.RAW	7:22:48	6891.04	-			6876.5	39.536	39.536	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	10/20/2017 7:26:56	87804-1.RAW	7:26:56	901.80	-			887.3	5.101	5.101	ng/L	
Hg2600-2	BC	SAM	1709625-02	50	10/20/2017 7:31:05	87805-1.RAW	7:31:05	4720.45	-	1		4705.9	27.038	1351.889	ng/L	
Hg2600-2	BC	BLK	F710251-BLK1	20	10/20/2017 7:35:14	87806-1.RAW	7:35:14	33.40	-	1		18.9	0.109	2.172	ng/L	
Hg2600-2	BC	BLK	F710251-BLK2	20	10/20/2017 7:39:23	87807-1.RAW	7:39:23	19.24	-	1		4.7	0.027	0.544	ng/L	
Hg2600-2	BC	BLK	F710251-BLK3	20	10/20/2017 7:43:31	87808-1.RAW	7:43:31	14.76	-	1		0.3	0.001	0.029	ng/L	
Hg2600-2	BC	SAM	F710251-BS1	20	10/20/2017 7:47:39	87809-1.RAW	7:47:39	827.61	-	1		813.1	4.629	92.581	ng/L	
Hg2600-2	BC	SAM	F710251-BS2	20	10/20/2017 7:51:48	87810-1.RAW	7:51:48	844.20	-	1		829.7	4.724	94.488	ng/L	
Hg2600-2	BC	SAM	1709625-03	100	10/20/2017 7:55:56	87811-1.RAW	7:55:56	981.43	-	1		966.9	5.557	2222.759	ng/L	
Hg2600-2	BC	SAM	1709625-04	100	10/20/2017 8:00:05	87812-1.RAW	8:00:05	1730.59	-	1		1716.1	9.857	985.722	ng/L	
Hg2600-2	BC	SAM	1709625-05	100	10/20/2017 8:04:13	87813-1.RAW	8:04:13	3995.50	-	1		3981.0	22.879	2287.894	ng/L	
Hg2600-2	BC	SAM	1709625-06	100	10/20/2017 8:08:22	87814-1.RAW	8:08:22	2300.46	-	1		2285.9	13.134	1313.355	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	10/20/2017 8:12:30	87815-1.RAW	8:12:30	846.29	-			831.8	4.782	4.782	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	10/20/2017 8:16:39	87816-1.RAW	8:16:39	24.38	-			9.9	0.057	0.057	ng/L	
Hg2600-2	BC	SAM	1709625-06	100	10/20/2017 8:20:47	87817-1.RAW	8:20:47	1883.94	-	1		1869.4	10.739	1073.888	ng/L	
Hg2600-2	BC	SAM	1709625-07	100	10/20/2017 8:24:55	87818-1.RAW	8:24:55	4964.92	-	1		4950.4	28.452	2845.246	ng/L	
Hg2600-2	BC	SAM	1709625-08	100	10/20/2017 8:29:04	87819-1.RAW	8:29:04	2918.22	-	1		2903.7	16.685	1668.527	ng/L	
Hg2600-2	BC	SAM	1709625-09	100	10/20/2017 8:33:12	87820-1.RAW	8:33:12	4602.89	-	1		4588.4	26.371	2637.107	ng/L	
Hg2600-2	BC	SAM	1709625-10	100	10/20/2017 8:37:21	87821-1.RAW	8:37:21	3946.64	-	1		3932.1	22.598	2259.805	ng/L	
Hg2600-2	BC	SAM	1709625-11	100	10/20/2017 8:41:29	87822-1.RAW	8:41:29	1820.28	-	1		1805.8	10.373	1037.283	ng/L	
Hg2600-2	BC	SAM	1709625-12	100	10/20/2017 8:45:37	87823-1.RAW	8:45:37	1081.38	-	1		1066.9	6.125	612.466	ng/L	
Hg2600-2	BC	SAM	1709625-13	100	10/20/2017 8:49:46	87824-1.RAW	8:49:46	825.42	-	1		810.9	4.653	465.305	ng/L	
Hg2600-2	BC	SAM	1709625-14	100	10/20/2017 8:53:54	87825-1.RAW	8:53:54	971.34	-	1		956.8	5.492	549.198	ng/L	
Hg2600-2	BC	SAM	1709625-15	100	10/20/2017 8:58:03	87826-1.RAW	8:58:03	869.20	-	1		854.7	4.905	490.477	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	10/20/2017 9:02:11	87827-1.RAW	9:02:11	868.28	-			853.8	4.909	4.909	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	10/20/2017 9:06:20	87828-1.RAW	9:06:20	21.91	-			7.4	0.043	0.043	ng/L	
Hg2600-2	BC	SAM	1709625-16	100	10/20/2017 9:10:28	87829-1.RAW	9:10:28	1227.23	-	1		1212.7	6.963	696.318	ng/L	
Hg2600-2	BC	SAM	1709625-17	100	10/20/2017 9:14:36	87830-1.RAW	9:14:36	763.44	-	1		748.9	4.297	429.669	ng/L	
Hg2600-2	BC	SAM	1709625-18	100	10/20/2017 9:18:45	87831-1.RAW	9:18:45	1035.86	-	1		1021.3	5.863	586.293	ng/L	
Hg2600-2	BC	SAM	1709625-19	100	10/20/2017 9:22:53	87832-1.RAW	9:22:53	726.25	-	1		711.7	4.083	408.291	ng/L	
Hg2600-2	BC	SAM	1709625-20	100	10/20/2017 9:27:02	87833-1.RAW	9:27:02	991.16	-	1		976.6	5.606	560.595	ng/L	
Hg2600-2	BC	SAM	1709626-01	100	10/20/2017 9:31:10	87834-1.RAW	9:31:10	1078.64	-	1		1064.1	6.109	610.887	ng/L	
Hg2600-2	BC	SAM	F710251-DUP1	100	10/20/2017 9:35:18	87835-1.RAW	9:35:18	2427.34	-	1		2412.8	13.863	1386.305	ng/L	
Hg2600-2	BC	SAM	F710251-MS1	400	10/20/2017 9:39:27	87836-1.RAW	9:39:27	2530.61	-	1		2516.1	14.464	5785.448	ng/L	
Hg2600-2	BC	SAM	F710251-MSD1	400	10/20/2017 9:43:35	87837-1.RAW	9:43:35	2630.48	-	1		2616.0	15.038	6015.130	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	10/20/2017 9:47:44	87838-1.RAW	9:47:44	2201.42	-	1		2186.9	12.571	5028.399	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/20/2017 9:51:52	87839-1.RAW	9:51:52	886.93	-			872.4	5.016	5.016	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	10/20/2017 9:56:01	87840-1.RAW	9:56:01	30.66	-			16.1	0.093	0.093	ng/L	
Hg2600-2	BC	SAM	F710251-MSD2	400	10/20/2017 10:00:09	87841-1.RAW	10:00:09	2172.67	-	1		2158.2	12.406	4962.298	ng/L	
Hg2600-2	BC	BLK	F710366-BLK1	10	10/20/2017 10:04:17	87842-1.RAW	10:04:17	34.99	-	x		20.5	0.118	1.177	ng/L	
Hg2600-2	BC	BLK	F710366-BLK2	10	10/20/2017 10:08:26	87843-1.RAW	10:08:26	19.13	-	x		4.6	0.027	0.265	ng/L	
Hg2600-2	BC	SAM	F710366-BS1	10	10/20/2017 10:12:34	87844-1.RAW	10:12:34	3384.85	-	x		3370.3	19.377	193.773	ng/L	
Hg2600-2	BC	SAM	F710366-BSD1	10	10/20/2017 10:16:43	87845-1.RAW	10:16:43	3339.99	-	x		3325.5	19.119	191.194	ng/L	
Hg2600-2	BC	SAM	1709837-08	10	10/20/2017 10:20:51	87846-1.RAW	10:20:51	763.35	-	x		748.8	4.305	43.054	ng/L	
Hg2600-2	BC	SAM	1709837-09	10	10/20/2017 10:25:00	87847-1.RAW	10:25:00	799.96	-	x		785.4	4.516	45.158	ng/L	
Hg2600-2	BC	SAM	1709837-10	10	10/20/2017 10:29:08	87848-1.RAW	10:29:08	731.76	-	x		717.3	4.124	41.237	ng/L	
Hg2600-2	BC	SAM	1709837-11	10	10/20/2017 10:33:16	87849-1.RAW	10:33:16	710.22	-	x		695.7	4.000	39.999	ng/L	
Hg2600-2	BC	SAM	1709837-12	10	10/20/2017 10:37:25	87850-1.RAW	10:37:25	737.21	-	x		722.7	4.155	41.551	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	10/20/2017 10:41:33	87851-1.RAW	10:41:33	877.66	-			863.1	4.963	4.963	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	10/20/2017 10:45:42	87852-1.RAW	10:45:42	33.81	-			19.3	0.111	0.111	ng/L	

TotalMercury EPA1631  
**Operat** BC **BlankS** 14.511 **Calib Eqn:** Conc = (Area-14.51 **Run Date:** ##### **Blank SD:** 3.542419209  
**Worksh** THg2600 **CalibFa** 173.93 **Status:** QC Warnings:3/QC E **Run Time:** 6:31:32 **Blank RSD%:** 24.41223513  
**Method** ##### **R:** 1 **R<sup>2</sup>:** 1 **CF SD:** 2.346824894  
**Descrip** THg26002-171020-1 **CF RSD%:** 1.349271917

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	3.85					87791-1.RAW	6:34:24	670.05	Clean	OK	1
Clean				0.00	0.01					87792-1.RAW	6:37:15	2.20	Clean	OK	1
ws				14.51	0.00					87793-1.RAW	6:41:24	13.77	Sample	OK	1
ws				14.51	0.00					87794-1.RAW	6:45:32	4.63	Sample	OK	1
ws				14.51	0.00					87795-1.RAW	6:49:40	5.56	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.08					87796-1.RAW	6:53:49	13.90	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.11					87797-1.RAW	6:57:57	18.32	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.07					87798-1.RAW	7:02:06	11.31	Sample	OK	1
SEQ-CAL1	A4		1	14.51	0.51			102.21		87799-1.RAW	7:06:14	103.40	Sample	OK	1
SEQ-CAL2	A5		1	14.51	0.99			98.98		87800-1.RAW	7:10:22	186.66	Sample	OK	1
SEQ-CAL3	A6		1	14.51	5.00			100.04		87801-1.RAW	7:14:31	884.51	Sample	OK	1
SEQ-CAL4	A7		1	14.51	19.99			99.94		87802-1.RAW	7:18:39	3490.93	Sample	OK	1
SEQ-CAL5	A8		1	14.51	39.54			98.84		87803-1.RAW	7:22:48	6891.04	Sample	OK	1
SEQ-ICV1	A9		1	14.51	5.10			102.03		87804-1.RAW	7:26:56	901.80	Sample	OK	1
1709625-02	A10		50	14.51	1352.80					87805-1.RAW	7:31:05	4720.45	Sample	OK	1
F710251-BLK1	A11		20	14.51	2.17					87806-1.RAW	7:35:14	33.40	Sample	OK	1
F710251-BLK2	A12		20	14.51	0.54					87807-1.RAW	7:39:23	19.24	Sample	OK	1
F710251-BLK3	A13		20	14.51	0.03					87808-1.RAW	7:43:31	14.76	Sample	OK	1
F710251-BS1	A14		20	14.51	93.50					87809-1.RAW	7:47:39	827.61	Sample	OK	1
F710251-BSD1	A15		20	14.51	95.40					87810-1.RAW	7:51:48	844.20	Sample	OK	1
F710251-BS2	A16		400	14.51	2223.67					87811-1.RAW	7:55:56	981.43	Sample	OK	1
1709625-03	A17		100	14.51	986.64					87812-1.RAW	8:00:05	1730.59	Sample	OK	1
1709625-04	A18		100	14.51	2288.81					87813-1.RAW	8:04:13	3995.50	Sample	OK	1
1709625-05	A19		100	14.51	1314.27					87814-1.RAW	8:08:22	2300.46	Sample	OK	1
SEQ-CCV1	A20		1	14.51	4.78			95.64		87815-1.RAW	8:12:30	846.29	Sample	OK	1
SEQ-CCB1	A21		1	14.51	0.06			0.00		87816-1.RAW	8:16:39	24.38	Sample	OK	1
1709625-06	B1		100	14.51	1074.80					87817-1.RAW	8:20:47	1883.94	Sample	OK	1
1709625-07	B2		100	14.51	2846.16					87818-1.RAW	8:24:55	4964.92	Sample	OK	1
1709625-08	B3		100	14.51	1669.44					87819-1.RAW	8:29:04	2918.22	Sample	OK	1
1709625-09	B4		100	14.51	2638.02					87820-1.RAW	8:33:12	4602.89	Sample	OK	1
1709625-10	B5		100	14.51	2260.72					87821-1.RAW	8:37:21	3946.64	Sample	OK	1
1709625-11	B6		100	14.51	1038.20					87822-1.RAW	8:41:29	1820.28	Sample	OK	1
1709625-12	B7		100	14.51	613.38					87823-1.RAW	8:45:37	1081.38	Sample	OK	1
1709625-13	B8		100	14.51	466.22					87824-1.RAW	8:49:46	825.42	Sample	OK	1
1709625-14	B9		100	14.51	550.11					87825-1.RAW	8:53:54	971.34	Sample	OK	1
1709625-15	B10		100	14.51	491.39					87826-1.RAW	8:58:03	869.20	Sample	OK	1
SEQ-CCV2	B11		1	14.51	4.91			98.17		87827-1.RAW	9:02:11	868.28	Sample	OK	1
SEQ-CCB2	B12		1	14.51	0.04			0.00		87828-1.RAW	9:06:20	21.91	Sample	OK	1
1709625-16	B13		100	14.51	697.23					87829-1.RAW	9:10:28	1227.23	Sample	OK	1
1709625-17	B14		100	14.51	430.58					87830-1.RAW	9:14:36	763.44	Sample	OK	1
1709625-18	B15		100	14.51	587.21					87831-1.RAW	9:18:45	1035.86	Sample	OK	1
1709625-19	B16		100	14.51	409.21					87832-1.RAW	9:22:53	726.25	Sample	OK	1
1709625-20	B17		100	14.51	561.51					87833-1.RAW	9:27:02	991.16	Sample	OK	1



1709626-01	B18	100	14.51	611.80		87834-1.RAW	9:31:10	1078.64	Sample	OK	1
F710251-DUP1	B19	100	14.51	1387.22		87835-1.RAW	9:35:18	2427.34	Sample	OK	1
F710251-MS1	B20	400	14.51	5786.36	416.82	87836-1.RAW	9:39:27	2530.61	Sample	OK	1
F710251-MSD1	B21	400	14.51	6016.05		87837-1.RAW	9:43:35	2630.48	Sample	OK	1
F710251-MS2	C1	400	14.51	5029.31	83.57	87838-1.RAW	9:47:44	2201.42	Sample	OK	1
SEQ-CCV3	C2	1	14.51	5.02	100.32	87839-1.RAW	9:51:52	886.93	Sample	OK	1
SEQ-CCB3	C3	1	14.51	0.09	0.00	87840-1.RAW	9:56:01	30.66	Sample	OK	1
F710251-MSD2	C4	400	14.51	4963.21		87841-1.RAW	10:00:09	2172.67	Sample	OK	1
F710366-BLK1	C5	10	14.51	1.18		87842-1.RAW	10:04:17	34.99	Sample	OK	1
F710366-BLK2	C6	10	14.51	0.27		87843-1.RAW	10:08:26	19.13	Sample	OK	1
F710366-BS1	C7	10	14.51	193.77		87844-1.RAW	10:12:34	3384.85	Sample	OK	1
F710366-BSD1	C8	10	14.51	191.19		87845-1.RAW	10:16:43	3339.99	Sample	OK	1
1709837-08	C9	10	14.51	43.05		87846-1.RAW	10:20:51	763.35	Sample	OK	1
1709837-09	C10	10	14.51	45.16		87847-1.RAW	10:25:00	799.96	Sample	OK	1
1709837-10	C11	10	14.51	41.24		87848-1.RAW	10:29:08	731.76	Sample	OK	1
1709837-11	C12	10	14.51	40.00		87849-1.RAW	10:33:16	710.22	Sample	OK	1
1709837-12	C13	10	14.51	41.55		87850-1.RAW	10:37:25	737.21	Sample	OK	1
SEQ-CCV4	C14	1	14.51	4.96	99.25	87851-1.RAW	10:41:33	877.66	Sample	OK	1
SEQ-CCB4	C15	1	14.51	0.11	0.00	87852-1.RAW	10:45:42	33.81	Sample	OK	1
1709837-13	C16	10	14.51	41.19		87853-1.RAW	10:49:50	730.92	Sample	OK	1
1709837-14	C17	10	14.51	52.50		87854-1.RAW	10:53:58	927.74	Sample	OK	1
1709837-15	C18	10	14.51	172.30		87855-1.RAW	10:58:07	3011.44	Sample	OK	1
1709837-16	C19	10				87856-1.RAW	11:02:15	889.64	Sample	OK	1
1709837-17	C20	10				87857-1.RAW	11:06:24	673.45	Sample	OK	1

## ANALYSIS SEQUENCE

7J20017

QUALITY ASSURANCE  
PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R 10/20/17*  
Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7J20017-IBL1 ✓	QC	1			
7J20017-IBL2 ✓	QC	2			
7J20017-IBL3 ✓	QC	3			
7J20017-CAL1 ✓	QC	4	1704505	✓	
7J20017-CAL2 ✓	QC	5	1704506	✓	
7J20017-CAL3 ✓	QC	6	1704507	✓	
7J20017-CAL4 ✓	QC	7	1704508	✓	
7J20017-CAL5 ✓	QC	8	1704509	✓	
7J20017-ICV1 ✓	QC	9	1705628	✓	
1709625-02 ✓	Hg-CVAFS-T-7030	10			
F710251-BLK1 ✓	QC	11			
F710251-BLK2 ✓	QC	12			
F710251-BLK3 ✓	QC	13			
F710251-BS1 ✓	QC	14			
F710251-BSD1 ✓	QC	15			
F710251-BS2 ✓	QC	16			
1709625-03 ✓	Hg-CVAFS-T-7030	17			
1709625-04 ✓	Hg-CVAFS-T-7030	18			
1709625-05 ✓	Hg-CVAFS-T-7030	19			
7J20017-CCV1 ✓	QC	20	1705628	✓	
7J20017-CCB1 ✓	QC	21			
1709625-06 ✓	Hg-CVAFS-T-7030	22			
1709625-07 ✓	Hg-CVAFS-T-7030	23			
1709625-08 ✓	Hg-CVAFS-T-7030	24			
1709625-09 ✓	Hg-CVAFS-T-7030	25			
1709625-10 ✓	Hg-CVAFS-T-7030	26			
1709625-11 ✓	Hg-CVAFS-T-7030	27			
1709625-12 ✓	Hg-CVAFS-T-7030	28			
1709625-13 ✓	Hg-CVAFS-T-7030	29			
1709625-14 ✓	Hg-CVAFS-T-7030	30			
1709625-15 ✓	Hg-CVAFS-T-7030	31			
7J20017-CCV2 ✓	QC	32	1705628	✓	
7J20017-CCB2 ✓	QC	33			
1709625-16 ✓	Hg-CVAFS-T-7030	34			
1709625-17 ✓	Hg-CVAFS-T-7030	35			

Due Date: 10/20/2017

# ANALYSIS SEQUENCE

7J20017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 10/20/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1709625-18	Hg-CVAFS-T-7030	36			
1709625-19	Hg-CVAFS-T-7030	37			
1709625-20	Hg-CVAFS-T-7030	38			
1709626-01	Hg-CVAFS-T-7030	39			
F710251-DUP1	QC	40			
F710251-MS1	QC	41			
F710251-MSD1	QC	42			
F710251-MS2	QC	43			
7J20017-CCV3	QC	44	1705628		
7J20017-CCB3	QC	45			
F710251-MSD2	QC	46			
7J20017-CCV4	QC	47	1705628		
7J20017-CCB4	QC	48			

          10/20/17  
Samples Loaded By                      Date

          10/20/17  
Data Processed By                      Date

**PREPARATION BENCH SHEET**

F710251

**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
F710251-BLK1	Blank	0.25	20					
F710251-BLK2	Blank	0.25	20					
F710251-BLK3	Blank	0.25	20					
F710251-BS1	LCS	0.25	20	1704421	20			
F710251-BS2	DORM4	0.1268	20	1705412	126.8			
F710251-BSD1	LCS Dup	0.25	20	1704421	20			
F710251-DUP1	Duplicate [1709625-02]	0.277	20					
F710251-MS1	Matrix Spike [1709625-02]	0.261	20	1705554	100			
F710251-MS2	Matrix Spike [1709626-01]	0.257	20	1705554	100			
F710251-MSD1	Matrix Spike Dup [1709625-02]	0.257	20	1705554	100			
F710251-MSD2	Matrix Spike Dup [1709626-01]	0.257	20	1705554	100			

<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
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
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**

F710251

**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
1709625-02	ES-FP_17SN001_091417_RAS_02_WB	0.292	20	-	-	-		
1709625-03	ES-FP_17SN001_091417_RAS_03_WB	0.289	20	-	-	-		
1709625-04	ES-FP_17SN001_091417_RAS_04_WB	0.263	20	-	-	-		
1709625-05	ES-FP_17SN001_091417_RAS_05_WB	0.285	20	-	-	-		
1709625-06	ES-FP_17SN001_091417_RAS_06_WB	0.258	20	-	-	-		
1709625-07	ES-FP_17SN001_091417_RAS_07_WB	0.275	20	-	-	-		
1709625-08	ES-FP_17SN001_091417_RAS_08_WB	0.261	20	-	-	-		
1709625-09	ES-FP_17SN001_091417_RAS_09_WB	0.285	20	-	-	-		
1709625-10	ES-FP_17SN001_091417_RAS_10_WB	0.289	20	-	-	-		
1709625-11	ES-FP_17SN001_091417_RAS_11_WB	0.274	20	-	-	-		
1709625-12	ES-FP_17SN001_091417_RAS_12_WB	0.285	20	-	-	-		
1709625-13	ES-FP_17SN001_091417_RAS_13_WB	0.254	20	-	-	-		
1709625-14	ES-FP_17SN001_091417_RAS_14_WB	0.282	20	-	-	-		
1709625-15	ES-FP_17SN001_091417_RAS_15_WB	0.287	20	-	-	-		
1709625-16	ES-FP_17SN001_091417_RAS_16_WB	0.268	20	-	-	-		
1709625-17	ES-FP_17SN001_091417_RAS_17_WB	0.252	20	-	-	-		
1709625-18	ES-FP_17SN001_091417_RAS_18_WB	0.276	20	-	-	-		
1709625-19	ES-FP_17SN001_091417_RAS_19_WB	0.258	20	-	-	-		
1709625-20	ES-FP_17SN001_091417_RAS_20_WB	0.257	20	-	-	-		

Due Date: 10/20/2017

PREPARATION BENCH SHEET

F710251

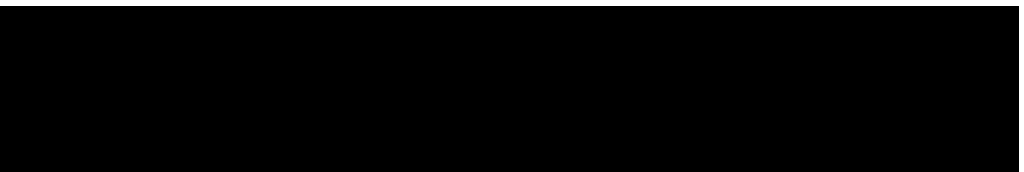
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709626-01	OB-01_17SN001_091617_RAS_01_WB	0.27	20	QC	-	-	MS/MSD	
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BC 10/29/17  
2600-2

PREPARATION BENCH SHEET

F710251

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
F710251-BLK1	Blank	0.25	20					20x ✓
F710251-BLK2	Blank	0.25	20					20x ✓
F710251-BLK3	Blank	0.25	20					20x ✓
F710251-BS1	LCS	0.25	20	1704421	20			20x ✓
F710251-BS2	DORM4	0.1268	20	1705412	126.8			400x ✓
F710251-BSD1	LCS Dup	0.25	20	1704421	20			20x ✓
F710251-DUP1	Duplicate [1709625-02]	0.277	20					100x ✓
F710251-MS1	Matrix Spike [1709625-02]	0.261	20	1705554	100			400x ✓
F710251-MS2	Matrix Spike [1709626-01]	0.257	20	1705554	100			400x ✓
F710251-MSD1	Matrix Spike Dup [1709625-02]	0.257	20	1705554	100			400x ✓
F710251-MSD2	Matrix Spike Dup [1709626-01]	0.257	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

20x = 2.5mL  
100x = 500µL  
400x = 125µL

1705616  
1705611  
1703182  
1706142

Due Date: 10/20/2017

BC 10/20/17  
2600-2

PREPARATION BENCH SHEET

F710251

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
1709625-02	ES-FP_17SN001_091417_RAS_02_WB	0.292	20	-	-	-	50X -	
1709625-03	ES-FP_17SN001_091417_RAS_03_WB	0.289	20	-	-	-	100X -	
1709625-04	ES-FP_17SN001_091417_RAS_04_WB	0.263	20	-	-	-	100X -	
1709625-05	ES-FP_17SN001_091417_RAS_05_WB	0.285	20	-	-	-	100X -	
1709625-06	ES-FP_17SN001_091417_RAS_06_WB	0.258	20	-	-	-	100X -	
1709625-07	ES-FP_17SN001_091417_RAS_07_WB	0.275	20	-	-	-	100X -	
1709625-08	ES-FP_17SN001_091417_RAS_08_WB	0.261	20	-	-	-	100X -	
1709625-09	ES-FP_17SN001_091417_RAS_09_WB	0.285	20	-	-	-	100X -	
1709625-10	ES-FP_17SN001_091417_RAS_10_WB	0.289	20	-	-	-	100X -	
1709625-11	ES-FP_17SN001_091417_RAS_11_WB	0.274	20	-	-	-	100X -	
1709625-12	ES-FP_17SN001_091417_RAS_12_WB	0.285	20	-	-	-	100X -	
1709625-13	ES-FP_17SN001_091417_RAS_13_WB	0.254	20	-	-	-	100X -	
1709625-14	ES-FP_17SN001_091417_RAS_14_WB	0.282	20	-	-	-	100X -	
1709625-15	ES-FP_17SN001_091417_RAS_15_WB	0.287	20	-	-	-	100X -	
1709625-16	ES-FP_17SN001_091417_RAS_16_WB	0.268	20	-	-	-	100X -	
1709625-17	ES-FP_17SN001_091417_RAS_17_WB	0.252	20	-	-	-	100X -	
1709625-18	ES-FP_17SN001_091417_RAS_18_WB	0.276	20	-	-	-	100X -	
1709625-19	ES-FP_17SN001_091417_RAS_19_WB	0.258	20	-	-	-	100X -	
1709625-20	ES-FP_17SN001_091417_RAS_20_WB	0.257	20	-	-	-	100X -	

Due Date: 10/20/2017



BC 10/20/17  
2600-2

PREPARATION BENCH SHEET

F710251

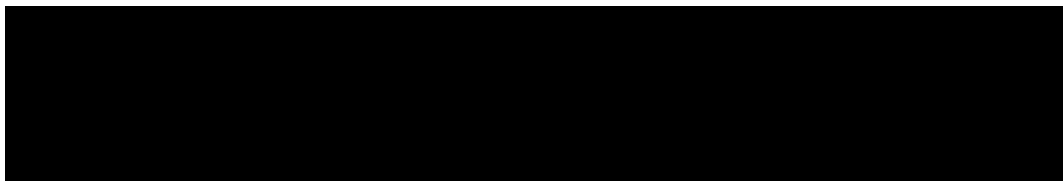
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/6/2017

1709626-01	OB-01_17SN001_091617_RAS_01_WB	0.27	20	QC	-	-	MS/MSD 100X -
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Technician: CWF Batch#: F710251 Date: 10/6/17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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#: 6.19 (DORM) Calibrated?  Yes  No Therm.#: 140418012 Calibrated?  Yes  No

\*Time in: 17:00 Actual Temp. (raw): 80.1 °C w/ CF: 79.6 °C  
 Time out: 19:00 Actual Temp. (raw): 82.3 °C w/ CF: 81.8 °C

\*Time in can't begin before target temperature is reached  
 Final vol.: 20 mL (LIMS ID: 705959) Spike vol.: 100 µL (LIMS ID: 1705954)  
 Spike Witness: AMB 10/16/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: uuuu619 Calibration Date: 10/2/17  
 HNO<sub>3</sub> 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 #: 15408623  Yes  
 Glass Vial # 00068647 Boiling Chip lot # 1702551 \*Hotblock Position: N1

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	F710251 - BLK1	0.283	23	<del>F710251</del> - 15	0.287	BS2 = DORM LIMS: 1705412
2	F710251 - BLK2	0.277	24	1709625 - 16	0.268	
3	F710251 - BLK3	0.289	25	1709625 - 17	0.252	Comments
4	F710251 - BS1	0.274	26	1709625 - 18	0.276	
5	F710251 - BSD1	0.263	27	1709625 - 19	0.258	DUP1/MS1/MSD1
6	F710251 - BS2	0.268	28	1709625 - 20	0.257	source: 1709625-02
7	1709625 - 02	0.292	29	1709626 - 01	0.270	ms2/msd2 source: 1709626-01
8	F710251 - DUPI	0.277	30	F710251 - MS2	0.257	BS1/BSD1 spiked @ 20µL of 1704421
9	F710251 - MSI	0.261	31	F710251 - MSD2	0.257	
10	F710251 - MSD1	0.257	32			Pre/Post blanks for 1709625/1709626 are in batch F710250
11	<del>F710251</del> - 03	0.289	33			
12	1709625 - 04	0.263	34			
13	1709625 - 05	0.285	35			
14	1709625 - 06	0.258	36			
15	1709625 - 07	0.275	37			
16	1709625 - 08	0.261	38			
17	1709625 - 09	0.285	39			
18	1709625 - 10	0.289	40			
19	1709625 - 11	0.274	41			
20	1709625 - 12	0.285	42			
21	1709625 - 13	0.254	43			
22	1709625 - 14	0.282	44			

# Failing Data Report - 7J20017

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
-----------	----------	--------	-----	------------	---------------	------------	-------	--------	----------	----------	-----	-----------	----------	---------	-----------

*Don Matem*

*10/20/17*

Analyst Reviewed By

Date

*[Signature]*

*10/20/17*

Peer Reviewed By

Date

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>7J20017</u>
Reviewer: <u>PC 10/20/17</u>	Dataset ID(s): <u>THG26002-171020-1</u>
Date: <u>10/20/2017</u>	WO (s) #: <u>1709625, 1709626</u>
Batch #(s): <u>F710251</u>	

• 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: PC 10/20/17

- |   |   |
|---|---|
| <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?</p> <p style="margin-left: 40px;">Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1</p> <p style="margin-left: 20px;">(b) Check 5% of transcription from Instrument print-out and Excel file</p> <p style="margin-left: 40px;">Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel</p> <p style="margin-left: 20px;">(c) Check standards &amp; reagents in sequence &amp; bench sheet for correct usage (expiries).</p> <p style="margin-left: 20px;">(d) Check and compare masses (review prep benchsheet)</p> <p style="margin-left: 20px;">(e) Check &amp; compare initial &amp; final volumes</p> <p style="margin-left: 20px;">(f) Do aliquots and dilutions written on benchsheet match those in Excel?</p> <p style="margin-left: 40px;">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> | <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> |
|---|---|

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20017
<b>Reviewer:</b> 0 <i>PC 10/20/17</i>	<b>Dataset ID(s):</b> THG26002-171020-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> 1709625, 1709626
<b>Batch #(s):</b> F710251	0

Analyst Initials DM

Reviewer Initials PC 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: 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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20017
<b>Reviewer:</b> 0 <i>R 10/20/17</i>	<b>Dataset ID(s):</b> THG26002-171020-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> 1709625, 1709626
<b>Batch #(s):</b> F710251	0

**Analyst Initials** DM **Reviewer Initials** R 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 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: _____ <i>1-27-17</i>                | 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: _____ <i>5-20-17</i> | Current SOP revision read?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ <i>7/28/2017</i>                            | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ <i>7/28/2017</i>                            | 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.**

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20017
<b>Reviewer:</b> 0 <i>DM</i>	<b>Dataset ID(s):</b> THG26002-171020-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> 1709625, 1709626
<b>Batch #(s):</b> F710251	0

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):

*DM*


Additional Page (s)?  YES



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** 192.68   
 **Corr. St Dev RF** +/- 7.46   
 **Corr. RSD CF** 3.9% RSD   
 **Uncorr. Mean RF** 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  
 Works: THg2601  
 Methoc: #####  
 R: 1  
 R2: 0.9999  
 BlankS: 6.6633  
 CalibEqn: Conc = (Area-6.663  
 Status: QC Warnings:5/QC I  
 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

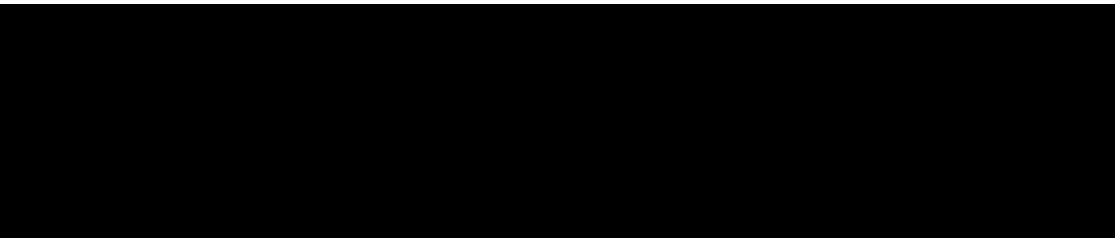
Eurofins Frontier Global Sciences, Inc.

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>	<input checked="" type="checkbox"/>
<b>Data cannot be reported without a current IDOC/CDOC. If YES, notify supervisor and technician immediately.</b>			
2. Check prep method	<input checked="" type="checkbox"/> YES	<u>DM</u>	<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		<u>DM</u>	<input checked="" type="checkbox"/>
3. Compare sample ID with benchsheet	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<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	<u>DM</u>	<input checked="" type="checkbox"/>
(a) Oven bomb - digestion start time before 14:00?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
(b) Microwave - submitted to the lab before 16:00?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
5. Check for transcription errors from benchsheet	<input checked="" type="checkbox"/> YES	<u>DM</u>	<input checked="" type="checkbox"/>
(a) Check and compare initial and final volumes	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
(b) Check and compare mass	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<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	<u>DM</u>	<input checked="" type="checkbox"/>
(d) Benchsheet prep date MUST match actual prep date	<input checked="" type="checkbox"/> YES	<u>DM</u>	<input checked="" type="checkbox"/>
6. Samples per Batch? <b>Check QC Requirements</b>	<input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10	<u>DM</u>	<input checked="" type="checkbox"/>
(a) PBs per batch? <input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB		<u>DM</u>	<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		<u>DM</u>	<input checked="" type="checkbox"/>
(c) MS/MSD in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
(d) MD in batch?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
(e) Client specific WO #'s: _____	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
(f) Are there any client specific requests and/or alterations?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
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>	<input checked="" type="checkbox"/>
(h) Correct 'source' designated for MD/MS/MSD?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
(i) For EFGS-filtered samples, was a filtration blank included?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A	<u>DM</u>	<input checked="" type="checkbox"/>
7. Are the samples appropriately spiked?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<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	<u>DM</u>	<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	<u>DM</u>	<input checked="" type="checkbox"/>
(c) Spikes added:	<input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A	<u>DM</u>	<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>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

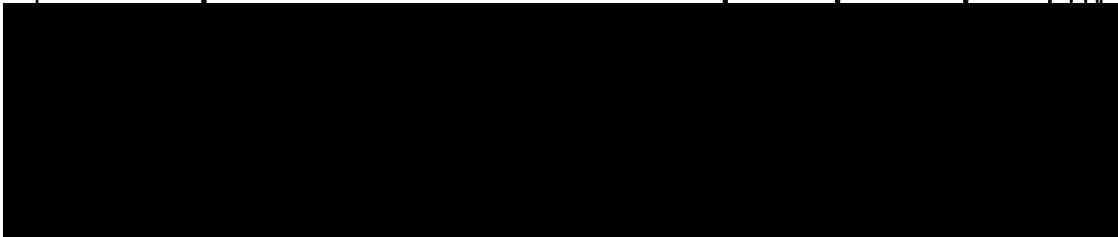
Eurofins Frontier Global Sciences, Inc.

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 <sup>imp 10/18/2017</sup> ~~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	<del>BD</del>	<del>0.7416</del>	<del>BC</del>	<del>✓</del>	<del>Dry WMP 10/18/2017</del>
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	<u>Pump Syringe 1</u>	<input type="checkbox"/>	<u>50</u>	<u>1703595</u>	<u>312664</u>	<u>10/18/2017</u>
B	<u>Pump Syringe 2</u>	<input type="checkbox"/>	<u>50</u>	<u>1703596</u>		
C	<u>T Hg</u>	<input type="checkbox"/>	<u>50</u>	<u>1705878</u>		<u>WMP 10/18/2017</u>
D		<input type="checkbox"/>				
E		<input type="checkbox"/>				

Preparation Method SOP: <u>EFGS-141</u>		
Reagent	Volume (mL)	LIMS ID
<u>HNO<sub>3</sub></u>	<u>7.5</u>	<u>1705879</u>

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 LIMS ID 23569044  
MMP10/15/2017  
 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	1710574-05 MSDI	A	0.9468	L	-	MSI
8	TH035	X197	1710574-05 MSDI	A	1.0877	L	-	MSDI Dry MMP10/15/2017
9	NA	V412	1710616-01	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

# 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	N457	M10616-01MSZ	BPA	2.0109	P	/	
11	NA	TH006	M10616-01MSZ	T118	2.0225	P	/	
12	N/A	T14034	1710574-06	A	0.9368	L	/	Dry MPP 10/11/2017
13	458	M444	1710574-07	A	1.0131	L	/	
14	N/A	X159	1710574-08	A	0.9984	L	/	
15	N/A	N480	1710574-09	A	0.9000	L	/	
16	N/A	X119	1710574-10	A	0.9557	L	/	
17	N/A	X173	1710574-11	A	0.7889	L	/	
18	N/A	N384	1710574-12	A	0.7411	L	/	
19	N/A	X062	1710574-13	A	0.9334	L	/	
20	N/A	X041	1710303-01	A	0.8225	L	/	
21	N/A	X008	1710544-01	A	0.8052	Pellets (PT)	/	Bottle ID: B
22	X124	X045	1710592-01	A	0.5381	1 cap	/	
23	NA	X056	M10609-01	A	1.0253	Paste	/	Dry MPP 10/11/2017
24	NA	N484	M10609-02	A	1.1381	Paste	/	
25	NA	N398	M10610-01	A	0.9694	1 cap	/	
26	N446	N471	M10610-02	A	1.6767	1 cap	/	Double Acid
27	NA	X070	M10611-01	A	0.6238	L	/	
28	N424	X169	M10617-01	A	2.5388	Juice	/	
29	N/A	X070	M10617-02	A	0.9755	Puree	/	
30	<del>_____</del>							
31	<del>_____</del>							
32	<del>_____</del>							
33	<del>_____</del>							
34	<del>_____</del>							

Initials: W

Density by EFGS-019		Required? <input type="checkbox"/> Yes <input type="checkbox"/> 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)
/				
/				
/				
/				

**Failing Data Report - 7J20015**

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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

108 of 135

Page 1 of 4



## 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

109 of 135

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

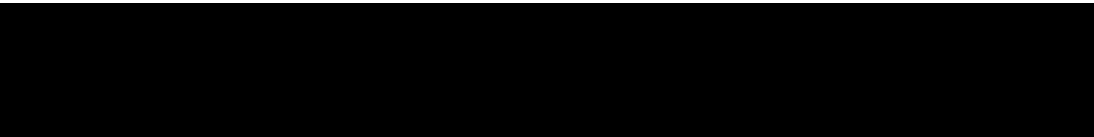
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 <sup>ms/msd</sup> 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

HNO<sub>3</sub> LIMS ID: N/A

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

70/30 LIMS ID: 1706064

Dispenser #: 2317 <sup>10/17/17</sup> Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406603 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			<b>Comments</b>
4	F710387 - BS1	0.2681	26			
5	F710387 - BS01	0.2577	27			BS/BS01 spiked
6	F710387 - BS2	0.1253	28			with 20µL of
7	1709628 - 15	0.2873	29			1704421
8	F710387 - DUP1	0.2815	30			DUP1 MS1 /MSB1
9	F710387 - MS1	0.2626	31			BSMS: 1709628-15
10	F710387 - MS01	0.2604	32			Are Post blanks for 1709628 are in batch F710289
11	1709628 - 16 RE1	0.2734	33			
12	1709628 - 17 RE1	0.2815	34			CWF 10/17/17
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

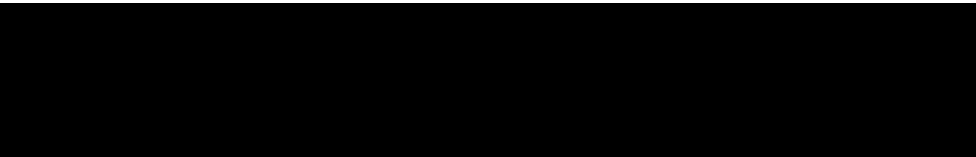
**Eurofins Frontier Global Sciences, Inc.**

**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 -

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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	<del>F710260 - DUP1</del>	<del>w/F 10/9/17</del>	31	1709626 - 18	0.285	MS2/MSD2
10	<del>MS1</del>	<del>w/F 10/9/17</del>	32	F710260 - DUP1	0.288	Source: 1709626-04
11	<del>MSD1</del>	<del>w/F 10/9/17</del>	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 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

Due Date: 10/20/2017

PREPARATION BENCH SHEET

2000-2  
10/19/17 DM

F710262

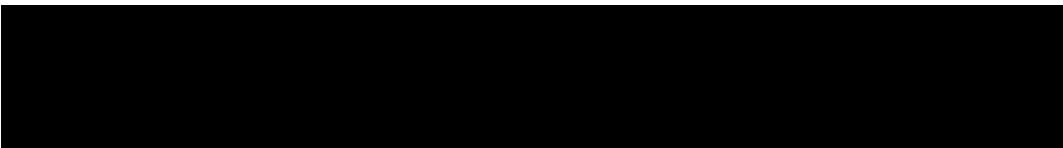
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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(DSRM4) 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  
 HNO<sub>3</sub> 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 = DSRM4 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	<b>Comments</b>
5	F710262 - BSD1	0.271	27	1709627 - 14	0.271	
6	F710262 - BS2	0.1275	28	1709627 - 15	0.271	BS1/BS1 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%; position: relative;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CWF</span> <span style="position: absolute; bottom: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">10/9/17</span> </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			

# Failing Data Report - 7J20014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F710387-DUP1	Hg-CVAFS-T-7030	88.39	3.55	68.92	68.92		ng/g				24.8	24.00	PASS-OVER	FAIL-DUP	QR-07

Analyst Reviewed By Dan Moseem Date 10/20/17

Peer Reviewed By [Signature] Date 10/20/17

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 10/26/17</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 10/26/17

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



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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20014, 7J20015
<b>Reviewer:</b> 0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b> THG26002-171019-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> 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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7J20014, 7J20015
<b>Reviewer:</b> 0 <i>DM 10/20/17</i>	<b>Dataset ID(s):</b> THG26002-171019-1
<b>Date:</b> 10/20/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> 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.**

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>Dr 10/20/17</i>	Dataset ID(s):	THG26002-171019-1
Date:	10/20/2017	WO (s) #:	VARIOUS
Batch #(s):	F710262, F710405, F710260, F710387		0

*Dr*

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1706934

July 20, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1706934

### Table of Contents

July 20, 2017

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	11
Notes and Definitions	15
Raw Data: 7G14006	16

**Total Pages – 57**



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 14:08

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W17-N_17MN002_061917_RWB_01_BL	1706934-01	Tissue	19-Jun-17 08:30	30-Jun-17 09:50
W17-N_17MN005_061917_RWB_02_BL	1706934-02	Tissue	19-Jun-17 10:00	30-Jun-17 09:50
W17-N_17MN006_061917_RWB_03_BL	1706934-03	Tissue	19-Jun-17 11:30	30-Jun-17 09:50
W17-N_17MN006_061917_RWB_04_BL	1706934-04	Tissue	19-Jun-17 13:30	30-Jun-17 09:50
W17-N_17MN037_062517_RWB_05_BL	1706934-05	Tissue	25-Jun-17 06:50	30-Jun-17 09:50

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Amy Goodall, Project Manager



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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

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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 batches F707328 and were analyzed in sequence 7G14006. Per client request, sample 1706934-01 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 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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Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

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Amy Goodall, Project Manager



# Sample Receipt Checklist

EFGS Work Order: 1706934

Client: AMEL Foster Wheeler

Date & Time Received: 6/30/17 9:50

Date Labeled: 7/13/17 Labeled By: AF

Received By: LM Label Verified By: LM

# of Coolers Received: 1 Samples Arrived By:  Shipping Service Hand 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>10.2</u> °C	Date/Time: <u>6/30/17 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-34</u> °C	w/CF: <u>37.8</u> °C	Cooler 4: <u>    </u> °C	w/CF: <u>    </u> °C
Cooler 2: <u>    </u> °C	w/CF: <u>    </u> °C	Cooler 5: <u>    </u> °C	w/CF: <u>    </u> °C
Cooler 3: <u>    </u> °C	w/CF: <u>    </u> °C	Cooler 6: <u>    </u> °C	w/CF: <u>    </u> °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>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>Y</u>	

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

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1706934



# Environmental Analysis Request/Chain of Custody

**Client:** Amer Foster Wheeler / 511 Congress St, Suite 200 Portland, ME 04101

**Project Name:** USDC Penobscot  
**Project Manager:** Rod Perdfleton

**Project ID:** PIN #:3516166052 04A.C54  
**F.C. #:**

**Sampler:** KB/SM  
**Phone #:**

**State where samples were collected:** ME

**For Compliance:** Yes No

Sample Identification	Collection		Composite	Matrix		Total # of Containers	Analyses Requested											
	Date	Time		Grab	Rush		Preservation Codes											
1 W17-N 17MN002_061917_RWB_01_BL	6/19/2017	0830	Grab			1												
2 W17-N 17MN005_061917_RWB_02_BL	6/19/2017	1000	Grab			1												
3 W17-N 17MN006_061917_RWB_03_BL	6/19/2017	1130	Grab			1												
4 W17-N 17MN006_061917_RWB_04_BL	6/19/2017	1330	Grab			1												
5 W17-N 17MN037_062517_RWB_05_BL	6/25/2017	0650	Grab			1												
6 W17-N 17MN002_061917_RWB_01_BL_MS	6/19/2017	0830	Grab			1												
7 W17-N 17MN002_061917_RWB_01_BL_MD	6/19/2017	0830	Grab			1												

**Turnaround Time Requested (TAT) (please check):** Standard Rush  
 (Rush TAT is subject to laboratory approval and surcharges.)

**Notes:** FedEx # 8104 2668 2029 # of Containers 1  
 Sample disposal - Hold Equipment Blanks 1-4 until 30 days after delivery of report.  
 Report and EDU to: Denise King @ amesfwr.com / 978-862-6633

**Data Package Options (please check if required):** High Standard  
 If yes, format: Yes No

**EDD Required?** Yes No

**Relinquished by:** [Signature] Date: 6-29-17 Time: 1600  
 Received by: [Signature] Date: 6/29/17 Time: 9:52

**Relinquished by:** [Signature] Date: [ ] Time: [ ]  
 Received by: [Signature] Date: [ ] Time: [ ]

**Relinquished by:** [Signature] Date: [ ] Time: [ ]  
 Received by: [Signature] Date: [ ] Time: [ ]

**Relinquished by:** [Signature] Date: [ ] Time: [ ]  
 Received by: [Signature] Date: [ ] Time: [ ]

**Relinquished by:** [Signature] Date: [ ] Time: [ ]  
 Received by: [Signature] Date: [ ] Time: [ ]

**Relinquished by:** [Signature] Date: [ ] Time: [ ]  
 Received by: [Signature] Date: [ ] Time: [ ]

**Relinquished by:** [Signature] Date: [ ] Time: [ ]  
 Received by: [Signature] Date: [ ] Time: [ ]

**Temperature upon receipt:** -31.8 °C

**UPS:**  FedEx  Other  Seal intact

**Preservation Codes Legend:**  
 T = Thioflavine  
 V = Vol%  
 S = H<sub>2</sub>SO<sub>4</sub>  
 O = Other



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	<b>Reported:</b> 20-Jul-17 14:08
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**W17-N\_17MN002\_061917\_RWB\_01\_BL**  
**1706934-01**

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	165	6.79	60.6	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:**  
20-Jul-17 14:08

**W17-N\_17MN005\_061917\_RWB\_02\_BL**  
**1706934-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	2450	5.71	51.0	ng/g	1000	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota  
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**W17-N\_17MN006\_061917\_RWB\_03\_BL**  
**1706934-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	1800	6.09	54.3	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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**W17-N\_17MN006\_061917\_RWB\_04\_BL**  
**1706934-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	4940	31.5	282	ng/g	400	F707328	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
20-Jul-17 14:08

**W17-N\_17MN037\_062517\_RWB\_05\_BL**  
**1706934-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	4440	9.20	82.1	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: 20-Jul-17 14:08
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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
<b>Batch 7G14006 - F707327</b>											
<b>Cal Standard (7G14006-CAL1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.563	-		ng/L	0.50100		112				
<b>Cal Standard (7G14006-CAL2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	1.054	-		ng/L	1.0020		105				
<b>Cal Standard (7G14006-CAL3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.787	-		ng/L	5.0100		95.5				
<b>Cal Standard (7G14006-CAL4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	18.52	-		ng/L	20.040		92.4				
<b>Cal Standard (7G14006-CAL5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	37.49	-		ng/L	40.080		93.5				
<b>Calibration Blank (7G14006-CCB1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.006	-		ng/L							
<b>Calibration Blank (7G14006-CCB2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.012	-		ng/L							
<b>Calibration Blank (7G14006-CCB3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.031	-		ng/L							
<b>Calibration Blank (7G14006-CCB4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.025	-		ng/L							
<b>Calibration Blank (7G14006-CCB5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.084	-		ng/L							

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20-Jul-17 14:08

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

<b>Calibration Blank (7G14006-CCB6)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.076	-		ng/L							
<b>Calibration Blank (7G14006-CCB7)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.080	-		ng/L							
<b>Calibration Blank (7G14006-CCB8)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.066	-		ng/L							
<b>Calibration Blank (7G14006-CCB9)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.049	-		ng/L							
<b>Calibration Blank (7G14006-CCBA)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.071	-		ng/L							
<b>Calibration Check (7G14006-CCV1)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.815	-		ng/L	5.0000		96.3	77-123			
<b>Calibration Check (7G14006-CCV2)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.822	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (7G14006-CCV3)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.819	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (7G14006-CCV4)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.734	-		ng/L	5.0000		94.7	77-123			
<b>Calibration Check (7G14006-CCV5)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.863	-		ng/L	5.0000		97.3	77-123			

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Reported:  
20-Jul-17 14:08

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			
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Calibration Check (7G14006-CCV7) Prepared & Analyzed: 13-Jul-17

Mercury	4.950	-		ng/L	5.0000		99.0	77-123			
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Calibration Check (7G14006-CCV8) Prepared & Analyzed: 13-Jul-17

Mercury	4.907	-		ng/L	5.0000		98.1	77-123			
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Calibration Check (7G14006-CCV9) Prepared & Analyzed: 13-Jul-17

Mercury	4.918	-		ng/L	5.0000		98.4	77-123			
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Calibration Check (7G14006-CCVA) Prepared & Analyzed: 13-Jul-17

Mercury	4.905	-		ng/L	5.0000		98.1	77-123			
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Instrument Blank (7G14006-IBL1) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14006-IBL2) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14006-IBL3) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G14006-ICV1) Prepared & Analyzed: 13-Jul-17

Mercury	4.939	-		ng/L	5.0000		98.8	79-121			
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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
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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
20-Jul-17 14:08

**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**

<b>Blank (F707328-BLK2)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707328-BLK3)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>LCS (F707328-BS1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.456	0.090	0.800	ng/g	8.0160		93.0	75-125			
<b>LCS Dup (F707328-BSD1)</b>					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	
<b>Duplicate (F707328-DUP2)</b>					Source: 1706933-05RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	1435	5.05	45.0	ng/g		1413			1.60	24	AD
<b>Matrix Spike (F707328-MS1)</b>					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			
<b>Matrix Spike (F707328-MS2)</b>					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			
<b>Matrix Spike Dup (F707328-MSD1)</b>					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	
<b>Matrix Spike Dup (F707328-MSD2)</b>					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	

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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 14:08

**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).
- 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

Analyst: DM2

Instrument #: Hg2600-3

Units: ng/L

ITMS Sequence #: 7G14006, 7G14007

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 7:44:22	70926-1.RAW	7:44:22 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 7:52:38	70928-1.RAW	7:52:38 AM	491.90				490.4	4.939	4.939	ng/L	
Hg2600-3	DM2	BLK	F707327-BLK2	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-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 8:05:03	70931-1.RAW	8:05:03 AM	11.40	1			9.9	0.100	2.001	ng/L	
Hg2600-3	DM2	SAM	F707327-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			238.7	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			6659.6	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			104.9	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	24.491	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 9:36:09	70953-1.RAW	9:36:09 AM	701.78	1			700.2	7.041	704.125	ng/L	
Hg2600-3	DM2	SAM	1706933-02	100	7/13/2017 9:40:17	70954-1.RAW	9:40:17 AM	4312.33	1			4310.8	43.612	4341.163	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 9:44:26	70955-1.RAW	9:44:26 AM	830.71	1			829.2	8.340	834.010	ng/L	
Hg2600-3	DM2	SAM	1706933-04	20	7/13/2017 9:48:34	70956-1.RAW	9:48:34 AM	3737.77	1			3736.2	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	4589.90	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	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	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			21277.5	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				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	1864.734	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 16:14:23	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 18:36:10	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	Blanks 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/ID	Location	Rinse	Dilute	Blanks	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-BS1	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

F707327-DUP2	A10	20	1.55	148.47			
1706933-04	A11	100	1.55	11703.95			
1706933-05	A12	100	1.55	8199.30			
1706933-08	B1	100	1.55	6145.30			
1706933-07	B2	100	1.55	8471.35			
1706933-06	B3	100	1.55	4632.07			
1706933-09	B4	100	1.55	3981.02			
1706933-10	B5	100	1.55	12243.79			
1706933-11	B8	100	1.55	9568.03			
clean			0.00	0.11			
ws			1.55	0.20			
1706935-12	B7	100	1.55	21434.01			
clean			0.00	0.17			
ws			1.55	0.27			
ws			1.55	0.10			
SEQ-CCV5	B8	1	1.55	4.06	97.26		
SEQ-CCD5	B9	1	1.55	0.08	0.00		
1706934-01	B10	400	1.55	541.45			
1706935-02	B11	400	1.55	18229.91			
1706933-04RE1	B12	400	1.55	11752.28			
1706933-05RE1	C1	400	1.55	6273.39			
1706933-06RE1	C2	400	1.55	6229.97			
1706933-07RE1	C3	400	1.55	8428.12			
1706933-08RE1	C4	400	1.55	4525.05			
1706933-09RE1	C5	400	1.55	4400.37			
1706933-10RE1	C8	400	1.55	12577.30			
1706933-11RE1	C7	400	1.55	9918.58			
SEQ-CCV6	C9	1	1.55	4.97	98.42		
SEQ-CCB6	C9	1	1.55	0.08	0.00		
1706933-12RE1	C10	1000	1.55	22742.14			
1706935-02RE1	C11	1000	1.55	19930.16			
1706935-04RE2	C12	400	1.55	17180.63			
1706934-02	D1	400	1.55	24124.16			
1706934-03	D2	400	1.55	6807.96			
1706934-04	D3	400	1.55	3509.94			
1706934-05	D4	400	1.55	10813.17			
1706935-03	D5	1000	1.55	17710.21			
1706935-04	D6	1000	1.55	7207.54			
1706935-05	D7	1000	1.55	17213.48			
SEQ-CCV7	D8	1	1.55	4.95	99.01		
SEQ-CCB7	D8	1	1.55	0.08	0.00		
1706935-06	D10	1000	1.55	2865.75			
1706935-07	D11	1000	1.55	5061.73			
1706934-02RE1	D12	1000	1.55	24033.41			
1706934-03RE1	A1	400	1.55	6841.65			
F707328-DUP1	A2	400	1.55	1250.13			
F707328-MS1	A3	400	1.55	9921.03	792.57		
F707328-MSD1	A4	400	1.55	10392.67			
F707328-MS2	A5	400	1.55	5170.62	49.74		
F707328-MSD2	A6	400	1.55	5457.82			
F707328-DUP2	A9	400	1.55	6374.48			
SEQ-CCV8	A7	1	1.55	4.91	99.14		
SEQ-CCB8	A8	1	1.55	0.07	0.00		
F707372-BLK1	A10	1	1.55	0.01			
F707372-BLK2	A11	1	1.55	0.02			
F707372-BLK3	A12	1	1.55	0.03			
F707372-BLK4	B1	1	1.55	0.02			
F707372-BLK5	B2	1	1.55	0.03			
F707372-BLK6	B3	1	1.55	0.05			
F707372-BLK7	B4	1	1.55	0.02			
F707372-BLK8	B5	1	1.55	0.02			
F707372-BLK9	B6	1					
F707372-BS1	B7	1	1.55	14.93			
SEQ-CCV9	B8	1	1.55	4.42	98.36		
SEQ-CCB9	B9	1	1.55	0.05	0.00		
F707328-MS3	B10	1000	1.55	24793.36	813082.29		
F707328-MSD3	B11	1000	1.55	24773.42			
70977-1	RAW						
70978-1	RAW			11:23:03	738.46	Sample	OK
70979-1	RAW			11:27:11	11620.26	Sample	FB
70980-1	RAW			11:31:19	6154.72	Sample	OK
70981-1	RAW			11:35:28	6102.11	Sample	OK
70982-1	RAW			11:39:36	8419.23	Sample	OK
70983-1	RAW			11:43:45	4599.90	Sample	FB
70984-1	RAW			11:47:53	3953.59	Sample	OK
70985-1	RAW			11:52:02	12136.19	Sample	FB
70986-1	RAW			11:56:10	9499.92	Sample	FB
70987-1	RAW			11:59:01	11.12	Clean	OK
70988-1	RAW			12:03:10	21.59	Sample	OK
70989-1	RAW			12:07:18	21279.50	Sample	FB
70990-1	RAW			12:10:10	17.01	Clean	OK
70991-1	RAW			12:14:18	29.76	Sample	OK
70992-1	RAW			12:18:26	11.36	Sample	OK
70993-1	RAW			12:22:35	484.26	Sample	OK
70994-1	RAW			12:26:43	9.94	Sample	OK
70995-1	RAW			12:30:52	138.68	Sample	OK
70996-1	RAW			12:35:00	4125.60	Sample	FB
70997-1	RAW			12:39:08	2518.23	Sample	FB
70998-1	RAW			12:43:17	1658.48	Sample	OK
70999-1	RAW			12:47:25	1547.71	Sample	OK
71000-1	RAW			12:51:34	2083.24	Sample	OK
71001-1	RAW			12:55:42	1124.58	Sample	OK
71002-1	RAW			12:59:51	1093.64	Sample	OK
71003-1	RAW			13:03:59	3122.98	Sample	OK
71004-1	RAW			13:08:07	2463.14	Sample	FB
71005-1	RAW			13:12:16	495.05	Sample	OK
71006-1	RAW			13:16:24	9.05	Sample	OK
71007-1	RAW			13:20:33	2259.21	Sample	OK
71008-1	RAW			13:24:41	1090.71	Sample	FB
71009-1	RAW			13:28:49	3026.77	Sample	FB
71010-1	RAW			13:32:58	5958.66	Sample	FB
71011-1	RAW			13:37:08	1681.15	Sample	FB
71012-1	RAW			13:41:15	872.95	Sample	OK
71013-1	RAW			13:45:23	2085.18	Sample	OK
71014-1	RAW			13:49:32	1759.84	Sample	OK
71015-1	RAW			13:53:40	716.57	Sample	OK
71016-1	RAW			13:57:48	710.37		OK
71017-1	RAW			14:01:57	492.69	Sample	OK
71018-1	RAW			14:06:05	9.48	Sample	OK
71019-1	RAW			14:10:14	108.77	Sample	OK
71020-1	RAW			14:14:22	605.30	Sample	OK
71021-1	RAW			14:18:30	2387.36	Sample	OK
71022-1	RAW			14:22:39	1649.68	Sample	OK
71023-1	RAW			14:26:47	511.81	Sample	OK
71024-1	RAW			14:30:55	2403.75	Sample	OK
71025-1	RAW			14:35:04	2569.80	Sample	OK
71026-1	RAW			14:39:13	1284.90	Sample	OK
71027-1	RAW			14:43:22	1366.02	Sample	OK
71028-1	RAW			14:47:30	1583.57	Sample	OK
71029-1	RAW			14:51:39	488.70	Sample	OK
71030-1	RAW			14:55:47	6.13	Sample	OK
71031-1	RAW			14:59:56	2.79	Sample	OK
71032-1	RAW			15:04:04	3.46	Sample	OK
71033-1	RAW			15:08:13	4.30	Sample	OK
71034-1	RAW			15:12:21	3.69	Sample	OK
71035-1	RAW			15:16:30	7.45	Sample	OK
71036-1	RAW			15:20:38	5.14	Sample	OK
71037-1	RAW			15:24:46	3.37	Sample	OK
71038-1	RAW			15:28:55	3.82	Sample	OK
71039-1	RAW			15:33:03	0.00	Sample	NP
71040-1	RAW			15:37:12	1464.14	Sample	OK
71041-1	RAW			15:41:20	489.72	Sample	OK
71042-1	RAW			15:45:29	6.45	Sample	OK
71043-1	RAW			15:49:37	2467.84	Sample	OK
71044-1	RAW			15:53:45	2460.85	Sample	OK

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	6.95	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

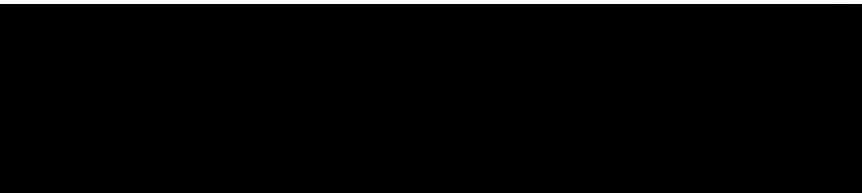
**Eurofins Frontier Global Sciences, Inc.**

**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	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	50.5 104	1604715	100			IX
F707372-BSD1	LCS Dup	50 100	50.5 104	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	<del>101</del> 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%;">                     ALL 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: \_\_\_\_\_

Reviewed  
7/12/17 dm



# 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="font-size: 2em; font-family: cursive;">                     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: \_\_\_\_\_

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)	<del>300</del> <sup>200</sup> 200	<del>3.00</del> <sup>1.00</sup> 1.00	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  
7/18/17  
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~~ 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 <sup>CIC</sup> <sub>7/12/17</sub>	0.25	20	1702555	20			20X
F707327-DUP1	Duplicate [ <del>1706932-04</del> ] 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



Due Date: 7/31/2017

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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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 # 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	<del>1706932-06</del>	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	<del>1706931-05</del>		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 <del>1706933-06</del> <sup>7/13/17</sup>	0.25	20	1702555	20			20X
F707328-DUP1	Duplicate <del>[1706933-06]</del> <sup>1706933-05 RE1</sup>	0.166	20					400X
F707328-MS1	Matrix Spike [1706933-06] <sup>RE1</sup>	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] <sup>RE1</sup>	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

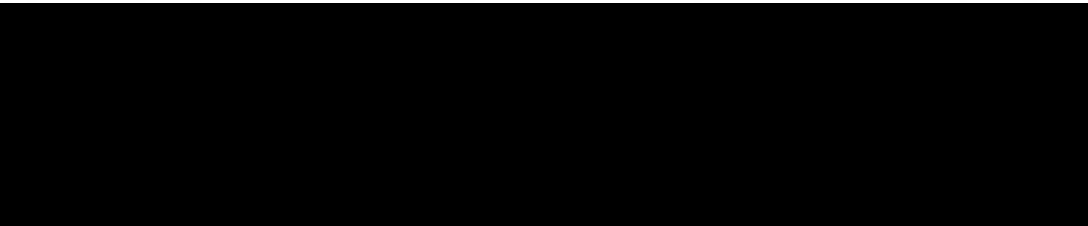
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> 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  
 HNO<sub>3</sub> 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 100ng/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			

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

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	<i>[Signature]</i>	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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: *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"/>
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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"/>
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  - (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?
 

<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
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 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 (expires).
 

<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
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  - (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"/>
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  - (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"/>
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  - (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"/>
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3. High QA?      WO#(s)/Client(s): \_\_\_\_\_
 

<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>
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4. Client specific QC? (if Yes, refer to Project Notes/LIMS)
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
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  - (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"/>
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  - (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"/>
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  - (ii) 1 CCV and 1 COB every 10 analytical runs?
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
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**Peer Review Check List for THg by 2600 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	<i>[Signature]</i> 7/14/17	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	<i>0 [Signature]</i>	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F707372, F707327, F707328		0

Analyst Initials DM Reviewer Initials BC

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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:

1706936

July 20, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1706936

### Table of Contents

July 20, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	12
Notes and Definitions	16
Raw Data: 7G18008	17

Total Pages – 45





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 14:16

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMSE-1_17MN004_062117_RWB_01_BL	1706936-01	Tissue	21-Jun-17 07:40	30-Jun-17 09:50
MMSE-1_17MN044_062717_RWB_02_BL	1706936-02	Tissue	27-Jun-17 06:30	30-Jun-17 09:50
MMSE-1_17MN047_062717_RWB_03_BL	1706936-03	Tissue	27-Jun-17 06:50	30-Jun-17 09:50
MMSE-1_17MN047_062717_RWB_04_BL	1706936-04	Tissue	27-Jun-17 07:00	30-Jun-17 09:50
MMSE-1_17MN047_062717_RWB_05_BL	1706936-05	Tissue	27-Jun-17 11:30	30-Jun-17 09:50
MMSE-1_17MN064_062817_RWB_06_BL	1706936-06	Tissue	28-Jun-17 08:20	30-Jun-17 09:50

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

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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 batch F707329 and analyzed in sequence 7G18008. Per client request, sample 1706936-04 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.

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Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

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20-Jul-17 14:16

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---

Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1706936

Client: AMEZ Foster Wheeler

Date & Time Received: 6/30/17 9:50

Date Labeled: 7/5/17 Labeled By: CS

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>10.2</u> °C	Date/time: <u>6/30/17 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-34</u> °C	w/ CF: <u>-33.8</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>N/A</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>N/A</u>	

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

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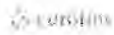


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1706936



## 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 Pendscoc		PN #: 3615-06052.04A.054		Sediment	Fugible	Ground	Surface	Total # of Containers	Preservation Codes				SF #					
Project Manager: Rod Pendleton		P.O. #							Water	N/DES	Blood	Big 1631e cap tubes (10ul) Frozen					SCR #	
Sampler: KB/SM		PWSID #		Soil	Other	X	1	2					4	4	2	5	4	4
Phone #		Quote #							Composite	Grab	Composite	Date						
State where samples were collected: ME		For Compliance: Yes No		Collection		Remarks		Preservation Codes: H = HQ T = Thick Mats R = RND G = RGR B = H.SOL P = H.POL C = Clean										
Sample Identification		Date		Time		Grab		Composite		Remarks		Preservation Codes						
1	MMSE-1_17MNO04_062717_RW3_01_BL	6/27/2017	0740	Grab				X	1	3								
2	MMSE-1_17MNO44_062717_RW3_02_BL	6/27/2017	0630	Grab				X	1	2			Partial - Broken Cap tube					
3	MMSE-1_17MNO47_062717_RW3_03_BL	6/27/2017	0650	Grab				X	1	4								
4	MMSE-1_17MNO47_062717_RW3_04_BL	6/27/2017	0730	Grab				X	1	4			MS/ MD					
5	MMSE-1_17MNO47_062717_RW3_05_BL	6/27/2017	1130	Grab				X	1	2								
6	MMSE-1_17MNO64_062817_RW3_06_BL	6/28/2017	0620	Grab				X	1	5								
7	MMSE-1_17MNO47_062717_RW3_04_BL_M5	6/27/2017	0730	Grab				X	1	4			Use extra volume from sample 04					
8	MMSE-1_17MNO47_062717_RW3_04_BL_MD	6/27/2017	0730	Grab				X	1	4			Use extra volume from sample 04					
<del>ECB</del>																		
Turnaround Time Requested (TAT) (please check)				Standard		Rush		Relinquished by: <i>K-B</i>		Date: 06-29-17 Time: 1600		Received by: <i>[Signature]</i> Date: 6/30/17 Time: 9:50						
(Rush TAT is subject to laboratory approval and surcharges)								Relinquished by:		Date:		Time:						
Notes:								Relinquished by:		Date:		Time:						
EQUIS # <i>B10426642029</i>								Relinquished by:		Date:		Time:						
# of Containers: <i>1</i>								Relinquished by:		Date:		Time:						
Sample disposal: Hold Equipment Blanks 1-4 until 30 days after delivery of report.								Relinquished by:		Date:		Time:						
Report and EDD to: denis.king@amec.com / 978 652 6633								Relinquished by:		Date:		Time:						
Data Package Options (please check if required)				High		Standard		Relinquished by Commercial Carrier		Date:		Time:						
EDD Required? Yes No				If yes, format:				LPS		FedEx <i>X</i>		Other						
										Temperature upon receipt: <i>-33.5</i> °C								

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Seal intact



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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:**  
20-Jul-17 14:16

**MMSE-1\_17MN004\_062117\_RWB\_01\_BL**  
**1706936-01**

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

**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	1090	4.49	40.1	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 14:16

**MMSE-1\_17MN044\_062717\_RWB\_02\_BL**  
**1706936-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	6260	8.91	79.5	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 14:16

**MMSE-1\_17MN047\_062717\_RWB\_03\_BL**  
**1706936-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	6170	15.8	141	ng/g	1000	F707329	12-Jul-17	7G18008	17-Jul-17	EPA 1631B	

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Project Manager: Denise King

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20-Jul-17 14:16

**MMSE-1\_17MN047\_062717\_RWB\_04\_BL**  
**1706936-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	2680	10.6	95.0	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 14:16

**MMSE-1\_17MN047\_062717\_RWB\_05\_BL**  
**1706936-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	1150	13.2	118	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 14:16

**MMSE-1\_17MN064\_062817\_RWB\_06\_BL**  
**1706936-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	7210	21.7	194	ng/g	1000	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 14:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G18008 - F707329</b>											
<b>Cal Standard (7G18008-CAL1)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.535	-		ng/L	0.50100		107				
<b>Cal Standard (7G18008-CAL2)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	1.039	-		ng/L	1.0020		104				
<b>Cal Standard (7G18008-CAL3)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	4.926	-		ng/L	5.0100		98.3				
<b>Cal Standard (7G18008-CAL4)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	18.90	-		ng/L	20.040		94.3				
<b>Cal Standard (7G18008-CAL5)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	38.47	-		ng/L	40.080		96.0				
<b>Calibration Blank (7G18008-CCB1)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.186	-		ng/L							
<b>Calibration Blank (7G18008-CCB2)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.272	-		ng/L							
<b>Calibration Blank (7G18008-CCB3)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.297	-		ng/L							
<b>Calibration Blank (7G18008-CCB4)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.259	-		ng/L							
<b>Calibration Blank (7G18008-CCB5)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.246	-		ng/L							

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20-Jul-17 14:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G18008 - F707329</b>											
<b>Calibration Blank (7G18008-CCB7)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	0.225	-		ng/L							
<b>Calibration Blank (7G18008-CCB8)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	0.198	-		ng/L							
<b>Calibration Blank (7G18008-CCB9)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	0.321	-		ng/L							
<b>Calibration Blank (7G18008-CCBA)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	0.448	-		ng/L							
<b>Calibration Check (7G18008-CCV1)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	5.232	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7G18008-CCV2)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	5.496	-		ng/L	5.0000		110	77-123			
<b>Calibration Check (7G18008-CCV3)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	5.643	-		ng/L	5.0000		113	77-123			
<b>Calibration Check (7G18008-CCV4)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	5.390	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7G18008-CCV5)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	5.377	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7G18008-CCV7)</b> Prepared & Analyzed: 17-Jul-17											
Mercury	5.202	-		ng/L	5.0000		104	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
<b>Batch 7G18008 - F707329</b>											
<b>Calibration Check (7G18008-CCV8)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.136	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (7G18008-CCV9)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.494	-		ng/L	5.0000		110	77-123			
<b>Calibration Check (7G18008-CCVA)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.685	-		ng/L	5.0000		114	77-123			
<b>Instrument Blank (7G18008-IBL1)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G18008-IBL2)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G18008-IBL3)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7G18008-ICV1)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.266	-		ng/L	5.0000		105	79-121			
<b>Batch F707329 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707329-BLK1)</b>											
Prepared: 12-Jul-17 Analyzed: 17-Jul-17											
Mercury	0.335	0.090	0.800	ng/g							J
<b>Blank (F707329-BLK2)</b>											
Prepared: 12-Jul-17 Analyzed: 17-Jul-17											
Mercury	0.182	0.090	0.800	ng/g							J

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**Reported:**  
20-Jul-17 14:16

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707329 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707329-BLK3)</b>											
Mercury	0.176	0.090	0.800	ng/g							J
<b>LCS (F707329-BS1)</b>											
Mercury	7.541	0.090	0.800	ng/g	8.0160		94.1	75-125			
<b>LCS Dup (F707329-BSD1)</b>											
Mercury	7.525	0.090	0.800	ng/g	8.0160		93.9	75-125	0.212	24	
<b>Duplicate (F707329-DUP1)</b>											
Mercury	4115	9.47	84.6	ng/g		6169			39.9	24	QR-07
<b>Duplicate (F707329-DUP2)</b>											
Mercury	4868	15.8	141	ng/g		6169			23.6	24	AD
<b>Matrix Spike (F707329-MS1)</b>											
Mercury	4508	9.87	88.1	ng/g	2207.0	2346	97.9	71-125			
<b>Matrix Spike (F707329-MS2)</b>											
Mercury	4259	9.26	82.6	ng/g	2070.2	2683	76.2	71-125			
<b>Matrix Spike Dup (F707329-MSD1)</b>											
Mercury	10270	29.5	263	ng/g	6592.1	2346	120	71-125	20.4	24	
<b>Matrix Spike Dup (F707329-MSD2)</b>											
Mercury	6096	13.5	120	ng/g	3009.0	2683	113	71-125	39.3	24	QR-08

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 Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
 Project Number: 2017 Penobscot Biota  
 Project Manager: Denise King

**Reported:**  
 20-Jul-17 14:16

**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.
- 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						
<b>Corr. Mean RF</b>		<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>			
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	4.926	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	10514.64			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	5.266	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	1340.68	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			1427.6	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	33.964	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	5.496	5.496	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	10:53:08 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	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		6640.6	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	5.641	5.643	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	1:04:26 PM	6324.36	2		6306.2	23.007	9238.800	ng/L	
Hg2600-2	BC	SAM	1706937-08	400	7/17/2017 13:08:36	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	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-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  
 Operate BC  
 BlankS: 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  
 R<sup>2</sup>: 0.9999  
 CF SD: 14.30995186  
 CF RSD%: 5.24414249  
 Descrip THg26002-170717-1

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	5728.83	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	3678.83	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	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

23 of 45

Page 1 of 4

## 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

24 of 45

Page 2 of 4



**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

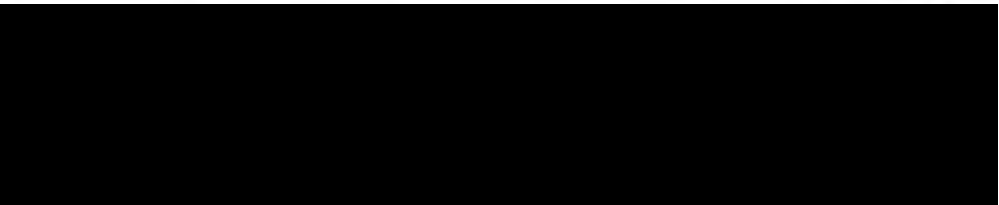
**Eurofins Frontier Global Sciences, Inc.**

**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	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 REI 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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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: 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] REI	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 REI 2500x

MS 2 1706937-02 AS/ASD 100 1702556 400x 1703182

MSD 2 1706937-02 AS/ASD 100 1702556 400x 1703782

MS 3 4 1706938-05 AS/ASD 100 1702556 400x 1703376

MSD 3 4 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 → 1000X	
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

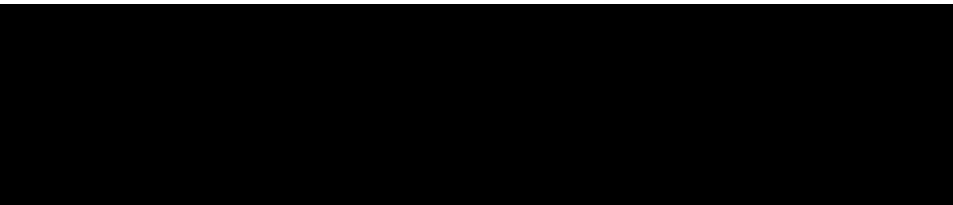
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> 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

HNO<sub>3</sub> 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: <del>1706938-05</del> 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7G18008
<b>Reviewer:</b> DM	<b>Dataset ID(s):</b> THg26002-170717-1
<b>Date:</b> 7/18/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> 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 <sub>3</sub> /HCl Digest Sec/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sec/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 <sup>0</sup>	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?<br>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<br>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 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?<br>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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7G18008
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26002-170717-1
<b>Date:</b> 7/18/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7G18008
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26002-170717-1
<b>Date:</b> 7/18/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> 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.**

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

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7G18008
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26002-170717-1
<b>Date:</b> 7/18/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F707329, F707330	0

BC

DM

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1706938

July 20, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1706938

### Table of Contents

July 20, 2017

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	12
Notes and Definitions	17
Raw Data: 7G18008	18

**Total Pages – 46**



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 14:23

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMSW-C_17MN009_061917_RWB_01_BL	1706938-01	Tissue	19-Jun-17 10:20	30-Jun-17 09:50
MMSW-C_17MN022_062317_RWB_02_BL	1706938-02	Tissue	23-Jun-17 07:10	30-Jun-17 09:50
MMSW-C_17MN020_062317_RWB_03_BL	1706938-03	Tissue	23-Jun-17 10:50	30-Jun-17 09:50
MMSW-C_17MN020_062317_RWB_04_BL	1706938-04	Tissue	23-Jun-17 12:00	30-Jun-17 09:50
MMSW-C_17MN036_062517_RWB_05_BL	1706938-05	Tissue	25-Jun-17 11:20	30-Jun-17 09:50
MMSW-C_17MN036_062617_RWB_06_BL	1706938-06	Tissue	26-Jun-17 06:00	30-Jun-17 09:50

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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	<b>Reported:</b> 20-Jul-17 14:23
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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 date for 1706938-06 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 batch F707330 and analyzed in sequence 7G18008. Per client request, sample 1706938-05 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.

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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 14:23

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

EFGS Work Order: 1706938

Client: AMEL Foster Wheeler Date & Time Received: 6/30/17 9:50 Date Labeled: 7/1/17 Labeled By: CB

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: 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>1012</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 2:		°C	w/CF:	°C
Cooler 3:		°C	w/CF:	°C
Cooler 4:		°C	w/CF:	°C
Cooler 5:		°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>LM</u>	<u>NA</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:		
Sample labels are present and legible:		
Sample ID on container/bag matches COC:		
Correct sample containers used:		
Samples received within holding times:		
Sample volume sufficient for requested analyses:		
Correct preservative used for requested analyses:		

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

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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 14:23

**MMSW-C\_17MN009\_061917\_RWB\_01\_BL**  
**1706938-01**

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

**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	5740	30.4	272	ng/g	2500	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 14:23

**MMSW-C\_17MN022\_062317\_RWB\_02\_BL**  
**1706938-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	6020	28.3	253	ng/g	2500	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 14:23

**MMSW-C\_17MN020\_062317\_RWB\_03\_BL**  
**1706938-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	8460	26.7	239	ng/g	2500	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 14:23

**MMSW-C\_17MN020\_062317\_RWB\_04\_BL**  
**1706938-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	1030	7.11	63.5	ng/g	400	F707330	12-Jul-17	7G18008	17-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 14:23

**MMSW-C\_17MN036\_062517\_RWB\_05\_BL**  
**1706938-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	5020	17.8	159	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	<b>Reported:</b> 20-Jul-17 14:23
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**MMSW-C\_17MN036\_062617\_RWB\_06\_BL**  
**1706938-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	6720	16.1	143	ng/g	2500	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 14:23

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G18008 - F707329</b>											
<b>Cal Standard (7G18008-CAL1)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.535	-		ng/L	0.50100		107				
<b>Cal Standard (7G18008-CAL2)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	1.039	-		ng/L	1.0020		104				
<b>Cal Standard (7G18008-CAL3)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	4.926	-		ng/L	5.0100		98.3				
<b>Cal Standard (7G18008-CAL4)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	18.90	-		ng/L	20.040		94.3				
<b>Cal Standard (7G18008-CAL5)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	38.47	-		ng/L	40.080		96.0				
<b>Calibration Blank (7G18008-CCB1)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.186	-		ng/L							
<b>Calibration Blank (7G18008-CCB2)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.272	-		ng/L							
<b>Calibration Blank (7G18008-CCB3)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.297	-		ng/L							
<b>Calibration Blank (7G18008-CCB4)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.259	-		ng/L							
<b>Calibration Blank (7G18008-CCB5)</b>					Prepared & Analyzed: 17-Jul-17						
Mercury	0.246	-		ng/L							

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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:  
20-Jul-17 14:23

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

<b>Calibration Blank (7G18008-CCB7)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	0.225	-		ng/L							
<b>Calibration Blank (7G18008-CCB8)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	0.198	-		ng/L							
<b>Calibration Blank (7G18008-CCB9)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	0.321	-		ng/L							
<b>Calibration Blank (7G18008-CCBA)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	0.448	-		ng/L							
<b>Calibration Check (7G18008-CCV1)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.232	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7G18008-CCV2)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.496	-		ng/L	5.0000		110	77-123			
<b>Calibration Check (7G18008-CCV3)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.643	-		ng/L	5.0000		113	77-123			
<b>Calibration Check (7G18008-CCV4)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.390	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7G18008-CCV5)</b>											
Prepared & Analyzed: 17-Jul-17											
Mercury	5.377	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7G18008-CCV7)</b>											
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 14:23
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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 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 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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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 14:23

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707330 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707330-BLK3)</b>											
					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	0.258	0.090	0.800	ng/g							J
<b>LCS (F707330-BS1)</b>											
					Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	7.147	0.090	0.800	ng/g	8.0160		89.2	75-125			
<b>LCS Dup (F707330-BSD1)</b>											
					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	
<b>Duplicate (F707330-DUP1)</b>											
					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
<b>Duplicate (F707330-DUP2)</b>											
					Source: 1706938-02RE1 Prepared: 12-Jul-17 Analyzed: 17-Jul-17						
Mercury	5567	28.3	253	ng/g		6016			7.75	24	AD
<b>Matrix Spike (F707330-MS1)</b>											
					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			
<b>Matrix Spike (F707330-MS2)</b>											
					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			
<b>Matrix Spike (F707330-MS3)</b>											
					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
<b>Matrix Spike (F707330-MS4)</b>											
					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
<b>Matrix Spike Dup (F707330-MSD1)</b>											
					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	

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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 14:23

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

<b>Matrix Spike Dup (F707330-MSD2)</b>		<b>Source: 1706938-05</b>		Prepared: 12-Jul-17 Analyzed: 17-Jul-17							
Mercury	13400	35.6	317	ng/g	7952.4	5021	105	71-125	7.96	24	
<b>Matrix Spike Dup (F707330-MSD3)</b>		<b>Source: 1706937-02</b>		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
<b>Matrix Spike Dup (F707330-MSD4)</b>		<b>Source: 1706938-05</b>		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  
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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
20-Jul-17 14:23

**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						
<b>Corr. Mean RF</b>		<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>			
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	4.926	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	10514.64			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	5.266	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	1340.68	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			1427.6	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	6360.91	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	33.964	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	5.496	5.496	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	10:53:08 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	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		6640.6	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-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	DC	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	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-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  
 BlankS: 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  
 R<sup>2</sup>: 0.9999  
 CF SD: 14.30995186  
 CF RSD%: 5.24414249  
 Descrip THg26002-170717-1

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-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

24 of 46

Page 1 of 4

## 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

25 of 46

Page 2 of 4



**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			

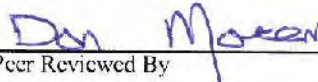
Beating 7/18/17  
Samples Loaded By Date

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 \_\_\_\_\_ 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

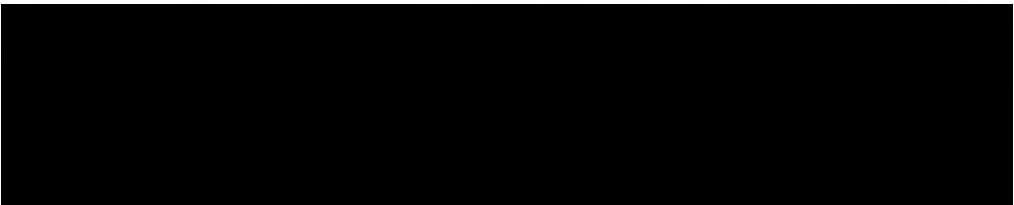
**Eurofins Frontier Global Sciences, Inc.**

**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	

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/CH<sub>2</sub>Cl<sub>2</sub>: 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

HNO<sub>3</sub> 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] REI	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 REI 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 → 1000X	
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

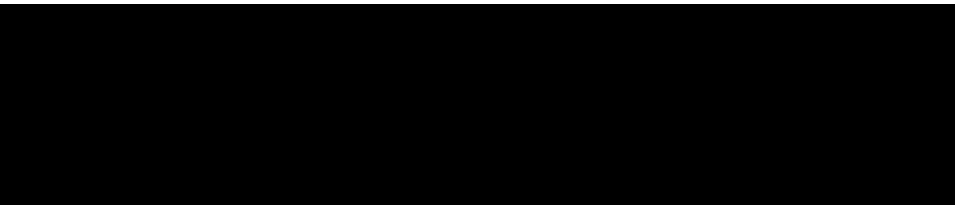
Eurofins Frontier Global Sciences, Inc.

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	
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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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> 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

HNO<sub>3</sub> 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	0.2741	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: <del>1706938-05</del> 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:	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	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO <sub>3</sub> /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 <sup>0</sup>	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?<br>Naming convention: THg26001-yyymmdd-1 or THg26002-yyymmdd-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<br>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 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?<br>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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7G18008
<b>Reviewer:</b> 0	<b>Dataset ID(s):</b> THg26002-170717-1
<b>Date:</b> 7/18/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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)**

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	7G18008
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THg26002-170717-1
<b>Date:</b>	7/18/2017	<b>WO (s) #:</b>	Various
<b>Batch #(s):</b>	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:

1706929

July 31, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1706929

### Table of Contents

July 31, 2017

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	16
Notes and Definitions	28
Raw Data: 7G14008	29
Raw Data: 7G26011	66
Raw Data: 7G27013	131

**Total Pages – 251**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 10:53

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W17-N_17BN005_062417_TIN_01_WB	1706929-01	Tissue	24-Jun-17 15:13	30-Jun-17 09:50
W17-N_17BN004_062417_TIN_02_WB	1706929-02	Tissue	24-Jun-17 15:13	30-Jun-17 09:50
W17-N_17BN001_062517_TIN_03_WB	1706929-03	Tissue	25-Jun-17 09:30	30-Jun-17 09:50
W17-N_17BN001_062517_TIN_04_WB	1706929-04	Tissue	25-Jun-17 09:00	30-Jun-17 09:50
W17-N_17MN001_062517_TIN_05_WB	1706929-05	Tissue	25-Jun-17 11:00	30-Jun-17 09:50
W17-N_17PT003_062417_SPI_01_WB	1706929-06	Tissue	24-Jun-17 15:23	30-Jun-17 09:50
W17-N_17PT003_062417_SPI_02_WB	1706929-07	Tissue	24-Jun-17 15:26	30-Jun-17 09:50
W17-N_17PT002_062517_SPI_03_WB	1706929-08	Tissue	25-Jun-17 10:00	30-Jun-17 09:50
W17-N_17PT004_062517_SPI_04_WB	1706929-09	Tissue	25-Jun-17 10:30	30-Jun-17 09:50
W17-N_17PT001_062517_SPI_05_WB	1706929-10	Tissue	25-Jun-17 11:00	30-Jun-17 09:50

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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:**  
31-Jul-17 10:53

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 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 prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS SOP2808).

The samples were prepped in batch F707393 for Methyl Mercury. This batch was analyzed in sequences 7G26011 and 7G27013. The total Mercury samples were prepped in batch F707326 and analyzed in sequence 7G14008. There were no client requested samples for the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD).

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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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:**  
31-Jul-17 10:53

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: 1706929

Client: AMEL Foster Wheeler

Date & Time Received: 6/30/17 9:50

Date Labeled: 7/5/17 Labeled By: LM

Project: \_\_\_\_\_

Received By: LM

Label Verified By: CS

# 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: <u>43180</u>	CF: <u>10.2</u> °C	Date/time: <u>6/30/17 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-34</u> °C	w/ CF: <u>-33.8</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>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):

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1706929

# 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/#: USDO Penikese		PN #: 3616166052.04A.034		Preservation Codes				SF #							
Project Manager: Roc Pendleton		PQ #:						SCR #							
Sampler: KRISM		PWSID #:													
Phone #:		Quote #:													
State where samples were collected: ME		For Compliance: Yes No													
Sample Identification		Collection		Soil	Sediment	Water	Other:	Total # of Containers	Liq. vol. (oz) / Meq. (oz PI) / Frozen					Remarks	
		Date	Time												Crab
1	W17-N_17BN005_062417_TIN_01_WB	5/24/2017	1513				X	1							14g
2	W17-N_17BN004_062417_TIN_02_WB	5/24/2017	1513				X	1							Misc 2.0g
3	W17-N_17BN001_062517_TIN_03_WB	5/25/2017	0930				X	1							1.0 g
4	W17-N_17BN001_062517_TIN_04_WB	5/25/2017	0900				X	1							2.0 g
5	W17-N_17MNC01_052517_TIN_05_WB	6/25/2017	1100				X	1							2.2 g, M&B
6	W17-N_17PT003_062417_SPL_01_WB	6/24/2017	1523				X	1							2.1 g
7	W17-N_17PT003_062417_SPL_02_WB	6/24/2017	1523				X	1							1.1 g
8	W17-N_17PT002_062517_SPL_03_WB	6/25/2017	1000				X	1							1.3 g
9	W17-N_17PT004_062517_SPL_04_WB	6/25/2017	1030				X	1							0.7 g
10	W17-N_17PT001_062517_SPL_05_WB	6/25/2017	1100				X	1							Extra volume from sample for MS/MB #01
11	<del>W17-N_17PT003_062417_SPL_01_WB_MS</del>	<del>6/24/2017</del>	<del>1523</del>				<del>X</del>	<del>1</del>							<del>Extra volume from sample for MS/MB #1</del>
12	<del>W17-N_17PT003_062417_SPL_01_WB_MD</del>	<del>6/24/2017</del>	<del>1523</del>				<del>X</del>	<del>1</del>							<del>Extra volume from sample for MS/MB #1</del>
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.)						<i>Roc Pendleton</i>		6/25/17	1600	<i>La-Mittet</i>	6/28/17	9:50			
Notes:		FedEx # <b>1042664 2029</b>				Relinquished by		Date	Time	Received by	Date	Time			
		# of Coolers <b>1</b>								<i>La-Mittet</i>					
		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: denise.king@amec.com / 978-632-6533								<i>EPS</i>					
Data Package Options (please check if required)		High		Standard		Relinquished by Commercial Carrier									
EDD Required? Yes No		If yes, format:				JPS		FedEx <input checked="" type="checkbox"/>	Other	Temperature upon receipt		33.8 °C			

Europe Frontier Global Sciences • 11720 Northbrook Pkwy N. Suite 400, Bothell, WA 98011 • 425-885-996

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: 31-Jul-17 10:53
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**W17-N\_17BN005\_062417\_TIN\_01\_WB  
1706929-01**

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)	2.4	0.5	1.8	ng/g	500	F707393	19-Jul-17	7G27013	26-Jul-17	EPA 1630 Mod/FGS-070	
-----------------------------	-----	-----	-----	------	-----	---------	-----------	---------	-----------	-------------------------	--

**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	6.59	0.079	0.702	ng/g	20	F707326	11-Jul-17	7G14008	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:**  
31-Jul-17 10:53

**W17-N\_17BN004\_062417\_TIN\_02\_WB**  
**1706929-02**

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)	39.2	0.5	1.8	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	36.5	0.087	0.781	ng/g	20	F707326	11-Jul-17	7G14008	13-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:**  
31-Jul-17 10:53

**W17-N\_17BN001\_062517\_TIN\_03\_WB**  
**1706929-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	3.2	0.5	1.8	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	5.19	0.082	0.729	ng/g	20	F707326	11-Jul-17	7G14008	13-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:**  
31-Jul-17 10:53

**W17-N\_17BN001\_062517\_TIN\_04\_WB**  
**1706929-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	4.9	0.5	1.8	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	5.70	0.075	0.671	ng/g	20	F707326	11-Jul-17	7G14008	13-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 10:53

**W17-N\_17MN001\_062517\_TIN\_05\_WB**  
**1706929-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	41.6	0.4	1.8	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	49.7	0.078	0.693	ng/g	20	F707326	11-Jul-17	7G14008	13-Jul-17	EPA 1631B	

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271 Mill Road  
Chelmsford MA, 01824

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 10:53

**W17-N\_17PT003\_062417\_SPI\_01\_WB**  
**1706929-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	287	2.2	8.7	ng/g	2500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	302	1.63	14.6	ng/g	400	F707326	11-Jul-17	7G14008	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:**  
31-Jul-17 10:53

**W17-N\_17PT003\_062417\_SPI\_02\_WB**  
**1706929-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	324	2.2	8.6	ng/g	2500	F707393	19-Jul-17	7G27013	26-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	315	1.65	14.7	ng/g	400	F707326	11-Jul-17	7G14008	13-Jul-17	EPA 1631B	

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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:**  
31-Jul-17 10:53

**W17-N\_17PT002\_062517\_SPI\_03\_WB  
1706929-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	329	2.4	9.7	ng/g	2500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	349	1.67	14.9	ng/g	400	F707326	11-Jul-17	7G14008	13-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:**  
31-Jul-17 10:53

**W17-N\_17PT004\_062517\_SPI\_04\_WB**  
**1706929-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	323	2.2	8.9	ng/g	2500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	293	1.73	15.4	ng/g	400	F707326	11-Jul-17	7G14008	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:**  
31-Jul-17 10:53

**W17-N\_17PT001\_062517\_SPI\_05\_WB**  
**1706929-10**

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)	266	2.4	9.5	ng/g	2500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	402	1.74	15.6	ng/g	400	F707326	11-Jul-17	7G14008	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: 31-Jul-17 10:53
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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
<b>Batch 7G14008 - F707326</b>											
<b>Cal Standard (7G14008-CAL1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.548	-		ng/L	0.50100		109				
<b>Cal Standard (7G14008-CAL2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	1.072	-		ng/L	1.0020		107				
<b>Cal Standard (7G14008-CAL3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.837	-		ng/L	5.0100		96.6				
<b>Cal Standard (7G14008-CAL4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	18.66	-		ng/L	20.040		93.1				
<b>Cal Standard (7G14008-CAL5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	37.32	-		ng/L	40.080		93.1				
<b>Calibration Blank (7G14008-CCB1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.034	-		ng/L							
<b>Calibration Blank (7G14008-CCB2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.032	-		ng/L							
<b>Calibration Blank (7G14008-CCB3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.024	-		ng/L							
<b>Calibration Blank (7G14008-CCB4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.047	-		ng/L							
<b>Calibration Blank (7G14008-CCB5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.077	-		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:  
31-Jul-17 10:53

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 7G14008 - F707326

<b>Calibration Blank (7G14008-CCB6)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.040	-		ng/L							
<b>Calibration Blank (7G14008-CCB7)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.122	-		ng/L							
<b>Calibration Blank (7G14008-CCB8)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.121	-		ng/L							
<b>Calibration Blank (7G14008-CCB9)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.160	-		ng/L							
<b>Calibration Check (7G14008-CCV1)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.829	-		ng/L	5.0000		96.6	77-123			
<b>Calibration Check (7G14008-CCV2)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.884	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (7G14008-CCV3)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	5.048	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G14008-CCV4)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.911	-		ng/L	5.0000		98.2	77-123			
<b>Calibration Check (7G14008-CCV5)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.948	-		ng/L	5.0000		99.0	77-123			
<b>Calibration Check (7G14008-CCV6)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.886	-		ng/L	5.0000		97.7	77-123			

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 10:53

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 7G14008 - F707326

Calibration Check (7G14008-CCV7) Prepared & Analyzed: 13-Jul-17

Mercury	5.100	-		ng/L	5.0000		102	77-123			
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Calibration Check (7G14008-CCV8) Prepared & Analyzed: 13-Jul-17

Mercury	5.081	-		ng/L	5.0000		102	77-123			
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Calibration Check (7G14008-CCV9) Prepared & Analyzed: 13-Jul-17

Mercury	5.216	-		ng/L	5.0000		104	77-123			
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Instrument Blank (7G14008-IBL1) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14008-IBL2) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14008-IBL3) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G14008-ICV1) Prepared & Analyzed: 13-Jul-17

Mercury	4.970	-		ng/L	5.0000		99.4	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:  
31-Jul-17 10:53

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G19019 - F707331</b>											
<b>Cal Standard (7G19019-CAL3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.086	-		ng/L	5.0100		102				
<b>Cal Standard (7G19019-CAL4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	19.23	-		ng/L	20.040		95.9				
<b>Cal Standard (7G19019-CAL5)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	38.49	-		ng/L	40.080		96.0				
<b>Calibration Blank (7G19019-CCB1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.074	-		ng/L							
<b>Calibration Blank (7G19019-CCB2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.106	-		ng/L							
<b>Calibration Blank (7G19019-CCB3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.169	-		ng/L							
<b>Calibration Blank (7G19019-CCB4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.511	-		ng/L							
<b>Calibration Check (7G19019-CCV1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.030	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G19019-CCV2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.178	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7G19019-CCV3)</b>					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:**  
31-Jul-17 10:53

**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 7G26011 - F707393**

**Cal Standard (7G26011-CAL1)**

Prepared & Analyzed: 25-Jul-17

Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.5				
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**Cal Standard (7G26011-CAL2)**

Prepared & Analyzed: 25-Jul-17

Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		96.6				
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**Cal Standard (7G26011-CAL3)**

Prepared & Analyzed: 25-Jul-17

Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		101				
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**Cal Standard (7G26011-CAL4)**

Prepared & Analyzed: 25-Jul-17

Methyl Mercury (as Mercury)	2.1	-		ng/L	2.0020		103				
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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:**  
31-Jul-17 10:53

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G26011 - F707393</b>											
<b>Cal Standard (7G26011-CAL5)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	4.0	-		ng/L	4.0040		101				
<b>Calibration Blank (7G26011-CCB1)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G26011-CCB2)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7G26011-CCB3)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.005	-		ng/L							
<b>Calibration Check (7G26011-CCV1)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.2	67-133			
<b>Calibration Check (7G26011-CCV2)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133			
<b>Calibration Check (7G26011-CCV3)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		87.5	67-133			
<b>Instrument Blank (7G26011-IBL1)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7G26011-ICB1)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.006	-		ng/L							
<b>Initial Cal Check (7G26011-ICV1)</b>					Prepared & Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.9	69-131			

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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: 31-Jul-17 10:53
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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
<b>Batch 7G27013 - F707393</b>											
<b>Cal Standard (7G27013-CAL1)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.5				
<b>Cal Standard (7G27013-CAL2)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		88.0				
<b>Cal Standard (7G27013-CAL3)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		99.2				
<b>Cal Standard (7G27013-CAL4)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	2.1	-		ng/L	2.0020		104				
<b>Cal Standard (7G27013-CAL5)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		111				
<b>Calibration Blank (7G27013-CCB1)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G27013-CCB2)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB3)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB4)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB5)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U

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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:  
31-Jul-17 10:53

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 7G27013 - F707393

<b>Calibration Blank (7G27013-CCB6)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.003	-		ng/L								
<b>Calibration Check (7G27013-CCV1)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		89.4	67-133				
<b>Calibration Check (7G27013-CCV2)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		81.5	67-133				
<b>Calibration Check (7G27013-CCV3)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.5	67-133				
<b>Calibration Check (7G27013-CCV4)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.9	67-133				
<b>Calibration Check (7G27013-CCV5)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.6	67-133				
<b>Calibration Check (7G27013-CCV6)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.9	67-133				
<b>Instrument Blank (7G27013-IBL1)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U	
<b>Initial Cal Blank (7G27013-ICB1)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.005	-		ng/L								
<b>Initial Cal Check (7G27013-ICV1)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.5	69-131				

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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: 31-Jul-17 10:53
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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
<b>Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707326-BLK1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707326-BLK2)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707326-BLK3)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707326-BLK4)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.088	0.782	ng/g							F-03, U
<b>Blank (F707326-BLK5)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.086	0.770	ng/g							F-03, U
<b>Blank (F707326-BLK6)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.085	0.762	ng/g							F-03, U
<b>Blank (F707326-BLK7)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.085	0.760	ng/g							F-03, U
<b>Blank (F707326-BLK8)</b>					Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.195	0.045	0.400	ng/g							J
<b>Blank (F707326-BLK9)</b>					Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.098	0.045	0.400	ng/g							J
<b>Blank (F707326-BLKA)</b>					Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.078	0.045	0.400	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: 31-Jul-17 10:53
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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 F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS (F707326-BS1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.533	0.090	0.800	ng/g	8.0160		94.0	75-125			
<b>LCS Dup (F707326-BSD1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.797	0.090	0.800	ng/g	8.0160		97.3	75-125	3.45	24	
<b>Duplicate (F707326-DUP2)</b>					Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	50.07	0.078	0.693	ng/g		49.71			0.735	24	AD
<b>Duplicate (F707326-DUP3)</b>					Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	94.87	0.218	1.94	ng/g		49.71			62.5	24	QR-07
<b>Matrix Spike (F707326-MS1)</b>					Source: 1706930-01RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	696.3	1.52	13.6	ng/g	680.94	71.71	91.7	71-125			
<b>Matrix Spike (F707326-MS2)</b>					Source: 1706930-06 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	602.0	1.68	15.0	ng/g	375.70	278.4	86.1	71-125			
<b>Matrix Spike Dup (F707326-MSD1)</b>					Source: 1706930-01RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	689.6	1.56	13.9	ng/g	696.32	71.71	88.7	71-125	3.30	24	
<b>Matrix Spike Dup (F707326-MSD2)</b>					Source: 1706930-06 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	584.3	1.62	14.5	ng/g	362.65	278.4	84.4	71-125	2.06	24	

**Batch F707393 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F707393-BLK1)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	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:**  
31-Jul-17 10:53

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707393 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707393-BLK2)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK3)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK4)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.4	1.5	ng/g							U
<b>Blank (F707393-BLK5)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.4	ng/g							U
<b>Blank (F707393-BLK6)</b>					Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK7)</b>					Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK8)</b>					Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F707393-BS1)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	289.1	2.0	8.0	ng/g	330.28		87.5	70-130			
<b>LCS Dup (F707393-BSD1)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	291.7	2.0	8.0	ng/g	330.28		88.3	70-130	0.882	25	
<b>Duplicate (F707393-DUP1)</b>					Source: 1706929-05 Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	55.7	0.5	1.8	ng/g		41.6			29.0	35	

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 10:53

**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 F707393 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Matrix Spike (F707393-MS1)</b>		<b>Source: 1706930-01</b>			Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	99.8	1.0	3.8	ng/g	37.960	59.9	105	65-130			
<b>Matrix Spike (F707393-MS3)</b>		<b>Source: 1706930-01RE1</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	99.1	1.0	3.8	ng/g	37.960	60.2	102	65-130			
<b>Matrix Spike (F707393-MS4)</b>		<b>Source: 1706930-06</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	353.9	2.4	9.4	ng/g	37.646	295.7	155	65-130			QM-02
<b>Matrix Spike Dup (F707393-MSD1)</b>		<b>Source: 1706930-01</b>			Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	120.9	1.0	3.8	ng/g	38.046	59.9	161	65-130	41.7	35	QM-02, QR-08
<b>Matrix Spike Dup (F707393-MSD3)</b>		<b>Source: 1706930-01RE1</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	147.6	1.0	3.8	ng/g	38.046	60.2	230	65-130	76.7	35	QM-02, QR-08
<b>Matrix Spike Dup (F707393-MSD4)</b>		<b>Source: 1706930-06</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	356.3	2.3	9.3	ng/g	37.088	295.7	163	65-130	5.53	35	QM-02

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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:**  
 31-Jul-17 10:53

**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.
- 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.
- 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.
- 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).
- 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

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7G14008, 7G14009

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	180.35 units	360.70	166.42 units	332.85	109.5 %Rec
SEQ-CAL2	1	1.00 ng/L	339.69 units	339.69	325.77 units	325.77	107.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1484.36 units	296.87	1470.43 units	294.09	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	5684.88 units	284.24	5670.95 units	283.55	93.3 %Rec
SEQ-CAL5	1	40.00 ng/L	11357.43 units	283.94	11343.51 units	283.59	93.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>
303.97	+/- 23.66	7.8% RSD	313.09

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	13.92 units	±1.92	0.04 ng/L	±0.01

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.006 ng/L	±0.104
BLK	2	3	0.778 ng/L	±0.146
BLK	3	3	0.873 ng/L	±0.200
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 7/14/17

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	7/13/2017 7:20:26	80990-1.RAW	7:20:26 AM	15.77			1.8	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	7/13/2017 7:24:35	80991-1.RAW	7:24:35 AM	11.93			-2.0	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	7/13/2017 7:28:43	80992-1.RAW	7:28:43 AM	14.07			0.1	0.000	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	7/13/2017 7:32:52	80993-1.RAW	7:32:52 AM	180.35			166.4	0.548	0.548	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	7/13/2017 7:37:01	80994-1.RAW	7:37:01 AM	339.69			325.8	1.072	1.072	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	7/13/2017 7:41:10	80995-1.RAW	7:41:10 AM	1484.36			1470.4	4.837	4.837	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	7/13/2017 7:45:19	80996-1.RAW	7:45:19 AM	5684.88			5671.0	18.656	18.656	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	7/13/2017 7:49:27	80997-1.RAW	7:49:27 AM	11357.43			11343.5	37.318	37.318	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	7/13/2017 7:53:36	80998-1.RAW	7:53:36 AM	1524.50			1510.6	4.970	4.970	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK1	10	7/13/2017 7:57:44	80999-1.RAW	7:57:44 AM	47.93	1		34.0	0.112	1.119	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK2	10	7/13/2017 8:01:53	81000-1.RAW	8:01:53 AM	43.89	1		30.0	0.099	0.986	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK3	10	7/13/2017 8:06:01	81001-1.RAW	8:06:01 AM	41.68	1		27.8	0.091	0.913	ng/L	
Hg2600-2	DM2	SAM	F707251-BS1	10	7/13/2017 8:10:10	81002-1.RAW	8:10:10 AM	4483.26	1		4469.3	14.603	146.028	ng/L	
Hg2600-2	DM2	SAM	F707251-BSD1	10	7/13/2017 8:14:18	81003-1.RAW	8:14:18 AM	4738.40	1		4724.5	15.442	154.421	ng/L	
Hg2600-2	DM2	SAM	1706563-01	10	7/13/2017 8:18:27	81004-1.RAW	8:18:27 AM	188.30	1		174.4	0.473	4.731	ng/L	
Hg2600-2	DM2	SAM	1706563-04	10	7/13/2017 8:22:35	81005-1.RAW	8:22:35 AM	302.88	1		289.0	0.850	8.500	ng/L	
Hg2600-2	DM2	SAM	1706563-05	10	7/13/2017 8:26:43	81006-1.RAW	8:26:43 AM	301.52	1		287.6	0.846	8.456	ng/L	
Hg2600-2	DM2	SAM	1706564-01	10	7/13/2017 8:30:52	81007-1.RAW	8:30:52 AM	106.49	1		92.6	0.204	2.040	ng/L	
Hg2600-2	DM2	SAM	1706564-05	10	7/13/2017 8:35:00	81008-1.RAW	8:35:00 AM	131.62	1		117.7	0.287	2.866	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	7/13/2017 8:39:09	81009-1.RAW	8:39:09 AM	1481.92			1468.0	4.829	4.829	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	7/13/2017 8:43:17	81010-1.RAW	8:43:17 AM	24.33			10.4	0.034	0.034	ng/L	
Hg2600-2	DM2	SAM	1706564-08	10	7/13/2017 8:48:08	81011-1.RAW	8:48:08 AM	158.17	1		144.2	0.374	3.740	ng/L	
Hg2600-2	DM2	SAM	1706565-01	10	7/13/2017 8:52:16	81012-1.RAW	8:52:16 AM	18.66	1		4.7	-0.085	-0.850	ng/L	
Hg2600-2	DM2	SAM	1706565-04	10	7/13/2017 8:56:25	81013-1.RAW	8:56:25 AM	507.52	1		493.6	1.523	15.233	ng/L	
Hg2600-2	DM2	SAM	1706565-07	10	7/13/2017 9:00:33	81014-1.RAW	9:00:33 AM	205.69	1		191.8	0.530	5.303	ng/L	
Hg2600-2	DM2	SAM	1706565-10	10	7/13/2017 9:04:42	81015-1.RAW	9:04:42 AM	247.32	1		233.4	0.667	6.672	ng/L	
Hg2600-2	DM2	SAM	1706565-13	10	7/13/2017 9:08:50	81016-1.RAW	9:08:50 AM	224.99	1		211.1	0.594	5.938	ng/L	
Hg2600-2	DM2	SAM	1706565-16	10	7/13/2017 9:12:59	81017-1.RAW	9:12:59 AM	634.80	1		620.9	1.942	19.420	ng/L	
Hg2600-2	DM2	SAM	1706565-19	10	7/13/2017 9:17:07	81018-1.RAW	9:17:07 AM	591.16	1		577.2	1.798	17.984	ng/L	
Hg2600-2	DM2	SAM	1706565-25	10	7/13/2017 9:21:16	81019-1.RAW	9:21:16 AM	444.81	1		430.9	1.317	13.170	ng/L	
Hg2600-2	DM2	SAM	1706565-29	100000	7/13/2017 9:25:24	81020-1.RAW	9:25:24 AM	1701.34	1		1687.4	5.551	555128.805	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:29:32	81021-1.RAW	9:29:32 AM	1498.58			1484.7	4.884	4.884	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	7/13/2017 9:33:41	81022-1.RAW	9:33:41 AM	23.59			9.7	0.032	0.032	ng/L	
Hg2600-2	DM2	SAM	1706565-30	2500	7/13/2017 9:37:49	81023-1.RAW	9:37:49 AM	2410.86	1		2396.9	7.885	19712.689	ng/L	
Hg2600-2	DM2	SAM	1706565-31	50000	7/13/2017 9:41:58	81024-1.RAW	9:41:58 AM	1520.28	1		1506.4	4.956	247780.629	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP1	10	7/13/2017 9:46:06	81025-1.RAW	9:46:06 AM	235.62	1		221.7	0.629	6.288	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP2	10	7/13/2017 9:50:15	81026-1.RAW	9:50:15 AM	125.12	1		111.2	0.265	2.652	ng/L	
Hg2600-2	DM2	SAM	F707251-MS1	10	7/13/2017 9:54:23	81027-1.RAW	9:54:23 AM	1000.33	1		966.4	3.145	31.445	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD1	10	7/13/2017 9:58:32	81028-1.RAW	9:58:32 AM	957.21	1		943.3	3.003	30.027	ng/L	
Hg2600-2	DM2	SAM	F707251-MS2	10	7/13/2017 10:02:40	81029-1.RAW	10:02:40 AM	947.59	1		933.7	2.971	29.710	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD2	10	7/13/2017 10:06:49	81030-1.RAW	10:06:49 AM	940.07	1		926.1	2.946	29.463	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK1	10	7/13/2017 10:10:57	81031-1.RAW	10:10:57 AM	39.58	2		25.7	0.084	0.844	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK2	10	7/13/2017 10:15:05	81032-1.RAW	10:15:05 AM	40.66	2		26.7	0.088	0.879	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	7/13/2017 10:19:14	81033-1.RAW	10:19:14 AM	1548.41			1534.5	5.048	5.048	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	7/13/2017 10:23:22	81034-1.RAW	10:23:22 AM	21.09			7.2	0.024	0.024	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK3	10	7/13/2017 10:27:30	81035-1.RAW	10:27:30 AM	32.51	2		18.6	0.061	0.612	ng/L	
Hg2600-2	DM2	SAM	F707289-BS1	10	7/13/2017 10:31:38	81036-1.RAW	10:31:38 AM	4634.08	2		4620.2	15.122	151.217	ng/L	
Hg2600-2	DM2	SAM	F707289-BSD1	10	7/13/2017 10:35:47	81037-1.RAW	10:35:47 AM	4592.28	2		4578.4	14.984	149.841	ng/L	
Hg2600-2	DM2	SAM	1706565-17	10	7/13/2017 10:39:55	81038-1.RAW	10:39:55 AM	627.51	2		613.6	1.941	19.407	ng/L	
Hg2600-2	DM2	SAM	1706565-18	10	7/13/2017 10:44:03	81039-1.RAW	10:44:03 AM	1647.19	2		1633.3	5.295	52.953	ng/L	
Hg2600-2	DM2	SAM	1706565-20	10	7/13/2017 10:48:12	81040-1.RAW	10:48:12 AM	1255.45	2		1241.5	4.007	40.066	ng/L	
Hg2600-2	DM2	SAM	1706565-21	10	7/13/2017 10:52:20	81041-1.RAW	10:52:20 AM	761.36	2		747.4	2.381	23.811	ng/L	
Hg2600-2	DM2	SAM	1706565-22	10	7/13/2017 10:56:29	81042-1.RAW	10:56:29 AM	1036.28	2		1022.4	3.286	32.855	ng/L	
Hg2600-2	DM2	SAM	1706565-23	10	7/13/2017 11:00:37	81043-1.RAW	11:00:37 AM	1259.20	2		1245.3	4.019	40.189	ng/L	
Hg2600-2	DM2	SAM	1706565-24	10	7/13/2017 11:04:46	81044-1.RAW	11:04:46 AM	1815.15	2		1801.2	5.848	58.479	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	7/13/2017 11:08:54	81045-1.RAW	11:08:54 AM	1506.81			1492.9	4.911	4.911	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	7/13/2017 11:13:02	81046-1.RAW	11:13:02 AM	28.16			14.2	0.047	0.047	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	CAL	SEQ-CCVA	1	7/13/2017 15:46:22	81112-1.RAW	3:46:22 PM	1605.11			1591.2	5.235	5.235	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	7/13/2017 15:50:30	81113-1.RAW	3:50:30 PM	34.80			20.9	0.069	0.069	ng/L	
Hg2600-2	DM2	SAM	1707041-01	400	7/13/2017 15:54:40	81114-1.RAW	3:54:40 PM	307636.79		X	307622.9	1012.024	404809.675	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:03:07	81115-1.RAW	4:03:07 PM	674.50		X	660.6	2.173	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:07:15	81116-1.RAW	4:07:15 PM	2699.32		X	2685.4	8.834	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:11:23	81117-1.RAW	4:11:23 PM	1625.49		X	1611.6	5.302	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:14:15	81118-1.RAW	4:14:15 PM	177.00		X	163.1	0.536	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:18:23	81119-1.RAW	4:18:23 PM	1060.43		X	1046.5	3.443	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:21:15	81120-1.RAW	4:21:15 PM	134.20		X	120.3	0.396	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:25:23	81121-1.RAW	4:25:23 PM	753.32		X	739.4	2.432	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:29:31	81122-1.RAW	4:29:31 PM	582.17		X	568.2	1.869	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:33:40	81123-1.RAW	4:33:40 PM	523.70		X	509.8	1.677	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:37:48	81124-1.RAW	4:37:48 PM	437.50			423.6	1.393	0.000	ng/L	
Hg2600-2	DM2	SAM	1707041-02	50000	7/13/2017 16:41:57	81125-1.RAW	4:41:57 PM	115240.55		X	115226.6	379.075	18953748.612	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:51:36	81126-1.RAW	4:51:36 PM	2.53		X	-11.4	-0.037	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:59:16	81127-1.RAW	4:59:16 PM	0.69		X	-13.2	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:05:05	81128-1.RAW	5:05:05 PM	1.18		X	-12.7	-0.042	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:09:00	81129-1.RAW	5:09:00 PM	0.56		X	-13.4	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:12:38	81130-1.RAW	5:12:38 PM	0.30		X	-13.6	-0.045	0.000	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:20:27	81131-2.RAW	5:20:27 PM	4098.62		X	4084.7	13.438	13.438	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:24:35	81132-1.RAW	5:24:35 PM	158.27		X	144.3	0.475	0.475	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:28:44	81133-1.RAW	5:28:44 PM	130.63		X	116.7	0.384	0.384	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:32:52	81134-1.RAW	5:32:52 PM	116.04		X	102.1	0.336	0.336	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 17:37:01	81135-1.RAW	5:37:01 PM	127.78		X	113.9	0.375	0.000	ng/L	

TotalMercury EPA1631 Operat: DM BlankS: 13.924 Calib Eqn: Conc = (Area-13.92 Run Date: 7/13/2017 Blank SD: 1.922222169  
 Worksh: THg260: CalibFa 303.97 Status: QC Warnings:8/QC E Run Time: 17:16:18 Blank RSD%: 13.80552781  
 Method: #### R: 1 R2: 1 CF SD: 23.66088862  
 Descrip: THg26002-170713-1 CF RSD%: 7.784008984

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	2.24					80985-1.RAW	7:01:01	681.10	Clean	OK	1
clean				0.00	0.01					80986-1.RAW	7:03:53	4.50	Clean	OK	1
ws				13.92	0.01					80987-1.RAW	7:08:01	16.83	Sample	OK	1
ws				13.92	0.00					80988-1.RAW	7:12:09	11.79	Sample	OK	1
ws				13.92	0.00					80989-1.RAW	7:16:18	10.04	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.05					80990-1.RAW	7:20:26	15.77	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					80991-1.RAW	7:24:35	11.93	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					80992-1.RAW	7:28:43	14.07	Sample	OK	1
SEQ-CAL1	A4		1	13.92	0.55			109.50		80993-1.RAW	7:32:52	180.35	Sample	OK	1
SEQ-CAL2	A5		1	13.92	1.07			107.17		80994-1.RAW	7:37:01	339.69	Sample	OK	1
SEQ-CAL3	A6		1	13.92	4.84			96.75		80995-1.RAW	7:41:10	1484.36	Sample	OK	1
SEQ-CAL4	A7		1	13.92	18.66			93.28		80996-1.RAW	7:45:19	5684.88	Sample	OK	1
SEQ-CAL5	A8		1	13.92	37.32			93.30		80997-1.RAW	7:49:27	11357.43	Sample	OK	1
SEQ-ICV1	A9		1	13.92	4.97			99.39		80998-1.RAW	7:53:36	1524.50	Sample	OK	1
F707251-BLK1	A10		10	13.92	1.12					80999-1.RAW	7:57:44	47.93	Sample	OK	1
F707251-BLK2	A11		10	13.92	0.99					81000-1.RAW	8:01:53	43.89	Sample	OK	1
F707251-BLK3	A12		10	13.92	0.91					81001-1.RAW	8:06:01	41.68	Sample	OK	1
F707251-BS1	A13		10	13.92	147.03					81002-1.RAW	8:10:10	4483.26	Sample	OK	1
F707251-BSD1	A14		10	13.92	155.43					81003-1.RAW	8:14:18	4738.40	Sample	OK	1
1706563-01	A15		10	13.92	5.74					81004-1.RAW	8:18:27	188.30	Sample	OK	1
1706563-04	A16		10	13.92	9.51					81005-1.RAW	8:22:35	302.88	Sample	OK	1
1706563-05	A17		10	13.92	9.46					81006-1.RAW	8:26:43	301.52	Sample	OK	1
1706564-01	A18		10	13.92	3.05					81007-1.RAW	8:30:52	106.49	Sample	OK	1
1706564-05	A19		10	13.92	3.87					81008-1.RAW	8:35:00	131.62	Sample	OK	1
SEQ-CCV1	A20		1	13.92	4.83			96.59		81009-1.RAW	8:39:09	1481.92	Sample	OK	1
SEQ-CCB1	A21		1	13.92	0.03			0.00		81010-1.RAW	8:43:17	24.33	Sample	OK	1
1706564-08	B1		10	13.92	4.75					81011-1.RAW	8:48:08	158.17	Sample	OK	1
1706565-01	B2		10	13.92	0.16					81012-1.RAW	8:52:16	18.66	Sample	OK	1
1706565-04	B3		10	13.92	16.24					81013-1.RAW	8:56:25	507.52	Sample	OK	1
1706565-07	B4		10	13.92	6.31					81014-1.RAW	9:00:33	205.69	Sample	OK	1
1706565-10	B5		10	13.92	7.68					81015-1.RAW	9:04:42	247.32	Sample	OK	1
1706565-13	B6		10	13.92	6.94					81016-1.RAW	9:08:50	224.99	Sample	OK	1
1706565-16	B7		10	13.92	20.43					81017-1.RAW	9:12:59	634.80	Sample	OK	1
1706565-19	B8		10	13.92	18.99					81018-1.RAW	9:17:07	591.16	Sample	OK	1
1706565-25	B9		10	13.92	14.18					81019-1.RAW	9:21:16	444.81	Sample	OK	1
1706565-29	B10		100000	13.92	555129.81					81020-1.RAW	9:25:24	1701.34	Sample	OK	1
SEQ-CCV2	B11		1	13.92	4.88			97.68		81021-1.RAW	9:29:32	1498.58	Sample	OK	1
SEQ-CCB2	B12		1	13.92	0.03			0.00		81022-1.RAW	9:33:41	23.59	Sample	OK	1
1706565-30	B13		2500	13.92	19713.69					81023-1.RAW	9:37:49	2410.86	Sample	OK	1
1706565-31	B14		50000	13.92	247781.63					81024-1.RAW	9:41:58	1520.28	Sample	OK	1
F707251-DUP1	B15		10	13.92	7.29					81025-1.RAW	9:46:06	235.62	Sample	OK	1
F707251-DUP2	B16		10	13.92	3.66					81026-1.RAW	9:50:15	125.12	Sample	OK	1
F707251-MS1	B17		10	13.92	32.45			698.64		81027-1.RAW	9:54:23	1000.33	Sample	OK	1
F707251-MSD1	B18		10	13.92	31.03					81028-1.RAW	9:58:32	957.21	Sample	OK	1
F707251-MS2	B19		10	13.92	30.72			92.99		81029-1.RAW	10:02:40	947.59	Sample	OK	1
F707251-MSD2	B20		10	13.92	30.47					81030-1.RAW	10:06:49	940.07	Sample	OK	1
F707289-BLK1	B21		10	13.92	0.84					81031-1.RAW	10:10:57	39.58	Sample	OK	1
F707289-BLK2	C1		10	13.92	0.88					81032-1.RAW	10:15:05	40.66	Sample	OK	1
SEQ-CCV3	C2		1	13.92	5.05			100.96		81033-1.RAW	10:19:14	1548.41	Sample	OK	1
SEQ-CCB3	C3		1	13.92	0.02			0.00		81034-1.RAW	10:23:22	21.09	Sample	OK	1
F707289-BLK3	C4		10	13.92	0.61					81035-1.RAW	10:27:30	32.51	Sample	OK	1
F707289-BS1	C5		10	13.92	151.99					81036-1.RAW	10:31:38	4634.08	Sample	OK	1
F707289-BSD1	C6		10	13.92	150.62					81037-1.RAW	10:35:47	4592.28	Sample	OK	1
1706565-17	C7		10	13.92	20.19					81038-1.RAW	10:39:55	627.51	Sample	OK	1
1706565-18	C8		10	13.92	53.73					81039-1.RAW	10:44:03	1647.19	Sample	OK	1
1706565-20	C9		10	13.92	40.84					81040-1.RAW	10:48:12	1255.45	Sample	OK	1
1706565-21	C10		10	13.92	24.59					81041-1.RAW	10:52:20	781.36	Sample	OK	1
1706565-22	C11		10	13.92	33.63					81042-1.RAW	10:56:29	1036.28	Sample	OK	1
1706565-23	C12		10	13.92	40.97					81043-1.RAW	11:00:37	1259.20	Sample	OK	1
1706565-24	C13		10	13.92	59.26					81044-1.RAW	11:04:46	1815.15	Sample	OK	1
SEQ-CCV4	C14		1	13.92	4.91			98.23		81045-1.RAW	11:08:54	1506.81	Sample	OK	1
SEQ-CCB4	C15		1	13.92	0.05			0.00		81046-1.RAW	11:13:02	28.16	Sample	OK	1
1706565-26	C16		10	13.92	14.79					81047-1.RAW	11:17:11	463.61	Sample	OK	1



1706565-27	C17	10	13.92	14.93		81048-1.RAW	11:21:19	467.63	Sample	OK	1
1706565-28	C18	10	13.92	33.44		81049-1.RAW	11:25:28	1030.39	Sample	OK	1
1706565-32	C19	100000	13.92	538607.64		81050-1.RAW	11:29:36	1651.12	Sample	OK	1
1706565-33	C20	2500	13.92	19959.64		81051-1.RAW	11:33:45	2440.76	Sample	OK	1
1706565-34	C21	50000	13.92	245659.96		81052-1.RAW	11:37:53	1507.38	Sample	OK	1
F707289-DUP1	A1	10	13.92	34.08		81053-1.RAW	11:42:01	1049.95	Sample	OK	1
F707289-MS1	A2	10	13.92	128.04	364.96	81054-1.RAW	11:46:10	3905.92	Sample	OK	1
F707289-MSD1	A3	10	13.92	130.11		81055-1.RAW	11:50:18	3968.99	Sample	OK	1
SEQ-CCV5	A4	1	13.92	4.95	98.95	81056-1.RAW	11:54:27	1517.62	Sample	OK	1
SEQ-CCB5	A5	1	13.92	0.08	0.00	81057-1.RAW	11:58:35	37.21	Sample	OK	1
F707326-BLK1	A6	20	13.92	1.03		81058-1.RAW	12:02:43	29.54	Sample	OK	1
F707326-BLK2	A7	20	13.92	0.95		81059-1.RAW	12:06:52	28.30	Sample	OK	1
F707326-BLK3	A8	20	13.92	0.65		81060-1.RAW	12:11:00	23.76	Sample	OK	1
*F707326-BLK4	A9	20	13.92	0.76		81061-1.RAW	12:15:09	25.55	Sample	OK	1
*F707326-BLK5	A10	20	13.92	0.67		81062-1.RAW	12:19:17	24.12	Sample	OK	1
*F707326-BLK6	A11	20	13.92	0.64		81063-1.RAW	12:23:26	23.71	Sample	OK	1
*F707326-BLK7	A12	20	13.92	0.56		81064-1.RAW	12:27:34	22.48	Sample	OK	1
F707326-BS1	A13	20	13.92	95.03		81065-1.RAW	12:31:42	1458.25	Sample	OK	1
F707326-BSD1	A14	20	13.92	98.34		81066-1.RAW	12:35:51	1508.49	Sample	OK	1
1706929-01	A15	400	13.92	104.62		81067-1.RAW	12:39:59	93.42	Sample	OK	1
SEQ-CCV6	A16	1	13.92	4.89	97.73	81068-1.RAW	12:44:08	1499.25	Sample	OK	1
SEQ-CCB6	A17	1	13.92	0.04	0.00	81069-1.RAW	12:48:16	26.06	Sample	OK	1
1706929-02	A18	20	13.92	467.79		81070-1.RAW	12:52:24	7123.57	Sample	OK	1
1706929-03	A19	20	13.92	72.10		81071-1.RAW	12:56:33	1109.68	Sample	OK	1
1706929-04	A20	20	13.92	85.87		81072-1.RAW	13:00:41	1319.06	Sample	OK	1
1706929-05	A21	20	13.92	717.92		81073-1.RAW	13:04:50	10925.08	Sample	OK	1
1706929-06	B1	400	13.92	4150.89		81074-1.RAW	13:08:58	3168.27	Sample	OK	1
1706929-07	B2	400	13.92	4275.51		81075-1.RAW	13:13:07	3262.97	Sample	OK	1
1706929-08	B3	400	13.92	4667.12		81076-1.RAW	13:17:15	3560.56	Sample	OK	1
1706929-09	B4	400	13.92	3799.25		81077-1.RAW	13:21:23	2901.05	Sample	OK	1
1706929-10	B5	400	13.92	5166.64		81078-1.RAW	13:25:32	3940.16	Sample	OK	1
1706930-01	B6	20	13.92	898.64		81079-1.RAW	13:29:40	13671.87	Sample	OK	1
SEQ-CCV7	B7	1	13.92	5.10	102.00	81080-1.RAW	13:33:49	1564.23	Sample	OK	1
SEQ-CCB7	B8	1	13.92	0.12	0.00	81081-1.RAW	13:37:57	51.04	Sample	OK	1
1706929-01RE1	B9	20	13.92	94.88		81082-1.RAW	13:42:05	1455.96	Sample	OK	1
1706930-02	B10	20	13.92	100.15		81083-1.RAW	13:46:14	1536.04	Sample	OK	1
1706930-03	B11	20	13.92	308.75		81084-1.RAW	13:50:22	4706.45	Sample	OK	1
1706930-06	B12	400	13.92	3628.58		81085-1.RAW	13:54:31	2771.35	Sample	OK	1
1706931-01	B13	20	13.92	55.42		81086-1.RAW	13:58:39	856.15	Sample	OK	1
1706931-02	B14	20	13.92	452.71		81087-1.RAW	14:02:48	6894.32	Sample	OK	1
1706931-10	B15	400	13.92	3841.47		81088-1.RAW	14:06:56	2933.13	Sample	FB	1
1706932-06	B16	400	13.92	950.74		81089-1.RAW	14:11:04	736.41	Sample	OK	1
1706932-07	B17	400	13.92	663.30		81090-1.RAW	14:15:13	517.98	Sample	OK	1
F707326-DUP1	B18	20	13.92	1028.41		81091-1.RAW	14:19:22	15644.11	Sample	OK	1
SEQ-CCV8	B19	1	13.92	5.08	101.62	81092-1.RAW	14:23:31	1558.33	Sample	OK	1
SEQ-CCB8	B20	1	13.92	0.12	0.00	81093-1.RAW	14:27:39	50.81	Sample	OK	1
1706930-01RE1	B21	50	13.92	1005.16		81094-1.RAW	14:31:48	6124.67	Sample	OK	1
F707326-MS1	C1	400	13.92	10246.45	1018.37	81095-1.RAW	14:35:56	7800.40	Sample	OK	1
F707326-MSD1	C2	400	13.92	9924.94		81096-1.RAW	14:40:04	7556.08	Sample	OK	1
F707326-MS2	C3	400	13.92	8028.10	80.87	81097-1.RAW	14:44:13	6114.64	Sample	OK	1
F707326-MSD2	C4	400	13.92	8073.59		81098-1.RAW	14:48:22	6149.21	Sample	OK	1
F707326-DUP2	C7	20	13.92	723.20		81099-1.RAW	14:52:30	11005.47	Sample	OK	1
SEQ-CCV9	C5	1	13.92	5.22	104.32	81100-1.RAW	14:56:39	1599.47	Sample	OK	1
SEQ-CCB9	C6	1	13.92	0.16	0.00	81101-1.RAW	15:00:48	62.56	Sample	OK	1
F707347-BLK1	C8	50	13.92	5.83		81102-1.RAW	15:04:56	49.40	Sample	OK	1
F707347-BLK2	C9	50	13.92	5.88		81103-1.RAW	15:09:05	48.48	Sample	OK	1
F707347-BLK3	C10	50	13.92	3.85		81104-1.RAW	15:13:13	37.31	Sample	OK	1
F707347-BS1	C11	400	13.92	4763.92		81105-1.RAW	15:17:22	3634.12	Sample	OK	1
F707347-BSD1	C12	400	13.92	4742.14		81106-1.RAW	15:21:30	3617.57	Sample	OK	1
1707030-01	C13	400	13.92	80.45		81107-1.RAW	15:25:39	75.06	Sample	OK	1
1707030-02	C14	400	13.92	148.24		81108-1.RAW	15:29:47	126.57	Sample	OK	1
1707030-03	C15	400	13.92	100.42		81109-1.RAW	15:33:55	90.24	Sample	OK	1
1707030-04	C16	400	13.92	1944.54		81110-1.RAW	15:38:04	1491.62	Sample	OK	1
1707030-05	C17	400	13.92	4932.85		81111-1.RAW	15:42:13	3762.49	Sample	OK	1
SEQ-CCVA	C18	1	13.92	5.23		81112-1.RAW	15:46:22	1805.11	Sample	OK	1
SEQ-CCBA	C19	1	13.92	0.07		81113-1.RAW	15:50:30	34.80	Sample	OK	1
1707041-01	C20	400	13.92	404809.67		81114-1.RAW	15:54:40	307636.79	Sample	OLFB	1
CLEAN			0.00	2.22		81115-1.RAW	16:03:07	674.50	Clean	OK	1

WS		13.92	8.83	81116-1.RAW	16:07:15	2699.32	Sample	OK	1
WS		13.92	5.30	81117-1.RAW	16:11:23	1625.49	Sample	OK	1
CLEAN		0.00	0.58	81118-1.RAW	16:14:15	177.00	Clean	OK	1
WS		13.92	3.44	81119-1.RAW	16:18:23	1060.43	Sample	OK	1
CLEAN		0.00	0.44	81120-1.RAW	16:21:15	134.20	Clean	OK	1
WS		13.92	2.43	81121-1.RAW	16:25:23	753.32	Sample	OK	1
WS		13.92	1.87	81122-1.RAW	16:29:31	582.17	Sample	OK	1
WS		13.92	1.68	81123-1.RAW	16:33:40	523.70	Sample	OK	1
WS		13.92	1.39	81124-1.RAW	16:37:48	437.50	Sample	OK	1
1707041-02	C21	50000	13.92	18953748.61	81125-1.RAW	16:41:57	115240.55	Sample	OLFB
clean			0.00	0.01	81126-1.RAW	16:51:36	2.53	Clean	OK
clean			0.00	0.00	81127-1.RAW	16:59:16	0.69	Clean	OK
clean			0.00	0.00	81128-1.RAW	17:05:05	1.18	Clean	OK
clean			0.00	0.00	81129-1.RAW	17:09:00	0.56	Clean	OK
clean			0.00	0.00	81130-1.RAW	17:12:38	0.30	Clean	OK
BLANK	C19	1	13.92	13.44	81131-2.RAW	17:20:27	4098.62	Sample	OK
BLANK	C20	1	13.92	0.47	81132-1.RAW	17:24:35	158.27	Sample	FB
BLANK	C21	1	13.92	0.38	81133-1.RAW	17:28:44	130.63	Sample	OK
BLANK	C20	1	13.92	0.34	81134-1.RAW	17:32:52	116.04	Sample	OK
WS			13.92	0.37	81135-1.RAW	17:37:01	127.78	Sample	OK

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14008

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R*

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14008-IBL1 ✓	QC	1			
7G14008-IBL2 ✓	QC	2			
7G14008-IBL3 ✓	QC	3			
7G14008-CAL1 ✓	QC	4	1702602 ✓		
7G14008-CAL2 ✓	QC	5	1702603 ✓		
7G14008-CAL3 ✓	QC	6	1702604 ✓		
7G14008-CAL4 ✓	QC	7	1702605 ✓		
7G14008-CAL5 ✓	QC	8	1702606 ✓		
7G14008-ICV1 ✓	QC	9	1703679 ✓		
7G14008-CCV1 ✓	QC	10	1703679 ✓		
7G14008-CCB1 ✓	QC	11			
7G14008-CCV2 ✓	QC	12	1703679 ✓		
7G14008-CCB2 ✓	QC	13			
7G14008-CCV3 ✓	QC	14	1703679 ✓		
7G14008-CCB3 ✓	QC	15			
7G14008-CCV4 ✓	QC	16	1703679 ✓		
7G14008-CCB4 ✓	QC	17			
7G14008-CCV5 ✓	QC	18	1703679 ✓		
7G14008-CCB5 ✓	QC	19			
F707326-BLK1 ✓	QC	20			
F707326-BLK2 ✓	QC	21			
F707326-BLK3 ✓	QC	22			
F707326-BLK4 ✓	QC	23			
F707326-BLK5 ✓	QC	24			
F707326-BLK6 ✓	QC	25			
F707326-BLK7 ✓	QC	26			
F707326-BS1 ✓	QC	27			
F707326-BSD1 ✓	QC	28			
1706929-01 ✓	Hg-CVAFS-T-7030	29			
7G14008-CCV6 ✓	QC	30	1703679 ✓		
7G14008-CCB6 ✓	QC	31			
1706929-02 ✓	Hg-CVAFS-T-7030	32			
1706929-03 ✓	Hg-CVAFS-T-7030	33			
1706929-04 ✓	Hg-CVAFS-T-7030	34			
1706929-05 ✓	Hg-CVAFS-T-7030	35			

Due Date: 7/31/2017

36 of 251

Page 1 of 2

**ANALYSIS SEQUENCE**

**7G14008**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/13/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706929-06 ✓	Hg-CVAFS-T-7030	36			
1706929-07 ✓	Hg-CVAFS-T-7030	37			
1706929-08 ✓	Hg-CVAFS-T-7030	38			
1706929-09 ✓	Hg-CVAFS-T-7030	39			
1706929-10 ✓	Hg-CVAFS-T-7030	40			
1706930-01 ✓	Hg-CVAFS-T-7030	41			
7G14008-CCV7 ✓	QC	42	1703679 ✓		
7G14008-CCB7 ✓	QC	43			
1706929-01RE1 ✓	Hg-CVAFS-T-7030	44			Added 7/14/2017 by DM2
1706930-02 ✓	Hg-CVAFS-T-7030	45			
1706930-03 ✓	Hg-CVAFS-T-7030	46			
1706930-06 ✓	Hg-CVAFS-T-7030	47			
1706931-01 ✓	Hg-CVAFS-T-7030	48			
1706931-02 ✓	Hg-CVAFS-T-7030	49			
1706931-10 ✓	Hg-CVAFS-T-7030	50			
1706932-06 ✓	Hg-CVAFS-T-7030	51			
1706932-07 ✓	Hg-CVAFS-T-7030	52			
F707326-DUP1 ✓	QC	53			
7G14008-CCV8 ✓	QC	54	1703679 ✓		
7G14008-CCB8 ✓	QC	55			
1706930-01RE1 ✓	Hg-CVAFS-T-7030	56			Added 7/14/2017 by DM2
F707326-MS1 ✓	QC	57			
F707326-MSD1 ✓	QC	58			
F707326-MS2 ✓	QC	59			
F707326-MSD2 ✓	QC	60			
F707326-DUP2 ✓	QC	61			
7G14008-CCV9 ✓	QC	62	1703679 ✓		
7G14008-CCB9 ✓	QC	63			

Don Moxem                      7/13/17  
 Samples Loaded By                      Date

Don Moxem                      7/14/17  
 Data Processed By                      Date

**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-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-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

**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

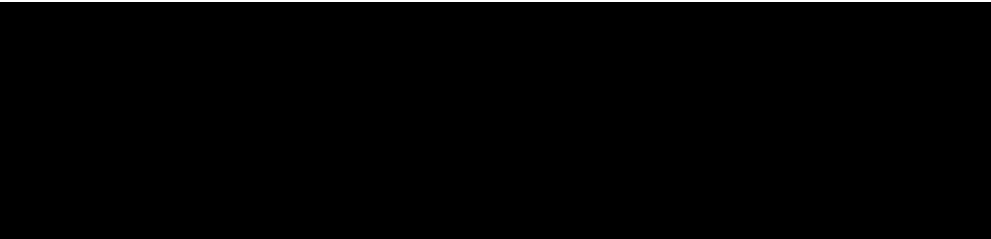
Eurofins Frontier Global Sciences, Inc.

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

2000-2  
7/13/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 7/11/2017 ~~7/10/2017~~ EAZAT

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					20X ✓
F707326-BLK2	Blank	0.25	20					20X ✓
F707326-BLK3	Blank	0.25	20					20X ✓
F707326-BLK4	Pre BLK 1706929	0.2556	20					20X ✓
F707326-BLK5	Post BLK 1706929	0.2596	20					20X ✓
F707326-BLK6	PRE BLK 1706930,931,932	0.2624	20					20X ✓
F707326-BLK7	POST BLK 1706930,931,932	0.2633	20					20X ✓
F707326-BS1	LCS	0.25	20	1702555	20			20X ✓
F707326-BSD1	LCS Dup	0.25	20	1702555	20			20X ✓
F707326-DUP1	Duplicate [1706929-05]	0.2571	20					20X ✓
F707326-MS1	Matrix Spike [1706930-01] RE1	0.2943	20	1700685	200			400X ✓
F707326-MS2	Matrix Spike [1706930-06]	0.2667	20	1700685	100			400X ✓
F707326-MSD1	Matrix Spike Dup [1706930-01] RE1	0.2878	20	1700685	200			400X ✓
F707326-MSD2	Matrix Spike Dup [1706930-06]	0.2763	20	1700685	100			400X ✓

Standard ID(s): Description:  
1700685 THg 1,000ng/mL Primary Spiking Standard  
1702555 THg 100ng/mL Primary Spiking Standard

Expiration:  
31-Jul-17 00:00  
31-Jul-17 00:00  
26-Jul-17 00:00

Reagent ID(s): Description:  
1702551 Boiling Chips for AFS prep  
1704061 70/30 Digestion Acid  
1704145 5% BrCl  
1704177 70/30 Digestion Acid

Expiration:  
31-Dec-17 00:00  
02-Jan-18 00:00  
18-Dec-17 00:00  
07-Jan-18 00:00

ODP2 - AD 20X ✓

1706929-05

1709976

1703377

1703152

1704095

Due Date: 7/31/2017



PREPARATION BENCH SHEET

2000-2  
7/19/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: ~~7/10/2017~~ 7/11/2017 <sup>alc</sup> HAZI

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	-	-	-		400X → 20X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2561	20	-	-	-		20X
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.2745	20	-	-	-		20X
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2981	20	-	-	-		20X
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2885	20	-	-	-		20X
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2744	20	-	-	-		400X
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2718	20	-	-	-		400X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2677	20	-	-	-		400X
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2595	20	-	-	-		400X
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2569	20	-	-	-		400X
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD	20X → 50X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2607	20	-	-	-		20X
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2508	20	-	-	-		20X
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2606	20	QC	-	-	MS/MSD	400X
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2908	20	-	-	-		20X
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2535	20	-	-	-		20X
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.275	20	-	-	-		400X
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2816	20	-	-	-		400X
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2588	20	-	-	-		400X

PREPARATION BENCH SHEET

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: ~~7/10/2017~~ 7/11/2017 *etc*



Due Date: 7/31/2017

Technician: CC Batch#: F707326 Date: 7/10/17 / 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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> 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  
 HNO<sub>3</sub> LIMS ID: NA Pipette SN#: NA Calibration Date: NA  
 70/30 LIMS ID: 1704061/1704177 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068124 Boiling Chip lot # 1702551 \*Hotblock Position: L4

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"/> NA
1	F707326-BLK1	0.2633	23	1706929-09	0.2595	
2	F707326-BLK2	0.2578	24	1706929-10	0.2569	
3	F707326-BLK3	0.2636	25	1706930-01	0.2801	
4	F707326-BLK4	0.2556	26	1706930-02	0.2607	Comments
5	F707326-BLK5	0.2596	27	1706930-03	0.2508	BLK4: Pre BLK
6	F707326-BLK6	0.2624	28	1706930-06	0.2606	for 1706929
7	F707326-BLK7	0.2633	29	1706931-01	0.2908	BLK6: Post BLK
8	F707326-BS1	0.2728	30	1706931-02	0.2535	for 1706929
9	F707326-BSD1	0.2808	31	1706931-09	0.2711	BLK6: Pre BLK
10	F707326-DUP1	0.2571	32	1706931-10	0.2750	for 1706930, 931, 932
11	F707326-MS1	0.2943	33	1706932-06	0.2816	BLK7: Post BLK
12	F707326-MSD1	0.2878	34	1706932-07	0.2588	for 1706930, 931, 932
13	F707326-MS2	0.2667	35			DUP1/MS1/MSD1
14	F707326-MSD2	0.2763	36			Source: 1706930-01
15	1706929-01	0.2851	37			MS2/MSD2
16	1706929-02	0.2561	38			Source: 1706930-06
17	1706929-03	0.2745	39			Dup L SRC:
18	1706929-04	0.2981	40			1706929-05
19	1706929-05	0.2885	41			BS/BSD spike
20	1706929-06	0.2744	42			20ml of 1000 µg/mL
21	1706929-07	0.2718	43			1702555
22	1706929-08	0.2677	44			MS1 + MSD1 were spiked w/ 200 µg/mL digested 7/11/17

# Failing Data Report - 7G14008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706930-01	Hg-CVAFS-T-7030	64.1	0.714				ng/g						FAIL-OVER	PASS	E
F707326-DUP1	Hg-CVAFS-T-7030	79.93	0.778	49.71	49.71		ng/g				46.6	24.00	FAIL-OVER	FAIL-DUP	E, QR-07

Don Moxem      7/14/17  
 Analyst Reviewed By      Date

RLW      7/14/17  
 Peer Reviewed By      Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14009

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *PL* 7/14/17 Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14009-IBL1 ✓	QC	1			
7G14009-IBL2 ✓	QC	2			
7G14009-IBL3 ✓	QC	3			
7G14009-CAL1 ✓	QC	4	1702602	✓	
7G14009-CAL2 ✓	QC	5	1702603	✓	
7G14009-CAL3 ✓	QC	6	1702604	✓	
7G14009-CAL4 ✓	QC	7	1702605	✓	
7G14009-CAL5 ✓	QC	8	1702606	✓	
7G14009-ICV1 ✓	QC	9	1703679	✓	
F707251-BLK1 ✓	QC	10			
F707251-BLK2 ✓	QC	11			
F707251-BLK3 ✓	QC	12			
F707251-BS1 ✓	QC	13			
F707251-BSD1 ✓	QC	14			
1706563-01 ✓	Hg-CVAFS-S-SSE-F2	15			
1706563-04 ✓	Hg-CVAFS-S-SSE-F2	16			
1706563-05 ✓	Hg-CVAFS-S-SSE-F2	17			
1706564-01 ✓	Hg-CVAFS-S-SSE-F2	18			
1706564-05 ✓	Hg-CVAFS-S-SSE-F2	19			
7G14009-CCV1 ✓	QC	20	1703679	✓	
7G14009-CCB1 ✓	QC	21			
1706564-08 ✓	Hg-CVAFS-S-SSE-F2	22			
1706565-01 ✓	Hg-CVAFS-S-SSE-F2	23			
1706565-04 ✓	Hg-CVAFS-S-SSE-F2	24			
1706565-07 ✓	Hg-CVAFS-S-SSE-F2	25			
1706565-10 ✓	Hg-CVAFS-S-SSE-F2	26			
1706565-13 ✓	Hg-CVAFS-S-SSE-F2	27			
1706565-16 ✓	Hg-CVAFS-S-SSE-F2	28			
1706565-19 ✓	Hg-CVAFS-S-SSE-F2	29			
1706565-25 ✓	Hg-CVAFS-S-SSE-F2	30			
1706565-29 ✓	Hg-CVAFS-S-SSE-F2	31			
7G14009-CCV2 ✓	QC	32	1703679	✓	
7G14009-CCB2 ✓	QC	33			
1706565-30 ✓	Hg-CVAFS-S-SSE-F2	34			
1706565-31 ✓	Hg-CVAFS-S-SSE-F2	35			

## ANALYSIS SEQUENCE

7G14009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F707251-DUP1 ✓	QC	36			
F707251-DUP2 ✓	QC	37			
F707251-MS1 ✓	QC	38			
F707251-MSD1 ✓	QC	39			
F707251-MS2 ✓	QC	40			
F707251-MSD2 ✓	QC	41			
F707289-BLK1 ✓	QC	42			
F707289-BLK2 ✓	QC	43			
7G14009-CCV3 ✓	QC	44	1703679	✓	
7G14009-CCB3 ✓	QC	45			
F707289-BLK3 ✓	QC	46			
F707289-BS1 ✓	QC	47			
F707289-BSD1 ✓	QC	48			
1706565-17 ✓	Hg-CVAFS-S-SSE-F2	49			
1706565-18 ✓	Hg-CVAFS-S-SSE-F2	50			
1706565-20 ✓	Hg-CVAFS-S-SSE-F2	51			
1706565-21 ✓	Hg-CVAFS-S-SSE-F2	52			
1706565-22 ✓	Hg-CVAFS-S-SSE-F2	53			
1706565-23 ✓	Hg-CVAFS-S-SSE-F2	54			
1706565-24 ✓	Hg-CVAFS-S-SSE-F2	55			
7G14009-CCV4 ✓	QC	56	1703679	✓	
7G14009-CCB4 ✓	QC	57			
1706565-26 ✓	Hg-CVAFS-S-SSE-F2	58			
1706565-27 ✓	Hg-CVAFS-S-SSE-F2	59			
1706565-28 ✓	Hg-CVAFS-S-SSE-F2	60			
1706565-32 ✓	Hg-CVAFS-S-SSE-F2	61			
1706565-33 ✓	Hg-CVAFS-S-SSE-F2	62			
1706565-34 ✓	Hg-CVAFS-S-SSE-F2	63			
F707289-DUP1 ✓	QC	64			
F707289-MS1 ✓	QC	65			
F707289-MSD1 ✓	QC	66			
7G14009-CCV5 ✓	QC	67	1703679	✓	
7G14009-CCB5 ✓	QC	68			

Due Date: 7/18/2017

# ANALYSIS SEQUENCE

<b>7G14009</b>
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Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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    Dan Maxam    7/13/17  
Samples Loaded By                          Date

    Dan Maxam    7/14/17  
Data Processed By                          Date

**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707251-BLK1	Blank	0.46	125					
F707251-BLK2	Blank	0.414	125					
F707251-BLK3	Blank	0.407	125					
F707251-BS1	LCS	0.016	5 ✓	1604715 ✓	100 ✓			
F707251-BSD1	LCS Dup	0.016 ✓	5 ✓	1604715	100			
F707251-DUP1	Duplicate [1706563-01] ✓	0.426	125					
F707251-DUP2	Duplicate [1706564-01] ✓	0.418	125					
F707251-MS1	Matrix Spike [1706563-01] ✓	0.0162	5	1702557 ✓	125 ✓			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL ✓
F707251-MS2	Matrix Spike [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD1	Matrix Spike Dup [1706563-01] ✓	0.0162	5	1702557	125			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD2	Matrix Spike Dup [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1702557	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-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
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703678	SSE pH2	17-Dec-17 00:00
1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704213	SSE pH2	08-Jan-18 00:00



**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	QC	-	-	MS/MSD	
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	

**PREPARATION BENCH SHEET**

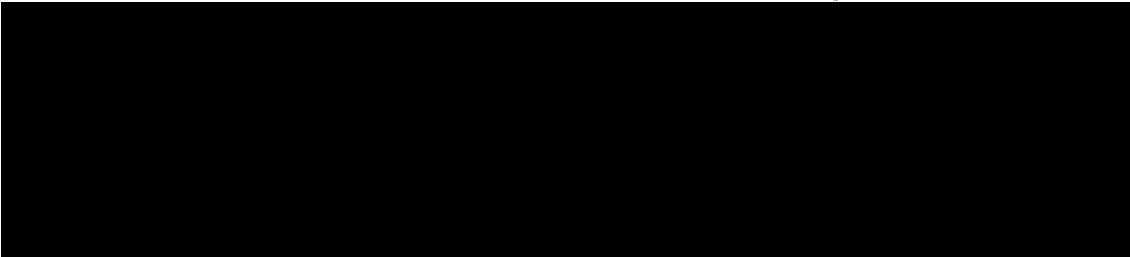
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**



**Due Date: 7/18/2017**

PREPARATION BENCH SHEET

2000-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707251-BLK1	Blank	0.46	125					10X ✓
F707251-BLK2	Blank	0.414	125					10X ✓
F707251-BLK3	Blank	0.407	125					10X ✓
F707251-BS1	LCS 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125	1604715	100			10X ✓
F707251-BSD1	LCS Dup 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125	1604715	100			10X ✓
F707251-DUP1	Duplicate [1706563-01]	0.426	125					10X ✓
F707251-DUP2	Duplicate [1706564-01]	0.418	125					10X ✓
F707251-MS1	Matrix Spike 1706563-01	0.4	125	1702557	125			10X ✓
F707251-MSD1	Matrix Spike Dup 1706563-01	0.4	125	1702557	125			10X ✓

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

MS2, MSD2 - 10X ✓

1706564-01

125ul 1702557

1703376

1703377

1703182

1704096

Due Date: 7/18/2017

PREPARATION BENCH SHEET

2600-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	QC	-	-	MS/MSD	10X ✓
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		10X ✓
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		10X ✓
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	10X ✓
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		10X ✓
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		10X ✓
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		10X ✓
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		10X ✓
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		10X ✓
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		10X ✓
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		10X ✓
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		10X ✓
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X ✓
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X ✓
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X ✓

**PREPARATION BENCH SHEET**

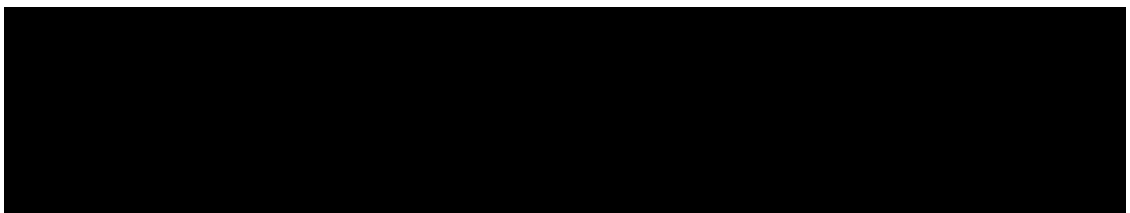
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/3/2017**



**Due Date: 7/18/2017**

Technician: W.F. Batch#: F707250(F<sub>1</sub>) 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub>  
 Balance#: 6 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser:  yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: \_\_\_\_\_ 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 70/30 LIMS ID: SSE #2: 1703672, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: KOH = 1703709, 1704329, 1704234 Dispenser #: \_\_\_\_\_  
 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 <sub>2</sub> O - 1605057
2	F707250 - BLU2	0.414	24			HgS - 1605058
3	F707250 - BLU3	0.407	25			Hg <sub>2</sub> Cl <sub>2</sub> - 1605056
4	1706563 - 01	0.405	26			
5	F707250 - DUP1	0.426	27			<b>Comments</b>
6	1706563 - 04	0.404	28			F707250 - DUP1 SOURCE = 1706563-04
7	1706563 - 05	0.427	29			F707250 - DUP2 SOURCE = 1706564-01
8	1706564 - 01	0.451	30			
9	F707250 - DUP2	0.418	31			F <sub>1</sub> = F707250 Excl: 1703700 Pipette: J07631 vol added: 1.25ml
10	1706564 - 05	0.467	32			
11	1706564 - 08	0.413	33			
12	1706565 - 01	0.447	34			F <sub>2</sub> = F707251 Excl: 1703700 Pipette: J07631 vol added: 1.25ml
13	1706565 - 04	0.422	35			
14	1706565 - 07	0.410	36			
15	1706565 - 10	0.416	37			F <sub>3</sub> = F707252 Excl: 1703700 Pipette: J07631 vol added: 10.0ml
16	1706565 - 13	0.450	38			
17	1706565 - 16	0.415	39			
18	1706565 - 19	0.410	40			F <sub>4</sub> = F707254 Excl: F707253 Pipette: J07631 vol added: 1.25ml
19	1706565 - 25	0.424	41			
20	1706565 - 29	0.442	42			
21	1706565 - 30	0.440	43			F <sub>5</sub> = F707254 Excl: LIMS: BS weight: BSE weight:
22	1706565 - 31	0.464	44			

**PREPARATION BENCH SHEET**

F707289

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707289-BLK1	Blank	0.46	125					
F707289-BLK2	Blank	0.414	125					
F707289-BLK3	Blank	0.407	125					
F707289-BS1	LCS	0.016	5	1604715	100			
F707289-BSD1	LCS Dup	0.016	5	1604715	100			
F707289-DUP1	Duplicate [1706565-22]	0.423	125					
F707289-MS1	Matrix Spike [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL
F707289-MSD1	Matrix Spike Dup [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL

Standard ID(s):  
 1604715 Nist 1641D 200X  
 1702556 THg 10ng/mL Calibration Standard

Expiration:  
 18-Aug-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
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703678	SSE pH2	17-Dec-17 00:00
1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704213	SSE pH2	08-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707289

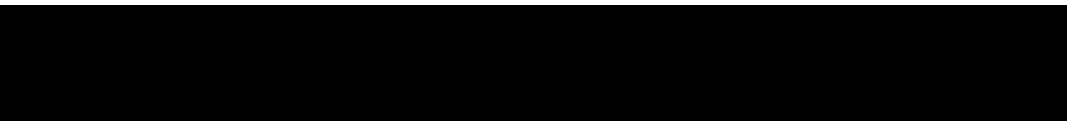
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	-	-	-		
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	





PREPARATION BENCH SHEET

2600.2

7/13/17 DM

F707289

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707289-BLK1	Blank	0.46	125					10X ✓
F707289-BLK2	Blank	0.414	125					10X ✓
F707289-BLK3	Blank	0.407	125					10X ✓
F707289-BS1	LCS 0.010	0.4	5 125	1604715	100			10X ✓
F707289-BSD1	LCS Dup 0.010	0.4	5 125	1604715	100			10X ✓
F707289-DUP1	Duplicate [1706565-22]	0.423	125					10X ✓
F707289-MS1	Matrix Spike 1706565-22	0.4	125	1702556	50			10X ✓
F707289-MSD1	Matrix Spike Dup 1706565-22	0.4	125	1702556	50			10X ✓

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

1703376

1703377

1703182

1704095

Due Date: 7/18/2017

PREPARATION BENCH SHEET

2600.2  
7/13/17 DM

F707289

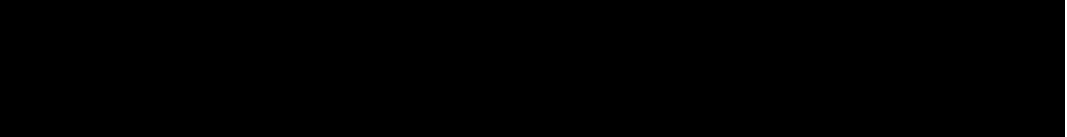
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	-	-	-		10X /
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		10X /
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		10X /
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		10X /
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	10X /
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		10X /
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		10X /
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		10X /
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		10X /
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		10X /
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X /
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X /
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X /



Technician: wf Batch#: F707288(F<sub>1</sub>) Date: 7/10/17 <sup>wf</sup>  
7/11/17 <sup>wf</sup>

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub> 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser: Yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: \_\_\_\_\_ 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 70:30 LIMS ID: SSE #2: 1703678, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: 1703705, 1704239 Dispenser #: \_\_\_\_\_  
 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 checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F707288 - Blk1	0.460	23			HgO = 1606057 HgS = 1605058 HgCl <sub>2</sub> = 1605056
2	F707288 - Blk2	0.414	24			
3	F707288 - Blk3	0.407	25			
4	1706565 - 17	0.405	26			<b>Comments</b>
5	F707288 - DUP1	0.423	27			F707288-DUP1 source = 1706565-22
6	1706565 - 18	0.406	28			F <sub>1</sub> = F707288 Brcl: 1703700 Pipette: J0H7631 vol added: 1.25 ml
7	1706565 - 20	0.423	29			
8	1706565 - 21	0.414	30			F <sub>2</sub> = F707289 Brcl: 1703700 Pipette: J0H7631 vol added: 1.25 ml
9	1706565 - 22	0.404	31			
10	1706565 - 23	0.452	32			F <sub>3</sub> = F707290 Brcl: 1703700 Pipette: J0H7631 vol added: 1.00 ml
11	1706565 - 24	0.416	33			
12	1706565 - 3226	0.424	34			F <sub>4</sub> = F707291 Brcl: Pipette: vol added:
13	1706565 - 3327	0.410	35			
14	1706565 - 3428	0.403	36			F <sub>5</sub> = F707292 5% brcl (2AS) 351 weight: BSP1 weight:
15	1706565 - 32	0.442	37			
16	1706565 - 33	0.440	38			
17	1706565 - 34	0.464	39			
18			40			
19			41			
20			42			
21			43			
22			44			

wf  
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wf  
7/10/17

**Failing Data Report - 7G14009**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
-----------	----------	--------	-----	---------------	------------------	---------------	-------	--------	-------------	-------------	-----	--------------	----------	---------	-----------

Don Maxem  
Analyst Reviewed By

7/14/17  
Date

PML  
Peer Reviewed By

7/14/17  
Date

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> <i>DM 7/14/17</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	

• 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 type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg <sup>0</sup>	NA	NA
<input type="checkbox"/> Inorg Hg	NA	NA

**Analyst Initials:** *DM*

**Reviewer Initials:** *DM 7/14/17*

- |  |   |
|--|---|
| <p>1. Compare SampleID with Benschsheet/Sequence/Raw Data (Have all samples been imported?) <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p>2. Check for transcription errors from Excel spreadsheet (or Prep Benschsheet)/Raw data <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 40px;">Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1</p> <p style="padding-left: 20px;">(b) Check 5% of transcription from Instrument print-out and Excel file <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 40px;">Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel</p> <p style="padding-left: 20px;">(c) Check standards &amp; reagents in sequence &amp; bench sheet for correct usage (expiries). <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(d) Check and compare masses (review prep benschsheet) <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(e) Check &amp; compare initial &amp; final volumes <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(f) Do aliquots and dilutions written on benschsheet match those in Excel? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A <input checked="" type="checkbox"/></span></p> <p style="padding-left: 40px;">50 ml / aliquot = Excel dilution value</p> <p style="padding-left: 20px;">(g) Is the sequence #, analyst, date, and instrument # on the QC page? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(h) Is the analysis status correct? (analyzed/initial review/reviewed) <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(i) Original prep bench sheet added to data package? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(j) Benschsheet prep date MUST match actual prep date (check if re-shot vs re-extract) <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p>3. High QA? WO#(s)/Client(s): _____ <span style="float:right"><input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p>4. Client specific QC? (if Yes, refer to Project Notes/LIMS) <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(a) Have the QC requirements been met for all WO#s? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(b) Prep blanks corrections/assigned properly <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p>5a. 20 or fewer samples in batch? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> <p style="padding-left: 20px;">(ii) 1 CCV and 1 CCB every 10 analytical runs? <span style="float:right"><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></span></p> | <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/></p> |
|--|---|

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> 0 <i>R 7/14/18</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	0

**Analyst Initials** *DM*                      **Reviewer Initials** *R 7/14/18*

- 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: 1706930-01 HIGH SAMPLE. ABOVE CALS. F707326-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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> 0 <i>R 7/14/17</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	0

Analyst Initials DM

Reviewer Initials R 7/14/17

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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>12/1/16, 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>5/9/17, 4/25/17</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, 4-25-17</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.**

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

Analyst:	DON MORAN	Sequence(s) #:	7G14008, 7G14009
Reviewer:	0 <i>DM 7/14/17</i>	Dataset ID(s):	THG26002-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707251, F707289, F707326		0

*DM*

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES





Frontier Global Sciences

# MHg27001-170725-1

## Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: July 25, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G26011

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	22.57 units	451.31	22.57 units	451.31	97.6 %Rec
SEQ-CAL2	1	0.20 ng/L	89.47 units	447.36	89.47 units	447.36	96.7 %Rec
SEQ-CAL3	1	1.00 ng/L	467.12 units	467.12	467.12 units	467.12	101.0 %Rec
SEQ-CAL4	1	2.00 ng/L	958.18 units	479.09	958.18 units	479.09	103.6 %Rec
SEQ-CAL5	1	4.00 ng/L	1870.01 units	467.50	1870.01 units	467.50	101.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>
462.48	+/- 13.00	2.8% RSD	462.48

### 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	0.289 ng/L	±0.500
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: RL 7/27/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	CAL	SEQ-1BL1	1	7/25/17 8:46	24184-1.RAW	8:46:28	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	7/25/17 8:56	24185-1.RAW	8:56:59	22.57				22.6	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	7/25/17 9:07	24186-1.RAW	9:07:30	89.47				89.5	0.193	0.193	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	7/25/17 9:18	24187-1.RAW	9:18:00	467.12				467.1	1.010	1.010	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	7/25/17 9:28	24188-1.RAW	9:28:31	958.18				958.2	2.072	2.072	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	7/25/17 9:39	24189-1.RAW	9:39:01	1870.01				1870.0	4.043	4.043	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	7/25/17 9:49	24190-1.RAW	9:49:32	205.83				205.8	0.445	0.445	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	7/25/17 10:00	24191-1.RAW	10:00:03	2.63				2.6	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK1	500	7/25/17 10:10	24192-1.RAW	10:10:33	0.80	1			0.8	0.002	0.867	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK2	500	7/25/17 10:21	24193-1.RAW	10:21:04	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK3	500	7/25/17 10:31	24194-1.RAW	10:31:35	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707393-BLK4	500	7/25/17 10:42	24195-1.RAW	10:42:05	0.00	1			0.0	-0.001	-0.289	ng/L	
Hg2700-1	DM2	SAM	*F707393-BLK5	500	7/25/17 10:52	24196-1.RAW	10:52:36	0.00	1			0.0	-0.001	-0.289	ng/L	
Hg2700-1	DM2	SAM	1706929-01	1000	7/25/17 11:03	24197-1.RAW	11:03:07	13.74	1			13.7	0.029	29.430	ng/L	
Hg2700-1	DM2	SAM	1706929-07	1000	7/25/17 11:13	24198-1.RAW	11:13:37	2162.25	1			2162.3	4.675	4675.096	ng/L	
Hg2700-1	DM2	SAM	1706930-01	1000	7/25/17 11:24	24199-1.RAW	11:24:08	356.98	1			357.0	0.772	771.590	ng/L	
Hg2700-1	DM2	SAM	F707393-BS1	1000	7/25/17 11:34	24200-1.RAW	11:34:39	837.85	1			837.9	1.811	1811.381	ng/L	
Hg2700-1	DM2	SAM	F707393-BSD1	1000	7/25/17 11:45	24201-1.RAW	11:45:10	844.60	1			844.6	1.826	1825.966	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	7/25/17 11:55	24202-1.RAW	11:55:40	199.56				199.6	0.432	0.432	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	7/25/17 12:06	24203-1.RAW	12:06:11	0.81				0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1706929-02	500	7/25/17 12:48	24204-2.RAW	12:48:16	491.73	1			491.7	1.063	531.340	ng/L	
Hg2700-1	DM2	SAM	1706929-03	500	7/25/17 12:58	24205-1.RAW	12:58:47	41.20	1			41.2	0.089	44.251	ng/L	
Hg2700-1	DM2	SAM	1706929-04	500	7/25/17 13:09	24206-1.RAW	13:09:18	63.10	1			63.1	0.136	67.927	ng/L	
Hg2700-1	DM2	SAM	1706929-05	500	7/25/17 13:19	24207-1.RAW	13:19:48	549.10	1			549.1	1.187	593.369	ng/L	
Hg2700-1	DM2	SAM	1706929-06	2500	7/25/17 13:30	24208-1.RAW	13:30:19	760.91	1			760.9	1.645	4112.936	ng/L	
Hg2700-1	DM2	SAM	1706929-08	2500	7/25/17 13:40	24209-1.RAW	13:40:50	788.89	1			788.9	1.706	4264.223	ng/L	
Hg2700-1	DM2	SAM	1706929-09	2500	7/25/17 13:51	24210-1.RAW	13:51:20	843.10	1			843.1	1.823	4557.245	ng/L	
Hg2700-1	DM2	SAM	1706929-10	2500	7/25/17 14:22	24211-2.RAW	14:22:52	646.45	1			646.5	1.398	3494.225	ng/L	
Hg2700-1	DM2	SAM	1706930-02	500	7/25/17 14:33	24212-1.RAW	14:33:23	88.16	1			88.2	0.190	95.020	ng/L	
Hg2700-1	DM2	SAM	1706930-03	500	7/25/17 14:43	24213-1.RAW	14:43:54	254.82	1			254.8	0.550	275.210	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	7/25/17 14:54	24214-1.RAW	14:54:24	196.35				196.3	0.425	0.425	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	7/25/17 15:04	24215-1.RAW	15:04:55	1.86				1.9	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	1706930-04	500	7/25/17 15:15	24216-1.RAW	15:15:26	28.90	1			28.9	0.062	30.959	ng/L	
Hg2700-1	DM2	SAM	1706930-05	500	7/25/17 15:25	24217-1.RAW	15:25:56	260.21	1			260.2	0.562	281.034	ng/L	
Hg2700-1	DM2	SAM	1706930-06	2500	7/25/17 15:36	24218-1.RAW	15:36:27	769.20	1			769.2	1.663	4157.765	ng/L	
Hg2700-1	DM2	SAM	1706930-07	2500	7/25/17 15:46	24219-1.RAW	15:46:58	1313.77	1			1313.8	2.841	7101.555	ng/L	
Hg2700-1	DM2	SAM	1706931-01	500	7/25/17 15:57	24220-1.RAW	15:57:29	38.15	1			38.2	0.082	40.960	ng/L	
Hg2700-1	DM2	SAM	1706931-02	500	7/25/17 16:07	24221-1.RAW	16:07:59	358.59	1			358.6	0.775	387.391	ng/L	
Hg2700-1	DM2	SAM	1706931-03	500	7/25/17 16:18	24222-1.RAW	16:18:30	368.92	1			368.9	0.797	398.569	ng/L	
Hg2700-1	DM2	SAM	F707393-DUP1	500	7/25/17 16:29	24223-1.RAW	16:29:01	720.34	1			720.3	1.557	778.497	ng/L	
Hg2700-1	DM2	SAM	F707393-MS1	1000	7/25/17 16:39	24224-1.RAW	16:39:31	608.50	1			608.5	1.315	1315.463	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD1	1000	7/25/17 16:50	24225-1.RAW	16:50:02	735.95	1			735.9	1.591	1591.035	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	7/25/17 17:00	24226-1.RAW	17:00:33	202.57				202.6	0.438	0.438	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	7/25/17 17:11	24227-1.RAW	17:11:03	2.27				2.3	0.005	0.005	ng/L	
Hg2700-1	DM2	SAM	F707393-MS2	2500	7/25/17 17:21	24228-1.RAW	17:21:34	767.83	1			767.8	1.660	4150.353	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD2	2500	7/25/17 17:32	24229-1.RAW	17:32:05	823.30	1			823.3	1.780	4450.217	ng/L	

SampleID	Locatior	Rinse	Dilute	Blank	ConcHg0(p)	ConcMeHg	ConcHg2(p)	ConcPmHg	Rec%	RawData	RunEnd	PeakHg0 (Raw)	PeakMeHg (R)	PeakHg2 (Raw)	PeakPmHg (Raw)	Control (set)	Flags	RunCount
WS	A1									24182-1.RAW	8:25:26	0.00				cleantry	NP	1
SEQ-IBL1	A2		1							24183-1.RAW	8:35:57	16.23	0.00	2.73		0.00 psample10	OK	1
SEQ-CAL1	A3		1							24184-1.RAW	8:46:28	11.17	0.00	3.26		0.00 psample10	CT	1
SEQ-CAL2	A4		1							24185-1.RAW	8:56:59	9.42	22.57	3.07		0.00 psample10	OK	1
SEQ-CAL3	A5		1							24186-1.RAW	9:07:30	10.39	89.47	4.72		0.00 psample10	OK	1
SEQ-CAL4	A6		1							24187-1.RAW	9:18:00	13.39	467.12	30.49		0.00 psample10	OK	1
SEQ-CAL5	A7		1							24188-1.RAW	9:28:31	13.44	958.18	62.84		0.00 psample10	CT	1
SEQ-ICV1	A8		1							24189-1.RAW	9:39:01	18.78	1870.01	130.60		0.00 psample10	CT	1
SEQ-ICB1	A9		1							24190-1.RAW	9:49:32	12.12	205.83	5.50		0.00 psample10	CT	1
F707393-BLK1	A10		500							24191-1.RAW	10:00:03	10.26	2.63	1.52		0.00 psample10	CT	1
F707393-BLK2	A11		500							24192-1.RAW	10:10:33	9.63	0.80	5.60		0.00 psample10	OK	1
F707393-BLK3	A12		500							24193-1.RAW	10:21:04	11.75	0.00	3.76		0.00 psample10	OK	1
*F707393-BLK4	A13		500							24194-1.RAW	10:31:35	9.88	0.00	5.13		0.00 psample10	CT	1
*F707393-BLK5	A14		500							24195-1.RAW	10:42:05	9.22	0.00	7.05		0.00 psample10	CT	1
1706929-01	A15		1000							24196-1.RAW	10:52:36	8.33	0.00	5.05		0.00 psample10	OK	1
1706929-07	A16		1000							24197-1.RAW	11:03:07	8.55	13.74	17.61		0.00 psample10	OK	1
1706930-01	A17		1000							24198-1.RAW	11:13:37	13.33	2162.25	88.85		0.00 psample10	CT	1
F707393-BS1	A18		1000							24199-1.RAW	11:24:08	12.12	356.98	34.07		0.00 psample10	OK	1
F707393-BSD1	A19		1000							24200-1.RAW	11:34:39	12.38	837.85	120.50		0.00 psample10	CT	1
SEQ-CCV1	A20		1							24201-1.RAW	11:45:10	12.18	844.60	123.22		0.00 psample10	CT	1
SEQ-CCB1	A21		1							24202-1.RAW	11:55:40	12.19	199.56	4.18		0.00 psample10	CT	1
1706929-02	B1		500							24203-1.RAW	12:06:11	9.01	0.81	2.79		0.00 psample10	OK	1
1706929-03	B2		500							24204-2.RAW	12:48:16	12.37	491.73	45.24		0.00 psample10	OK	1
1706929-04	B3		500							24205-1.RAW	12:58:47	11.05	41.20	18.77		0.00 psample10	CT	1
1706929-05	B4		500							24206-1.RAW	13:08:18	10.32	63.10	16.81		0.00 psample10	CT	1
1706929-06	B5		2500							24207-1.RAW	13:19:48	10.18	549.10	13.98		0.00 psample10	CT	1
1706929-08	B6		2500							24208-1.RAW	13:30:19	12.66	760.91	28.24		0.00 psample10	CT	1
1706929-09	B7		2500							24209-1.RAW	13:40:50	10.04	788.89	23.58		0.00 psample10	OK	1
1706929-10	B8		2500							24210-1.RAW	13:51:20	11.65	843.10	30.37		0.00 psample10	CT	1
1706930-02	B9		500							24211-2.RAW		11.81	646.45	20.08		0.00 psample10	CT	1
1706930-03	B10		500							24212-1.RAW		13.35	88.16	14.99		0.00 psample10	OK	1
SEQ-CCV2	B11		1							24213-1.RAW		12.79	254.82	20.67		0.00 psample10	CT	1
SEQ-CCB2	B12		1							24214-1.RAW		9.21	196.35	2.33		0.00 psample10	OK	1
1706930-04	B13		500							24215-1.RAW		11.25	1.86	4.25		0.00 psample10	CT	1
1706930-05	B14		500							24216-1.RAW		5.31	28.90	14.37		0.00 psample10	OK	1
1706930-06	B15		2500							24217-1.RAW		12.37	260.21	19.99		0.00 psample10	CT	1
1706930-07	B16		2500							24218-1.RAW		11.54	769.20	27.39		0.00 psample10	CT	1
1706931-01	B17		500							24219-1.RAW		12.02	1313.77	59.69		0.00 psample10	OK	1
1706931-02	B18		500							24220-1.RAW		10.43	38.15	12.96		0.00 psample10	CT	1
1706931-03	B19		500							24221-1.RAW		8.83	358.59	18.32		0.00 psample10	OK	1
F707393-DUP1	B20		500							24222-1.RAW		11.17	368.92	15.20		0.00 psample10	CT	1
F707393-MS1	B21		1000							24223-1.RAW		9.84	720.34	16.37		0.00 psample10	OK	1
SEQ-CCV3	C2		1							24224-1.RAW		9.77	608.50	42.28		0.00 psample10	CT	1
SEQ-CCB3	C3		1							24225-1.RAW		10.46	735.95	42.09		0.00 psample10	OK	1
F707393-MS2	C4		2500							24226-1.RAW		10.02	202.57	3.47		0.00 psample10	OK	1
F707393-MSD2	C5		2500							24227-1.RAW		9.62	2.27	3.00		0.00 psample10	CT	1
1706929-01RE1	C6		500							24228-1.RAW		12.09	767.83	23.31		0.00 psample10	CT	1
1706929-07RE1	C7		2500							24229-1.RAW		11.24	823.30	26.84		0.00 psample10	OK	1
1706930-01RE1	C8		1000													psample10		
F707394-BLK1	C9		500															
F707394-BLK2	C10		500															
F707394-BLK3	C11		500															
*F707394-BLK4	C12		500															
*F707394-BLK5	C13		500															
SEQ-CCV4	C14		1															
SEQ-CCB4	C15		1															
*F707394-BLK6	C16		500															
*F707394-BLK7	C17		500															
F707394-BS1	C18		1000															
F707394-BSD1	C19		1000															
F707394-DUP1	C20		500															
F707394-MS1	C21		500															
F707394-MSD1	A1		500															
F707394-MS2	A2		500															
F707394-MSD2	A3		500															
1706931-04	A4		500															
SEQ-CCV5	A5		1															
SEQ-CCB5	A6		1															
1706931-05	A7		500															
1706931-06	A8		2500															
1706931-07	A9		2500															
1706931-08	A10		2500															

analytical run/instrument  
 Stopped communication 7/23/17

1706931-09	A11	2500
1706931-10	A12	2500
1706932-01	A13	500
1706932-02	A14	500
1706932-03	A15	500
1706932-04	A16	500
SEQ-CCV6	A17	1
SEQ-CCB6	A18	1
1706932-05	A19	500
1706932-06	A20	2500
1706932-07	A21	2500
1706932-08	B1	2500
1706932-09	B2	2500
1706932-10	B3	2500
1707444-01	B4	2500
SEQ-CCV7	B5	1
SEQ-CCB7	B6	1

} - analytical run/instrument  
 Stopped communication at 17:10

## ANALYSIS SEQUENCE

7G26011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/25/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G26011-IBL1	QC	1			
7G26011-CAL1	QC	2	1704180		
7G26011-CAL2	QC	3	1704181		
7G26011-CAL3	QC	4	1704182		
7G26011-CAL4	QC	5	1704183		
7G26011-CAL5	QC	6	1704184		
7G26011-ICV1	QC	7	1703246		
7G26011-ICB1	QC	8			
F707393-BLK1	QC	9			
F707393-BLK2	QC	10			
F707393-BLK3	QC	11			
F707393-BLK4	QC	12			
F707393-BLK5	QC	13			
1706929-01	MHg-CVAFS-T-KOH	14			Hold prep/analysis until Hg is complete
1706929-07	MHg-CVAFS-T-KOH	15			Hold prep/analysis until Hg is complete
1706930-01	MHg-CVAFS-T-KOH	16			Hold prep/analysis until Hg is complete
F707393-BS1	QC	17			
F707393-BSD1	QC	18			
7G26011-CCV1	QC	19	1703246		
7G26011-CCB1	QC	20			
1706929-02	MHg-CVAFS-T-KOH	21			Hold prep/analysis until Hg is complete
1706929-03	MHg-CVAFS-T-KOH	22			Hold prep/analysis until Hg is complete
1706929-04	MHg-CVAFS-T-KOH	23			Hold prep/analysis until Hg is complete
1706929-05	MHg-CVAFS-T-KOH	24			Hold prep/analysis until Hg is complete
1706929-06	MHg-CVAFS-T-KOH	25			Hold prep/analysis until Hg is complete
1706929-08	MHg-CVAFS-T-KOH	26			Hold prep/analysis until Hg is complete
1706929-09	MHg-CVAFS-T-KOH	27			Hold prep/analysis until Hg is complete
1706929-10	MHg-CVAFS-T-KOH	28			Hold prep/analysis until Hg is complete
1706930-02	MHg-CVAFS-T-KOH	29			Hold prep/analysis until Hg is complete
1706930-03	MHg-CVAFS-T-KOH	30			Hold prep/analysis until Hg is complete
7G26011-CCV2	QC	31	1703246		
7G26011-CCB2	QC	32			
1706930-04	MHg-CVAFS-T-KOH	33			Hold prep/analysis until Hg is complete
1706930-05	MHg-CVAFS-T-KOH	34			Hold prep/analysis until Hg is complete
1706930-06	MHg-CVAFS-T-KOH	35			Hold prep/analysis until Hg is complete

Due Date: 7/31/2017

70 of 251

Page 1 of 2

**ANALYSIS SEQUENCE**

**7G26011**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/25/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706930-07 ✓	MHg-CVAFS-T-KOH	36			Hold prep/analysis until Hg is complete
1706931-01 ✓	MHg-CVAFS-T-KOH	37			Hold prep/analysis until Hg is complete
1706931-02 ✓	MHg-CVAFS-T-KOH	38			Hold prep/analysis until Hg is complete
1706931-03 ✓	MHg-CVAFS-T-KOH	39			Hold prep/analysis until Hg is complete
F707393-DUP1 ✓	QC	40			
F707393-MS1 ✓	QC	41			
F707393-MSD1 ✓	QC	42			
7G26011-CCV3 ✓	QC	43	1703246		
7G26011-CCB3 ✓	QC	44			
F707393-MS2 ✓	QC	45			
F707393-MSD2 ✓	QC	46			

Don Maerem      7/25/17  
 Samples Loaded By      Date

Don Maerem      7/20/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					
F707393-BLK2	Blank	0.5	20					
F707393-BLK3	Blank	0.5	20					
F707393-BLK4	Blank	0.3356	20					
F707393-BLK5	Blank	0.3691	20					
F707393-BS1	DORM-4	0.1253	20	1703305	125			
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	125			
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					
F707393-MS1	Matrix Spike [1706930-01]	0.2637	20	1605978	100			
F707393-MS2	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MSD1	Matrix Spike Dup [1706930-01]	0.2631	20	1605978	100			
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	

Due Date: 7/31/2017



PREPARATION BENCH SHEET

F707393

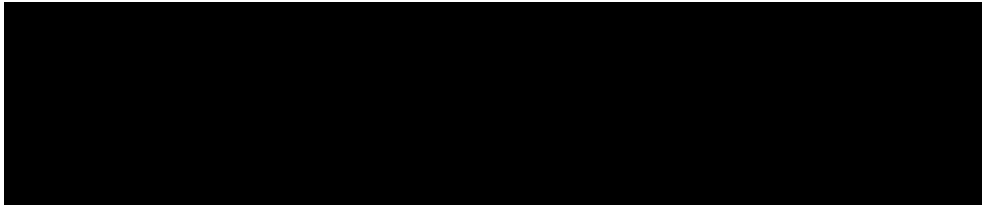
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete
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PREPARATION BENCH SHEET

2700-1  
7/25/17 DM

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					500x
F707393-BLK2	Blank	0.5	20					500x
F707393-BLK3	Blank	0.5	20					500x
F707393-BLK4	Blank	0.3356	20					500x
F707393-BLK5	Blank	0.3691	20					500x
F707393-BS1	DORM-4	0.1253	20	1703305	1253			1000x
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	1252			1000x
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					500x
F707393-MS1	Matrix Spike [1706930-01] <del>BE1</del>	0.2637	20	1605978	100			1000x
F707393-MS2	Matrix Spike [1706930-06] <del>BE1</del> 0.2659	0.2659	20	1605978	100			2500x
F707393-MSD1	Matrix Spike Dup [1706930-01] <del>BE1</del>	0.2631	20	1605978	100			1000x
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			2500x

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00

1703704

1703755

PREPARATION BENCH SHEET

2700-1  
7/25/17 DM

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	1000X → 500X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	500X DM 7-26-17
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	1000X → 2500X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	2500X DM 7-26-17
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	1000X → 1000X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	500X DM 7/26/17
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	2500X
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	500X

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2700-1  
7/25/17 DM

F707393

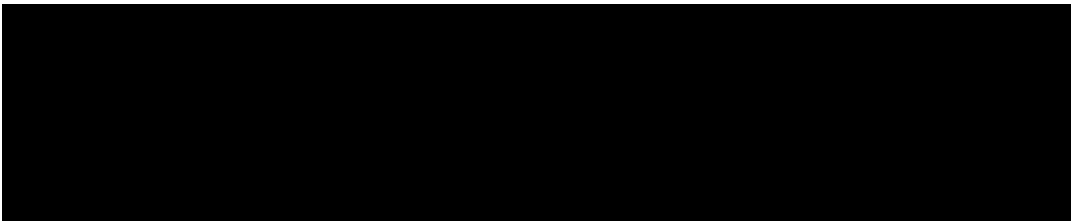
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	500x
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Technician: Duyun Batch#: F707393 Date: 7-14-17 ~~7-14-17~~ 7-19-17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 10:50 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C

Time out: 14:00 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C

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

Final vol.: 20 mL (LIMS ID: 1702696) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: DM 7/19/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NW09653 Calibration Date: 7/13/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NW01152 Calibration Date: 7/14/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1702833 Dispenser #: N/A  
 Glass Vial # 190067065 Boiling Chip lot # 1702551 \*Hotblock Position: E, 2

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	F707393 Blk1	0.3190	23	1706930-01	0.2578	BS1 BS01
2	F707393 Blk2	0.2495	24	1706930-02	0.2766	DORM-4
3	F707393 Blk3	0.3105	25	1706930-03	0.2561	1703305
4	F707393 Blk4	0.3356	26	1706930-04	0.2880	Comments
5	F707393 Blk5	0.3691	27	1706930-05	0.2657	F707393
6	F707393 BS1	0.1253	28	1706930-06	0.2812	Dupl 7/14/17 -05 17076929-05
7	F707393 BS01	0.1252	29	1706930-07	0.2781	MS1 MS01 DUP-1417
8	F707393 Dupl	0.2795	30	1706931-01	0.2827	17076930-01
9	F707393 MS1	0.2637	31	1706931-02	0.2863	MS2 MS02
10	F707393 MS01	0.2631	32	1706931-03	0.2810	1706930-06
11	F707393 MS2	0.2659	33	1706929-06A	0.2863	1706929-06A
12	F707393 MS02	0.2699	34			0.2750(8) 03
13	1706929-01	0.2718	35			ALL samples
14	1706929-02	0.2709	36			weight on
15	<del>1706929-03</del>	0.2750	37			7/14/17
16	1706929-04	0.2786	38			Digestion sample
17	1706929-05	0.2853	39			on 7/19/17
18	<del>1706929-06</del>	0.2745	40			7-19-17
19	1706929-07	0.2907	41			
20	1706929-08	0.2589	42			
21	1706929-09	0.2819	43			
22	1706929-10	0.2632	44			

**Failing Data Report - 7G26011**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706929-07	MHg-CVAFS-T-KOH	322	3.4				ng/g						FAIL-OVER	PASS	E
F707393-MSD1	MHg-CVAFS-T-KOH	120.9	3.8	99.8	59.9	38.046	ng/g	161	65.00	130.00	41.7	35.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM.02, QR.08
F707393-MS2	MHg-CVAFS-T-KOH	312.2	9.4		295.7	37.646	ng/g	43.7	65.00	130.00			PASS-OVER	FAIL-MS	System Stopped
F707393-MSD2	MHg-CVAFS-T-KOH	329.8	9.3	312.2	295.7	37.088	ng/g	91.8	65.00	130.00	71.0	35.00	PASS-OVER	FAIL-MSD (RPD)	System Stopped

Don M. [Signature]      7/26/17  
 Analyst Reviewed By      Date

[Signature]      7/27/17  
 Peer Reviewed By      Date

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> <u>PC 2/23/17</u>	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> 7-26-17	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

• 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:**

PC 2/23/17

- |   |  |  |   |
|---|--|--|---|
| 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 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 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"/>     |
| <b>QA/QC Data Checked</b>   |  |  |   |
| 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: _____   |  |  |   |

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> 0 PL 7/27/17	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> 7/26/2017	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

**Analyst Initials:**

DM

**Reviewer Initials:**

PL 7/27/17

- |  |  |  |   |
|--|--|--|---|
| 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 type="checkbox"/> PASS            | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MSD1, MSD2 FAILED. HIGH RPD</b>   |  |  |   |
| 22. MS (AS) % Recoveries (65-130%)   | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MS2 FAILED. LOW RECOVERY</b>  |  |  |   |
| 23. MSD (ASD) % Recoveries (65-130%)   | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MSD1 FAILED. HIGH RECOVERY</b>  |  |  |   |
| 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: <b>1706929-07 OFF SCALE. ABOVE CAL5</b>  |  |  |   |
| 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)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> 0 PL 7/27/17	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> 7/26/2017	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

**Analyst Initials:**

DM

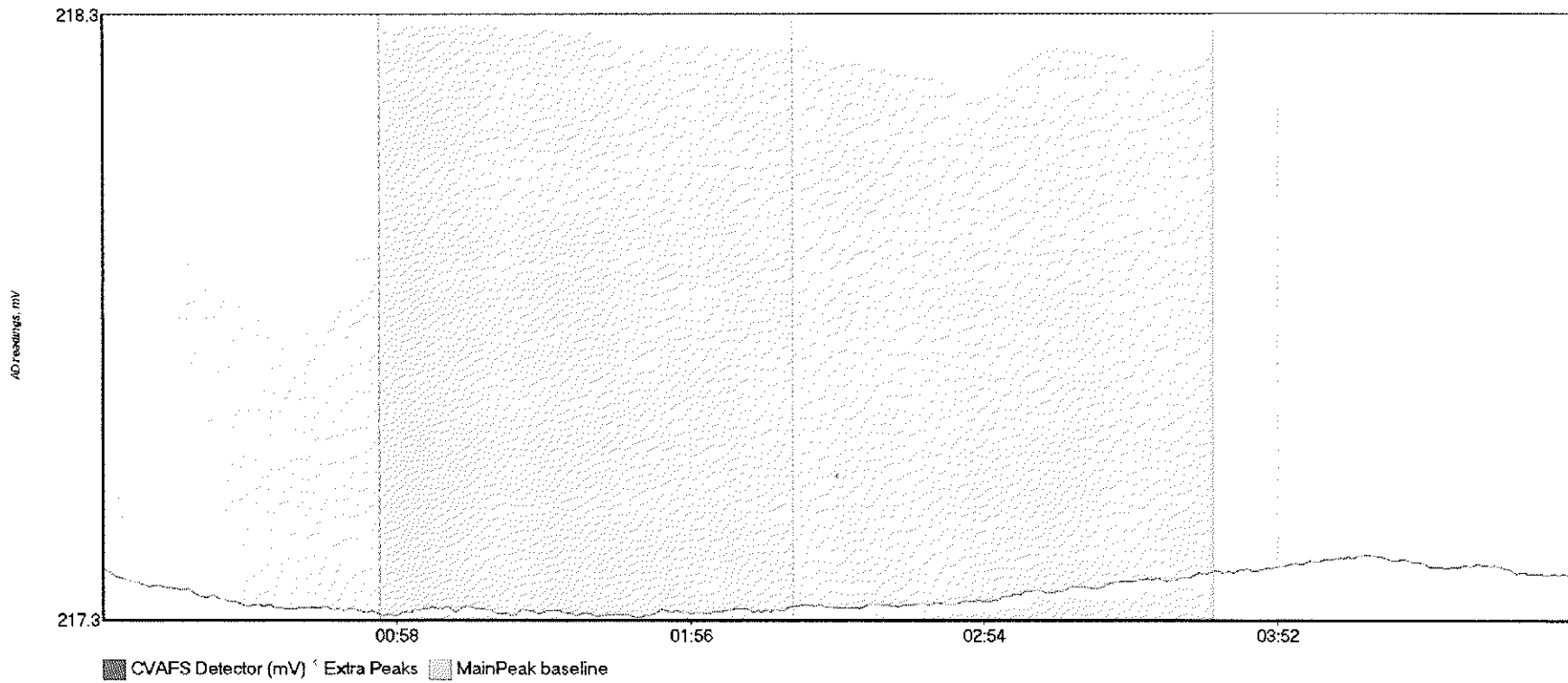
**Reviewer Initials:**

PL 7/27/17

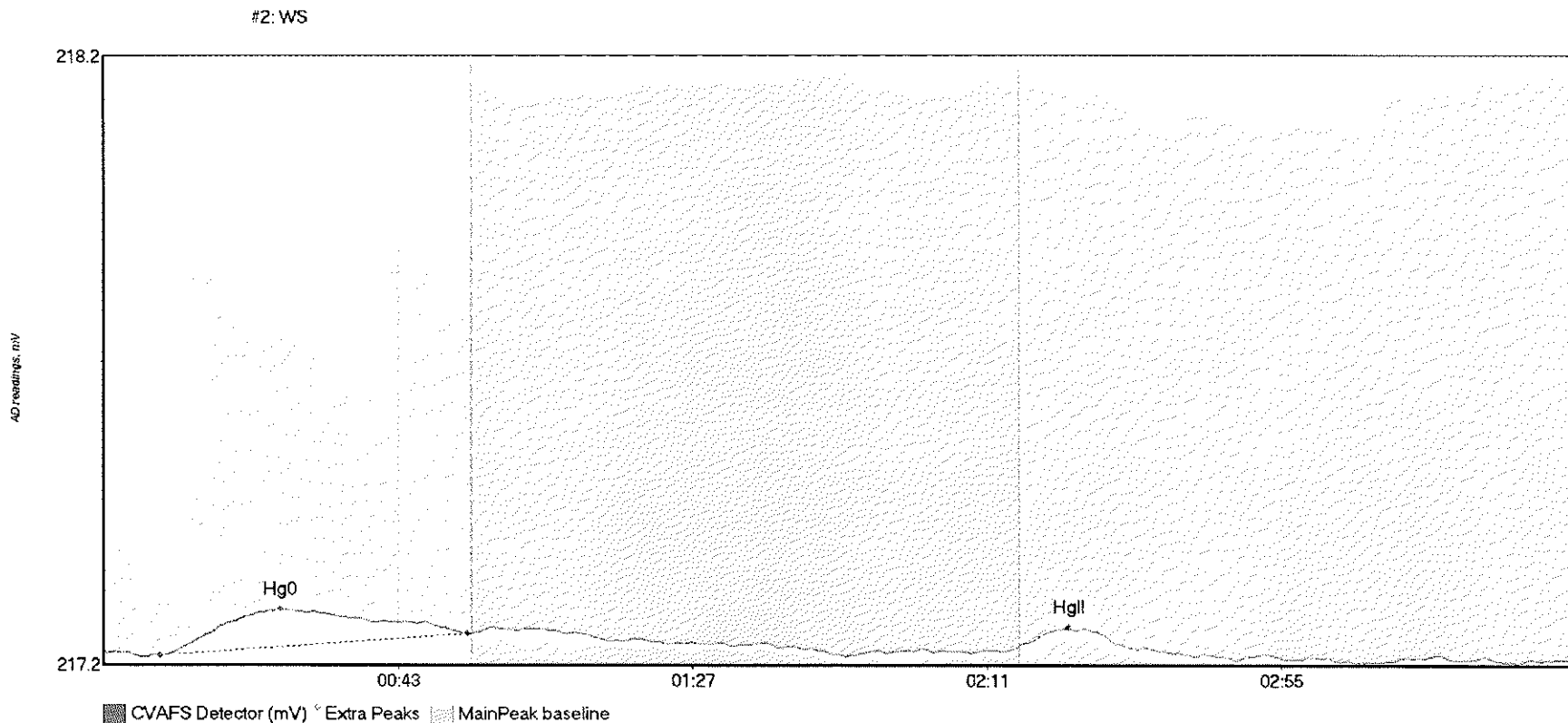
- |  |   |  |   |                                     |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):<br>Was a bubbler and trap test run before the analytical run continued?<br>Comments: _____ | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Do re-run results compare to initial analysis (< 35% RPD)?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Are qualifiers consistent with the data review flowcharts?<br>Comments: _____  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?<br>Comments: _____                                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 34. 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"/> |
| 35. Narrations in MMO box in LIMS?<br>Comments: _____  |   |  |   |                                     |
| 36. Are there any HIGH QA projects within the data?<br>If so, place dataset to the QA office.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |   |                                     |
| 37. Does the data set need scanning?<br>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs                        | <input type="checkbox"/> YES            |  | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>6/13/2017</u> IDOC/CDOC within last 12 months?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 39. Date of analyst's SOP reading: <u>5/23/2017</u> Current SOP revision?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>4/24/2017</u> LOD within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 41. Date of LOQ: <u>4/24/2017</u> LOQ within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 42. If MDN samples, date of last MDL study: _____  |   |  |   |                                     |
| 43. MDL study within last 12 months?   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>Data can not be reported without a current IDOC/CDOC, LOD or LOQ.</b>   |   |  |   |                                     |
| Additional Comments:   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |

System stopped after Analyzing sample  
F707393 - MSD2. Re-Analysis was not  
accomplished. Samples affected will  
be re-analyzed on a different day.

Clean: No peak(s) detected.

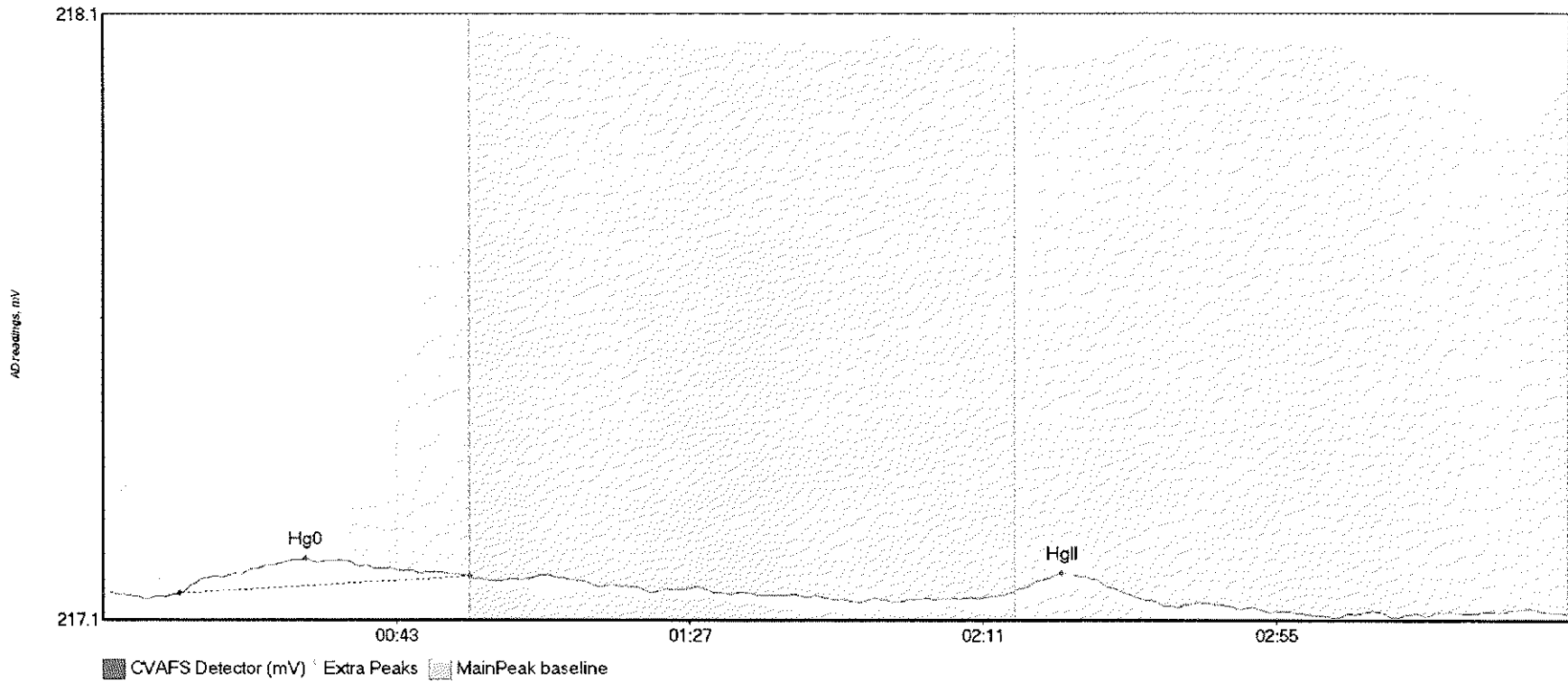


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.000	-	-	-	-	-	-	NP	217.3713	0.00	-0.01	017



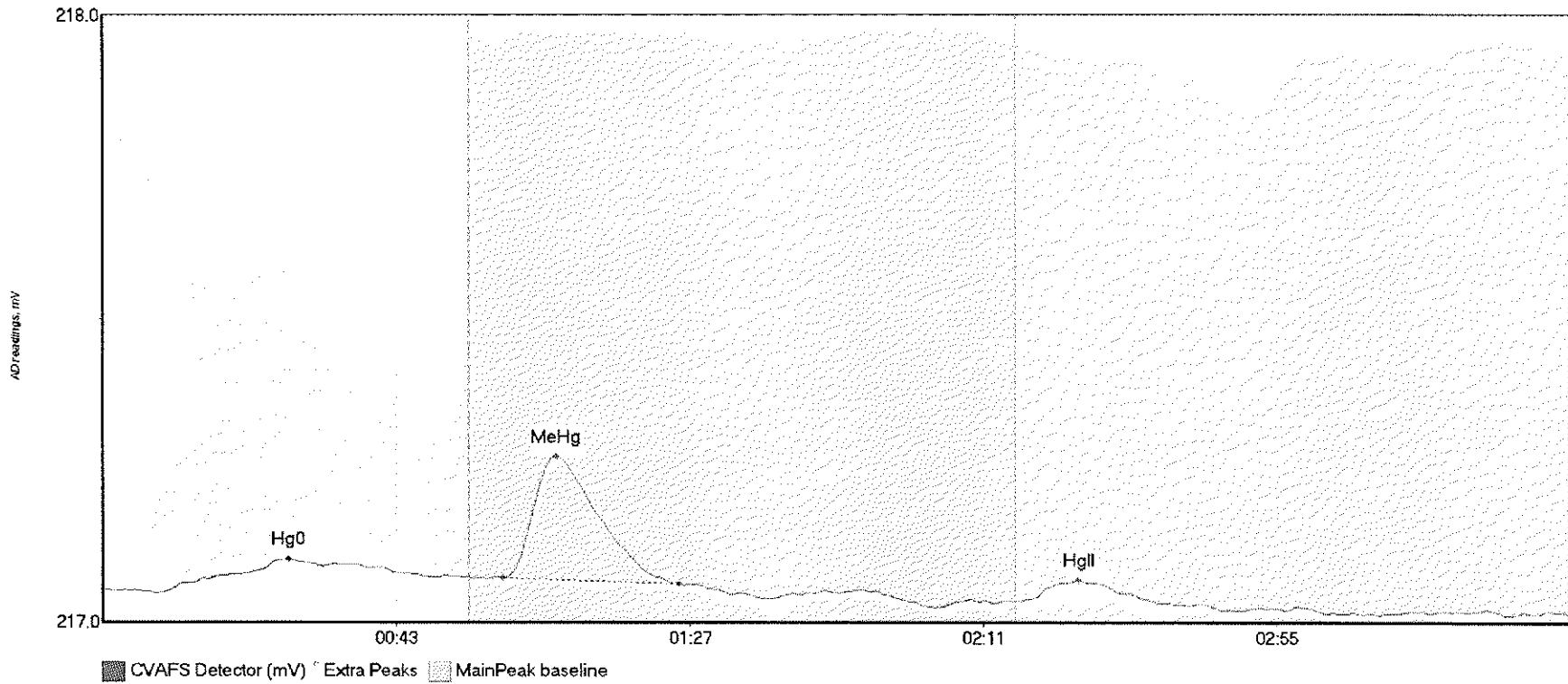
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	16.226	8.5	54.3	217.21	217.25	26.4	0.077	OK	217.2143	0.00	-0.01	
WS HgII	2.729	138.0	154.4	217.23	217.22	144.1	0.024	OK	217.2143	0.00	-0.01	317

#3: SEQ-IBL1



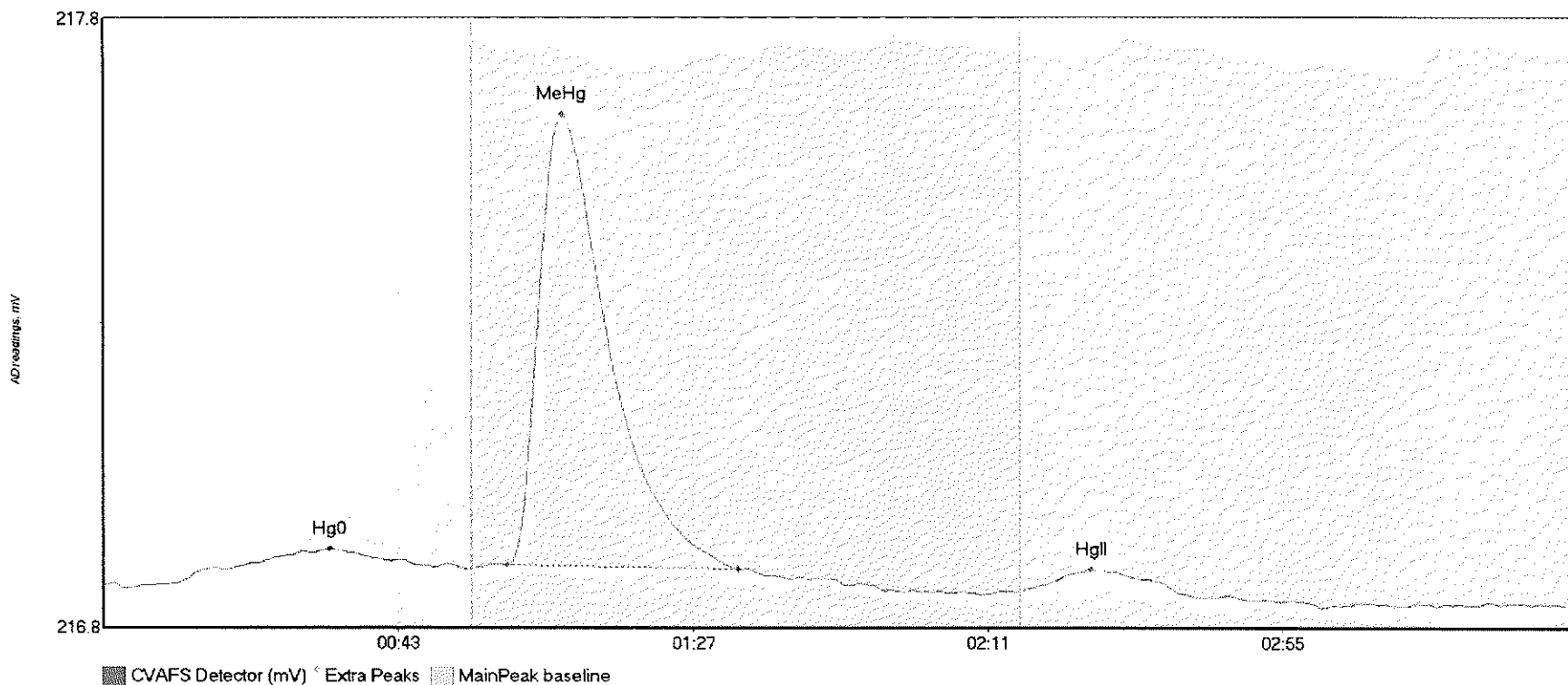
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	11.171	11.5	55.0	217.14	217.17	30.5	0.057	CT	217.1401	0.00	-0.03	
SEQ-IBL1 HgII	3.260	138.1	156.4	217.15	217.13	143.9	0.025	OK	217.1401	0.00	-0.03	017

#4: SEQ-CAL1



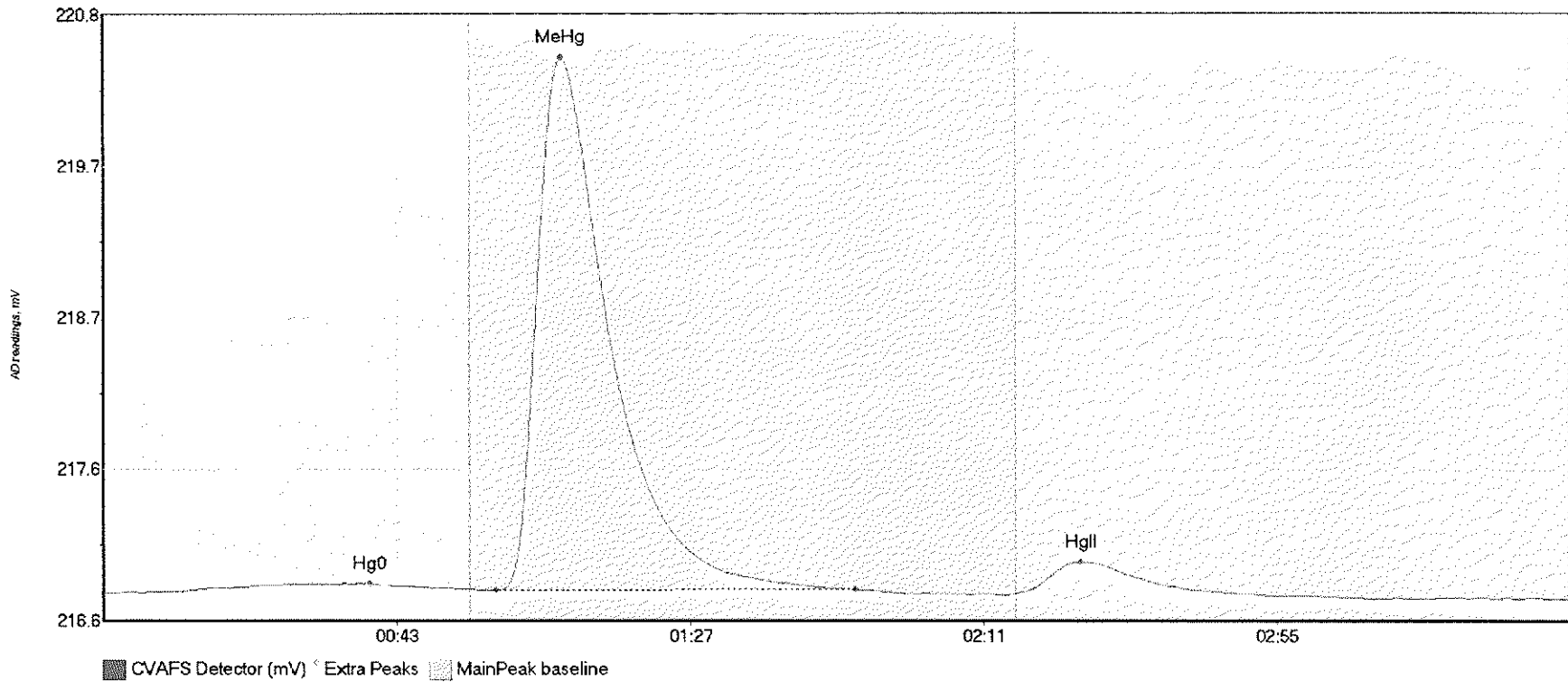
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	9.422	8.2	50.0	217.03	217.06	27.9	0.057	OK	217.0397	0.00	-0.04	
SEQ-CAL1 MeHg	22.566	60.0	86.3	217.06	217.05	68.0	0.200	OK	217.0397	0.00	-0.04	
SEQ-CAL1 HgII	3.071	139.0	156.0	217.02	217.02	146.3	0.032	OK	217.0397	0.00	-0.04	

#5: SEQ-CAL2



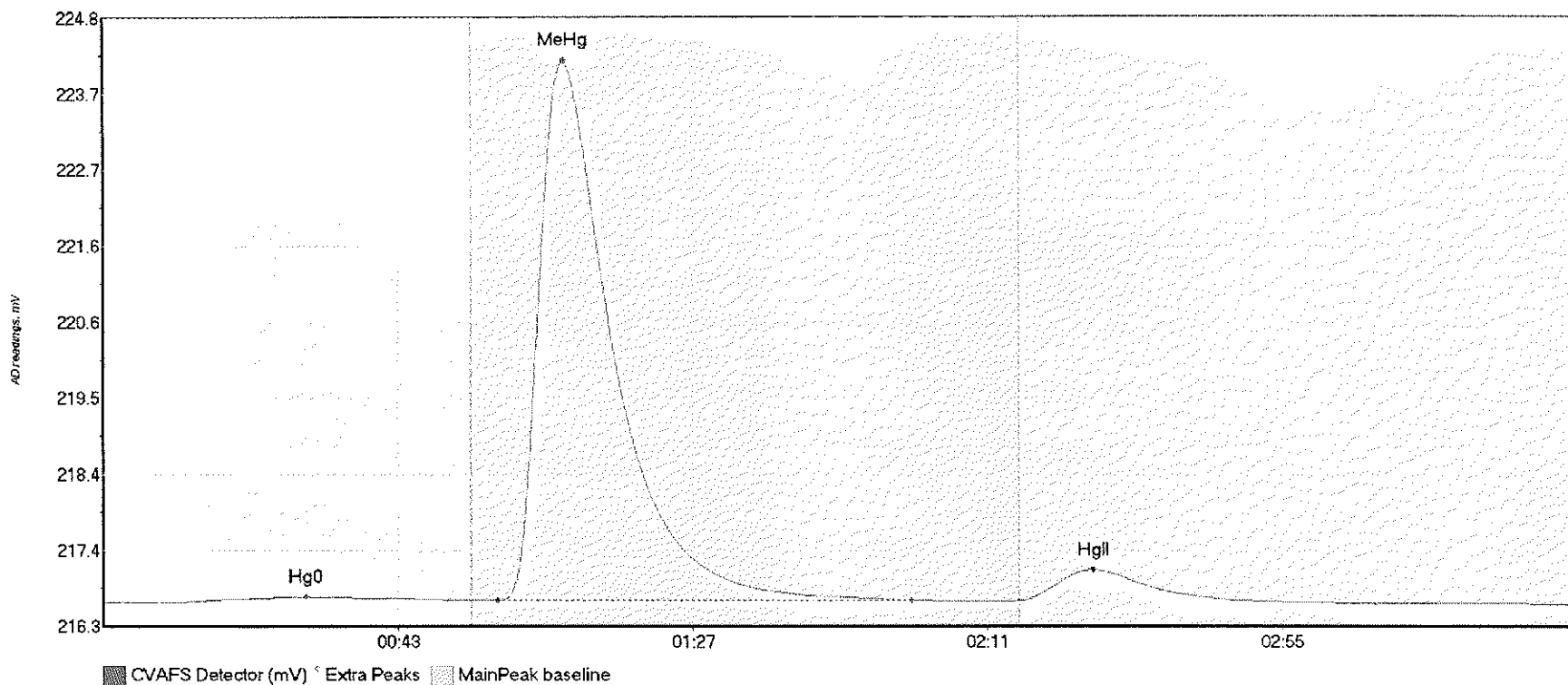
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	10.387	11.0	54.5	216.91	216.93	33.8	0.055	OK	216.9090	0.00	-0.04	
SEQ-CAL2 MeHg	89.472	60.3	94.7	216.94	216.93	68.5	0.740	OK	216.9090	0.00	-0.04	
SEQ-CAL2 HgII	4.719	138.7	161.0	216.90	216.89	147.5	0.030	OK	216.9090	0.00	-0.04	

#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	13.393	8.5	54.8	216.79	216.81	40.0	0.059	OK	216.7884	0.00	-0.04	
SEQ-CAL3 MeHg	467.115	58.9	112.8	216.81	216.81	68.7	3.690	OK	216.7884	0.00	-0.04	
SEQ-CAL3 HgII	30.487	136.8	168.6	216.78	216.79	146.6	0.219	OK	216.7884	0.00	-0.04	

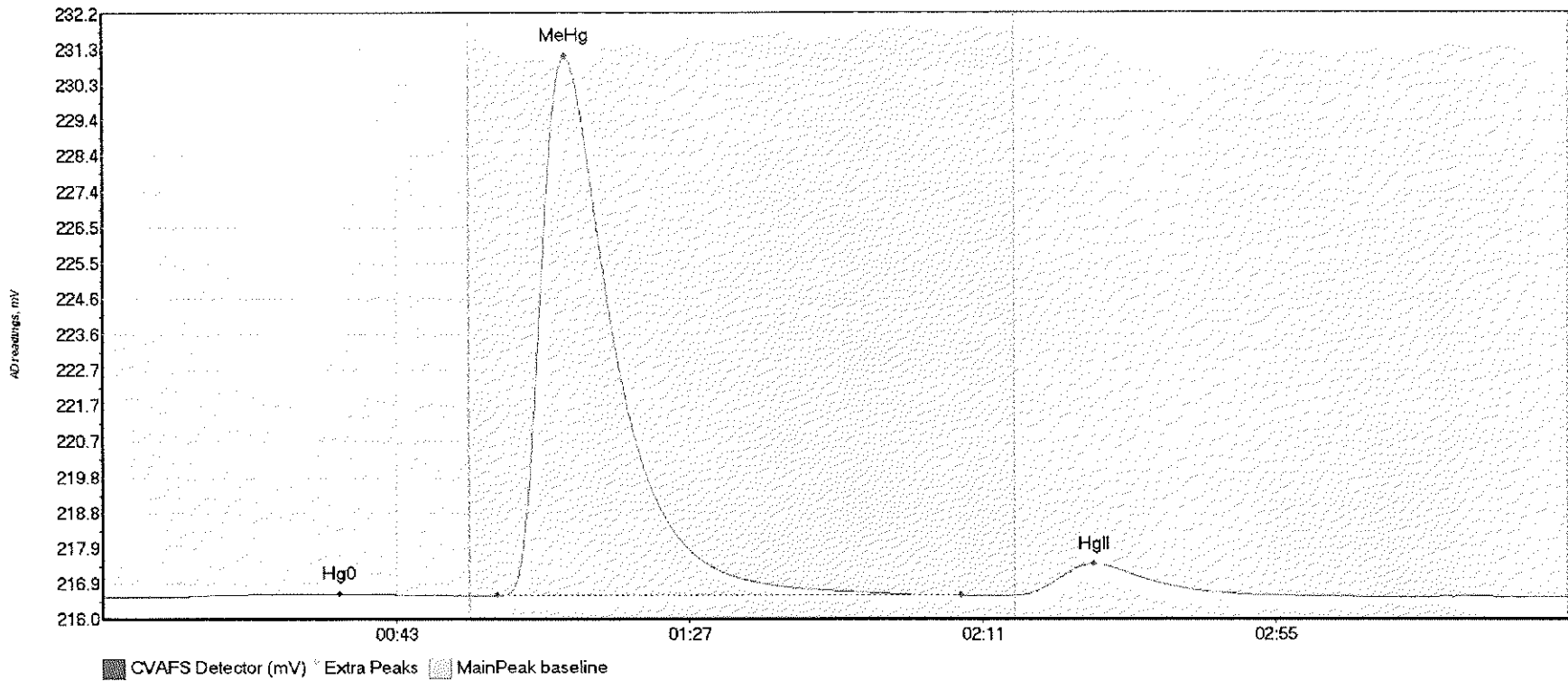
#7: SEQ-CAL4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	13.445	11.8	55.0	216.67	216.69	30.3	0.068	CT	216.6682	0.00	-0.04	
SEQ-CAL4 MeHg	958.177	58.9	120.7	216.69	216.69	68.8	7.482	OK	216.6682	0.00	-0.04	
SEQ-CAL4 HgII	62.844	136.8	170.5	216.69	216.69	147.9	0.430	OK	216.6682	0.00	-0.04	

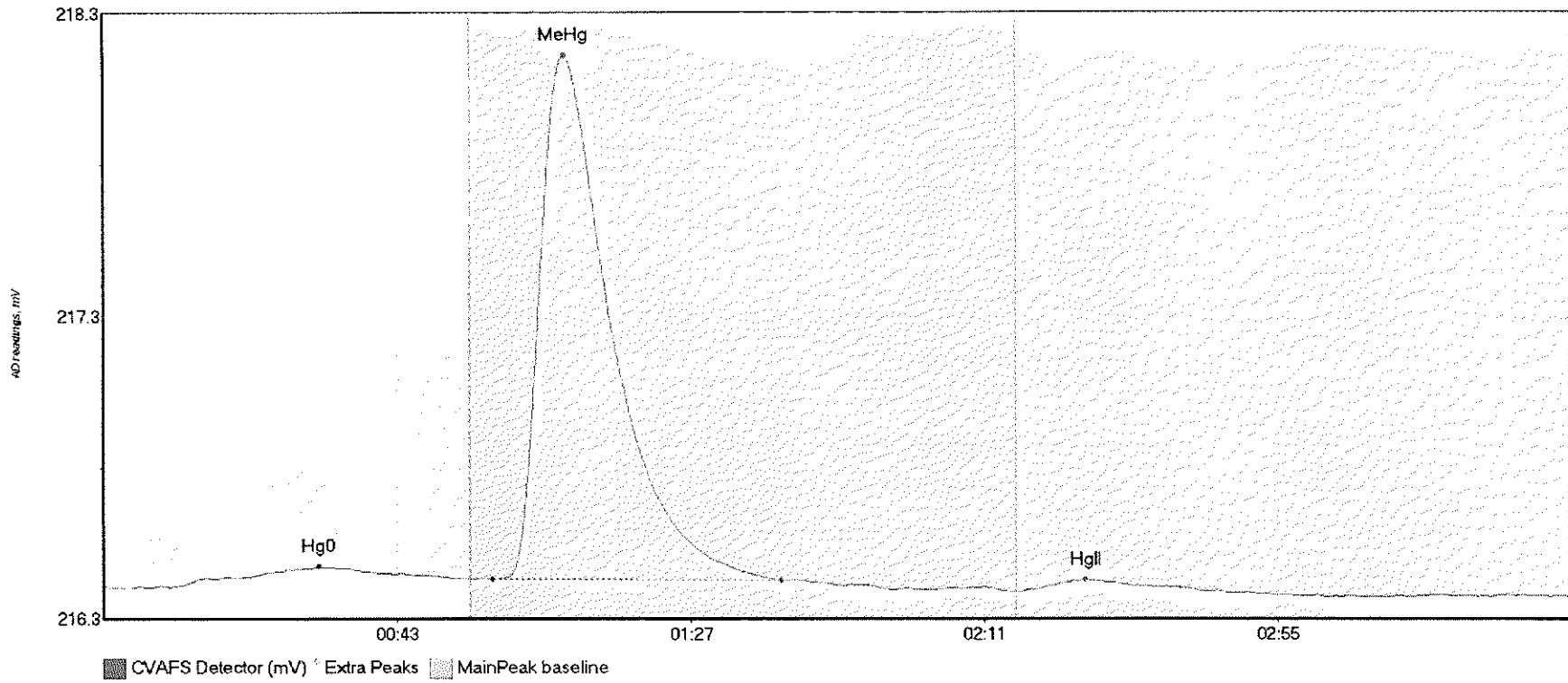


#8: SEQ-CAL5



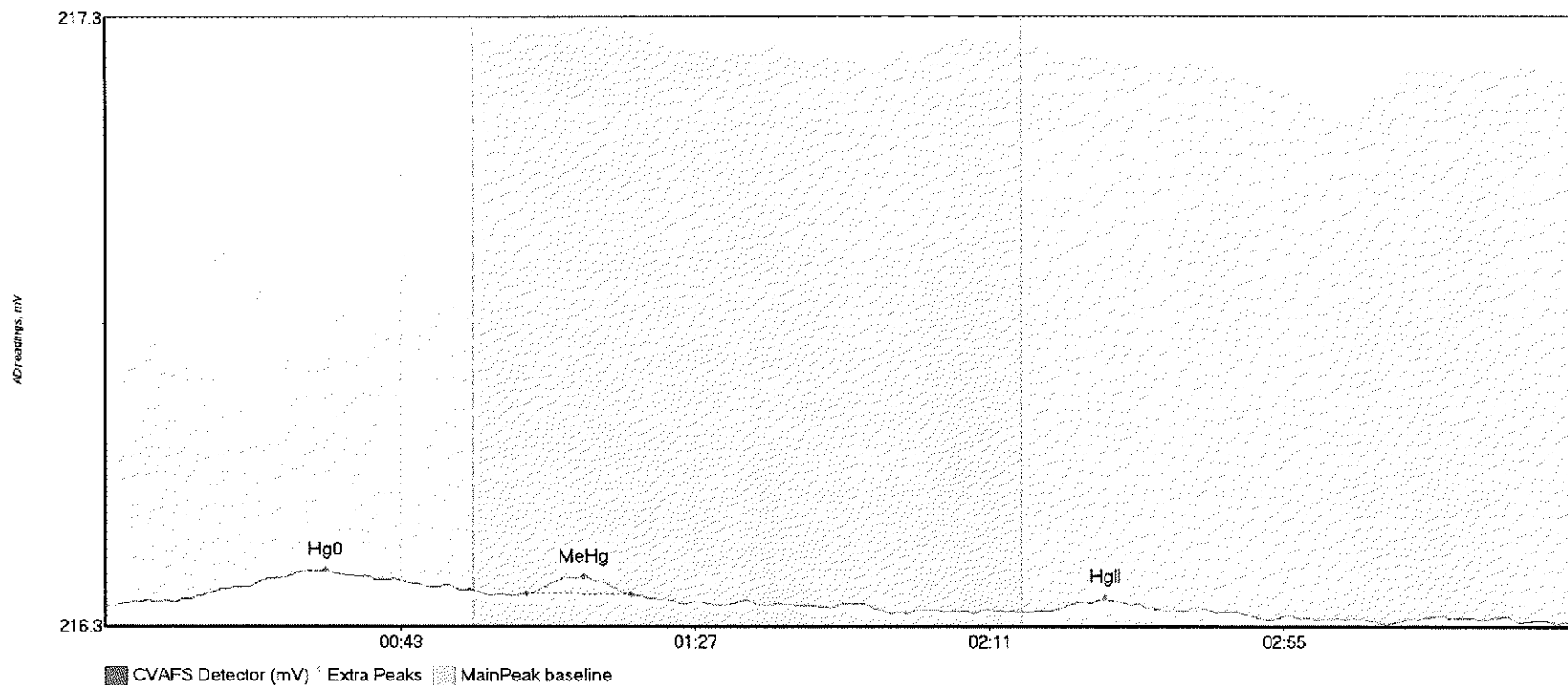
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	18.775	11.4	55.0	216.55	216.58	35.5	0.084	CT	216.5463	0.00	-0.01	
SEQ-CAL5 MeHg	1870.012	59.1	128.8	216.58	216.58	69.4	14.497	OK	216.5463	0.00	-0.01	
SEQ-CAL5 HgII	130.603	136.8	180.3	216.58	216.58	148.8	0.851	OK	216.5463	0.00	-0.01	

#9: SEQ-ICV1



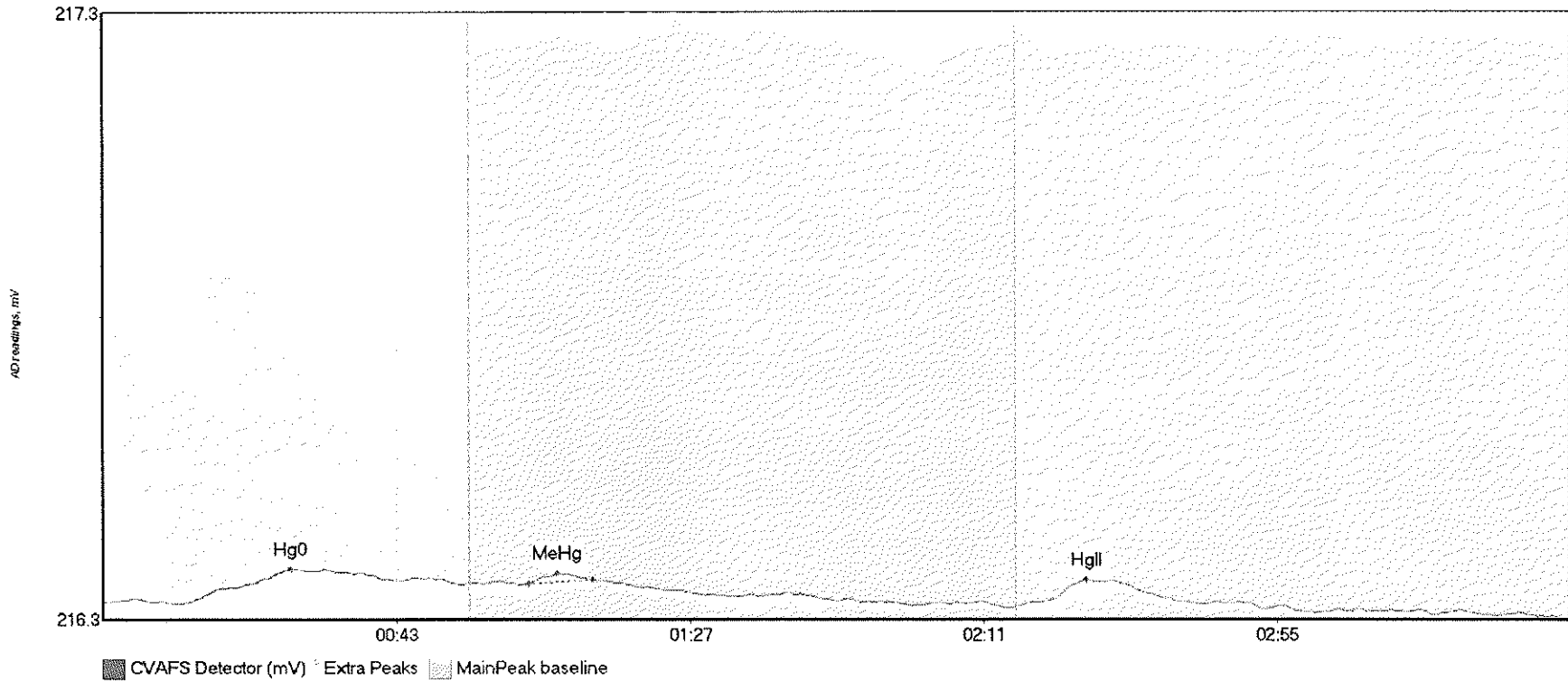
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	12.121	10.3	55.0	216.44	216.47	32.3	0.065	CT	216.4458	0.00	-0.03	
SEQ-ICV1 MeHg	205.832	58.3	101.6	216.47	216.47	69.1	1.661	OK	216.4458	0.00	-0.03	
SEQ-ICV1 HgII	5.499	137.3	165.6	216.43	216.43	147.3	0.038	OK	216.4458	0.00	-0.03	

#10: SEQ-ICB1



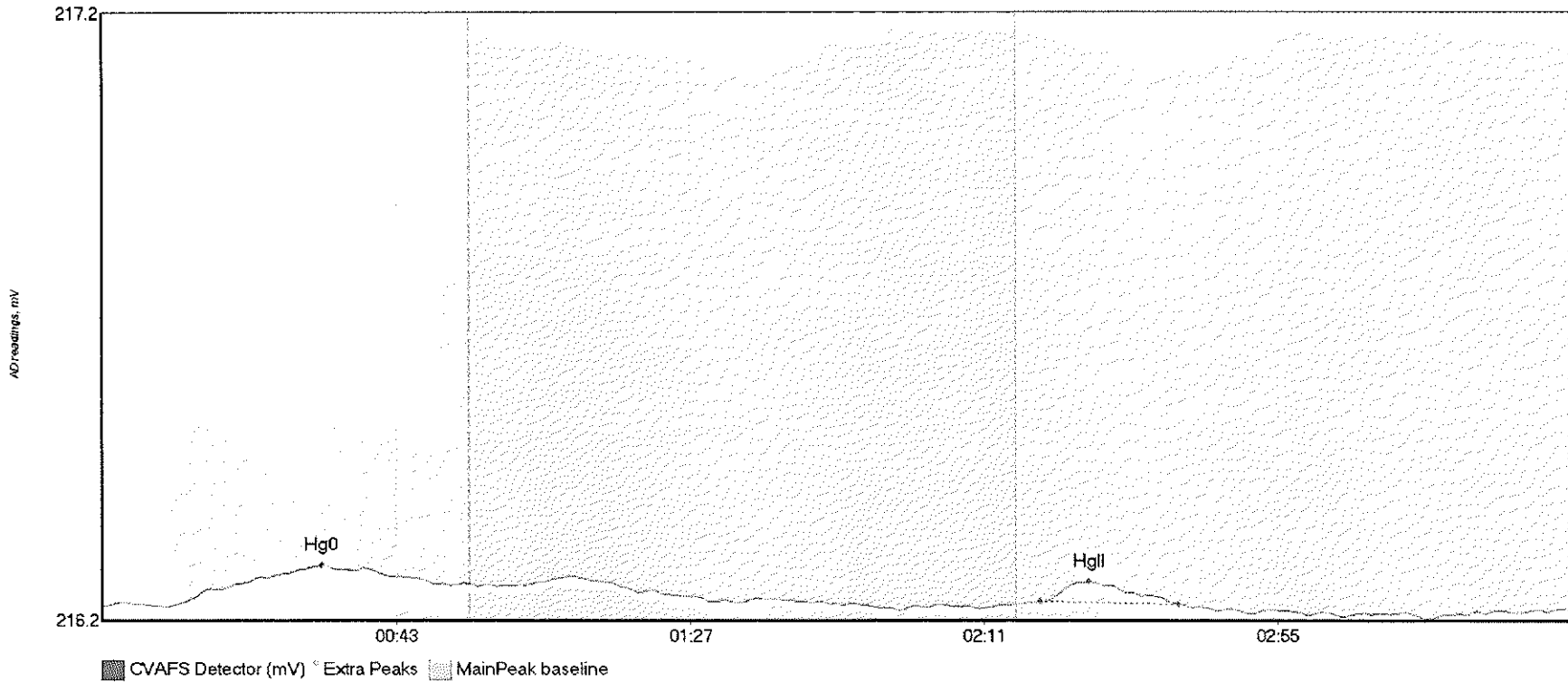
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	10.259	2.2	55.0	216.35	216.38	32.9	0.057	CT	216.3516	0.00	-0.03	
SEQ-ICB1 MeHg	2.625	62.9	78.4	216.37	216.37	71.5	0.028	OK	216.3516	0.00	-0.03	
SEQ-ICB1 HgII	1.521	140.7	157.2	216.34	216.35	149.3	0.020	OK	216.3516	0.00	-0.03	

#11: F707393-BLK1



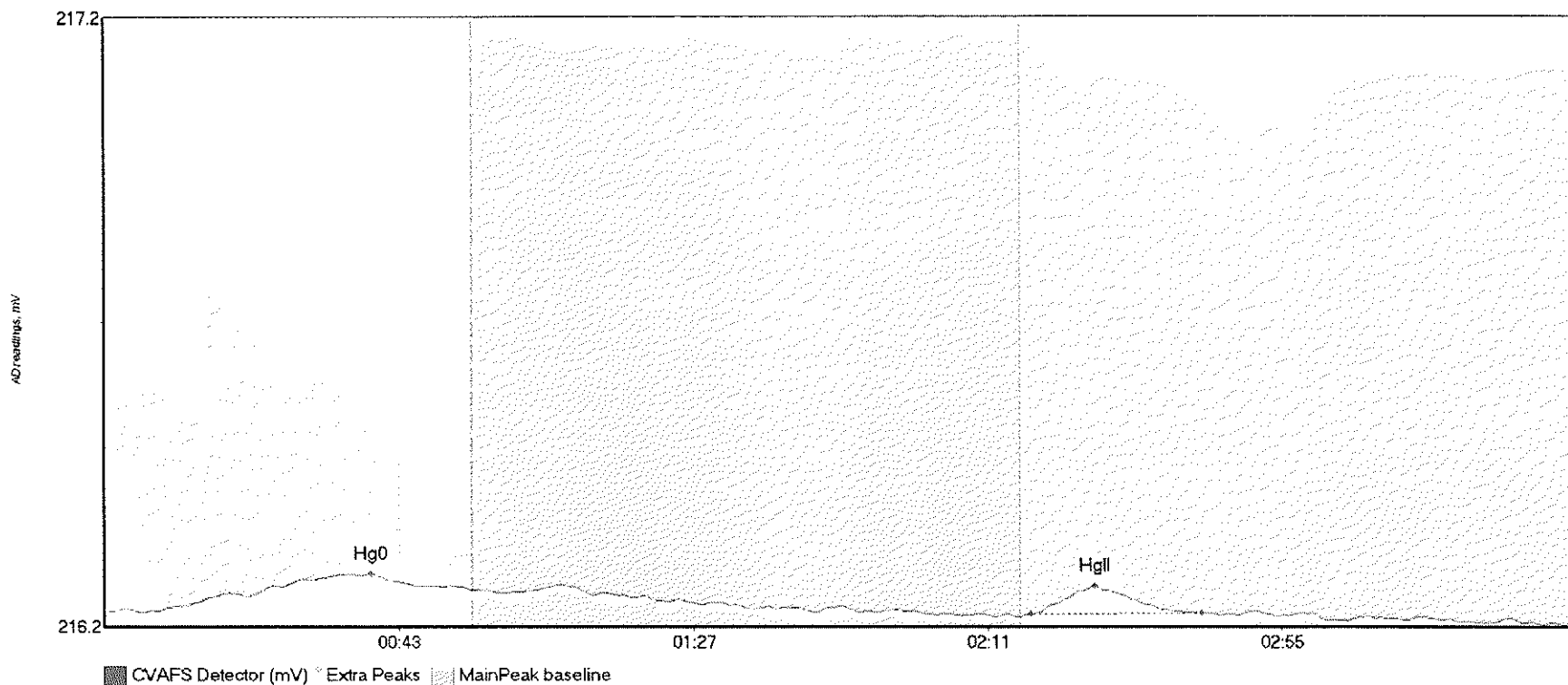
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK1 Hg	9.630	11.8	53.8	216.29	216.32	28.2	0.057	OK	216.2908	0.00	-0.03	
F707393-BLK1 Me	0.802	63.8	73.5	216.32	216.33	68.1	0.017	OK	216.2908	0.00	-0.03	
F707393-BLK1 Hg	5.601	136.8	164.0	216.28	216.29	147.5	0.045	OK	216.2908	0.00	-0.03	

#12: F707393-BLK2



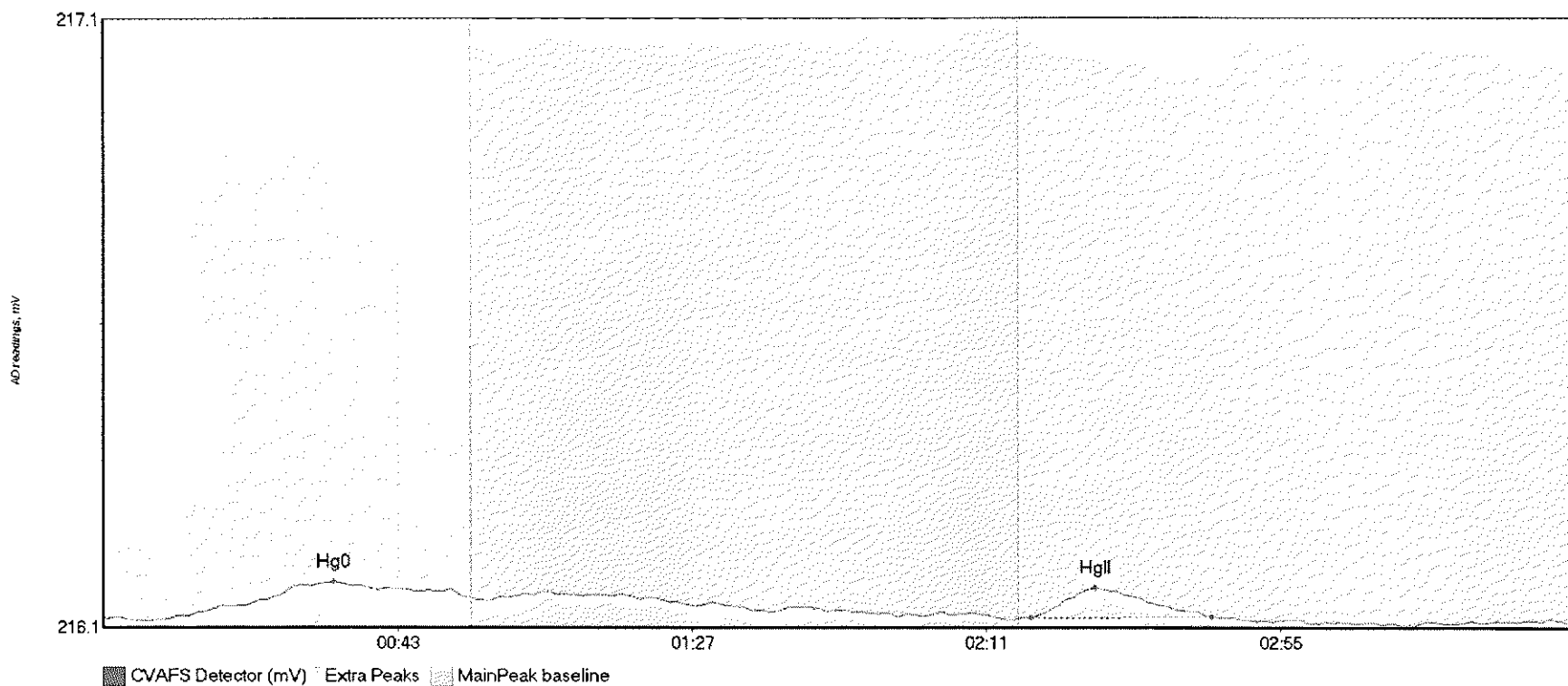
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F707393-BLK2 Hg	11.754	9.6	52.1	216.23	216.26	32.9	0.069	OK	216.2298	0.00	-0.01	
F707393-BLK2 Hg	3.760	140.4	161.2	216.24	216.23	147.7	0.032	OK	216.2298	0.00	-0.01	317

#13: F707393-BLK3



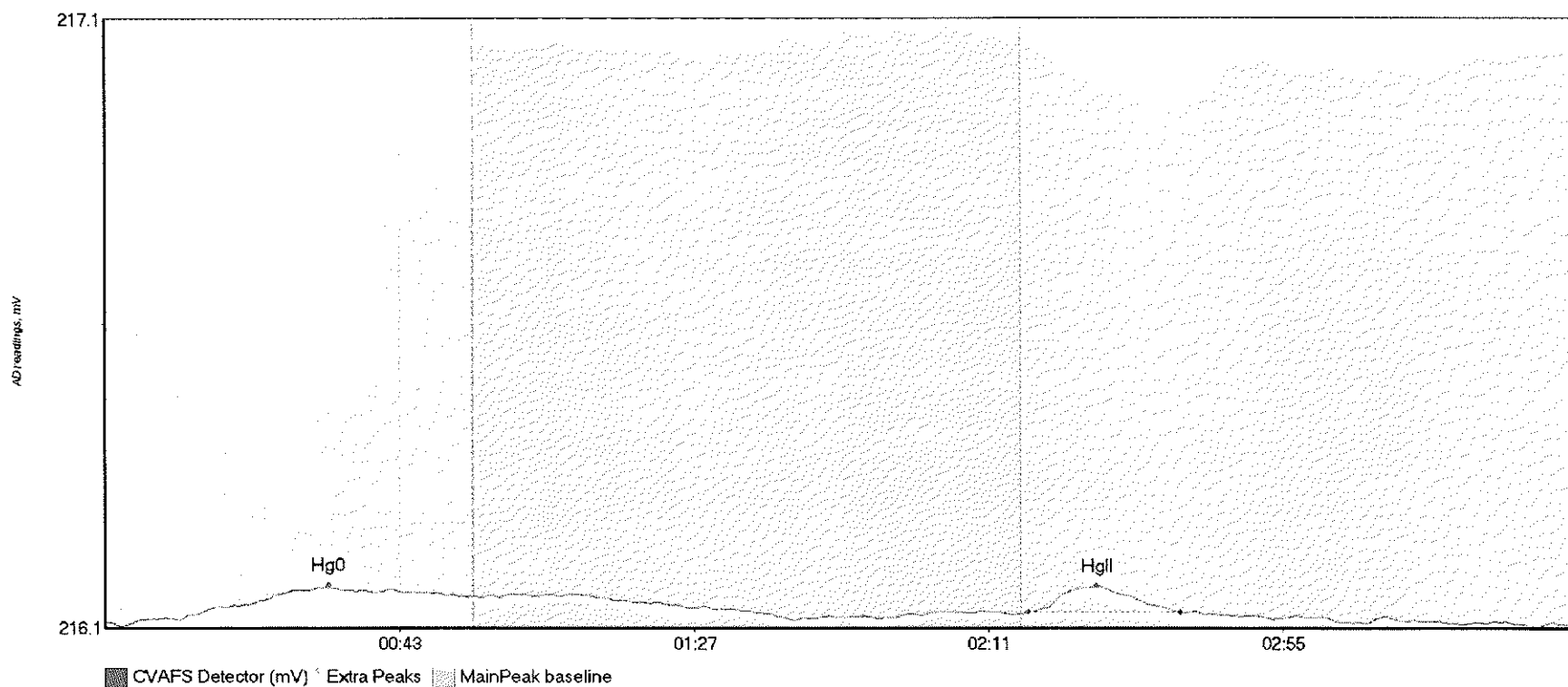
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK3 Hg	9.882	8.0	55.0	216.18	216.21	39.9	0.061	CT	216.1810	0.00	-0.02	
F707393-BLK3 Hg	5.133	138.4	164.0	216.17	216.18	148.0	0.047	OK	216.1810	0.00	-0.02	017

#14: \*F707393-BLK4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707393-BLK4 H	9.219	12.4	55.0	216.13	216.16	34.5	0.057	CT	216.1224	0.00	-0.01	
*F707393-BLK4 H	7.052	138.7	165.9	216.12	216.12	148.3	0.050	OK	216.1224	0.00	-0.01	317

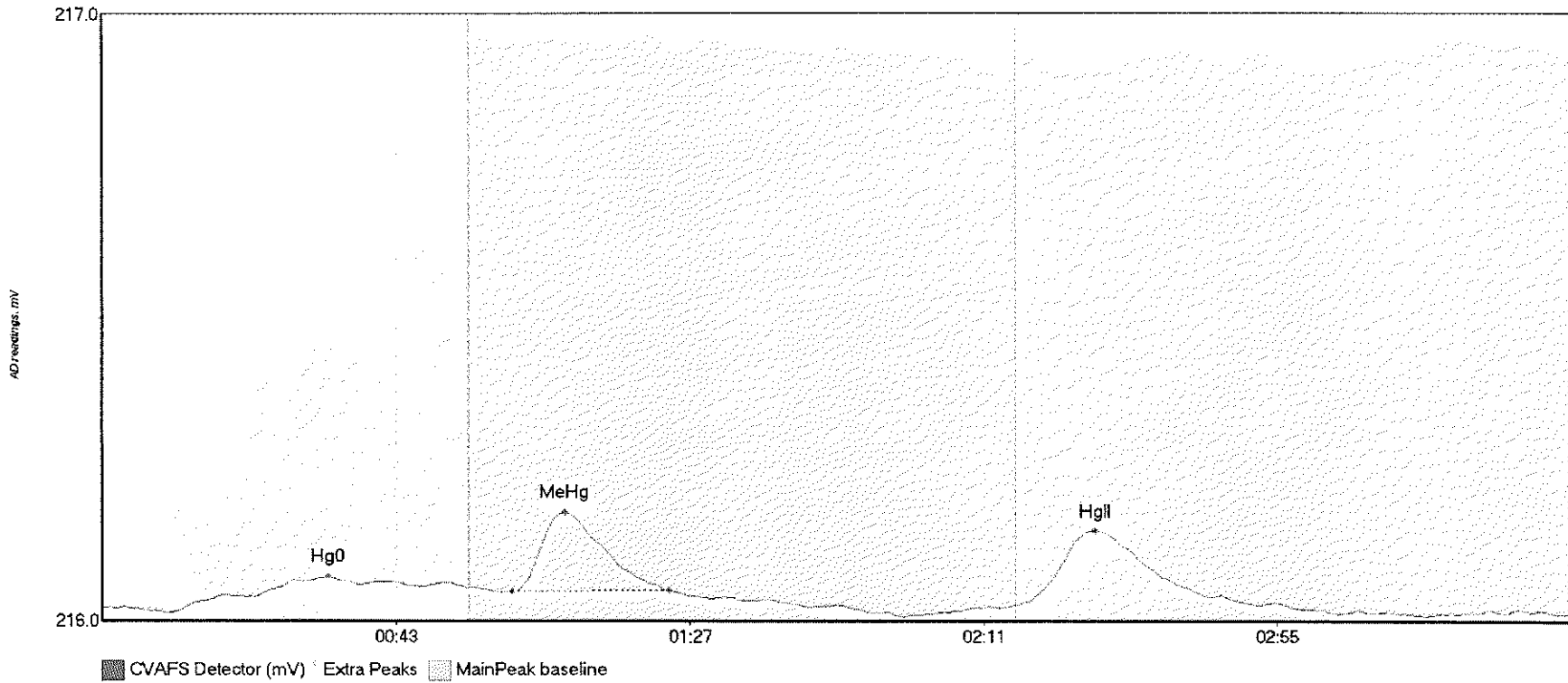
#15: \*F707393-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707393-BLK5 H	8.329	11.0	54.2	216.08	216.12	33.4	0.055	OK	216.0786	0.00	-0.01	
*F707393-BLK5 H	5.047	138.0	160.6	216.10	216.10	148.2	0.043	OK	216.0786	0.00	-0.01	317

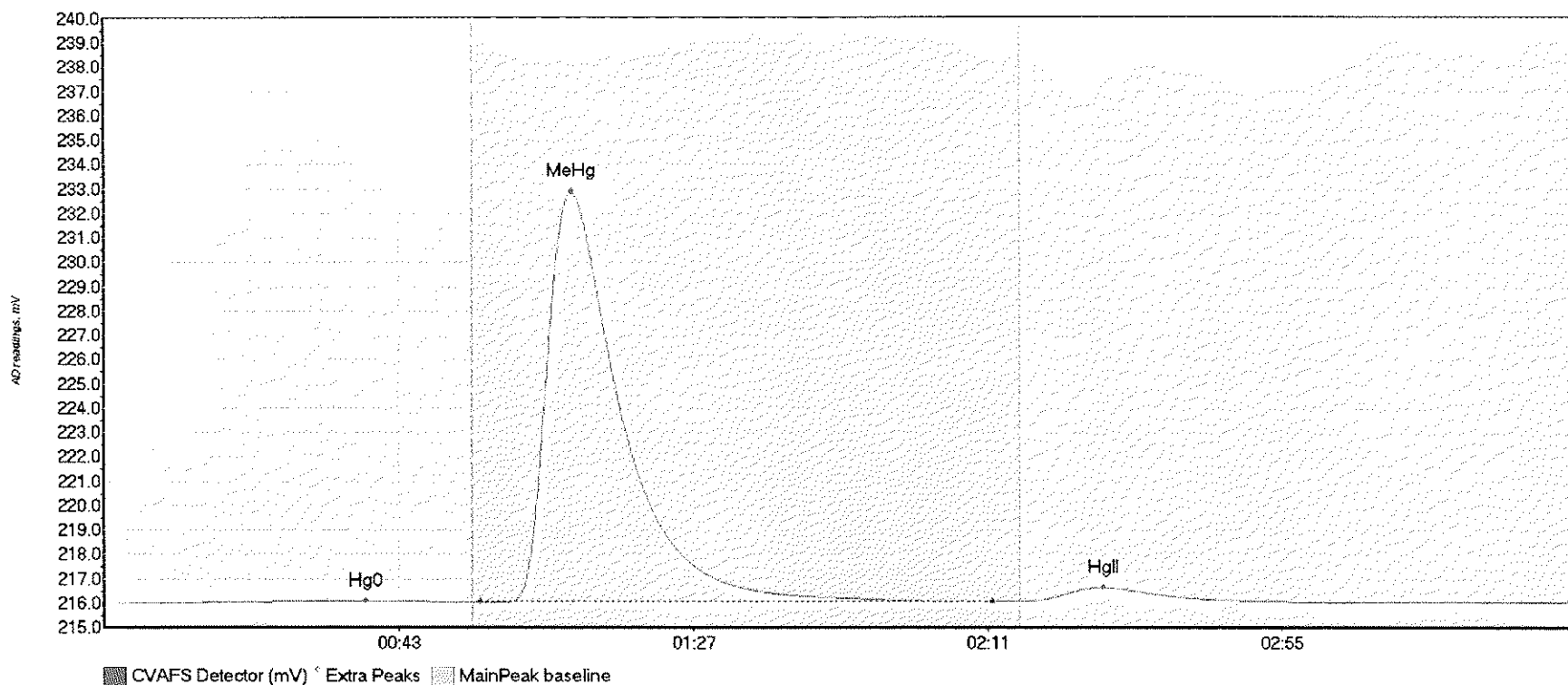


#16: 1706929-01



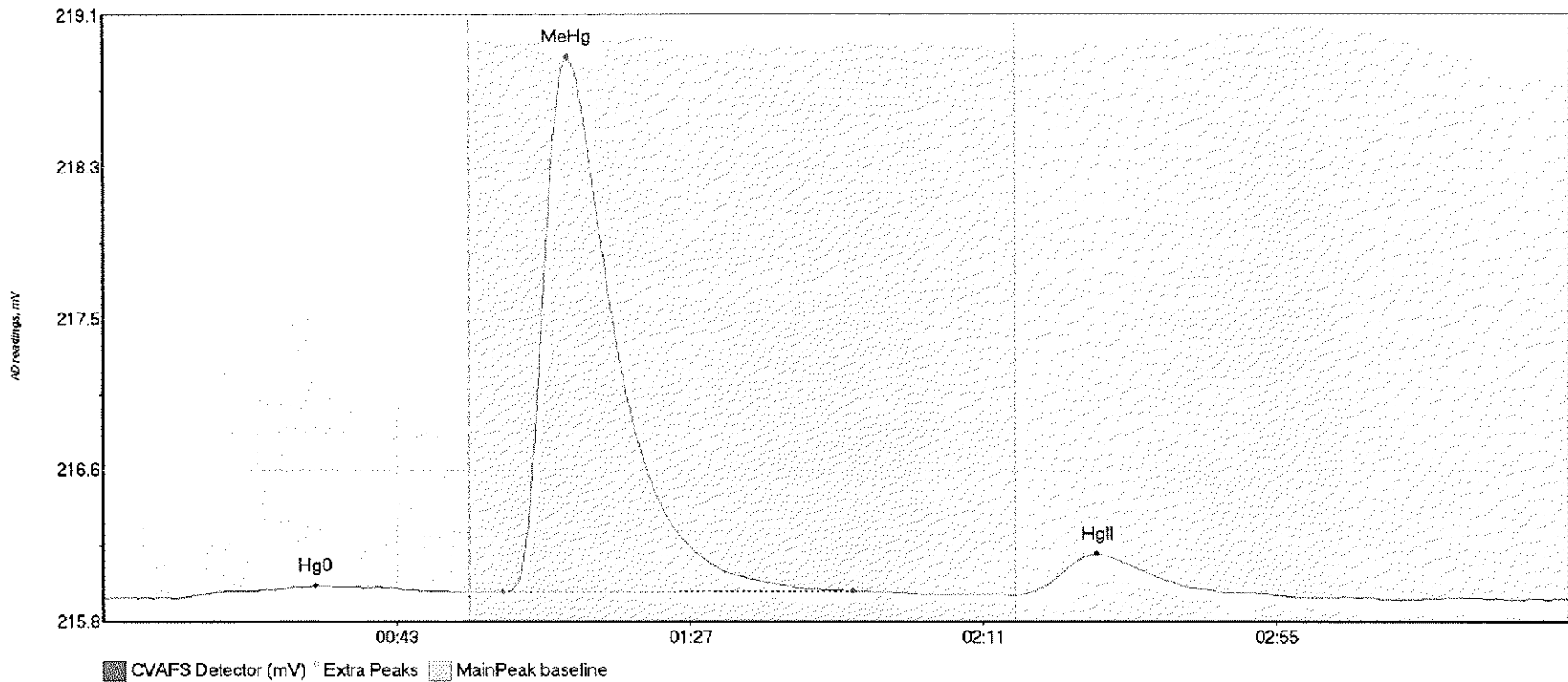
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-01 Hg0	8.555	11.2	54.9	216.04	216.07	33.9	0.057	OK	216.0421	0.00	-0.01	
1706929-01 MeHg	13.744	61.5	84.9	216.07	216.07	69.3	0.130	OK	216.0421	0.00	-0.01	
1706929-01 HgII	17.613	138.3	172.4	216.05	216.05	148.8	0.120	OK	216.0421	0.00	-0.01	

#17: 1706929-07



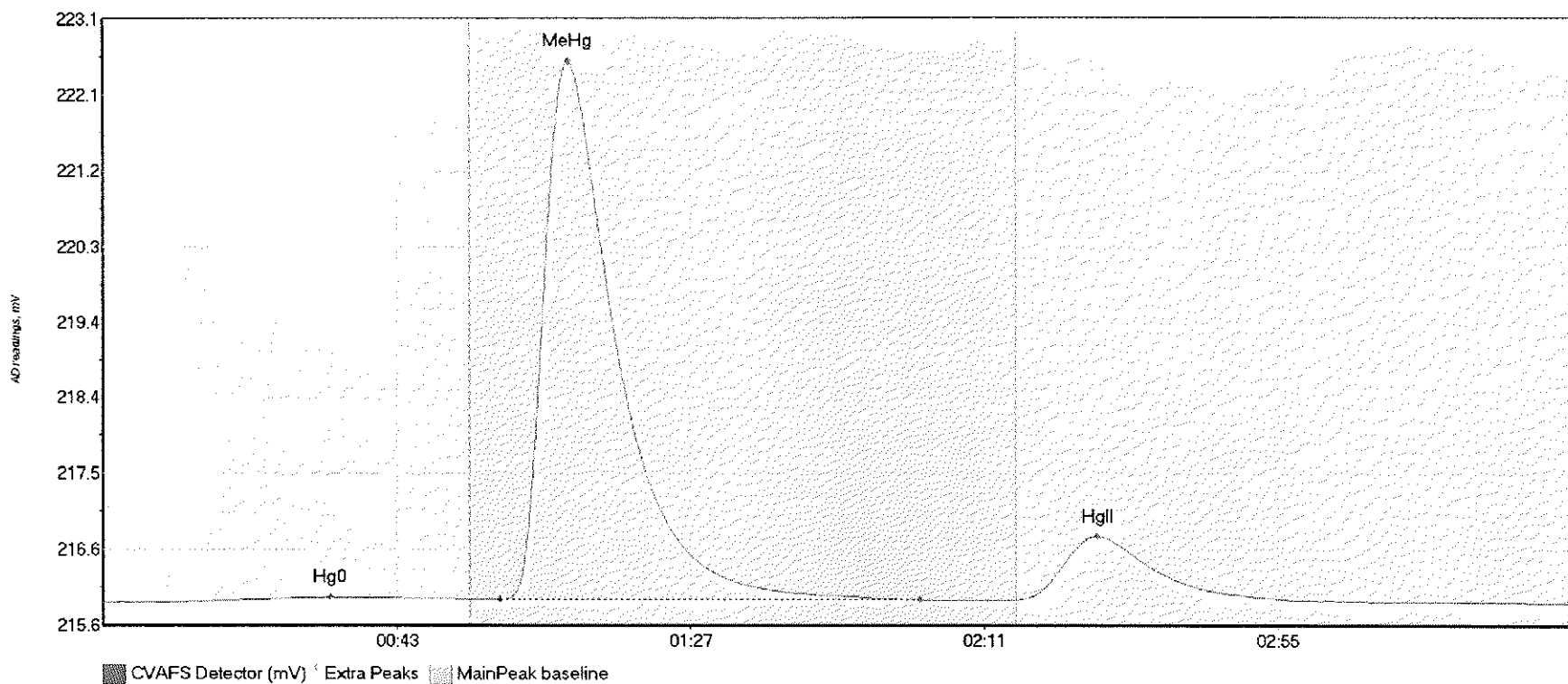
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-07 Hg0	13.326	13.1	55.0	216.00	216.04	39.1	0.079	CT	216.0058	0.00	0.01	
1706929-07 MeHg	2162.252	56.1	132.8	216.04	216.05	69.8	16.832	OK	216.0058	0.00	0.01	
1706929-07 HgII	88.850	136.8	177.5	216.06	216.05	149.3	0.578	OK	216.0058	0.00	0.01	

#18: 1706930-01



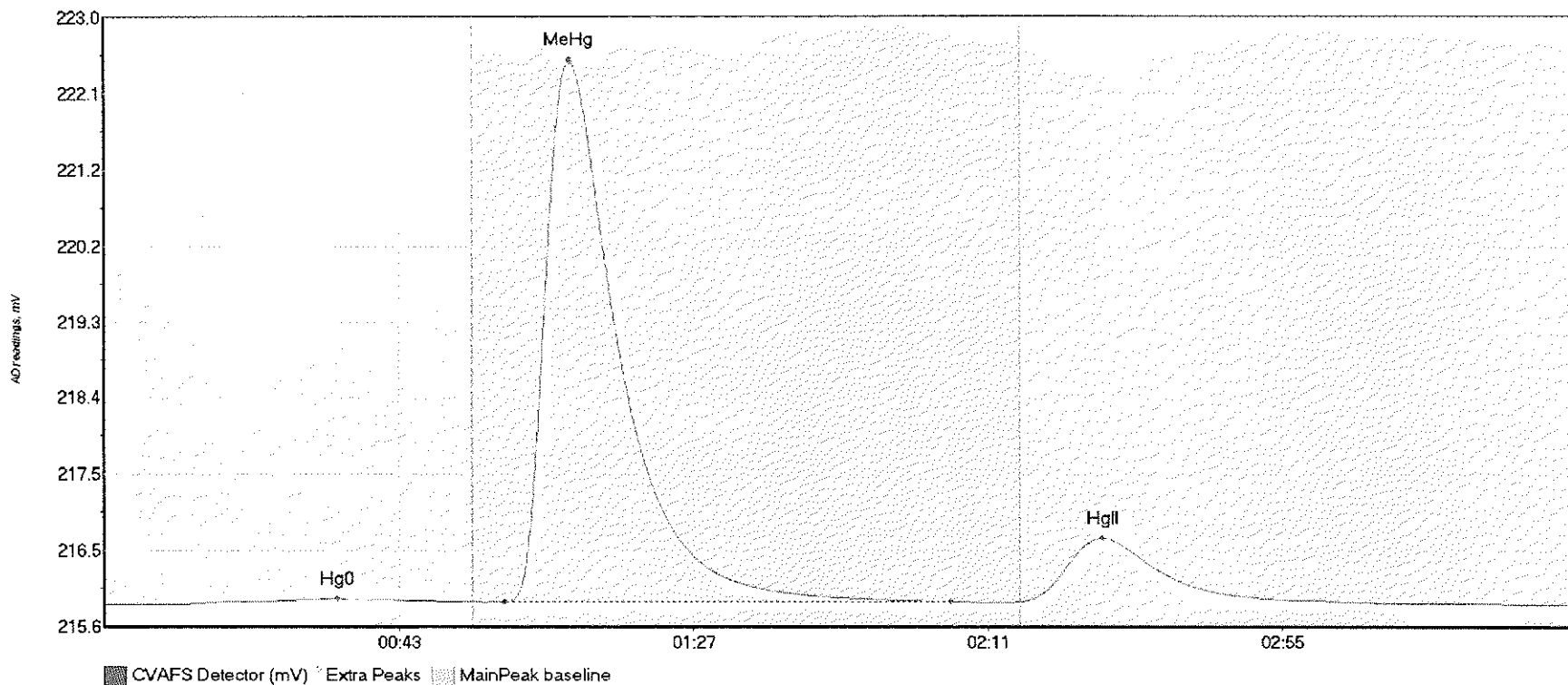
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-01 Hg0	12.120	10.8	53.2	215.96	216.00	31.9	0.065	OK	215.9644	0.00	0.00	
1706930-01 MeHg	356.975	60.0	112.4	216.00	216.00	69.7	2.841	OK	215.9644	0.00	0.00	
1706930-01 HgII	34.070	136.8	176.6	215.98	215.98	149.2	0.221	OK	215.9644	0.00	0.00	

#19: F707393-BS1



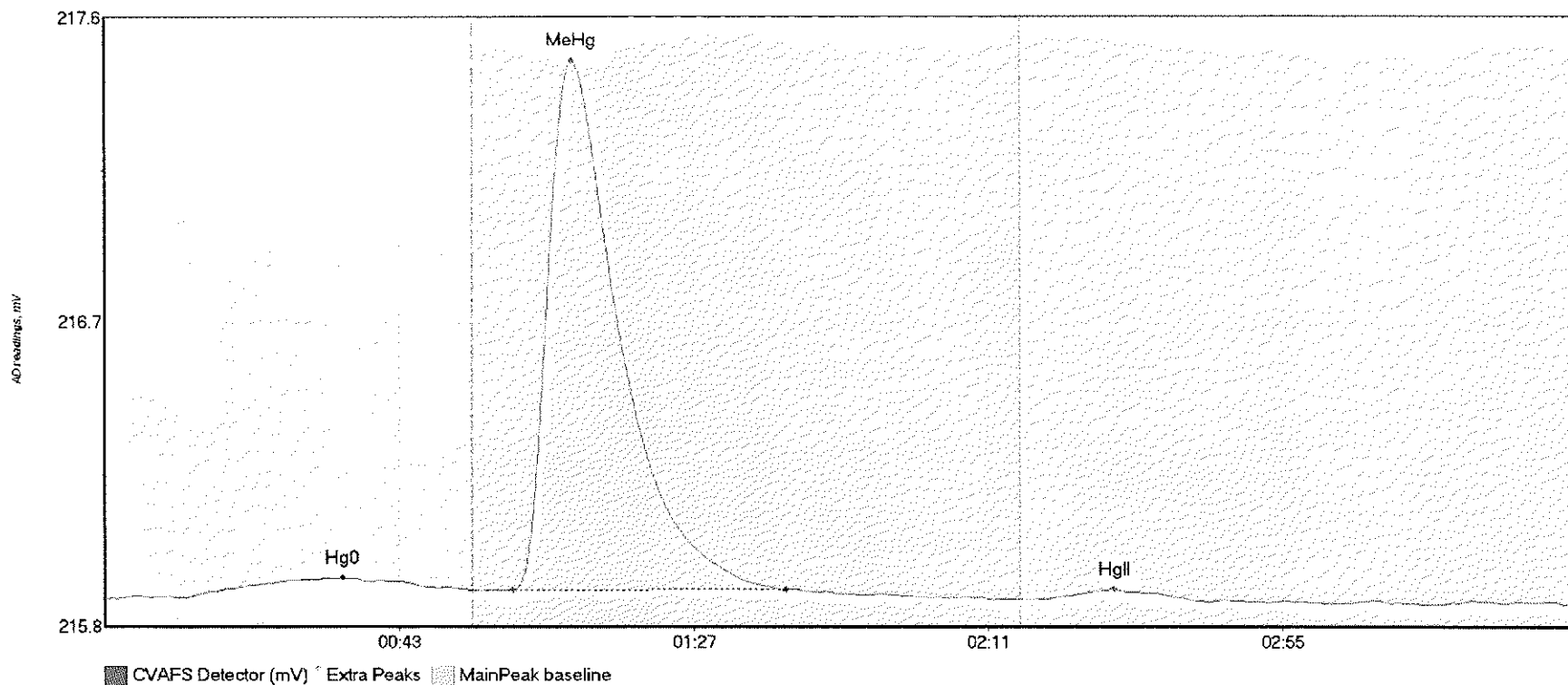
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BS1 Hg0	12.379	10.8	55.0	215.92	215.96	34.0	0.068	CT	215.9285	0.00	-0.01	
F707393-BS1 MeH	837.853	59.5	122.5	215.96	215.96	69.7	6.579	OK	215.9285	0.00	-0.01	
F707393-BS1 HgI	120.500	136.8	180.3	215.95	215.95	149.0	0.781	OK	215.9285	0.00	-0.01	

#20: F707393-BSD1



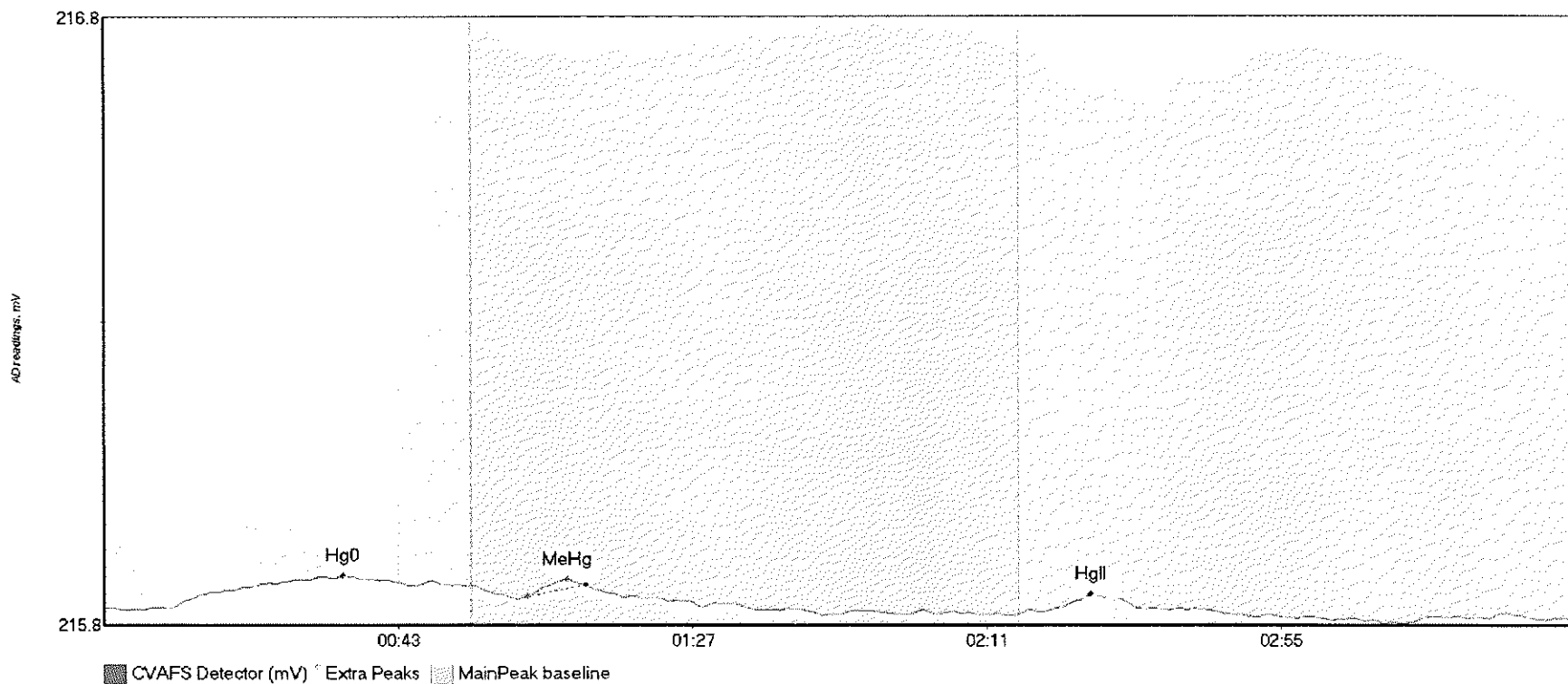
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BSD1 Hg	12.178	11.1	55.0	215.87	215.91	34.8	0.070	CT	215.8733	0.00	0.00	
F707393-BSD1 Me	844.599	59.7	126.5	215.90	215.91	69.6	6.593	OK	215.8733	0.00	0.00	
F707393-BSD1 Hg	123.219	136.8	185.5	215.91	215.90	149.2	0.776	OK	215.8733	0.00	0.00	

#21: SEQ-CCV1



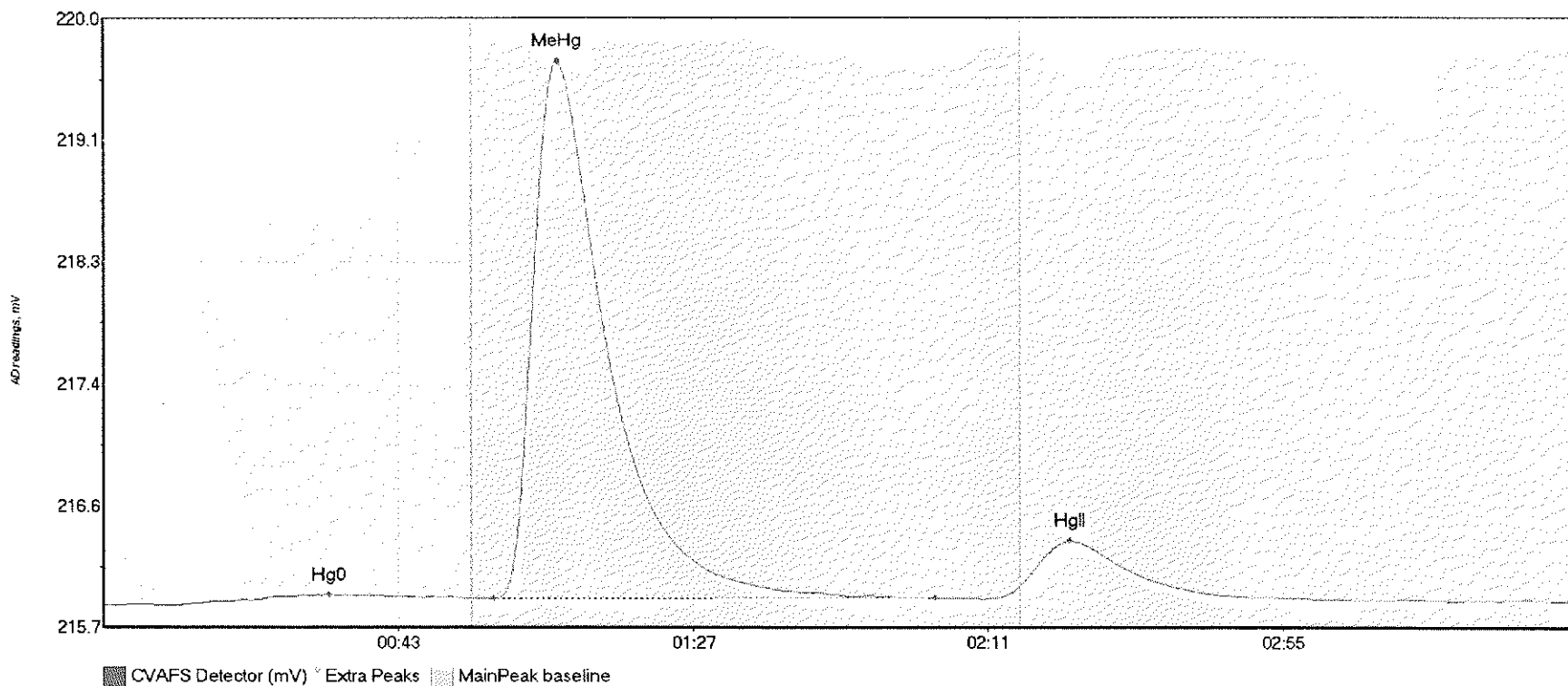
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	12.186	12.0	55.0	215.84	215.87	35.6	0.061	CT	215.8408	0.00	-0.02	
SEQ-CCV1 MeHg	199.562	61.0	101.7	215.87	215.87	69.9	1.609	OK	215.8408	0.00	-0.02	
SEQ-CCV1 HgII	4.185	141.2	165.0	215.84	215.83	150.9	0.029	OK	215.8408	0.00	-0.02	

#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	9.011	9.6	54.3	215.80	215.84	35.7	0.053	OK	215.8039	0.00	-0.02	
SEQ-CCB1 MeHg	0.810	63.5	72.0	215.82	215.84	69.3	0.028	OK	215.8039	0.00	-0.02	
SEQ-CCB1 HgII	2.794	140.3	166.3	215.80	215.80	147.6	0.028	OK	215.8039	0.00	-0.02	

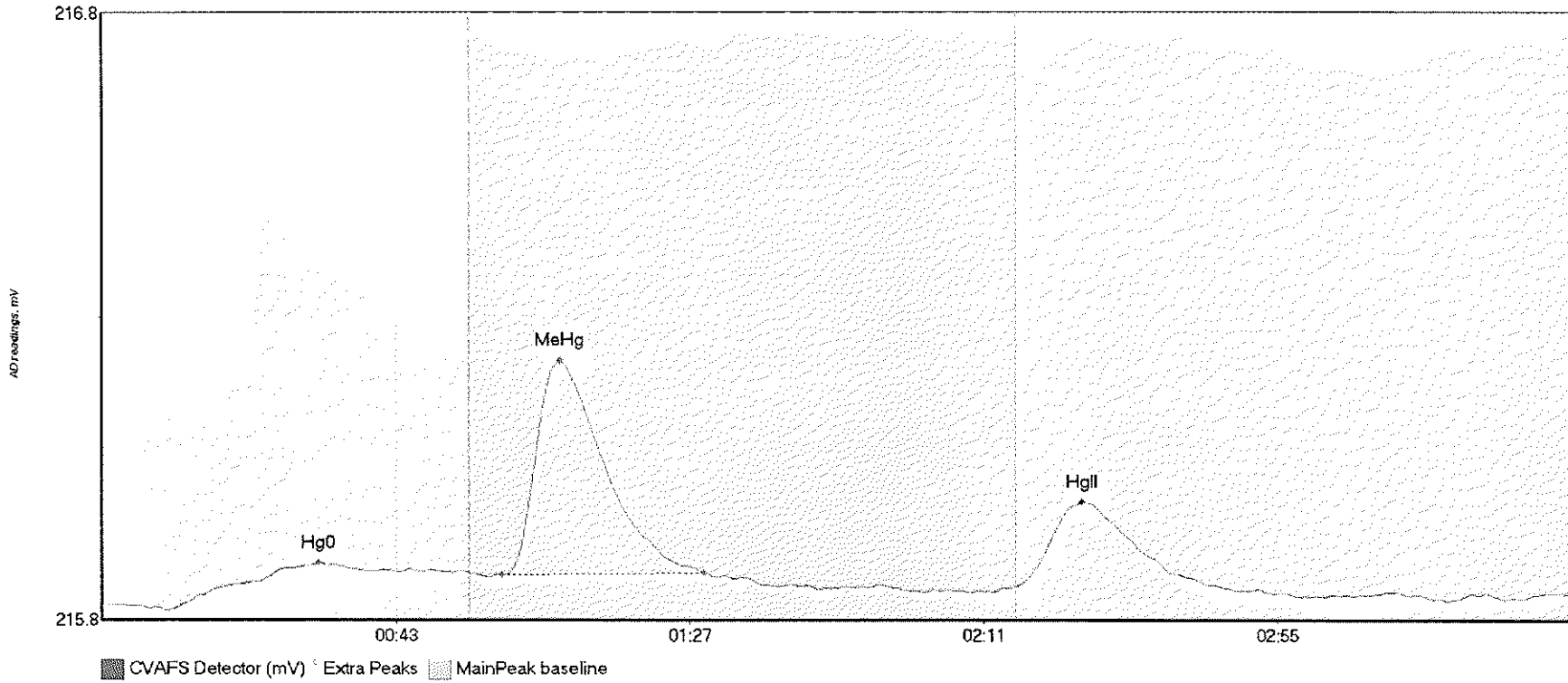
#23: 1706929-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-02 Hg0	12.371	10.8	54.4	215.85	215.90	33.7	0.075	OK	215.8487	0.00	0.03	
1706929-02 MeHg	491.731	58.3	124.1	215.90	215.90	67.8	3.808	OK	215.8487	0.00	0.03	
1706929-02 HgII	45.237	136.8	169.4	215.99	215.91	144.3	0.323	OK	215.8487	0.00	0.03	

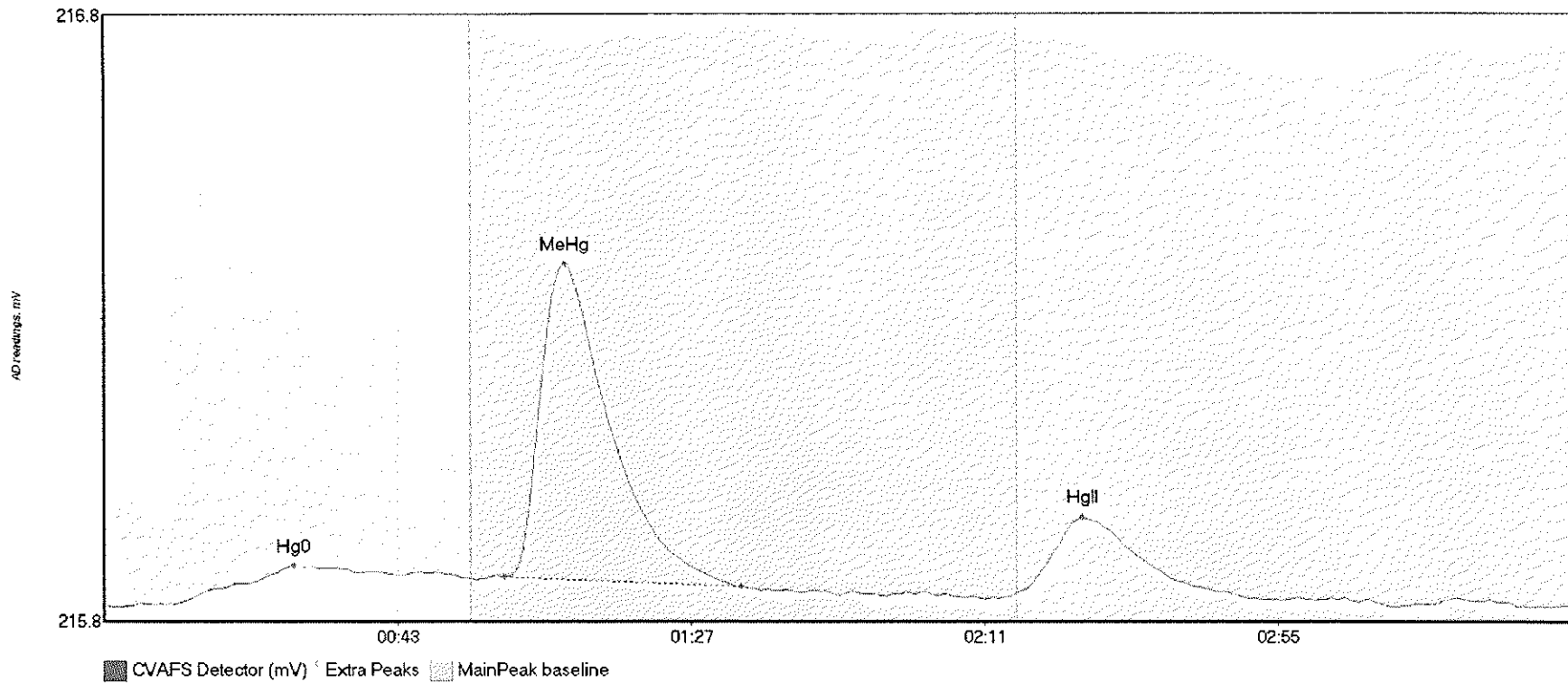


#24: 1706929-03



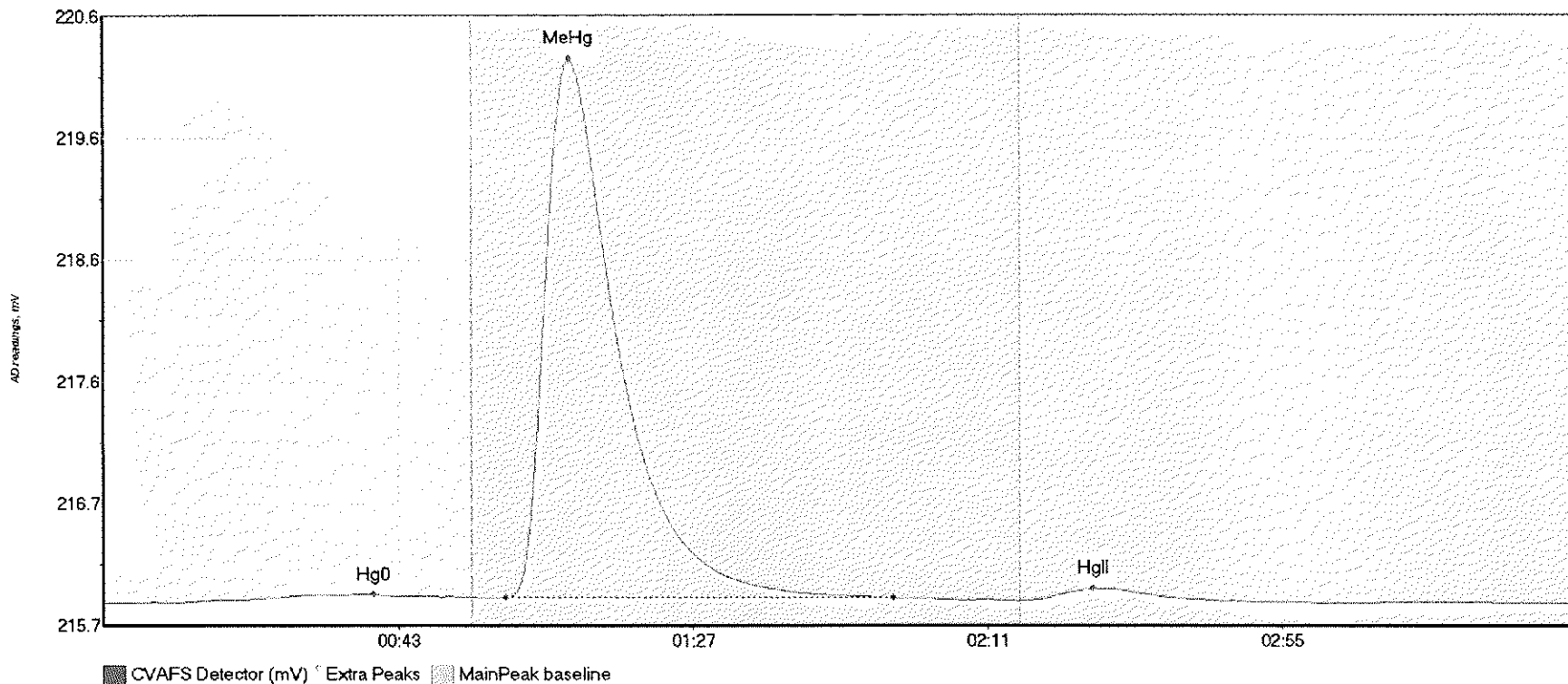
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-03 Hg0	11.051	10.0	55.0	215.86	215.92	32.4	0.078	CT	215.8634	0.00	0.02	
1706929-03 MeHg	41.197	59.9	90.2	215.91	215.92	68.6	0.352	OK	215.8634	0.00	0.02	
1706929-03 HgII	18.766	136.8	166.0	215.89	215.90	146.8	0.140	OK	215.8634	0.00	0.02	

#25: 1706929-04



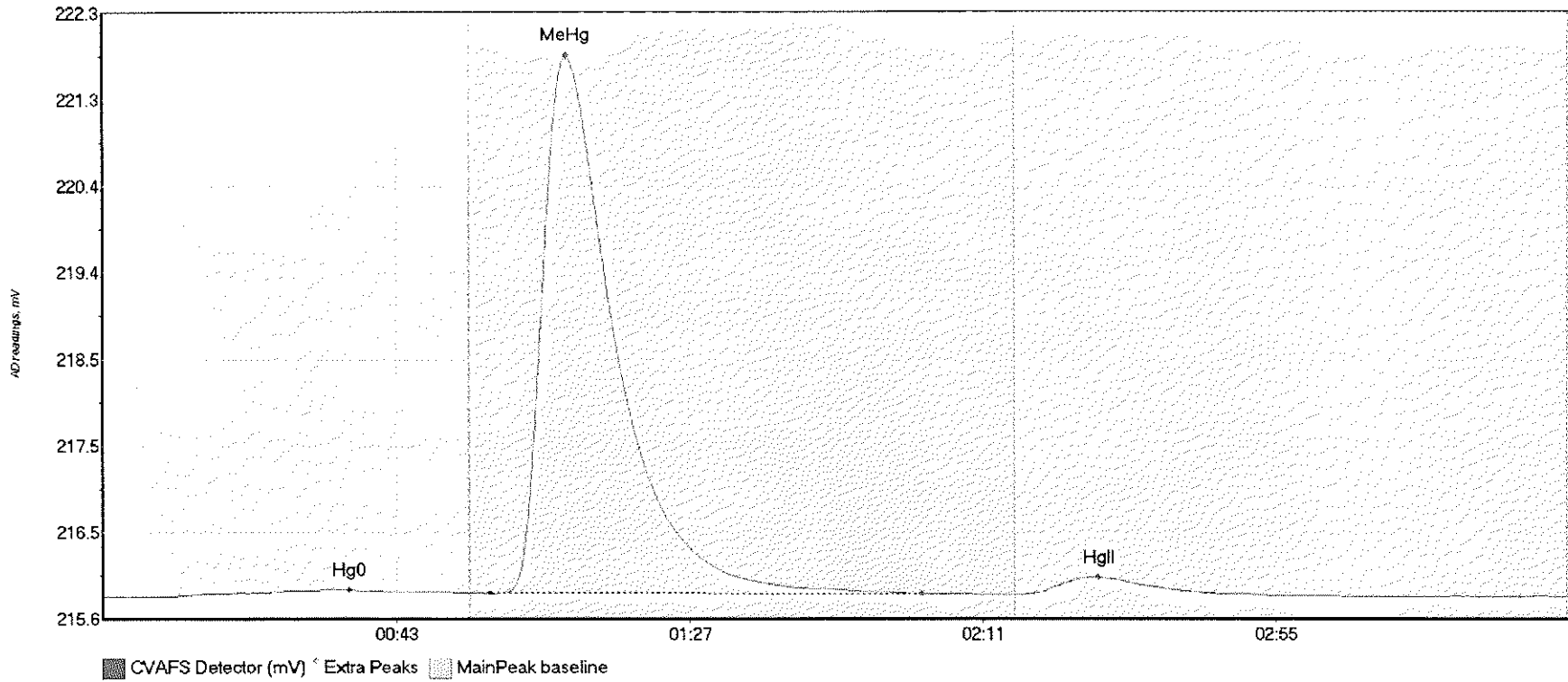
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-04 Hg0	10.325	10.5	55.0	215.87	215.91	28.4	0.063	CT	215.8693	0.00	0.00	
1706929-04 MeHg	63.096	60.0	95.5	215.92	215.90	69.1	0.517	OK	215.8693	0.00	0.00	
1706929-04 HgII	16.812	136.8	167.4	215.89	215.89	146.7	0.124	OK	215.8693	0.00	0.00	

#26: 1706929-05



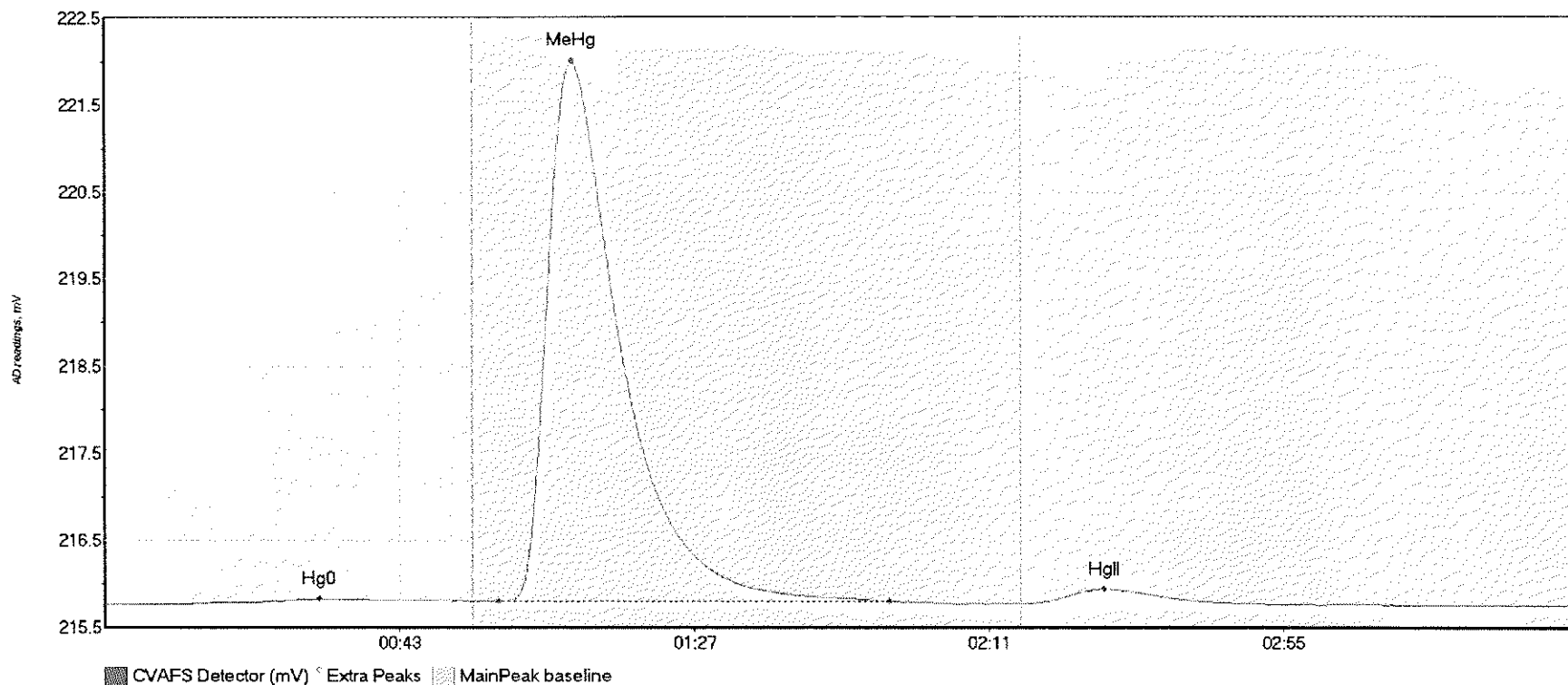
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-05 Hg0	10.178	10.8	55.0	215.85	215.90	40.3	0.070	CT	215.8545	0.00	0.00	
1706929-05 MeHg	549.105	60.0	117.9	215.89	215.89	69.6	4.343	OK	215.8545	0.00	0.00	
1706929-05 HgII	13.983	136.8	167.2	215.87	215.87	147.8	0.098	OK	215.8545	0.00	0.00	

#27: 1706929-06



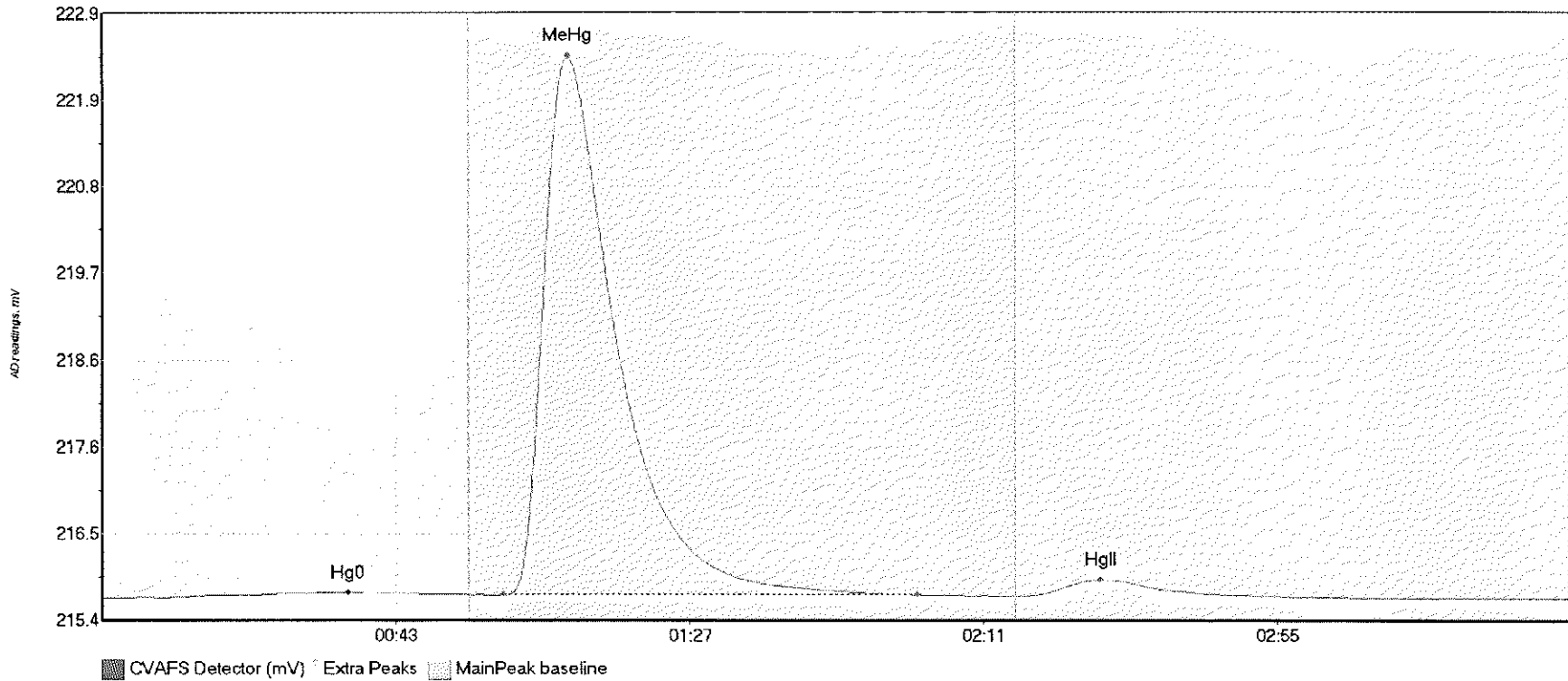
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-06 Hg0	12.657	10.1	55.0	215.81	215.85	37.0	0.073	CT	215.8141	0.00	0.00	
1706929-06 MeHg	760.907	58.0	122.9	215.84	215.84	69.6	5.977	OK	215.8141	0.00	0.00	
1706929-06 HgII	28.239	137.5	173.1	215.83	215.83	149.4	0.192	OK	215.8141	0.00	0.00	

#28: 1706929-08



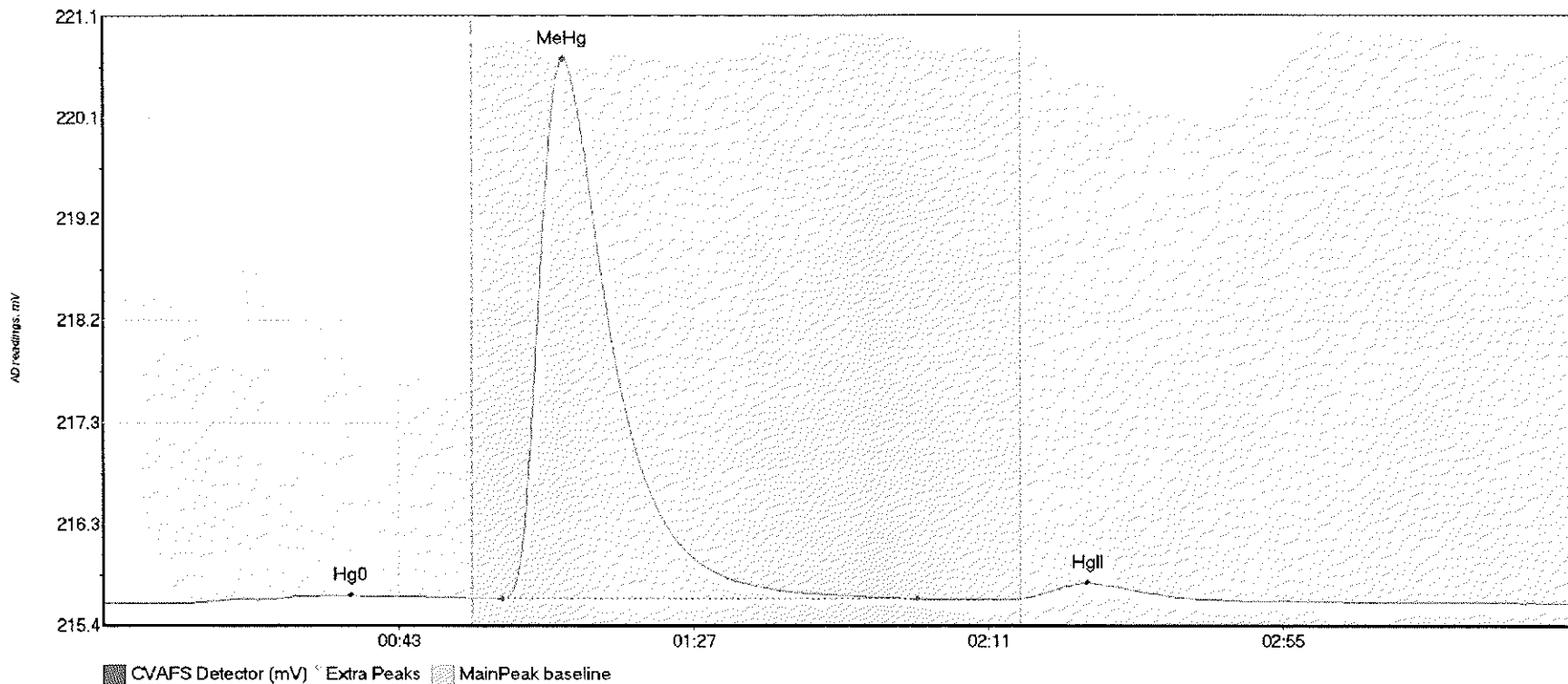
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
1706929-08 Hg0	10.038	11.3	54.9	215.77	215.81	32.0	0.064	OK	215.7747	0.00	-0.01	
1706929-08 MeHg	788.893	58.9	117.1	215.80	215.81	69.8	6.238	OK	215.7747	0.00	-0.01	
1706929-08 HgII	23.577	137.8	170.5	215.79	215.79	149.3	0.165	OK	215.7747	0.00	-0.01	

#29: 1706929-09



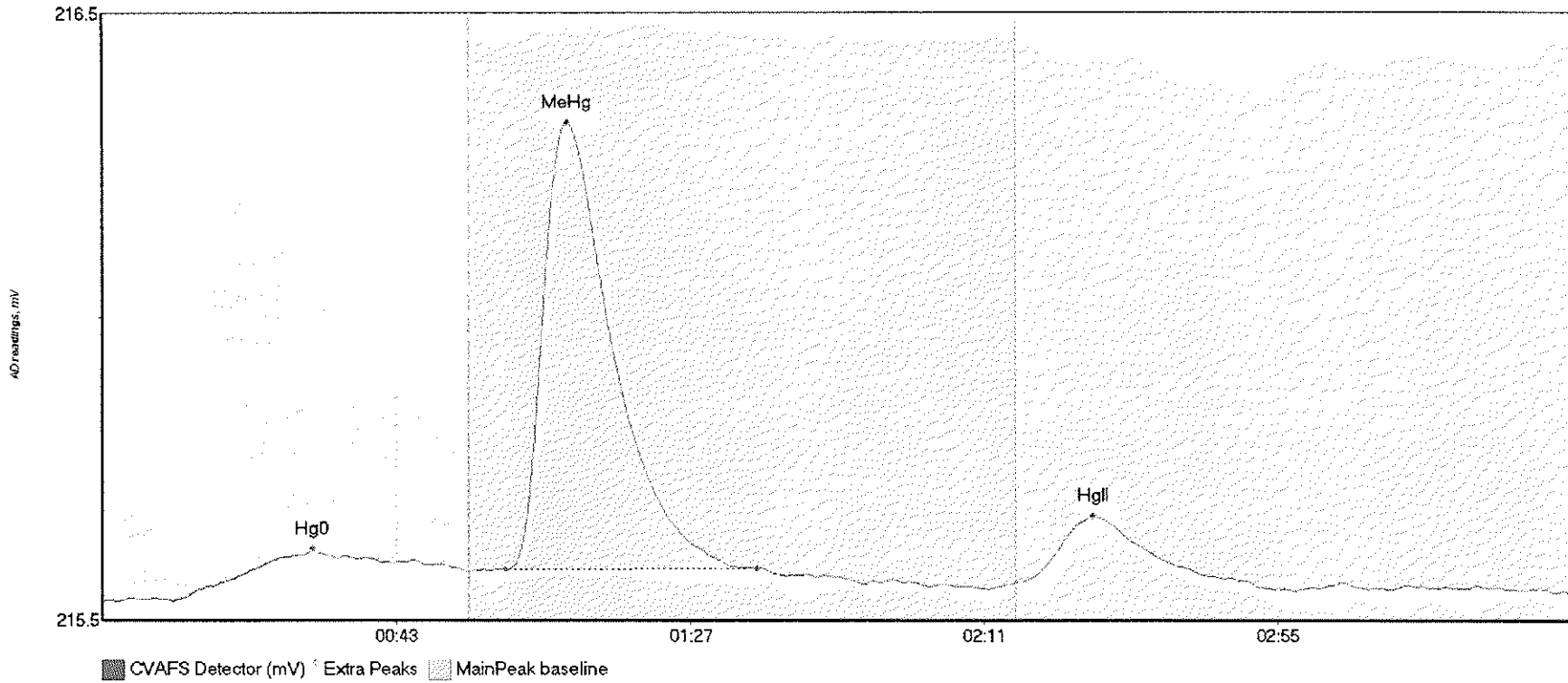
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-09 Hg0	11.648	8.8	55.0	215.71	215.75	36.9	0.064	CT	215.7154	0.00	-0.01	
1706929-09 MeHg	843.099	60.1	122.1	215.75	215.75	69.9	6.641	OK	215.7154	0.00	-0.01	
1706929-09 HgII	30.372	138.0	174.1	215.74	215.73	149.6	0.202	OK	215.7154	0.00	-0.01	

#30: 1706929-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-10 Hg0	11.807	12.2	55.0	215.57	215.61	36.8	0.076	CT	215.5671	0.00	0.00	
1706929-10 MeHg	646.451	59.4	121.4	215.61	215.60	68.6	5.041	OK	215.5671	0.00	0.00	
1706929-10 HgII	20.079	136.8	163.7	215.61	215.61	146.9	0.154	OK	215.5671	0.00	0.00	

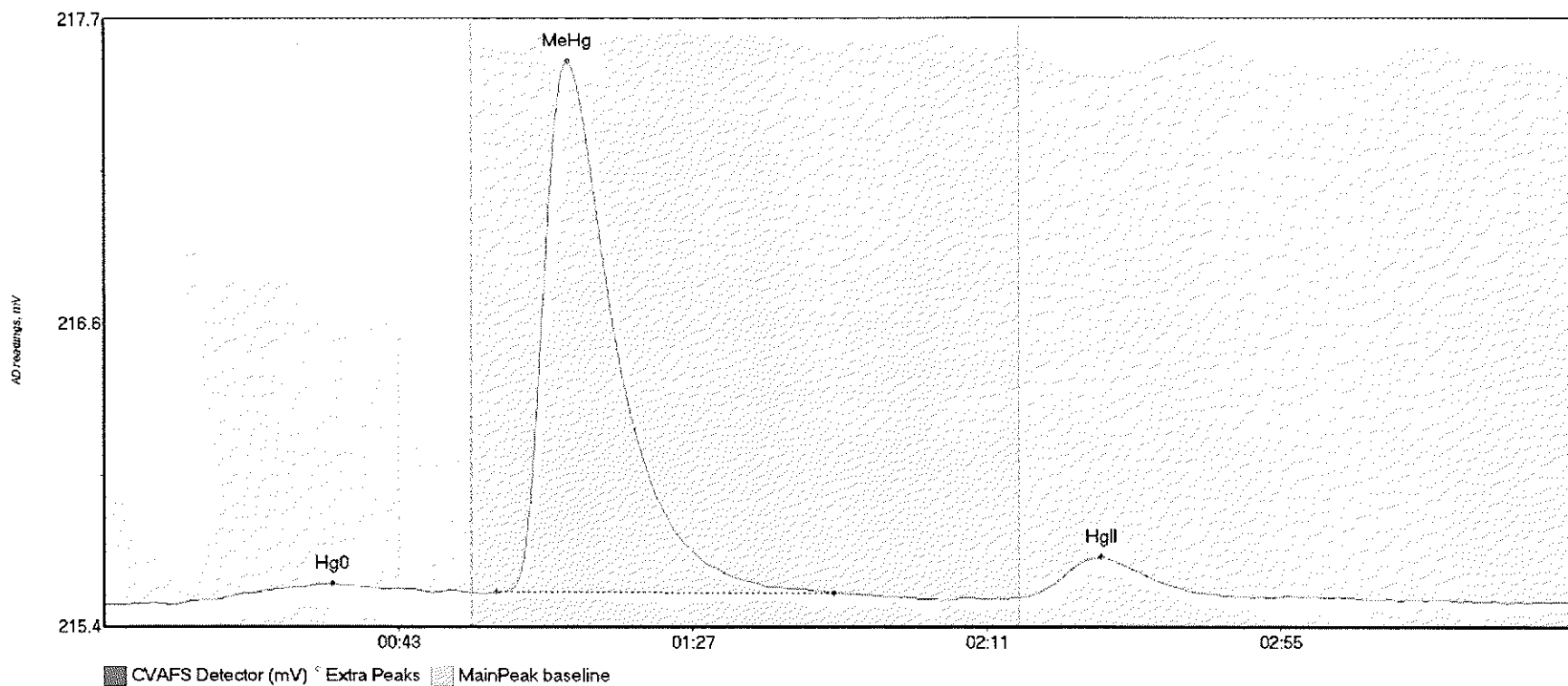
#31: 1706930-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-02 Hg0	13.347	12.1	54.9	215.53	215.58	31.4	0.079	OK	215.5291	0.00	0.01	
1706930-02 MeHg	88.156	60.5	98.0	215.58	215.58	69.7	0.736	OK	215.5291	0.00	0.01	
1706930-02 HgII	14.985	137.2	170.3	215.56	215.56	148.4	0.109	OK	215.5291	0.00	0.01	

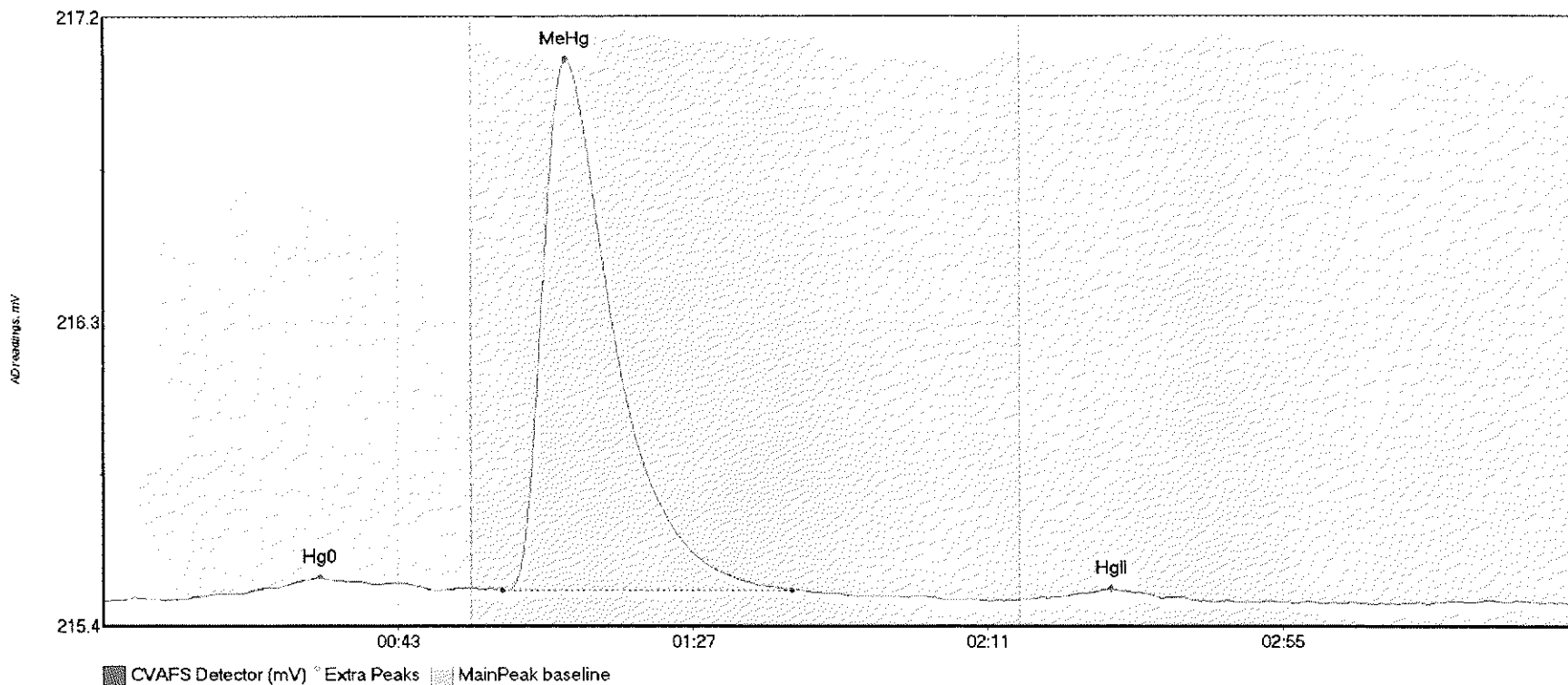


#32: 1706930-03



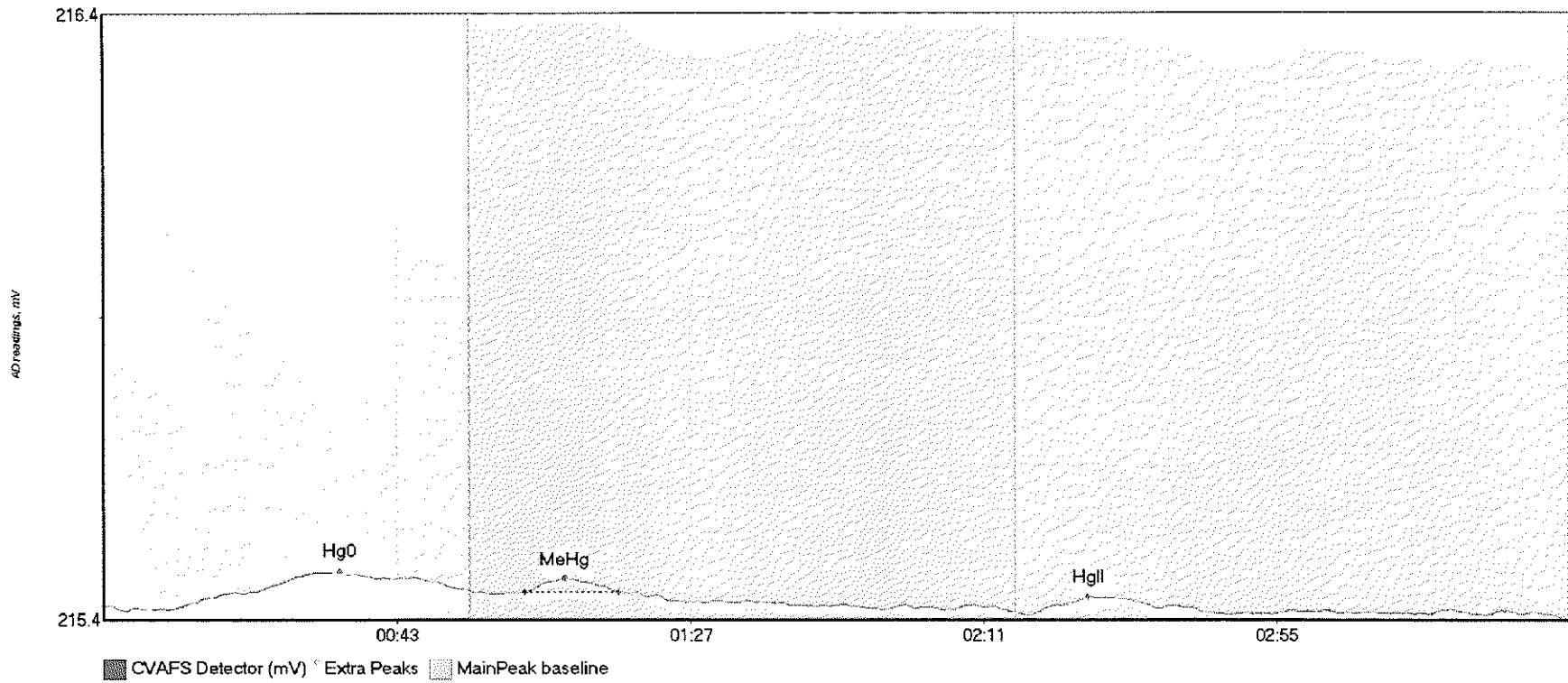
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-03 Hg0	12.785	10.5	55.0	215.50	215.55	34.2	0.079	CT	215.5002	0.00	0.01	
1706930-03 MeHg	254.823	58.7	109.1	215.55	215.54	69.4	2.031	OK	215.5002	0.00	0.01	
1706930-03 HgII	20.672	136.8	167.8	215.53	215.53	149.2	0.154	OK	215.5002	0.00	0.01	

#33: SEQ-CCV2



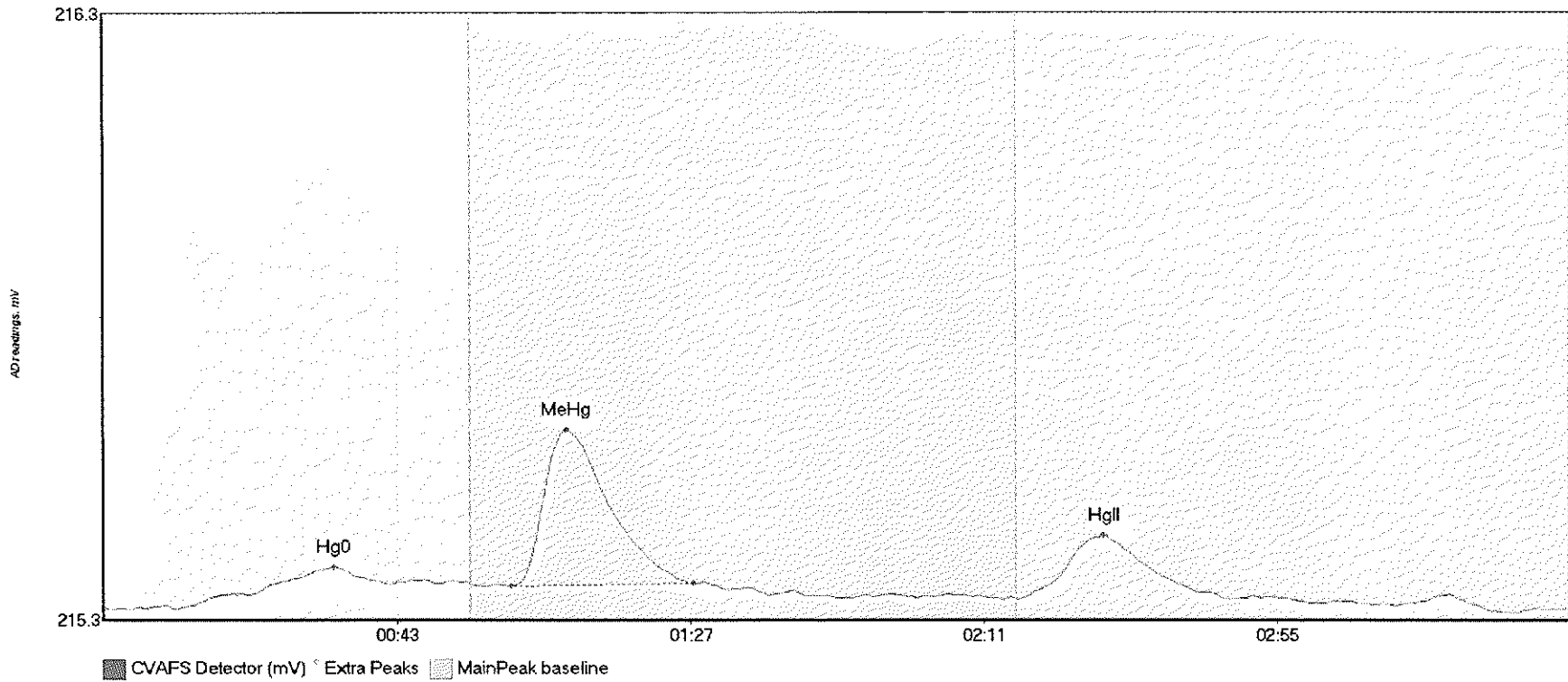
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	9.212	11.8	50.4	215.47	215.50	32.5	0.065	OK	215.4660	0.00	-0.01	
SEQ-CCV2 MeHg	196.349	59.6	102.7	215.50	215.50	69.2	1.591	OK	215.4660	0.00	-0.01	
SEQ-CCV2 HgII	2.330	141.0	158.2	215.48	215.48	150.4	0.026	OK	215.4660	0.00	-0.01	

#34: SEQ-CCB2



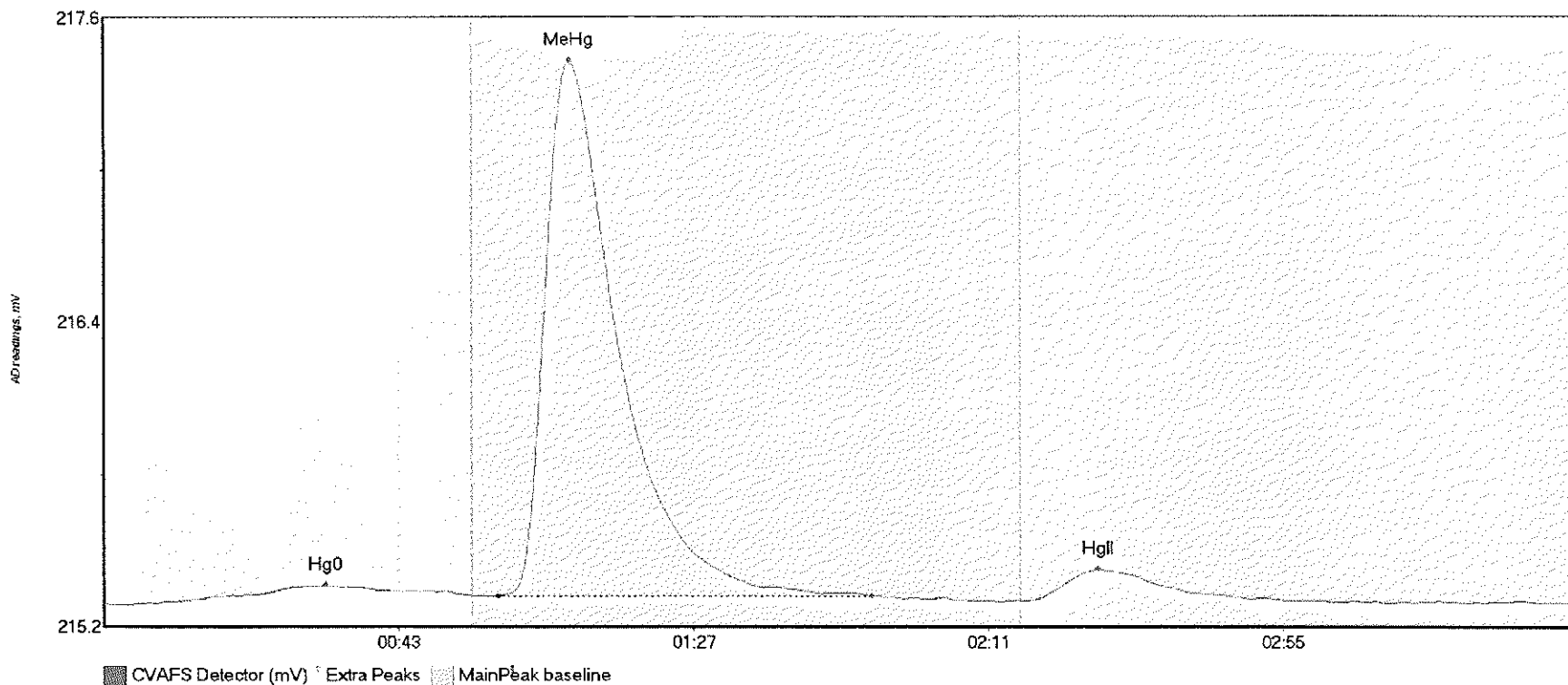
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	11.248	10.3	55.0	215.40	215.43	35.5	0.061	CT	215.4029	0.00	-0.02	
SEQ-CCB2 MeHg	1.864	63.1	77.1	215.43	215.43	69.1	0.024	OK	215.4029	0.00	-0.02	
SEQ-CCB2 HgII	4.247	139.0	165.4	215.39	215.39	147.8	0.030	OK	215.4029	0.00	-0.02	

#35: 1706930-04



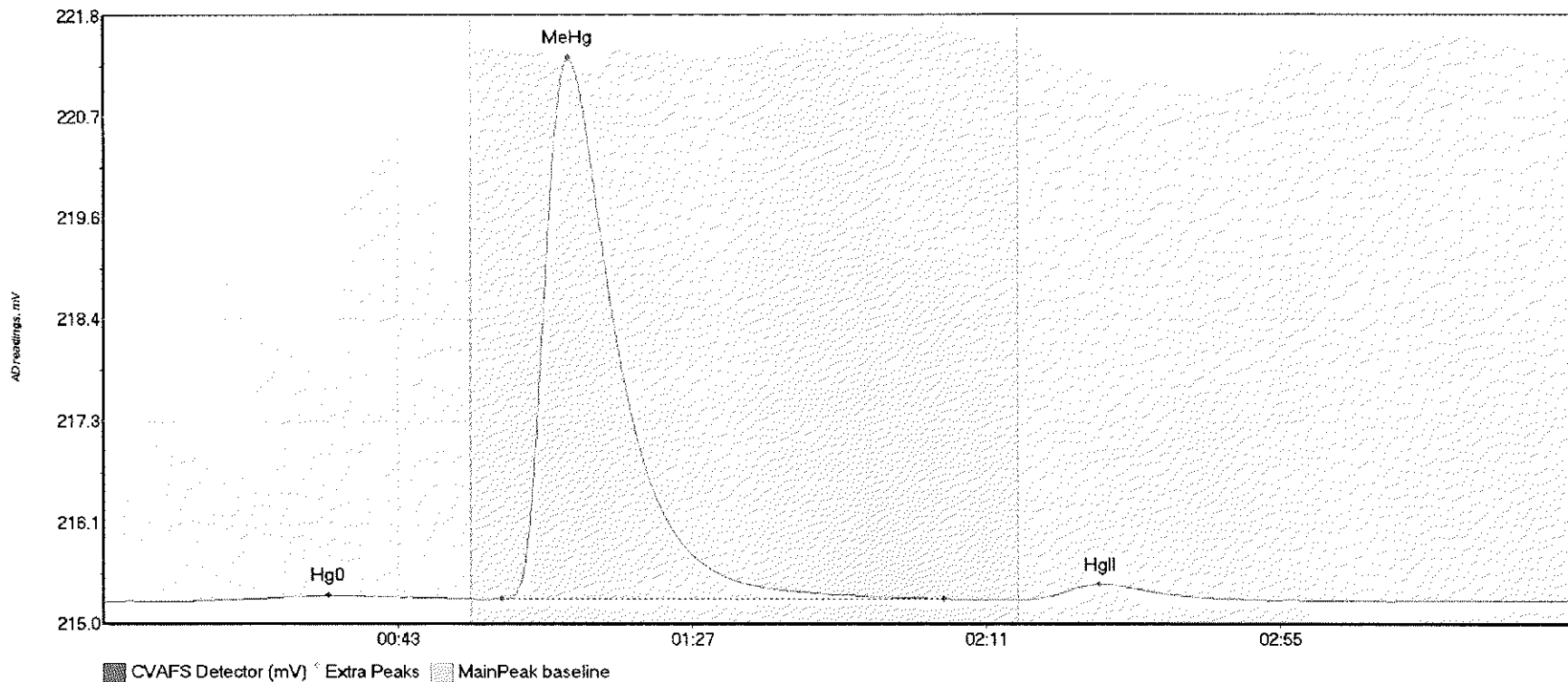
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-04 Hg0	5.314	12.8	42.8	215.35	215.39	34.6	0.064	OK	215.3478	0.00	0.00	
1706930-04 MeHg	28.903	61.1	88.5	215.38	215.39	69.5	0.258	OK	215.3478	0.00	0.00	
1706930-04 HgII	14.373	137.2	168.6	215.36	215.36	150.0	0.106	OK	215.3478	0.00	0.00	

#36: 1706930-05



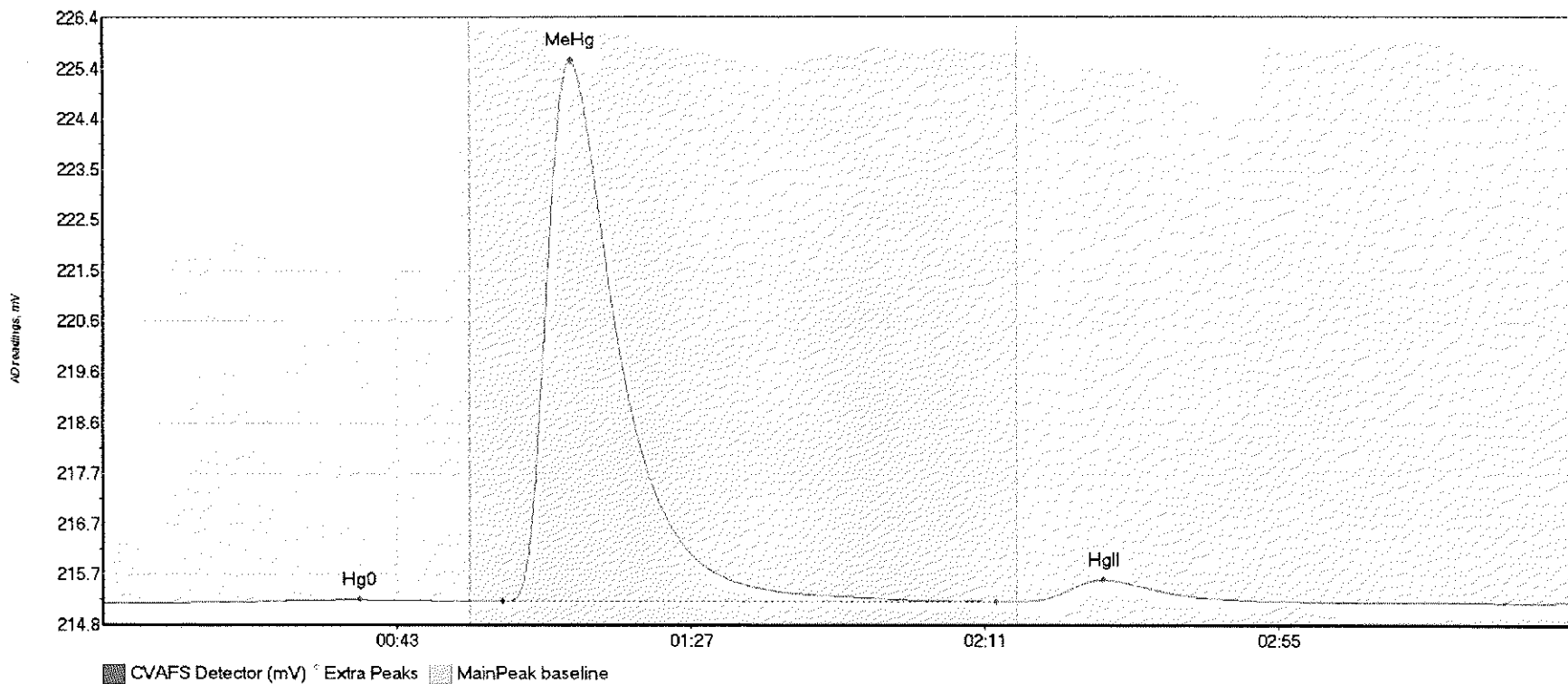
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-05 Hg0	12.373	7.9	55.0	215.30	215.33	33.1	0.067	CT	215.2963	0.00	0.00	
1706930-05 MeHg	260.210	58.9	114.6	215.33	215.33	69.6	2.057	OK	215.2963	0.00	0.00	
1706930-05 HgII	19.992	137.6	177.1	215.31	215.31	148.5	0.119	OK	215.2963	0.00	0.00	

#37: 1706930-06



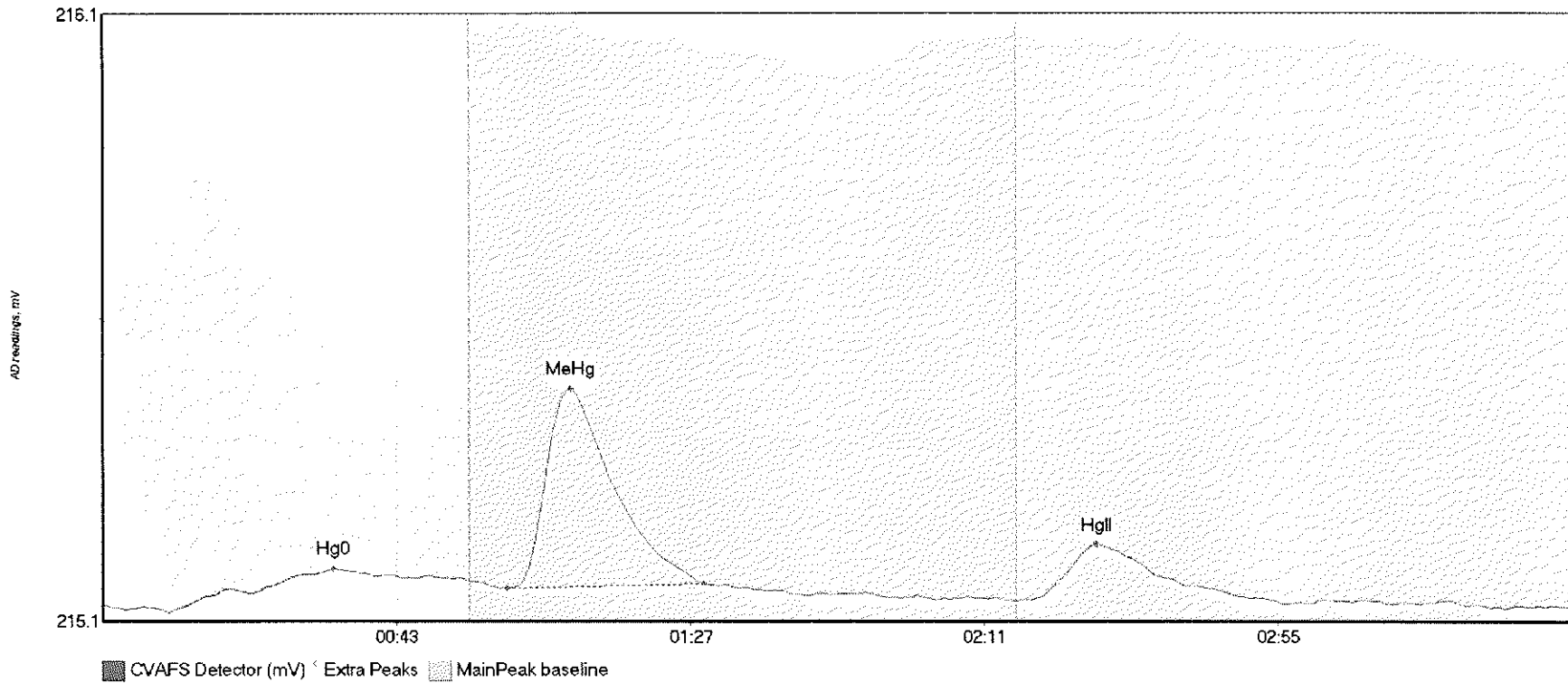
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-06 Hg0	11.540	13.0	55.0	215.26	215.28	33.6	0.064	CT	215.2522	0.00	0.01	
1706930-06 MeHg	769.200	59.6	125.8	215.28	215.28	69.6	6.058	OK	215.2522	0.00	0.01	
1706930-06 HgII	27.390	136.8	174.3	215.27	215.27	149.0	0.178	OK	215.2522	0.00	0.01	

#38: 1706930-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-07 Hg0	12.017	9.8	53.4	215.19	215.23	38.5	0.074	OK	215.1976	0.00	0.01	
1706930-07 MeHg	1313.772	59.9	133.7	215.23	215.24	70.1	10.321	OK	215.1976	0.00	0.01	
1706930-07 HgII	59.687	137.9	174.0	215.24	215.24	149.9	0.411	OK	215.1976	0.00	0.01	

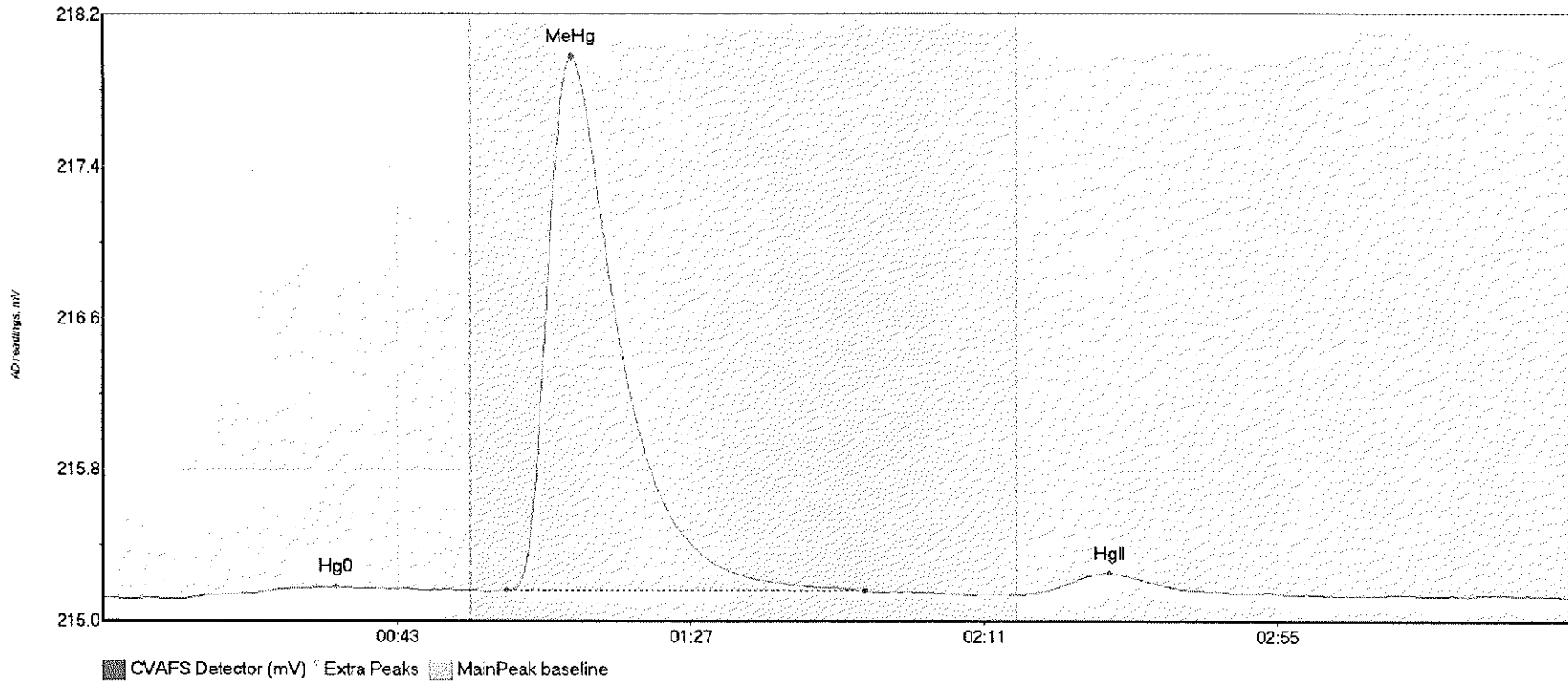
#39: 1706931-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-01 Hg0	10.430	10.0	55.0	215.15	215.20	34.6	0.071	CT	215.1565	0.00	0.00	
1706931-01 MeHg	38.153	60.6	90.0	215.19	215.19	70.1	0.330	OK	215.1565	0.00	0.00	
1706931-01 HgII	12.963	138.7	171.6	215.17	215.17	148.9	0.093	OK	215.1565	0.00	0.00	

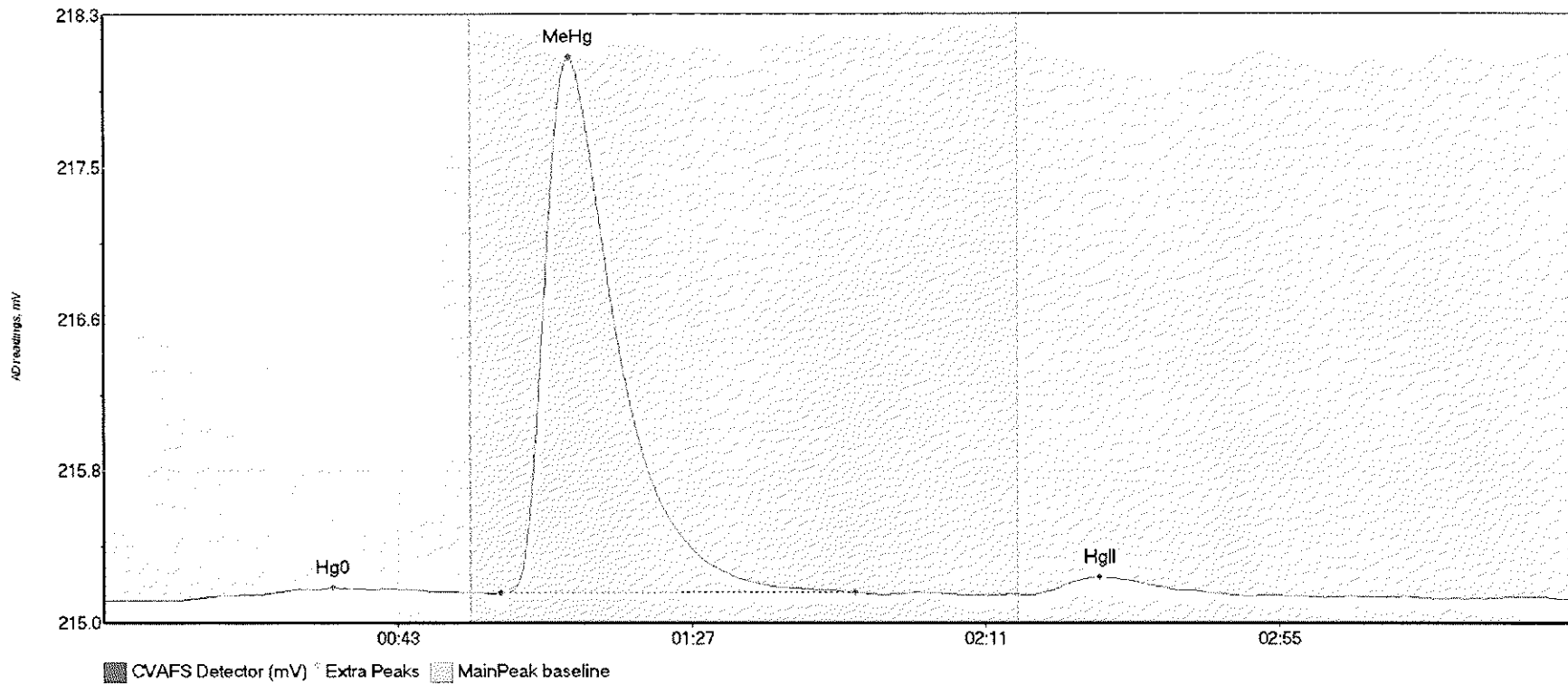


#40: 1706931-02



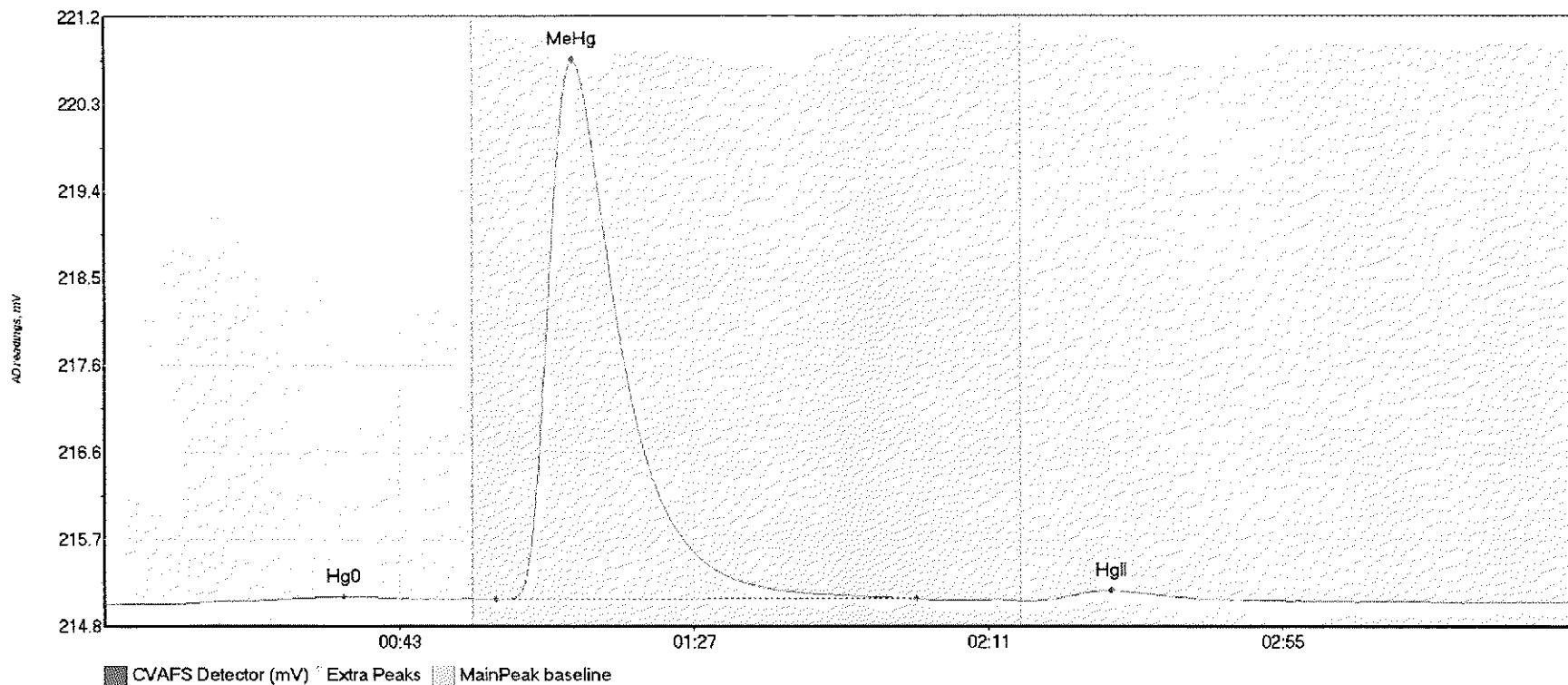
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-02 Hg0	8.834	11.3	52.7	215.11	215.16	34.8	0.065	OK	215.1146	0.00	0.00	
1706931-02 MeHg	358.585	60.5	114.1	215.15	215.15	70.2	2.848	OK	215.1146	0.00	0.00	
1706931-02 HgII	18.320	137.1	177.5	215.13	215.13	150.9	0.119	OK	215.1146	0.00	0.00	

#41: 1706931-03



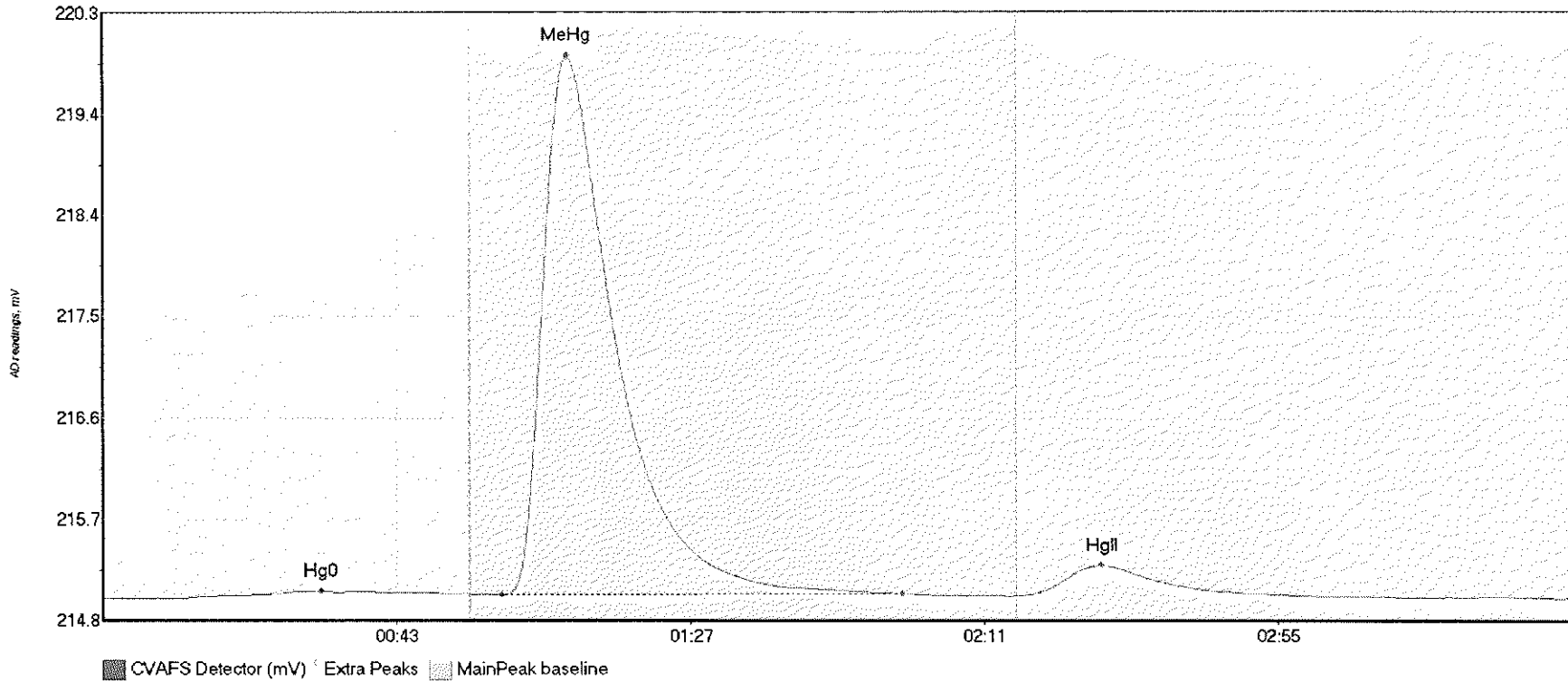
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-03 Hg0	11.171	11.3	55.0	215.08	215.12	34.3	0.068	CT	215.0802	0.00	0.01	
1706931-03 MeHg	368.924	59.4	112.5	215.12	215.12	69.7	2.937	OK	215.0802	0.00	0.01	
1706931-03 HgII	15.201	139.2	170.5	215.11	215.11	149.2	0.099	OK	215.0802	0.00	0.01	

#42: F707393-DUP1



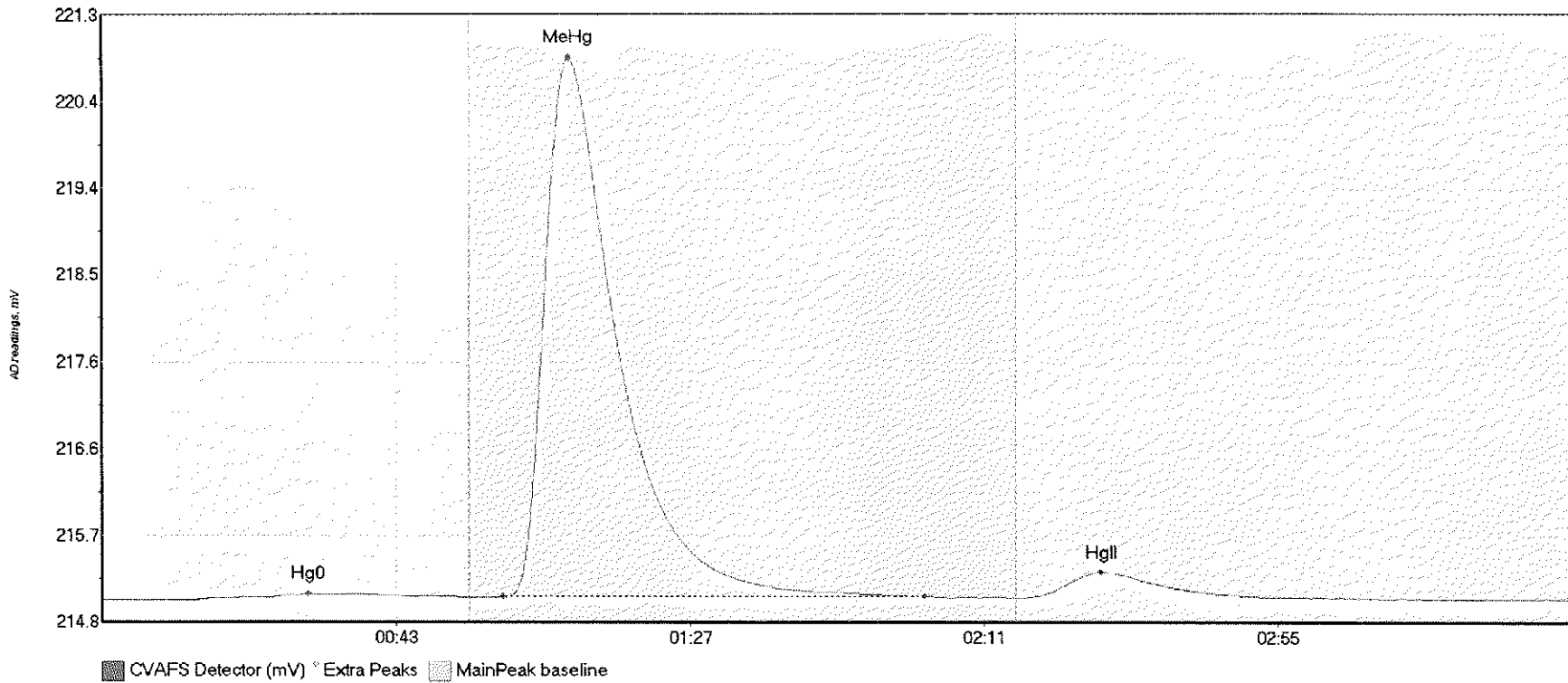
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-DUP1 Hg	9.838	10.3	51.3	215.04	215.10	35.7	0.078	OK	215.0453	0.00	0.02	
F707393-DUP1 Me	720.339	58.5	121.3	215.09	215.10	70.0	5.689	OK	215.0453	0.00	0.02	
F707393-DUP1 Hg	16.375	138.3	175.4	215.08	215.08	150.5	0.112	OK	215.0453	0.00	0.02	

#43: F707393-MS1



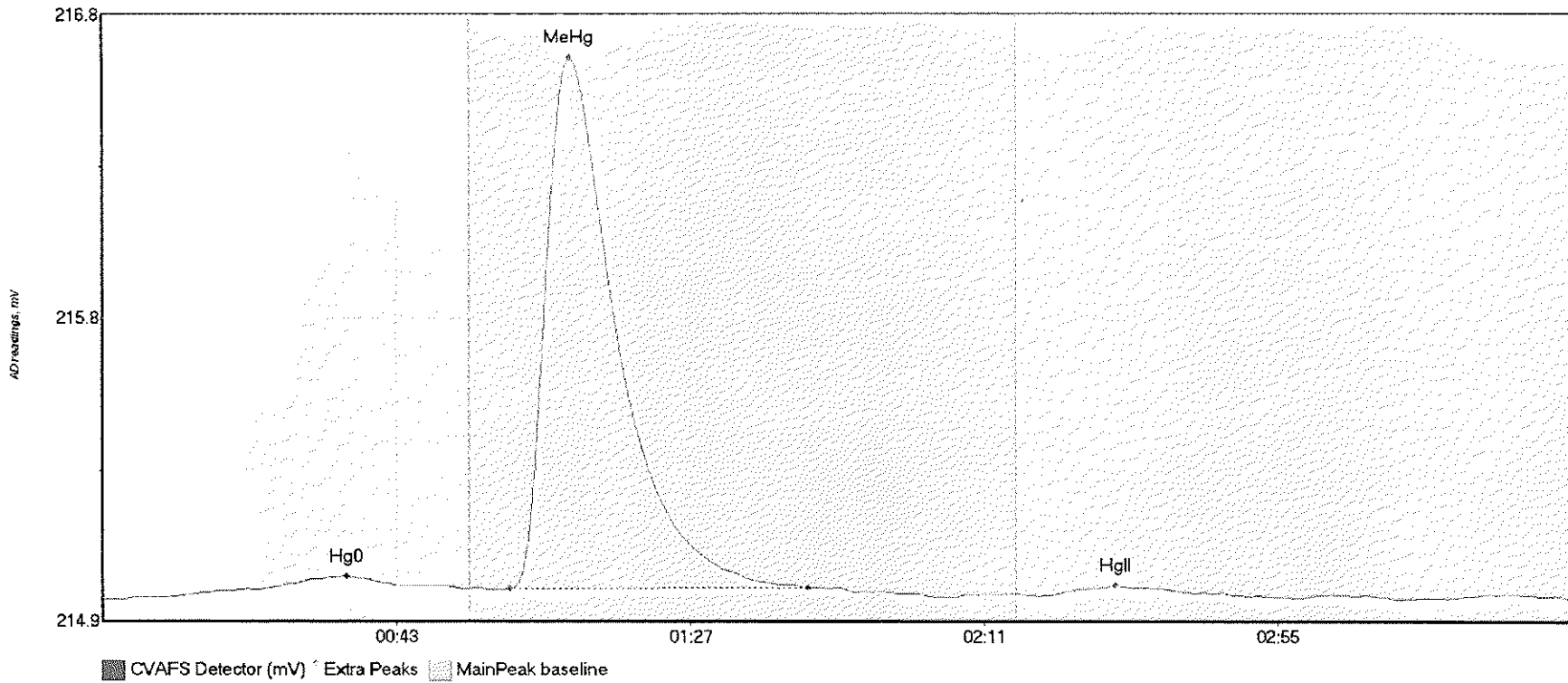
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS1	Hg0	12.3	55.0	215.02	215.06	32.7	0.060	CT	215.0202	0.00	0.01	
F707393-MS1	MeH	59.7	119.8	215.05	215.06	69.6	4.818	OK	215.0202	0.00	0.01	
F707393-MS1	HgI	136.8	178.4	215.04	215.05	149.6	0.276	OK	215.0202	0.00	0.01	

#44: F707393-MSD1

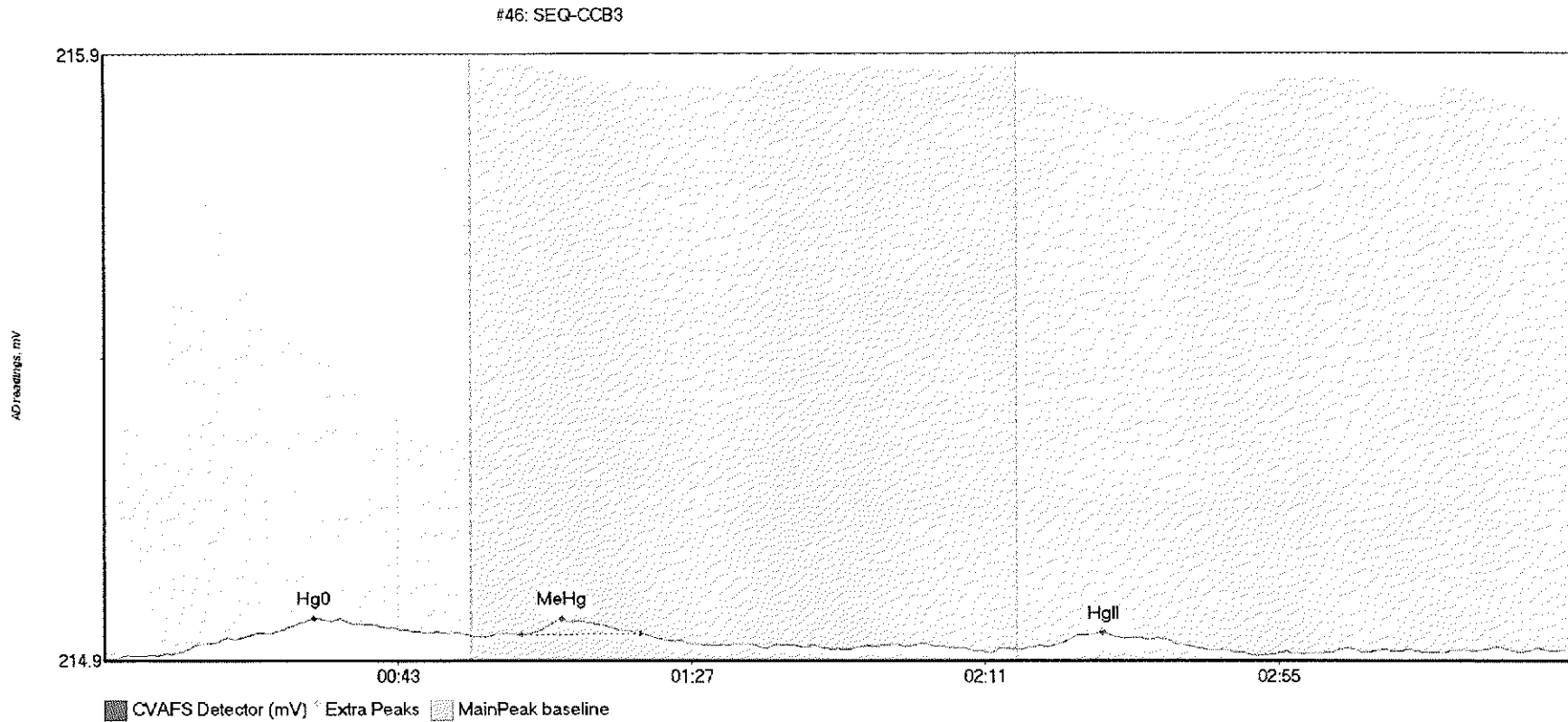


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD1 Hg	10.461	12.5	54.9	215.00	215.03	30.9	0.065	OK	214.9984	0.00	0.01	
F707393-MSD1 Me	735.949	60.0	123.2	215.03	215.03	69.9	5.821	OK	214.9984	0.00	0.01	
F707393-MSD1 Hg	42.093	137.8	176.9	215.02	215.02	149.6	0.276	OK	214.9984	0.00	0.01	

#45: SEQ-CCV3

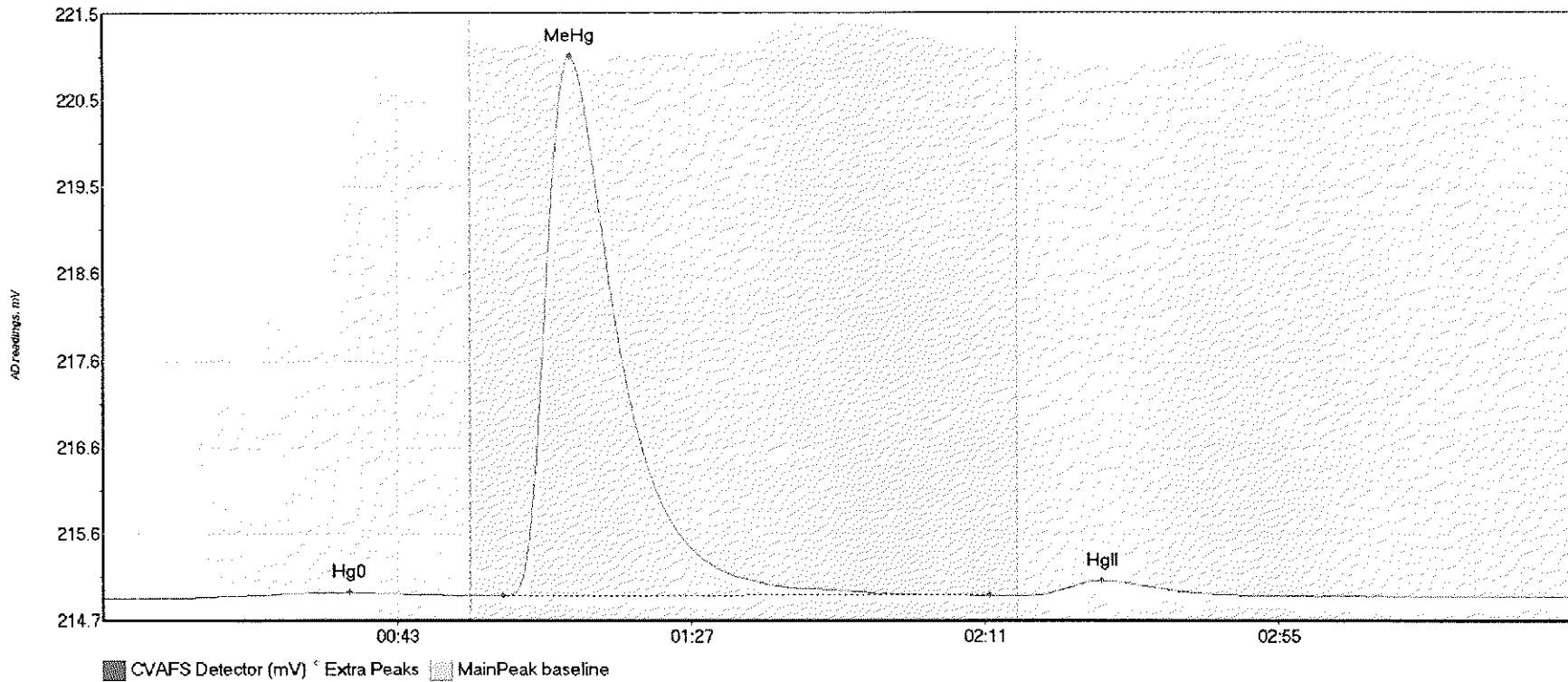


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	10.019	9.6	54.3	214.97	215.00	36.6	0.066	OK	214.9682	0.00	0.00	
SEQ-CCV3 MeHg	202.571	61.0	105.6	215.00	215.00	70.0	1.641	OK	214.9682	0.00	0.00	
SEQ-CCV3 HgII	3.473	141.6	163.7	214.98	214.98	151.7	0.031	OK	214.9682	0.00	0.00	



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	9.617	5.8	55.0	214.94	214.97	31.4	0.062	CT	214.9335	0.00	0.02	
SEQ-CCB3 MeHg	2.269	62.6	80.5	214.97	214.97	68.6	0.026	OK	214.9335	0.00	0.02	
SEQ-CCB3 HgII	3.003	141.9	164.0	214.95	214.95	149.7	0.024	OK	214.9335	0.00	0.02	

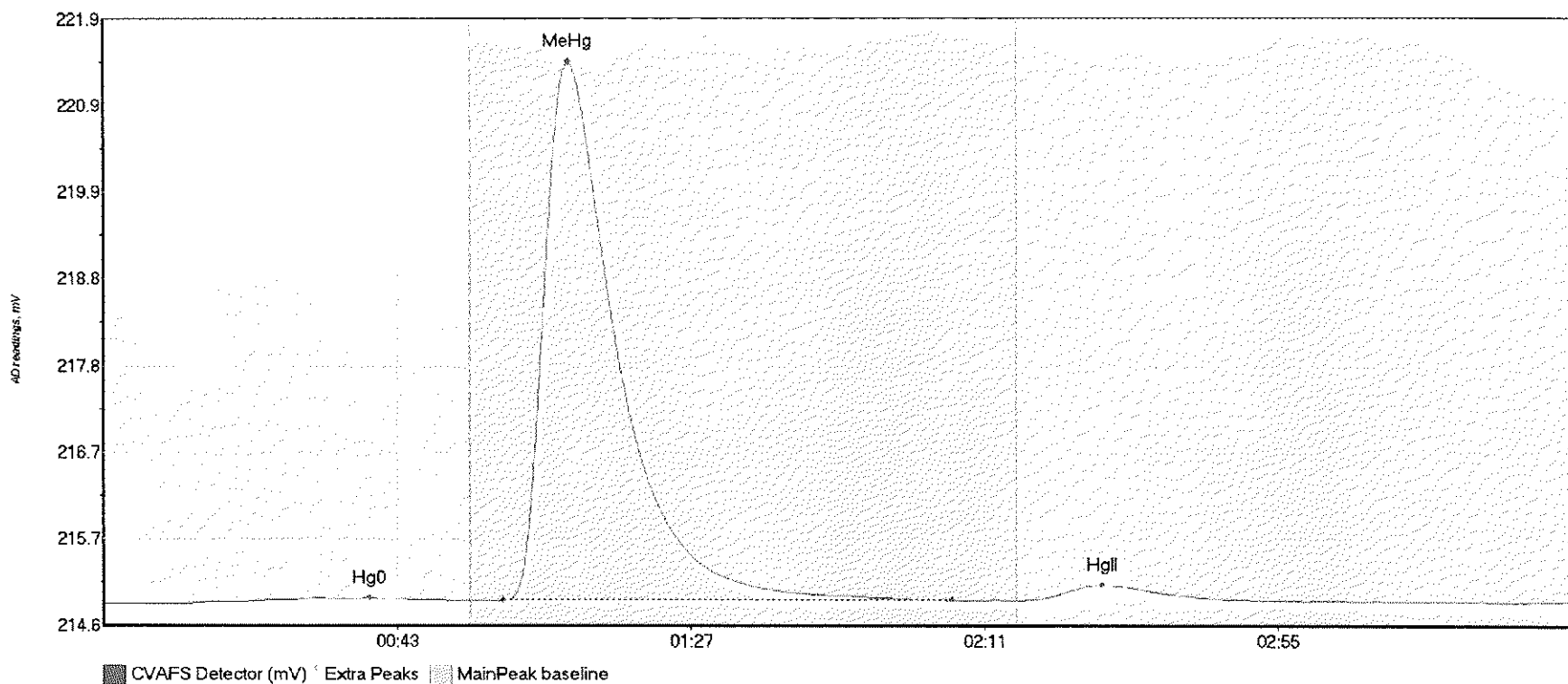
#47: F707393-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS2 Hg0	12.091	11.0	55.0	214.92	214.95	36.9	0.070	CT	214.9230	0.00	0.02	
F707393-MS2 MeH	767.828	59.9	132.8	214.95	214.96	70.0	6.024	OK	214.9230	0.00	0.02	
F707393-MS2 HgI	23.309	139.1	171.3	214.96	214.95	149.6	0.161	OK	214.9230	0.00	0.02	



#48: F707393-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD2 Hg	11.245	11.6	52.8	214.90	214.94	39.8	0.067	OK	214.9048	0.00	0.02	
F707393-MSD2 Me	823.300	59.8	127.2	214.94	214.94	69.7	6.474	OK	214.9048	0.00	0.02	
F707393-MSD2 Hg	26.837	137.4	171.2	214.94	214.94	149.8	0.185	OK	214.9048	0.00	0.02	



Frontier Global Sciences

MHg27001-170726-2

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: July 26, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G27015, 7G27016, 7G27013, 7G27014

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	21.09 units	421.75	21.09 units	421.75	97.6 %Rec
SEQ-CAL2	1	0.20 ng/L	76.14 units	380.72	76.14 units	380.72	88.1 %Rec
SEQ-CAL3	1	1.00 ng/L	429.02 units	429.02	429.02 units	429.02	99.3 %Rec
SEQ-CAL4	1	2.00 ng/L	901.94 units	450.97	901.94 units	450.97	104.3 %Rec
SEQ-CAL5	1	4.00 ng/L	1914.24 units	478.56	1914.24 units	478.56	110.7 %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  
 432.20            +/- 36.30            8.4% RSD            432.20

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	0.102 ng/L	±0.010
BLK	2	3	0.178 ng/L	±0.029
BLK	3	3	0.000 ng/L	±0.000
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS:    A   7/30/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	CAL	SEQ-IBL1	1	7/26/17 9:02	24233-1.RAW	9:02:24	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	7/26/17 9:12	24234-1.RAW	9:12:55	21.09				21.1	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	7/26/17 9:23	24235-1.RAW	9:23:25	76.14				76.1	0.176	0.176	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	7/26/17 9:33	24236-1.RAW	9:33:56	429.02				429.0	0.993	0.993	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	7/26/17 9:44	24237-1.RAW	9:44:27	901.94				901.9	2.087	2.087	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	7/26/17 9:54	24238-1.RAW	9:54:58	1914.24				1914.2	4.429	4.429	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	7/26/17 10:05	24239-1.RAW	10:05:28	210.94				210.9	0.488	0.488	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	7/26/17 10:15	24240-1.RAW	10:15:59	2.32				2.3	0.005	0.005	ng/L	
Hg2700-1	DM2	BLK	F707400-BLK1	1.25	7/26/17 10:42	24241-1.RAW	10:42:30	0.37		X		0.4	0.001	0.001	ng/L	
Hg2700-1	DM2	BLK	F707400-BLK2	1.25	7/26/17 10:53	24242-1.RAW	10:53:01	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707400-BLK3	1.25	7/26/17 11:03	24243-1.RAW	11:03:32	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707400-BS1	1.25	7/26/17 11:14	24244-1.RAW	11:14:02	297.67		X		297.7	0.689	0.681	ng/L	
Hg2700-1	DM2	SAM	F707400-BSD1	1.25	7/26/17 11:24	24245-1.RAW	11:24:33	314.39		X		314.4	0.727	0.909	ng/L	
Hg2700-1	DM2	SAM	F707400-DUP1	1.25	7/26/17 11:35	24246-1.RAW	11:35:03	20.84		X		20.8	0.048	0.060	ng/L	
Hg2700-1	DM2	SAM	F707400-MS1	1.25	7/26/17 11:45	24247-1.RAW	11:45:34	437.02		X		437.0	1.011	1.264	ng/L	
Hg2700-1	DM2	SAM	F707400-MSD1	1.25	7/26/17 11:56	24248-1.RAW	11:56:05	416.22		X		416.2	0.963	1.204	ng/L	
Hg2700-1	DM2	SAM	F707400-MS2	1.25	7/26/17 12:06	24249-1.RAW	12:06:35	200.34		X		200.3	0.464	0.579	ng/L	
Hg2700-1	DM2	SAM	F707400-MSD2	1.25	7/26/17 12:17	24250-1.RAW	12:17:06	234.16		X		234.2	0.542	0.677	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	7/26/17 12:27	24251-1.RAW	12:27:37	193.40				193.4	0.447	0.447	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	7/26/17 12:38	24252-1.RAW	12:38:07	0.72				0.7	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1706635-01RE1	1.25	7/26/17 12:48	24253-1.RAW	12:48:38	1.48		X		1.5	0.003	0.004	ng/L	
Hg2700-1	DM2	SAM	1706635-02RE1	1.25	7/26/17 12:59	24254-1.RAW	12:59:09	6.11		X		6.1	0.014	0.018	ng/L	
Hg2700-1	DM2	SAM	1706635-05RE1	1.25	7/26/17 13:09	24255-1.RAW	13:09:39	1.03		X		1.0	0.002	0.003	ng/L	
Hg2700-1	DM2	SAM	1706635-06RE1	1.25	7/26/17 13:20	24256-1.RAW	13:20:10	5.24		X		5.2	0.012	0.015	ng/L	
Hg2700-1	DM2	SAM	1706730-01RE1	1.25	7/26/17 13:30	24257-1.RAW	13:30:41	138.91		X		138.9	0.321	0.402	ng/L	
Hg2700-1	DM2	SAM	1706730-02RE1	1.25	7/26/17 13:41	24258-1.RAW	13:41:12	168.57		X		168.6	0.390	0.488	ng/L	
Hg2700-1	DM2	SAM	1706730-03RE1	1.25	7/26/17 13:51	24259-1.RAW	13:51:43	49.46		X		49.5	0.114	0.143	ng/L	
Hg2700-1	DM2	SAM	1706730-04RE1	1.25	7/26/17 14:02	24260-1.RAW	14:02:13	8.31		X		8.3	0.019	0.024	ng/L	
Hg2700-1	DM2	SAM	1706926-01RE1	1.25	7/26/17 14:12	24261-1.RAW	14:12:44	24.66		X		24.7	0.057	0.071	ng/L	
Hg2700-1	DM2	SAM	1706926-03RE1	1.25	7/26/17 14:23	24262-1.RAW	14:23:15	32.01		X		32.0	0.074	0.093	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	7/26/17 14:33	24263-1.RAW	14:33:45	176.38				176.4	0.408	0.408	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	7/26/17 14:44	24264-1.RAW	14:44:16	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1706926-04RE1	1.25	7/26/17 14:54	24265-1.RAW	14:54:47	9.57		X		9.6	0.022	0.028	ng/L	
Hg2700-1	DM2	SAM	1706926-05RE1	1.25	7/26/17 15:05	24266-1.RAW	15:05:17	12.72		X		12.7	0.029	0.037	ng/L	
Hg2700-1	DM2	SAM	1706926-06RE1	1.25	7/26/17 15:15	24267-1.RAW	15:15:48	8.22		X		8.2	0.019	0.024	ng/L	
Hg2700-1	DM2	SAM	1707149-01RE1	1.25	7/26/17 15:26	24268-1.RAW	15:26:19	130.20		X		130.2	0.301	0.377	ng/L	
Hg2700-1	DM2	SAM	1707149-02RE1	1.25	7/26/17 15:36	24269-1.RAW	15:36:49	113.58		X		113.6	0.263	0.328	ng/L	
Hg2700-1	DM2	SAM	1707149-03RE1	1.25	7/26/17 15:47	24270-1.RAW	15:47:29	121.01		X		121.0	0.280	0.350	ng/L	
Hg2700-1	DM2	SAM	1707149-04RE1	1.25	7/26/17 16:13	24271-1.RAW	16:13:10	124.29		X		124.3	0.288	0.359	ng/L	
Hg2700-1	DM2	SAM	1707149-05RE1	1.25	7/26/17 16:23	24272-1.RAW	16:23:40	132.99		X		133.0	0.308	0.385	ng/L	
Hg2700-1	DM2	SAM	1707149-06RE1	1.25	7/26/17 16:34	24273-1.RAW	16:34:11	126.68		X		126.7	0.293	0.366	ng/L	
Hg2700-1	DM2	SAM	1707538-01	1.25	7/26/17 16:44	24274-1.RAW	16:44:42	18.61		X		18.6	0.043	0.054	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	7/26/17 16:55	24275-1.RAW	16:55:13	191.40				191.4	0.443	0.443	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	7/26/17 17:05	24276-1.RAW	17:05:43	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707413-BLK1	1	7/26/17 17:16	24277-1.RAW	17:16:14	46.02				46.0	0.106	0.106	ng/L	
Hg2700-1	DM2	BLK	F707413-BLK2	1	7/26/17 17:26	24278-1.RAW	17:26:45	46.95				46.9	0.109	0.109	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2700-1	DM2	BLK	F707413-BLK3	1	7/26/17 17:37	24279-1.RAW	17:37:15	39.25	1		39.2	0.091	0.091	ng/L	
Hg2700-1	DM2	SAM	F707413-BS1	10	7/26/17 17:47	24280-1.RAW	17:47:46	336.61	1		336.6	0.769	7.686	ng/L	
Hg2700-1	DM2	SAM	F707413-BS01	10	7/26/17 17:58	24281-1.RAW	17:58:17	256.26	1		256.3	0.583	5.827	ng/L	
Hg2700-1	DM2	SAM	F707413-DUP1	1	7/26/17 18:08	24282-1.RAW	18:08:48	82.28	1		82.3	0.088	0.088	ng/L	
Hg2700-1	DM2	SAM	F707413-MS1	10	7/26/17 18:19	24283-1.RAW	18:19:20	384.78	1		384.8	0.880	8.801	ng/L	
Hg2700-1	DM2	SAM	F707413-MSD1	10	7/26/17 18:29	24284-1.RAW	18:29:50	393.58	1		393.6	0.900	9.004	ng/L	
Hg2700-1	DM2	SAM	1707106-01RE1	1	7/26/17 18:40	24285-1.RAW	18:40:21	132.45	1		132.4	0.204	0.204	ng/L	
Hg2700-1	DM2	SAM	1707106-02RE1	1	7/26/17 18:50	24286-1.RAW	18:50:52	98.89	1		98.9	0.127	0.127	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	7/26/17 19:01	24287-1.RAW	19:01:22	188.06			188.1	0.435	0.435	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	7/26/17 19:11	24288-1.RAW	19:11:53	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707440-BLK1	1	7/26/17 19:22	24289-1.RAW	19:22:24	62.87	2		62.9	0.145	0.145	ng/L	
Hg2700-1	DM2	BLK	F707440-BLK2	1	7/26/17 19:32	24290-1.RAW	19:32:55	87.41	2		87.4	0.202	0.202	ng/L	
Hg2700-1	DM2	BLK	F707440-BLK3	1	7/26/17 19:43	24291-1.RAW	19:43:26	80.40	2		80.4	0.186	0.186	ng/L	
Hg2700-1	DM2	SAM	F707440-BS1	1	7/26/17 19:53	24292-1.RAW	19:53:57	60.44	2		60.4	-0.038	-0.038	ng/L	
Hg2700-1	DM2	SAM	F707440-BS2	1	7/26/17 20:04	24293-1.RAW	20:04:44	76.98	2		77.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707500-14	1	7/26/17 20:15	24294-1.RAW	20:15:15	41.42	2		41.4	-0.082	-0.082	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK6	500	7/26/17 20:25	24295-1.RAW	20:25:46	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK7	500	7/26/17 20:36	24296-1.RAW	20:36:16	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK8	500	7/26/17 20:46	24297-1.RAW	20:46:47	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707393-MS3	1000	7/26/17 20:57	24298-1.RAW	20:57:17	564.52	3		564.5	1.306	1306.155	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	7/26/17 21:07	24299-1.RAW	21:07:48	191.74			191.7	0.444	0.444	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	7/26/17 21:18	24300-1.RAW	21:18:19	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD3	1000	7/26/17 21:28	24301-1.RAW	21:28:50	839.22	3		839.2	1.942	1941.725	ng/L	
Hg2700-1	DM2	SAM	F707393-MS4	2500	7/26/17 21:39	24302-1.RAW	21:39:20	813.40	3		813.4	1.882	4704.998	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD4	2500	7/26/17 21:49	24303-1.RAW	21:49:51	831.23	3		831.2	1.923	4808.069	ng/L	
Hg2700-1	DM2	SAM	1706929-01RE1	500	7/26/17 22:00	24304-1.RAW	22:00:22	28.03	3		28.0	0.065	32.424	ng/L	
Hg2700-1	DM2	SAM	1706929-07RE1	2500	7/26/17 22:10	24305-1.RAW	22:10:53	814.24	3		814.2	1.884	4709.819	ng/L	
Hg2700-1	DM2	SAM	1706930-01RE1	1000	7/26/17 22:21	24306-1.RAW	22:21:23	335.21	3		335.2	0.776	775.587	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	7/26/17 22:31	24307-1.RAW	22:31:54	200.97			201.0	0.465	0.465	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	7/26/17 22:42	24308-1.RAW	22:42:24	1.10			1.1	0.003	0.003	ng/L	



Frontier Global Sciences

**MHg27001-170726-1**

**Analysis Datasheet for Methyl Mercury in Waters**

Date of Analysis: July 26, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G27014

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	21.09 units	421.75	21.09 units	421.75	97.6 %Rec
SEQ-CAL2	1	0.20 ng/L	76.14 units	380.72	76.14 units	380.72	88.1 %Rec
SEQ-CAL3	1	1.00 ng/L	429.02 units	429.02	429.02 units	429.02	99.3 %Rec
SEQ-CAL4	1	2.00 ng/L	901.94 units	450.97	901.94 units	450.97	104.3 %Rec
SEQ-CAL5	1	4.00 ng/L	1914.24 units	478.56	1914.24 units	478.56	110.7 %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**    **Eff Factor**  
 432.20            +/- 36.30            8.4% RSD            432.20            **0.8690**

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

**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

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.000 ng/L	±0.001
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	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hq2700-1	DM2	CAL	SEQ-IBL1	1	7/26/17 9:02	24233-1.RAW	9:02	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	7/26/17 9:12	24234-1.RAW	#####	21.09				21.1	0.049	0.049	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	7/26/17 9:23	24235-1.RAW	#####	76.14				76.1	0.176	0.176	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	7/26/17 9:33	24236-1.RAW	#####	429.02				429.0	0.993	0.993	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	7/26/17 9:44	24237-1.RAW	#####	901.94				901.9	2.087	2.087	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	7/26/17 9:54	24238-1.RAW	#####	1914.24				1914.2	4.429	4.429	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICV1	1	7/26/17 10:05	24239-1.RAW	#####	210.94				210.9	0.488	0.488	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICB1	1	7/26/17 10:15	24240-1.RAW	#####	2.32				2.3	0.005	0.005	ng/L	
Hq2700-1	DM2	BLK	F707400-BLK1	1.25	7/26/17 10:42	24241-1.RAW	#####	0.37		1		0.4	0.001	0.001	ng/L	
Hq2700-1	DM2	BLK	F707400-BLK2	1.25	7/26/17 10:53	24242-1.RAW	#####	0.00		1		0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F707400-BLK3	1.25	7/26/17 11:03	24243-1.RAW	#####	0.00		1		0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F707400-BS1	1.25	7/26/17 11:14	24244-1.RAW	#####	297.67		1		297.7	0.792	0.990	ng/L	
Hq2700-1	DM2	SAM	F707400-BSD1	1.25	7/26/17 11:24	24245-1.RAW	#####	314.39		1		314.4	0.837	1.046	ng/L	
Hq2700-1	DM2	SAM	F707400-DUP1	1.25	7/26/17 11:35	24246-1.RAW	#####	20.84		1		20.8	0.055	0.069	ng/L	
Hq2700-1	DM2	SAM	F707400-MS1	1.25	7/26/17 11:45	24247-1.RAW	#####	437.02		1		437.0	1.163	1.454	ng/L	
Hq2700-1	DM2	SAM	F707400-MSD1	1.25	7/26/17 11:56	24248-1.RAW	#####	416.22		1		416.2	1.108	1.385	ng/L	
Hq2700-1	DM2	SAM	F707400-MS2	1.25	7/26/17 12:06	24249-1.RAW	#####	200.34		1		200.3	0.533	0.666	ng/L	
Hq2700-1	DM2	SAM	F707400-MSD2	1.25	7/26/17 12:17	24250-1.RAW	#####	234.16		1		234.2	0.623	0.779	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	7/26/17 12:27	24251-1.RAW	#####	193.40				193.4	0.447	0.447	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	7/26/17 12:38	24252-1.RAW	#####	0.72				0.7	0.002	0.002	ng/L	
Hq2700-1	DM2	SAM	1706635-01RE1	1.25	7/26/17 12:48	24253-1.RAW	#####	1.48		1		1.5	0.004	0.005	ng/L	
Hq2700-1	DM2	SAM	1706635-02RE1	1.25	7/26/17 12:59	24254-1.RAW	#####	6.11		1		6.1	0.016	0.020	ng/L	
Hq2700-1	DM2	SAM	1706635-05RE1	1.25	7/26/17 13:09	24255-1.RAW	#####	1.03		1		1.0	0.002	0.003	ng/L	
Hq2700-1	DM2	SAM	1706635-06RE1	1.25	7/26/17 13:20	24256-1.RAW	#####	5.24		1		5.2	0.014	0.017	ng/L	
Hq2700-1	DM2	SAM	1706730-01RE1	1.25	7/26/17 13:30	24257-1.RAW	#####	138.91		1		138.9	0.370	0.462	ng/L	
Hq2700-1	DM2	SAM	1706730-02RE1	1.25	7/26/17 13:41	24258-1.RAW	#####	168.57		1		168.6	0.449	0.561	ng/L	
Hq2700-1	DM2	SAM	1706730-03RE1	1.25	7/26/17 13:51	24259-1.RAW	#####	49.46		1		49.5	0.131	0.164	ng/L	
Hq2700-1	DM2	SAM	1706730-04RE1	1.25	7/26/17 14:02	24260-1.RAW	#####	8.31		1		8.3	0.022	0.027	ng/L	
Hq2700-1	DM2	SAM	1706926-01RE1	1.25	7/26/17 14:12	24261-1.RAW	#####	24.66		1		24.7	0.065	0.082	ng/L	
Hq2700-1	DM2	SAM	1706926-03RE1	1.25	7/26/17 14:23	24262-1.RAW	#####	32.01		1		32.0	0.085	0.106	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	7/26/17 14:33	24263-1.RAW	#####	176.38				176.4	0.408	0.408	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	7/26/17 14:44	24264-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1706926-04RE1	1.25	7/26/17 14:54	24265-1.RAW	#####	9.57		1		9.6	0.025	0.031	ng/L	
Hq2700-1	DM2	SAM	1706926-05RE1	1.25	7/26/17 15:05	24266-1.RAW	#####	12.72		1		12.7	0.034	0.042	ng/L	
Hq2700-1	DM2	SAM	1706926-06RE1	1.25	7/26/17 15:15	24267-1.RAW	#####	8.22		1		8.2	0.022	0.027	ng/L	
Hq2700-1	DM2	SAM	1707149-01RE1	1.25	7/26/17 15:26	24268-1.RAW	#####	130.20		1		130.2	0.346	0.433	ng/L	
Hq2700-1	DM2	SAM	1707149-02RE1	1.25	7/26/17 15:36	24269-1.RAW	#####	113.58		1		113.6	0.302	0.378	ng/L	
Hq2700-1	DM2	SAM	1707149-03RE1	1.25	7/26/17 15:47	24270-1.RAW	15:47:29	121.01		1		121.0	0.322	0.402	ng/L	
Hq2700-1	DM2	SAM	1707149-04RE1	1.25	7/26/17 16:13	24271-1.RAW	#####	124.29		1		124.3	0.331	0.413	ng/L	
Hq2700-1	DM2	SAM	1707149-05RE1	1.25	7/26/17 16:23	24272-1.RAW	#####	132.99		1		133.0	0.354	0.442	ng/L	
Hq2700-1	DM2	SAM	1707149-06RE1	1.25	7/26/17 16:34	24273-1.RAW	#####	126.68		1		126.7	0.337	0.421	ng/L	
Hq2700-1	DM2	SAM	1707538-01	1.25	7/26/17 16:44	24274-1.RAW	#####	18.61		1		18.6	0.049	0.062	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	7/26/17 16:55	24275-1.RAW	#####	191.40				191.4	0.443	0.443	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	7/26/17 17:05	24276-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	

ANALYSIS SEQUENCE

7G27015

QUALITY ASSURANCE  
PEER-REVIEWED

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: R 7/30/17  
Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27015-IBL1 ✓	QC	1			
7G27015-CAL1 ✓	QC	2	1704180	✓	
7G27015-CAL2 ✓	QC	3	1704181	✓	
7G27015-CAL3 ✓	QC	4	1704182	✓	
7G27015-CAL4 ✓	QC	5	1704183	✓	
7G27015-CAL5 ✓	QC	6	1704184	✓	
7G27015-ICV1 ✓	QC	7	1703246	✓	
7G27015-ICB1 ✓	QC	8			
7G27015-CCV1 ✓	QC	9	1703246	✓	
7G27015-CCB1 ✓	QC	10			
7G27015-CCV2 ✓	QC	11	1703246	✓	
7G27015-CCB2 ✓	QC	12			
7G27015-CCV3 ✓	QC	13	1703246	✓	
7G27015-CCB3 ✓	QC	14			
7G27015-CCV4 ✓	QC	15	1703246	✓	
7G27015-CCB4 ✓	QC	16			
F707440-BLK1 ✓	QC	17			
F707440-BLK2 ✓	QC	18			
F707440-BLK3 ✓	QC	19			
F707440-BS1 ✓	QC	20			
F707440-BS2 ✓	QC	21			
1707500-14 ✓	MHg-CVAFS-S-MeClExt DOD	22			Spike at specified level
7G27015-CCV5 ✓	QC	23	1703246	✓	
7G27015-CCB5 ✓	QC	24			

Don Moseem 7/26/17  
Samples Loaded By \_\_\_\_\_ Date

Don Moseem 7/27/17  
Data Processed By \_\_\_\_\_ Date

**PREPARATION BENCH SHEET**

F707440

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg**

**Prepared: 7/25/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707440-BLK1	Blank	0.5	250					
F707440-BLK2	Blank	0.5	250					
F707440-BLK3	Blank	0.5	250					
F707440-BS1	LOD	0.5	250	1704143	20			
F707440-BS2	LOQ	0.5	250	1704143	50			

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration:  
 10-Oct-17 00:00  
 10-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702236	Dichloromethane	14-Apr-20 00:00
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703704	Ethylating Agent (For Methyl Mercury Analysis)	18-Dec-17 00:00
1703755	Acetate Buffer	20-Dec-17 00:00
1703955	Acid Bromide	30-Jul-17 00:00
1704394	CuSO4	16-Jan-18 00:00



PREPARATION BENCH SHEET

F707440

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl<sub>2</sub> Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-14	Q3 LOD/LOQ - 2700	0.5	288	-	-	-	Spike at specified level	



PREPARATION BENCH SHEET

2700-1

F707440

7/26/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707440-BLK1	Blank	0.5	250					IX
F707440-BLK2	Blank	0.5	250					IX
F707440-BLK3	Blank	0.5	250					IX
F707440-BS1	LOD	0.5	250	1704143	20			IX
F707440-BS2	LOQ	0.5	250	1704143	50			IX

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration:  
 10-Oct-17 00:00  
 10-Oct-17 00:00

Reagent ID(s):  
 1702236  
 1702551  
 1703955  
 1704394

Description:  
 Dichloromethane  
 Boiling Chips for AFS prep  
 Acid Bromide  
 CuSO4

Expiration:  
 14-Apr-20 00:00  
 31-Dec-17 00:00  
 30-Jul-17 00:00  
 16-Jan-18 00:00

1703755

1703704

PREPARATION BENCH SHEET

F707440

Eurofins Frontier Global Sciences, Inc.

2700-1

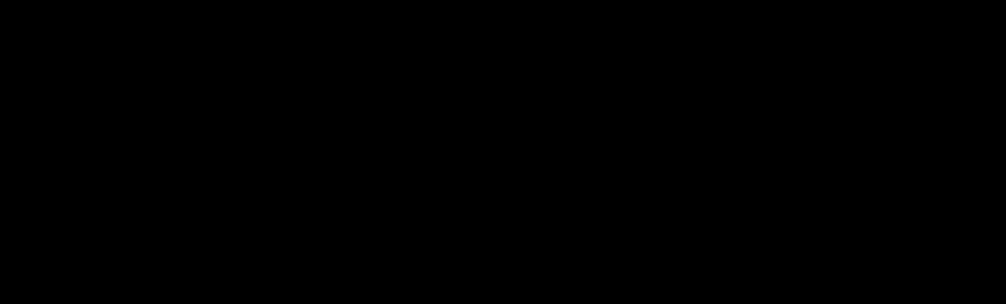
7/26/17 DM

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl<sub>2</sub> Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-14	Q3 LOD/LOQ - 2700	0.5	288	-	-	-	Spike at specified level	1X



**Methyl Mercury Sediment Preparation : EFAFS-T-AFS-SOP5134**

Technician: Dryden Batch#: F707440 Date: 7-20-17  
 Heat Block 45°C (nitrogen purge for 30 minutes). Balance#: 19 Calibrated?  Yes  No

Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)	Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)
<u>7/25/17</u>							
1 <sup>st</sup> time in: <u>13:50</u>	<u>49.3</u>	<u>48.8</u>	<u>11</u>	1 <sup>st</sup> time in:			
1 <sup>st</sup> time out: <u>14:20</u>	<u>48.4</u>	<u>47.6</u>	<u>11</u>	1 <sup>st</sup> time out:			
2 <sup>nd</sup> time in:				2 <sup>nd</sup> time in:			
2 <sup>nd</sup> time out:				2 <sup>nd</sup> time out:			
3 <sup>rd</sup> time in:				3 <sup>rd</sup> time in:			
3 <sup>rd</sup> time out:				3 <sup>rd</sup> time out:			
4 <sup>th</sup> time in:				4 <sup>th</sup> time in:			
4 <sup>th</sup> time out:				4 <sup>th</sup> time out:			

Final vol.: 50 mL (LIMS ID: N/A) Spike vol.: 20 µL (LIMS ID: 1704143)  
 BS1 = 50 µL

Spike Witness: DM 7/25/17 (initial and date)

Acid Bromide LIMS ID: 1703955

Pipette SN#: CJ17087 Calibration Date: 7-20-17

CH<sub>2</sub>Cl<sub>2</sub> LIMS ID: 1702236

Pipette SN#: NK07693 Calibration Date: 7/25/17

CuSO<sub>4</sub> LIMS ID: 1704394

Dispenser #: 12391047 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Boiling Chip lot # 1702551

Centrifuge Tube Lot #: J264713-3025

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 type="checkbox"/> g	Comments
1	F707440 Blk1	0.5412	23			Thermometer SN: <u>140418012</u> F707440 BS1 LOD = 20µL F707440 BS2 LOD = 50µL F707440 BS <sup>7/25/17</sup> ALL weighted sample on 7/25/17 Digestion on 7/25/17 7/25/17 50
2	F707440 Blk2	0.5512	24			
3	F707440 Blk3	0.4929	25			
4	F707440 BS1	0.5167	26			
5	F707440 BS2	0.5715	27			
6	1707560-14	0.5003	28			
7			29		<u>7/25/17</u>	
8			30		<u>48</u>	
9			31			
10		<u>7/25/17</u>	32			
11		<u>48</u>	33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Failing Data Report - 7G27015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707440-BLK1	MHg-CVAFS-S-MeClExt DOD	0.073	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707440-BLK2	MHg-CVAFS-S-MeClExt DOD	0.101	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707440-BLK3	MHg-CVAFS-S-MeClExt DOD	0.093	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707440-BS1	MHg-CVAFS-S-MeClExt DOD	-0.019	0.050			0.040040	ng/g		70.00	130.00			PASS-OVER	FAIL-BS	(LOQ) QB-02, QA-02
F707440-BS2	MHg-CVAFS-S-MeClExt DOD	0.0001	0.050			0.10010	ng/g		70.00	130.00			PASS-OVER	FAIL-BS	(LOQ) QB-02, QA-03

Den Mackam  
Analyst Reviewed By

7/27/17  
Date

[Signature]  
Peer Reviewed By

7/30/17  
Date

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G27014

PEER-REVIEWED

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: A 7/27/17 Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27014-IBL1 ✓	QC	1			
7G27014-CAL1 ✓	QC	2	1704180		
7G27014-CAL2 ✓	QC	3	1704181		
7G27014-CAL3 ✓	QC	4	1704182		
7G27014-CAL4 ✓	QC	5	1704183		
7G27014-CAL5 ✓	QC	6	1704184		
7G27014-ICV1 ✓	QC	7	1703246		
7G27014-ICB1 ✓	QC	8			
F707400-BLK1 ✓	QC	9			
F707400-BLK2 ✓	QC	10			
F707400-BLK3 ✓	QC	11			
F707400-BS1 ✓	QC	12			
F707400-BSD1 ✓	QC	13			
F707400-DUP1 ✓	QC	14			
F707400-MS1 ✓	QC	15			
F707400-MSD1 ✓	QC	16			
F707400-MS2 ✓	QC	17			
F707400-MSD2 ✓	QC	18			
7G27014-CCV1 ✓	QC	19	1703246		
7G27014-CCB1 ✓	QC	20			
1706635-01RE1 ✓	MHg-CVAFS-W-Dist	21			Re-extract added 7/16/2017 by PL
1706635-02RE1 ✓	MHg-CVAFS-W-Dist	22			Re-extract added 7/16/2017 by PL
1706635-05RE1 ✓	MHg-CVAFS-W-Dist	23			Re-extract added 7/16/2017 by PL
1706635-06RE1 ✓	MHg-CVAFS-W-Dist	24			Re-extract added 7/16/2017 by PL
1706730-01RE1 ✓	MHg-CVAFS-W-Dist	25			Re-extract added 7/18/2017 by PL
1706730-02RE1 ✓	MHg-CVAFS-W-Dist	26			Re-extract added 7/18/2017 by PL
1706730-03RE1 ✓	MHg-CVAFS-W-Dist	27			Re-extract added 7/18/2017 by PL
1706730-04RE1 ✓	MHg-CVAFS-W-Dist	28			Re-extract added 7/18/2017 by PL
1706926-01RE1 ✓	MHg-CVAFS-W-Dist	29			Re-extract added 7/18/2017 by PL
1706926-03RE1 ✓	MHg-CVAFS-W-Dist	30			Re-extract added 7/18/2017 by PL
7G27014-CCV2 ✓	QC	31	1703246		
7G27014-CCB2 ✓	QC	32			
1706926-04RE1 ✓	MHg-CVAFS-W-Dist	33			Re-extract added 7/18/2017 by PL
1706926-05RE1 ✓	MHg-CVAFS-W-Dist	34			Re-extract added 7/18/2017 by PL
1706926-06RE1 ✓	MHg-CVAFS-W-Dist	35			Re-extract added 7/18/2017 by PL

Due Date: 7/14/2017

143 of 251

Page 1 of 2

**ANALYSIS SEQUENCE**

**7G27014**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/26/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707149-01RE1 ✓	MHg-CVAFS-W-Dist	36			Re-extract added 7/16/2017 by PL
1707149-02RE1 ✓	MHg-CVAFS-W-Dist	37			Re-extract added 7/16/2017 by PL
1707149-03RE1 ✓	MHg-CVAFS-W-Dist	38			Re-extract added 7/16/2017 by PL
1707149-04RE1 ✓	MHg-CVAFS-W-Dist	39			Re-extract added 7/16/2017 by PL
1707149-05RE1 ✓	MHg-CVAFS-W-Dist	40			Re-extract added 7/16/2017 by PL
1707149-06RE1 ✓	MHg-CVAFS-W-Dist	41			Re-extract added 7/16/2017 by PL
1707538-01 ✓	MHg-CVAFS-W-Dist	42			
7G27014-CCV3 ✓	QC	43	1703246 ✓		
7G27014-CCB3 ✓	QC	44			

Don Mosem      7/26/17  
 Samples Loaded By      Date

Don Mosem      7/27/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F707400

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/25/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707400-BLK1	Blank	45	40					
F707400-BLK2	Blank	45	40					
F707400-BLK3	Blank	45	40					
F707400-BS1	Blank Spike	45	40	1704143	45			
F707400-BSD1	Blank Spike dup	45	40	1704143	45			
F707400-DUP1	Duplicate [1706926-01RE1] ✓	45	40					
F707400-MS1	Matrix Spike [1707149-01RE1] ✓	45	40	1704143	45			
F707400-MS2	Matrix Spike [1707538-01] ✓	45	40	1704143	45			
F707400-MSD1	Matrix Spike Dup [1707149-01RE1] ✓	45	40	1704143	45			
F707400-MSD2	Matrix Spike Dup [1707538-01] ✓	45	40	1704143	45			

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 10-Oct-17 00:00

<u>Reagent ID(s):</u> 1703704	<u>Description:</u> Ethylating Agent (For Methyl Mercury Analysis)	<u>Expiration:</u> 18-Dec-17 00:00
1703755	Acetate Buffer	20-Dec-17 00:00
1704481	APDC	31-Jul-17 00:00
1704498	0.4% HCl Distillation Dilute (Made Daily)	26-Jul-17 00:00
1704513	2.5% Ascorbic Acid	02-Aug-17 00:00



**PREPARATION BENCH SHEET**

F707400

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/25/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706635-01RE1	B172046 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706635-02RE1	B172034 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706635-05RE1	B172040 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706635-06RE1	B172060 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706730-01RE1	P88937-2	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706730-02RE1	P88937-3	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706730-03RE1	P88937-4	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706730-04RE1	P88937-7	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706926-01RE1	OL-2616-01	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-03RE1	OL-2616-02	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-04RE1	OL-2616-03	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-05RE1	OL-2616-04	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-06RE1	OL-2616-05	45	40	-	-	-	Preservation Blank created Re-extract a	
1707149-01RE1	1707051-001C 7070316-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-02RE1	1707051-002C 7070317-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-03RE1	1707051-003C 7070407-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-04RE1	1707051-004C 7070408-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-05RE1	1707051-005C 7070411-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-06RE1	1707051-006C 7070412-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	

Due Date: 7/14/2017

PREPARATION BENCH SHEET

F707400

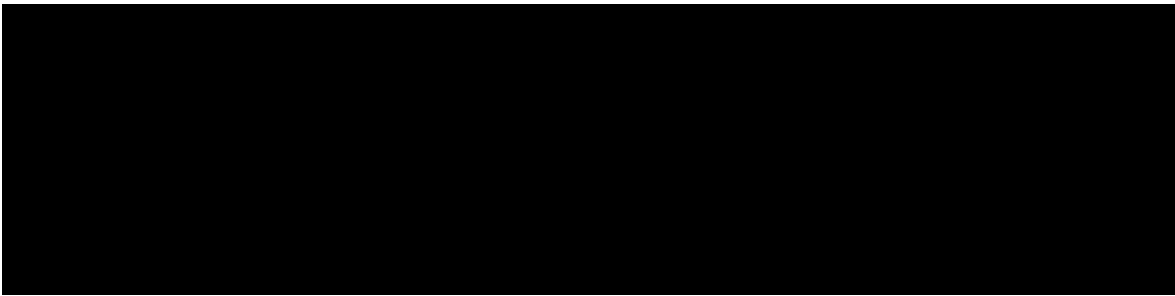
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

1707538-01	E1707005g 1707586-002A	45	40	-	-	-		
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PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707400

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707400-BLK1	Blank	45	40					1.25X
F707400-BLK2	Blank	45	40					1.25X
F707400-BLK3	Blank	45	40					1.25X
F707400-BS1	Blank Spike	45	40	1704143	45			1.25X
F707400-BSD1	Blank Spike dup	45	40	1704143	45			1.25X
F707400-MS1	Matrix Spike 1707149-01RE1	45	40	1704143	45			1.25X
F707400-MS2	Matrix Spike 1707538-01	45	40	1704143	45			1.25X
F707400-MSD1	Matrix Spike Dup 1707149-01RE1	45	40	1704143	45			1.25X
F707400-MSD2	Matrix Spike Dup 1707538-01	45	40	1704143	45			1.25X

<u>Standard ID(s):</u> 1704143	<u>Description:</u> MHg New Primary 1.0 ng/mL CAL	<u>Expiration:</u> 10-Oct-17 00:00	<u>Reagent ID(s):</u> 1704481 1704498	<u>Description:</u> APDC 0.4% HCl Distillation Dilute (Made Daily)	<u>Expiration:</u> 31-Jul-17 00:00 26-Jul-17 00:00
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DUPI Source 1700926-01RE1

1704513

1703755

1703704

PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707400

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706635-01RE1	B172046 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706635-02RE1	B172034 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706635-05RE1	B172040 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706635-06RE1	B172060 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706730-01RE1	P88937-2	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706730-02RE1	P88937-3	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706730-03RE1	P88937-4	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706730-04RE1	P88937-7	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706926-01RE1	OL-2616-01	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-03RE1	OL-2616-02	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-04RE1	OL-2616-03	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-05RE1	OL-2616-04	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-06RE1	OL-2616-05	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1707149-01RE1	1707051-001C 7070316-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-02RE1	1707051-002C 7070317-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-03RE1	1707051-003C 7070407-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-04RE1	1707051-004C 7070408-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-05RE1	1707051-005C 7070411-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-06RE1	1707051-006C 7070412-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x

Due Date: 7/14/2017

PREPARATION BENCH SHEET

2700-1

7/26/17 DM

F707400

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

1707538-01	E1707005g 1707586-002A	45	40	-	-	-		1.25X
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Methyl Mercury Distillations (EPA 1630)

Name: Dupin Date: 7/26 Batch #: F707400 Sample Matrix: Water  
 WO#: 1706635, 1706730, 1706730, 1706926, 1707149, 1707538

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 (23)
Blk1	F707400 Blk1	1.0	45	3.0
Blk2	F707400 Blk2	1.0	45	3.0
Blk3	F707400 Blk3	1.0	45	3.0
BS1	F707400 BS1	1.0	45	3.0
BS01	F707400 BS01	1.0	45	3.0
Dup1	F707400 Dup1	1.0	45	3.0
MS1	F707400 MS1	1.0	45	4.0
MS01	F707400 MS01	1.0	45	4.0
MS2	F707400 MS2	1.0	45	4.0
MS02	F707400 MS02	1.0	45	4.0
1	1706635-01 RE1	1.0	45	3.0
2	1706635-02 RE1	1.0	45	3.0
3	1706635-05 RE1	1.0	45	3.0
4	1706635-06 RE1	1.0	45	3.0
5	1706730-01 RE1	1.0	45	3.0
6	1706730-02 RE1	1.0	45	3.0
7	1706730-03 RE1	1.0	45	3.0
8	1706730-04 RE1	1.0	45	3.0
9	1706926-01 RE1	1.0	45	3.0
10	1706926-03 RE1	1.0	45	3.0
11	1706926-04 RE1	1.0	45	4.0
12	1706926-05 RE1	1.0	45	4.0
13	1706926-06 RE1	1.0	45	4.0
14	1707149-01 RE1	1.0	45	3.0
15	1707149-02 RE1	1.0	45	3.0
16	1707149-03 RE1	1.0	45	3.0
17	1707149-04 RE1	1.0	45	4.0
18	1707149-05 RE1	1.0	45	3.0
19	1707149-06 RE1	1.0	45	4.0
20	1707538-01 A	1.0	45	4.0

Spike ID: 1704743  
 Spike Amount: 45 µL  
 Spike Witness: PC 7/25/17  
 Balance #: 2  
 Calibrated?  Yes  No  
 Pipette #: NW09653  
 Cal. Date: 7/20/17  
 Pipette #: NW09643  
 Cal. Date: 7/21/17  
 Pipette #: N/A  
 Cal. Date: N/A  
 APDC ID: 1704481  
 HCl ID: 1704498  
 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: 121.6  
 Unit 2: 122.0  
 Unit 3: 120.6  
 Unit 4: 120.8  
 Unit 5: 122.0  
 Unit 6: 122.0  
 Time First Sampled: OFF 11:55  
 Comments: F707400 source  
Dup1 1706926-01/B  
F707400 MS1 MS01  
1707149-01/A  
F707400 MS2 MS02  
1707538-01/A  
7/25/17 bwh

**Failing Data Report - 7G27014**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707400-MS2	MHg-CVAFS-W-Dist	0.592	0.050		0.055	1.0010	ng/L	53.7	65.00	130.00			PASS-OVER	FAIL-MS	QM-07
F707400-MSD2	MHg-CVAFS-W-Dist	0.692	0.050	0.592	0.055	1.0010	ng/L	63.7	65.00	130.00	15.6	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07

Don Macem      7/27/17  
 Analyst Reviewed By      Date

[Signature]      7/27/17  
 Peer Reviewed By      Date

ANALYSIS SEQUENCE

7G27016

QUALITY ASSURANCE  
PEER-REVIEWED

Instrument: Hg2700-1 ✓

Calibration ID: UNASSIGNED

INITIALS: *DM* 7/27/17  
Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27016-IBL1 ✓	QC	1			
7G27016-CAL1 ✓	QC	2	1704180 ✓		
7G27016-CAL2 ✓	QC	3	1704181 ✓		
7G27016-CAL3 ✓	QC	4	1704182 ✓		
7G27016-CAL4 ✓	QC	5	1704183 ✓		
7G27016-CAL5 ✓	QC	6	1704184 ✓		
7G27016-ICV1 ✓	QC	7	1703246 ✓		
7G27016-ICB1 ✓	QC	8			
7G27016-CCV1 ✓	QC	9	1703246 ✓		
7G27016-CCB1 ✓	QC	10			
7G27016-CCV2 ✓	QC	11	1703246 ✓		
7G27016-CCB2 ✓	QC	12			
7G27016-CCV3 ✓	QC	13	1703246 ✓		
7G27016-CCB3 ✓	QC	14			
F707413-BLK1 ✓	QC	15			
F707413-BLK2 ✓	QC	16			
F707413-BLK3 ✓	QC	17			
F707413-BS1 ✓	QC	18			
F707413-BSD1 ✓	QC	19			
F707413-DUP1 ✓	QC	20			
F707413-MS1 ✓	QC	21			
F707413-MSD1 ✓	QC	22			
1707106-01RE1 ✓	MHg-CVAFS-S-MeClExt	23			From F707268 by DMH on 18-Jul-17
1707106-02RE1 ✓	MHg-CVAFS-S-MeClExt	24			From F707268 by DMH on 18-Jul-17
7G27016-CCV4 ✓	QC	25	1703246 ✓		
7G27016-CCB4 ✓	QC	26			

*DM*  
Samples Loaded By \_\_\_\_\_ Date *7/26/17*

*DM*  
Data Processed By \_\_\_\_\_ Date *7/27/17*



**PREPARATION BENCH SHEET**

F707413

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl<sub>2</sub> Extraction for Methyl Hg**

**Prepared: 7/25/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707413-BLK1	Blank	0.5	250					
F707413-BLK2	Blank	0.5	250					
F707413-BLK3	Blank	0.5	250					
F707413-BS1	Blank Spike	0.5	250	1605978	25			
F707413-BSD1	Blank Spike dup	0.5	250	1605978	25			
F707413-DUP1	Duplicate [1707106-01RE1]	0.527	250					
F707413-MS1	Matrix Spike [1707106-01RE1]	0.5438	250	1605978	25			
F707413-MSD1	Matrix Spike Dup [1707106-01RE1]	0.5808	250	1605978	25			

Standard ID(s):  
1605978

Description:  
MHg New Primary 100 ng/mL spike

Expiration:  
15-Oct-17 00:00

<u>Reagent ID(s):</u> 1702236	<u>Description:</u> Dichloromethane	<u>Expiration:</u> 14-Apr-20 00:00
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703704	Ethylating Agent (For Methyl Mercury Analysis)	18-Dec-17 00:00
1703755	Acetate Buffer	20-Dec-17 00:00
1703955	Acid Bromide	30-Jul-17 00:00
1704394	CuSO <sub>4</sub>	16-Jan-18 00:00

PREPARATION BENCH SHEET

F707413

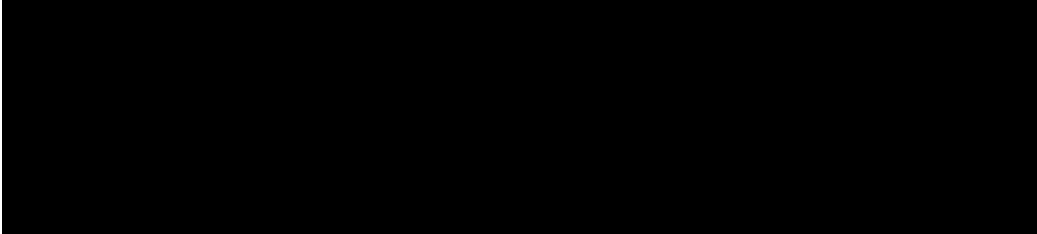
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707106-01RE1	USGR-008-PUD-005	0.5214	250	QC	-	-	MS/MSD From F707268 by DMH on 1	From F707268 by DMH on 18-Jul-17
1707106-02RE1	USGR-008-PUD-006	0.5492	250	-	-	-	From F707268 by DMH on 18-Jul-17	From F707268 by DMH on 18-Jul-17



PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707413

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707413-BLK1	Blank	0.5	250					1X
F707413-BLK2	Blank	0.5	250					1X
F707413-BLK3	Blank	0.5	250					1X
F707413-BS1	Blank Spike	0.5	250	1605978	25			10X
F707413-BSD1	Blank Spike dup	0.5	250	1605978	25			10X
F707413-DUP1	Duplicate [1707106-01RE1]	0.527	250					1X
F707413-MS1	Matrix Spike [1707106-01RE1]	0.5438	250	1605978	25			10X
F707413-MSD1	Matrix Spike Dup [1707106-01RE1]	0.5808	250	1605978	25			10X

Standard ID(s): 1605978  
Description: MHg New Primary 100 ng/mL spike

Expiration: 15-Oct-17 00:00

Reagent ID(s): 1702236, 1702551, 1703955, 1704394  
Description: Dichloromethane, Boiling Chips for AFS prep, Acid Bromide, CuSO4

Expiration: 14-Apr-20 00:00, 31-Dec-17 00:00, 30-Jul-17 00:00, 16-Jan-18 00:00

1703755

1703704

**PREPARATION BENCH SHEET**

F707413

**Eurofins Frontier Global Sciences, Inc.**

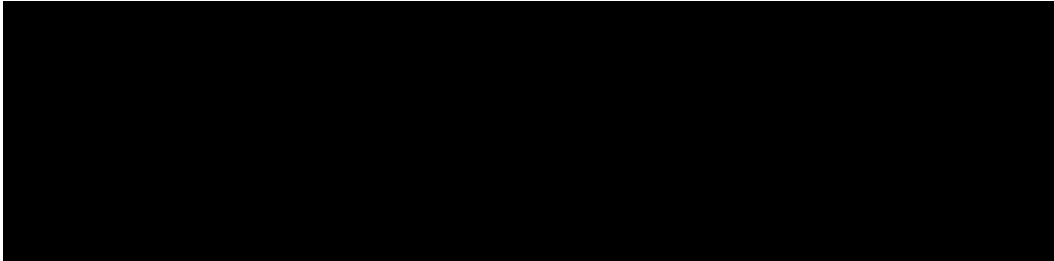
2700-1  
7/24/17 DM

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg**

**Prepared: 7/25/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707106-01RE1	USGR-008-PUD-005	0.5214	250	QC	-	-	MS/MSD From F707268 by DMH on 1	From F707268 by DMH on 18-Jul-17 IX
1707106-02RE1	USGR-008-PUD-006	0.5492	250	-	-	-	From F707268 by DMH on 18-Jul-17	From F707268 by DMH on 18-Jul-17 IX



**Methyl Mercury Sediment Preparation : EFAFS-T-AFS-SOP5134**

Technician: Dwyer Batch#: F707413 Date: 7-20-17

Heat Block 45°C (nitrogen purge for 30 minutes). Balance#: 19 Calibrated?  Yes  No

Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)	Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)
7/25/17							
1 <sup>st</sup> time in: 13:10	48.5	48.1	10	1 <sup>st</sup> time in:			
1 <sup>st</sup> time out: 13:40	49.0	48.5	10	1 <sup>st</sup> time out:			
2 <sup>nd</sup> time in:				2 <sup>nd</sup> time in:			
2 <sup>nd</sup> time out:				2 <sup>nd</sup> time out:			
3 <sup>rd</sup> time in:				3 <sup>rd</sup> time in:			
3 <sup>rd</sup> time out:				3 <sup>rd</sup> time out:			
4 <sup>th</sup> time in:				4 <sup>th</sup> time in:			
4 <sup>th</sup> time out:				4 <sup>th</sup> time out:			

Final vol.: 50 mL (LIMS ID: N/A) Spike vol.: 25 µL (LIMS ID: 1605978)

Spike Witness: JM 7/25/17 (initial and date)

Acid Bromide LIMS ID: 1703955

Pipette SN#: CJ17087 Calibration Date: 7-20-17

CH<sub>2</sub>Cl<sub>2</sub> LIMS ID: 1702236

Pipette SN#: NU07693 Calibration Date: 7/25/17

CuSO<sub>4</sub> LIMS ID: 1704394

Dispenser #: 12791047 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Boiling Chip lot # 1702551

Centrifuge Tube Lot #: J264713-3025

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	Comments
1	F707413 Blk1	0.5029	23	/		Thermometer SN:
2	F707413 Blk2	0.4987	24			140418012
3	F707413 Blk3	0.50530	25			F707413
4	F707413 R51	0.4992	26			source
5	F707413 B501	0.5068	27			1707106-01
6	F707413 Dup1	0.5560	28			Dup1 1707106-01
7	F707413 M51	0.5780	29			7/25/17
8	F707413 M501	0.5428	30			N/A
9	1707106-01R21	0.5505	31			F707413
10	1707106-02R21	0.5871	32			ALL weighted samples on 7/20/17
11			33			Digestion samples on 7/25/17
12			34			on 7/25/17
13			35			N/A
14			36			7/25/17
15			37			N/A
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Failing Data Report - 7G27016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707413-BLK1	MHg-CVAFS-S-MeClExt	0.053	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707413-BLK2	MHg-CVAFS-S-MeClExt	0.054	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-N
F707413-BSD1	MHg-CVAFS-S-MeClExt	2.914	0.503	3.843		5.0050	ng/g	58.2	70.00	130.00	27.5	35.00	PASS-OVER	FAIL-BSD (Rec.)	Redigent
F707413-DUP1	MHg-CVAFS-S-MeClExt	0.170	0.193	0.397	0.397		ng/g				80.2	35.00	PASS-OVER	FAIL-DUP	QR-07

Don M. Mason      7/27/17  
 Analyst Reviewed By      Date

[Signature]      7/27/17  
 Peer Reviewed By      Date

ANALYSIS SEQUENCE

7G27013

PEER-REVIEWED


Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: DM 7/30/17  
Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27013-IBL1 ✓	QC	1			
7G27013-CAL1 ✓	QC	2	1704180		
7G27013-CAL2 ✓	QC	3	1704181		
7G27013-CAL3 ✓	QC	4	1704182		
7G27013-CAL4 ✓	QC	5	1704183		
7G27013-CAL5 ✓	QC	6	1704184		
7G27013-ICV1 ✓	QC	7	1703246		
7G27013-ICB1 ✓	QC	8			
7G27013-CCV1 ✓	QC	9	1703246		
7G27013-CCB1 ✓	QC	10			
7G27013-CCV2 ✓	QC	11	1703246		
7G27013-CCB2 ✓	QC	12			
7G27013-CCV3 ✓	QC	13	1703246		
7G27013-CCB3 ✓	QC	14			
7G27013-CCV4 ✓	QC	15	1703246		
7G27013-CCB4 ✓	QC	16			
F707393-BLK6 ✓	QC	17			
F707393-BLK7 ✓	QC	18			
F707393-BLK8 ✓	QC	19			
F707393-MS3 ✓	QC	20			
7G27013-CCV5 ✓	QC	21	1703246		
7G27013-CCB5 ✓	QC	22			
F707393-MSD3 ✓	QC	23			
F707393-MS4 ✓	QC	24			
F707393-MSD4 ✓	QC	25			
1706929-01RE1 ✓	MHg-CVAFS-T-KOH	26			Added 7/26/2017 by DM2
1706929-07RE1 ✓	MHg-CVAFS-T-KOH	27			Added 7/26/2017 by DM2
1706930-01RE1 ✓	MHg-CVAFS-T-KOH	28			Added 7/26/2017 by DM2
7G27013-CCV6 ✓	QC	29	1703246		
7G27013-CCB6 ✓	QC	30			


7/26/17  
 Samples Loaded By \_\_\_\_\_ Date


7/27/17  
 Data Processed By \_\_\_\_\_ Date

Due Date: 7/31/2017

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					
F707393-BLK2	Blank	0.5	20					
F707393-BLK3	Blank	0.5	20					
F707393-BLK4	Blank	0.3356	20					
F707393-BLK5	Blank	0.3691	20					
F707393-BLK6	Blank	0.5	20					
F707393-BLK7	Blank	0.5	20					
F707393-BLK8	Blank	0.5	20					
F707393-BS1	DORM-4	0.1253	20	1703305	125			
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	125			
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					
F707393-MS1	Matrix Spike [1706930-01]	0.2637	20	1605978	100			
F707393-MS2	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MS3	Matrix Spike [1706930-01RE1]	0.2637	20	1605978	100			
F707393-MS4	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MSD1	Matrix Spike Dup [1706930-01]	0.2631	20	1605978	100			
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			
F707393-MSD3	Matrix Spike Dup [1706930-01RE1]	0.2631	20	1605978	100			
F707393-MSD4	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			



PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703305	DORM-4	29-May-20 00:00	1702696	Methanol, HPLC Grade	28-Apr-20 00:00
			1702833	25% KOH/Methanol	05-Nov-17 00:00
			1703704	Ethylating Agent (For Methyl Mercury Analysis)	18-Dec-17 00:00
			1703755	Acetate Buffer	20-Dec-17 00:00

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-01RE1	W17-N_17BN005_062417_TIN_01_WB	0.2718	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07RE1	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	
1706930-01RE1	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Added 7/26/2017 by DM2	Added 7/26/2017 by DM2
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	

PREPARATION BENCH SHEET

2700-1

7/26/17 DM

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					
F707393-BLK2	Blank	0.5	20					
F707393-BLK3	Blank	0.5	20					
F707393-BLK4	Blank	0.3356	20					
F707393-BLK5	Blank	0.3691	20					
F707393-BLK6	Blank	0.5	20					500X /
F707393-BLK7	Blank	0.5	20					500X /
F707393-BLK8	Blank	0.5	20					500X /
F707393-BS1	DORM-4	0.1253	20	1703305	125			
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	125			
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					
F707393-MS1	Matrix Spike [1706930-01]	0.2637	20	1605978	100			
F707393-MS2	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MS3	Matrix Spike [1706930-01RE1]	0.2637	20	1605978	100			1000X /
F707393-MS4	Matrix Spike [1706930-06]	0.2659	20	1605978	100			2500X
F707393-MSD1	Matrix Spike Dup [1706930-01]	0.2631	20	1605978	100			
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			
F707393-MSD3	Matrix Spike Dup [1706930-01RE1]	0.2631	20	1605978	100			1000X /
F707393-MSD4	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			2500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-01RE1	W17-N_17BN005_062417_TIN_01_WB	0.2718	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2 500X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07RE1	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2 250X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	
1706930-01RE1	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Added 7/26/2017 by DM2	Added 7/26/2017 by DM2 1000X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707393

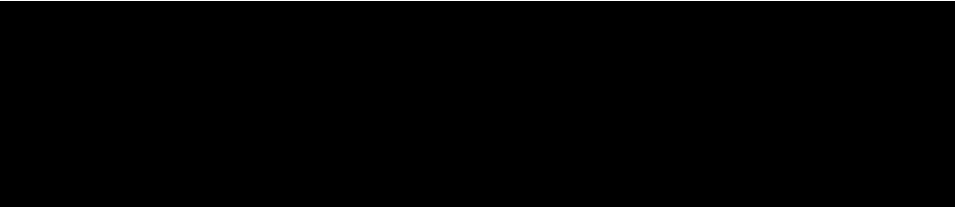
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	



**Failing Data Report - 7G27013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707393-MSD3	MHg-CVAFS-T-KOH	147.6	3.8	99.1	60.2	38.046	ng/g	230	65.00	130.00	76.7	35.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM-02, QR-08
F707393-MS4	MHg-CVAFS-T-KOH	353.9	9.4		295.7	37.646	ng/g	155	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F707393-MSD4	MHg-CVAFS-T-KOH	356.3	9.3	353.9	295.7	37.088	ng/g	163	65.00	130.00	5.53	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-02

Don Mazem  
 Analyst Reviewed By

7/27/17  
 Date

  
 Peer Reviewed By

7/30/17  
 Date

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G27015, 7G27016, 7G27013, 7G27014
<b>Reviewer:</b>	<i>DL 2/23/17</i>	<b>Dataset ID #:</b>	MMHg27001-170726-1, MMHg27001-170726-2
<b>Date:</b>		<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F707400, F707413, F707440, F707393	<b>Client(s):</b>	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 checked="" type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

Analyst Initials:

*DM*

Reviewer Initials:

*DL 2/23/17*

- |   |  |  |   |
|---|--|--|---|
| 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 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"/>     |
| <b>QA/QC Data Checked</b>   |  |  |   |
| 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: _____   |  |  |   |



**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G27015, 7G27016, 7G27013, 7G27014
<b>Reviewer:</b>	0 <i>DM</i>	<b>Dataset ID #:</b>	MMHg27001-170726-1, MMHg27001-170726-2
<b>Date:</b>	7/27/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F707400, F707413, F707440, F707393	<b>Client(s):</b>	VARIOUS

	Analyst Initials: <i>DM</i>	Reviewer Initials: <i>DM</i>
9. ICV % Recoveries 67-133% Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
10. CCV % Recoveries 67-133% Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
11. Are the absolute value of the ICB and CCBs < PQL? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) Comments: <b>F707440-BS1, BS2, F707413-BSD1 FAILED.</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
13. LCS/LCSD or BS/BSD RPD (< 25%) Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A	<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%) Comments: <b>F707413-DUP1 FAILED. HIGH RPD</b>	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
20. Is there one set of MS/MSD per every 10 samples? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
21. MS/MSD RPD(< 35%) Comments: <b>F707393-MSD3 FAILED. HIGH RPD.</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input type="checkbox"/>
22. MS (AS) % Recoveries (65-130%) Comments: <b>F707393-MS4, F707400-MS2 FAILED. MS4 HIGH RECOVERY. MS2 LOW RECOVERY</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
23. MSD (ASD) % Recoveries (65-130%) Comments: <b>F707393-MSD3, MSD4, F707400-MSD2 FAILED. MSD3, MSD4 HIGH RECOVERY. MSD2 LOW RECOVERY</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630)	<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
25. Are all samples within instrument calibration range (or at maximum aliquot size)? Comments: _____	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/>
26. For instrumental dilutions, is the dilution factor in excel correct? 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) Comments: _____	<input type="checkbox"/> PASS <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
28. Effluent < Influent metals (visually confirm if needed) Comments: _____	<input type="checkbox"/> PASS <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G27013, 7G27014, 7G27015, 7G27016
<b>Reviewer:</b>	0 <i>DM 7/27/17</i>	<b>Dataset ID #:</b>	MMHg27001-170726-1, MMHg27001-170726-2
<b>Date:</b>	7/27/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F707400, F707413, F707393, F707440	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

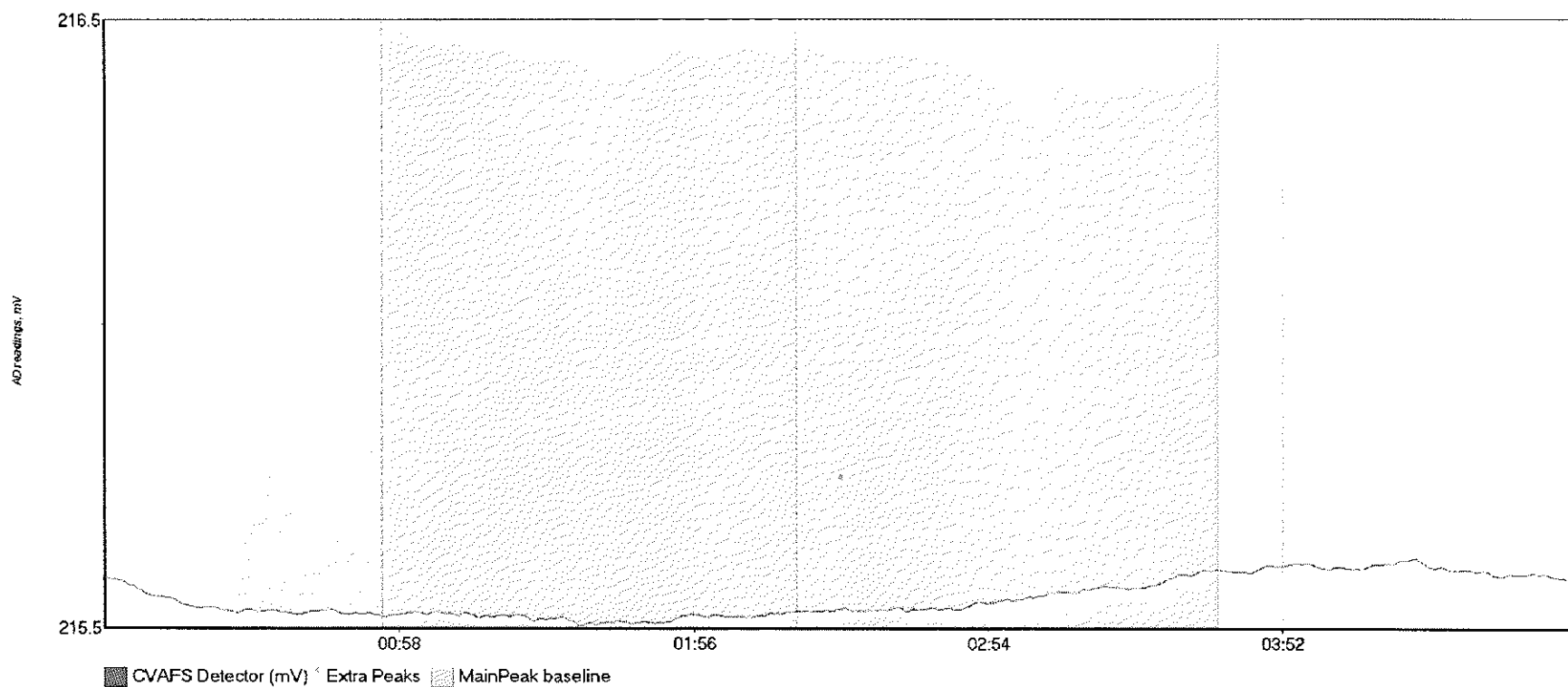
*DM 7/27/17*

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: 6-13-17 IDOC/CDOC within last 12 months?  YES  NO
39. Date of analyst's SOP reading: 5-23-16 Current SOP revision?  YES  NO
40. Date of LOD: 4-24-17 4-26-17 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 4-26-17 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



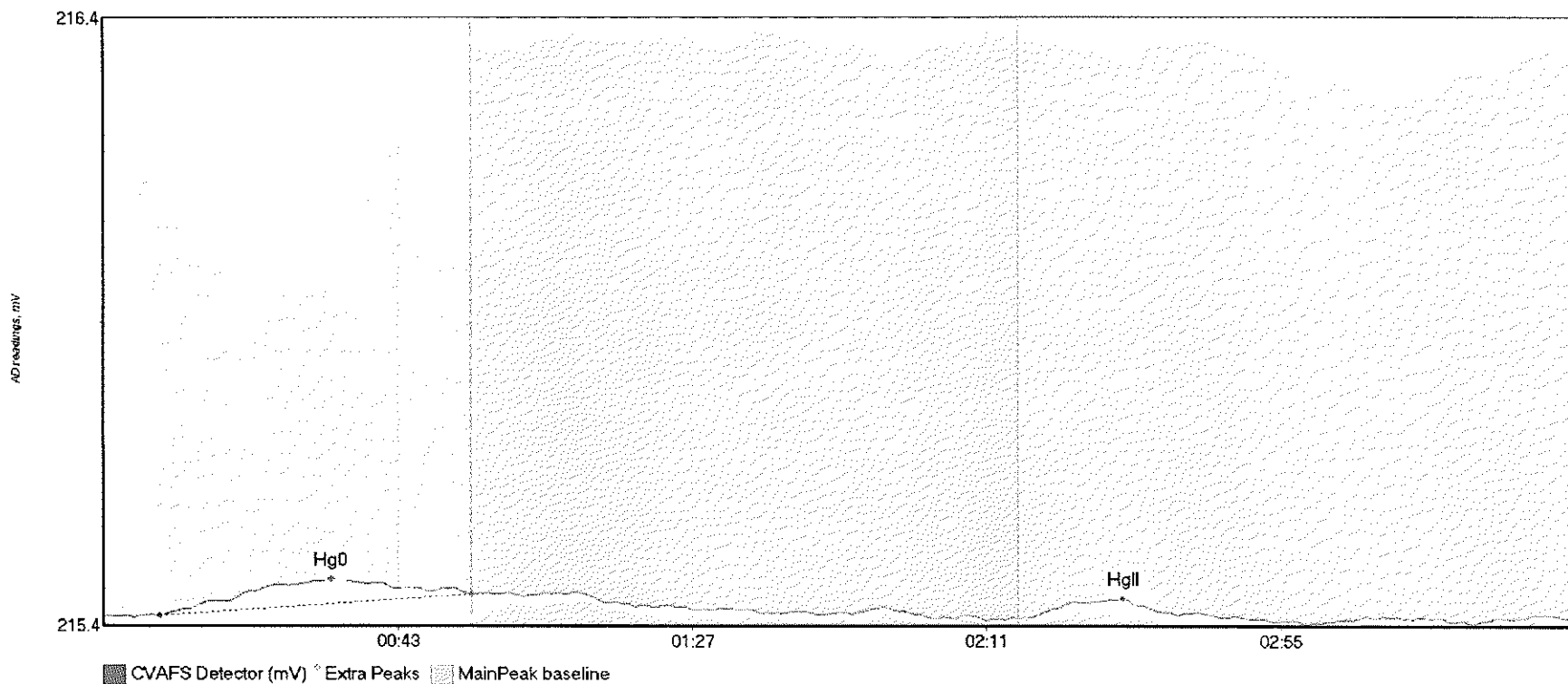
1706929-07RE1	A11	2500	24305-1.RAW	22:10:53	3.56	814.24	30.53	0.00	psample10	OK	1
1706930-01RE1	A12	1000	24305-1.RAW	22:21:23	4.28	335.21	25.64	0.00	psample10	OK	1
SEQ-CCV6	A13	1	24307-1.RAW	22:31:54	5.28	200.97	1.23	0.00	psample10	CT	1
SEQ-CCB6	A14	1	24308-1.RAW	22:42:24	3.32	1.10	2.65	0.00	psample10	OK	1

Clean: No peak(s) detected.



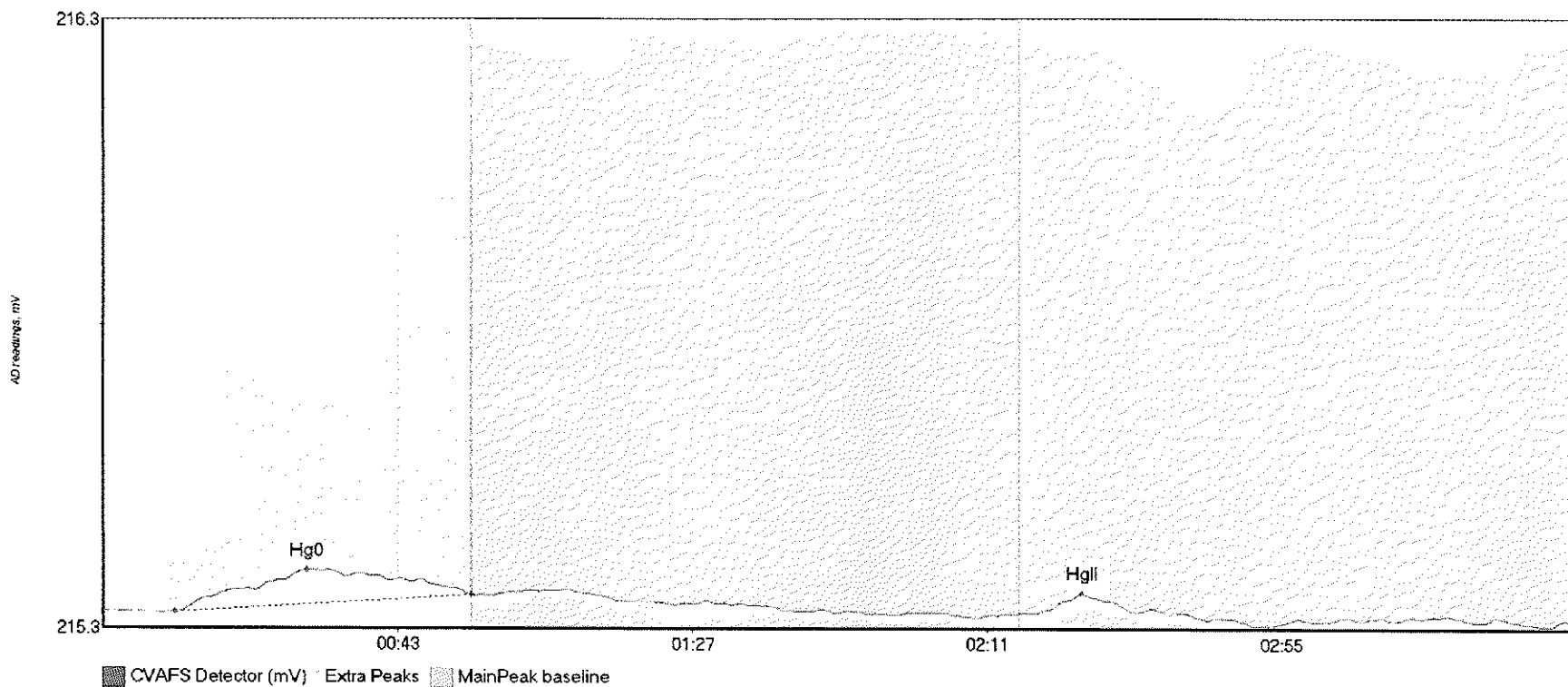
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Clean	0.000	-	-	-	-	-	-	NP	215.5875	0.00	0.00	017

#2: WS



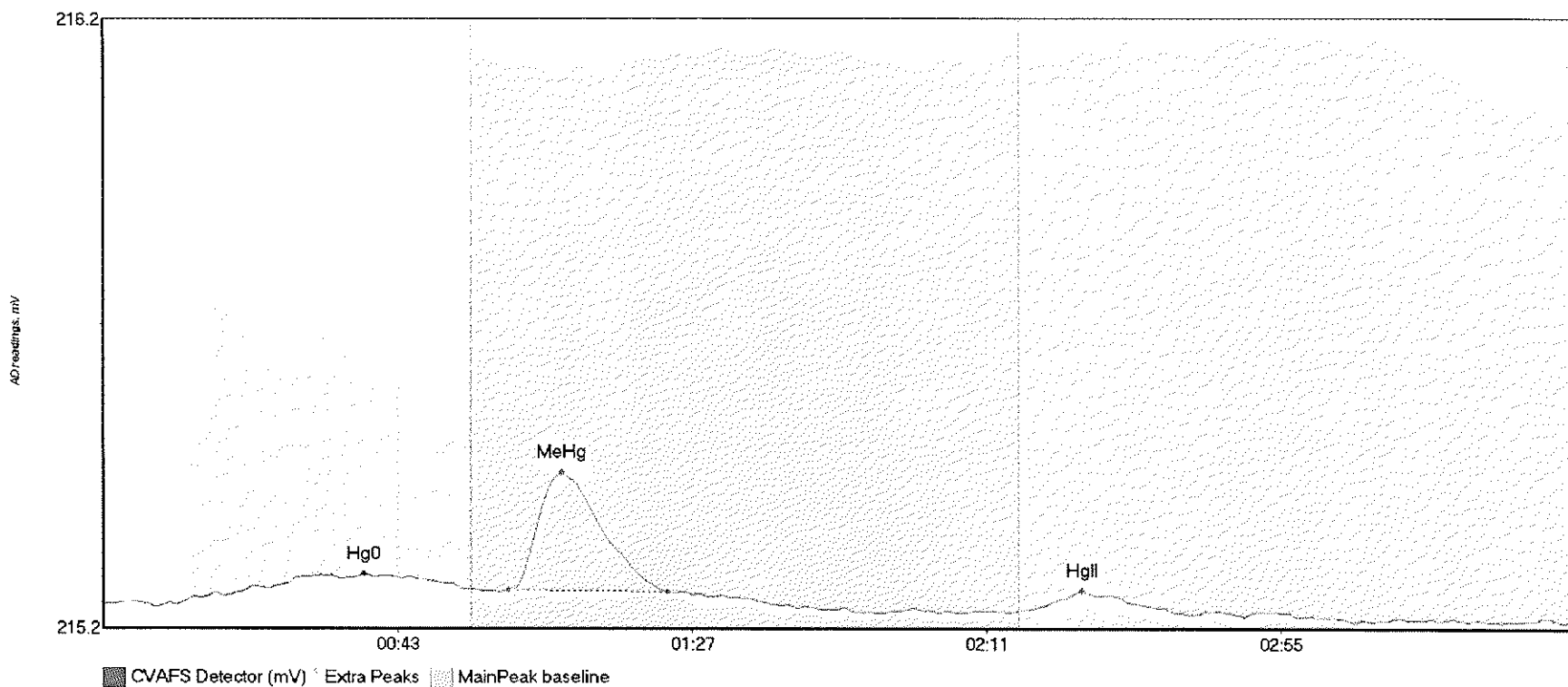
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	10.877	8.4	55.0	215.45	215.48	34.0	0.062	CT	215.4464	0.00	0.00	017
WS HgII	4.437	138.1	166.7	215.44	215.44	152.5	0.031	OK	215.4464	0.00	0.00	

#3: SEQ-IBL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	14.373	10.7	55.0	215.37	215.40	30.4	0.070	CT	215.3726	0.00	-0.01	
SEQ-IBL1 HgII	2.409	139.6	154.0	215.37	215.37	146.2	0.032	OK	215.3726	0.00	-0.01	017

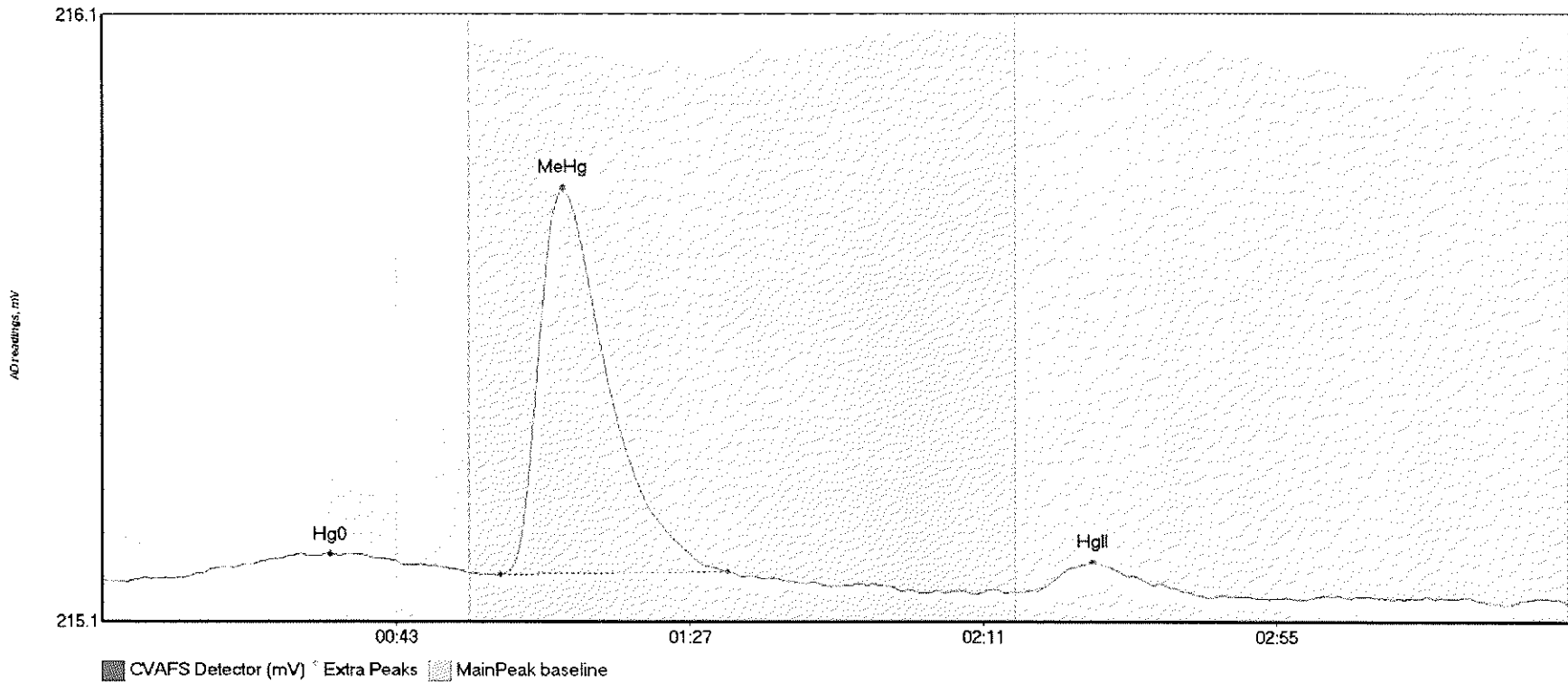
#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	9.308	11.0	54.9	215.27	215.30	39.0	0.050	OK	215.2730	0.00	-0.03	
SEQ-CAL1 MeHg	21.087	60.6	84.3	215.29	215.29	68.6	0.194	OK	215.2730	0.00	-0.03	
SEQ-CAL1 HgII	2.833	138.3	157.9	215.26	215.27	146.3	0.030	OK	215.2730	0.00	-0.03	

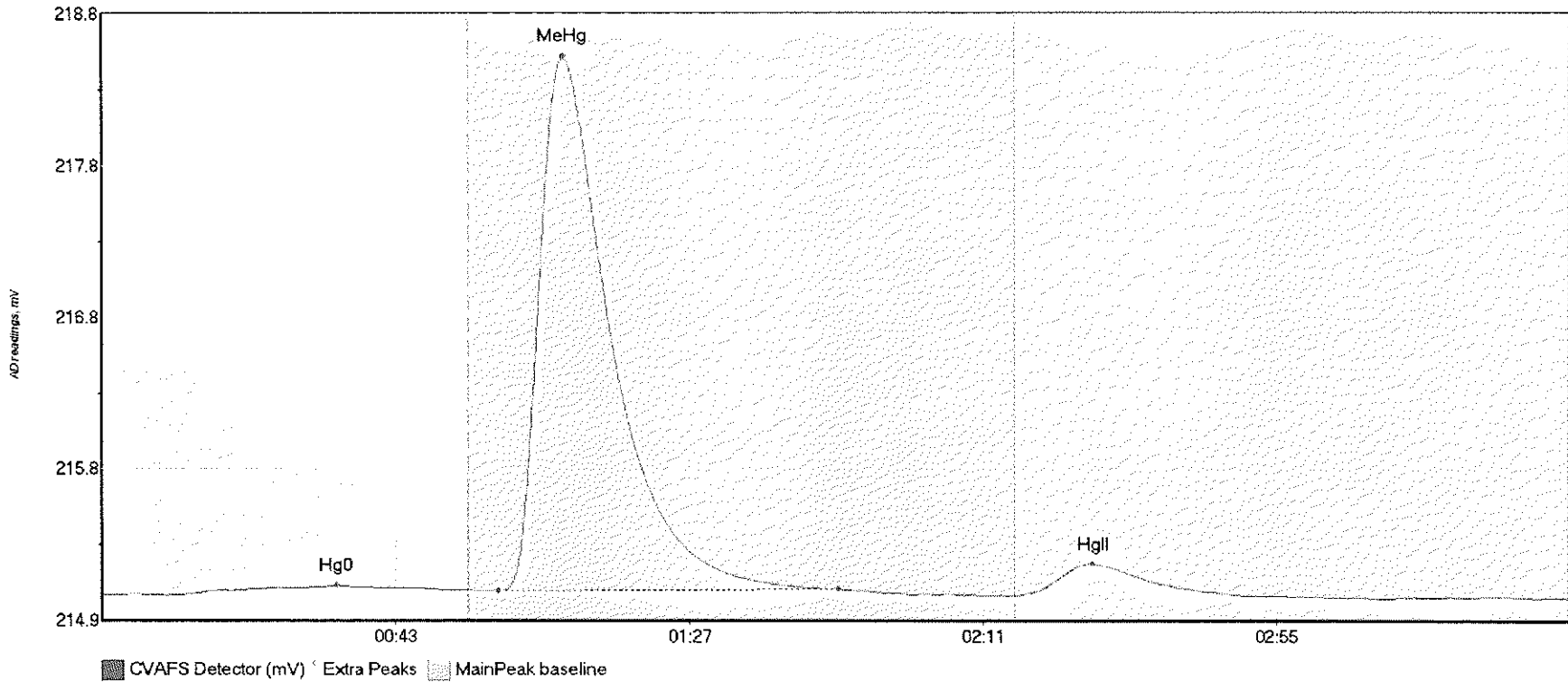


#5: SEQ-CAL2



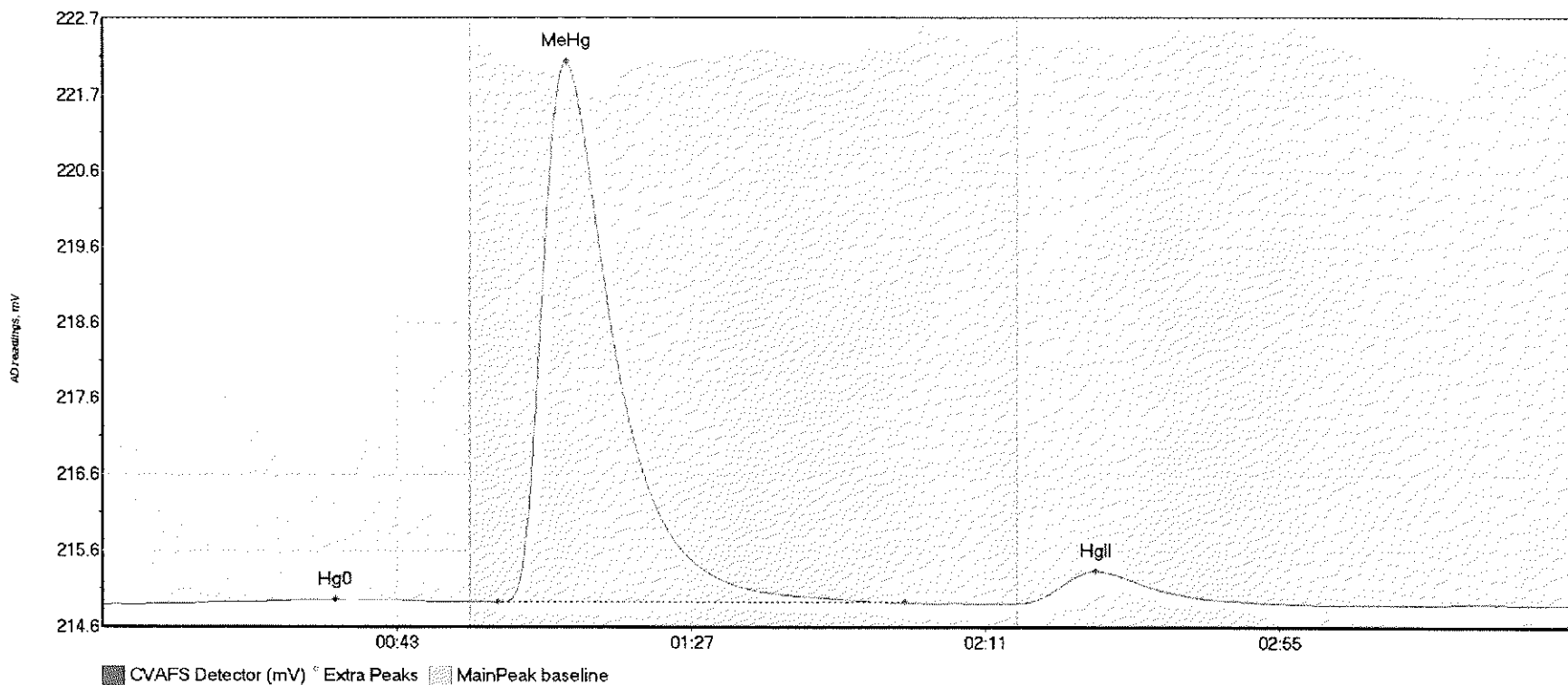
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	9.182	11.9	54.9	215.16	215.17	34.1	0.040	OK	215.1592	0.00	-0.04	
SEQ-CAL2 MeHg	76.143	59.6	93.8	215.17	215.17	69.0	0.636	OK	215.1592	0.00	-0.04	
SEQ-CAL2 HgII	5.527	139.9	161.9	215.14	215.14	148.5	0.048	OK	215.1592	0.00	-0.04	

#6: SEQ-CAL3



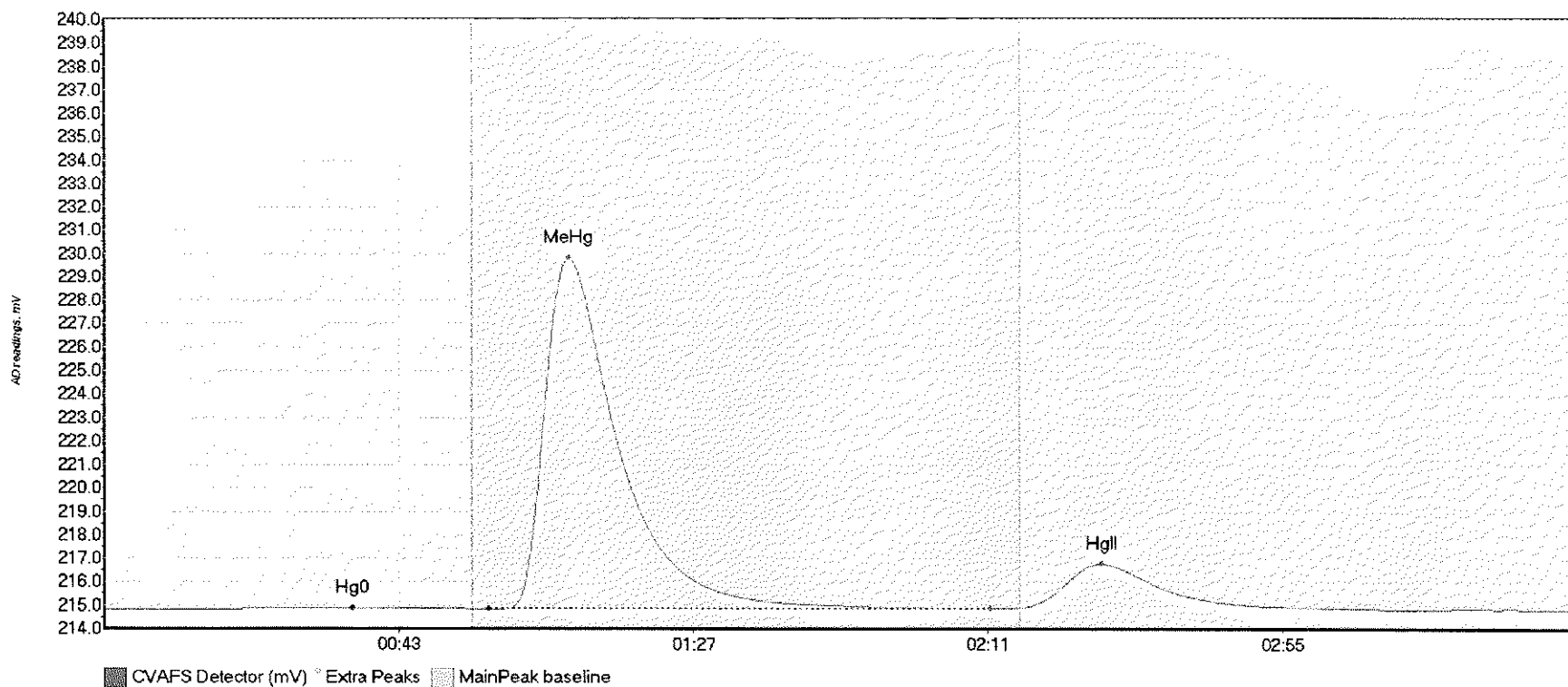
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	9.805	11.2	52.2	215.03	215.06	35.2	0.058	OK	215.0255	0.00	-0.02	
SEQ-CAL3 MeHg	429.016	59.5	110.4	215.05	215.06	69.2	3.452	OK	215.0255	0.00	-0.02	
SEQ-CAL3 HgII	29.652	136.8	171.3	215.02	215.02	148.6	0.204	OK	215.0255	0.00	-0.02	

#7: SEQ-CAL4



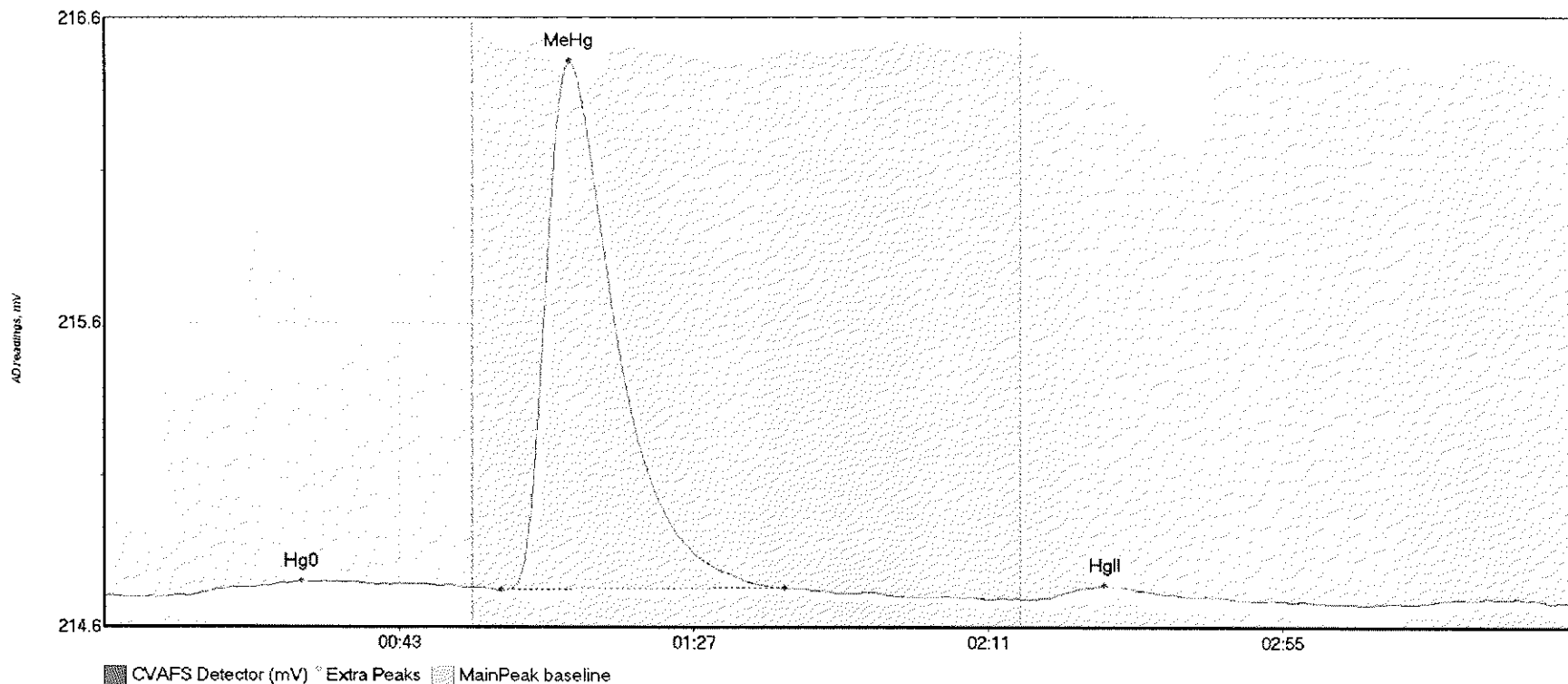
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SEQ-CAL4 Hg0	9.784	9.7	52.2	214.92	214.95	34.9	0.055	OK	214.9144	0.00	-0.01	
SEQ-CAL4 MeHg	901.945	59.2	120.0	214.94	214.94	69.4	7.146	OK	214.9144	0.00	-0.01	
SEQ-CAL4 HgII	64.532	136.8	176.3	214.93	214.93	148.6	0.429	OK	214.9144	0.00	-0.01	

#8: SEQ-CAL5



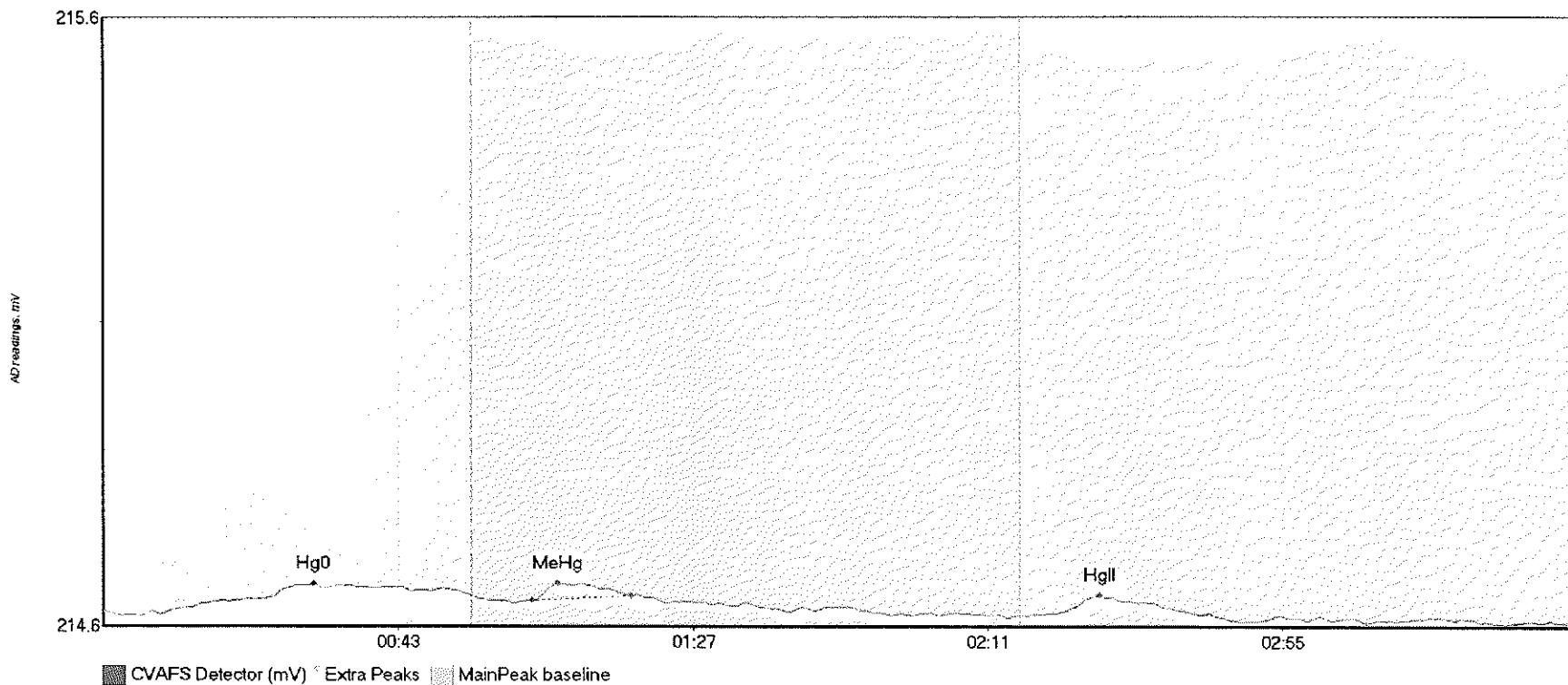
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	12.556	11.5	55.0	214.80	214.84	37.1	0.066	CT	214.8098	0.00	0.01	
SEQ-CAL5 MeHg	1914.239	57.4	132.4	214.83	214.85	69.5	14.981	OK	214.8098	0.00	0.01	
SEQ-CAL5 HgII	292.591	136.8	184.5	214.89	214.87	149.1	1.873	OK	214.8098	0.00	0.01	

#9: SEQ-ICV1



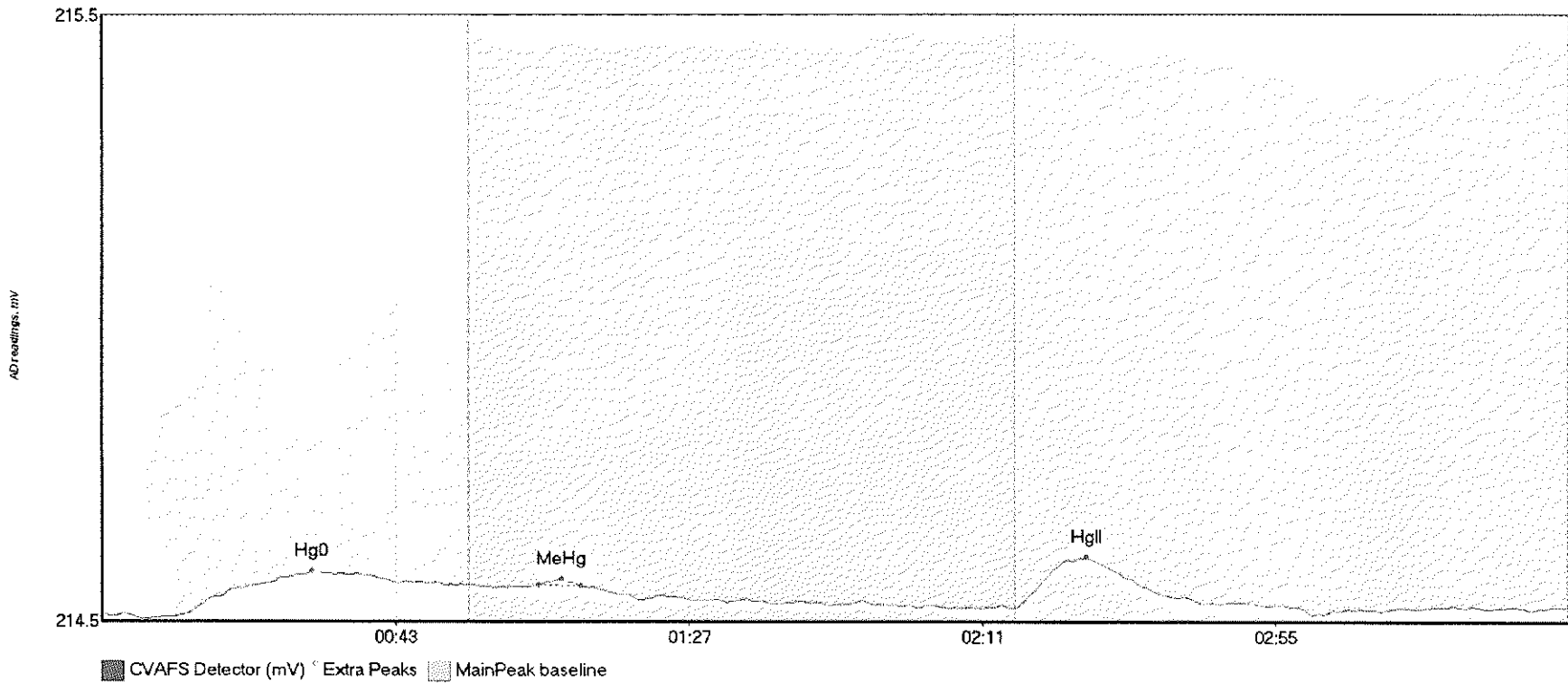
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	9.483	12.6	55.0	214.73	214.75	29.5	0.049	CT	214.7289	0.00	-0.02	
SEQ-ICV1 MeHg	210.941	59.3	101.6	214.75	214.75	69.5	1.725	OK	214.7289	0.00	-0.02	
SEQ-ICV1 HgII	6.372	141.0	169.6	214.72	214.71	149.5	0.044	OK	214.7289	0.00	-0.02	

#10: SEQ-ICB1



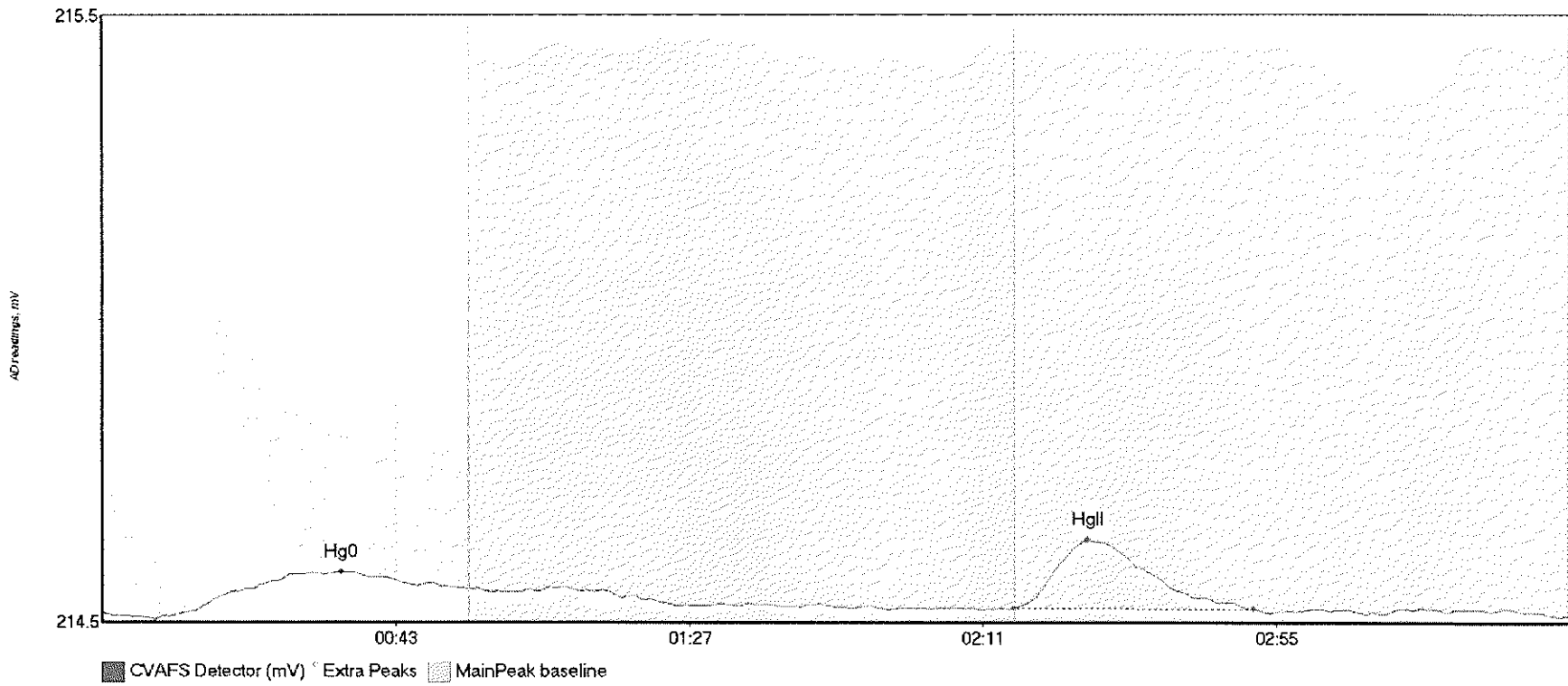
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	7.128	11.1	55.0	214.64	214.67	31.5	0.042	CT	214.6402	0.00	-0.02	
SEQ-ICB1 MeHg	2.318	64.0	78.7	214.66	214.67	67.9	0.029	OK	214.6402	0.00	-0.02	
SEQ-ICB1 HgII	3.369	142.0	163.2	214.64	214.64	148.7	0.030	OK	214.6402	0.00	-0.02	

#11: F707400-BLK1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BLK1 Hg	12.019	10.6	54.9	214.49	214.54	31.5	0.074	OK	214.4942	0.00	0.01	
F707400-BLK1 Me	0.367	65.5	71.7	214.54	214.54	68.8	0.010	OK	214.4942	0.00	0.01	
F707400-BLK1 Hg	11.654	136.8	167.7	214.50	214.51	147.6	0.084	OK	214.4942	0.00	0.01	

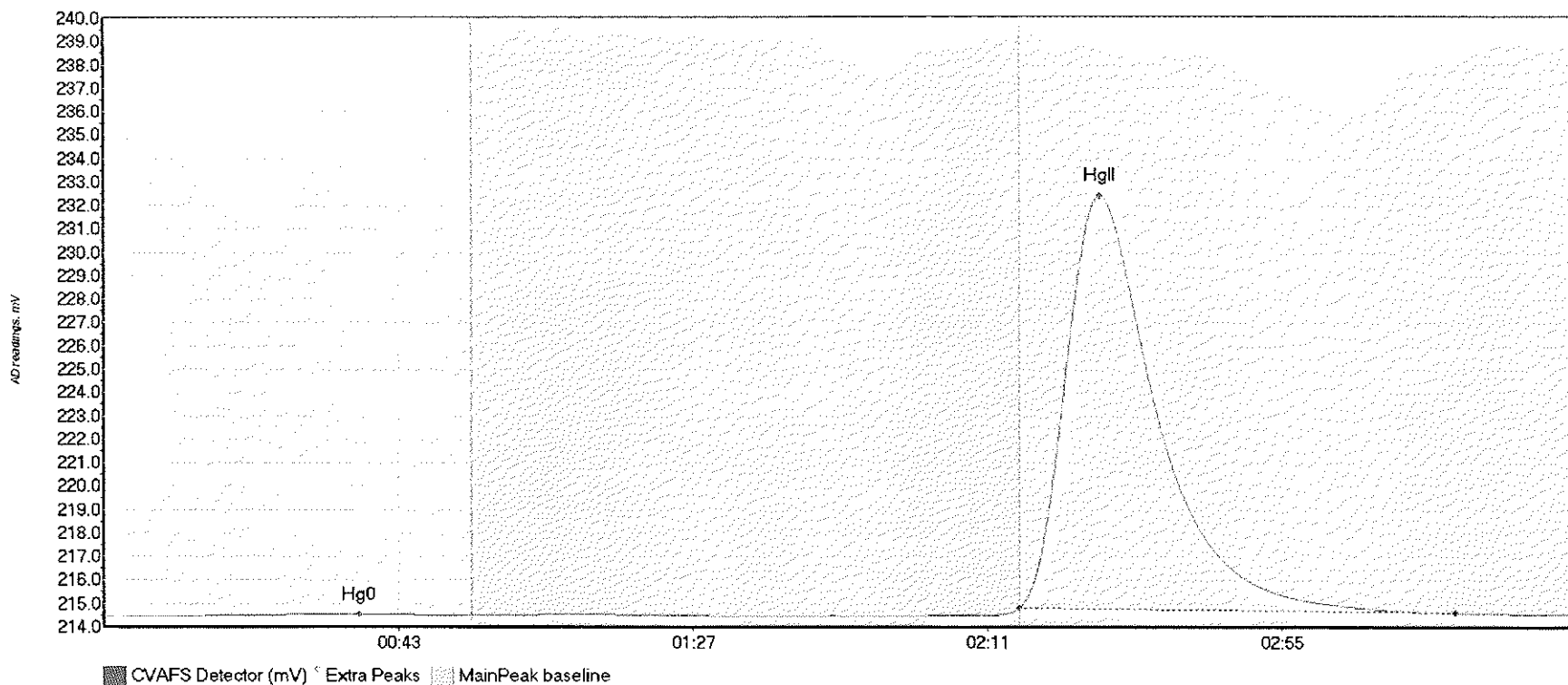
#12: F707400-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BLK2 Hg	11.598	13.0	55.0	214.48	214.52	35.8	0.066	CT	214.4762	0.00	0.00	
F707400-BLK2 Hg	18.002	136.8	172.6	214.48	214.48	147.8	0.112	OK	214.4762	0.00	0.00	117

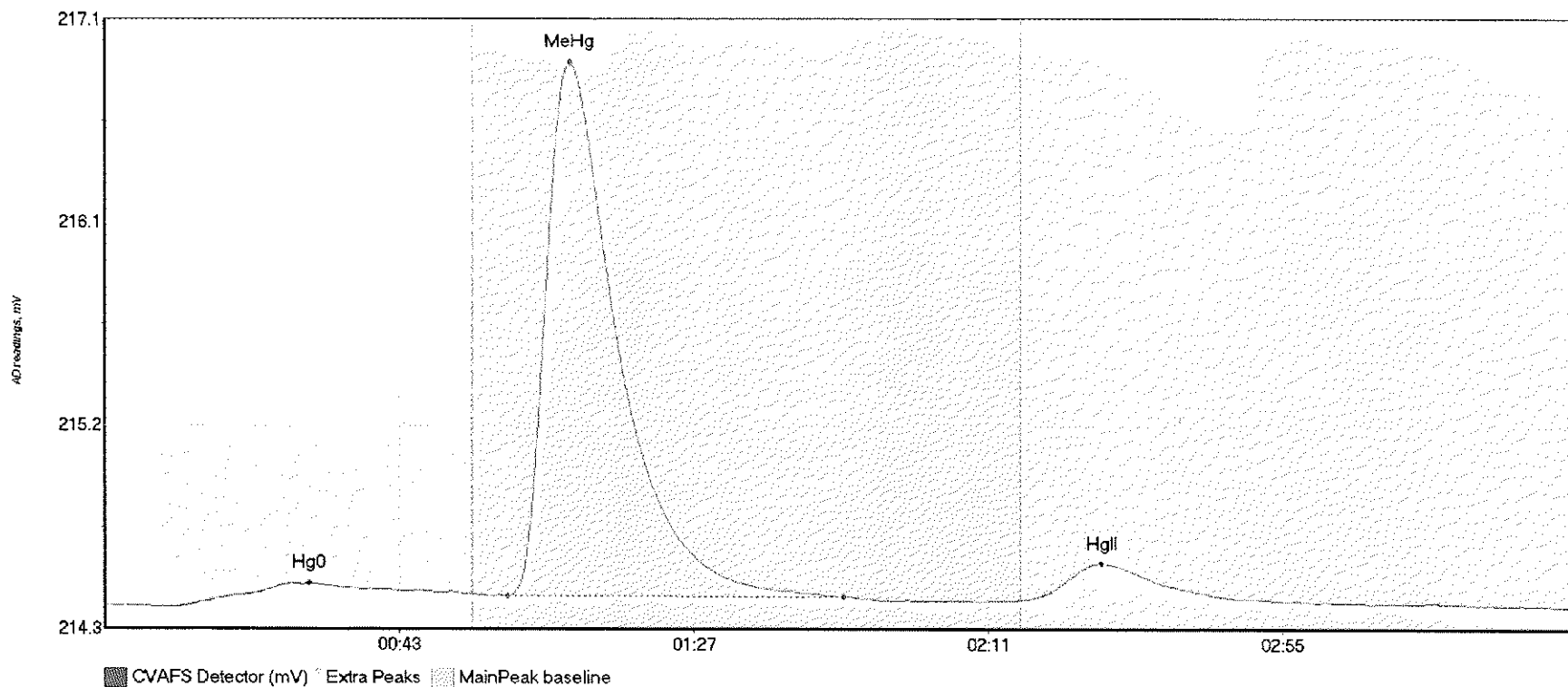


#13: F707400-BLK3



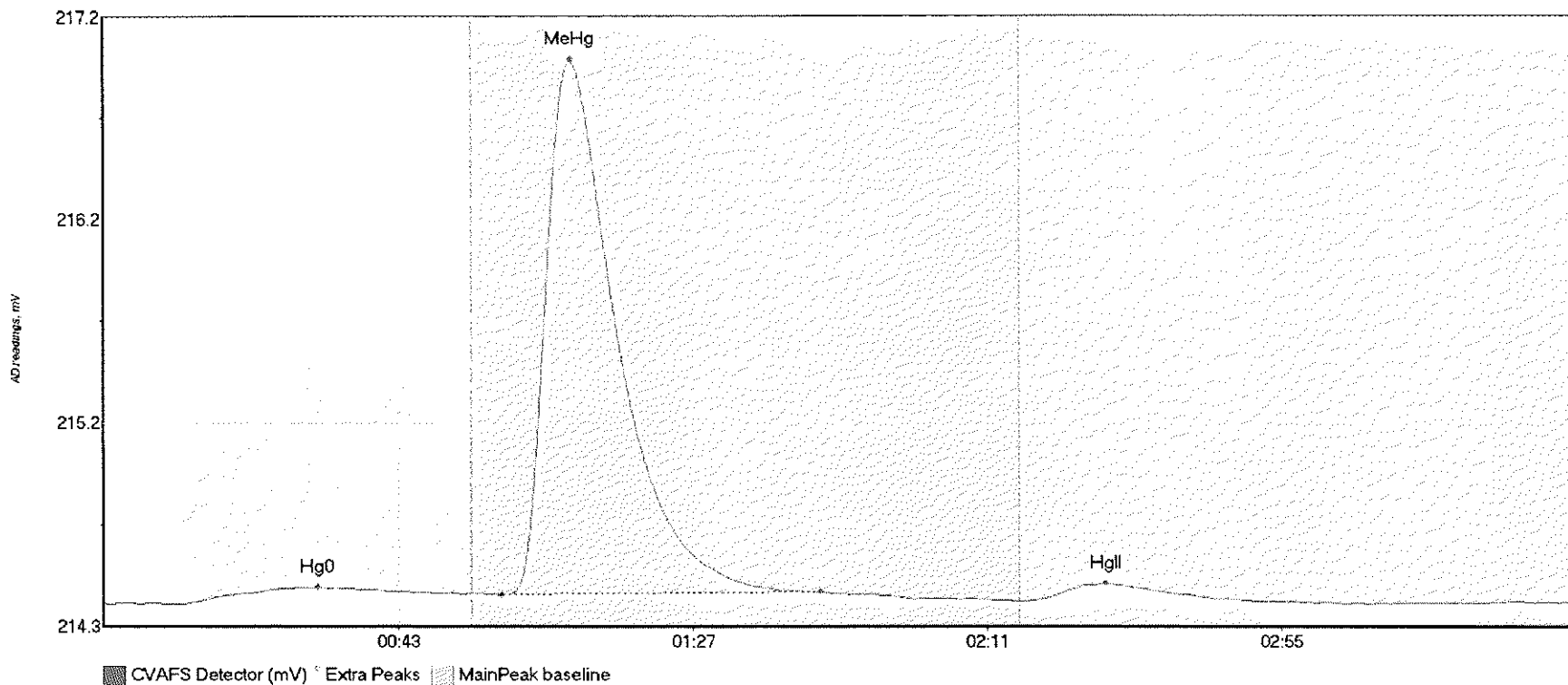
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BLK3 Hg	11.937	11.4	52.7	214.45	214.51	38.1	0.080	OK	214.4514	0.00	0.08	
F707400-BLK3 Hg	2792.116	136.8	202.1	214.80	214.59	148.8	17.612	OK	214.4514	0.00	0.08	017

#14: F707400-BS1



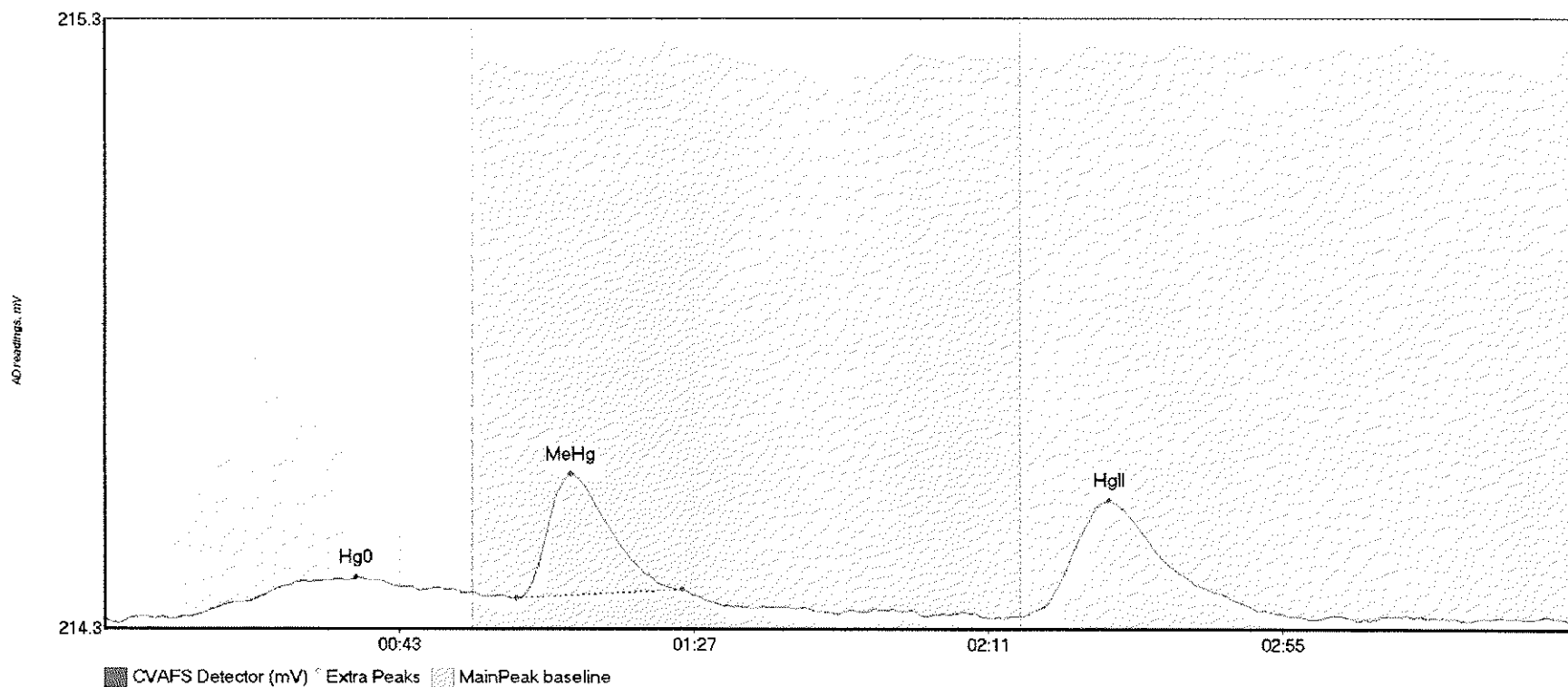
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BS1 Hg0	17.654	10.1	54.4	214.42	214.48	30.6	0.106	OK	214.4344	0.00	-0.01	
F707400-BS1 MeH	297.675	60.3	110.4	214.47	214.47	69.6	2.392	OK	214.4344	0.00	-0.01	
F707400-BS1 HgI	23.640	137.6	170.4	214.46	214.46	149.0	0.164	OK	214.4344	0.00	-0.01	

#15: F707400-BSD1



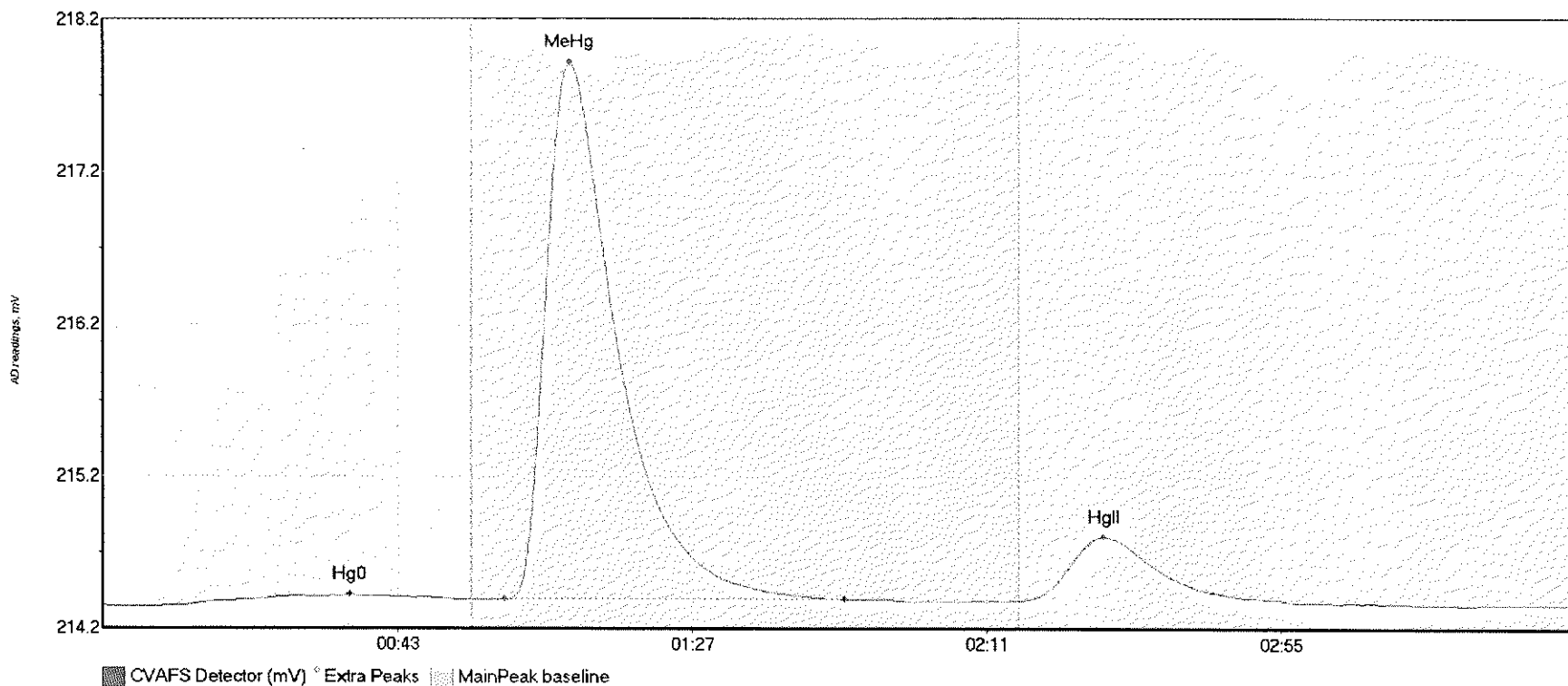
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BSD1 Hg	14.040	11.3	53.4	214.38	214.43	32.0	0.082	OK	214.3818	0.00	0.01	
F707400-BSD1 Me	314.387	59.4	107.2	214.42	214.44	69.8	2.568	OK	214.3818	0.00	0.01	
F707400-BSD1 Hg	13.687	137.5	171.8	214.39	214.39	149.8	0.087	OK	214.3818	0.00	0.01	

#16: F707400-DUP1



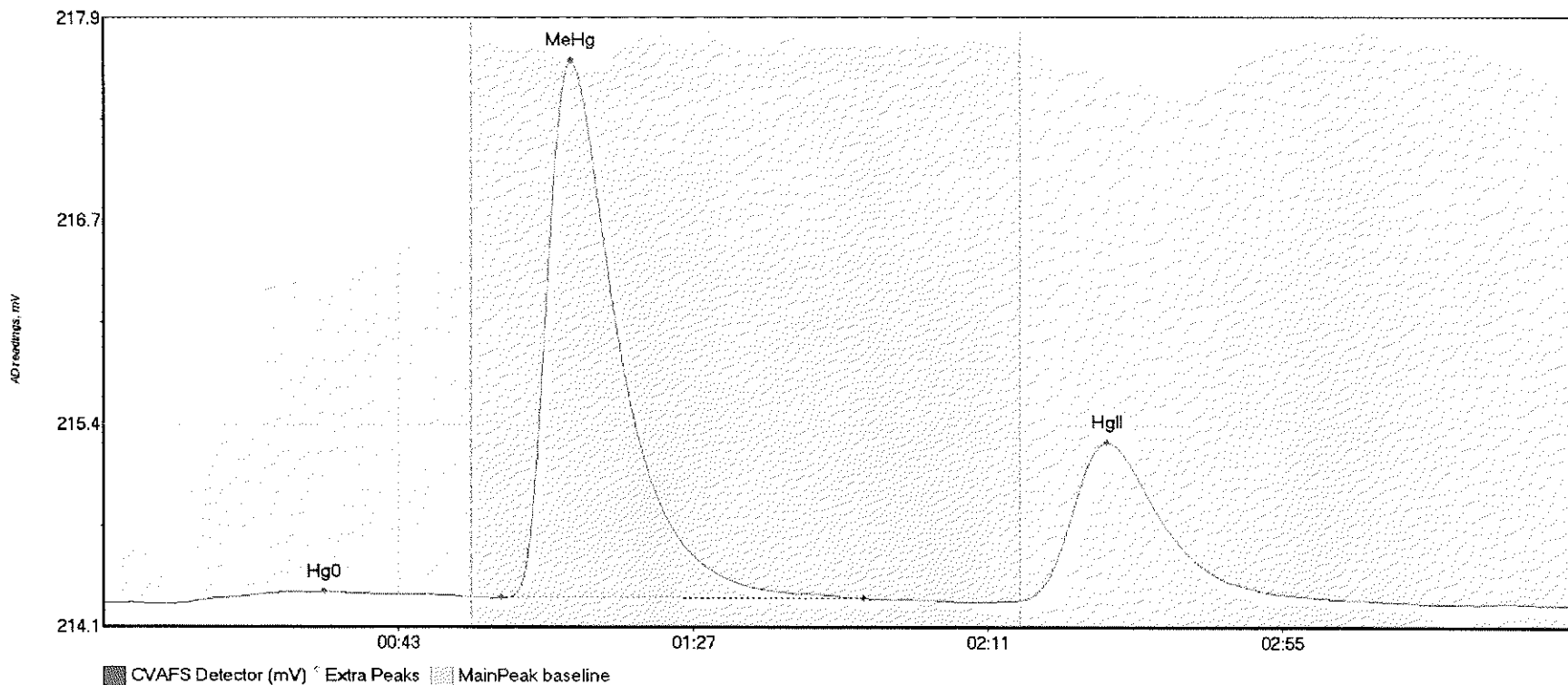
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-DUP1 Hg	10.218	10.2	54.1	214.35	214.39	37.6	0.068	OK	214.3495	0.00	0.00	
F707400-DUP1 Me	20.841	61.6	86.3	214.39	214.40	69.7	0.204	OK	214.3495	0.00	0.00	
F707400-DUP1 Hg	29.233	136.8	175.5	214.35	214.36	150.2	0.191	OK	214.3495	0.00	0.00	

#17: F707400-MS1



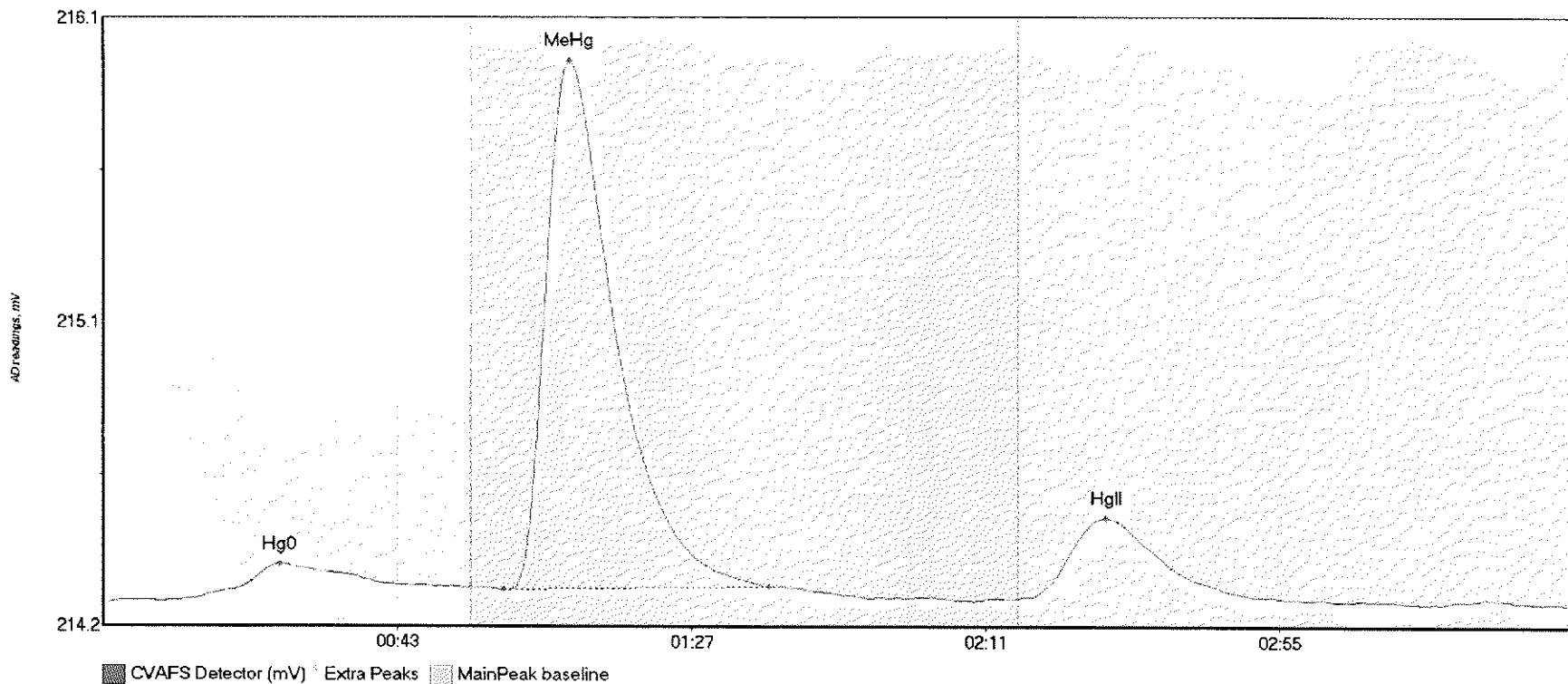
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MS1 Hg0	12.741	12.0	55.0	214.32	214.35	36.9	0.067	CT	214.3115	0.00	0.01	
F707400-MS1 MeH	437.020	59.9	110.8	214.35	214.35	69.7	3.521	OK	214.3115	0.00	0.01	
F707400-MS1 HgI	60.380	136.8	174.5	214.35	214.35	149.4	0.422	OK	214.3115	0.00	0.01	

#18: F707400-MSD1



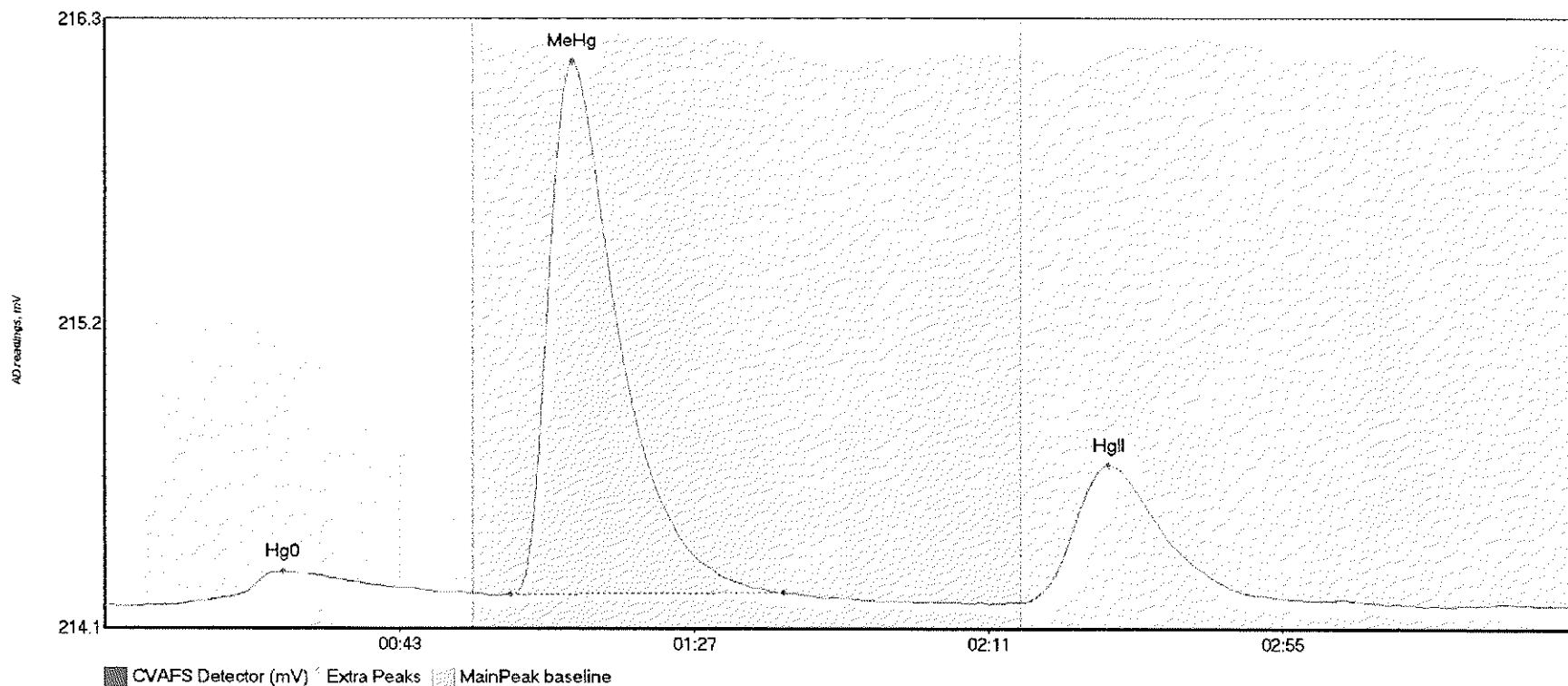
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MSD1 Hg	13.641	12.2	54.8	214.28	214.32	33.0	0.071	OK	214.2842	0.00	-0.01	
F707400-MSD1 Me	416.224	59.4	113.5	214.31	214.31	69.9	3.335	OK	214.2842	0.00	-0.01	
F707400-MSD1 Hg	153.849	136.8	185.1	214.30	214.30	149.9	0.988	OK	214.2842	0.00	-0.01	

#19: F707400-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MS2 Hg0	17.308	11.1	53.8	214.24	214.28	26.5	0.116	OK	214.2356	0.00	-0.01	
F707400-MS2 MeH	200.343	59.8	99.6	214.27	214.28	69.7	1.659	OK	214.2356	0.00	-0.01	
F707400-MS2 Hg1	37.041	138.6	172.7	214.25	214.25	150.1	0.250	OK	214.2356	0.00	-0.01	

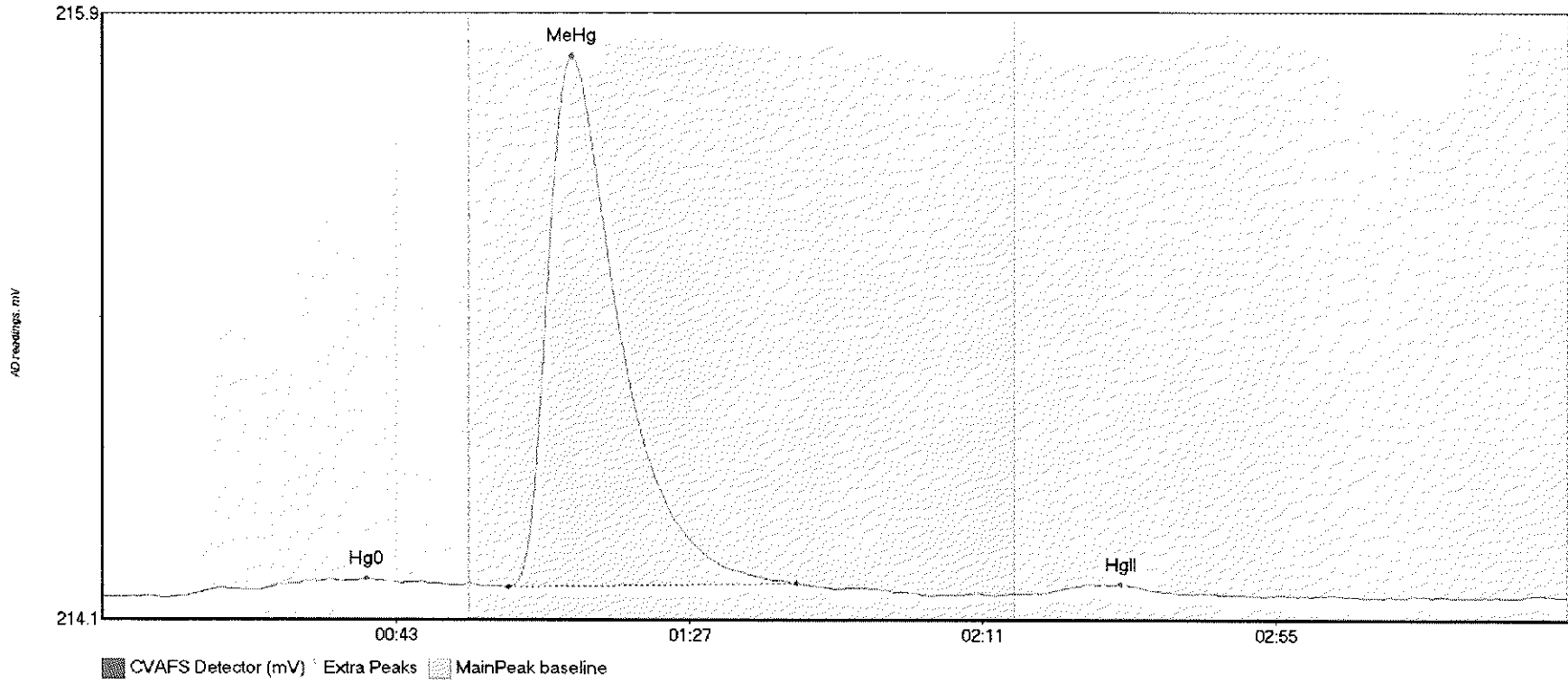
#20: F707400-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MSD2 Hg	20.106	10.1	54.6	214.21	214.25	26.6	0.120	OK	214.2042	0.00	0.00	
F707400-MSD2 Me	234.164	60.6	101.3	214.24	214.25	69.9	1.914	OK	214.2042	0.00	0.00	
F707400-MSD2 Hg	75.132	136.8	181.7	214.22	214.22	150.1	0.495	OK	214.2042	0.00	0.00	

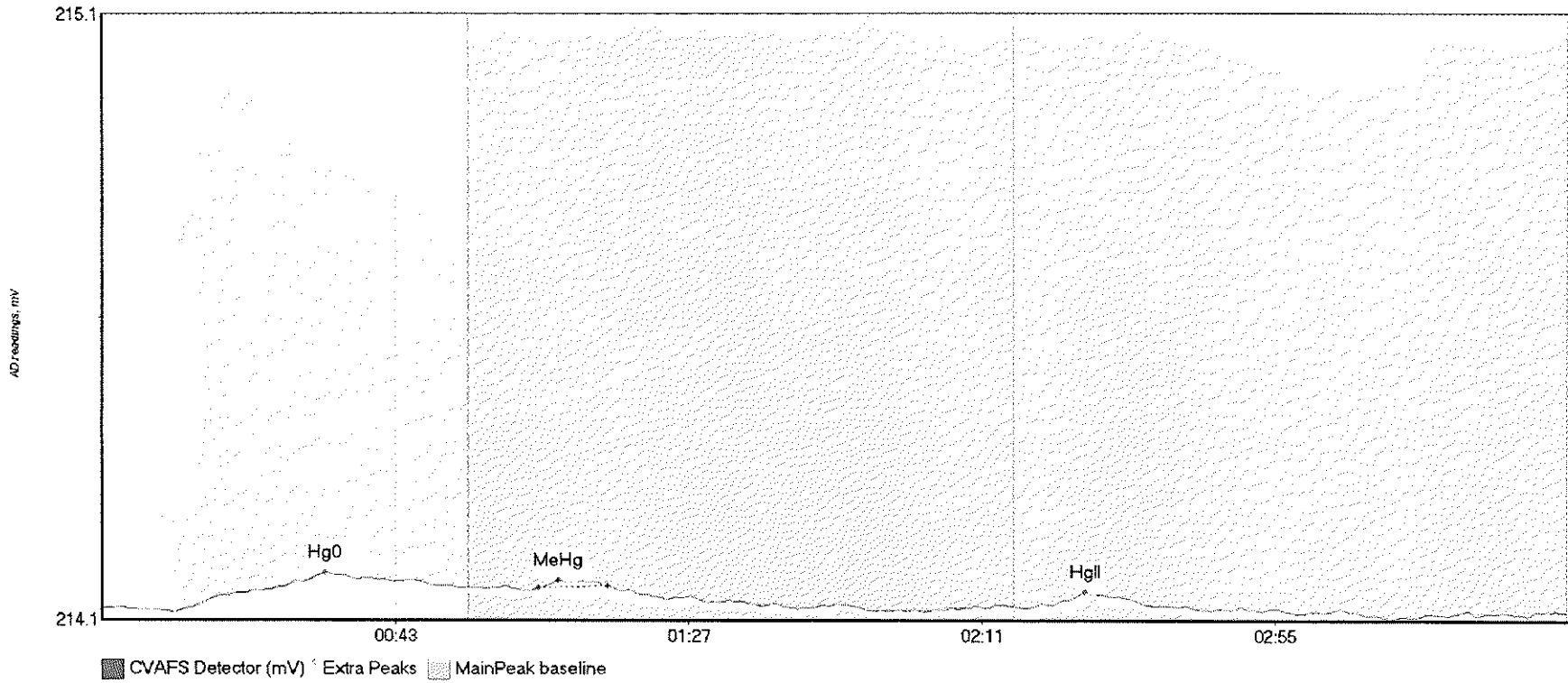


#21: SEQ-CCV1



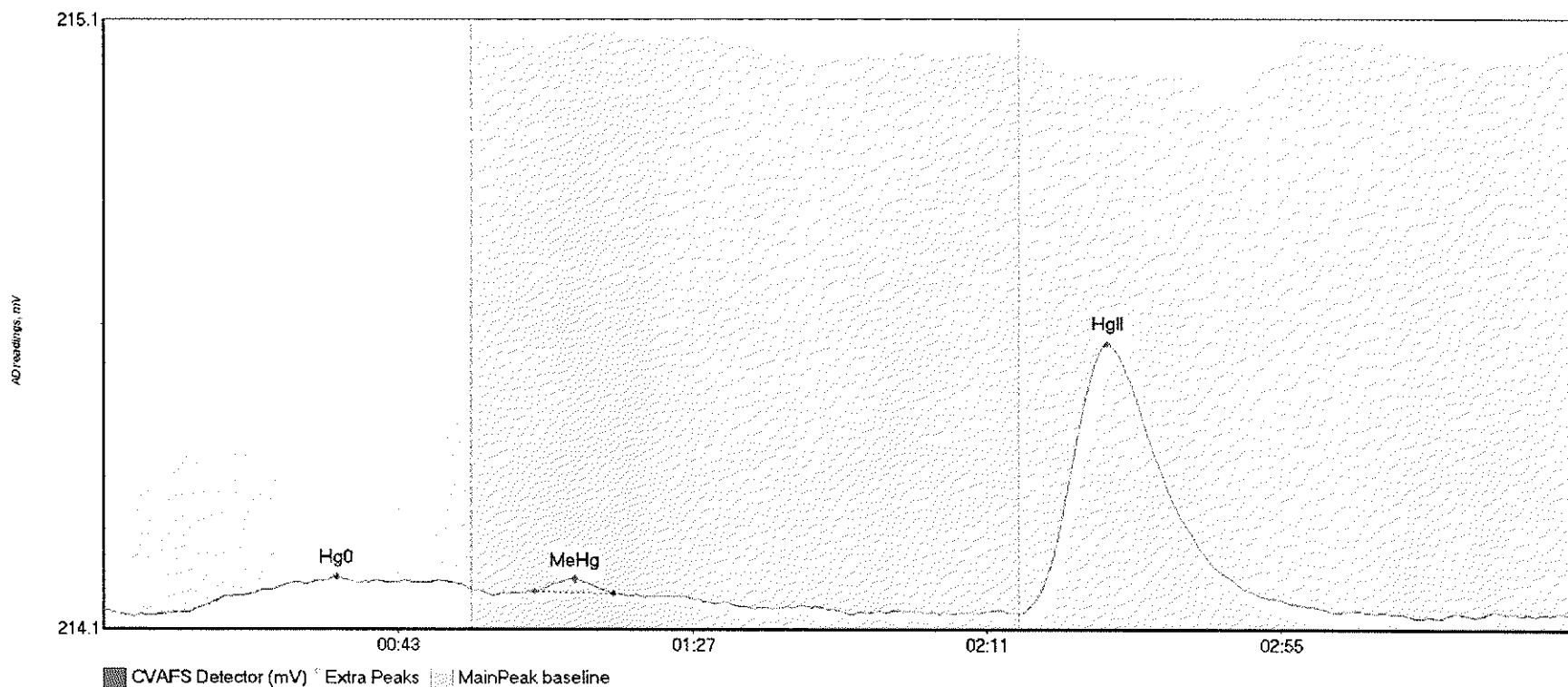
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	6.873	12.5	53.9	214.18	214.21	39.6	0.047	OK	214.1776	0.00	0.00	
SEQ-CCV1 MeHg	193.405	60.8	104.2	214.20	214.21	70.4	1.550	OK	214.1776	0.00	0.00	
SEQ-CCV1 HgII	3.369	141.2	161.9	214.19	214.18	152.7	0.027	OK	214.1776	0.00	0.00	

#22: SEQ-CCB1



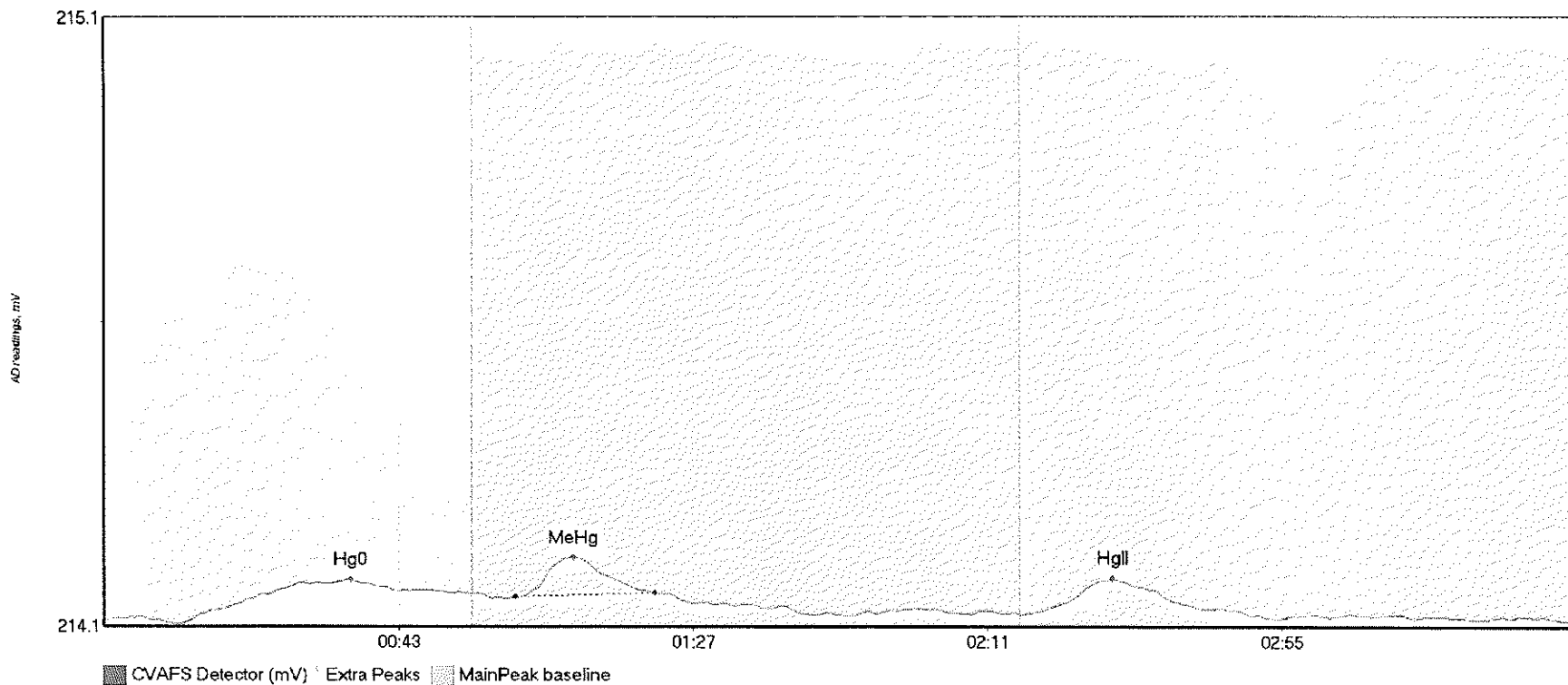
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	9.551	11.0	53.9	214.14	214.18	33.4	0.065	OK	214.1505	0.00	-0.01	
SEQ-CCB1 MeHg	0.721	65.5	75.9	214.18	214.18	68.4	0.011	OK	214.1505	0.00	-0.01	
SEQ-CCB1 HgII	1.781	142.4	157.6	214.15	214.15	147.6	0.021	OK	214.1505	0.00	-0.01	

#23: 1706635-01RE1



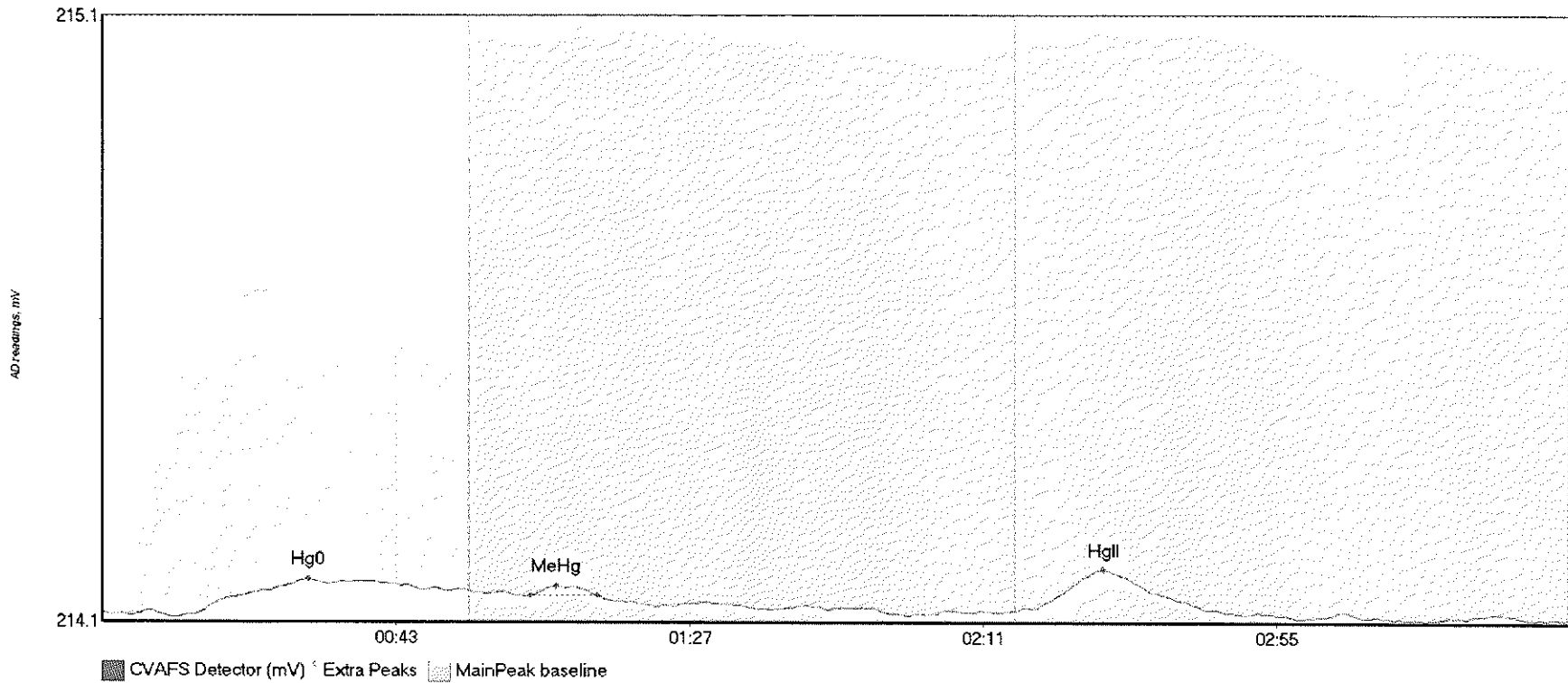
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-01RE1 H	9.622	12.7	55.0	214.12	214.16	34.8	0.058	CT	214.1266	0.00	-0.01	
1706635-01RE1 M	1.478	64.5	76.1	214.16	214.15	70.5	0.021	OK	214.1266	0.00	-0.01	
1706635-01RE1 H	70.325	136.9	184.3	214.12	214.12	150.1	0.442	OK	214.1266	0.00	-0.01	

#24: 1706635-02RE1



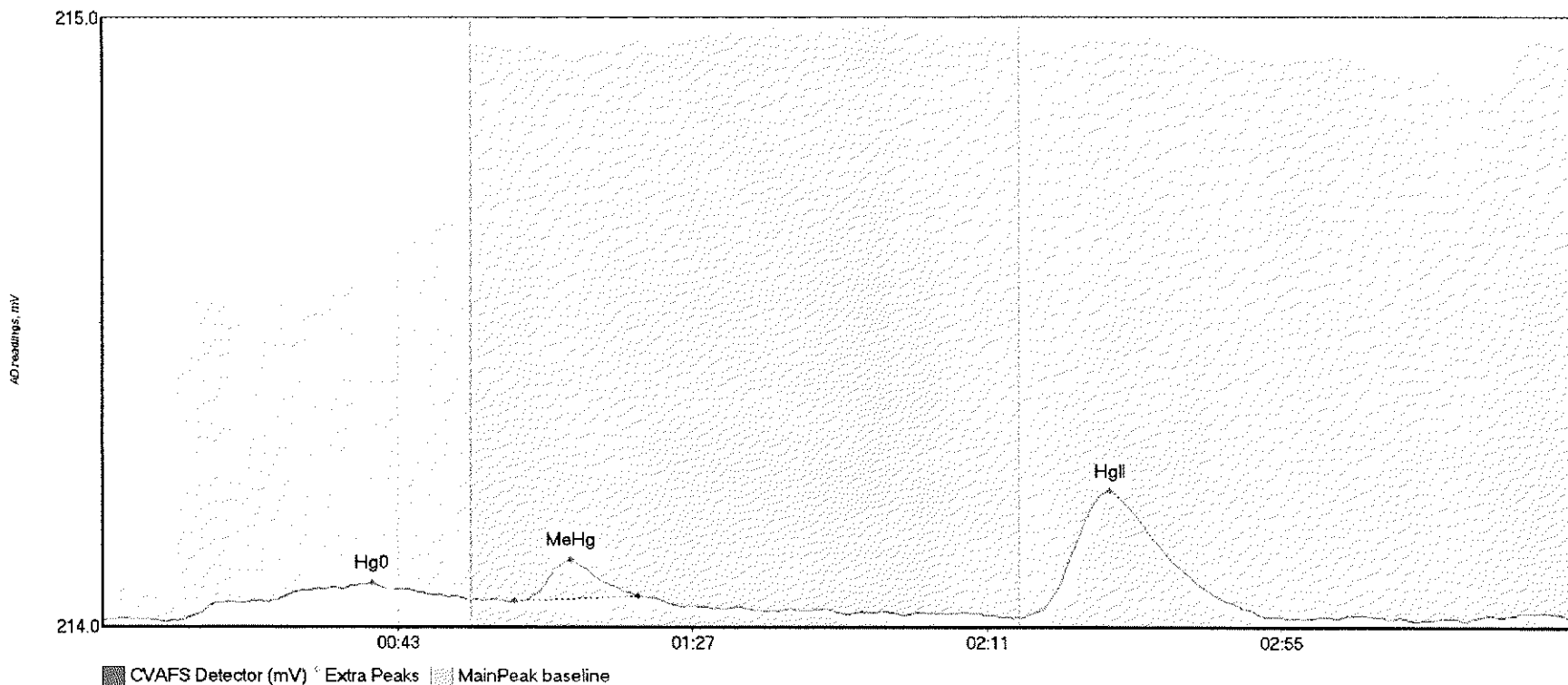
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-02RE1 H	10.918	11.3	54.6	214.08	214.13	36.8	0.074	OK	214.0891	0.00	0.00	
1706635-02RE1 M	6.113	61.5	82.3	214.13	214.13	70.1	0.066	OK	214.0891	0.00	0.00	
1706635-02RE1 H	8.822	138.6	171.6	214.10	214.10	150.8	0.057	OK	214.0891	0.00	0.00	

#25: 1706635-05RE1



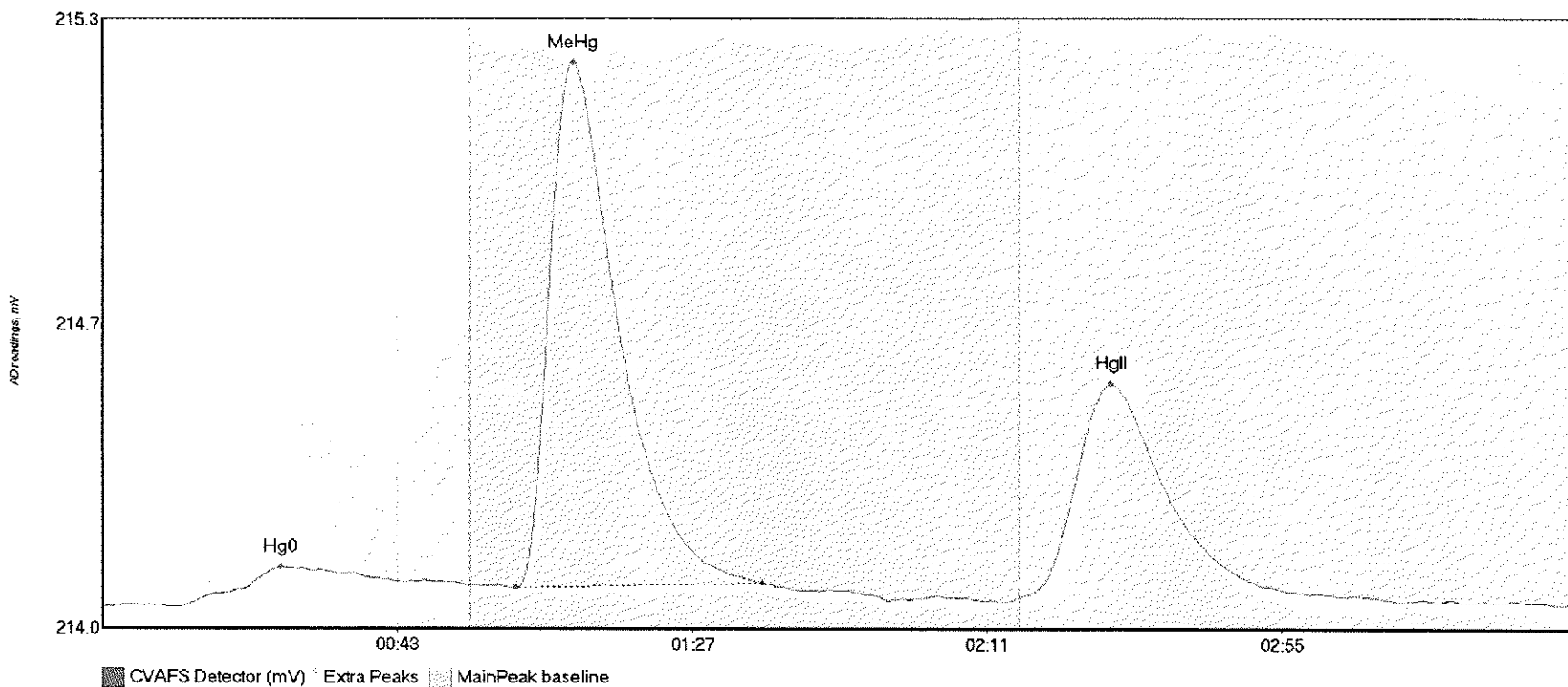
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-05RE1 H	8.772	14.1	51.6	214.08	214.11	30.9	0.058	OK	214.0772	0.00	-0.01	
1706635-05RE1 M	1.028	64.1	74.2	214.11	214.11	68.0	0.016	OK	214.0772	0.00	-0.01	
1706635-05RE1 H	8.548	139.9	165.5	214.08	214.08	150.2	0.066	OK	214.0772	0.00	-0.01	

#26: 1706635-06RE1



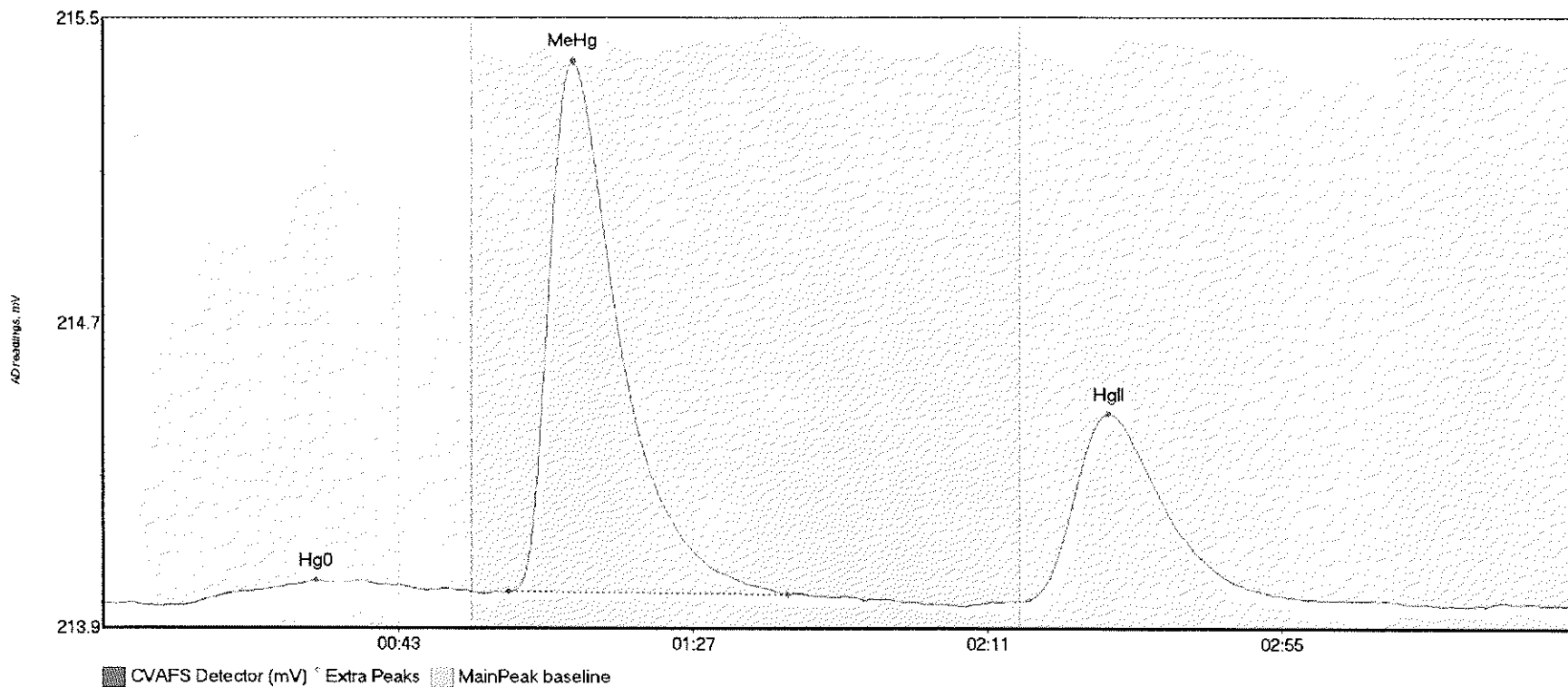
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-06RE1 H	10.265	11.6	54.9	214.05	214.08	40.1	0.061	OK	214.0489	0.00	0.00	
1706635-06RE1 M	5.240	61.5	79.9	214.08	214.09	69.8	0.069	OK	214.0489	0.00	0.00	
1706635-06RE1 H	32.206	137.2	174.0	214.05	214.05	150.4	0.209	OK	214.0489	0.00	0.00	

#27: 1706730-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-01RE1 H	14.315	11.5	54.7	214.02	214.07	26.7	0.087	OK	214.0239	0.00	0.01	
1706730-01RE1 M	138.907	61.7	98.5	214.06	214.07	70.4	1.169	OK	214.0239	0.00	0.01	
1706730-01RE1 H	72.995	136.8	182.9	214.04	214.05	150.6	0.478	OK	214.0239	0.00	0.01	

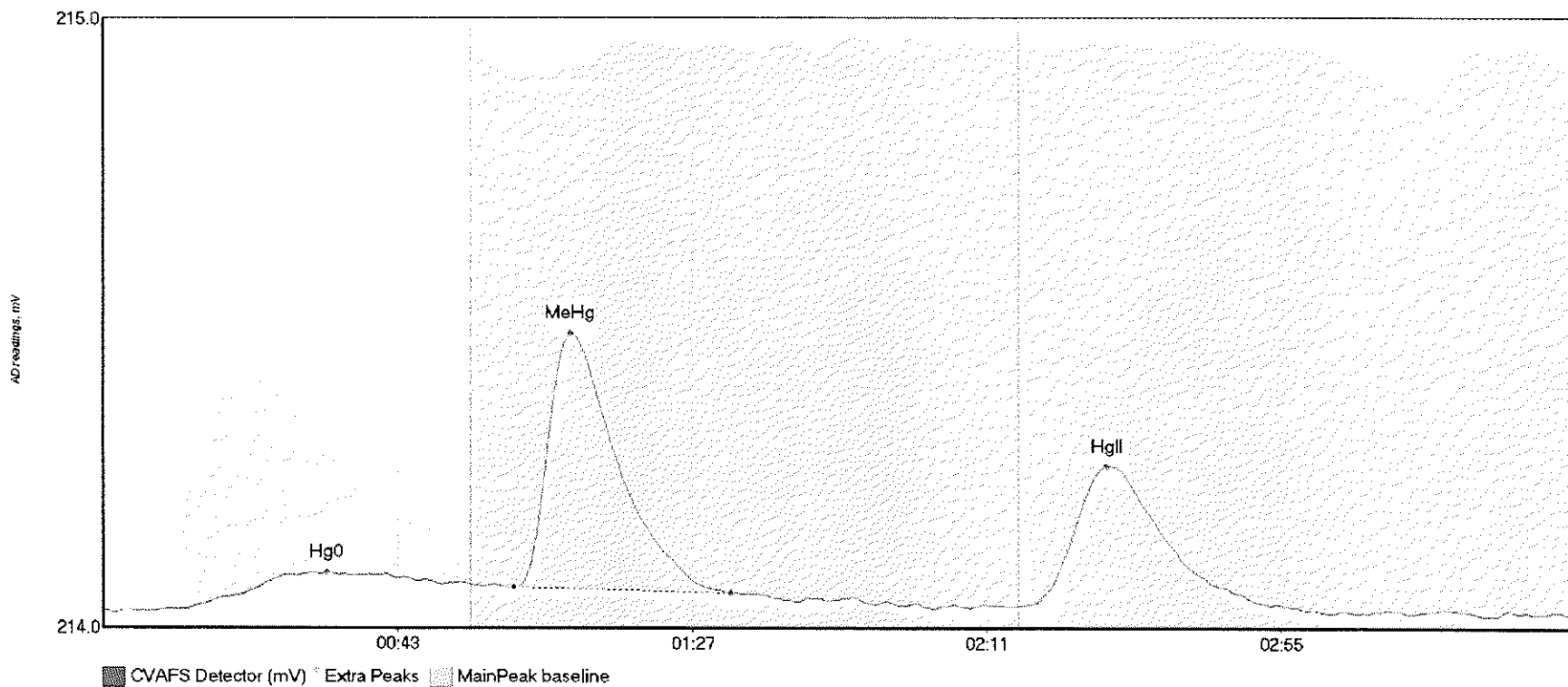
#28: 1706730-02RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-02RE1 H	10.967	12.3	55.0	214.00	214.04	31.7	0.063	CT	214.0081	0.00	-0.01	
1706730-02RE1 M	168.573	60.4	102.1	214.04	214.03	70.1	1.372	OK	214.0081	0.00	-0.01	
1706730-02RE1 H	73.948	137.6	180.0	214.01	214.02	150.2	0.486	OK	214.0081	0.00	-0.01	



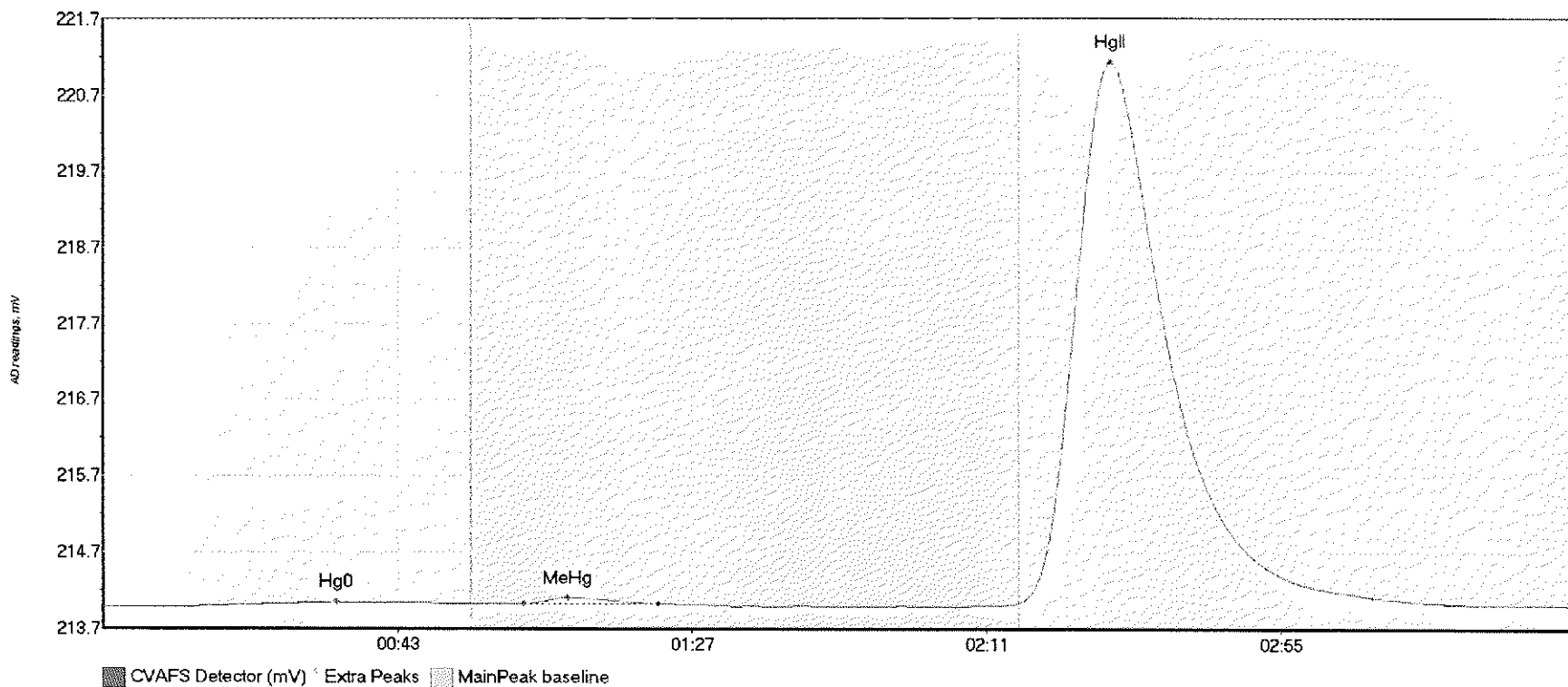
#29: 1706730-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-03RE1 H	8.475	12.6	50.6	213.98	214.02	33.5	0.059	OK	213.9812	0.00	-0.01	
1706730-03RE1 M	49.463	61.4	93.7	214.02	214.01	69.9	0.417	OK	213.9812	0.00	-0.01	
1706730-03RE1 H	33.370	137.4	172.8	213.99	213.99	150.1	0.230	OK	213.9812	0.00	-0.01	

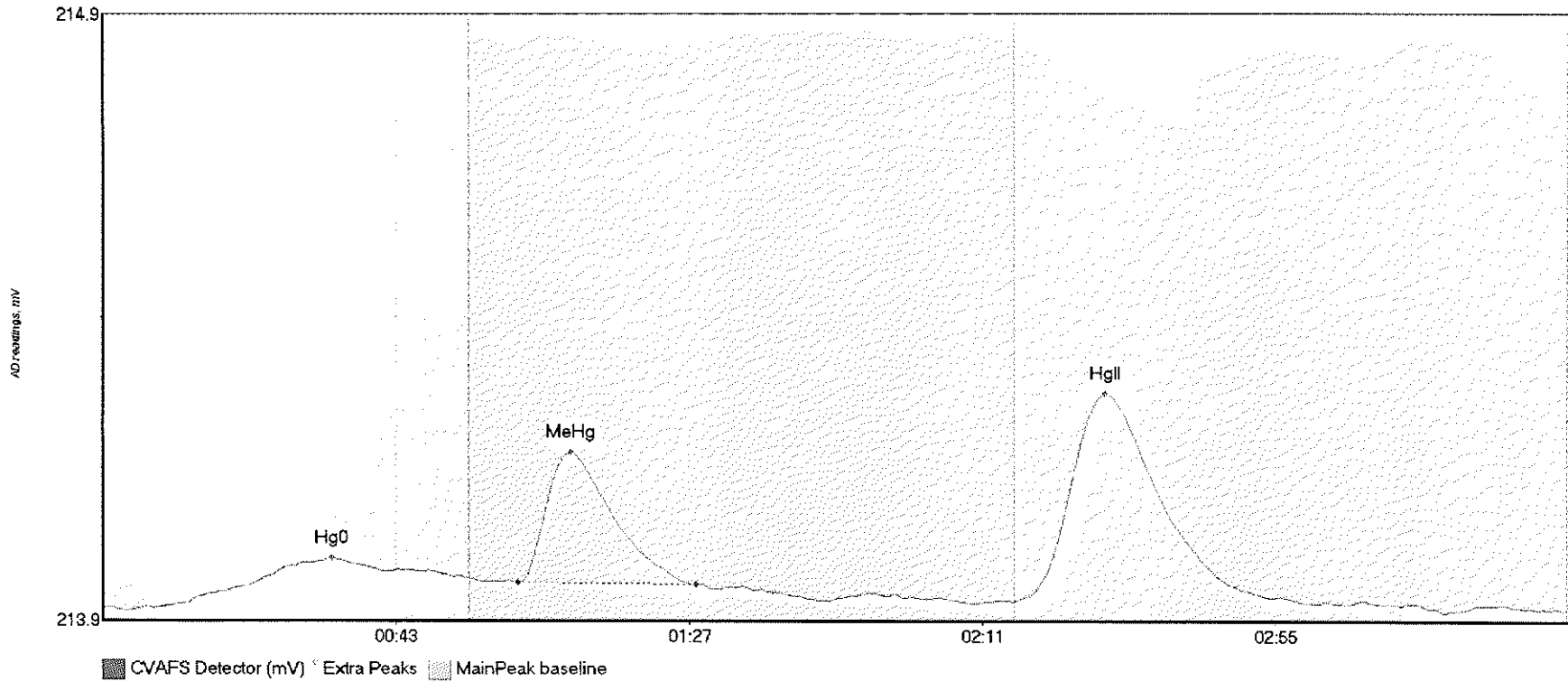
017

#30: 1706730-04RE1



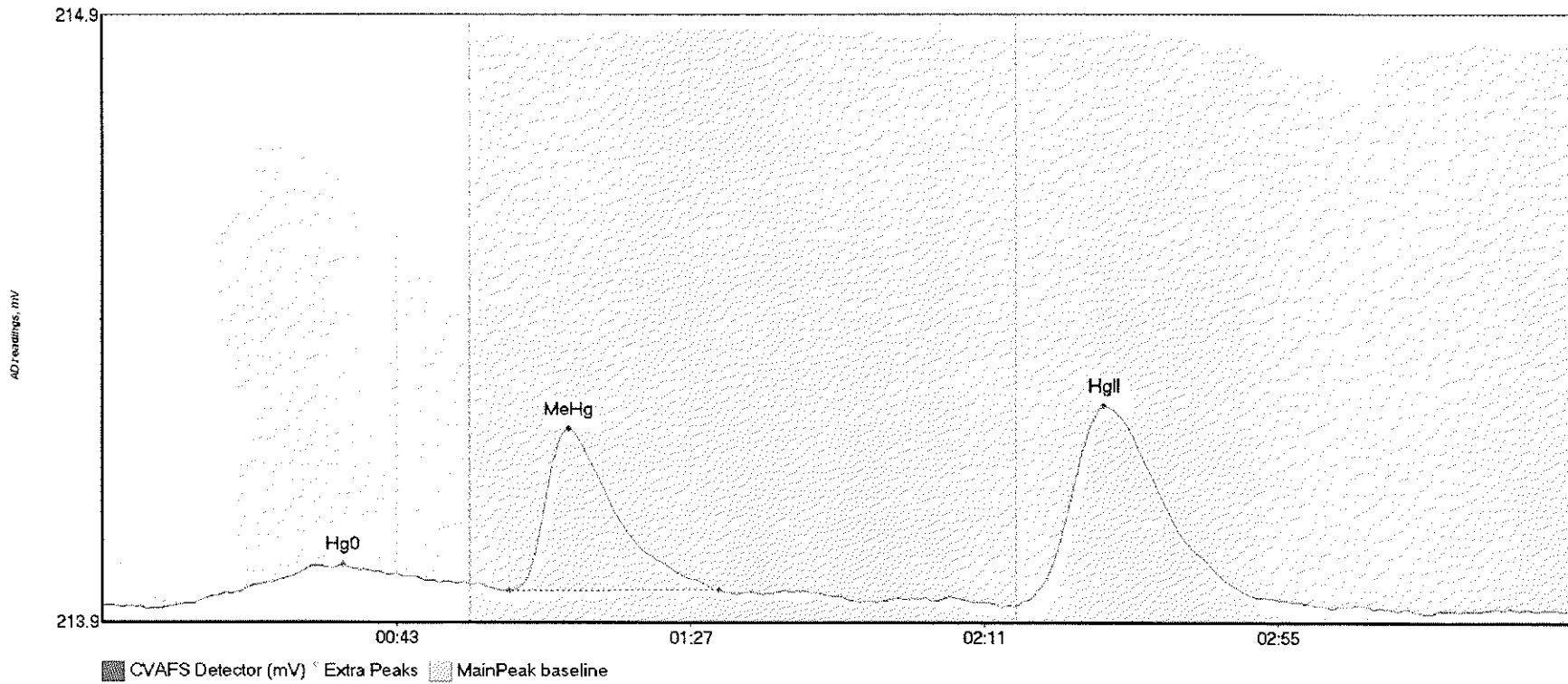
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-04RE1 H	9.961	11.7	54.8	213.95	213.99	34.9	0.065	OK	213.9610	0.00	0.01	
1706730-04RE1 M	8.309	62.9	83.0	213.99	213.99	69.4	0.078	OK	213.9610	0.00	0.01	
1706730-04RE1 H	1142.302	136.8	202.3	214.00	213.99	150.5	7.110	OK	213.9610	0.00	0.01	

#31: 1706926-01RE1



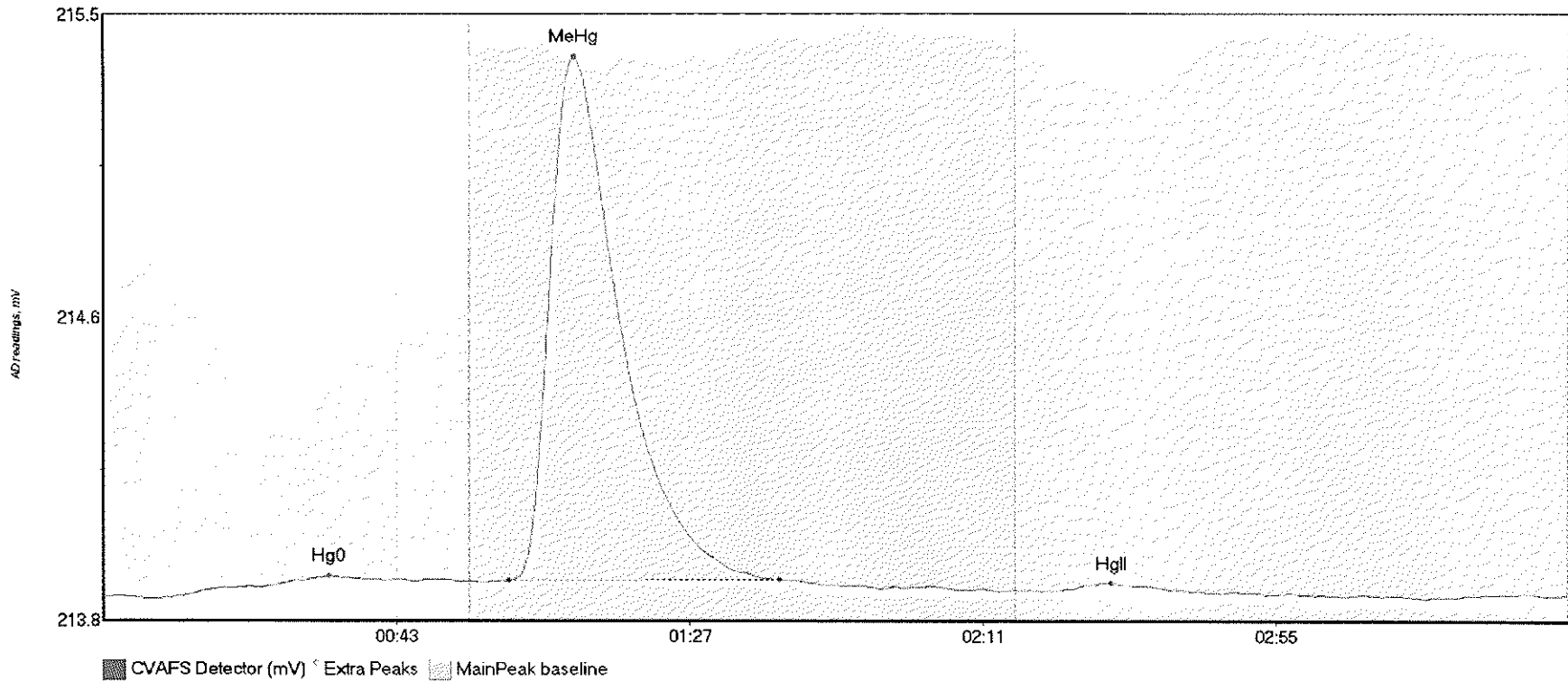
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-01RE1 H	11.894	10.2	55.0	213.92	213.96	34.5	0.079	CT	213.9142	0.00	0.00	
1706926-01RE1 M	24.655	62.3	89.0	213.95	213.95	70.3	0.215	OK	213.9142	0.00	0.00	
1706926-01RE1 H	50.759	136.9	175.4	213.92	213.93	150.4	0.343	OK	213.9142	0.00	0.00	

#32: 1706926-03RE1



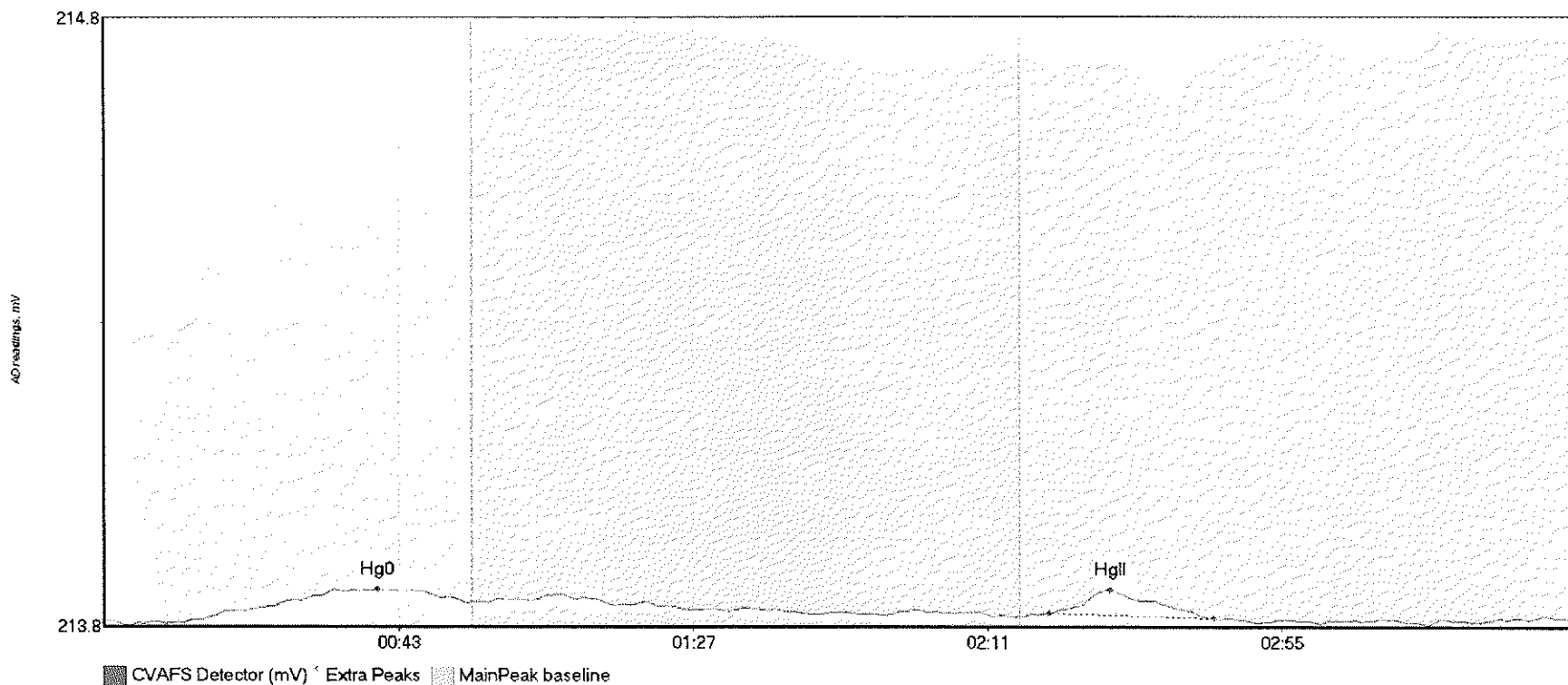
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-03RE1 H	9.827	13.6	55.0	213.90	213.93	36.0	0.063	CT	213.8968	0.00	-0.01	
1706926-03RE1 M	32.013	60.8	92.3	213.92	213.92	69.9	0.268	OK	213.8968	0.00	-0.01	
1706926-03RE1 H	51.396	136.8	178.5	213.90	213.90	150.0	0.330	OK	213.8968	0.00	-0.01	

#33: SEQ-CCV2



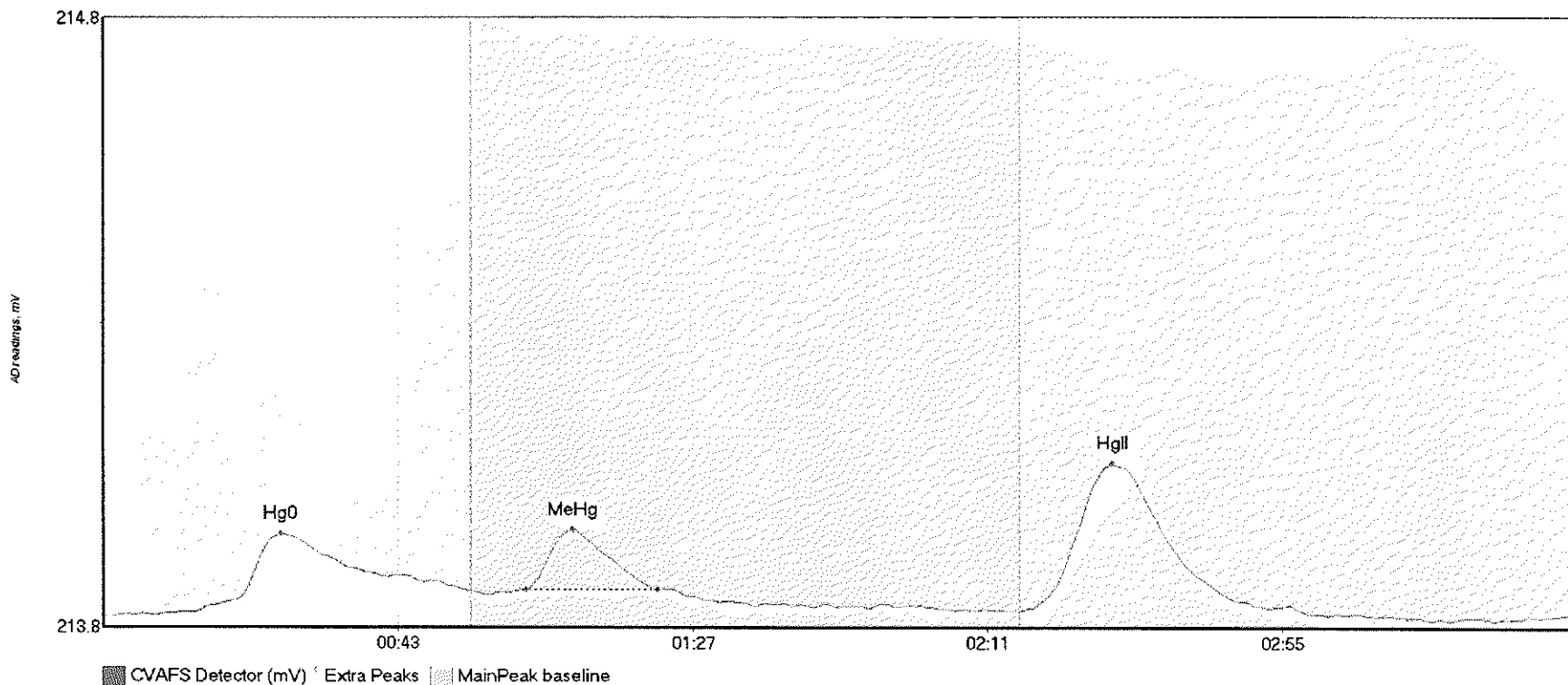
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	5.259	11.7	46.9	213.85	213.89	33.8	0.054	OK	213.8529	0.00	0.00	
SEQ-CCV2 MeHg	176.379	60.8	101.4	213.90	213.90	70.7	1.438	OK	213.8529	0.00	0.00	
SEQ-CCV2 HgII	1.674	145.1	160.7	213.87	213.87	151.3	0.017	OK	213.8529	0.00	0.00	

#34: SEQ-CCB2



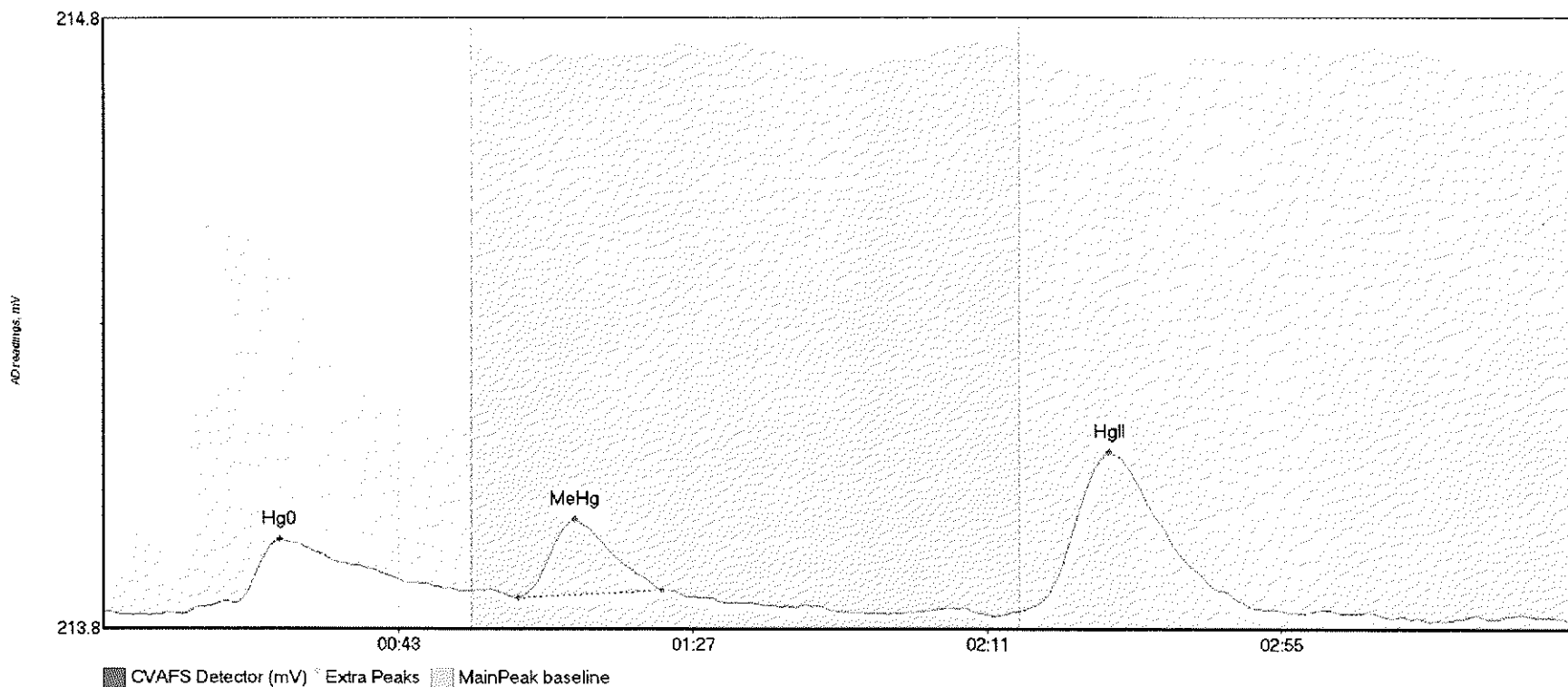
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	7.808	14.9	54.2	213.83	213.86	40.8	0.050	OK	213.8262	0.00	0.00	
SEQ-CCB2 HgII	4.890	141.1	165.9	213.84	213.83	150.3	0.039	OK	213.8262	0.00	0.00	117

#35: 1706926-04RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-04RE1 H	19.094	9.8	55.0	213.81	213.84	26.6	0.130	CT	213.8035	0.00	0.00	
1706926-04RE1 M	9.566	63.1	82.7	213.85	213.85	70.1	0.099	OK	213.8035	0.00	0.00	
1706926-04RE1 H	34.370	138.5	173.9	213.82	213.82	150.8	0.236	OK	213.8035	0.00	0.00	

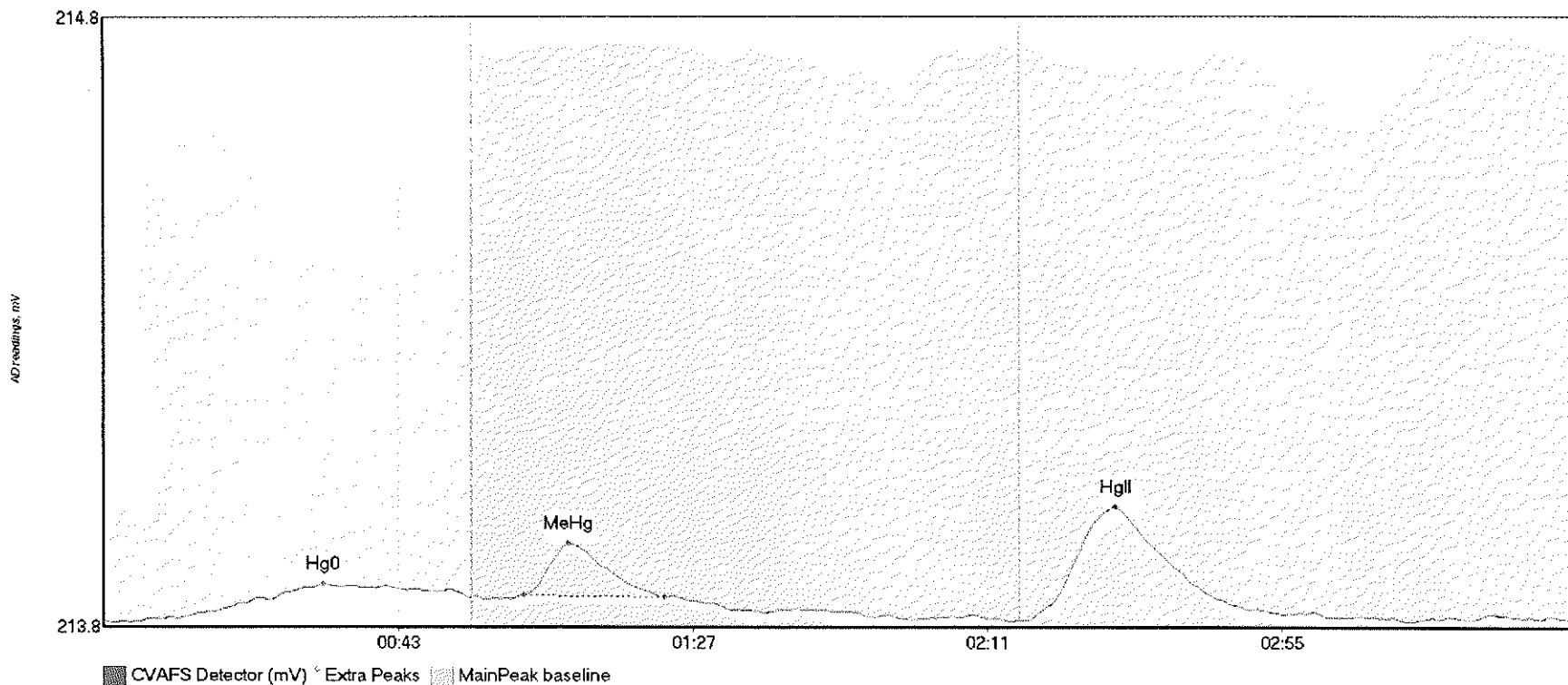
#36: 1706926-05RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-05RE1 H	18.387	11.7	53.7	213.79	213.83	26.3	0.122	OK	213.7937	0.00	-0.02	
1706926-05RE1 M	12.718	61.9	83.5	213.82	213.83	70.4	0.128	OK	213.7937	0.00	-0.02	
1706926-05RE1 H	38.231	136.8	172.9	213.79	213.80	150.3	0.260	OK	213.7937	0.00	-0.02	

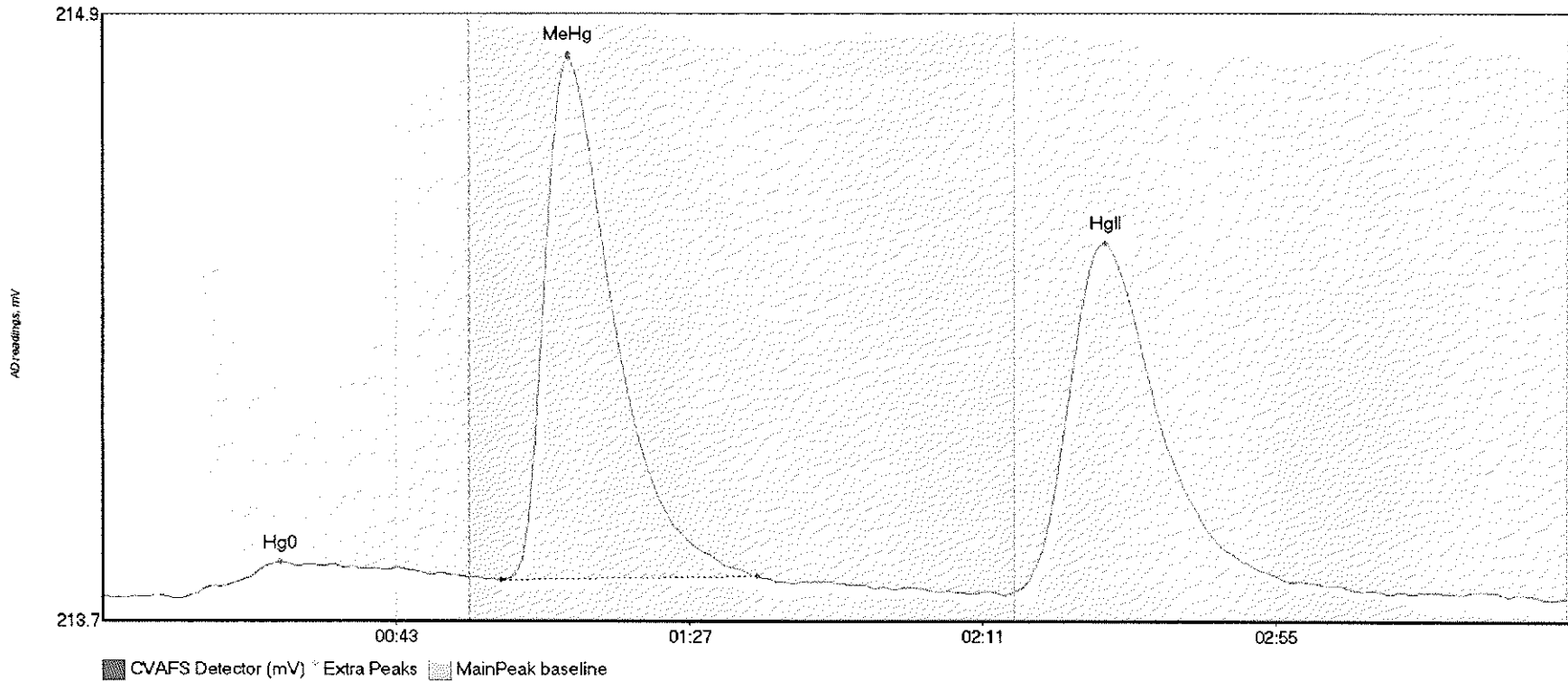


#37: 1706926-06RE1



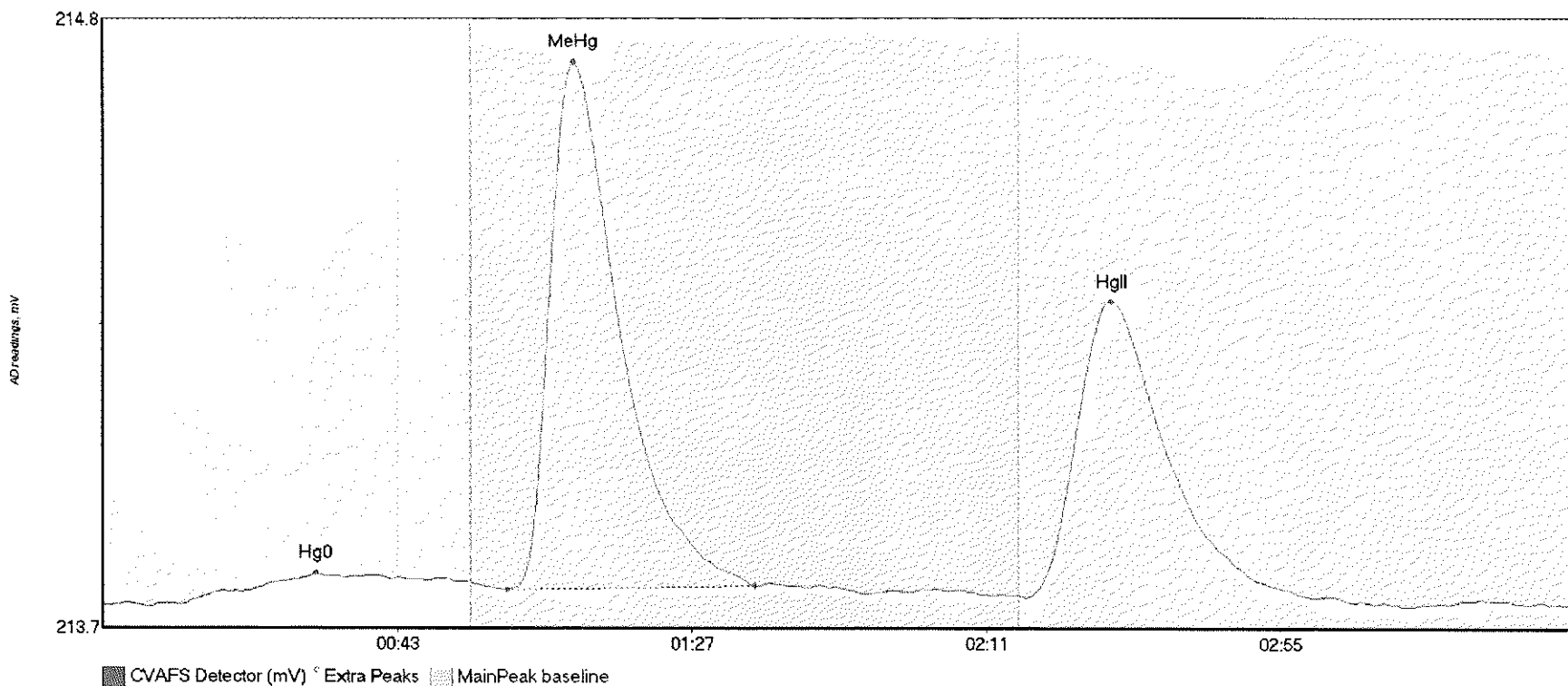
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-06RE1 H	9.473	11.0	54.8	213.77	213.81	32.8	0.058	OK	213.7683	0.00	0.00	
1706926-06RE1 M	8.224	62.7	83.8	213.81	213.81	69.5	0.085	OK	213.7683	0.00	0.00	
1706926-06RE1 H	29.400	137.8	183.1	213.77	213.77	151.2	0.187	OK	213.7683	0.00	0.00	

#38: 1707149-01RE1



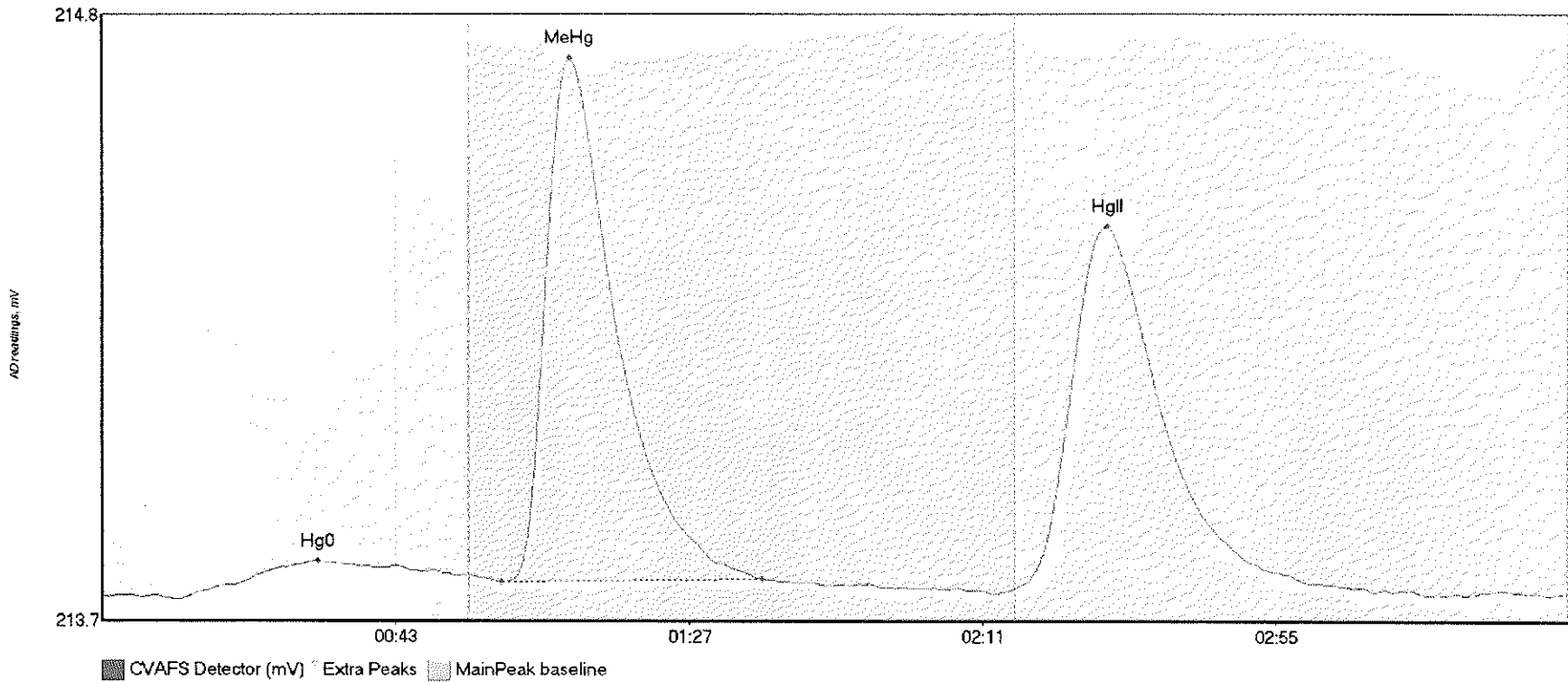
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-01RE1 H	13.053	11.4	55.0	213.75	213.79	26.7	0.076	CT	213.7507	0.00	0.00	
1707149-01RE1 M	130.205	59.7	98.2	213.78	213.79	69.9	1.074	OK	213.7507	0.00	0.00	
1707149-01RE1 H	113.954	136.8	188.9	213.76	213.76	150.4	0.717	OK	213.7507	0.00	0.00	

#39: 1707149-02RE1



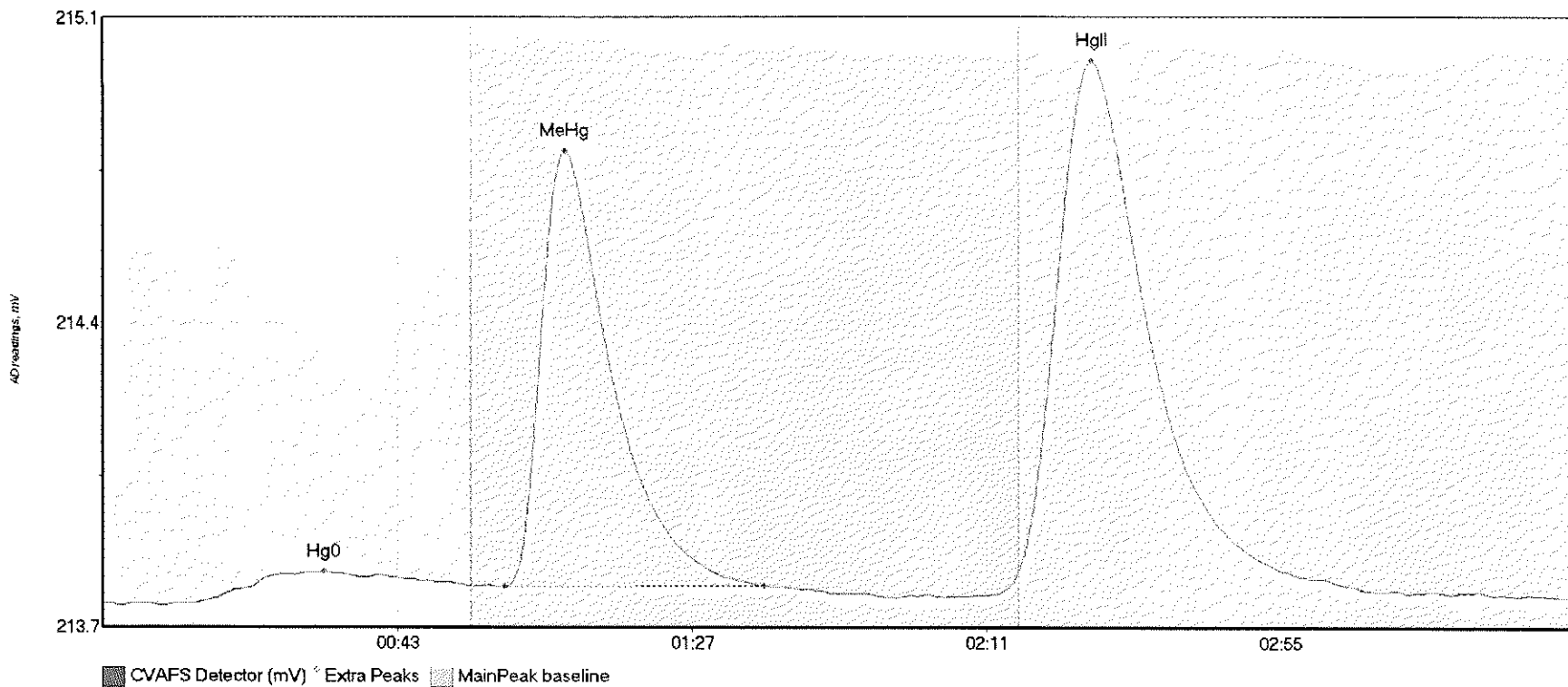
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-02RE1 H	8.130	11.8	55.0	213.73	213.77	31.9	0.054	CT	213.7309	0.00	0.00	
1707149-02RE1 M	113.582	60.4	97.5	213.76	213.76	70.4	0.936	OK	213.7309	0.00	0.00	
1707149-02RE1 H	80.894	138.1	180.2	213.75	213.75	150.7	0.526	OK	213.7309	0.00	0.00	

#40: 1707149-03RE1



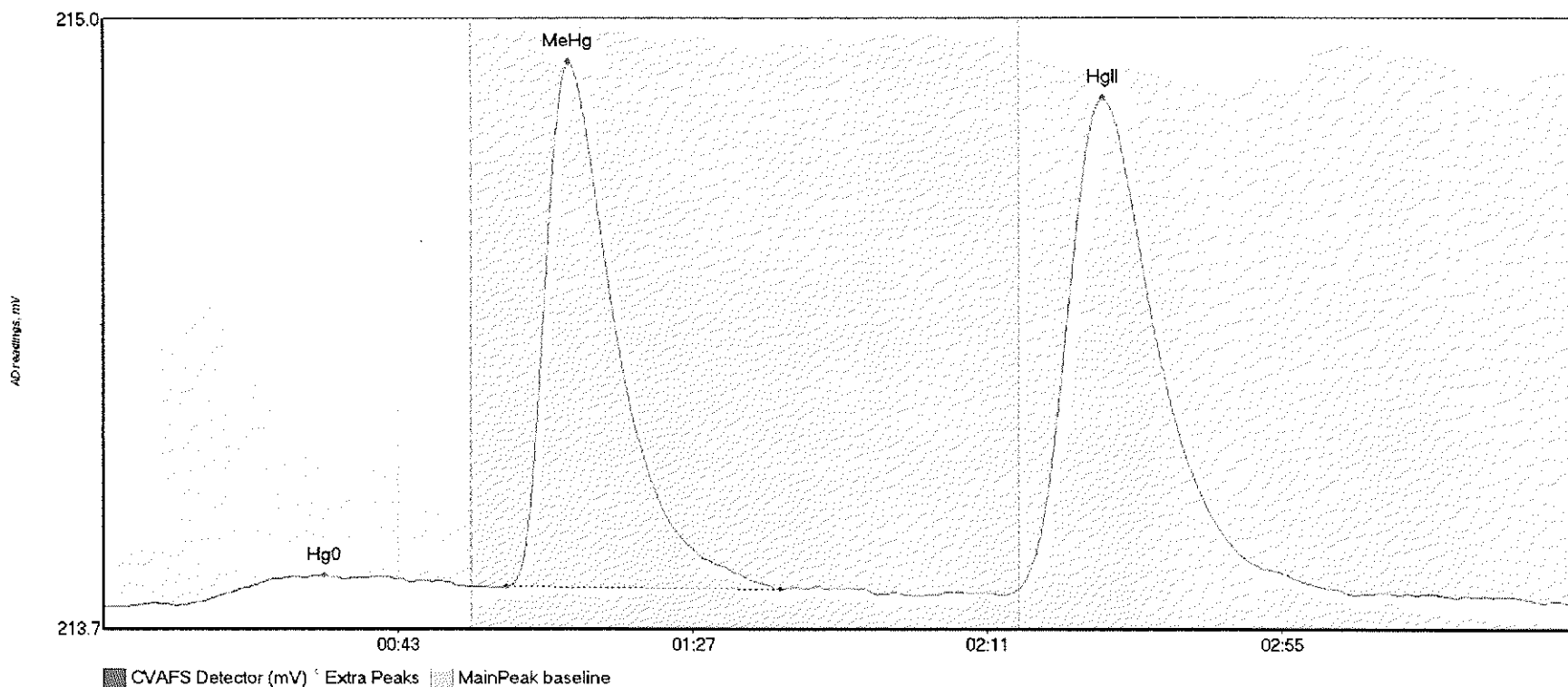
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-03RE1 H	11.353	11.4	53.2	213.71	213.75	32.4	0.073	OK	213.7153	0.00	0.00	
1707149-03RE1 M	121.012	59.9	98.9	213.74	213.75	70.1	0.986	OK	213.7153	0.00	0.00	
1707149-03RE1 H	105.418	136.8	183.5	213.73	213.74	150.7	0.682	OK	213.7153	0.00	0.00	

#41: 1707149-04RE1



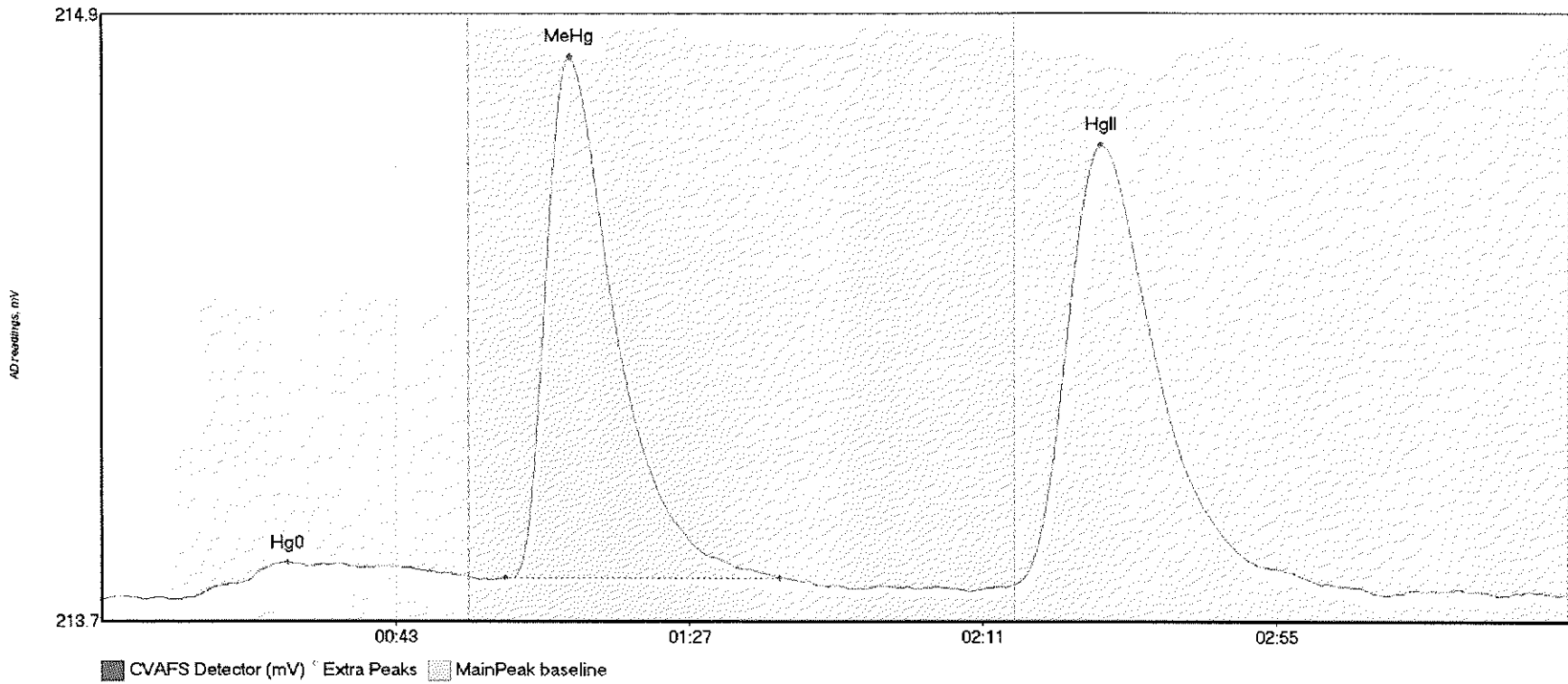
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-04RE1 H	13.252	13.6	54.9	213.76	213.80	33.0	0.073	OK	213.7609	0.00	0.01	
1707149-04RE1 M	124.294	60.0	98.7	213.80	213.80	69.0	1.017	OK	213.7609	0.00	0.01	
1707149-04RE1 H	182.803	136.8	179.5	213.83	213.82	147.7	1.194	OK	213.7609	0.00	0.01	

#42: 1707149-05RE1



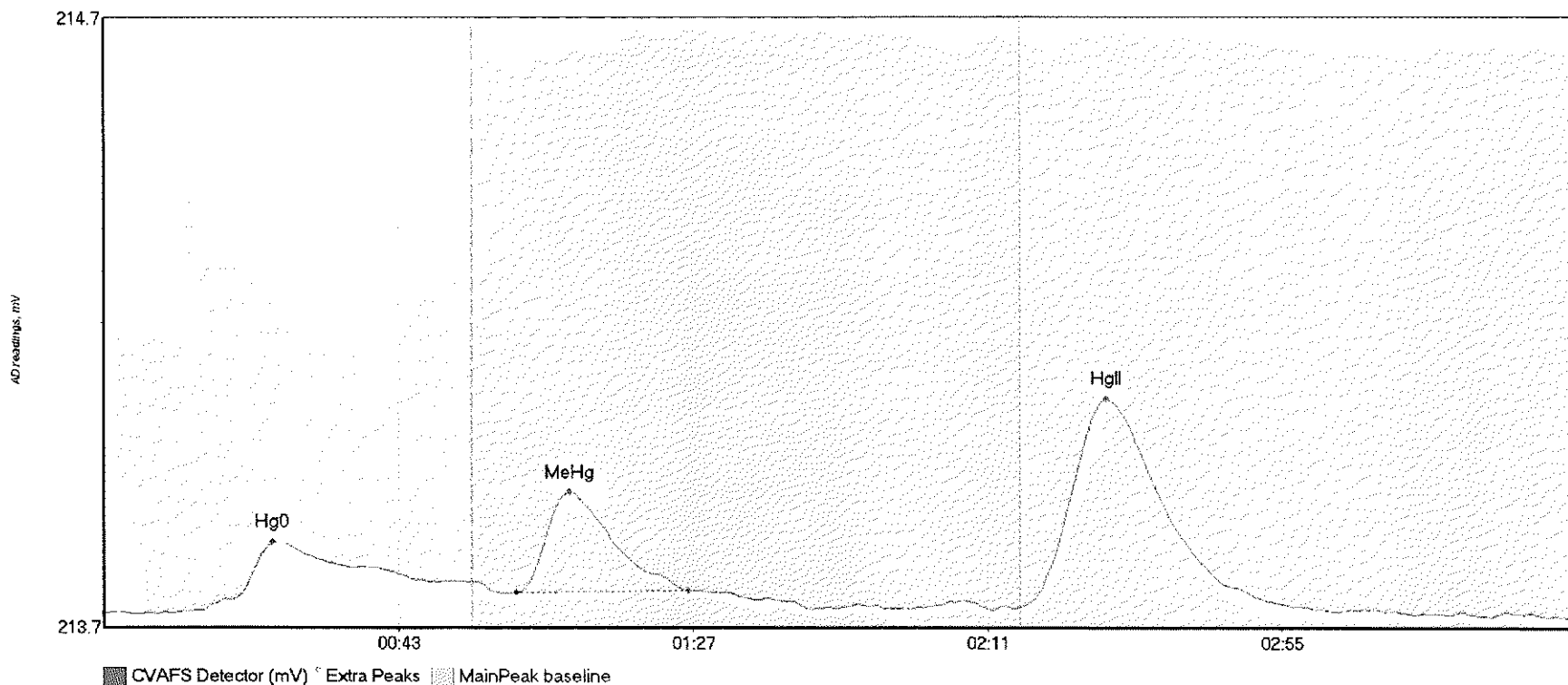
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-05RE1 H	11.119	11.1	55.0	213.76	213.80	33.0	0.062	CT	213.7593	0.00	0.01	
1707149-05RE1 M	132.986	60.2	101.0	213.80	213.79	69.5	1.074	OK	213.7593	0.00	0.01	
1707149-05RE1 H	155.168	136.8	182.7	213.80	213.80	149.3	1.005	OK	213.7593	0.00	0.01	

#43: 1707149-06RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-06RE1 H	12.653	13.3	55.0	213.76	213.80	27.8	0.071	CT	213.7572	0.00	0.01	
1707149-06RE1 M	126.685	60.5	101.6	213.80	213.80	70.1	1.043	OK	213.7572	0.00	0.01	
1707149-06RE1 H	136.591	136.8	182.7	213.79	213.79	149.7	0.880	OK	213.7572	0.00	0.01	

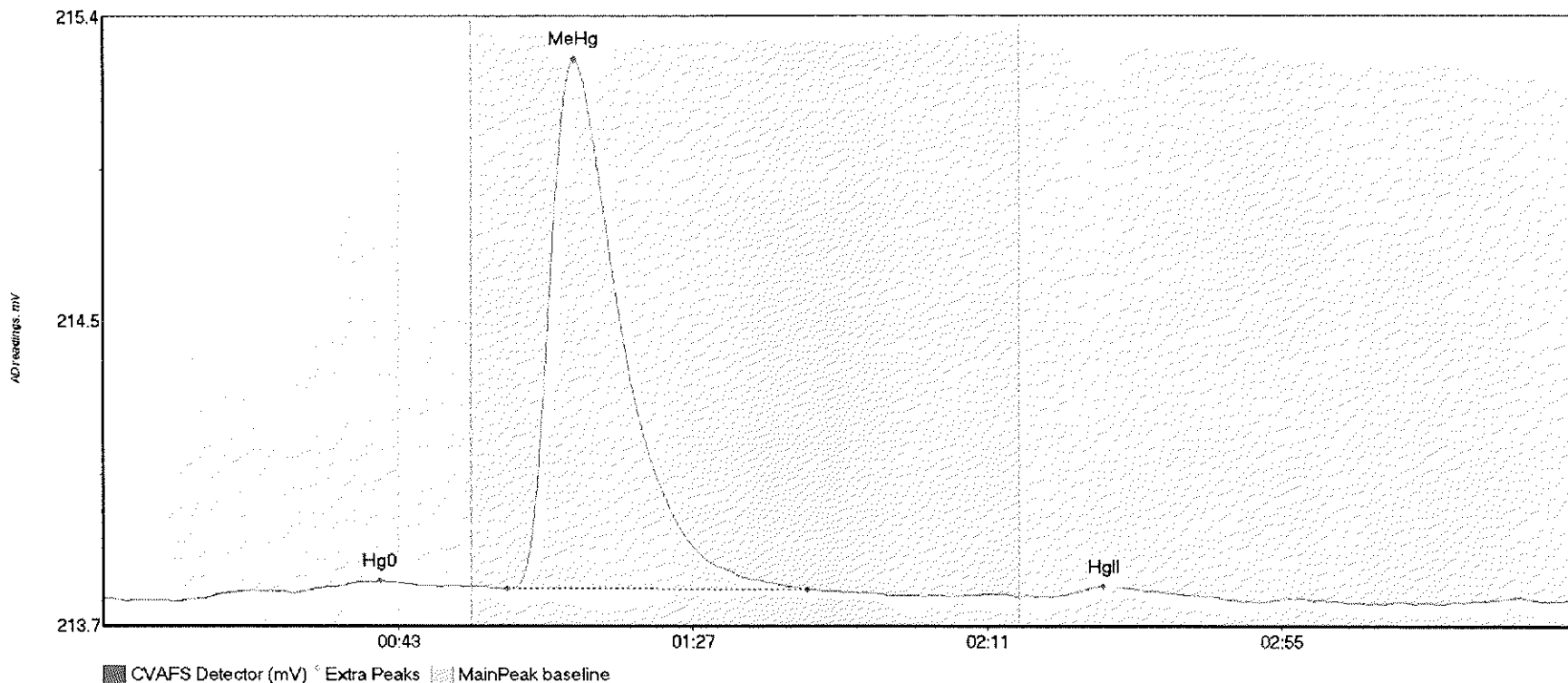
#44: 1707538-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707538-01 Hg0	14.256	14.5	48.7	213.76	213.81	25.2	0.112	OK	213.7592	0.00	-0.01	
1707538-01 MeHg	18.611	61.6	87.3	213.79	213.79	69.6	0.166	OK	213.7592	0.00	-0.01	
1707538-01 HgII	51.717	136.8	176.2	213.77	213.77	149.7	0.342	OK	213.7592	0.00	-0.01	

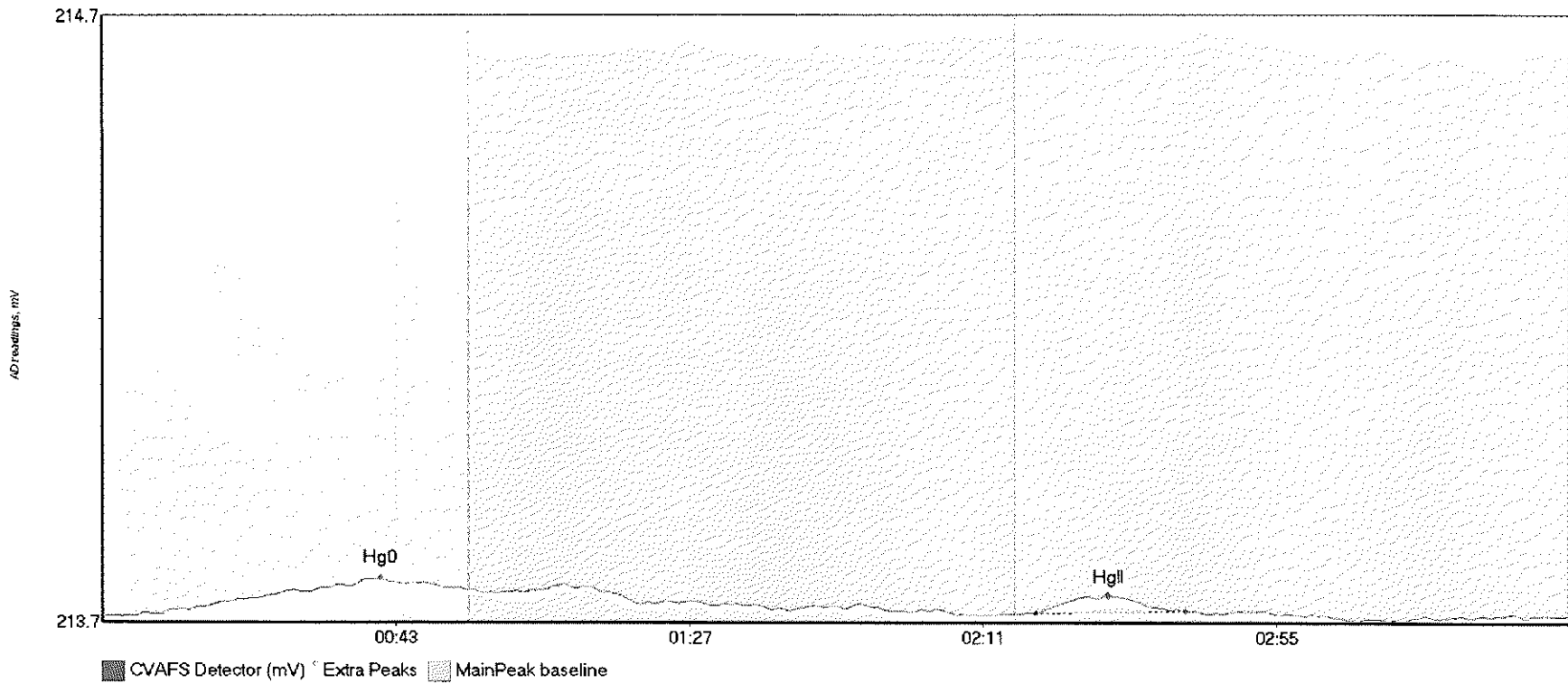


#45: SEQ-CCV3



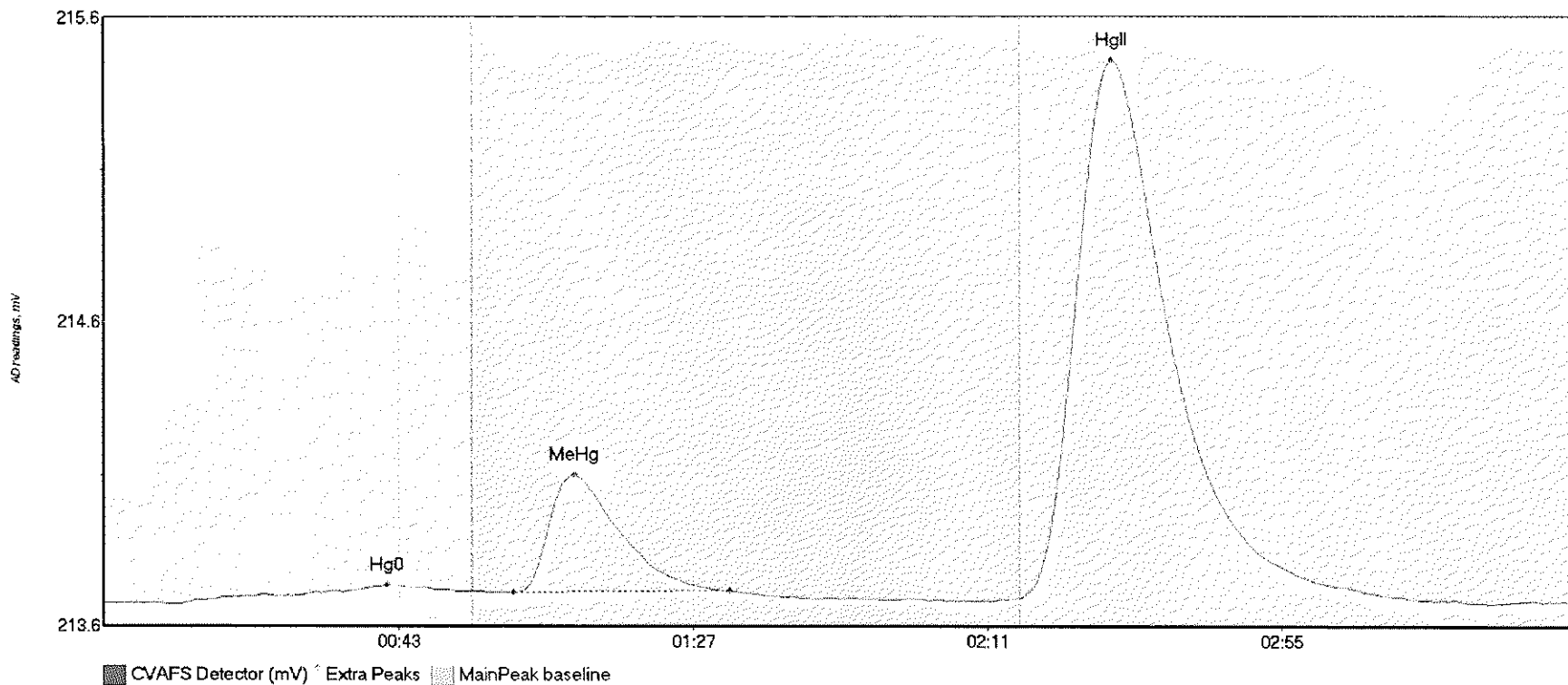
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	4.433	14.9	50.4	213.74	213.78	41.3	0.049	OK	213.7426	0.00	0.00	
SEQ-CCV3 MeHg	191.401	60.3	105.1	213.77	213.77	70.4	1.530	OK	213.7426	0.00	0.00	
SEQ-CCV3 HgII	3.081	141.8	162.8	213.75	213.75	149.5	0.029	OK	213.7426	0.00	0.00	

#46: SEQ-CCB3



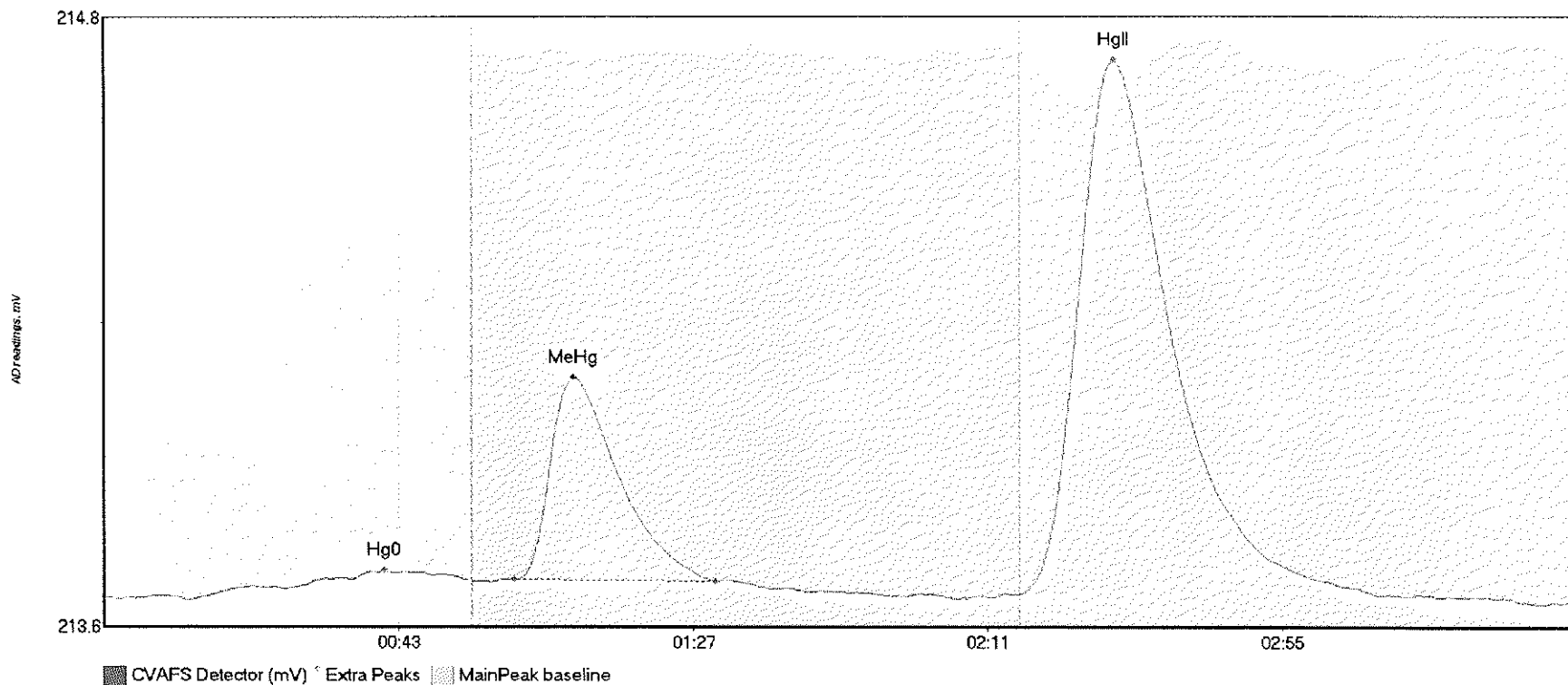
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	7.261	8.9	55.0	213.71	213.75	41.7	0.059	CT	213.7047	0.00	0.00	
SEQ-CCB3 HgII	3.417	140.0	162.5	213.71	213.71	150.9	0.030	OK	213.7047	0.00	0.00	117

#47: F707413-BLK1



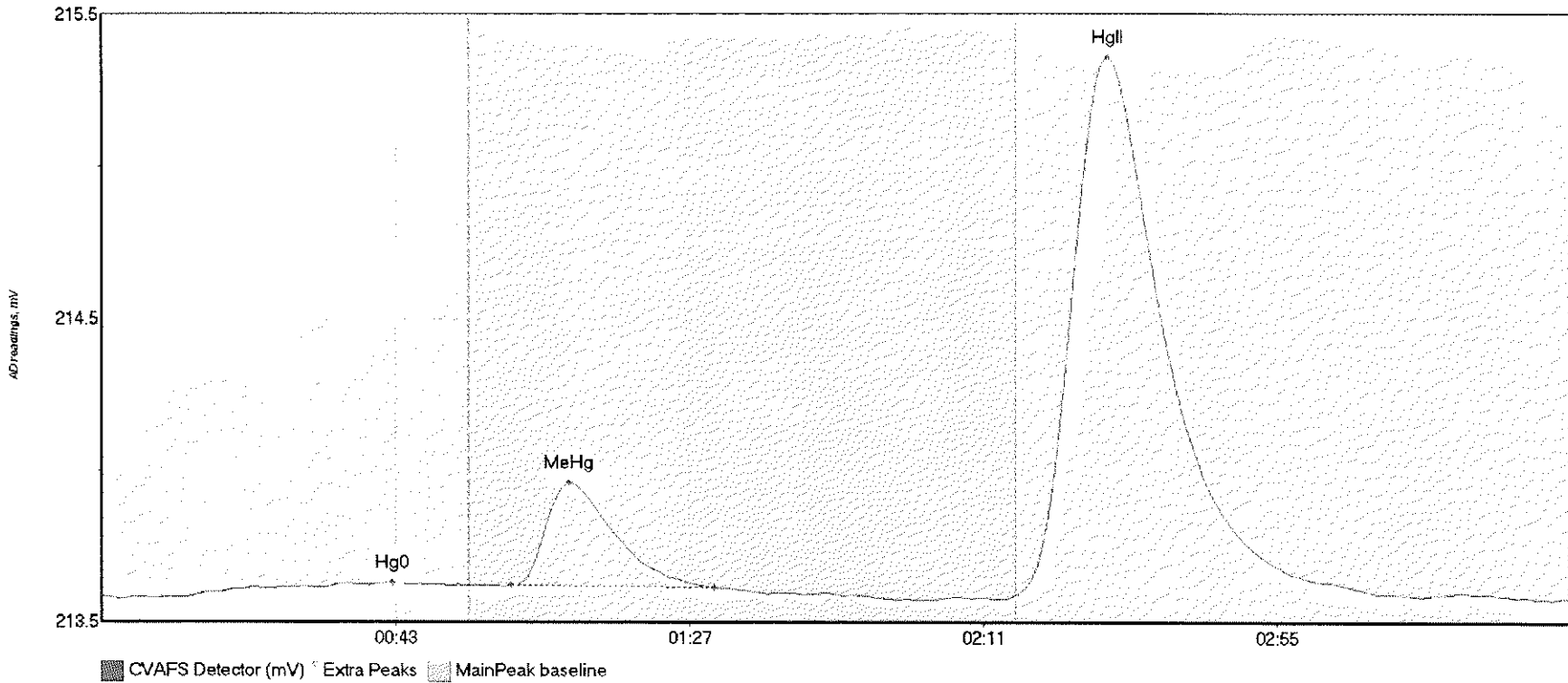
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BLK1 Hg	7.157	10.6	54.4	213.67	213.71	42.3	0.061	OK	213.6754	0.00	0.00	
F707413-BLK1 Me	46.021	61.2	93.4	213.71	213.71	70.3	0.383	OK	213.6754	0.00	0.00	
F707413-BLK1 Hg	285.497	136.8	193.1	213.69	213.69	150.6	1.747	OK	213.6754	0.00	0.00	

#48: F707413-BLK2



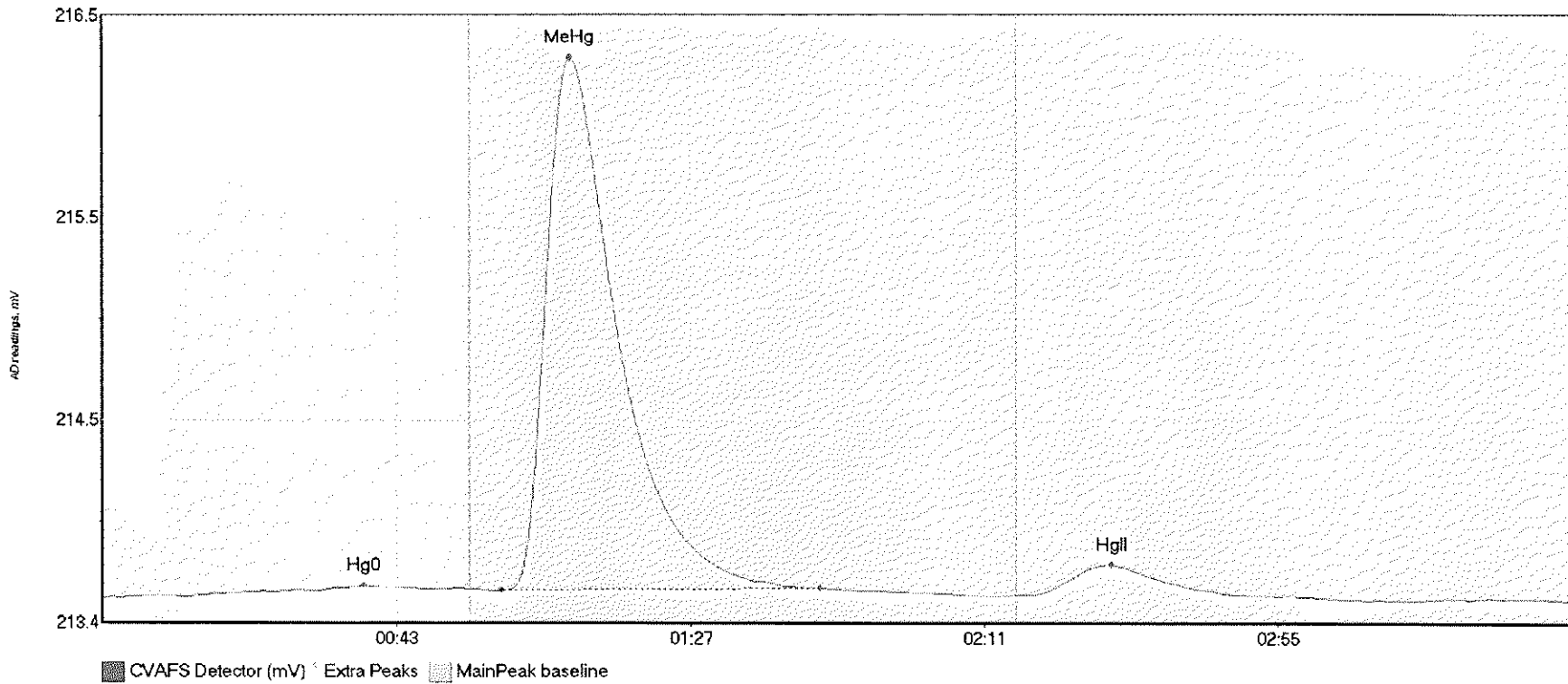
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BLK2 Hg	6.394	14.9	55.0	213.65	213.68	41.9	0.052	CT	213.6436	0.00	0.00	
F707413-BLK2 Me	46.946	61.3	91.3	213.68	213.68	70.2	0.398	OK	213.6436	0.00	0.00	
F707413-BLK2 Hg	169.739	136.8	190.9	213.65	213.65	150.9	1.046	OK	213.6436	0.00	0.00	

#49: F707413-BLK3



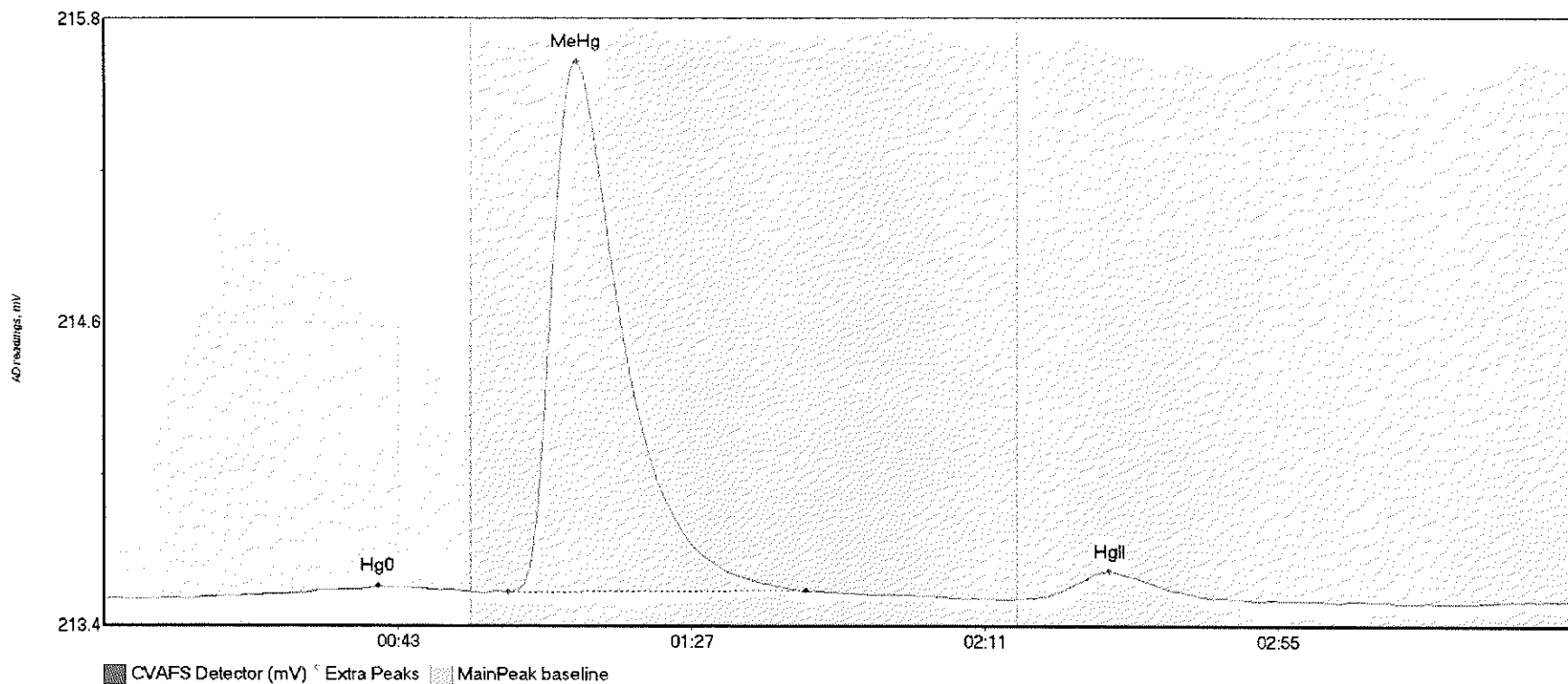
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BLK3 Hg	5.253	13.0	52.3	213.60	213.64	43.6	0.045	OK	213.6034	0.00	0.00	
F707413-BLK3 Me	39.248	61.3	91.7	213.64	213.63	70.0	0.334	OK	213.6034	0.00	0.00	
F707413-BLK3 Hg	282.008	136.8	191.2	213.61	213.61	150.6	1.743	OK	213.6034	0.00	0.00	

#50: F707413-BS1



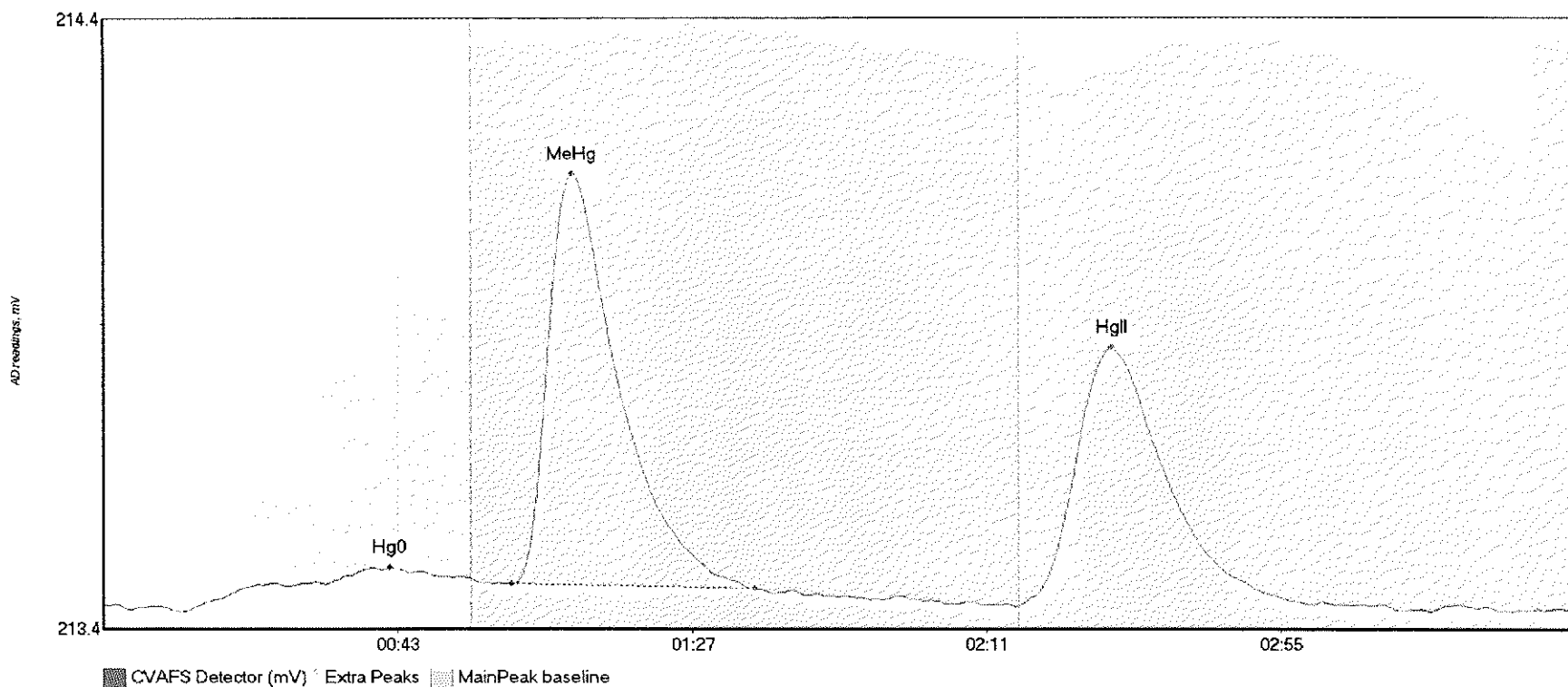
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BS1 Hg0	5.328	12.9	49.4	213.56	213.59	39.1	0.054	OK	213.5525	0.00	-0.01	
F707413-BS1 MeH	336.605	59.7	107.4	213.59	213.60	70.0	2.713	OK	213.5525	0.00	-0.01	
F707413-BS1 HgI	21.624	139.1	169.8	213.57	213.57	151.2	0.152	OK	213.5525	0.00	-0.01	

#51: F707413-BSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BSD1 Hg	6.082	12.9	55.0	213.52	213.55	41.0	0.049	CT	213.5201	0.00	-0.01	
F707413-BSD1 Me	256.262	60.6	105.2	213.55	213.55	70.8	2.067	OK	213.5201	0.00	-0.01	
F707413-BSD1 Hg	13.299	139.2	166.5	213.52	213.52	150.7	0.105	OK	213.5201	0.00	-0.01	

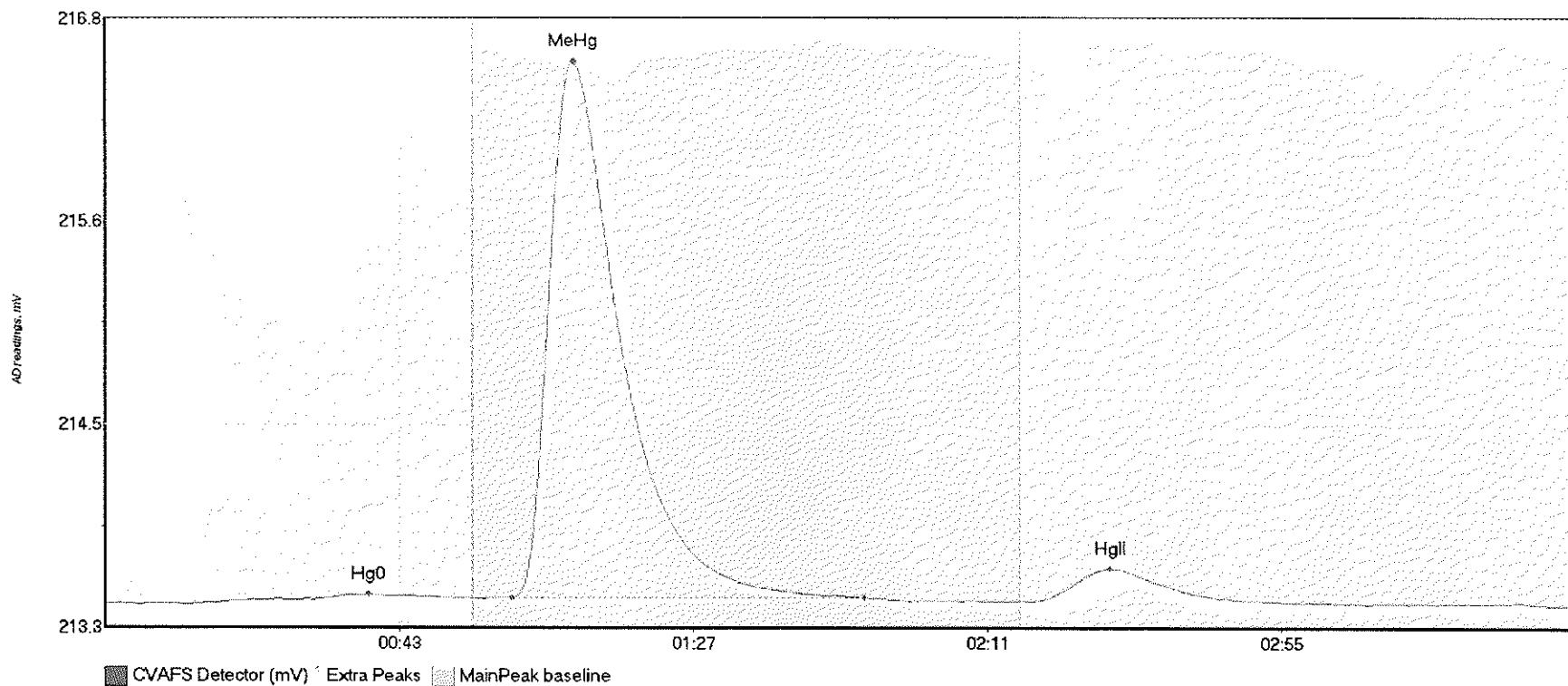
#52: F707413-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-DUP1 Hg	8.801	12.6	55.0	213.47	213.52	42.8	0.071	CT	213.4770	0.00	-0.01	
F707413-DUP1 Me	82.283	61.0	97.3	213.51	213.50	70.2	0.672	OK	213.4770	0.00	-0.01	
F707413-DUP1 Hg	64.421	136.8	178.2	213.48	213.48	156.7	0.423	OK	213.4770	0.00	-0.01	

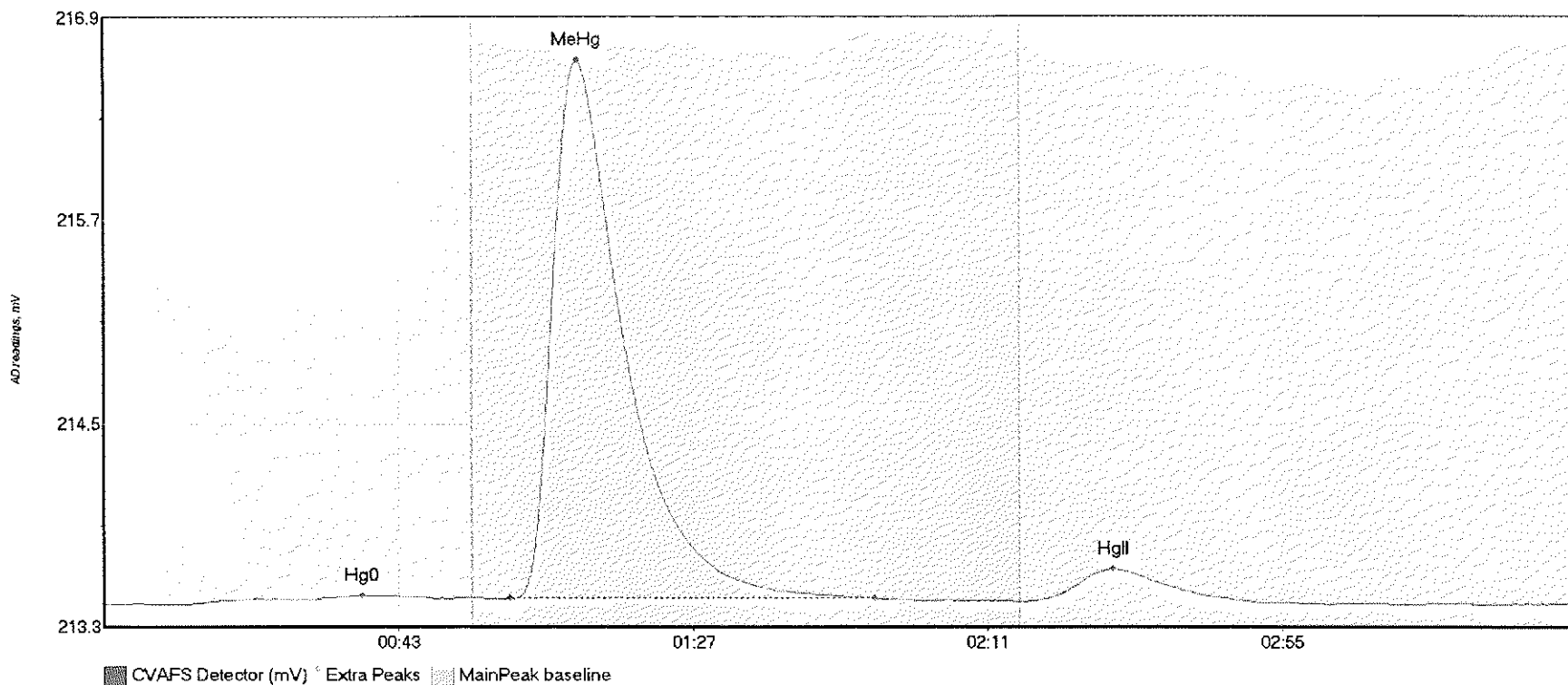


#53: F707413-MS1



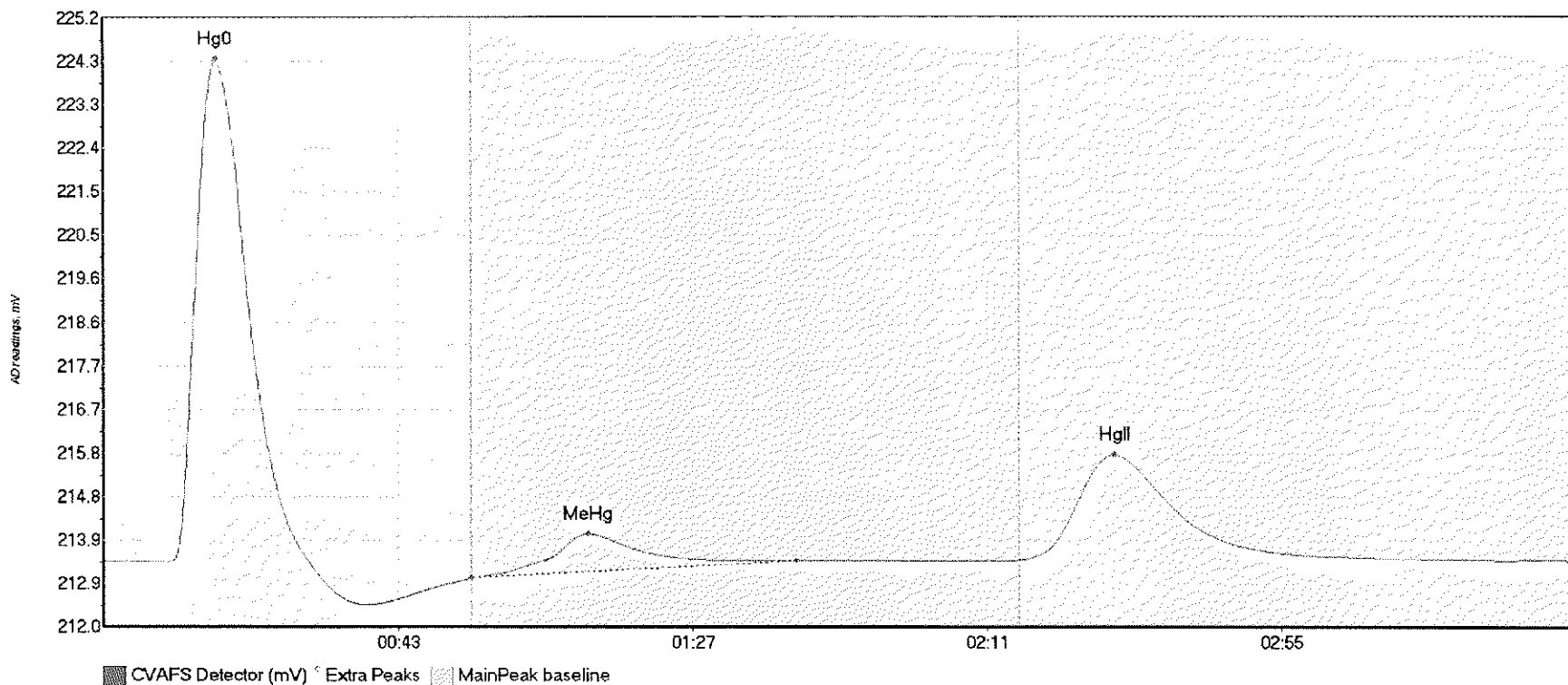
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-MS1 Hg0	6.298	16.4	55.0	213.46	213.48	39.4	0.050	CT	213.4525	0.00	-0.01	
F707413-MS1 MeH	384.777	60.8	113.6	213.49	213.48	70.1	3.078	OK	213.4525	0.00	-0.01	
F707413-MS1 HgI	26.786	138.4	171.1	213.47	213.47	150.3	0.188	OK	213.4525	0.00	-0.01	

#54: F707413-MSD1



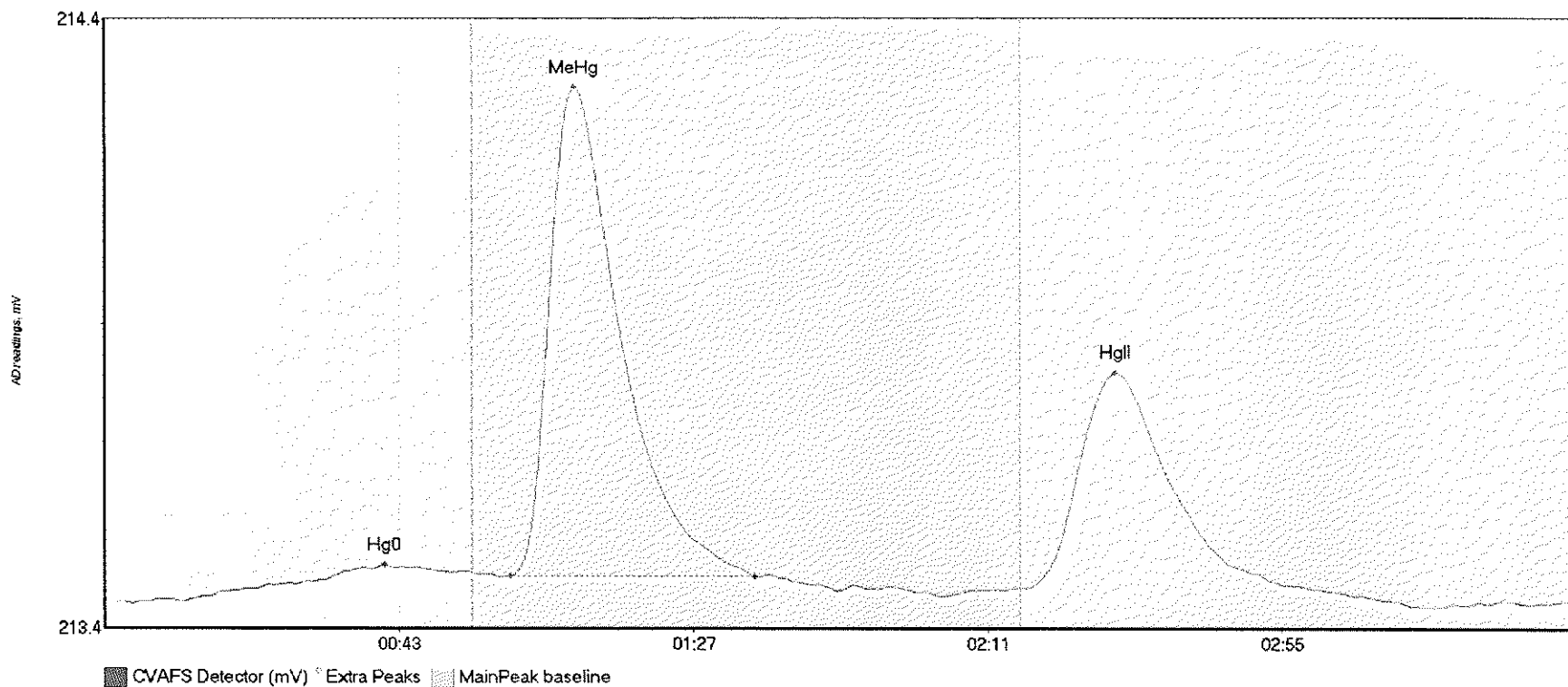
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-MSD1 Hg	6.761	12.4	51.7	213.42	213.46	38.6	0.053	OK	213.4239	0.00	0.00	
F707413-MSD1 Me	393.582	60.6	115.1	213.46	213.46	70.7	3.147	OK	213.4239	0.00	0.00	
F707413-MSD1 Hg	29.649	137.1	173.8	213.44	213.44	150.8	0.194	OK	213.4239	0.00	0.00	

#55: 1707106-01RE1



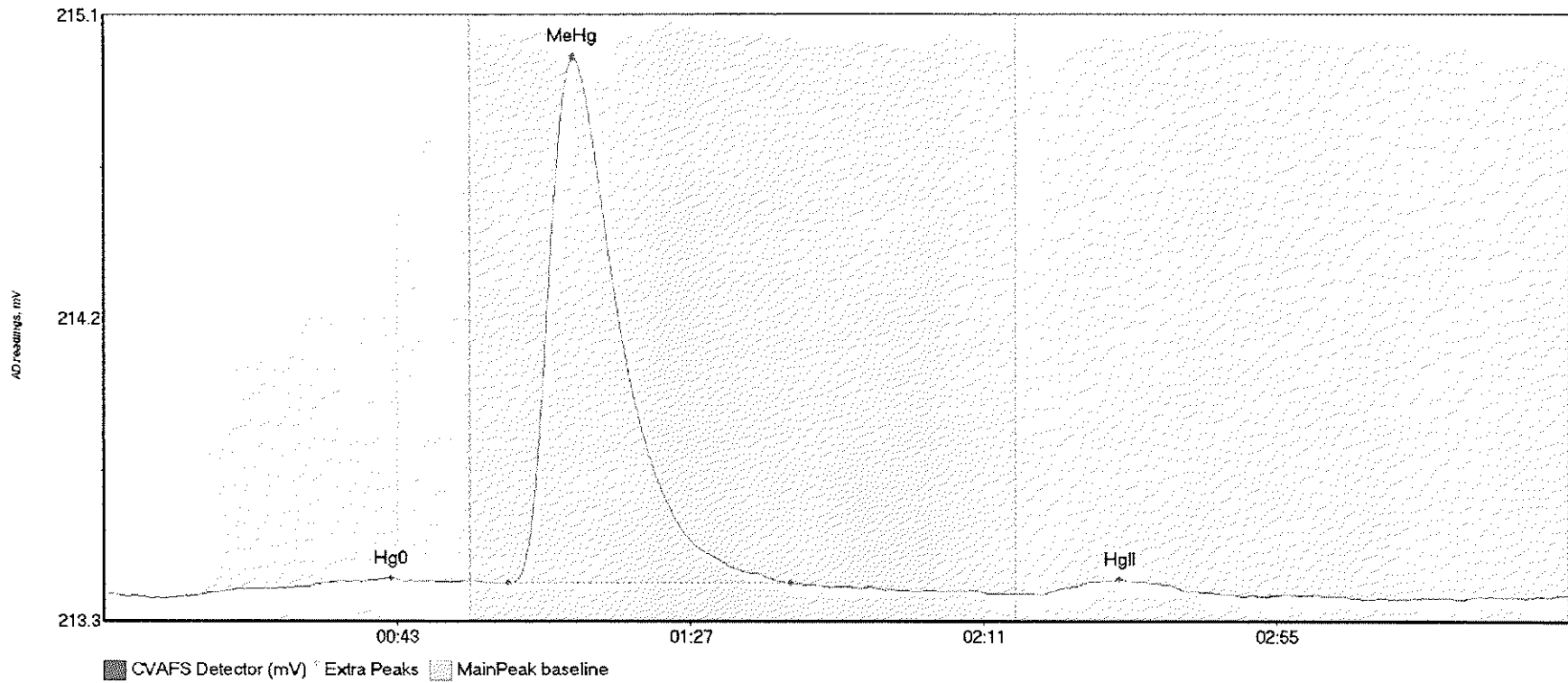
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707106-01RE1 H	1036.676	9.5	39.3	213.41	212.46	16.8	10.882	OK	213.4100	0.00	0.04	
1707106-01RE1 M	132.448	55.0	103.4	213.04	213.43	72.4	0.967	OK	213.4100	0.00	0.04	
1707106-01RE1 H	383.005	136.8	199.4	213.45	213.46	151.2	2.294	OK	213.4100	0.00	0.04	

#56: 1707106-02RE1



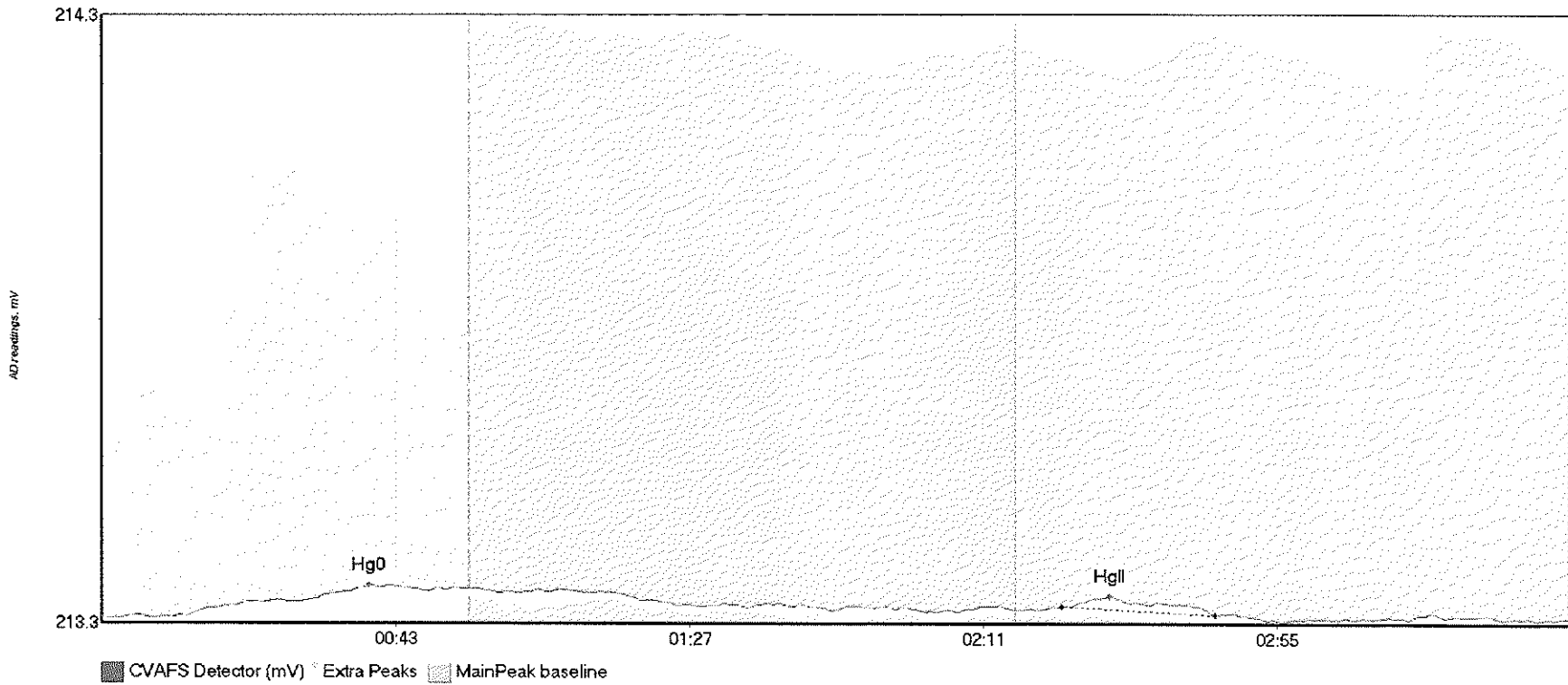
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707106-02RE1 H	5.522	12.1	55.0	213.41	213.46	41.9	0.059	CT	213.4091	0.00	0.00	
1707106-02RE1 M	98.894	60.7	97.2	213.45	213.45	70.3	0.802	OK	213.4091	0.00	0.00	
1707106-02RE1 H	53.608	138.1	176.4	213.43	213.44	151.0	0.355	OK	213.4091	0.00	0.00	

#57: SEQ-CCV4



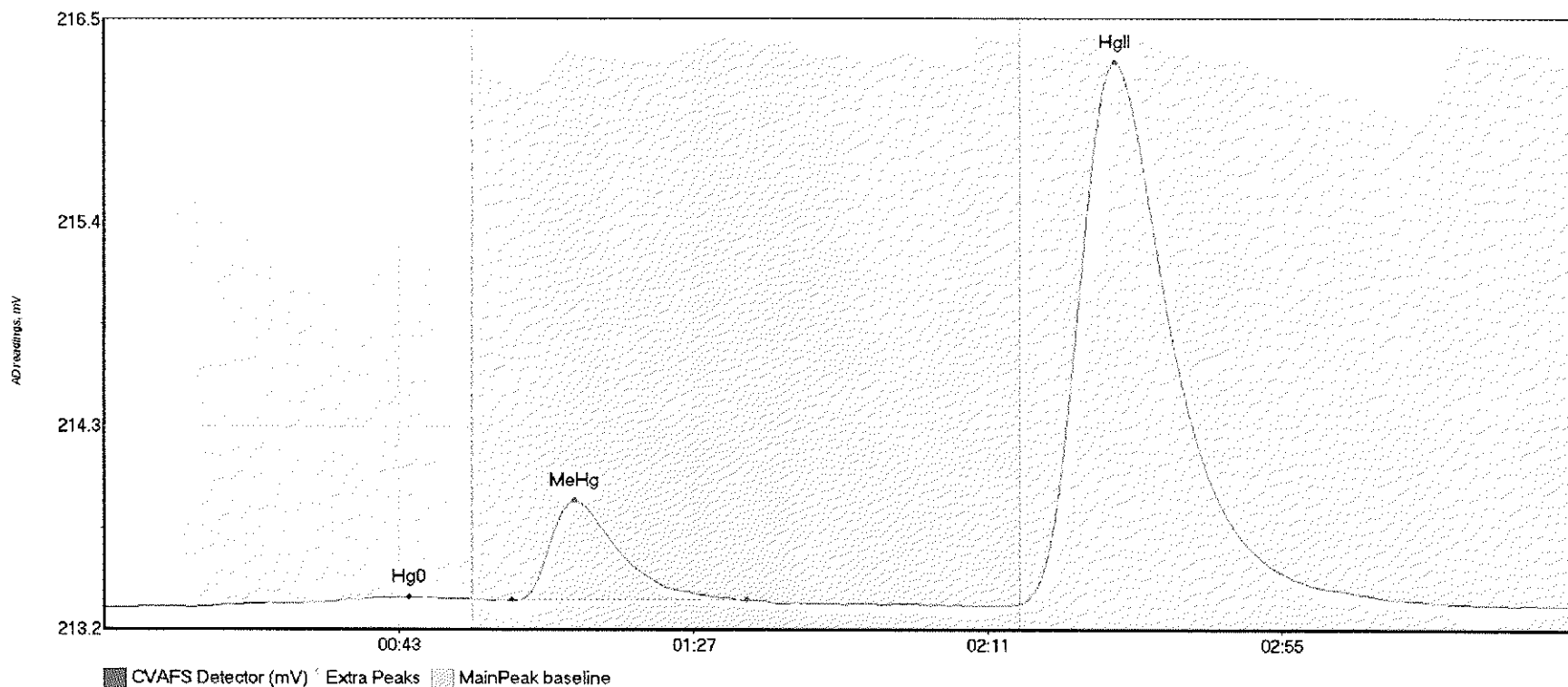
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	4.572	12.7	52.2	213.38	213.42	43.1	0.052	OK	213.3888	0.00	0.00	
SEQ-CCV4 MeHg	188.057	60.7	103.0	213.42	213.42	70.5	1.511	OK	213.3888	0.00	0.00	
SEQ-CCV4 HgII	5.706	140.6	165.6	213.39	213.39	152.4	0.044	OK	213.3888	0.00	0.00	

#58: SEQ-CCB4



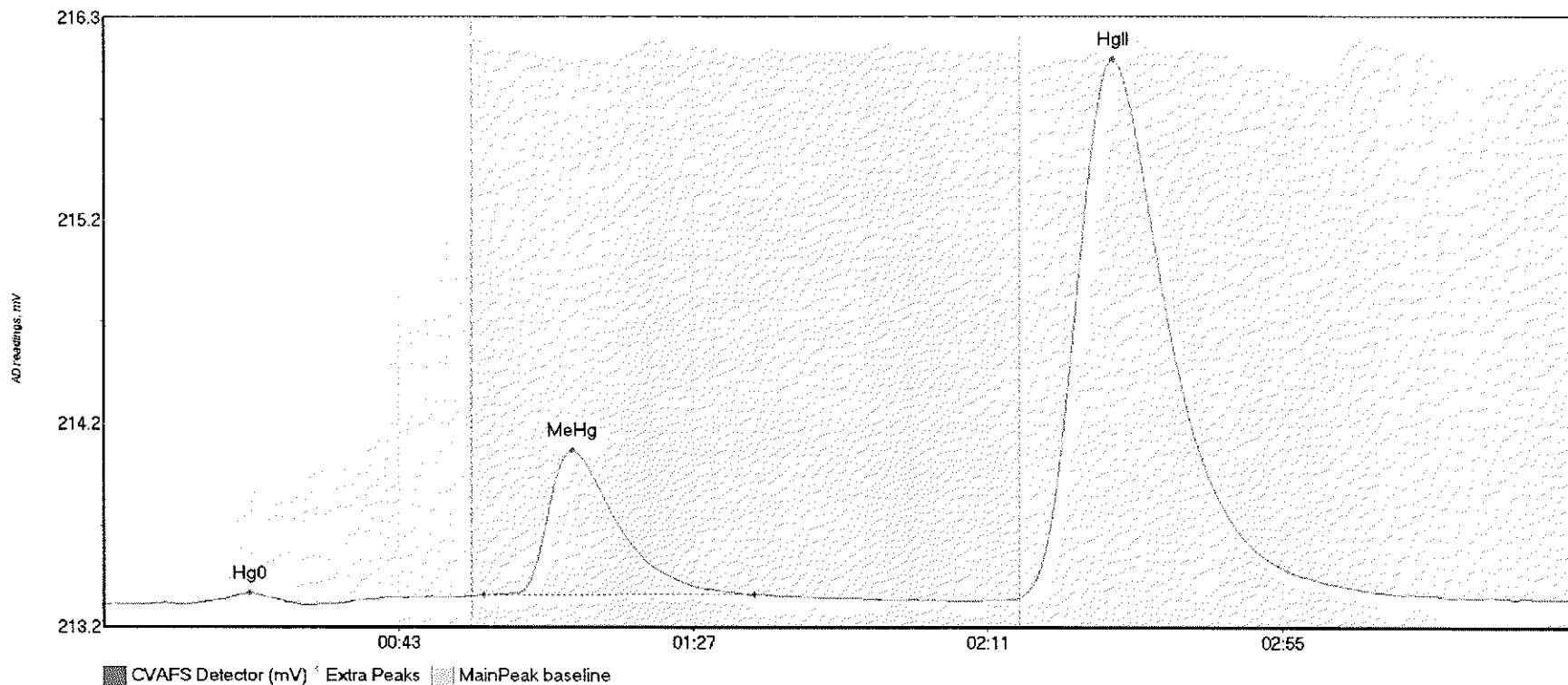
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.768	12.7	48.8	213.36	213.40	40.0	0.051	OK	213.3534	0.00	0.00	
SEQ-CCB4 HgII	2.963	143.7	166.8	213.37	213.36	150.9	0.017	OK	213.3534	0.00	0.00	017

#59: F707440-BLK1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BLK1 Hg	4.908	13.1	55.0	213.34	213.38	45.6	0.054	CT	213.3359	0.00	0.01	
F707440-BLK1 Me	62.874	60.8	96.0	213.37	213.37	70.3	0.527	OK	213.3359	0.00	0.01	
F707440-BLK1 Hg	472.389	136.8	199.0	213.36	213.36	151.1	2.874	OK	213.3359	0.00	0.01	

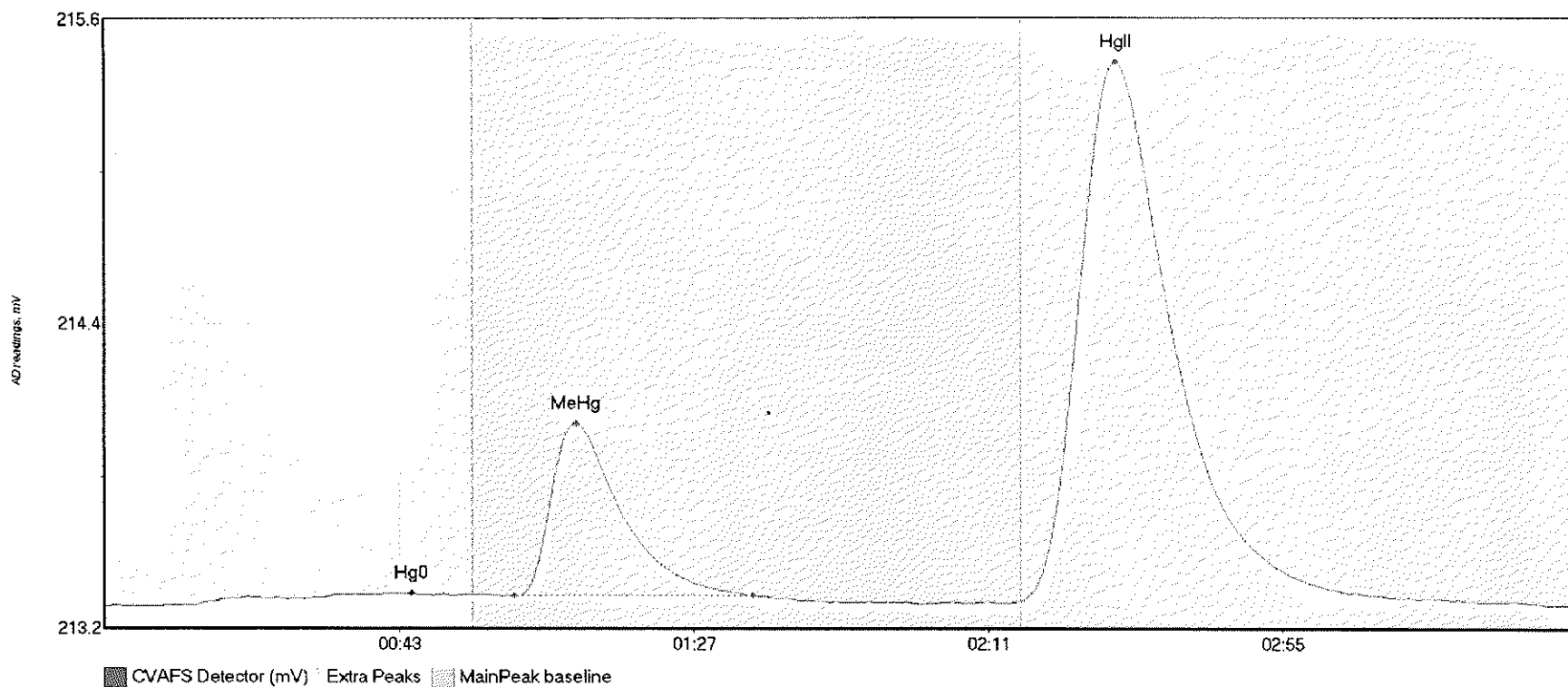
#60: F707440-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BLK2 Hg	4.719	12.9	30.6	213.32	213.31	21.9	0.052	OK	213.3228	0.00	0.02	
F707440-BLK2 Me	87.409	56.7	97.1	213.36	213.37	70.0	0.725	OK	213.3228	0.00	0.02	
F707440-BLK2 Hg	442.112	136.8	198.6	213.35	213.36	150.7	2.697	OK	213.3228	0.00	0.02	

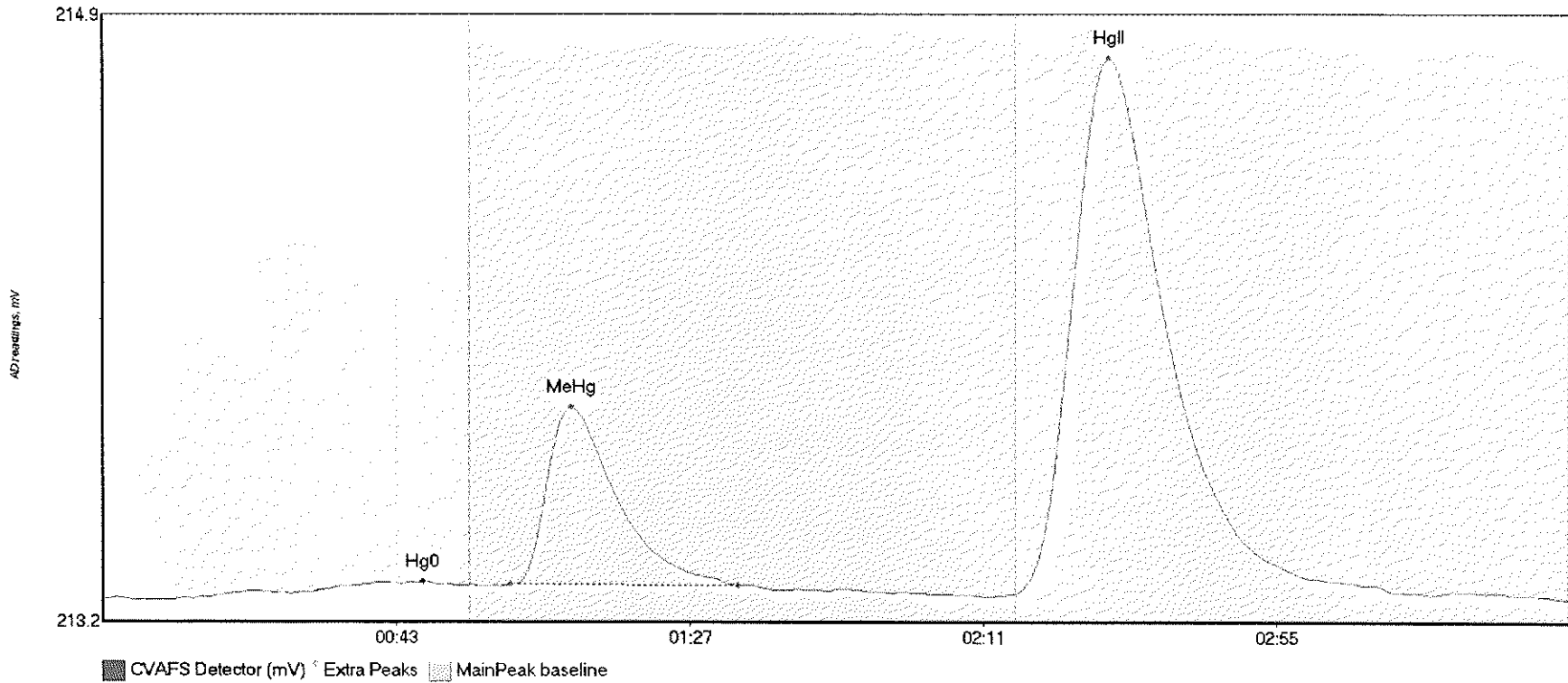


#61: F707440-BLK3



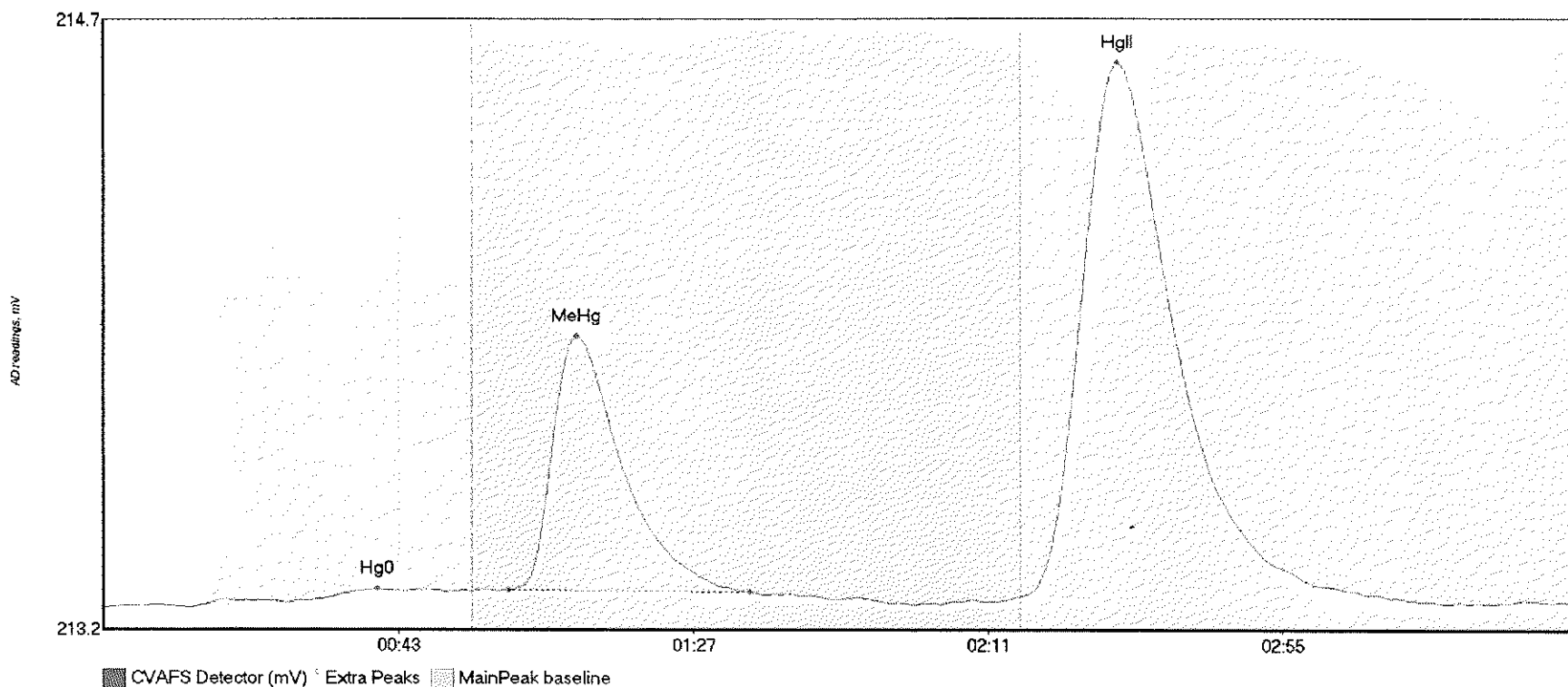
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BLK3 Hg	5.276	13.1	52.1	213.31	213.35	45.8	0.046	OK	213.3067	0.00	0.00	
F707440-BLK3 Me	80.405	61.1	96.9	213.34	213.34	70.4	0.659	OK	213.3067	0.00	0.00	
F707440-BLK3 Hg	337.146	136.8	193.7	213.32	213.33	151.0	2.062	OK	213.3067	0.00	0.00	

#62: F707440-BS1



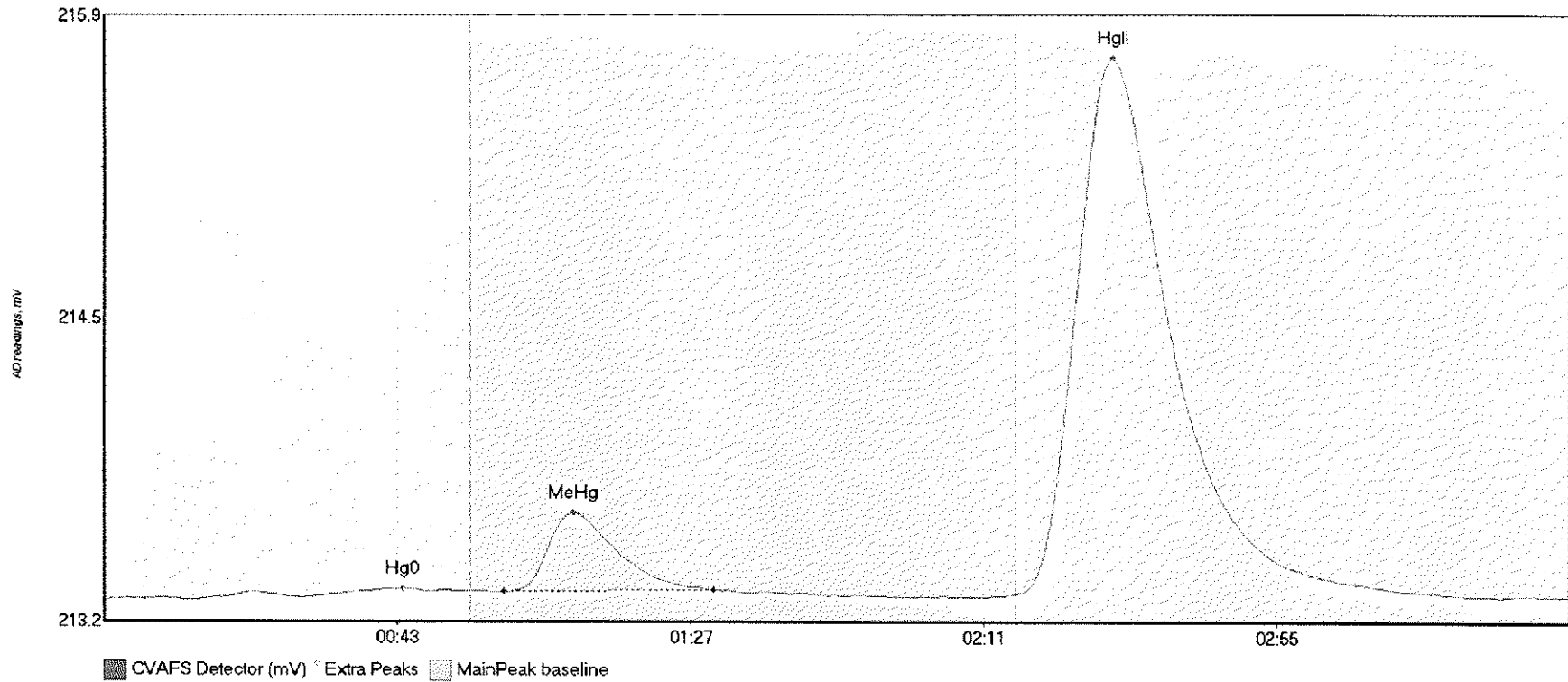
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BS1 Hg0	3.500	15.5	53.6	213.29	213.32	48.0	0.044	OK	213.2887	0.00	0.00	
F707440-BS1 MeH	60.442	61.2	95.2	213.33	213.32	70.3	0.501	OK	213.2887	0.00	0.00	
F707440-BS1 HgI	250.162	136.8	194.0	213.30	213.31	150.9	1.515	OK	213.2887	0.00	0.00	

#63: F707440-BS2



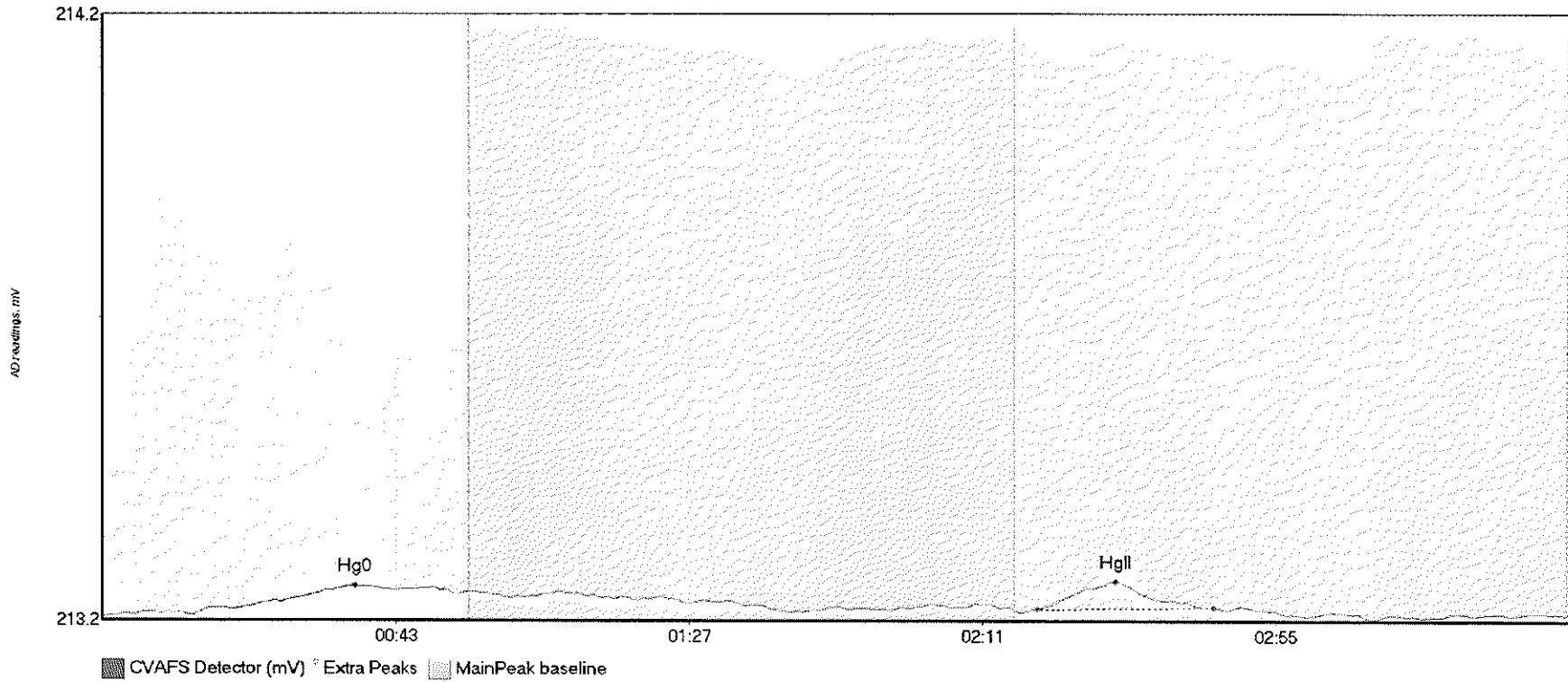
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BS2 Hg0	2.851	13.3	50.9	213.27	213.31	40.8	0.046	OK	213.2711	0.00	0.01	
F707440-BS2 MeH	76.983	60.4	96.5	213.31	213.31	70.6	0.635	OK	213.2711	0.00	0.01	
F707440-BS2 HgI	213.968	136.8	188.5	213.30	213.30	151.3	1.335	OK	213.2711	0.00	0.01	

#64: 1707500-14



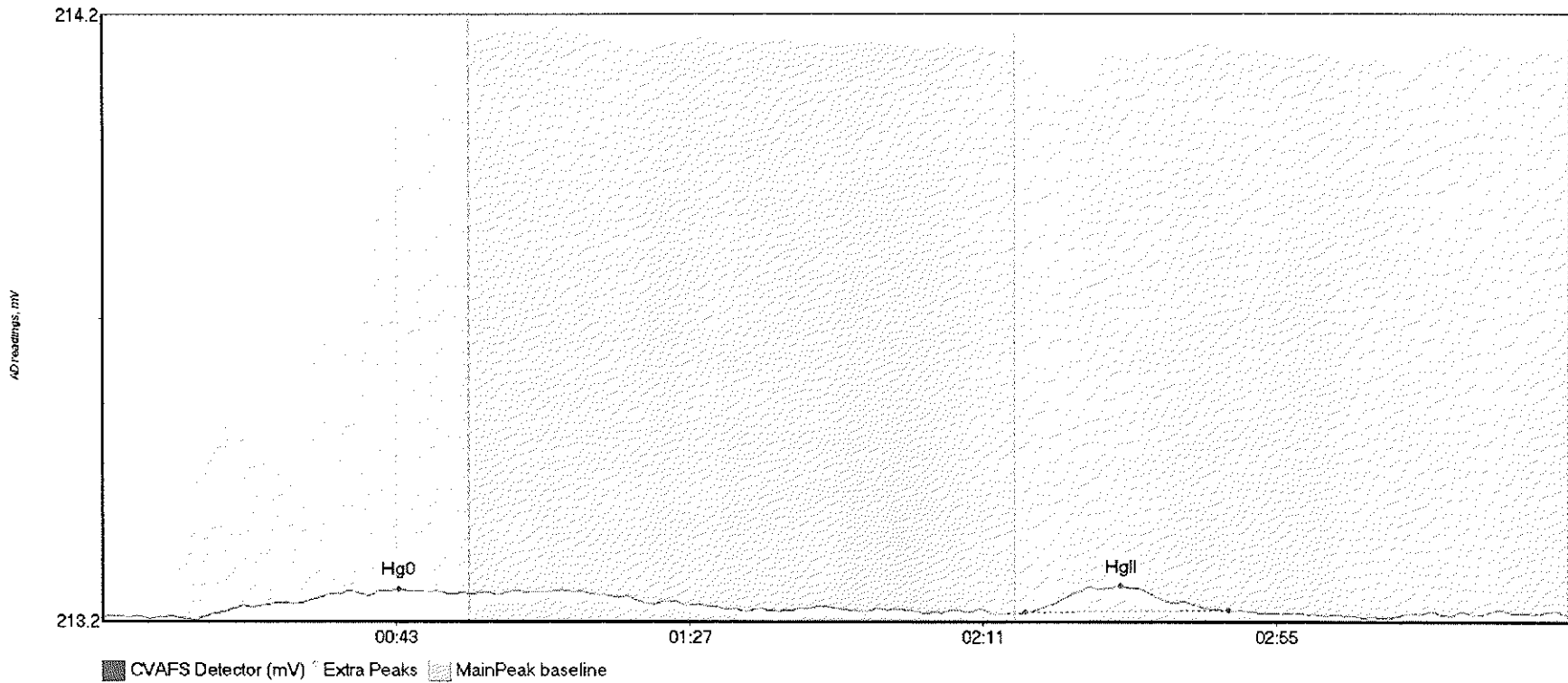
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707500-14 Hg0	3.384	13.3	49.4	213.26	213.30	44.9	0.050	OK	213.2679	0.00	0.01	
1707500-14 MeHg	41.419	60.0	91.5	213.30	213.31	70.4	0.357	OK	213.2679	0.00	0.01	
1707500-14 HgII	398.772	136.8	198.6	213.29	213.30	151.4	2.413	OK	213.2679	0.00	0.01	

#65: F707393-BLK6



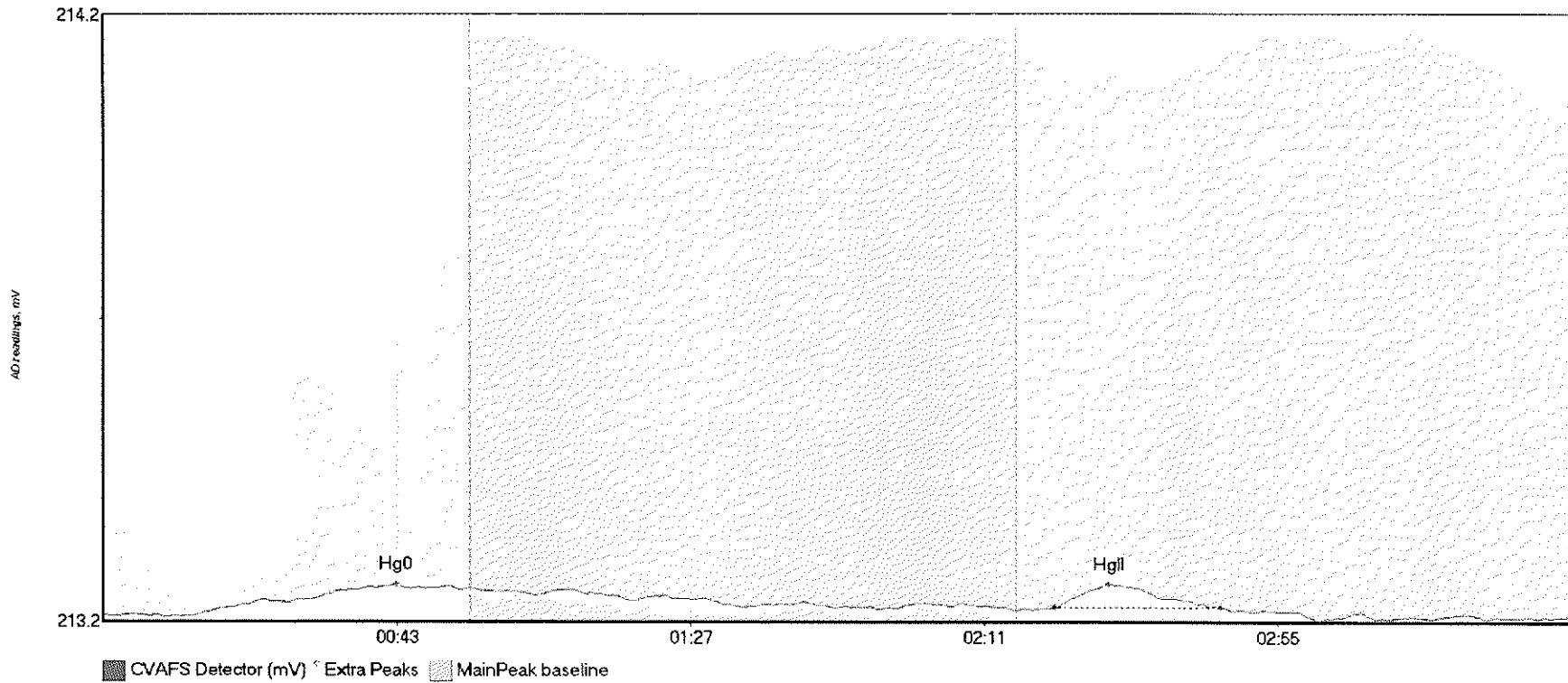
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK6 Hg	5.431	13.3	53.1	213.26	213.29	37.9	0.048	OK	213.2532	0.00	0.00	
F707393-BLK6 Hg	5.459	140.3	166.8	213.27	213.27	152.0	0.047	OK	213.2532	0.00	0.00	017

#66: F707393-BLK7



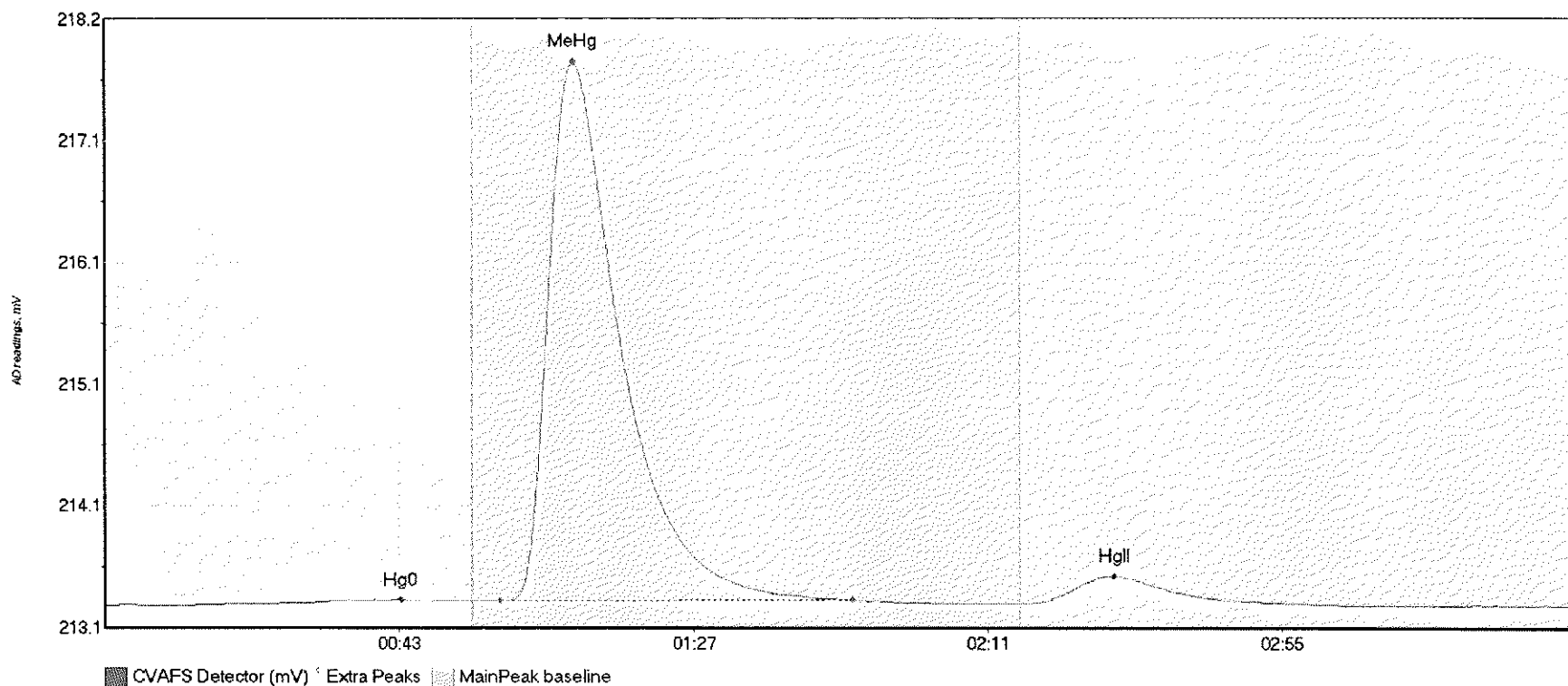
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK7 Hg	4.989	13.9	52.5	213.25	213.29	44.5	0.051	OK	213.2560	0.00	0.00	
F707393-BLK7 Hg	6.844	138.5	168.9	213.26	213.26	152.7	0.045	OK	213.2560	0.00	0.00	017

#67: F707393-BLK8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK8 Hg	4.658	13.5	53.6	213.25	213.29	43.9	0.051	OK	213.2531	0.00	0.00	
F707393-BLK8 Hg	4.897	142.6	167.5	213.27	213.27	150.7	0.038	OK	213.2531	0.00	0.00	017

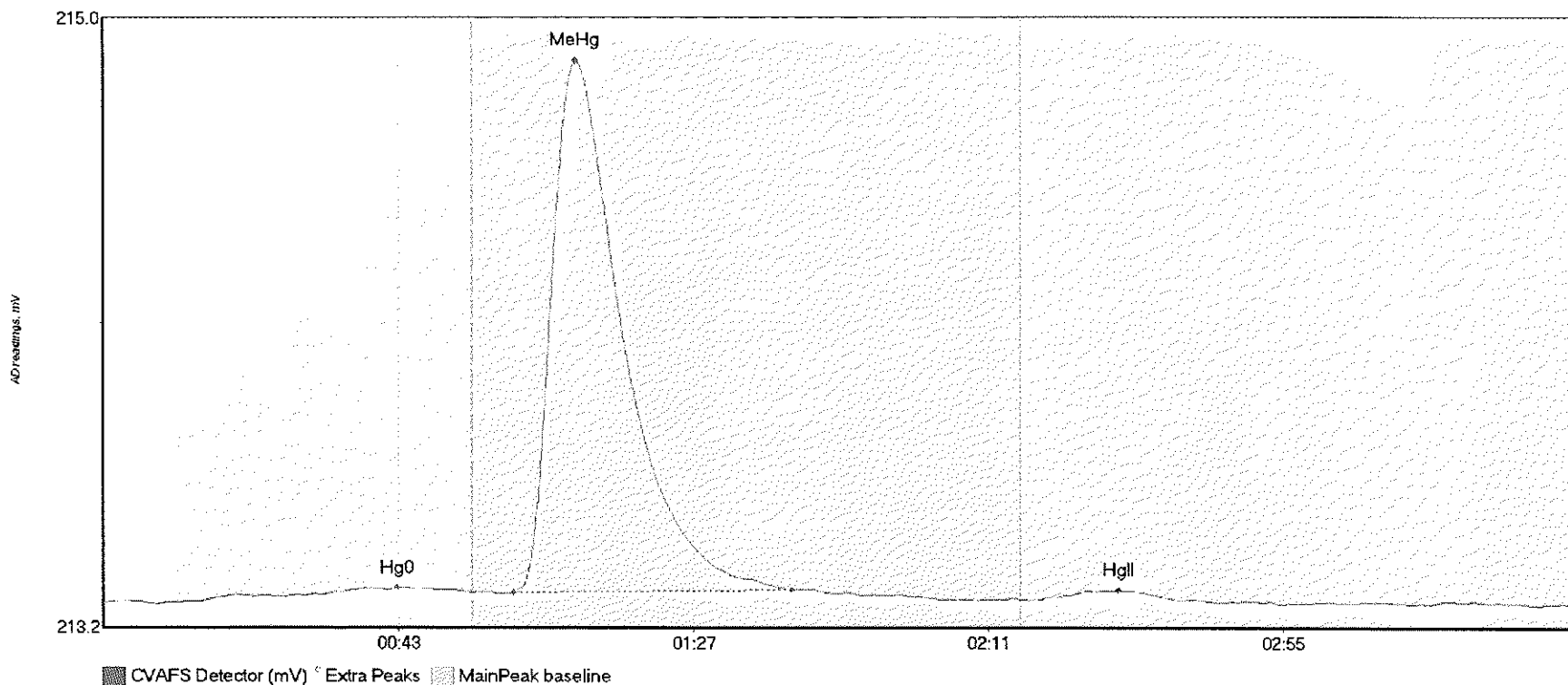
#68: F707393-MS3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS3 Hg0	3.488	13.1	51.3	213.25	213.28	44.3	0.044	OK	213.2481	0.00	0.00	
F707393-MS3 MeH	564.523	59.2	111.9	213.29	213.29	70.1	4.515	OK	213.2481	0.00	0.00	
F707393-MS3 HgI	34.399	137.9	174.8	213.26	213.27	151.0	0.230	OK	213.2481	0.00	0.00	

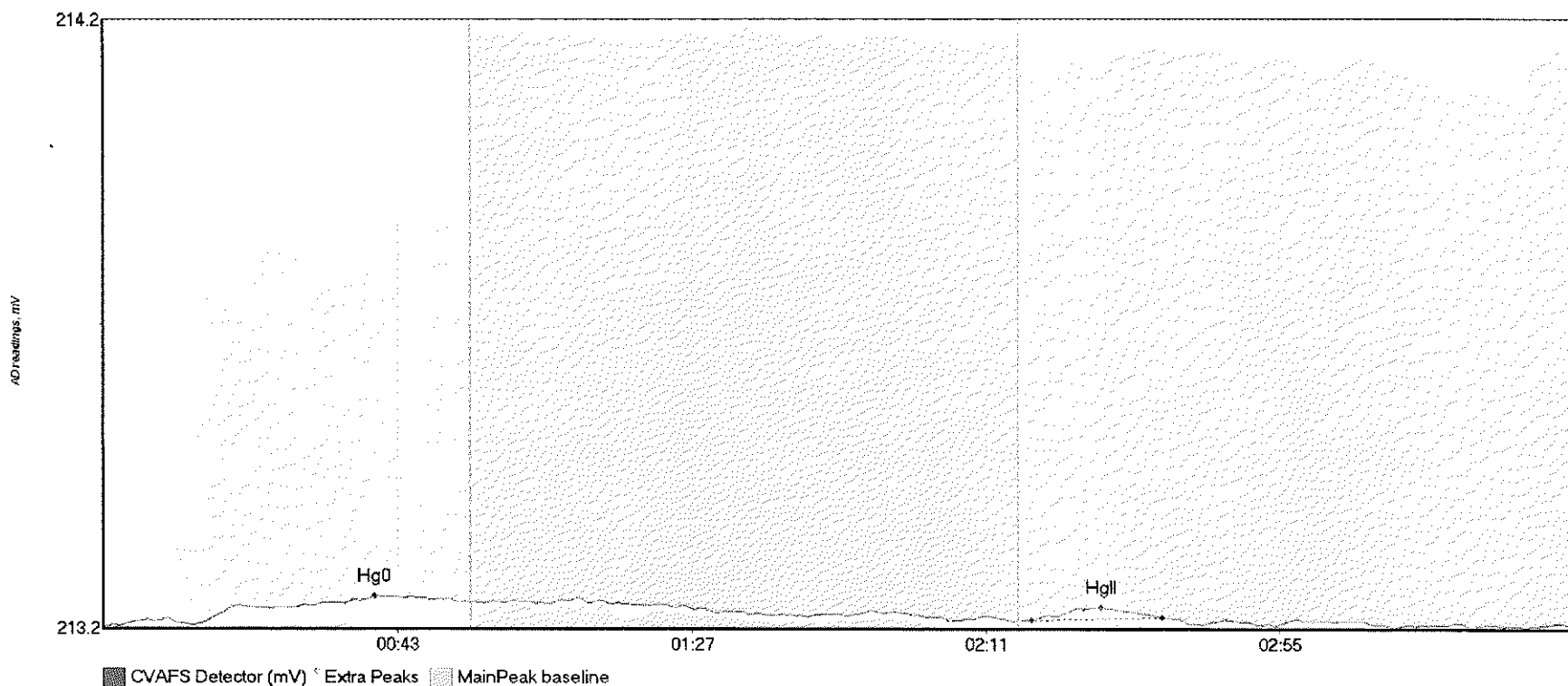


#69: SEQ-CCV5



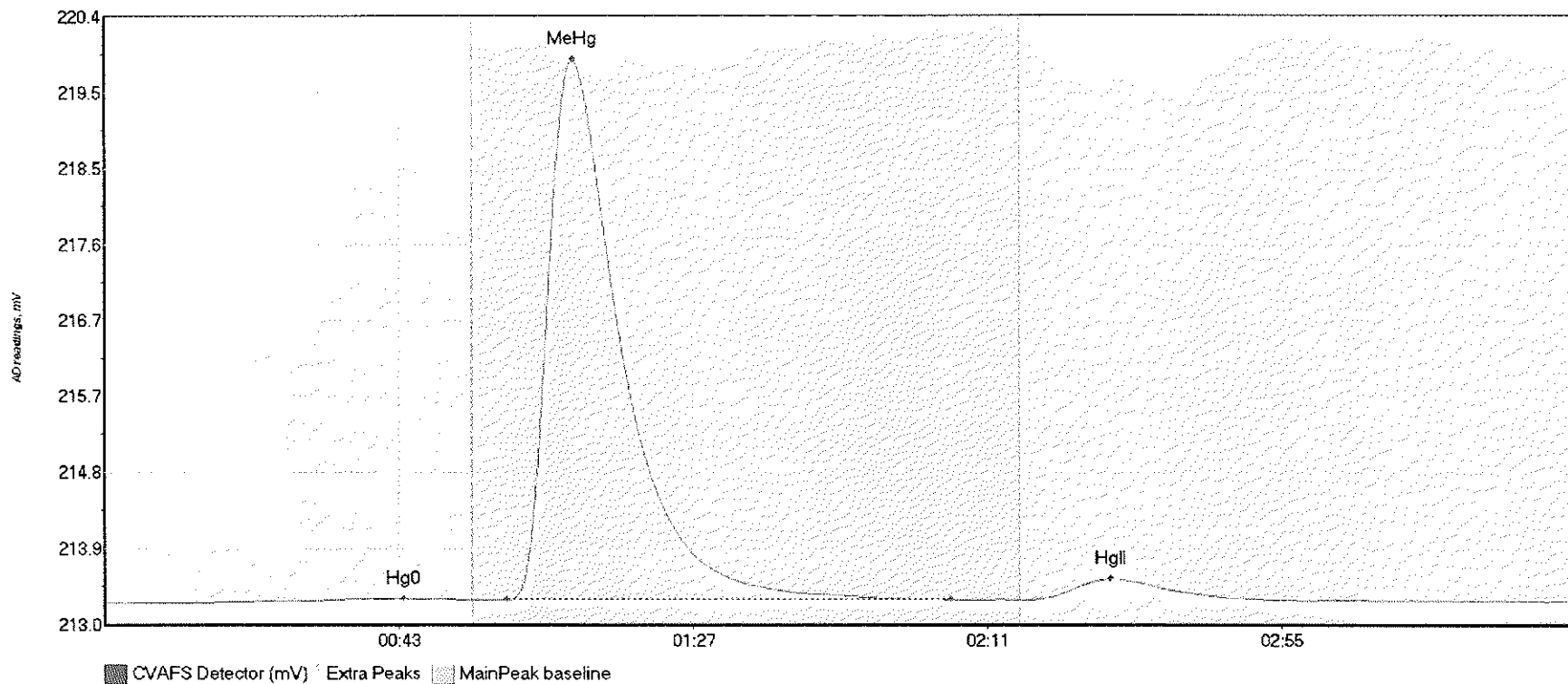
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	4.936	14.3	55.0	213.25	213.27	43.8	0.040	CT	213.2437	0.00	-0.01	
SEQ-CCV5 MeHg	191.739	61.2	102.8	213.27	213.28	70.5	1.555	OK	213.2437	0.00	-0.01	
SEQ-CCV5 HgII	3.728	139.0	160.4	213.25	213.25	151.5	0.028	OK	213.2437	0.00	-0.01	

#70: SEQ-CCB5



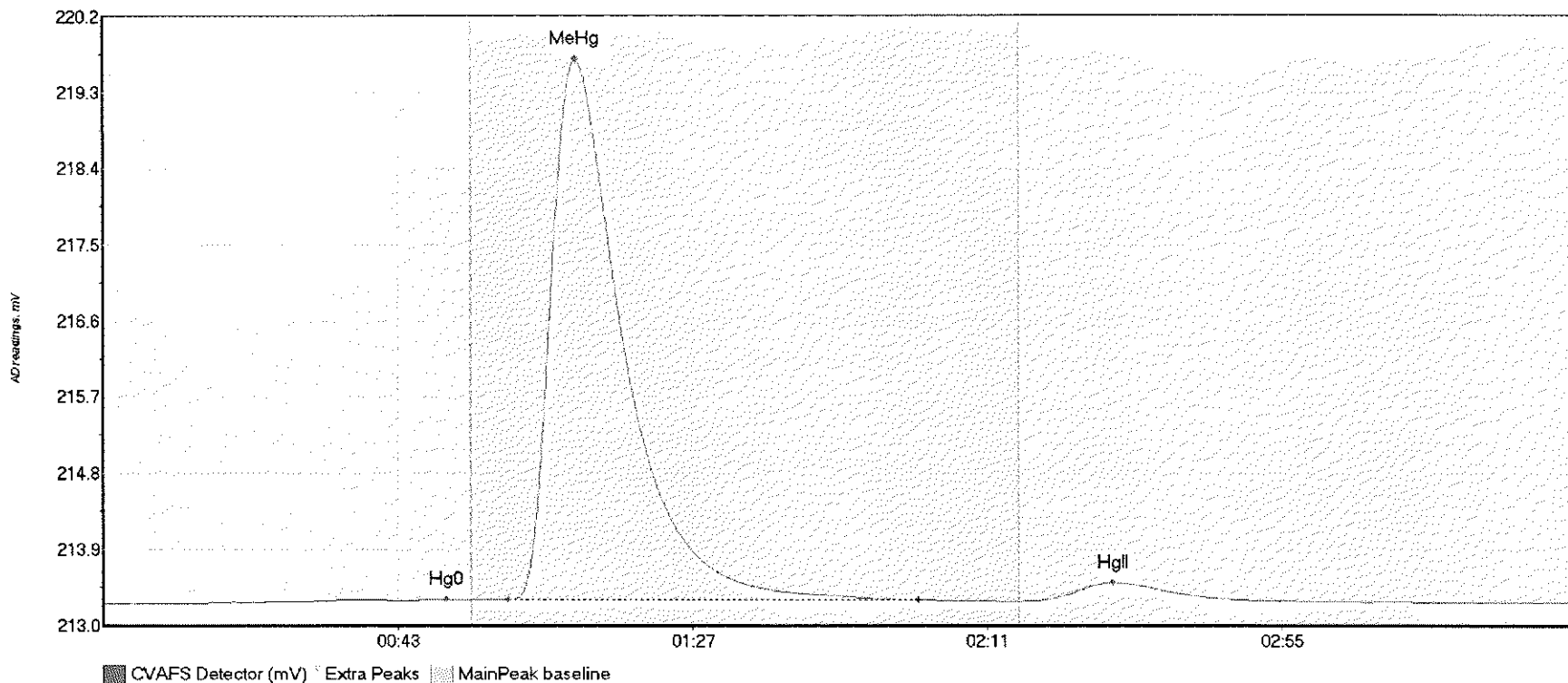
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.862	13.9	53.1	213.23	213.26	40.6	0.047	OK	213.2252	0.00	0.00	
SEQ-CCB5 HgII	2.195	138.9	158.5	213.23	213.24	149.3	0.022	OK	213.2252	0.00	0.00	117

#71: F707393-MSD3



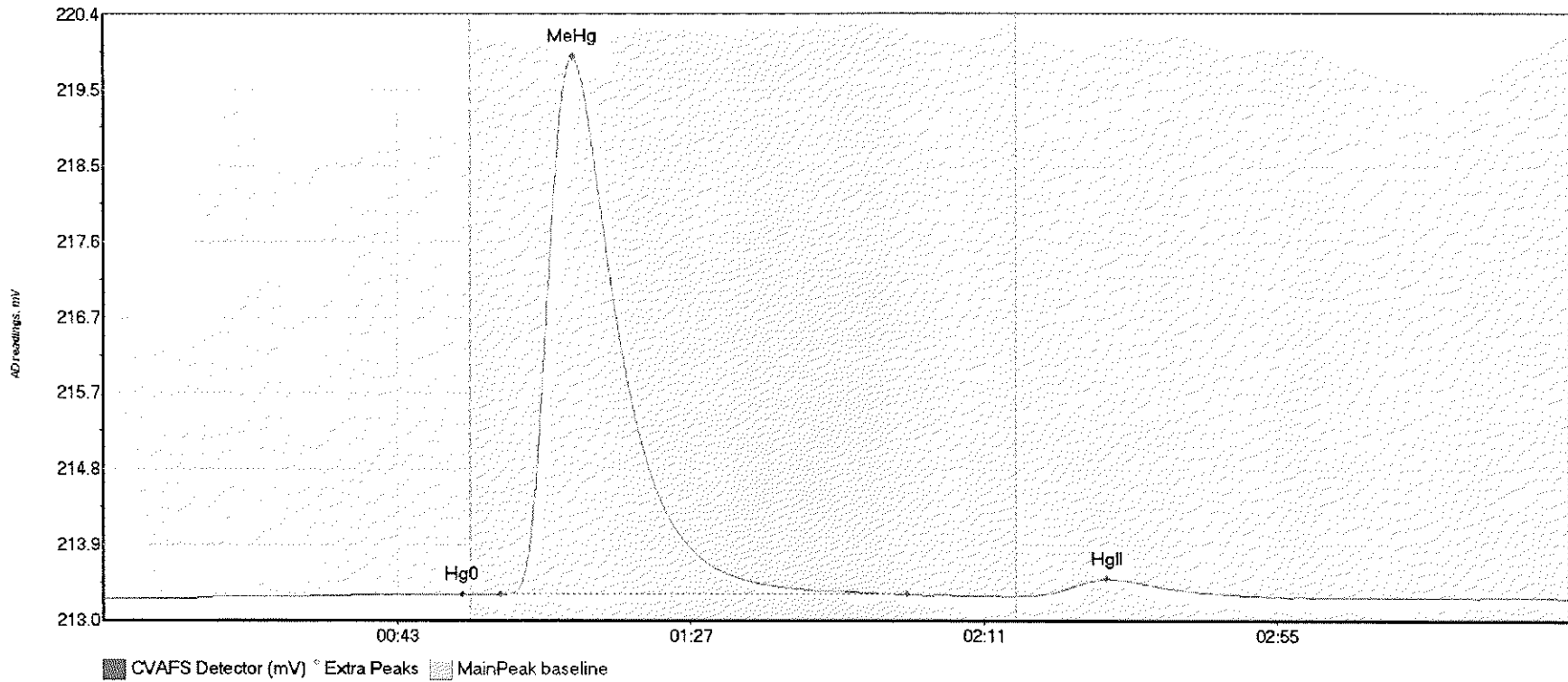
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD3 Hg	5.553	15.8	55.0	213.23	213.26	44.7	0.047	CT	213.2263	0.00	0.02	
F707393-MSD3 Me	839.218	60.1	126.6	213.26	213.26	70.1	6.594	OK	213.2263	0.00	0.02	
F707393-MSD3 Hg	39.889	137.9	175.1	213.26	213.26	150.5	0.258	OK	213.2263	0.00	0.02	

#72: F707393-MS4



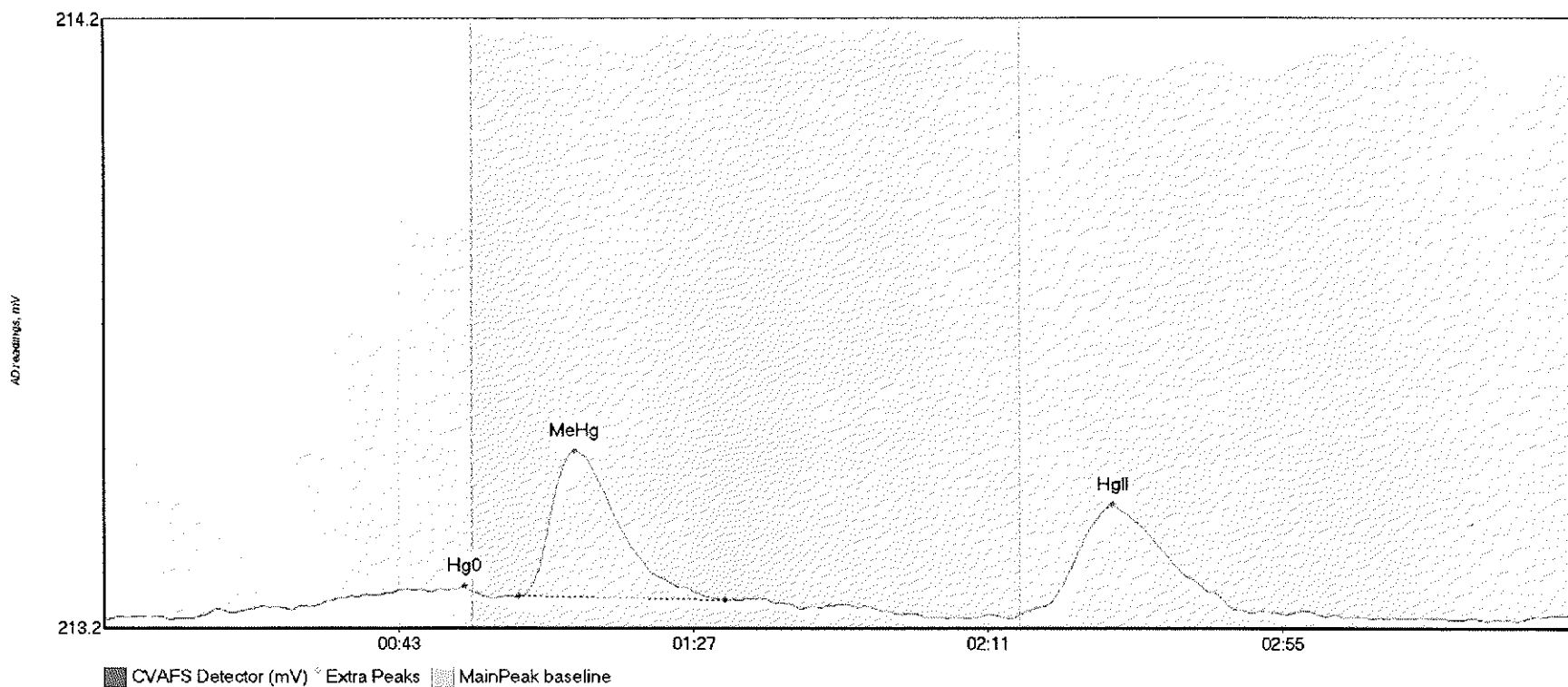
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS4 Hg0	3.846	8.1	55.0	213.23	213.28	51.3	0.055	CT	213.2297	0.00	0.01	
F707393-MS4 MeH	813.405	60.4	121.7	213.28	213.28	70.6	6.453	OK	213.2297	0.00	0.01	
F707393-MS4 HgI	32.520	138.7	172.9	213.27	213.27	150.9	0.218	OK	213.2297	0.00	0.01	

#73: F707393-MSD4



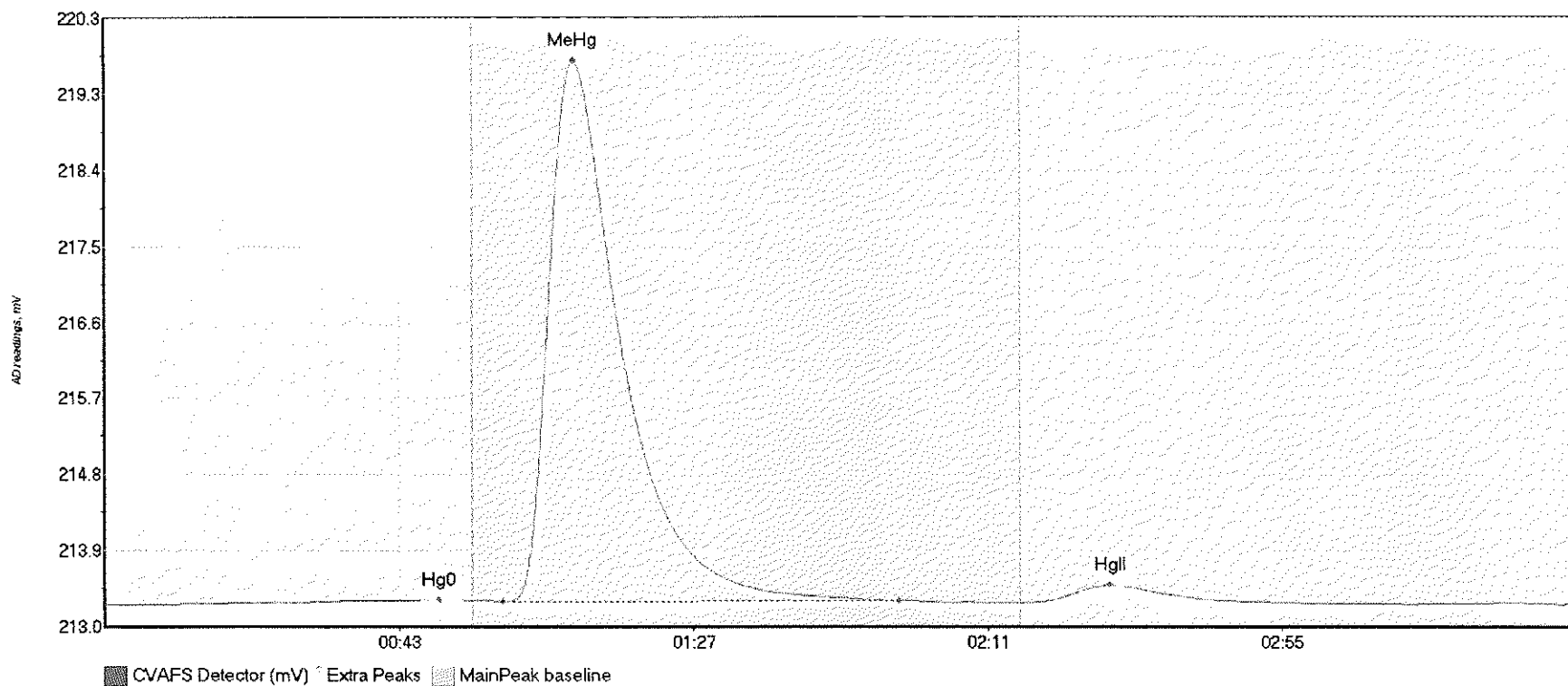
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD4 Hg	3.515	13.7	55.0	213.23	213.27	53.7	0.047	CT	213.2252	0.00	0.00	
F707393-MSD4 Me	831.227	59.5	120.5	213.27	213.27	70.4	6.595	OK	213.2252	0.00	0.00	
F707393-MSD4 Hg	31.380	138.1	174.6	213.26	213.25	150.4	0.204	OK	213.2252	0.00	0.00	

#74: 1706929-01RE1



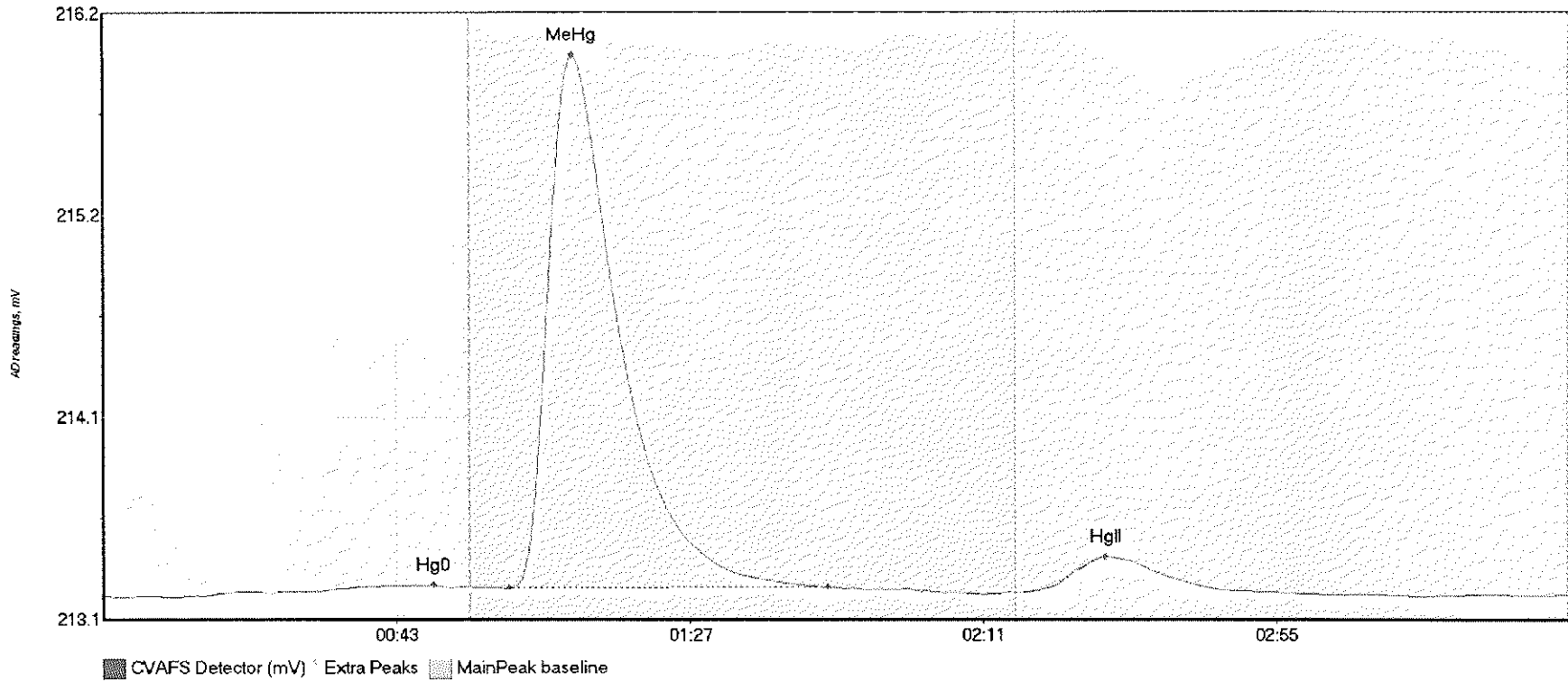
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-01RE1 H	3.141	12.7	55.0	213.22	213.27	53.8	0.051	CT	213.2236	0.00	0.01	
1706929-01RE1 M	28.028	61.9	92.7	213.26	213.25	70.3	0.240	OK	213.2236	0.00	0.01	
1706929-01RE1 H	25.878	138.1	171.4	213.24	213.23	150.7	0.174	OK	213.2236	0.00	0.01	

#75: 1706929-07RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-07RE1 H	3.564	2.5	54.9	213.23	213.27	50.0	0.057	OK	213.2219	0.00	0.01	
1706929-07RE1 M	814.238	59.5	118.7	213.26	213.27	70.1	6.469	OK	213.2219	0.00	0.01	
1706929-07RE1 H	30.535	137.3	175.6	213.25	213.25	150.3	0.206	OK	213.2219	0.00	0.01	

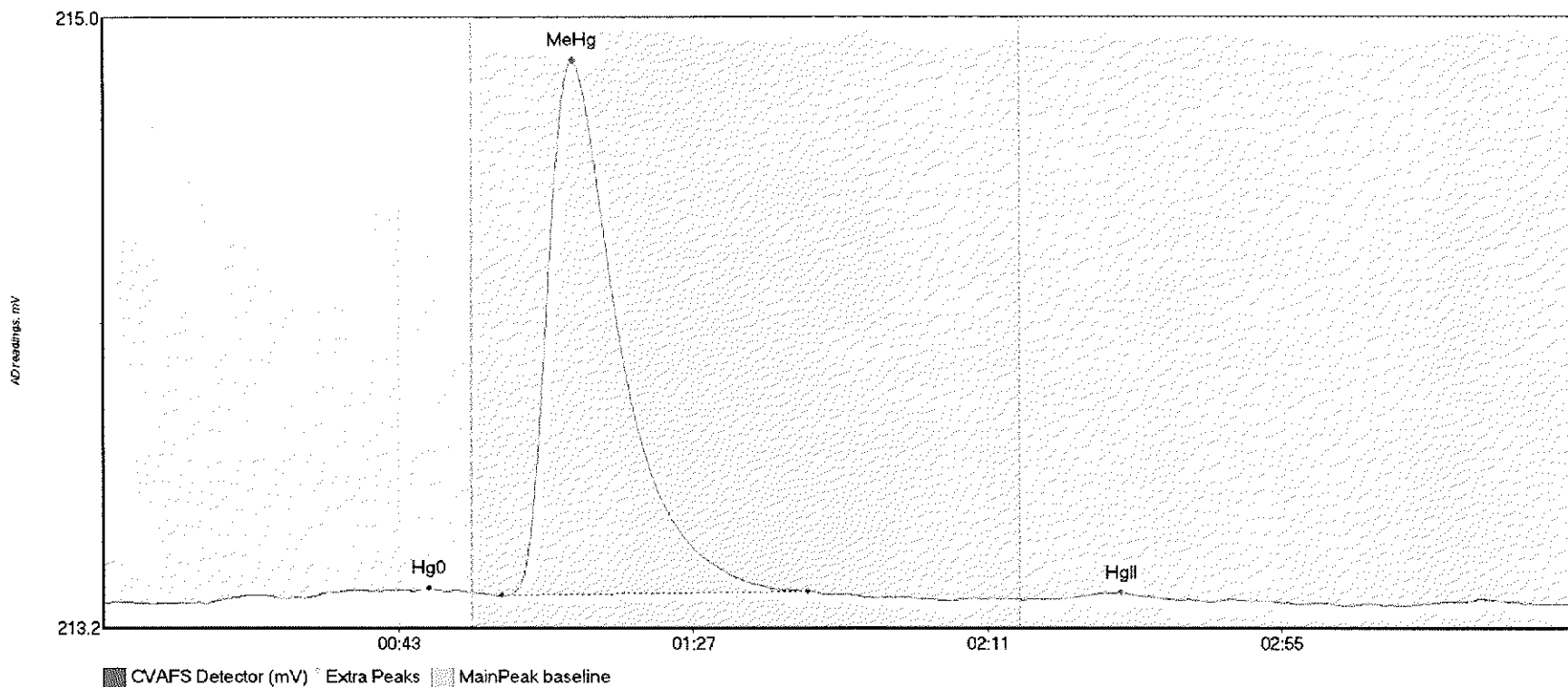
#76: 1706930-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-01RE1 H	4.280	15.2	52.1	213.22	213.26	49.6	0.055	OK	213.2181	0.00	0.01	
1706930-01RE1 M	335.210	60.8	108.8	213.26	213.26	70.5	2.702	OK	213.2181	0.00	0.01	
1706930-01RE1 H	25.637	138.5	173.2	213.24	213.24	150.4	0.179	OK	213.2181	0.00	0.01	

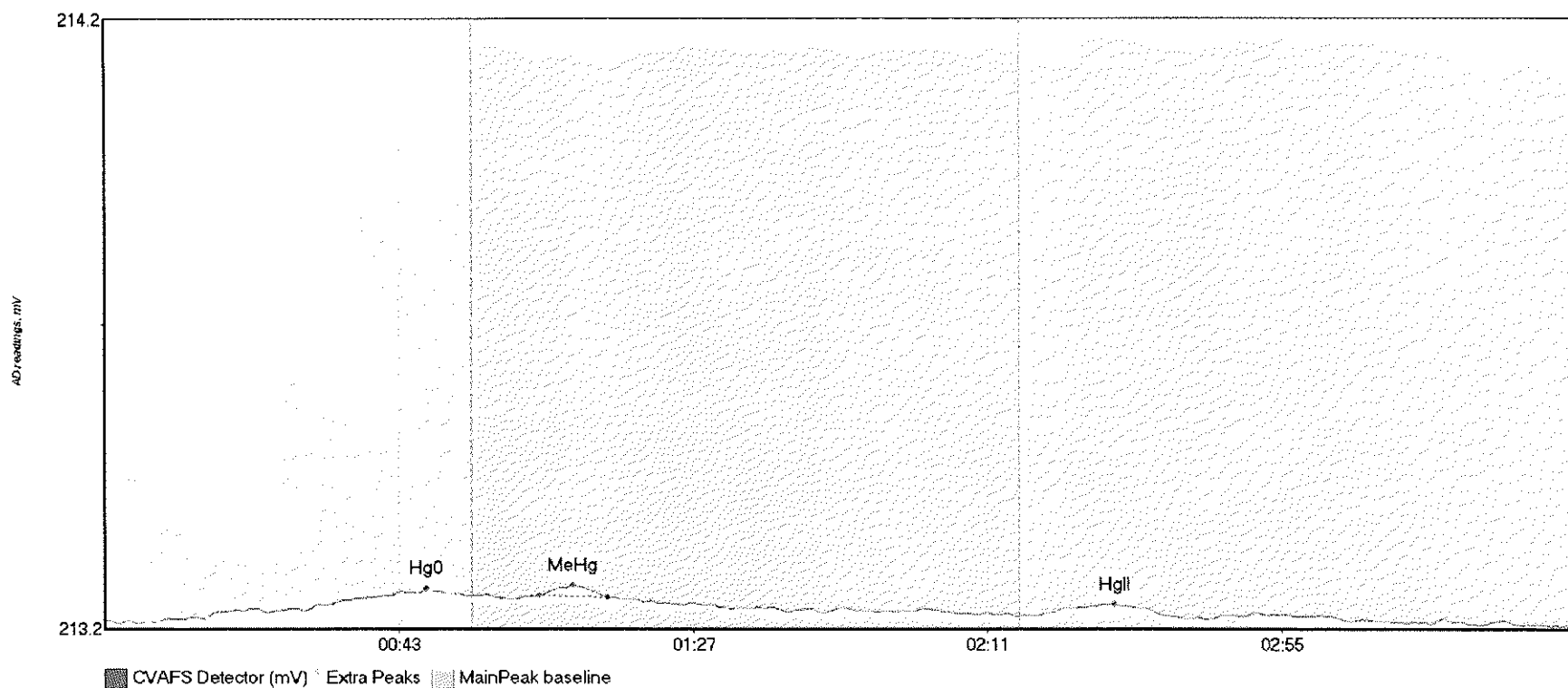


#77: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	5.275	15.4	55.0	213.23	213.26	48.6	0.045	CT	213.2297	0.00	0.00	
SEQ-CCV6 MeHg	200.970	59.4	105.1	213.25	213.26	70.1	1.612	OK	213.2297	0.00	0.00	
SEQ-CCV6 HgII	1.231	144.1	157.5	213.24	213.24	152.0	0.018	OK	213.2297	0.00	0.00	

#78: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	3.317	15.0	54.2	213.22	213.26	48.2	0.048	OK	213.2218	0.00	-0.01	
SEQ-CCB6 MeHg	1.097	65.0	75.2	213.26	213.26	70.0	0.017	OK	213.2218	0.00	-0.01	
SEQ-CCB6 HgII	2.652	139.1	160.7	213.23	213.23	151.1	0.021	OK	213.2218	0.00	-0.01	

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1706930

July 31, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1706930

### Table of Contents

July 31, 2017

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	13
Notes and Definitions	29
Raw Data: 7G14006	30
Raw Data: 7G14008	72
Raw Data: 7G26011	109
Raw Data: 7G27013	174

**Total Pages – 294**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 11:10

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMSE-1_17BN001_062117_TIN_01_WB	1706930-01	Tissue	21-Jun-17 16:35	30-Jun-17 09:50
MMSE-1_17BN001_062117_TIN_02_WB	1706930-02	Tissue	21-Jun-17 13:30	30-Jun-17 09:50
MMSE-1_17BN004_062117_TIN_03_WB	1706930-03	Tissue	21-Jun-17 11:00	30-Jun-17 09:50
MMSE-1_17BN001_062117_TIN_04_WB	1706930-04	Tissue	21-Jun-17 14:00	30-Jun-17 09:50
MMSE-1_17BN003_062117_TIN_05_WB	1706930-05	Tissue	21-Jun-17 13:00	30-Jun-17 09:50
MMSE-1_17PT003_062117_SPI_01_WB	1706930-06	Tissue	21-Jun-17 16:30	30-Jun-17 09:50
MMSE-1_17PT002_062117_SPI_02_WB	1706930-07	Tissue	21-Jun-17 10:00	30-Jun-17 09:50

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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:**  
31-Jul-17 11:10

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 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 prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS SOP2808).

The samples were prepped in batch F707393 for Methyl Mercury. This batch was analyzed in sequences 7G26011 and 7G27013. The total Mercury samples were prepped in batches F707326 and F707327. They were analyzed in sequences 7G14006 and 7G14008. Per client request, samples 1706930-01 and 1706930-06 were used as the source QC in batches F707393 and F707326.

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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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 11:10

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: 1706930

Client: AMEL 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>10.2</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>N</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):

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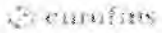
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1706930



Environmental Analysis Request/Chain of Custody

Project Name/ID		Matrix		Analyses Requested				For Lab Use Only	
Project Name/ID: USDC Penobscot		Matrix: Sediment		Analyses Requested: Preservation Codes				SF #	
Project Manager: Rod Pendleton		Matrix: Particle Ground Surface		Analyses Requested: Preservation Codes				SCR #	
Sample: KBISM		Matrix: Other: Whole Body		Analyses Requested: Preservation Codes				Preservation Codes	
Phone #		Matrix: Soil		Analyses Requested: Preservation Codes				H=HCl	
Quote #		Matrix: Water		Analyses Requested: Preservation Codes				L=HNO <sub>3</sub>	
State where samples were collected: ME		Matrix: Other: Other		Analyses Requested: Preservation Codes				S=H <sub>2</sub> SO <sub>4</sub>	
Not Compliant: Yes No		Matrix: Total # of Containers		Analyses Requested: Preservation Codes				C=Other	
Collection		Matrix: Pkg. Total (Net Wt. Min. 1g 10.00 (2.00) P1 Trace)		Analyses Requested: Preservation Codes				Remarks	
Date Time Grab Composite		Matrix: Total # of Containers		Analyses Requested: Preservation Codes				Remarks	
1	MMSE-17BN001_062117_TIN_C1_WB	8/21/2017	1335	Grab					2.4g Picture wing fly, MS/MD
2	MMSE-17BN001_062117_TIN_C2_WB	8/21/2017	1330	Grab					0.8 g
3	MMSE-17BN004_062117_TIN_C3_WB	8/21/2017	1100	Grab					1.2 g
4	MMSE-17BN001_062117_TIN_C4_WB	8/21/2017	1400	Grab					0.7 g
5	MMSE-17BN003_062117_TIN_C5_WB	8/21/2017	1300	Grab					1.1 g
6	<del>MMSE-17BN001_062117_TIN_C1_WB_WB</del>	<del>8/21/2017</del>	<del>1335</del>	<del>Grab</del>					<del>Extra volume from sample for MS/MD</del>
7	<del>MMSE-17BN001_062117_TIN_C1_WB_MD</del>	<del>8/21/2017</del>	<del>1335</del>	<del>Grab</del>					<del>Extra volume from sample for MS/MD</del>
8	MMSE-17PT003_062117_SPI_01_WB	8/21/2017	1850	Grab					2.18 g
9	MMSE-17PT002_062117_SPI_02_WB	8/21/2017	1000	Grab					1.3 g
10	MMSE-17PT003_062117_SPI_01_WB_MS	8/21/2017	1850	Grab					Extra volume from sample for MS/MD
11	MMSE-17PT003_062117_SPI_01_WB_MD	8/21/2017	1850	Grab					Extra volume from sample for MS/MD

Turnaround Time Requested (TAT) (please check):	Standard	Rush	Relinquished by: <i>K. M.</i>	Date: 6/29/17	Time: 1600	Received by: <i>[Signature]</i>	Date: 6/30/17	Time: 9:50
Notes:	Folio # 0104 2664 2029	# of Coolers	Relinquished by:	Date:	Time:	Received by: <i>Log Mitchell</i>	Date:	Time:
	Sample disposal - Field Equipment Blanks 1.4 until 30 days after delivery of report	Report and EDD to: <a href="mailto:edw@eurofins.com">edw@eurofins.com</a>   978-682-8633	Relinquished by:	Date:	Time:	Received by: <i>EPCR</i>	Date:	Time:
Data Package Options (please check if required):	High	Standard	Relinquished by Commercial Carrier:	Date:	Time:	Received by:	Date:	Time:
EDD Required?	Yes	No	URS	FedEx	Other	Temperature upon receipt: -37.8 °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:**  
31-Jul-17 11:10

**MMSE-1\_17BN001\_062117\_TIN\_01\_WB  
1706930-01**

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)	60.2	1.0	3.9	ng/g	1000	F707393	19-Jul-17	7G27013	26-Jul-17	EPA 1630 Mod/FGS-070	
-----------------------------	------	-----	-----	------	------	---------	-----------	---------	-----------	-------------------------	--

**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	71.7	0.200	1.79	ng/g	50	F707326	11-Jul-17	7G14008	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:**  
31-Jul-17 11:10

**MMSE-1\_17BN001\_062117\_TIN\_02\_WB  
1706930-02**

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)	6.9	0.5	1.8	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	7.62	0.086	0.767	ng/g	20	F707326	11-Jul-17	7G14008	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:**  
31-Jul-17 11:10

**MMSE-1\_17BN004\_062117\_TIN\_03\_WB**  
**1706930-03**

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)	21.5	0.5	2.0	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	24.6	0.089	0.797	ng/g	20	F707326	11-Jul-17	7G14008	13-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:**  
31-Jul-17 11:10

**MMSE-1\_17BN001\_062117\_TIN\_04\_WB**  
**1706930-04**

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)	2.1	0.4	1.7	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	2.95	0.081	0.723	ng/g	20	F707327	11-Jul-17	7G14006	13-Jul-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:**  
31-Jul-17 11:10

**MMSE-1\_17BN003\_062117\_TIN\_05\_WB**  
**1706930-05**

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)	21.2	0.5	1.9	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	22.7	0.439	3.92	ng/g	100	F707327	11-Jul-17	7G14006	13-Jul-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:**  
31-Jul-17 11:10

**MMSE-1\_17PT003\_062117\_SPI\_01\_WB**  
**1706930-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	296	2.2	8.9	ng/g	2500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	278	1.72	15.3	ng/g	400	F707326	11-Jul-17	7G14008	13-Jul-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:**  
31-Jul-17 11:10

**MMSE-1\_17PT002\_062117\_SPI\_02\_WB  
1706930-07**

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)	511	2.3	9.0	ng/g	2500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	526	1.72	15.3	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: 31-Jul-17 11:10
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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
<b>Batch 7G14006 - F707327</b>											
<b>Cal Standard (7G14006-CAL1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.563	-		ng/L	0.50100		112				
<b>Cal Standard (7G14006-CAL2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	1.054	-		ng/L	1.0020		105				
<b>Cal Standard (7G14006-CAL3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.787	-		ng/L	5.0100		95.5				
<b>Cal Standard (7G14006-CAL4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	18.52	-		ng/L	20.040		92.4				
<b>Cal Standard (7G14006-CAL5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	37.49	-		ng/L	40.080		93.5				
<b>Calibration Blank (7G14006-CCB1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.006	-		ng/L							
<b>Calibration Blank (7G14006-CCB2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.012	-		ng/L							
<b>Calibration Blank (7G14006-CCB3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.031	-		ng/L							
<b>Calibration Blank (7G14006-CCB4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.025	-		ng/L							
<b>Calibration Blank (7G14006-CCB5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.084	-		ng/L							

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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:  
31-Jul-17 11:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G14006 - F707327</b>											
<b>Calibration Blank (7G14006-CCB6)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.076	-		ng/L							
<b>Calibration Blank (7G14006-CCB7)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.080	-		ng/L							
<b>Calibration Blank (7G14006-CCB8)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.066	-		ng/L							
<b>Calibration Blank (7G14006-CCB9)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.049	-		ng/L							
<b>Calibration Blank (7G14006-CCBA)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.071	-		ng/L							
<b>Calibration Check (7G14006-CCV1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.815	-		ng/L	5.0000		96.3	77-123			
<b>Calibration Check (7G14006-CCV2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.822	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (7G14006-CCV3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.819	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (7G14006-CCV4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.734	-		ng/L	5.0000		94.7	77-123			
<b>Calibration Check (7G14006-CCV5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.863	-		ng/L	5.0000		97.3	77-123			

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 11:10

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 7G14006 - F707327

Calibration Check (7G14006-CCV6) Prepared & Analyzed: 13-Jul-17

Mercury	4.971	-		ng/L	5.0000		99.4	77-123			
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Calibration Check (7G14006-CCV7) Prepared & Analyzed: 13-Jul-17

Mercury	4.950	-		ng/L	5.0000		99.0	77-123			
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Calibration Check (7G14006-CCV8) Prepared & Analyzed: 13-Jul-17

Mercury	4.907	-		ng/L	5.0000		98.1	77-123			
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Calibration Check (7G14006-CCV9) Prepared & Analyzed: 13-Jul-17

Mercury	4.918	-		ng/L	5.0000		98.4	77-123			
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Calibration Check (7G14006-CCVA) Prepared & Analyzed: 13-Jul-17

Mercury	4.905	-		ng/L	5.0000		98.1	77-123			
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Instrument Blank (7G14006-IBL1) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14006-IBL2) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14006-IBL3) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G14006-ICV1) Prepared & Analyzed: 13-Jul-17

Mercury	4.939	-		ng/L	5.0000		98.8	79-121			
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Batch 7G14008 - F707326

Cal Standard (7G14008-CAL1) Prepared & Analyzed: 13-Jul-17

Mercury	0.548	-		ng/L	0.50100		109				
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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: 31-Jul-17 11:10
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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
<b>Batch 7G14008 - F707326</b>											
<b>Cal Standard (7G14008-CAL2)</b>											
Mercury	1.072	-		ng/L	1.0020		107				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL3)</b>											
Mercury	4.837	-		ng/L	5.0100		96.6				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL4)</b>											
Mercury	18.66	-		ng/L	20.040		93.1				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL5)</b>											
Mercury	37.32	-		ng/L	40.080		93.1				Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB1)</b>											
Mercury	0.034	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB2)</b>											
Mercury	0.032	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB3)</b>											
Mercury	0.024	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB4)</b>											
Mercury	0.047	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB5)</b>											
Mercury	0.077	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB6)</b>											
Mercury	0.040	-		ng/L							Prepared & Analyzed: 13-Jul-17

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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:  
31-Jul-17 11:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G14008 - F707326</b>											
<b>Calibration Blank (7G14008-CCB7)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.122	-		ng/L							
<b>Calibration Blank (7G14008-CCB8)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.121	-		ng/L							
<b>Calibration Blank (7G14008-CCB9)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	0.160	-		ng/L							
<b>Calibration Check (7G14008-CCV1)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.829	-		ng/L	5.0000		96.6	77-123			
<b>Calibration Check (7G14008-CCV2)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.884	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (7G14008-CCV3)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	5.048	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G14008-CCV4)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.911	-		ng/L	5.0000		98.2	77-123			
<b>Calibration Check (7G14008-CCV5)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.948	-		ng/L	5.0000		99.0	77-123			
<b>Calibration Check (7G14008-CCV6)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	4.886	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (7G14008-CCV7)</b> Prepared & Analyzed: 13-Jul-17											
Mercury	5.100	-		ng/L	5.0000		102	77-123			

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
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31-Jul-17 11:10

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 7G14008 - F707326

<b>Calibration Check (7G14008-CCV8)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	5.081	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7G14008-CCV9)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	5.216	-		ng/L	5.0000		104	77-123			
<b>Instrument Blank (7G14008-IBL1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G14008-IBL2)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G14008-IBL3)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7G14008-ICV1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.970	-		ng/L	5.0000		99.4	79-121			

Batch 7G19019 - F707331

<b>Cal Standard (7G19019-CAL1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.501	-		ng/L	0.50100		99.9				
<b>Cal Standard (7G19019-CAL2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	1.058	-		ng/L	1.0020		106				
<b>Cal Standard (7G19019-CAL3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.086	-		ng/L	5.0100		102				

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 11:10

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 7G19019 - F707331

<b>Cal Standard (7G19019-CAL4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	19.23	-		ng/L	20.040		95.9				
<b>Cal Standard (7G19019-CAL5)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	38.49	-		ng/L	40.080		96.0				
<b>Calibration Blank (7G19019-CCB1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.074	-		ng/L							
<b>Calibration Blank (7G19019-CCB2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.106	-		ng/L							
<b>Calibration Blank (7G19019-CCB3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.169	-		ng/L							
<b>Calibration Blank (7G19019-CCB4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.511	-		ng/L							
<b>Calibration Check (7G19019-CCV1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.030	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G19019-CCV2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.178	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7G19019-CCV3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.258	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7G19019-CCV4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.931	-		ng/L	5.0000		119	77-123			

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 11:10

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 7G19019 - F707331

Instrument Blank (7G19019-IBL1) Prepared & Analyzed: 18-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G19019-IBL2) Prepared & Analyzed: 18-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G19019-IBL3) Prepared & Analyzed: 18-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7G19019-ICV1) Prepared & Analyzed: 18-Jul-17											
Mercury	5.365	-		ng/L	5.0000		107	79-121			

Batch 7G26011 - F707393

Cal Standard (7G26011-CAL1) Prepared & Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.5				
Cal Standard (7G26011-CAL2) Prepared & Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		96.6				
Cal Standard (7G26011-CAL3) Prepared & Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		101				
Cal Standard (7G26011-CAL4) Prepared & Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	2.1	-		ng/L	2.0020		103				
Cal Standard (7G26011-CAL5) Prepared & Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	4.0	-		ng/L	4.0040		101				

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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:**  
31-Jul-17 11:10

**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 7G26011 - F707393**

<b>Calibration Blank (7G26011-CCB1)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.002	-		ng/L									
<b>Calibration Blank (7G26011-CCB2)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.004	-		ng/L									
<b>Calibration Blank (7G26011-CCB3)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.005	-		ng/L									
<b>Calibration Check (7G26011-CCV1)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.2	67-133					
<b>Calibration Check (7G26011-CCV2)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133					
<b>Calibration Check (7G26011-CCV3)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		87.5	67-133					
<b>Instrument Blank (7G26011-IBL1)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U		
<b>Initial Cal Blank (7G26011-ICB1)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.006	-		ng/L									
<b>Initial Cal Check (7G26011-ICV1)</b>												Prepared & Analyzed: 25-Jul-17	
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.9	69-131					

**Batch 7G27013 - F707393**

<b>Cal Standard (7G27013-CAL1)</b>												Prepared & Analyzed: 26-Jul-17	
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.5						

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 11:10

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G27013 - F707393</b>											
<b>Cal Standard (7G27013-CAL2)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		88.0				
<b>Cal Standard (7G27013-CAL3)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		99.2				
<b>Cal Standard (7G27013-CAL4)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	2.1	-		ng/L	2.0020		104				
<b>Cal Standard (7G27013-CAL5)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		111				
<b>Calibration Blank (7G27013-CCB1)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G27013-CCB2)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB3)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB4)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB5)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB6)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 11:10

**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 7G27013 - F707393**

Prepared & Analyzed: 26-Jul-17											
<b>Calibration Check (7G27013-CCV1)</b>											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		89.4	67-133			
<b>Calibration Check (7G27013-CCV2)</b>											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		81.5	67-133			
<b>Calibration Check (7G27013-CCV3)</b>											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.5	67-133			
<b>Calibration Check (7G27013-CCV4)</b>											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.9	67-133			
<b>Calibration Check (7G27013-CCV5)</b>											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.6	67-133			
<b>Calibration Check (7G27013-CCV6)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.9	67-133			
<b>Instrument Blank (7G27013-IBL1)</b>											
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7G27013-ICB1)</b>											
Methyl Mercury (as Mercury)	0.005	-		ng/L							
<b>Initial Cal Check (7G27013-ICV1)</b>											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.5	69-131			

**Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion**

Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
<b>Blank (F707326-BLK1)</b>											
Mercury	ND	0.090	0.800	ng/g							U

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 11:10

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707326-BLK2)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707326-BLK3)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707326-BLK4)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.088	0.782	ng/g							F-03, U
<b>Blank (F707326-BLK5)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.086	0.770	ng/g							F-03, U
<b>Blank (F707326-BLK6)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.085	0.762	ng/g							F-03, U
<b>Blank (F707326-BLK7)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.085	0.760	ng/g							F-03, U
<b>Blank (F707326-BLK8)</b>					Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.195	0.045	0.400	ng/g							J
<b>Blank (F707326-BLK9)</b>					Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.098	0.045	0.400	ng/g							J
<b>Blank (F707326-BLKA)</b>					Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.078	0.045	0.400	ng/g							J
<b>LCS (F707326-BS1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.533	0.090	0.800	ng/g	8.0160		94.0	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: 31-Jul-17 11:10
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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 F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS Dup (F707326-BSD1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.797	0.090	0.800	ng/g	8.0160		97.3	75-125	3.45	24	
<b>Duplicate (F707326-DUP2)</b>					Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	50.07	0.078	0.693	ng/g		49.71			0.735	24	AD
<b>Duplicate (F707326-DUP3)</b>					Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	94.87	0.218	1.94	ng/g		49.71			62.5	24	QR-07
<b>Matrix Spike (F707326-MS1)</b>					Source: 1706930-01RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	696.3	1.52	13.6	ng/g	680.94	71.71	91.7	71-125			
<b>Matrix Spike (F707326-MS2)</b>					Source: 1706930-06 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	602.0	1.68	15.0	ng/g	375.70	278.4	86.1	71-125			
<b>Matrix Spike Dup (F707326-MSD1)</b>					Source: 1706930-01RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	689.6	1.56	13.9	ng/g	696.32	71.71	88.7	71-125	3.30	24	
<b>Matrix Spike Dup (F707326-MSD2)</b>					Source: 1706930-06 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	584.3	1.62	14.5	ng/g	362.65	278.4	84.4	71-125	2.06	24	

**Batch F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F707327-BLK1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	0.102	0.090	0.800	ng/g							J
<b>Blank (F707327-BLK2)</b>					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: 31-Jul-17 11:10
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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 F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F707327-BLK3)</b>		Prepared: 11-Jul-17 Analyzed: 13-Jul-17									
Mercury	0.160	0.090	0.800	ng/g							J
<b>LCS (F707327-BS1)</b>		Prepared: 11-Jul-17 Analyzed: 13-Jul-17									
Mercury	7.484	0.090	0.800	ng/g	8.0160		93.4	75-125			
<b>LCS Dup (F707327-BSD1)</b>		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	
<b>Duplicate (F707327-DUP1)</b>		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
<b>Duplicate (F707327-DUP2)</b>		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
<b>Matrix Spike (F707327-MS1)</b>		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			
<b>Matrix Spike (F707327-MS2)</b>		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			
<b>Matrix Spike Dup (F707327-MSD1)</b>		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	
<b>Matrix Spike Dup (F707327-MSD2)</b>		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	

**Batch F707393 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F707393-BLK1)</b>		Prepared: 19-Jul-17 Analyzed: 25-Jul-17									
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U



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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 11:10

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707393 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707393-BLK2)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK3)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK4)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.4	1.5	ng/g							U
<b>Blank (F707393-BLK5)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.4	ng/g							U
<b>Blank (F707393-BLK6)</b>					Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK7)</b>					Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK8)</b>					Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F707393-BS1)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	289.1	2.0	8.0	ng/g	330.28		87.5	70-130			
<b>LCS Dup (F707393-BSD1)</b>					Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	291.7	2.0	8.0	ng/g	330.28		88.3	70-130	0.882	25	
<b>Duplicate (F707393-DUP1)</b>					Source: 1706929-05 Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	55.7	0.5	1.8	ng/g		41.6			29.0	35	

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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 F707393 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Matrix Spike (F707393-MS1)</b>		<b>Source: 1706930-01</b>			Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	99.8	1.0	3.8	ng/g	37.960	59.9	105	65-130			
<b>Matrix Spike (F707393-MS3)</b>		<b>Source: 1706930-01RE1</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	99.1	1.0	3.8	ng/g	37.960	60.2	102	65-130			
<b>Matrix Spike (F707393-MS4)</b>		<b>Source: 1706930-06</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	353.9	2.4	9.4	ng/g	37.646	295.7	155	65-130			QM-02
<b>Matrix Spike Dup (F707393-MSD1)</b>		<b>Source: 1706930-01</b>			Prepared: 19-Jul-17 Analyzed: 25-Jul-17						
Methyl Mercury (as Mercury)	120.9	1.0	3.8	ng/g	38.046	59.9	161	65-130	41.7	35	QM-02, QR-08
<b>Matrix Spike Dup (F707393-MSD3)</b>		<b>Source: 1706930-01RE1</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	147.6	1.0	3.8	ng/g	38.046	60.2	230	65-130	76.7	35	QM-02, QR-08
<b>Matrix Spike Dup (F707393-MSD4)</b>		<b>Source: 1706930-06</b>			Prepared: 19-Jul-17 Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	356.3	2.3	9.3	ng/g	37.088	295.7	163	65-130	5.53	35	QM-02





AMEC Foster Wheeler  
 271 Mill Road  
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 Project Manager: Denise King

**Reported:**  
 31-Jul-17 11:10

**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.
- 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.
- 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.
- 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.
- 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).
- 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

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

ITMS Sequence #: 7G14006, 7G14007

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 Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments	
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-IBL3	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-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	7:44:27 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	7:52:38 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	472.05	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			88.4	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	160.92	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	8:50:36 AM	971.19	1			969.5	9.764	3965.768	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	4166.799	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	28.491	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	177.80	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	139.60	1			137.9	1.386	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	480.26				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 9:36:09	70953-1.RAW	9:36:09 AM	761.78	1			700.2	7.041	704.125	ng/L	
Hg2600-3	DM2	SAM	1706933-01	100	7/13/2017 9:40:18	70954-1.RAW	9:40:18 AM	4312.33	1			4310.8	43.612	4341.163	ng/L	
Hg2600-3	DM2	SAM	1706933-02	100	7/13/2017 9:44:27	70955-1.RAW	9:44:27 AM	830.71	1			829.2	8.340	834.010	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 9:48:36	70956-1.RAW	9:48:36 AM	3737.77	1			3766.2	37.926	3792.612	ng/L	
Hg2600-3	DM2	SAM	1706933-04RE1	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	1706933-07RE1	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	1706933-08RE1	100	7/13/2017 10:08:31	70959-1.RAW	10:08:31 AM	512.82	1			511.4	5.139	513.882	ng/L	
Hg2600-3	DM2	SAM	1706933-04RE1	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-DUP1	20	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	479.96				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-MSD2	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-MSD3	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	1706933-01RE1	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	1706933-02RE1	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	791.78	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	0.083	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	471.57	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	4589.00	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	3953.66	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	12566.6	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 11:59:01	70986-1.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			21277.9	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	484.29			483.7	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			9.4	0.084	0.084	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	6228.961	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	21.069	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	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	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	1864.734	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	1281.80	2		1280.2	12.924	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 3:00:04	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 3:04:13	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 3:08:21	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 3:12:29	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 3:16:38	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 3:20:46	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 3:24:54	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 3:29:03	71037-1.RAW	3:28:55 PM	3.82	3 X		2.3	0.023	0.023	ng/L	
Hg2600-3	DM2	SAM	F70732-BL1	1	7/13/2017 3:33:12	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 3:37:20	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 3:41:29	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 3:45:38	71041-1.RAW	3:45:29 PM	6.75			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 Thg260i 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 Thg26003-17073 J CF SD: 8.577269355  
 CF RSD%: 8.640179002

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	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
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	7:23:29	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	0.58			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			92.60		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-CCV1	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-BSD1	B1		20	1.55	91.78					70832-1.RAW	8:09:12	472.03	Sample	OK	1
F706930-04	B3		100	1.55	30.09					70833-1.RAW	8:13:20	470.19	Sample	OK	1
F706930-05	B4		100	1.55	250.82					70834-1.RAW	8:17:29	39.95	Sample	OK	1
F706930-07	B5		100	1.55	8718.51					70835-1.RAW	8:21:37	290.25	Sample	OK	1
F706931-03	B6		100	1.55	523.55					70836-1.RAW	8:25:45	8871.14	Sample	FB	1
F706931-04	B7		100	1.55	168.80					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
F706931-06	B10		400	1.55	5163.44					70840-1.RAW	8:42:19	2.18	Sample	OK	1
F706931-07	B11		400	1.55	3907.07					70841-1.RAW	8:46:28	1283.01	Sample	OK	1
F706931-08	B12		400	1.55	4188.03					70842-1.RAW	8:50:36	971.18	Sample	OK	1
F706932-01	C1		20	1.55	21.13					70843-1.RAW	8:54:44	1035.97	Sample	OK	1
F706932-02	C2		20	1.55	150.38					70844-1.RAW	8:58:53	103.42	Sample	OK	1
F706932-03	C3		20	1.55	571.06					70845-1.RAW	9:03:01	747.99	Sample	OK	1
F706932-04	C4		20	1.55	373.63					70846-1.RAW	9:07:10	2836.08	Sample	OK	1
F706932-05	C5		20	1.55	35.51					70847-1.RAW	9:11:18	1856.09	Sample	OK	1
F706932-06	C6		400	1.55	555.83					70848-1.RAW	9:15:26	177.80	Sample	OK	1
F706932-09	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
F706932-10	C10		100	1.55	705.36					70852-1.RAW	9:32:00	2.76	Sample	OK	1
F706933-01	C11		100	1.55	4342.40					70853-1.RAW	9:36:09	701.78	Sample	OK	1
F706933-02	C12		100	1.55	835.24					70854-1.RAW	9:40:18	4312.53	Sample	OK	1
F706933-03	D1		100	1.55	3793.85					70855-1.RAW	9:44:27	300.71	Sample	OK	1
F706930-04RE1	D2		20	1.55	42.06					70856-1.RAW	9:48:36	5757.77	Sample	FB	1
F706930-07RE1	D3		400	1.55	8860.89					70857-1.RAW	10:00:14	210.33	Sample	OK	1
F706931-03RE1	D4		100	1.55	515.12					70858-1.RAW	10:04:23	1704.26	Sample	OK	1
F706931-04RE1	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	1128.52	Sample	OK	1
F707327-MSD2	D12		400	1.55	4055.69					70866-1.RAW	10:37:30	1008.92	Sample	OK	1
F706933-01RE1	A1		400	1.55	4535.12					70867-1.RAW	10:41:38	1008.09	Sample	OK	1
F706933-02RE1	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			94.68		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

F707327-DUP2	A10	20	1.55	148.47		
1706933-04	A11	100	1.55	11703.95		
1706933-05	A12	100	1.55	8199.30		
1706933-09	B1	100	1.55	8145.30		
1706933-07	B2	100	1.55	8471.35		
1706933-08	B3	100	1.55	4632.07		
1706933-09	B4	100	1.55	3981.02		
1706933-10	B5	100	1.55	12243.79		
1706933-11	B8	100	1.55	9568.03		
clean			0.00	0.11		
ws			1.55	0.20		
1706935-12	B7	100	1.55	21434.01		
clean			0.00	0.17		
ws			1.55	0.27		
ws			1.55	0.10		
SEQ-CCV5	B8	1	1.55	4.08	97.26	
SEQ-CCD5	B9	1	1.55	0.08	0.00	
1706934-01	B10	400	1.55	541.48		
1706935-02	B11	400	1.55	18228.91		
1706933-04RE1	B12	400	1.55	11752.28		
1706933-05RE1	C1	400	1.55	6273.39		
1706933-06RE1	C2	400	1.55	5229.97		
1706933-07RE1	C3	400	1.55	8428.12		
1706933-08RE1	C4	400	1.55	4525.05		
1706933-09RE1	C5	400	1.55	4400.37		
1706933-10RE1	C8	400	1.55	12577.30		
1706933-11RE1	C7	400	1.55	9918.58		
SEQ-CCV6	C9	1	1.55	4.97	98.42	
SEQ-CCB6	C9	1	1.55	0.08	0.00	
1706933-12RE1	C10	1000	1.55	22742.14		
1706935-02RE1	C11	1000	1.55	19930.16		
1706935-04RE2	C12	1000	1.55	17189.83		
1706934-02	D1	400	1.55	24124.16		
1706934-03	D2	400	1.55	8807.98		
1706934-04	D3	400	1.55	3509.94		
1706934-05	D4	400	1.55	10813.17		
1706935-03	D5	1000	1.55	17710.21		
1706935-04	D6	1000	1.55	7207.84		
1706935-05	D7	1000	1.55	17213.48		
SEQ-CCV7	D8	1	1.55	1.96	99.01	
SEQ-CCP7	D8	1	1.55	0.08	0.00	
1706935-06	D10	1000	1.55	2865.75		
1706935-07	D11	1000	1.55	5081.79		
1706934-02RE1	D12	1000	1.55	24033.41		
1706934-03RE1	A1	400	1.55	8841.65		
F707328-DUP1	A2	400	1.55	1250.13		
F707328-MS1	A3	400	1.55	9921.03	792.57	
F707328-MSD1	A4	400	1.55	10392.67		
F707328-MS2	A5	400	1.55	5170.62	49.71	
F707328-MSD2	A6	400	1.55	5457.82		
F707323-DUP2	A9	400	1.55	6371.48		
SEQ-CCV8	A7	1	1.55	4.91	93.14	
SEQ-CCB8	A8	1	1.55	0.07	0.00	
F707372-BLK1	A10	1	1.55	0.01		
F707372-BLK2	A11	1	1.55	0.02		
F707372-BLK3	A12	1	1.55	0.03		
F707372-BLK4	B1	1	1.55	0.02		
F707372-BLK5	B2	1	1.55	0.03		
F707372-BLK6	B3	1	1.55	0.05		
F707372-BLK7	B4	1	1.55	0.02		
F707372-BLK8	B5	1	1.55	0.02		
F707372-BLK9	B6	1	1.55			
F707372-BS1	B7	1	1.55	14.83		
SEQ-CCV9	B8	1	1.55	4.32	98.35	
SEQ-CCB9	B9	1	1.55	0.05	0.00	
F707328-MS3	B10	1000	1.55	24793.38	813082.28	
F707328-MSD3	B11	1000	1.55	24773.42		

70977-1 RAW	11:23:03	738.46	Sample	OK	1
70978-1 RAW	11:27:11	11620.28	Sample	FB	1
70979-1 RAW	11:31:19	6154.72	Sample	OK	1
70980-1 RAW	11:35:28	8102.11	Sample	OK	1
70981-1 RAW	11:39:36	8410.23	Sample	OK	1
70982-1 RAW	11:43:45	4589.80	Sample	FB	1
70983-1 RAW	11:47:53	3953.59	Sample	OK	1
70984-1 RAW	11:52:02	12150.19	Sample	FB	1
70985-1 RAW	11:56:10	9499.92	Sample	FB	1
70986-1 RAW	11:59:01	11.12	Clean	OK	1
70987-1 RAW	12:03:10	21.59	Sample	OK	1
70988-1 RAW	12:07:16	21279.50	Sample	FB	1
70989-1 RAW	12:10:10	17.01	Clean	OK	1
70990-1 RAW	12:14:18	28.76	Sample	OK	1
70991-1 RAW	12:18:26	11.39	Sample	OK	1
70992-1 RAW	12:22:35	484.28	Sample	OK	1
70993-1 RAW	12:26:43	9.94	Sample	OK	1
70994-1 RAW	12:30:52	138.88	Sample	OK	1
70995-1 RAW	12:35:00	4325.80	Sample	FB	1
70996-1 RAW	12:39:08	2518.23	Sample	FB	1
70997-1 RAW	12:43:17	1658.48	Sample	OK	1
70998-1 RAW	12:47:25	1547.71	Sample	OK	1
70999-1 RAW	12:51:34	2083.24	Sample	OK	1
71000-1 RAW	12:55:42	1124.58	Sample	OK	1
71001-1 RAW	12:59:51	1093.64	Sample	OK	1
71002-1 RAW	13:03:59	3122.98	Sample	OK	1
71003-1 RAW	13:08:07	2463.14	Sample	FB	1
71004-1 RAW	13:12:16	495.05	Sample	OK	1
71005-1 RAW	13:16:24	9.05	Sample	OK	1
71006-1 RAW	13:20:33	2298.21	Sample	OK	1
71007-1 RAW	13:24:41	1090.71	Sample	FB	1
71008-1 RAW	13:28:49	2028.77	Sample	FB	1
71009-1 RAW	13:32:58	5988.88	Sample	FB	1
71010-1 RAW	13:37:08	1881.15	Sample	FB	1
71011-1 RAW	13:41:15	872.95	Sample	OK	1
71012-1 RAW	13:45:23	2685.19	Sample	OK	1
71013-1 RAW	13:49:32	1758.89	Sample	OK	1
71014-1 RAW	13:53:40	716.57	Sample	OK	1
71015-1 RAW	13:57:48	710.37		OK	1
71016-1 RAW	14:01:57	492.69	Sample	OK	1
71017-1 RAW	14:06:05	9.48	Sample	OK	1
71018-1 RAW	14:10:14	108.77	Sample	OK	1
71019-1 RAW	14:14:22	605.30	Sample	OK	1
71020-1 RAW	14:18:30	2387.36	Sample	OK	1
71021-1 RAW	14:22:39	1649.88	Sample	OK	1
71022-1 RAW	14:26:47	511.81	Sample	OK	1
71023-1 RAW	14:30:55	2483.75	Sample	OK	1
71024-1 RAW	14:35:04	2580.80	Sample	OK	1
71025-1 RAW	14:39:13	1264.80	Sample	OK	1
71026-1 RAW	14:43:22	1366.02	Sample	OK	1
71027-1 RAW	14:47:30	1582.57	Sample	OK	1
71028-1 RAW	14:51:39	488.70	Sample	OK	1
71029-1 RAW	14:55:47	8.13	Sample	OK	1
71030-1 RAW	14:59:56	2.79	Sample	OK	1
71031-1 RAW	15:04:04	3.46	Sample	OK	1
71032-1 RAW	15:08:13	4.30	Sample	OK	1
71033-1 RAW	15:12:21	3.89	Sample	OK	1
71034-1 RAW	15:16:30	7.45	Sample	OK	1
71035-1 RAW	15:20:38	5.14	Sample	OK	1
71036-1 RAW	15:24:46	3.37	Sample	OK	1
71037-1 RAW	15:28:55	3.82	Sample	OK	1
71038-1 RAW	15:33:03	0.00	Sample	NP	1
71039-1 RAW	15:37:12	1464.74	Sample	OK	1
71040-1 RAW	15:41:20	489.72	Sample	OK	1
71041-1 RAW	15:45:28	6.45	Sample	OK	1
71042-1 RAW	15:49:37	2467.84	Sample	OK	1
71043-1 RAW	15:53:45	2480.88	Sample	OK	1

F707372-BSD1	B12	1	1.55	15.19	71044-1.RAW	15:57.54	1509.32	Sample	OK	1
1706469-06	C1	10	1.55	30.17	71045-1.RAW	16:02.02	301.06	Sample	OK	1
1707148-01	C2	1	1.55	0.38	71046-1.RAW	16:06.11	39.37	Sample	OK	1
1707148-02	C3	1	1.55	0.08	71047-1.RAW	16:10.19	9.81	Sample	OK	1
1707292-01	C4	1	1.55	2.19	71048-1.RAW	16:14.28	216.13	Sample	OK	1
1707292-02	C5	1	1.55	0.03	71049-1.RAW	16:18.36	4.60	Sample	OK	1
F707372-DUP1	C6	1	1.55	2.23	71050-1.RAW	16:22.44	223.41	Sample	OK	1
F707372-MS1	C7	1	1.55	10.93	71051-1.RAW	16:26.53	1086.11	Sample	OK	1
SEQ-CCVA	C8	1	1.55	4.91	71052-1.RAW	16:31.01	488.50	Sample	OK	1
SEQ-CCBA	C9	1	1.55	0.07	71053-1.RAW	16:35.10	8.64	Sample	OK	1
F707372-MSD1	C10	1	1.55	11.08	71054-1.RAW	16:39.18	1101.19	Sample	OK	1
SEQ-CCVB	C11	1	1.55	4.89	71055-1.RAW	16:43.26	485.62	Sample	OK	1
SEQ-CCB3	C12	1	1.55	0.05	71056-1.RAW	16:47.35	5.95	Sample	OK	1

337.73



**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 Maxem  
 Analyst Reviewed By

7/14/17  
 Date

[Signature]  
 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 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

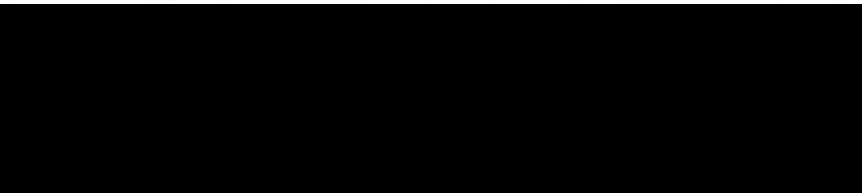
**Eurofins Frontier Global Sciences, Inc.**

**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

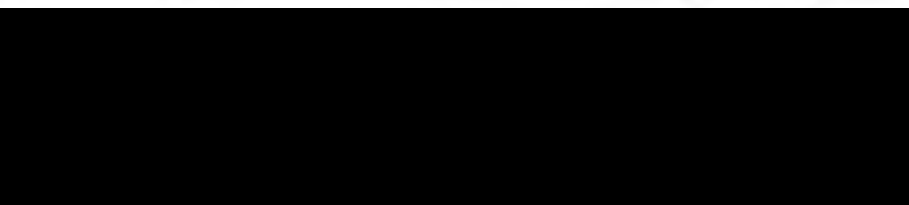
**Eurofins Frontier Global Sciences, Inc.**

**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	1004715	100			IX
F707372-BSD1	LCS Dup	50 100	50.5 101	1004715	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

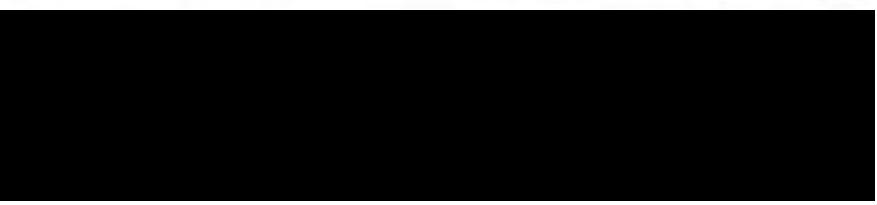
Eurofins Frontier Global Sciences, Inc.

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	<del>101</del> 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%;">                     ALL 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: \_\_\_\_\_

Reviewed  
2/12/17 dm

# 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="font-size: 2em; font-family: cursive;">                     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: \_\_\_\_\_

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)	<del>300</del> <sup>20</sup> 10.00	<del>3.00</del> <sup>20</sup> 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>[Signature]</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~~ <sup>cc</sup> 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 <sup>CIC</sup> <sub>7/12/17</sub>	0.25	20	1702555	20			20X
F707327-DUP1	Duplicate [ <del>1706932-04</del> ] 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

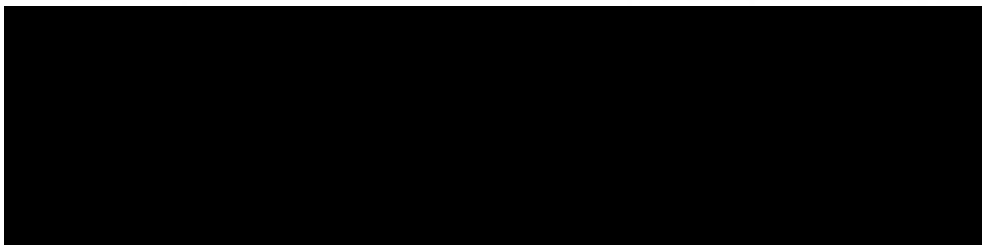
F707327

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



Due Date: 7/31/2017

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 <sup>cell</sup> 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  
 HNO<sub>3</sub> 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	<sup>cell</sup> <del>1706932-06</del>	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	<del>1706931-05</del>	<del>0.2577</del>	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 <del>1706933-06</del> <sup>7/13/17</sup>	0.25	20	1702555	20			20X
F707328-DUP1	Duplicate [ <del>1706933-06</del> ] <sup>1706933-05 RE1</sup>	0.166	20					400X
F707328-MS1	Matrix Spike [1706933-06] <sup>RE1</sup>	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] <sup>RE1</sup>	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

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

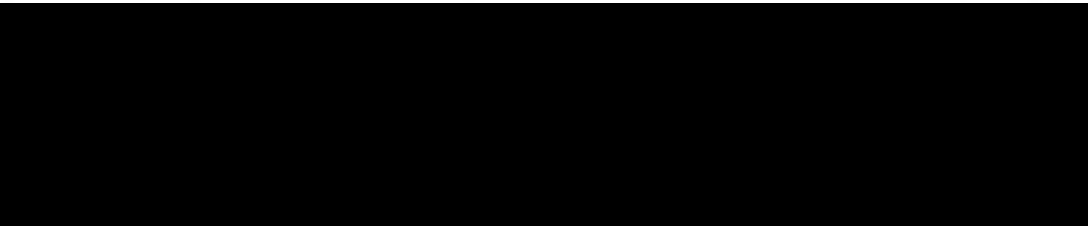
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 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) <sup>MS/MSD</sup> Spike vol.: 100 µL (LIMS ID: 1700685)

Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: 1/A Pipette SN#: MU11619 Calibration Date: 7/5/17  
 HNO<sub>3</sub> LIMS ID: 1/A 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 10 ng/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 Sample ID 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 type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/>                              |
| Naming convention: THG26001-yyymmdd-1 or THG26002-yyymmdd-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 (expiration).            | <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 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 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 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?	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
<b>QA/QC Data Checked</b>				
6. RSD CF ( $\leq 15\%$ )	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input 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 OCV % 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:	<i>VARIOUS HIGH SAMPLES, ABOVE CALS. F707327-DUP1, F707328-DUP1 FAILED. HIGH RPD.</i>			
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 BrCI 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	<i>[Signature]</i>	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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.





Frontier Global Sciences

THg26002-170713-1

Analysis Datasheet for Total Mercury

Date of Analysis: July 13, 2017  
Instrument #: Hg2600-2  
LIMS Sequence #: 7G14008, 7G14009

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	180.35 units	360.70	166.42 units	332.85	109.5 %Rec
SEQ-CAL2	1	1.00 ng/L	339.69 units	339.69	325.77 units	325.77	107.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1484.36 units	296.87	1470.43 units	294.09	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	5684.88 units	284.24	5670.95 units	283.55	93.3 %Rec
SEQ-CAL5	1	40.00 ng/L	11357.43 units	283.94	11343.51 units	283.59	93.3 %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
303.97	+/- 23.66	7.8% RSD	313.09

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	13.92 units	±1.92	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.006 ng/L	±0.104
BLK	2	3	0.778 ng/L	±0.146
BLK	3	3	0.873 ng/L	±0.200
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 7/14/17

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	7/13/2017 7:20:26	80990-1.RAW	7:20:26 AM	15.77			1.8	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	7/13/2017 7:24:35	80991-1.RAW	7:24:35 AM	11.93			-2.0	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	7/13/2017 7:28:43	80992-1.RAW	7:28:43 AM	14.07			0.1	0.000	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	7/13/2017 7:32:52	80993-1.RAW	7:32:52 AM	180.35			166.4	0.548	0.548	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	7/13/2017 7:37:01	80994-1.RAW	7:37:01 AM	339.69			325.8	1.072	1.072	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	7/13/2017 7:41:10	80995-1.RAW	7:41:10 AM	1484.36			1470.4	4.837	4.837	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	7/13/2017 7:45:19	80996-1.RAW	7:45:19 AM	5684.88			5671.0	18.656	18.656	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	7/13/2017 7:49:27	80997-1.RAW	7:49:27 AM	11357.43			11343.5	37.318	37.318	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	7/13/2017 7:53:36	80998-1.RAW	7:53:36 AM	1524.50			1510.6	4.970	4.970	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK1	10	7/13/2017 7:57:44	80999-1.RAW	7:57:44 AM	47.93		1	34.0	0.112	1.119	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK2	10	7/13/2017 8:01:53	81000-1.RAW	8:01:53 AM	43.89		1	30.0	0.099	0.986	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK3	10	7/13/2017 8:06:01	81001-1.RAW	8:06:01 AM	41.68		1	27.8	0.091	0.913	ng/L	
Hg2600-2	DM2	SAM	F707251-BS1	10	7/13/2017 8:10:10	81002-1.RAW	8:10:10 AM	4483.26		1	4469.3	14.603	146.028	ng/L	
Hg2600-2	DM2	SAM	F707251-BSD1	10	7/13/2017 8:14:18	81003-1.RAW	8:14:18 AM	4738.40		1	4724.5	15.442	154.421	ng/L	
Hg2600-2	DM2	SAM	1706563-01	10	7/13/2017 8:18:27	81004-1.RAW	8:18:27 AM	188.30		1	174.4	0.473	4.731	ng/L	
Hg2600-2	DM2	SAM	1706563-04	10	7/13/2017 8:22:35	81005-1.RAW	8:22:35 AM	302.88		1	289.0	0.850	8.500	ng/L	
Hg2600-2	DM2	SAM	1706563-05	10	7/13/2017 8:26:43	81006-1.RAW	8:26:43 AM	301.52		1	287.6	0.846	8.456	ng/L	
Hg2600-2	DM2	SAM	1706564-01	10	7/13/2017 8:30:52	81007-1.RAW	8:30:52 AM	106.49		1	92.6	0.204	2.040	ng/L	
Hg2600-2	DM2	SAM	1706564-05	10	7/13/2017 8:35:00	81008-1.RAW	8:35:00 AM	131.62		1	117.7	0.287	2.866	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	7/13/2017 8:39:09	81009-1.RAW	8:39:09 AM	1481.92			1468.0	4.829	4.829	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	7/13/2017 8:43:17	81010-1.RAW	8:43:17 AM	24.33			10.4	0.034	0.034	ng/L	
Hg2600-2	DM2	SAM	1706564-08	10	7/13/2017 8:48:08	81011-1.RAW	8:48:08 AM	158.17		1	144.2	0.374	3.740	ng/L	
Hg2600-2	DM2	SAM	1706565-01	10	7/13/2017 8:52:16	81012-1.RAW	8:52:16 AM	18.66		1	4.7	-0.085	-0.850	ng/L	
Hg2600-2	DM2	SAM	1706565-04	10	7/13/2017 8:56:25	81013-1.RAW	8:56:25 AM	507.52		1	493.6	1.523	15.233	ng/L	
Hg2600-2	DM2	SAM	1706565-07	10	7/13/2017 9:00:33	81014-1.RAW	9:00:33 AM	205.69		1	191.8	0.530	5.303	ng/L	
Hg2600-2	DM2	SAM	1706565-10	10	7/13/2017 9:04:42	81015-1.RAW	9:04:42 AM	247.32		1	233.4	0.667	6.672	ng/L	
Hg2600-2	DM2	SAM	1706565-13	10	7/13/2017 9:08:50	81016-1.RAW	9:08:50 AM	224.99		1	211.1	0.594	5.938	ng/L	
Hg2600-2	DM2	SAM	1706565-16	10	7/13/2017 9:12:59	81017-1.RAW	9:12:59 AM	634.80		1	620.9	1.942	19.420	ng/L	
Hg2600-2	DM2	SAM	1706565-19	10	7/13/2017 9:17:07	81018-1.RAW	9:17:07 AM	591.16		1	577.2	1.798	17.984	ng/L	
Hg2600-2	DM2	SAM	1706565-25	10	7/13/2017 9:21:16	81019-1.RAW	9:21:16 AM	444.81		1	430.9	1.317	13.170	ng/L	
Hg2600-2	DM2	SAM	1706565-29	100000	7/13/2017 9:25:24	81020-1.RAW	9:25:24 AM	1701.34		1	1687.4	5.551	555128.805	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:29:32	81021-1.RAW	9:29:32 AM	1498.58			1484.7	4.884	4.884	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	7/13/2017 9:33:41	81022-1.RAW	9:33:41 AM	23.59			9.7	0.032	0.032	ng/L	
Hg2600-2	DM2	SAM	1706565-30	2500	7/13/2017 9:37:49	81023-1.RAW	9:37:49 AM	2410.86		1	2396.9	7.885	19712.689	ng/L	
Hg2600-2	DM2	SAM	1706565-31	50000	7/13/2017 9:41:58	81024-1.RAW	9:41:58 AM	1520.28		1	1506.4	4.956	247780.629	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP1	10	7/13/2017 9:46:06	81025-1.RAW	9:46:06 AM	235.62		1	221.7	0.629	6.288	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP2	10	7/13/2017 9:50:15	81026-1.RAW	9:50:15 AM	125.12		1	111.2	0.265	2.652	ng/L	
Hg2600-2	DM2	SAM	F707251-MS1	10	7/13/2017 9:54:23	81027-1.RAW	9:54:23 AM	1000.33		1	966.4	3.145	31.445	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD1	10	7/13/2017 9:58:32	81028-1.RAW	9:58:32 AM	957.21		1	943.3	3.003	30.027	ng/L	
Hg2600-2	DM2	SAM	F707251-MS2	10	7/13/2017 10:02:40	81029-1.RAW	10:02:40 AM	947.59		1	933.7	2.971	29.710	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD2	10	7/13/2017 10:06:49	81030-1.RAW	10:06:49 AM	940.07		1	926.1	2.946	29.463	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK1	10	7/13/2017 10:10:57	81031-1.RAW	10:10:57 AM	39.58		2	25.7	0.084	0.844	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK2	10	7/13/2017 10:15:05	81032-1.RAW	10:15:05 AM	40.66		2	26.7	0.088	0.879	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	7/13/2017 10:19:14	81033-1.RAW	10:19:14 AM	1548.41			1534.5	5.048	5.048	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	7/13/2017 10:23:22	81034-1.RAW	10:23:22 AM	21.09			7.2	0.024	0.024	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK3	10	7/13/2017 10:27:30	81035-1.RAW	10:27:30 AM	32.51		2	18.6	0.061	0.612	ng/L	
Hg2600-2	DM2	SAM	F707289-BS1	10	7/13/2017 10:31:38	81036-1.RAW	10:31:38 AM	4634.08		2	4620.2	15.122	151.217	ng/L	
Hg2600-2	DM2	SAM	F707289-BSD1	10	7/13/2017 10:35:47	81037-1.RAW	10:35:47 AM	4592.28		2	4578.4	14.984	149.841	ng/L	
Hg2600-2	DM2	SAM	1706565-17	10	7/13/2017 10:39:55	81038-1.RAW	10:39:55 AM	627.51		2	613.6	1.941	19.407	ng/L	
Hg2600-2	DM2	SAM	1706565-18	10	7/13/2017 10:44:03	81039-1.RAW	10:44:03 AM	1647.19		2	1633.3	5.295	52.953	ng/L	
Hg2600-2	DM2	SAM	1706565-20	10	7/13/2017 10:48:12	81040-1.RAW	10:48:12 AM	1255.45		2	1241.5	4.007	40.066	ng/L	
Hg2600-2	DM2	SAM	1706565-21	10	7/13/2017 10:52:20	81041-1.RAW	10:52:20 AM	761.36		2	747.4	2.381	23.811	ng/L	
Hg2600-2	DM2	SAM	1706565-22	10	7/13/2017 10:56:29	81042-1.RAW	10:56:29 AM	1036.28		2	1022.4	3.286	32.855	ng/L	
Hg2600-2	DM2	SAM	1706565-23	10	7/13/2017 11:00:37	81043-1.RAW	11:00:37 AM	1259.20		2	1245.3	4.019	40.189	ng/L	
Hg2600-2	DM2	SAM	1706565-24	10	7/13/2017 11:04:46	81044-1.RAW	11:04:46 AM	1815.15		2	1801.2	5.848	58.479	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	7/13/2017 11:08:54	81045-1.RAW	11:08:54 AM	1506.81			1492.9	4.911	4.911	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	7/13/2017 11:13:02	81046-1.RAW	11:13:02 AM	28.16			14.2	0.047	0.047	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	CAL	SEQ-CCVA	1	7/13/2017 15:46:22	81112-1.RAW	3:46:22 PM	1605.11			1591.2	5.235	5.235	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	7/13/2017 15:50:30	81113-1.RAW	3:50:30 PM	34.80			20.9	0.069	0.069	ng/L	
Hg2600-2	DM2	SAM	1707041-01	400	7/13/2017 15:54:40	81114-1.RAW	3:54:40 PM	307636.79		X	307622.9	1012.024	404809.675	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:03:07	81115-1.RAW	4:03:07 PM	674.50		X	660.6	2.173	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:07:15	81116-1.RAW	4:07:15 PM	2699.32		X	2685.4	8.834	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:11:23	81117-1.RAW	4:11:23 PM	1625.49		X	1611.6	5.302	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:14:15	81118-1.RAW	4:14:15 PM	177.00		X	163.1	0.536	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:18:23	81119-1.RAW	4:18:23 PM	1060.43		X	1046.5	3.443	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:21:15	81120-1.RAW	4:21:15 PM	134.20		X	120.3	0.396	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:25:23	81121-1.RAW	4:25:23 PM	753.32		X	739.4	2.432	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:29:31	81122-1.RAW	4:29:31 PM	582.17		X	568.2	1.869	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:33:40	81123-1.RAW	4:33:40 PM	523.70		X	509.8	1.677	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:37:48	81124-1.RAW	4:37:48 PM	437.50			423.6	1.393	0.000	ng/L	
Hg2600-2	DM2	SAM	1707041-02	50000	7/13/2017 16:41:57	81125-1.RAW	4:41:57 PM	115240.55		X	115226.6	379.075	18953748.612	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:51:36	81126-1.RAW	4:51:36 PM	2.53		X	-11.4	-0.037	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:59:16	81127-1.RAW	4:59:16 PM	0.69		X	-13.2	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:05:05	81128-1.RAW	5:05:05 PM	1.18		X	-12.7	-0.042	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:09:00	81129-1.RAW	5:09:00 PM	0.56		X	-13.4	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:12:38	81130-1.RAW	5:12:38 PM	0.30		X	-13.6	-0.045	0.000	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:20:27	81131-2.RAW	5:20:27 PM	4098.62		X	4084.7	13.438	13.438	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:24:35	81132-1.RAW	5:24:35 PM	158.27		X	144.3	0.475	0.475	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:28:44	81133-1.RAW	5:28:44 PM	130.63		X	116.7	0.384	0.384	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:32:52	81134-1.RAW	5:32:52 PM	116.04		X	102.1	0.336	0.336	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 17:37:01	81135-1.RAW	5:37:01 PM	127.78		X	113.9	0.375	0.000	ng/L	

TotalMercury EPA1631 Operat: DM BlankS: 13.924 Calib Eqn: Conc = (Area-13.92 Run Date: 7/13/2017 Blank SD: 1.922222169  
 Worksh: THg260: CalibFa 303.97 Status: QC Warnings:8/QC E Run Time: 17:16:18 Blank RSD%: 13.80552781  
 Method: #### R: 1 R2: 1 CF SD: 23.66088862  
 Descrip: THg26002-170713-1 CF RSD%: 7.784008984

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	2.24					80985-1.RAW	7:01:01	681.10	Clean	OK	1
clean				0.00	0.01					80986-1.RAW	7:03:53	4.50	Clean	OK	1
ws				13.92	0.01					80987-1.RAW	7:08:01	16.83	Sample	OK	1
ws				13.92	0.00					80988-1.RAW	7:12:09	11.79	Sample	OK	1
ws				13.92	0.00					80989-1.RAW	7:16:18	10.04	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.05					80990-1.RAW	7:20:26	15.77	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					80991-1.RAW	7:24:35	11.93	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					80992-1.RAW	7:28:43	14.07	Sample	OK	1
SEQ-CAL1	A4		1	13.92	0.55			109.50		80993-1.RAW	7:32:52	180.35	Sample	OK	1
SEQ-CAL2	A5		1	13.92	1.07			107.17		80994-1.RAW	7:37:01	339.69	Sample	OK	1
SEQ-CAL3	A6		1	13.92	4.84			96.75		80995-1.RAW	7:41:10	1484.36	Sample	OK	1
SEQ-CAL4	A7		1	13.92	18.66			93.28		80996-1.RAW	7:45:19	5684.88	Sample	OK	1
SEQ-CAL5	A8		1	13.92	37.32			93.30		80997-1.RAW	7:49:27	11357.43	Sample	OK	1
SEQ-ICV1	A9		1	13.92	4.97			99.39		80998-1.RAW	7:53:36	1524.50	Sample	OK	1
F707251-BLK1	A10		10	13.92	1.12					80999-1.RAW	7:57:44	47.93	Sample	OK	1
F707251-BLK2	A11		10	13.92	0.99					81000-1.RAW	8:01:53	43.89	Sample	OK	1
F707251-BLK3	A12		10	13.92	0.91					81001-1.RAW	8:06:01	41.68	Sample	OK	1
F707251-BS1	A13		10	13.92	147.03					81002-1.RAW	8:10:10	4483.26	Sample	OK	1
F707251-BSD1	A14		10	13.92	155.43					81003-1.RAW	8:14:18	4738.40	Sample	OK	1
1706563-01	A15		10	13.92	5.74					81004-1.RAW	8:18:27	188.30	Sample	OK	1
1706563-04	A16		10	13.92	9.51					81005-1.RAW	8:22:35	302.88	Sample	OK	1
1706563-05	A17		10	13.92	9.46					81006-1.RAW	8:26:43	301.52	Sample	OK	1
1706564-01	A18		10	13.92	3.05					81007-1.RAW	8:30:52	106.49	Sample	OK	1
1706564-05	A19		10	13.92	3.87					81008-1.RAW	8:35:00	131.62	Sample	OK	1
SEQ-CCV1	A20		1	13.92	4.83			96.59		81009-1.RAW	8:39:09	1481.92	Sample	OK	1
SEQ-CCB1	A21		1	13.92	0.03			0.00		81010-1.RAW	8:43:17	24.33	Sample	OK	1
1706564-08	B1		10	13.92	4.75					81011-1.RAW	8:48:08	158.17	Sample	OK	1
1706565-01	B2		10	13.92	0.16					81012-1.RAW	8:52:16	18.66	Sample	OK	1
1706565-04	B3		10	13.92	16.24					81013-1.RAW	8:56:25	507.52	Sample	OK	1
1706565-07	B4		10	13.92	6.31					81014-1.RAW	9:00:33	205.69	Sample	OK	1
1706565-10	B5		10	13.92	7.68					81015-1.RAW	9:04:42	247.32	Sample	OK	1
1706565-13	B6		10	13.92	6.94					81016-1.RAW	9:08:50	224.99	Sample	OK	1
1706565-16	B7		10	13.92	20.43					81017-1.RAW	9:12:59	634.80	Sample	OK	1
1706565-19	B8		10	13.92	18.99					81018-1.RAW	9:17:07	591.16	Sample	OK	1
1706565-25	B9		10	13.92	14.18					81019-1.RAW	9:21:16	444.81	Sample	OK	1
1706565-29	B10		100000	13.92	555129.81					81020-1.RAW	9:25:24	1701.34	Sample	OK	1
SEQ-CCV2	B11		1	13.92	4.88			97.68		81021-1.RAW	9:29:32	1498.58	Sample	OK	1
SEQ-CCB2	B12		1	13.92	0.03			0.00		81022-1.RAW	9:33:41	23.59	Sample	OK	1
1706565-30	B13		2500	13.92	19713.69					81023-1.RAW	9:37:49	2410.86	Sample	OK	1
1706565-31	B14		50000	13.92	247781.63					81024-1.RAW	9:41:58	1520.28	Sample	OK	1
F707251-DUP1	B15		10	13.92	7.29					81025-1.RAW	9:46:06	235.62	Sample	OK	1
F707251-DUP2	B16		10	13.92	3.66					81026-1.RAW	9:50:15	125.12	Sample	OK	1
F707251-MS1	B17		10	13.92	32.45			698.64		81027-1.RAW	9:54:23	1000.33	Sample	OK	1
F707251-MSD1	B18		10	13.92	31.03					81028-1.RAW	9:58:32	957.21	Sample	OK	1
F707251-MS2	B19		10	13.92	30.72			92.99		81029-1.RAW	10:02:40	947.59	Sample	OK	1
F707251-MSD2	B20		10	13.92	30.47					81030-1.RAW	10:06:49	940.07	Sample	OK	1
F707289-BLK1	B21		10	13.92	0.84					81031-1.RAW	10:10:57	39.58	Sample	OK	1
F707289-BLK2	C1		10	13.92	0.88					81032-1.RAW	10:15:05	40.66	Sample	OK	1
SEQ-CCV3	C2		1	13.92	5.05			100.96		81033-1.RAW	10:19:14	1548.41	Sample	OK	1
SEQ-CCB3	C3		1	13.92	0.02			0.00		81034-1.RAW	10:23:22	21.09	Sample	OK	1
F707289-BLK3	C4		10	13.92	0.61					81035-1.RAW	10:27:30	32.51	Sample	OK	1
F707289-BS1	C5		10	13.92	151.99					81036-1.RAW	10:31:38	4634.08	Sample	OK	1
F707289-BSD1	C6		10	13.92	150.62					81037-1.RAW	10:35:47	4592.28	Sample	OK	1
1706565-17	C7		10	13.92	20.19					81038-1.RAW	10:39:55	627.51	Sample	OK	1
1706565-18	C8		10	13.92	53.73					81039-1.RAW	10:44:03	1647.19	Sample	OK	1
1706565-20	C9		10	13.92	40.84					81040-1.RAW	10:48:12	1255.45	Sample	OK	1
1706565-21	C10		10	13.92	24.59					81041-1.RAW	10:52:20	781.36	Sample	OK	1
1706565-22	C11		10	13.92	33.63					81042-1.RAW	10:56:29	1036.28	Sample	OK	1
1706565-23	C12		10	13.92	40.97					81043-1.RAW	11:00:37	1259.20	Sample	OK	1
1706565-24	C13		10	13.92	59.26					81044-1.RAW	11:04:46	1815.15	Sample	OK	1
SEQ-CCV4	C14		1	13.92	4.91			98.23		81045-1.RAW	11:08:54	1506.81	Sample	OK	1
SEQ-CCB4	C15		1	13.92	0.05			0.00		81046-1.RAW	11:13:02	28.16	Sample	OK	1
1706565-26	C16		10	13.92	14.79					81047-1.RAW	11:17:11	463.61	Sample	OK	1



1706565-27	C17	10	13.92	14.93		81048-1.RAW	11:21:19	467.63	Sample	OK	1
1706565-28	C18	10	13.92	33.44		81049-1.RAW	11:25:28	1030.39	Sample	OK	1
1706565-32	C19	100000	13.92	538607.64		81050-1.RAW	11:29:36	1651.12	Sample	OK	1
1706565-33	C20	2500	13.92	19959.64		81051-1.RAW	11:33:45	2440.76	Sample	OK	1
1706565-34	C21	50000	13.92	245659.96		81052-1.RAW	11:37:53	1507.38	Sample	OK	1
F707289-DUP1	A1	10	13.92	34.08		81053-1.RAW	11:42:01	1049.95	Sample	OK	1
F707289-MS1	A2	10	13.92	128.04	364.96	81054-1.RAW	11:46:10	3905.92	Sample	OK	1
F707289-MSD1	A3	10	13.92	130.11		81055-1.RAW	11:50:18	3968.99	Sample	OK	1
SEQ-CCV5	A4	1	13.92	4.95	98.95	81056-1.RAW	11:54:27	1517.62	Sample	OK	1
SEQ-CCB5	A5	1	13.92	0.08	0.00	81057-1.RAW	11:58:35	37.21	Sample	OK	1
F707326-BLK1	A6	20	13.92	1.03		81058-1.RAW	12:02:43	29.54	Sample	OK	1
F707326-BLK2	A7	20	13.92	0.95		81059-1.RAW	12:06:52	28.30	Sample	OK	1
F707326-BLK3	A8	20	13.92	0.65		81060-1.RAW	12:11:00	23.76	Sample	OK	1
*F707326-BLK4	A9	20	13.92	0.76		81061-1.RAW	12:15:09	25.55	Sample	OK	1
*F707326-BLK5	A10	20	13.92	0.67		81062-1.RAW	12:19:17	24.12	Sample	OK	1
*F707326-BLK6	A11	20	13.92	0.64		81063-1.RAW	12:23:26	23.71	Sample	OK	1
*F707326-BLK7	A12	20	13.92	0.56		81064-1.RAW	12:27:34	22.48	Sample	OK	1
F707326-BS1	A13	20	13.92	95.03		81065-1.RAW	12:31:42	1458.25	Sample	OK	1
F707326-BSD1	A14	20	13.92	98.34		81066-1.RAW	12:35:51	1508.49	Sample	OK	1
1706929-01	A15	400	13.92	104.62		81067-1.RAW	12:39:59	93.42	Sample	OK	1
SEQ-CCV6	A16	1	13.92	4.89	97.73	81068-1.RAW	12:44:08	1499.25	Sample	OK	1
SEQ-CCB6	A17	1	13.92	0.04	0.00	81069-1.RAW	12:48:16	26.06	Sample	OK	1
1706929-02	A18	20	13.92	467.79		81070-1.RAW	12:52:24	7123.57	Sample	OK	1
1706929-03	A19	20	13.92	72.10		81071-1.RAW	12:56:33	1109.68	Sample	OK	1
1706929-04	A20	20	13.92	85.87		81072-1.RAW	13:00:41	1319.06	Sample	OK	1
1706929-05	A21	20	13.92	717.92		81073-1.RAW	13:04:50	10925.08	Sample	OK	1
1706929-06	B1	400	13.92	4150.89		81074-1.RAW	13:08:58	3168.27	Sample	OK	1
1706929-07	B2	400	13.92	4275.51		81075-1.RAW	13:13:07	3262.97	Sample	OK	1
1706929-08	B3	400	13.92	4667.12		81076-1.RAW	13:17:15	3560.56	Sample	OK	1
1706929-09	B4	400	13.92	3799.25		81077-1.RAW	13:21:23	2901.05	Sample	OK	1
1706929-10	B5	400	13.92	5166.64		81078-1.RAW	13:25:32	3940.16	Sample	OK	1
1706930-01	B6	20	13.92	898.64		81079-1.RAW	13:29:40	13671.87	Sample	OK	1
SEQ-CCV7	B7	1	13.92	5.10	102.00	81080-1.RAW	13:33:49	1564.23	Sample	OK	1
SEQ-CCB7	B8	1	13.92	0.12	0.00	81081-1.RAW	13:37:57	51.04	Sample	OK	1
1706929-01RE1	B9	20	13.92	94.88		81082-1.RAW	13:42:05	1455.96	Sample	OK	1
1706930-02	B10	20	13.92	100.15		81083-1.RAW	13:46:14	1536.04	Sample	OK	1
1706930-03	B11	20	13.92	308.75		81084-1.RAW	13:50:22	4706.45	Sample	OK	1
1706930-06	B12	400	13.92	3628.58		81085-1.RAW	13:54:31	2771.35	Sample	OK	1
1706931-01	B13	20	13.92	55.42		81086-1.RAW	13:58:39	856.15	Sample	OK	1
1706931-02	B14	20	13.92	452.71		81087-1.RAW	14:02:48	6894.32	Sample	OK	1
1706931-10	B15	400	13.92	3841.47		81088-1.RAW	14:06:56	2933.13	Sample	FB	1
1706932-06	B16	400	13.92	950.74		81089-1.RAW	14:11:04	736.41	Sample	OK	1
1706932-07	B17	400	13.92	663.30		81090-1.RAW	14:15:13	517.98	Sample	OK	1
F707326-DUP1	B18	20	13.92	1028.41		81091-1.RAW	14:19:22	15644.11	Sample	OK	1
SEQ-CCV8	B19	1	13.92	5.08	101.62	81092-1.RAW	14:23:31	1558.33	Sample	OK	1
SEQ-CCB8	B20	1	13.92	0.12	0.00	81093-1.RAW	14:27:39	50.81	Sample	OK	1
1706930-01RE1	B21	50	13.92	1005.16		81094-1.RAW	14:31:48	6124.67	Sample	OK	1
F707326-MS1	C1	400	13.92	10246.45	1018.37	81095-1.RAW	14:35:56	7800.40	Sample	OK	1
F707326-MSD1	C2	400	13.92	9924.94		81096-1.RAW	14:40:04	7556.08	Sample	OK	1
F707326-MS2	C3	400	13.92	8028.10	80.87	81097-1.RAW	14:44:13	6114.64	Sample	OK	1
F707326-MSD2	C4	400	13.92	8073.59		81098-1.RAW	14:48:22	6149.21	Sample	OK	1
F707326-DUP2	C7	20	13.92	723.20		81099-1.RAW	14:52:30	11005.47	Sample	OK	1
SEQ-CCV9	C5	1	13.92	5.22	104.32	81100-1.RAW	14:56:39	1599.47	Sample	OK	1
SEQ-CCB9	C6	1	13.92	0.16	0.00	81101-1.RAW	15:00:48	62.56	Sample	OK	1
F707347-BLK1	C8	50	13.92	5.83		81102-1.RAW	15:04:56	49.40	Sample	OK	1
F707347-BLK2	C9	50	13.92	5.88		81103-1.RAW	15:09:05	48.48	Sample	OK	1
F707347-BLK3	C10	50	13.92	3.85		81104-1.RAW	15:13:13	37.31	Sample	OK	1
F707347-BS1	C11	400	13.92	4763.92		81105-1.RAW	15:17:22	3634.12	Sample	OK	1
F707347-BSD1	C12	400	13.92	4742.14		81106-1.RAW	15:21:30	3617.57	Sample	OK	1
1707030-01	C13	400	13.92	80.45		81107-1.RAW	15:25:39	75.06	Sample	OK	1
1707030-02	C14	400	13.92	148.24		81108-1.RAW	15:29:47	126.57	Sample	OK	1
1707030-03	C15	400	13.92	100.42		81109-1.RAW	15:33:55	90.24	Sample	OK	1
1707030-04	C16	400	13.92	1944.54		81110-1.RAW	15:38:04	1491.62	Sample	OK	1
1707030-05	C17	400	13.92	4932.85		81111-1.RAW	15:42:13	3762.49	Sample	OK	1
SEQ-CCVA	C18	1	13.92	5.23		81112-1.RAW	15:46:22	1805.11	Sample	OK	1
SEQ-CCBA	C19	1	13.92	0.07		81113-1.RAW	15:50:30	34.80	Sample	OK	1
1707041-01	C20	400	13.92	404809.67		81114-1.RAW	15:54:40	307636.79	Sample	OLFB	1
CLEAN			0.00	2.22		81115-1.RAW	16:03:07	674.50	Clean	OK	1

WS		13.92	8.83	81116-1.RAW	16:07:15	2699.32	Sample	OK	1
WS		13.92	5.30	81117-1.RAW	16:11:23	1625.49	Sample	OK	1
CLEAN		0.00	0.58	81118-1.RAW	16:14:15	177.00	Clean	OK	1
WS		13.92	3.44	81119-1.RAW	16:18:23	1060.43	Sample	OK	1
CLEAN		0.00	0.44	81120-1.RAW	16:21:15	134.20	Clean	OK	1
WS		13.92	2.43	81121-1.RAW	16:25:23	753.32	Sample	OK	1
WS		13.92	1.87	81122-1.RAW	16:29:31	582.17	Sample	OK	1
WS		13.92	1.68	81123-1.RAW	16:33:40	523.70	Sample	OK	1
WS		13.92	1.39	81124-1.RAW	16:37:48	437.50	Sample	OK	1
1707041-02	C21	50000	13.92	18953748.61	81125-1.RAW	16:41:57	115240.55	Sample	OLFB
clean			0.00	0.01	81126-1.RAW	16:51:36	2.53	Clean	OK
clean			0.00	0.00	81127-1.RAW	16:59:16	0.69	Clean	OK
clean			0.00	0.00	81128-1.RAW	17:05:05	1.18	Clean	OK
clean			0.00	0.00	81129-1.RAW	17:09:00	0.56	Clean	OK
clean			0.00	0.00	81130-1.RAW	17:12:38	0.30	Clean	OK
BLANK	C19	1	13.92	13.44	81131-2.RAW	17:20:27	4098.62	Sample	OK
BLANK	C20	1	13.92	0.47	81132-1.RAW	17:24:35	158.27	Sample	FB
BLANK	C21	1	13.92	0.38	81133-1.RAW	17:28:44	130.63	Sample	OK
BLANK	C20	1	13.92	0.34	81134-1.RAW	17:32:52	116.04	Sample	OK
WS			13.92	0.37	81135-1.RAW	17:37:01	127.78	Sample	OK

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14008

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R*

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14008-IBL1 ✓	QC	1			
7G14008-IBL2 ✓	QC	2			
7G14008-IBL3 ✓	QC	3			
7G14008-CAL1 ✓	QC	4	1702602	✓	
7G14008-CAL2 ✓	QC	5	1702603	✓	
7G14008-CAL3 ✓	QC	6	1702604	✓	
7G14008-CAL4 ✓	QC	7	1702605	✓	
7G14008-CAL5 ✓	QC	8	1702606	✓	
7G14008-ICV1 ✓	QC	9	1703679	✓	
7G14008-CCV1 ✓	QC	10	1703679	✓	
7G14008-CCB1 ✓	QC	11			
7G14008-CCV2 ✓	QC	12	1703679	✓	
7G14008-CCB2 ✓	QC	13			
7G14008-CCV3 ✓	QC	14	1703679	✓	
7G14008-CCB3 ✓	QC	15			
7G14008-CCV4 ✓	QC	16	1703679	✓	
7G14008-CCB4 ✓	QC	17			
7G14008-CCV5 ✓	QC	18	1703679	✓	
7G14008-CCB5 ✓	QC	19			
F707326-BLK1 ✓	QC	20			
F707326-BLK2 ✓	QC	21			
F707326-BLK3 ✓	QC	22			
F707326-BLK4 ✓	QC	23			
F707326-BLK5 ✓	QC	24			
F707326-BLK6 ✓	QC	25			
F707326-BLK7 ✓	QC	26			
F707326-BS1 ✓	QC	27			
F707326-BSD1 ✓	QC	28			
1706929-01 ✓	Hg-CVAFS-T-7030	29			
7G14008-CCV6 ✓	QC	30	1703679	✓	
7G14008-CCB6 ✓	QC	31			
1706929-02 ✓	Hg-CVAFS-T-7030	32			
1706929-03 ✓	Hg-CVAFS-T-7030	33			
1706929-04 ✓	Hg-CVAFS-T-7030	34			
1706929-05 ✓	Hg-CVAFS-T-7030	35			

Due Date: 7/31/2017

79 of 294

Page 1 of 2

## ANALYSIS SEQUENCE

7G14008

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706929-06 /	Hg-CVAFS-T-7030	36			
1706929-07 /	Hg-CVAFS-T-7030	37			
1706929-08 /	Hg-CVAFS-T-7030	38			
1706929-09 /	Hg-CVAFS-T-7030	39			
1706929-10 /	Hg-CVAFS-T-7030	40			
1706930-01 /	Hg-CVAFS-T-7030	41			
7G14008-CCV7 /	QC	42	1703679 /		
7G14008-CCB7 /	QC	43			
1706929-01RE1 /	Hg-CVAFS-T-7030	44			Added 7/14/2017 by DM2
1706930-02 /	Hg-CVAFS-T-7030	45			
1706930-03 /	Hg-CVAFS-T-7030	46			
1706930-06 /	Hg-CVAFS-T-7030	47			
1706931-01 /	Hg-CVAFS-T-7030	48			
1706931-02 /	Hg-CVAFS-T-7030	49			
1706931-10 /	Hg-CVAFS-T-7030	50			
1706932-06 /	Hg-CVAFS-T-7030	51			
1706932-07 /	Hg-CVAFS-T-7030	52			
F707326-DUP1 /	QC	53			
7G14008-CCV8 /	QC	54	1703679 /		
7G14008-CCB8 /	QC	55			
1706930-01RE1 /	Hg-CVAFS-T-7030	56			Added 7/14/2017 by DM2
F707326-MS1 /	QC	57			
F707326-MSD1 /	QC	58			
F707326-MS2 /	QC	59			
F707326-MSD2 /	QC	60			
F707326-DUP2 /	QC	61			
7G14008-CCV9 /	QC	62	1703679 /		
7G14008-CCB9 /	QC	63			

Don Moxem 7/13/17  
 Samples Loaded By Date

Don Moxem 7/14/17  
 Data Processed By Date

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**

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-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

**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

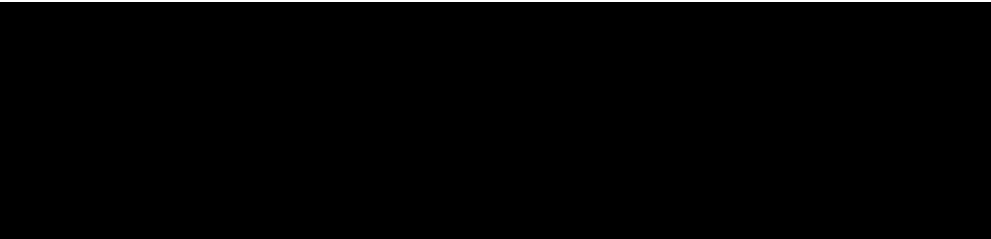
Eurofins Frontier Global Sciences, Inc.

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

2000-2  
7/13/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 7/11/2017 ~~7/10/2017~~ EAZAT

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					20X ✓
F707326-BLK2	Blank	0.25	20					20X ✓
F707326-BLK3	Blank	0.25	20					20X ✓
F707326-BLK4	Pre BLK 1706929	0.2556	20					20X ✓
F707326-BLK5	Post BLK 1706929	0.2596	20					20X ✓
F707326-BLK6	PRE BLK 1706930,931,932	0.2624	20					20X ✓
F707326-BLK7	POST BLK 1706930,931,932	0.2633	20					20X ✓
F707326-BS1	LCS	0.25	20	1702555	20			20X ✓
F707326-BSD1	LCS Dup	0.25	20	1702555	20			20X ✓
F707326-DUP1	Duplicate [1706929-05]	0.2571	20					20X ✓
F707326-MS1	Matrix Spike [1706930-01] RE1	0.2943	20	1700685	200			400X ✓
F707326-MS2	Matrix Spike [1706930-06]	0.2667	20	1700685	100			400X ✓
F707326-MSD1	Matrix Spike Dup [1706930-01] RE1	0.2878	20	1700685	200			400X ✓
F707326-MSD2	Matrix Spike Dup [1706930-06]	0.2763	20	1700685	100			400X ✓

Standard ID(s): Description:  
1700685 THg 1,000ng/mL Primary Spiking Standard  
1702555 THg 100ng/mL Primary Spiking Standard

Expiration:  
31-Jul-17 00:00  
31-Jul-17 00:00  
26-Jul-17 00:00

Reagent ID(s): Description:  
1702551 Boiling Chips for AFS prep  
1704061 70/30 Digestion Acid  
1704145 5% BrCl  
1704177 70/30 Digestion Acid

Expiration:  
31-Dec-17 00:00  
02-Jan-18 00:00  
18-Dec-17 00:00  
07-Jan-18 00:00

ODP2 - AD 20X ✓

1706929-05

1709976

1703377

1703152

1704095

Due Date: 7/31/2017



PREPARATION BENCH SHEET

2000-2  
7/19/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: ~~7/10/2017~~ 7/11/2017 <sup>alc</sup> HAZI

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	-	-	-		400X → 20X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2561	20	-	-	-		20X
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.2745	20	-	-	-		20X
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2981	20	-	-	-		20X
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2885	20	-	-	-		20X
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2744	20	-	-	-		400X
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2718	20	-	-	-		400X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2677	20	-	-	-		400X
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2595	20	-	-	-		400X
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2569	20	-	-	-		400X
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD	20X → 50X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2607	20	-	-	-		20X
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2508	20	-	-	-		20X
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2606	20	QC	-	-	MS/MSD	400X
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2908	20	-	-	-		20X
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2535	20	-	-	-		20X
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.275	20	-	-	-		400X
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2816	20	-	-	-		400X
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2588	20	-	-	-		400X

PREPARATION BENCH SHEET

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: ~~7/10/2017~~ 7/11/2017 *etc*



Due Date: 7/31/2017

Technician: CC Batch#: F707326 Date: 7/10/17 / 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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> Spike vol.: 100 µL (LIMS ID: 1700685)  
 Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MM11619 Calibration Date: 7/5/17  
 HNO<sub>3</sub> LIMS ID: NA Pipette SN#: NA Calibration Date: NA  
 70/30 LIMS ID: 1704061/1704177 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068124 Boiling Chip lot # 1702551 \*Hotblock Position: L4

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"/> NA
1	F707326-BLK1	0.2633	23	1706929-09	0.2595	
2	F707326-BLK2	0.2578	24	1706929-10	0.2569	
3	F707326-BLK3	0.2636	25	1706930-01	0.2801	
4	F707326-BLK4	0.2556	26	1706930-02	0.2607	Comments
5	F707326-BLK5	0.2596	27	1706930-03	0.2508	BLK4: Pre BLK
6	F707326-BLK6	0.2624	28	1706930-06	0.2606	for 1706929
7	F707326-BLK7	0.2633	29	1706931-01	0.2908	BLK6: Post BLK
8	F707326-BS1	0.2728	30	1706931-02	0.2535	for 1706929
9	F707326-BSD1	0.2808	31	1706931-09	0.2711	BLK6: Pre BLK
10	F707326-DUP1	0.2571	32	1706931-10	0.2750	for 1706930, 931, 932
11	F707326-MS1	0.2943	33	1706932-06	0.2816	BLK7: Post BLK
12	F707326-MSD1	0.2878	34	1706932-07	0.2588	for 1706930, 931, 932
13	F707326-MS2	0.2667	35			DUP1/MS1/MSD1
14	F707326-MSD2	0.2763	36			Source: 1706930-01
15	1706929-01	0.2851	37			MS2/MSD2
16	1706929-02	0.2561	38			Source: 1706930-06
17	1706929-03	0.2745	39			Dup L SRC:
18	1706929-04	0.2981	40			1706929-05
19	1706929-05	0.2885	41			BS/BSD spike
20	1706929-06	0.2744	42			20ml of 1000 µg/mL
21	1706929-07	0.2718	43			1702555
22	1706929-08	0.2677	44			MS1 + MSD1 were spiked w/ 200 µg/mL digested 7/11/17

# Failing Data Report - 7G14008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706930-01	Hg-CVAFS-T-7030	64.1	0.714				ng/g						FAIL-OVER	PASS	E
F707326-DUP1	Hg-CVAFS-T-7030	79.93	0.778	49.71	49.71		ng/g				46.6	24.00	FAIL-OVER	FAIL-DUP	E, QR-07

Don Moxem      7/14/17  
 Analyst Reviewed By      Date

RLW      7/14/17  
 Peer Reviewed By      Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14009

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *PL* 7/14/17 Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14009-IBL1 ✓	QC	1			
7G14009-IBL2 ✓	QC	2			
7G14009-IBL3 ✓	QC	3			
7G14009-CAL1 ✓	QC	4	1702602	✓	
7G14009-CAL2 ✓	QC	5	1702603	✓	
7G14009-CAL3 ✓	QC	6	1702604	✓	
7G14009-CAL4 ✓	QC	7	1702605	✓	
7G14009-CAL5 ✓	QC	8	1702606	✓	
7G14009-ICV1 ✓	QC	9	1703679	✓	
F707251-BLK1 ✓	QC	10			
F707251-BLK2 ✓	QC	11			
F707251-BLK3 ✓	QC	12			
F707251-BS1 ✓	QC	13			
F707251-BSD1 ✓	QC	14			
1706563-01 ✓	Hg-CVAFS-S-SSE-F2	15			
1706563-04 ✓	Hg-CVAFS-S-SSE-F2	16			
1706563-05 ✓	Hg-CVAFS-S-SSE-F2	17			
1706564-01 ✓	Hg-CVAFS-S-SSE-F2	18			
1706564-05 ✓	Hg-CVAFS-S-SSE-F2	19			
7G14009-CCV1 ✓	QC	20	1703679	✓	
7G14009-CCB1 ✓	QC	21			
1706564-08 ✓	Hg-CVAFS-S-SSE-F2	22			
1706565-01 ✓	Hg-CVAFS-S-SSE-F2	23			
1706565-04 ✓	Hg-CVAFS-S-SSE-F2	24			
1706565-07 ✓	Hg-CVAFS-S-SSE-F2	25			
1706565-10 ✓	Hg-CVAFS-S-SSE-F2	26			
1706565-13 ✓	Hg-CVAFS-S-SSE-F2	27			
1706565-16 ✓	Hg-CVAFS-S-SSE-F2	28			
1706565-19 ✓	Hg-CVAFS-S-SSE-F2	29			
1706565-25 ✓	Hg-CVAFS-S-SSE-F2	30			
1706565-29 ✓	Hg-CVAFS-S-SSE-F2	31			
7G14009-CCV2 ✓	QC	32	1703679	✓	
7G14009-CCB2 ✓	QC	33			
1706565-30 ✓	Hg-CVAFS-S-SSE-F2	34			
1706565-31 ✓	Hg-CVAFS-S-SSE-F2	35			

## ANALYSIS SEQUENCE

7G14009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F707251-DUP1 ✓	QC	36			
F707251-DUP2 ✓	QC	37			
F707251-MS1 ✓	QC	38			
F707251-MSD1 ✓	QC	39			
F707251-MS2 ✓	QC	40			
F707251-MSD2 ✓	QC	41			
F707289-BLK1 ✓	QC	42			
F707289-BLK2 ✓	QC	43			
7G14009-CCV3 ✓	QC	44	1703679	✓	
7G14009-CCB3 ✓	QC	45			
F707289-BLK3 ✓	QC	46			
F707289-BS1 ✓	QC	47			
F707289-BSD1 ✓	QC	48			
1706565-17 ✓	Hg-CVAFS-S-SSE-F2	49			
1706565-18 ✓	Hg-CVAFS-S-SSE-F2	50			
1706565-20 ✓	Hg-CVAFS-S-SSE-F2	51			
1706565-21 ✓	Hg-CVAFS-S-SSE-F2	52			
1706565-22 ✓	Hg-CVAFS-S-SSE-F2	53			
1706565-23 ✓	Hg-CVAFS-S-SSE-F2	54			
1706565-24 ✓	Hg-CVAFS-S-SSE-F2	55			
7G14009-CCV4 ✓	QC	56	1703679	✓	
7G14009-CCB4 ✓	QC	57			
1706565-26 ✓	Hg-CVAFS-S-SSE-F2	58			
1706565-27 ✓	Hg-CVAFS-S-SSE-F2	59			
1706565-28 ✓	Hg-CVAFS-S-SSE-F2	60			
1706565-32 ✓	Hg-CVAFS-S-SSE-F2	61			
1706565-33 ✓	Hg-CVAFS-S-SSE-F2	62			
1706565-34 ✓	Hg-CVAFS-S-SSE-F2	63			
F707289-DUP1 ✓	QC	64			
F707289-MS1 ✓	QC	65			
F707289-MSD1 ✓	QC	66			
7G14009-CCV5 ✓	QC	67	1703679	✓	
7G14009-CCB5 ✓	QC	68			

Due Date: 7/18/2017

ANALYSIS SEQUENCE

7G14009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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    Dan Maxam              7/13/17      
Samples Loaded By                      Date

    Dan Maxam              7/14/17      
Data Processed By                      Date

**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707251-BLK1	Blank	0.46	125					
F707251-BLK2	Blank	0.414	125					
F707251-BLK3	Blank	0.407	125					
F707251-BS1	LCS	0.016	5 ✓	1604715 ✓	100 ✓			
F707251-BSD1	LCS Dup	0.016 ✓	5 ✓	1604715	100			
F707251-DUP1	Duplicate [1706563-01] ✓	0.426	125					
F707251-DUP2	Duplicate [1706564-01] ✓	0.418	125					
F707251-MS1	Matrix Spike [1706563-01] ✓	0.0162	5	1702557 ✓	125 ✓			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL ✓
F707251-MS2	Matrix Spike [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD1	Matrix Spike Dup [1706563-01] ✓	0.0162	5	1702557	125			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD2	Matrix Spike Dup [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1702557	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-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
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703678	SSE pH2	17-Dec-17 00:00
1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704213	SSE pH2	08-Jan-18 00:00



**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	QC	-	-	MS/MSD	
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	

**PREPARATION BENCH SHEET**

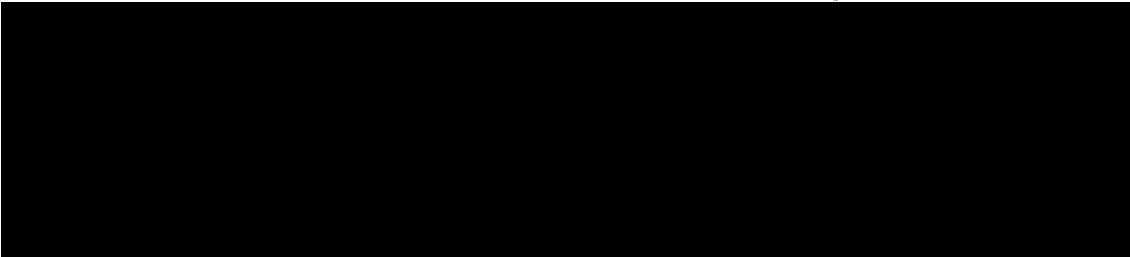
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**



**Due Date: 7/18/2017**

PREPARATION BENCH SHEET

2000-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707251-BLK1	Blank	0.46	125					10X ✓
F707251-BLK2	Blank	0.414	125					10X ✓
F707251-BLK3	Blank	0.407	125					10X ✓
F707251-BS1	LCS 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125 5	1604715	100			10X ✓
F707251-BSD1	LCS Dup 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125 5	1604715	100			10X ✓
F707251-DUP1	Duplicate [1706563-01]	0.426	125					10X ✓
F707251-DUP2	Duplicate [1706564-01]	0.418	125					10X ✓
F707251-MS1	Matrix Spike 1706563-01	0.4	125	1702557	125			10X ✓
F707251-MSD1	Matrix Spike Dup 1706563-01	0.4	125	1702557	125			10X ✓

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

MS2, MSD2 - 10X ✓  
 1706564-01  
 125ul 1702557

1703376  
 1703377  
 1703132  
 1704096

Due Date: 7/18/2017

PREPARATION BENCH SHEET

2600-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	QC	-	-	MS/MSD	10X ✓
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		10X ✓
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		10X ✓
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	10X ✓
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		10X ✓
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		10X ✓
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		10X ✓
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		10X ✓
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		10X ✓
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		10X ✓
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		10X ✓
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		10X ✓
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X ✓
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X ✓
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X ✓

**PREPARATION BENCH SHEET**

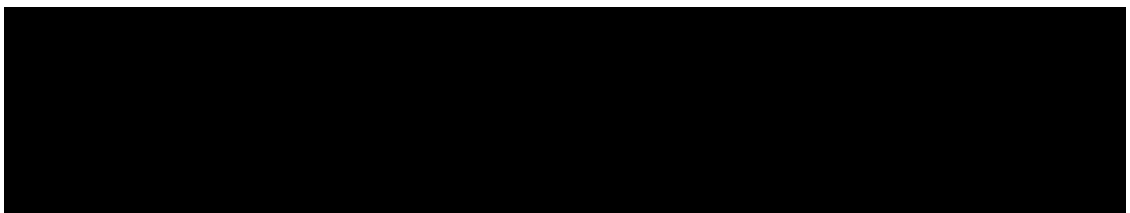
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/3/2017**



**Due Date: 7/18/2017**

Technician: WF Batch#: F707250(F<sub>1</sub>) 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub>  
 Balance#: 6 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser:  yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: \_\_\_\_\_ 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 70/30 LIMS ID: SSE #2: 1703672, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: KOH = 1703709, 1704329, 1704234 Dispenser #: \_\_\_\_\_  
 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 <sub>2</sub> O - 1605057
2	F707250 - BLU2	0.414	24			HgS - 1605058
3	F707250 - BLU3	0.407	25			Hg <sub>2</sub> Cl <sub>2</sub> - 1605056
4	1706563 - 01	0.405	26			
5	F707250 - DUP1	0.426	27			<b>Comments</b>
6	1706563 - 04	0.404	28			F707250 - DUP1 SOURCE = 1706563-04
7	1706563 - 05	0.427	29			F707250 - DUP2 SOURCE = 1706564-01
8	1706564 - 01	0.451	30			
9	F707250 - DUP2	0.418	31			F <sub>1</sub> = F707250 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
10	1706564 - 05	0.467	32			
11	1706564 - 08	0.413	33			
12	1706565 - 01	0.447	34			F <sub>2</sub> = F707251 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
13	1706565 - 04	0.422	35			
14	1706565 - 07	0.410	36			
15	1706565 - 10	0.416	37			F <sub>3</sub> = F707252 Brd: 1703700 Pipette: J07631 vol added: 10.0ml
16	1706565 - 13	0.450	38			
17	1706565 - 16	0.415	39			
18	1706565 - 19	0.410	40			F <sub>4</sub> = F707254 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
19	1706565 - 25	0.424	41			
20	1706565 - 29	0.442	42			
21	1706565 - 30	0.440	43			F <sub>5</sub> = F707254 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
22	1706565 - 31	0.464	44			Brd: 1703700 Pipette: J07631 vol added: 1.25ml

**PREPARATION BENCH SHEET**

F707289

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707289-BLK1	Blank	0.46	125					
F707289-BLK2	Blank	0.414	125					
F707289-BLK3	Blank	0.407	125					
F707289-BS1	LCS	0.016	5	1604715	100			
F707289-BSD1	LCS Dup	0.016	5	1604715	100			
F707289-DUP1	Duplicate [1706565-22]	0.423	125					
F707289-MS1	Matrix Spike [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL
F707289-MSD1	Matrix Spike Dup [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL

Standard ID(s):  
 1604715 Nist 1641D 200X  
 1702556 THg 10ng/mL Calibration Standard

Expiration:  
 18-Aug-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
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703678	SSE pH2	17-Dec-17 00:00
1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704213	SSE pH2	08-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707289

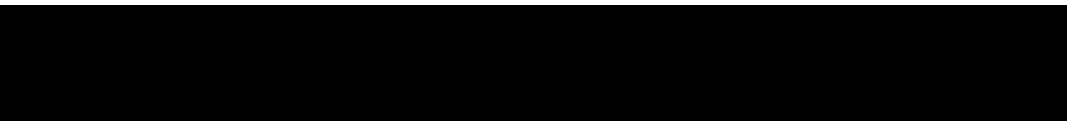
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	-	-	-		
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	





PREPARATION BENCH SHEET

2600.2

7/13/17 DM

F707289

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707289-BLK1	Blank	0.46	125					10X ✓
F707289-BLK2	Blank	0.414	125					10X ✓
F707289-BLK3	Blank	0.407	125					10X ✓
F707289-BS1	LCS 0.010	0.4	5 125	1604715	100			10X ✓
F707289-BSD1	LCS Dup 0.010	0.4	5 125	1604715	100			10X ✓
F707289-DUP1	Duplicate [1706565-22]	0.423	125					10X ✓
F707289-MS1	Matrix Spike 1706565-22	0.4	125	1702556	50			10X ✓
F707289-MSD1	Matrix Spike Dup 1706565-22	0.4	125	1702556	50			10X ✓

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

1703376

1703377

1703182

1704095

PREPARATION BENCH SHEET

2600.2  
7/13/17 DM

F707289

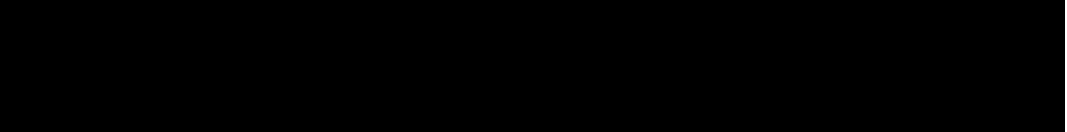
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	-	-	-		10X /
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		10X /
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		10X /
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		10X /
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	10X /
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		10X /
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		10X /
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		10X /
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		10X /
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		10X /
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X /
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X /
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X /



Technician: wf Batch#: F707288(F<sub>1</sub>) Date: 7/10/17 <sup>wf</sup> 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub> 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser: Yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_

70:30 LIMS ID: SSE #2: 1703678, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: 1703705, 1704239 Dispenser #: \_\_\_\_\_  
 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 checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F707288 - Blk1	0.460	23			HgO = 1606057
2	F707288 - Blk2	0.414	24			HgS = 1605058
3	F707288 - Blk3	0.407	25			HgCl <sub>2</sub> = 1605056
4	1706565 - 17	0.405	26			Comments
5	F707288 - DUP1	0.423	27			F707288-DUP1
6	1706565 - 18	0.406	28			source = 1706565-22
7	1706565 - 20	0.423	29			F <sub>1</sub> = 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 <sub>2</sub> = 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: 1.00 ml
15	1706565 - 32	0.442	37			F <sub>3</sub> = F707290
16	1706565 - 33	0.440	38			Brd: 1703700
17	1706565 - 34	0.464	39			Pipette: J0H7631
18			40			vol added:
19			41			F <sub>4</sub> = F707291
20			42			Brd:
21			43			Pipette:
22			44			vol added:

wf  
wf  
wf

wf  
7/10/17

# Failing Data Report - 7G14009

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 Maxem  
Analyst Reviewed By

7/14/17  
Date

PLM  
Peer Reviewed By

7/14/17  
Date

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

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14008, 7G14009
<b>Reviewer:</b>	<i>R 7/14/17</i>	<b>Dataset ID(s):</b>	THG26002-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F707251, F707289, F707326		

• 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 7/14/17

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 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            |                                     |
| (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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14008, 7G14009
<b>Reviewer:</b>	0 <i>R 7/14/18</i>	<b>Dataset ID(s):</b>	THG26002-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F707251, F707289, F707326		0

Analyst Initials *DM*

Reviewer Initials *R 7/14/18*

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: *1706930-01 HIGH SAMPLE. ABOVE CALS. F707326-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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> 0 <i>R 7/14/17</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	0

Analyst Initials DM

Reviewer Initials R 7/14/17

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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>12/1/16, 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>5/9/17, 4/25/17</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, 4-25-17</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.**

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

Analyst:	DON MORAN	Sequence(s) #:	7G14008, 7G14009
Reviewer:	0 <i>DM</i> 7/14/17	Dataset ID(s):	THG26002-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707251, F707289, F707326		0

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):

*DM*


Additional Page (s)?  YES





Frontier Global Sciences

# MHg27001-170725-1

## Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: July 25, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G26011

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	22.57 units	451.31	22.57 units	451.31	97.6 %Rec
SEQ-CAL2	1	0.20 ng/L	89.47 units	447.36	89.47 units	447.36	96.7 %Rec
SEQ-CAL3	1	1.00 ng/L	467.12 units	467.12	467.12 units	467.12	101.0 %Rec
SEQ-CAL4	1	2.00 ng/L	958.18 units	479.09	958.18 units	479.09	103.6 %Rec
SEQ-CAL5	1	4.00 ng/L	1870.01 units	467.50	1870.01 units	467.50	101.1 %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**  
 462.48            +/- 13.00            2.8% RSD            462.48

### 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	0.289 ng/L	±0.500
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: RL 7/27/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	CAL	SEQ-1BL1	1	7/25/17 8:46	24184-1.RAW	8:46:28	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	7/25/17 8:56	24185-1.RAW	8:56:59	22.57				22.6	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	7/25/17 9:07	24186-1.RAW	9:07:30	89.47				89.5	0.193	0.193	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	7/25/17 9:18	24187-1.RAW	9:18:00	467.12				467.1	1.010	1.010	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	7/25/17 9:28	24188-1.RAW	9:28:31	958.18				958.2	2.072	2.072	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	7/25/17 9:39	24189-1.RAW	9:39:01	1870.01				1870.0	4.043	4.043	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CV1	1	7/25/17 9:49	24190-1.RAW	9:49:32	205.83				205.8	0.445	0.445	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	7/25/17 10:00	24191-1.RAW	10:00:03	2.63				2.6	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK1	500	7/25/17 10:10	24192-1.RAW	10:10:33	0.80	1			0.8	0.002	0.867	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK2	500	7/25/17 10:21	24193-1.RAW	10:21:04	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK3	500	7/25/17 10:31	24194-1.RAW	10:31:35	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707393-BLK4	500	7/25/17 10:42	24195-1.RAW	10:42:05	0.00	1			0.0	-0.001	-0.289	ng/L	
Hg2700-1	DM2	SAM	*F707393-BLK5	500	7/25/17 10:52	24196-1.RAW	10:52:36	0.00	1			0.0	-0.001	-0.289	ng/L	
Hg2700-1	DM2	SAM	1706929-01	1000	7/25/17 11:03	24197-1.RAW	11:03:07	13.74	1			13.7	0.029	29.430	ng/L	
Hg2700-1	DM2	SAM	1706929-07	1000	7/25/17 11:13	24198-1.RAW	11:13:37	2162.25	1			2162.3	4.675	4675.096	ng/L	
Hg2700-1	DM2	SAM	1706930-01	1000	7/25/17 11:24	24199-1.RAW	11:24:08	356.98	1			357.0	0.772	771.590	ng/L	
Hg2700-1	DM2	SAM	F707393-BS1	1000	7/25/17 11:34	24200-1.RAW	11:34:39	837.85	1			837.9	1.811	1811.381	ng/L	
Hg2700-1	DM2	SAM	F707393-BSD1	1000	7/25/17 11:45	24201-1.RAW	11:45:10	844.60	1			844.6	1.826	1825.966	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	7/25/17 11:55	24202-1.RAW	11:55:40	199.56				199.6	0.432	0.432	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	7/25/17 12:06	24203-1.RAW	12:06:11	0.81				0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1706929-02	500	7/25/17 12:48	24204-2.RAW	12:48:16	491.73	1			491.7	1.063	531.340	ng/L	
Hg2700-1	DM2	SAM	1706929-03	500	7/25/17 12:58	24205-1.RAW	12:58:47	41.20	1			41.2	0.089	44.251	ng/L	
Hg2700-1	DM2	SAM	1706929-04	500	7/25/17 13:09	24206-1.RAW	13:09:18	63.10	1			63.1	0.136	67.927	ng/L	
Hg2700-1	DM2	SAM	1706929-05	500	7/25/17 13:19	24207-1.RAW	13:19:48	549.10	1			549.1	1.187	593.369	ng/L	
Hg2700-1	DM2	SAM	1706929-06	2500	7/25/17 13:30	24208-1.RAW	13:30:19	760.91	1			760.9	1.645	4112.936	ng/L	
Hg2700-1	DM2	SAM	1706929-08	2500	7/25/17 13:40	24209-1.RAW	13:40:50	788.89	1			788.9	1.706	4264.223	ng/L	
Hg2700-1	DM2	SAM	1706929-09	2500	7/25/17 13:51	24210-1.RAW	13:51:20	843.10	1			843.1	1.823	4557.245	ng/L	
Hg2700-1	DM2	SAM	1706929-10	2500	7/25/17 14:22	24211-2.RAW	14:22:52	646.45	1			646.5	1.398	3494.225	ng/L	
Hg2700-1	DM2	SAM	1706930-02	500	7/25/17 14:33	24212-1.RAW	14:33:23	88.16	1			88.2	0.190	95.020	ng/L	
Hg2700-1	DM2	SAM	1706930-03	500	7/25/17 14:43	24213-1.RAW	14:43:54	254.82	1			254.8	0.550	275.210	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	7/25/17 14:54	24214-1.RAW	14:54:24	196.35				196.3	0.425	0.425	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	7/25/17 15:04	24215-1.RAW	15:04:55	1.86				1.9	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	1706930-04	500	7/25/17 15:15	24216-1.RAW	15:15:26	28.90	1			28.9	0.062	30.959	ng/L	
Hg2700-1	DM2	SAM	1706930-05	500	7/25/17 15:25	24217-1.RAW	15:25:56	260.21	1			260.2	0.562	281.034	ng/L	
Hg2700-1	DM2	SAM	1706930-06	2500	7/25/17 15:36	24218-1.RAW	15:36:27	769.20	1			769.2	1.663	4157.765	ng/L	
Hg2700-1	DM2	SAM	1706930-07	2500	7/25/17 15:46	24219-1.RAW	15:46:58	1313.77	1			1313.8	2.841	7101.555	ng/L	
Hg2700-1	DM2	SAM	1706931-01	500	7/25/17 15:57	24220-1.RAW	15:57:29	38.15	1			38.2	0.082	40.960	ng/L	
Hg2700-1	DM2	SAM	1706931-02	500	7/25/17 16:07	24221-1.RAW	16:07:59	358.59	1			358.6	0.775	387.391	ng/L	
Hg2700-1	DM2	SAM	1706931-03	500	7/25/17 16:18	24222-1.RAW	16:18:30	368.92	1			368.9	0.797	398.569	ng/L	
Hg2700-1	DM2	SAM	F707393-DUP1	500	7/25/17 16:29	24223-1.RAW	16:29:01	720.34	1			720.3	1.557	778.497	ng/L	
Hg2700-1	DM2	SAM	F707393-MS1	1000	7/25/17 16:39	24224-1.RAW	16:39:31	608.50	1			608.5	1.315	1315.463	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD1	1000	7/25/17 16:50	24225-1.RAW	16:50:02	735.95	1			735.9	1.591	1591.035	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	7/25/17 17:00	24226-1.RAW	17:00:33	202.57				202.6	0.438	0.438	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	7/25/17 17:11	24227-1.RAW	17:11:03	2.27				2.3	0.005	0.005	ng/L	
Hg2700-1	DM2	SAM	F707393-MS2	2500	7/25/17 17:21	24228-1.RAW	17:21:34	767.83	1			767.8	1.660	4150.353	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD2	2500	7/25/17 17:32	24229-1.RAW	17:32:05	823.30	1			823.3	1.780	4450.217	ng/L	

SampleID	Locatior	Rinse	Dilute	Blank	ConcHq0	ConcMeHg	ConcHg2	ConcPmHg	Rec%	RawData	RunEnd	PeakHq0	Raw PeakMeHg	R PeakHg2	Raw PeakPmHg	Raw Control	Flags	RunCount
Clean										24182-1.RAW	8:25:26	0.00				cleantry	NP	1
WS	A1									24183-1.RAW	8:35:57	16.23	0.00	2.73	0.00	psample10	OK	1
SEQ-1BL1	A2		1							24184-1.RAW	8:46:28	11.17	0.00	3.26	0.00	psample10	CT	1
SEQ-CAL1	A3		1							24185-1.RAW	8:56:59	9.42	22.57	3.07	0.00	psample10	OK	1
SEQ-CAL2	A4		1							24186-1.RAW	9:07:30	10.39	89.47	4.72	0.00	psample10	OK	1
SEQ-CAL3	A5		1							24187-1.RAW	9:18:00	13.39	467.12	30.49	0.00	psample10	OK	1
SEQ-CAL4	A6		1							24188-1.RAW	9:28:31	13.44	958.18	62.84	0.00	psample10	CT	1
SEQ-CAL5	A7		1							24189-1.RAW	9:39:01	18.78	1870.01	130.60	0.00	psample10	CT	1
SEQ-ICV1	A8		1							24190-1.RAW	9:49:32	12.12	205.83	5.50	0.00	psample10	CT	1
SEQ-ICB1	A9		1							24191-1.RAW	10:00:03	10.26	2.63	1.52	0.00	psample10	CT	1
F707393-BLK1	A10		500							24192-1.RAW	10:10:33	9.63	0.80	5.60	0.00	psample10	OK	1
F707393-BLK2	A11		500							24193-1.RAW	10:21:04	11.75	0.00	3.76	0.00	psample10	OK	1
F707393-BLK3	A12		500							24194-1.RAW	10:31:35	9.88	0.00	5.13	0.00	psample10	CT	1
*F707393-BLK4	A13		500							24195-1.RAW	10:42:05	9.22	0.00	7.05	0.00	psample10	CT	1
*F707393-BLK5	A14		500							24196-1.RAW	10:52:36	8.33	0.00	5.05	0.00	psample10	OK	1
1706929-01	A15		1000							24197-1.RAW	11:03:07	8.55	13.74	17.61	0.00	psample10	OK	1
1706929-07	A16		1000							24198-1.RAW	11:13:37	13.33	2162.25	88.85	0.00	psample10	CT	1
1706930-01	A17		1000							24199-1.RAW	11:24:08	12.12	356.98	34.07	0.00	psample10	OK	1
F707393-BS1	A18		1000							24200-1.RAW	11:34:39	12.38	837.85	120.50	0.00	psample10	CT	1
F707393-BSD1	A19		1000							24201-1.RAW	11:45:10	12.18	844.60	123.22	0.00	psample10	CT	1
SEQ-CCV1	A20		1							24202-1.RAW	11:55:40	12.19	199.56	4.18	0.00	psample10	CT	1
SEQ-CCB1	A21		1							24203-1.RAW	12:06:11	9.01	0.81	2.79	0.00	psample10	OK	1
1706929-02	B1		500							24204-2.RAW	12:48:16	12.37	491.73	45.24	0.00	psample10	OK	1
1706929-03	B2		500							24205-1.RAW	12:58:47	11.05	41.20	18.77	0.00	psample10	CT	1
1706929-04	B3		500							24206-1.RAW	13:08:18	10.32	63.10	16.81	0.00	psample10	CT	1
1706929-05	B4		500							24207-1.RAW	13:19:48	10.18	549.10	13.98	0.00	psample10	CT	1
1706929-06	B5		2500							24208-1.RAW	13:30:19	12.66	760.91	28.24	0.00	psample10	CT	1
1706929-08	B6		2500							24209-1.RAW	13:40:50	10.04	788.89	23.58	0.00	psample10	OK	1
1706929-09	B7		2500							24210-1.RAW	13:51:20	11.65	843.10	30.37	0.00	psample10	CT	1
1706929-10	B8		2500							24211-2.RAW		11.81	646.45	20.08	0.00	psample10	CT	1
1706930-02	B9		500							24212-1.RAW		13.35	88.16	14.99	0.00	psample10	OK	1
1706930-03	B10		500							24213-1.RAW		12.79	254.82	20.67	0.00	psample10	CT	1
SEQ-CCV2	B11		1							24214-1.RAW		9.21	196.35	2.33	0.00	psample10	OK	1
SEQ-CCB2	B12		1							24215-1.RAW		11.25	1.86	4.25	0.00	psample10	CT	1
1706930-04	B13		500							24216-1.RAW		5.31	28.90	14.37	0.00	psample10	OK	1
1706930-05	B14		500							24217-1.RAW		12.37	260.21	19.99	0.00	psample10	CT	1
1706930-06	B15		2500							24218-1.RAW		11.54	769.20	27.39	0.00	psample10	CT	1
1706930-07	B16		2500							24219-1.RAW		12.02	1313.77	59.69	0.00	psample10	OK	1
1706931-01	B17		500							24220-1.RAW		10.43	38.15	12.96	0.00	psample10	CT	1
1706931-02	B18		500							24221-1.RAW		8.83	358.59	18.32	0.00	psample10	OK	1
1706931-03	B19		500							24222-1.RAW		11.17	368.92	15.20	0.00	psample10	CT	1
F707393-DUP1	B20		500							24223-1.RAW		9.84	720.34	16.37	0.00	psample10	OK	1
F707393-MS1	B21		1000							24224-1.RAW		9.77	608.50	42.28	0.00	psample10	CT	1
F707393-MSD1	C1		1000							24225-1.RAW		10.46	735.95	42.09	0.00	psample10	OK	1
SEQ-CCV3	C2		1							24226-1.RAW		10.02	202.57	3.47	0.00	psample10	OK	1
SEQ-CCB3	C3		1							24227-1.RAW		9.62	2.27	3.00	0.00	psample10	CT	1
F707393-MS2	C4		2500							24228-1.RAW		12.09	767.83	23.31	0.00	psample10	CT	1
F707393-MSD2	C5		2500							24229-1.RAW		11.24	823.30	26.84	0.00	psample10	OK	1
1706929-01RE1	C6		500													psample10		
1706929-07RE1	C7		2500															
1706930-01RE1	C8		1000															
F707394-BLK1	C9		500															
F707394-BLK2	C10		500															
F707394-BLK3	C11		500															
*F707394-BLK4	C12		500															
*F707394-BLK5	C13		500															
SEQ-CCV4	C14		1															
SEQ-CCB4	C15		1															
*F707394-BLK6	C16		500															
*F707394-BLK7	C17		500															
F707394-BS1	C18		1000															
F707394-BSD1	C19		1000															
F707394-DUP1	C20		500															
F707394-MS1	C21		500															
F707394-MSD1	A1		500															
F707394-MS2	A2		500															
F707394-MSD2	A3		500															
1706931-04	A4		500															
SEQ-CCV5	A5		1															
SEQ-CCB5	A6		1															
1706931-05	A7		500															
1706931-06	A8		2500															
1706931-07	A9		2500															
1706931-08	A10		2500															

analytical run/instrument  
 Stopped communication 7/23/17

1706931-09	A11	2500
1706931-10	A12	2500
1706932-01	A13	500
1706932-02	A14	500
1706932-03	A15	500
1706932-04	A16	500
SEQ-CCV6	A17	1
SEQ-CCB6	A18	1
1706932-05	A19	500
1706932-06	A20	2500
1706932-07	A21	2500
1706932-08	B1	2500
1706932-09	B2	2500
1706932-10	B3	2500
1707444-01	B4	2500
SEQ-CCV7	B5	1
SEQ-CCB7	B6	1

} - analytical run/instrument  
Stopped communication at 17:10:17

## ANALYSIS SEQUENCE

7G26011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/25/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G26011-IBL1	QC	1			
7G26011-CAL1	QC	2	1704180		
7G26011-CAL2	QC	3	1704181		
7G26011-CAL3	QC	4	1704182		
7G26011-CAL4	QC	5	1704183		
7G26011-CAL5	QC	6	1704184		
7G26011-ICV1	QC	7	1703246		
7G26011-ICB1	QC	8			
F707393-BLK1	QC	9			
F707393-BLK2	QC	10			
F707393-BLK3	QC	11			
F707393-BLK4	QC	12			
F707393-BLK5	QC	13			
1706929-01	MHg-CVAFS-T-KOH	14			Hold prep/analysis until Hg is complete
1706929-07	MHg-CVAFS-T-KOH	15			Hold prep/analysis until Hg is complete
1706930-01	MHg-CVAFS-T-KOH	16			Hold prep/analysis until Hg is complete
F707393-BS1	QC	17			
F707393-BSD1	QC	18			
7G26011-CCV1	QC	19	1703246		
7G26011-CCB1	QC	20			
1706929-02	MHg-CVAFS-T-KOH	21			Hold prep/analysis until Hg is complete
1706929-03	MHg-CVAFS-T-KOH	22			Hold prep/analysis until Hg is complete
1706929-04	MHg-CVAFS-T-KOH	23			Hold prep/analysis until Hg is complete
1706929-05	MHg-CVAFS-T-KOH	24			Hold prep/analysis until Hg is complete
1706929-06	MHg-CVAFS-T-KOH	25			Hold prep/analysis until Hg is complete
1706929-08	MHg-CVAFS-T-KOH	26			Hold prep/analysis until Hg is complete
1706929-09	MHg-CVAFS-T-KOH	27			Hold prep/analysis until Hg is complete
1706929-10	MHg-CVAFS-T-KOH	28			Hold prep/analysis until Hg is complete
1706930-02	MHg-CVAFS-T-KOH	29			Hold prep/analysis until Hg is complete
1706930-03	MHg-CVAFS-T-KOH	30			Hold prep/analysis until Hg is complete
7G26011-CCV2	QC	31	1703246		
7G26011-CCB2	QC	32			
1706930-04	MHg-CVAFS-T-KOH	33			Hold prep/analysis until Hg is complete
1706930-05	MHg-CVAFS-T-KOH	34			Hold prep/analysis until Hg is complete
1706930-06	MHg-CVAFS-T-KOH	35			Hold prep/analysis until Hg is complete

Due Date: 7/31/2017

113 of 294

Page 1 of 2

**ANALYSIS SEQUENCE**

**7G26011**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/25/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706930-07 ✓	MHg-CVAFS-T-KOH	36			Hold prep/analysis until Hg is complete
1706931-01 ✓	MHg-CVAFS-T-KOH	37			Hold prep/analysis until Hg is complete
1706931-02 ✓	MHg-CVAFS-T-KOH	38			Hold prep/analysis until Hg is complete
1706931-03 ✓	MHg-CVAFS-T-KOH	39			Hold prep/analysis until Hg is complete
F707393-DUP1 ✓	QC	40			
F707393-MS1 ✓	QC	41			
F707393-MSD1 ✓	QC	42			
7G26011-CCV3 ✓	QC	43	1703246		
7G26011-CCB3 ✓	QC	44			
F707393-MS2 ✓	QC	45			
F707393-MSD2 ✓	QC	46			

Don Maerem      7/25/17  
 Samples Loaded By      Date

Don Maerem      7/20/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					
F707393-BLK2	Blank	0.5	20					
F707393-BLK3	Blank	0.5	20					
F707393-BLK4	Blank	0.3356	20					
F707393-BLK5	Blank	0.3691	20					
F707393-BS1	DORM-4	0.1253	20	1703305	125			
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	125			
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					
F707393-MS1	Matrix Spike [1706930-01]	0.2637	20	1605978	100			
F707393-MS2	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MSD1	Matrix Spike Dup [1706930-01]	0.2631	20	1605978	100			
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	

Due Date: 7/31/2017



PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete
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PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

2700-1  
7/25/17 DM

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					500x
F707393-BLK2	Blank	0.5	20					500x
F707393-BLK3	Blank	0.5	20					500x
F707393-BLK4	Blank	0.3356	20					500x
F707393-BLK5	Blank	0.3691	20					500x
F707393-BS1	DORM-4	0.1253	20	1703305	1253			1000x
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	1252			1000x
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					500x
F707393-MS1	Matrix Spike [1706930-01] <del>BE1</del>	0.2637	20	1605978	100			1000x
F707393-MS2	Matrix Spike [1706930-06] <del>BE1</del> <i>on 7-2-17</i>	0.2659	20	1605978	100			2500x
F707393-MSD1	Matrix Spike Dup [1706930-01] <del>BE1</del>	0.2631	20	1605978	100			1000x
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			2500x

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00

1703704

1703755

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

2700-1  
7/25/17 DM

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	1000X → 500X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	500X DM 7-26-17
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	1000X → 2500X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	2500X DM 7-26-17
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	1000X → 1000X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	500X DM 7/26/17
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	2500X
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	500X

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2700-1  
7/25/17 DM

F707393

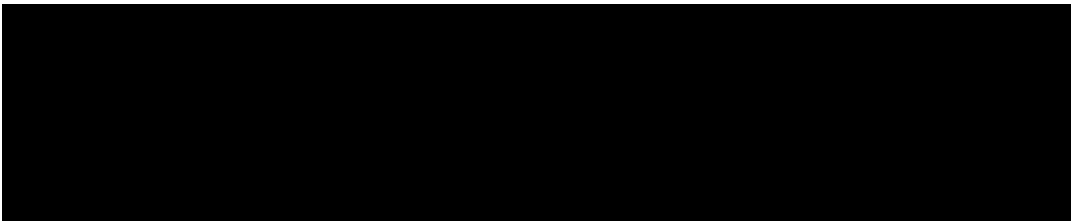
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	500x
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Technician: Duyun Batch#: F707393 Date: 7-14-17 ~~7-14-17~~ 7-19-17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 10:50 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C

Time out: 14:00 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C

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

Final vol.: 20 mL (LIMS ID: 1702696) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: DM 7/19/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NW09653 Calibration Date: 7/13/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NW01152 Calibration Date: 7/14/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1702833 Dispenser #: N/A  
 Glass Vial # 190067065 Boiling Chip lot # 1702551 \*Hotblock Position: E, 2

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	F707393 Blk1	0.3190	23	1706930-01	0.2578	BS1 BS01
2	F707393 Blk2	0.2495	24	1706930-02	0.2766	DORM-4
3	F707393 Blk3	0.3105	25	1706930-03	0.2561	1703305
4	F707393 Blk4	0.3356	26	1706930-04	0.2880	Comments
5	F707393 Blk5	0.3691	27	1706930-05	0.2657	F707393
6	F707393 BS1	0.1253	28	1706930-06	0.2812	Dupl 7/14/17 -05 17076929-05
7	F707393 BS01	0.1252	29	1706930-07	0.2781	MS1 MS01 DUP-14/17
8	F707393 Dupl	0.2795	30	1706931-01	0.2827	17076930-01
9	F707393 MS1	0.2637	31	1706931-02	0.2863	MS2 MS02
10	F707393 MS01	0.2631	32	1706931-03	0.2810	1706930-06
11	F707393 MS2	0.2659	33	1706929-06A	0.2863	1706929-06A
12	F707393 MS02	0.2699	34			0.2750(8) 03
13	1706929-01	0.2718	35			ALL samples
14	1706929-02	0.2709	36			weight on
15	<del>1706929-03</del>	0.2750	37			7/14/17
16	1706929-04	0.2786	38			Digestion sample
17	1706929-05	0.2853	39			on 7/19/17
18	<del>1706929-06</del>	0.2745	40			7-19-17
19	1706929-07	0.2907	41			
20	1706929-08	0.2589	42			
21	1706929-09	0.2819	43			
22	1706929-10	0.2632	44			

**Failing Data Report - 7G26011**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706929-07	MHg-CVAFS-T-KOH	322	3.4				ng/g						FAIL-OVER	PASS	E
F707393-MSD1	MHg-CVAFS-T-KOH	120.9	3.8	99.8	59.9	38.046	ng/g	161	65.00	130.00	41.7	35.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM.02, QR.08
F707393-MS2	MHg-CVAFS-T-KOH	312.2	9.4		295.7	37.646	ng/g	43.7	65.00	130.00			PASS-OVER	FAIL-MS	System Stopped
F707393-MSD2	MHg-CVAFS-T-KOH	329.8	9.3	312.2	295.7	37.088	ng/g	91.8	65.00	130.00	71.0	35.00	PASS-OVER	FAIL-MSD (RPD)	System Stopped

Don M. [Signature]      7/26/17  
 Analyst Reviewed By      Date

[Signature]      7/27/17  
 Peer Reviewed By      Date

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> <u>PC 2/23/17</u>	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> <u>7-26-17</u>	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

• 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:**

PC 2/23/17

- |   |  |  |   |
|---|--|--|---|
| 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 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 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"/>     |
| <b>QA/QC Data Checked</b>   |  |  |   |
| 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: _____   |  |  |   |

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> 0 PL 7/27/17	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> 7/26/2017	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

**Analyst Initials:**

DM

**Reviewer Initials:**

PL 7/27/17

- |  |  |  |   |
|--|--|--|---|
| 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 type="checkbox"/> PASS            | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MSD1, MSD2 FAILED. HIGH RPD</b>   |  |  |   |
| 22. MS (AS) % Recoveries (65-130%)   | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MS2 FAILED. LOW RECOVERY</b>  |  |  |   |
| 23. MSD (ASD) % Recoveries (65-130%)   | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MSD1 FAILED. HIGH RECOVERY</b>  |  |  |   |
| 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: <b>1706929-07 OFF SCALE. ABOVE CAL5</b>  |  |  |   |
| 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)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> 0 PL 7/27/17	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> 7/26/2017	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

**Analyst Initials:**

DM

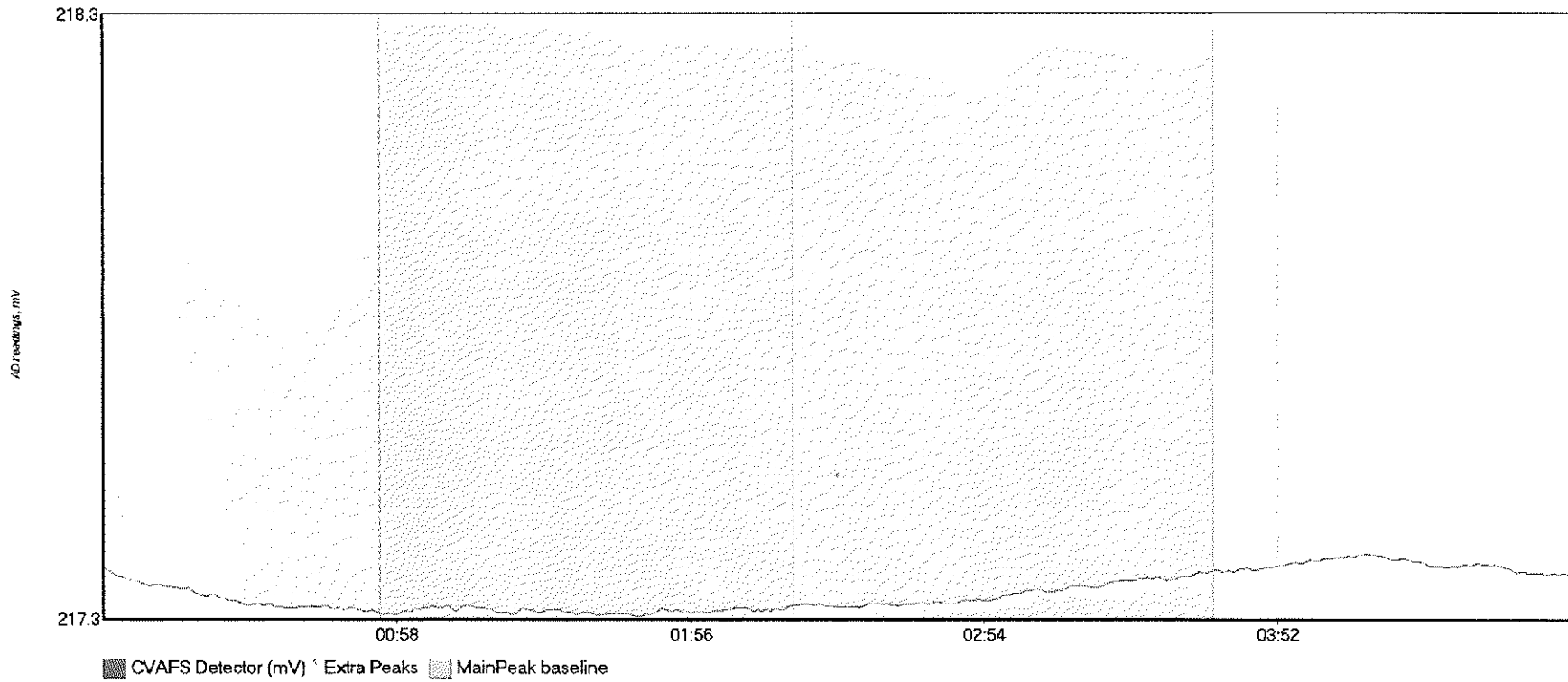
**Reviewer Initials:**

PL 7/27/17

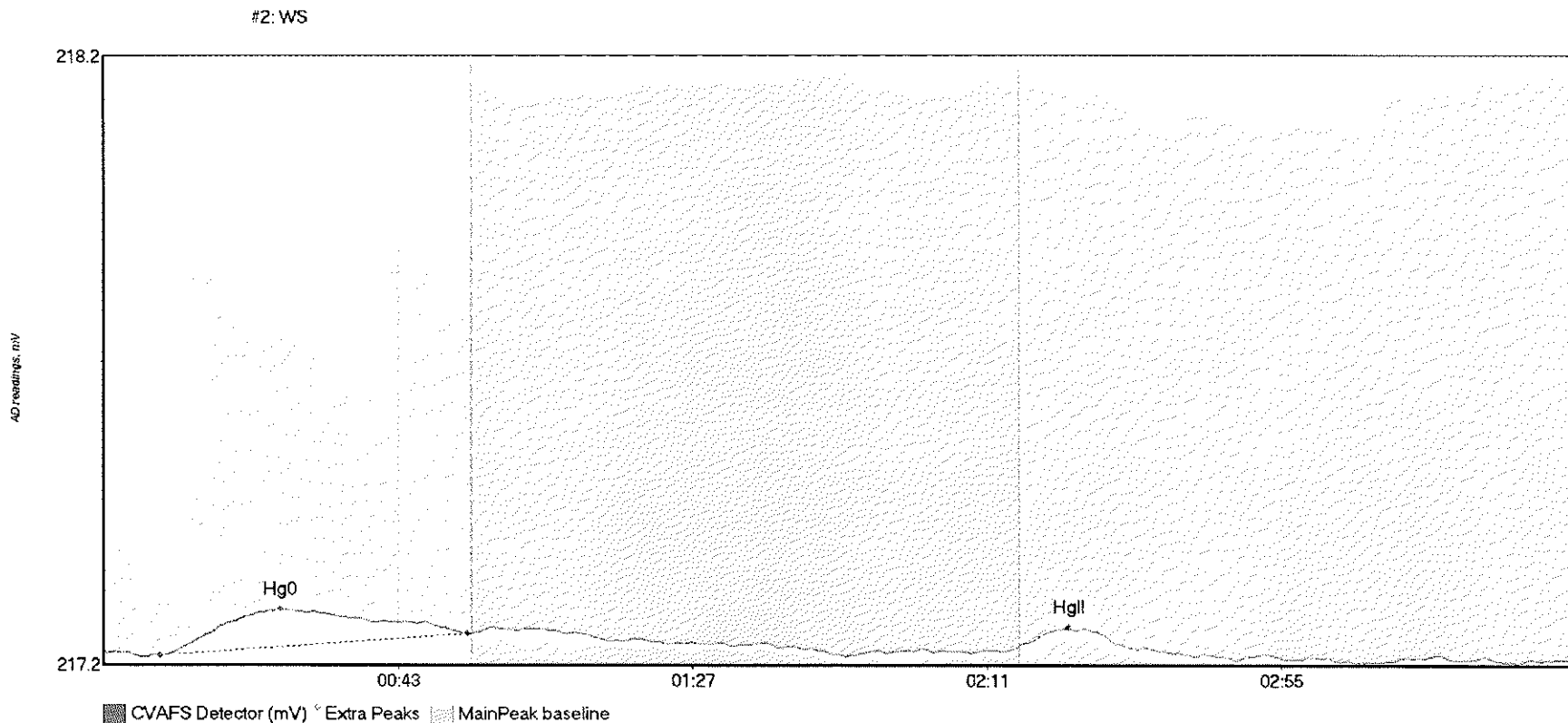
- |  |   |  |   |                                     |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):<br>Was a bubbler and trap test run before the analytical run continued?<br>Comments: _____ | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Do re-run results compare to initial analysis (< 35% RPD)?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Are qualifiers consistent with the data review flowcharts?<br>Comments: _____  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?<br>Comments: _____                                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 34. 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"/> |
| 35. Narrations in MMO box in LIMS?<br>Comments: _____  |   |  |   |                                     |
| 36. Are there any HIGH QA projects within the data?<br>If so, place dataset to the QA office.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |   |                                     |
| 37. Does the data set need scanning?<br>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs                        | <input type="checkbox"/> YES            |  | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>6/13/2017</u> IDOC/CDOC within last 12 months?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 39. Date of analyst's SOP reading: <u>5/23/2017</u> Current SOP revision?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>4/24/2017</u> LOD within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 41. Date of LOQ: <u>4/24/2017</u> LOQ within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 42. If MDN samples, date of last MDL study: _____  |   |  |   |                                     |
| 43. MDL study within last 12 months?   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>Data can not be reported without a current IDOC/CDOC, LOD or LOQ.</b>   |   |  |   |                                     |
| Additional Comments:   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |

System stopped after Analyzing sample  
F707393 - MSD2. Re-Analysis was not  
accomplished. Samples affected will  
be re-analyzed on a different day.

Clean: No peak(s) detected.

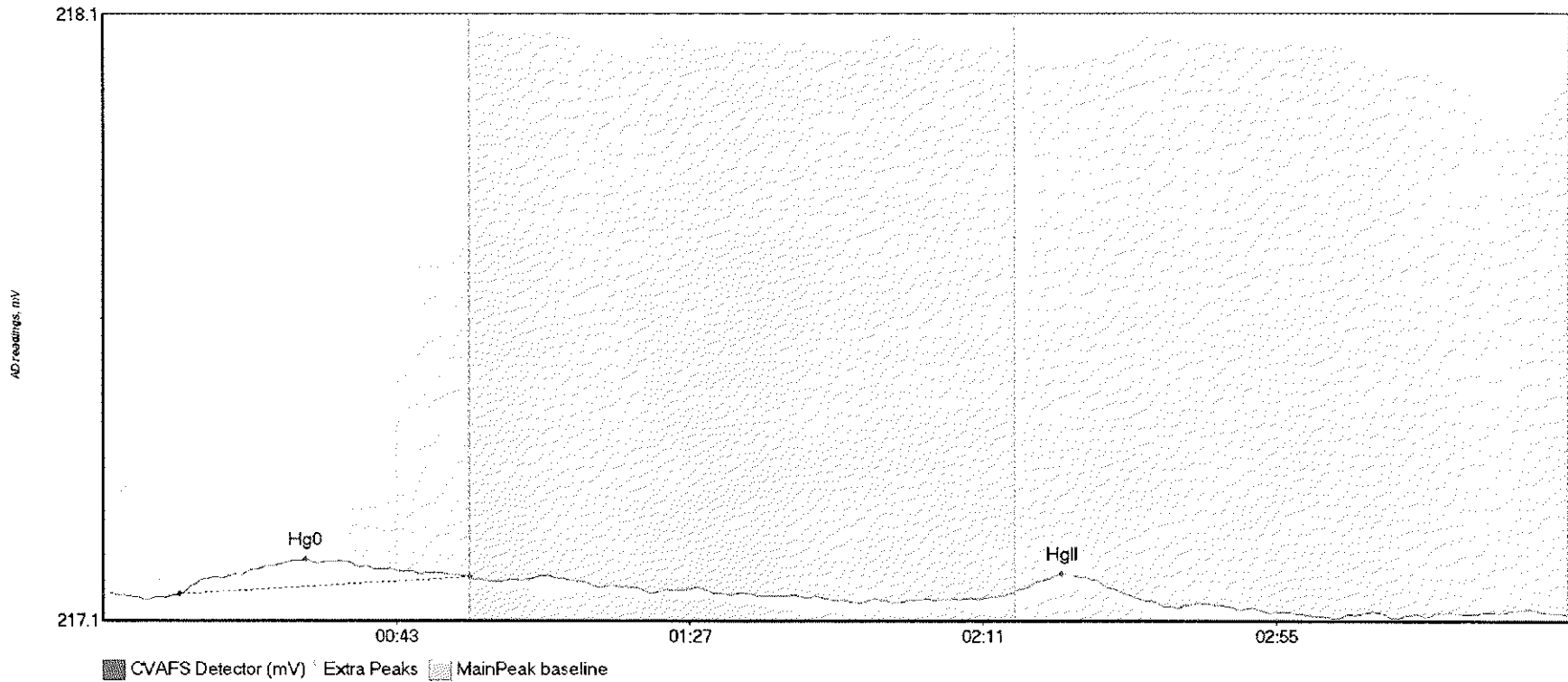


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.000	-	-	-	-	-	-	NP	217.3713	0.00	-0.01	017



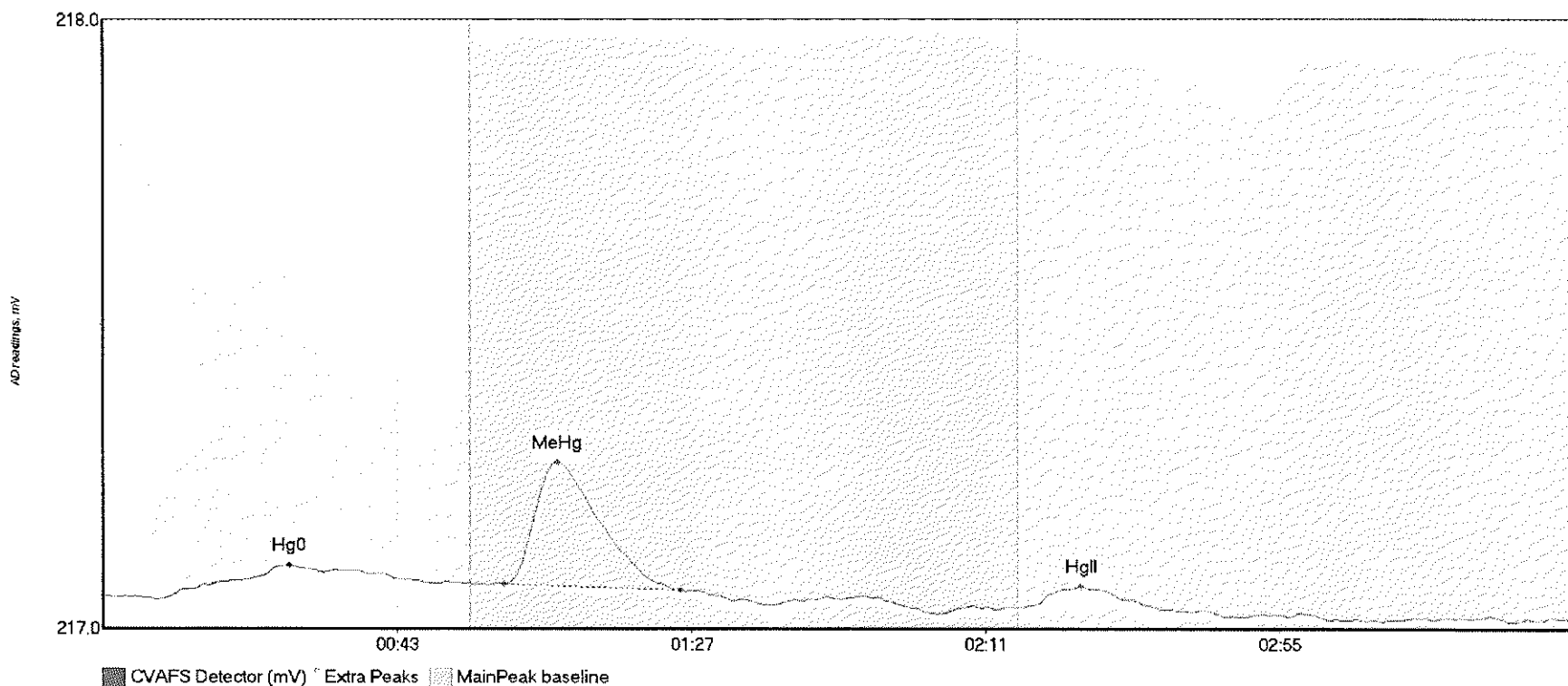
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	16.226	8.5	54.3	217.21	217.25	26.4	0.077	OK	217.2143	0.00	-0.01	
WS HgII	2.729	138.0	154.4	217.23	217.22	144.1	0.024	OK	217.2143	0.00	-0.01	317

#3: SEQ-IBL1



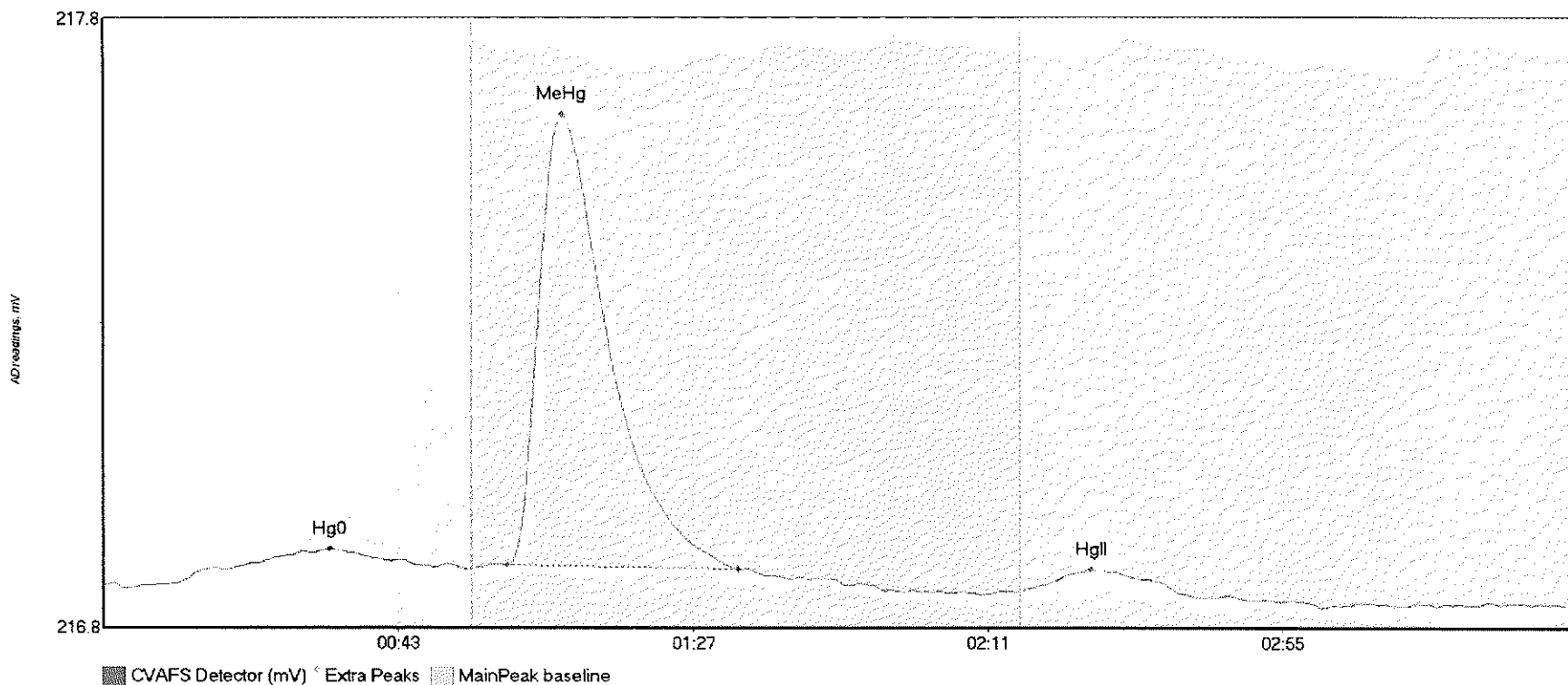
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	11.171	11.5	55.0	217.14	217.17	30.5	0.057	CT	217.1401	0.00	-0.03	
SEQ-IBL1 HgII	3.260	138.1	156.4	217.15	217.13	143.9	0.025	OK	217.1401	0.00	-0.03	017

#4: SEQ-CAL1



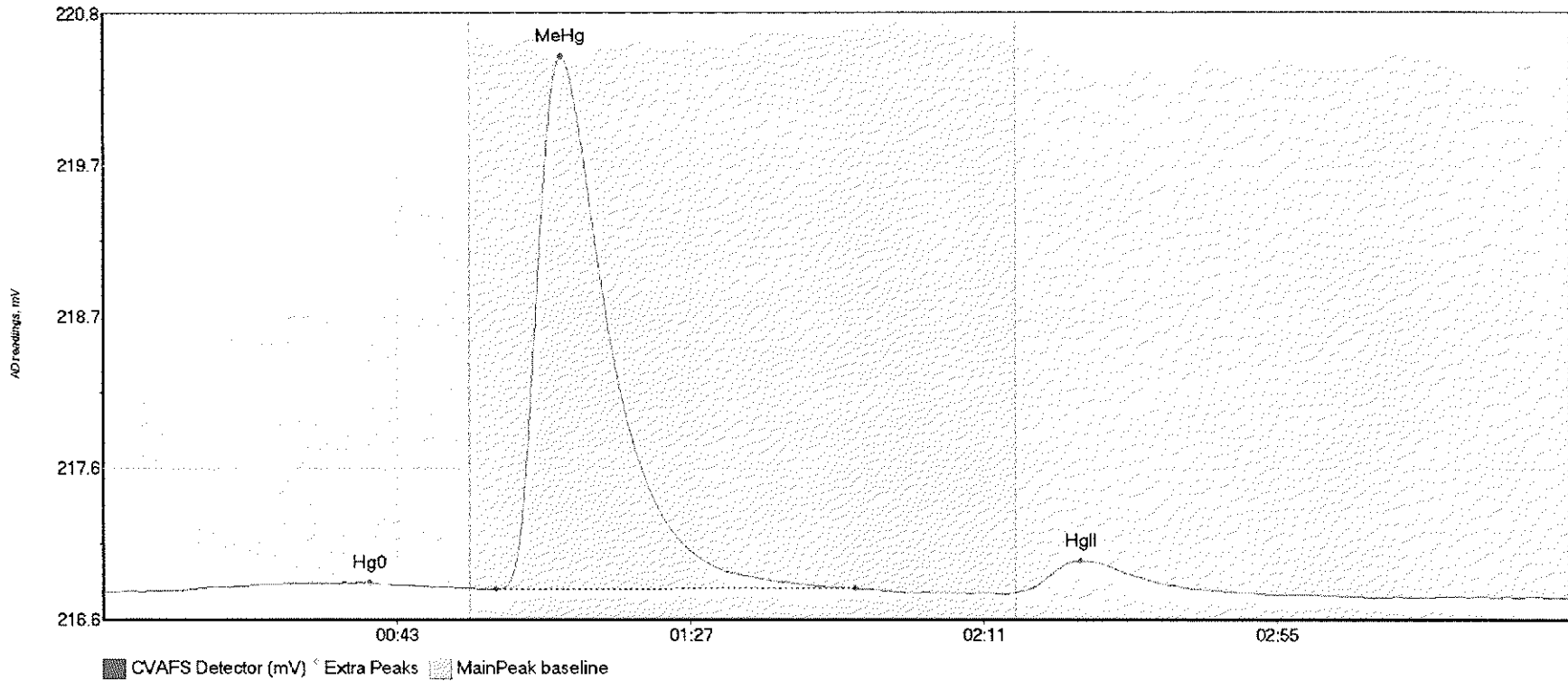
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	9.422	8.2	50.0	217.03	217.06	27.9	0.057	OK	217.0397	0.00	-0.04	
SEQ-CAL1 MeHg	22.566	60.0	86.3	217.06	217.05	68.0	0.200	OK	217.0397	0.00	-0.04	
SEQ-CAL1 HgII	3.071	139.0	156.0	217.02	217.02	146.3	0.032	OK	217.0397	0.00	-0.04	

#5: SEQ-CAL2



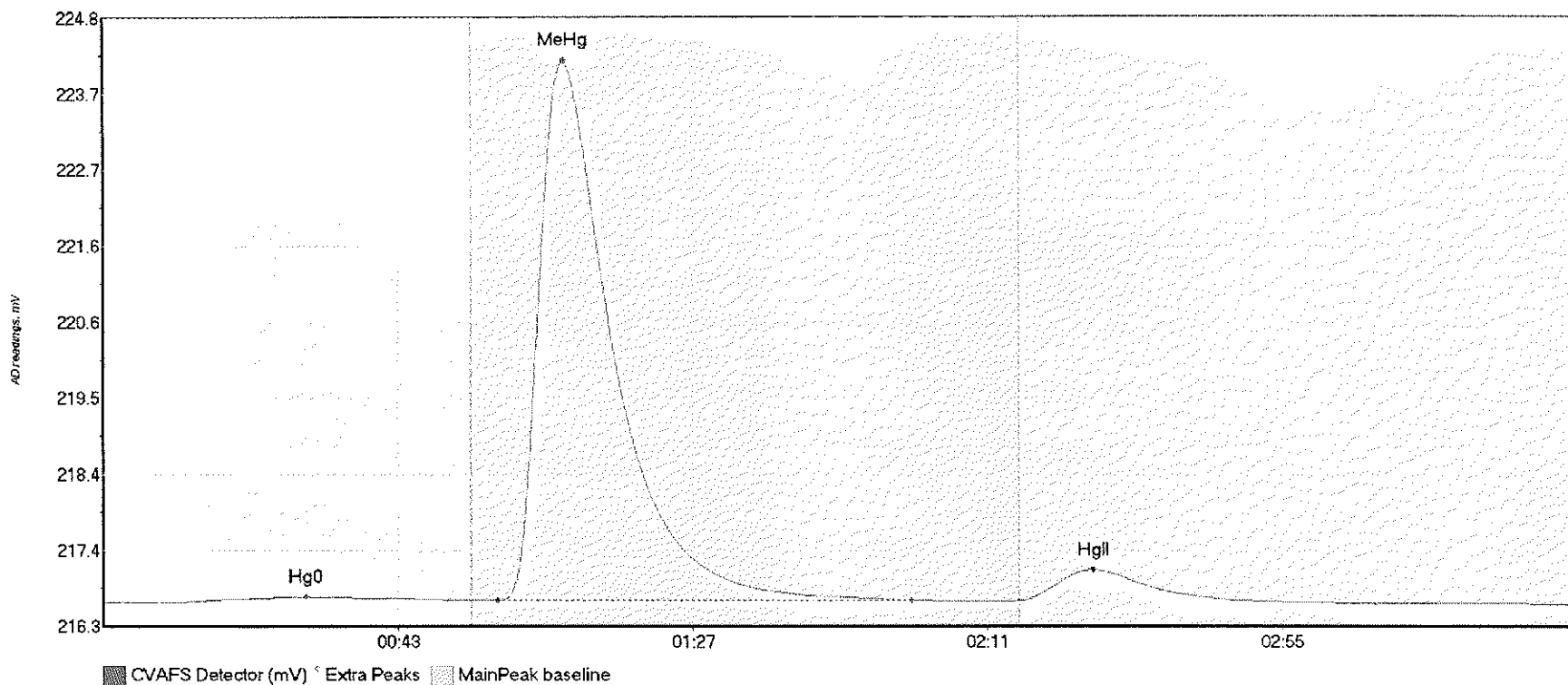
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	10.387	11.0	54.5	216.91	216.93	33.8	0.055	OK	216.9090	0.00	-0.04	
SEQ-CAL2 MeHg	89.472	60.3	94.7	216.94	216.93	68.5	0.740	OK	216.9090	0.00	-0.04	
SEQ-CAL2 HgII	4.719	138.7	161.0	216.90	216.89	147.5	0.030	OK	216.9090	0.00	-0.04	

#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	13.393	8.5	54.8	216.79	216.81	40.0	0.059	OK	216.7884	0.00	-0.04	
SEQ-CAL3 MeHg	467.115	58.9	112.8	216.81	216.81	68.7	3.690	OK	216.7884	0.00	-0.04	
SEQ-CAL3 HgII	30.487	136.8	168.6	216.78	216.79	146.6	0.219	OK	216.7884	0.00	-0.04	

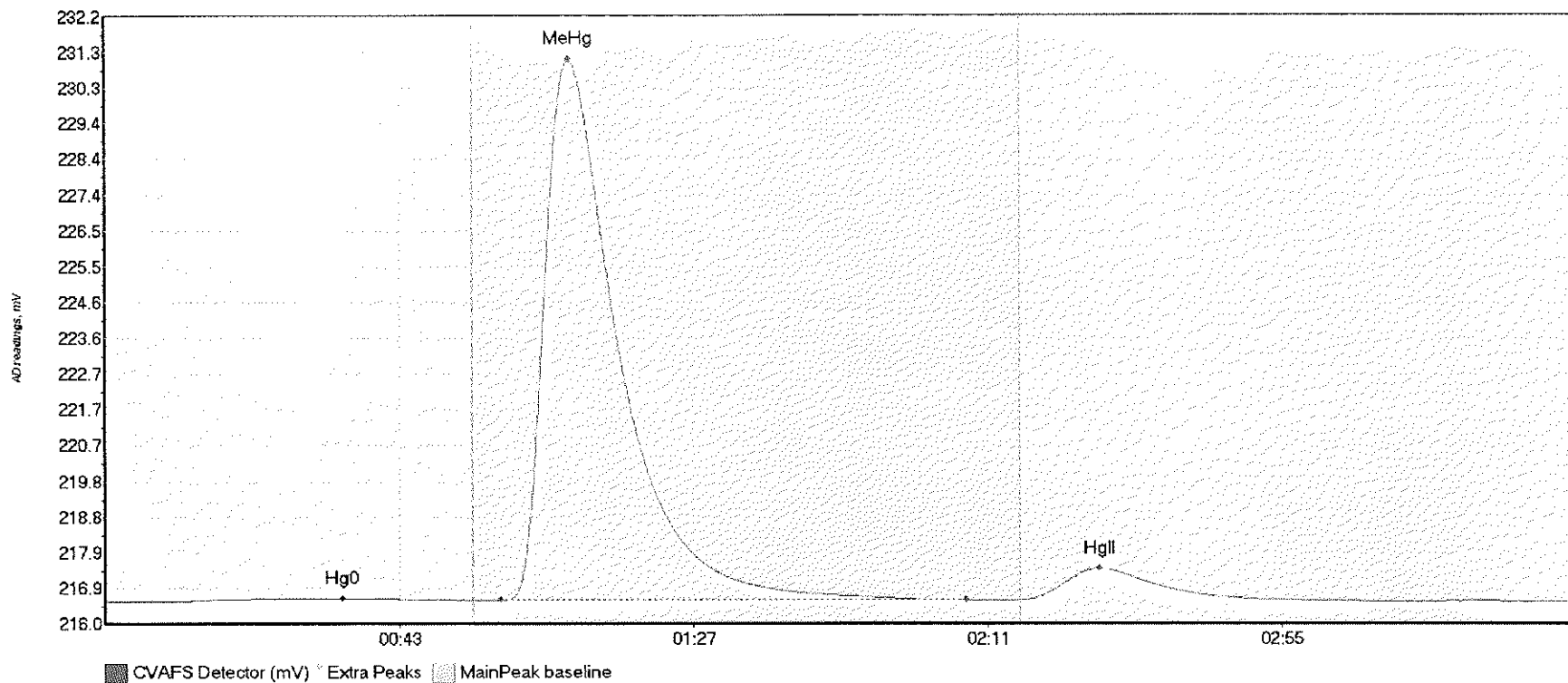
#7: SEQ-CAL4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	13.445	11.8	55.0	216.67	216.69	30.3	0.068	CT	216.6682	0.00	-0.04	
SEQ-CAL4 MeHg	958.177	58.9	120.7	216.69	216.69	68.8	7.482	OK	216.6682	0.00	-0.04	
SEQ-CAL4 HgII	62.844	136.8	170.5	216.69	216.69	147.9	0.430	OK	216.6682	0.00	-0.04	

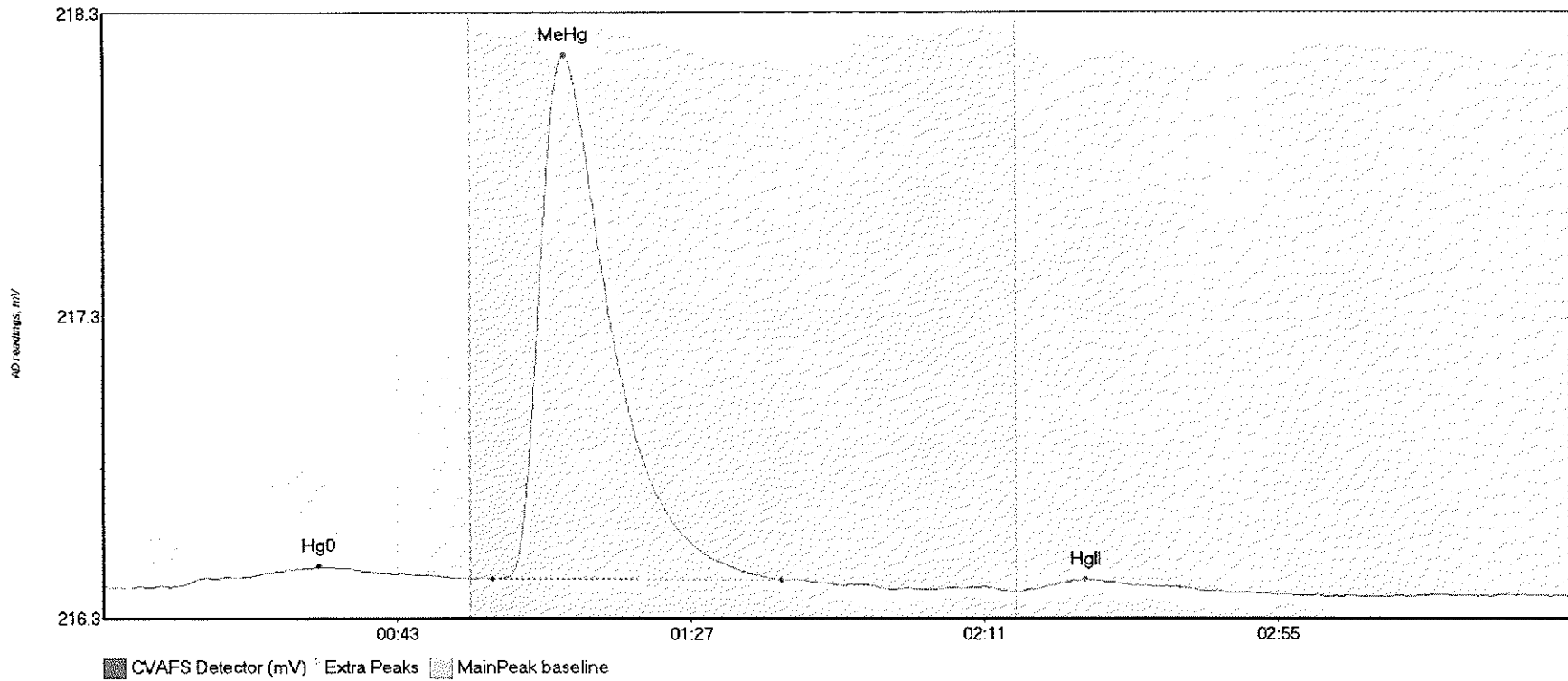


#8: SEQ-CAL5



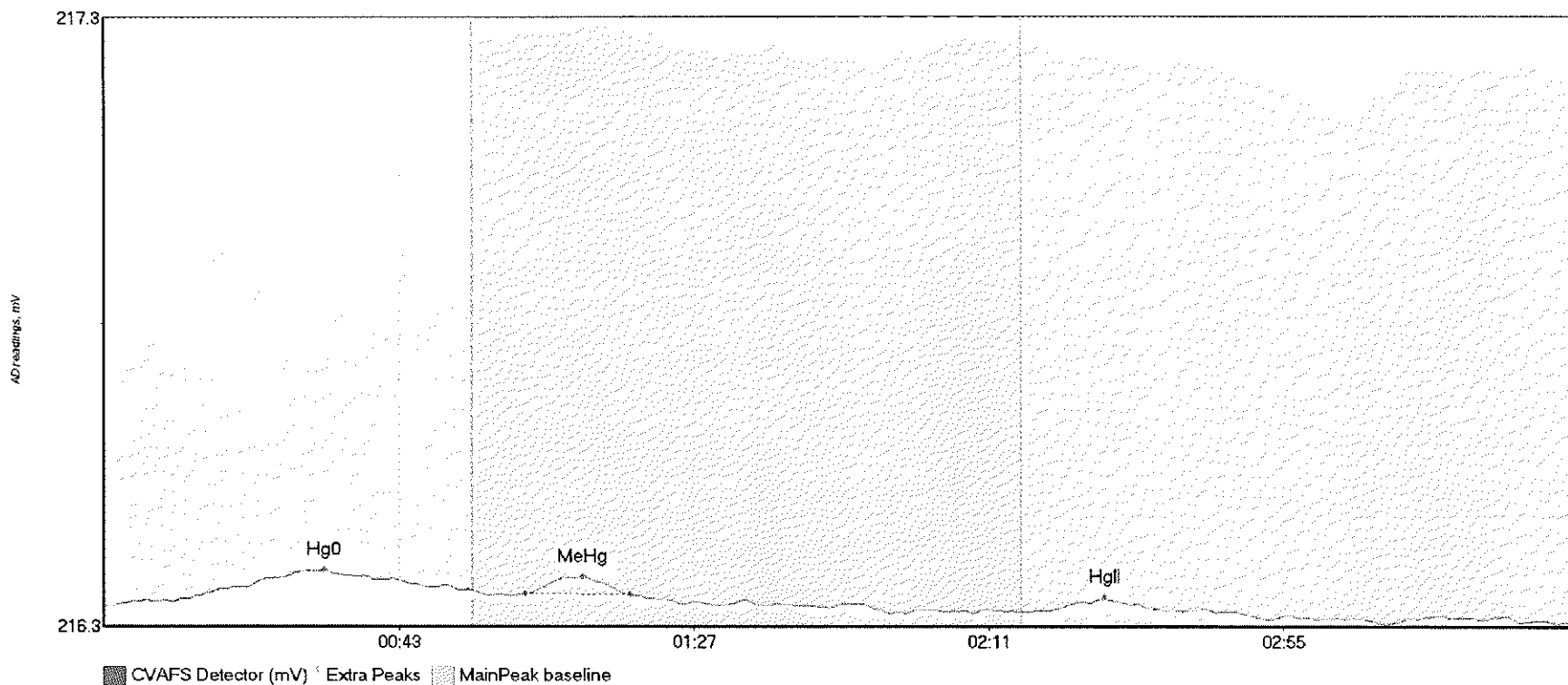
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	18.775	11.4	55.0	216.55	216.58	35.5	0.084	CT	216.5463	0.00	-0.01	
SEQ-CAL5 MeHg	1870.012	59.1	128.8	216.58	216.58	69.4	14.497	OK	216.5463	0.00	-0.01	
SEQ-CAL5 HgII	130.603	136.8	180.3	216.58	216.58	148.8	0.851	OK	216.5463	0.00	-0.01	

#9: SEQ-ICV1



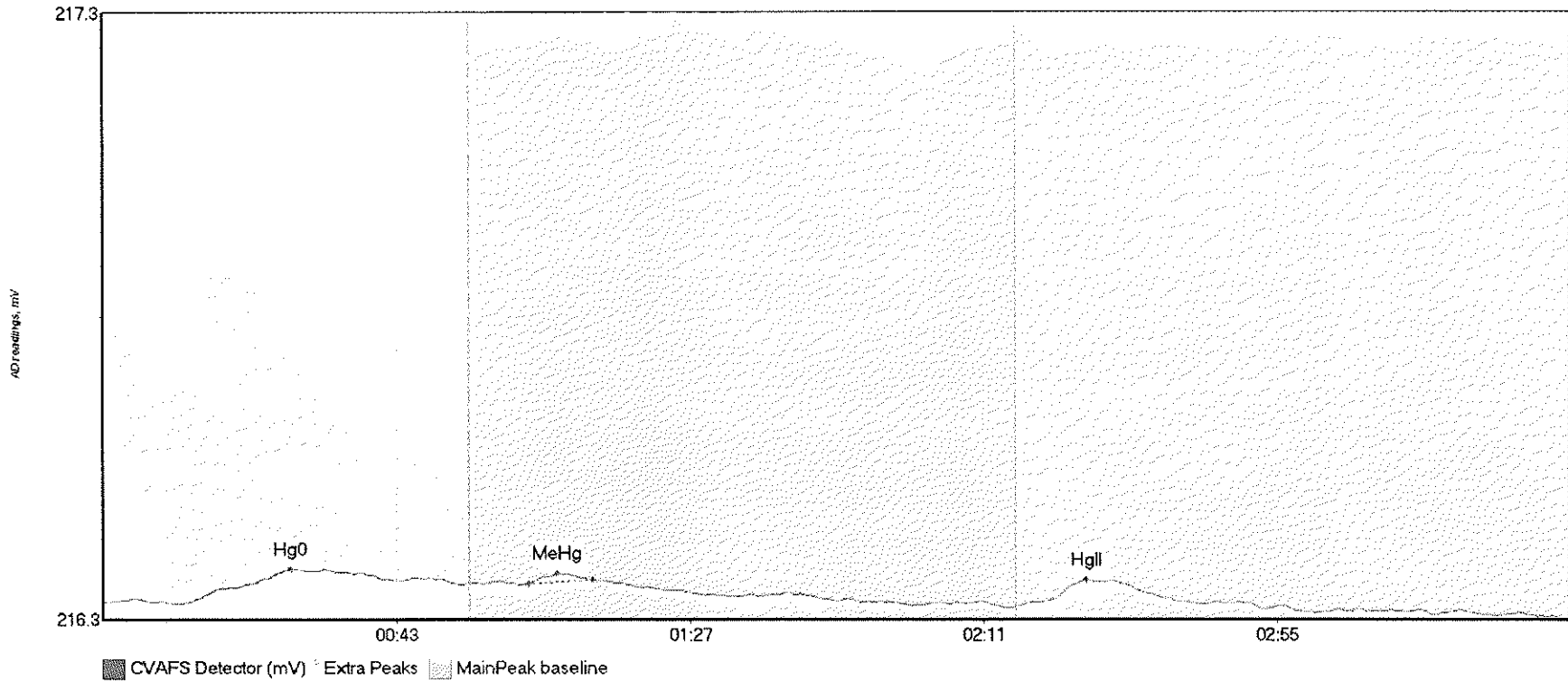
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	12.121	10.3	55.0	216.44	216.47	32.3	0.065	CT	216.4458	0.00	-0.03	
SEQ-ICV1 MeHg	205.832	58.3	101.6	216.47	216.47	69.1	1.661	OK	216.4458	0.00	-0.03	
SEQ-ICV1 HgII	5.499	137.3	165.6	216.43	216.43	147.3	0.038	OK	216.4458	0.00	-0.03	

#10: SEQ-ICB1



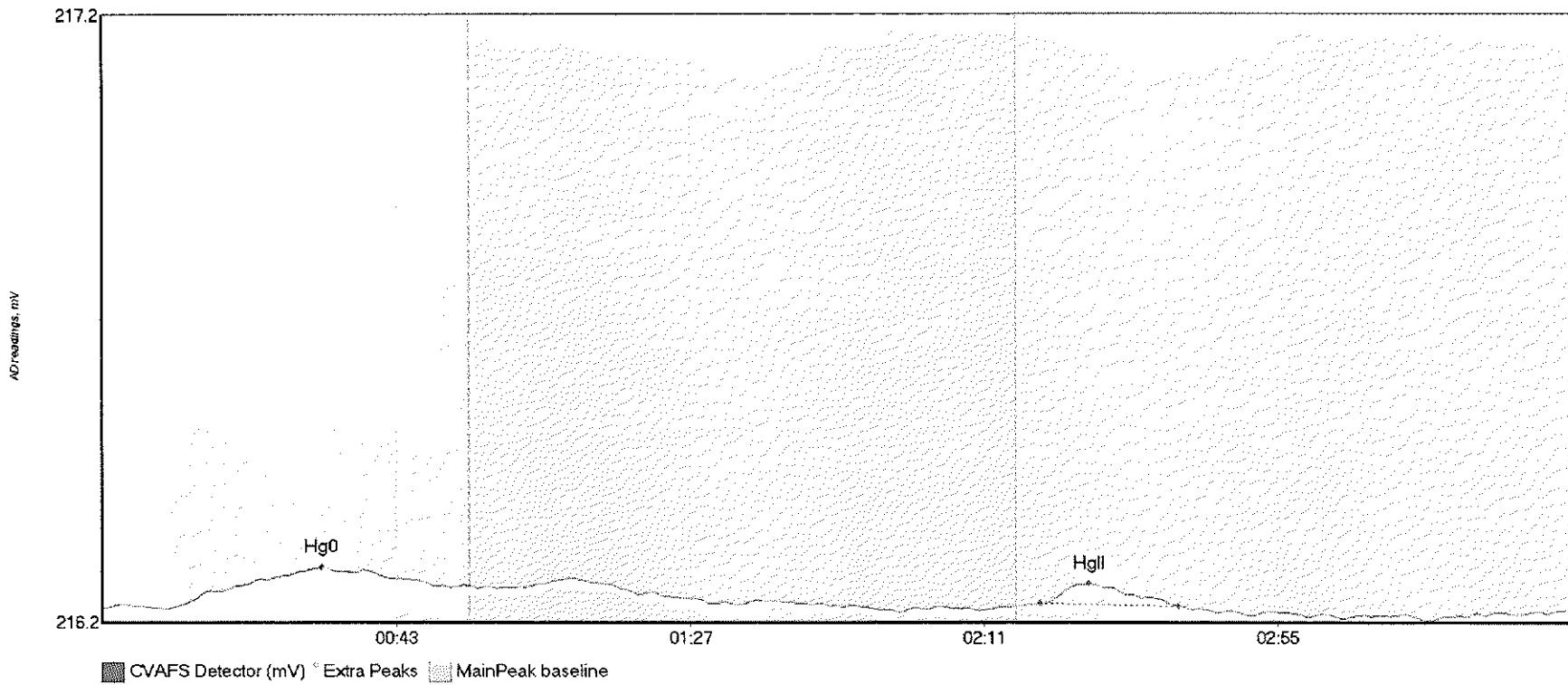
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	10.259	2.2	55.0	216.35	216.38	32.9	0.057	CT	216.3516	0.00	-0.03	
SEQ-ICB1 MeHg	2.625	62.9	78.4	216.37	216.37	71.5	0.028	OK	216.3516	0.00	-0.03	
SEQ-ICB1 HgII	1.521	140.7	157.2	216.34	216.35	149.3	0.020	OK	216.3516	0.00	-0.03	

#11: F707393-BLK1



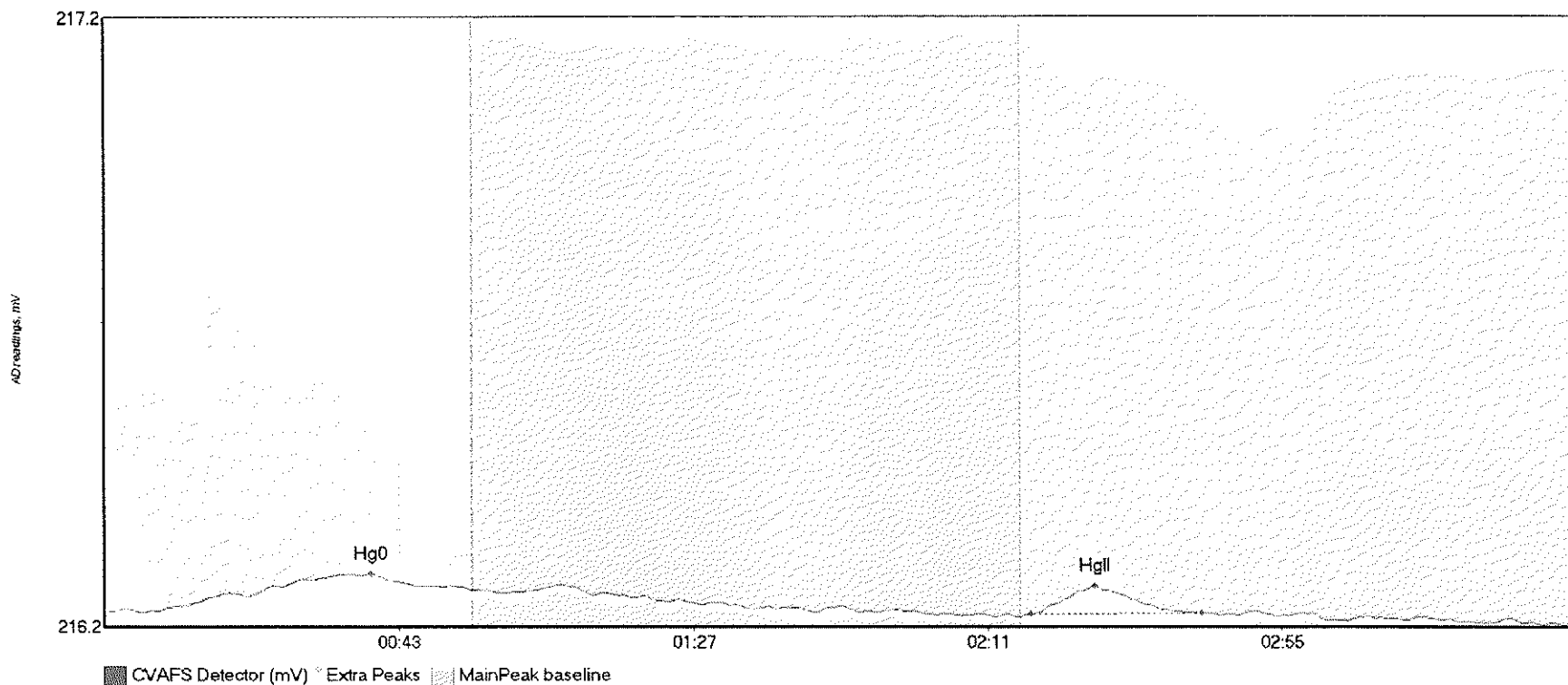
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK1 Hg	9.630	11.8	53.8	216.29	216.32	28.2	0.057	OK	216.2908	0.00	-0.03	
F707393-BLK1 Me	0.802	63.8	73.5	216.32	216.33	68.1	0.017	OK	216.2908	0.00	-0.03	
F707393-BLK1 Hg	5.601	136.8	164.0	216.28	216.29	147.5	0.045	OK	216.2908	0.00	-0.03	

#12: F707393-BLK2



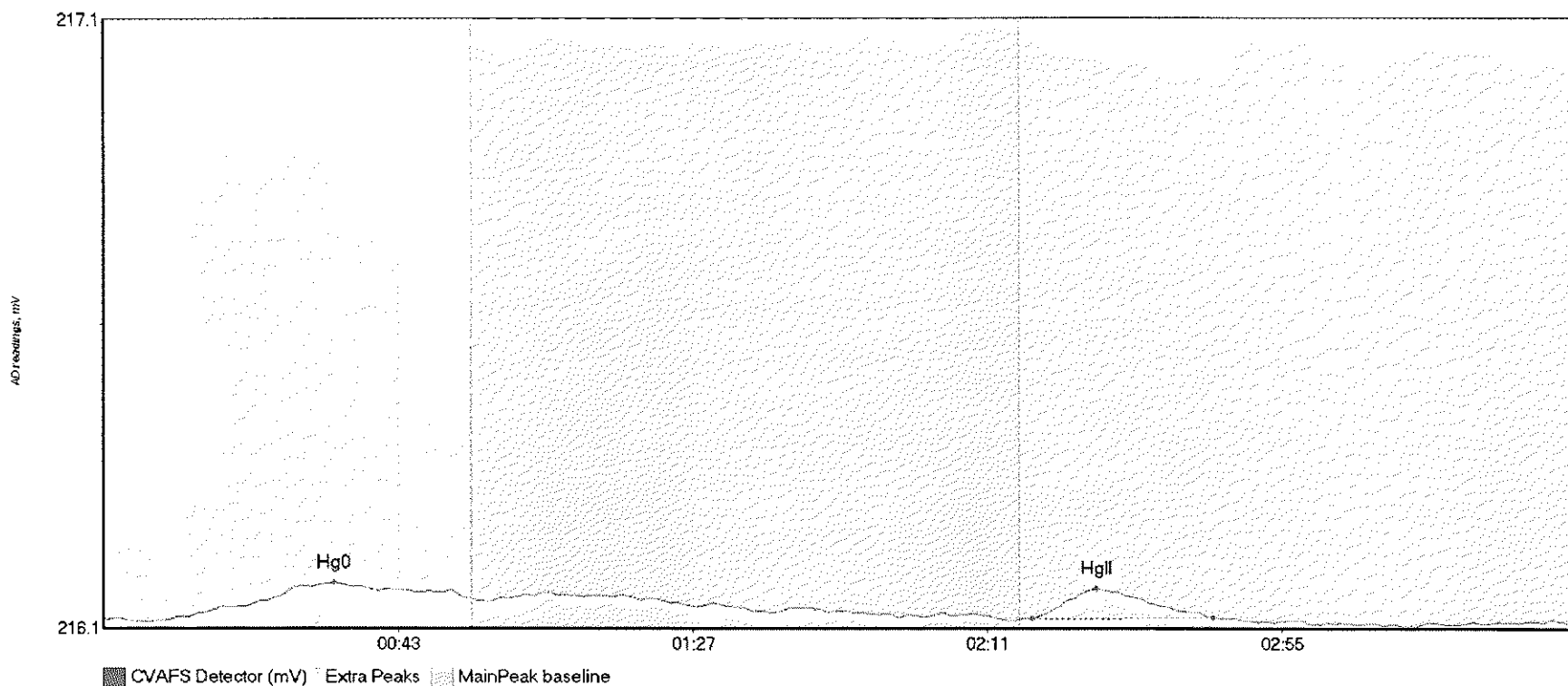
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK2 Hg	11.754	9.6	52.1	216.23	216.26	32.9	0.069	OK	216.2298	0.00	-0.01	
F707393-BLK2 Hg	3.760	140.4	161.2	216.24	216.23	147.7	0.032	OK	216.2298	0.00	-0.01	317

#13: F707393-BLK3



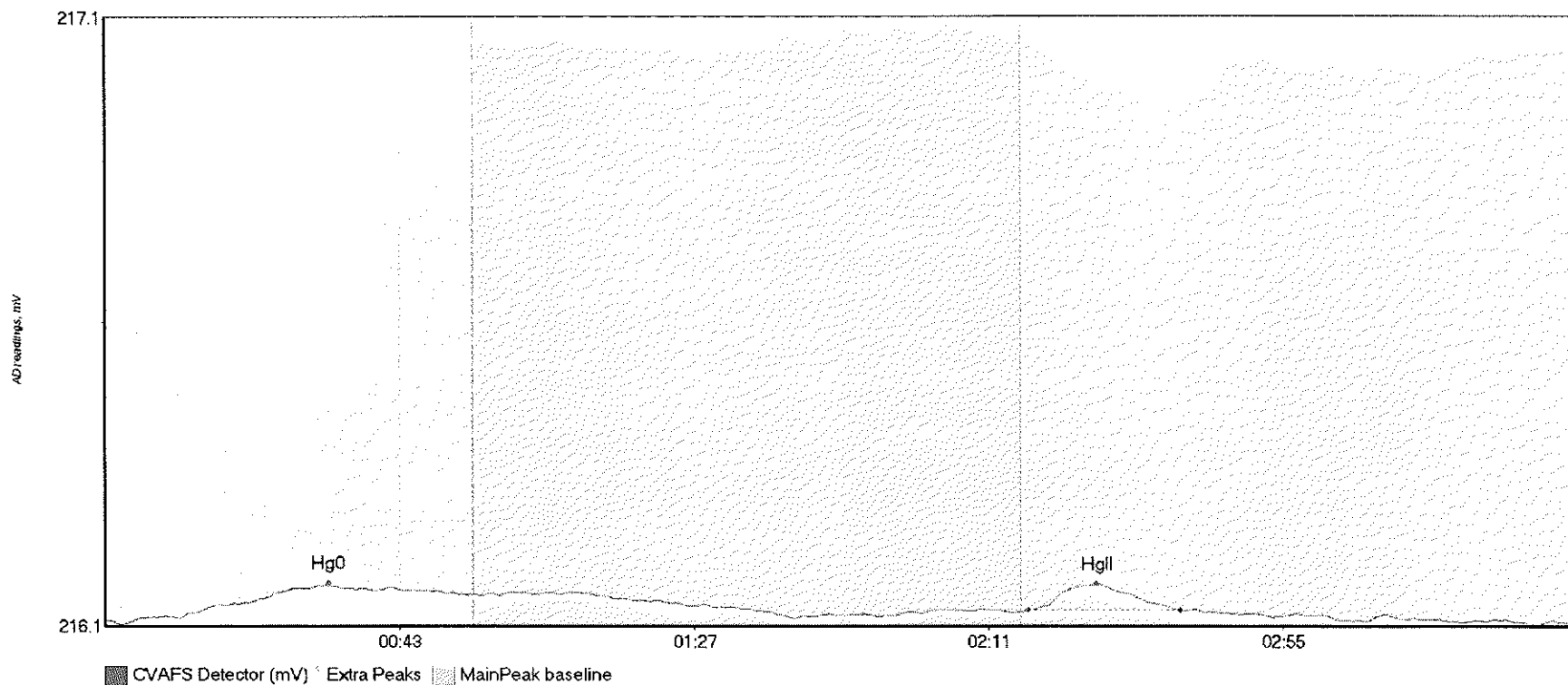
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK3 Hg	9.882	8.0	55.0	216.18	216.21	39.9	0.061	CT	216.1810	0.00	-0.02	
F707393-BLK3 Hg	5.133	138.4	164.0	216.17	216.18	148.0	0.047	OK	216.1810	0.00	-0.02	017

#14: \*F707393-BLK4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707393-BLK4 H	9.219	12.4	55.0	216.13	216.16	34.5	0.057	CT	216.1224	0.00	-0.01	
*F707393-BLK4 H	7.052	138.7	165.8	216.12	216.12	148.3	0.050	OK	216.1224	0.00	-0.01	317

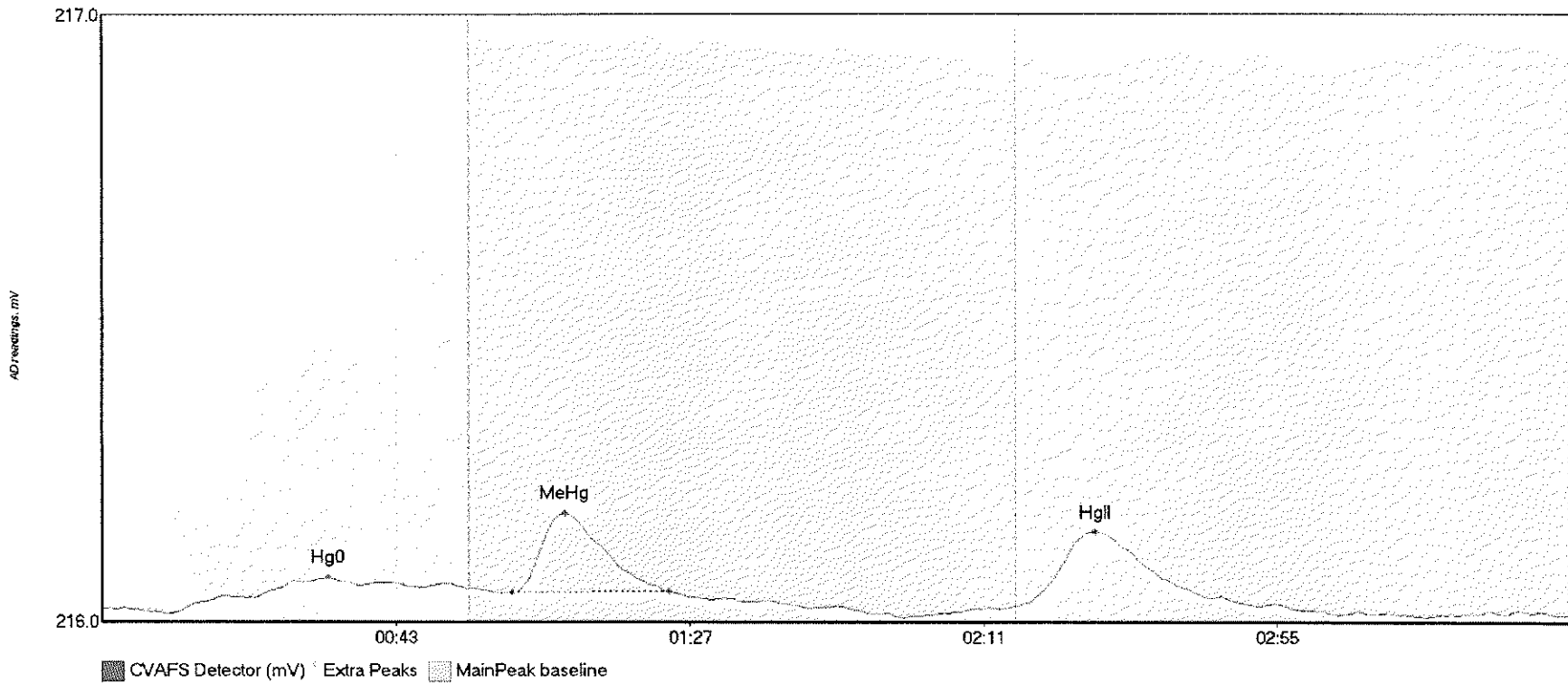
#15: \*F707393-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707393-BLK5 H	8.329	11.0	54.2	216.08	216.12	33.4	0.055	OK	216.0786	0.00	-0.01	
*F707393-BLK5 H	5.047	138.0	160.6	216.10	216.10	148.2	0.043	OK	216.0786	0.00	-0.01	317

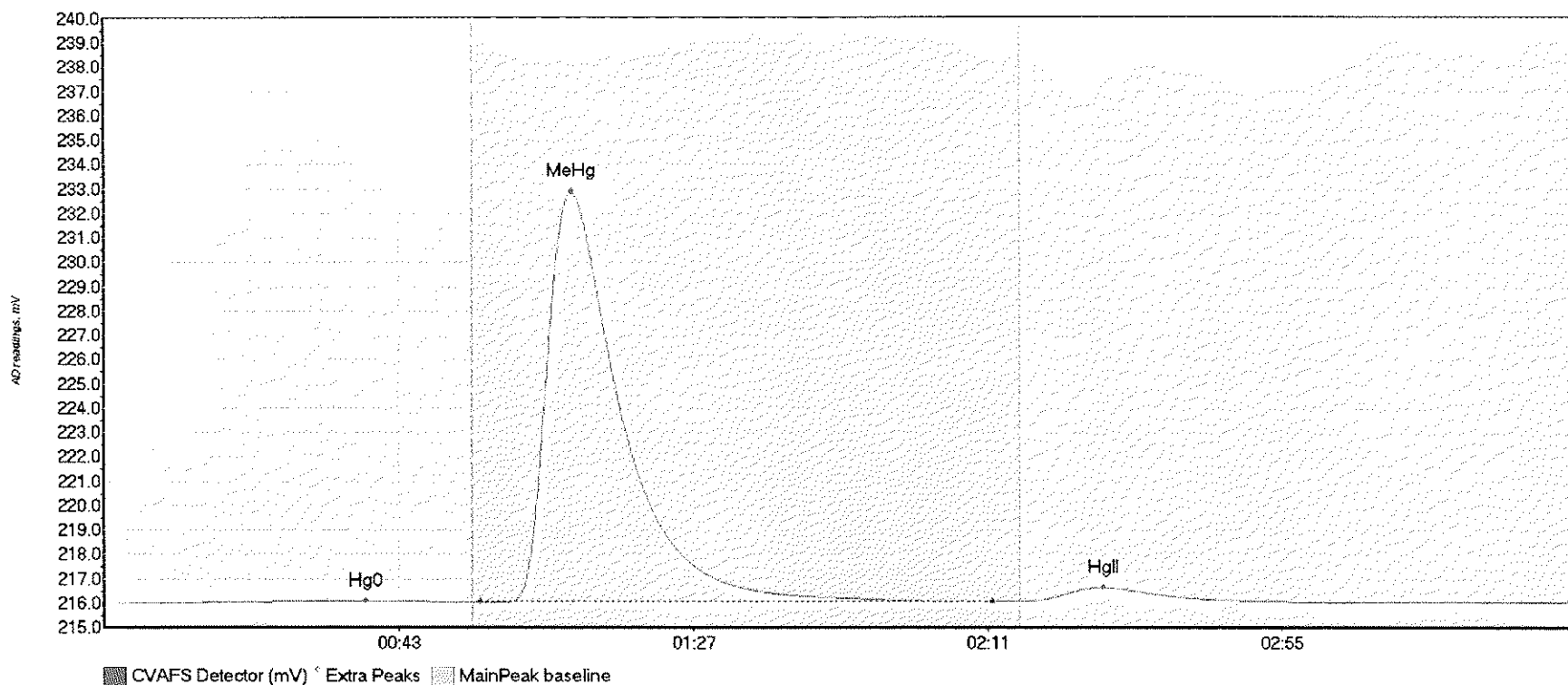


#16: 1706929-01



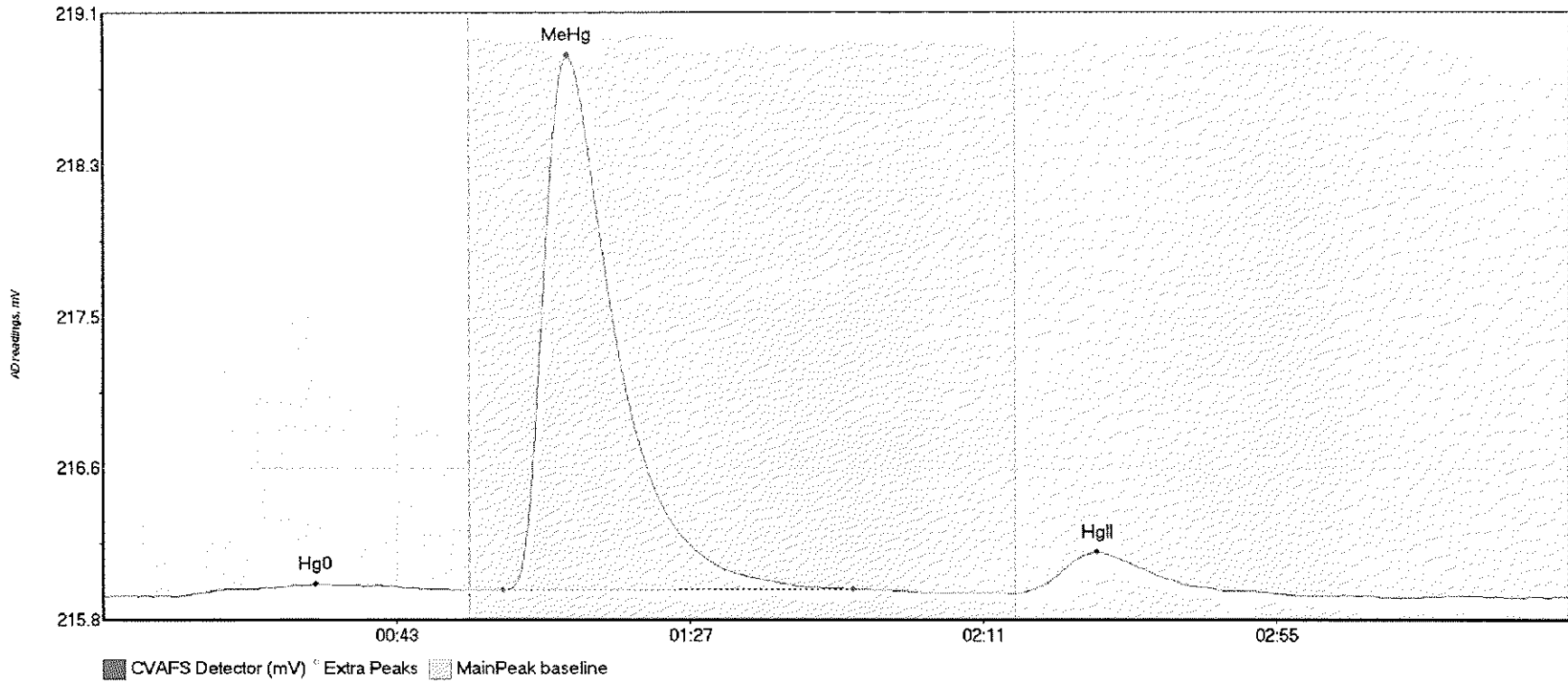
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-01 Hg0	8.555	11.2	54.9	216.04	216.07	33.9	0.057	OK	216.0421	0.00	-0.01	
1706929-01 MeHg	13.744	61.5	84.9	216.07	216.07	69.3	0.130	OK	216.0421	0.00	-0.01	
1706929-01 HgII	17.613	138.3	172.4	216.05	216.05	148.8	0.120	OK	216.0421	0.00	-0.01	

#17: 1706929-07



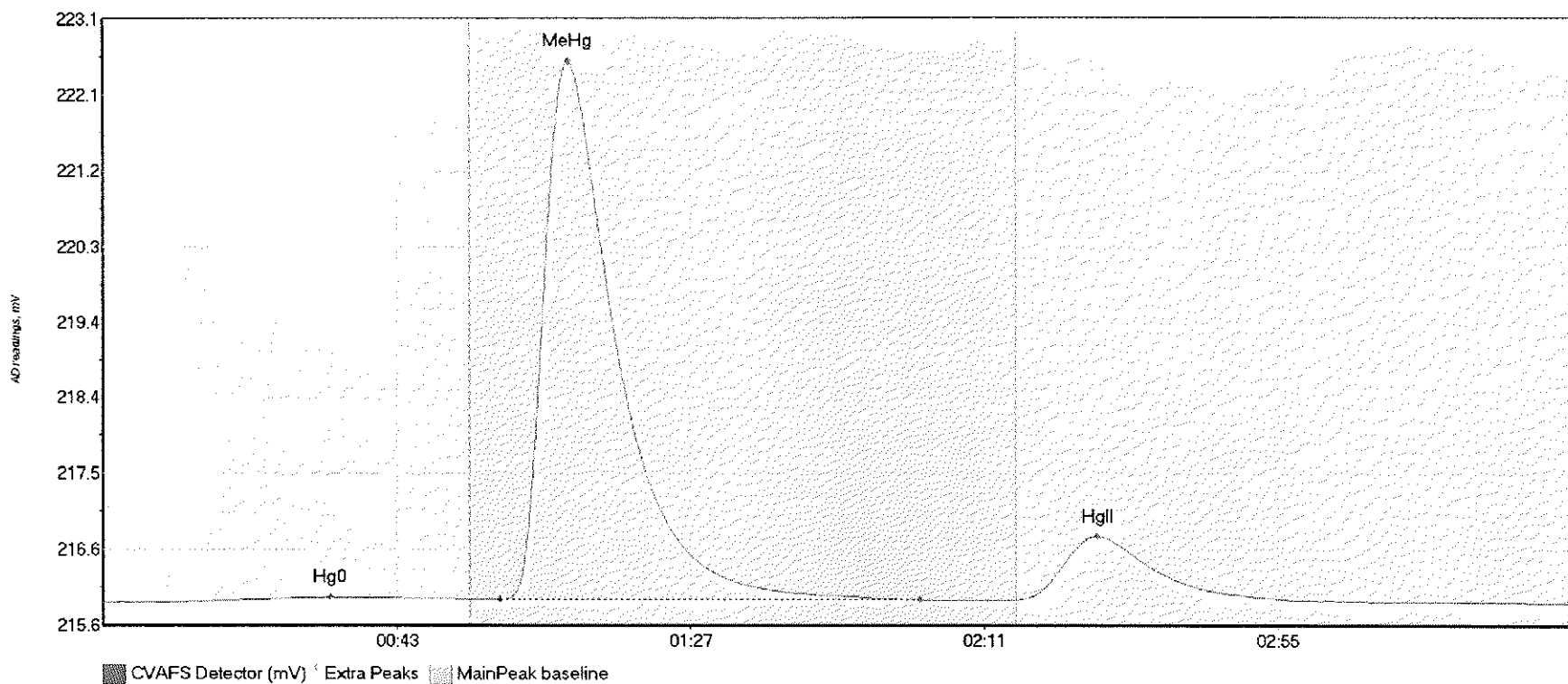
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-07 Hg0	13.326	13.1	55.0	216.00	216.04	39.1	0.079	CT	216.0058	0.00	0.01	
1706929-07 MeHg	2162.252	56.1	132.8	216.04	216.05	69.8	16.832	OK	216.0058	0.00	0.01	
1706929-07 HgII	88.850	136.8	177.5	216.06	216.05	149.3	0.578	OK	216.0058	0.00	0.01	

#18: 1706930-01



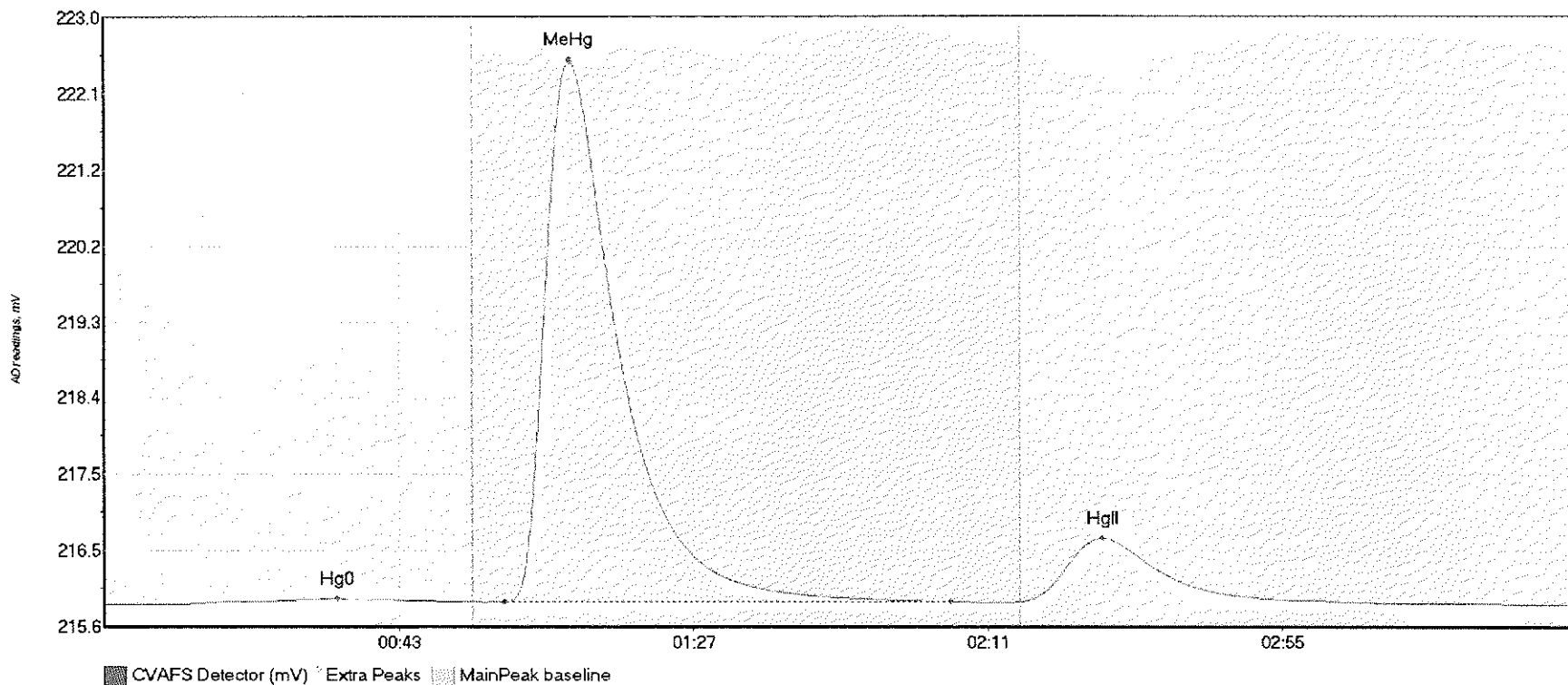
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-01 Hg0	12.120	10.8	53.2	215.96	216.00	31.9	0.065	OK	215.9644	0.00	0.00	
1706930-01 MeHg	356.975	60.0	112.4	216.00	216.00	69.7	2.841	OK	215.9644	0.00	0.00	
1706930-01 HgII	34.070	136.8	176.6	215.98	215.98	149.2	0.221	OK	215.9644	0.00	0.00	

#19: F707393-BS1



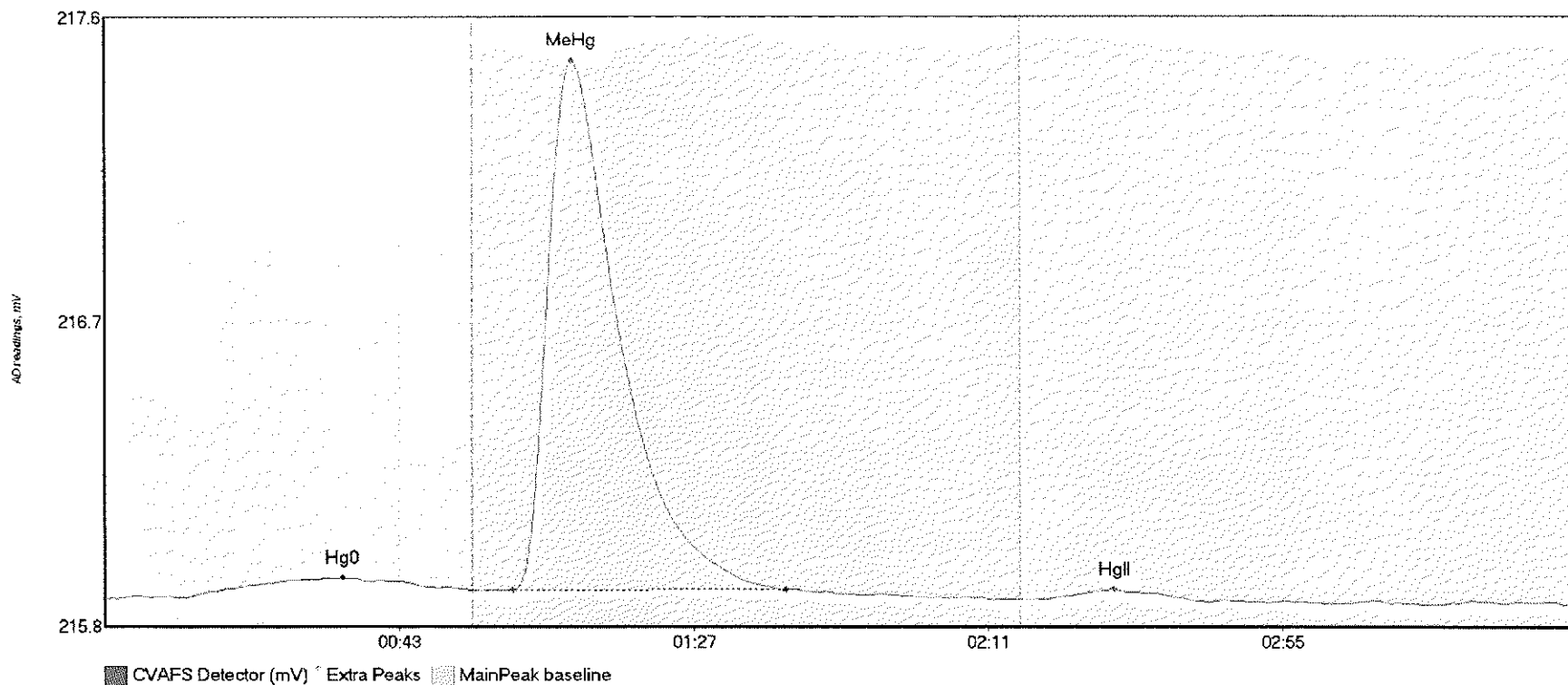
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BS1 Hg0	12.379	10.8	55.0	215.92	215.96	34.0	0.068	CT	215.9285	0.00	-0.01	
F707393-BS1 MeH	837.853	59.5	122.5	215.96	215.96	69.7	6.579	OK	215.9285	0.00	-0.01	
F707393-BS1 HgI	120.500	136.8	180.3	215.95	215.95	149.0	0.781	OK	215.9285	0.00	-0.01	

#20: F707393-BSD1



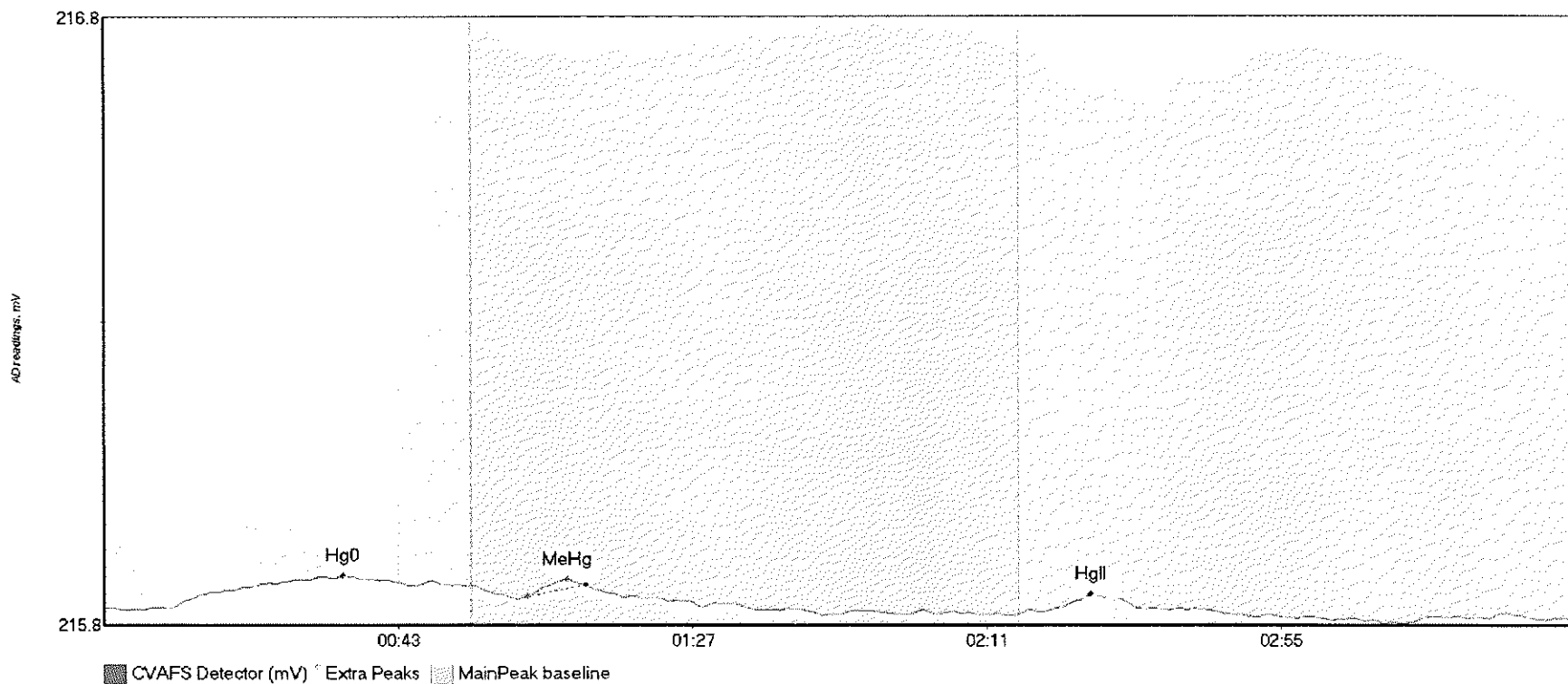
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BSD1 Hg	12.178	11.1	55.0	215.87	215.91	34.8	0.070	CT	215.8733	0.00	0.00	
F707393-BSD1 Me	844.599	59.7	126.5	215.90	215.91	69.6	6.593	OK	215.8733	0.00	0.00	
F707393-BSD1 Hg	123.219	136.8	185.5	215.91	215.90	149.2	0.776	OK	215.8733	0.00	0.00	

#21: SEQ-CCV1



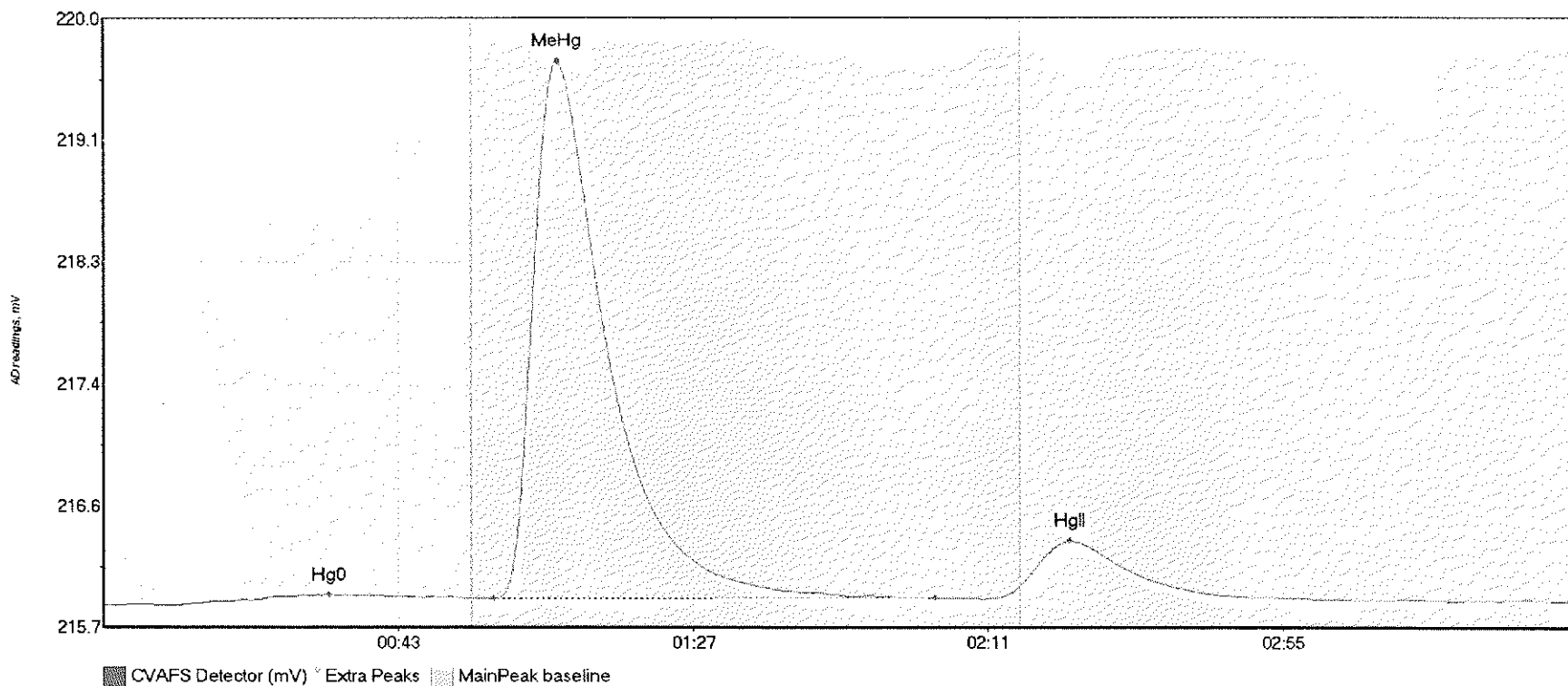
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	12.186	12.0	55.0	215.84	215.87	35.6	0.061	CT	215.8408	0.00	-0.02	
SEQ-CCV1 MeHg	199.562	61.0	101.7	215.87	215.87	69.9	1.609	OK	215.8408	0.00	-0.02	
SEQ-CCV1 HgII	4.185	141.2	165.0	215.84	215.83	150.9	0.029	OK	215.8408	0.00	-0.02	

#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	9.011	9.6	54.3	215.80	215.84	35.7	0.053	OK	215.8039	0.00	-0.02	
SEQ-CCB1 MeHg	0.810	63.5	72.0	215.82	215.84	69.3	0.028	OK	215.8039	0.00	-0.02	
SEQ-CCB1 HgII	2.794	140.3	166.3	215.80	215.80	147.6	0.028	OK	215.8039	0.00	-0.02	

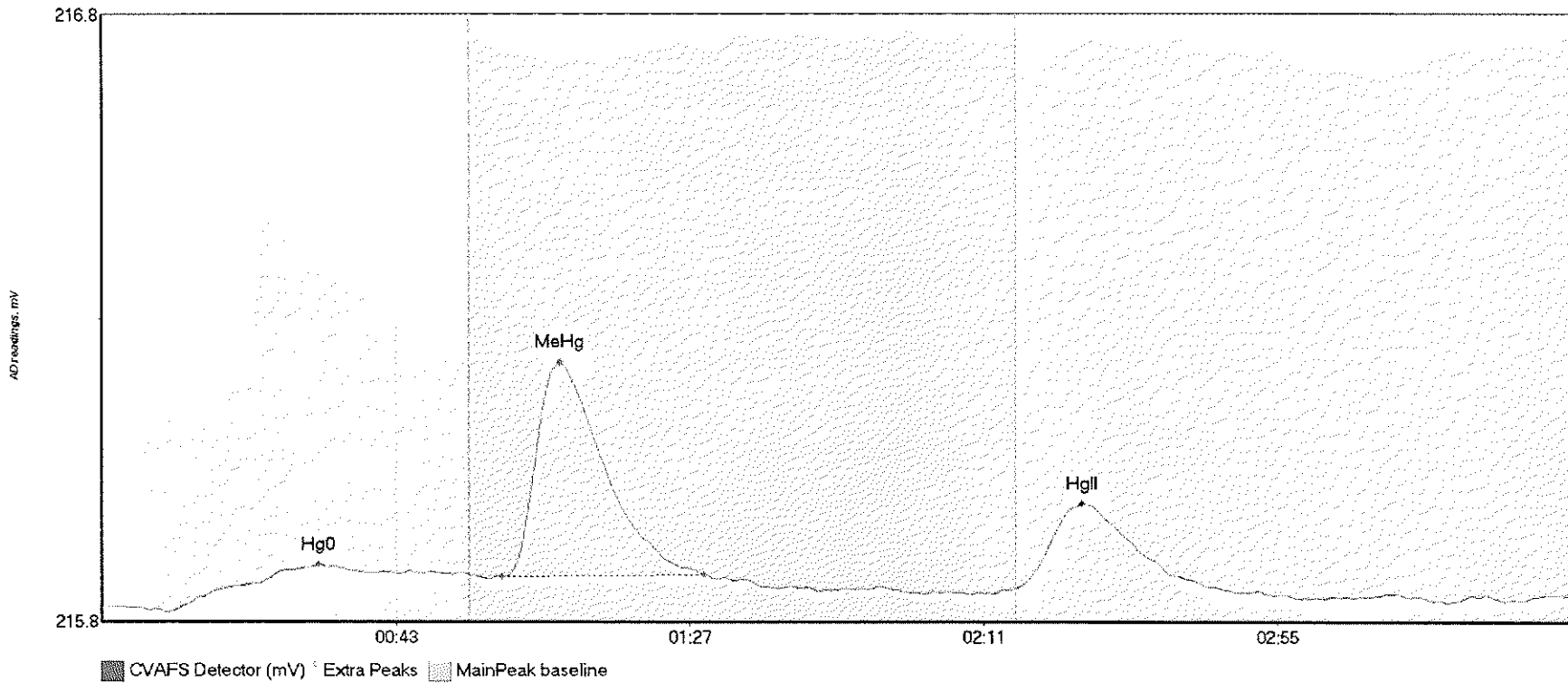
#23: 1706929-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-02 Hg0	12.371	10.8	54.4	215.85	215.90	33.7	0.075	OK	215.8487	0.00	0.03	
1706929-02 MeHg	491.731	58.3	124.1	215.90	215.90	67.8	3.808	OK	215.8487	0.00	0.03	
1706929-02 HgII	45.237	136.8	169.4	215.99	215.91	144.3	0.323	OK	215.8487	0.00	0.03	

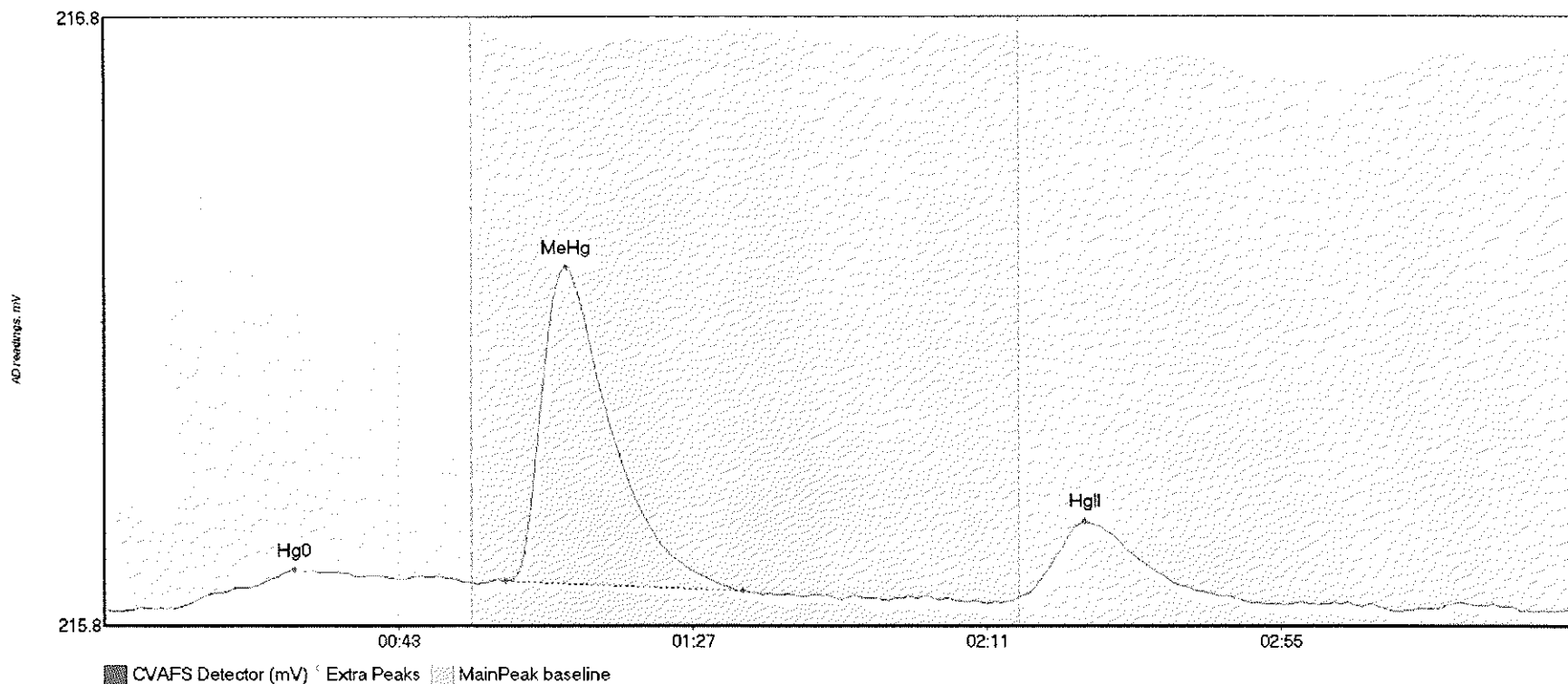


#24: 1706929-03



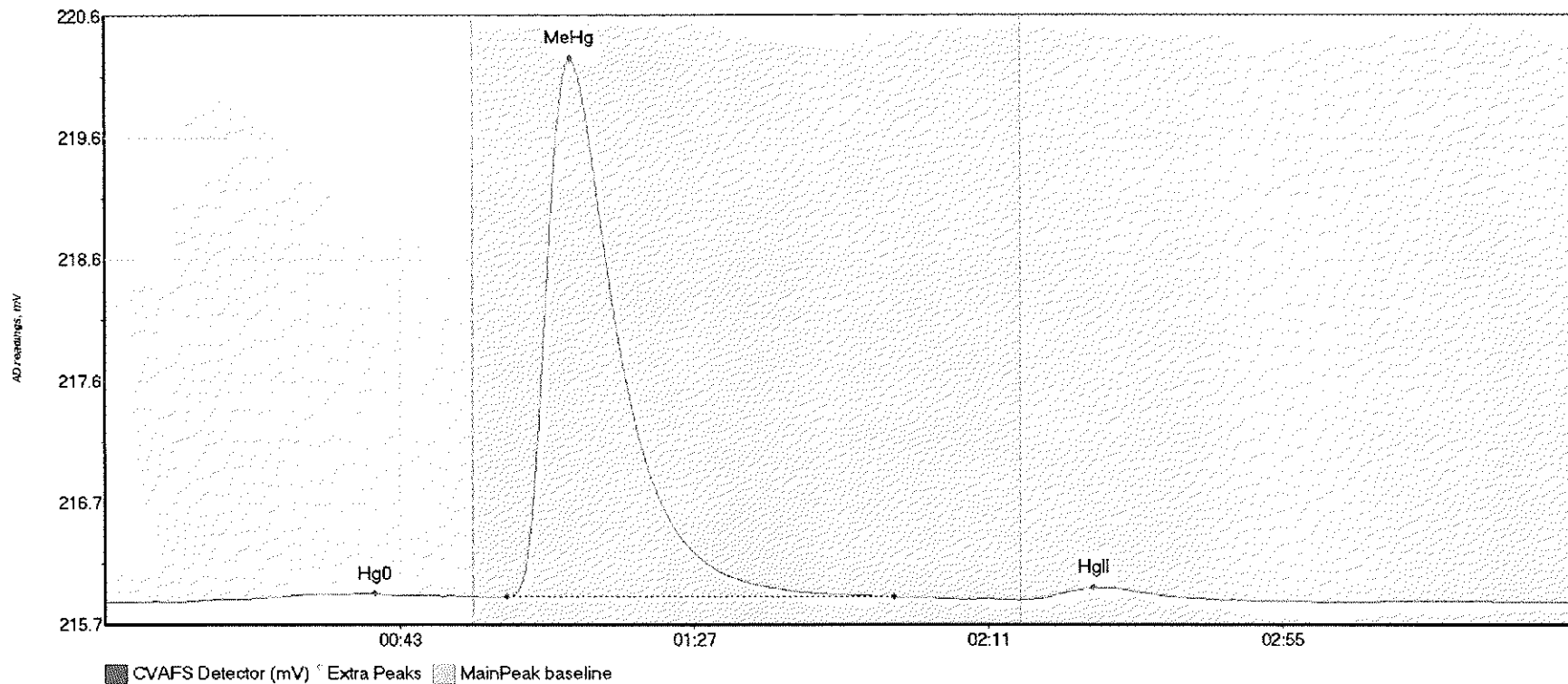
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-03 Hg0	11.051	10.0	55.0	215.86	215.92	32.4	0.078	CT	215.8634	0.00	0.02	
1706929-03 MeHg	41.197	59.9	90.2	215.91	215.92	68.6	0.352	OK	215.8634	0.00	0.02	
1706929-03 HgII	18.766	136.8	166.0	215.89	215.90	146.8	0.140	OK	215.8634	0.00	0.02	

#25: 1706929-04



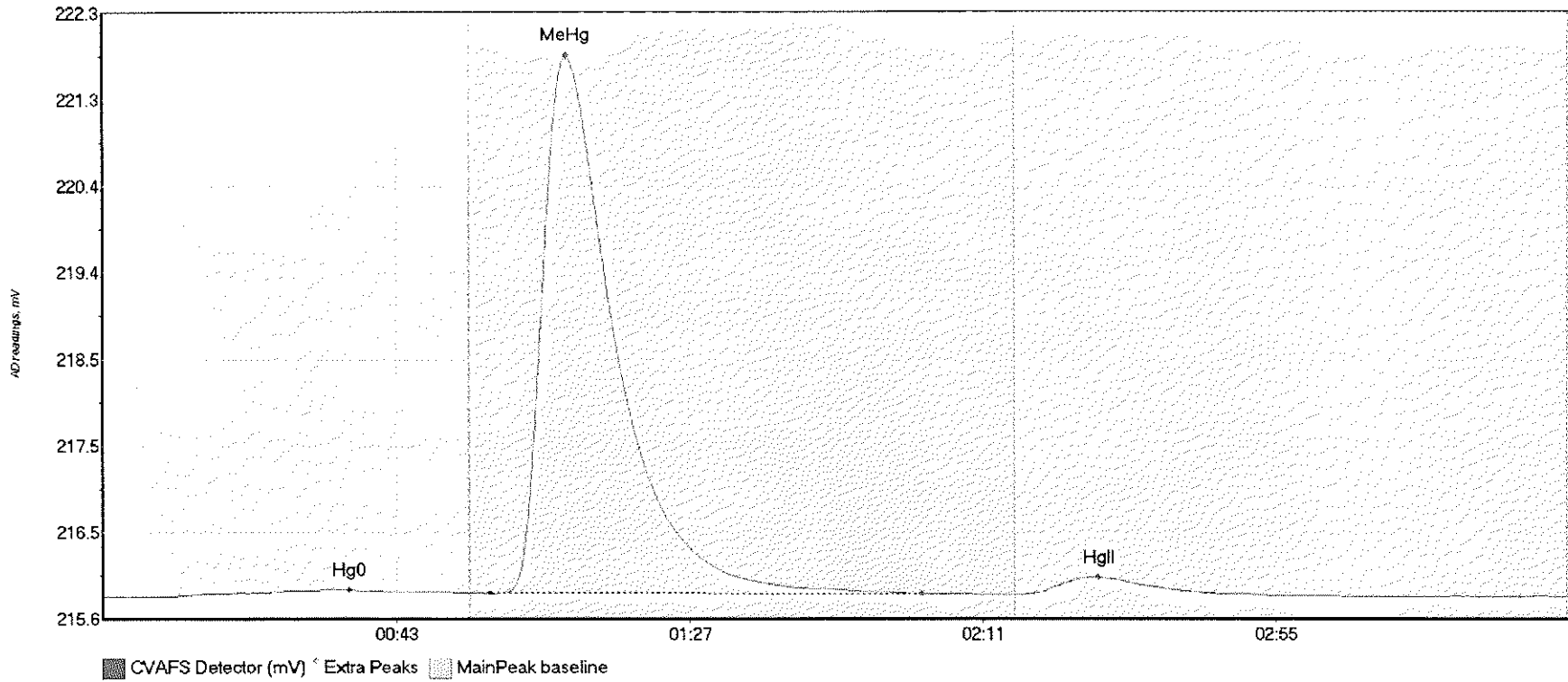
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-04 Hg0	10.325	10.5	55.0	215.87	215.91	28.4	0.063	CT	215.8693	0.00	0.00	
1706929-04 MeHg	63.096	60.0	95.5	215.92	215.90	69.1	0.517	OK	215.8693	0.00	0.00	
1706929-04 HgII	16.812	136.8	167.4	215.89	215.89	146.7	0.124	OK	215.8693	0.00	0.00	

#26: 1706929-05



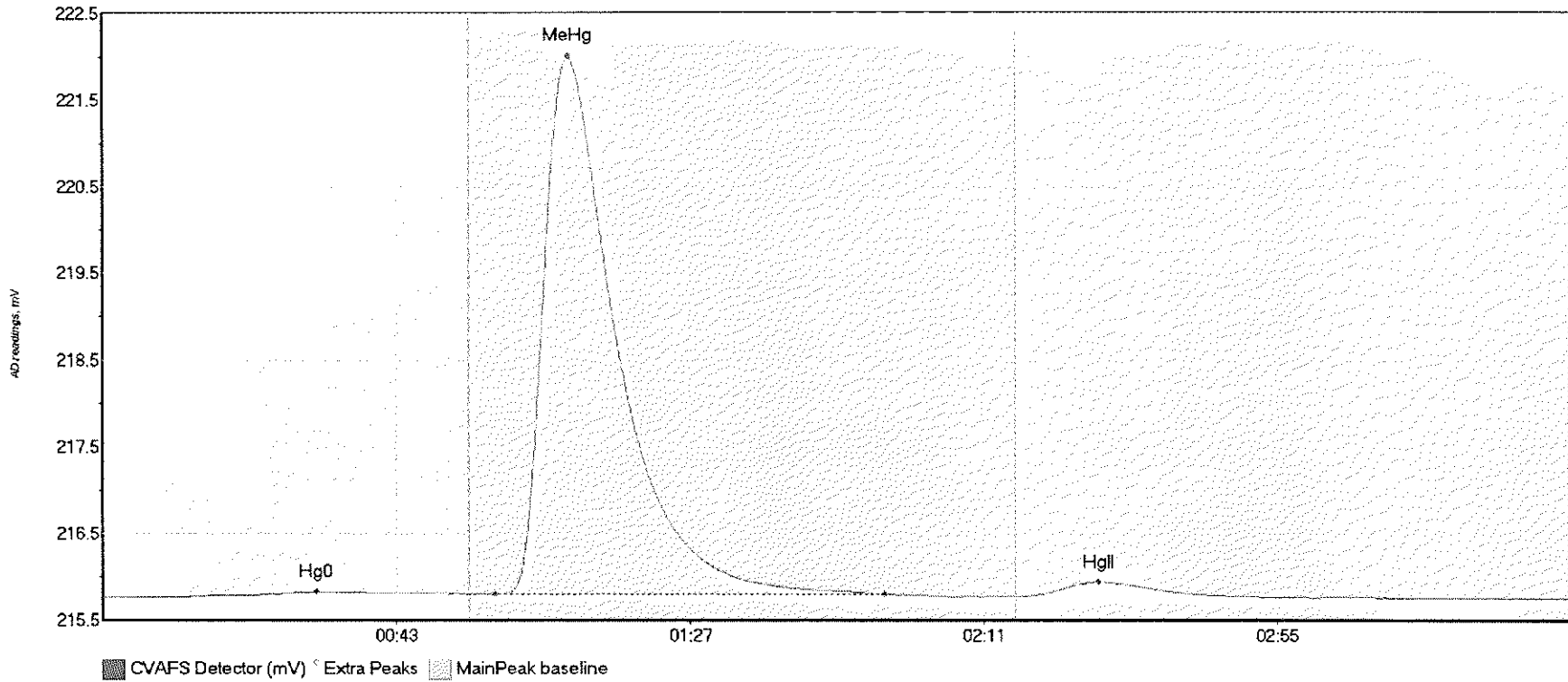
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-05 Hg0	10.178	10.8	55.0	215.85	215.90	40.3	0.070	CT	215.8545	0.00	0.00	
1706929-05 MeHg	549.105	60.0	117.9	215.89	215.89	69.6	4.343	OK	215.8545	0.00	0.00	
1706929-05 HgII	13.983	136.8	167.2	215.87	215.87	147.8	0.098	OK	215.8545	0.00	0.00	

#27: 1706929-06



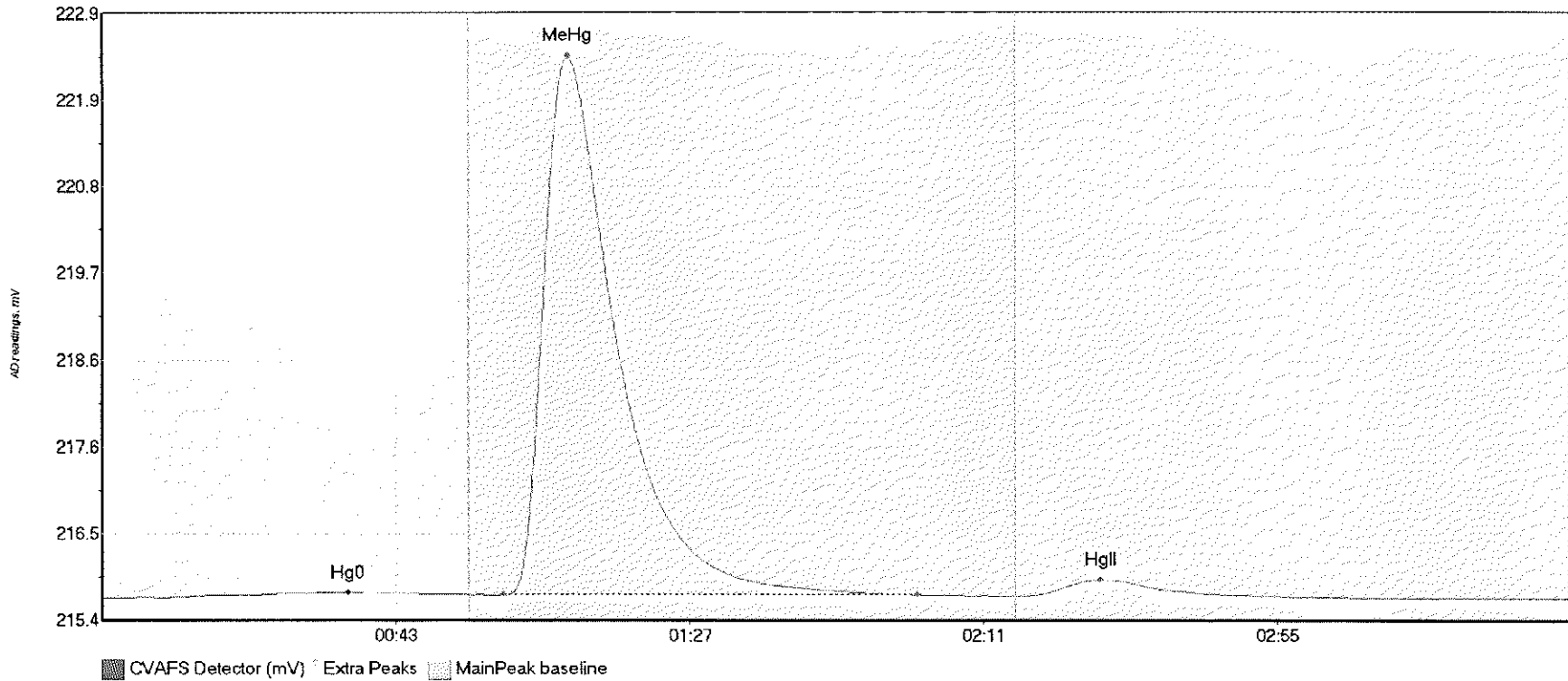
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-06 Hg0	12.657	10.1	55.0	215.81	215.85	37.0	0.073	CT	215.8141	0.00	0.00	
1706929-06 MeHg	760.907	58.0	122.9	215.84	215.84	69.6	5.977	OK	215.8141	0.00	0.00	
1706929-06 HgII	28.239	137.5	173.1	215.83	215.83	149.4	0.192	OK	215.8141	0.00	0.00	

#28: 1706929-08



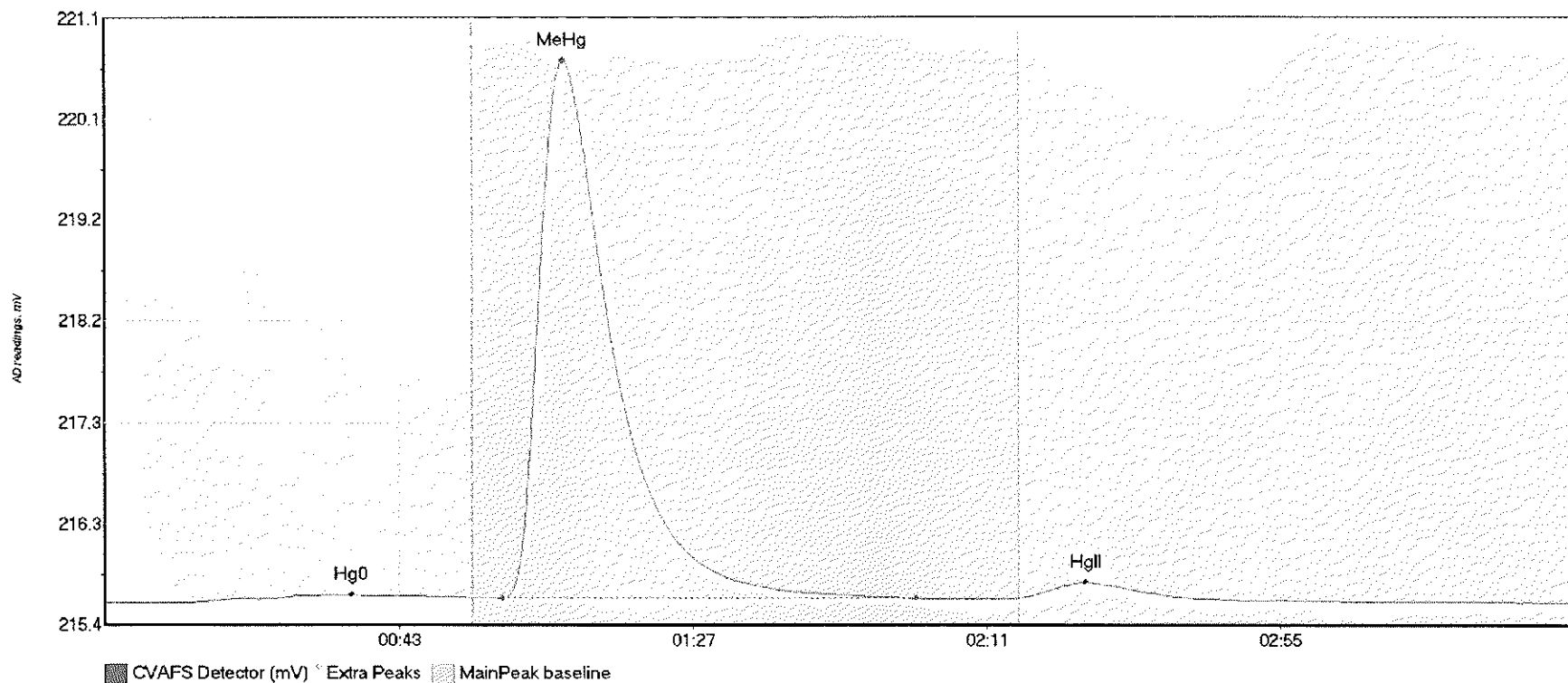
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1706929-08 Hg0	10.038	11.3	54.9	215.77	215.81	32.0	0.064	OK	215.7747	0.00	-0.01	
1706929-08 MeHg	788.893	58.9	117.1	215.80	215.81	69.8	6.238	OK	215.7747	0.00	-0.01	
1706929-08 HgII	23.577	137.8	170.5	215.79	215.79	149.3	0.165	OK	215.7747	0.00	-0.01	

#29: 1706929-09



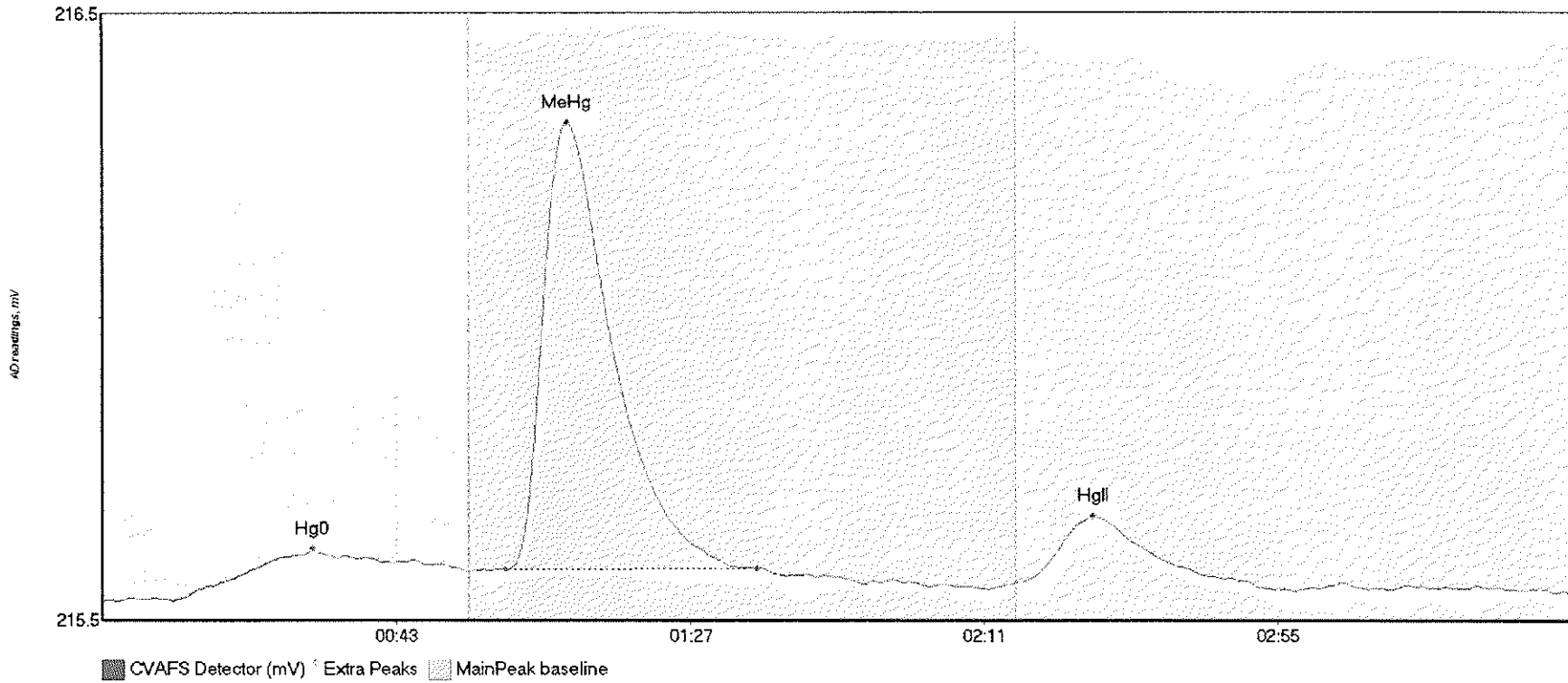
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-09 Hg0	11.648	8.8	55.0	215.71	215.75	36.9	0.064	CT	215.7154	0.00	-0.01	
1706929-09 MeHg	843.099	60.1	122.1	215.75	215.75	69.9	6.641	OK	215.7154	0.00	-0.01	
1706929-09 HgII	30.372	138.0	174.1	215.74	215.73	149.6	0.202	OK	215.7154	0.00	-0.01	

#30: 1706929-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-10 Hg0	11.807	12.2	55.0	215.57	215.61	36.8	0.076	CT	215.5671	0.00	0.00	
1706929-10 MeHg	646.451	59.4	121.4	215.61	215.60	68.6	5.041	OK	215.5671	0.00	0.00	
1706929-10 HgII	20.079	136.8	163.7	215.61	215.61	146.9	0.154	OK	215.5671	0.00	0.00	

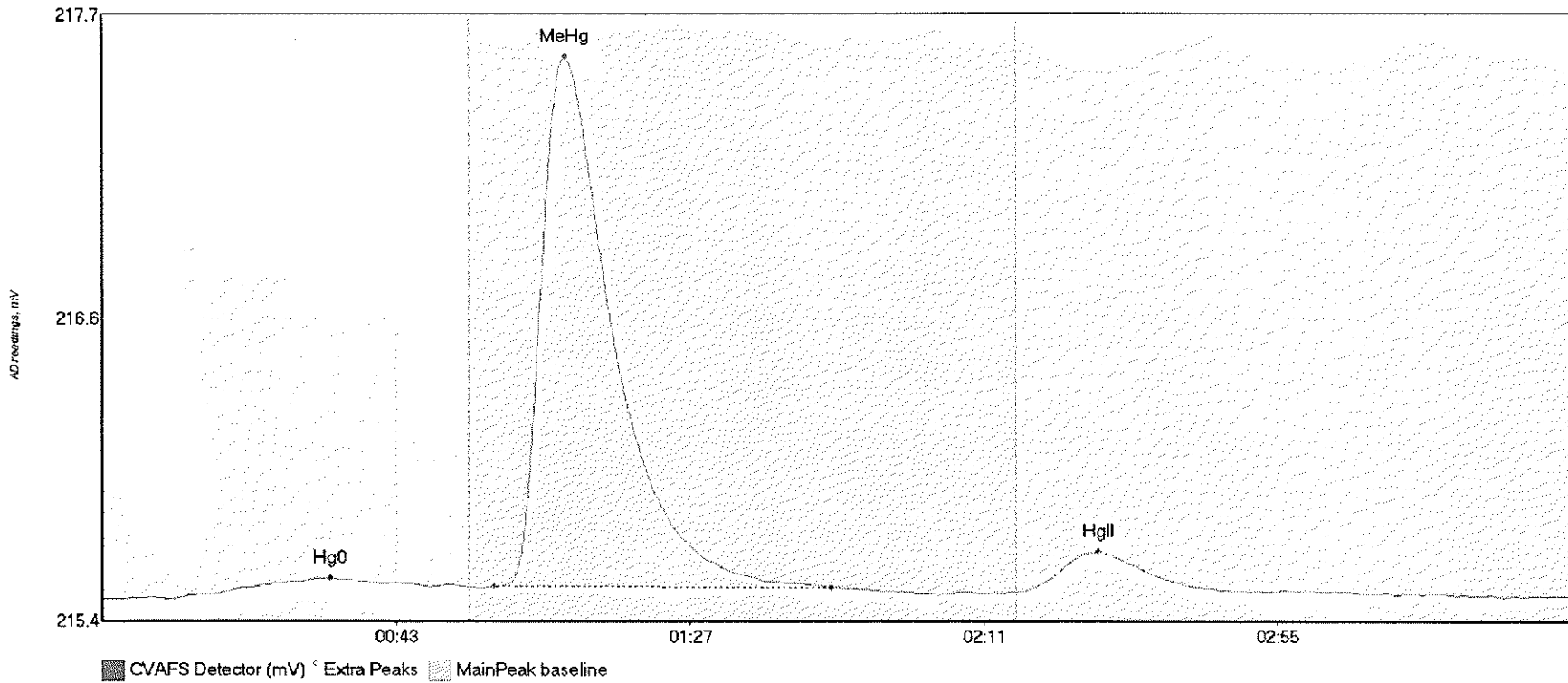
#31: 1706930-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-02 Hg0	13.347	12.1	54.9	215.53	215.58	31.4	0.079	OK	215.5291	0.00	0.01	
1706930-02 MeHg	88.156	60.5	98.0	215.58	215.58	69.7	0.736	OK	215.5291	0.00	0.01	
1706930-02 HgII	14.985	137.2	170.3	215.56	215.56	148.4	0.109	OK	215.5291	0.00	0.01	

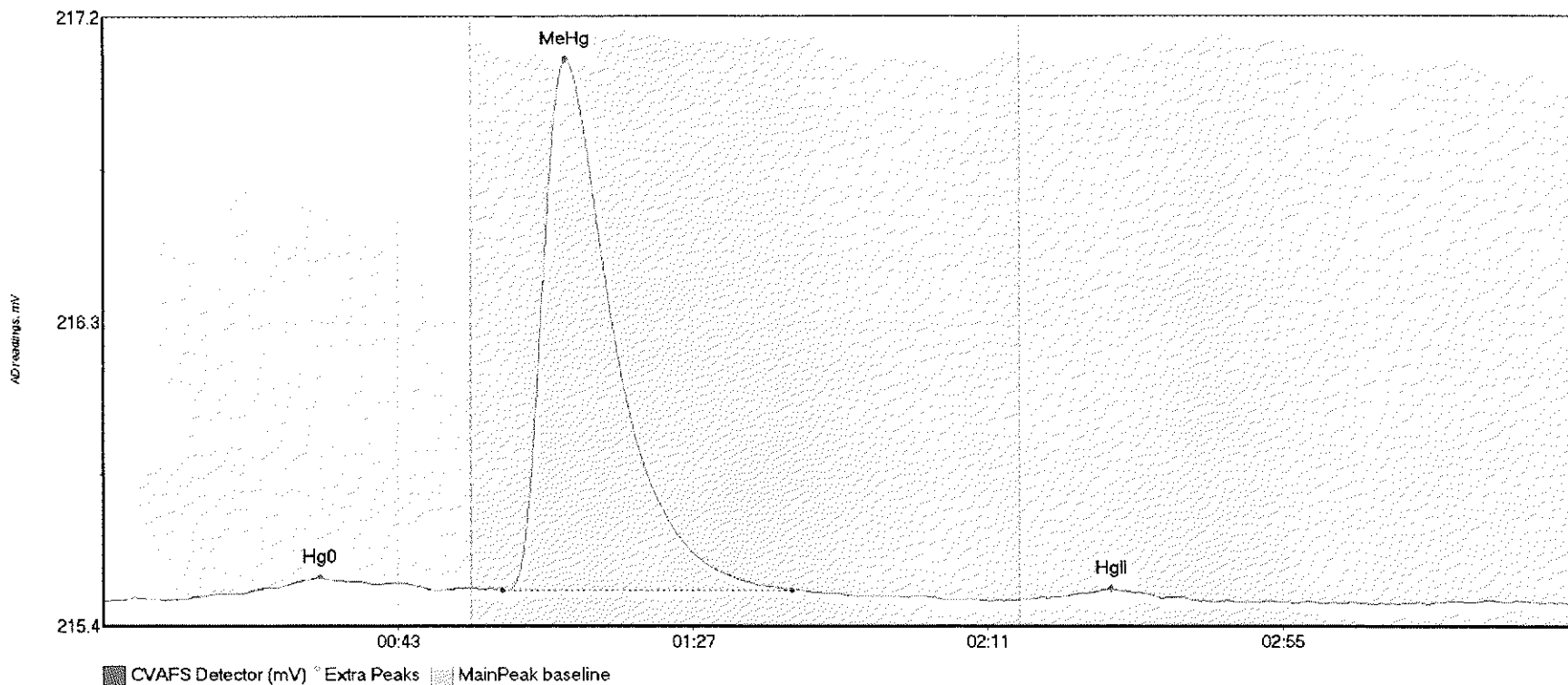


#32: 1706930-03



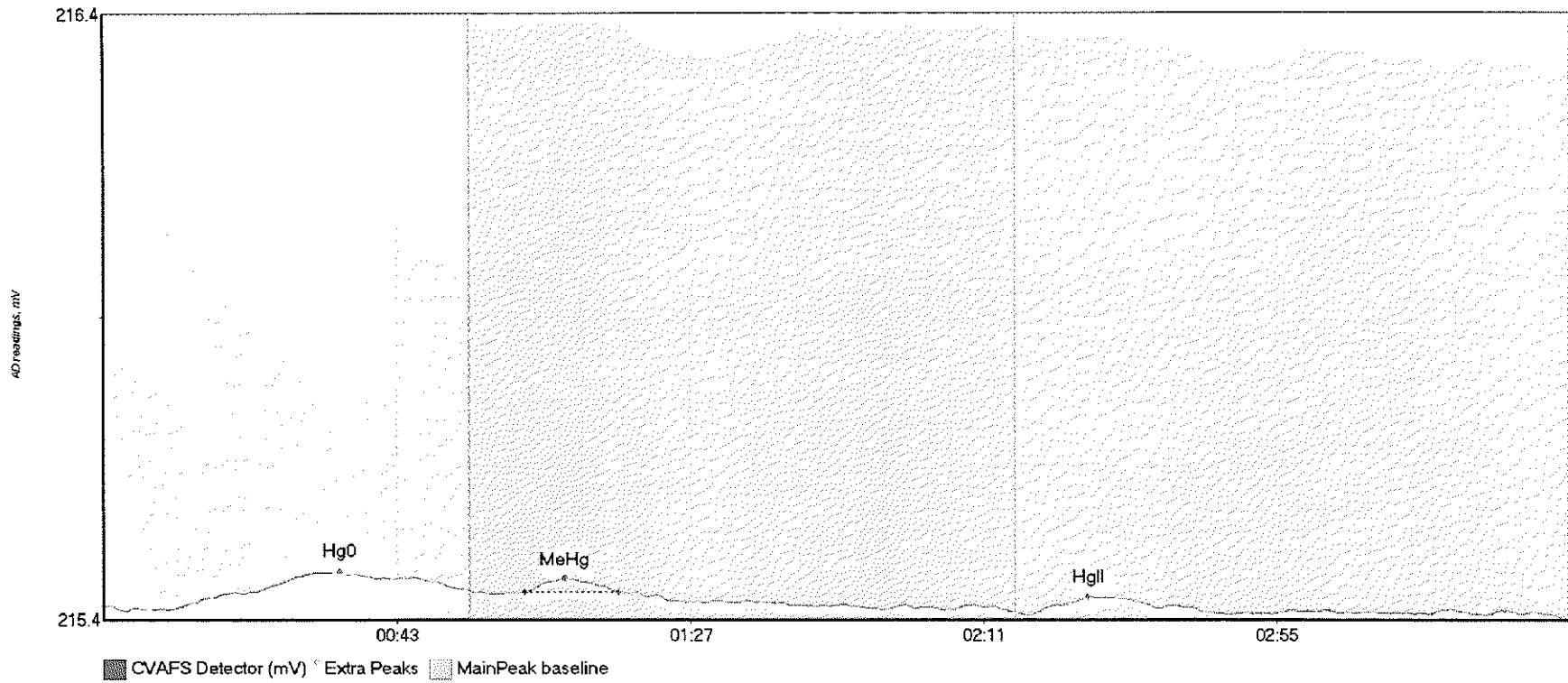
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-03 Hg0	12.785	10.5	55.0	215.50	215.55	34.2	0.079	CT	215.5002	0.00	0.01	
1706930-03 MeHg	254.823	58.7	109.1	215.55	215.54	69.4	2.031	OK	215.5002	0.00	0.01	
1706930-03 HgII	20.672	136.8	167.8	215.53	215.53	149.2	0.154	OK	215.5002	0.00	0.01	

#33: SEQ-CCV2



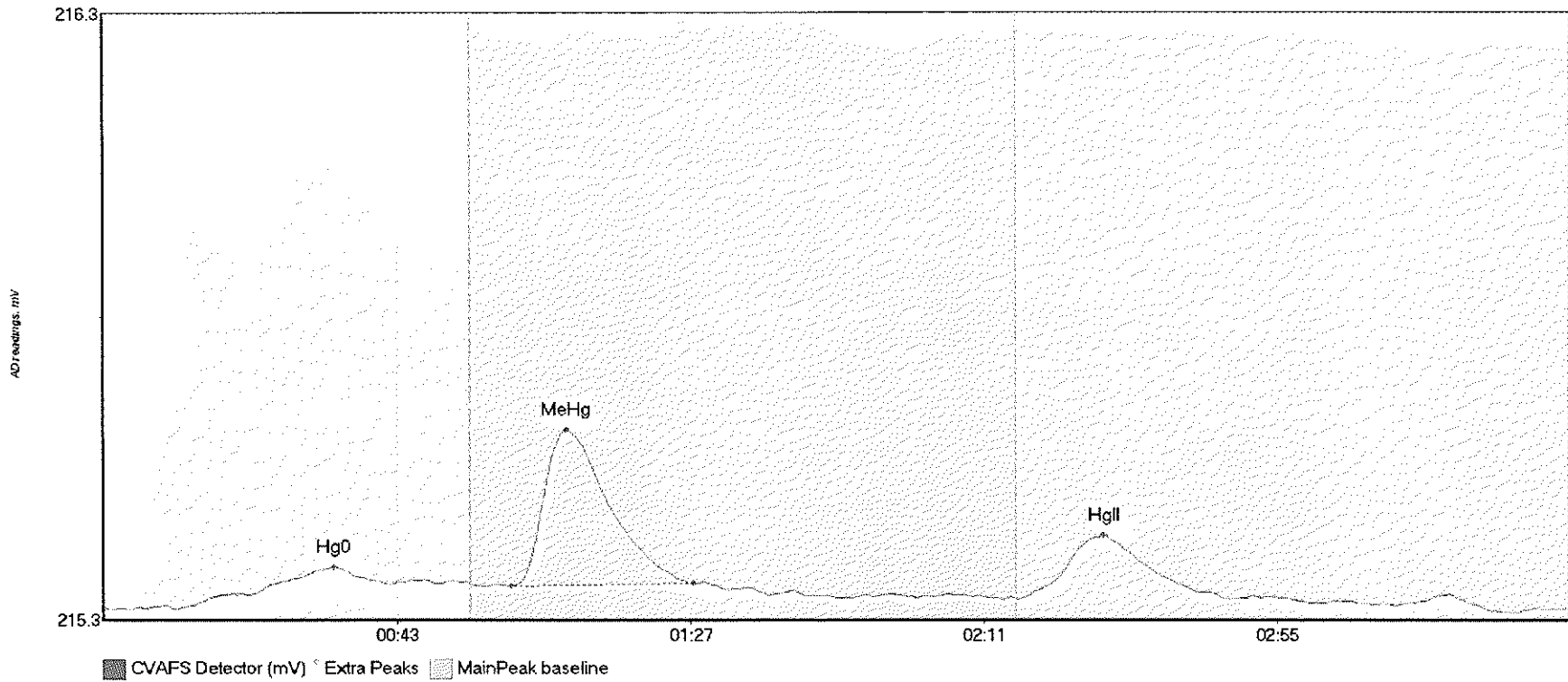
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	9.212	11.8	50.4	215.47	215.50	32.5	0.065	OK	215.4660	0.00	-0.01	
SEQ-CCV2 MeHg	196.349	59.6	102.7	215.50	215.50	69.2	1.591	OK	215.4660	0.00	-0.01	
SEQ-CCV2 HgII	2.330	141.0	158.2	215.48	215.48	150.4	0.026	OK	215.4660	0.00	-0.01	

#34: SEQ-CCB2



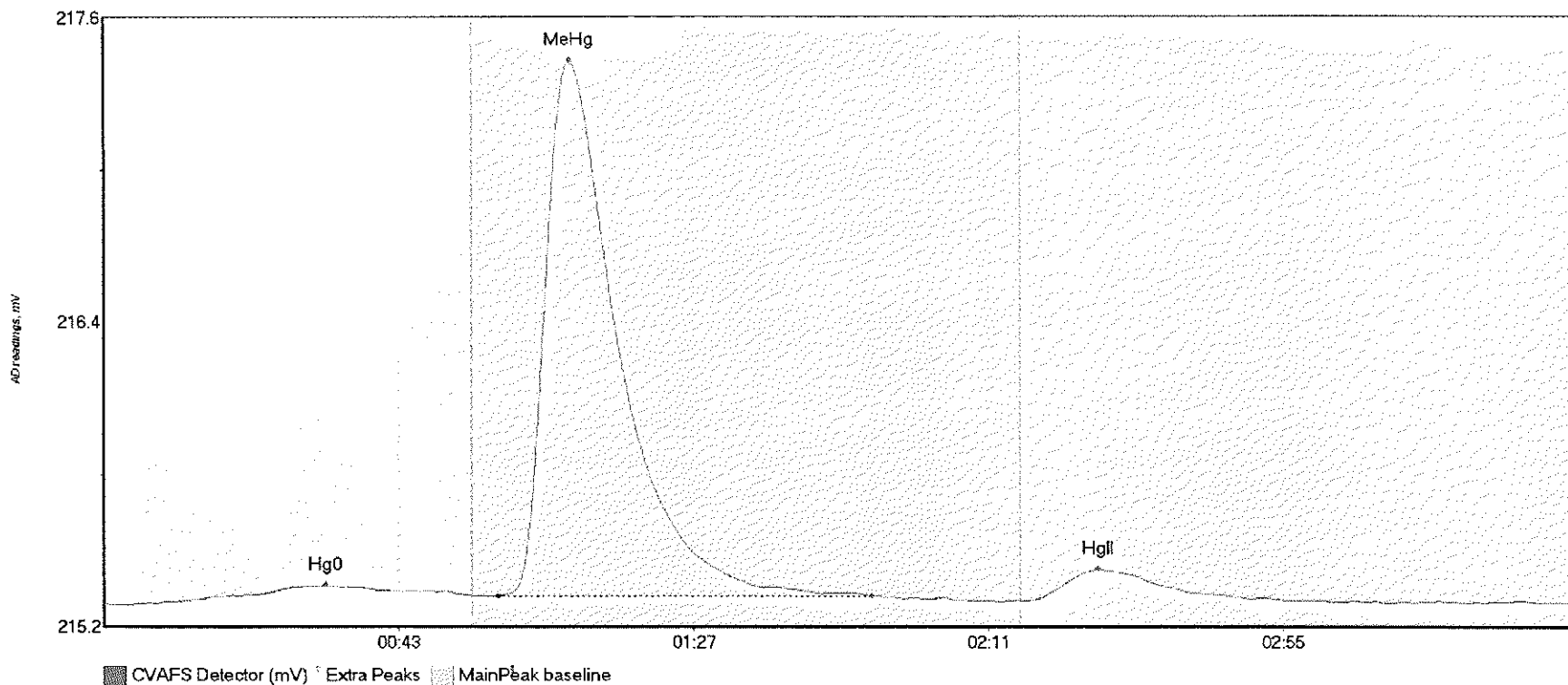
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	11.248	10.3	55.0	215.40	215.43	35.5	0.061	CT	215.4029	0.00	-0.02	
SEQ-CCB2 MeHg	1.864	63.1	77.1	215.43	215.43	69.1	0.024	OK	215.4029	0.00	-0.02	
SEQ-CCB2 HgII	4.247	139.0	165.4	215.39	215.39	147.8	0.030	OK	215.4029	0.00	-0.02	

#35: 1706930-04



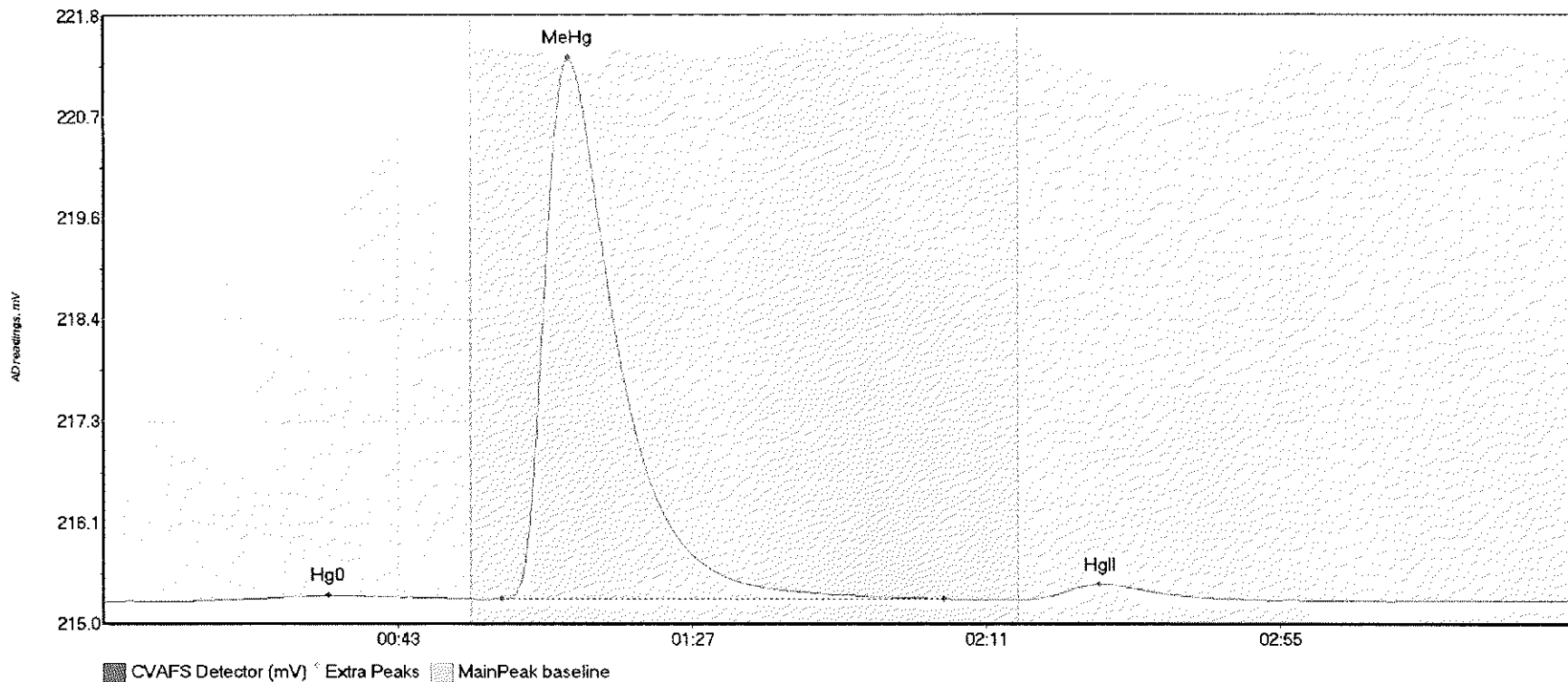
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-04 Hg0	5.314	12.8	42.8	215.35	215.39	34.6	0.064	OK	215.3478	0.00	0.00	
1706930-04 MeHg	28.903	61.1	88.5	215.38	215.39	69.5	0.258	OK	215.3478	0.00	0.00	
1706930-04 HgII	14.373	137.2	168.6	215.36	215.36	150.0	0.106	OK	215.3478	0.00	0.00	

#36: 1706930-05



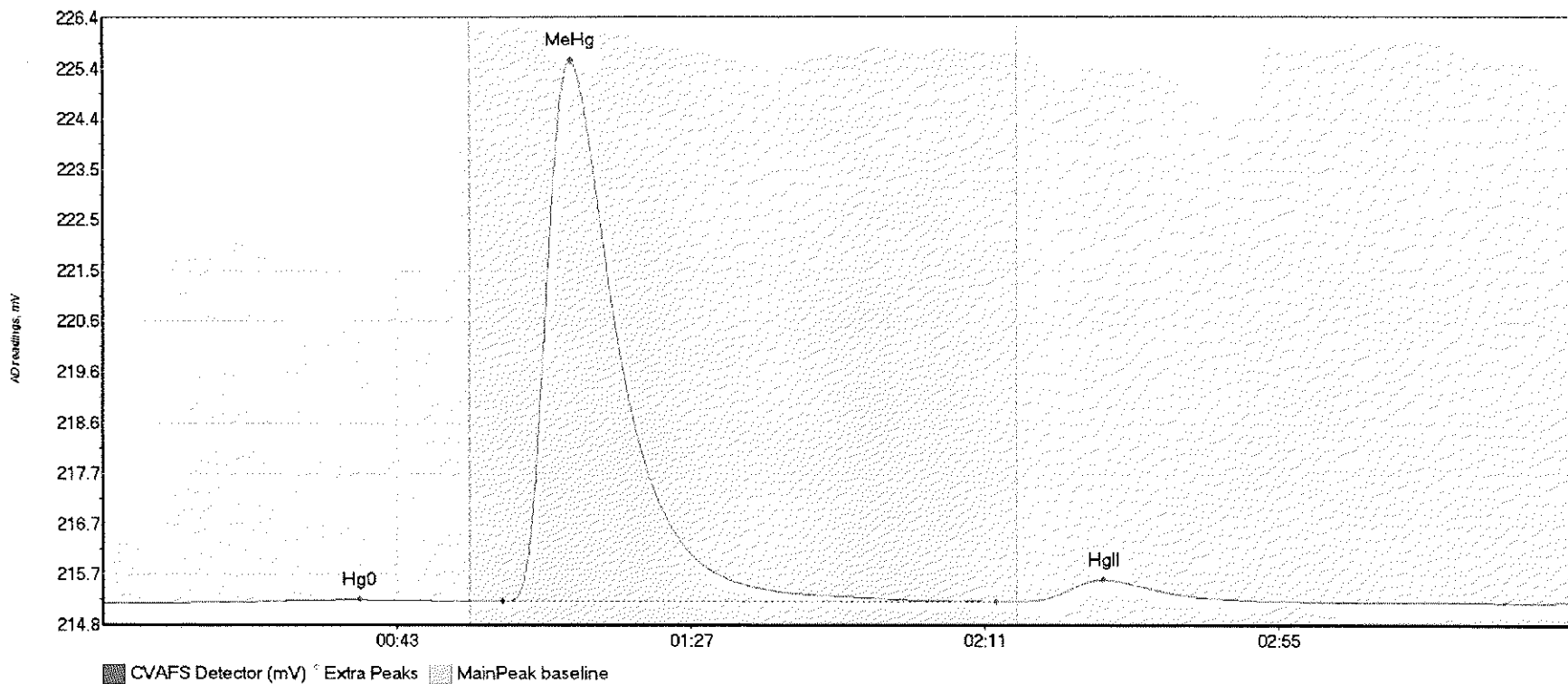
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-05 Hg0	12.373	7.9	55.0	215.30	215.33	33.1	0.067	CT	215.2963	0.00	0.00	
1706930-05 MeHg	260.210	58.9	114.6	215.33	215.33	69.6	2.057	OK	215.2963	0.00	0.00	
1706930-05 HgII	19.992	137.6	177.1	215.31	215.31	148.5	0.119	OK	215.2963	0.00	0.00	

#37: 1706930-06



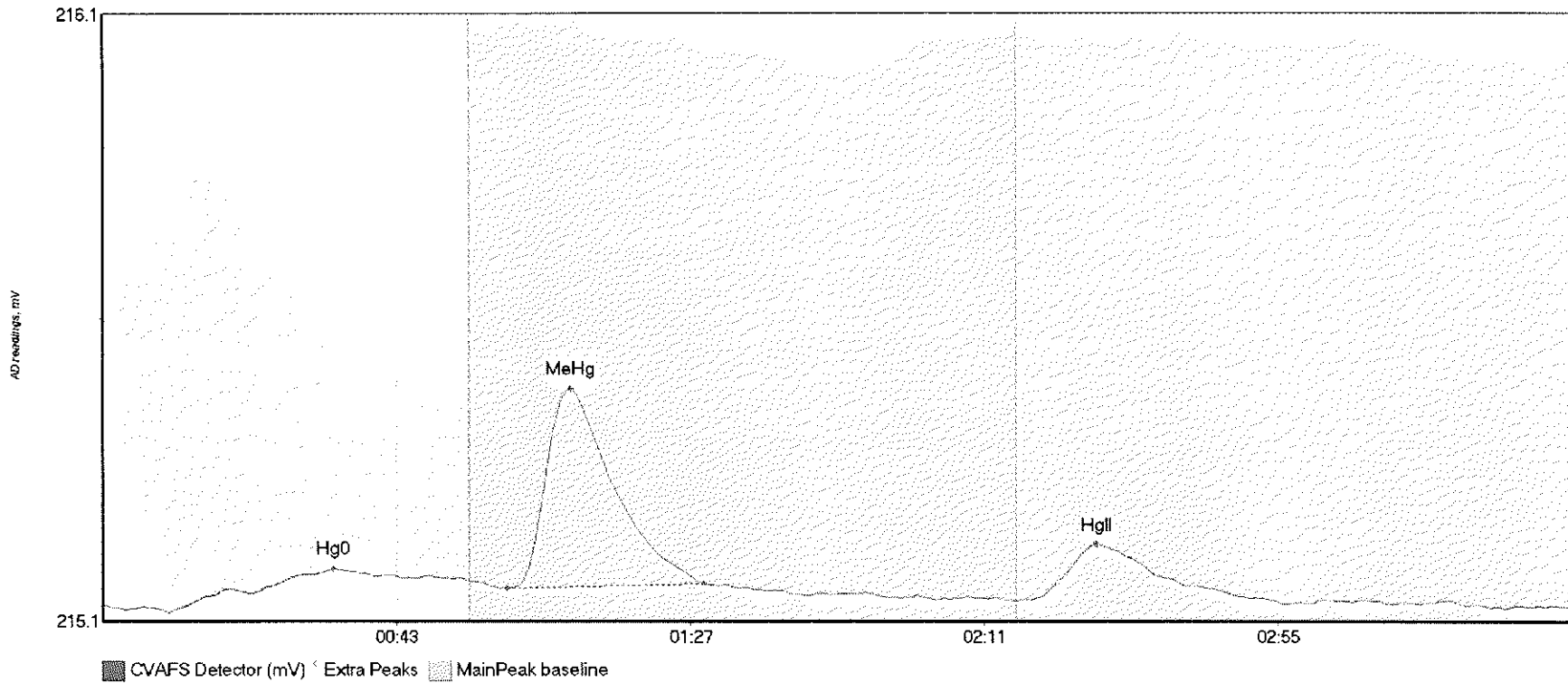
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-06 Hg0	11.540	13.0	55.0	215.26	215.28	33.6	0.064	CT	215.2522	0.00	0.01	
1706930-06 MeHg	769.200	59.6	125.8	215.28	215.28	69.6	6.058	OK	215.2522	0.00	0.01	
1706930-06 HgII	27.390	136.8	174.3	215.27	215.27	149.0	0.178	OK	215.2522	0.00	0.01	

#38: 1706930-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-07 Hg0	12.017	9.8	53.4	215.19	215.23	38.5	0.074	OK	215.1976	0.00	0.01	
1706930-07 MeHg	1313.772	59.9	133.7	215.23	215.24	70.1	10.321	OK	215.1976	0.00	0.01	
1706930-07 HgII	59.687	137.9	174.0	215.24	215.24	149.9	0.411	OK	215.1976	0.00	0.01	

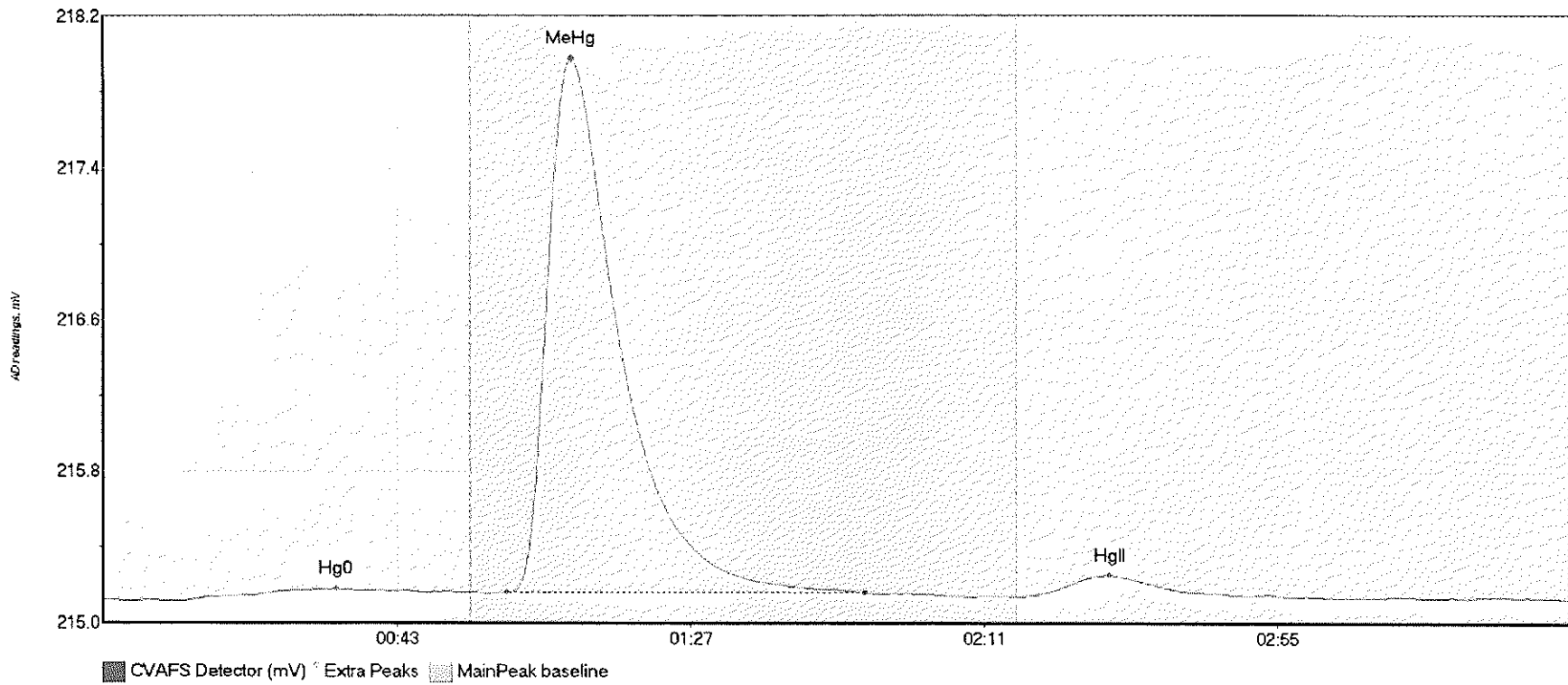
#39: 1706931-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-01 Hg0	10.430	10.0	55.0	215.15	215.20	34.6	0.071	CT	215.1565	0.00	0.00	
1706931-01 MeHg	38.153	60.6	90.0	215.19	215.19	70.1	0.330	OK	215.1565	0.00	0.00	
1706931-01 HgII	12.963	138.7	171.6	215.17	215.17	148.9	0.093	OK	215.1565	0.00	0.00	

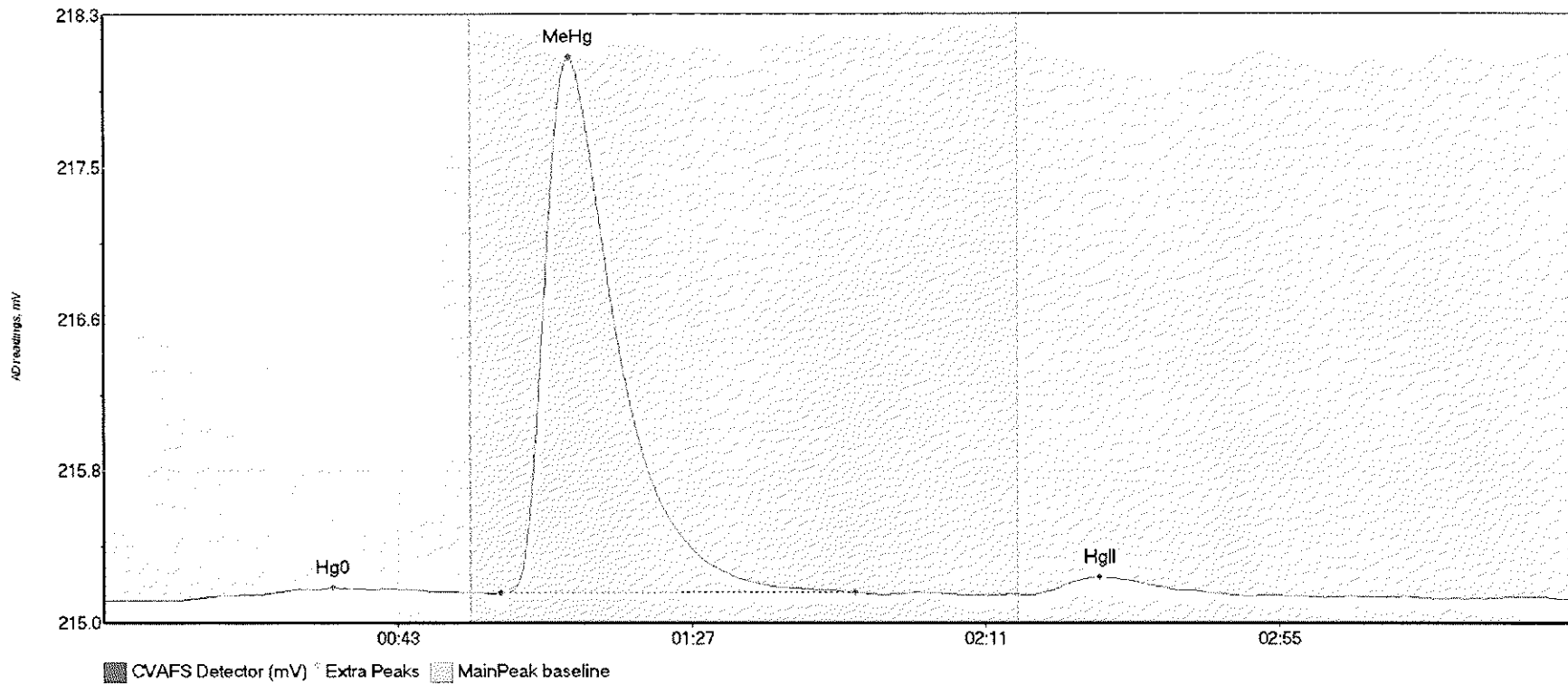


#40: 1706931-02



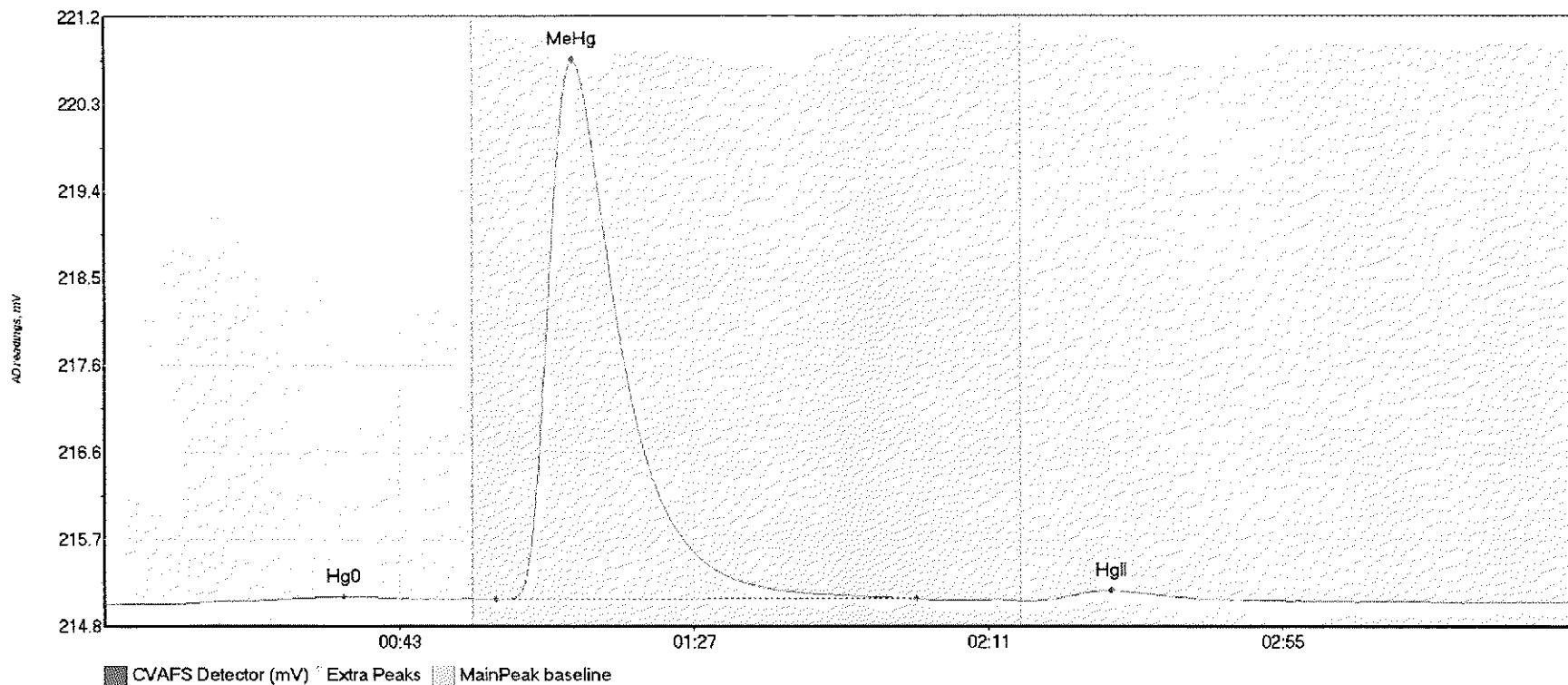
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-02 Hg0	8.834	11.3	52.7	215.11	215.16	34.8	0.065	OK	215.1146	0.00	0.00	
1706931-02 MeHg	358.585	60.5	114.1	215.15	215.15	70.2	2.848	OK	215.1146	0.00	0.00	
1706931-02 HgII	18.320	137.1	177.5	215.13	215.13	150.9	0.119	OK	215.1146	0.00	0.00	

#41: 1706931-03



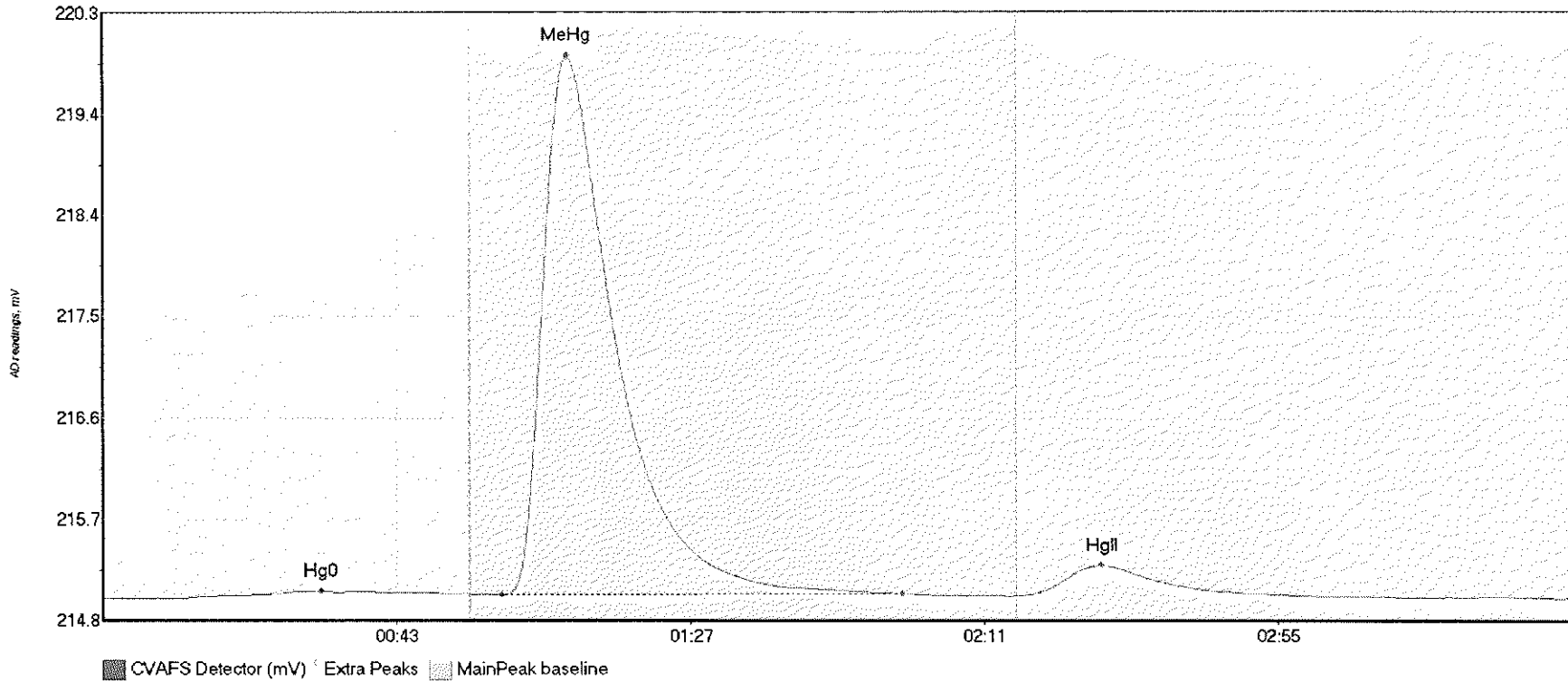
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-03 Hg0	11.171	11.3	55.0	215.08	215.12	34.3	0.068	CT	215.0802	0.00	0.01	
1706931-03 MeHg	368.924	59.4	112.5	215.12	215.12	69.7	2.937	OK	215.0802	0.00	0.01	
1706931-03 HgII	15.201	139.2	170.5	215.11	215.11	149.2	0.099	OK	215.0802	0.00	0.01	

#42: F707393-DUP1



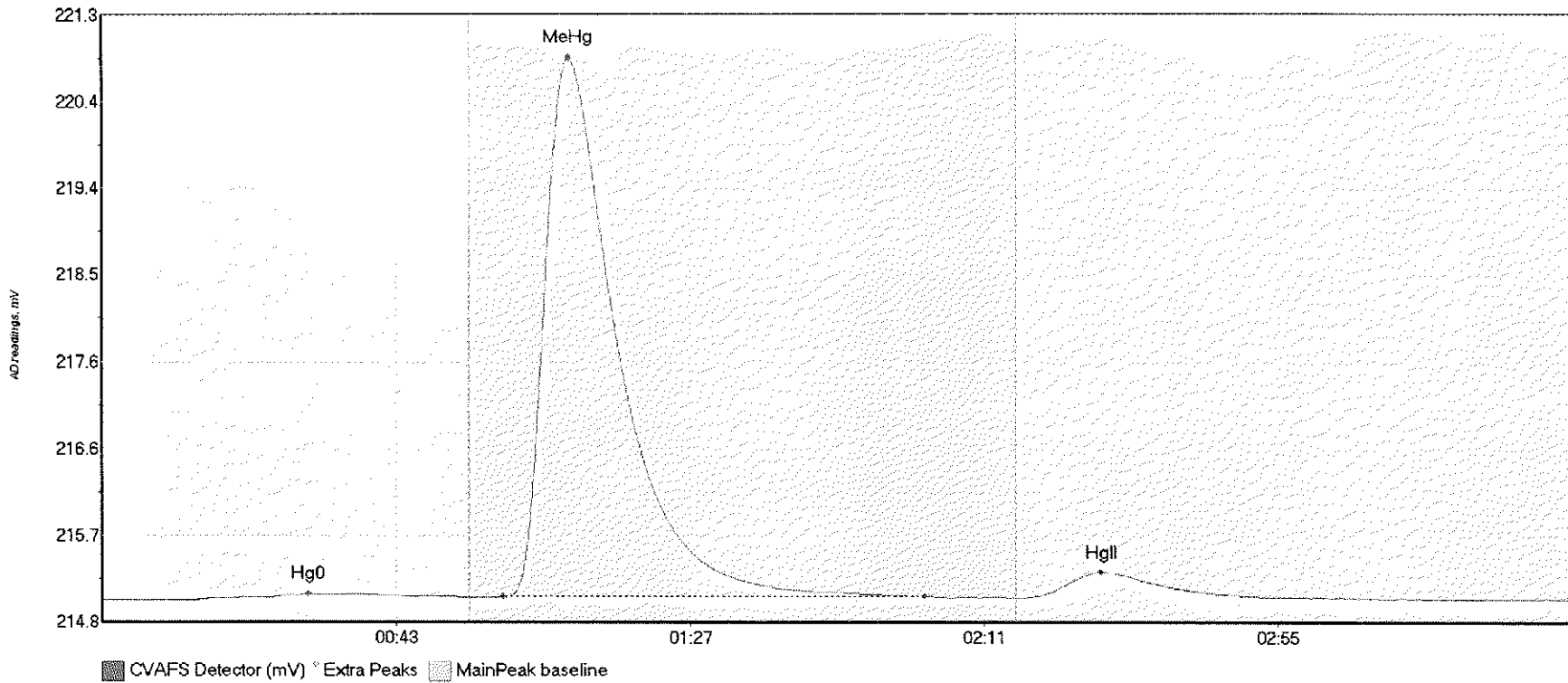
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-DUP1 Hg	9.838	10.3	51.3	215.04	215.10	35.7	0.078	OK	215.0453	0.00	0.02	
F707393-DUP1 Me	720.339	58.5	121.3	215.09	215.10	70.0	5.689	OK	215.0453	0.00	0.02	
F707393-DUP1 Hg	16.375	138.3	175.4	215.08	215.08	150.5	0.112	OK	215.0453	0.00	0.02	

#43: F707393-MS1



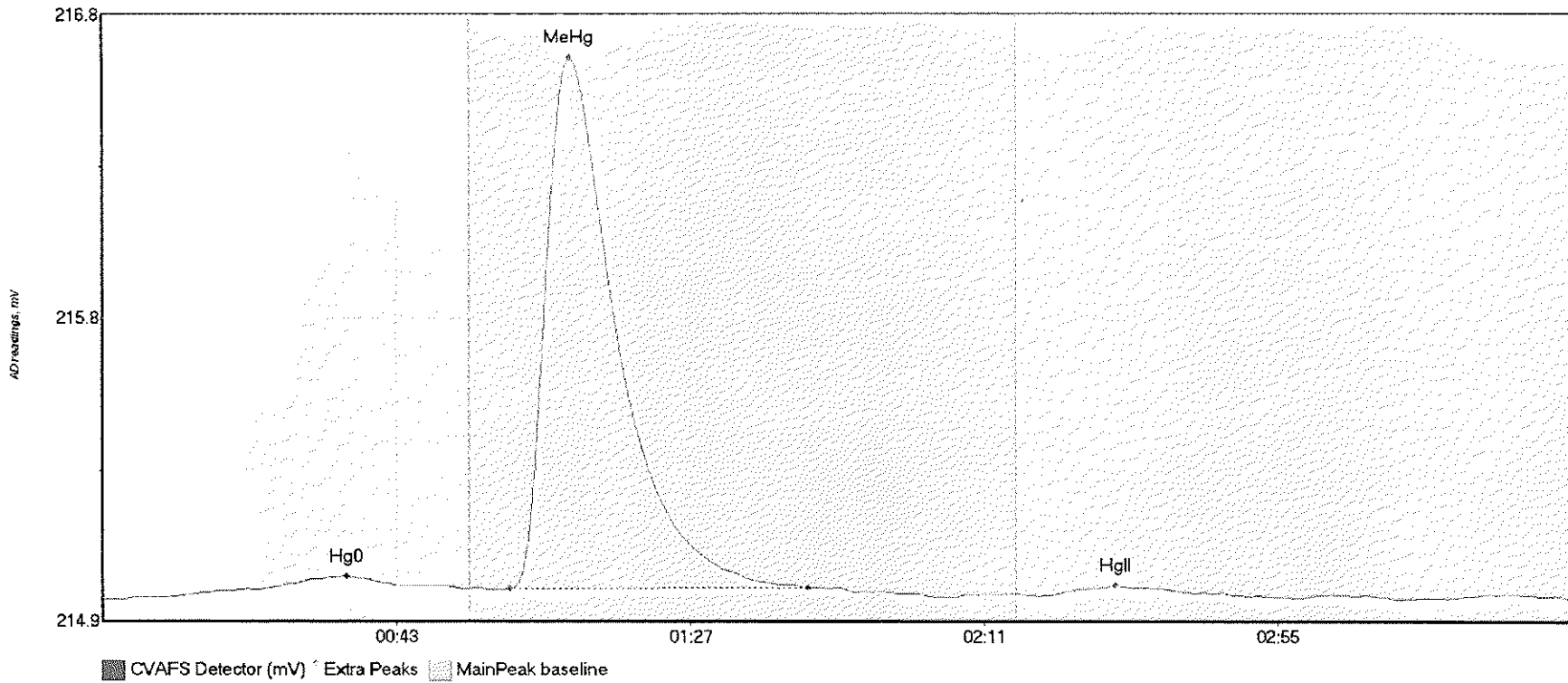
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS1 Hg0	9.767	12.3	55.0	215.02	215.06	32.7	0.060	CT	215.0202	0.00	0.01	
F707393-MS1 MeH	608.503	59.7	119.8	215.05	215.06	69.6	4.818	OK	215.0202	0.00	0.01	
F707393-MS1 HgI	42.276	136.8	178.4	215.04	215.05	149.6	0.276	OK	215.0202	0.00	0.01	

#44: F707393-MSD1



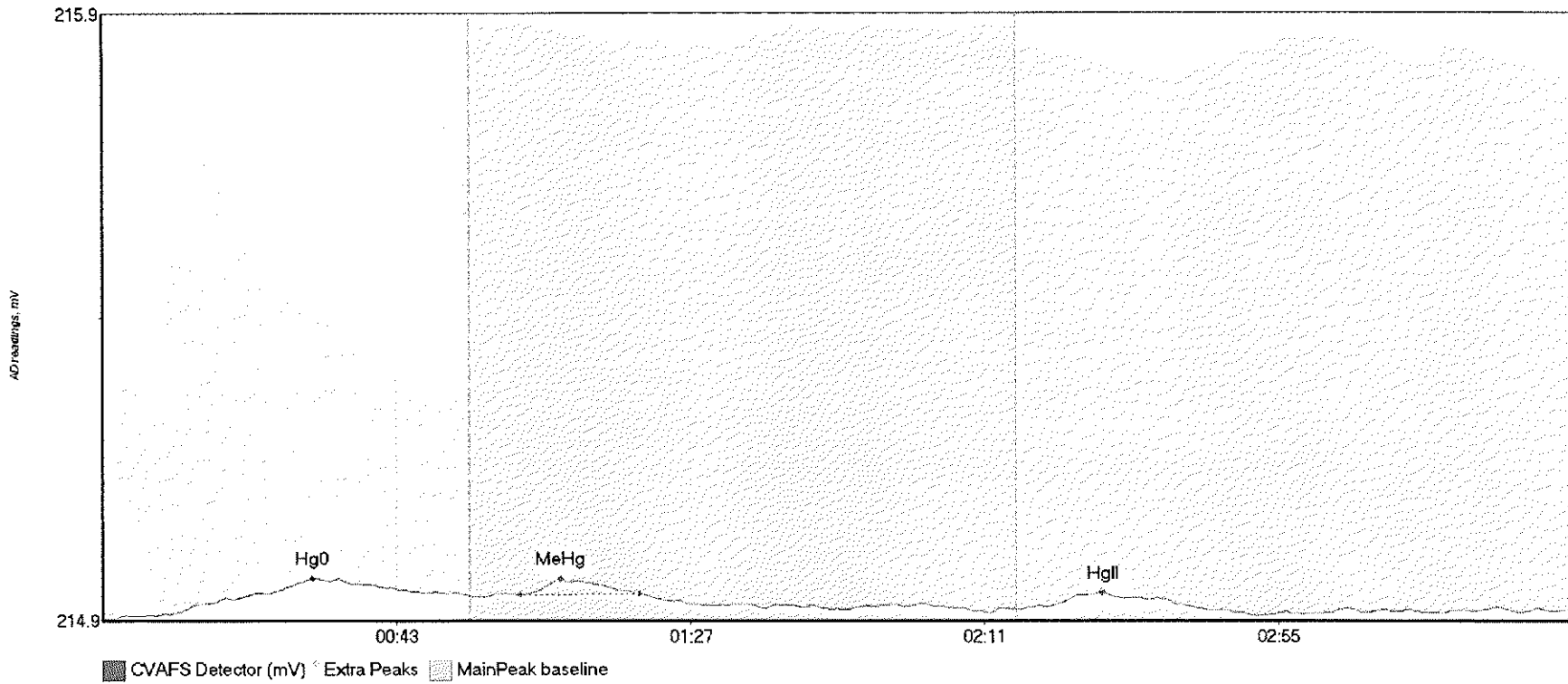
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD1 Hg	10.461	12.5	54.9	215.00	215.03	30.9	0.065	OK	214.9984	0.00	0.01	
F707393-MSD1 Me	735.949	60.0	123.2	215.03	215.03	69.9	5.821	OK	214.9984	0.00	0.01	
F707393-MSD1 Hg	42.093	137.8	176.9	215.02	215.02	149.6	0.276	OK	214.9984	0.00	0.01	

#45: SEQ-CCV3



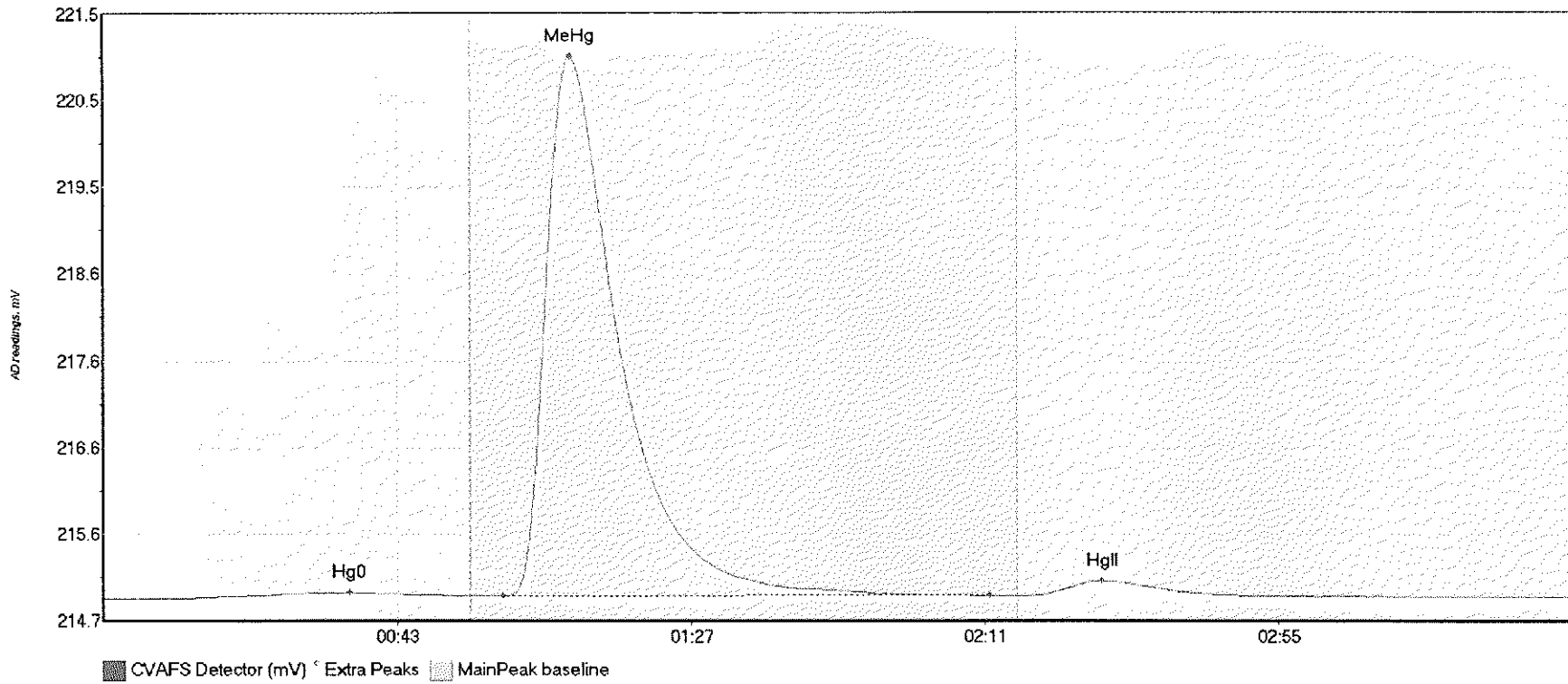
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	10.019	9.6	54.3	214.97	215.00	36.6	0.066	OK	214.9682	0.00	0.00	
SEQ-CCV3 MeHg	202.571	61.0	105.6	215.00	215.00	70.0	1.641	OK	214.9682	0.00	0.00	
SEQ-CCV3 HgII	3.473	141.6	163.7	214.98	214.98	151.7	0.031	OK	214.9682	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	9.617	5.8	55.0	214.94	214.97	31.4	0.062	CT	214.9335	0.00	0.02	
SEQ-CCB3 MeHg	2.269	62.6	80.5	214.97	214.97	68.6	0.026	OK	214.9335	0.00	0.02	
SEQ-CCB3 HgII	3.003	141.9	164.0	214.95	214.95	149.7	0.024	OK	214.9335	0.00	0.02	

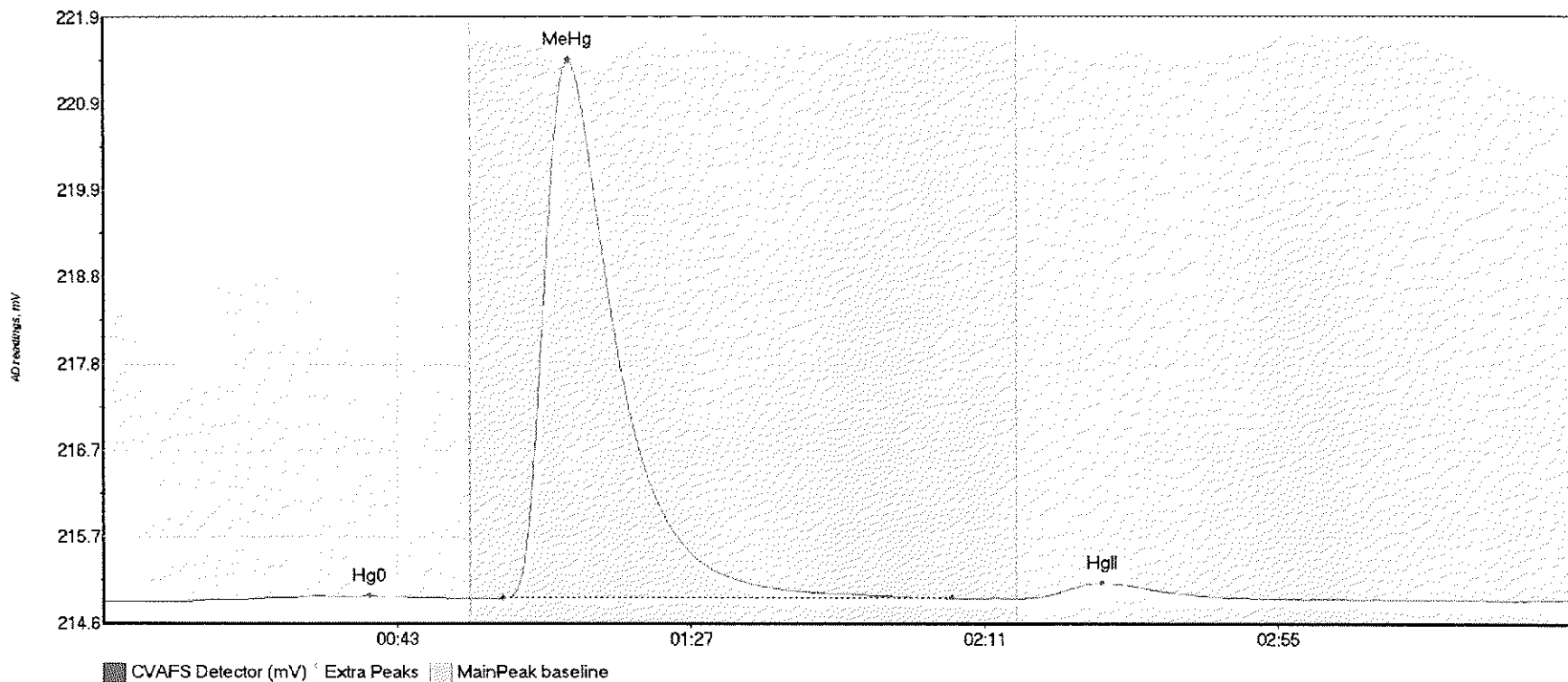
#47: F707393-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS2 Hg0	12.091	11.0	55.0	214.92	214.95	36.9	0.070	CT	214.9230	0.00	0.02	
F707393-MS2 MeH	767.828	59.9	132.8	214.95	214.96	70.0	6.024	OK	214.9230	0.00	0.02	
F707393-MS2 HgI	23.309	139.1	171.3	214.96	214.95	149.6	0.161	OK	214.9230	0.00	0.02	



#48: F707393-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD2 Hg	11.245	11.6	52.8	214.90	214.94	39.8	0.067	OK	214.9048	0.00	0.02	
F707393-MSD2 Me	823.300	59.8	127.2	214.94	214.94	69.7	6.474	OK	214.9048	0.00	0.02	
F707393-MSD2 Hg	26.837	137.4	171.2	214.94	214.94	149.8	0.185	OK	214.9048	0.00	0.02	



Frontier Global Sciences

# MHg27001-170726-2

## Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: July 26, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G27015, 7G27016, 7G27013, 7G27014

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	21.09 units	421.75	21.09 units	421.75	97.6 %Rec
SEQ-CAL2	1	0.20 ng/L	76.14 units	380.72	76.14 units	380.72	88.1 %Rec
SEQ-CAL3	1	1.00 ng/L	429.02 units	429.02	429.02 units	429.02	99.3 %Rec
SEQ-CAL4	1	2.00 ng/L	901.94 units	450.97	901.94 units	450.97	104.3 %Rec
SEQ-CAL5	1	4.00 ng/L	1914.24 units	478.56	1914.24 units	478.56	110.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>
432.20	+/- 36.30	8.4% RSD	432.20

### 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	0.102 ng/L	±0.010
BLK	2	3	0.178 ng/L	±0.029
BLK	3	3	0.000 ng/L	±0.000
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS:    A   7/30/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	CAL	SEQ-IBL1	1	7/26/17 9:02	24233-1.RAW	9:02:24	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	7/26/17 9:12	24234-1.RAW	9:12:55	21.09				21.1	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	7/26/17 9:23	24235-1.RAW	9:23:25	76.14				76.1	0.176	0.176	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	7/26/17 9:33	24236-1.RAW	9:33:56	429.02				429.0	0.993	0.993	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	7/26/17 9:44	24237-1.RAW	9:44:27	901.94				901.9	2.087	2.087	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	7/26/17 9:54	24238-1.RAW	9:54:58	1914.24				1914.2	4.429	4.429	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	7/26/17 10:05	24239-1.RAW	10:05:28	210.94				210.9	0.488	0.488	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	7/26/17 10:15	24240-1.RAW	10:15:59	2.32				2.3	0.005	0.005	ng/L	
Hg2700-1	DM2	BLK	F707400-BLK1	1.25	7/26/17 10:42	24241-1.RAW	10:42:30	0.37		X		0.4	0.001	0.001	ng/L	
Hg2700-1	DM2	BLK	F707400-BLK2	1.25	7/26/17 10:53	24242-1.RAW	10:53:01	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707400-BLK3	1.25	7/26/17 11:03	24243-1.RAW	11:03:32	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707400-BS1	1.25	7/26/17 11:14	24244-1.RAW	11:14:02	297.67		X		297.7	0.689	0.681	ng/L	
Hg2700-1	DM2	SAM	F707400-BSD1	1.25	7/26/17 11:24	24245-1.RAW	11:24:33	314.39		X		314.4	0.727	0.909	ng/L	
Hg2700-1	DM2	SAM	F707400-DUP1	1.25	7/26/17 11:35	24246-1.RAW	11:35:03	20.84		X		20.8	0.048	0.060	ng/L	
Hg2700-1	DM2	SAM	F707400-MS1	1.25	7/26/17 11:45	24247-1.RAW	11:45:34	437.02		X		437.0	1.011	1.264	ng/L	
Hg2700-1	DM2	SAM	F707400-MSD1	1.25	7/26/17 11:56	24248-1.RAW	11:56:05	416.22		X		416.2	0.963	1.204	ng/L	
Hg2700-1	DM2	SAM	F707400-MS2	1.25	7/26/17 12:06	24249-1.RAW	12:06:35	200.34		X		200.3	0.464	0.579	ng/L	
Hg2700-1	DM2	SAM	F707400-MSD2	1.25	7/26/17 12:17	24250-1.RAW	12:17:06	234.16		X		234.2	0.542	0.677	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	7/26/17 12:27	24251-1.RAW	12:27:37	193.40				193.4	0.447	0.447	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	7/26/17 12:38	24252-1.RAW	12:38:07	0.72				0.7	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1706635-01RE1	1.25	7/26/17 12:48	24253-1.RAW	12:48:38	1.48		X		1.5	0.003	0.004	ng/L	
Hg2700-1	DM2	SAM	1706635-02RE1	1.25	7/26/17 12:59	24254-1.RAW	12:59:09	6.11		X		6.1	0.014	0.018	ng/L	
Hg2700-1	DM2	SAM	1706635-05RE1	1.25	7/26/17 13:09	24255-1.RAW	13:09:39	1.03		X		1.0	0.002	0.003	ng/L	
Hg2700-1	DM2	SAM	1706635-06RE1	1.25	7/26/17 13:20	24256-1.RAW	13:20:10	5.24		X		5.2	0.012	0.015	ng/L	
Hg2700-1	DM2	SAM	1706730-01RE1	1.25	7/26/17 13:30	24257-1.RAW	13:30:41	138.91		X		138.9	0.321	0.402	ng/L	
Hg2700-1	DM2	SAM	1706730-02RE1	1.25	7/26/17 13:41	24258-1.RAW	13:41:12	168.57		X		168.6	0.390	0.488	ng/L	
Hg2700-1	DM2	SAM	1706730-03RE1	1.25	7/26/17 13:51	24259-1.RAW	13:51:43	49.46		X		49.5	0.114	0.143	ng/L	
Hg2700-1	DM2	SAM	1706730-04RE1	1.25	7/26/17 14:02	24260-1.RAW	14:02:13	8.31		X		8.3	0.019	0.024	ng/L	
Hg2700-1	DM2	SAM	1706926-01RE1	1.25	7/26/17 14:12	24261-1.RAW	14:12:44	24.66		X		24.7	0.057	0.071	ng/L	
Hg2700-1	DM2	SAM	1706926-03RE1	1.25	7/26/17 14:23	24262-1.RAW	14:23:15	32.01		X		32.0	0.074	0.093	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	7/26/17 14:33	24263-1.RAW	14:33:45	176.38				176.4	0.408	0.408	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	7/26/17 14:44	24264-1.RAW	14:44:16	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1706926-04RE1	1.25	7/26/17 14:54	24265-1.RAW	14:54:47	9.57		X		9.6	0.022	0.028	ng/L	
Hg2700-1	DM2	SAM	1706926-05RE1	1.25	7/26/17 15:05	24266-1.RAW	15:05:17	12.72		X		12.7	0.029	0.037	ng/L	
Hg2700-1	DM2	SAM	1706926-06RE1	1.25	7/26/17 15:15	24267-1.RAW	15:15:48	8.22		X		8.2	0.019	0.024	ng/L	
Hg2700-1	DM2	SAM	1707149-01RE1	1.25	7/26/17 15:26	24268-1.RAW	15:26:19	130.20		X		130.2	0.301	0.377	ng/L	
Hg2700-1	DM2	SAM	1707149-02RE1	1.25	7/26/17 15:36	24269-1.RAW	15:36:49	113.58		X		113.6	0.263	0.328	ng/L	
Hg2700-1	DM2	SAM	1707149-03RE1	1.25	7/26/17 15:47	24270-1.RAW	15:47:29	121.01		X		121.0	0.280	0.350	ng/L	
Hg2700-1	DM2	SAM	1707149-04RE1	1.25	7/26/17 16:13	24271-1.RAW	16:13:10	124.29		X		124.3	0.288	0.359	ng/L	
Hg2700-1	DM2	SAM	1707149-05RE1	1.25	7/26/17 16:23	24272-1.RAW	16:23:40	132.99		X		133.0	0.308	0.385	ng/L	
Hg2700-1	DM2	SAM	1707149-06RE1	1.25	7/26/17 16:34	24273-1.RAW	16:34:11	126.68		X		126.7	0.293	0.366	ng/L	
Hg2700-1	DM2	SAM	1707538-01	1.25	7/26/17 16:44	24274-1.RAW	16:44:42	18.61		X		18.6	0.043	0.054	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	7/26/17 16:55	24275-1.RAW	16:55:13	191.40				191.4	0.443	0.443	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	7/26/17 17:05	24276-1.RAW	17:05:43	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707413-BLK1	1	7/26/17 17:16	24277-1.RAW	17:16:14	46.02				46.0	0.106	0.106	ng/L	
Hg2700-1	DM2	BLK	F707413-BLK2	1	7/26/17 17:26	24278-1.RAW	17:26:45	46.95				46.9	0.109	0.109	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2700-1	DM2	BLK	F707413-BLK3	1	7/26/17 17:37	24279-1.RAW	17:37:15	39.25	1		39.2	0.091	0.091	ng/L	
Hg2700-1	DM2	SAM	F707413-BS1	10	7/26/17 17:47	24280-1.RAW	17:47:46	336.61	1		336.6	0.769	7.686	ng/L	
Hg2700-1	DM2	SAM	F707413-BSD1	10	7/26/17 17:58	24281-1.RAW	17:58:17	256.26	1		256.3	0.583	5.827	ng/L	
Hg2700-1	DM2	SAM	F707413-DUP1	1	7/26/17 18:08	24282-1.RAW	18:08:48	82.28	1		82.3	0.088	0.088	ng/L	
Hg2700-1	DM2	SAM	F707413-MS1	10	7/26/17 18:19	24283-1.RAW	18:19:20	384.78	1		384.8	0.880	8.801	ng/L	
Hg2700-1	DM2	SAM	F707413-MSD1	10	7/26/17 18:29	24284-1.RAW	18:29:50	393.58	1		393.6	0.900	9.004	ng/L	
Hg2700-1	DM2	SAM	1707106-01RE1	1	7/26/17 18:40	24285-1.RAW	18:40:21	132.45	1		132.4	0.204	0.204	ng/L	
Hg2700-1	DM2	SAM	1707106-02RE1	1	7/26/17 18:50	24286-1.RAW	18:50:52	98.89	1		98.9	0.127	0.127	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	7/26/17 19:01	24287-1.RAW	19:01:22	188.06	1		188.1	0.435	0.435	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	7/26/17 19:11	24288-1.RAW	19:11:53	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707440-BLK1	1	7/26/17 19:22	24289-1.RAW	19:22:24	62.87	2		62.9	0.145	0.145	ng/L	
Hg2700-1	DM2	BLK	F707440-BLK2	1	7/26/17 19:32	24290-1.RAW	19:32:55	87.41	2		87.4	0.202	0.202	ng/L	
Hg2700-1	DM2	BLK	F707440-BLK3	1	7/26/17 19:43	24291-1.RAW	19:43:26	80.40	2		80.4	0.186	0.186	ng/L	
Hg2700-1	DM2	SAM	F707440-BS1	1	7/26/17 19:53	24292-1.RAW	19:53:57	60.44	2		60.4	-0.038	-0.038	ng/L	
Hg2700-1	DM2	SAM	F707440-BS2	1	7/26/17 20:04	24293-1.RAW	20:04:44	76.98	2		77.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707500-14	1	7/26/17 20:15	24294-1.RAW	20:15:15	41.42	2		41.4	-0.082	-0.082	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK6	500	7/26/17 20:25	24295-1.RAW	20:25:46	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK7	500	7/26/17 20:36	24296-1.RAW	20:36:16	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK8	500	7/26/17 20:46	24297-1.RAW	20:46:47	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707393-MS3	1000	7/26/17 20:57	24298-1.RAW	20:57:17	564.52	3		564.5	1.306	1306.155	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	7/26/17 21:07	24299-1.RAW	21:07:48	191.74	3		191.7	0.444	0.444	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	7/26/17 21:18	24300-1.RAW	21:18:19	0.00	3		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD3	1000	7/26/17 21:28	24301-1.RAW	21:28:50	839.22	3		839.2	1.942	1941.725	ng/L	
Hg2700-1	DM2	SAM	F707393-MS4	2500	7/26/17 21:39	24302-1.RAW	21:39:20	813.40	3		813.4	1.882	4704.998	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD4	2500	7/26/17 21:49	24303-1.RAW	21:49:51	831.23	3		831.2	1.923	4808.069	ng/L	
Hg2700-1	DM2	SAM	1706929-01RE1	500	7/26/17 22:00	24304-1.RAW	22:00:22	28.03	3		28.0	0.065	32.424	ng/L	
Hg2700-1	DM2	SAM	1706929-07RE1	2500	7/26/17 22:10	24305-1.RAW	22:10:53	814.24	3		814.2	1.884	4709.819	ng/L	
Hg2700-1	DM2	SAM	1706930-01RE1	1000	7/26/17 22:21	24306-1.RAW	22:21:23	335.21	3		335.2	0.776	775.587	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	7/26/17 22:31	24307-1.RAW	22:31:54	200.97	3		201.0	0.465	0.465	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	7/26/17 22:42	24308-1.RAW	22:42:24	1.10	3		1.1	0.003	0.003	ng/L	



Frontier Global Sciences

**MHg27001-170726-1**

**Analysis Datasheet for Methyl Mercury in Waters**

Date of Analysis: July 26, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G27014

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	21.09 units	421.75	21.09 units	421.75	97.6 %Rec
SEQ-CAL2	1	0.20 ng/L	76.14 units	380.72	76.14 units	380.72	88.1 %Rec
SEQ-CAL3	1	1.00 ng/L	429.02 units	429.02	429.02 units	429.02	99.3 %Rec
SEQ-CAL4	1	2.00 ng/L	901.94 units	450.97	901.94 units	450.97	104.3 %Rec
SEQ-CAL5	1	4.00 ng/L	1914.24 units	478.56	1914.24 units	478.56	110.7 %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**    **Eff Factor**  
 432.20            +/- 36.30            8.4% RSD            432.20            **0.8690**

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	0.00 units		0.00 ng/L	#VALUE!

**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

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.000 ng/L	±0.001
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	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hq2700-1	DM2	CAL	SEQ-IBL1	1	7/26/17 9:02	24233-1.RAW	9:02	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	7/26/17 9:12	24234-1.RAW	#####	21.09				21.1	0.049	0.049	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	7/26/17 9:23	24235-1.RAW	#####	76.14				76.1	0.176	0.176	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	7/26/17 9:33	24236-1.RAW	#####	429.02				429.0	0.993	0.993	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	7/26/17 9:44	24237-1.RAW	#####	901.94				901.9	2.087	2.087	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	7/26/17 9:54	24238-1.RAW	#####	1914.24				1914.2	4.429	4.429	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICV1	1	7/26/17 10:05	24239-1.RAW	#####	210.94				210.9	0.488	0.488	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICB1	1	7/26/17 10:15	24240-1.RAW	#####	2.32				2.3	0.005	0.005	ng/L	
Hq2700-1	DM2	BLK	F707400-BLK1	1.25	7/26/17 10:42	24241-1.RAW	#####	0.37		1		0.4	0.001	0.001	ng/L	
Hq2700-1	DM2	BLK	F707400-BLK2	1.25	7/26/17 10:53	24242-1.RAW	#####	0.00		1		0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F707400-BLK3	1.25	7/26/17 11:03	24243-1.RAW	#####	0.00		1		0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F707400-BS1	1.25	7/26/17 11:14	24244-1.RAW	#####	297.67		1		297.7	0.792	0.990	ng/L	
Hq2700-1	DM2	SAM	F707400-BSD1	1.25	7/26/17 11:24	24245-1.RAW	#####	314.39		1		314.4	0.837	1.046	ng/L	
Hq2700-1	DM2	SAM	F707400-DUP1	1.25	7/26/17 11:35	24246-1.RAW	#####	20.84		1		20.8	0.055	0.069	ng/L	
Hq2700-1	DM2	SAM	F707400-MS1	1.25	7/26/17 11:45	24247-1.RAW	#####	437.02		1		437.0	1.163	1.454	ng/L	
Hq2700-1	DM2	SAM	F707400-MSD1	1.25	7/26/17 11:56	24248-1.RAW	#####	416.22		1		416.2	1.108	1.385	ng/L	
Hq2700-1	DM2	SAM	F707400-MS2	1.25	7/26/17 12:06	24249-1.RAW	#####	200.34		1		200.3	0.533	0.666	ng/L	
Hq2700-1	DM2	SAM	F707400-MSD2	1.25	7/26/17 12:17	24250-1.RAW	#####	234.16		1		234.2	0.623	0.779	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	7/26/17 12:27	24251-1.RAW	#####	193.40				193.4	0.447	0.447	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	7/26/17 12:38	24252-1.RAW	#####	0.72				0.7	0.002	0.002	ng/L	
Hq2700-1	DM2	SAM	1706635-01RE1	1.25	7/26/17 12:48	24253-1.RAW	#####	1.48		1		1.5	0.004	0.005	ng/L	
Hq2700-1	DM2	SAM	1706635-02RE1	1.25	7/26/17 12:59	24254-1.RAW	#####	6.11		1		6.1	0.016	0.020	ng/L	
Hq2700-1	DM2	SAM	1706635-05RE1	1.25	7/26/17 13:09	24255-1.RAW	#####	1.03		1		1.0	0.002	0.003	ng/L	
Hq2700-1	DM2	SAM	1706635-06RE1	1.25	7/26/17 13:20	24256-1.RAW	#####	5.24		1		5.2	0.014	0.017	ng/L	
Hq2700-1	DM2	SAM	1706730-01RE1	1.25	7/26/17 13:30	24257-1.RAW	#####	138.91		1		138.9	0.370	0.462	ng/L	
Hq2700-1	DM2	SAM	1706730-02RE1	1.25	7/26/17 13:41	24258-1.RAW	#####	168.57		1		168.6	0.449	0.561	ng/L	
Hq2700-1	DM2	SAM	1706730-03RE1	1.25	7/26/17 13:51	24259-1.RAW	#####	49.46		1		49.5	0.131	0.164	ng/L	
Hq2700-1	DM2	SAM	1706730-04RE1	1.25	7/26/17 14:02	24260-1.RAW	#####	8.31		1		8.3	0.022	0.027	ng/L	
Hq2700-1	DM2	SAM	1706926-01RE1	1.25	7/26/17 14:12	24261-1.RAW	#####	24.66		1		24.7	0.065	0.082	ng/L	
Hq2700-1	DM2	SAM	1706926-03RE1	1.25	7/26/17 14:23	24262-1.RAW	#####	32.01		1		32.0	0.085	0.106	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	7/26/17 14:33	24263-1.RAW	#####	176.38				176.4	0.408	0.408	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	7/26/17 14:44	24264-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1706926-04RE1	1.25	7/26/17 14:54	24265-1.RAW	#####	9.57		1		9.6	0.025	0.031	ng/L	
Hq2700-1	DM2	SAM	1706926-05RE1	1.25	7/26/17 15:05	24266-1.RAW	#####	12.72		1		12.7	0.034	0.042	ng/L	
Hq2700-1	DM2	SAM	1706926-06RE1	1.25	7/26/17 15:15	24267-1.RAW	#####	8.22		1		8.2	0.022	0.027	ng/L	
Hq2700-1	DM2	SAM	1707149-01RE1	1.25	7/26/17 15:26	24268-1.RAW	#####	130.20		1		130.2	0.346	0.433	ng/L	
Hq2700-1	DM2	SAM	1707149-02RE1	1.25	7/26/17 15:36	24269-1.RAW	#####	113.58		1		113.6	0.302	0.378	ng/L	
Hq2700-1	DM2	SAM	1707149-03RE1	1.25	7/26/17 15:47	24270-1.RAW	15:47:29	121.01		1		121.0	0.322	0.402	ng/L	
Hq2700-1	DM2	SAM	1707149-04RE1	1.25	7/26/17 16:13	24271-1.RAW	#####	124.29		1		124.3	0.331	0.413	ng/L	
Hq2700-1	DM2	SAM	1707149-05RE1	1.25	7/26/17 16:23	24272-1.RAW	#####	132.99		1		133.0	0.354	0.442	ng/L	
Hq2700-1	DM2	SAM	1707149-06RE1	1.25	7/26/17 16:34	24273-1.RAW	#####	126.68		1		126.7	0.337	0.421	ng/L	
Hq2700-1	DM2	SAM	1707538-01	1.25	7/26/17 16:44	24274-1.RAW	#####	18.61		1		18.6	0.049	0.062	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	7/26/17 16:55	24275-1.RAW	#####	191.40				191.4	0.443	0.443	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	7/26/17 17:05	24276-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	

ANALYSIS SEQUENCE

7G27015

QUALITY ASSURANCE

PEER-REVIEWED

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: R 7/30/17  
Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27015-IBL1 ✓	QC	1			
7G27015-CAL1 ✓	QC	2	1704180	✓	
7G27015-CAL2 ✓	QC	3	1704181	✓	
7G27015-CAL3 ✓	QC	4	1704182	✓	
7G27015-CAL4 ✓	QC	5	1704183	✓	
7G27015-CAL5 ✓	QC	6	1704184	✓	
7G27015-ICV1 ✓	QC	7	1703246	✓	
7G27015-ICB1 ✓	QC	8			
7G27015-CCV1 ✓	QC	9	1703246	✓	
7G27015-CCB1 ✓	QC	10			
7G27015-CCV2 ✓	QC	11	1703246	✓	
7G27015-CCB2 ✓	QC	12			
7G27015-CCV3 ✓	QC	13	1703246	✓	
7G27015-CCB3 ✓	QC	14			
7G27015-CCV4 ✓	QC	15	1703246	✓	
7G27015-CCB4 ✓	QC	16			
F707440-BLK1 ✓	QC	17			
F707440-BLK2 ✓	QC	18			
F707440-BLK3 ✓	QC	19			
F707440-BS1 ✓	QC	20			
F707440-BS2 ✓	QC	21			
1707500-14 ✓	MHg-CVAFS-S-MeClExt DOD	22			Spike at specified level
7G27015-CCV5 ✓	QC	23	1703246	✓	
7G27015-CCB5 ✓	QC	24			

Don Moore 7/26/17  
Samples Loaded By Date

Don Moore 7/27/17  
Data Processed By Date

**PREPARATION BENCH SHEET**

F707440

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg**

**Prepared: 7/25/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707440-BLK1	Blank	0.5	250					
F707440-BLK2	Blank	0.5	250					
F707440-BLK3	Blank	0.5	250					
F707440-BS1	LOD	0.5	250	1704143	20			
F707440-BS2	LOQ	0.5	250	1704143	50			

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration:  
 10-Oct-17 00:00  
 10-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702236	Dichloromethane	14-Apr-20 00:00
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703704	Ethylating Agent (For Methyl Mercury Analysis)	18-Dec-17 00:00
1703755	Acetate Buffer	20-Dec-17 00:00
1703955	Acid Bromide	30-Jul-17 00:00
1704394	CuSO4	16-Jan-18 00:00



PREPARATION BENCH SHEET

F707440

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl<sub>2</sub> Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-14	Q3 LOD/LOQ - 2700	0.5	288	-	-	-	Spike at specified level	



PREPARATION BENCH SHEET

2700-1

F707440

7/26/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707440-BLK1	Blank	0.5	250					IX
F707440-BLK2	Blank	0.5	250					IX
F707440-BLK3	Blank	0.5	250					IX
F707440-BS1	LOD	0.5	250	1704143	20			IX
F707440-BS2	LOQ	0.5	250	1704143	50			IX

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration:  
 10-Oct-17 00:00  
 10-Oct-17 00:00

Reagent ID(s):  
 1702236  
 1702551  
 1703955  
 1704394

Description:  
 Dichloromethane  
 Boiling Chips for AFS prep  
 Acid Bromide  
 CuSO4

Expiration:  
 14-Apr-20 00:00  
 31-Dec-17 00:00  
 30-Jul-17 00:00  
 16-Jan-18 00:00

1703755

1703704

PREPARATION BENCH SHEET

F707440

Eurofins Frontier Global Sciences, Inc.

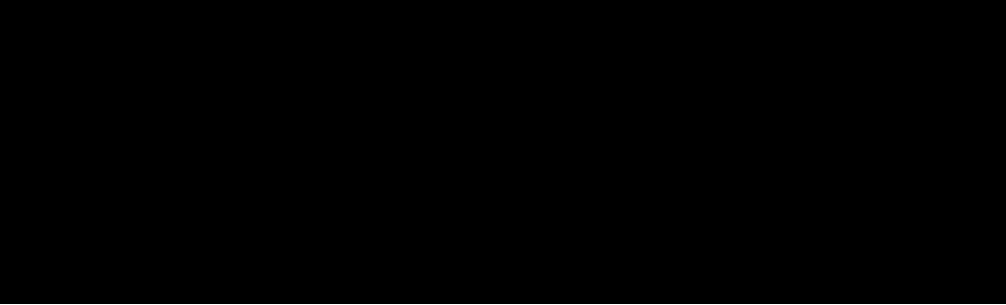
2700-1  
7/26/17 DM

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707500-14	Q3 LOD/LOQ - 2700	0.5	288	-	-	-	Spike at specified level	1X



**Methyl Mercury Sediment Preparation : EFAFS-T-AFS-SOP5134**

Technician: Dryden Batch#: F707440 Date: 7-20-17  
 Heat Block 45°C (nitrogen purge for 30 minutes). Balance#: 19 Calibrated?  Yes  No

Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)	Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)
<u>7/25/17</u>							
1 <sup>st</sup> time in: <u>13:50</u>	<u>49.3</u>	<u>48.8</u>	<u>11</u>	1 <sup>st</sup> time in:			
1 <sup>st</sup> time out: <u>14:20</u>	<u>48.4</u>	<u>47.6</u>	<u>11</u>	1 <sup>st</sup> time out:			
2 <sup>nd</sup> time in:				2 <sup>nd</sup> time in:			
2 <sup>nd</sup> time out:				2 <sup>nd</sup> time out:			
3 <sup>rd</sup> time in:				3 <sup>rd</sup> time in:			
3 <sup>rd</sup> time out:				3 <sup>rd</sup> time out:			
4 <sup>th</sup> time in:				4 <sup>th</sup> time in:			
4 <sup>th</sup> time out:				4 <sup>th</sup> time out:			

Final vol.: 50 mL (LIMS ID: N/A) Spike vol.: 20 µL (LIMS ID: 1704143)  
 BS1 = 50 µL

Spike Witness: DM 7/25/17 (initial and date)

Acid Bromide LIMS ID: 1703955  
 CH<sub>2</sub>Cl<sub>2</sub> LIMS ID: 1702236  
 CuSO<sub>4</sub> LIMS ID: 1704394  
 Other Acid LIMS ID: N/A  
 Centrifuge Tube Lot #: J264713-3025


Pipette SN#: CJ17087 Calibration Date: 7-20-17  
 Pipette SN#: NK07693 Calibration Date: 7/25/17  
 Dispenser #: 12J91047 Calibrated?  Yes  No  
 Boiling Chip lot #: 1702551

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 type="checkbox"/> µg	Comments
1	F707440 Blk1	0.5412	23			Thermometer SN: <u>1404180/2</u> F707440 BS1 LOD = 20µL F707440 BS2 LOD = 50µL F707440 BS <sup>7/25/17</sup> ALL weighted sample on 7/25/17 Digestion on 7/25/17 7/25/17 50
2	F707440 Blk2	0.5512	24			
3	F707440 Blk3	0.4929	25			
4	F707440 BS1	0.5167	26			
5	F707440 BS2	0.5715	27			
6	1707560-14	0.5003	28			
7			29		<u>7/25/17</u>	
8			30		<u>48</u>	
9			31			
10		<u>7/25/17</u>	32			
11		<u>48</u>	33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Failing Data Report - 7G27015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707440-BLK1	MHg-CVAFS-S-MeClExt DOD	0.073	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707440-BLK2	MHg-CVAFS-S-MeClExt DOD	0.101	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707440-BLK3	MHg-CVAFS-S-MeClExt DOD	0.093	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707440-BS1	MHg-CVAFS-S-MeClExt DOD	-0.019	0.050			0.040040	ng/g		70.00	130.00			PASS-OVER	FAIL-BS	(LOQ) QB-02, QA-02
F707440-BS2	MHg-CVAFS-S-MeClExt DOD	0.0001	0.050			0.10010	ng/g		70.00	130.00			PASS-OVER	FAIL-BS	(LOQ) QB-02, QA-03

  
 Analyst Reviewed By \_\_\_\_\_  
 Date 7/27/17

  
 Peer Reviewed By \_\_\_\_\_  
 Date 7/30/17

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G27014

PEER-REVIEWED

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: A 7/27/17 Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27014-IBL1 ✓	QC	1			
7G27014-CAL1 ✓	QC	2	1704180		
7G27014-CAL2 ✓	QC	3	1704181		
7G27014-CAL3 ✓	QC	4	1704182		
7G27014-CAL4 ✓	QC	5	1704183		
7G27014-CAL5 ✓	QC	6	1704184		
7G27014-ICV1 ✓	QC	7	1703246		
7G27014-ICB1 ✓	QC	8			
F707400-BLK1 ✓	QC	9			
F707400-BLK2 ✓	QC	10			
F707400-BLK3 ✓	QC	11			
F707400-BS1 ✓	QC	12			
F707400-BSD1 ✓	QC	13			
F707400-DUP1 ✓	QC	14			
F707400-MS1 ✓	QC	15			
F707400-MSD1 ✓	QC	16			
F707400-MS2 ✓	QC	17			
F707400-MSD2 ✓	QC	18			
7G27014-CCV1 ✓	QC	19	1703246		
7G27014-CCB1 ✓	QC	20			
1706635-01RE1 ✓	MHg-CVAFS-W-Dist	21			Re-extract added 7/16/2017 by PL
1706635-02RE1 ✓	MHg-CVAFS-W-Dist	22			Re-extract added 7/16/2017 by PL
1706635-05RE1 ✓	MHg-CVAFS-W-Dist	23			Re-extract added 7/16/2017 by PL
1706635-06RE1 ✓	MHg-CVAFS-W-Dist	24			Re-extract added 7/16/2017 by PL
1706730-01RE1 ✓	MHg-CVAFS-W-Dist	25			Re-extract added 7/18/2017 by PL
1706730-02RE1 ✓	MHg-CVAFS-W-Dist	26			Re-extract added 7/18/2017 by PL
1706730-03RE1 ✓	MHg-CVAFS-W-Dist	27			Re-extract added 7/18/2017 by PL
1706730-04RE1 ✓	MHg-CVAFS-W-Dist	28			Re-extract added 7/18/2017 by PL
1706926-01RE1 ✓	MHg-CVAFS-W-Dist	29			Re-extract added 7/18/2017 by PL
1706926-03RE1 ✓	MHg-CVAFS-W-Dist	30			Re-extract added 7/18/2017 by PL
7G27014-CCV2 ✓	QC	31	1703246		
7G27014-CCB2 ✓	QC	32			
1706926-04RE1 ✓	MHg-CVAFS-W-Dist	33			Re-extract added 7/18/2017 by PL
1706926-05RE1 ✓	MHg-CVAFS-W-Dist	34			Re-extract added 7/18/2017 by PL
1706926-06RE1 ✓	MHg-CVAFS-W-Dist	35			Re-extract added 7/18/2017 by PL

Due Date: 7/14/2017

186 of 294

Page 1 of 2

## ANALYSIS SEQUENCE

7G27014

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707149-01RE1 ✓	MHg-CVAFS-W-Dist	36			Re-extract added 7/16/2017 by PL
1707149-02RE1 ✓	MHg-CVAFS-W-Dist	37			Re-extract added 7/16/2017 by PL
1707149-03RE1 ✓	MHg-CVAFS-W-Dist	38			Re-extract added 7/16/2017 by PL
1707149-04RE1 ✓	MHg-CVAFS-W-Dist	39			Re-extract added 7/16/2017 by PL
1707149-05RE1 ✓	MHg-CVAFS-W-Dist	40			Re-extract added 7/16/2017 by PL
1707149-06RE1 ✓	MHg-CVAFS-W-Dist	41			Re-extract added 7/16/2017 by PL
1707538-01 ✓	MHg-CVAFS-W-Dist	42			
7G27014-CCV3 ✓	QC	43	1703246 ✓		
7G27014-CCB3 ✓	QC	44			

Don Mosem 7/2/17  
 Samples Loaded By Date

Don Mosem 7/27/17  
 Data Processed By Date

Due Date: 7/14/2017

**PREPARATION BENCH SHEET**

F707400

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/25/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707400-BLK1	Blank	45	40					
F707400-BLK2	Blank	45	40					
F707400-BLK3	Blank	45	40					
F707400-BS1	Blank Spike	45	40	1704143	45			
F707400-BSD1	Blank Spike dup	45	40	1704143	45			
F707400-DUP1	Duplicate [1706926-01RE1] ✓	45	40					
F707400-MS1	Matrix Spike [1707149-01RE1] ✓	45	40	1704143	45			
F707400-MS2	Matrix Spike [1707538-01] ✓	45	40	1704143	45			
F707400-MSD1	Matrix Spike Dup [1707149-01RE1] ✓	45	40	1704143	45			
F707400-MSD2	Matrix Spike Dup [1707538-01] ✓	45	40	1704143	45			

<u>Standard ID(s):</u> 1704143	<u>Description:</u> MHg New Primary 1.0 ng/mL CAL	<u>Expiration:</u> 10-Oct-17 00:00	<u>Reagent ID(s):</u> 1703704	<u>Description:</u> Ethylating Agent (For Methyl Mercury Analysis)	<u>Expiration:</u> 18-Dec-17 00:00
			1703755	Acetate Buffer	20-Dec-17 00:00
			1704481	APDC	31-Jul-17 00:00
			1704498	0.4% HCl Distillation Dilute (Made Daily)	26-Jul-17 00:00
			1704513	2.5% Ascorbic Acid	02-Aug-17 00:00



**PREPARATION BENCH SHEET**

F707400

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/25/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706635-01RE1	B172046 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706635-02RE1	B172034 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706635-05RE1	B172040 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706635-06RE1	B172060 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1706730-01RE1	P88937-2	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706730-02RE1	P88937-3	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706730-03RE1	P88937-4	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706730-04RE1	P88937-7	45	40	-	-	-	Re-extract added 7/18/2017 by PL	
1706926-01RE1	OL-2616-01	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-03RE1	OL-2616-02	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-04RE1	OL-2616-03	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-05RE1	OL-2616-04	45	40	-	-	-	Preservation Blank created Re-extract a	
1706926-06RE1	OL-2616-05	45	40	-	-	-	Preservation Blank created Re-extract a	
1707149-01RE1	1707051-001C 7070316-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-02RE1	1707051-002C 7070317-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-03RE1	1707051-003C 7070407-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-04RE1	1707051-004C 7070408-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-05RE1	1707051-005C 7070411-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	
1707149-06RE1	1707051-006C 7070412-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	

Due Date: 7/14/2017

PREPARATION BENCH SHEET

F707400

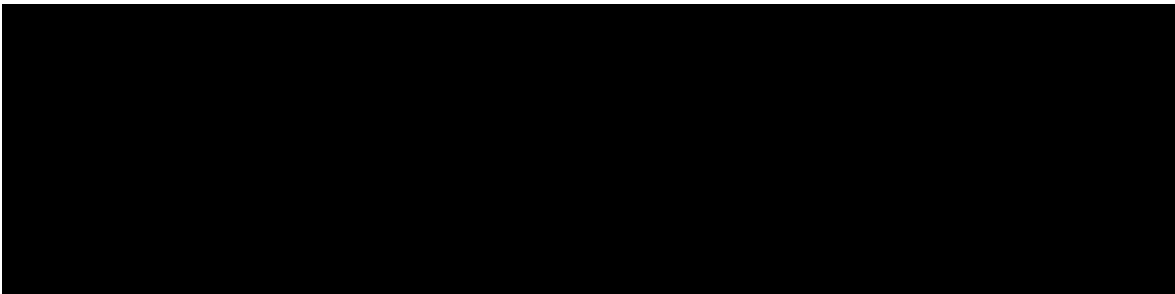
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

1707538-01	E1707005g 1707586-002A	45	40	-	-	-		
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PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707400

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707400-BLK1	Blank	45	40					1.25X
F707400-BLK2	Blank	45	40					1.25X
F707400-BLK3	Blank	45	40					1.25X
F707400-BS1	Blank Spike	45	40	1704143	45			1.25X
F707400-BSD1	Blank Spike dup	45	40	1704143	45			1.25X
F707400-MS1	Matrix Spike 1707149-01RE1	45	40	1704143	45			1.25X
F707400-MS2	Matrix Spike 1707538-01	45	40	1704143	45			1.25X
F707400-MSD1	Matrix Spike Dup 1707149-01RE1	45	40	1704143	45			1.25X
F707400-MSD2	Matrix Spike Dup 1707538-01	45	40	1704143	45			1.25X

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 10-Oct-17 00:00

Reagent ID(s): 1704481, 1704498

Description: APDC, 0.4% HCl Distillation Dilute (Made Daily)

Expiration: 31-Jul-17 00:00, 26-Jul-17 00:00

DUPI Source 1700926-01RE1

1704513

1703755

1703704

PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707400

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706635-01RE1	B172046 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706635-02RE1	B172034 GSL@EOP	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706635-05RE1	B172040 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706635-06RE1	B172060 Byproduct@Plant	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1706730-01RE1	P88937-2	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706730-02RE1	P88937-3	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706730-03RE1	P88937-4	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706730-04RE1	P88937-7	45	40	-	-	-	Re-extract added 7/18/2017 by PL	1.25x
1706926-01RE1	OL-2616-01	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-03RE1	OL-2616-02	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-04RE1	OL-2616-03	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-05RE1	OL-2616-04	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1706926-06RE1	OL-2616-05	45	40	-	-	-	Preservation Blank created Re-extract a	1.25x
1707149-01RE1	1707051-001C 7070316-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-02RE1	1707051-002C 7070317-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-03RE1	1707051-003C 7070407-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-04RE1	1707051-004C 7070408-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-05RE1	1707051-005C 7070411-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x
1707149-06RE1	1707051-006C 7070412-01	45	40	-	-	-	Re-extract added 7/16/2017 by PL	1.25x

Due Date: 7/14/2017

PREPARATION BENCH SHEET

2700-1

7/26/17 DM

F707400

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/25/2017

1707538-01	E1707005g 1707586-002A	45	40	-	-	-		1.25X
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Methyl Mercury Distillations (EPA 1630)

Name: Dupin Date: 7/26 Batch #: F707400 Sample Matrix: Water  
 WO#: 1706635, 1706730, 1706730, 1706926, 1707149, 1707538

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 (23)
Blk1	F707400 Blk1	1.0	45	3.0
Blk2	F707400 Blk2	1.0	45	3.0
Blk3	F707400 Blk3	1.0	45	3.0
BS1	F707400 BS1	1.0	45	3.0
BS01	F707400 BS01	1.0	45	3.0
Dup1	F707400 Dup1	1.0	45	3.0
MS1	F707400 MS1	1.0	45	4.0
MS01	F707400 MS01	1.0	45	4.0
MS2	F707400 MS2	1.0	45	4.0
MS02	F707400 MS02	1.0	45	4.0
1	1706635-01 RE1	1.0	45	3.0
2	1706635-02 RE1	1.0	45	3.0
3	1706635-05 RE1	1.0	45	3.0
4	1706635-06 RE1	1.0	45	3.0
5	1706730-01 RE1	1.0	45	3.0
6	1706730-02 RE1	1.0	45	3.0
7	1706730-03 RE1	1.0	45	3.0
8	1706730-04 RE1	1.0	45	3.0
9	1706926-01 RE1	1.0	45	3.0
10	1706926-03 RE1	1.0	45	3.0
11	1706926-04 RE1	1.0	45	4.0
12	1706926-05 RE1	1.0	45	4.0
13	1706926-06 RE1	1.0	45	4.0
14	1707149-01 RE1	1.0	45	3.0
15	1707149-02 RE1	1.0	45	3.0
16	1707149-03 RE1	1.0	45	3.0
17	1707149-04 RE1	1.0	45	4.0
18	1707149-05 RE1	1.0	45	3.0
19	1707149-06 RE1	1.0	45	4.0
20	1707538-01 A	1.0	45	4.0

Spike ID: 1704743  
 Spike Amount: 45 µL  
 Spike Witness: PC 7/25/17  
 Balance #: 2  
 Calibrated?  Yes  No  
 Pipette #: NW09653  
 Cal. Date: 7/20/17  
 Pipette #: NW09643  
 Cal. Date: 7/21/17  
 Pipette #: N/A  
 Cal. Date: N/A  
 APDC ID: 1704481  
 HCl ID: 1704498  
 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: 121.6  
 Unit 2: 122.0  
 Unit 3: 120.6  
 Unit 4: 120.8  
 Unit 5: 122.0  
 Unit 6: 122.0  
 Time First Sampled: OFF 11:55  
 Comments: F707400 source  
Dup1 1706926-01/B  
F707400 MS1 MS01  
1707149-01/A  
F707400 MS2 MS02  
1707538-01/A  
7/25/17 bwh



ANALYSIS SEQUENCE

7G27016

QUALITY ASSURANCE  
PEER-REVIEWED

Instrument: Hg2700-1 ✓

Calibration ID: UNASSIGNED

INITIALS: DM 7/27/17  
Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27016-IBL1 ✓	QC	1			
7G27016-CAL1 ✓	QC	2	1704180		
7G27016-CAL2 ✓	QC	3	1704181		
7G27016-CAL3 ✓	QC	4	1704182		
7G27016-CAL4 ✓	QC	5	1704183		
7G27016-CAL5 ✓	QC	6	1704184		
7G27016-ICV1 ✓	QC	7	1703246		
7G27016-ICB1 ✓	QC	8			
7G27016-CCV1 ✓	QC	9	1703246		
7G27016-CCB1 ✓	QC	10			
7G27016-CCV2 ✓	QC	11	1703246		
7G27016-CCB2 ✓	QC	12			
7G27016-CCV3 ✓	QC	13	1703246		
7G27016-CCB3 ✓	QC	14			
F707413-BLK1 ✓	QC	15			
F707413-BLK2 ✓	QC	16			
F707413-BLK3 ✓	QC	17			
F707413-BS1 ✓	QC	18			
F707413-BSD1 ✓	QC	19			
F707413-DUP1 ✓	QC	20			
F707413-MS1 ✓	QC	21			
F707413-MSD1 ✓	QC	22			
1707106-01RE1 ✓	MHg-CVAFS-S-MeClExt	23			From F707268 by DMH on 18-Jul-17
1707106-02RE1 ✓	MHg-CVAFS-S-MeClExt	24			From F707268 by DMH on 18-Jul-17
7G27016-CCV4 ✓	QC	25	1703246		
7G27016-CCB4 ✓	QC	26			

DM 7/26/17  
Samples Loaded By Date

DM 7/27/17  
Data Processed By Date



**PREPARATION BENCH SHEET**

F707413

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl<sub>2</sub> Extraction for Methyl Hg**

**Prepared: 7/25/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707413-BLK1	Blank	0.5	250					
F707413-BLK2	Blank	0.5	250					
F707413-BLK3	Blank	0.5	250					
F707413-BS1	Blank Spike	0.5	250	1605978	25			
F707413-BSD1	Blank Spike dup	0.5	250	1605978	25			
F707413-DUP1	Duplicate [1707106-01RE1]	0.527	250					
F707413-MS1	Matrix Spike [1707106-01RE1]	0.5438	250	1605978	25			
F707413-MSD1	Matrix Spike Dup [1707106-01RE1]	0.5808	250	1605978	25			

Standard ID(s): 1605978  
Description: MHg New Primary 100 ng/mL spike

Expiration: 15-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702236	Dichloromethane	14-Apr-20 00:00
1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703704	Ethylating Agent (For Methyl Mercury Analysis)	18-Dec-17 00:00
1703755	Acetate Buffer	20-Dec-17 00:00
1703955	Acid Bromide	30-Jul-17 00:00
1704394	CuSO <sub>4</sub>	16-Jan-18 00:00

PREPARATION BENCH SHEET

F707413

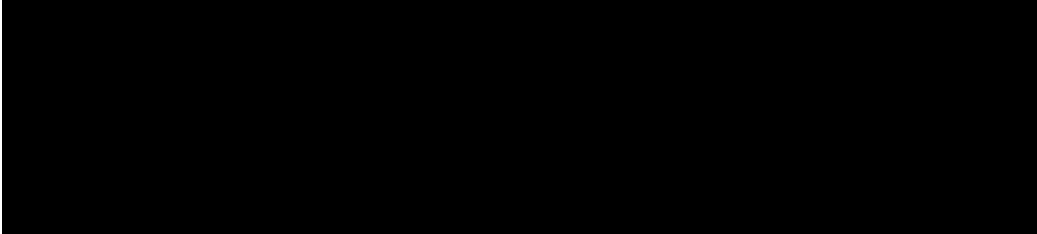
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707106-01RE1	USGR-008-PUD-005	0.5214	250	QC	-	-	MS/MSD From F707268 by DMH on 1	From F707268 by DMH on 18-Jul-17
1707106-02RE1	USGR-008-PUD-006	0.5492	250	-	-	-	From F707268 by DMH on 18-Jul-17	From F707268 by DMH on 18-Jul-17



PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707413

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg

Prepared: 7/25/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707413-BLK1	Blank	0.5	250					1X
F707413-BLK2	Blank	0.5	250					1X
F707413-BLK3	Blank	0.5	250					1X
F707413-BS1	Blank Spike	0.5	250	1605978	25			10X
F707413-BSD1	Blank Spike dup	0.5	250	1605978	25			10X
F707413-DUP1	Duplicate [1707106-01RE1]	0.527	250					1X
F707413-MS1	Matrix Spike [1707106-01RE1]	0.5438	250	1605978	25			10X
F707413-MSD1	Matrix Spike Dup [1707106-01RE1]	0.5808	250	1605978	25			10X

Standard ID(s): 1605978  
Description: MHg New Primary 100 ng/mL spike

Expiration: 15-Oct-17 00:00

Reagent ID(s): 1702236, 1702551, 1703955, 1704394  
Description: Dichloromethane, Boiling Chips for AFS prep, Acid Bromide, CuSO4

Expiration: 14-Apr-20 00:00, 31-Dec-17 00:00, 30-Jul-17 00:00, 16-Jan-18 00:00

1703755

1703704

**PREPARATION BENCH SHEET**

F707413

**Eurofins Frontier Global Sciences, Inc.**

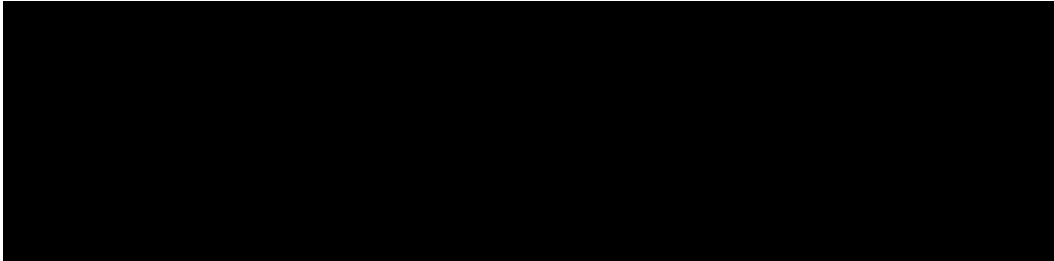
2700-1  
7/24/17 DM

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-045 MeCl2 Extraction for Methyl Hg**

**Prepared: 7/25/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707106-01RE1	USGR-008-PUD-005	0.5214	250	QC	-	-	MS/MSD From F707268 by DMH on 1	From F707268 by DMH on 18-Jul-17 IX
1707106-02RE1	USGR-008-PUD-006	0.5492	250	-	-	-	From F707268 by DMH on 18-Jul-17	From F707268 by DMH on 18-Jul-17 IX



**Methyl Mercury Sediment Preparation : EFAFS-T-AFS-SOP5134**

Technician: Dwyer Batch#: F707413 Date: 7-20-17

Heat Block 45°C (nitrogen purge for 30 minutes). Balance#: 19 Calibrated?  Yes  No

Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)	Date of purging:	Actual Temp (raw) °C	W/CF °C	Hot Block Unit # (10 or 11)
7/25/17							
1 <sup>st</sup> time in: 13:10	48.5	48.1	10	1 <sup>st</sup> time in:			
1 <sup>st</sup> time out: 13:40	49.0	48.5	10	1 <sup>st</sup> time out:			
2 <sup>nd</sup> time in:				2 <sup>nd</sup> time in:			
2 <sup>nd</sup> time out:				2 <sup>nd</sup> time out:			
3 <sup>rd</sup> time in:				3 <sup>rd</sup> time in:			
3 <sup>rd</sup> time out:				3 <sup>rd</sup> time out:			
4 <sup>th</sup> time in:				4 <sup>th</sup> time in:			
4 <sup>th</sup> time out:				4 <sup>th</sup> time out:			

Final vol.: 50 mL (LIMS ID: N/A) Spike vol.: 25 µL (LIMS ID: 1605978)

Spike Witness: JM 7/25/17 (initial and date)

Acid Bromide LIMS ID: 1703955

Pipette SN#: CJ17087 Calibration Date: 7-20-17

CH<sub>2</sub>Cl<sub>2</sub> LIMS ID: 1702236

Pipette SN#: NU07693 Calibration Date: 7/25/17

CuSO<sub>4</sub> LIMS ID: 1704394

Dispenser #: 12791047 Calibrated?  Yes  No

Other Acid LIMS ID: N/A


Boiling Chip lot # 1702551

Centrifuge Tube Lot #: J264713-3025

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	Comments
1	F707413 Blk1	0.5029	23	/		Thermometer SN:
2	F707413 Blk2	0.4987	24		140418012	
3	F707413 Blk3	0.50530	25		F707413	
4	F707413 R51	0.4992	26		source	
5	F707413 B501	0.5068	27		1707106-01	
6	F707413 Dup1	0.5560	28		Dup1 R51 R501	
7	F707413 M51	0.5780	29		7/25/17	
8	F707413 M501	0.5428	30		N/A	
9	1707106-01R21	0.5505	31		F707413	
10	1707106-02R21	0.5871	32		ALL weighted	
11			33		samples on 7/20/17	
12			34		Digestion samples	
13			35		on 7/25/17 D4	
14		7/25/17	36		7/25/17 D4	
15		N/A	37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Failing Data Report - 7G27016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707413-BLK1	MHg-CVAFS-S-MeClExt	0.053	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-10
F707413-BLK2	MHg-CVAFS-S-MeClExt	0.054	0.050				ng/g						PASS-OVER	FAIL-BLK	QB-N
F707413-BSD1	MHg-CVAFS-S-MeClExt	2.914	0.503	3.843		5.0050	ng/g	58.2	70.00	130.00	27.5	35.00	PASS-OVER	FAIL-BSD (Rec.)	Redigent
F707413-DUP1	MHg-CVAFS-S-MeClExt	0.170	0.193	0.397	0.397		ng/g				80.2	35.00	PASS-OVER	FAIL-DUP	QR-07


  
 Analyst Reviewed By \_\_\_\_\_ Date 7/27/17


  
 Peer Reviewed By \_\_\_\_\_ Date 7/27/17

ANALYSIS SEQUENCE

7G27013


PEER-REVIEWED


Instrument: Hg2700-1

Calibration ID: UNASSIGNED

INITIALS: DM 7/30/17 Analyzed: 7/26/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G27013-IBL1 ✓	QC	1			
7G27013-CAL1 ✓	QC	2	1704180		
7G27013-CAL2 ✓	QC	3	1704181		
7G27013-CAL3 ✓	QC	4	1704182		
7G27013-CAL4 ✓	QC	5	1704183		
7G27013-CAL5 ✓	QC	6	1704184		
7G27013-ICV1 ✓	QC	7	1703246		
7G27013-ICB1 ✓	QC	8			
7G27013-CCV1 ✓	QC	9	1703246		
7G27013-CCB1 ✓	QC	10			
7G27013-CCV2 ✓	QC	11	1703246		
7G27013-CCB2 ✓	QC	12			
7G27013-CCV3 ✓	QC	13	1703246		
7G27013-CCB3 ✓	QC	14			
7G27013-CCV4 ✓	QC	15	1703246		
7G27013-CCB4 ✓	QC	16			
F707393-BLK6 ✓	QC	17			
F707393-BLK7 ✓	QC	18			
F707393-BLK8 ✓	QC	19			
F707393-MS3 ✓	QC	20			
7G27013-CCV5 ✓	QC	21	1703246		
7G27013-CCB5 ✓	QC	22			
F707393-MSD3 ✓	QC	23			
F707393-MS4 ✓	QC	24			
F707393-MSD4 ✓	QC	25			
1706929-01RE1 ✓	MHg-CVAFS-T-KOH	26			Added 7/26/2017 by DM2
1706929-07RE1 ✓	MHg-CVAFS-T-KOH	27			Added 7/26/2017 by DM2
1706930-01RE1 ✓	MHg-CVAFS-T-KOH	28			Added 7/26/2017 by DM2
7G27013-CCV6 ✓	QC	29	1703246		
7G27013-CCB6 ✓	QC	30			


7/26/17  
 Samples Loaded By \_\_\_\_\_ Date


7/27/17  
 Data Processed By \_\_\_\_\_ Date

Due Date: 7/31/2017

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					
F707393-BLK2	Blank	0.5	20					
F707393-BLK3	Blank	0.5	20					
F707393-BLK4	Blank	0.3356	20					
F707393-BLK5	Blank	0.3691	20					
F707393-BLK6	Blank	0.5	20					
F707393-BLK7	Blank	0.5	20					
F707393-BLK8	Blank	0.5	20					
F707393-BS1	DORM-4	0.1253	20	1703305	125			
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	125			
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					
F707393-MS1	Matrix Spike [1706930-01]	0.2637	20	1605978	100			
F707393-MS2	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MS3	Matrix Spike [1706930-01RE1]	0.2637	20	1605978	100			
F707393-MS4	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MSD1	Matrix Spike Dup [1706930-01]	0.2631	20	1605978	100			
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			
F707393-MSD3	Matrix Spike Dup [1706930-01RE1]	0.2631	20	1605978	100			
F707393-MSD4	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			



PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1703305	DORM-4	29-May-20 00:00	1702696	Methanol, HPLC Grade	28-Apr-20 00:00
			1702833	25% KOH/Methanol	05-Nov-17 00:00
			1703704	Ethylating Agent (For Methyl Mercury Analysis)	18-Dec-17 00:00
			1703755	Acetate Buffer	20-Dec-17 00:00

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-01RE1	W17-N_17BN005_062417_TIN_01_WB	0.2718	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07RE1	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	
1706930-01RE1	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Added 7/26/2017 by DM2	Added 7/26/2017 by DM2
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	

PREPARATION BENCH SHEET

2700-1

7/26/17 DM

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					
F707393-BLK2	Blank	0.5	20					
F707393-BLK3	Blank	0.5	20					
F707393-BLK4	Blank	0.3356	20					
F707393-BLK5	Blank	0.3691	20					
F707393-BLK6	Blank	0.5	20					500X /
F707393-BLK7	Blank	0.5	20					500X /
F707393-BLK8	Blank	0.5	20					500X /
F707393-BS1	DORM-4	0.1253	20	1703305	125			
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	125			
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					
F707393-MS1	Matrix Spike [1706930-01]	0.2637	20	1605978	100			
F707393-MS2	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MS3	Matrix Spike [1706930-01RE1]	0.2637	20	1605978	100			1000X /
F707393-MS4	Matrix Spike [1706930-06]	0.2659	20	1605978	100			2500X
F707393-MSD1	Matrix Spike Dup [1706930-01]	0.2631	20	1605978	100			
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			
F707393-MSD3	Matrix Spike Dup [1706930-01RE1]	0.2631	20	1605978	100			1000X /
F707393-MSD4	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			2500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2700-1  
7/26/17 DM

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-01RE1	W17-N_17BN005_062417_TIN_01_WB	0.2718	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2 500X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07RE1	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Added 7/26/2017 by DM2	Added 7/26/2017 by DM2 250X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	
1706930-01RE1	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Added 7/26/2017 by DM2	Added 7/26/2017 by DM2 1000X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707393

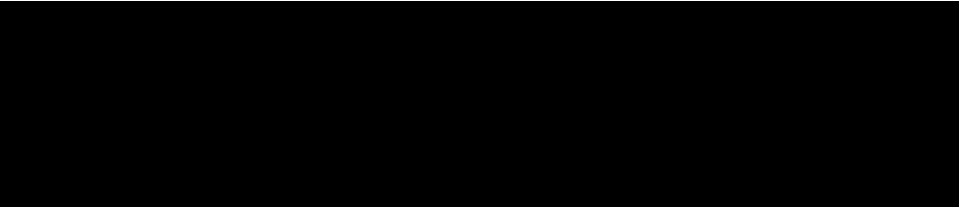
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	



**Failing Data Report - 7G27013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707393-MSD3	MHg-CVAFS-T-KOH	147.6	3.8	99.1	60.2	38.046	ng/g	230	65.00	130.00	76.7	35.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM-02, QR-08
F707393-MS4	MHg-CVAFS-T-KOH	353.9	9.4		295.7	37.646	ng/g	155	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F707393-MSD4	MHg-CVAFS-T-KOH	356.3	9.3	353.9	295.7	37.088	ng/g	163	65.00	130.00	5.53	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-02

Don Mazem  
 Analyst Reviewed By

7/27/17  
 Date

  
 Peer Reviewed By

7/30/17  
 Date

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G27015, 7G27016, 7G27013, 7G27014
<b>Reviewer:</b> <u>DM 2/23/17</u>	<b>Dataset ID #:</b> MMHg27001-170726-1, MMHg27001-170726-2
<b>Date:</b>	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F707400, F707413, F707440, F707393	<b>Client(s):</b> 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 checked="" type="checkbox"/> MHg	SOP5134 MeCl Extraction	Sed/Soil
<input type="checkbox"/> DMHg	SOP2816 (None Accredited method)	ALL

Analyst Initials:

DM

Reviewer Initials:

DM 2/23/17

- |  |  |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
|--|--|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|------------------------------|-----------------------------|---|------------------------------|-----------------------------|---|---|-----------------------------|---|---|-----------------------------|---|---|-----------------------------|---|---|-----------------------------|---|------------------------------|--|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|--|-------------------------------|------------------------------|--|-------------------------------|------------------------------|--|-------------------------------|-------------------------------------|
| <p>1. Compare Sample ID with Bench sheet/Sequence/Raw Data (Have all samples been imported?)</p> <p>2. Check for transcription errors from Excel spreadsheet (or Prep Bench sheet)/Raw data</p> <p style="margin-left: 20px;">(a) Reviewer: 100% of peak heights checked</p> <p style="margin-left: 20px;">(b) Are there peak height errors?</p> <p style="margin-left: 20px;">(c) Error on a sample: Do peak heights, responses, &amp; initial results match corrected data?</p> <p style="margin-left: 20px;">(d) Error on a Cal Pt, ICB/CCB, or PB: Has the data been reimported?</p> <p style="margin-left: 20px;">(e) Check standards &amp; reagents in sequence &amp; bench sheet for correct usage (i.e. expiries).</p> <p style="margin-left: 20px;">(f) Check and compare masses (review prep bench sheet)</p> <p style="margin-left: 20px;">(g) Check and compare initial and final volumes</p> <p style="margin-left: 20px;">(h) Do aliquots and dilutions written on benchsheet match those in Excel?</p> <p style="margin-left: 20px;">(i) Is the pH&gt;3.0 for all distilled samples? _____</p> <p style="margin-left: 20px;">(j) Is the sequence #, analyst, date, and instrument # on the QC page?</p> <p style="margin-left: 20px;">(k) Is the analysis status correct? (analyzed/initial review/reviewed)</p> <p style="margin-left: 20px;">(l) Original prep bench sheet added to data package?</p> <p style="margin-left: 20px;">(m) 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>5. 20 or fewer samples in batch? _____</p> <p style="margin-left: 20px;">(a) 3 PBs, 1 LCS/LCSD (or BS/BSD), 2 MS/MSD/MD per batch?</p> <p style="margin-left: 20px;">(b) 1 CCV and 1 CCB every 10 analytical runs? _____</p> <p><b>QA/QC Data Checked</b></p> <p>6. The calibration curve included a minimum of 5 Standards</p> <p>Comments: _____</p> <p>7. 1st Calibration Standard % Recoveries (65-135%)</p> <p>Comments: _____</p> <p>8. RSD CF (≤ 15%)</p> <p>Comments: _____</p> | <table style="width:100%; border-collapse: collapse;"> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/> N/A</td> </tr> <tr> <td><input type="checkbox"/> YES</td> <td><input checked="" type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> PASS</td> <td><input type="checkbox"/> FAIL</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> PASS</td> <td><input type="checkbox"/> FAIL</td> <td><input type="checkbox"/> N/A</td> </tr> <tr> <td><input checked="" type="checkbox"/> PASS</td> <td><input type="checkbox"/> FAIL</td> <td><input checked="" type="checkbox"/></td> </tr> </table> | <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 checked="" type="checkbox"/> N/A | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> YES | <input checked="" 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 type="checkbox"/> N/A | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A | <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 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"/> N/A |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input type="checkbox"/> YES   | <input type="checkbox"/> NO  | <input checked="" type="checkbox"/> N/A |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO  | <input checked="" type="checkbox"/> N/A |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO  | <input checked="" type="checkbox"/> N/A |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO  | <input checked="" type="checkbox"/> N/A |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO  | <input checked="" type="checkbox"/> N/A |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input type="checkbox"/> YES   | <input checked="" 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 type="checkbox"/> N/A            |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input checked="" type="checkbox"/> PASS   | <input type="checkbox"/> FAIL  | <input type="checkbox"/> N/A            |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |
| <input checked="" type="checkbox"/> PASS   | <input type="checkbox"/> FAIL  | <input checked="" type="checkbox"/>     |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |                              |                             |   |                              |                             |   |   |                             |   |   |                             |   |   |                             |   |   |                             |   |                              |  |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |  |                               |                              |  |                               |                              |  |                               |                                     |



**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G27015, 7G27016, 7G27013, 7G27014
<b>Reviewer:</b>	0 <i>DM</i>	<b>Dataset ID #:</b>	MMHg27001-170726-1, MMHg27001-170726-2
<b>Date:</b>	7/27/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F707400, F707413, F707440, F707393	<b>Client(s):</b>	VARIOUS

	<b>Analyst Initials:</b> <i>DM</i>	<b>Reviewer Initials:</b> <i>DM 7/27/17</i>
9. ICV % Recoveries 67-133% Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
10. CCV % Recoveries 67-133% Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
11. Are the absolute value of the ICB and CCBs < PQL? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%) Comments: <b>F707440-BS1, BS2, F707413-BSD1 FAILED.</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
13. LCS/LCSD or BS/BSD RPD (< 25%) Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL <input type="checkbox"/> N/A	<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%) Comments: <b>F707413-DUP1 FAILED. HIGH RPD</b>	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
20. Is there one set of MS/MSD per every 10 samples? Comments: _____	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
21. MS/MSD RPD(< 35%) Comments: <b>F707393-MSD3 FAILED. HIGH RPD.</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input type="checkbox"/>
22. MS (AS) % Recoveries (65-130%) Comments: <b>F707393-MS4, F707400-MS2 FAILED. MS4 HIGH RECOVERY. MS2 LOW RECOVERY</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
23. MSD (ASD) % Recoveries (65-130%) Comments: <b>F707393-MSD3, MSD4, F707400-MSD2 FAILED. MSD3, MSD4 HIGH RECOVERY. MSD2 LOW RECOVERY</b>	<input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630)	<input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
25. Are all samples within instrument calibration range (or at maximum aliquot size)? Comments: _____	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input checked="" type="checkbox"/>
26. For instrumental dilutions, is the dilution factor in excel correct? 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) Comments: _____	<input type="checkbox"/> PASS <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
28. Effluent < Influent metals (visually confirm if needed) Comments: _____	<input type="checkbox"/> PASS <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G27013, 7G27014, 7G27015, 7G27016
<b>Reviewer:</b>	0 <i>R 7/27/17</i>	<b>Dataset ID #:</b>	MMHg27001-170726-1, MMHg27001-170726-2
<b>Date:</b>	7/27/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F707400, F707413, F707393, F707440	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*R 7/27/17*

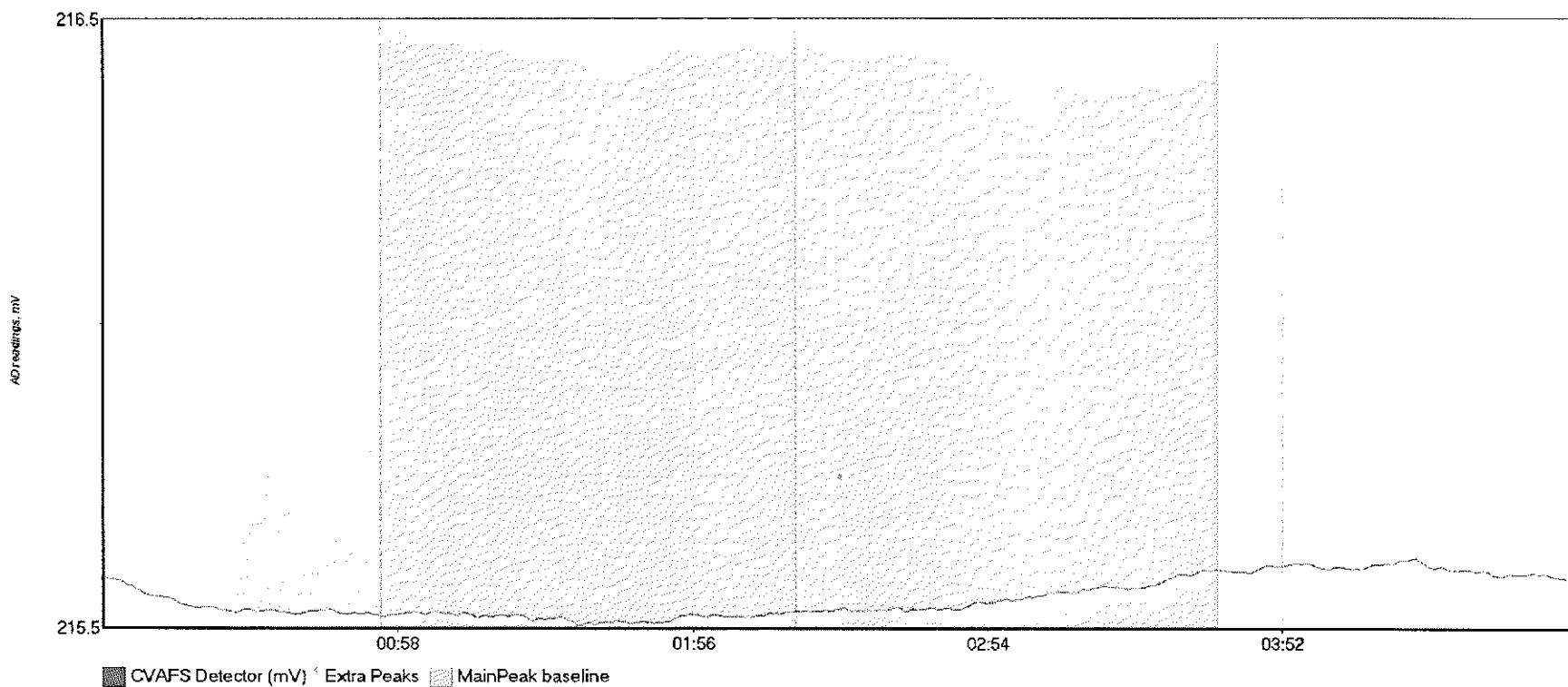
- |  |   |  |   |                                     |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):<br>Was a bubbler and trap test run before the analytical run continued?<br>Comments: _____ | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Do re-run results compare to initial analysis (< 35% RPD)?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Are qualifiers consistent with the data review flowcharts?<br>Comments: _____  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?<br>Comments: _____                                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 34. 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"/> |
| 35. Narrations in MMO box in LIMS?<br>Comments: _____  |   |  |   |                                     |
| 36. Are there any HIGH QA projects within the data?<br>If so, place dataset to the QA office.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |   |                                     |
| 37. Does the data set need scanning?<br>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs                        | <input type="checkbox"/> YES            |  | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>6-13-17</u> IDOC/CDOC within last 12 months?   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 39. Date of analyst's SOP reading: <u>5-23-16</u> Current SOP revision?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>4-24-17</u> <u>4-26-17</u> LOD within last 3 months (within 12 months for MDN)?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 41. Date of LOQ: <u>4-24-17</u> <u>5-8-17</u> <u>4-26-17</u> LOQ within last 3 months (within 12 months for MDN)?                          | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 42. If MDN samples, date of last MDL study: _____  |   |  |   |                                     |
| 43. MDL study within last 12 months?   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>Data can not be reported without a current IDOC/CDOC, LOD or LOQ.</b>   |   |  |   |                                     |
| Additional Comments: _____   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |

MethylMercury EPA1630 Operat MMHQ2 BlankSub: CalibFactor: Calib Eqn: Status: Run Date: 7/26/2017 Blank SD: Methoc 2010-01 R: Re: RSD%: CF SD: Blank RSD%: Descr: MMHQ27001-170726-1 R: CF SD: CF RSD%: Locator: Rinse Dilute Blank ConcHg(0) ConcMeHg ConcHg(2) ConcPrtHg( Rec% OA) RawData RunEnd PeakHq (Raw PeakMeHg (R. PeakHq(2) Raw PeakPrHg(Raw Control (etf) Flags RunCount:

Sample/ID	Method	Conc	PeakHq (Raw)	PeakMeHg (R)	PeakHq(2) Raw	PeakPrHg(Raw)	Control (etf)	Flags	RunCount
Clean			8:39:27	0.00			clear dry	NP	1
WS A1			8:51:53	10.88	0.00	4.44	0.00 psample10	CT	1
SEQ-JRL1 A2	1		9:02:24	14.37	0.00	2.41	0.00 psample10	CT	1
SEQ-CAL1 A3	1		9:12:55	9.31	21.09	2.83	0.00 psample10	OK	1
SEQ-CAL2 A4	1		9:23:25	9.18	76.14	5.53	0.00 psample10	OK	1
SEQ-CAL3 A5	1		9:33:56	9.81	429.02	29.65	0.00 psample10	OK	1
SEQ-CAL4 A6	1		9:44:27	9.78	901.94	64.53	0.00 psample10	OK	1
SEQ-CAL5 A7	1		9:54:58	12.56	1914.24	292.59	0.00 psample10	CT	1
SEQ-IGV1 A8	1		10:05:28	9.48	210.94	6.37	0.00 psample10	CT	1
SEQ-ICB1 A9	1		10:15:59	7.13	2.32	3.37	0.00 psample10	CT	1
F707400-BLK1 A10	1.25		10:42:30	12.02	0.37	11.65	0.00 psample10	OK	1
F707400-BLK2 A11	1.25		10:53:01	11.60	0.00	18.00	0.00 psample10	CT	1
F707400-BLK3 A12	1.25		11:03:32	11.94	0.00	2792.12	0.00 psample10	OK	1
F707400-BS1 A13	1.25		11:14:02	17.65	297.67	23.64	0.00 psample10	OK	1
F707400-BSD1 A14	1.25		11:24:33	14.04	314.39	13.69	0.00 psample10	OK	1
F707400-DUP1 A15	1.25		11:35:03	10.22	20.84	29.23	0.00 psample10	OK	1
F707400-MS1 A16	1.25		11:45:34	12.74	437.02	60.38	0.00 psample10	CT	1
F707400-MSD1 A17	1.25		11:56:05	13.64	416.22	153.85	0.00 psample10	OK	1
F707400-MS2 A18	1.25		12:06:35	17.31	200.34	37.04	0.00 psample10	OK	1
F707400-MSD2 A19	1.25		12:17:06	20.11	234.16	75.13	0.00 psample10	OK	1
SEQ-CCV1 A20	1		12:27:37	6.87	193.40	3.37	0.00 psample10	OK	1
SEQ-CCB1 A21	1		12:38:07	9.55	0.72	1.78	0.00 psample10	OK	1
1706635-01RE1 B1	1.25		12:48:38	9.62	1.48	70.32	0.00 psample10	CT	1
1706635-02RE1 B2	1.25		12:59:09	10.92	6.11	8.82	0.00 psample10	OK	1
1706635-05RE1 B3	1.25		13:09:39	8.77	1.03	8.55	0.00 psample10	OK	1
1706635-06RE1 B4	1.25		13:20:10	10.26	5.24	32.21	0.00 psample10	OK	1
1706730-01RE1 B5	1.25		13:30:41	14.31	138.91	72.99	0.00 psample10	OK	1
1706730-02RE1 B6	1.25		13:41:12	10.97	168.57	73.95	0.00 psample10	CT	1
1706730-03RE1 B7	1.25		13:51:43	8.47	49.46	33.37	0.00 psample10	OK	1
1706730-04RE1 B8	1.25		14:02:13	9.96	8.31	1142.30	0.00 psample10	OK	1
1706926-01RE1 B9	1.25		14:12:44	11.89	24.66	50.76	0.00 psample10	CT	1
1706926-03RE1 B10	1.25		14:23:15	9.83	32.01	51.40	0.00 psample10	CT	1
SEQ-CCV2 B11	1		14:33:45	5.26	176.38	1.67	0.00 psample10	OK	1
SEQ-CCB2 B12	1		14:44:16	7.81	0.00	4.89	0.00 psample10	OK	1
1706926-04RE1 B13	1.25		14:54:47	19.09	9.57	34.37	0.00 psample10	CT	1
1706926-05RE1 B14	1.25		15:05:17	18.39	12.72	38.23	0.00 psample10	OK	1
1706926-06RE1 B15	1.25		15:15:48	9.47	8.22	29.40	0.00 psample10	OK	1
1707149-01RE1 B16	1.25		15:26:19	13.05	130.20	113.95	0.00 psample10	CT	1
1707149-02RE1 B17	1.25		15:36:49	8.13	113.58	80.89	0.00 psample10	CT	1
1707149-03RE1 B18	1.25		15:47:10	11.35	121.01	105.42	0.00 psample10	OK	1
1707149-04RE1 B19	1.25		16:13:10	13.25	124.29	182.80	0.00 psample10	OK	1
1707149-05RE1 B20	1.25		16:23:40	11.12	132.99	155.17	0.00 psample10	CT	1
1707149-06RE1 B21	1.25		16:34:11	12.65	126.68	136.59	0.00 psample10	CT	1
1707538-01 C1	1.25		16:44:42	14.26	18.61	51.72	0.00 psample10	OK	1
SEQ-CCV3 C2	1		16:55:13	4.43	191.40	3.08	0.00 psample10	OK	1
SEQ-CCB3 C3	1		17:05:43	7.26	0.00	3.42	0.00 psample10	CT	1
F707413-BLK1 C4	1		17:16:14	7.16	46.02	285.50	0.00 psample10	OK	1
F707413-BLK2 C5	1		17:26:45	6.39	46.95	169.74	0.00 psample10	CT	1
F707413-BLK3 C6	1		17:37:15	5.25	39.25	282.01	0.00 psample10	OK	1
F707413-BS1 C7	10		17:47:46	5.33	336.61	21.62	0.00 psample10	OK	1
F707413-BSD1 C8	10		17:58:17	6.08	256.26	13.30	0.00 psample10	CT	1
F707413-DUP1 C9	1		18:08:48	8.80	82.28	64.42	0.00 psample10	CT	1
F707413-MS1 C10	10		18:19:20	6.30	384.78	26.79	0.00 psample10	CT	1
F707413-MSD1 C11	10		18:29:50	6.76	393.58	29.65	0.00 psample10	OK	1
1707106-01RE1 C12	1		18:40:21	1036.68	132.45	383.00	0.00 psample10	OK	1
1707106-02RE1 C13	1		18:50:52	5.52	98.89	53.61	0.00 psample10	CT	1
SEQ-CCV4 C14	1		19:01:22	4.57	188.06	5.71	0.00 psample10	OK	1
SEQ-CCB4 C15	1		19:11:53	3.77	0.00	2.96	0.00 psample10	OK	1
F707440-BLK1 C16	1		19:22:24	4.91	62.87	472.39	0.00 psample10	CT	1
F707440-BLK2 C17	1		19:32:55	4.72	87.41	442.11	0.00 psample10	OK	1
F707440-BLK3 C18	1		19:43:26	5.28	80.40	337.15	0.00 psample10	OK	1
F707440-BS1 C19	1		19:53:57	3.50	60.44	250.16	0.00 psample10	OK	1
F707440-BS2 C20	1		20:04:44	2.85	76.98	213.97	0.00 psample10	OK	1
1707500-14 C21	1		20:15:15	3.38	41.42	398.77	0.00 psample10	OK	1
F707393-BLK6 A1	500		20:25:46	5.43	0.00	5.46	0.00 psample10	OK	1
F707393-BLK7 A2	500		20:36:16	4.99	0.00	6.84	0.00 psample10	OK	1
F707393-BLK9 A3	500		20:46:47	4.66	0.00	4.90	0.00 psample10	OK	1
F707393-MS3 A4	1000		20:57:17	3.49	564.52	34.40	0.00 psample10	OK	1
SEQ-CCV5 A5	1		21:07:48	4.94	191.74	3.73	0.00 psample10	CT	1
SEQ-CCB5 A6	1		21:18:19	5.86	0.00	2.19	0.00 psample10	OK	1
F707393-MSD3 A7	1000		21:28:50	5.55	839.22	39.89	0.00 psample10	CT	1
F707393-MS4 A8	2500		21:39:20	3.85	813.40	32.52	0.00 psample10	CT	1
F707393-MSD4 A9	2500		21:49:51	3.52	831.23	31.38	0.00 psample10	CT	1
1706929-01RE1 A10	500		22:00:22	3.14	28.03	25.88	0.00 psample10	CT	1

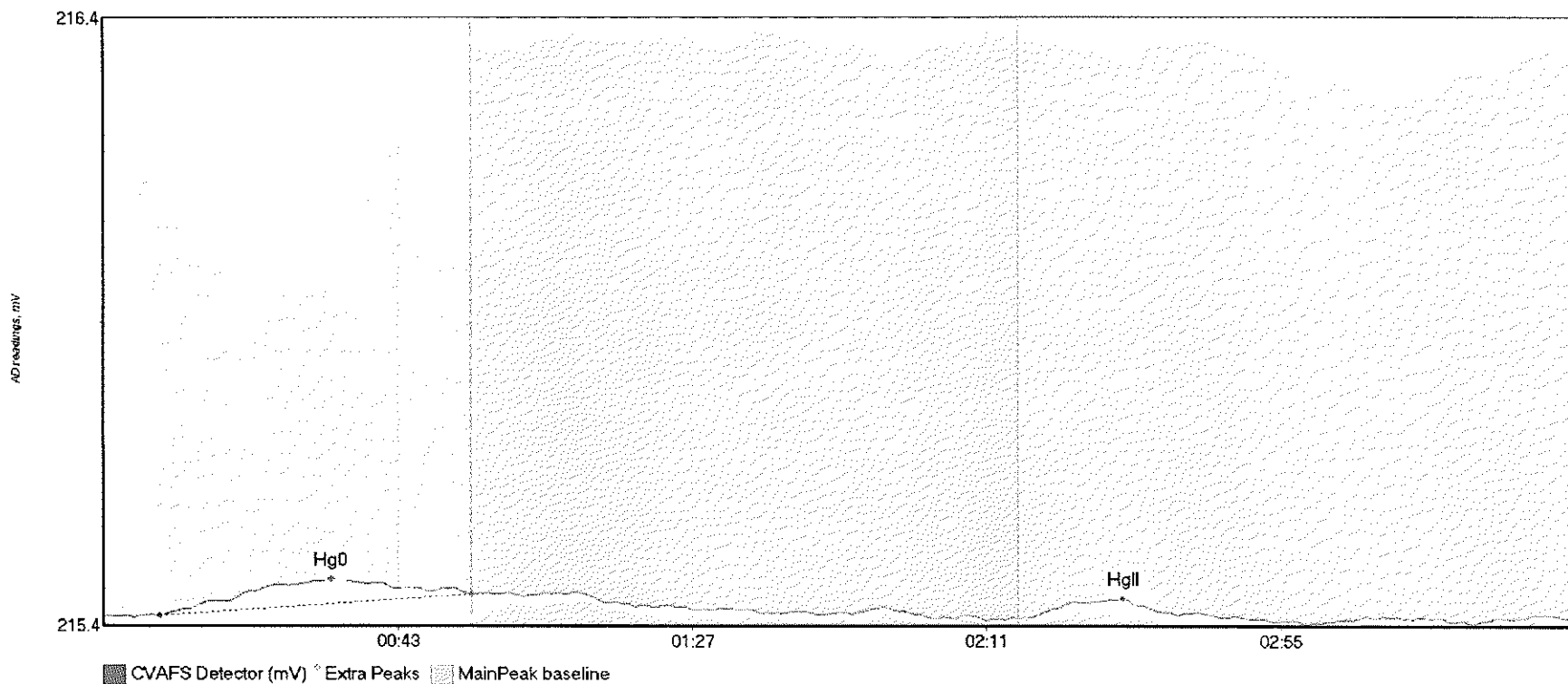
1706929-07RE1	A11	2500	24305-1.RAW	22:10:53	3.56	814.24	30.53	0.00	psample10	OK	1
1706930-01RE1	A12	1000	24305-1.RAW	22:21:23	4.28	335.21	25.64	0.00	psample10	OK	1
SEQ-CCV6	A13	1	24307-1.RAW	22:31:54	5.28	200.97	1.23	0.00	psample10	CT	1
SEQ-CCB6	A14	1	24308-1.RAW	22:42:24	3.32	1.10	2.65	0.00	psample10	OK	1

Clean: No peak(s) detected.



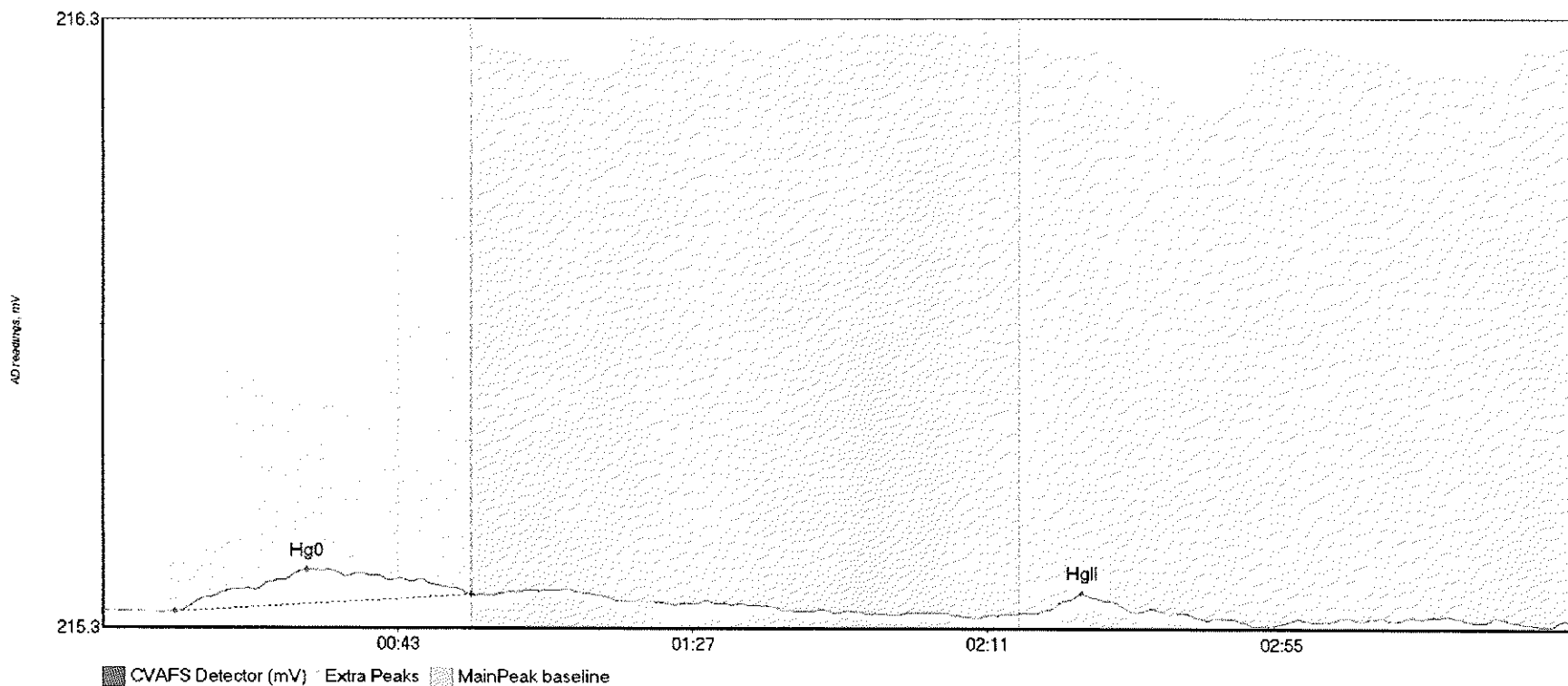
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.000	-	-	-	-	-	-	NP	215.5875	0.00	0.00	017

#2: WS



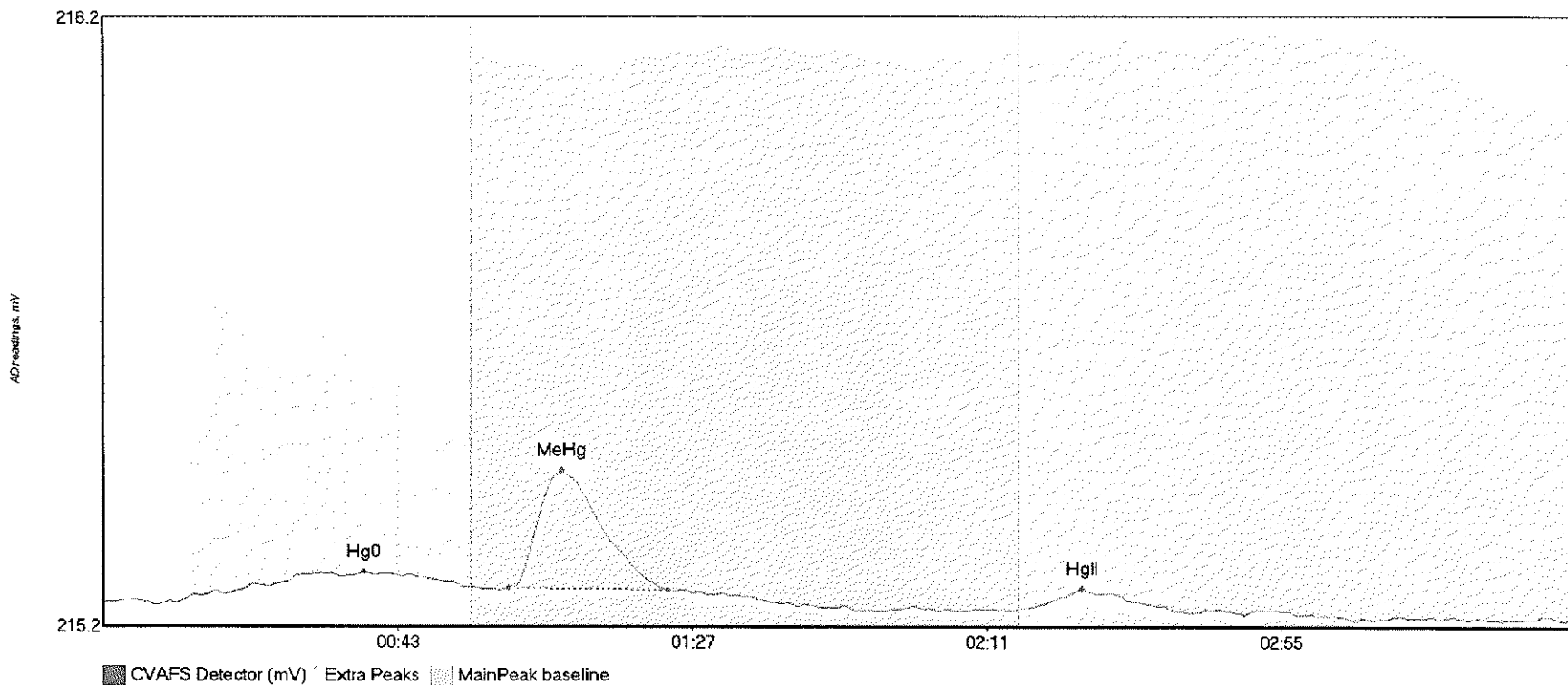
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	10.877	8.4	55.0	215.45	215.48	34.0	0.062	CT	215.4464	0.00	0.00	017
WS HgII	4.437	138.1	166.7	215.44	215.44	152.5	0.031	OK	215.4464	0.00	0.00	

#3: SEQ-IBL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	14.373	10.7	55.0	215.37	215.40	30.4	0.070	CT	215.3726	0.00	-0.01	
SEQ-IBL1 HgII	2.409	139.6	154.0	215.37	215.37	146.2	0.032	OK	215.3726	0.00	-0.01	017

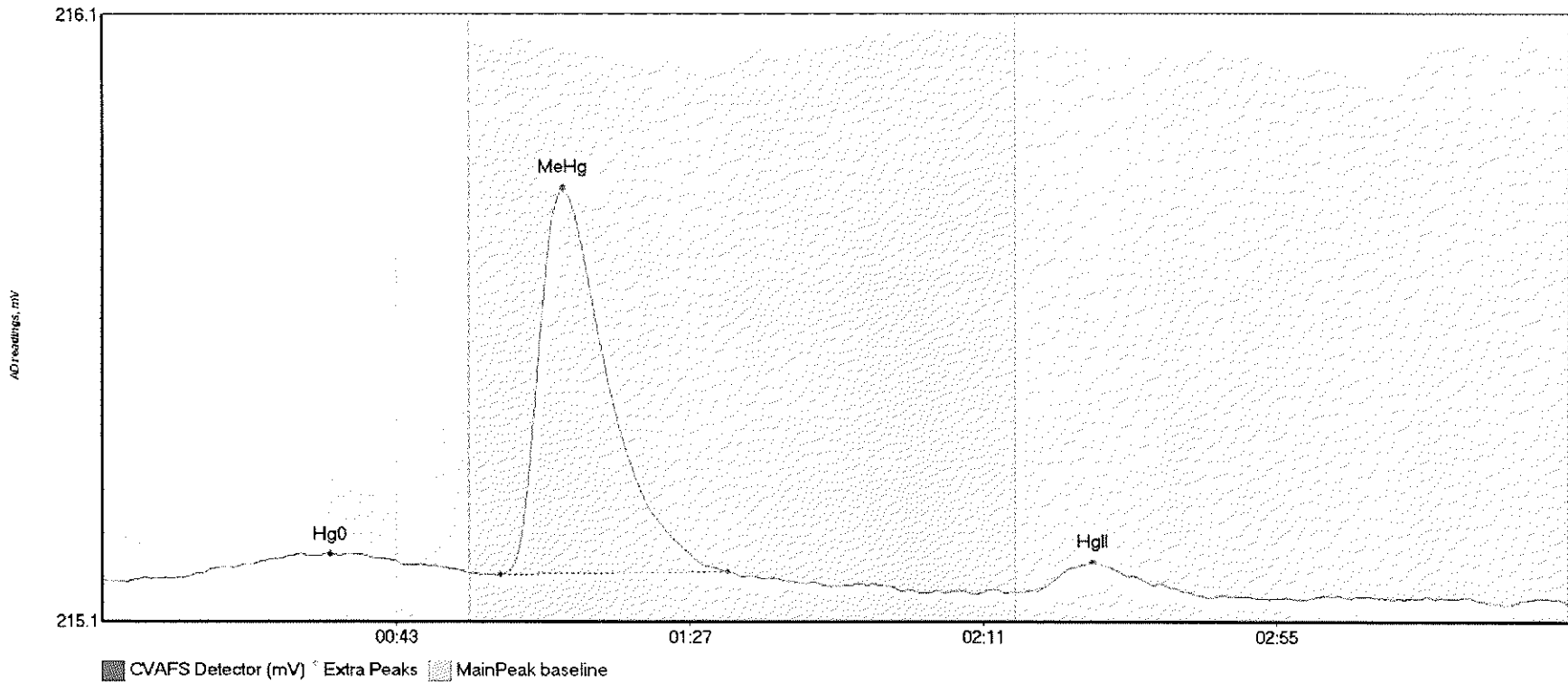
#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	9.308	11.0	54.9	215.27	215.30	39.0	0.050	OK	215.2730	0.00	-0.03	
SEQ-CAL1 MeHg	21.087	60.6	84.3	215.29	215.29	68.6	0.194	OK	215.2730	0.00	-0.03	
SEQ-CAL1 HgII	2.833	138.3	157.9	215.26	215.27	146.3	0.030	OK	215.2730	0.00	-0.03	

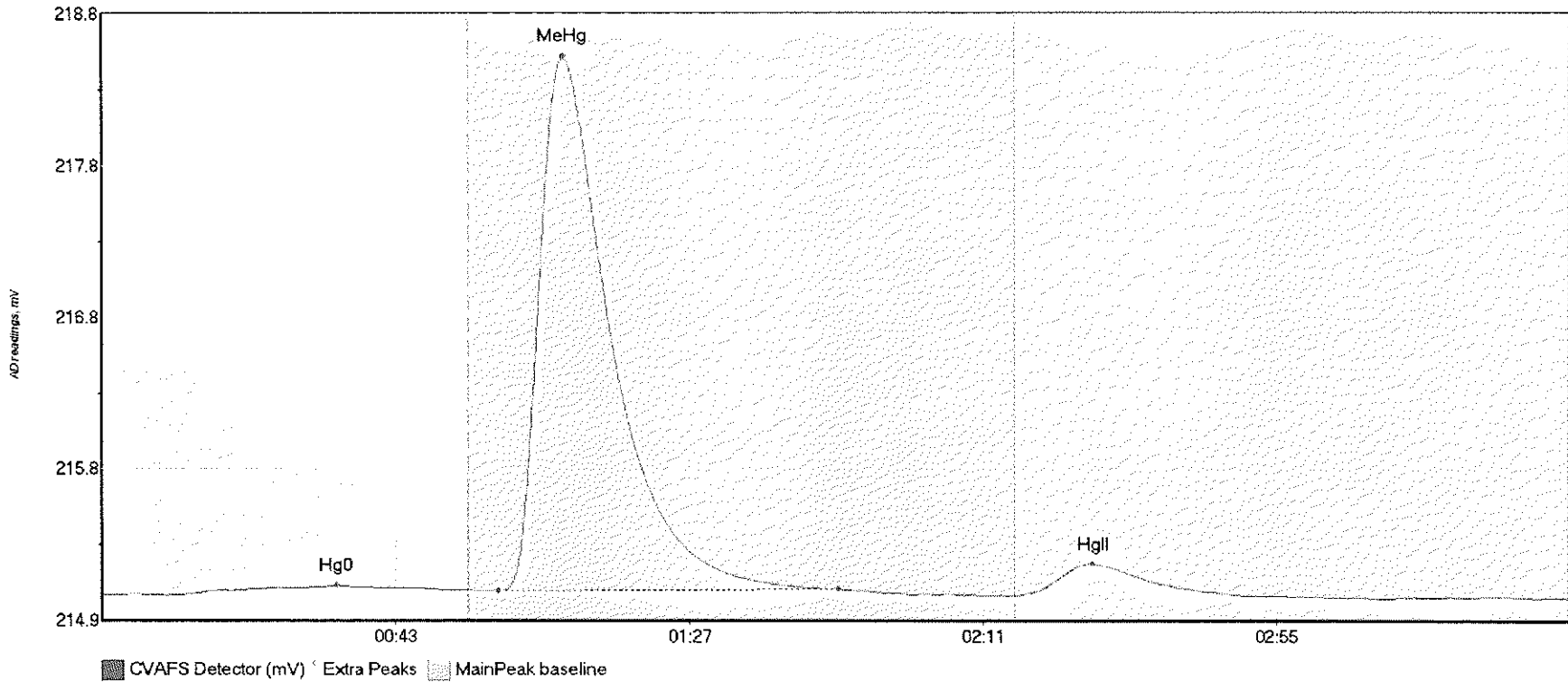


#5: SEQ-CAL2



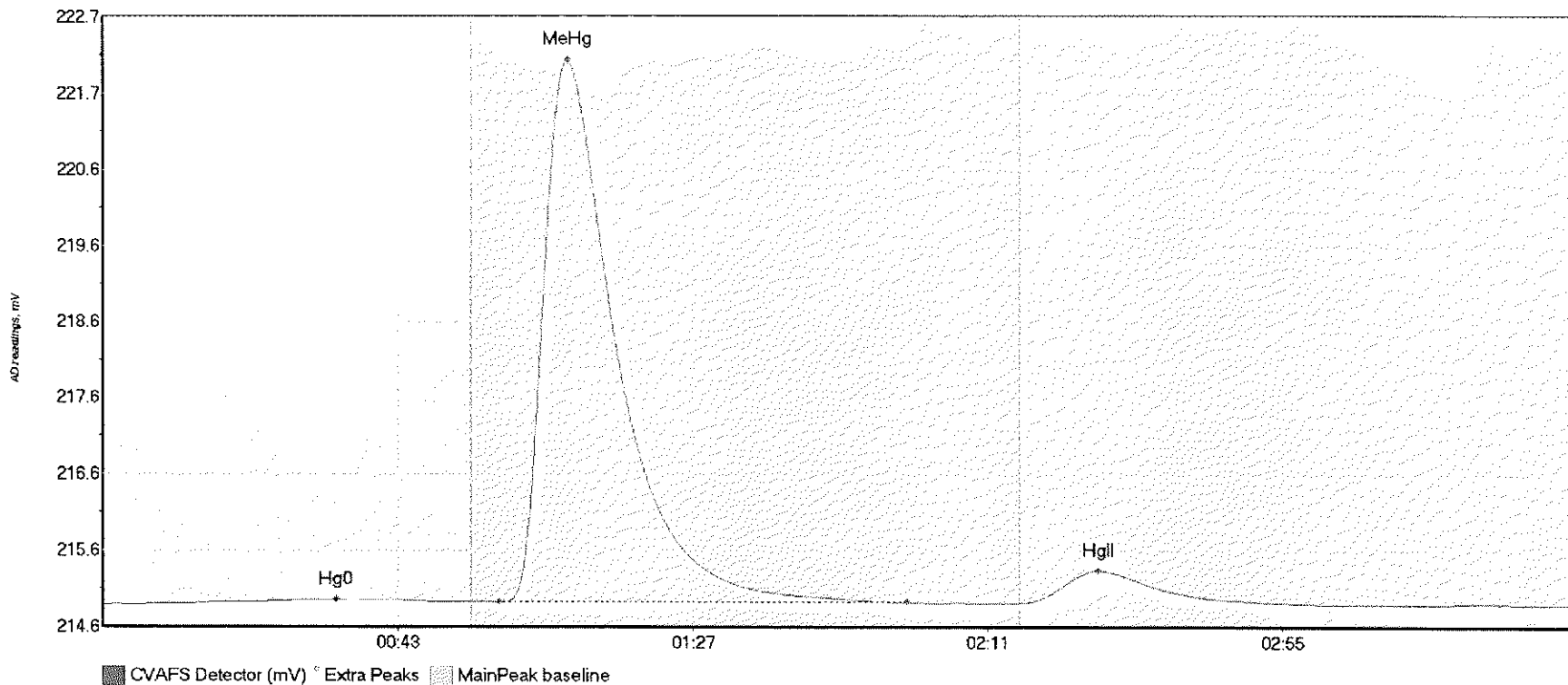
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	9.182	11.9	54.9	215.16	215.17	34.1	0.040	OK	215.1592	0.00	-0.04	
SEQ-CAL2 MeHg	76.143	59.6	93.8	215.17	215.17	69.0	0.636	OK	215.1592	0.00	-0.04	
SEQ-CAL2 HgII	5.527	139.9	161.9	215.14	215.14	148.5	0.048	OK	215.1592	0.00	-0.04	

#6: SEQ-CAL3



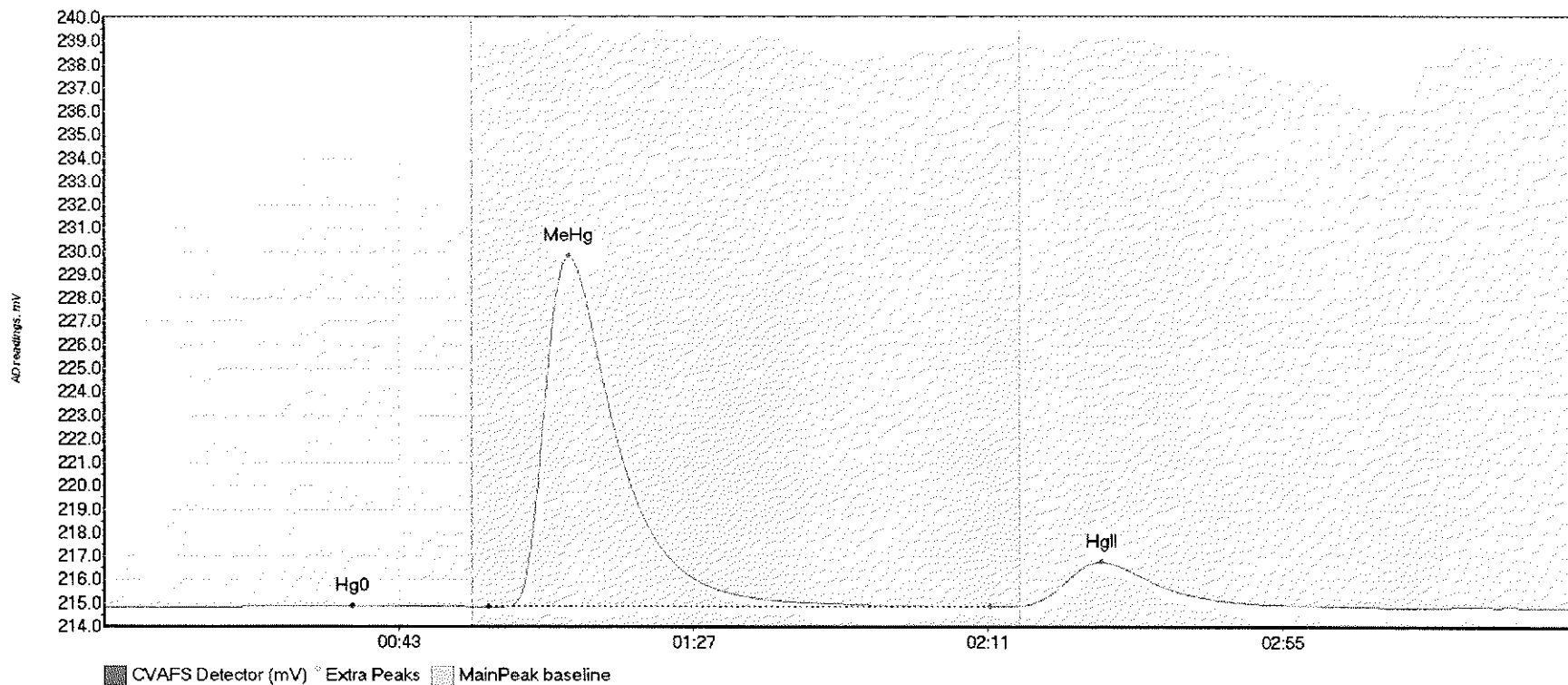
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	9.805	11.2	52.2	215.03	215.06	35.2	0.058	OK	215.0255	0.00	-0.02	
SEQ-CAL3 MeHg	429.016	59.5	110.4	215.05	215.06	69.2	3.452	OK	215.0255	0.00	-0.02	
SEQ-CAL3 HgII	29.652	136.8	171.3	215.02	215.02	148.6	0.204	OK	215.0255	0.00	-0.02	

#7: SEQ-CAL4



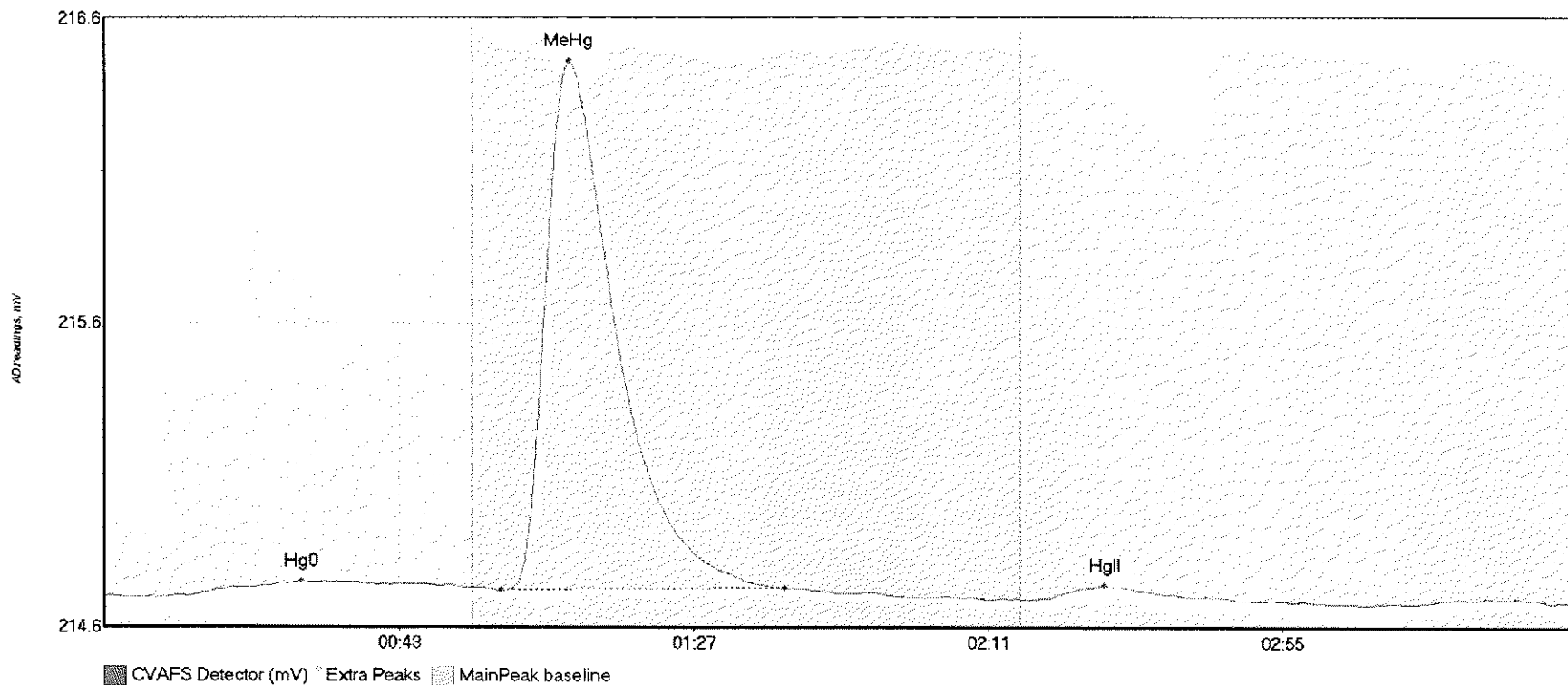
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	9.784	9.7	52.2	214.92	214.95	34.9	0.055	OK	214.9144	0.00	-0.01	
SEQ-CAL4 MeHg	901.945	59.2	120.0	214.94	214.94	69.4	7.146	OK	214.9144	0.00	-0.01	
SEQ-CAL4 HgII	64.532	136.8	176.3	214.93	214.93	148.6	0.429	OK	214.9144	0.00	-0.01	

#8: SEQ-CAL5



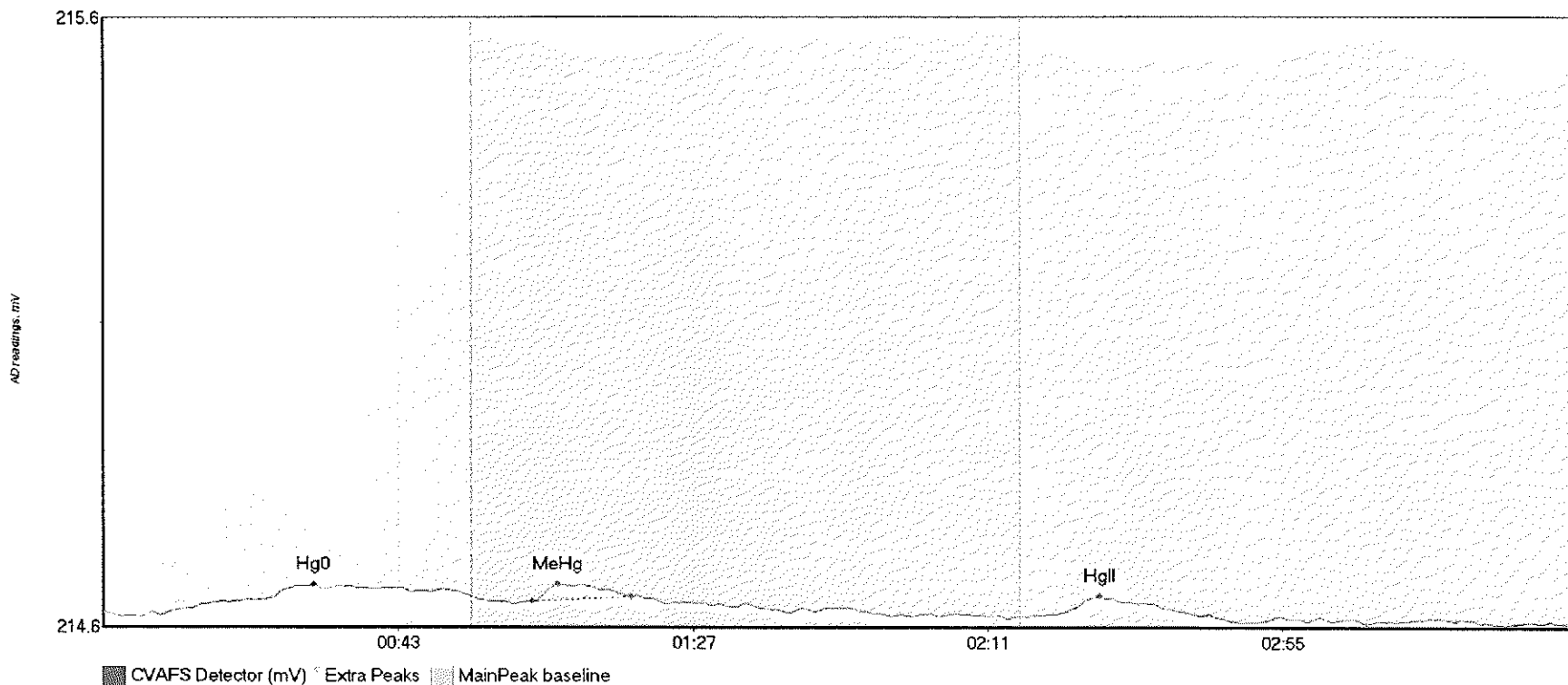
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	12.556	11.5	55.0	214.80	214.84	37.1	0.066	CT	214.8098	0.00	0.01	
SEQ-CAL5 MeHg	1914.239	57.4	132.4	214.83	214.85	69.5	14.981	OK	214.8098	0.00	0.01	
SEQ-CAL5 HgII	292.591	136.8	184.5	214.89	214.87	149.1	1.873	OK	214.8098	0.00	0.01	

#9: SEQ-ICV1



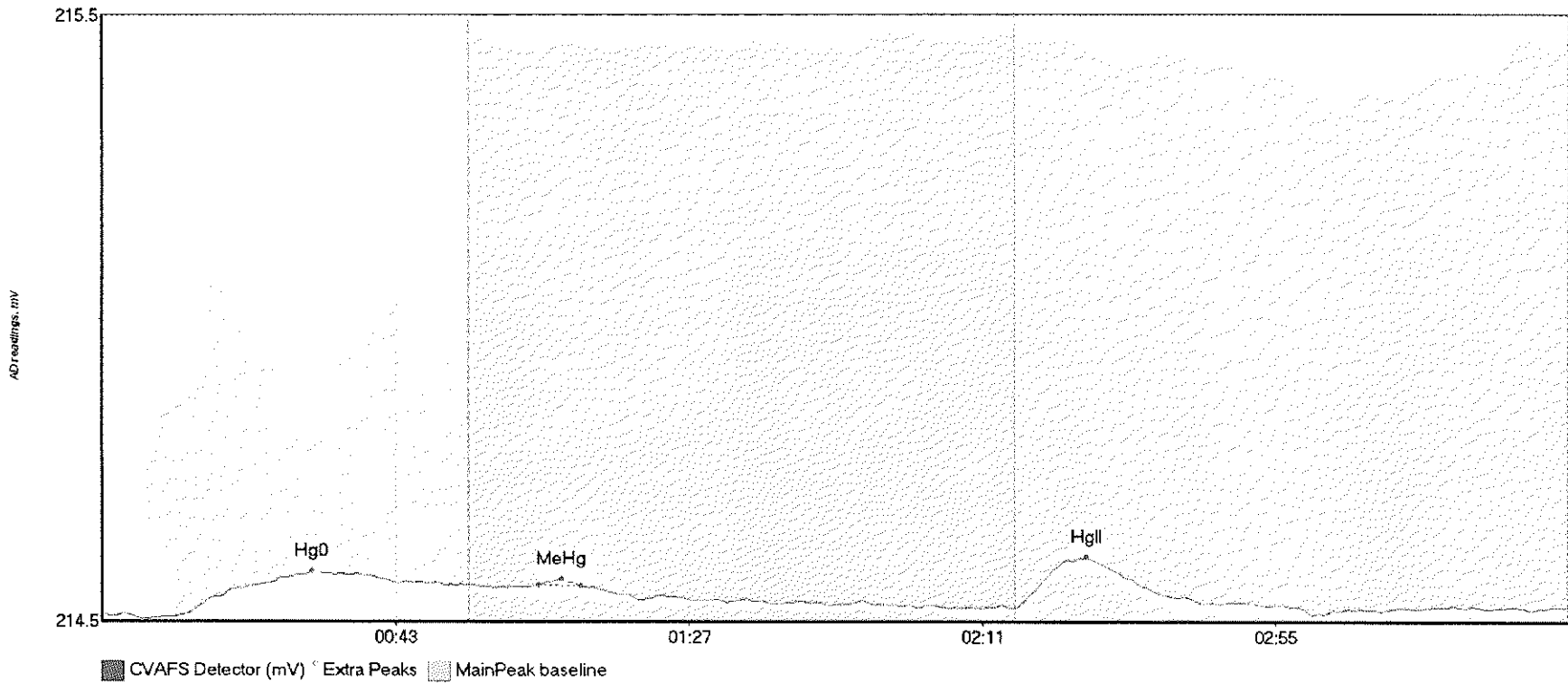
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	9.483	12.6	55.0	214.73	214.75	29.5	0.049	CT	214.7289	0.00	-0.02	
SEQ-ICV1 MeHg	210.941	59.3	101.6	214.75	214.75	69.5	1.725	OK	214.7289	0.00	-0.02	
SEQ-ICV1 HgII	6.372	141.0	169.6	214.72	214.71	149.5	0.044	OK	214.7289	0.00	-0.02	

#10: SEQ-ICB1



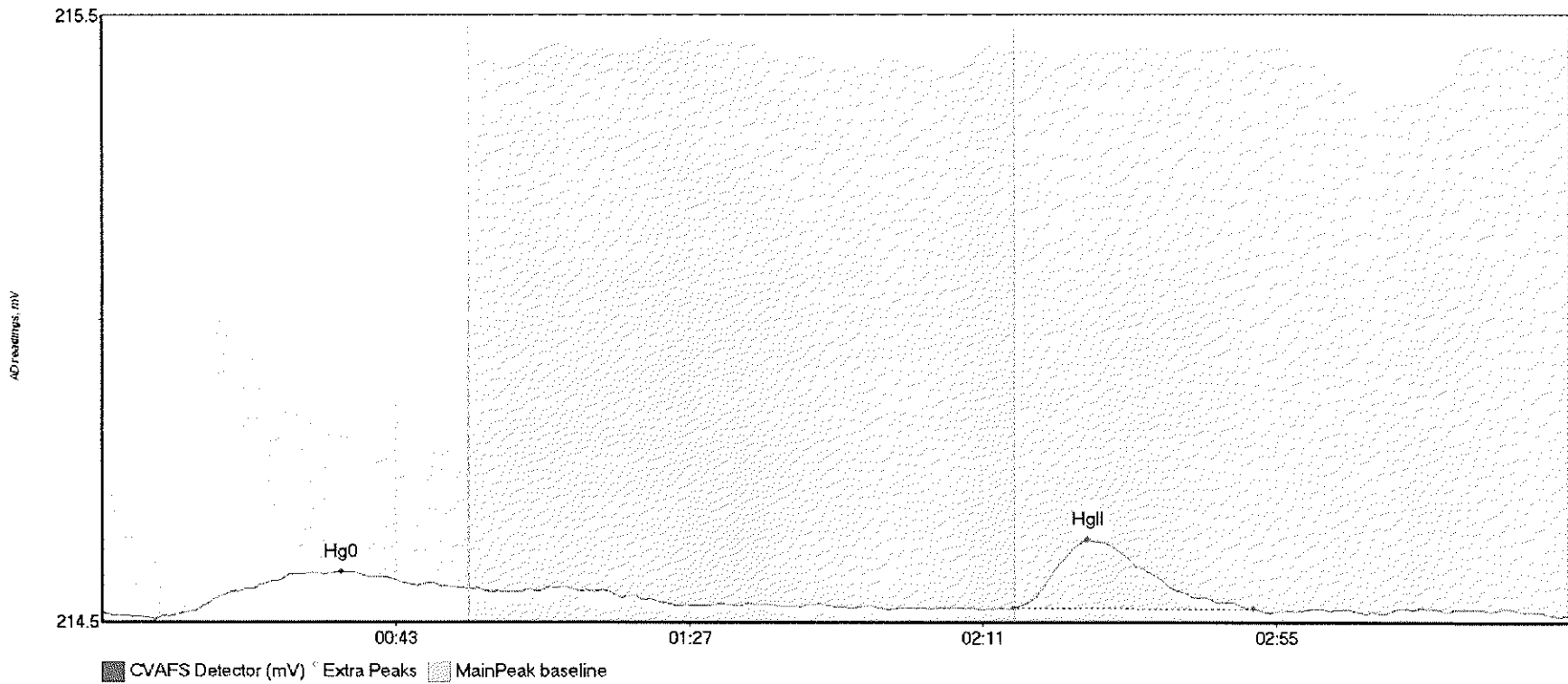
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	7.128	11.1	55.0	214.64	214.67	31.5	0.042	CT	214.6402	0.00	-0.02	
SEQ-ICB1 MeHg	2.318	64.0	78.7	214.66	214.67	67.9	0.029	OK	214.6402	0.00	-0.02	
SEQ-ICB1 HgII	3.369	142.0	163.2	214.64	214.64	148.7	0.030	OK	214.6402	0.00	-0.02	

#11: F707400-BLK1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BLK1 Hg	12.019	10.6	54.9	214.49	214.54	31.5	0.074	OK	214.4942	0.00	0.01	
F707400-BLK1 Me	0.367	65.5	71.7	214.54	214.54	68.8	0.010	OK	214.4942	0.00	0.01	
F707400-BLK1 Hg	11.654	136.8	167.7	214.50	214.51	147.6	0.084	OK	214.4942	0.00	0.01	

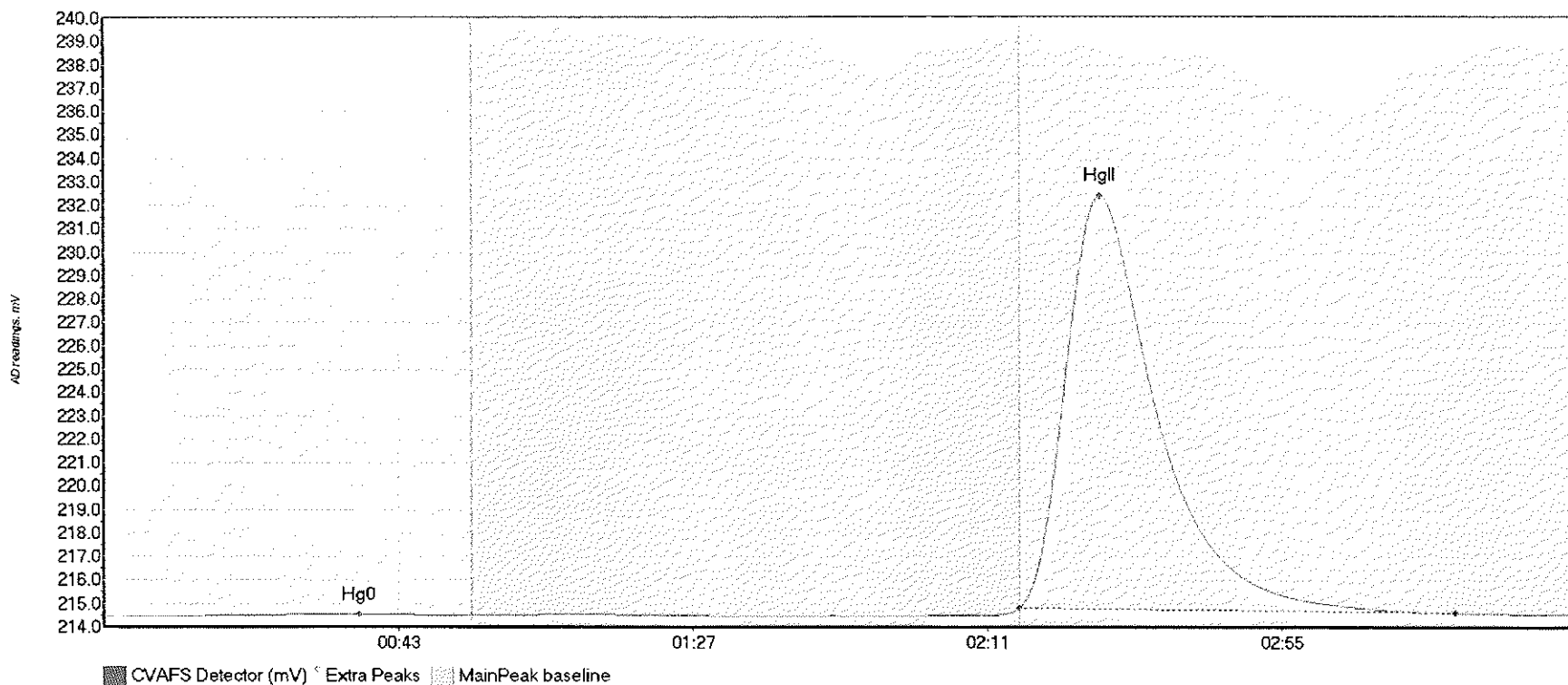
#12: F707400-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BLK2 Hg	11.598	13.0	55.0	214.48	214.52	35.8	0.066	CT	214.4762	0.00	0.00	
F707400-BLK2 Hg	18.002	136.8	172.6	214.48	214.48	147.8	0.112	OK	214.4762	0.00	0.00	117

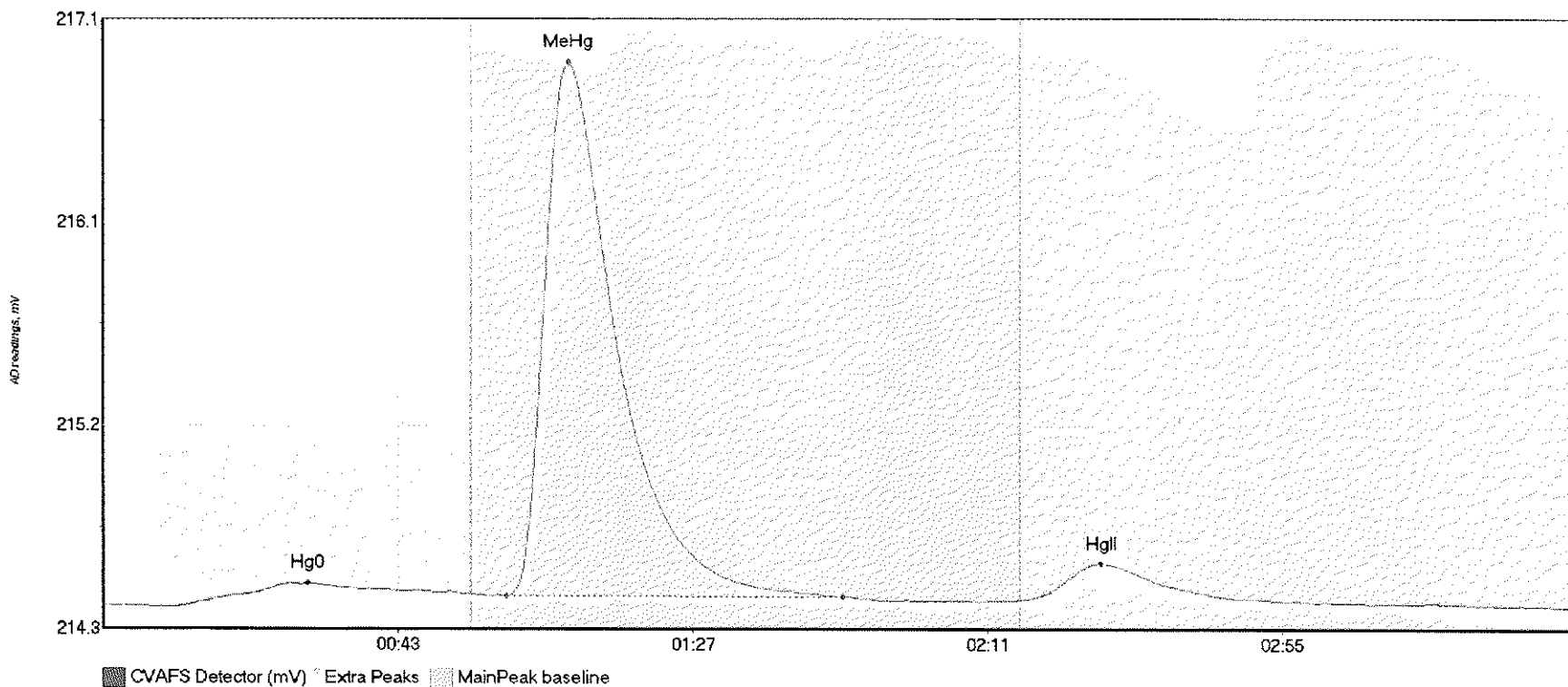


#13: F707400-BLK3



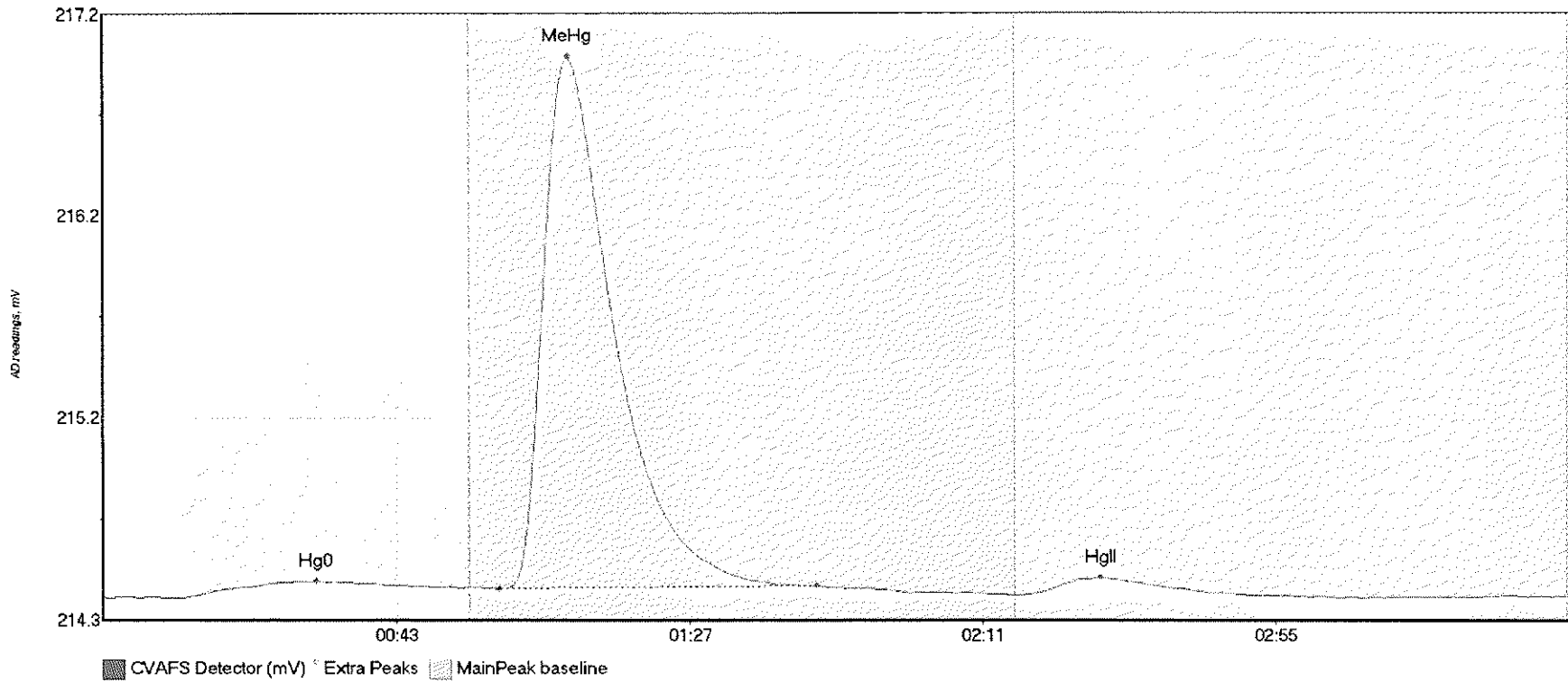
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BLK3 Hg	11.937	11.4	52.7	214.45	214.51	38.1	0.080	OK	214.4514	0.00	0.08	
F707400-BLK3 Hg	2792.116	136.8	202.1	214.80	214.59	148.8	17.612	OK	214.4514	0.00	0.08	017

#14: F707400-BS1



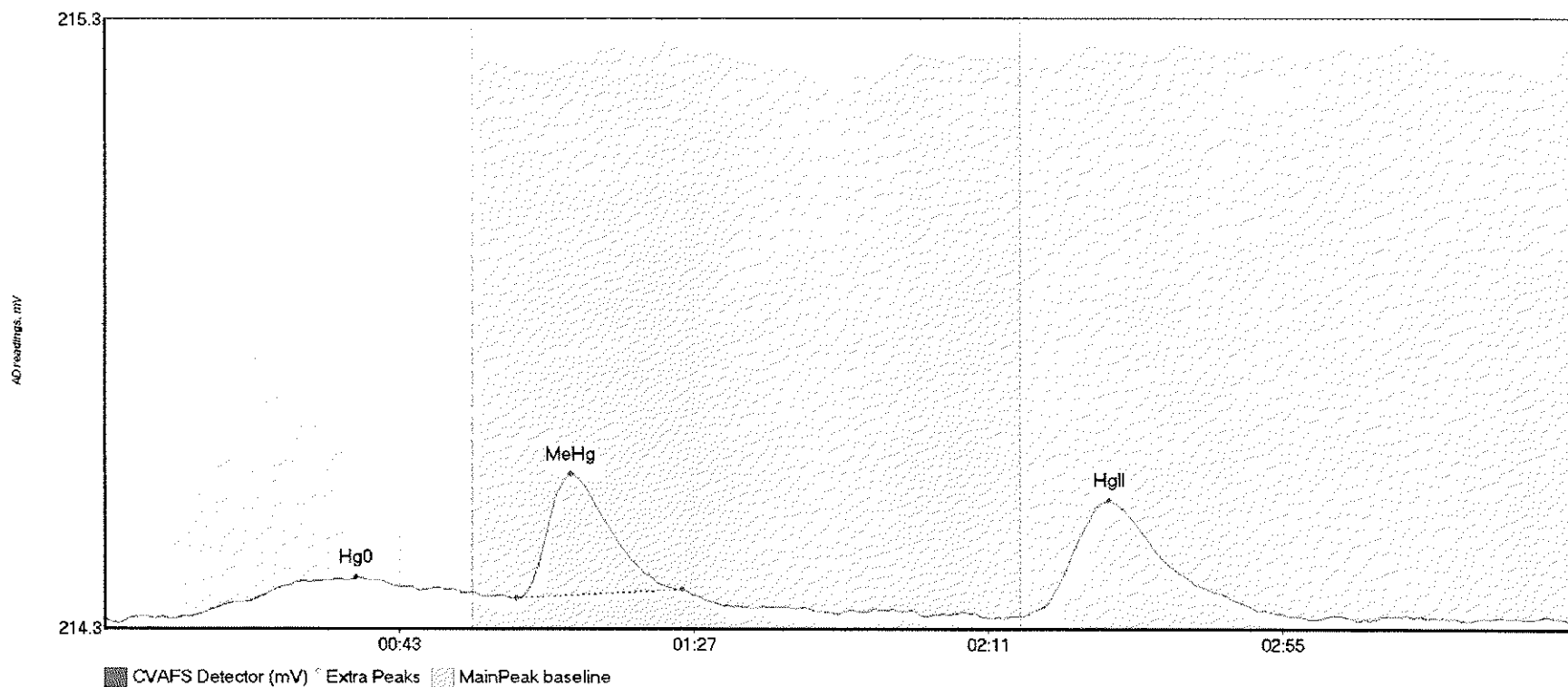
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BS1 Hg0	17.654	10.1	54.4	214.42	214.48	30.6	0.106	OK	214.4344	0.00	-0.01	
F707400-BS1 MeH	297.675	60.3	110.4	214.47	214.47	69.6	2.392	OK	214.4344	0.00	-0.01	
F707400-BS1 HgI	23.640	137.6	170.4	214.46	214.46	149.0	0.164	OK	214.4344	0.00	-0.01	

#15: F707400-BSD1



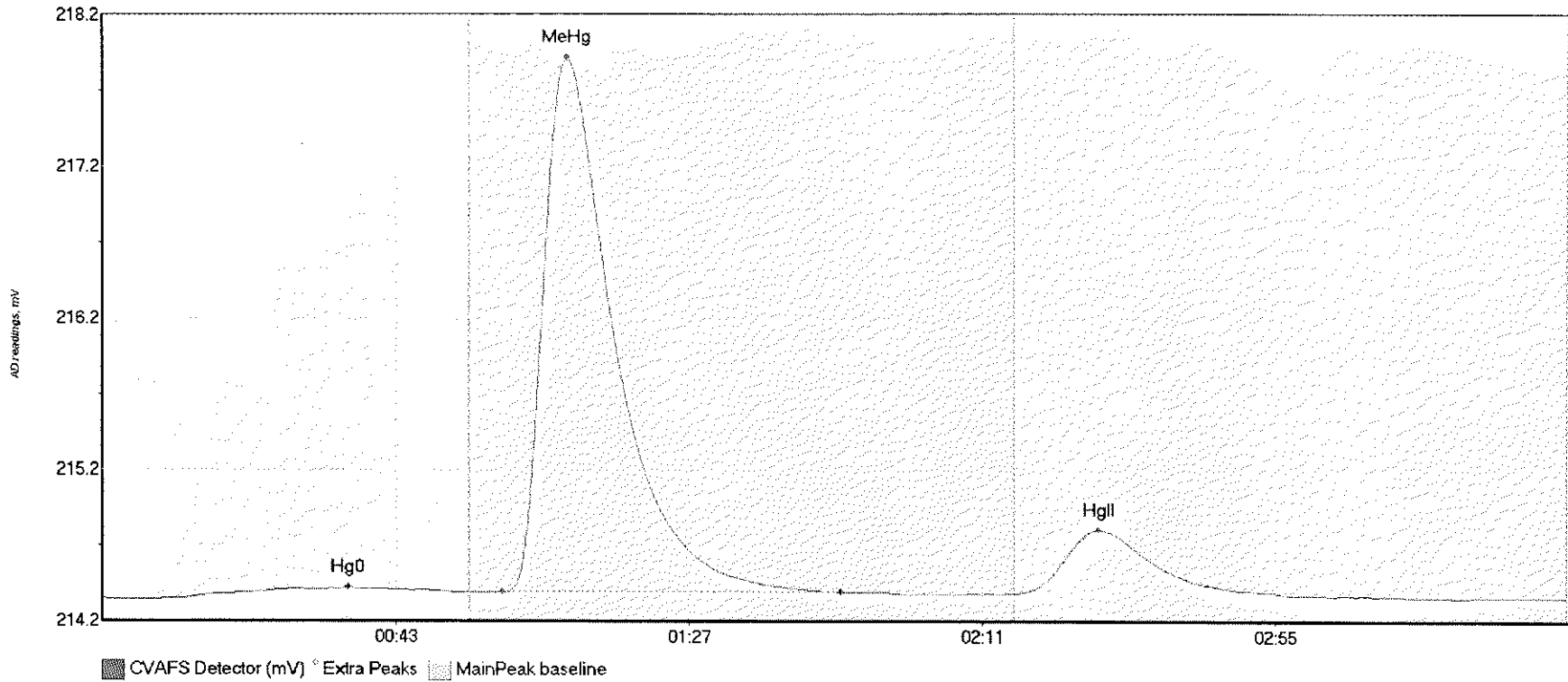
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-BSD1 Hg	14.040	11.3	53.4	214.38	214.43	32.0	0.082	OK	214.3818	0.00	0.01	
F707400-BSD1 Me	314.387	59.4	107.2	214.42	214.44	69.8	2.568	OK	214.3818	0.00	0.01	
F707400-BSD1 Hg	13.687	137.5	171.8	214.39	214.39	149.8	0.087	OK	214.3818	0.00	0.01	

#16: F707400-DUP1



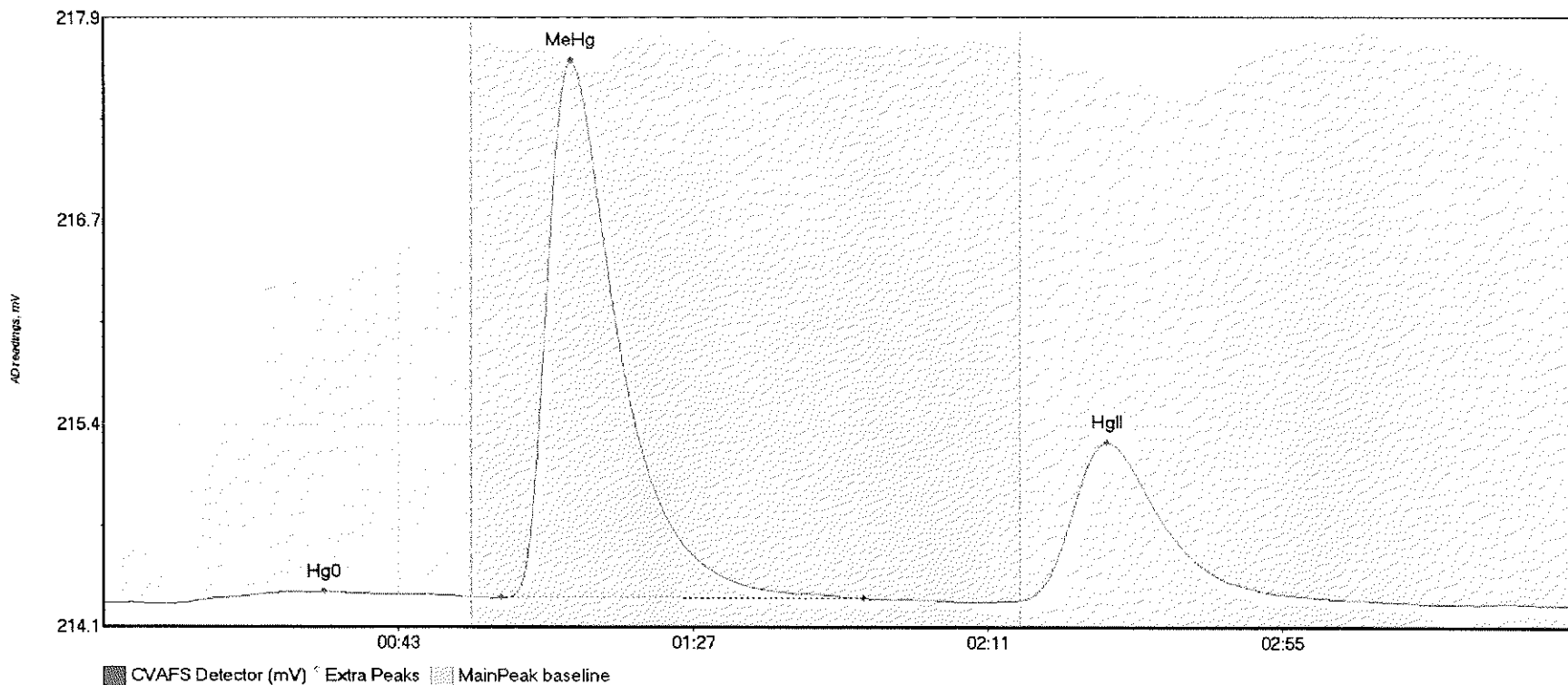
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-DUP1 Hg	10.218	10.2	54.1	214.35	214.39	37.6	0.068	OK	214.3495	0.00	0.00	
F707400-DUP1 Me	20.841	61.6	86.3	214.39	214.40	69.7	0.204	OK	214.3495	0.00	0.00	
F707400-DUP1 Hg	29.233	136.8	175.5	214.35	214.36	150.2	0.191	OK	214.3495	0.00	0.00	

#17: F707400-MS1



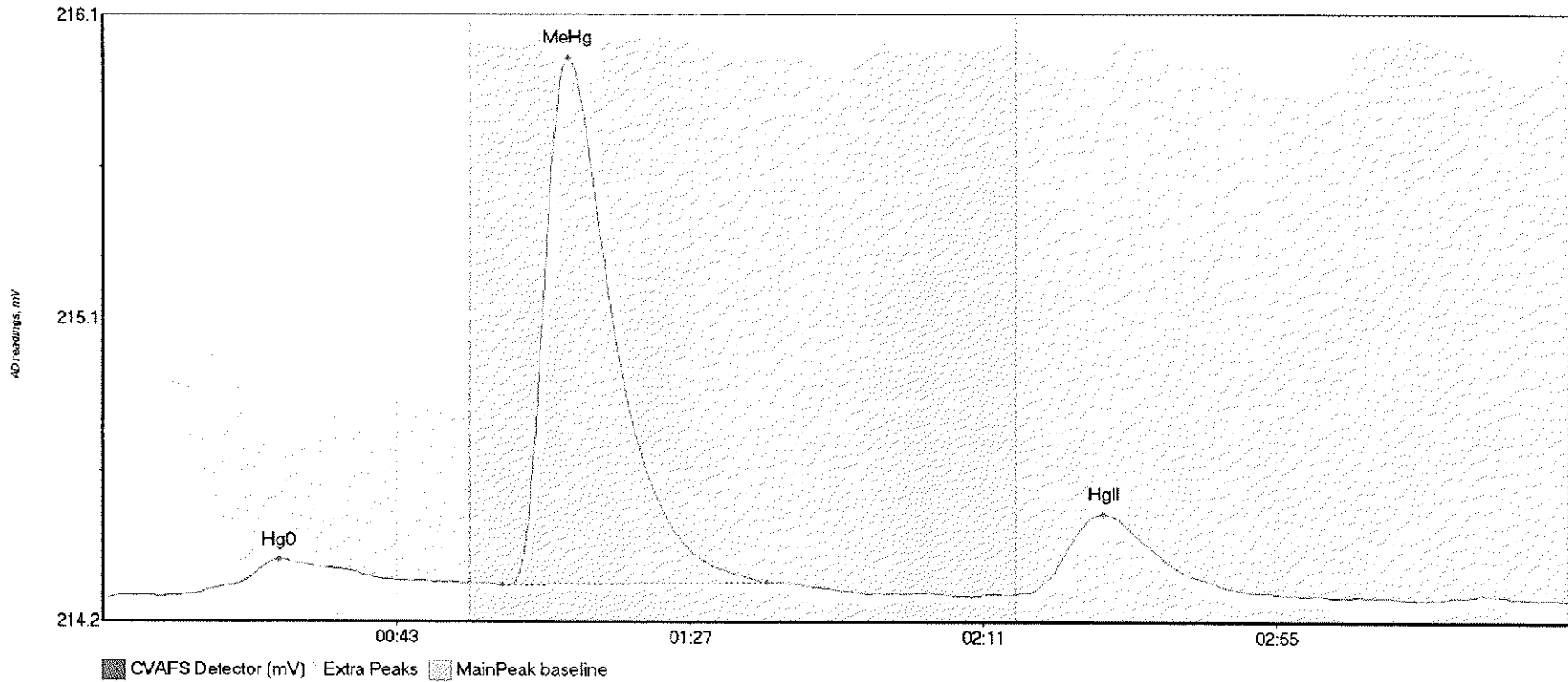
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MS1 Hg0	12.741	12.0	55.0	214.32	214.35	36.9	0.067	CT	214.3115	0.00	0.01	
F707400-MS1 MeH	437.020	59.9	110.8	214.35	214.35	69.7	3.521	OK	214.3115	0.00	0.01	
F707400-MS1 HgI	60.380	136.8	174.5	214.35	214.35	149.4	0.422	OK	214.3115	0.00	0.01	

#18: F707400-MSD1



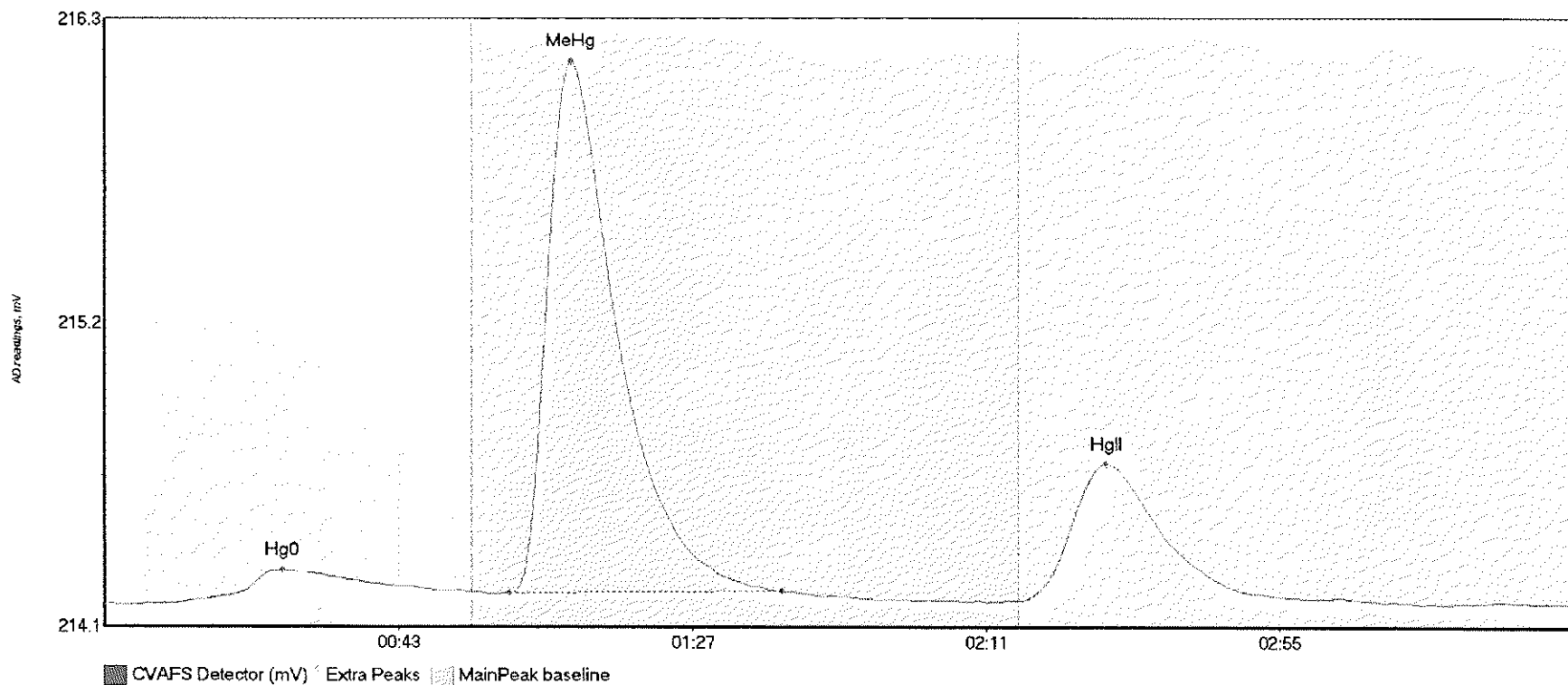
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MSD1 Hg	13.641	12.2	54.8	214.28	214.32	33.0	0.071	OK	214.2842	0.00	-0.01	
F707400-MSD1 Me	416.224	59.4	113.5	214.31	214.31	69.9	3.335	OK	214.2842	0.00	-0.01	
F707400-MSD1 Hg	153.849	136.8	185.1	214.30	214.30	149.9	0.988	OK	214.2842	0.00	-0.01	

#19: F707400-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MS2 Hg0	17.308	11.1	53.8	214.24	214.28	26.5	0.116	OK	214.2356	0.00	-0.01	
F707400-MS2 MeH	200.343	59.8	99.6	214.27	214.28	69.7	1.659	OK	214.2356	0.00	-0.01	
F707400-MS2 Hg1	37.041	138.6	172.7	214.25	214.25	150.1	0.250	OK	214.2356	0.00	-0.01	

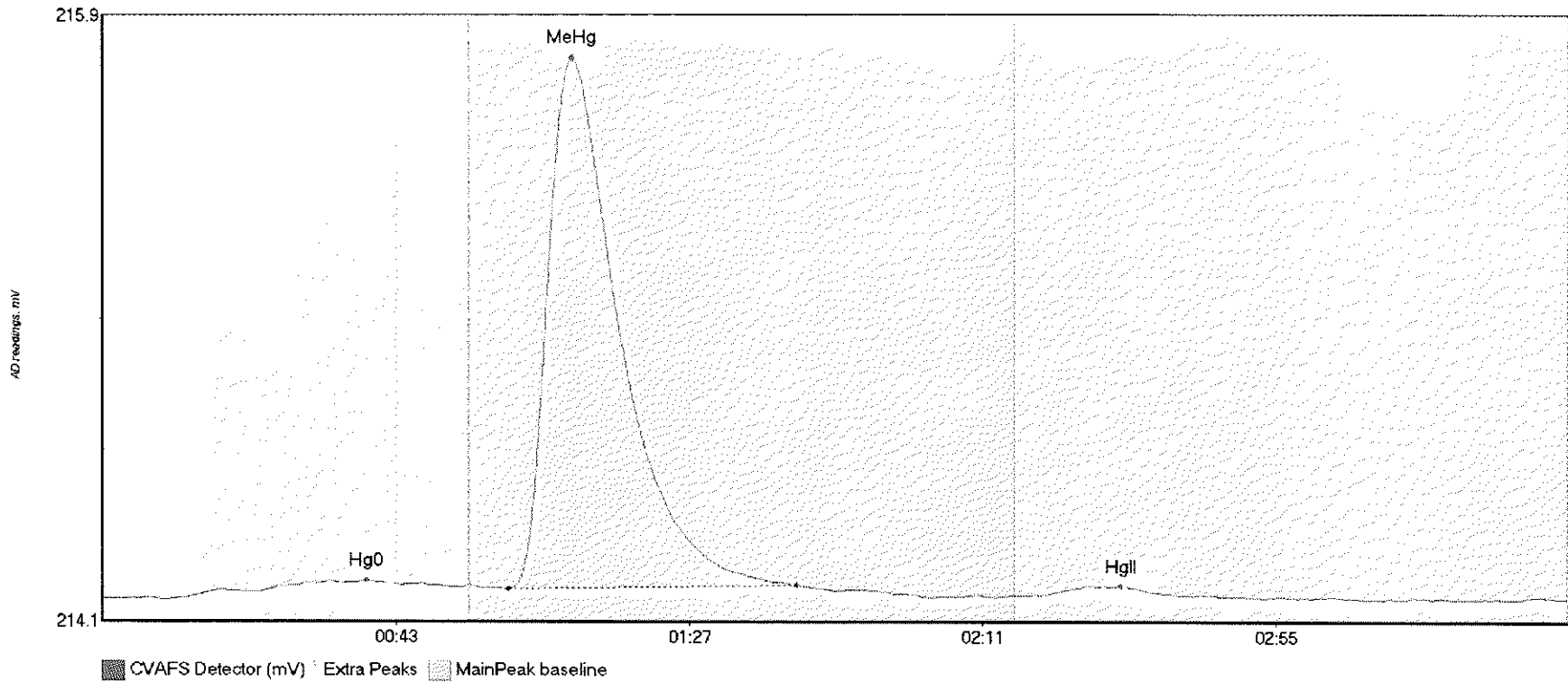
#20: F707400-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707400-MSD2 Hg	20.106	10.1	54.6	214.21	214.25	26.6	0.120	OK	214.2042	0.00	0.00	
F707400-MSD2 Me	234.164	60.6	101.3	214.24	214.25	69.9	1.914	OK	214.2042	0.00	0.00	
F707400-MSD2 Hg	75.132	136.8	181.7	214.22	214.22	150.1	0.495	OK	214.2042	0.00	0.00	

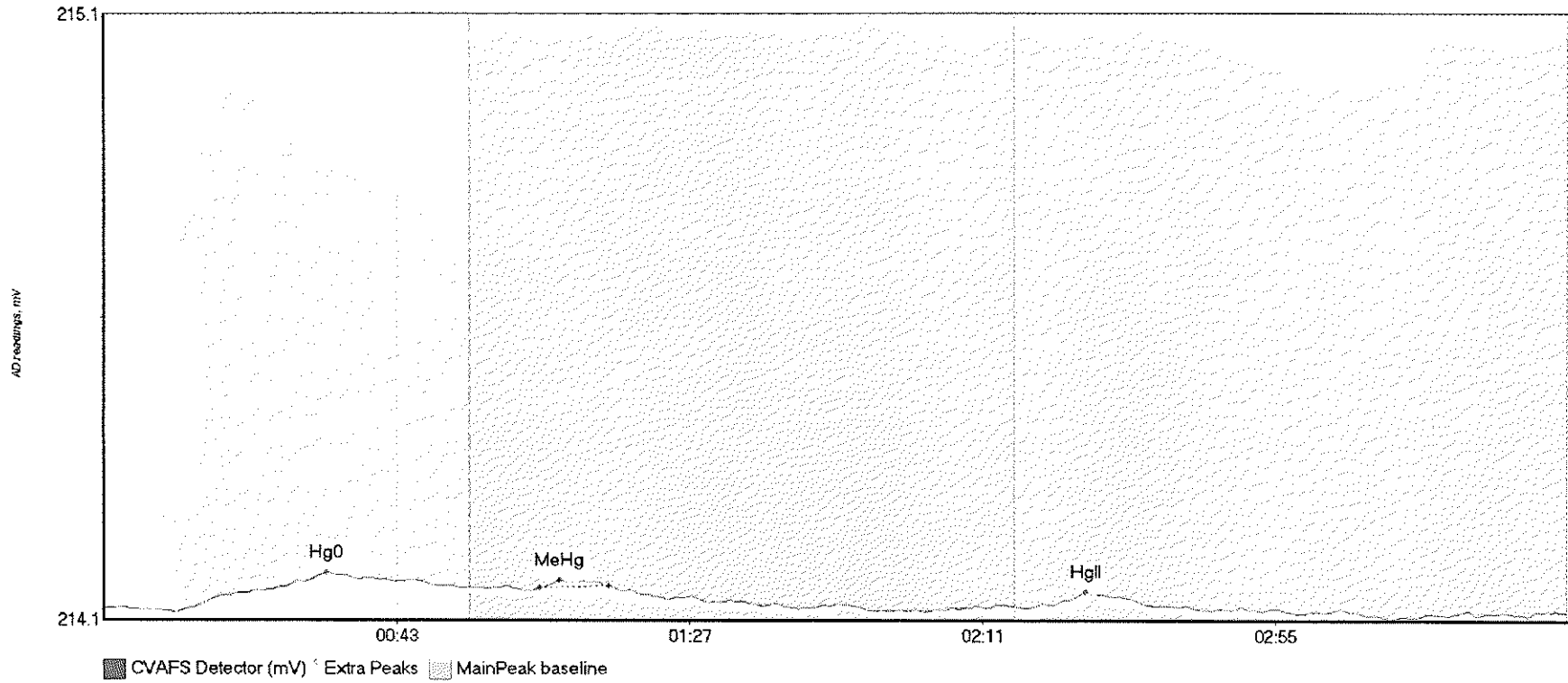


#21: SEQ-CCV1



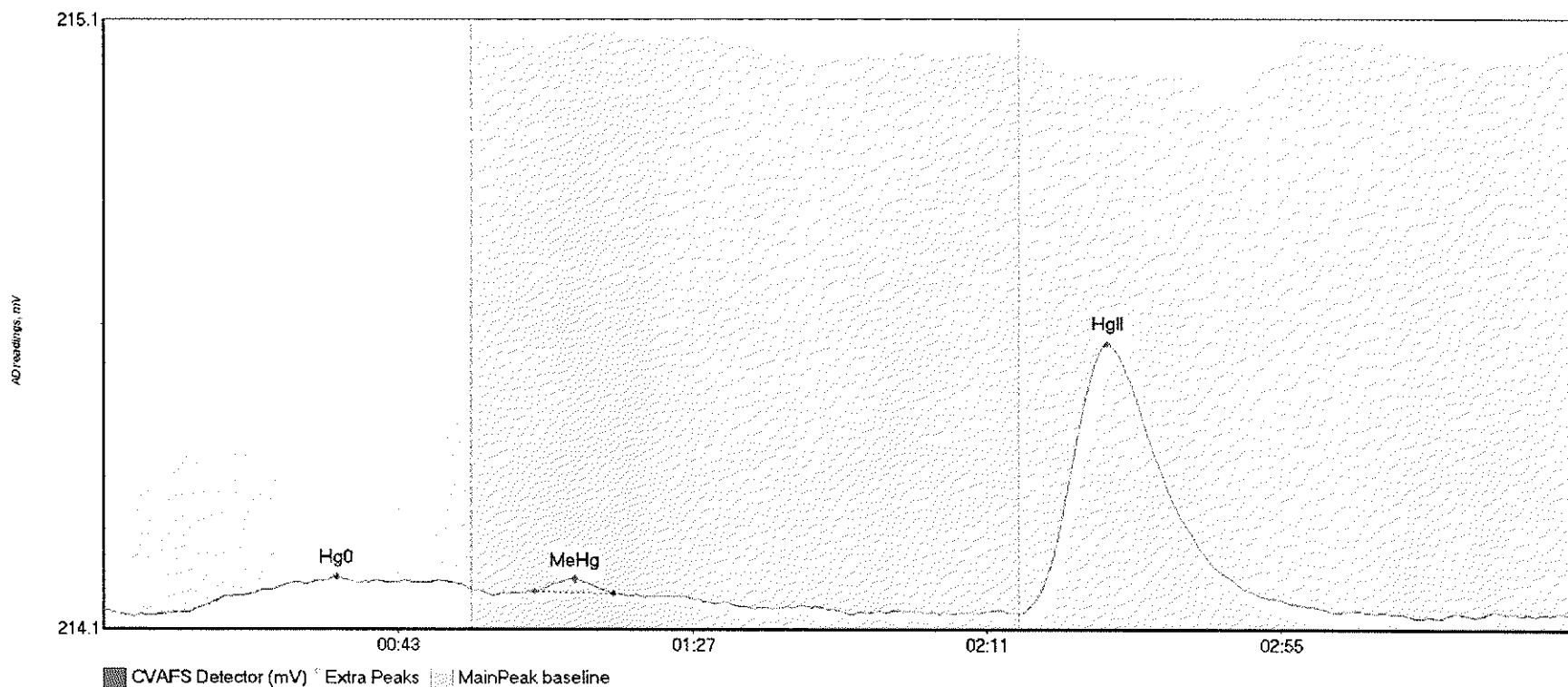
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	6.873	12.5	53.9	214.18	214.21	39.6	0.047	OK	214.1776	0.00	0.00	
SEQ-CCV1 MeHg	193.405	60.8	104.2	214.20	214.21	70.4	1.550	OK	214.1776	0.00	0.00	
SEQ-CCV1 HgII	3.369	141.2	161.9	214.19	214.18	152.7	0.027	OK	214.1776	0.00	0.00	

#22: SEQ-CCB1



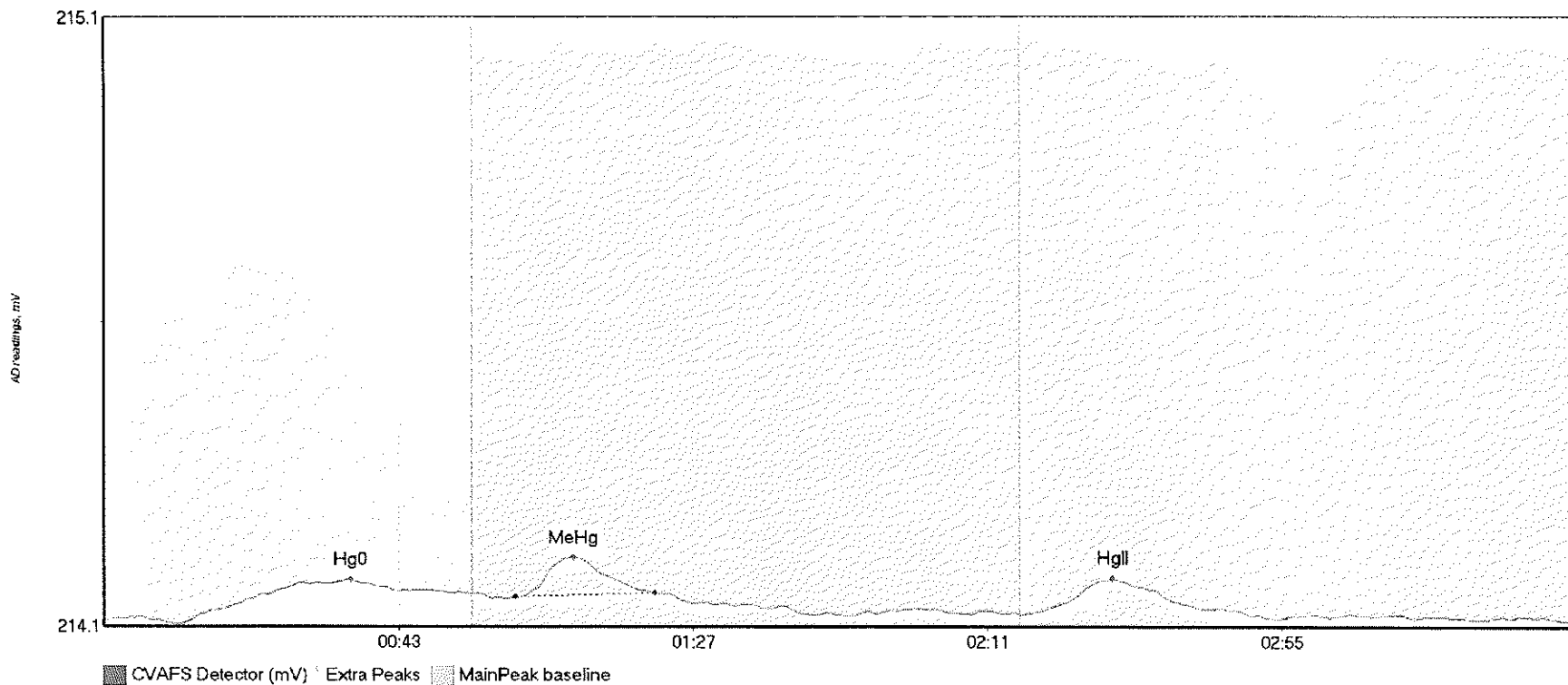
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	9.551	11.0	53.9	214.14	214.18	33.4	0.065	OK	214.1505	0.00	-0.01	
SEQ-CCB1 MeHg	0.721	65.5	75.9	214.18	214.18	68.4	0.011	OK	214.1505	0.00	-0.01	
SEQ-CCB1 HgII	1.781	142.4	157.6	214.15	214.15	147.6	0.021	OK	214.1505	0.00	-0.01	

#23: 1706635-01RE1



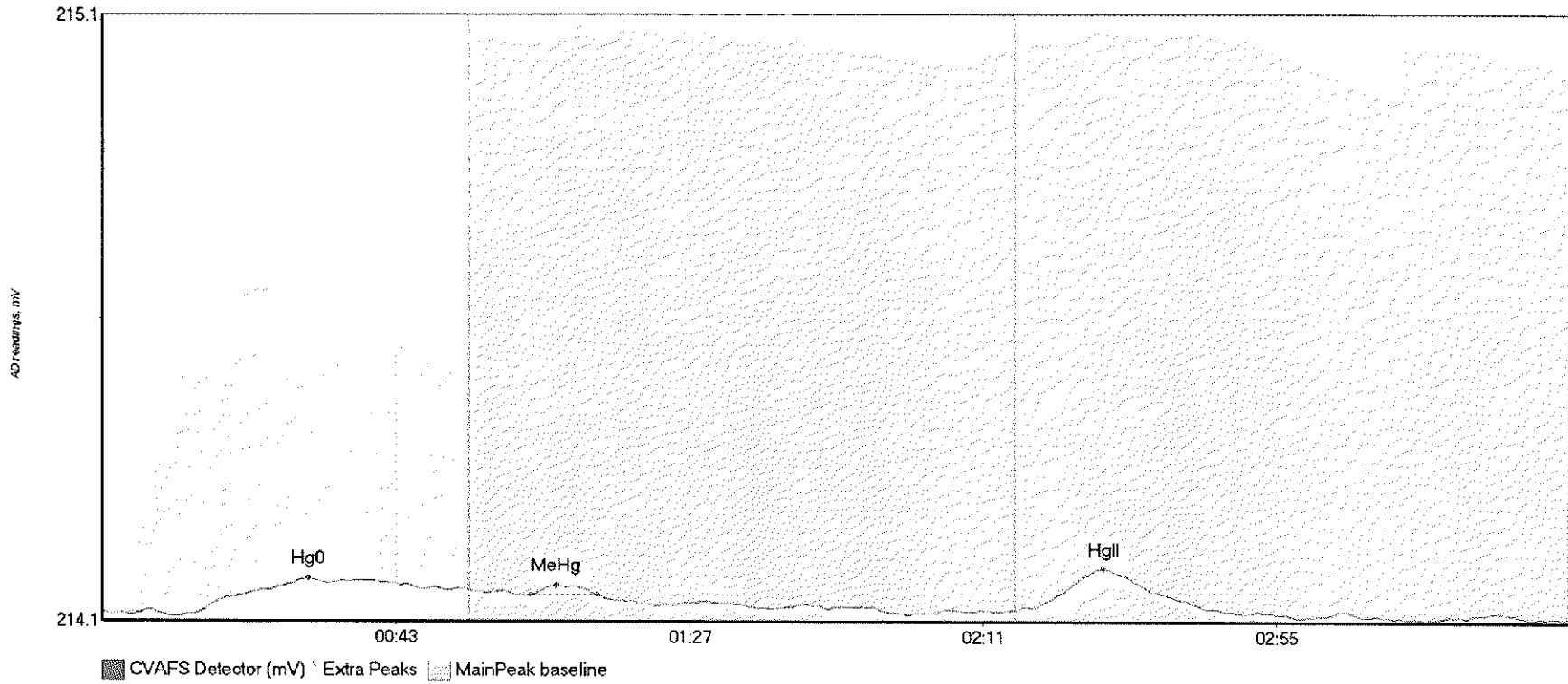
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-01RE1 H	9.622	12.7	55.0	214.12	214.16	34.8	0.058	CT	214.1266	0.00	-0.01	
1706635-01RE1 M	1.478	64.5	76.1	214.16	214.15	70.5	0.021	OK	214.1266	0.00	-0.01	
1706635-01RE1 H	70.325	136.9	184.3	214.12	214.12	150.1	0.442	OK	214.1266	0.00	-0.01	

#24: 1706635-02RE1



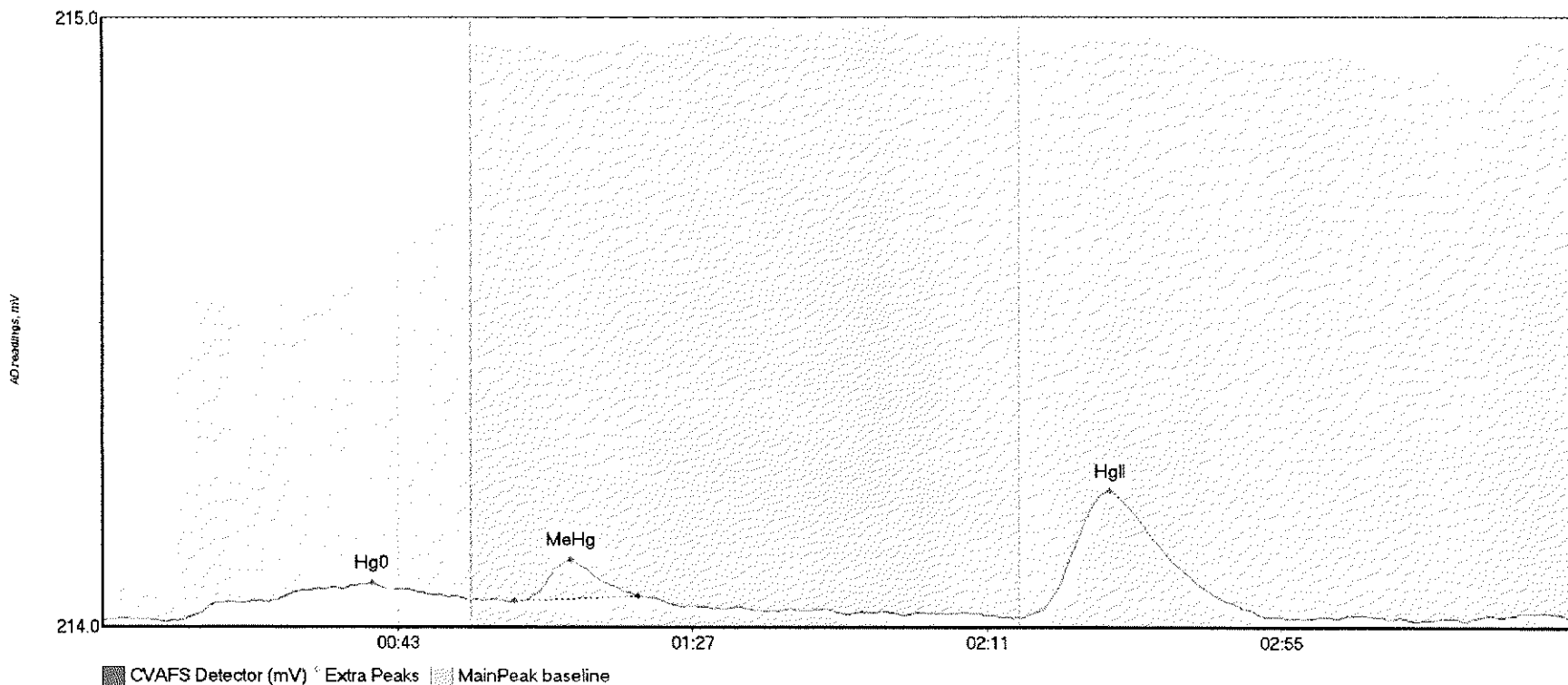
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-02RE1 H	10.918	11.3	54.6	214.08	214.13	36.8	0.074	OK	214.0891	0.00	0.00	
1706635-02RE1 M	6.113	61.5	82.3	214.13	214.13	70.1	0.066	OK	214.0891	0.00	0.00	
1706635-02RE1 H	8.822	138.6	171.6	214.10	214.10	150.8	0.057	OK	214.0891	0.00	0.00	

#25: 1706635-05RE1



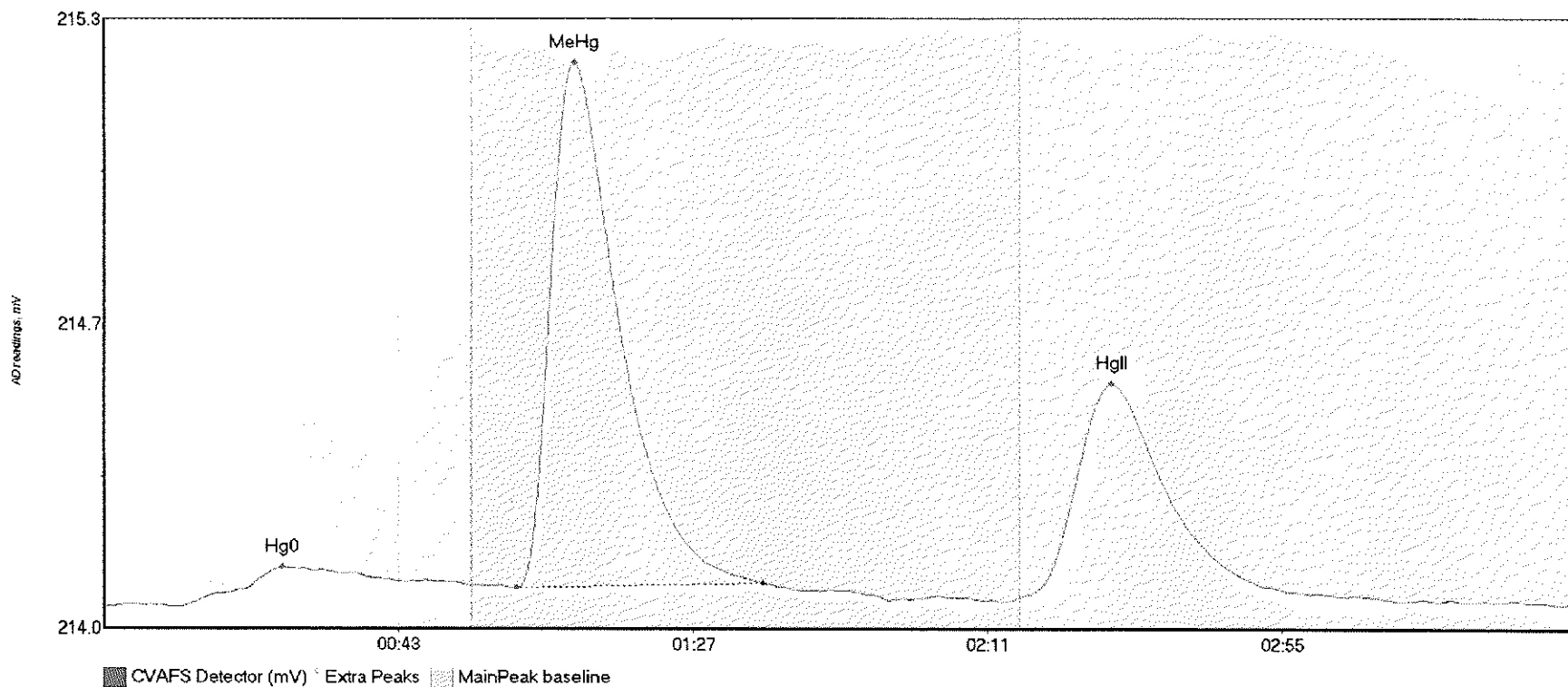
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-05RE1 H	8.772	14.1	51.6	214.08	214.11	30.9	0.058	OK	214.0772	0.00	-0.01	
1706635-05RE1 M	1.028	64.1	74.2	214.11	214.11	68.0	0.016	OK	214.0772	0.00	-0.01	
1706635-05RE1 H	8.548	139.9	165.5	214.08	214.08	150.2	0.066	OK	214.0772	0.00	-0.01	

#26: 1706635-06RE1



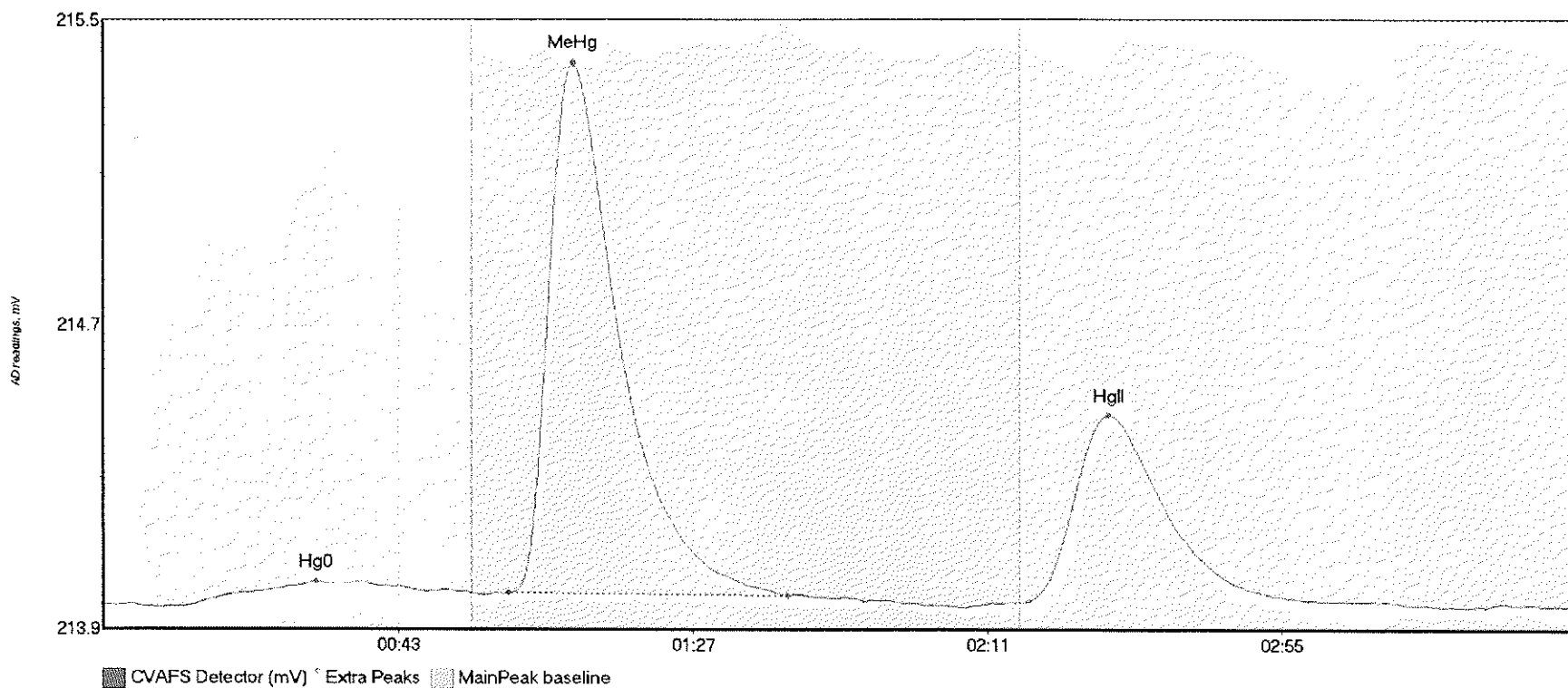
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706635-06RE1 H	10.265	11.6	54.9	214.05	214.08	40.1	0.061	OK	214.0489	0.00	0.00	
1706635-06RE1 M	5.240	61.5	79.9	214.08	214.09	69.8	0.069	OK	214.0489	0.00	0.00	
1706635-06RE1 H	32.206	137.2	174.0	214.05	214.05	150.4	0.209	OK	214.0489	0.00	0.00	

#27: 1706730-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-01RE1 H	14.315	11.5	54.7	214.02	214.07	26.7	0.087	OK	214.0239	0.00	0.01	
1706730-01RE1 M	138.907	61.7	98.5	214.06	214.07	70.4	1.169	OK	214.0239	0.00	0.01	
1706730-01RE1 H	72.995	136.8	182.9	214.04	214.05	150.6	0.478	OK	214.0239	0.00	0.01	

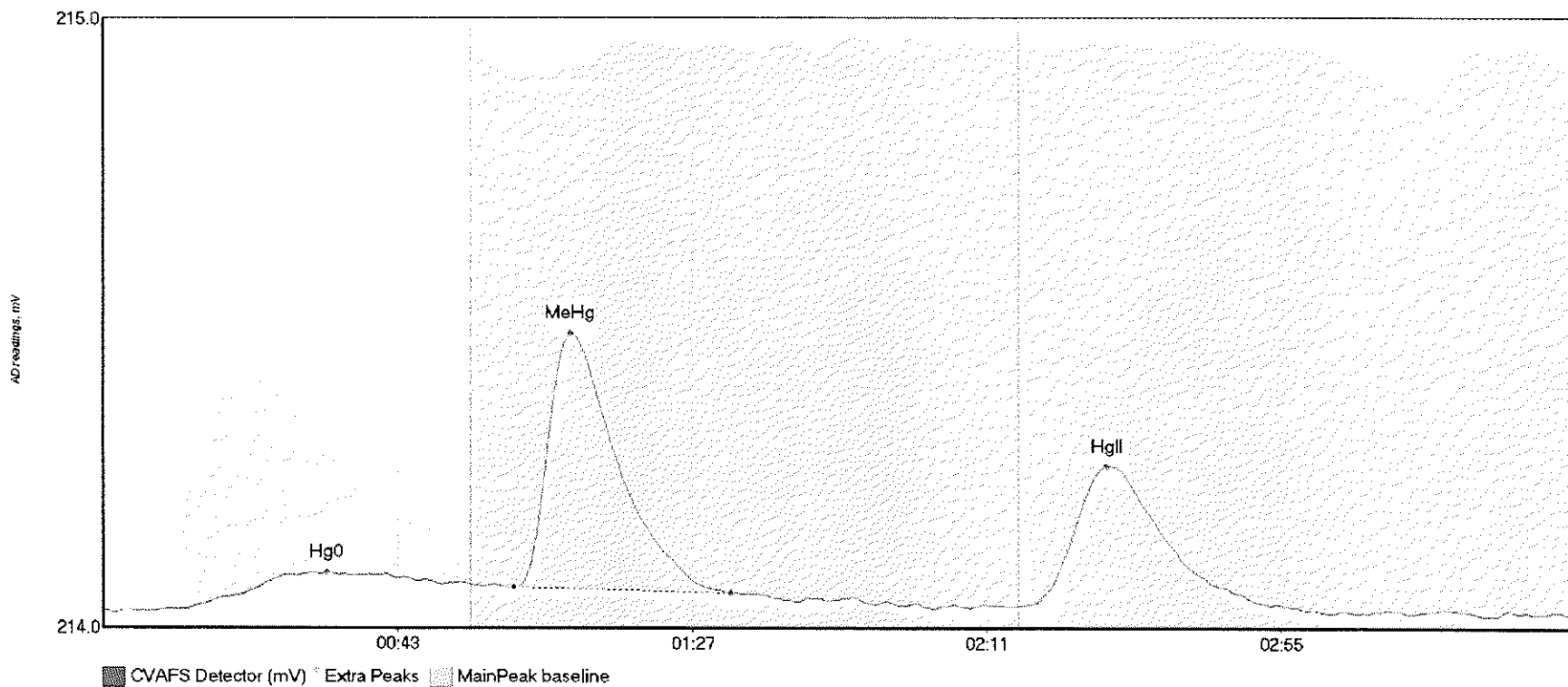
#28: 1706730-02RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-02RE1 H	10.967	12.3	55.0	214.00	214.04	31.7	0.063	CT	214.0081	0.00	-0.01	
1706730-02RE1 M	168.573	60.4	102.1	214.04	214.03	70.1	1.372	OK	214.0081	0.00	-0.01	
1706730-02RE1 H	73.948	137.6	180.0	214.01	214.02	150.2	0.486	OK	214.0081	0.00	-0.01	

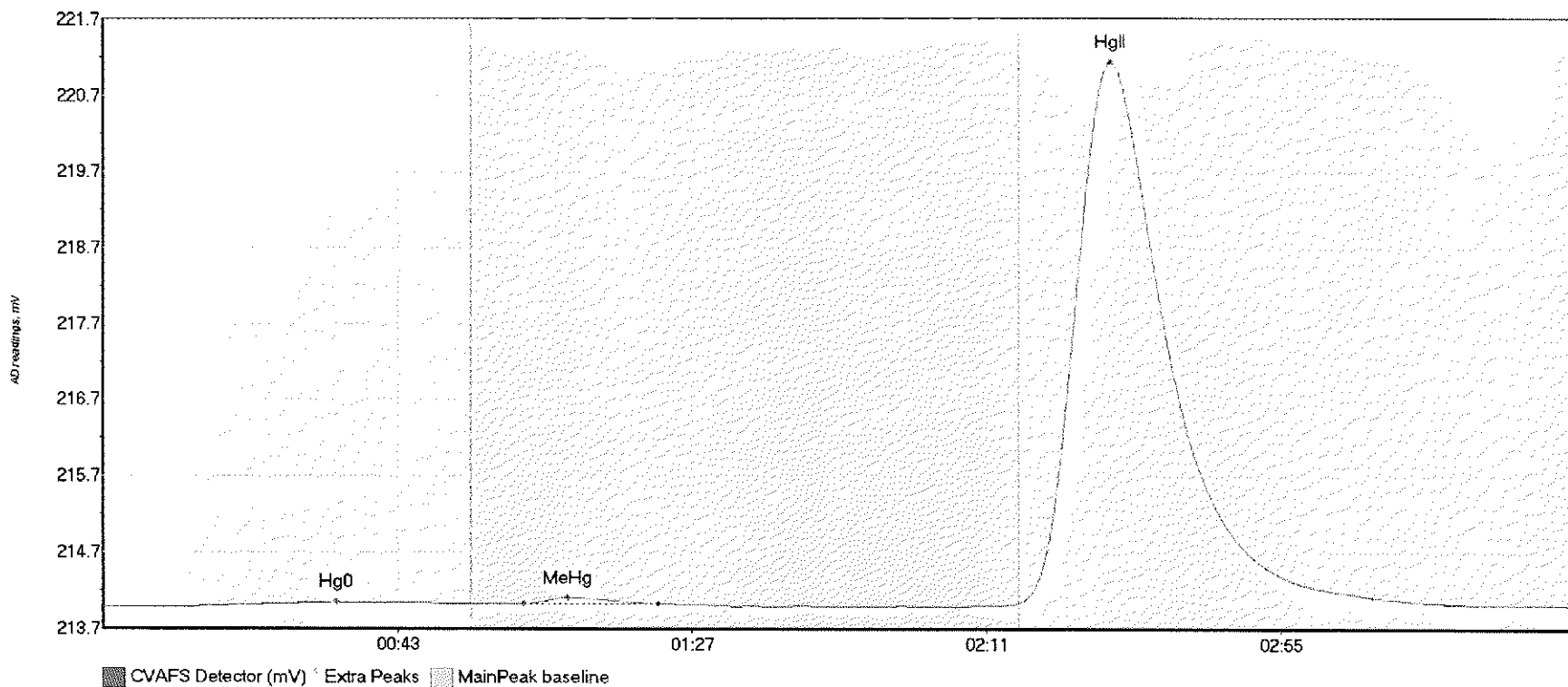


#29: 1706730-03RE1



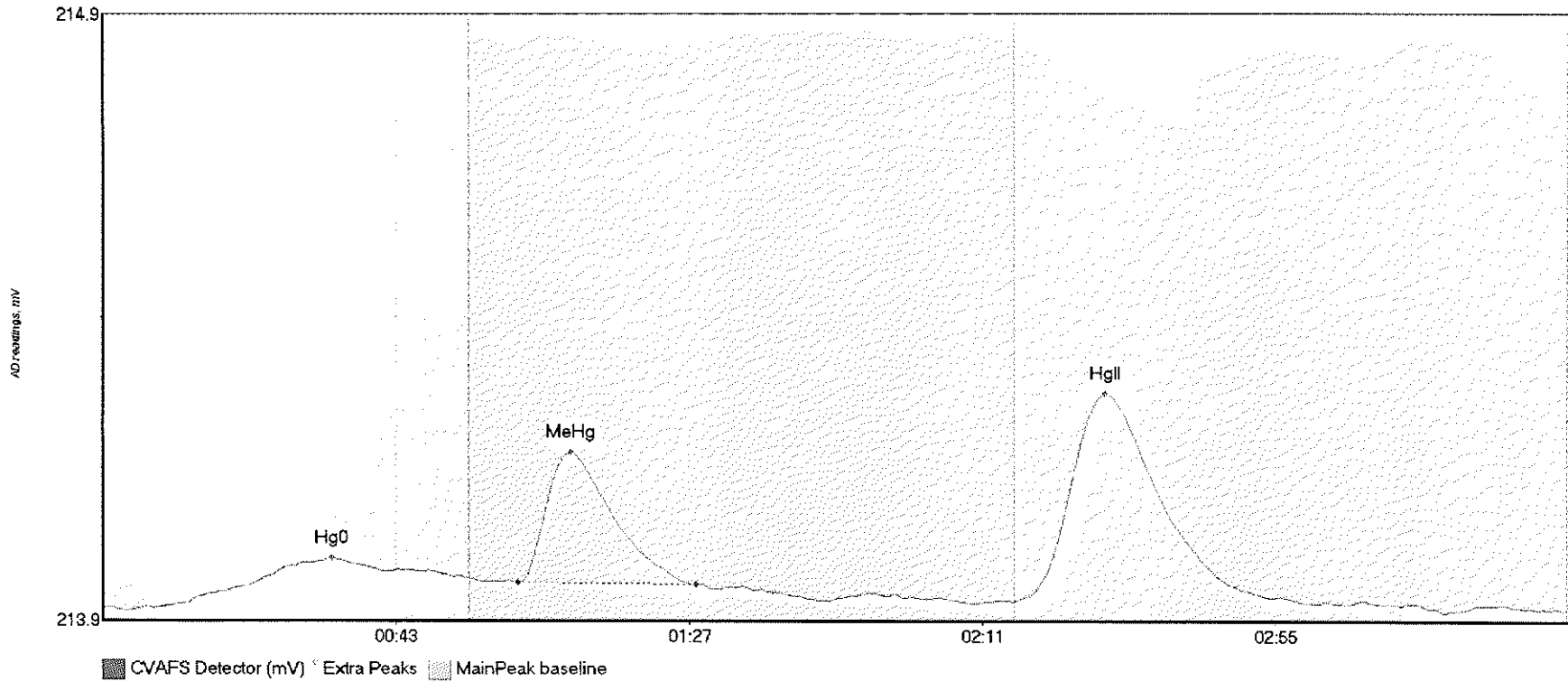
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-03RE1 H	8.475	12.6	50.6	213.98	214.02	33.5	0.059	OK	213.9812	0.00	-0.01	
1706730-03RE1 M	49.463	61.4	93.7	214.02	214.01	69.9	0.417	OK	213.9812	0.00	-0.01	
1706730-03RE1 H	33.370	137.4	172.8	213.99	213.99	150.1	0.230	OK	213.9812	0.00	-0.01	

#30: 1706730-04RE1



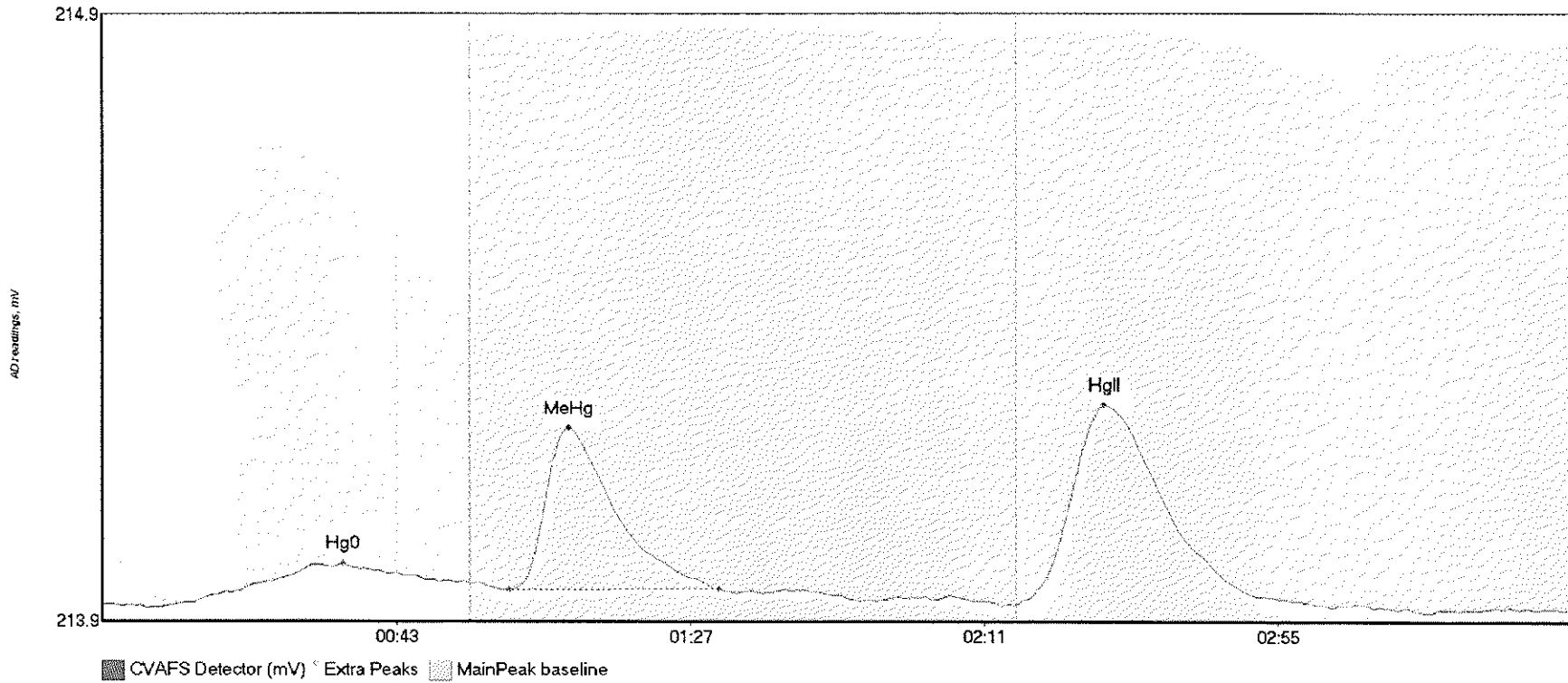
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706730-04RE1 H	9.961	11.7	54.8	213.95	213.99	34.9	0.065	OK	213.9610	0.00	0.01	
1706730-04RE1 M	8.309	62.9	83.0	213.99	213.99	69.4	0.078	OK	213.9610	0.00	0.01	
1706730-04RE1 H	1142.302	136.8	202.3	214.00	213.99	150.5	7.110	OK	213.9610	0.00	0.01	

#31: 1706926-01RE1



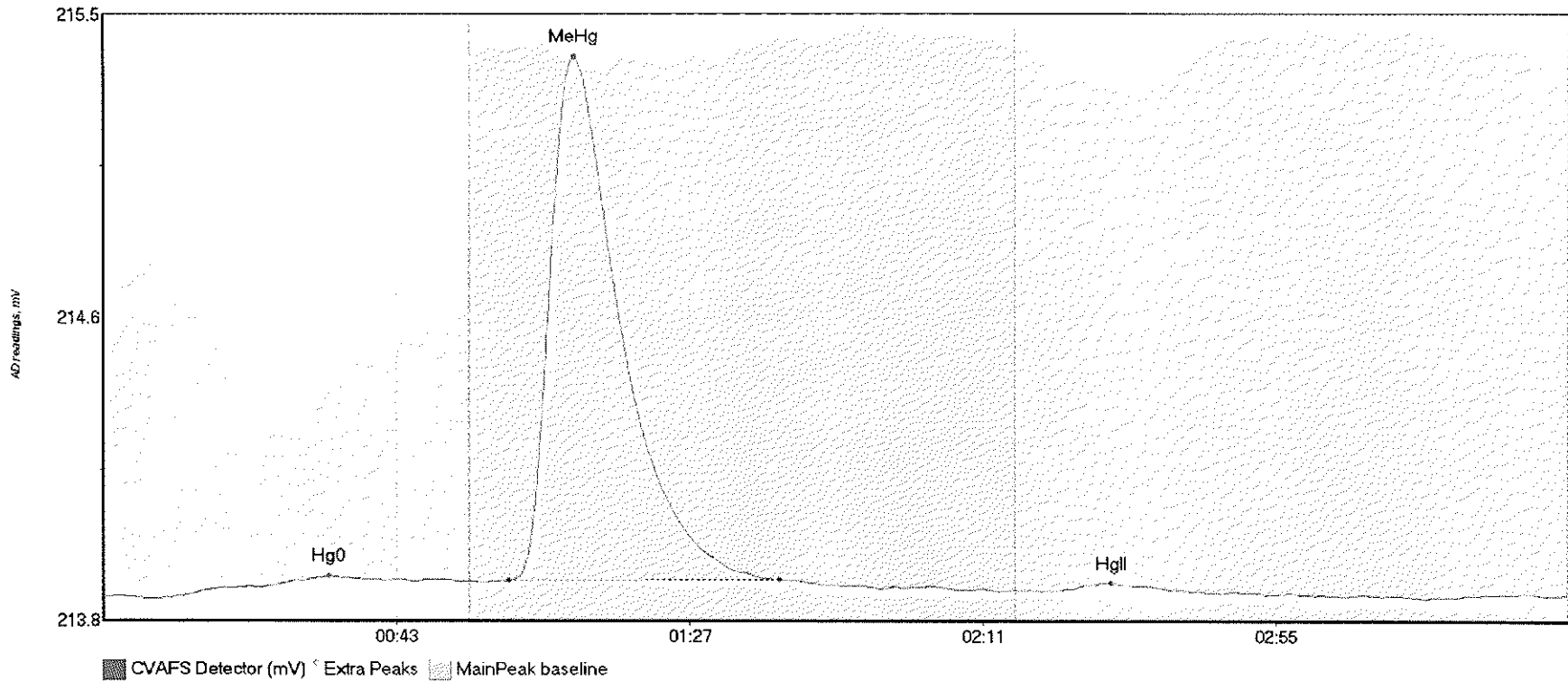
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-01RE1 H	11.894	10.2	55.0	213.92	213.96	34.5	0.079	CT	213.9142	0.00	0.00	
1706926-01RE1 M	24.655	62.3	89.0	213.95	213.95	70.3	0.215	OK	213.9142	0.00	0.00	
1706926-01RE1 H	50.759	136.9	175.4	213.92	213.93	150.4	0.343	OK	213.9142	0.00	0.00	

#32: 1706926-03RE1



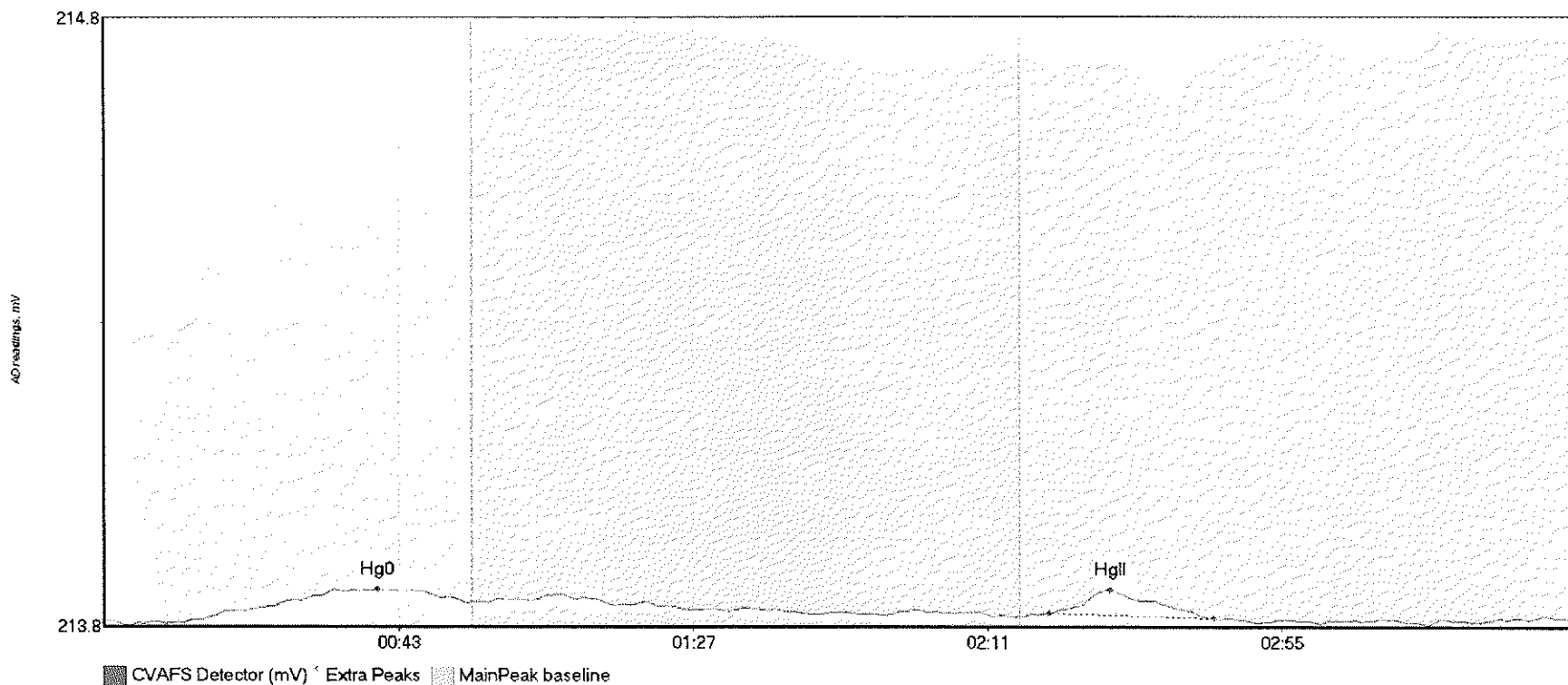
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-03RE1 H	9.827	13.6	55.0	213.90	213.93	36.0	0.063	CT	213.8968	0.00	-0.01	
1706926-03RE1 M	32.013	60.8	92.3	213.92	213.92	69.9	0.268	OK	213.8968	0.00	-0.01	
1706926-03RE1 H	51.396	136.8	178.5	213.90	213.90	150.0	0.330	OK	213.8968	0.00	-0.01	

#33: SEQ-CCV2



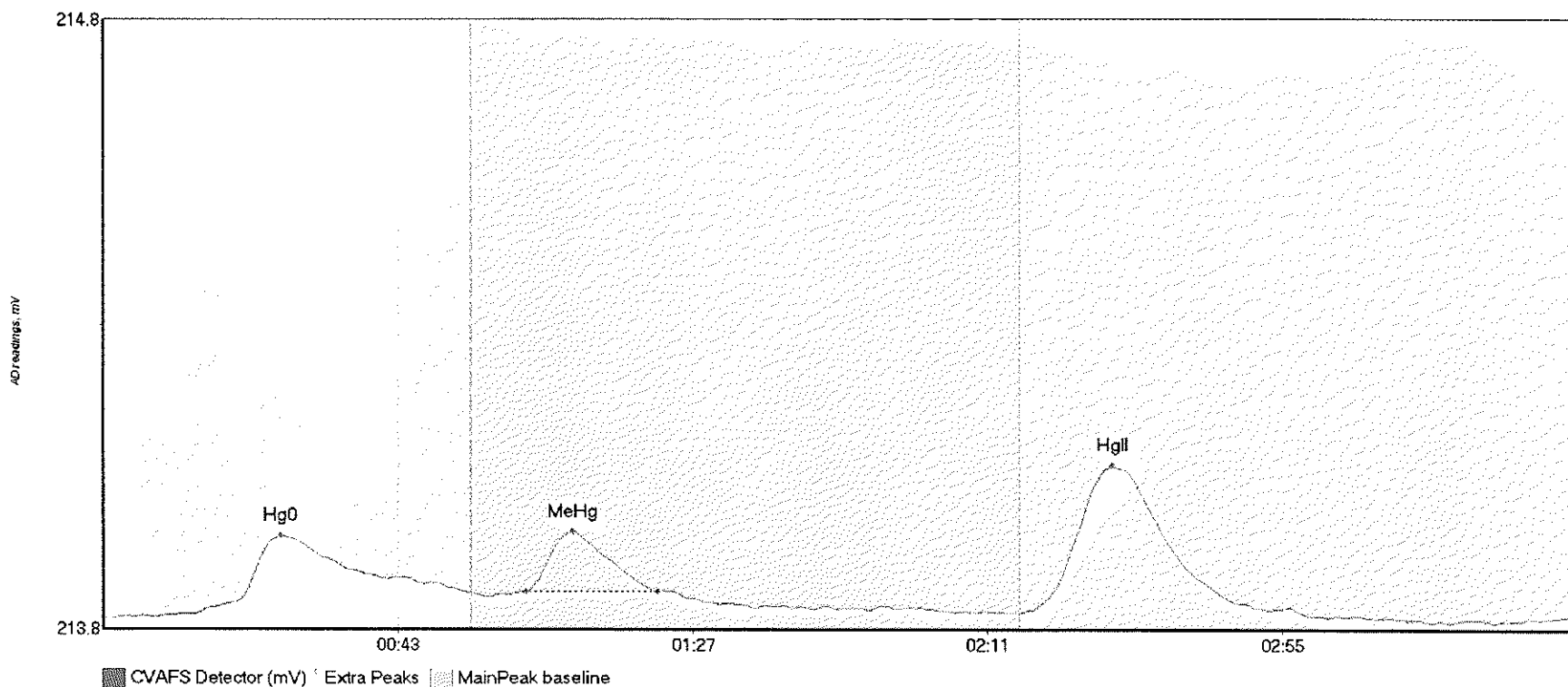
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	5.259	11.7	46.9	213.85	213.89	33.8	0.054	OK	213.8529	0.00	0.00	
SEQ-CCV2 MeHg	176.379	60.8	101.4	213.90	213.90	70.7	1.438	OK	213.8529	0.00	0.00	
SEQ-CCV2 HgII	1.674	145.1	160.7	213.87	213.87	151.3	0.017	OK	213.8529	0.00	0.00	

#34: SEQ-CCB2



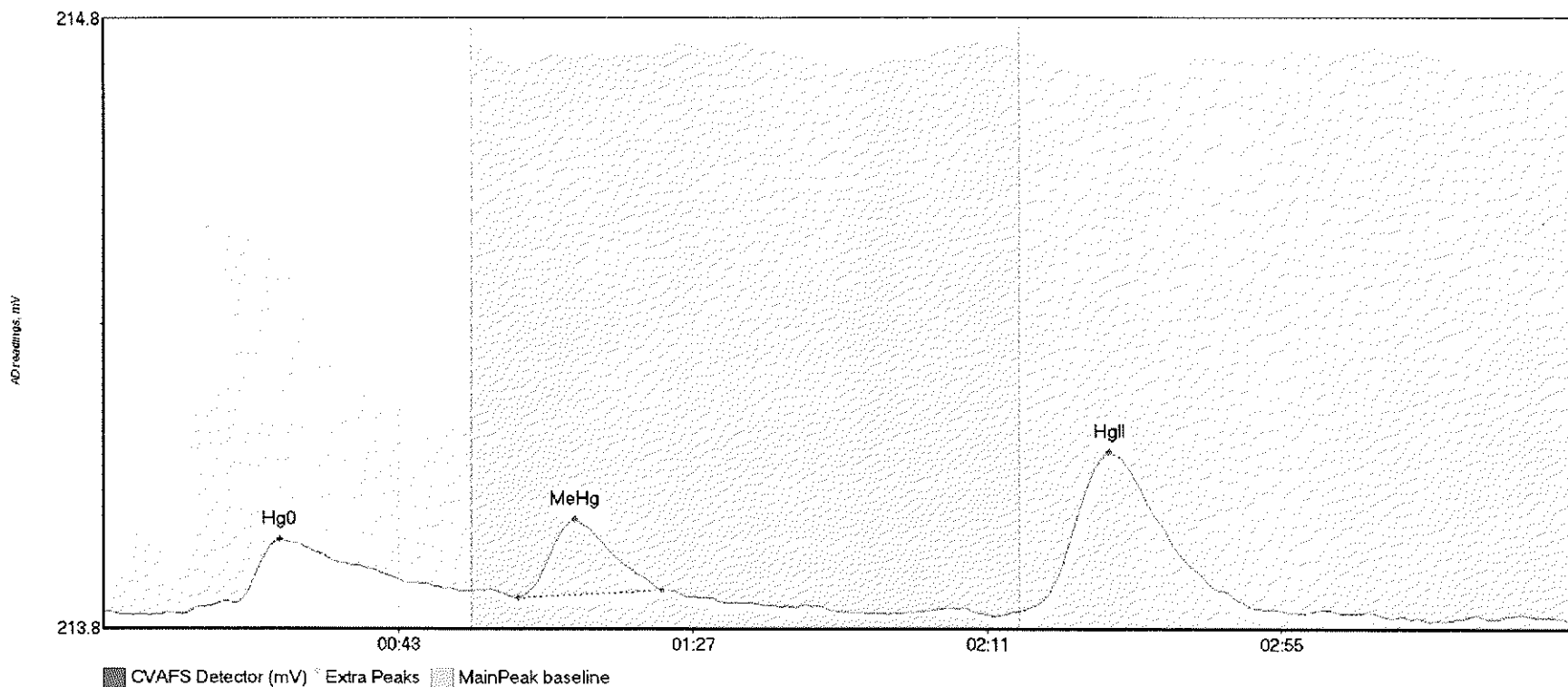
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	7.808	14.9	54.2	213.83	213.86	40.8	0.050	OK	213.8262	0.00	0.00	
SEQ-CCB2 HgII	4.890	141.1	165.9	213.84	213.83	150.3	0.039	OK	213.8262	0.00	0.00	117

#35: 1706926-04RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-04RE1 H	19.094	9.8	55.0	213.81	213.84	26.6	0.130	CT	213.8035	0.00	0.00	
1706926-04RE1 M	9.566	63.1	82.7	213.85	213.85	70.1	0.099	OK	213.8035	0.00	0.00	
1706926-04RE1 H	34.370	138.5	173.9	213.82	213.82	150.8	0.236	OK	213.8035	0.00	0.00	

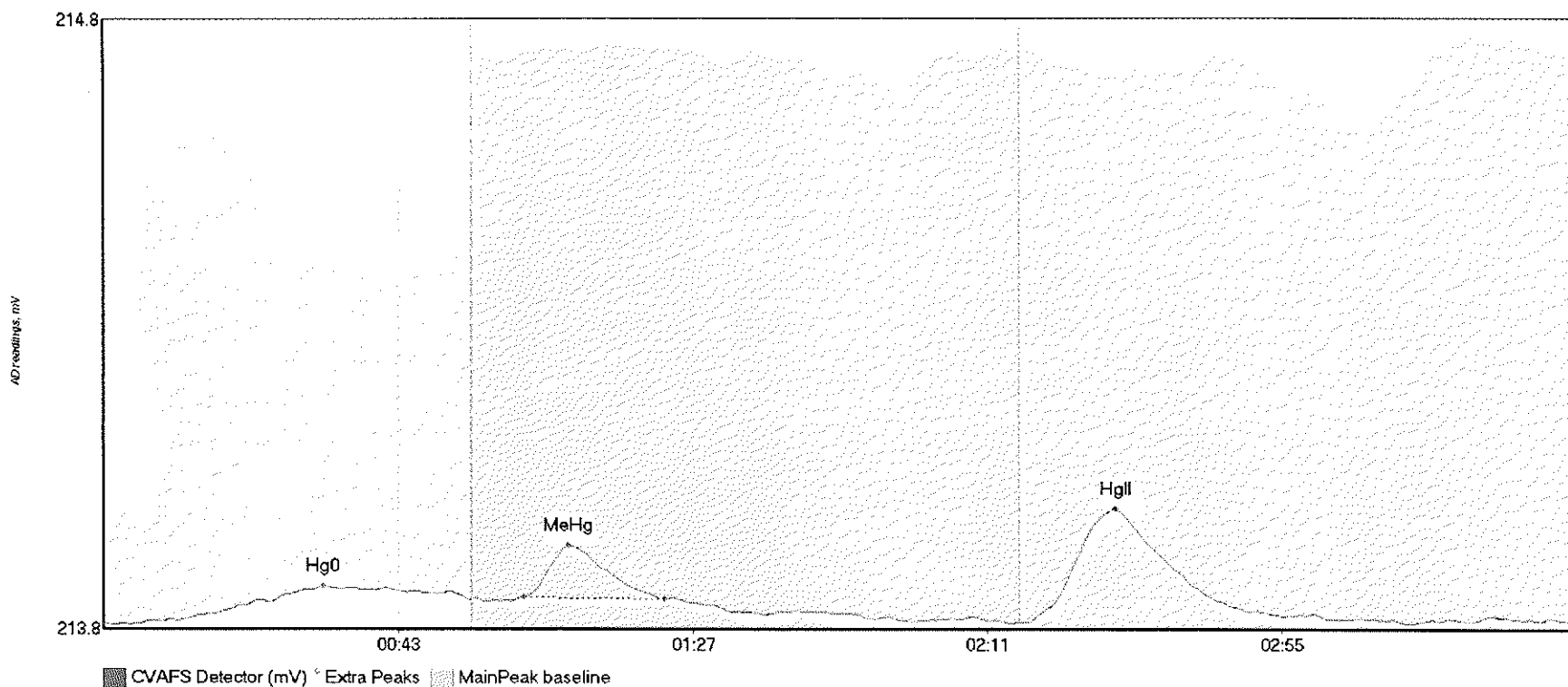
#36: 1706926-05RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-05RE1 H	18.387	11.7	53.7	213.79	213.83	26.3	0.122	OK	213.7937	0.00	-0.02	
1706926-05RE1 M	12.718	61.9	83.5	213.82	213.83	70.4	0.128	OK	213.7937	0.00	-0.02	
1706926-05RE1 H	38.231	136.8	172.9	213.79	213.80	150.3	0.260	OK	213.7937	0.00	-0.02	

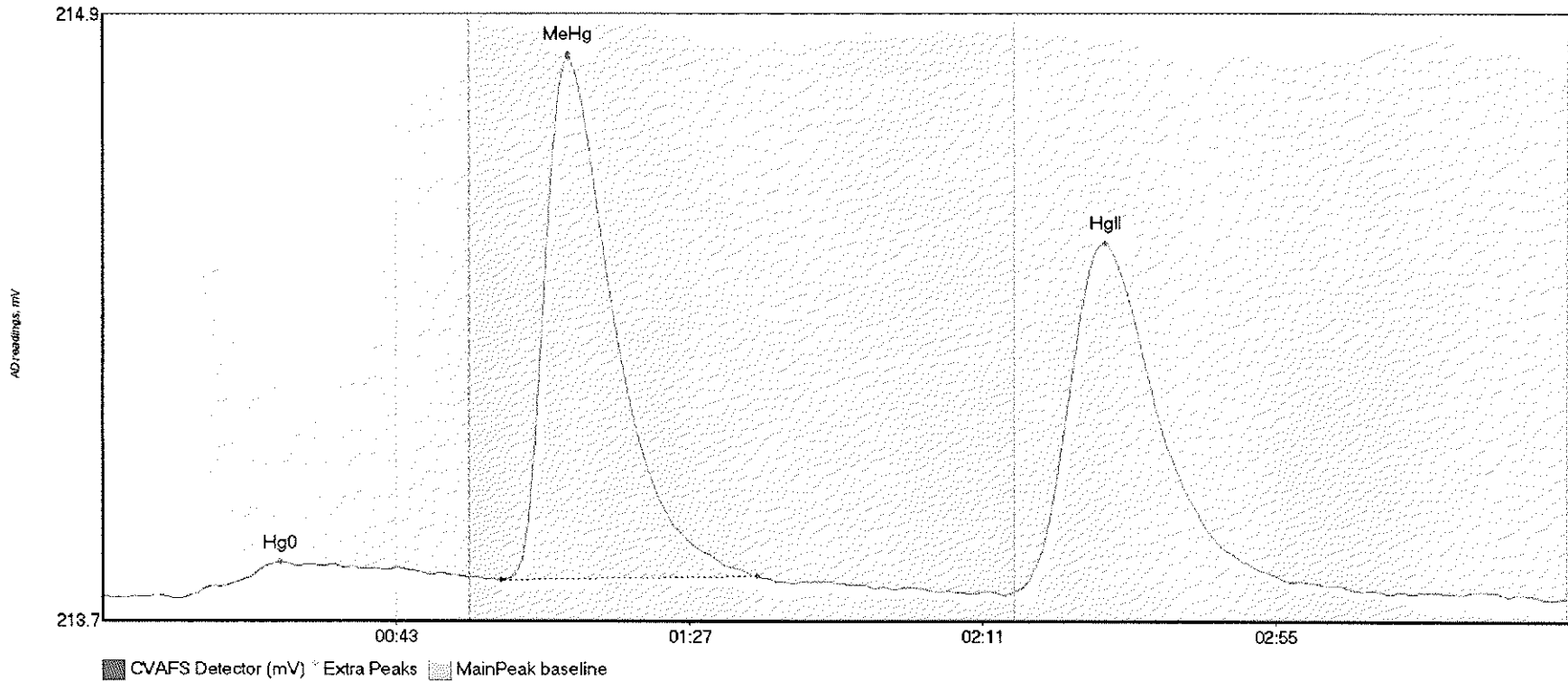


#37: 1706926-06RE1



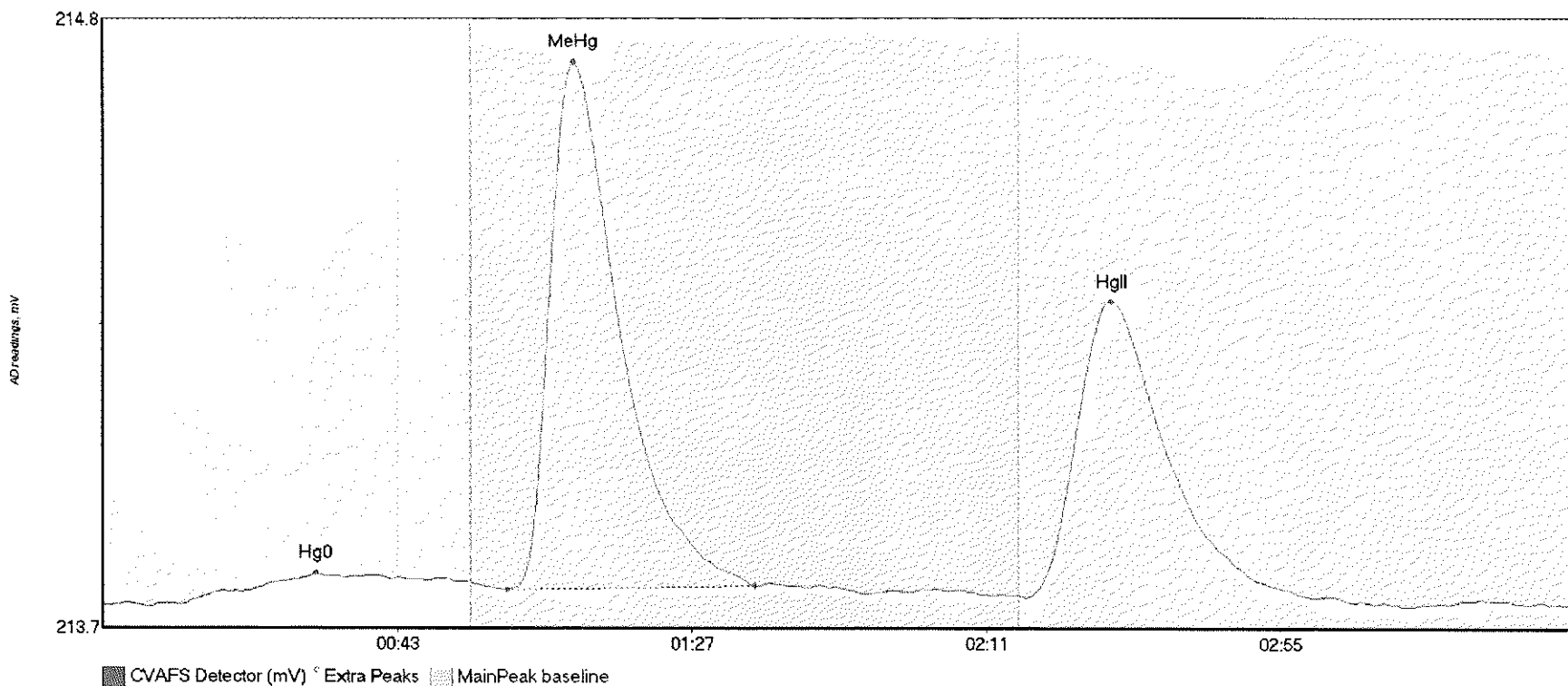
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706926-06RE1 H	9.473	11.0	54.8	213.77	213.81	32.8	0.058	OK	213.7683	0.00	0.00	
1706926-06RE1 M	8.224	62.7	83.8	213.81	213.81	69.5	0.085	OK	213.7683	0.00	0.00	
1706926-06RE1 H	29.400	137.8	183.1	213.77	213.77	151.2	0.187	OK	213.7683	0.00	0.00	

#38: 1707149-01RE1



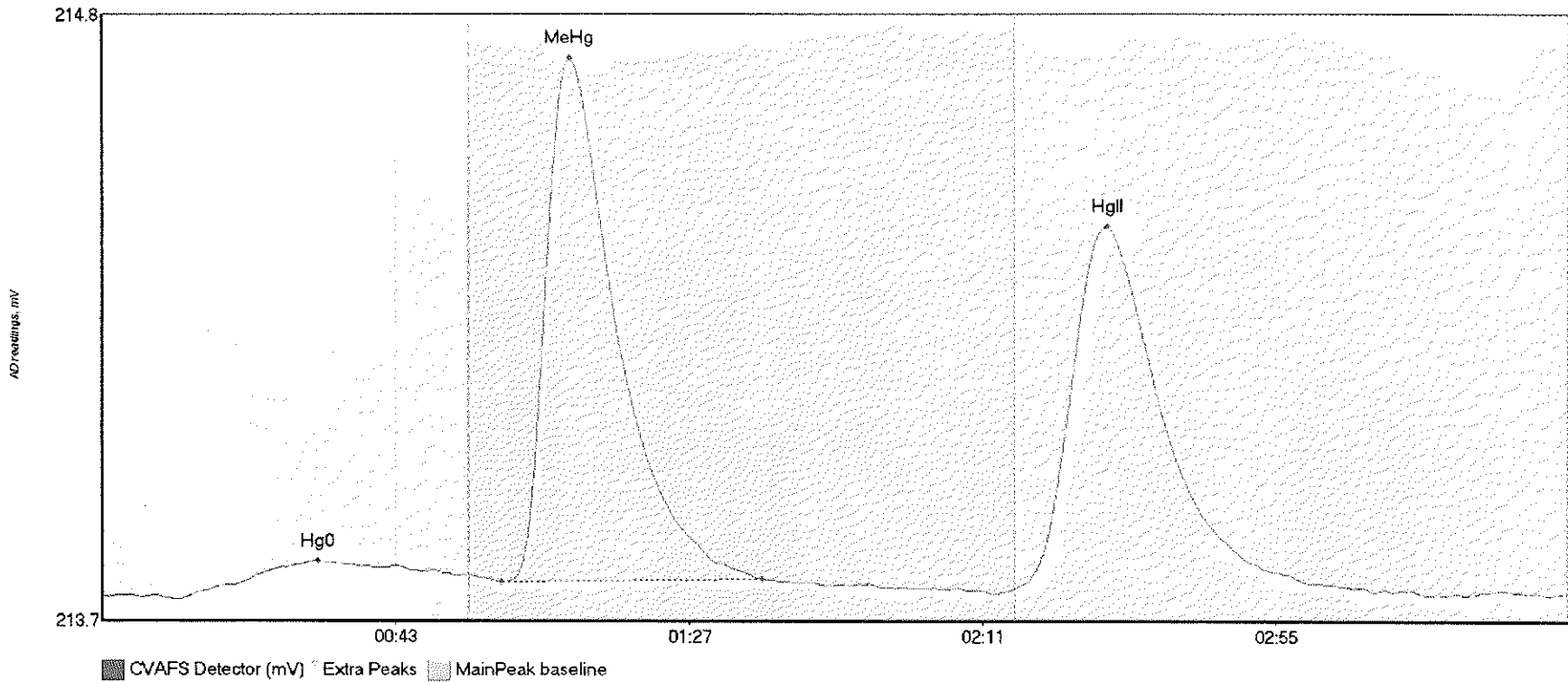
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-01RE1 H	13.053	11.4	55.0	213.75	213.79	26.7	0.076	CT	213.7507	0.00	0.00	
1707149-01RE1 M	130.205	59.7	98.2	213.78	213.79	69.9	1.074	OK	213.7507	0.00	0.00	
1707149-01RE1 H	113.954	136.8	188.9	213.76	213.76	150.4	0.717	OK	213.7507	0.00	0.00	

#39: 1707149-02RE1



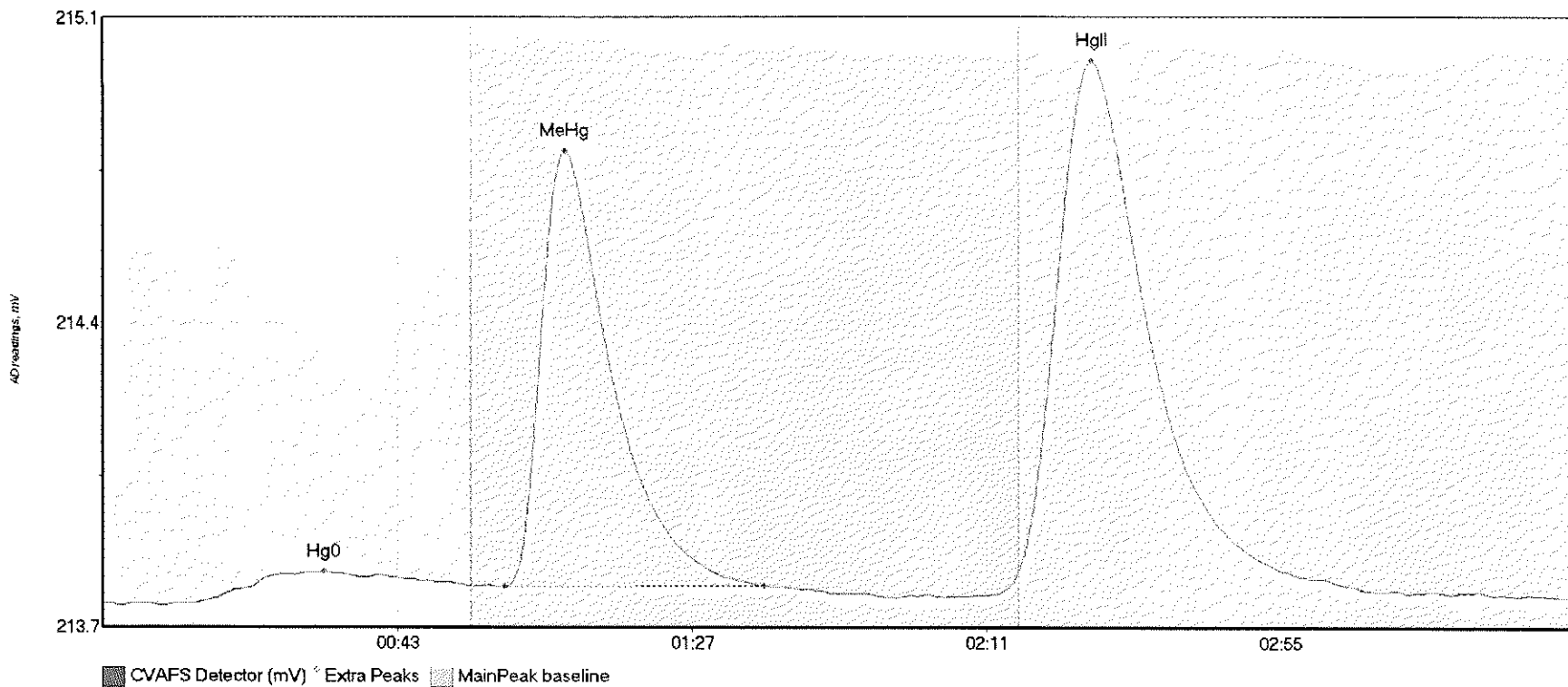
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-02RE1 H	8.130	11.8	55.0	213.73	213.77	31.9	0.054	CT	213.7309	0.00	0.00	
1707149-02RE1 M	113.582	60.4	97.5	213.76	213.76	70.4	0.936	OK	213.7309	0.00	0.00	
1707149-02RE1 H	80.894	138.1	180.2	213.75	213.75	150.7	0.526	OK	213.7309	0.00	0.00	

#40: 1707149-03RE1



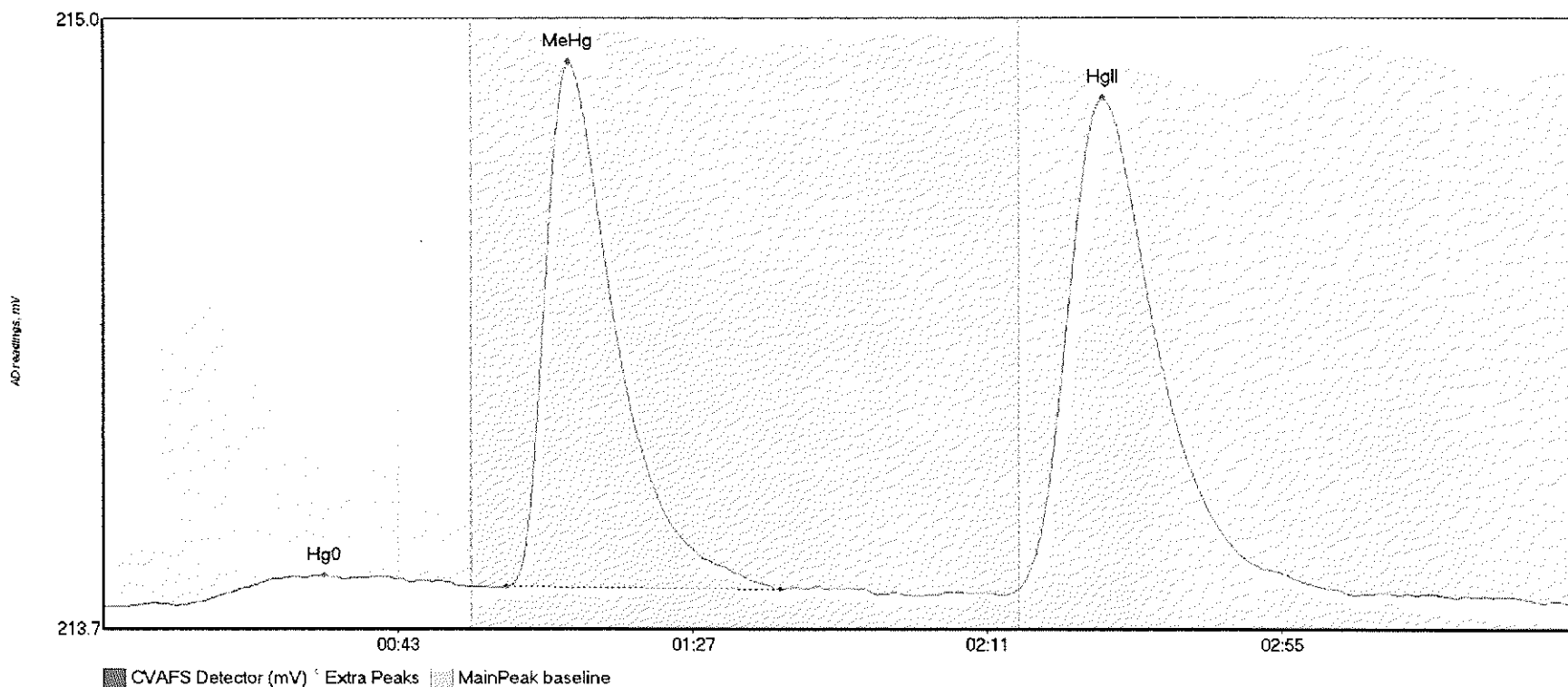
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-03RE1 H	11.353	11.4	53.2	213.71	213.75	32.4	0.073	OK	213.7153	0.00	0.00	
1707149-03RE1 M	121.012	59.9	98.9	213.74	213.75	70.1	0.986	OK	213.7153	0.00	0.00	
1707149-03RE1 H	105.418	136.8	183.5	213.73	213.74	150.7	0.682	OK	213.7153	0.00	0.00	

#41: 1707149-04RE1



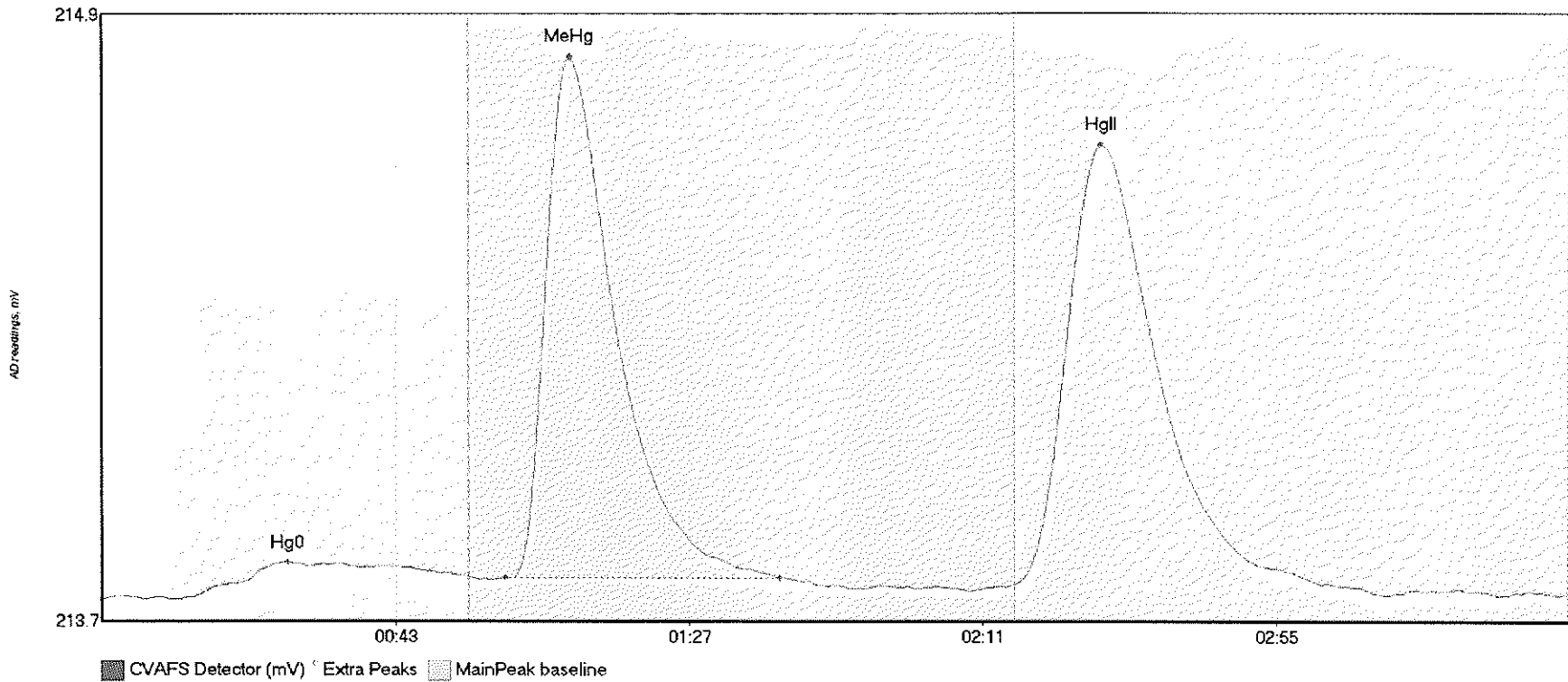
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-04RE1 H	13.252	13.6	54.9	213.76	213.80	33.0	0.073	OK	213.7609	0.00	0.01	
1707149-04RE1 M	124.294	60.0	98.7	213.80	213.80	69.0	1.017	OK	213.7609	0.00	0.01	
1707149-04RE1 H	182.803	136.8	179.5	213.83	213.82	147.7	1.194	OK	213.7609	0.00	0.01	

#42: 1707149-05RE1



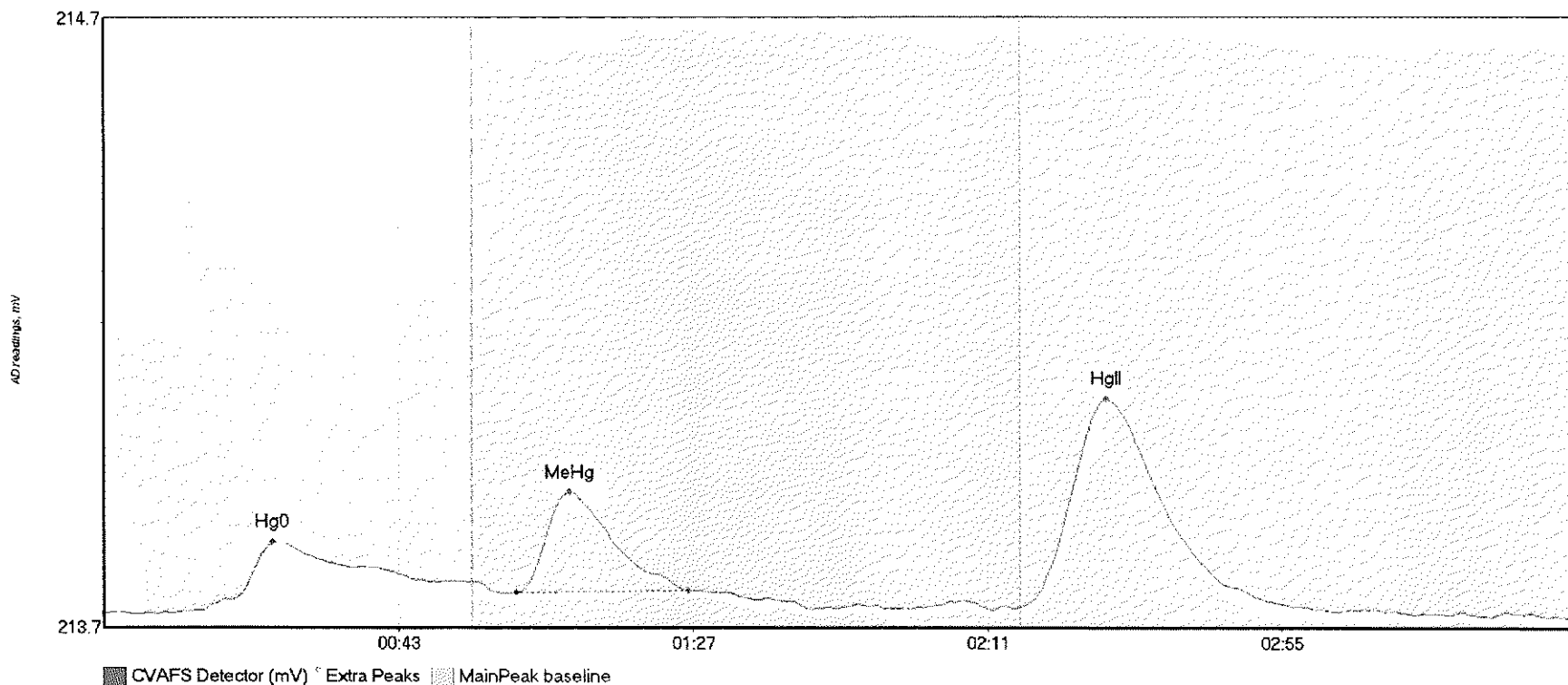
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-05RE1 H	11.119	11.1	55.0	213.76	213.80	33.0	0.062	CT	213.7593	0.00	0.01	
1707149-05RE1 M	132.986	60.2	101.0	213.80	213.79	69.5	1.074	OK	213.7593	0.00	0.01	
1707149-05RE1 H	155.168	136.8	182.7	213.80	213.80	149.3	1.005	OK	213.7593	0.00	0.01	

#43: 1707149-06RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707149-06RE1 H	12.653	13.3	55.0	213.76	213.80	27.8	0.071	CT	213.7572	0.00	0.01	
1707149-06RE1 M	126.685	60.5	101.6	213.80	213.80	70.1	1.043	OK	213.7572	0.00	0.01	
1707149-06RE1 H	136.591	136.8	182.7	213.79	213.79	149.7	0.880	OK	213.7572	0.00	0.01	

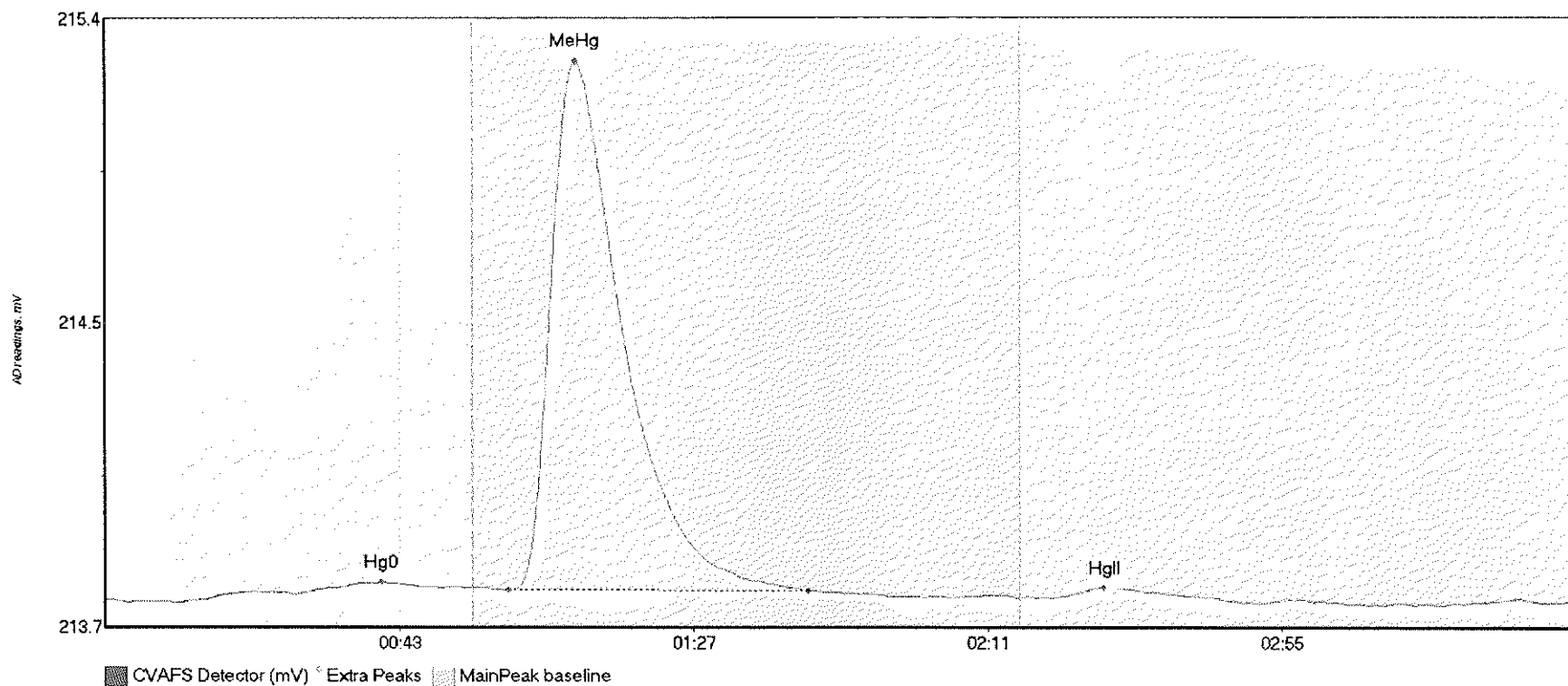
#44: 1707538-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707538-01 Hg0	14.256	14.5	48.7	213.76	213.81	25.2	0.112	OK	213.7592	0.00	-0.01	
1707538-01 MeHg	18.611	61.6	87.3	213.79	213.79	69.6	0.166	OK	213.7592	0.00	-0.01	
1707538-01 HgII	51.717	136.8	176.2	213.77	213.77	149.7	0.342	OK	213.7592	0.00	-0.01	

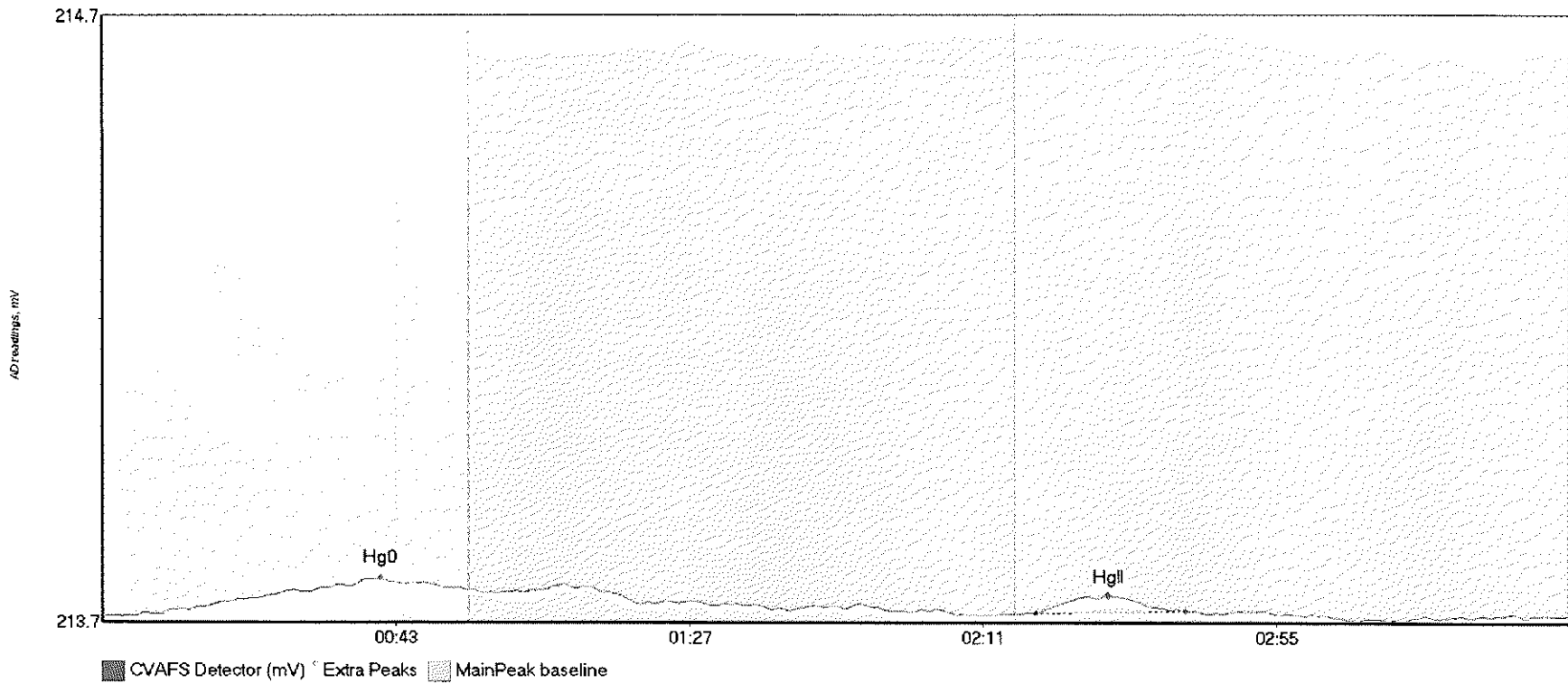


#45: SEQ-CCV3



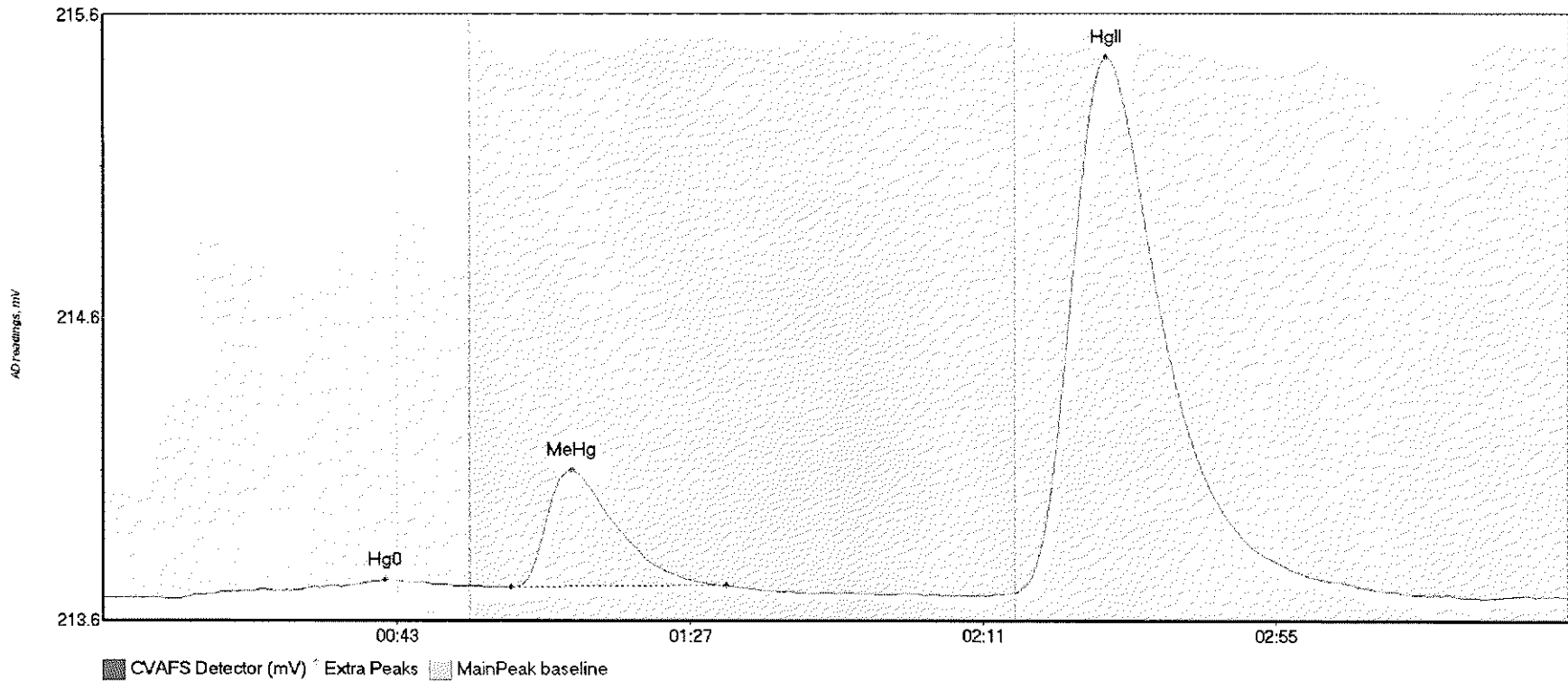
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	4.433	14.9	50.4	213.74	213.78	41.3	0.049	OK	213.7426	0.00	0.00	
SEQ-CCV3 MeHg	191.401	60.3	105.1	213.77	213.77	70.4	1.530	OK	213.7426	0.00	0.00	
SEQ-CCV3 HgII	3.081	141.8	162.8	213.75	213.75	149.5	0.029	OK	213.7426	0.00	0.00	

#46: SEQ-CCB3



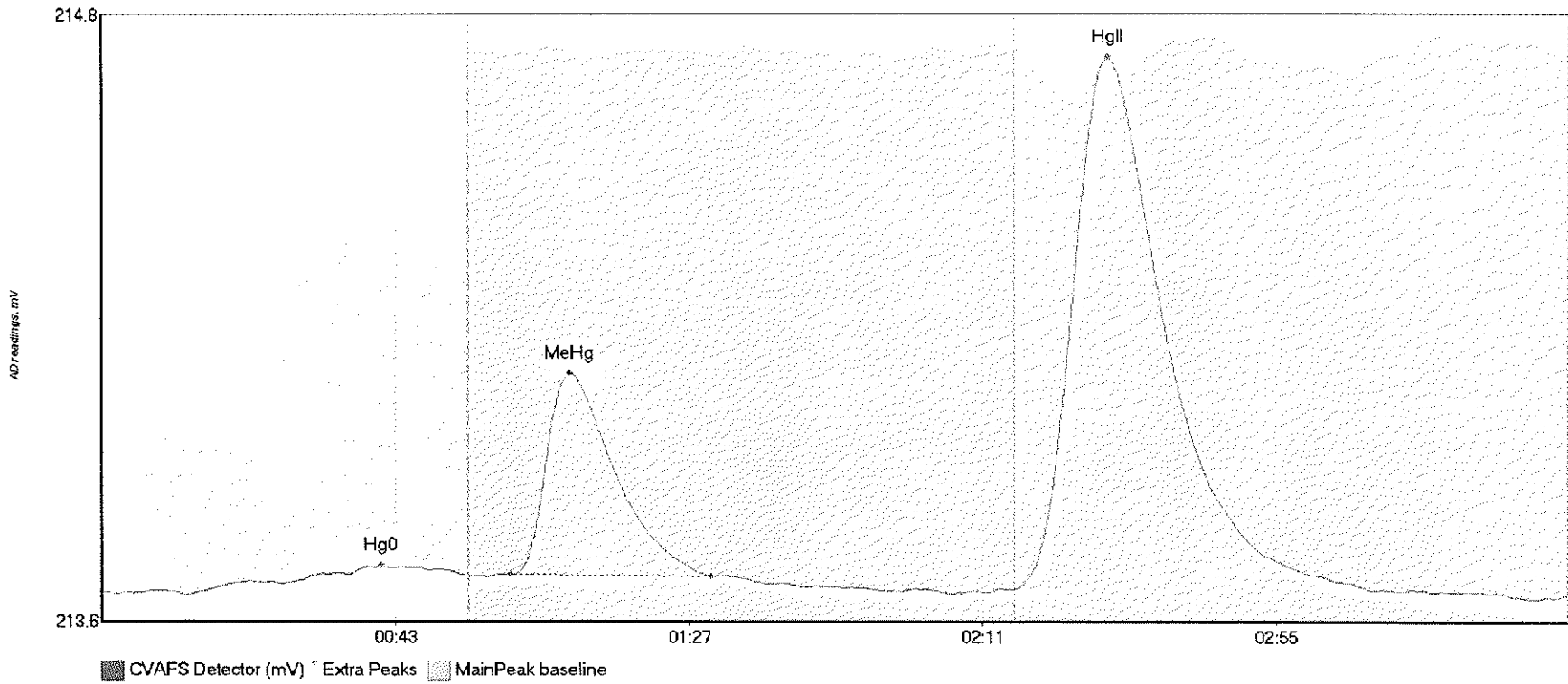
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	7.261	8.9	55.0	213.71	213.75	41.7	0.059	CT	213.7047	0.00	0.00	
SEQ-CCB3 HgII	3.417	140.0	162.5	213.71	213.71	150.9	0.030	OK	213.7047	0.00	0.00	117

#47: F707413-BLK1



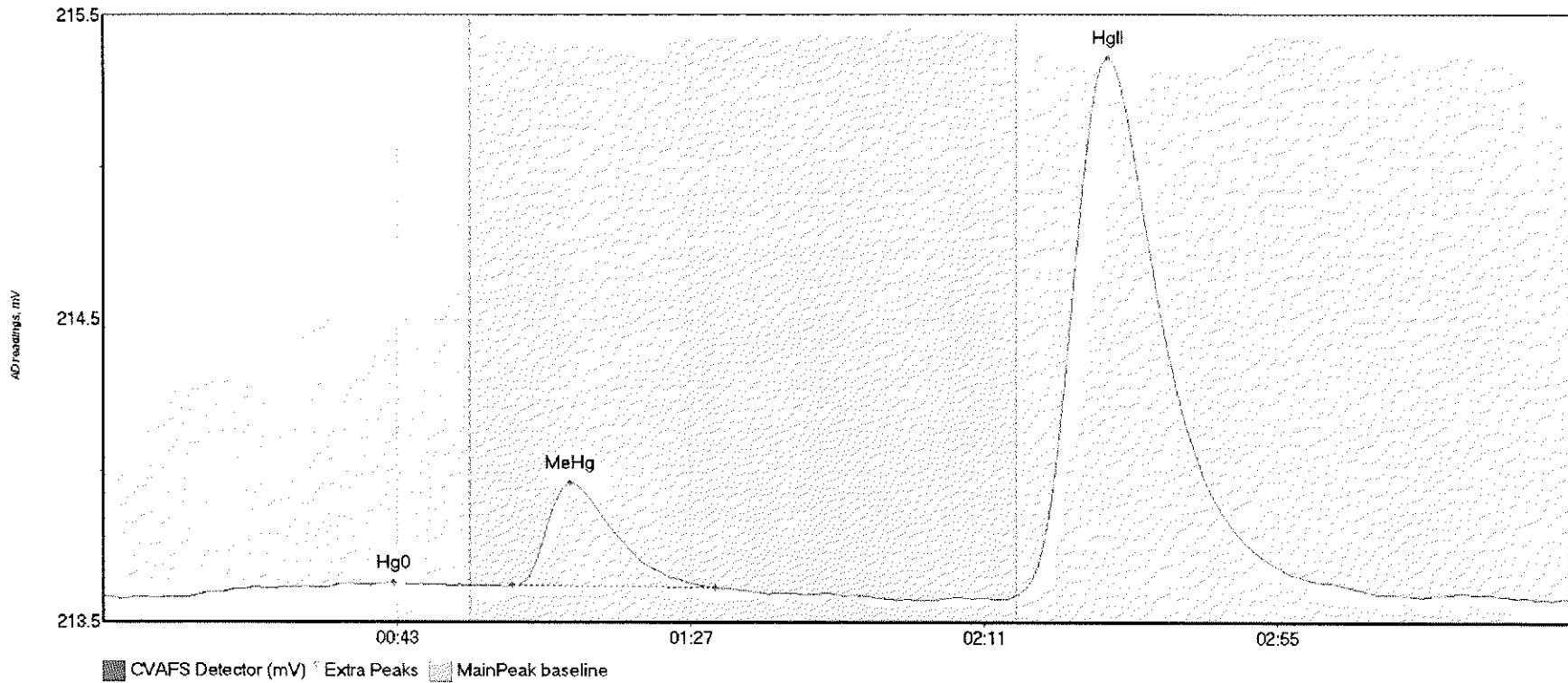
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BLK1 Hg	7.157	10.6	54.4	213.67	213.71	42.3	0.061	OK	213.6754	0.00	0.00	
F707413-BLK1 Me	46.021	61.2	93.4	213.71	213.71	70.3	0.383	OK	213.6754	0.00	0.00	
F707413-BLK1 Hg	285.497	136.8	193.1	213.69	213.69	150.6	1.747	OK	213.6754	0.00	0.00	

#48: F707413-BLK2



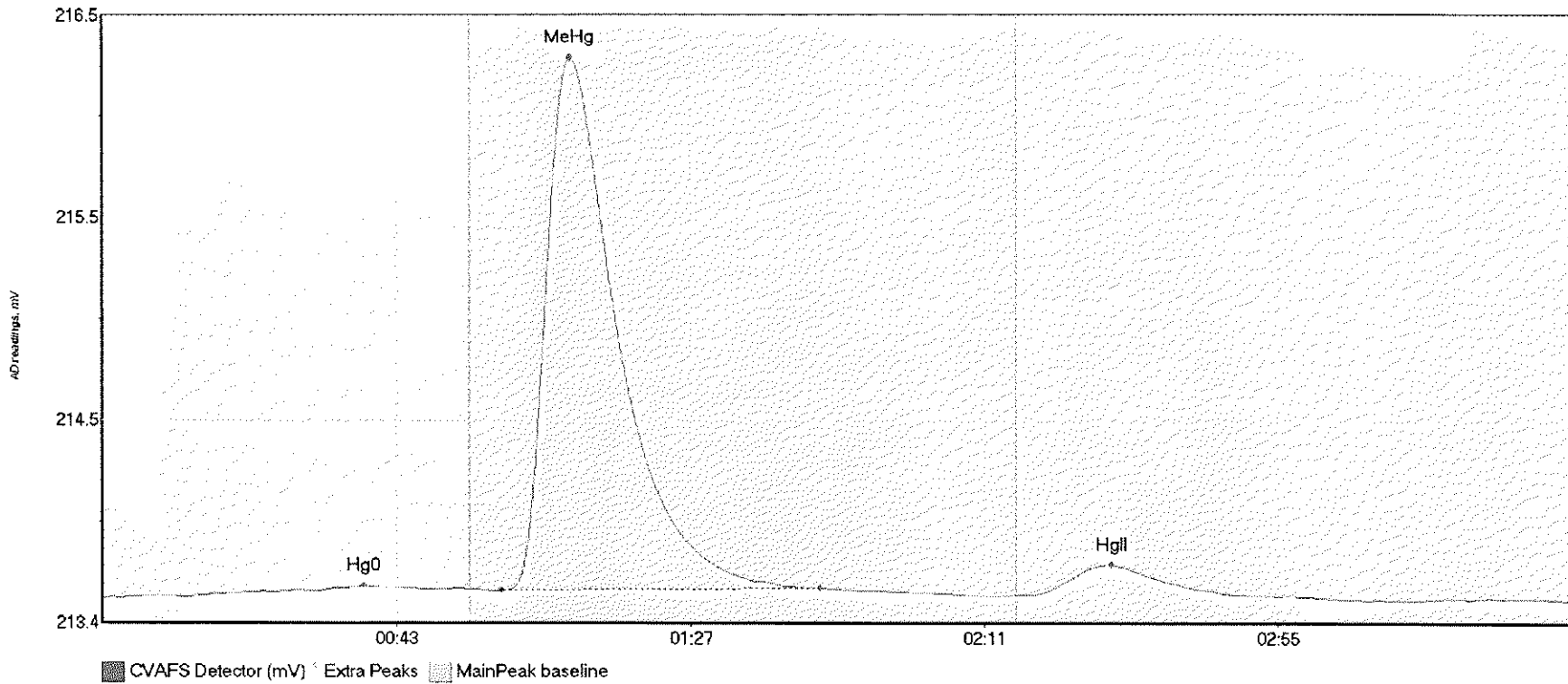
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BLK2 Hg	6.394	14.9	55.0	213.65	213.68	41.9	0.052	CT	213.6436	0.00	0.00	
F707413-BLK2 Me	46.946	61.3	91.3	213.68	213.68	70.2	0.398	OK	213.6436	0.00	0.00	
F707413-BLK2 Hg	169.739	136.8	190.9	213.65	213.65	150.9	1.046	OK	213.6436	0.00	0.00	

#49: F707413-BLK3



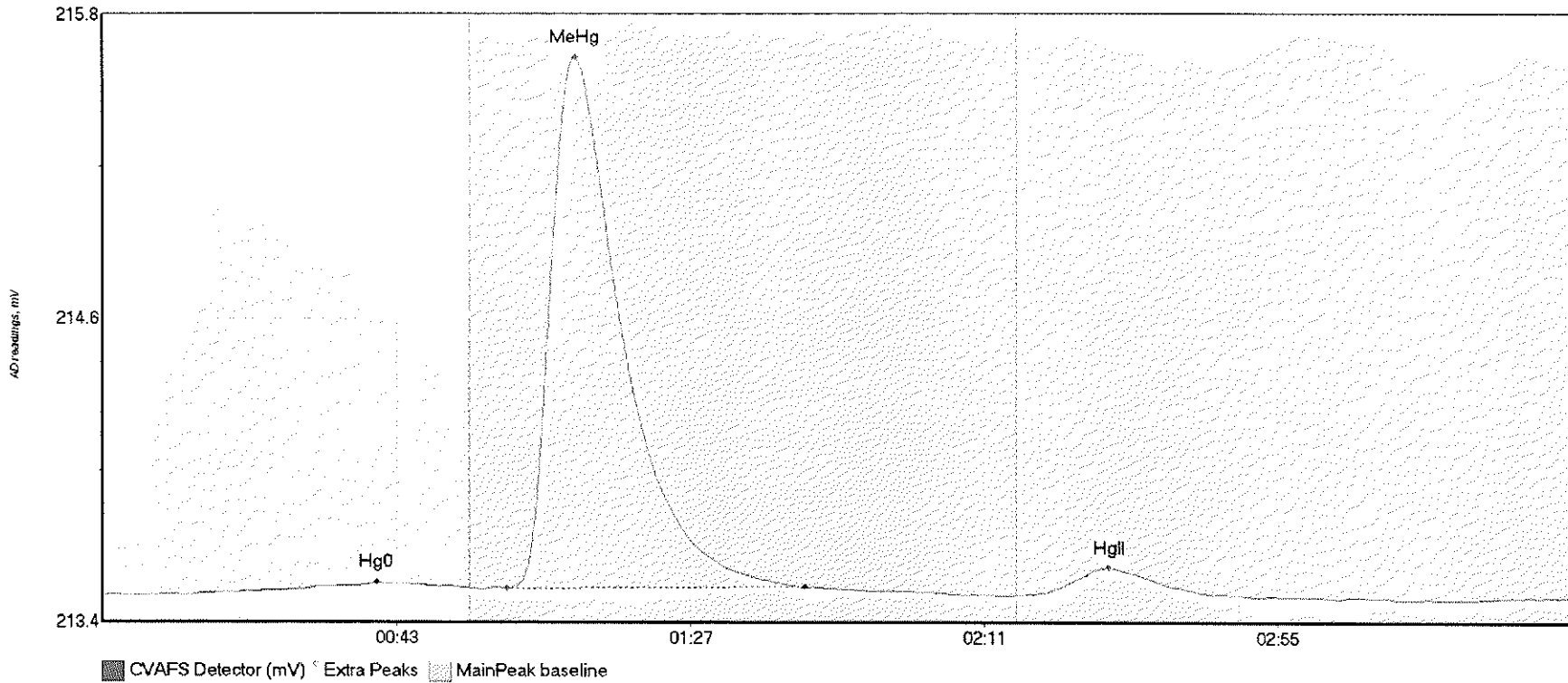
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BLK3 Hg	5.253	13.0	52.3	213.60	213.64	43.6	0.045	OK	213.6034	0.00	0.00	
F707413-BLK3 Me	39.248	61.3	91.7	213.64	213.63	70.0	0.334	OK	213.6034	0.00	0.00	
F707413-BLK3 Hg	282.008	136.8	191.2	213.61	213.61	150.6	1.743	OK	213.6034	0.00	0.00	

#50: F707413-BS1



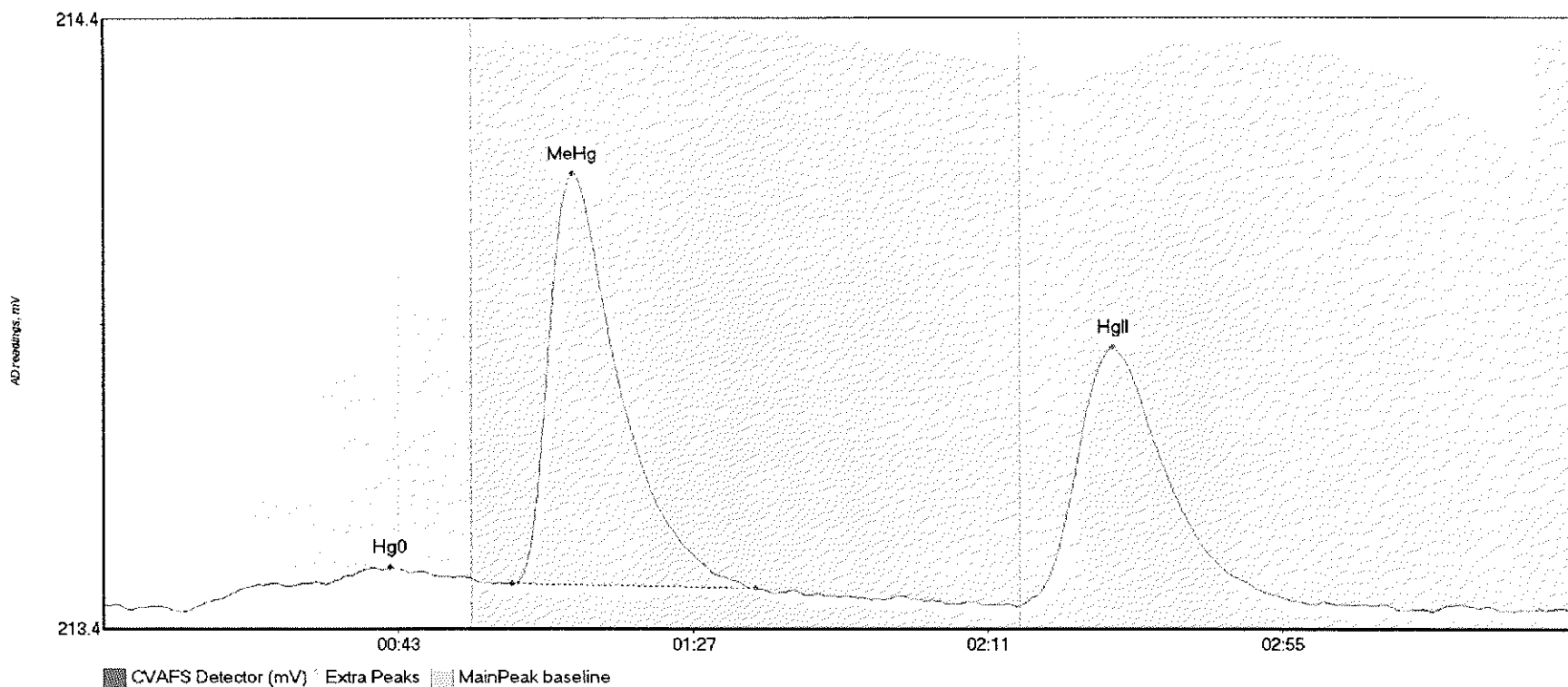
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BS1 Hg0	5.328	12.9	49.4	213.56	213.59	39.1	0.054	OK	213.5525	0.00	-0.01	
F707413-BS1 MeH	336.605	59.7	107.4	213.59	213.60	70.0	2.713	OK	213.5525	0.00	-0.01	
F707413-BS1 HgI	21.624	139.1	169.8	213.57	213.57	151.2	0.152	OK	213.5525	0.00	-0.01	

#51: F707413-BSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-BSD1 Hg	6.082	12.9	55.0	213.52	213.55	41.0	0.049	CT	213.5201	0.00	-0.01	
F707413-BSD1 Me	256.262	60.6	105.2	213.55	213.55	70.8	2.067	OK	213.5201	0.00	-0.01	
F707413-BSD1 Hg	13.299	139.2	166.5	213.52	213.52	150.7	0.105	OK	213.5201	0.00	-0.01	

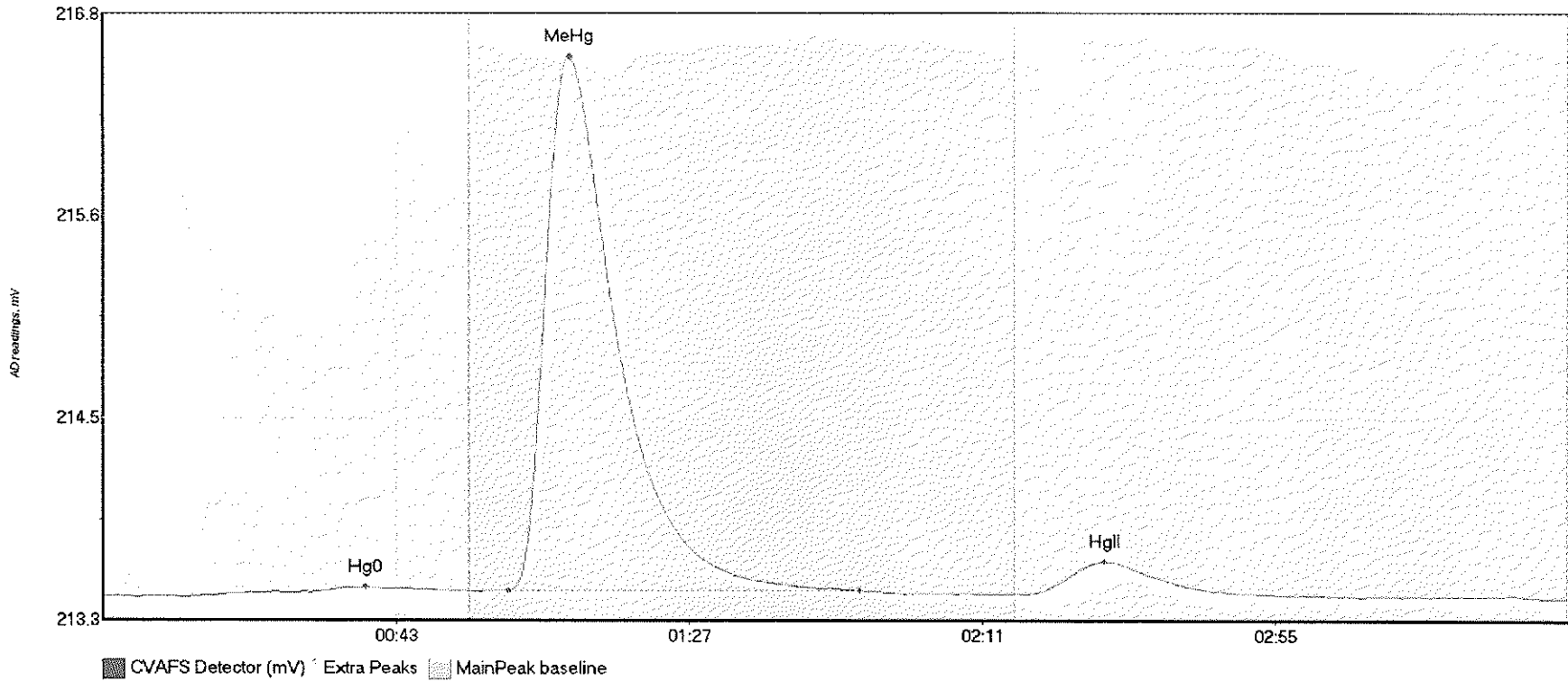
#52: F707413-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-DUP1 Hg	8.801	12.6	55.0	213.47	213.52	42.8	0.071	CT	213.4770	0.00	-0.01	
F707413-DUP1 Me	82.283	61.0	97.3	213.51	213.50	70.2	0.672	OK	213.4770	0.00	-0.01	
F707413-DUP1 Hg	64.421	136.8	178.2	213.48	213.48	156.7	0.423	OK	213.4770	0.00	-0.01	

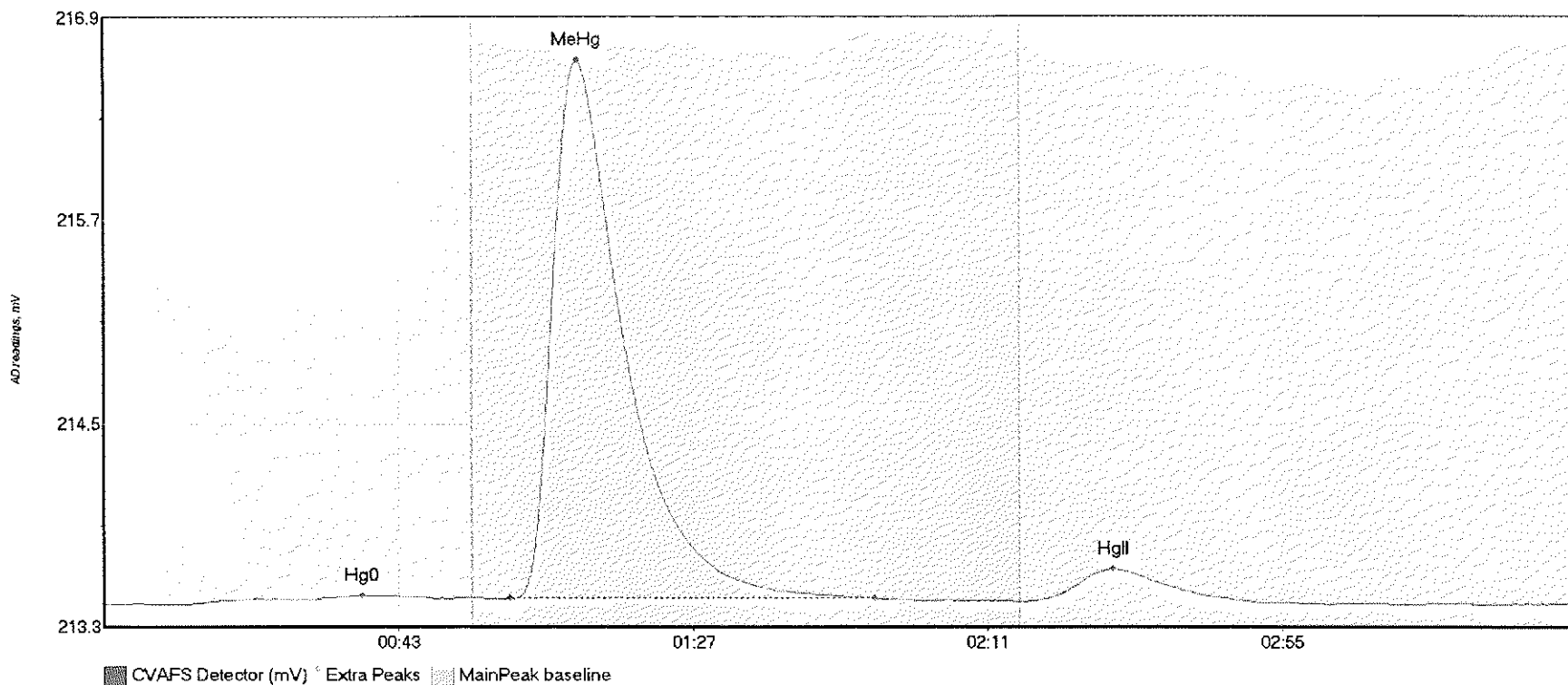


#53: F707413-MS1



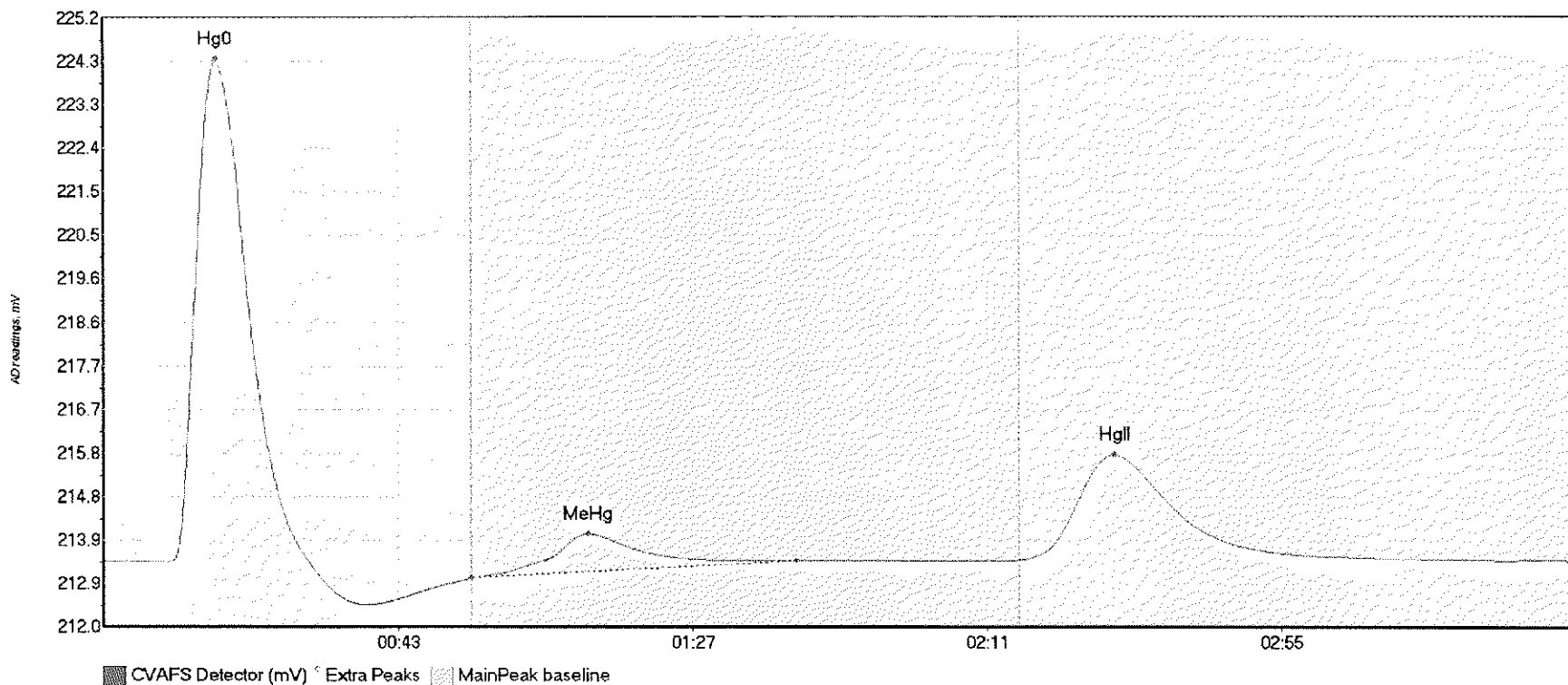
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-MS1 Hg0	6.298	16.4	55.0	213.46	213.48	39.4	0.050	CT	213.4525	0.00	-0.01	
F707413-MS1 MeH	384.777	60.8	113.6	213.49	213.48	70.1	3.078	OK	213.4525	0.00	-0.01	
F707413-MS1 HgI	26.786	138.4	171.1	213.47	213.47	150.3	0.188	OK	213.4525	0.00	-0.01	

#54: F707413-MSD1



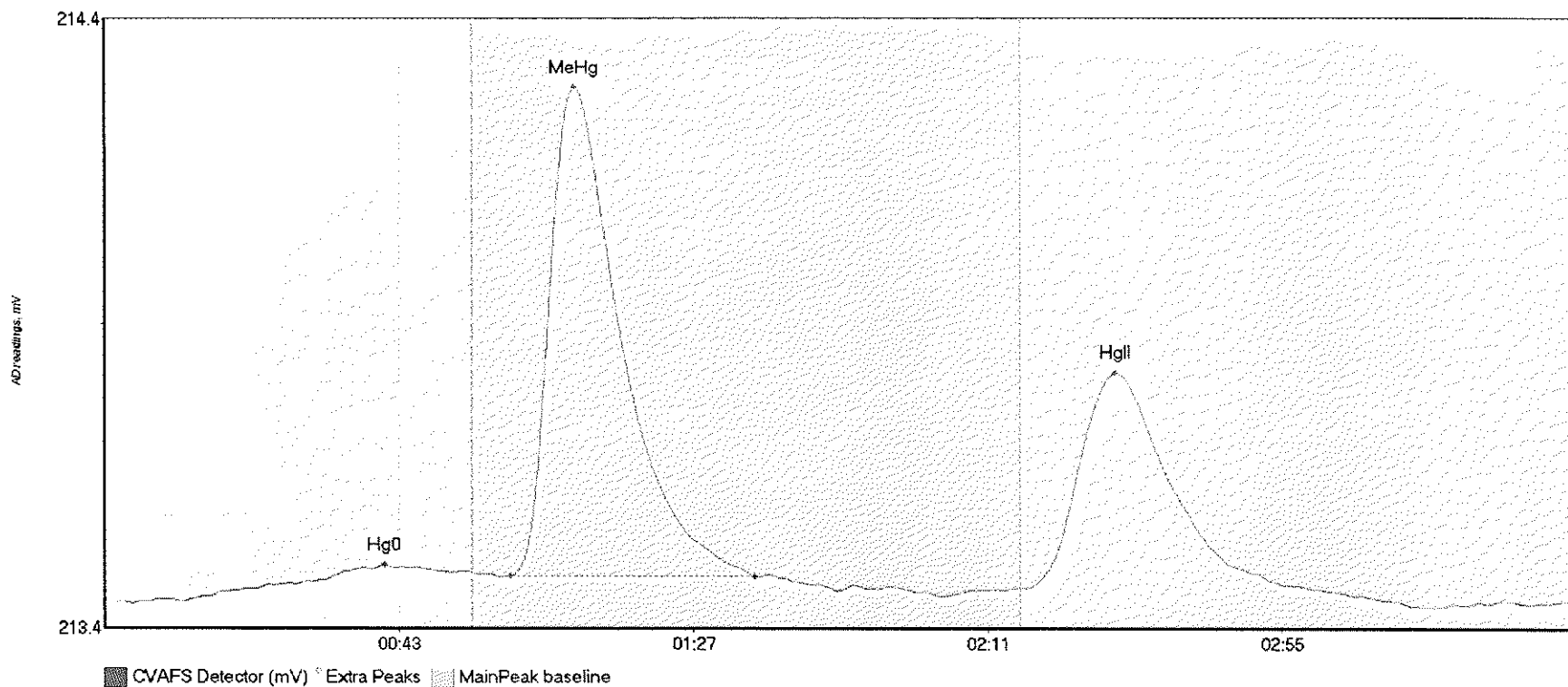
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707413-MSD1 Hg	6.761	12.4	51.7	213.42	213.46	38.6	0.053	OK	213.4239	0.00	0.00	
F707413-MSD1 Me	393.582	60.6	115.1	213.46	213.46	70.7	3.147	OK	213.4239	0.00	0.00	
F707413-MSD1 Hg	29.649	137.1	173.8	213.44	213.44	150.8	0.194	OK	213.4239	0.00	0.00	

#55: 1707106-01RE1



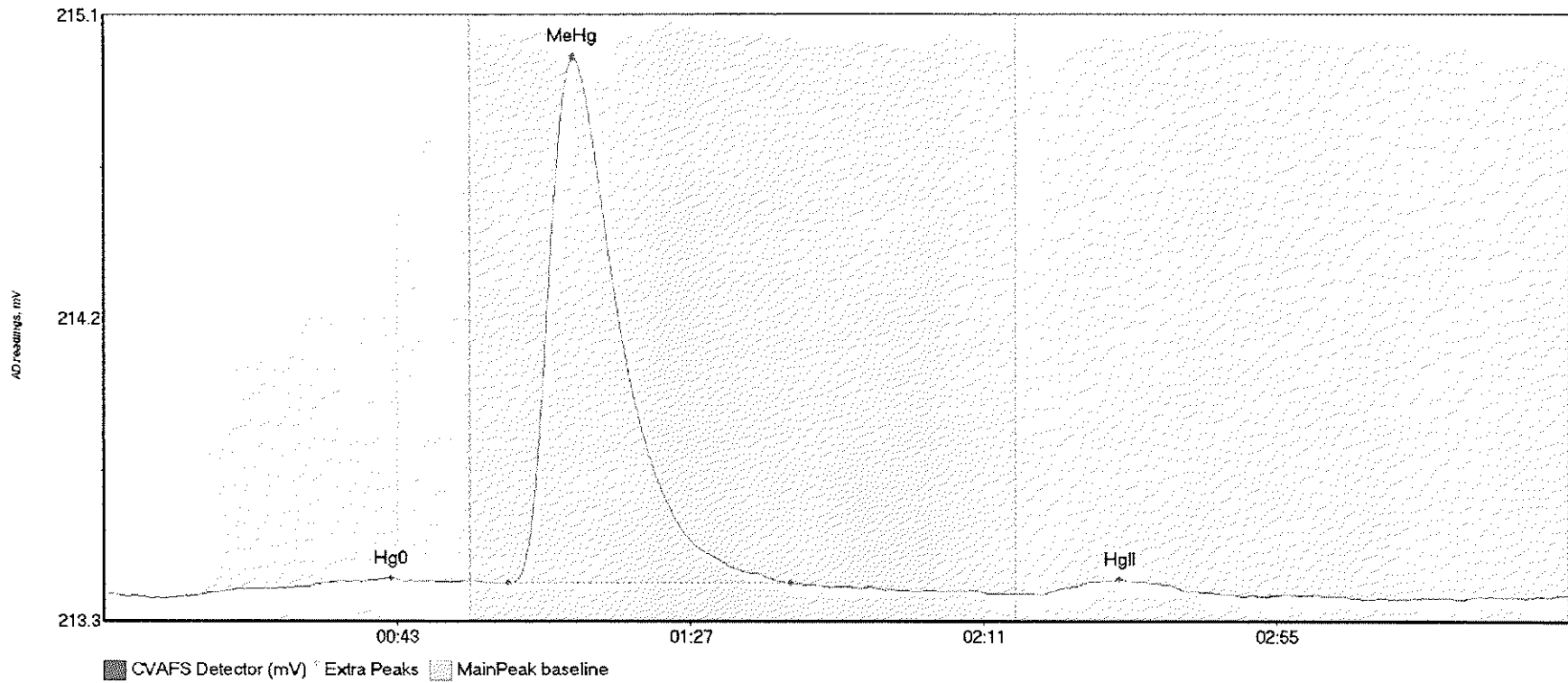
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707106-01RE1 H	1036.676	9.5	39.3	213.41	212.46	16.8	10.882	OK	213.4100	0.00	0.04	
1707106-01RE1 M	132.448	55.0	103.4	213.04	213.43	72.4	0.967	OK	213.4100	0.00	0.04	
1707106-01RE1 H	383.005	136.8	199.4	213.45	213.46	151.2	2.294	OK	213.4100	0.00	0.04	

#56: 1707106-02RE1



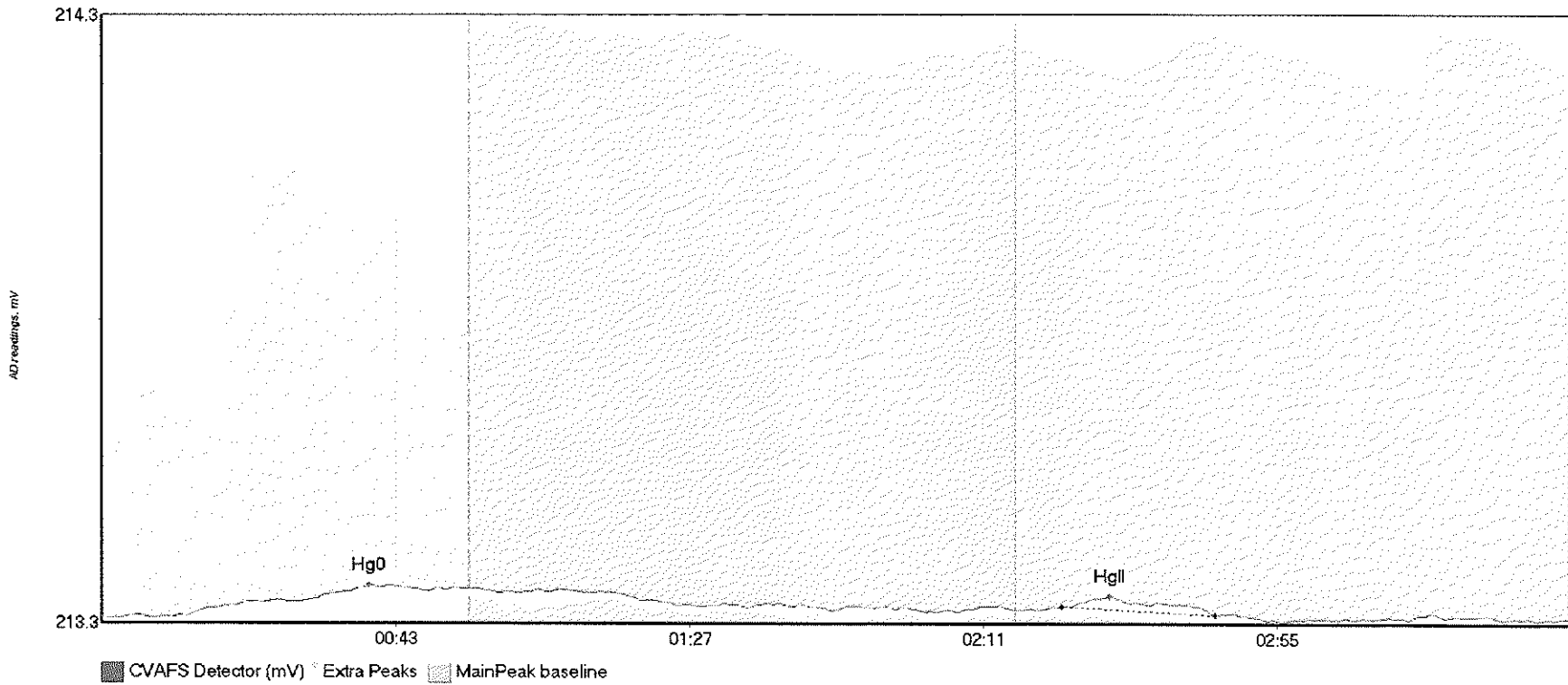
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707106-02RE1 H	5.522	12.1	55.0	213.41	213.46	41.9	0.059	CT	213.4091	0.00	0.00	
1707106-02RE1 M	98.894	60.7	97.2	213.45	213.45	70.3	0.802	OK	213.4091	0.00	0.00	
1707106-02RE1 H	53.608	138.1	176.4	213.43	213.44	151.0	0.355	OK	213.4091	0.00	0.00	

#57: SEQ-CCV4



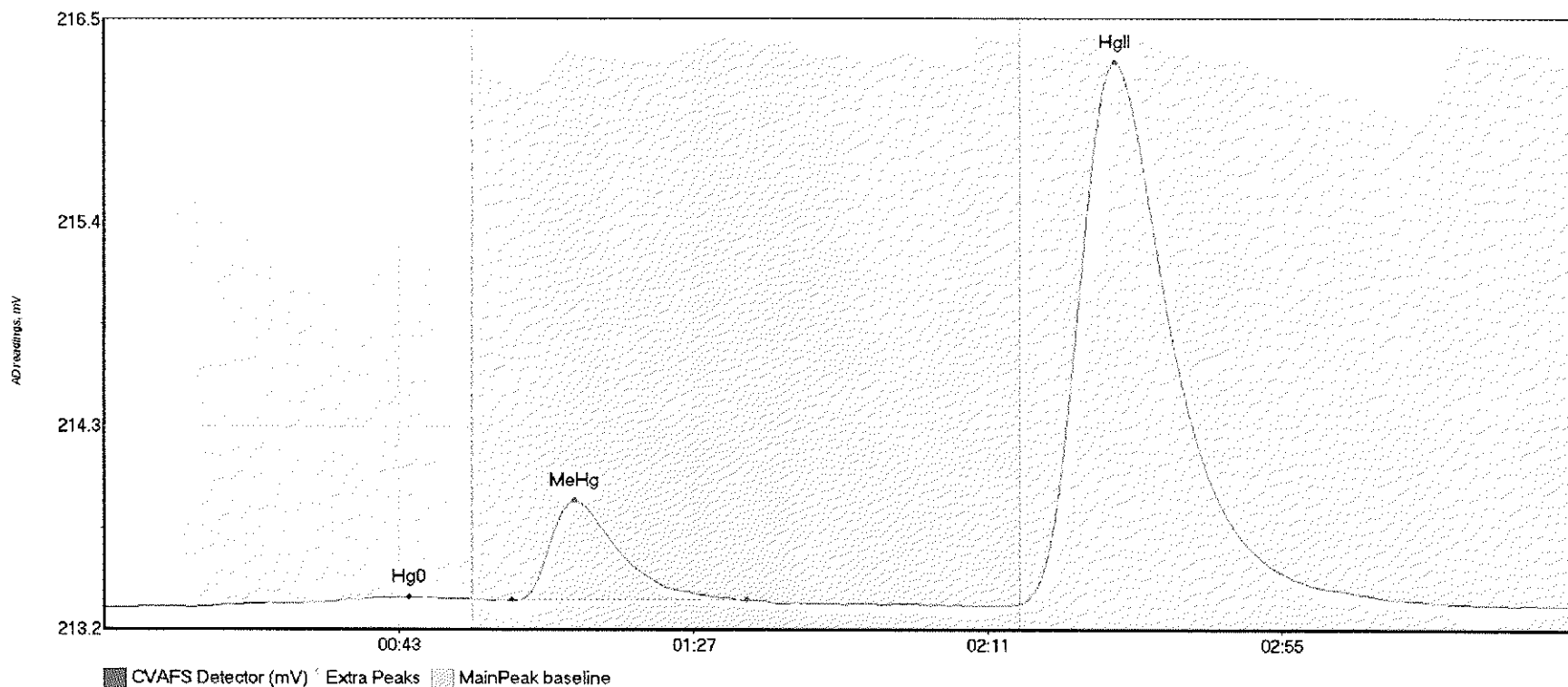
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	4.572	12.7	52.2	213.38	213.42	43.1	0.052	OK	213.3888	0.00	0.00	
SEQ-CCV4 MeHg	188.057	60.7	103.0	213.42	213.42	70.5	1.511	OK	213.3888	0.00	0.00	
SEQ-CCV4 HgII	5.706	140.6	165.6	213.39	213.39	152.4	0.044	OK	213.3888	0.00	0.00	

#58: SEQ-CCB4



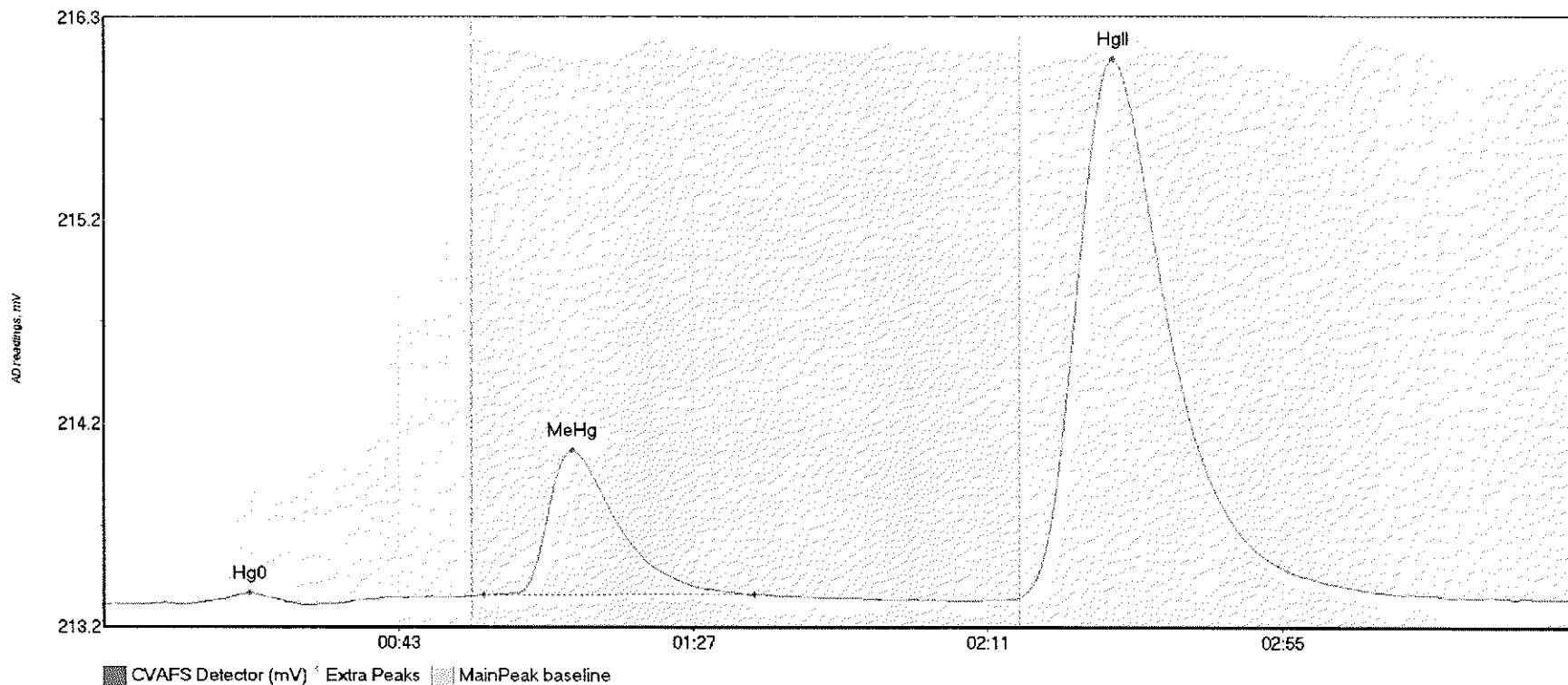
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.768	12.7	48.8	213.36	213.40	40.0	0.051	OK	213.3534	0.00	0.00	
SEQ-CCB4 HgII	2.963	143.7	166.8	213.37	213.36	150.9	0.017	OK	213.3534	0.00	0.00	317

#59: F707440-BLK1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BLK1 Hg	4.908	13.1	55.0	213.34	213.38	45.6	0.054	CT	213.3359	0.00	0.01	
F707440-BLK1 Me	62.874	60.8	96.0	213.37	213.37	70.3	0.527	OK	213.3359	0.00	0.01	
F707440-BLK1 Hg	472.389	136.8	199.0	213.36	213.36	151.1	2.874	OK	213.3359	0.00	0.01	

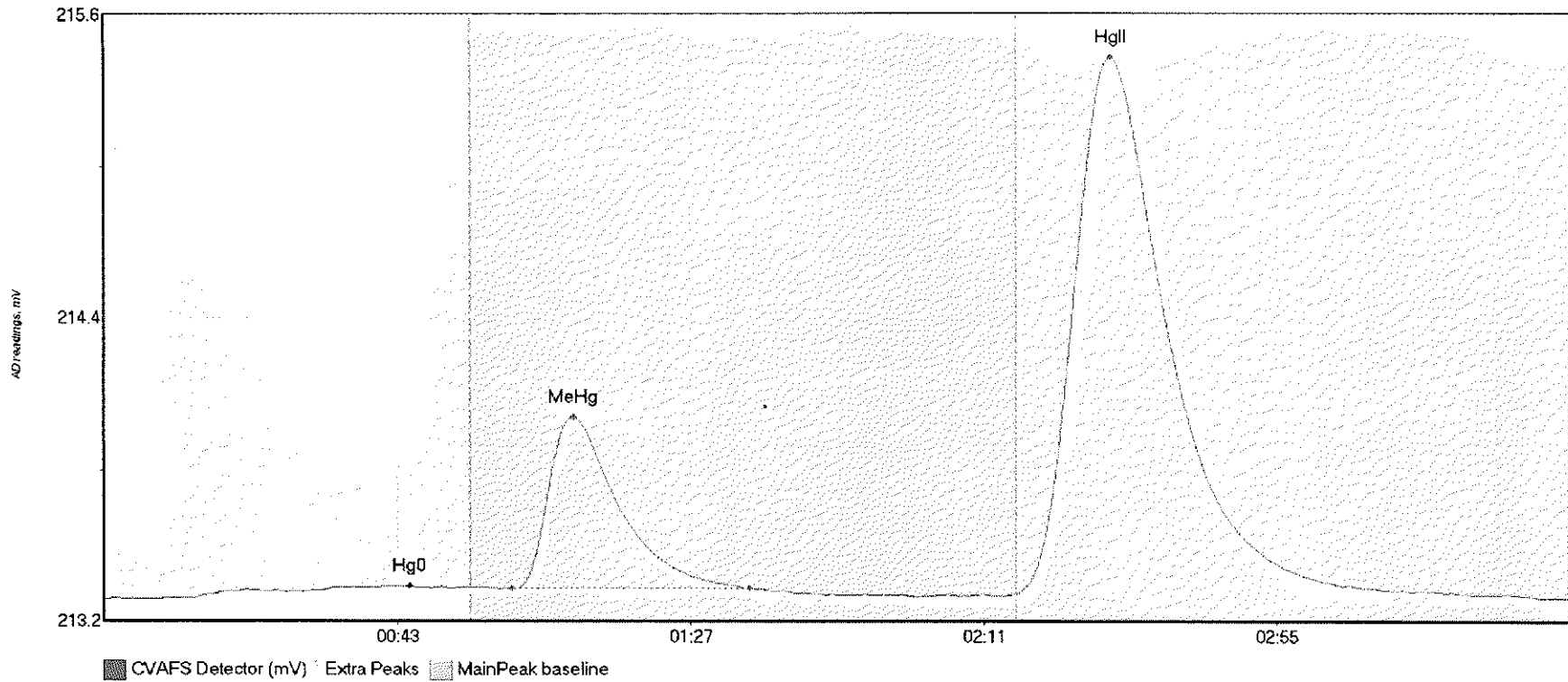
#60: F707440-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BLK2 Hg	4.719	12.9	30.6	213.32	213.31	21.9	0.052	OK	213.3228	0.00	0.02	
F707440-BLK2 Me	87.409	56.7	97.1	213.36	213.37	70.0	0.725	OK	213.3228	0.00	0.02	
F707440-BLK2 Hg	442.112	136.8	198.6	213.35	213.36	150.7	2.697	OK	213.3228	0.00	0.02	

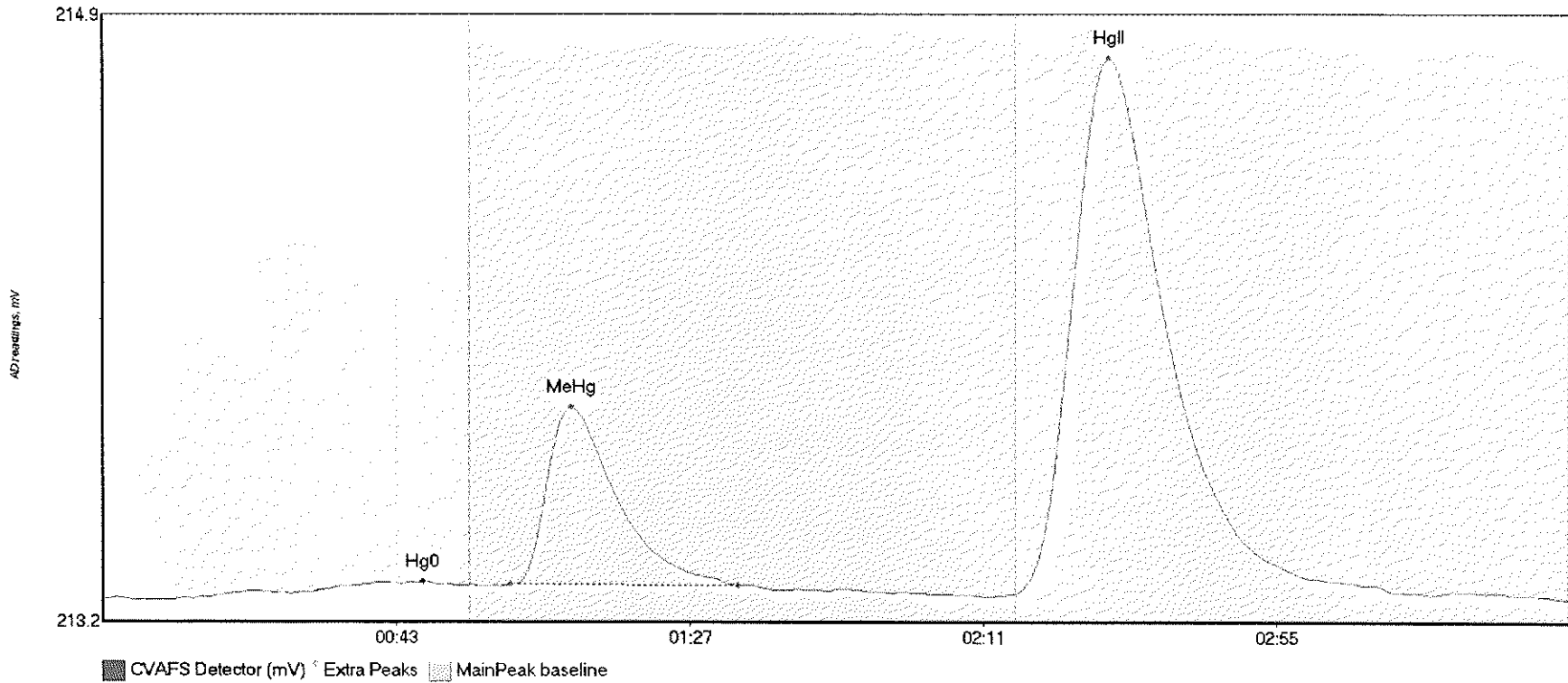


#61: F707440-BLK3



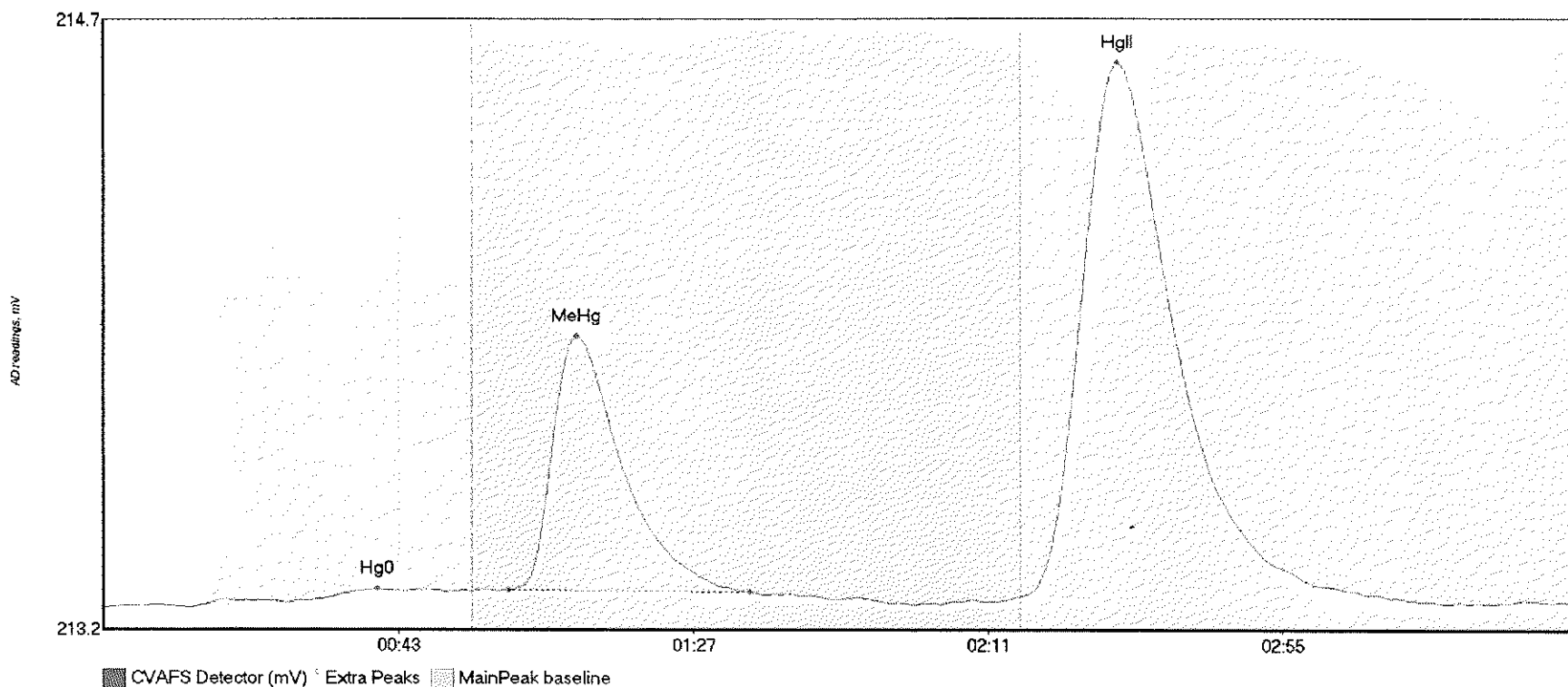
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BLK3 Hg	5.276	13.1	52.1	213.31	213.35	45.8	0.046	OK	213.3067	0.00	0.00	
F707440-BLK3 Me	80.405	61.1	96.9	213.34	213.34	70.4	0.659	OK	213.3067	0.00	0.00	
F707440-BLK3 Hg	337.146	136.8	193.7	213.32	213.33	151.0	2.062	OK	213.3067	0.00	0.00	

#62: F707440-BS1



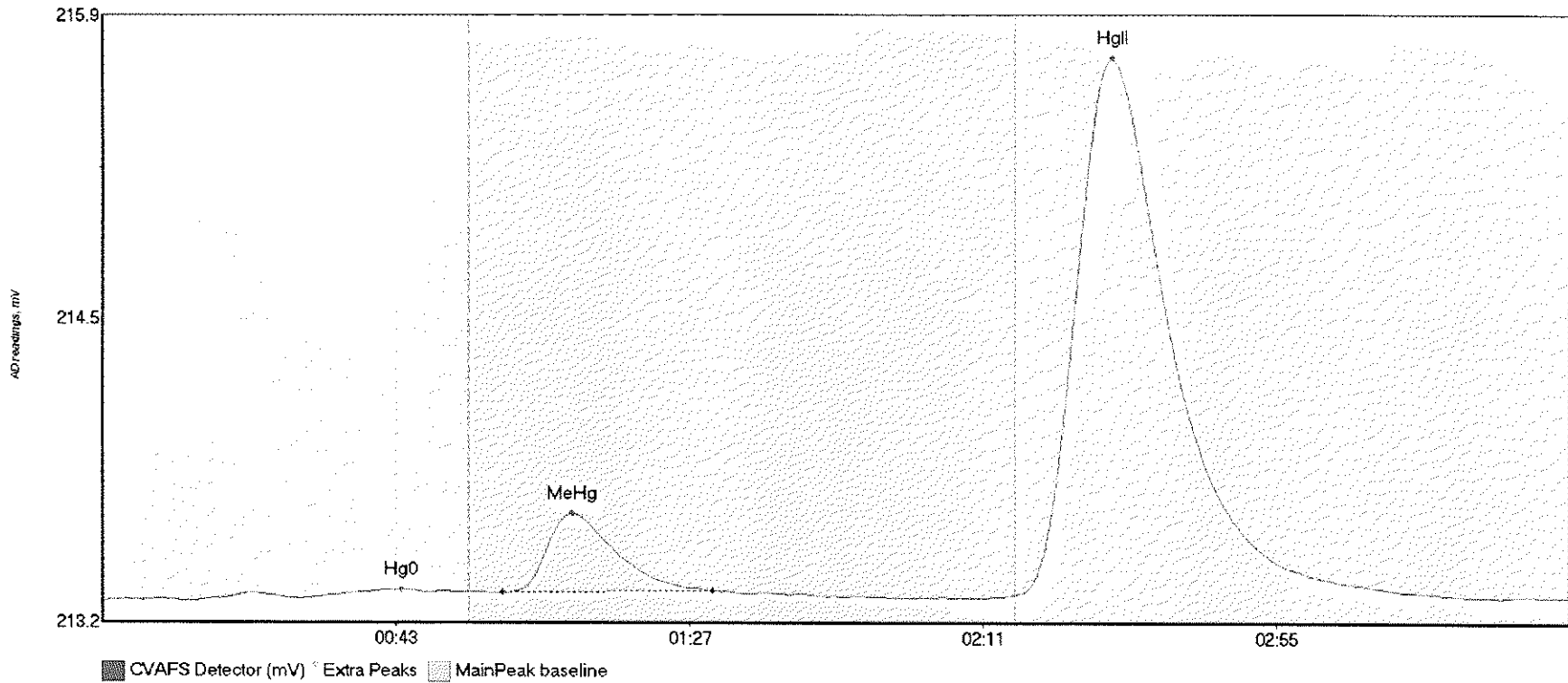
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BS1 Hg0	3.500	15.5	53.6	213.29	213.32	48.0	0.044	OK	213.2887	0.00	0.00	
F707440-BS1 MeH	60.442	61.2	95.2	213.33	213.32	70.3	0.501	OK	213.2887	0.00	0.00	
F707440-BS1 HgI	250.162	136.8	194.0	213.30	213.31	150.9	1.515	OK	213.2887	0.00	0.00	

#63: F707440-BS2



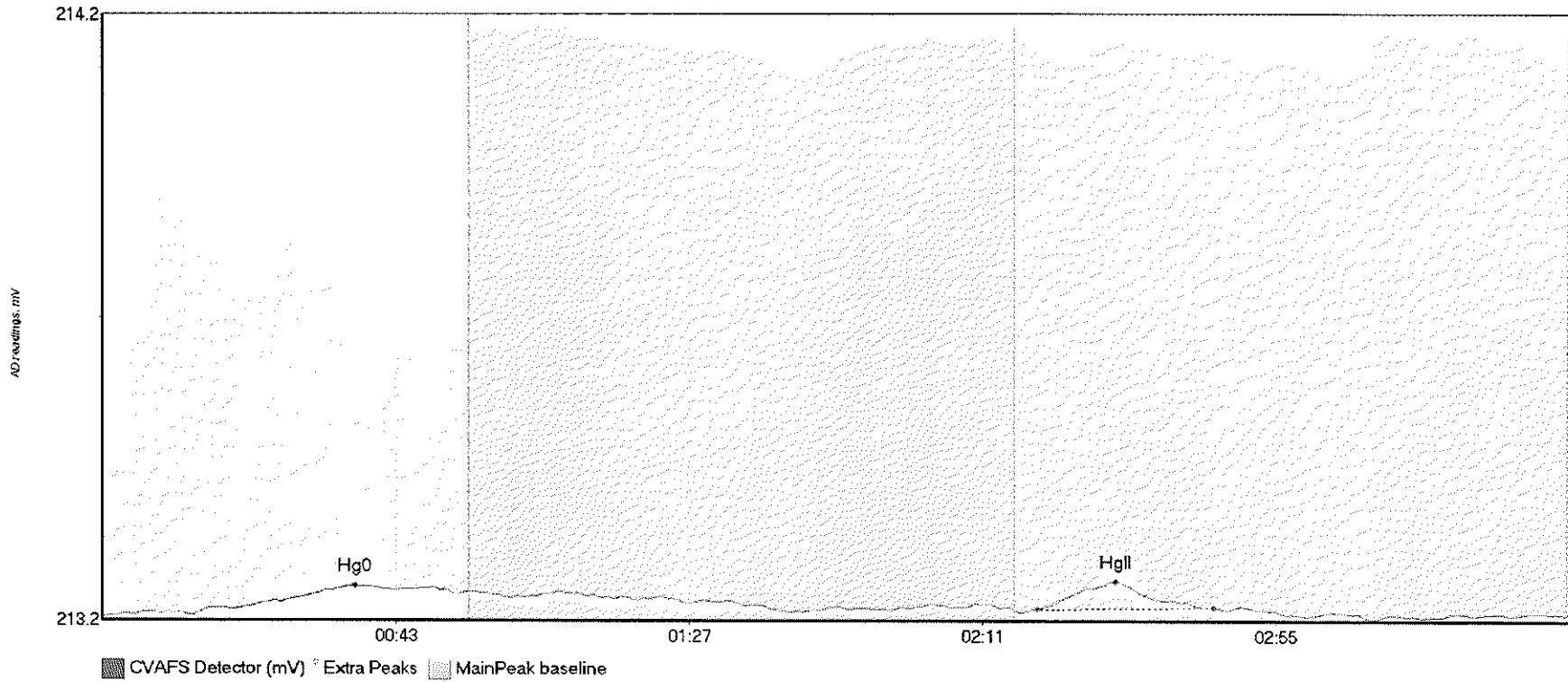
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707440-BS2 Hg0	2.851	13.3	50.9	213.27	213.31	40.8	0.046	OK	213.2711	0.00	0.01	
F707440-BS2 MeH	76.983	60.4	96.5	213.31	213.31	70.6	0.635	OK	213.2711	0.00	0.01	
F707440-BS2 HgI	213.968	136.8	188.5	213.30	213.30	151.3	1.335	OK	213.2711	0.00	0.01	

#64: 1707500-14



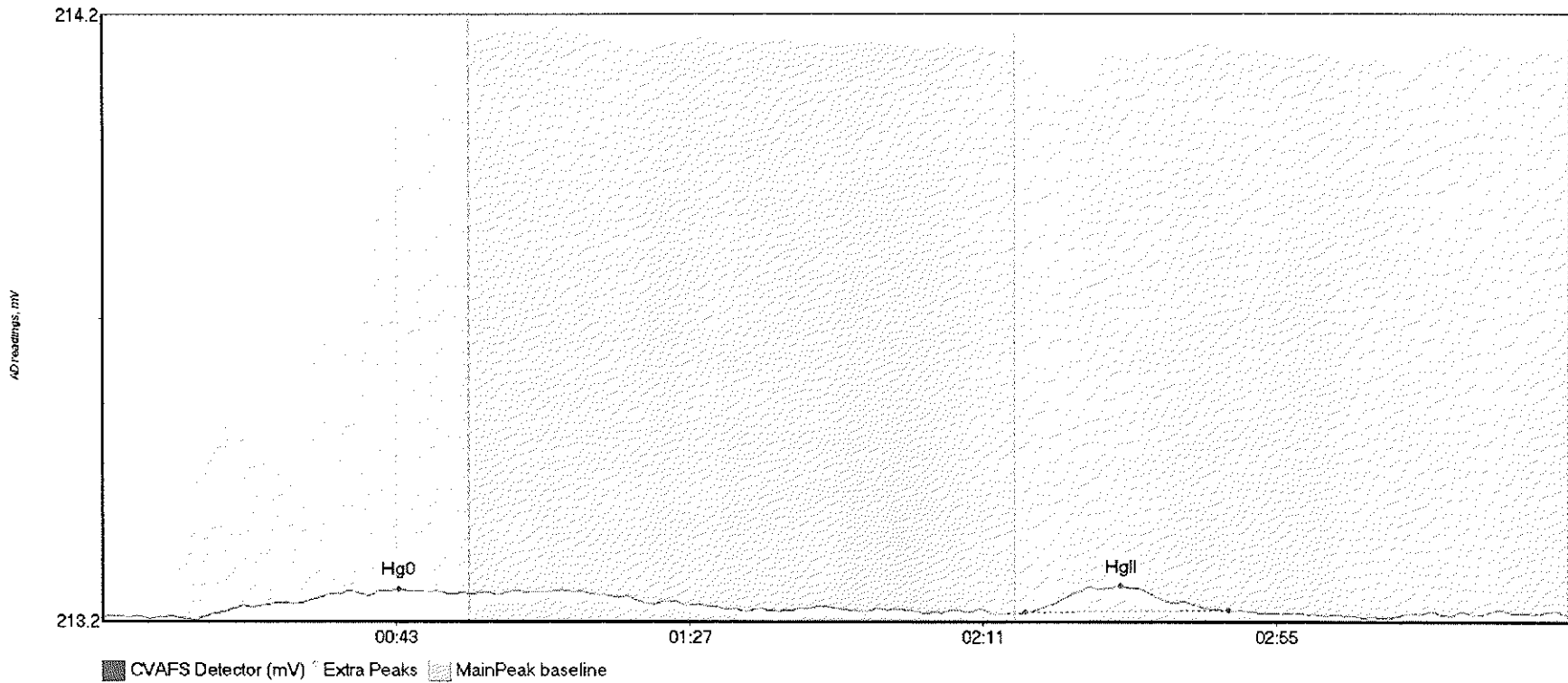
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707500-14 Hg0	3.384	13.3	49.4	213.26	213.30	44.9	0.050	OK	213.2679	0.00	0.01	
1707500-14 MeHg	41.419	60.0	91.5	213.30	213.31	70.4	0.357	OK	213.2679	0.00	0.01	
1707500-14 HgII	398.772	136.8	198.6	213.29	213.30	151.4	2.413	OK	213.2679	0.00	0.01	

#65: F707393-BLK6



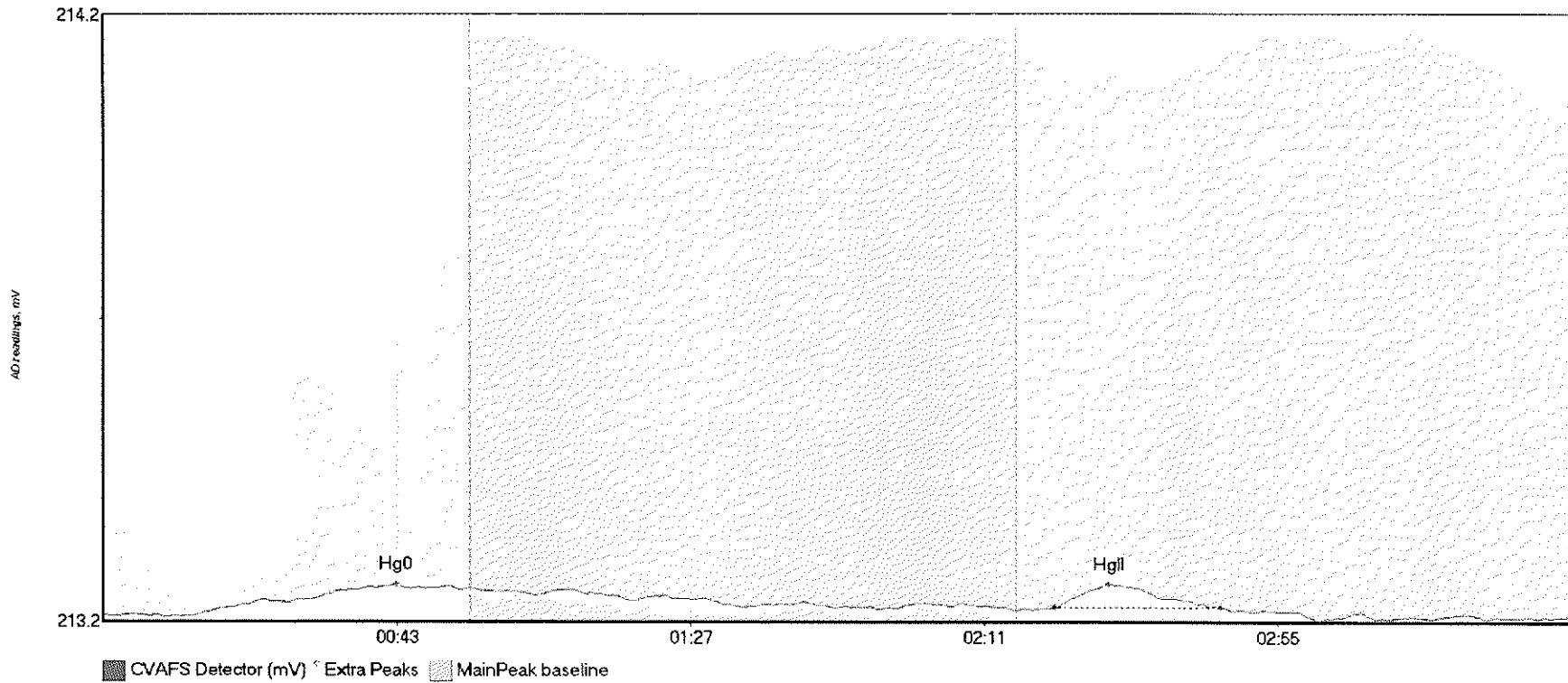
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK6 Hg	5.431	13.3	53.1	213.26	213.29	37.9	0.048	OK	213.2532	0.00	0.00	
F707393-BLK6 Hg	5.459	140.3	166.8	213.27	213.27	152.0	0.047	OK	213.2532	0.00	0.00	017

#66: F707393-BLK7



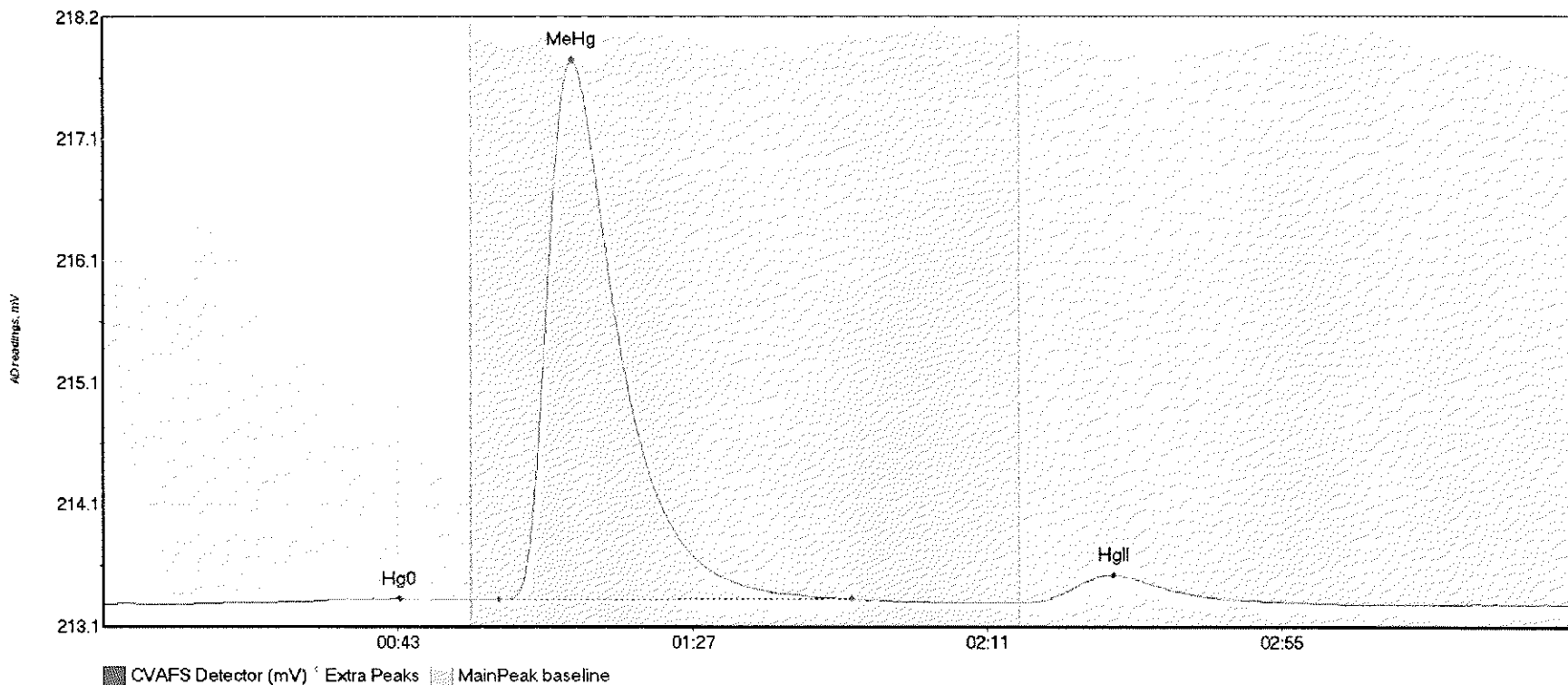
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK7 Hg	4.989	13.9	52.5	213.25	213.29	44.5	0.051	OK	213.2560	0.00	0.00	
F707393-BLK7 Hg	6.844	138.5	168.9	213.26	213.26	152.7	0.045	OK	213.2560	0.00	0.00	017

#67: F707393-BLK8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK8 Hg	4.658	13.5	53.6	213.25	213.29	43.9	0.051	OK	213.2531	0.00	0.00	
F707393-BLK8 Hg	4.897	142.6	167.5	213.27	213.27	150.7	0.038	OK	213.2531	0.00	0.00	017

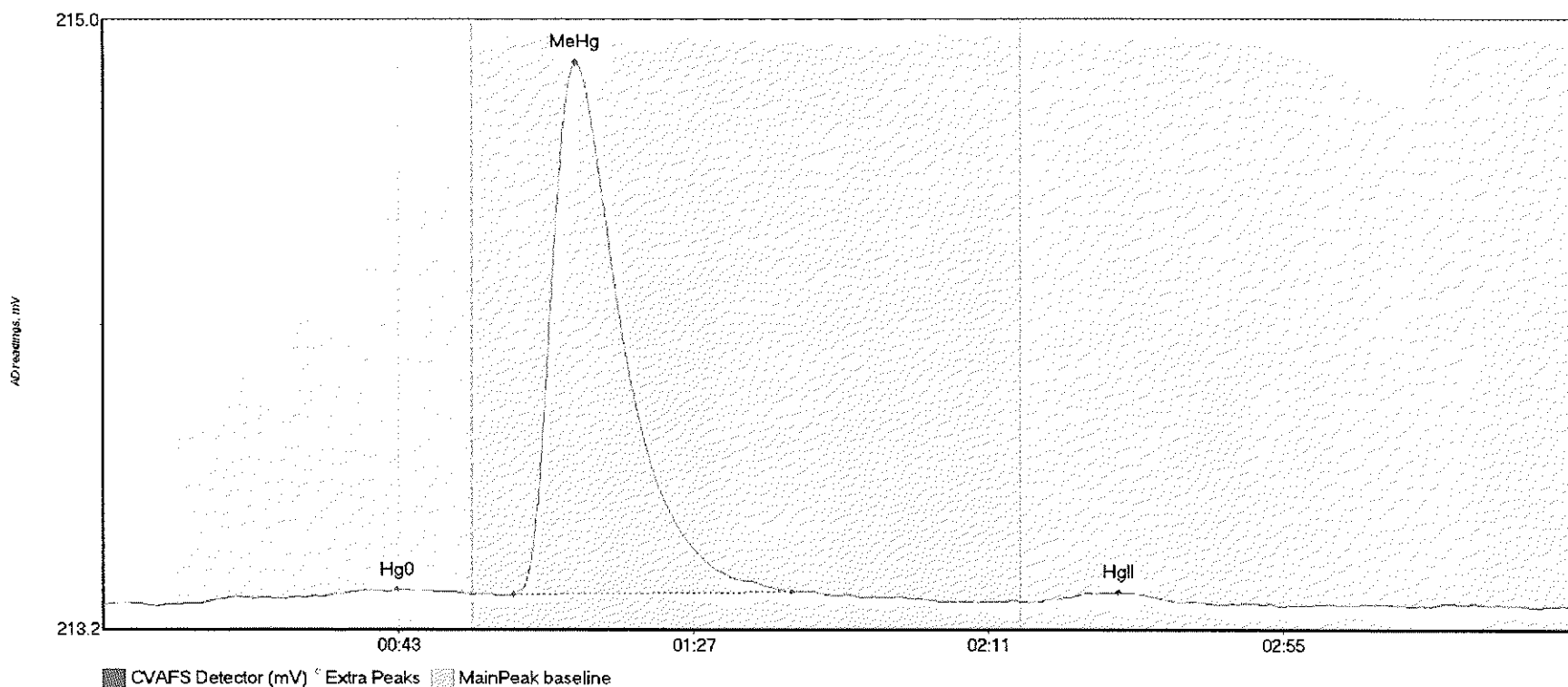
#68: F707393-MS3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS3 Hg0	3.488	13.1	51.3	213.25	213.28	44.3	0.044	OK	213.2481	0.00	0.00	
F707393-MS3 MeH	564.523	59.2	111.9	213.29	213.29	70.1	4.515	OK	213.2481	0.00	0.00	
F707393-MS3 HgI	34.399	137.9	174.8	213.26	213.27	151.0	0.230	OK	213.2481	0.00	0.00	

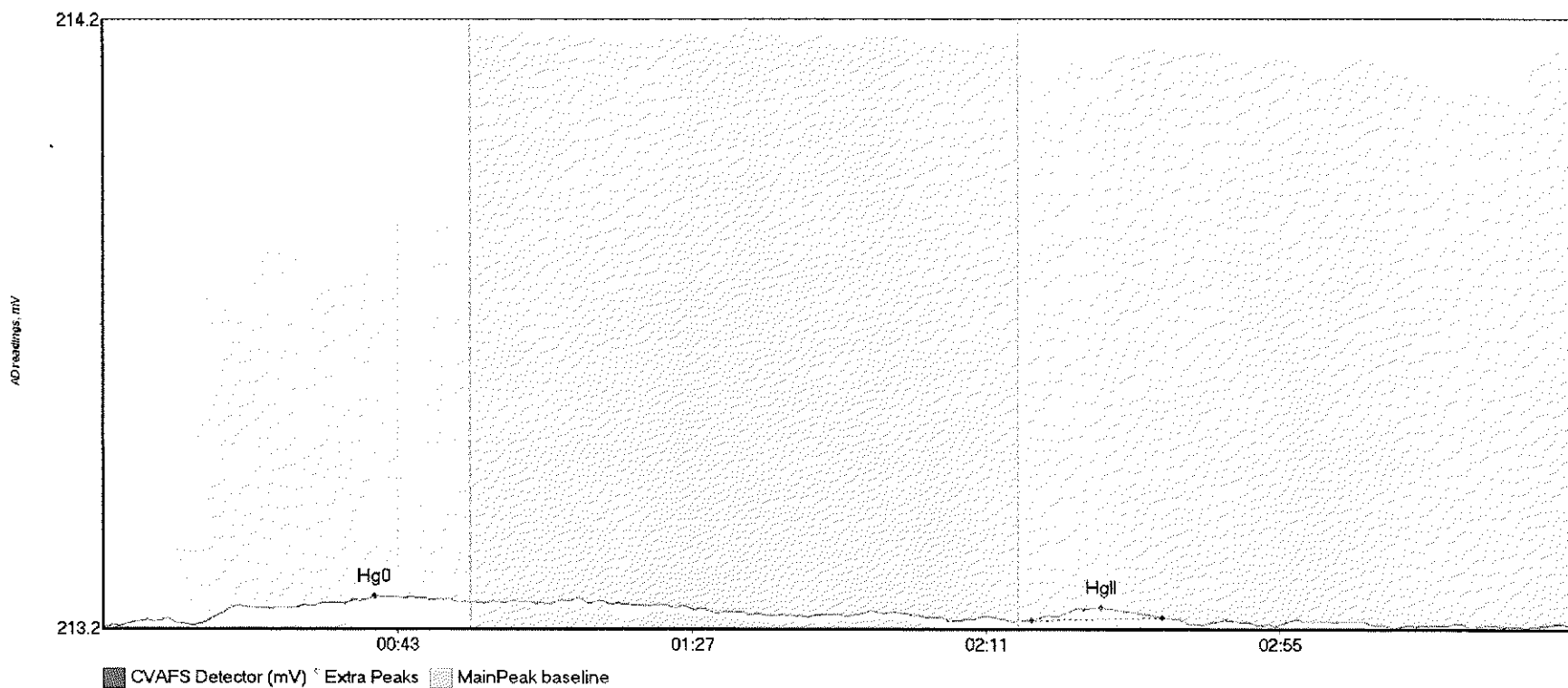


#69: SEQ-CCV5



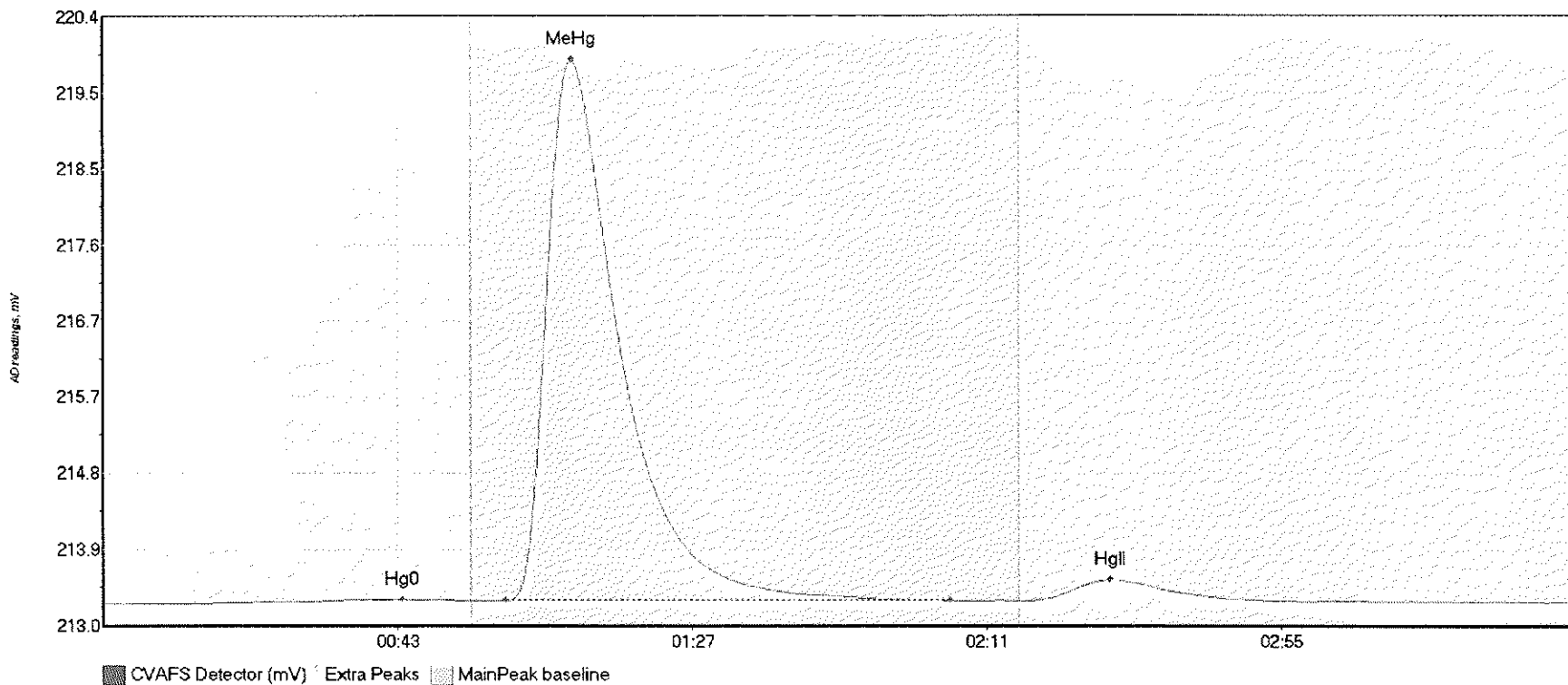
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	4.936	14.3	55.0	213.25	213.27	43.8	0.040	CT	213.2437	0.00	-0.01	
SEQ-CCV5 MeHg	191.739	61.2	102.8	213.27	213.28	70.5	1.555	OK	213.2437	0.00	-0.01	
SEQ-CCV5 HgII	3.728	139.0	160.4	213.25	213.25	151.5	0.028	OK	213.2437	0.00	-0.01	

#70: SEQ-CCB5



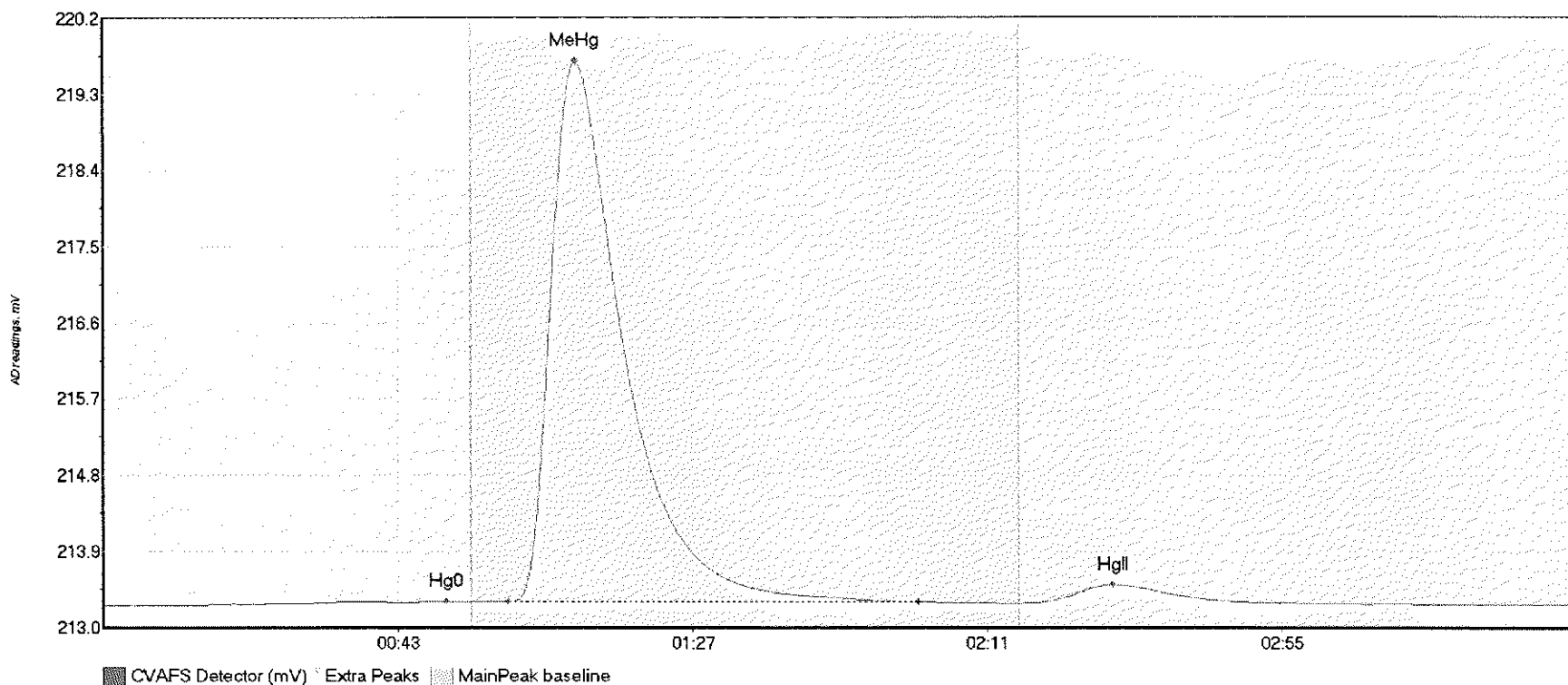
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.862	13.9	53.1	213.23	213.26	40.6	0.047	OK	213.2252	0.00	0.00	
SEQ-CCB5 HgII	2.195	138.9	158.5	213.23	213.24	149.3	0.022	OK	213.2252	0.00	0.00	117

#71: F707393-MSD3



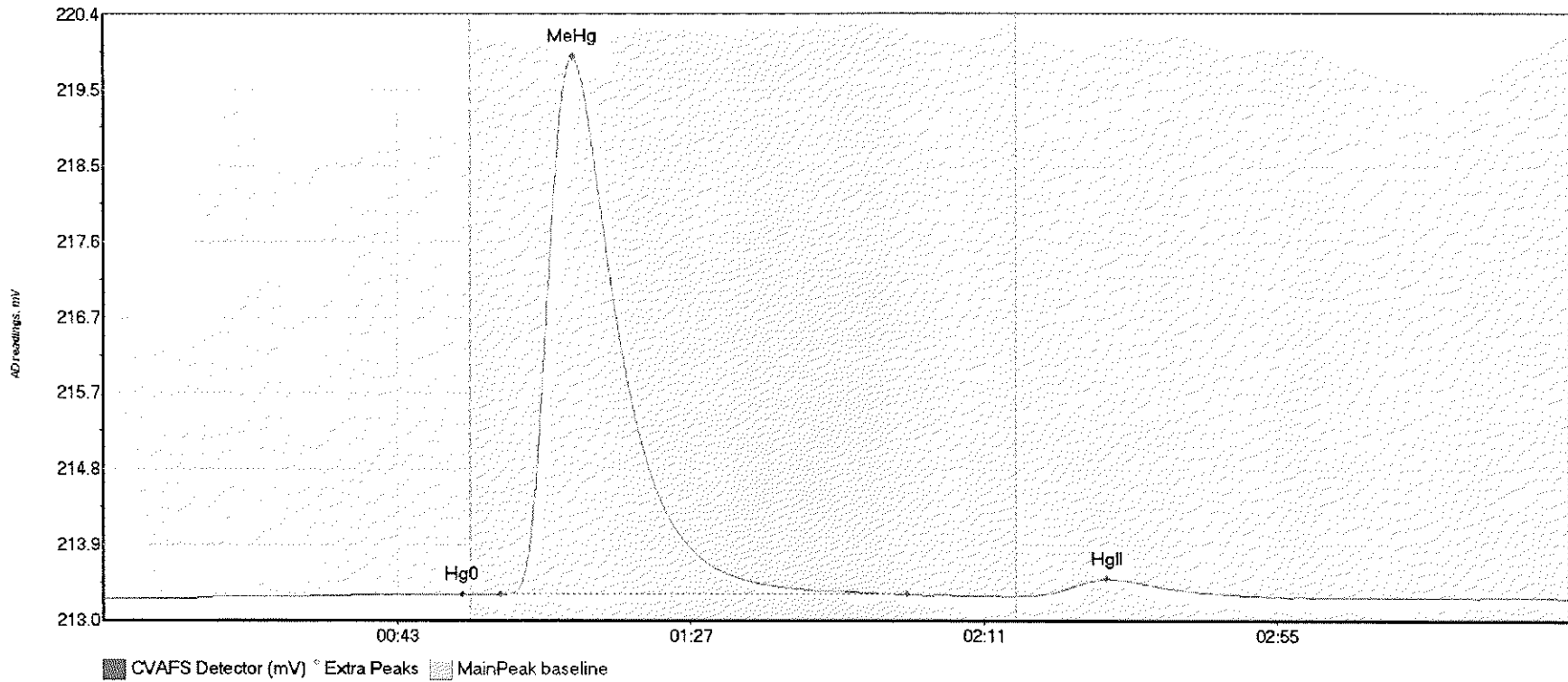
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD3 Hg	5.553	15.8	55.0	213.23	213.26	44.7	0.047	CT	213.2263	0.00	0.02	
F707393-MSD3 Me	839.218	60.1	126.6	213.26	213.26	70.1	6.594	OK	213.2263	0.00	0.02	
F707393-MSD3 Hg	39.889	137.9	175.1	213.26	213.26	150.5	0.258	OK	213.2263	0.00	0.02	

#72: F707393-MS4



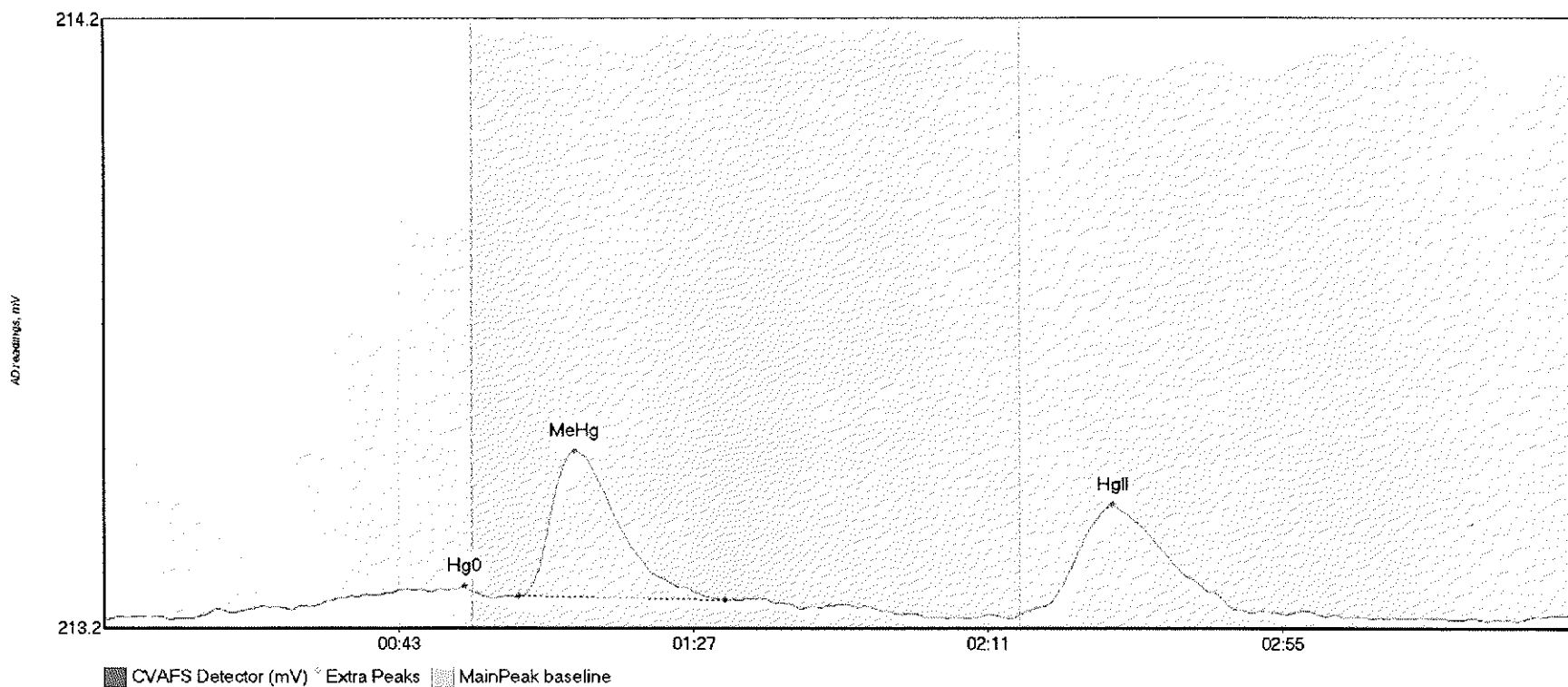
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS4 Hg0	3.846	8.1	55.0	213.23	213.28	51.3	0.055	CT	213.2297	0.00	0.01	
F707393-MS4 MeH	813.405	60.4	121.7	213.28	213.28	70.6	6.453	OK	213.2297	0.00	0.01	
F707393-MS4 HgI	32.520	138.7	172.9	213.27	213.27	150.9	0.218	OK	213.2297	0.00	0.01	

#73: F707393-MSD4



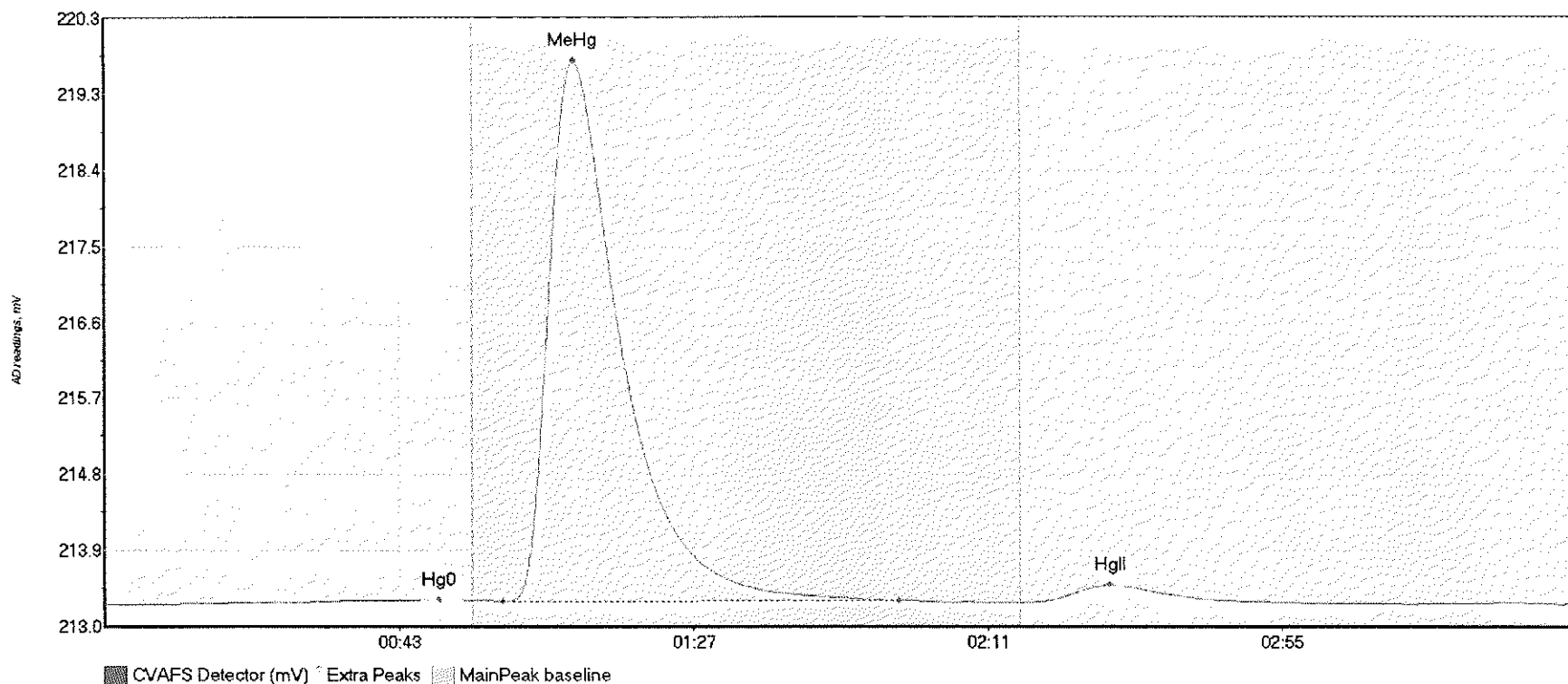
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD4 Hg	3.515	13.7	55.0	213.23	213.27	53.7	0.047	CT	213.2252	0.00	0.00	
F707393-MSD4 Me	831.227	59.5	120.5	213.27	213.27	70.4	6.595	OK	213.2252	0.00	0.00	
F707393-MSD4 Hg	31.380	138.1	174.6	213.26	213.25	150.4	0.204	OK	213.2252	0.00	0.00	

#74: 1706929-01RE1



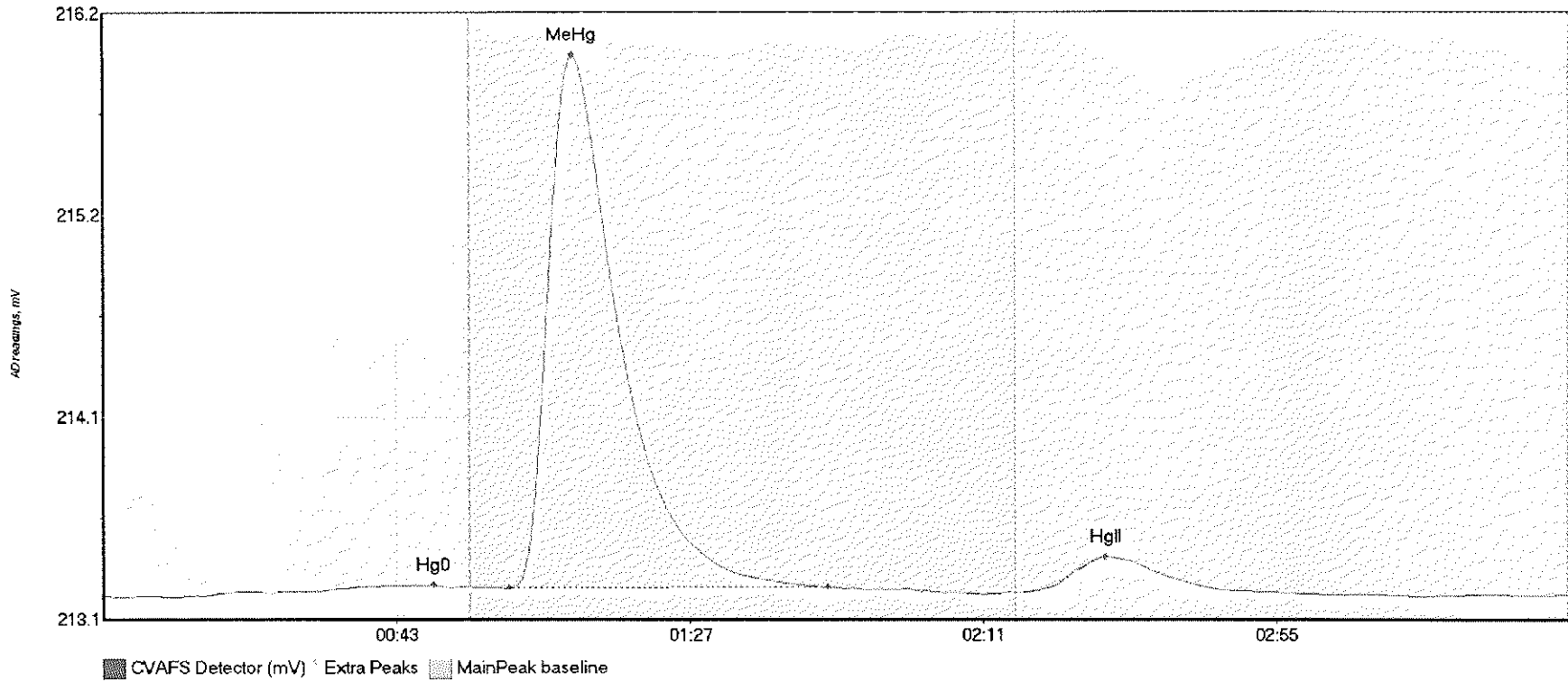
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-01RE1 H	3.141	12.7	55.0	213.22	213.27	53.8	0.051	CT	213.2236	0.00	0.01	
1706929-01RE1 M	28.028	61.9	92.7	213.26	213.25	70.3	0.240	OK	213.2236	0.00	0.01	
1706929-01RE1 H	25.878	138.1	171.4	213.24	213.23	150.7	0.174	OK	213.2236	0.00	0.01	

#75: 1706929-07RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-07RE1 H	3.564	2.5	54.9	213.23	213.27	50.0	0.057	OK	213.2219	0.00	0.01	
1706929-07RE1 M	814.238	59.5	118.7	213.26	213.27	70.1	6.469	OK	213.2219	0.00	0.01	
1706929-07RE1 H	30.535	137.3	175.6	213.25	213.25	150.3	0.206	OK	213.2219	0.00	0.01	

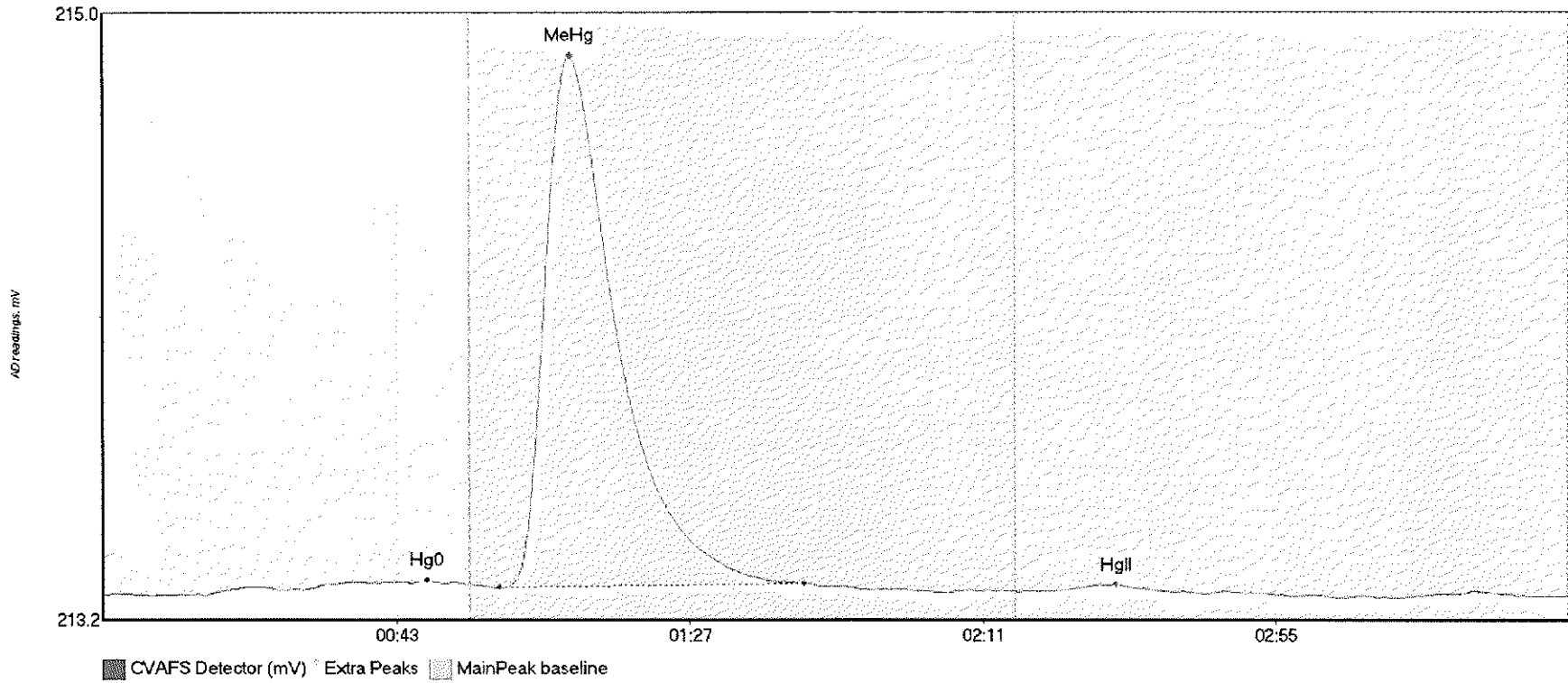
#76: 1706930-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-01RE1 H	4.280	15.2	52.1	213.22	213.26	49.6	0.055	OK	213.2181	0.00	0.01	
1706930-01RE1 M	335.210	60.8	108.8	213.26	213.26	70.5	2.702	OK	213.2181	0.00	0.01	
1706930-01RE1 H	25.637	138.5	173.2	213.24	213.24	150.4	0.179	OK	213.2181	0.00	0.01	

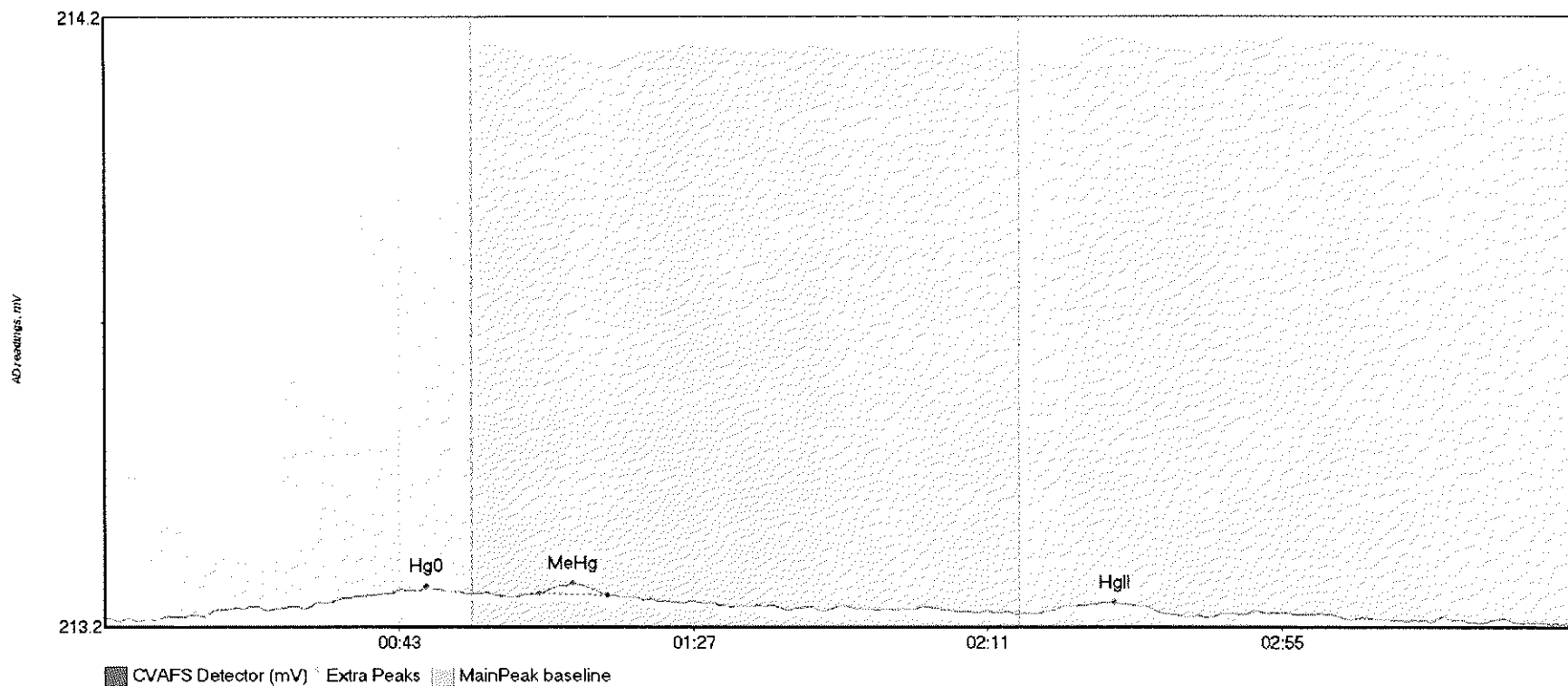


#77: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	5.275	15.4	55.0	213.23	213.26	48.6	0.045	CT	213.2297	0.00	0.00	
SEQ-CCV6 MeHg	200.970	59.4	105.1	213.25	213.26	70.1	1.612	OK	213.2297	0.00	0.00	
SEQ-CCV6 HgII	1.231	144.1	157.5	213.24	213.24	152.0	0.018	OK	213.2297	0.00	0.00	

#78: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	3.317	15.0	54.2	213.22	213.26	48.2	0.048	OK	213.2218	0.00	-0.01	
SEQ-CCB6 MeHg	1.097	65.0	75.2	213.26	213.26	70.0	0.017	OK	213.2218	0.00	-0.01	
SEQ-CCB6 HgII	2.652	139.1	160.7	213.23	213.23	151.1	0.021	OK	213.2218	0.00	-0.01	

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1706931

July 31, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1706931

### Table of Contents

July 31, 2017

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	16
Notes and Definitions	39
Raw Data: 7G14006	40
Raw Data: 7G14008	82
Raw Data: 7G19019	119
Raw Data: 7G26011	166
Raw Data: 7G28008	231

**Total Pages – 343**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 12:56

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMSW-C_17BN003_062317_TIN_01_WB	1706931-01	Tissue	23-Jun-17 16:40	30-Jun-17 09:50
MMSW-C_17BN002_062317_TIN_02_WB	1706931-02	Tissue	23-Jun-17 16:46	30-Jun-17 09:50
MMSW-C_17BN002_062317_TIN_03_WB	1706931-03	Tissue	23-Jun-17 16:52	30-Jun-17 09:50
MMSW-C_17BN001_062317_TIN_04_WB	1706931-04	Tissue	23-Jun-17 16:55	30-Jun-17 09:50
MMSW-C_17BN004_062317_TIN_05_WB	1706931-05	Tissue	23-Jun-17 16:59	30-Jun-17 09:50
MMSW-C_17PT002_062317_SPI_01_WB	1706931-06	Tissue	23-Jun-17 10:00	30-Jun-17 09:50
MMSW-C_17PT002_062317_SPI_02_WB	1706931-07	Tissue	23-Jun-17 10:30	30-Jun-17 09:50
MMSW-C_17PT003_062317_SPI_03_WB	1706931-08	Tissue	23-Jun-17 12:00	30-Jun-17 09:50
MMSW-C_17PT001_062317_SPI_04_WB	1706931-09	Tissue	23-Jun-17 14:00	30-Jun-17 09:50
MMSW-C_17PT005_062317_SPI_05_WB	1706931-10	Tissue	23-Jun-17 15:00	30-Jun-17 09:50

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King**Reported:**  
31-Jul-17 12:56

## 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 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 prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS SOP2808).

The samples were prepped in batches F707393 and F707394 for Methyl Mercury. These batches was analyzed in sequences 7G26011 and 7G28008. The total Mercury samples were prepped in batches F707326, F707327, and F707331. They were analyzed in sequences 7G14006, 7G14008, and 7G19019. There were no client requested samples for the source QC for the Matrix Spike (MS) and Matrix Spike Duplicate (MSD).

## 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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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:**  
31-Jul-17 12:56

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: 1706931

Client: AMEL 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>10.2 °C</u>	Date/time: <u>6/30/17 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-34 °C</u>	w/ CF: <u>-37.8 °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>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>Y</u>	

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

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1706931

Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler 1511 Congress St Suite 200 Portland, ME 04101				Matrix				Analyses Requested				For Lab Use Only								
Project Name/ID: JSDC Feneston				PK # 3616168053 CAA 054				Preservation Codes				SI #								
Project Manager: Rod Pendleton				P.O. #								SCR #								
Sampler: EM/LV				PWSID #								Preservation Codes: H=HCl N=NH <sub>4</sub> S=100% O=O <sub>2</sub>								
Phone #:				Quote #:								T=Total Phos B=As P=PO <sub>4</sub>								
Slats where samples were collected: MF				For Compliance: Yes No																
Sample Identification		Collection		Grab	Compositely	Soil	Sediment	Aqueous	Surface	Whole Body	Total # of Containers	Hg Total (EPA Method 1631) (ug/L or ug/g)						Remarks		
Date	Time																			
1	MMSW-C_178N001_062317_TIN_01_WB	6/23/2017	1640	Grab						X	1								Stink bug 2.4g	
2	MMSW-C_178N002_062317_TIN_02_WB	6/23/2017	1646	Grab						X	1									grasshopper 2.3 g
3	MMSW-C_178N002_062317_TIN_03_WB	6/23/2017	1652	Grab						X	1									grasshopper, 2.3 g
4	MMSW-C_178N001_062317_TIN_04_WB	6/23/2017	1658	Grab						X	1									Beetle type 1 3 g
5	MMSW-C_178N004_062317_TIN_05_WB	6/23/2017	1658	Grab						X	1									Misc 0.0 g
6	MMSW-C_17PT002_062317_SPL_01_WB	6/23/2017	1000	Grab						X	1									0.7 g
7	MMSW-C_17PT002_062317_SPL_02_WB	6/23/2017	1000	Grab						X	1									0.6g
8	MMSW-C_17PT003_062317_SPL_03_WB	6/23/2017	1200	Grab						X	1									1.0 g
9	MMSW-C_17PT001_062317_SPL_04_WB	6/23/2017	1400	Grab						X	1									0.5 g
10	MMSW-C_17PT005_062317_SPL_05_WB	6/23/2017	1000	Grab						X	1									1.2 g
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)								<i>[Signature]</i>				6/29/2017	1600	<i>[Signature]</i>	6/29/17	9:30				
Notes:								Relinquished by:				Date	Time	Received by:	Date	Time				
Order # B1607664207														<i>[Signature]</i>						
Sample disposal - Hold Equipment 30mins 1-4 hrs 30 days after delivery of report														<i>[Signature]</i>						
Report and EOD to: denise.king@amec-fw.com / 878-834-8553														<i>[Signature]</i>						
Data Package Options (please check if required)								Relinquished by Commercial Carrier				Temperature upon receipt: _____ °C								
High Standard								JPS FedEx <input checked="" type="checkbox"/> Other												
EOD Required? Yes No If yes, format:																				

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See inket



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 12:56

**MMSW-C\_17BN003\_062317\_TIN\_01\_WB**  
**1706931-01**

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)	2.9	0.4	1.8	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	3.75	0.077	0.688	ng/g	20	F707326	11-Jul-17	7G14008	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:**  
31-Jul-17 12:56

**MMSW-C\_17BN002\_062317\_TIN\_02\_WB  
1706931-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	27.1	0.4	1.7	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	35.6	0.088	0.789	ng/g	20	F707326	11-Jul-17	7G14008	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:**  
31-Jul-17 12:56

**MMSW-C\_17BN002\_062317\_TIN\_03\_WB**  
**1706931-03**

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)	28.4	0.4	1.8	ng/g	500	F707393	19-Jul-17	7G26011	25-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	34.3	0.374	3.34	ng/g	100	F707327	11-Jul-17	7G14006	13-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:**  
31-Jul-17 12:56

**MMSW-C\_17BN001\_062317\_TIN\_04\_WB**  
**1706931-04**

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)	14.7	0.4	1.8	ng/g	500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	11.6	0.087	0.776	ng/g	20	F707327	11-Jul-17	7G14006	13-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:**  
31-Jul-17 12:56

**MMSW-C\_17BN004\_062317\_TIN\_05\_WB  
1706931-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	49.5	0.5	1.9	ng/g	500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	93.7	1.57	14.0	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:**  
31-Jul-17 12:56

**MMSW-C\_17PT002\_062317\_SPI\_01\_WB**  
**1706931-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	495	2.5	9.9	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	403	1.75	15.6	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:**  
31-Jul-17 12:56

**MMSW-C\_17PT002\_062317\_SPI\_02\_WB**  
**1706931-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	370	2.8	11.0	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	305	1.75	15.6	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:**  
31-Jul-17 12:56

**MMSW-C\_17PT003\_062317\_SPI\_03\_WB**  
**1706931-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	330	2.9	11.7	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	325	1.75	15.6	ng/g	400	F707327	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:**  
31-Jul-17 12:56

**MMSW-C\_17PT001\_062317\_SPI\_04\_WB**  
**1706931-09**

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)	50.8	4.5	18.0	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	315	1.76	15.7	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:**  
31-Jul-17 12:56

**MMSW-C\_17PT005\_062317\_SPI\_05\_WB**  
**1706931-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	337	2.1	8.5	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	279	1.63	14.5	ng/g	400	F707326	11-Jul-17	7G14008	13-Jul-17	EPA 1631B	

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-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 7G14006 - F707327

<b>Cal Standard (7G14006-CAL1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.563	-		ng/L	0.50100		112				
<b>Cal Standard (7G14006-CAL2)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	1.054	-		ng/L	1.0020		105				
<b>Cal Standard (7G14006-CAL3)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.787	-		ng/L	5.0100		95.5				
<b>Cal Standard (7G14006-CAL4)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	18.52	-		ng/L	20.040		92.4				
<b>Cal Standard (7G14006-CAL5)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	37.49	-		ng/L	40.080		93.5				
<b>Calibration Blank (7G14006-CCB1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.006	-		ng/L							
<b>Calibration Blank (7G14006-CCB2)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.012	-		ng/L							
<b>Calibration Blank (7G14006-CCB3)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.031	-		ng/L							
<b>Calibration Blank (7G14006-CCB4)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.025	-		ng/L							
<b>Calibration Blank (7G14006-CCB5)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.084	-		ng/L							

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Project Number: 2017 Penobscot Biota  
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31-Jul-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 7G14006 - F707327

<b>Calibration Blank (7G14006-CCB6)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.076	-		ng/L							
<b>Calibration Blank (7G14006-CCB7)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.080	-		ng/L							
<b>Calibration Blank (7G14006-CCB8)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.066	-		ng/L							
<b>Calibration Blank (7G14006-CCB9)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.049	-		ng/L							
<b>Calibration Blank (7G14006-CCBA)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	0.071	-		ng/L							
<b>Calibration Check (7G14006-CCV1)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.815	-		ng/L	5.0000		96.3	77-123			
<b>Calibration Check (7G14006-CCV2)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.822	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (7G14006-CCV3)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.819	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (7G14006-CCV4)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.734	-		ng/L	5.0000		94.7	77-123			
<b>Calibration Check (7G14006-CCV5)</b>				Prepared & Analyzed: 13-Jul-17							
Mercury	4.863	-		ng/L	5.0000		97.3	77-123			

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-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 7G14006 - F707327**

<b>Calibration Check (7G14006-CCV6)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.971	-		ng/L	5.0000		99.4	77-123			
<b>Calibration Check (7G14006-CCV7)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.950	-		ng/L	5.0000		99.0	77-123			
<b>Calibration Check (7G14006-CCV8)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.907	-		ng/L	5.0000		98.1	77-123			
<b>Calibration Check (7G14006-CCV9)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.918	-		ng/L	5.0000		98.4	77-123			
<b>Calibration Check (7G14006-CCVA)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.905	-		ng/L	5.0000		98.1	77-123			
<b>Instrument Blank (7G14006-IBL1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G14006-IBL2)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G14006-IBL3)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7G14006-ICV1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.939	-		ng/L	5.0000		98.8	79-121			

**Batch 7G14008 - F707326**

<b>Cal Standard (7G14008-CAL1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.548	-		ng/L	0.50100		109				

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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: 31-Jul-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
<b>Batch 7G14008 - F707326</b>											
<b>Cal Standard (7G14008-CAL2)</b>											
Mercury	1.072	-		ng/L	1.0020		107				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL3)</b>											
Mercury	4.837	-		ng/L	5.0100		96.6				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL4)</b>											
Mercury	18.66	-		ng/L	20.040		93.1				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL5)</b>											
Mercury	37.32	-		ng/L	40.080		93.1				Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB1)</b>											
Mercury	0.034	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB2)</b>											
Mercury	0.032	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB3)</b>											
Mercury	0.024	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB4)</b>											
Mercury	0.047	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB5)</b>											
Mercury	0.077	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB6)</b>											
Mercury	0.040	-		ng/L							Prepared & Analyzed: 13-Jul-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 7G14008 - F707326

<b>Calibration Blank (7G14008-CCB7)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.122	-		ng/L							
<b>Calibration Blank (7G14008-CCB8)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.121	-		ng/L							
<b>Calibration Blank (7G14008-CCB9)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.160	-		ng/L							
<b>Calibration Check (7G14008-CCV1)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.829	-		ng/L	5.0000		96.6	77-123			
<b>Calibration Check (7G14008-CCV2)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.884	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (7G14008-CCV3)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	5.048	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G14008-CCV4)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.911	-		ng/L	5.0000		98.2	77-123			
<b>Calibration Check (7G14008-CCV5)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.948	-		ng/L	5.0000		99.0	77-123			
<b>Calibration Check (7G14008-CCV6)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.886	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (7G14008-CCV7)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	5.100	-		ng/L	5.0000		102	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 7G14008 - F707326

<b>Calibration Check (7G14008-CCV8)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	5.081	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7G14008-CCV9)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	5.216	-		ng/L	5.0000		104	77-123			
<b>Instrument Blank (7G14008-IBL1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G14008-IBL2)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G14008-IBL3)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7G14008-ICV1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.970	-		ng/L	5.0000		99.4	79-121			

Batch 7G19019 - F707331

<b>Cal Standard (7G19019-CAL1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.501	-		ng/L	0.50100		99.9				
<b>Cal Standard (7G19019-CAL2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	1.058	-		ng/L	1.0020		106				
<b>Cal Standard (7G19019-CAL3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.086	-		ng/L	5.0100		102				

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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

<b>Cal Standard (7G19019-CAL4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	19.23	-		ng/L	20.040		95.9				
<b>Cal Standard (7G19019-CAL5)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	38.49	-		ng/L	40.080		96.0				
<b>Calibration Blank (7G19019-CCB1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.074	-		ng/L							
<b>Calibration Blank (7G19019-CCB2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.106	-		ng/L							
<b>Calibration Blank (7G19019-CCB3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.169	-		ng/L							
<b>Calibration Blank (7G19019-CCB4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.511	-		ng/L							
<b>Calibration Check (7G19019-CCV1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.030	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G19019-CCV2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.178	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7G19019-CCV3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.258	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7G19019-CCV4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.931	-		ng/L	5.0000		119	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 7G19019 - F707331**

<b>Instrument Blank (7G19019-IBL1)</b>											
											Prepared & Analyzed: 18-Jul-17
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G19019-IBL2)</b>											
											Prepared & Analyzed: 18-Jul-17
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7G19019-IBL3)</b>											
											Prepared & Analyzed: 18-Jul-17
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7G19019-ICV1)</b>											
											Prepared & Analyzed: 18-Jul-17
Mercury	5.365	-		ng/L	5.0000		107	79-121			

**Batch 7G26011 - F707393**

<b>Cal Standard (7G26011-CAL1)</b>											
											Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.5				
<b>Cal Standard (7G26011-CAL2)</b>											
											Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		96.6				
<b>Cal Standard (7G26011-CAL3)</b>											
											Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		101				
<b>Cal Standard (7G26011-CAL4)</b>											
											Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	2.1	-		ng/L	2.0020		103				
<b>Cal Standard (7G26011-CAL5)</b>											
											Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	4.0	-		ng/L	4.0040		101				

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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: 31-Jul-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 7G26011 - F707393

<b>Calibration Blank (7G26011-CCB1)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.002	-		ng/L								
<b>Calibration Blank (7G26011-CCB2)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.004	-		ng/L								
<b>Calibration Blank (7G26011-CCB3)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.005	-		ng/L								
<b>Calibration Check (7G26011-CCV1)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.2	67-133				
<b>Calibration Check (7G26011-CCV2)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133				
<b>Calibration Check (7G26011-CCV3)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		87.5	67-133				
<b>Instrument Blank (7G26011-IBL1)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L								U
<b>Initial Cal Blank (7G26011-ICB1)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.006	-		ng/L								
<b>Initial Cal Check (7G26011-ICV1)</b>												Prepared & Analyzed: 25-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.9	69-131				

Batch 7G27013 - F707393

<b>Cal Standard (7G27013-CAL1)</b>												Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.5					

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

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31-Jul-17 12:56

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G27013 - F707393</b>											
<b>Cal Standard (7G27013-CAL2)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		88.0				
<b>Cal Standard (7G27013-CAL3)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		99.2				
<b>Cal Standard (7G27013-CAL4)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	2.1	-		ng/L	2.0020		104				
<b>Cal Standard (7G27013-CAL5)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		111				
<b>Calibration Blank (7G27013-CCB1)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G27013-CCB2)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB3)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB4)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB5)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G27013-CCB6)</b>					Prepared & Analyzed: 26-Jul-17						
Methyl Mercury (as Mercury)	0.003	-		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:**  
31-Jul-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 7G27013 - F707393**

<b>Calibration Check (7G27013-CCV1)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		89.4	67-133			
<b>Calibration Check (7G27013-CCV2)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		81.5	67-133			
<b>Calibration Check (7G27013-CCV3)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.5	67-133			
<b>Calibration Check (7G27013-CCV4)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.9	67-133			
<b>Calibration Check (7G27013-CCV5)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		88.6	67-133			
<b>Calibration Check (7G27013-CCV6)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.9	67-133			
<b>Instrument Blank (7G27013-IBL1)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7G27013-ICB1)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.005	-		ng/L							
<b>Initial Cal Check (7G27013-ICV1)</b>											
											Prepared & Analyzed: 26-Jul-17
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.5	69-131			

**Batch 7G28008 - F707394**

<b>Cal Standard (7G28008-CAL1)</b>											
											Prepared & Analyzed: 27-Jul-17
Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		88.9				

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 12:56

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G28008 - F707394</b>											
<b>Cal Standard (7G28008-CAL2)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		94.3				
<b>Cal Standard (7G28008-CAL3)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		110				
<b>Cal Standard (7G28008-CAL4)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		102				
<b>Cal Standard (7G28008-CAL5)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	4.2	-		ng/L	4.0040		104				
<b>Calibration Blank (7G28008-CCB1)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G28008-CCB2)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G28008-CCB3)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G28008-CCB4)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7G28008-CCB5)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7G28008-CCB6)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-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 7G28008 - F707394

<b>Calibration Blank (7G28008-CCB7)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Check (7G28008-CCV1)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		94.2	67-133			
<b>Calibration Check (7G28008-CCV2)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133			
<b>Calibration Check (7G28008-CCV3)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		91.5	67-133			
<b>Calibration Check (7G28008-CCV4)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.4	67-133			
<b>Calibration Check (7G28008-CCV5)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.0	67-133			
<b>Calibration Check (7G28008-CCV6)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		76.4	67-133			
<b>Calibration Check (7G28008-CCV7)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		73.7	67-133			
<b>Instrument Blank (7G28008-IBL1)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7G28008-ICB1)</b>											
Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.004	-		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: 31-Jul-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
<b>Batch 7G28008 - F707394</b>											
<b>Initial Cal Check (7G28008-ICV1)</b>					Prepared & Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		98.3	69-131			
<b>Batch 7G28017 - F707391</b>											
<b>Cal Standard (7G28017-CAL1)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		93.2				
<b>Cal Standard (7G28017-CAL2)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		92.7				
<b>Cal Standard (7G28017-CAL3)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		105				
<b>Cal Standard (7G28017-CAL4)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		98.9				
<b>Cal Standard (7G28017-CAL5)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		110				
<b>Calibration Blank (7G28017-CCB1)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7G28017-CCB2)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G28017-CCB3)</b>					Prepared & Analyzed: 28-Jul-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: 2017 Penobscot Biota Project Manager: Denise King	Reported: 31-Jul-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
<b>Batch 7G28017 - F707391</b>											
<b>Calibration Blank (7G28017-CCB4)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	0.006	-		ng/L							
<b>Calibration Check (7G28017-CCV1)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.1	67-133			
<b>Calibration Check (7G28017-CCV2)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		83.4	67-133			
<b>Calibration Check (7G28017-CCV3)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		79.3	67-133			
<b>Calibration Check (7G28017-CCV4)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		83.8	67-133			
<b>Instrument Blank (7G28017-IBL1)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7G28017-ICB1)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	0.009	-		ng/L							
<b>Initial Cal Check (7G28017-ICV1)</b> Prepared & Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.2	69-131			
<b>Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707326-BLK1)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-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: 2017 Penobscot Biota Project Manager: Denise King	Reported: 31-Jul-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
<b>Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707326-BLK2)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707326-BLK3)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F707326-BLK4)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.088	0.782	ng/g							F-03, U
<b>Blank (F707326-BLK5)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.086	0.770	ng/g							F-03, U
<b>Blank (F707326-BLK6)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.085	0.762	ng/g							F-03, U
<b>Blank (F707326-BLK7)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.085	0.760	ng/g							F-03, U
<b>Blank (F707326-BLK8)</b> Prepared: 11-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.195	0.045	0.400	ng/g							J
<b>Blank (F707326-BLK9)</b> Prepared: 11-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.098	0.045	0.400	ng/g							J
<b>Blank (F707326-BLKA)</b> Prepared: 11-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.078	0.045	0.400	ng/g							J
<b>LCS (F707326-BS1)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	7.533	0.090	0.800	ng/g	8.0160		94.0	75-125			

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

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31-Jul-17 12:56

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>LCS Dup (F707326-BSD1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.797	0.090	0.800	ng/g	8.0160		97.3	75-125	3.45	24	
<b>Duplicate (F707326-DUP2)</b>					Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	50.07	0.078	0.693	ng/g		49.71			0.735	24	AD
<b>Duplicate (F707326-DUP3)</b>					Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 18-Jul-17						
Mercury	94.87	0.218	1.94	ng/g		49.71			62.5	24	QR-07
<b>Matrix Spike (F707326-MS1)</b>					Source: 1706930-01RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	696.3	1.52	13.6	ng/g	680.94	71.71	91.7	71-125			
<b>Matrix Spike (F707326-MS2)</b>					Source: 1706930-06 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	602.0	1.68	15.0	ng/g	375.70	278.4	86.1	71-125			
<b>Matrix Spike Dup (F707326-MSD1)</b>					Source: 1706930-01RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	689.6	1.56	13.9	ng/g	696.32	71.71	88.7	71-125	3.30	24	
<b>Matrix Spike Dup (F707326-MSD2)</b>					Source: 1706930-06 Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	584.3	1.62	14.5	ng/g	362.65	278.4	84.4	71-125	2.06	24	
<b>Batch F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707327-BLK1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	0.102	0.090	0.800	ng/g							J
<b>Blank (F707327-BLK2)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	ND	0.090	0.800	ng/g							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 F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F707327-BLK3)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	0.160	0.090	0.800	ng/g							J
<b>LCS (F707327-BS1)</b>					Prepared: 11-Jul-17 Analyzed: 13-Jul-17						
Mercury	7.484	0.090	0.800	ng/g	8.0160		93.4	75-125			
<b>LCS Dup (F707327-BSD1)</b>					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	
<b>Duplicate (F707327-DUP1)</b>					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
<b>Duplicate (F707327-DUP2)</b>					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
<b>Matrix Spike (F707327-MS1)</b>					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			
<b>Matrix Spike (F707327-MS2)</b>					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			
<b>Matrix Spike Dup (F707327-MSD1)</b>					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	
<b>Matrix Spike Dup (F707327-MSD2)</b>					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	

**Batch F707331 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F707331-BLK1)</b>					Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.319	0.090	0.800	ng/g							J

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

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31-Jul-17 12:56

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707331 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707331-BLK2)</b>					Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.224	0.090	0.800	ng/g							J
<b>Blank (F707331-BLK3)</b>					Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	0.118	0.090	0.800	ng/g							J
<b>Blank (F707331-BLK4)</b>					Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	5.021	1.77	15.8	ng/g							FB, J
<b>LCS (F707331-BS1)</b>					Prepared: 12-Jul-17 Analyzed: 18-Jul-17						
Mercury	7.300	0.090	0.800	ng/g	8.0160		91.1	75-125			
<b>LCS Dup (F707331-BSD1)</b>					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	
<b>Duplicate (F707331-DUP1)</b>					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	
<b>Matrix Spike (F707331-MS1)</b>					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			
<b>Matrix Spike (F707331-MS2)</b>					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			
<b>Matrix Spike Dup (F707331-MSD1)</b>					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	
<b>Matrix Spike Dup (F707331-MSD2)</b>					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	

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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
<b>Batch F707393 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707393-BLK1)</b> Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK2)</b> Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK3)</b> Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK4)</b> Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	ND	0.4	1.5	ng/g							U
<b>Blank (F707393-BLK5)</b> Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.4	ng/g							U
<b>Blank (F707393-BLK6)</b> Prepared: 19-Jul-17 Analyzed: 26-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK7)</b> Prepared: 19-Jul-17 Analyzed: 26-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707393-BLK8)</b> Prepared: 19-Jul-17 Analyzed: 26-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F707393-BS1)</b> Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	289.1	2.0	8.0	ng/g	330.28		87.5	70-130			
<b>LCS Dup (F707393-BSD1)</b> Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	291.7	2.0	8.0	ng/g	330.28		88.3	70-130	0.882	25	

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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:**  
31-Jul-17 12:56

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707393 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Duplicate (F707393-DUP1)</b> Source: 1706929-05 Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	55.7	0.5	1.8	ng/g		41.6			29.0	35	
<b>Matrix Spike (F707393-MS1)</b> Source: 1706930-01 Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	99.8	1.0	3.8	ng/g	37.960	59.9	105	65-130			
<b>Matrix Spike (F707393-MS3)</b> Source: 1706930-01RE1 Prepared: 19-Jul-17 Analyzed: 26-Jul-17											
Methyl Mercury (as Mercury)	99.1	1.0	3.8	ng/g	37.960	60.2	102	65-130			
<b>Matrix Spike (F707393-MS4)</b> Source: 1706930-06 Prepared: 19-Jul-17 Analyzed: 26-Jul-17											
Methyl Mercury (as Mercury)	353.9	2.4	9.4	ng/g	37.646	295.7	155	65-130			QM-02
<b>Matrix Spike Dup (F707393-MSD1)</b> Source: 1706930-01 Prepared: 19-Jul-17 Analyzed: 25-Jul-17											
Methyl Mercury (as Mercury)	120.9	1.0	3.8	ng/g	38.046	59.9	161	65-130	41.7	35	QM-02, QR-08
<b>Matrix Spike Dup (F707393-MSD3)</b> Source: 1706930-01RE1 Prepared: 19-Jul-17 Analyzed: 26-Jul-17											
Methyl Mercury (as Mercury)	147.6	1.0	3.8	ng/g	38.046	60.2	230	65-130	76.7	35	QM-02, QR-08
<b>Matrix Spike Dup (F707393-MSD4)</b> Source: 1706930-06 Prepared: 19-Jul-17 Analyzed: 26-Jul-17											
Methyl Mercury (as Mercury)	356.3	2.3	9.3	ng/g	37.088	295.7	163	65-130	5.53	35	QM-02
<b>Batch F707394 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707394-BLK1)</b> Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLK2)</b> Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U





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31-Jul-17 12:56

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707394 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707394-BLK3)</b>					Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLK4)</b>					Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	ND	0.4	1.4	ng/g							F-03, U
<b>Blank (F707394-BLK5)</b>					Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	ND	0.4	1.4	ng/g							F-03, U
<b>Blank (F707394-BLK6)</b>					Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.4	ng/g							F-03, U
<b>Blank (F707394-BLK7)</b>					Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.3	ng/g							F-03, U
<b>Blank (F707394-BLK8)</b>					Prepared: 19-Jul-17 Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLK9)</b>					Prepared: 19-Jul-17 Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLKA)</b>					Prepared: 19-Jul-17 Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F707394-BS1)</b>					Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	263.8	2.0	8.0	ng/g	331.60		79.5	70-130			
<b>LCS Dup (F707394-BSD1)</b>					Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	247.9	2.0	8.0	ng/g	329.49		75.2	70-130	5.56	25	

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 12:56

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707394 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Duplicate (F707394-DUP1)</b>		<b>Source: 1706931-05</b>		Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	50.1	0.4	1.8	ng/g		49.5			1.12	35	
<b>Matrix Spike (F707394-MS1)</b>		<b>Source: 1706932-04</b>		Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	42.4	0.4	1.8	ng/g	35.737	26.1	45.6	65-130			QM-07
<b>Matrix Spike (F707394-MS2)</b>		<b>Source: 1706932-02</b>		Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	39.4	0.4	1.7	ng/g	33.512	8.2	93.2	65-130			
<b>Matrix Spike (F707394-MS3)</b>		<b>Source: 1706932-04</b>		Prepared: 19-Jul-17 Analyzed: 28-Jul-17							
Methyl Mercury (as Mercury)	91.6	0.5	1.9	ng/g	74.093	26.1	88.4	65-130			AS
<b>Matrix Spike Dup (F707394-MSD1)</b>		<b>Source: 1706932-04</b>		Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	45.8	0.5	1.9	ng/g	37.074	26.1	53.1	65-130	15.2	35	QM-07
<b>Matrix Spike Dup (F707394-MSD2)</b>		<b>Source: 1706932-02</b>		Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	45.0	0.5	1.8	ng/g	36.506	8.2	101	65-130	8.06	35	
<b>Matrix Spike Dup (F707394-MSD3)</b>		<b>Source: 1706932-04</b>		Prepared: 19-Jul-17 Analyzed: 28-Jul-17							
Methyl Mercury (as Mercury)	86.3	0.5	1.9	ng/g	74.093	26.1	81.3	65-130	8.47	35	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:**  
 31-Jul-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.
- 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.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- 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.
- 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.
- 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

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

ITMS Sequence #: 7G14006, 7G14007

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 7:13:31	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	472.05	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			88.4	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			238.7	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	169.92	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	1			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	1			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	8:50:35 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			104.9	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	24.491	569.829	ng/L	
Hg2600-3	DM2	SAM	1706932-05	20	7/13/2017 9:11:18	70947-1.RAW	9:11:18 AM	1896.09	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	139.50	1			137.9	1.385	554.595	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:23:43	70950-1.RAW	9:23:43 AM	187.81	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	1			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			1.2	0.012	0.012	ng/L	
Hg2600-3	DM2	SAM	1706933-01	100	7/13/2017 9:36:09	70953-1.RAW	9:36:09 AM	701.78	1			700.2	7.041	704.125	ng/L	
Hg2600-3	DM2	SAM	1706933-02	100	7/13/2017 9:40:18	70954-1.RAW	9:40:18 AM	4312.33	1			4310.8	43.412	4341.163	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 9:44:27	70955-1.RAW	9:44:27 AM	830.71	1			829.2	8.340	834.010	ng/L	
Hg2600-3	DM2	SAM	1706933-04RE1	20	7/13/2017 9:48:36	70956-1.RAW	9:48:36 AM	3737.77	1			3766.2	37.926	3792.612	ng/L	
Hg2600-3	DM2	SAM	1706933-07RE1	100	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	1706933-03RE1	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	1706933-04RE1	20	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	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	1			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	1			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	1706933-01RE1	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	1706933-02RE1	100	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	791.78	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	0.083	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	471.57	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			2.5	0.025	0.025	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	F707327-DUP2	20	7/13/2017 11:23:03	70977-1.RAW	11:23:03 AM	738.49	1						
Hg2600-3	DM2	SAM	1706933-04	100	7/13/2017 11:27:11	70978-1.RAW	11:27:11 AM	11620.28	2		736.9	7.362	147.233	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		12618.7	117.029	11702.933	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		6153.2	61.973	6197.288	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		6100.6	61.443	6144.288	ng/L	
Hg2600-3	DM2	SAM	1706933-08	100	7/13/2017 11:43:45	70982-1.RAW	11:43:45 AM	4599.00	2		8408.7	84.593	8469.340	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		4598.3	46.311	4631.058	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		3952.0	39.800	3980.010	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		12154.5	122.428	12242.772	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		21277.9	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	484.29			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	0.084	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	21.069	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	1706934-06	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	1864.734	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-DUP1	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	13.547	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 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	F70732-BL1	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	6.75			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 16:08:11	71046-1.RAW	4:08:11 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 18:36:10	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  
 Operab DM Blank# 1.5524 Calib Eqn: Conc = (Area-1.552  
 Workst Thg260I 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		98.79			70827-1.RAW	7:48:30	3722.97	Sample	FB	1
F707327-BLK1	A10	20	1	1.55	1.27					70828-1.RAW	7:52:38	491.90	Sample	OK	1
F707327-BLK2	A11	20	1	1.55	0.42					70829-1.RAW	7:56:46	7.85	Sample	OK	1
F707327-BLK3	A12	20	1	1.55	2.00					70830-1.RAW	8:00:55	3.69	Sample	OK	1
F707327-BSD1	B1	20	1	1.55	91.78					70831-1.RAW	8:05:03	11.48	Sample	OK	1
F707327-BSD2	B2	20	1	1.55	94.42					70832-1.RAW	8:09:12	472.03	Sample	OK	1
706930-04	B3	100	1	1.55	30.09					70833-1.RAW	8:13:20	470.19	Sample	OK	1
706930-05	B4	100	1	1.55	250.82					70834-1.RAW	8:17:29	39.95	Sample	OK	1
706930-07	B5	100	1	1.55	8718.51					70835-1.RAW	8:21:37	290.25	Sample	OK	1
706931-03	B6	100	1	1.55	523.55					70836-1.RAW	8:25:45	8871.14	Sample	FB	1
706931-04	B7	100	1	1.55	168.80					70837-1.RAW	8:29:54	521.29	Sample	OK	1
SEQ-CCV1	B8	1	1	1.55	4.32		96.33			70838-1.RAW	8:34:02	109.92	Sample	OK	1
SEQ-CCB1	B9	1	1	1.55	0.07		0.00			70839-1.RAW	8:38:11	479.55	Sample	OK	1
706931-06	B10	400	1	1.55	5163.44					70840-1.RAW	8:42:19	2.18	Sample	OK	1
706931-07	B11	400	1	1.55	3907.07					70841-1.RAW	8:46:28	1283.01	Sample	OK	1
706931-08	B12	400	1	1.55	4188.03					70842-1.RAW	8:50:36	971.18	Sample	OK	1
706932-01	C1	20	1	1.55	21.13					70843-1.RAW	8:54:44	1035.97	Sample	OK	1
706932-02	C2	20	1	1.55	150.38					70844-1.RAW	8:58:53	103.42	Sample	OK	1
706932-03	C3	20	1	1.55	571.06					70845-1.RAW	9:03:01	747.99	Sample	OK	1
706932-04	C4	20	1	1.55	373.63					70846-1.RAW	9:07:10	2836.08	Sample	OK	1
706932-05	C5	20	1	1.55	35.51					70847-1.RAW	9:11:18	1856.09	Sample	OK	1
706932-06	C6	400	1	1.55	555.83					70848-1.RAW	9:15:26	177.80	Sample	OK	1
706932-08	C8	400	1	1.55	730.80					70849-1.RAW	9:19:35	139.50	Sample	OK	1
706932-09	C7	400	1	1.55	730.80					70850-1.RAW	9:23:43	167.84	Sample	OK	1
SEQ-CCV2	C8	1	1	1.55	4.82		96.45			70851-1.RAW	9:27:52	480.28	Sample	OK	1
SEQ-CCB2	C9	1	1	1.55	0.01		0.00			70852-1.RAW	9:32:00	2.76	Sample	OK	1
706932-10	C10	100	1	1.55	705.36					70853-1.RAW	9:36:08	701.78	Sample	OK	1
706933-01	C11	100	1	1.55	4342.40					70854-1.RAW	9:40:16	4312.53	Sample	OK	1
706933-02	C12	100	1	1.55	835.24					70855-1.RAW	9:44:24	300.71	Sample	OK	1
706933-03	D1	100	1	1.55	3793.85					70856-1.RAW	9:48:32	5757.77	Sample	FB	1
706930-04RE1	D2	20	1	1.55	42.06					70857-1.RAW	10:00:14	210.88	Sample	OK	1
706930-07RE1	D3	400	1	1.55	8860.89					70858-1.RAW	10:04:23	1704.26	Sample	OK	1
706931-03RE1	D4	100	1	1.55	515.12					70859-1.RAW	10:08:31	512.92	Sample	OK	1
706931-04RE1	D5	20	1	1.55	150.57					70860-1.RAW	10:12:40	748.93	Sample	OK	1
F707327-DUP1	D6	20	1	1.55	235.83					70861-1.RAW	10:16:48	1172.14	Sample	OK	1
F707327-MS1	D7	400	1	1.55	4456.02		1881.48			70862-1.RAW	10:20:56	1107.45	Sample	OK	1
SEQ-CCV3	D8	1	1	1.55	4.82		96.38			70863-1.RAW	10:25:05	479.95	Sample	OK	1
SEQ-CCB3	D9	1	1	1.55	0.03		0.00			70864-1.RAW	10:29:13	4.80	Sample	OK	1
F707327-MSU1	D10	400	1	1.55	4544.86					70865-1.RAW	10:33:22	1128.52	Sample	OK	1
F707327-MS2	D11	400	1	1.55	4930.77			94.58		70866-1.RAW	10:37:30	1008.92	Sample	OK	1
F707327-MSD2	D12	400	1	1.55	4055.69					70867-1.RAW	10:41:38	1008.09	Sample	OK	1
706933-01RE1	A1	400	1	1.55	4535.12					70868-1.RAW	10:45:47	1077.44	Sample	OK	1
706933-02RE1	A2	100	1	1.55	798.03					70869-1.RAW	10:49:55	791.78	Sample	OK	1
F707328-BLK1	A3	20	1	1.55	0.36					70870-1.RAW	10:54:04	8.45	Sample	OK	1
F707328-BLK2	A4	20	1	1.55	0.88					70871-1.RAW	10:58:12	6.43	Sample	OK	1
F707328-BLK3	A5	20	1	1.55	0.67					70872-1.RAW	11:02:21	4.67	Sample	OK	1
F707328-RS1	A6	20	1	1.55	94.22					70873-1.RAW	11:06:29	439.21	Sample	OK	1
F707328-BSD1	A7	20	1	1.55	93.24					70874-1.RAW	11:10:37	464.36	Sample	OK	1
SEQ-CCV4	A8	1	1	1.55	4.73		94.68			70875-1.RAW	11:14:45	471.51	Sample	OK	1
SEQ-CCB4	A9	1	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	71044-1.RAW	15:57:54	1509.32	Sample	OK	1
1706469-06	C1	10	1.55	30.17	71045-1.RAW	16:02:02	301.06	Sample	OK	1
1707148-01	C2	1	1.55	0.38	71046-1.RAW	16:06:11	39.37	Sample	OK	1
1707148-02	C3	1	1.55	0.08	71047-1.RAW	16:10:19	9.81	Sample	OK	1
1707292-01	C4	1	1.55	2.19	71048-1.RAW	16:14:28	216.13	Sample	OK	1
1707292-02	C5	1	1.55	0.03	71049-1.RAW	16:18:36	4.60	Sample	OK	1
F707372-DUP1	C6	1	1.55	2.23	71050-1.RAW	16:22:44	223.41	Sample	OK	1
F707372-MS1	C7	1	1.55	10.93	71051-1.RAW	16:26:53	1086.11	Sample	OK	1
SEQ-CCVA	C8	1	1.55	4.91	71052-1.RAW	16:31:01	489.50	Sample	OK	1
SEQ-CCBA	C9	1	1.55	0.07	71053-1.RAW	16:35:10	8.64	Sample	OK	1
F707372-MSD1	C10	1	1.55	11.08	71054-1.RAW	16:39:18	1101.19	Sample	OK	1
SEQ-CCVB	C11	1	1.55	4.89	71055-1.RAW	16:43:26	485.62	Sample	OK	1
SEQ-CCB3	C12	1	1.55	0.05	71056-1.RAW	16:47:35	5.95	Sample	OK	1


337.73

**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 Maxem  
 Analyst Reviewed By

7/14/17  
 Date

  
 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 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

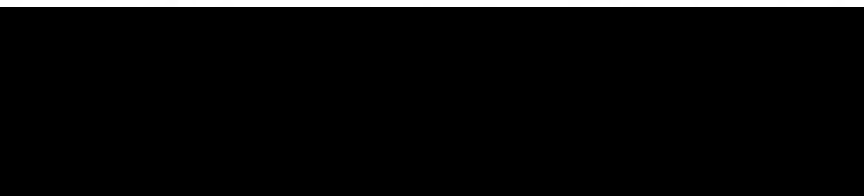
**Eurofins Frontier Global Sciences, Inc.**

**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

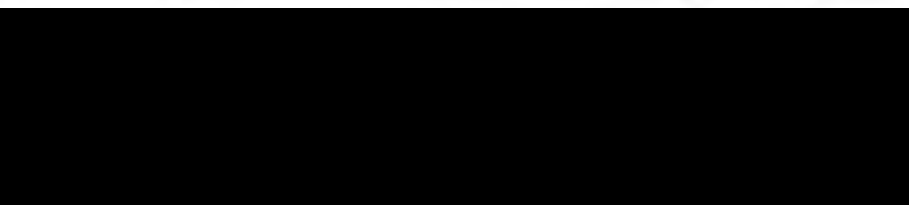
**Eurofins Frontier Global Sciences, Inc.**

**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	1004715	100			IX
F707372-BSD1	LCS Dup	50 100	50.5 101	1004715	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	<del>101</del> 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="font-size: 2em; font-family: cursive;">                     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)	<del>300</del> <sup>20</sup> 10.00	<del>3.00</del> <sup>20</sup> 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~~ <sup>cc</sup> ~~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 <sup>CIC</sup> <del>7/12/17</del>	0.25	20	1702555	20			20X
F707327-DUP1	Duplicate [ <del>1706932-04</del> ] 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 - 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	-	-	-		<del>20X</del> 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



Due Date: 7/31/2017

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/CH<sub>2</sub>Cl<sub>2</sub>: 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 <sup>cell</sup> 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  
 HNO<sub>3</sub> 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	<sup>cell</sup> <del>1706932-06</del>	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	<del>1706931-05</del>	<del>0.2577</del>	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 <del>1706933-06</del> <sup>7/13/17</sup>	0.25	20	1702555	20			20X
F707328-DUP1	Duplicate [ <del>1706933-06</del> ] <sup>1706933-05 RE1</sup>	0.166	20					400X
F707328-MS1	Matrix Spike [1706933-06] <sup>RE1</sup>	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] <sup>RE1</sup>	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

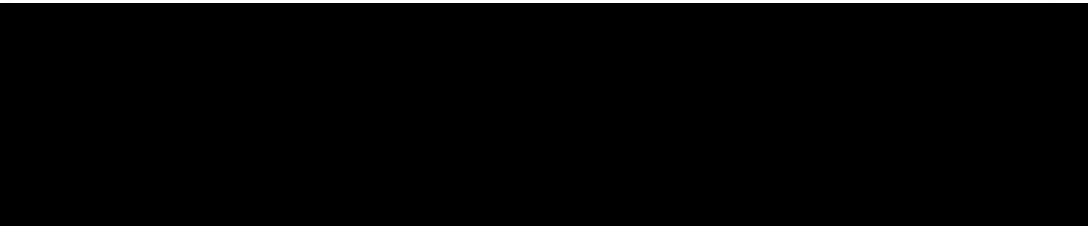
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> Spike vol.: 100 µL (LIMS ID: 1700685)  
 Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: 1/A Pipette SN#: MU11619 Calibration Date: 7/5/17  
 HNO<sub>3</sub> LIMS ID: 1/A 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 ng/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:	<i>Ben C</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"/> Hg0	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

Analyst Initials: DMReviewer Initials: BC

- 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"/>
---	-----------------------------	-------------------------------------
- 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"/>
---	-----------------------------	-------------------------------------

  - On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?  
Naming convention: THG26001-yyymmdd-1 or THG26002-yyymmdd-1
 

<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
------------------------------	-----------------------------	-------------------------------------
  - 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"/>
---	-----------------------------	-------------------------------------
  - Check standards & reagents in sequence & bench sheet for correct usage (expires).
 

<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
------------------------------	-----------------------------	------------------------------	-------------------------------------
  - 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"/>
---	-----------------------------	------------------------------	-------------------------------------
  - Check & compare initial & final volumes
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
---	-----------------------------	------------------------------	-------------------------------------
  - 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"/>
---	-----------------------------	------------------------------	-------------------------------------
  - Is the sequence #, analyst, date, and instrument # on the QC page?
 

<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
------------------------------	-----------------------------	-------------------------------------
  - Is the analysis status correct? (analyzed/initial review/reviewed)
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
---	-----------------------------	-------------------------------------
  - Original prep bench sheet added to data package?
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
---	-----------------------------	-------------------------------------
  - 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"/>
---	-----------------------------	-------------------------------------
- High QA? WO#(s)/Client(s): \_\_\_\_\_
 

<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>
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- Client specific QC? (if Yes, refer to Project Notes/LIMS)
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
---	-----------------------------	-------------------------------------

  - Have the QC requirements been met for all WO#s?
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
---	-----------------------------	-------------------------------------
  - Prep blanks corrections/assigned properly
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
---	-----------------------------	-------------------------------------
- 20 or fewer samples in batch?
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
---	-----------------------------	-------------------------------------

  - 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"/>
---	-----------------------------	-------------------------------------
  - 1 CCV and 1 CCB every 10 analytical runs?
 

<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
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**Peer Review Check List for THg by 2800 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	<i>[Signature]</i> 7/14/17	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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 (≤ 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     N/A
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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	0 <i>Beary</i>	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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: \\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.

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>Base CTS 7/14/17</i>	Dataset ID(s):	THG26003-170713-1
Date:	7/14/2017	WO (s) #:	VARIOUS
Batch #(s):	F707372, F707327, F707328		0

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):

*DM BC*


Additional Page (s)?  YES



Frontier Global Sciences

THg26002-170713-1

Analysis Datasheet for Total Mercury

Date of Analysis: July 13, 2017  
Instrument #: Hg2600-2  
LIMS Sequence #: 7G14008, 7G14009

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	180.35 units	360.70	166.42 units	332.85	109.5 %Rec
SEQ-CAL2	1	1.00 ng/L	339.69 units	339.69	325.77 units	325.77	107.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1484.36 units	296.87	1470.43 units	294.09	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	5684.88 units	284.24	5670.95 units	283.55	93.3 %Rec
SEQ-CAL5	1	40.00 ng/L	11357.43 units	283.94	11343.51 units	283.59	93.3 %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
303.97	+/- 23.66	7.8% RSD	313.09

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	13.92 units	±1.92	0.04 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.006 ng/L	±0.104
BLK	2	3	0.778 ng/L	±0.146
BLK	3	3	0.873 ng/L	±0.200
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 7/14/17

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	7/13/2017 7:20:26	80990-1.RAW	7:20:26 AM	15.77			1.8	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	7/13/2017 7:24:35	80991-1.RAW	7:24:35 AM	11.93			-2.0	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	7/13/2017 7:28:43	80992-1.RAW	7:28:43 AM	14.07			0.1	0.000	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	7/13/2017 7:32:52	80993-1.RAW	7:32:52 AM	180.35			166.4	0.548	0.548	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	7/13/2017 7:37:01	80994-1.RAW	7:37:01 AM	339.69			325.8	1.072	1.072	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	7/13/2017 7:41:10	80995-1.RAW	7:41:10 AM	1484.36			1470.4	4.837	4.837	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	7/13/2017 7:45:19	80996-1.RAW	7:45:19 AM	5684.88			5671.0	18.656	18.656	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	7/13/2017 7:49:27	80997-1.RAW	7:49:27 AM	11357.43			11343.5	37.318	37.318	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	7/13/2017 7:53:36	80998-1.RAW	7:53:36 AM	1524.50			1510.6	4.970	4.970	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK1	10	7/13/2017 7:57:44	80999-1.RAW	7:57:44 AM	47.93	1		34.0	0.112	1.119	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK2	10	7/13/2017 8:01:53	81000-1.RAW	8:01:53 AM	43.89	1		30.0	0.099	0.986	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK3	10	7/13/2017 8:06:01	81001-1.RAW	8:06:01 AM	41.68	1		27.8	0.091	0.913	ng/L	
Hg2600-2	DM2	SAM	F707251-BS1	10	7/13/2017 8:10:10	81002-1.RAW	8:10:10 AM	4483.26	1		4469.3	14.603	146.028	ng/L	
Hg2600-2	DM2	SAM	F707251-BSD1	10	7/13/2017 8:14:18	81003-1.RAW	8:14:18 AM	4738.40	1		4724.5	15.442	154.421	ng/L	
Hg2600-2	DM2	SAM	1706563-01	10	7/13/2017 8:18:27	81004-1.RAW	8:18:27 AM	188.30	1		174.4	0.473	4.731	ng/L	
Hg2600-2	DM2	SAM	1706563-04	10	7/13/2017 8:22:35	81005-1.RAW	8:22:35 AM	302.88	1		289.0	0.850	8.500	ng/L	
Hg2600-2	DM2	SAM	1706563-05	10	7/13/2017 8:26:43	81006-1.RAW	8:26:43 AM	301.52	1		287.6	0.846	8.456	ng/L	
Hg2600-2	DM2	SAM	1706564-01	10	7/13/2017 8:30:52	81007-1.RAW	8:30:52 AM	106.49	1		92.6	0.204	2.040	ng/L	
Hg2600-2	DM2	SAM	1706564-05	10	7/13/2017 8:35:00	81008-1.RAW	8:35:00 AM	131.62	1		117.7	0.287	2.866	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	7/13/2017 8:39:09	81009-1.RAW	8:39:09 AM	1481.92			1468.0	4.829	4.829	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	7/13/2017 8:43:17	81010-1.RAW	8:43:17 AM	24.33			10.4	0.034	0.034	ng/L	
Hg2600-2	DM2	SAM	1706564-08	10	7/13/2017 8:48:08	81011-1.RAW	8:48:08 AM	158.17	1		144.2	0.374	3.740	ng/L	
Hg2600-2	DM2	SAM	1706565-01	10	7/13/2017 8:52:16	81012-1.RAW	8:52:16 AM	18.66	1		4.7	-0.085	-0.850	ng/L	
Hg2600-2	DM2	SAM	1706565-04	10	7/13/2017 8:56:25	81013-1.RAW	8:56:25 AM	507.52	1		493.6	1.523	15.233	ng/L	
Hg2600-2	DM2	SAM	1706565-07	10	7/13/2017 9:00:33	81014-1.RAW	9:00:33 AM	205.69	1		191.8	0.530	5.303	ng/L	
Hg2600-2	DM2	SAM	1706565-10	10	7/13/2017 9:04:42	81015-1.RAW	9:04:42 AM	247.32	1		233.4	0.667	6.672	ng/L	
Hg2600-2	DM2	SAM	1706565-13	10	7/13/2017 9:08:50	81016-1.RAW	9:08:50 AM	224.99	1		211.1	0.594	5.938	ng/L	
Hg2600-2	DM2	SAM	1706565-16	10	7/13/2017 9:12:59	81017-1.RAW	9:12:59 AM	634.80	1		620.9	1.942	19.420	ng/L	
Hg2600-2	DM2	SAM	1706565-19	10	7/13/2017 9:17:07	81018-1.RAW	9:17:07 AM	591.16	1		577.2	1.798	17.984	ng/L	
Hg2600-2	DM2	SAM	1706565-25	10	7/13/2017 9:21:16	81019-1.RAW	9:21:16 AM	444.81	1		430.9	1.317	13.170	ng/L	
Hg2600-2	DM2	SAM	1706565-29	100000	7/13/2017 9:25:24	81020-1.RAW	9:25:24 AM	1701.34	1		1687.4	5.551	555128.805	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:29:32	81021-1.RAW	9:29:32 AM	1498.58			1484.7	4.884	4.884	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	7/13/2017 9:33:41	81022-1.RAW	9:33:41 AM	23.59			9.7	0.032	0.032	ng/L	
Hg2600-2	DM2	SAM	1706565-30	2500	7/13/2017 9:37:49	81023-1.RAW	9:37:49 AM	2410.86	1		2396.9	7.885	19712.689	ng/L	
Hg2600-2	DM2	SAM	1706565-31	50000	7/13/2017 9:41:58	81024-1.RAW	9:41:58 AM	1520.28	1		1506.4	4.956	247780.629	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP1	10	7/13/2017 9:46:06	81025-1.RAW	9:46:06 AM	235.62	1		221.7	0.629	6.288	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP2	10	7/13/2017 9:50:15	81026-1.RAW	9:50:15 AM	125.12	1		111.2	0.265	2.652	ng/L	
Hg2600-2	DM2	SAM	F707251-MS1	10	7/13/2017 9:54:23	81027-1.RAW	9:54:23 AM	1000.33	1		966.4	3.145	31.445	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD1	10	7/13/2017 9:58:32	81028-1.RAW	9:58:32 AM	957.21	1		943.3	3.003	30.027	ng/L	
Hg2600-2	DM2	SAM	F707251-MS2	10	7/13/2017 10:02:40	81029-1.RAW	10:02:40 AM	947.59	1		933.7	2.971	29.710	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD2	10	7/13/2017 10:06:49	81030-1.RAW	10:06:49 AM	940.07	1		926.1	2.946	29.463	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK1	10	7/13/2017 10:10:57	81031-1.RAW	10:10:57 AM	39.58	2		25.7	0.084	0.844	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK2	10	7/13/2017 10:15:05	81032-1.RAW	10:15:05 AM	40.66	2		26.7	0.088	0.879	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	7/13/2017 10:19:14	81033-1.RAW	10:19:14 AM	1548.41			1534.5	5.048	5.048	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	7/13/2017 10:23:22	81034-1.RAW	10:23:22 AM	21.09			7.2	0.024	0.024	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK3	10	7/13/2017 10:27:30	81035-1.RAW	10:27:30 AM	32.51	2		18.6	0.061	0.612	ng/L	
Hg2600-2	DM2	SAM	F707289-BS1	10	7/13/2017 10:31:38	81036-1.RAW	10:31:38 AM	4634.08	2		4620.2	15.122	151.217	ng/L	
Hg2600-2	DM2	SAM	F707289-BSD1	10	7/13/2017 10:35:47	81037-1.RAW	10:35:47 AM	4592.28	2		4578.4	14.984	149.841	ng/L	
Hg2600-2	DM2	SAM	1706565-17	10	7/13/2017 10:39:55	81038-1.RAW	10:39:55 AM	627.51	2		613.6	1.941	19.407	ng/L	
Hg2600-2	DM2	SAM	1706565-18	10	7/13/2017 10:44:03	81039-1.RAW	10:44:03 AM	1647.19	2		1633.3	5.295	52.953	ng/L	
Hg2600-2	DM2	SAM	1706565-20	10	7/13/2017 10:48:12	81040-1.RAW	10:48:12 AM	1255.45	2		1241.5	4.007	40.066	ng/L	
Hg2600-2	DM2	SAM	1706565-21	10	7/13/2017 10:52:20	81041-1.RAW	10:52:20 AM	761.36	2		747.4	2.381	23.811	ng/L	
Hg2600-2	DM2	SAM	1706565-22	10	7/13/2017 10:56:29	81042-1.RAW	10:56:29 AM	1036.28	2		1022.4	3.286	32.855	ng/L	
Hg2600-2	DM2	SAM	1706565-23	10	7/13/2017 11:00:37	81043-1.RAW	11:00:37 AM	1259.20	2		1245.3	4.019	40.189	ng/L	
Hg2600-2	DM2	SAM	1706565-24	10	7/13/2017 11:04:46	81044-1.RAW	11:04:46 AM	1815.15	2		1801.2	5.848	58.479	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	7/13/2017 11:08:54	81045-1.RAW	11:08:54 AM	1506.81			1492.9	4.911	4.911	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	7/13/2017 11:13:02	81046-1.RAW	11:13:02 AM	28.16			14.2	0.047	0.047	ng/L	

Table with columns: Instrument, Analyst, Sample Type, LabNumber, Dilution, Analyzed, FileID, RunEnd, Uncorrected Response, Batch ID, No PB Correction?, RESP, InitialResult, FinalResult, InitialUnits, Comments. It contains 100 rows of analytical data for mercury testing.



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-CCVA	1	7/13/2017 15:46:22	81112-1.RAW	3:46:22 PM	1605.11			1591.2	5.235	5.235	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	7/13/2017 15:50:30	81113-1.RAW	3:50:30 PM	34.80			20.9	0.069	0.069	ng/L	
Hg2600-2	DM2	SAM	1707041-01	400	7/13/2017 15:54:40	81114-1.RAW	3:54:40 PM	307636.79		X	307622.9	1012.024	404809.675	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:03:07	81115-1.RAW	4:03:07 PM	674.50		X	660.6	2.173	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:07:15	81116-1.RAW	4:07:15 PM	2699.32		X	2685.4	8.834	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:11:23	81117-1.RAW	4:11:23 PM	1625.49		X	1611.6	5.302	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:14:15	81118-1.RAW	4:14:15 PM	177.00		X	163.1	0.536	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:18:23	81119-1.RAW	4:18:23 PM	1060.43		X	1046.5	3.443	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:21:15	81120-1.RAW	4:21:15 PM	134.20		X	120.3	0.396	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:25:23	81121-1.RAW	4:25:23 PM	753.32		X	739.4	2.432	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:29:31	81122-1.RAW	4:29:31 PM	582.17		X	568.2	1.869	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:33:40	81123-1.RAW	4:33:40 PM	523.70		X	509.8	1.677	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:37:48	81124-1.RAW	4:37:48 PM	437.50			423.6	1.393	0.000	ng/L	
Hg2600-2	DM2	SAM	1707041-02	50000	7/13/2017 16:41:57	81125-1.RAW	4:41:57 PM	115240.55		X	115226.6	379.075	18953748.612	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:51:36	81126-1.RAW	4:51:36 PM	2.53		X	-11.4	-0.037	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:59:16	81127-1.RAW	4:59:16 PM	0.69		X	-13.2	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:05:05	81128-1.RAW	5:05:05 PM	1.18		X	-12.7	-0.042	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:09:00	81129-1.RAW	5:09:00 PM	0.56		X	-13.4	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:12:38	81130-1.RAW	5:12:38 PM	0.30		X	-13.6	-0.045	0.000	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:20:27	81131-2.RAW	5:20:27 PM	4098.62		X	4084.7	13.438	13.438	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:24:35	81132-1.RAW	5:24:35 PM	158.27		X	144.3	0.475	0.475	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:28:44	81133-1.RAW	5:28:44 PM	130.63		X	116.7	0.384	0.384	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:32:52	81134-1.RAW	5:32:52 PM	116.04		X	102.1	0.336	0.336	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 17:37:01	81135-1.RAW	5:37:01 PM	127.78		X	113.9	0.375	0.000	ng/L	

TotalMercury EPA1631 Operat: DM BlankS: 13.924 Calib Eqn: Conc = (Area-13.92 Run Date: 7/13/2017 Blank SD: 1.922222169  
 Worksh: THg260: CalibFa 303.97 Status: QC Warnings:8/QC E Run Time: 17:16:18 Blank RSD%: 13.80552781  
 Method: #### R: 1 R2: 1 CF SD: 23.66088862  
 Descrip: THg26002-170713-1 CF RSD%: 7.784008984

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	2.24					80985-1.RAW	7:01:01	681.10	Clean	OK	1
clean				0.00	0.01					80986-1.RAW	7:03:53	4.50	Clean	OK	1
ws				13.92	0.01					80987-1.RAW	7:08:01	16.83	Sample	OK	1
ws				13.92	0.00					80988-1.RAW	7:12:09	11.79	Sample	OK	1
ws				13.92	0.00					80989-1.RAW	7:16:18	10.04	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.05					80990-1.RAW	7:20:26	15.77	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					80991-1.RAW	7:24:35	11.93	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					80992-1.RAW	7:28:43	14.07	Sample	OK	1
SEQ-CAL1	A4		1	13.92	0.55			109.50		80993-1.RAW	7:32:52	180.35	Sample	OK	1
SEQ-CAL2	A5		1	13.92	1.07			107.17		80994-1.RAW	7:37:01	339.69	Sample	OK	1
SEQ-CAL3	A6		1	13.92	4.84			96.75		80995-1.RAW	7:41:10	1484.36	Sample	OK	1
SEQ-CAL4	A7		1	13.92	18.66			93.28		80996-1.RAW	7:45:19	5684.88	Sample	OK	1
SEQ-CAL5	A8		1	13.92	37.32			93.30		80997-1.RAW	7:49:27	11357.43	Sample	OK	1
SEQ-ICV1	A9		1	13.92	4.97			99.39		80998-1.RAW	7:53:36	1524.50	Sample	OK	1
F707251-BLK1	A10		10	13.92	1.12					80999-1.RAW	7:57:44	47.93	Sample	OK	1
F707251-BLK2	A11		10	13.92	0.99					81000-1.RAW	8:01:53	43.89	Sample	OK	1
F707251-BLK3	A12		10	13.92	0.91					81001-1.RAW	8:06:01	41.68	Sample	OK	1
F707251-BS1	A13		10	13.92	147.03					81002-1.RAW	8:10:10	4483.26	Sample	OK	1
F707251-BSD1	A14		10	13.92	155.43					81003-1.RAW	8:14:18	4738.40	Sample	OK	1
1706563-01	A15		10	13.92	5.74					81004-1.RAW	8:18:27	188.30	Sample	OK	1
1706563-04	A16		10	13.92	9.51					81005-1.RAW	8:22:35	302.88	Sample	OK	1
1706563-05	A17		10	13.92	9.46					81006-1.RAW	8:26:43	301.52	Sample	OK	1
1706564-01	A18		10	13.92	3.05					81007-1.RAW	8:30:52	106.49	Sample	OK	1
1706564-05	A19		10	13.92	3.87					81008-1.RAW	8:35:00	131.62	Sample	OK	1
SEQ-CCV1	A20		1	13.92	4.83			96.59		81009-1.RAW	8:39:09	1481.92	Sample	OK	1
SEQ-CCB1	A21		1	13.92	0.03			0.00		81010-1.RAW	8:43:17	24.33	Sample	OK	1
1706564-08	B1		10	13.92	4.75					81011-1.RAW	8:48:08	158.17	Sample	OK	1
1706565-01	B2		10	13.92	0.16					81012-1.RAW	8:52:16	18.66	Sample	OK	1
1706565-04	B3		10	13.92	16.24					81013-1.RAW	8:56:25	507.52	Sample	OK	1
1706565-07	B4		10	13.92	6.31					81014-1.RAW	9:00:33	205.69	Sample	OK	1
1706565-10	B5		10	13.92	7.68					81015-1.RAW	9:04:42	247.32	Sample	OK	1
1706565-13	B6		10	13.92	6.94					81016-1.RAW	9:08:50	224.99	Sample	OK	1
1706565-16	B7		10	13.92	20.43					81017-1.RAW	9:12:59	634.80	Sample	OK	1
1706565-19	B8		10	13.92	18.99					81018-1.RAW	9:17:07	591.16	Sample	OK	1
1706565-25	B9		10	13.92	14.18					81019-1.RAW	9:21:16	444.81	Sample	OK	1
1706565-29	B10		100000	13.92	555129.81					81020-1.RAW	9:25:24	1701.34	Sample	OK	1
SEQ-CCV2	B11		1	13.92	4.88			97.68		81021-1.RAW	9:29:32	1498.58	Sample	OK	1
SEQ-CCB2	B12		1	13.92	0.03			0.00		81022-1.RAW	9:33:41	23.59	Sample	OK	1
1706565-30	B13		2500	13.92	19713.69					81023-1.RAW	9:37:49	2410.86	Sample	OK	1
1706565-31	B14		50000	13.92	247781.63					81024-1.RAW	9:41:58	1520.28	Sample	OK	1
F707251-DUP1	B15		10	13.92	7.29					81025-1.RAW	9:46:06	235.62	Sample	OK	1
F707251-DUP2	B16		10	13.92	3.66					81026-1.RAW	9:50:15	125.12	Sample	OK	1
F707251-MS1	B17		10	13.92	32.45			698.64		81027-1.RAW	9:54:23	1000.33	Sample	OK	1
F707251-MSD1	B18		10	13.92	31.03					81028-1.RAW	9:58:32	957.21	Sample	OK	1
F707251-MS2	B19		10	13.92	30.72			92.99		81029-1.RAW	10:02:40	947.59	Sample	OK	1
F707251-MSD2	B20		10	13.92	30.47					81030-1.RAW	10:06:49	940.07	Sample	OK	1
F707289-BLK1	B21		10	13.92	0.84					81031-1.RAW	10:10:57	39.58	Sample	OK	1
F707289-BLK2	C1		10	13.92	0.88					81032-1.RAW	10:15:05	40.66	Sample	OK	1
SEQ-CCV3	C2		1	13.92	5.05			100.96		81033-1.RAW	10:19:14	1548.41	Sample	OK	1
SEQ-CCB3	C3		1	13.92	0.02			0.00		81034-1.RAW	10:23:22	21.09	Sample	OK	1
F707289-BLK3	C4		10	13.92	0.61					81035-1.RAW	10:27:30	32.51	Sample	OK	1
F707289-BS1	C5		10	13.92	151.99					81036-1.RAW	10:31:38	4634.08	Sample	OK	1
F707289-BSD1	C6		10	13.92	150.62					81037-1.RAW	10:35:47	4592.28	Sample	OK	1
1706565-17	C7		10	13.92	20.19					81038-1.RAW	10:39:55	627.51	Sample	OK	1
1706565-18	C8		10	13.92	53.73					81039-1.RAW	10:44:03	1647.19	Sample	OK	1
1706565-20	C9		10	13.92	40.84					81040-1.RAW	10:48:12	1255.45	Sample	OK	1
1706565-21	C10		10	13.92	24.59					81041-1.RAW	10:52:20	781.36	Sample	OK	1
1706565-22	C11		10	13.92	33.63					81042-1.RAW	10:56:29	1036.28	Sample	OK	1
1706565-23	C12		10	13.92	40.97					81043-1.RAW	11:00:37	1259.20	Sample	OK	1
1706565-24	C13		10	13.92	59.26					81044-1.RAW	11:04:46	1815.15	Sample	OK	1
SEQ-CCV4	C14		1	13.92	4.91			98.23		81045-1.RAW	11:08:54	1506.81	Sample	OK	1
SEQ-CCB4	C15		1	13.92	0.05			0.00		81046-1.RAW	11:13:02	28.16	Sample	OK	1
1706565-26	C16		10	13.92	14.79					81047-1.RAW	11:17:11	463.61	Sample	OK	1

1706565-27	C17	10	13.92	14.93		81048-1.RAW	11:21:19	467.63	Sample	OK	1
1706565-28	C18	10	13.92	33.44		81049-1.RAW	11:25:28	1030.39	Sample	OK	1
1706565-32	C19	100000	13.92	538607.64		81050-1.RAW	11:29:36	1651.12	Sample	OK	1
1706565-33	C20	2500	13.92	19959.64		81051-1.RAW	11:33:45	2440.76	Sample	OK	1
1706565-34	C21	50000	13.92	245659.96		81052-1.RAW	11:37:53	1507.38	Sample	OK	1
F707289-DUP1	A1	10	13.92	34.08		81053-1.RAW	11:42:01	1049.95	Sample	OK	1
F707289-MS1	A2	10	13.92	128.04	364.96	81054-1.RAW	11:46:10	3905.92	Sample	OK	1
F707289-MSD1	A3	10	13.92	130.11		81055-1.RAW	11:50:18	3968.99	Sample	OK	1
SEQ-CCV5	A4	1	13.92	4.95	98.95	81056-1.RAW	11:54:27	1517.62	Sample	OK	1
SEQ-CCB5	A5	1	13.92	0.08	0.00	81057-1.RAW	11:58:35	37.21	Sample	OK	1
F707326-BLK1	A6	20	13.92	1.03		81058-1.RAW	12:02:43	29.54	Sample	OK	1
F707326-BLK2	A7	20	13.92	0.95		81059-1.RAW	12:06:52	28.30	Sample	OK	1
F707326-BLK3	A8	20	13.92	0.65		81060-1.RAW	12:11:00	23.76	Sample	OK	1
*F707326-BLK4	A9	20	13.92	0.76		81061-1.RAW	12:15:09	25.55	Sample	OK	1
*F707326-BLK5	A10	20	13.92	0.67		81062-1.RAW	12:19:17	24.12	Sample	OK	1
*F707326-BLK6	A11	20	13.92	0.64		81063-1.RAW	12:23:26	23.71	Sample	OK	1
*F707326-BLK7	A12	20	13.92	0.56		81064-1.RAW	12:27:34	22.48	Sample	OK	1
F707326-BS1	A13	20	13.92	95.03		81065-1.RAW	12:31:42	1458.25	Sample	OK	1
F707326-BSD1	A14	20	13.92	98.34		81066-1.RAW	12:35:51	1508.49	Sample	OK	1
1706929-01	A15	400	13.92	104.62		81067-1.RAW	12:39:59	93.42	Sample	OK	1
SEQ-CCV6	A16	1	13.92	4.89	97.73	81068-1.RAW	12:44:08	1499.25	Sample	OK	1
SEQ-CCB6	A17	1	13.92	0.04	0.00	81069-1.RAW	12:48:16	26.06	Sample	OK	1
1706929-02	A18	20	13.92	467.79		81070-1.RAW	12:52:24	7123.57	Sample	OK	1
1706929-03	A19	20	13.92	72.10		81071-1.RAW	12:56:33	1109.68	Sample	OK	1
1706929-04	A20	20	13.92	85.87		81072-1.RAW	13:00:41	1319.06	Sample	OK	1
1706929-05	A21	20	13.92	717.92		81073-1.RAW	13:04:50	10925.08	Sample	OK	1
1706929-06	B1	400	13.92	4150.89		81074-1.RAW	13:08:58	3168.27	Sample	OK	1
1706929-07	B2	400	13.92	4275.51		81075-1.RAW	13:13:07	3262.97	Sample	OK	1
1706929-08	B3	400	13.92	4667.12		81076-1.RAW	13:17:15	3560.56	Sample	OK	1
1706929-09	B4	400	13.92	3799.25		81077-1.RAW	13:21:23	2901.05	Sample	OK	1
1706929-10	B5	400	13.92	5166.64		81078-1.RAW	13:25:32	3940.16	Sample	OK	1
1706930-01	B6	20	13.92	898.64		81079-1.RAW	13:29:40	13671.87	Sample	OK	1
SEQ-CCV7	B7	1	13.92	5.10	102.00	81080-1.RAW	13:33:49	1564.23	Sample	OK	1
SEQ-CCB7	B8	1	13.92	0.12	0.00	81081-1.RAW	13:37:57	51.04	Sample	OK	1
1706929-01RE1	B9	20	13.92	94.88		81082-1.RAW	13:42:05	1455.96	Sample	OK	1
1706930-02	B10	20	13.92	100.15		81083-1.RAW	13:46:14	1536.04	Sample	OK	1
1706930-03	B11	20	13.92	308.75		81084-1.RAW	13:50:22	4706.45	Sample	OK	1
1706930-06	B12	400	13.92	3628.58		81085-1.RAW	13:54:31	2771.35	Sample	OK	1
1706931-01	B13	20	13.92	55.42		81086-1.RAW	13:58:39	856.15	Sample	OK	1
1706931-02	B14	20	13.92	452.71		81087-1.RAW	14:02:48	6894.32	Sample	OK	1
1706931-10	B15	400	13.92	3841.47		81088-1.RAW	14:06:56	2933.13	Sample	FB	1
1706932-06	B16	400	13.92	950.74		81089-1.RAW	14:11:04	736.41	Sample	OK	1
1706932-07	B17	400	13.92	663.30		81090-1.RAW	14:15:13	517.98	Sample	OK	1
F707326-DUP1	B18	20	13.92	1028.41		81091-1.RAW	14:19:22	15644.11	Sample	OK	1
SEQ-CCV8	B19	1	13.92	5.08	101.62	81092-1.RAW	14:23:31	1558.33	Sample	OK	1
SEQ-CCB8	B20	1	13.92	0.12	0.00	81093-1.RAW	14:27:39	50.81	Sample	OK	1
1706930-01RE1	B21	50	13.92	1005.16		81094-1.RAW	14:31:48	6124.67	Sample	OK	1
F707326-MS1	C1	400	13.92	10246.45	1018.37	81095-1.RAW	14:35:56	7800.40	Sample	OK	1
F707326-MSD1	C2	400	13.92	9924.94		81096-1.RAW	14:40:04	7556.08	Sample	OK	1
F707326-MS2	C3	400	13.92	8028.10	80.87	81097-1.RAW	14:44:13	6114.64	Sample	OK	1
F707326-MSD2	C4	400	13.92	8073.59		81098-1.RAW	14:48:22	6149.21	Sample	OK	1
F707326-DUP2	C7	20	13.92	723.20		81099-1.RAW	14:52:30	11005.47	Sample	OK	1
SEQ-CCV9	C5	1	13.92	5.22	104.32	81100-1.RAW	14:56:39	1599.47	Sample	OK	1
SEQ-CCB9	C6	1	13.92	0.16	0.00	81101-1.RAW	15:00:48	62.56	Sample	OK	1
F707347-BLK1	C8	50	13.92	5.83		81102-1.RAW	15:04:56	49.40	Sample	OK	1
F707347-BLK2	C9	50	13.92	5.88		81103-1.RAW	15:09:05	48.48	Sample	OK	1
F707347-BLK3	C10	50	13.92	3.85		81104-1.RAW	15:13:13	37.31	Sample	OK	1
F707347-BS1	C11	400	13.92	4763.92		81105-1.RAW	15:17:22	3634.12	Sample	OK	1
F707347-BSD1	C12	400	13.92	4742.14		81106-1.RAW	15:21:30	3617.57	Sample	OK	1
1707030-01	C13	400	13.92	80.45		81107-1.RAW	15:25:39	75.06	Sample	OK	1
1707030-02	C14	400	13.92	148.24		81108-1.RAW	15:29:47	126.57	Sample	OK	1
1707030-03	C15	400	13.92	100.42		81109-1.RAW	15:33:55	90.24	Sample	OK	1
1707030-04	C16	400	13.92	1944.54		81110-1.RAW	15:38:04	1491.62	Sample	OK	1
1707030-05	C17	400	13.92	4932.85		81111-1.RAW	15:42:13	3762.49	Sample	OK	1
SEQ-CCVA	C18	1	13.92	5.23		81112-1.RAW	15:46:22	1805.11	Sample	OK	1
SEQ-CCBA	C19	1	13.92	0.07		81113-1.RAW	15:50:30	34.80	Sample	OK	1
1707041-01	C20	400	13.92	404809.67		81114-1.RAW	15:54:40	307636.79	Sample	OLFB	1
CLEAN			0.00	2.22		81115-1.RAW	16:03:07	674.50	Clean	OK	1

WS		13.92	8.83	81116-1.RAW	16:07:15	2699.32	Sample	OK	1
WS		13.92	5.30	81117-1.RAW	16:11:23	1625.49	Sample	OK	1
CLEAN		0.00	0.58	81118-1.RAW	16:14:15	177.00	Clean	OK	1
WS		13.92	3.44	81119-1.RAW	16:18:23	1060.43	Sample	OK	1
CLEAN		0.00	0.44	81120-1.RAW	16:21:15	134.20	Clean	OK	1
WS		13.92	2.43	81121-1.RAW	16:25:23	753.32	Sample	OK	1
WS		13.92	1.87	81122-1.RAW	16:29:31	582.17	Sample	OK	1
WS		13.92	1.68	81123-1.RAW	16:33:40	523.70	Sample	OK	1
WS		13.92	1.39	81124-1.RAW	16:37:48	437.50	Sample	OK	1
1707041-02	C21	50000	13.92	18953748.61	81125-1.RAW	16:41:57	115240.55	Sample	OLFB
clean			0.00	0.01	81126-1.RAW	16:51:36	2.53	Clean	OK
clean			0.00	0.00	81127-1.RAW	16:59:16	0.69	Clean	OK
clean			0.00	0.00	81128-1.RAW	17:05:05	1.18	Clean	OK
clean			0.00	0.00	81129-1.RAW	17:09:00	0.56	Clean	OK
clean			0.00	0.00	81130-1.RAW	17:12:38	0.30	Clean	OK
BLANK	C19	1	13.92	13.44	81131-2.RAW	17:20:27	4098.62	Sample	OK
BLANK	C20	1	13.92	0.47	81132-1.RAW	17:24:35	158.27	Sample	FB
BLANK	C21	1	13.92	0.38	81133-1.RAW	17:28:44	130.63	Sample	OK
BLANK	C20	1	13.92	0.34	81134-1.RAW	17:32:52	116.04	Sample	OK
WS			13.92	0.37	81135-1.RAW	17:37:01	127.78	Sample	OK

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14008

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R*

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14008-IBL1 ✓	QC	1			
7G14008-IBL2 ✓	QC	2			
7G14008-IBL3 ✓	QC	3			
7G14008-CAL1 ✓	QC	4	1702602 ✓		
7G14008-CAL2 ✓	QC	5	1702603 ✓		
7G14008-CAL3 ✓	QC	6	1702604 ✓		
7G14008-CAL4 ✓	QC	7	1702605 ✓		
7G14008-CAL5 ✓	QC	8	1702606 ✓		
7G14008-ICV1 ✓	QC	9	1703679 ✓		
7G14008-CCV1 ✓	QC	10	1703679 ✓		
7G14008-CCB1 ✓	QC	11			
7G14008-CCV2 ✓	QC	12	1703679 ✓		
7G14008-CCB2 ✓	QC	13			
7G14008-CCV3 ✓	QC	14	1703679 ✓		
7G14008-CCB3 ✓	QC	15			
7G14008-CCV4 ✓	QC	16	1703679 ✓		
7G14008-CCB4 ✓	QC	17			
7G14008-CCV5 ✓	QC	18	1703679 ✓		
7G14008-CCB5 ✓	QC	19			
F707326-BLK1 ✓	QC	20			
F707326-BLK2 ✓	QC	21			
F707326-BLK3 ✓	QC	22			
F707326-BLK4 ✓	QC	23			
F707326-BLK5 ✓	QC	24			
F707326-BLK6 ✓	QC	25			
F707326-BLK7 ✓	QC	26			
F707326-BS1 ✓	QC	27			
F707326-BSD1 ✓	QC	28			
1706929-01 ✓	Hg-CVAFS-T-7030	29			
7G14008-CCV6 ✓	QC	30	1703679 ✓		
7G14008-CCB6 ✓	QC	31			
1706929-02 ✓	Hg-CVAFS-T-7030	32			
1706929-03 ✓	Hg-CVAFS-T-7030	33			
1706929-04 ✓	Hg-CVAFS-T-7030	34			
1706929-05 ✓	Hg-CVAFS-T-7030	35			

Due Date: 7/31/2017

89 of 343

Page 1 of 2

**ANALYSIS SEQUENCE**

**7G14008**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/13/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706929-06 ✓	Hg-CVAFS-T-7030	36			
1706929-07 ✓	Hg-CVAFS-T-7030	37			
1706929-08 ✓	Hg-CVAFS-T-7030	38			
1706929-09 ✓	Hg-CVAFS-T-7030	39			
1706929-10 ✓	Hg-CVAFS-T-7030	40			
1706930-01 ✓	Hg-CVAFS-T-7030	41			
7G14008-CCV7 ✓	QC	42	1703679 ✓		
7G14008-CCB7 ✓	QC	43			
1706929-01RE1 ✓	Hg-CVAFS-T-7030	44			Added 7/14/2017 by DM2
1706930-02 ✓	Hg-CVAFS-T-7030	45			
1706930-03 ✓	Hg-CVAFS-T-7030	46			
1706930-06 ✓	Hg-CVAFS-T-7030	47			
1706931-01 ✓	Hg-CVAFS-T-7030	48			
1706931-02 ✓	Hg-CVAFS-T-7030	49			
1706931-10 ✓	Hg-CVAFS-T-7030	50			
1706932-06 ✓	Hg-CVAFS-T-7030	51			
1706932-07 ✓	Hg-CVAFS-T-7030	52			
F707326-DUP1 ✓	QC	53			
7G14008-CCV8 ✓	QC	54	1703679 ✓		
7G14008-CCB8 ✓	QC	55			
1706930-01RE1 ✓	Hg-CVAFS-T-7030	56			Added 7/14/2017 by DM2
F707326-MS1 ✓	QC	57			
F707326-MSD1 ✓	QC	58			
F707326-MS2 ✓	QC	59			
F707326-MSD2 ✓	QC	60			
F707326-DUP2 ✓	QC	61			
7G14008-CCV9 ✓	QC	62	1703679 ✓		
7G14008-CCB9 ✓	QC	63			

Don Moxem                      7/13/17  
 Samples Loaded By                      Date

Don Moxem                      7/14/17  
 Data Processed By                      Date

**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-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-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

**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	-	-	-		



PREPARATION BENCH SHEET

F707326

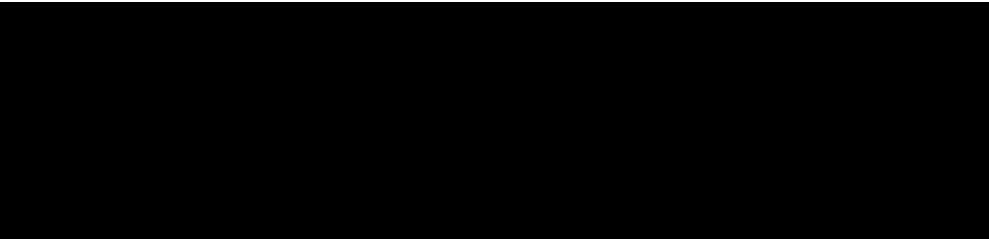
Eurofins Frontier Global Sciences, Inc.

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

2000-2  
7/13/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 7/11/2017 <sup>ENZAT</sup>  
~~7/10/2017~~

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					20X ✓
F707326-BLK2	Blank	0.25	20					20X ✓
F707326-BLK3	Blank	0.25	20					20X ✓
F707326-BLK4	Pre BLK 1706929	0.2556	20					20X ✓
F707326-BLK5	Post BLK 1706929	0.2596	20					20X ✓
F707326-BLK6	PRE BLK 1706930,931,932	0.2624	20					20X ✓
F707326-BLK7	POST BLK 1706930,931,932	0.2633	20					20X ✓
F707326-BS1	LCS	0.25	20	1702555	20			20X ✓
F707326-BSD1	LCS Dup	0.25	20	1702555	20			20X ✓
F707326-DUP1	Duplicate [1706929-05]	0.2571	20					20X ✓
F707326-MS1	Matrix Spike [1706930-01] RE1	0.2943	20	1700685	200			400X ✓
F707326-MS2	Matrix Spike [1706930-06]	0.2667	20	1700685	100			400X ✓
F707326-MSD1	Matrix Spike Dup [1706930-01] RE1	0.2878	20	1700685	200			400X ✓
F707326-MSD2	Matrix Spike Dup [1706930-06]	0.2763	20	1700685	100			400X ✓

Standard ID(s): Description:  
1700685 THg 1,000ng/mL Primary Spiking Standard  
1702555 THg 100ng/mL Primary Spiking Standard

Expiration:  
31-Jul-17 00:00  
31-Jul-17 00:00  
26-Jul-17 00:00

Reagent ID(s): Description:  
1702551 Boiling Chips for AFS prep  
1704061 70/30 Digestion Acid  
1704145 5% BrCl  
1704177 70/30 Digestion Acid

Expiration:  
31-Dec-17 00:00  
02-Jan-18 00:00  
18-Dec-17 00:00  
07-Jan-18 00:00

DDP2 - AD 20X ✓

1706929-05

1709976

1703377

1703152

1704095

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2000-2  
7/19/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: ~~7/10/2017~~ 7/11/2017 <sup>alc</sup> HAZI

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	-	-	-		400X → 20X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2561	20	-	-	-		20X
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.2745	20	-	-	-		20X
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2981	20	-	-	-		20X
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2885	20	-	-	-		20X
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2744	20	-	-	-		400X
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2718	20	-	-	-		400X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2677	20	-	-	-		400X
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2595	20	-	-	-		400X
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2569	20	-	-	-		400X
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD	20X → 50X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2607	20	-	-	-		20X
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2508	20	-	-	-		20X
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2606	20	QC	-	-	MS/MSD	400X
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2908	20	-	-	-		20X
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2535	20	-	-	-		20X
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.275	20	-	-	-		400X
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2816	20	-	-	-		400X
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2588	20	-	-	-		400X

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: ~~7/10/2017~~ 7/11/2017 *etc*



Due Date: 7/31/2017

Technician: CC Batch#: F707326 Date: 7/10/17 / 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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> Spike vol.: 100 µL (LIMS ID: 1700685)  
 Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MM11619 Calibration Date: 7/5/17  
 HNO<sub>3</sub> LIMS ID: NA Pipette SN#: NA Calibration Date: NA  
 70/30 LIMS ID: 1704061/1704177 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068124 Boiling Chip lot # 1702551 \*Hotblock Position: L4

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"/> NA
1	F707326-BLK1	0.2633	23	1706929-09	0.2595	
2	F707326-BLK2	0.2578	24	1706929-10	0.2569	
3	F707326-BLK3	0.2636	25	1706930-01	0.2801	
4	F707326-BLK4	0.2556	26	1706930-02	0.2607	Comments
5	F707326-BLK5	0.2596	27	1706930-03	0.2508	BLK4: Pre BLK
6	F707326-BLK6	0.2624	28	1706930-06	0.2606	for 1706929
7	F707326-BLK7	0.2633	29	1706931-01	0.2908	BLK6: Post BLK
8	F707326-BS1	0.2728	30	1706931-02	0.2535	for 1706929
9	F707326-BSD1	0.2808	31	1706931-09	0.2711	BLK6: Pre BLK
10	F707326-DUP1	0.2571	32	1706931-10	0.2750	for 1706930, 931, 932
11	F707326-MS1	0.2943	33	1706932-06	0.2816	BLK7: Post BLK
12	F707326-MSD1	0.2878	34	1706932-07	0.2588	for 1706930, 931, 932
13	F707326-MS2	0.2667	35			DUP1/MS1/MSD1
14	F707326-MSD2	0.2763	36			Source: 1706930-01
15	1706929-01	0.2851	37			MS2/MSD2
16	1706929-02	0.2561	38			Source: 1706930-06
17	1706929-03	0.2745	39			Dup L SRC:
18	1706929-04	0.2981	40			1706929-05
19	1706929-05	0.2885	41			BS/BSD spike
20	1706929-06	0.2744	42			20ml of 1000 µg/mL
21	1706929-07	0.2718	43			1702555
22	1706929-08	0.2677	44			MS1 + MSD1 were spiked w/ 200 µg/mL digested 7/11/17

# Failing Data Report - 7G14008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706930-01	Hg-CVAFS-T-7030	64.1	0.714				ng/g						FAIL-OVER	PASS	E
F707326-DUP1	Hg-CVAFS-T-7030	79.93	0.778	49.71	49.71		ng/g				46.6	24.00	FAIL-OVER	FAIL-DUP	E, QR-07

Don Moxem      7/14/17  
 Analyst Reviewed By      Date

RLW      7/14/17  
 Peer Reviewed By      Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14009

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *PL* 7/14/17 Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14009-IBL1 ✓	QC	1			
7G14009-IBL2 ✓	QC	2			
7G14009-IBL3 ✓	QC	3			
7G14009-CAL1 ✓	QC	4	1702602	✓	
7G14009-CAL2 ✓	QC	5	1702603	✓	
7G14009-CAL3 ✓	QC	6	1702604	✓	
7G14009-CAL4 ✓	QC	7	1702605	✓	
7G14009-CAL5 ✓	QC	8	1702606	✓	
7G14009-ICV1 ✓	QC	9	1703679	✓	
F707251-BLK1 ✓	QC	10			
F707251-BLK2 ✓	QC	11			
F707251-BLK3 ✓	QC	12			
F707251-BS1 ✓	QC	13			
F707251-BSD1 ✓	QC	14			
1706563-01 ✓	Hg-CVAFS-S-SSE-F2	15			
1706563-04 ✓	Hg-CVAFS-S-SSE-F2	16			
1706563-05 ✓	Hg-CVAFS-S-SSE-F2	17			
1706564-01 ✓	Hg-CVAFS-S-SSE-F2	18			
1706564-05 ✓	Hg-CVAFS-S-SSE-F2	19			
7G14009-CCV1 ✓	QC	20	1703679	✓	
7G14009-CCB1 ✓	QC	21			
1706564-08 ✓	Hg-CVAFS-S-SSE-F2	22			
1706565-01 ✓	Hg-CVAFS-S-SSE-F2	23			
1706565-04 ✓	Hg-CVAFS-S-SSE-F2	24			
1706565-07 ✓	Hg-CVAFS-S-SSE-F2	25			
1706565-10 ✓	Hg-CVAFS-S-SSE-F2	26			
1706565-13 ✓	Hg-CVAFS-S-SSE-F2	27			
1706565-16 ✓	Hg-CVAFS-S-SSE-F2	28			
1706565-19 ✓	Hg-CVAFS-S-SSE-F2	29			
1706565-25 ✓	Hg-CVAFS-S-SSE-F2	30			
1706565-29 ✓	Hg-CVAFS-S-SSE-F2	31			
7G14009-CCV2 ✓	QC	32	1703679	✓	
7G14009-CCB2 ✓	QC	33			
1706565-30 ✓	Hg-CVAFS-S-SSE-F2	34			
1706565-31 ✓	Hg-CVAFS-S-SSE-F2	35			

## ANALYSIS SEQUENCE

7G14009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F707251-DUP1 ✓	QC	36			
F707251-DUP2 ✓	QC	37			
F707251-MS1 ✓	QC	38			
F707251-MSD1 ✓	QC	39			
F707251-MS2 ✓	QC	40			
F707251-MSD2 ✓	QC	41			
F707289-BLK1 ✓	QC	42			
F707289-BLK2 ✓	QC	43			
7G14009-CCV3 ✓	QC	44	1703679	✓	
7G14009-CCB3 ✓	QC	45			
F707289-BLK3 ✓	QC	46			
F707289-BS1 ✓	QC	47			
F707289-BSD1 ✓	QC	48			
1706565-17 ✓	Hg-CVAFS-S-SSE-F2	49			
1706565-18 ✓	Hg-CVAFS-S-SSE-F2	50			
1706565-20 ✓	Hg-CVAFS-S-SSE-F2	51			
1706565-21 ✓	Hg-CVAFS-S-SSE-F2	52			
1706565-22 ✓	Hg-CVAFS-S-SSE-F2	53			
1706565-23 ✓	Hg-CVAFS-S-SSE-F2	54			
1706565-24 ✓	Hg-CVAFS-S-SSE-F2	55			
7G14009-CCV4 ✓	QC	56	1703679	✓	
7G14009-CCB4 ✓	QC	57			
1706565-26 ✓	Hg-CVAFS-S-SSE-F2	58			
1706565-27 ✓	Hg-CVAFS-S-SSE-F2	59			
1706565-28 ✓	Hg-CVAFS-S-SSE-F2	60			
1706565-32 ✓	Hg-CVAFS-S-SSE-F2	61			
1706565-33 ✓	Hg-CVAFS-S-SSE-F2	62			
1706565-34 ✓	Hg-CVAFS-S-SSE-F2	63			
F707289-DUP1 ✓	QC	64			
F707289-MS1 ✓	QC	65			
F707289-MSD1 ✓	QC	66			
7G14009-CCV5 ✓	QC	67	1703679	✓	
7G14009-CCB5 ✓	QC	68			

Due Date: 7/18/2017





**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707251-BLK1	Blank	0.46	125					
F707251-BLK2	Blank	0.414	125					
F707251-BLK3	Blank	0.407	125					
F707251-BS1	LCS	0.016	5 ✓	1604715 ✓	100 ✓			
F707251-BSD1	LCS Dup	0.016 ✓	5 ✓	1604715	100			
F707251-DUP1	Duplicate [1706563-01] ✓	0.426	125					
F707251-DUP2	Duplicate [1706564-01] ✓	0.418	125					
F707251-MS1	Matrix Spike [1706563-01] ✓	0.0162	5	1702557 ✓	125 ✓			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL ✓
F707251-MS2	Matrix Spike [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD1	Matrix Spike Dup [1706563-01] ✓	0.0162	5	1702557	125			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD2	Matrix Spike Dup [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1702557	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-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
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703678	SSE pH2	17-Dec-17 00:00
1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704213	SSE pH2	08-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	QC	-	-	MS/MSD	
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	

**PREPARATION BENCH SHEET**

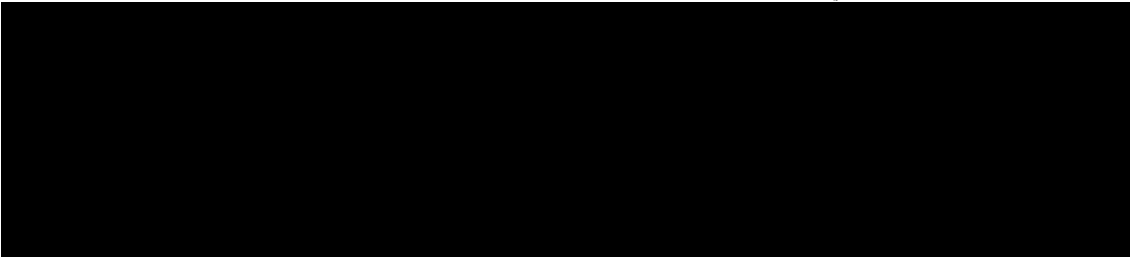
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**



**Due Date: 7/18/2017**

PREPARATION BENCH SHEET

2000-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707251-BLK1	Blank	0.46	125					10X ✓
F707251-BLK2	Blank	0.414	125					10X ✓
F707251-BLK3	Blank	0.407	125					10X ✓
F707251-BS1	LCS 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125	1604715	100			10X ✓
F707251-BSD1	LCS Dup 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125	1604715	100			10X ✓
F707251-DUP1	Duplicate [1706563-01]	0.426	125					10X ✓
F707251-DUP2	Duplicate [1706564-01]	0.418	125					10X ✓
F707251-MS1	Matrix Spike 1706563-01	0.4	125	1702557	125			10X ✓
F707251-MSD1	Matrix Spike Dup 1706563-01	0.4	125	1702557	125			10X ✓

<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
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

MS2, MSD2 - 10X ✓  
 1706564-01  
 125ul 1702557

1703376  
 1703377  
 1703132  
 1704096

Due Date: 7/18/2017

PREPARATION BENCH SHEET

2600-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	QC	-	-	MS/MSD	10X ✓
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		10X ✓
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		10X ✓
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	10X ✓
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		10X ✓
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		10X ✓
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		10X ✓
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		10X ✓
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		10X ✓
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		10X ✓
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		10X ✓
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		10X ✓
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X ✓
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X ✓
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X ✓

**PREPARATION BENCH SHEET**

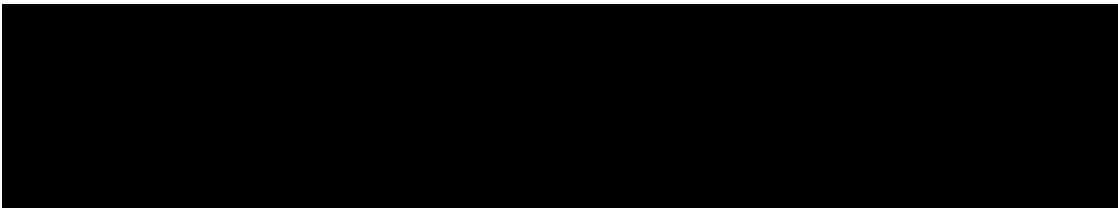
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/3/2017**



**Due Date: 7/18/2017**

Technician: W.F. Batch#: F707250(F<sub>1</sub>) 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub>  
 Balance#: 6 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser:  yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: \_\_\_\_\_ 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 70/30 LIMS ID: SSE #2: 1703672, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: KOH = 1703709, 1704329, 1704234 Dispenser #: \_\_\_\_\_  
 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 <sub>2</sub> O - 1605057
2	F707250 - BLU2	0.414	24			HgS - 1605058
3	F707250 - BLU3	0.407	25			Hg <sub>2</sub> Cl <sub>2</sub> - 1605056
4	1706563 - 01	0.405	26			
5	F707250 - DUP1	0.426	27			<b>Comments</b>
6	1706563 - 04	0.404	28			F707250 - DUP1 SOURCE = 1706563-04
7	1706563 - 05	0.427	29			F707250 - DUP2 SOURCE = 1706564-01
8	1706564 - 01	0.451	30			
9	F707250 - DUP2	0.418	31			F <sub>1</sub> = F707250 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
10	1706564 - 05	0.467	32			
11	1706564 - 08	0.413	33			
12	1706565 - 01	0.447	34			F <sub>2</sub> = F707251 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
13	1706565 - 04	0.422	35			
14	1706565 - 07	0.410	36			
15	1706565 - 10	0.416	37			F <sub>3</sub> = F707252 Brd: 1703700 Pipette: J07631 vol added: 10.0ml
16	1706565 - 13	0.450	38			
17	1706565 - 16	0.415	39			
18	1706565 - 19	0.410	40			F <sub>4</sub> = F707254 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
19	1706565 - 25	0.424	41			
20	1706565 - 29	0.442	42			
21	1706565 - 30	0.440	43			F <sub>5</sub> = F707254 Brd: 1703700 Pipette: J07631 vol added: 1.25ml
22	1706565 - 31	0.464	44			Brd: 1703700 Pipette: J07631 vol added: 1.25ml



**PREPARATION BENCH SHEET**

F707289

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707289-BLK1	Blank	0.46	125					
F707289-BLK2	Blank	0.414	125					
F707289-BLK3	Blank	0.407	125					
F707289-BS1	LCS	0.016	5	1604715	100			
F707289-BSD1	LCS Dup	0.016	5	1604715	100			
F707289-DUP1	Duplicate [1706565-22]	0.423	125					
F707289-MS1	Matrix Spike [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL
F707289-MSD1	Matrix Spike Dup [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL

<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	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	
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707289

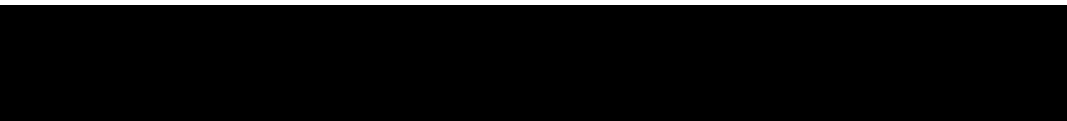
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	-	-	-		
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	



PREPARATION BENCH SHEET

2600.2  
7/13/17 DM

F707289

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707289-BLK1	Blank	0.46	125					10X ✓
F707289-BLK2	Blank	0.414	125					10X ✓
F707289-BLK3	Blank	0.407	125					10X ✓
F707289-BS1	LCS 0.010	0.4	5 125	1604715	100			10X ✓
F707289-BSD1	LCS Dup 0.010	0.4	5 125	1604715	100			10X ✓
F707289-DUP1	Duplicate [1706565-22]	0.423	125					10X ✓
F707289-MS1	Matrix Spike 1706565-22	0.4	125	1702556	50			10X ✓
F707289-MSD1	Matrix Spike Dup 1706565-22	0.4	125	1702556	50			10X ✓

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

1703376  
1703377  
1703182  
1704095

PREPARATION BENCH SHEET

2600.2  
7/13/17 DM

F707289

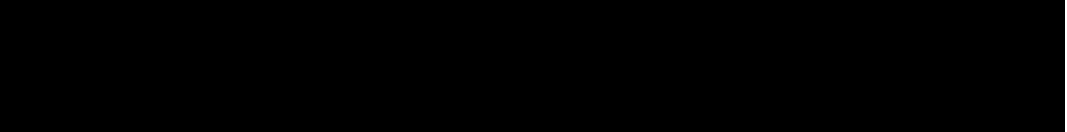
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	-	-	-		10X /
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		10X /
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		10X /
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		10X /
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	10X /
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		10X /
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		10X /
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		10X /
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		10X /
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		10X /
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X /
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X /
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X /



Technician: wf Batch#: F707288(F<sub>1</sub>) Date: 7/10/17 <sup>wf</sup>  
7/11/17 <sup>wf</sup>

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub> 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser: Yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: \_\_\_\_\_ 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_

70:30 LIMS ID: SSE #2: 1703678, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: 1703705, 1704239 Dispenser #: \_\_\_\_\_  
 wf 7/11/17 <sup>wf</sup> Glass Vial # 08306 Boiling Chip lot # 1702951 \*Hotblock Position: \_\_\_\_\_  
 wf 7/11/17 <sup>wf</sup> Cent. tubes

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	F707288 - Blk1	0.460	23			HgO = 1606057 HgS = 1605058 HgCl <sub>2</sub> = 1605056
2	F707288 - Blk2	0.414	24			
3	F707288 - Blk3	0.407	25			
4	1706565 - 17	0.405	26			<b>Comments</b>
5	F707288 - DUP1	0.423	27			F707288-DUP1 source = 1706565-22
6	1706565 - 18	0.406	28			F <sub>1</sub> = F707288 Brcl: 1703700 Pipette: J0H7631 vol added: 1.25 ml
7	1706565 - 20	0.423	29			
8	1706565 - 21	0.414	30			
9	1706565 - 22	0.404	31			F <sub>2</sub> = F707289 Brcl: 1703700 Pipette: J0H7631 vol added: 1.25 ml
10	1706565 - 23	0.452	32			
11	1706565 - 24	0.416	33			
12	1706565 - 3226	0.424	34			F <sub>3</sub> = F707290 Brcl: 1703700 Pipette: J0H7631 vol added: 1.00 ml
13	1706565 - 3327	0.410	35			
14	1706565 - 3428	0.403	36			
15	1706565 - 32	0.442	37			F <sub>4</sub> = F707291 Brcl: Pipette: vol added:
16	1706565 - 33	0.440	38			
17	1706565 - 34	0.464	39			
18			40			F <sub>5</sub> = F707292 5% brcl (2AS: 351 weight: BSP1 weight:
19			41			
20			42			
21			43			
22			44			

# Failing Data Report - 7G14009

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 Maxem  
Analyst Reviewed By

7/14/17  
Date

PML  
Peer Reviewed By

7/14/17  
Date

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> <i>DM 7/14/17</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	

• 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 type="checkbox"/> THg	EFSR-P-SP-SOP2796	BrCl Oxidation
<input type="checkbox"/> Hg0	NA	NA
<input type="checkbox"/> Inorg Hg	NA	NA

**Analyst Initials:** DM

**Reviewer Initials:** DM 7/14/17

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

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> 0 <i>R 7/14/18</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	0

**Analyst Initials** *DM*                      **Reviewer Initials** *R 7/14/18*

- 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: 1706930-01 HIGH SAMPLE. ABOVE CALS. F707326-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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> 0 <i>R 7/14/17</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	0

Analyst Initials DM                      Reviewer Initials R 7/14/17

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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>12/1/16, 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>5/9/17, 4/25/17</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, 4-25-17</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.**



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		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB					
Analyst	Type	LabNumber								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				Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB				Comments	
Instrument	Analyst	Type	LabNumber							Correction?	RESP	InitialResult	FinalResult		InitialUnits
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	EFG508029 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		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			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	45.61			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		x	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	

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	7/18/2017 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	



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: 280.6  
 Status: 1  
 R<sup>2</sup>: 1  
 Conc = (Area-24.98  
 Run Date: 7/18/2017  
 QC Warnings:14/QC  
 Run Time: 14:29:08  
 Blank SD: 4.302558763  
 Blank RSD%: 17.22104212  
 CF SD: 11.38728851  
 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			

*Bea Cing*      7/19/17  
 Samples Loaded By      Date

*Bea Cing*      7/19/17  
 Data Processed By      Date

*10ndag*  
*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>
1700685	THg 1,000ng/mL Primary Spiking Standard
1702555	THg 100ng/mL Primary Spiking Standard

<u>Expiration:</u>
31-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	
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**



**Due Date: 7/20/2017**

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

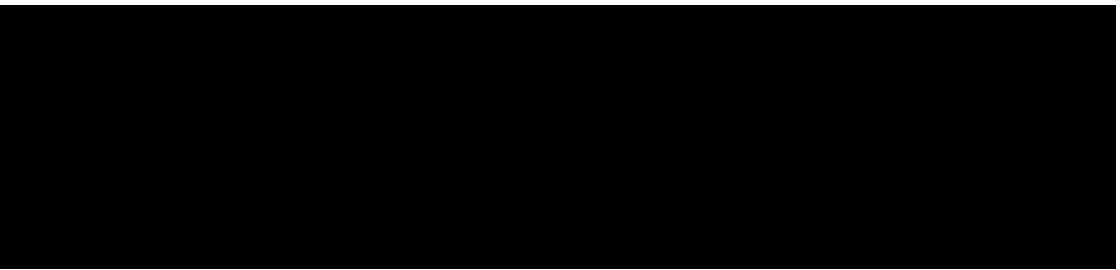
F707331

**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/CH<sub>2</sub>Cl<sub>2</sub>: 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  
 HNO<sub>3</sub> 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	<b>Comments</b>
5	F707331-BSD1	0.2578	27	1706298-04	0.2523	MS1/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:
19	1706939-13	0.1044	41			20ml of 100mg/mL
20	1706939-14	0.0764	42			1702555
21	1706939-15	0.0992	43			Reagent added by AMB (70:30) 7-12-17
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 <sub>2</sub> 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

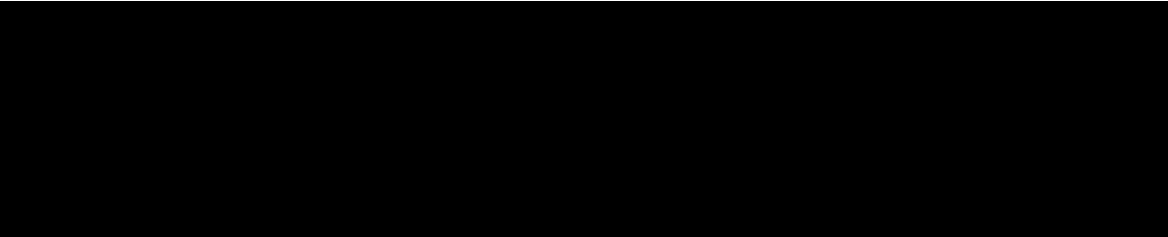
Eurofins Frontier Global Sciences, Inc.

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	-	-	-		



2600.2  
 BY 7/19/17

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-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	-	-	-		

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 26*  
*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

147 of 343

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			

*Ben King* 7/19/17  
 Samples Loaded By                      Date

*Ben King* 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**

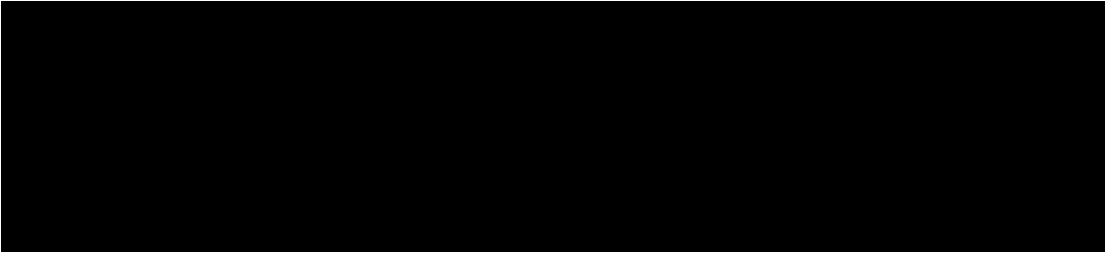
F707254

**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	<del>1702557</del>	50			20X
F707254-MSD1	Matrix Spike Dup 1706563-01 RE1	0.4	40	<del>1702556</del>	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	-	-	-	<del>50X</del> 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	-	-	-	<del>20X</del> 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	<del>5000X</del> 50000X
1706565-31	Hg2Cl2 for First SSE Batch	0.464	40	-	-	-	These are CRMs, Not used in F0 analys	5000X

**PREPARATION BENCH SHEET**

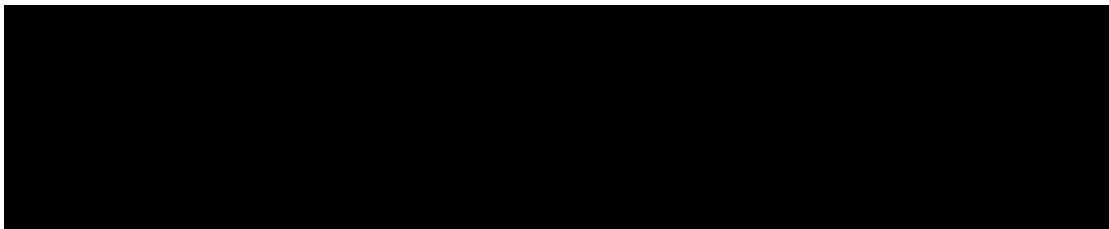
F707254

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 7/3/2017**



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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub> 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  
 HNO<sub>3</sub> 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: Yes  
 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 <sub>2</sub> 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 <sub>1</sub> = 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 <sub>2</sub> = 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 <sub>3</sub> = 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 <sub>4</sub> = 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

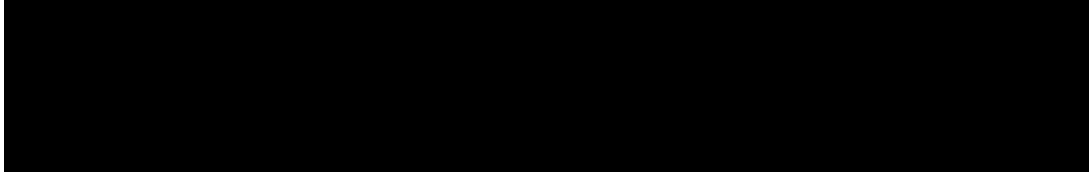
Eurofins Frontier Global Sciences, Inc.

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(F<sub>1</sub>)

Date: 7/10/17 <sup>wf</sup>  
7/11/17 <sup>wf</sup>

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>/F<sub>2</sub>/F<sub>3</sub>/F<sub>4</sub>/F<sub>5</sub> 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

HNO<sub>3</sub> LIMS ID: 1703832 <sup>1703832</sup> 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: \_\_\_\_\_

wf  
w/ F1117  
Cent tubes

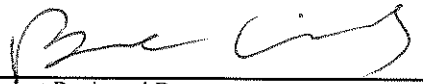
Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F707288 - Blk1	0.460	23			H <sub>2</sub> O = 1606057 HgS = 1605058 HgCl <sub>2</sub> = 1605056
2	F707288 - Blk2	0.414	24			
3	F707288 - Blk3	0.407	25			
4	1706565 - 17	0.405	26			<b>Comments</b> F707288-Dup1 source = 1706565-22 F <sub>1</sub> = F707288 BrCl: 1703700 Pipette: J0H7631 vol added: 1.25 ml F <sub>2</sub> = F707289 BrCl: 1703700 Pipette: J0H7631 vol added: 1.25 ml F <sub>3</sub> = F707290 BrCl: 1703700 Pipette: J0H7631 vol added: 1.00 ml F <sub>4</sub> = F707291 BrCl: 1703700 Pipette: J0H7631 vol added: 2.5 ml F <sub>5</sub> = F707292 5% BrCl LIMS: 1704273 1351 weight: 0.4083 BSM weight: 0.4181
5	F707288 - Dup1	0.423	27			
6	1706565 - 18	0.406	28			
7	1706565 - 20	0.423	29			
8	1706565 - 21	0.414	30			
9	1706565 - 22	0.404	31			
10	1706565 - 23	0.452	32			
11	1706565 - 24	0.416	33			
12	1706565 - 3226	0.424	34			
13	1706565 - 3327	0.410	35			
14	1706565 - 3428	0.403	36			
15	1706565 - 32	0.442	37			
16	1706565 - 33	0.440	38			
17	1706565 - 34	0.464	39			
18			40			
19			41			
20			42			
21			43			
22			44			


wf  
w/ F1117  
Cent tubes

wf  
7/10/17

**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 ✓


  
 Analyst Reviewed By \_\_\_\_\_ Date 7/19/17


  
 Peer Reviewed By \_\_\_\_\_ Date 7/19/17
  
2 7/19/17

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

<b>Analyst:</b> <u>BC</u>	<b>Sequence(s) #:</b> <u>7G19019, 7G19020</u>
<b>Reviewer:</b> <u>PC 7/19/18</u>	<b>Dataset ID(s):</b> <u>THg26002-170718-1</u>
<b>Date:</b> <u>7/19/2017</u>	<b>WO (s) #:</b> <u>Various</u>
<b>Batch #(s):</b> <u>F707331, F707326, F707254, F707292</u>	

• Select the correct preparation method.

Analyte	Prep Method	FSTM Trap	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	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 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:** PC 7/19/18

- |  |   |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |
|--|---|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|---|-----------------------------|-------------------------------------|
| <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?<br/>Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1</p> <p style="margin-left:20px;">(b) Check 5% of transcription from Instrument print-out and Excel file<br/>Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel</p> <p style="margin-left:20px;">(c) Check standards &amp; reagents in sequence &amp; bench sheet for correct usage (expiries).</p> <p style="margin-left:20px;">(d) Check and compare masses (review prep benchsheet)</p> <p style="margin-left:20px;">(e) Check &amp; compare initial &amp; final volumes</p> <p style="margin-left:20px;">(f) Do aliquots and dilutions written on benchsheet match those in Excel?<br/>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> | <table style="width:100%; border-collapse: collapse;"> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input type="checkbox"/> NO</td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/> YES</td> <td><input 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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"/> 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"/> 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"/> 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"/>     |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |   |                             |                                     |

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

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 7G19019, 7G19020
<b>Reviewer:</b> 0 <i>R 7/19/17</i>	<b>Dataset ID(s):</b> THg26002-170718-1
<b>Date:</b> 7/19/2017	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> 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)**

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	7G19019, 7G19020
<b>Reviewer:</b>	0 <i>A 7/19/17</i>	<b>Dataset ID(s):</b>	THg26002-170718-1
<b>Date:</b>	7/19/2017	<b>WO (s) #:</b>	Various
<b>Batch #(s):</b>	F707331, F707326, F707254, F707292		0

Analyst Initials BC                      Reviewer Initials A 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.**



**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>BC 7/19/17</i>	Dataset ID(s):	THg26002-170718-1
Date:	7/19/2017	WO (s) #:	Various
Batch #(s):	F707331, F707326, F707254, F707292		0

*BC*

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES



Frontier Global Sciences

# MHg27001-170725-1

## Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: July 25, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G26011

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	22.57 units	451.31	22.57 units	451.31	97.6 %Rec
SEQ-CAL2	1	0.20 ng/L	89.47 units	447.36	89.47 units	447.36	96.7 %Rec
SEQ-CAL3	1	1.00 ng/L	467.12 units	467.12	467.12 units	467.12	101.0 %Rec
SEQ-CAL4	1	2.00 ng/L	958.18 units	479.09	958.18 units	479.09	103.6 %Rec
SEQ-CAL5	1	4.00 ng/L	1870.01 units	467.50	1870.01 units	467.50	101.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>
462.48	+/- 13.00	2.8% RSD	462.48

### 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	0.289 ng/L	±0.500
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: RL 7/27/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	CAL	SEQ-1BL1	1	7/25/17 8:46	24184-1.RAW	8:46:28	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	7/25/17 8:56	24185-1.RAW	8:56:59	22.57				22.6	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	7/25/17 9:07	24186-1.RAW	9:07:30	89.47				89.5	0.193	0.193	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	7/25/17 9:18	24187-1.RAW	9:18:00	467.12				467.1	1.010	1.010	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	7/25/17 9:28	24188-1.RAW	9:28:31	958.18				958.2	2.072	2.072	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	7/25/17 9:39	24189-1.RAW	9:39:01	1870.01				1870.0	4.043	4.043	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CV1	1	7/25/17 9:49	24190-1.RAW	9:49:32	205.83				205.8	0.445	0.445	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	7/25/17 10:00	24191-1.RAW	10:00:03	2.63				2.6	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK1	500	7/25/17 10:10	24192-1.RAW	10:10:33	0.80	1			0.8	0.002	0.867	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK2	500	7/25/17 10:21	24193-1.RAW	10:21:04	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707393-BLK3	500	7/25/17 10:31	24194-1.RAW	10:31:35	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707393-BLK4	500	7/25/17 10:42	24195-1.RAW	10:42:05	0.00	1			0.0	-0.001	-0.289	ng/L	
Hg2700-1	DM2	SAM	*F707393-BLK5	500	7/25/17 10:52	24196-1.RAW	10:52:36	0.00	1			0.0	-0.001	-0.289	ng/L	
Hg2700-1	DM2	SAM	1706929-01	1000	7/25/17 11:03	24197-1.RAW	11:03:07	13.74	1			13.7	0.029	29.430	ng/L	
Hg2700-1	DM2	SAM	1706929-07	1000	7/25/17 11:13	24198-1.RAW	11:13:37	2162.25	1			2162.3	4.675	4675.096	ng/L	
Hg2700-1	DM2	SAM	1706930-01	1000	7/25/17 11:24	24199-1.RAW	11:24:08	356.98	1			357.0	0.772	771.590	ng/L	
Hg2700-1	DM2	SAM	F707393-BS1	1000	7/25/17 11:34	24200-1.RAW	11:34:39	837.85	1			837.9	1.811	1811.381	ng/L	
Hg2700-1	DM2	SAM	F707393-BSD1	1000	7/25/17 11:45	24201-1.RAW	11:45:10	844.60	1			844.6	1.826	1825.966	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	7/25/17 11:55	24202-1.RAW	11:55:40	199.56				199.6	0.432	0.432	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	7/25/17 12:06	24203-1.RAW	12:06:11	0.81				0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1706929-02	500	7/25/17 12:48	24204-2.RAW	12:48:16	491.73	1			491.7	1.063	531.340	ng/L	
Hg2700-1	DM2	SAM	1706929-03	500	7/25/17 12:58	24205-1.RAW	12:58:47	41.20	1			41.2	0.089	44.251	ng/L	
Hg2700-1	DM2	SAM	1706929-04	500	7/25/17 13:09	24206-1.RAW	13:09:18	63.10	1			63.1	0.136	67.927	ng/L	
Hg2700-1	DM2	SAM	1706929-05	500	7/25/17 13:19	24207-1.RAW	13:19:48	549.10	1			549.1	1.187	593.369	ng/L	
Hg2700-1	DM2	SAM	1706929-06	2500	7/25/17 13:30	24208-1.RAW	13:30:19	760.91	1			760.9	1.645	4112.936	ng/L	
Hg2700-1	DM2	SAM	1706929-08	2500	7/25/17 13:40	24209-1.RAW	13:40:50	788.89	1			788.9	1.706	4264.223	ng/L	
Hg2700-1	DM2	SAM	1706929-09	2500	7/25/17 13:51	24210-1.RAW	13:51:20	843.10	1			843.1	1.823	4557.245	ng/L	
Hg2700-1	DM2	SAM	1706929-10	2500	7/25/17 14:22	24211-2.RAW	14:22:52	646.45	1			646.5	1.398	3494.225	ng/L	
Hg2700-1	DM2	SAM	1706930-02	500	7/25/17 14:33	24212-1.RAW	14:33:23	88.16	1			88.2	0.190	95.020	ng/L	
Hg2700-1	DM2	SAM	1706930-03	500	7/25/17 14:43	24213-1.RAW	14:43:54	254.82	1			254.8	0.550	275.210	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	7/25/17 14:54	24214-1.RAW	14:54:24	196.35				196.3	0.425	0.425	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	7/25/17 15:04	24215-1.RAW	15:04:55	1.86				1.9	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	1706930-04	500	7/25/17 15:15	24216-1.RAW	15:15:26	28.90	1			28.9	0.062	30.959	ng/L	
Hg2700-1	DM2	SAM	1706930-05	500	7/25/17 15:25	24217-1.RAW	15:25:56	260.21	1			260.2	0.562	281.034	ng/L	
Hg2700-1	DM2	SAM	1706930-06	2500	7/25/17 15:36	24218-1.RAW	15:36:27	769.20	1			769.2	1.663	4157.765	ng/L	
Hg2700-1	DM2	SAM	1706930-07	2500	7/25/17 15:46	24219-1.RAW	15:46:58	1313.77	1			1313.8	2.841	7101.555	ng/L	
Hg2700-1	DM2	SAM	1706931-01	500	7/25/17 15:57	24220-1.RAW	15:57:29	38.15	1			38.2	0.082	40.960	ng/L	
Hg2700-1	DM2	SAM	1706931-02	500	7/25/17 16:07	24221-1.RAW	16:07:59	358.59	1			358.6	0.775	387.391	ng/L	
Hg2700-1	DM2	SAM	1706931-03	500	7/25/17 16:18	24222-1.RAW	16:18:30	368.92	1			368.9	0.797	398.569	ng/L	
Hg2700-1	DM2	SAM	F707393-DUP1	500	7/25/17 16:29	24223-1.RAW	16:29:01	720.34	1			720.3	1.557	778.497	ng/L	
Hg2700-1	DM2	SAM	F707393-MS1	1000	7/25/17 16:39	24224-1.RAW	16:39:31	608.50	1			608.5	1.315	1315.463	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD1	1000	7/25/17 16:50	24225-1.RAW	16:50:02	735.95	1			735.9	1.591	1591.035	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	7/25/17 17:00	24226-1.RAW	17:00:33	202.57				202.6	0.438	0.438	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	7/25/17 17:11	24227-1.RAW	17:11:03	2.27				2.3	0.005	0.005	ng/L	
Hg2700-1	DM2	SAM	F707393-MS2	2500	7/25/17 17:21	24228-1.RAW	17:21:34	767.83	1			767.8	1.660	4150.353	ng/L	
Hg2700-1	DM2	SAM	F707393-MSD2	2500	7/25/17 17:32	24229-1.RAW	17:32:05	823.30	1			823.3	1.780	4450.217	ng/L	

MethyMercury Operat DM BlankSub: Calib Eqn: Run Date: 7/25/2017 Blank SD:  
 EPA1630 Workst1 MHHQ2: CalibFactor: Status: Calblank error: Zero Pe Run Time: 0:00:00 Blank RSD%:  
 Methoc 2010-01 R: R\*: CalibAnalyte: CF SD:  
 Descri: MHHQ27001-170725-1 CF RSD%:

Sample/ID	Locatior	Rinse	Dilute	Blank	ConcHQ0(p)	ConcMeHg	ConcHQ2(p)	ConcPmHg	Rec%	RawData	RunEnd	PeakHQ0 (Raw)	PeakMeHg (R)	PeakHQ2 (Raw)	PeakPmHg (Raw)	Control (set)	Flags	RunCount
Clean										24182-1.RAW	8:29:26	0.00				cleantry	NP	1
WS	A1									24183-1.RAW	8:35:57	16.23	0.00	2.73		0.00 psample10	OK	1
SEQ-1BL1	A2		1							24184-1.RAW	8:46:28	11.17	0.00	3.26		0.00 psample10	CT	1
SEQ-CAL1	A3		1							24185-1.RAW	8:56:59	9.42	22.57	3.07		0.00 psample10	OK	1
SEQ-CAL2	A4		1							24186-1.RAW	9:07:30	10.39	89.47	4.72		0.00 psample10	OK	1
SEQ-CAL3	A5		1							24187-1.RAW	9:18:00	13.39	467.12	30.49		0.00 psample10	OK	1
SEQ-CAL4	A6		1							24188-1.RAW	9:28:31	13.44	958.18	62.84		0.00 psample10	CT	1
SEQ-CAL5	A7		1							24189-1.RAW	9:39:01	18.78	1870.01	130.60		0.00 psample10	CT	1
SEQ-ICV1	A8		1							24190-1.RAW	9:49:32	12.12	205.83	5.50		0.00 psample10	CT	1
SEQ-ICB1	A9		1							24191-1.RAW	10:00:03	10.26	2.63	1.52		0.00 psample10	CT	1
F707393-BLK1	A10		500							24192-1.RAW	10:10:33	9.63	0.80	5.60		0.00 psample10	OK	1
F707393-BLK2	A11		500							24193-1.RAW	10:21:04	11.75	0.00	3.76		0.00 psample10	OK	1
F707393-BLK3	A12		500							24194-1.RAW	10:31:35	9.88	0.00	5.13		0.00 psample10	CT	1
*F707393-BLK4	A13		500							24195-1.RAW	10:42:05	9.22	0.00	7.05		0.00 psample10	CT	1
*F707393-BLK5	A14		500							24196-1.RAW	10:52:36	8.33	0.00	5.05		0.00 psample10	OK	1
1706929-01	A15		1000							24197-1.RAW	11:03:07	8.55	13.74	17.61		0.00 psample10	OK	1
1706929-07	A16		1000							24198-1.RAW	11:13:37	13.33	2162.25	88.85		0.00 psample10	CT	1
1706930-01	A17		1000							24199-1.RAW	11:24:08	12.12	356.98	34.07		0.00 psample10	OK	1
F707393-BS1	A18		1000							24200-1.RAW	11:34:39	12.38	837.85	120.50		0.00 psample10	CT	1
F707393-BSD1	A19		1000							24201-1.RAW	11:45:10	12.18	844.60	123.22		0.00 psample10	CT	1
SEQ-CCV1	A20		1							24202-1.RAW	11:55:40	12.19	199.56	4.18		0.00 psample10	CT	1
SEQ-CCB1	A21		1							24203-1.RAW	12:06:11	9.01	0.81	2.79		0.00 psample10	OK	1
1706929-02	B1		500							24204-2.RAW	12:48:16	12.37	491.73	45.24		0.00 psample10	OK	1
1706929-03	B2		500							24205-1.RAW	12:58:47	11.05	41.20	18.77		0.00 psample10	CT	1
1706929-04	B3		500							24206-1.RAW	13:08:18	10.32	63.10	16.81		0.00 psample10	CT	1
1706929-05	B4		500							24207-1.RAW	13:19:48	10.18	549.10	13.98		0.00 psample10	CT	1
1706929-06	B5		2500							24208-1.RAW	13:30:19	12.66	760.91	28.24		0.00 psample10	CT	1
1706929-08	B6		2500							24209-1.RAW	13:40:50	10.04	788.89	23.58		0.00 psample10	OK	1
1706929-09	B7		2500							24210-1.RAW	13:51:20	11.65	843.10	30.37		0.00 psample10	CT	1
1706929-10	B8		2500							24211-2.RAW		11.81	646.45	20.08		0.00 psample10	CT	1
1706930-02	B9		500							24212-1.RAW		13.35	88.16	14.99		0.00 psample10	OK	1
1706930-03	B10		500							24213-1.RAW		12.79	254.82	20.67		0.00 psample10	CT	1
SEQ-CCV2	B11		1							24214-1.RAW		9.21	196.35	2.33		0.00 psample10	OK	1
SEQ-CCB2	B12		1							24215-1.RAW		11.25	1.86	4.25		0.00 psample10	CT	1
1706930-04	B13		500							24216-1.RAW		5.31	28.90	14.37		0.00 psample10	OK	1
1706930-05	B14		500							24217-1.RAW		12.37	260.21	19.99		0.00 psample10	CT	1
1706930-06	B15		2500							24218-1.RAW		11.54	769.20	27.39		0.00 psample10	CT	1
1706930-07	B16		2500							24219-1.RAW		12.02	1313.77	59.69		0.00 psample10	OK	1
1706931-01	B17		500							24220-1.RAW		10.43	38.15	12.96		0.00 psample10	CT	1
1706931-02	B18		500							24221-1.RAW		8.83	358.59	18.32		0.00 psample10	OK	1
1706931-03	B19		500							24222-1.RAW		11.17	368.92	15.20		0.00 psample10	CT	1
F707393-DUP1	B20		500							24223-1.RAW		9.84	720.34	16.37		0.00 psample10	OK	1
F707393-MS1	B21		1000							24224-1.RAW		9.77	608.50	42.28		0.00 psample10	CT	1
F707393-MSD1	C1		1000							24225-1.RAW		10.46	735.95	42.09		0.00 psample10	OK	1
SEQ-CCV3	C2		1							24226-1.RAW		10.02	202.57	3.47		0.00 psample10	OK	1
SEQ-CCB3	C3		1							24227-1.RAW		9.62	2.27	3.00		0.00 psample10	CT	1
F707393-MS2	C4		2500							24228-1.RAW		12.09	767.83	23.31		0.00 psample10	CT	1
F707393-MSD2	C5		2500							24229-1.RAW		11.24	823.30	26.84		0.00 psample10	OK	1
1706929-01RE1	C6		500													psample10		
1706929-07RE1	C7		2500															
1706930-01RE1	C8		1000															
F707394-BLK1	C9		500															
F707394-BLK2	C10		500															
F707394-BLK3	C11		500															
*F707394-BLK4	C12		500															
*F707394-BLK5	C13		500															
SEQ-CCV4	C14		1															
SEQ-CCB4	C15		1															
*F707394-BLK6	C16		500															
*F707394-BLK7	C17		500															
F707394-BS1	C18		1000															
F707394-BSD1	C19		1000															
F707394-DUP1	C20		500															
F707394-MS1	C21		500															
F707394-MSD1	A1		500															
F707394-MS2	A2		500															
F707394-MSD2	A3		500															
1706931-04	A4		500															
SEQ-CCV5	A5		1															
SEQ-CCB5	A6		1															
1706931-05	A7		500															
1706931-06	A8		2500															
1706931-07	A9		2500															
1706931-08	A10		2500															

analytical run/instrument  
 Stopped communication 7/23/17

1706931-09	A11	2500
1706931-10	A12	2500
1706932-01	A13	500
1706932-02	A14	500
1706932-03	A15	500
1706932-04	A16	500
SEQ-CCV6	A17	1
SEQ-CCB6	A18	1
1706932-05	A19	500
1706932-06	A20	2500
1706932-07	A21	2500
1706932-08	B1	2500
1706932-09	B2	2500
1706932-10	B3	2500
1707444-01	B4	2500
SEQ-CCV7	B5	1
SEQ-CCB7	B6	1

} - analytical run/instrument  
Stopped communication at 17:10

## ANALYSIS SEQUENCE

7G26011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/25/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G26011-IBL1	QC	1			
7G26011-CAL1	QC	2	1704180		
7G26011-CAL2	QC	3	1704181		
7G26011-CAL3	QC	4	1704182		
7G26011-CAL4	QC	5	1704183		
7G26011-CAL5	QC	6	1704184		
7G26011-ICV1	QC	7	1703246		
7G26011-ICB1	QC	8			
F707393-BLK1	QC	9			
F707393-BLK2	QC	10			
F707393-BLK3	QC	11			
F707393-BLK4	QC	12			
F707393-BLK5	QC	13			
1706929-01	MHg-CVAFS-T-KOH	14			Hold prep/analysis until Hg is complete
1706929-07	MHg-CVAFS-T-KOH	15			Hold prep/analysis until Hg is complete
1706930-01	MHg-CVAFS-T-KOH	16			Hold prep/analysis until Hg is complete
F707393-BS1	QC	17			
F707393-BSD1	QC	18			
7G26011-CCV1	QC	19	1703246		
7G26011-CCB1	QC	20			
1706929-02	MHg-CVAFS-T-KOH	21			Hold prep/analysis until Hg is complete
1706929-03	MHg-CVAFS-T-KOH	22			Hold prep/analysis until Hg is complete
1706929-04	MHg-CVAFS-T-KOH	23			Hold prep/analysis until Hg is complete
1706929-05	MHg-CVAFS-T-KOH	24			Hold prep/analysis until Hg is complete
1706929-06	MHg-CVAFS-T-KOH	25			Hold prep/analysis until Hg is complete
1706929-08	MHg-CVAFS-T-KOH	26			Hold prep/analysis until Hg is complete
1706929-09	MHg-CVAFS-T-KOH	27			Hold prep/analysis until Hg is complete
1706929-10	MHg-CVAFS-T-KOH	28			Hold prep/analysis until Hg is complete
1706930-02	MHg-CVAFS-T-KOH	29			Hold prep/analysis until Hg is complete
1706930-03	MHg-CVAFS-T-KOH	30			Hold prep/analysis until Hg is complete
7G26011-CCV2	QC	31	1703246		
7G26011-CCB2	QC	32			
1706930-04	MHg-CVAFS-T-KOH	33			Hold prep/analysis until Hg is complete
1706930-05	MHg-CVAFS-T-KOH	34			Hold prep/analysis until Hg is complete
1706930-06	MHg-CVAFS-T-KOH	35			Hold prep/analysis until Hg is complete

Due Date: 7/31/2017

170 of 343

Page 1 of 2

**ANALYSIS SEQUENCE**

**7G26011**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/25/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706930-07 ✓	MHg-CVAFS-T-KOH	36			Hold prep/analysis until Hg is complete
1706931-01 ✓	MHg-CVAFS-T-KOH	37			Hold prep/analysis until Hg is complete
1706931-02 ✓	MHg-CVAFS-T-KOH	38			Hold prep/analysis until Hg is complete
1706931-03 ✓	MHg-CVAFS-T-KOH	39			Hold prep/analysis until Hg is complete
F707393-DUP1 ✓	QC	40			
F707393-MS1 ✓	QC	41			
F707393-MSD1 ✓	QC	42			
7G26011-CCV3 ✓	QC	43	1703246		
7G26011-CCB3 ✓	QC	44			
F707393-MS2 ✓	QC	45			
F707393-MSD2 ✓	QC	46			

Don Maerem      7/25/17  
 Samples Loaded By      Date

Don Maerem      7/20/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					
F707393-BLK2	Blank	0.5	20					
F707393-BLK3	Blank	0.5	20					
F707393-BLK4	Blank	0.3356	20					
F707393-BLK5	Blank	0.3691	20					
F707393-BS1	DORM-4	0.1253	20	1703305	125			
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	125			
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					
F707393-MS1	Matrix Spike [1706930-01]	0.2637	20	1605978	100			
F707393-MS2	Matrix Spike [1706930-06]	0.2659	20	1605978	100			
F707393-MSD1	Matrix Spike Dup [1706930-01]	0.2631	20	1605978	100			
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00



**PREPARATION BENCH SHEET**

F707393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707393

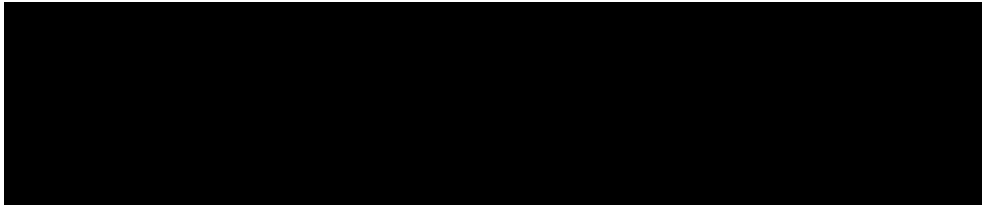
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete
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PREPARATION BENCH SHEET

2700-1  
7/25/17 DM

F707393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707393-BLK1	Blank	0.5	20					500x
F707393-BLK2	Blank	0.5	20					500x
F707393-BLK3	Blank	0.5	20					500x
F707393-BLK4	Blank	0.3356	20					500x
F707393-BLK5	Blank	0.3691	20					500x
F707393-BS1	DORM-4	0.1253	20	1703305	1253			1000x
F707393-BSD1	DORM-4 Dup	0.1252	20	1703305	1252			1000x
F707393-DUP1	Duplicate [1706929-05]	0.2795	20					500x
F707393-MS1	Matrix Spike [1706930-01] <del>BE1</del>	0.2637	20	1605978	100			1000x
F707393-MS2	Matrix Spike [1706930-06] <del>BE1</del> <i>on 7-2-17</i>	0.2659	20	1605978	100			2500x
F707393-MSD1	Matrix Spike Dup [1706930-01] <del>BE1</del>	0.2631	20	1605978	100			1000x
F707393-MSD2	Matrix Spike Dup [1706930-06]	0.2699	20	1605978	100			2500x

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833

Description:  
Boiling Chips for AFS prep  
Methanol, HPLC Grade  
25% KOH/Methanol

Expiration:  
31-Dec-17 00:00  
28-Apr-20 00:00  
05-Nov-17 00:00

1703704

1703755

PREPARATION BENCH SHEET

F707393

Eurofins Frontier Global Sciences, Inc.

2700-1  
7/25/17 DM

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

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	0.2718	20	-	-	-	Hold prep/analysis until Hg is complete	1000X → 500X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2709	20	-	-	-	Hold prep/analysis until Hg is complete	500X DM 7-26-17
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.275	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2786	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2853	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2907	20	-	-	-	Hold prep/analysis until Hg is complete	1000X → 2500X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2589	20	-	-	-	Hold prep/analysis until Hg is complete	2500X DM 7-26-17
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2819	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2578	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	1000X → 1000X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2766	20	-	-	-	Hold prep/analysis until Hg is complete	500X DM 7/26/17
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2561	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-04	MMSE-1_17BN001_062117_TIN_04_WB	0.288	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-05	MMSE-1_17BN003_062117_TIN_05_WB	0.2657	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2812	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	2500X
1706930-07	MMSE-1_17PT002_062117_SPI_02_WB	0.2781	20	-	-	-	Hold prep/analysis until Hg is complete	2500X
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2827	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2863	20	-	-	-	Hold prep/analysis until Hg is complete	500X

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2700-1  
7/25/17 DM

F707393

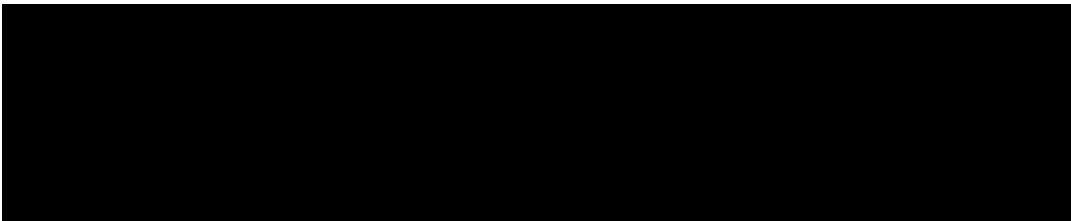
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

1706931-03	MMSW-C_17BN002_062317_TIN_03_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	500x
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Technician: Duyun Batch#: F707393 Date: 7-19-17 ~~7-14-17~~ ~~7-19-17 08~~

- 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/CH<sub>2</sub>Cl<sub>2</sub>: **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: 10:50 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C

Time out: 14:00 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C

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

Final vol.: 20 mL (LIMS ID: 1702696) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: DM 7/19/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NW09653 Calibration Date: 7/13/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NW01152 Calibration Date: 7/14/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1702833 Dispenser #: N/A  
 Glass Vial # 190067065 Boiling Chip lot # 1702551 \*Hotblock Position: E, 2

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	F707393 Blk1	0.3190	23	1706930-01	0.2578	BS1 BS01
2	F707393 Blk2	0.2495	24	1706930-02	0.2766	DORM-4
3	F707393 Blk3	0.3105	25	1706930-03	0.2561	1703305
4	F707393 Blk4	0.3356	26	1706930-04	0.2880	Comments
5	F707393 Blk5	0.3691	27	1706930-05	0.2657	F707393
6	F707393 BS1	0.1253	28	1706930-06	0.2812	Dupl 7/14/17 -05 17076929-05
7	F707393 BS01	0.1252	29	1706930-07	0.2781	MS1 MS01 DUP-1417
8	F707393 Dupl	0.2795	30	1706931-01	0.2827	17076930-01
9	F707393 MS1	0.2637	31	1706931-02	0.2863	MS2 MS02
10	F707393 MS01	0.2631	32	1706931-03	0.2810	1706930-06
11	F707393 MS2	0.2659	33	1706929-06A	0.2863	1706929-06A
12	F707393 MS02	0.2699	34			1706929-06B 0.2750(8) 03
13	1706929-01	0.2718	35			ALL samples weight on 7/14/17
14	1706929-02	0.2709	36			Digestion sample on 7/19/17 08
15	<del>1706929-03</del>	0.2750	37			7-19-17 08
16	1706929-04	0.2786	38			
17	1706929-05	0.2853	39			
18	<del>1706929-06</del>	0.2795	40			
19	1706929-07	0.2907	41			
20	1706929-08	0.2589	42			
21	1706929-09	0.2819	43			
22	1706929-10	0.2632	44			

**Failing Data Report - 7G26011**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706929-07	MHg-CVAFS-T-KOH	322	3.4				ng/g						FAIL-OVER	PASS	E
F707393-MSD1	MHg-CVAFS-T-KOH	120.9	3.8	99.8	59.9	38.046	ng/g	161	65.00	130.00	41.7	35.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM.02, QR.08
F707393-MS2	MHg-CVAFS-T-KOH	312.2	9.4		295.7	37.646	ng/g	43.7	65.00	130.00			PASS-OVER	FAIL-MS	System Stopped
F707393-MSD2	MHg-CVAFS-T-KOH	329.8	9.3	312.2	295.7	37.088	ng/g	91.8	65.00	130.00	71.0	35.00	PASS-OVER	FAIL-MSD (RPD)	System Stopped

Don M. [Signature]      7/26/17  
 Analyst Reviewed By      Date

[Signature]      7/27/17  
 Peer Reviewed By      Date

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> <u>PC 2/23/17</u>	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> <u>7-26-17</u>	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

• 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:**

PC 2/23/17

- |   |  |  |   |
|---|--|--|---|
| 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 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 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"/>     |
| <b>QA/QC Data Checked</b>   |  |  |   |
| 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: _____   |  |  |   |



**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> 0 PL 7/27/17	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> 7/26/2017	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

**Analyst Initials:**

DM

**Reviewer Initials:**

PL 7/27/17

- |  |  |  |   |
|--|--|--|---|
| 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 type="checkbox"/> PASS            | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MSD1, MSD2 FAILED. HIGH RPD</b>   |  |  |   |
| 22. MS (AS) % Recoveries (65-130%)   | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MS2 FAILED. LOW RECOVERY</b>  |  |  |   |
| 23. MSD (ASD) % Recoveries (65-130%)   | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707393-MSD1 FAILED. HIGH RECOVERY</b>  |  |  |   |
| 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: <b>1706929-07 OFF SCALE. ABOVE CAL5</b>  |  |  |   |
| 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)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G26011
<b>Reviewer:</b> 0 PL 7/27/17	<b>Dataset ID #:</b> MMHg27001-170725-1
<b>Date:</b> 7/26/2017	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F707393	<b>Client(s):</b> [REDACTED]

**Analyst Initials:**

DM

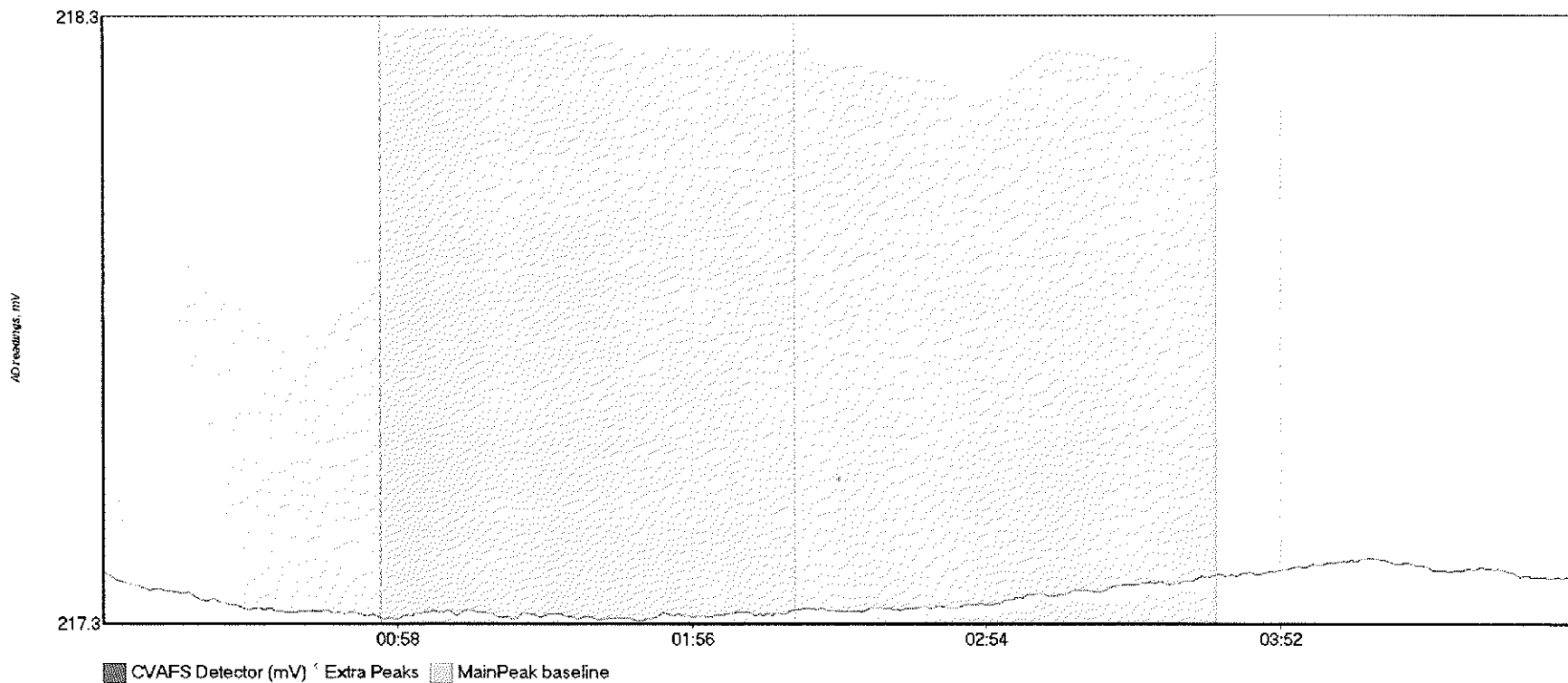
**Reviewer Initials:**

PL 7/27/17

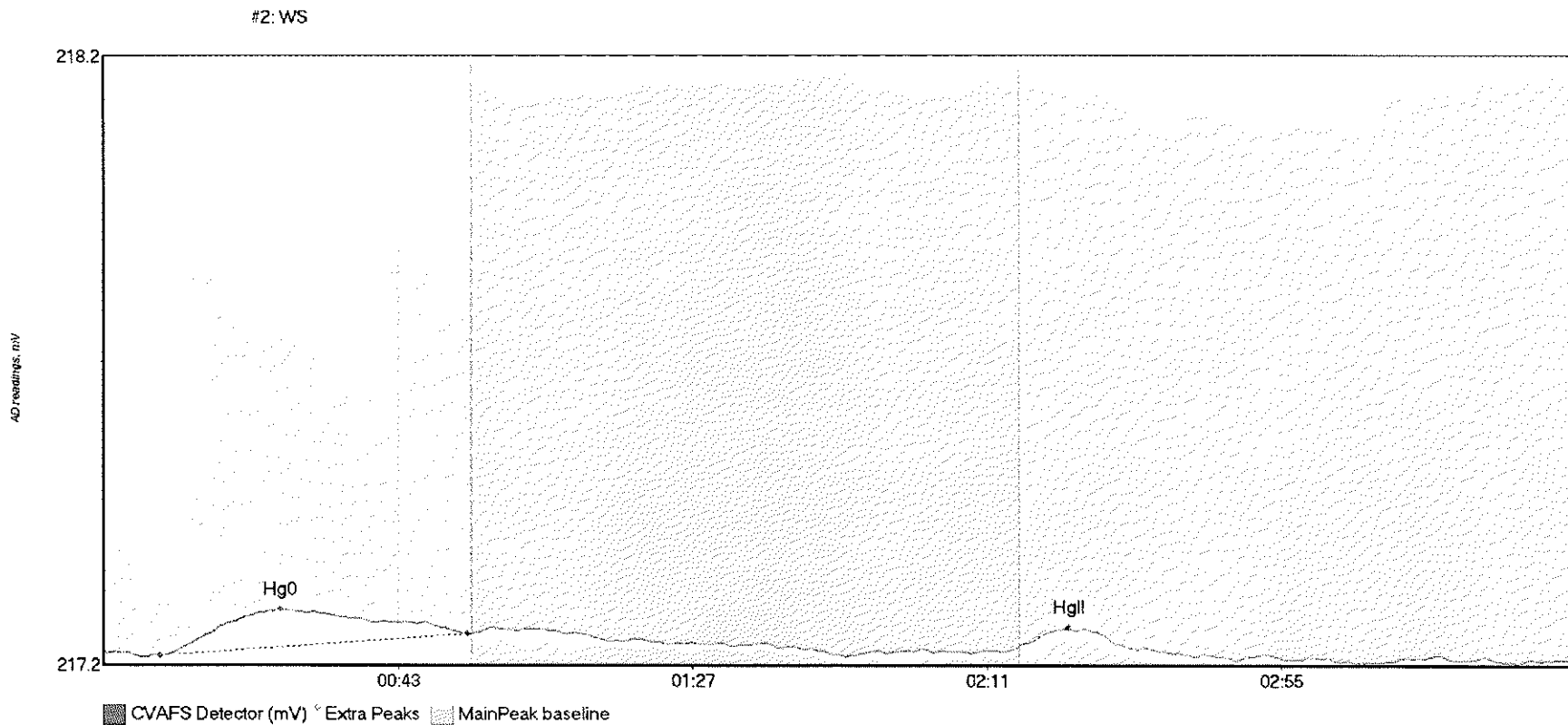
- |  |   |  |   |                                     |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):<br>Was a bubbler and trap test run before the analytical run continued?<br>Comments: _____ | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Do re-run results compare to initial analysis (< 35% RPD)?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Are qualifiers consistent with the data review flowcharts?<br>Comments: _____  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?<br>Comments: _____                                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 34. 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"/> |
| 35. Narrations in MMO box in LIMS?<br>Comments: _____  |   |  |   |                                     |
| 36. Are there any HIGH QA projects within the data?<br>If so, place dataset to the QA office.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |   |                                     |
| 37. Does the data set need scanning?<br>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs                        | <input type="checkbox"/> YES            |  | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>6/13/2017</u> IDOC/CDOC within last 12 months?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 39. Date of analyst's SOP reading: <u>5/23/2017</u> Current SOP revision?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>4/24/2017</u> LOD within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 41. Date of LOQ: <u>4/24/2017</u> LOQ within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 42. If MDN samples, date of last MDL study: _____  |   |  |   |                                     |
| 43. MDL study within last 12 months?   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>Data can not be reported without a current IDOC/CDOC, LOD or LOQ.</b>   |   |  |   |                                     |
| Additional Comments:   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |

System stopped after Analyzing sample  
F707393 - MSD2. Re-Analysis was not  
accomplished. Samples affected will  
be re-analyzed on a different day.

Clean: No peak(s) detected.

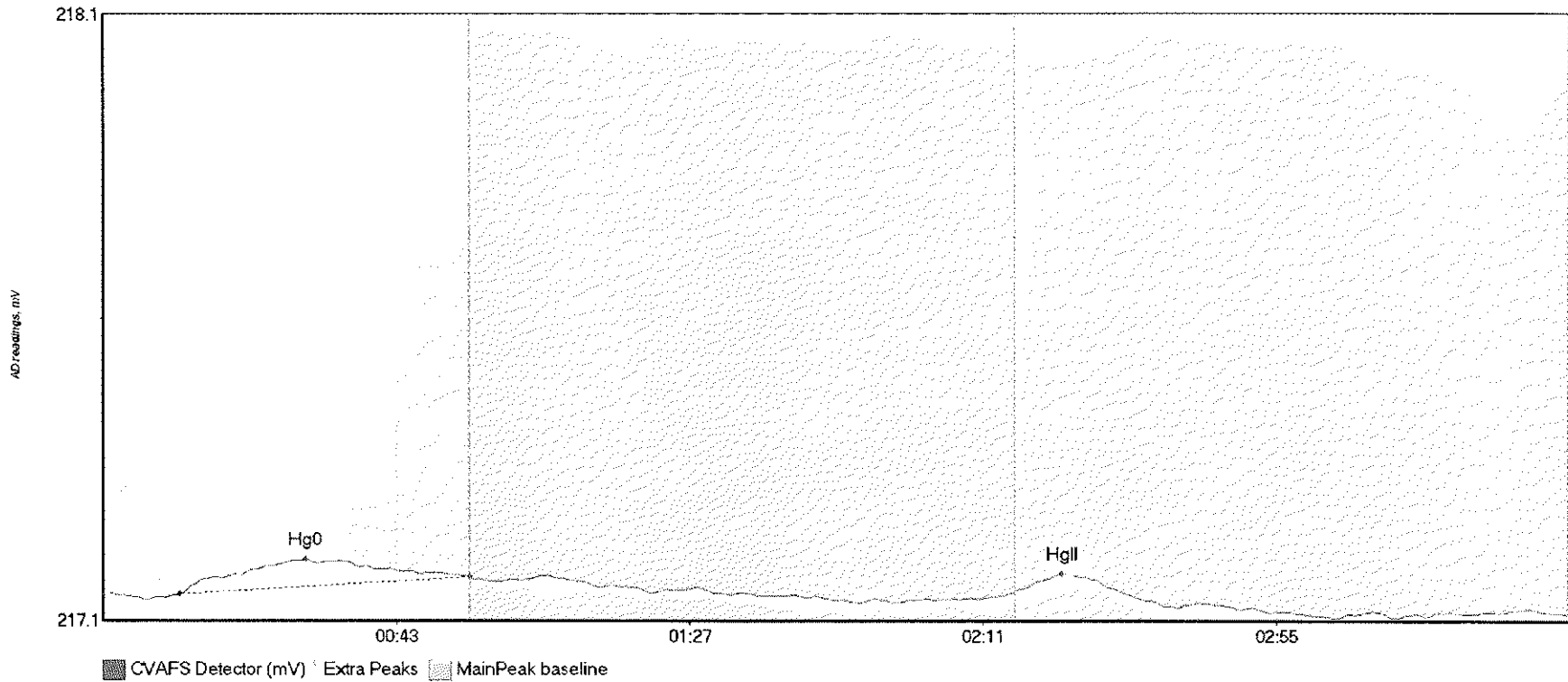


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.000	-	-	-	-	-	-	NP	217.3713	0.00	-0.01	017



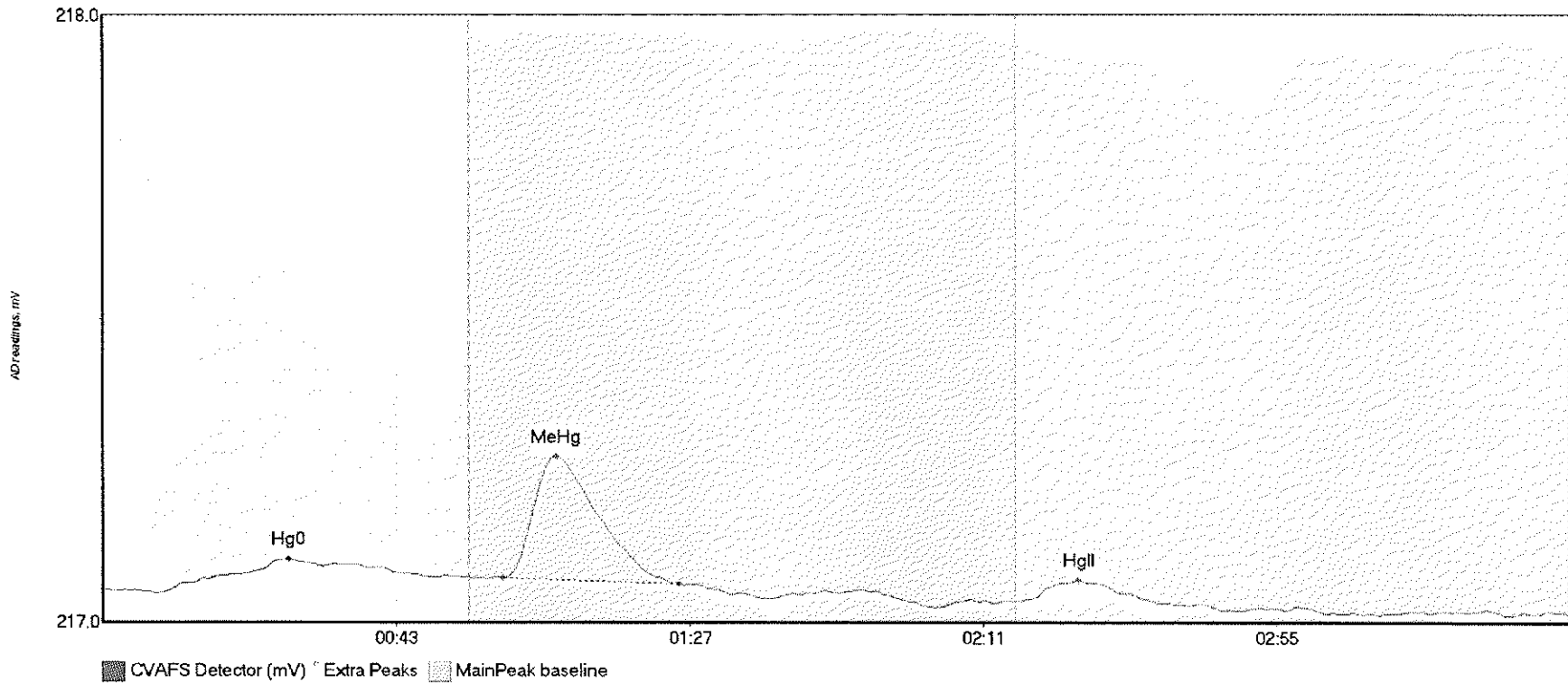
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	16.226	8.5	54.3	217.21	217.25	26.4	0.077	OK	217.2143	0.00	-0.01	
WS HgII	2.729	138.0	154.4	217.23	217.22	144.1	0.024	OK	217.2143	0.00	-0.01	317

#3: SEQ-IBL1

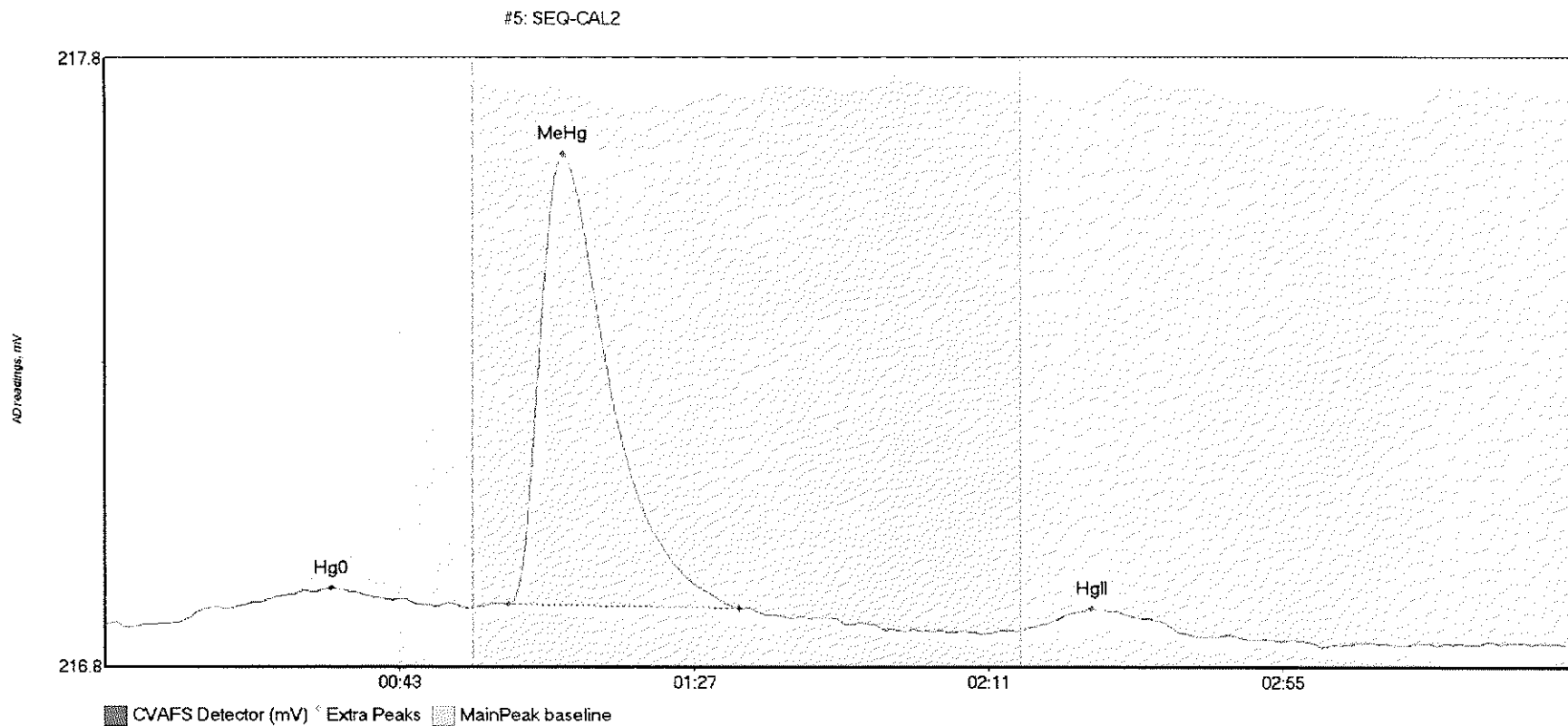


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	11.171	11.5	55.0	217.14	217.17	30.5	0.057	CT	217.1401	0.00	-0.03	
SEQ-IBL1 HgII	3.260	138.1	156.4	217.15	217.13	143.9	0.025	OK	217.1401	0.00	-0.03	017

#4: SEQ-CAL1

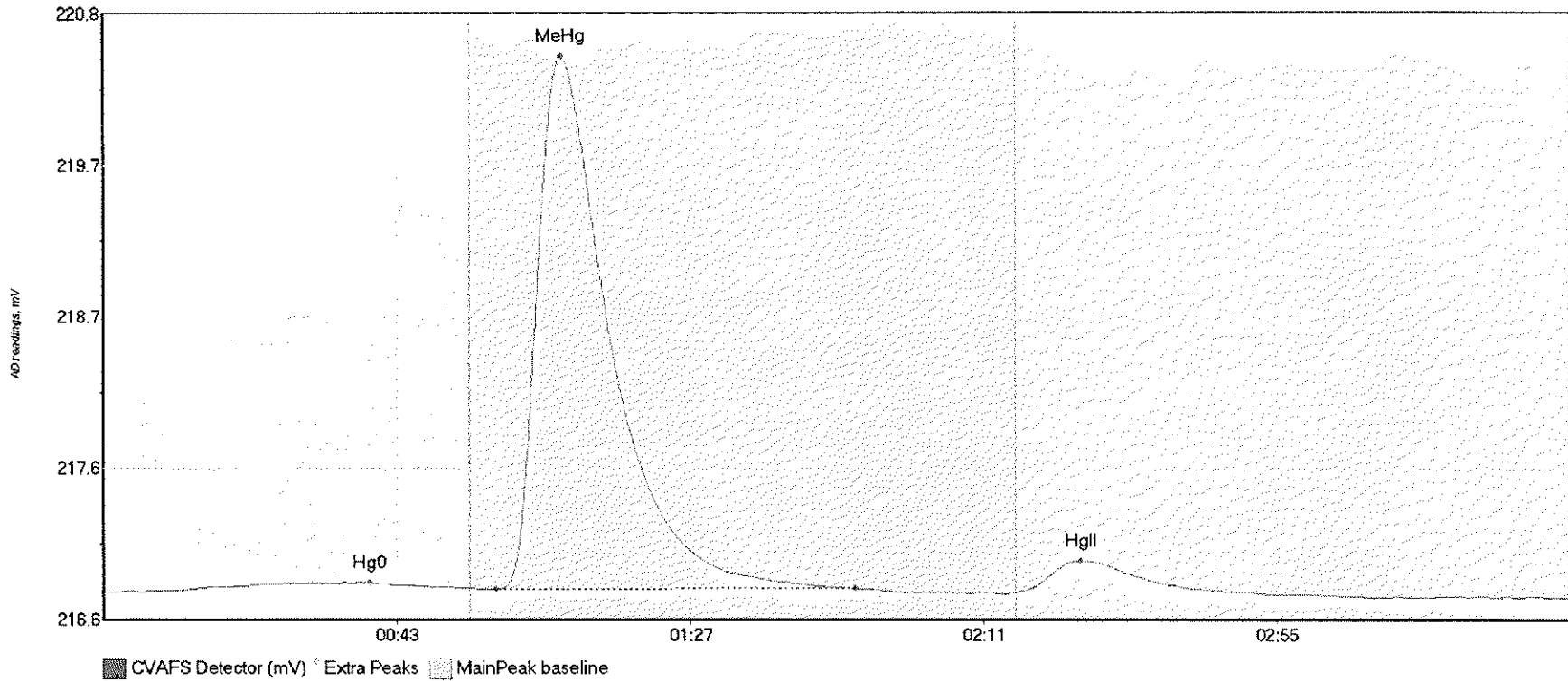


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	9.422	8.2	50.0	217.03	217.06	27.9	0.057	OK	217.0397	0.00	-0.04	
SEQ-CAL1 MeHg	22.566	60.0	86.3	217.06	217.05	68.0	0.200	OK	217.0397	0.00	-0.04	
SEQ-CAL1 HgII	3.071	139.0	156.0	217.02	217.02	146.3	0.032	OK	217.0397	0.00	-0.04	



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	10.387	11.0	54.5	216.91	216.93	33.8	0.055	OK	216.9090	0.00	-0.04	
SEQ-CAL2 MeHg	89.472	60.3	94.7	216.94	216.93	68.5	0.740	OK	216.9090	0.00	-0.04	
SEQ-CAL2 HgII	4.719	138.7	161.0	216.90	216.89	147.5	0.030	OK	216.9090	0.00	-0.04	

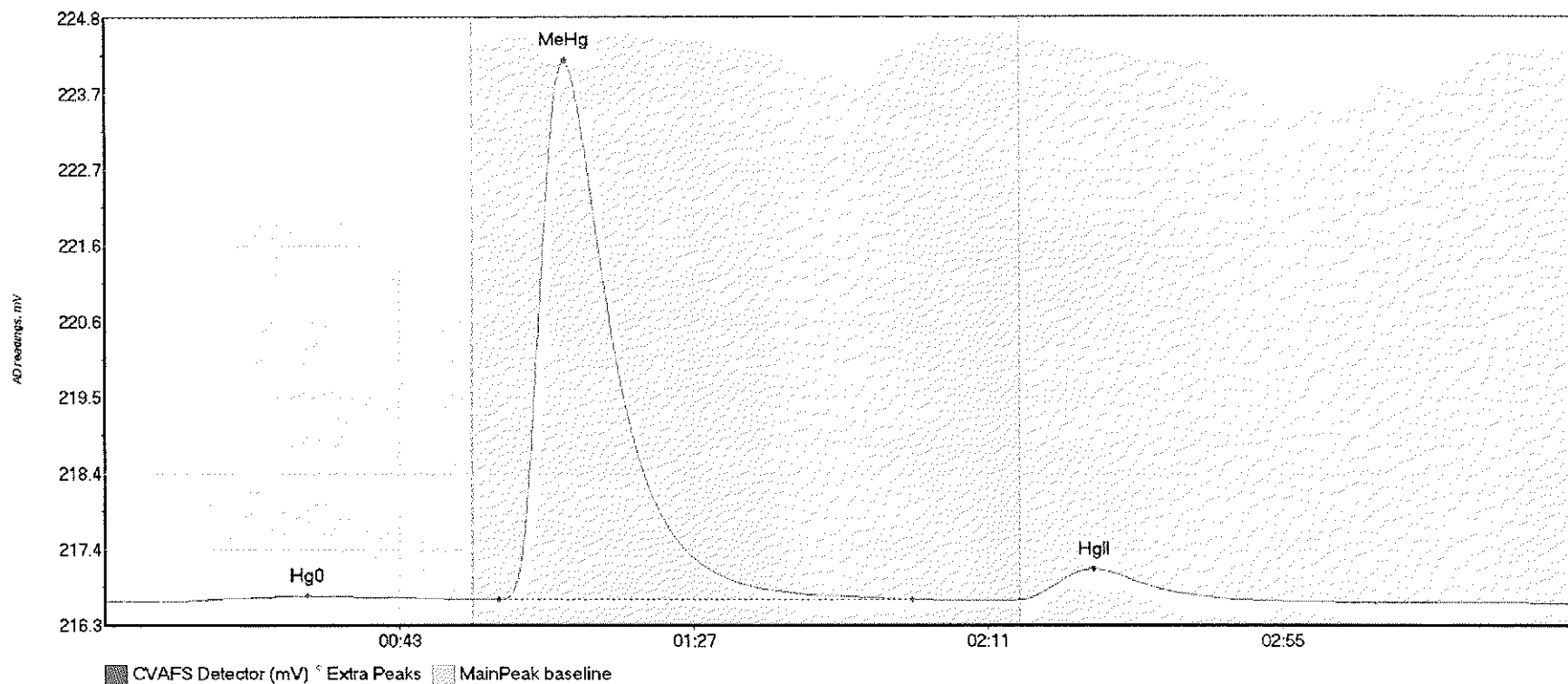
#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	13.393	8.5	54.8	216.79	216.81	40.0	0.059	OK	216.7884	0.00	-0.04	
SEQ-CAL3 MeHg	467.115	58.9	112.8	216.81	216.81	68.7	3.690	OK	216.7884	0.00	-0.04	
SEQ-CAL3 HgII	30.487	136.8	168.6	216.78	216.79	146.6	0.219	OK	216.7884	0.00	-0.04	

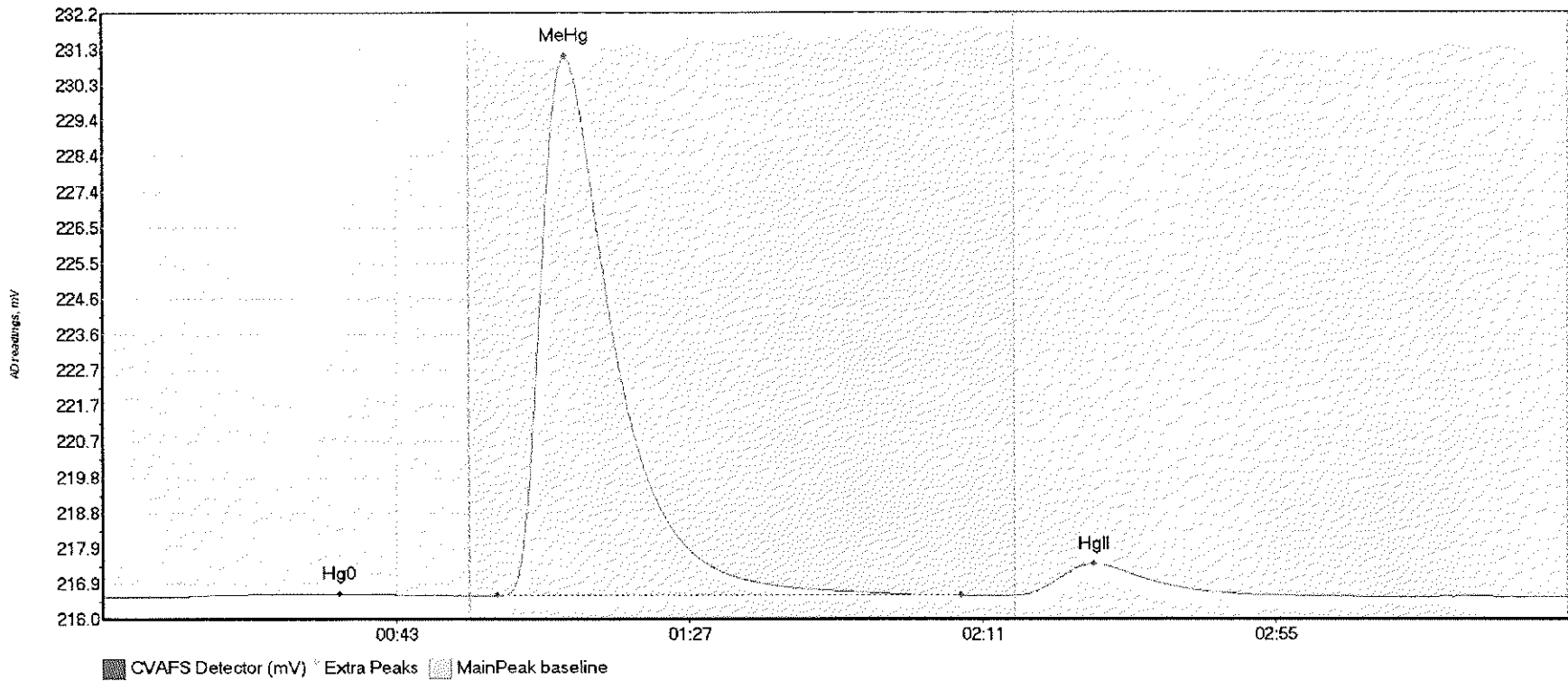


#7: SEQ-CAL4



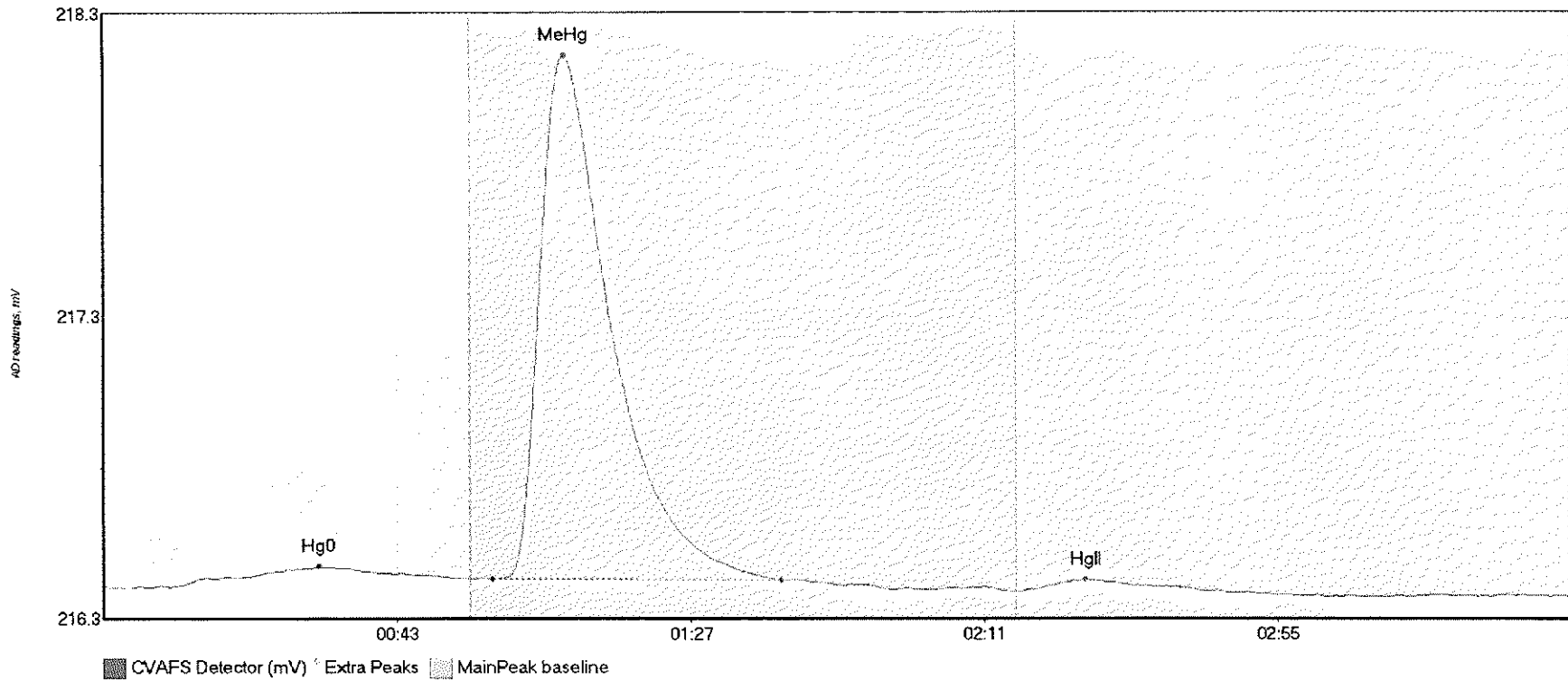
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	13.445	11.8	55.0	216.67	216.69	30.3	0.068	CT	216.6682	0.00	-0.04	
SEQ-CAL4 MeHg	958.177	58.9	120.7	216.69	216.69	68.8	7.482	OK	216.6682	0.00	-0.04	
SEQ-CAL4 HgII	62.844	136.8	170.5	216.69	216.69	147.9	0.430	OK	216.6682	0.00	-0.04	

#8: SEQ-CAL5



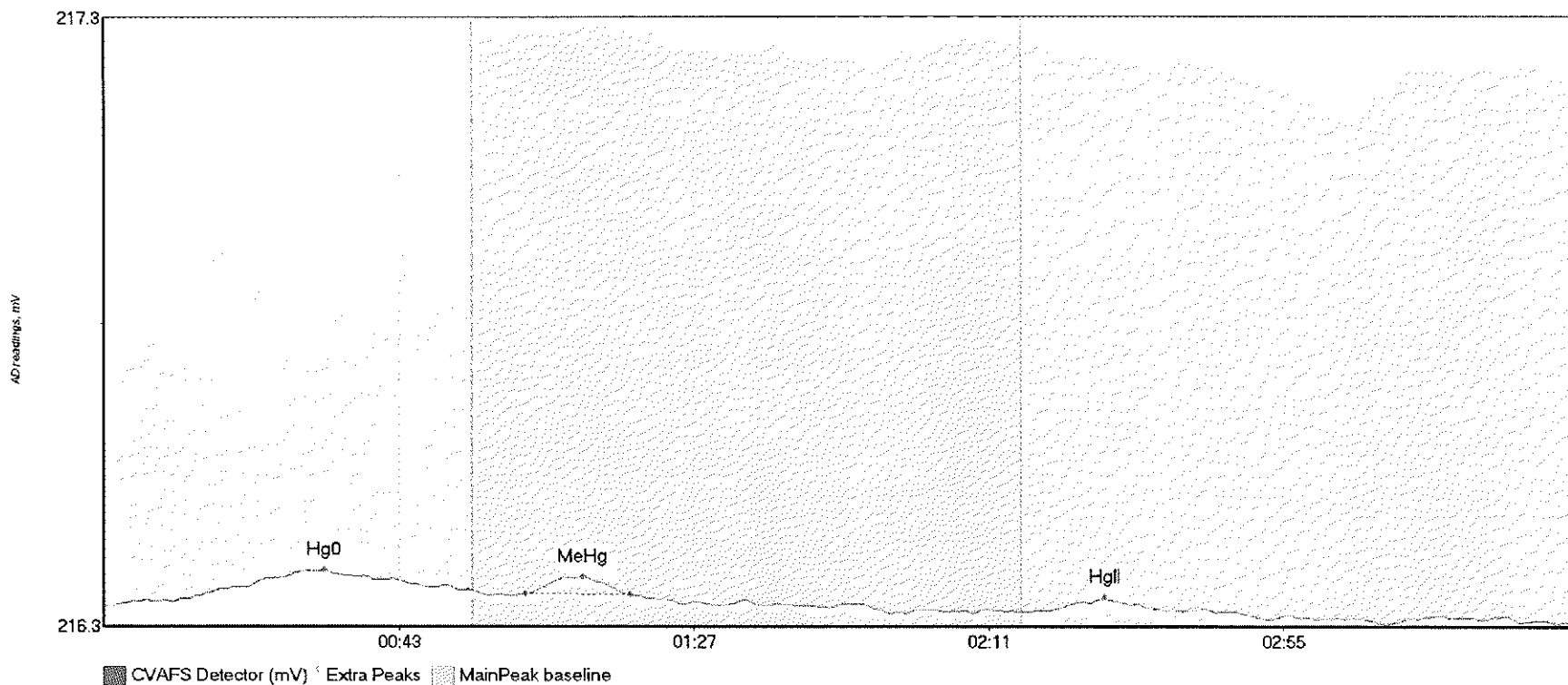
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	18.775	11.4	55.0	216.55	216.58	35.5	0.084	CT	216.5463	0.00	-0.01	
SEQ-CAL5 MeHg	1870.012	59.1	128.8	216.58	216.58	69.4	14.497	OK	216.5463	0.00	-0.01	
SEQ-CAL5 HgII	130.603	136.8	180.3	216.58	216.58	148.8	0.851	OK	216.5463	0.00	-0.01	

#9: SEQ-ICV1



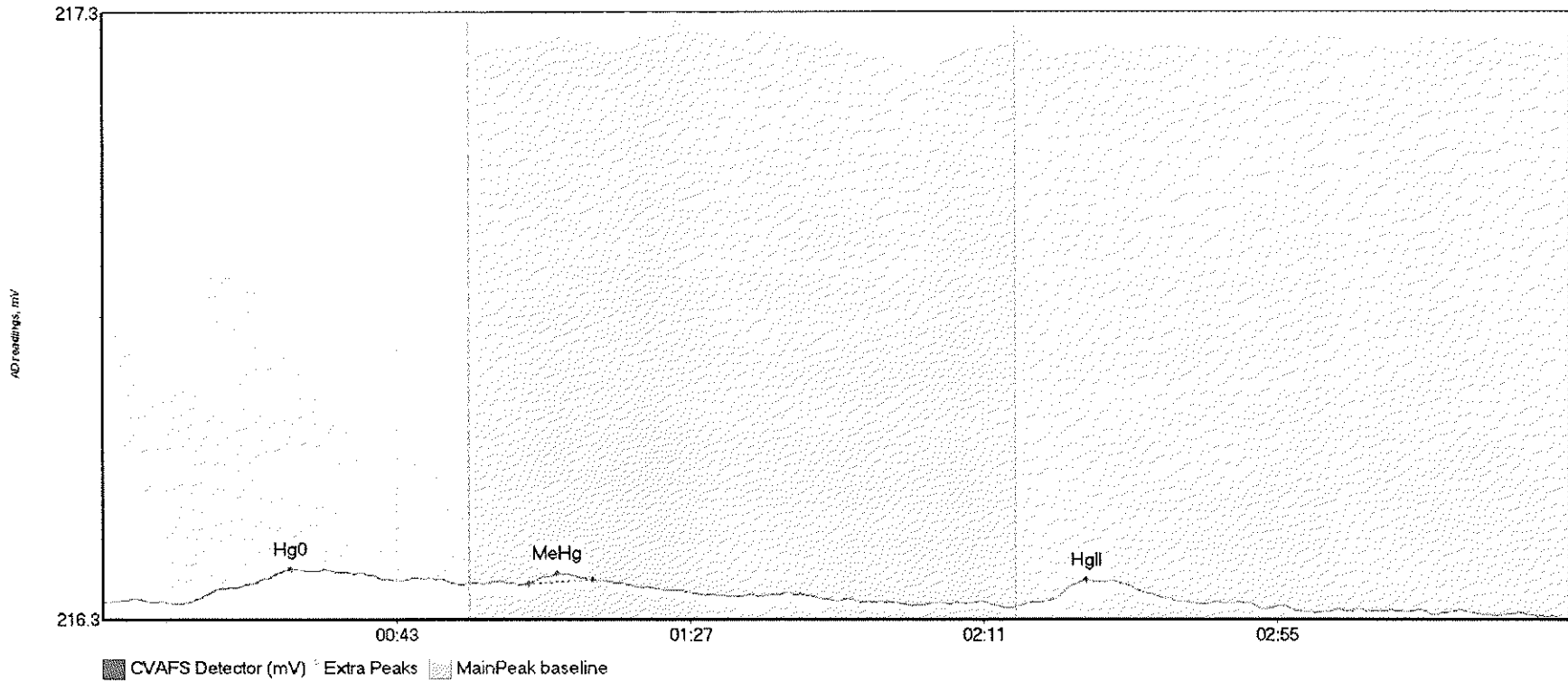
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	12.121	10.3	55.0	216.44	216.47	32.3	0.065	CT	216.4458	0.00	-0.03	
SEQ-ICV1 MeHg	205.832	58.3	101.6	216.47	216.47	69.1	1.661	OK	216.4458	0.00	-0.03	
SEQ-ICV1 HgII	5.499	137.3	165.6	216.43	216.43	147.3	0.038	OK	216.4458	0.00	-0.03	

#10: SEQ-ICB1



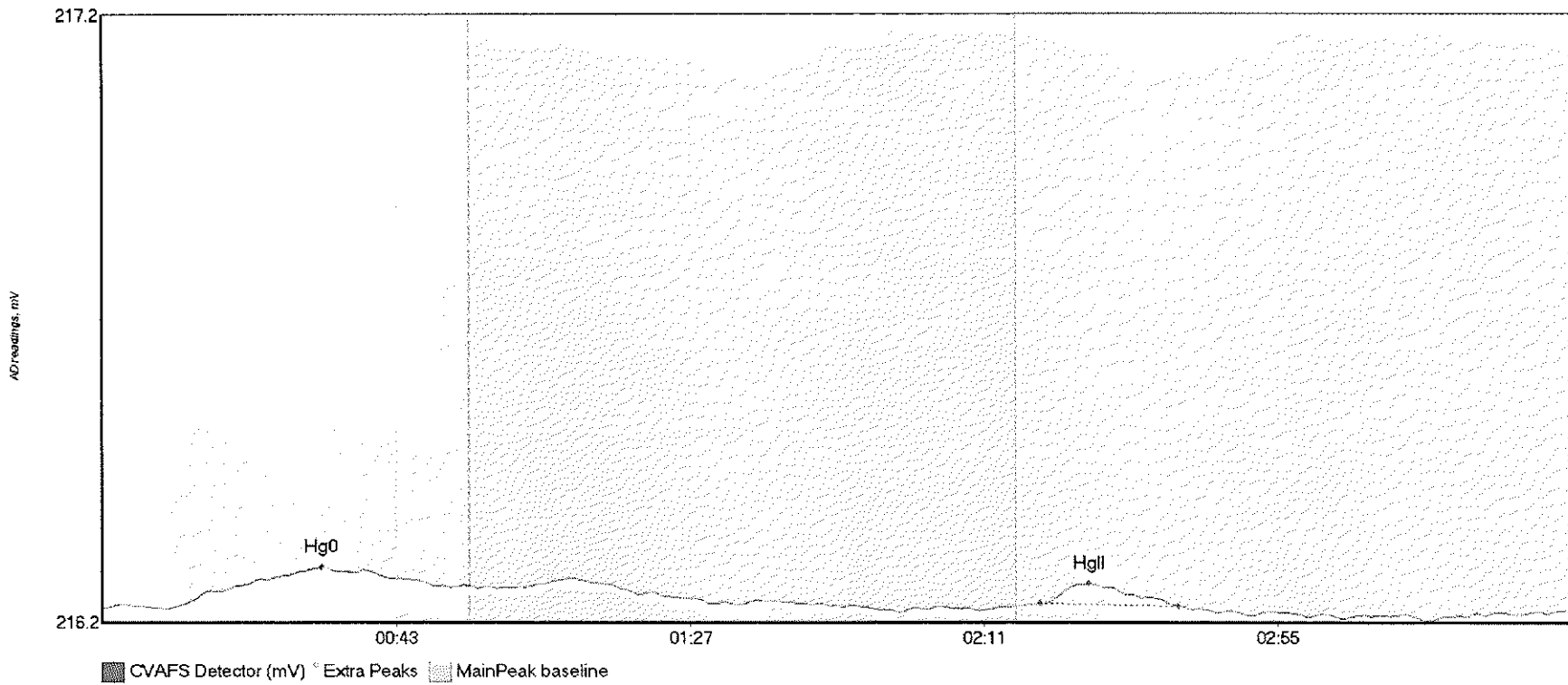
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	10.259	2.2	55.0	216.35	216.38	32.9	0.057	CT	216.3516	0.00	-0.03	
SEQ-ICB1 MeHg	2.625	62.9	78.4	216.37	216.37	71.5	0.028	OK	216.3516	0.00	-0.03	
SEQ-ICB1 HgII	1.521	140.7	157.2	216.34	216.35	149.3	0.020	OK	216.3516	0.00	-0.03	

#11: F707393-BLK1



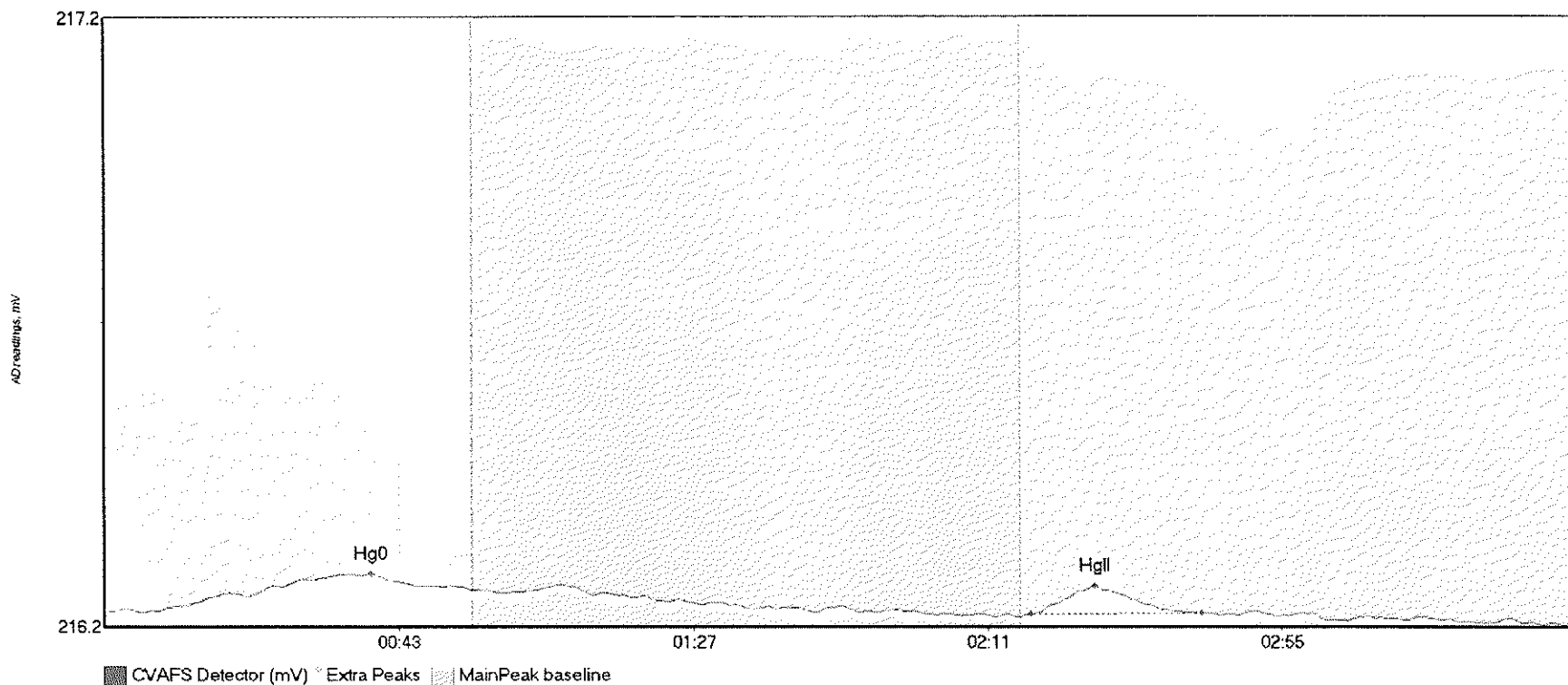
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK1 Hg	9.630	11.8	53.8	216.29	216.32	28.2	0.057	OK	216.2908	0.00	-0.03	
F707393-BLK1 Me	0.802	63.8	73.5	216.32	216.33	68.1	0.017	OK	216.2908	0.00	-0.03	
F707393-BLK1 Hg	5.601	136.8	164.0	216.28	216.29	147.5	0.045	OK	216.2908	0.00	-0.03	

#12: F707393-BLK2



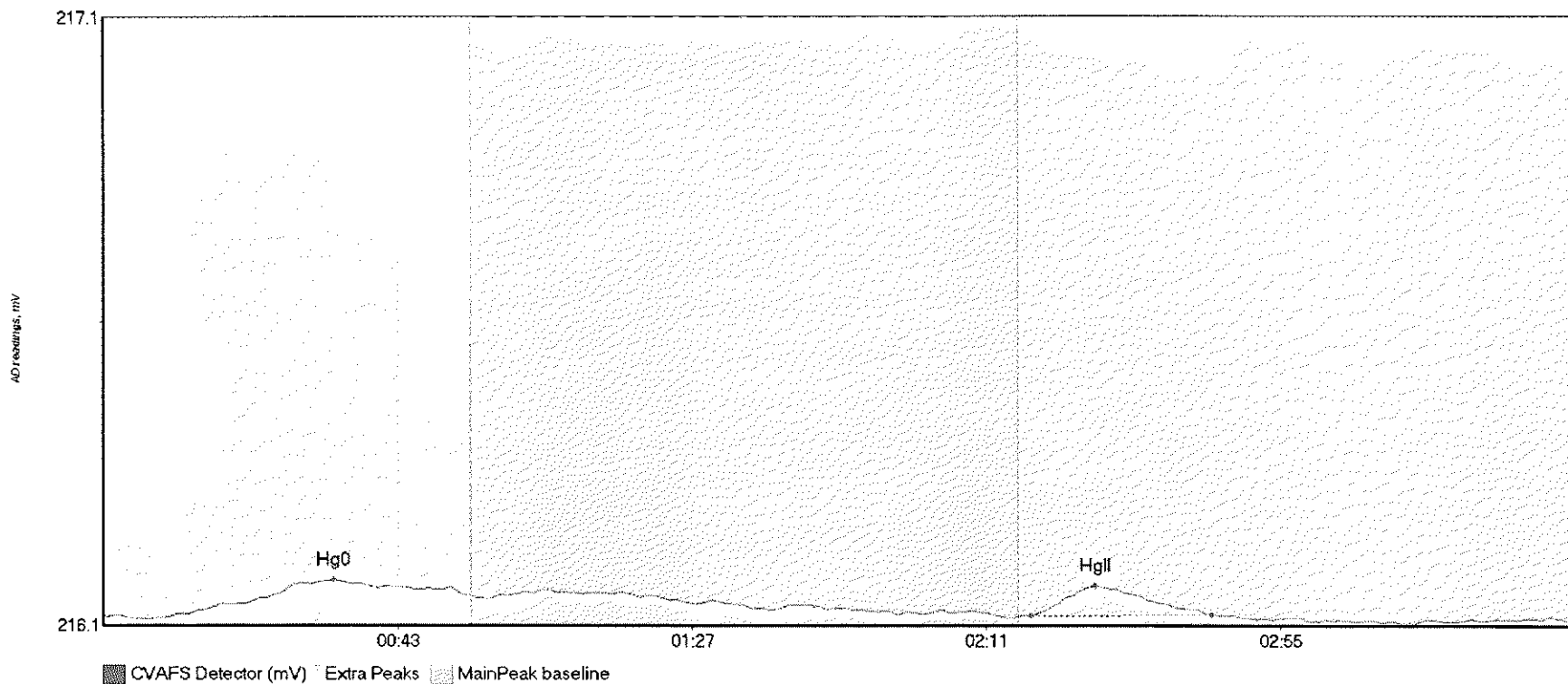
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK2 Hg	11.754	9.6	52.1	216.23	216.26	32.9	0.069	OK	216.2298	0.00	-0.01	
F707393-BLK2 Hg	3.760	140.4	161.2	216.24	216.23	147.7	0.032	OK	216.2298	0.00	-0.01	317

#13: F707393-BLK3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BLK3 Hg	9.882	8.0	55.0	216.18	216.21	39.9	0.061	CT	216.1810	0.00	-0.02	
F707393-BLK3 Hg	5.133	138.4	164.0	216.17	216.18	148.0	0.047	OK	216.1810	0.00	-0.02	017

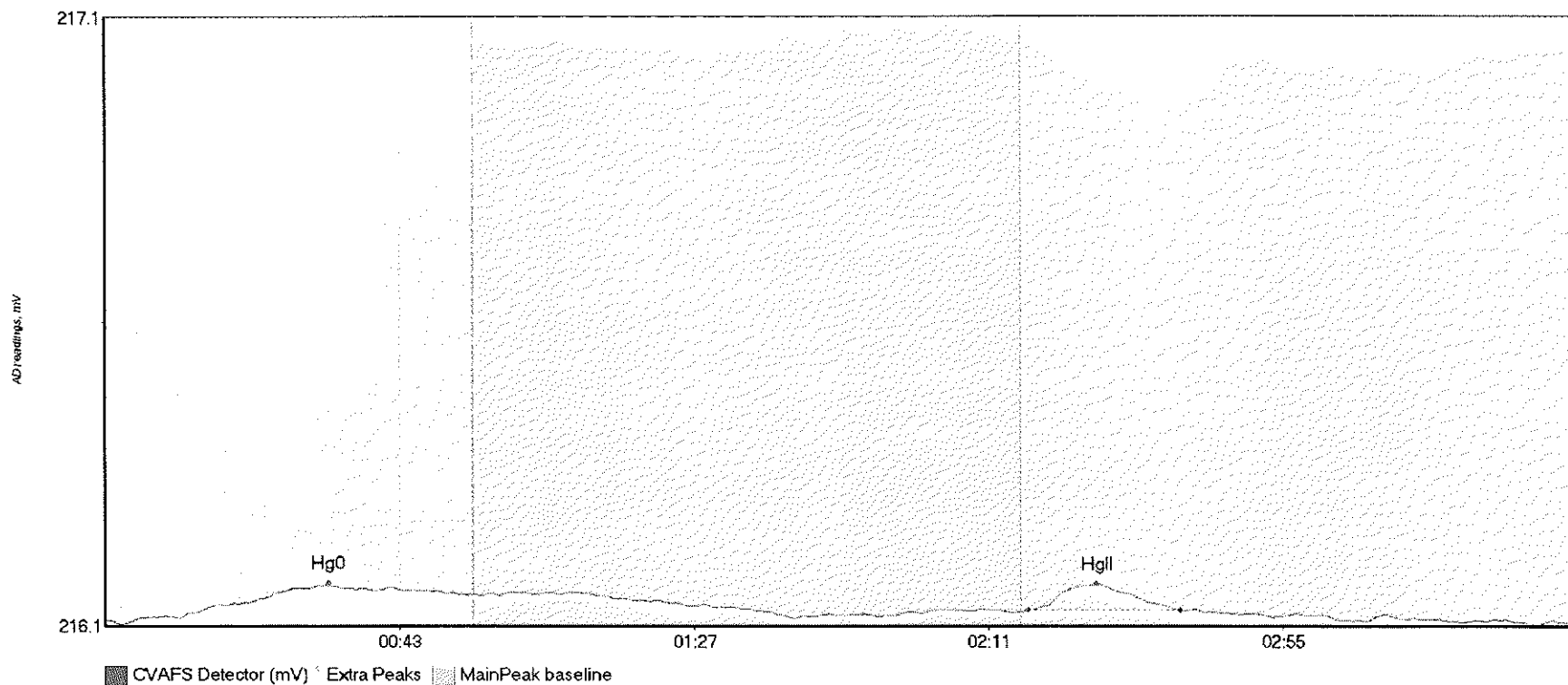
#14: \*F707393-BLK4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707393-BLK4 H	9.219	12.4	55.0	216.13	216.16	34.5	0.057	CT	216.1224	0.00	-0.01	
*F707393-BLK4 H	7.052	138.7	165.9	216.12	216.12	148.3	0.050	OK	216.1224	0.00	-0.01	317

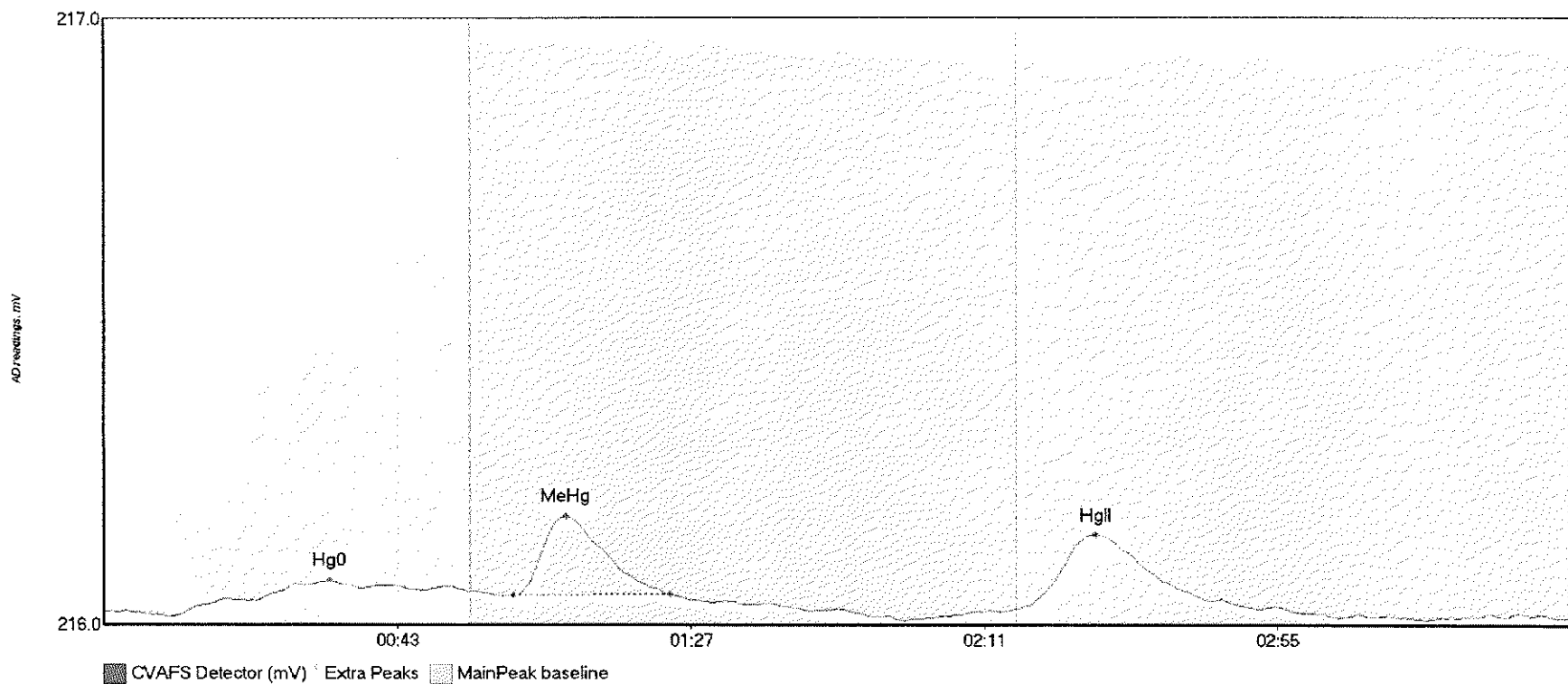


#15: \*F707393-BLK5



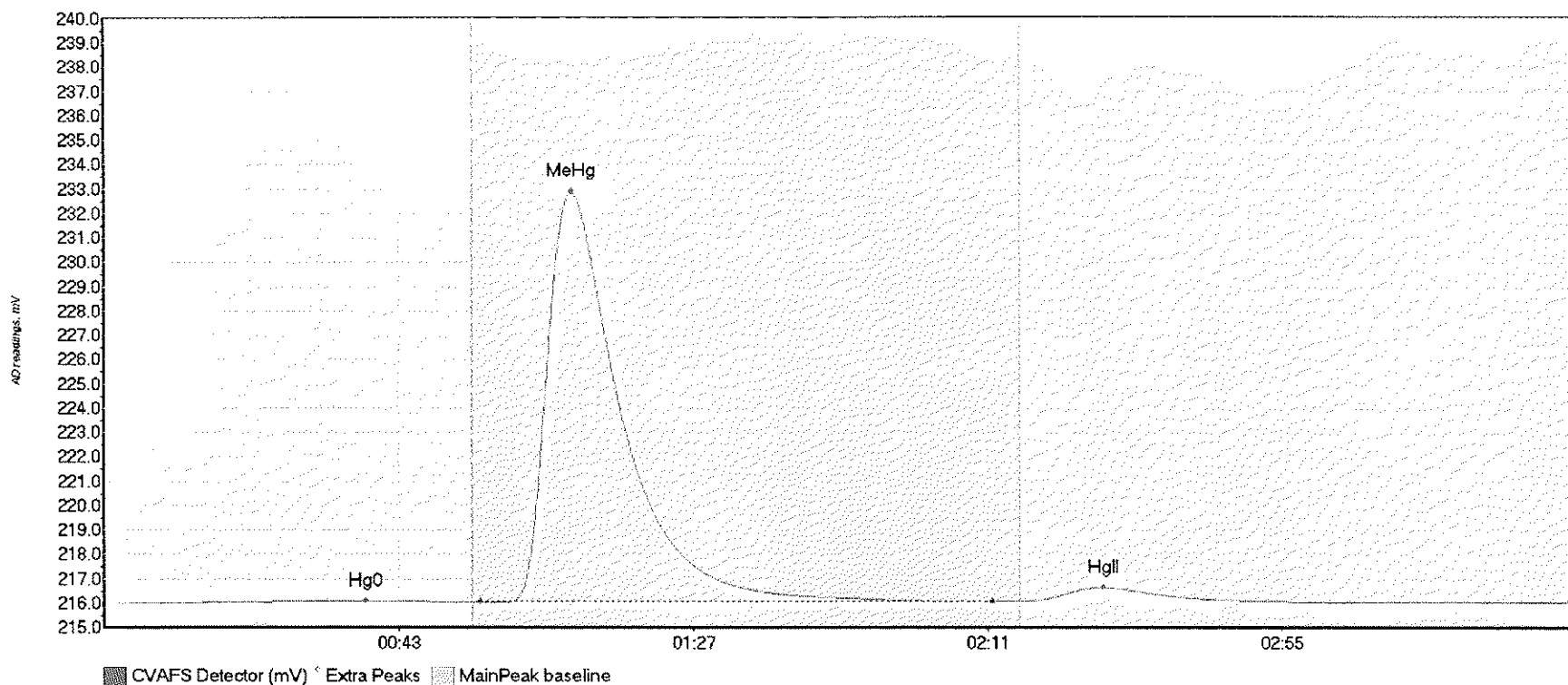
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707393-BLK5 H	8.329	11.0	54.2	216.08	216.12	33.4	0.055	OK	216.0786	0.00	-0.01	
*F707393-BLK5 H	5.047	138.0	160.6	216.10	216.10	148.2	0.043	OK	216.0786	0.00	-0.01	317

#16: 1706929-01



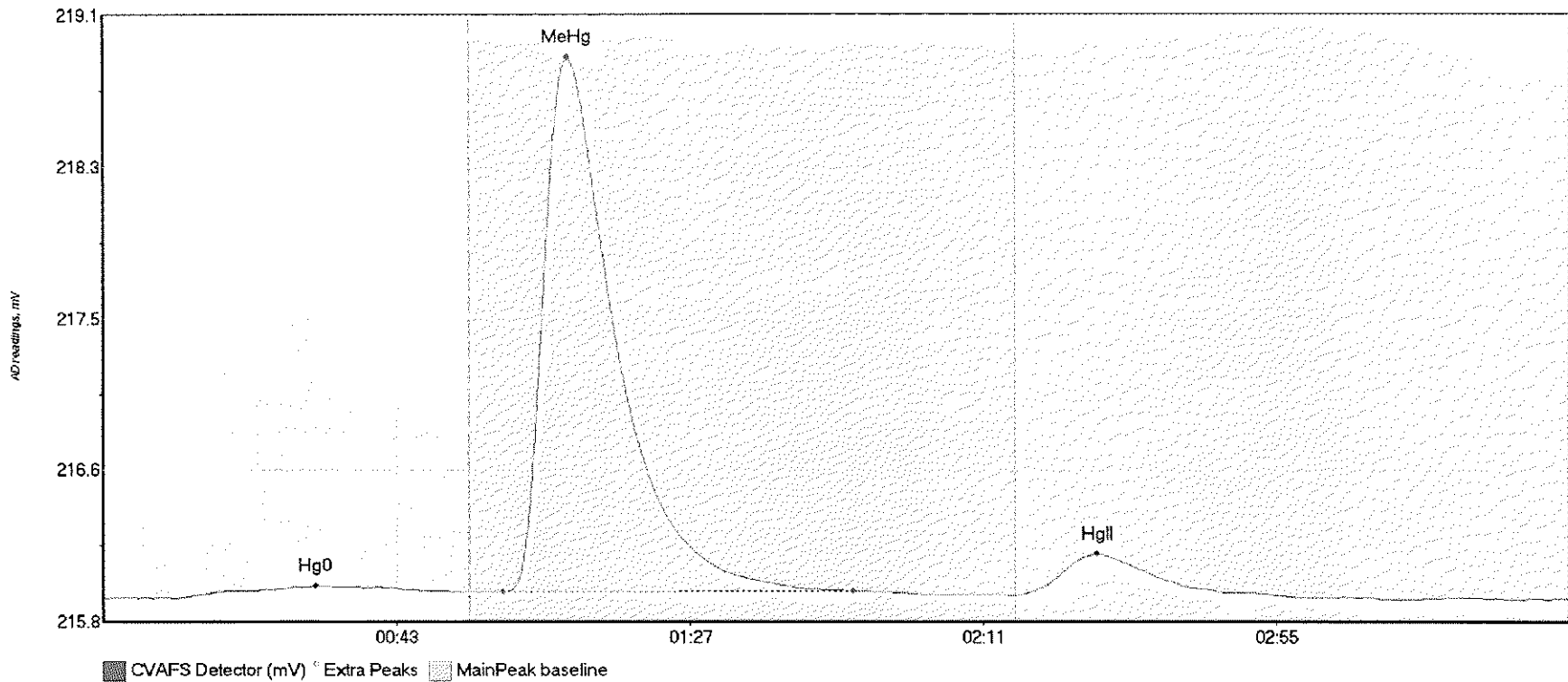
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-01 Hg0	8.555	11.2	54.9	216.04	216.07	33.9	0.057	OK	216.0421	0.00	-0.01	
1706929-01 MeHg	13.744	61.5	84.9	216.07	216.07	69.3	0.130	OK	216.0421	0.00	-0.01	
1706929-01 HgII	17.613	138.3	172.4	216.05	216.05	148.8	0.120	OK	216.0421	0.00	-0.01	

#17: 1706929-07



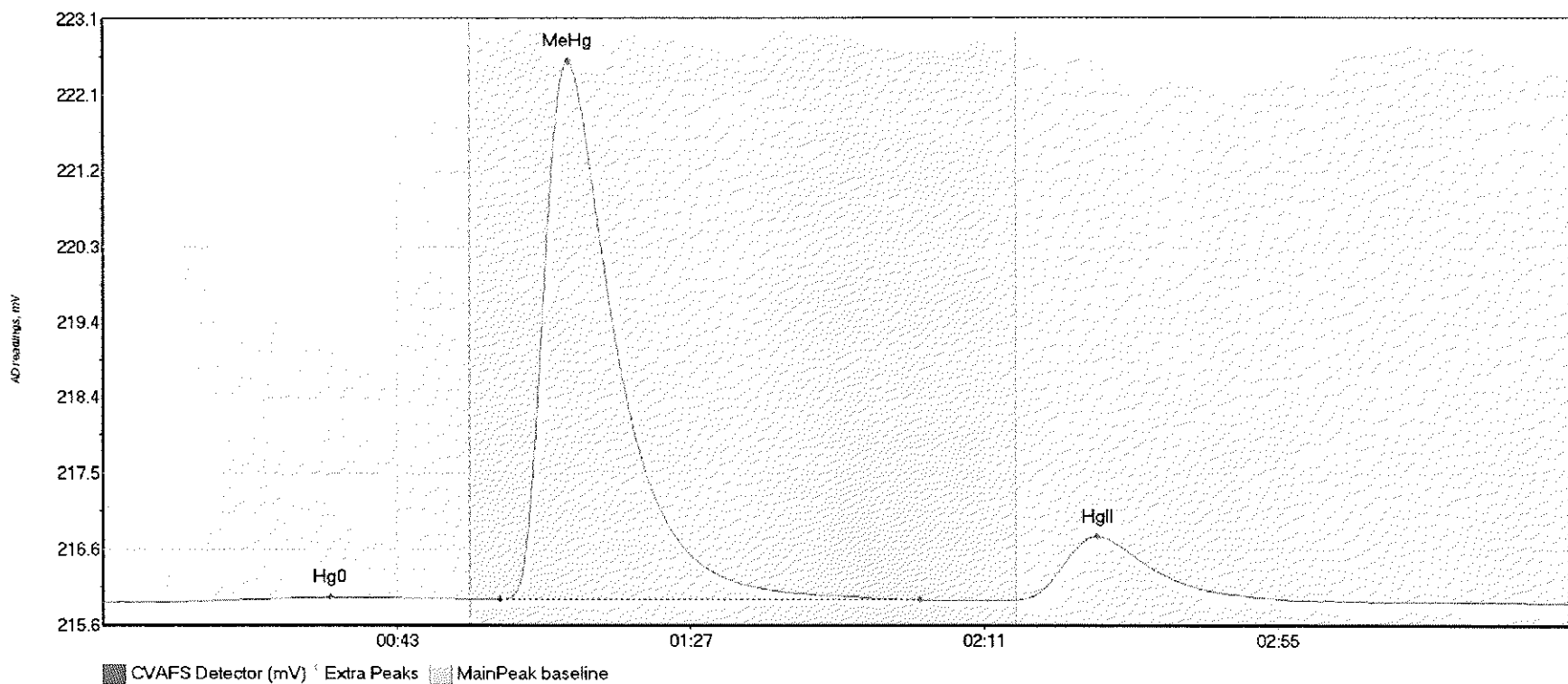
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-07 Hg0	13.326	13.1	55.0	216.00	216.04	39.1	0.079	CT	216.0058	0.00	0.01	
1706929-07 MeHg	2162.252	56.1	132.8	216.04	216.05	69.8	16.832	OK	216.0058	0.00	0.01	
1706929-07 HgII	88.850	136.8	177.5	216.06	216.05	149.3	0.578	OK	216.0058	0.00	0.01	

#18: 1706930-01



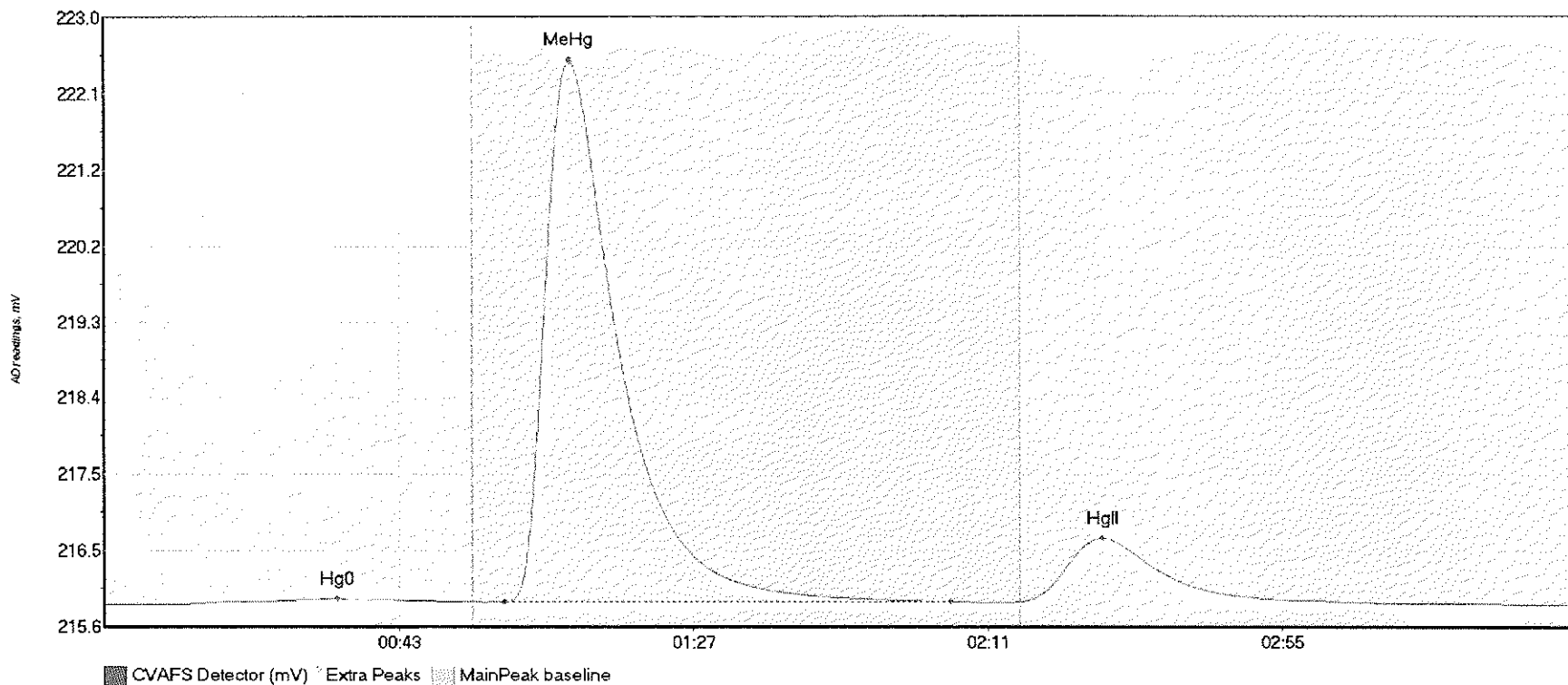
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-01 Hg0	12.120	10.8	53.2	215.96	216.00	31.9	0.065	OK	215.9644	0.00	0.00	
1706930-01 MeHg	356.975	60.0	112.4	216.00	216.00	69.7	2.841	OK	215.9644	0.00	0.00	
1706930-01 HgII	34.070	136.8	176.6	215.98	215.98	149.2	0.221	OK	215.9644	0.00	0.00	

#19: F707393-BS1



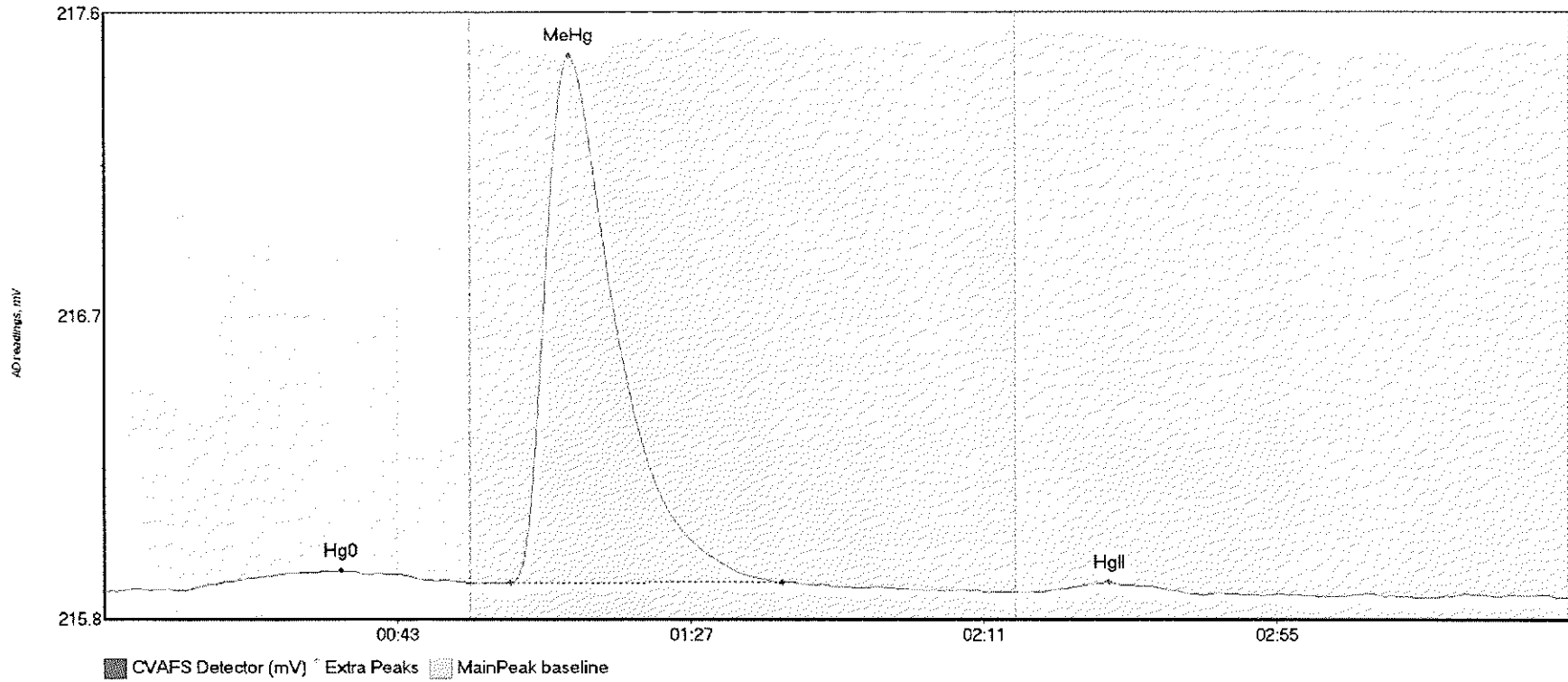
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BS1 Hg0	12.379	10.8	55.0	215.92	215.96	34.0	0.068	CT	215.9285	0.00	-0.01	
F707393-BS1 MeH	837.853	59.5	122.5	215.96	215.96	69.7	6.579	OK	215.9285	0.00	-0.01	
F707393-BS1 HgI	120.500	136.8	180.3	215.95	215.95	149.0	0.781	OK	215.9285	0.00	-0.01	

#20: F707393-BSD1



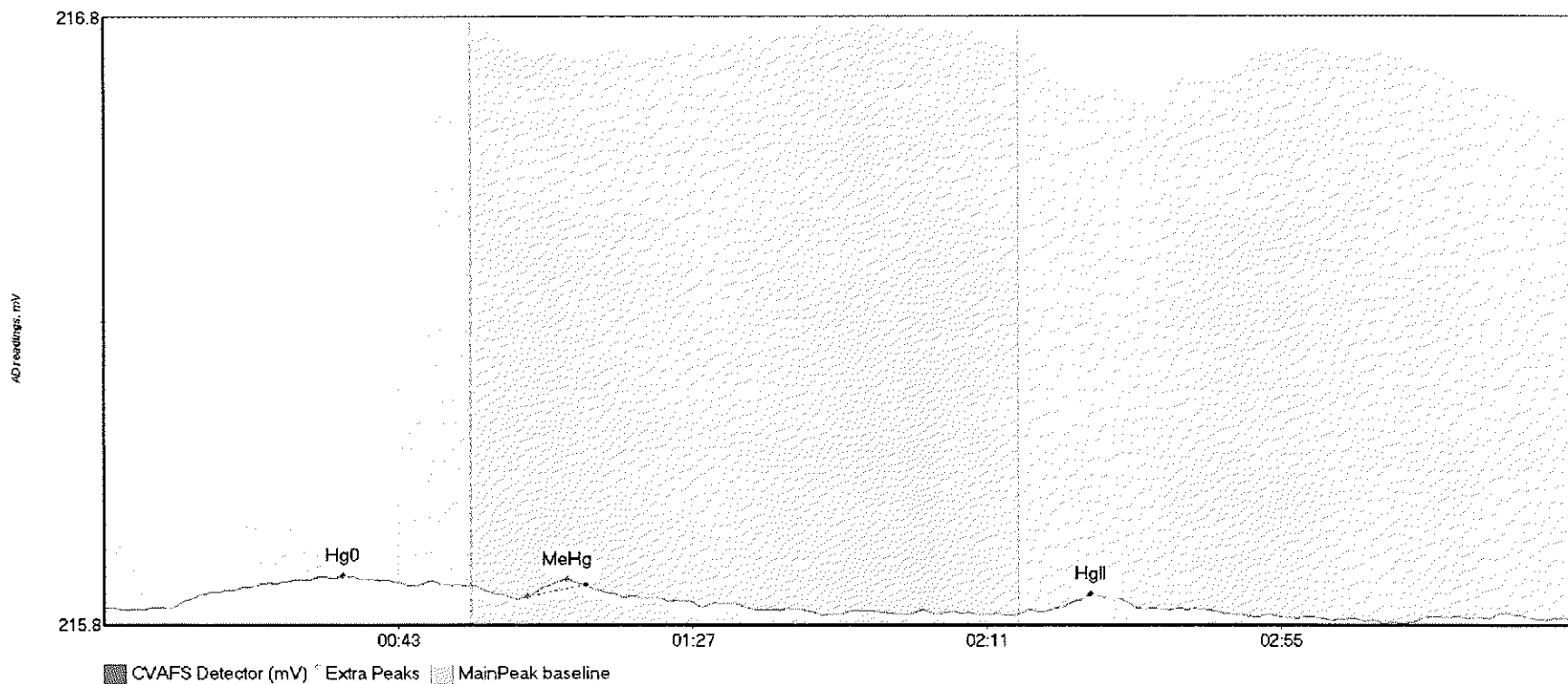
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-BSD1 Hg	12.178	11.1	55.0	215.87	215.91	34.8	0.070	CT	215.8733	0.00	0.00	
F707393-BSD1 Me	844.599	59.7	126.5	215.90	215.91	69.6	6.593	OK	215.8733	0.00	0.00	
F707393-BSD1 Hg	123.219	136.8	185.5	215.91	215.90	149.2	0.776	OK	215.8733	0.00	0.00	

#21: SEQ-CCV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	12.186	12.0	55.0	215.84	215.87	35.6	0.061	CT	215.8408	0.00	-0.02	
SEQ-CCV1 MeHg	199.562	61.0	101.7	215.87	215.87	69.9	1.609	OK	215.8408	0.00	-0.02	
SEQ-CCV1 HgII	4.185	141.2	165.0	215.84	215.83	150.9	0.029	OK	215.8408	0.00	-0.02	

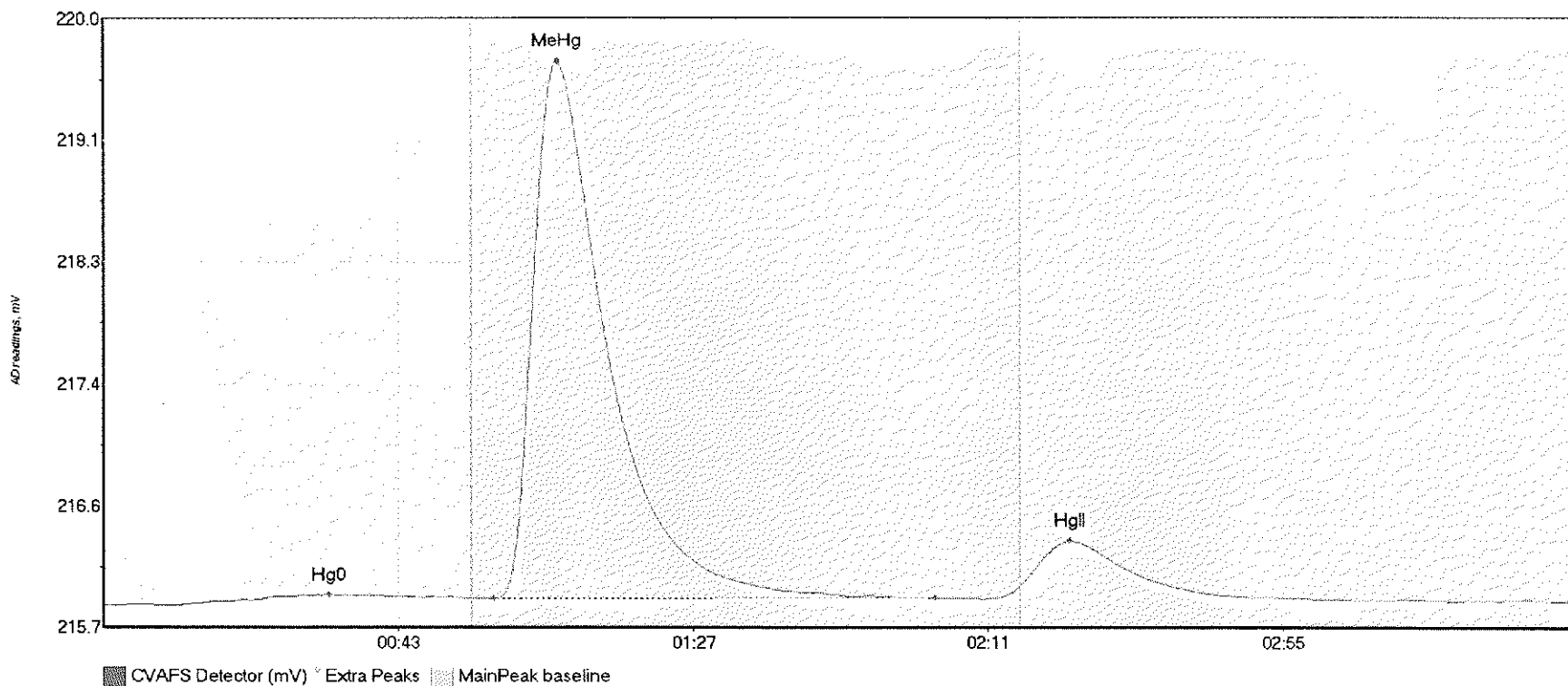
#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	9.011	9.6	54.3	215.80	215.84	35.7	0.053	OK	215.8039	0.00	-0.02	
SEQ-CCB1 MeHg	0.810	63.5	72.0	215.82	215.84	69.3	0.028	OK	215.8039	0.00	-0.02	
SEQ-CCB1 HgII	2.794	140.3	166.3	215.80	215.80	147.6	0.028	OK	215.8039	0.00	-0.02	

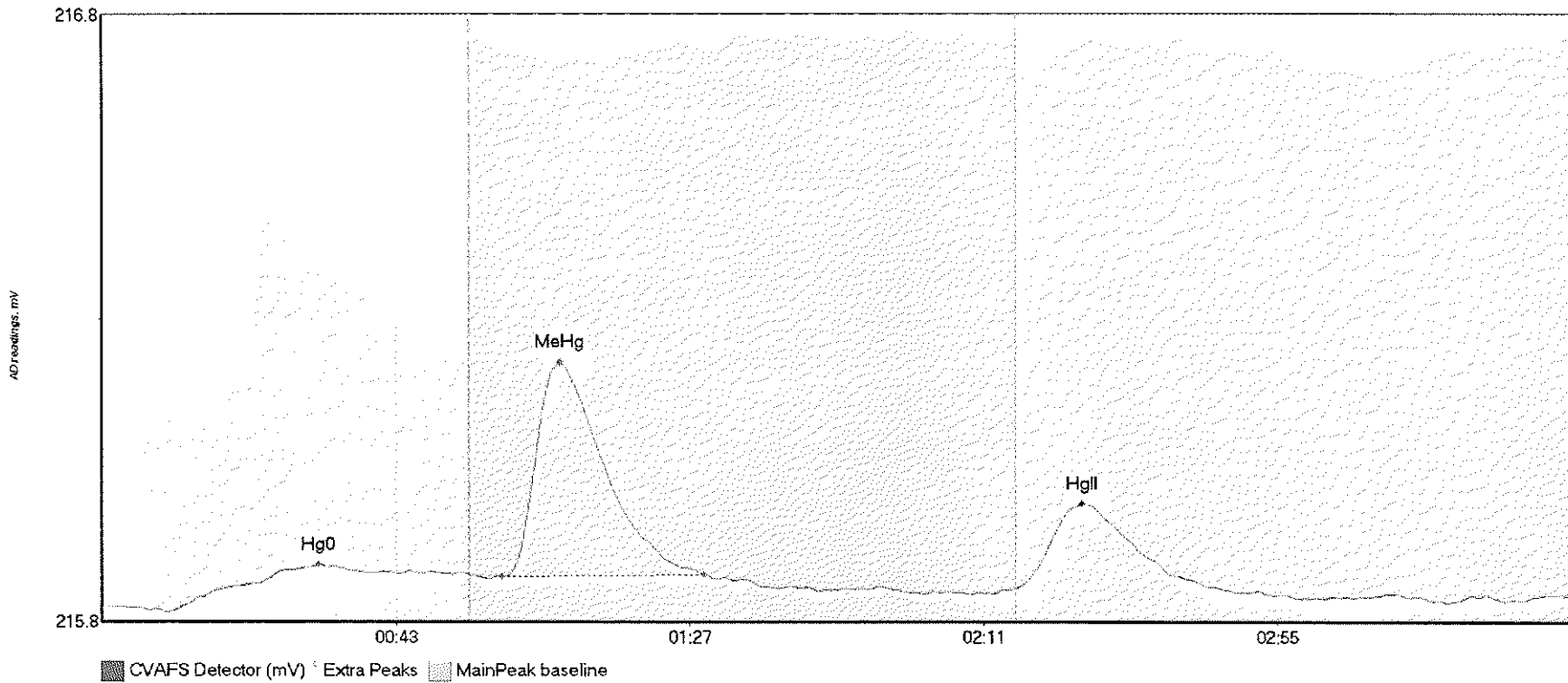


#23: 1706929-02



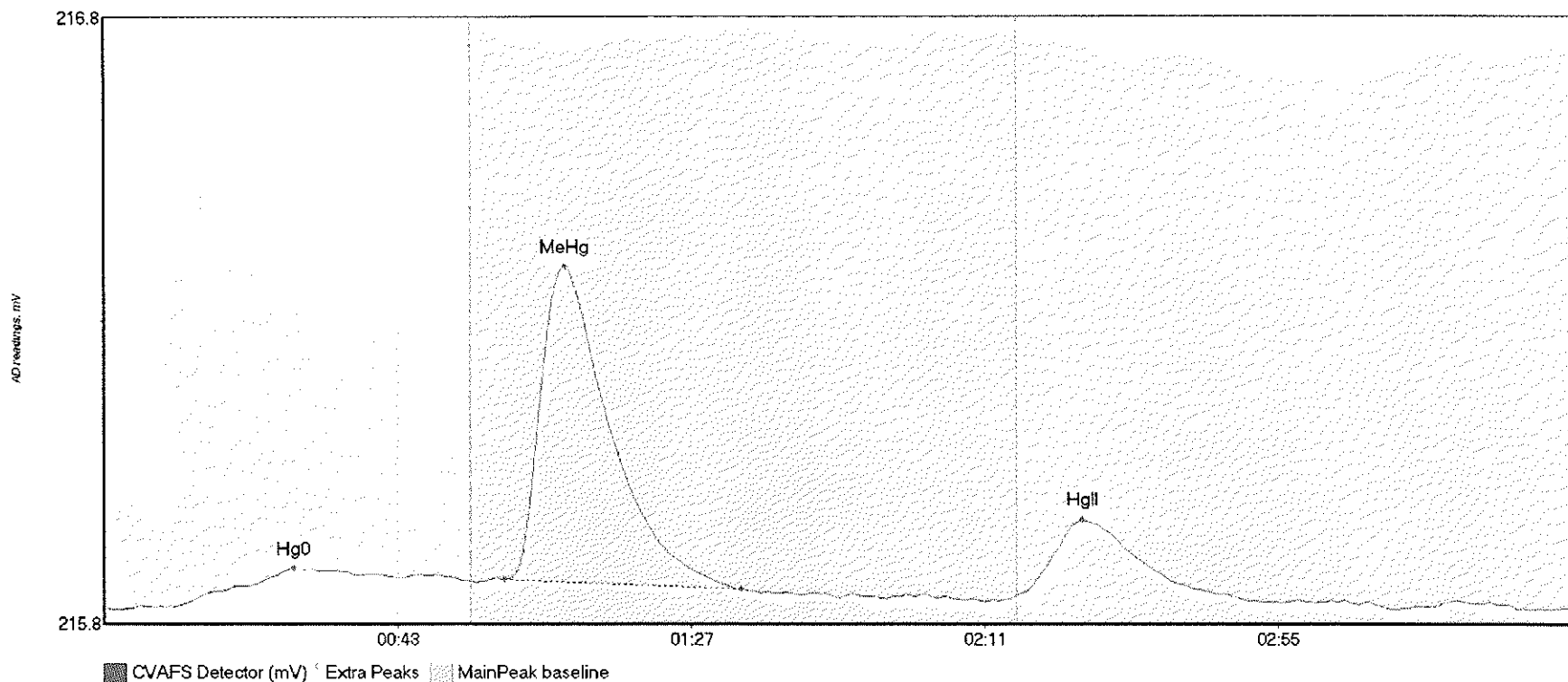
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-02 Hg0	12.371	10.8	54.4	215.85	215.90	33.7	0.075	OK	215.8487	0.00	0.03	
1706929-02 MeHg	491.731	58.3	124.1	215.90	215.90	67.8	3.808	OK	215.8487	0.00	0.03	
1706929-02 HgII	45.237	136.8	169.4	215.99	215.91	144.3	0.323	OK	215.8487	0.00	0.03	

#24: 1706929-03



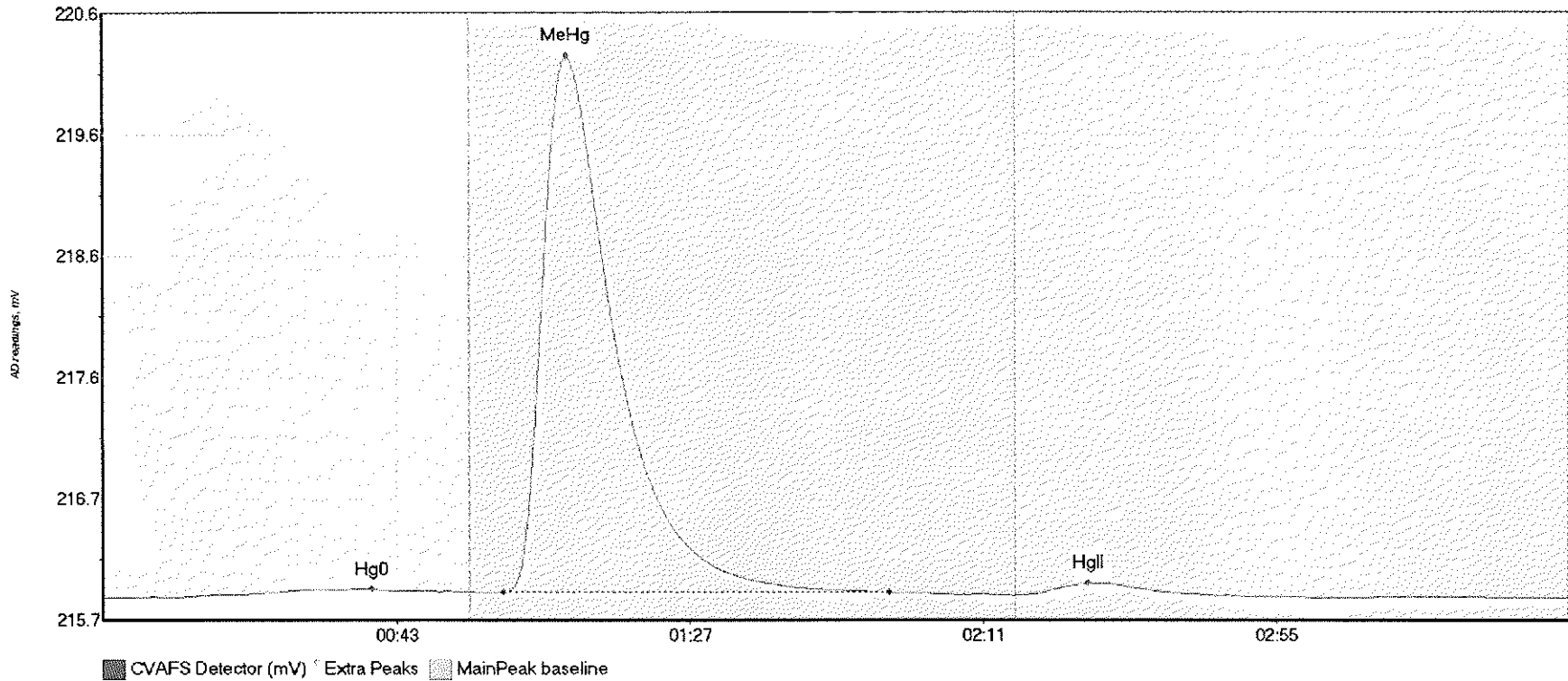
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-03 Hg0	11.051	10.0	55.0	215.86	215.92	32.4	0.078	CT	215.8634	0.00	0.02	
1706929-03 MeHg	41.197	59.9	90.2	215.91	215.92	68.6	0.352	OK	215.8634	0.00	0.02	
1706929-03 HgII	18.766	136.8	166.0	215.89	215.90	146.8	0.140	OK	215.8634	0.00	0.02	

#25: 1706929-04



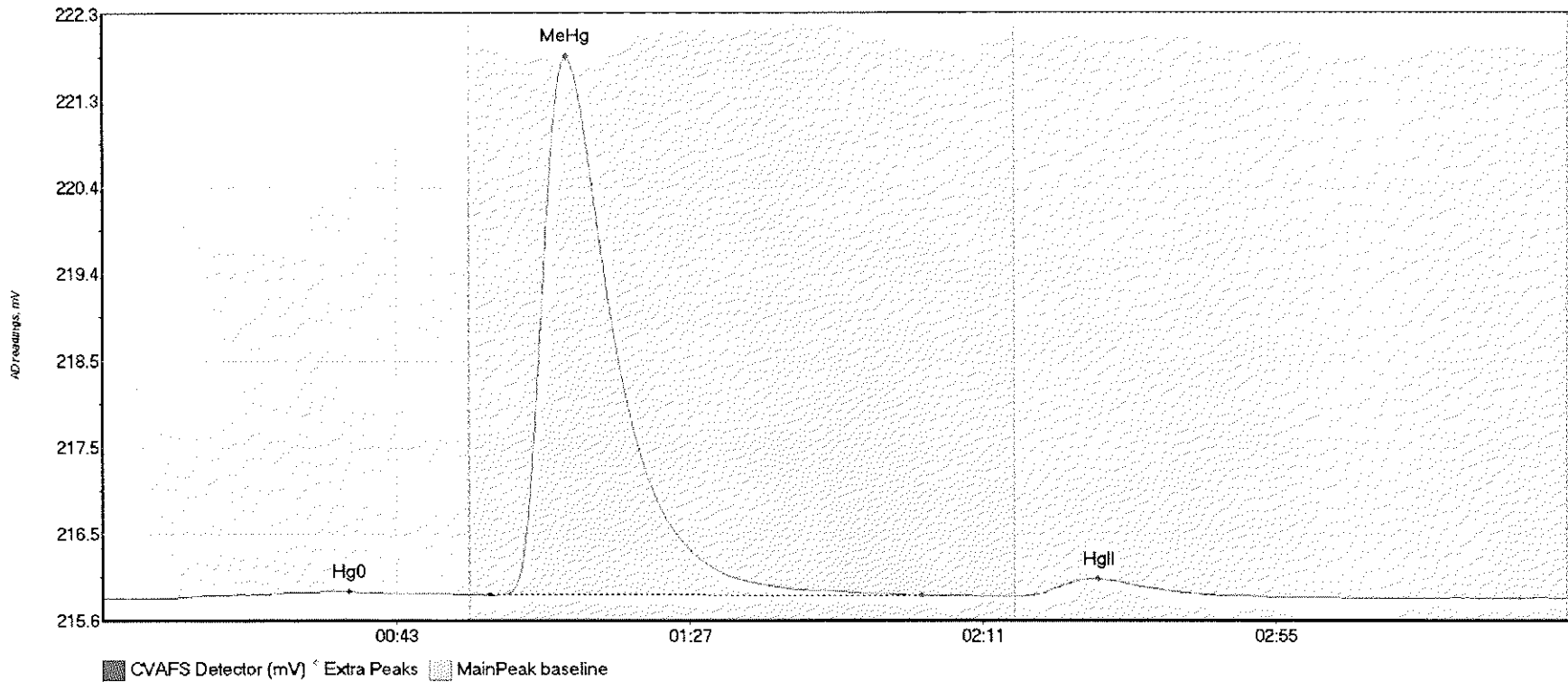
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-04 Hg0	10.325	10.5	55.0	215.87	215.91	28.4	0.063	CT	215.8693	0.00	0.00	
1706929-04 MeHg	63.096	60.0	95.5	215.92	215.90	69.1	0.517	OK	215.8693	0.00	0.00	
1706929-04 HgII	16.812	136.8	167.4	215.89	215.89	146.7	0.124	OK	215.8693	0.00	0.00	

#26: 1706929-05



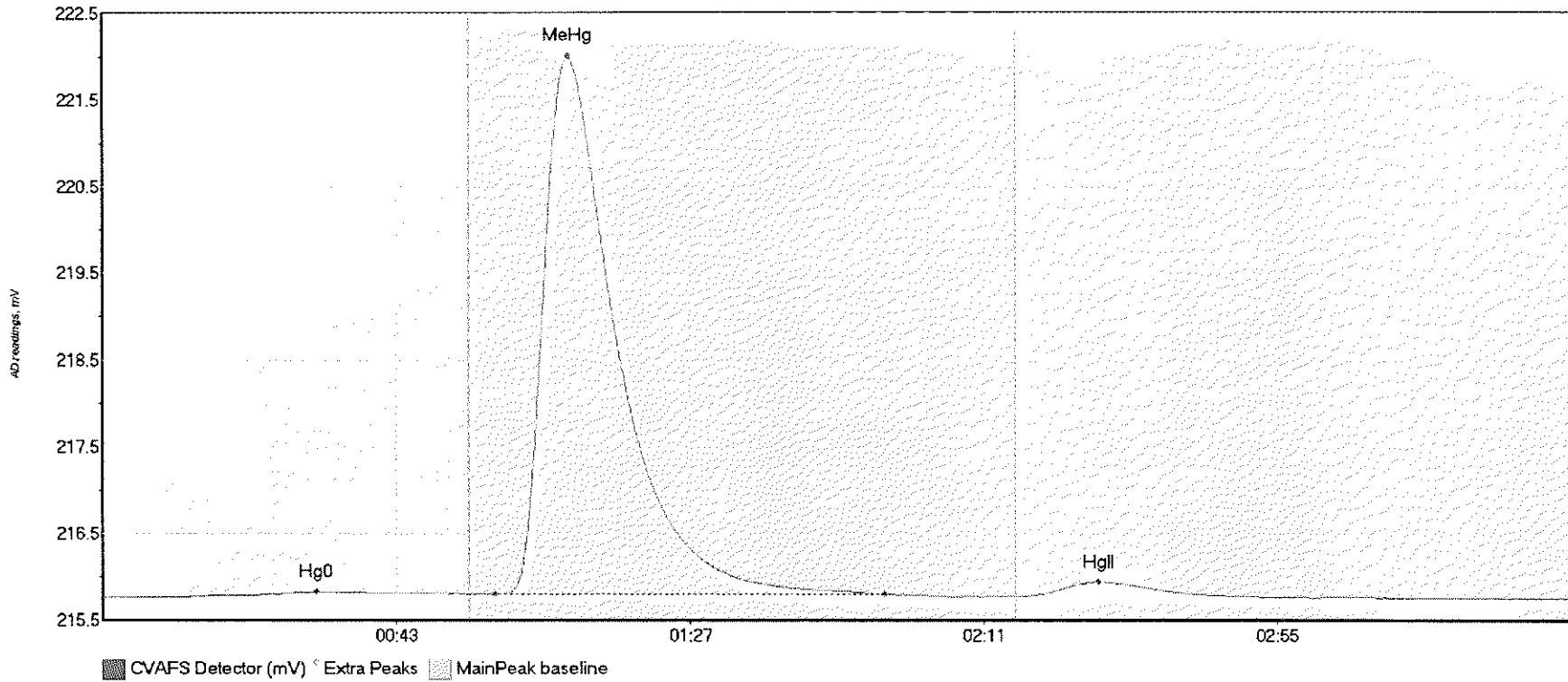
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-05 Hg0	10.178	10.8	55.0	215.85	215.90	40.3	0.070	CT	215.8545	0.00	0.00	
1706929-05 MeHg	549.105	60.0	117.9	215.89	215.89	69.6	4.343	OK	215.8545	0.00	0.00	
1706929-05 HgII	13.983	136.8	167.2	215.87	215.87	147.8	0.098	OK	215.8545	0.00	0.00	

#27: 1706929-06



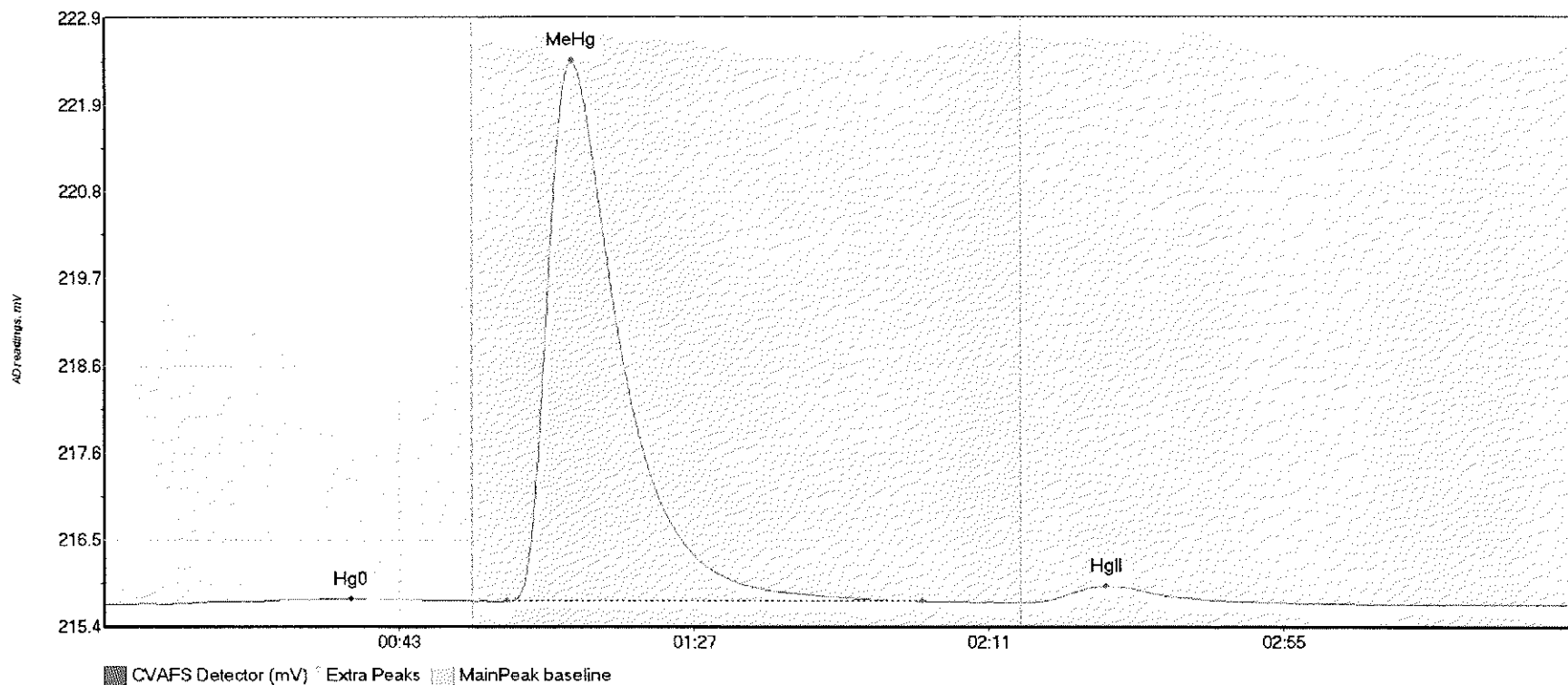
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-06 Hg0	12.657	10.1	55.0	215.81	215.85	37.0	0.073	CT	215.8141	0.00	0.00	
1706929-06 MeHg	760.907	58.0	122.9	215.84	215.84	69.6	5.977	OK	215.8141	0.00	0.00	
1706929-06 HgII	28.239	137.5	173.1	215.83	215.83	149.4	0.192	OK	215.8141	0.00	0.00	

#28: 1706929-08



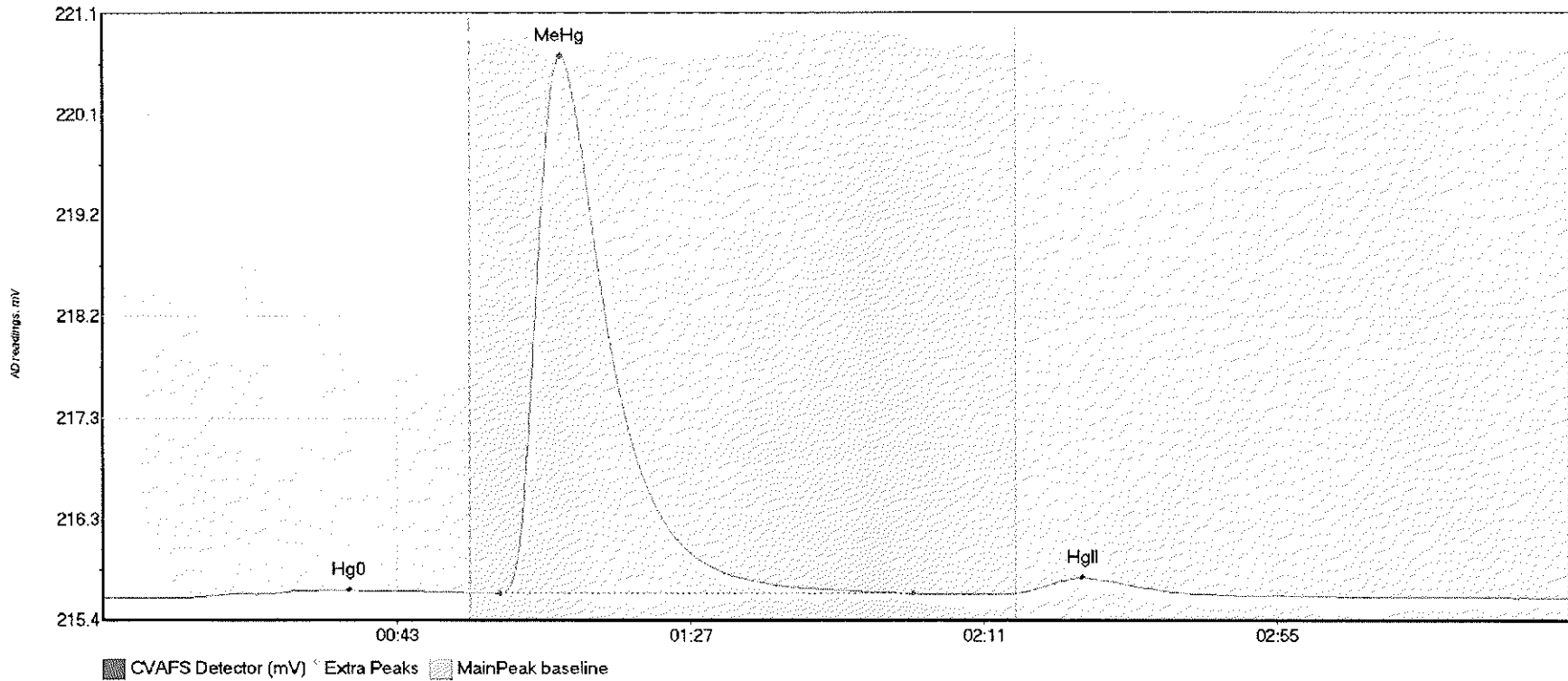
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1706929-08 Hg0	10.038	11.3	54.9	215.77	215.81	32.0	0.064	OK	215.7747	0.00	-0.01	
1706929-08 MeHg	788.893	58.9	117.1	215.80	215.81	69.8	6.238	OK	215.7747	0.00	-0.01	
1706929-08 HgII	23.577	137.8	170.5	215.79	215.79	149.3	0.165	OK	215.7747	0.00	-0.01	

#29: 1706929-09



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-09 Hg0	11.648	8.8	55.0	215.71	215.75	36.9	0.064	CT	215.7154	0.00	-0.01	
1706929-09 MeHg	843.099	60.1	122.1	215.75	215.75	69.9	6.641	OK	215.7154	0.00	-0.01	
1706929-09 HgII	30.372	138.0	174.1	215.74	215.73	149.6	0.202	OK	215.7154	0.00	-0.01	

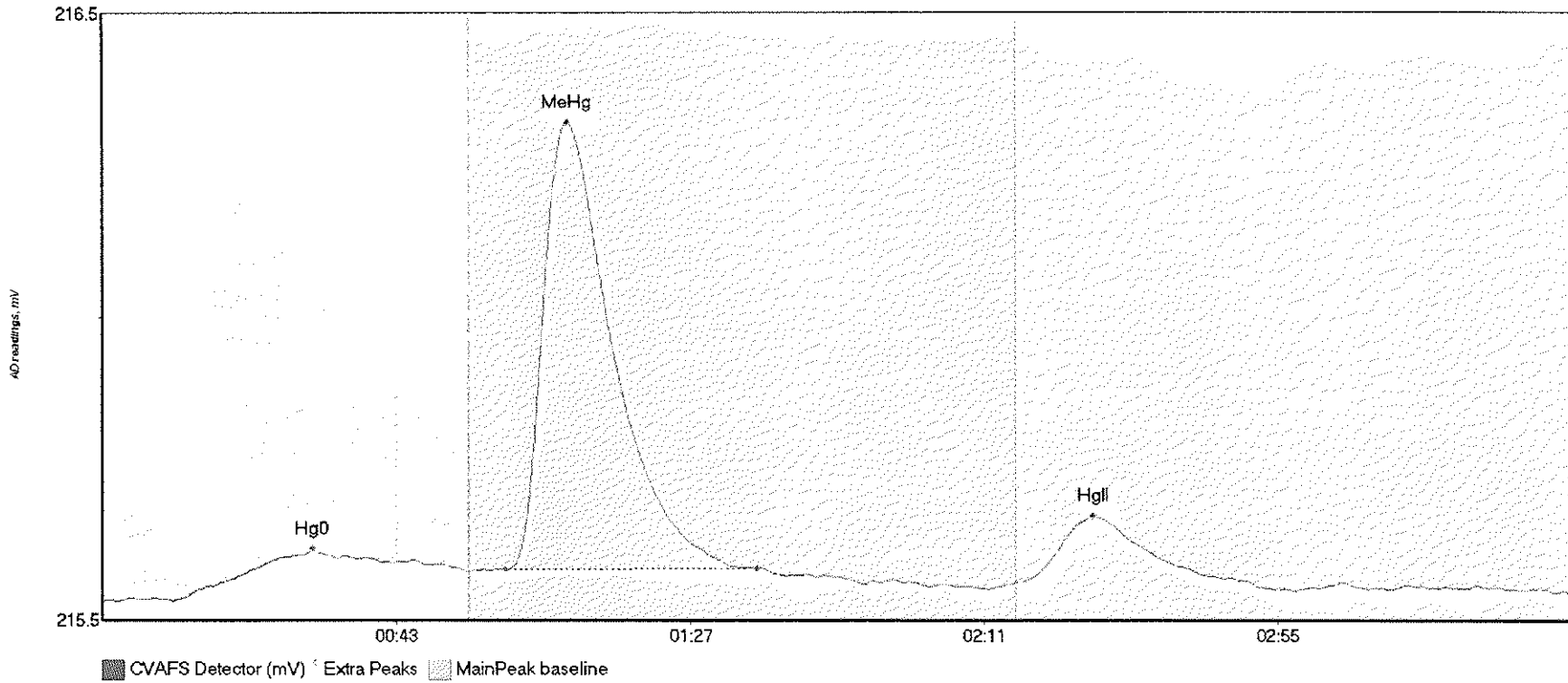
#30: 1706929-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706929-10 Hg0	11.807	12.2	55.0	215.57	215.61	36.8	0.076	CT	215.5671	0.00	0.00	
1706929-10 MeHg	646.451	59.4	121.4	215.61	215.60	68.6	5.041	OK	215.5671	0.00	0.00	
1706929-10 HgII	20.079	136.8	163.7	215.61	215.61	146.9	0.154	OK	215.5671	0.00	0.00	

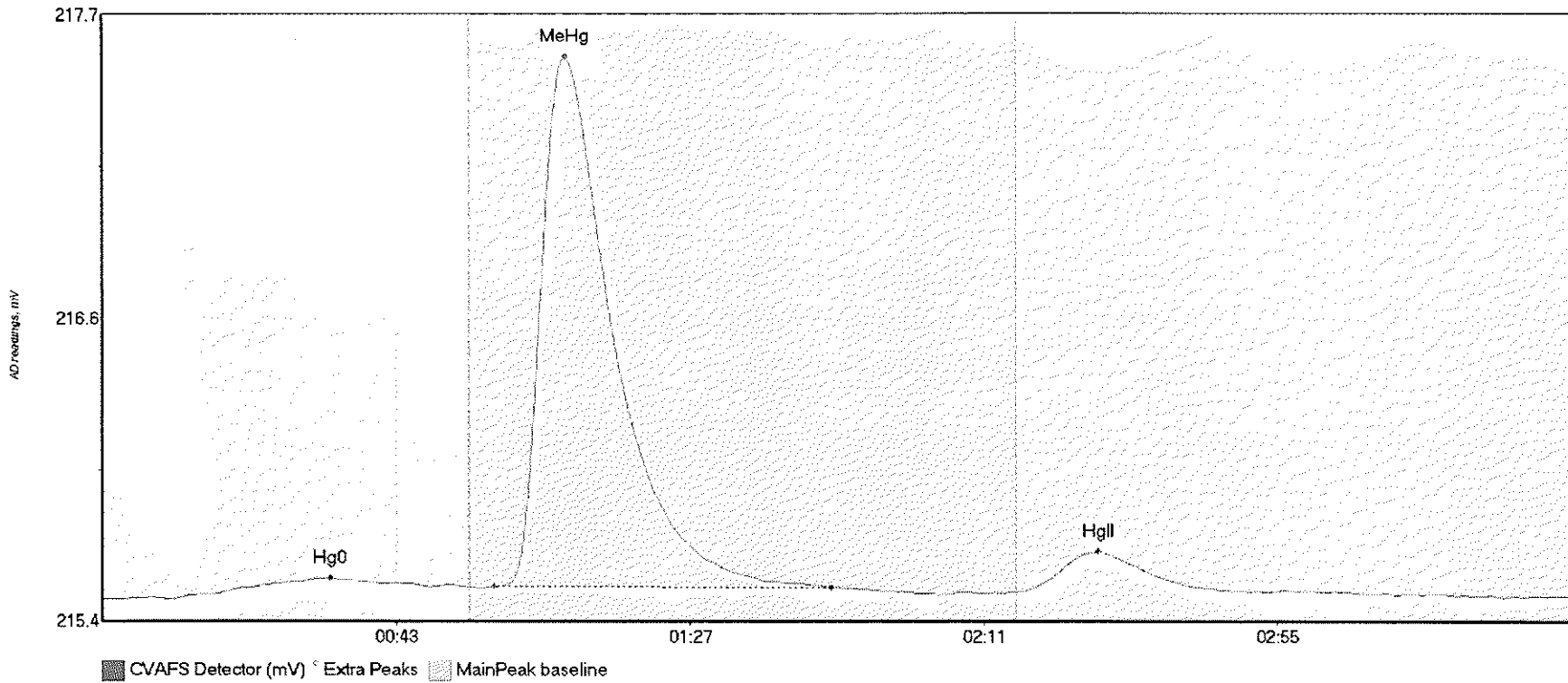


#31: 1706930-02



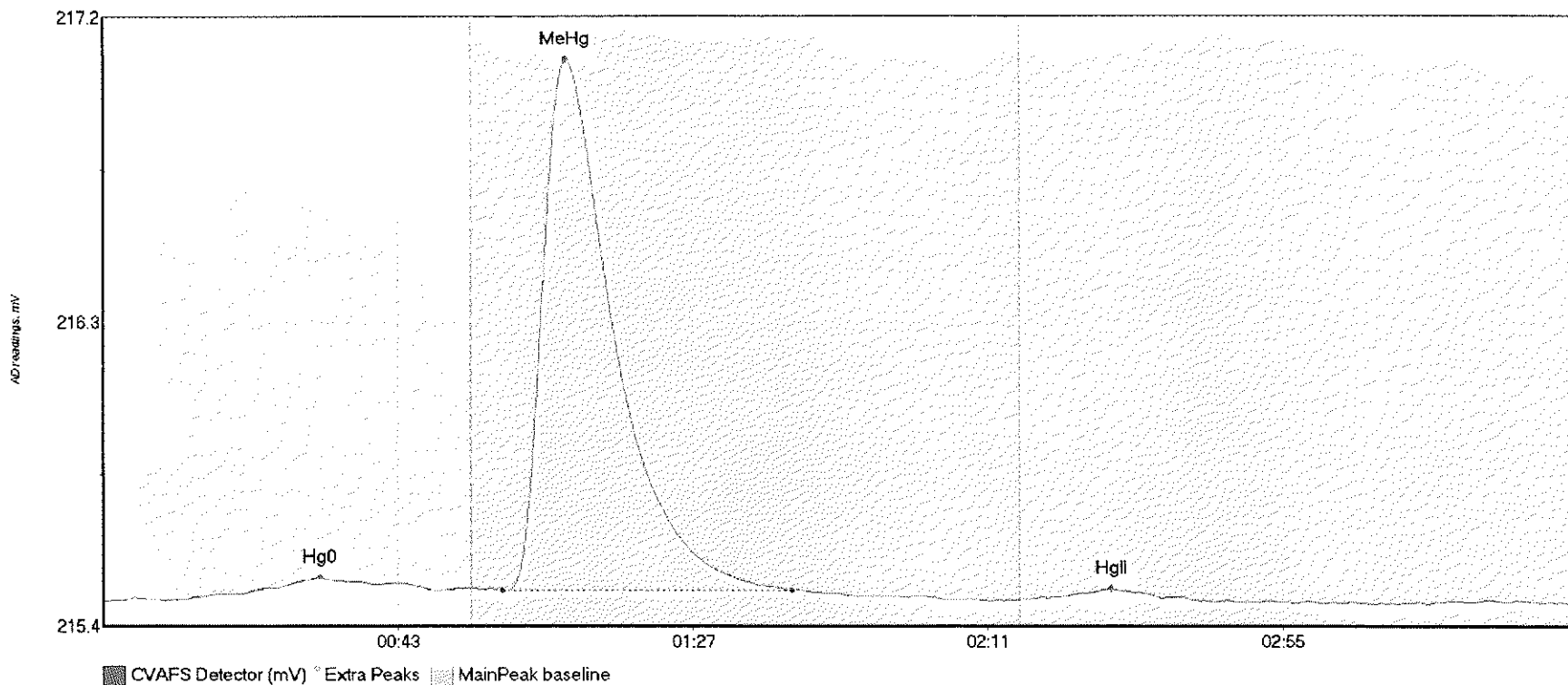
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-02 Hg0	13.347	12.1	54.9	215.53	215.58	31.4	0.079	OK	215.5291	0.00	0.01	
1706930-02 MeHg	88.156	60.5	98.0	215.58	215.58	69.7	0.736	OK	215.5291	0.00	0.01	
1706930-02 HgII	14.985	137.2	170.3	215.56	215.56	148.4	0.109	OK	215.5291	0.00	0.01	

#32: 1706930-03



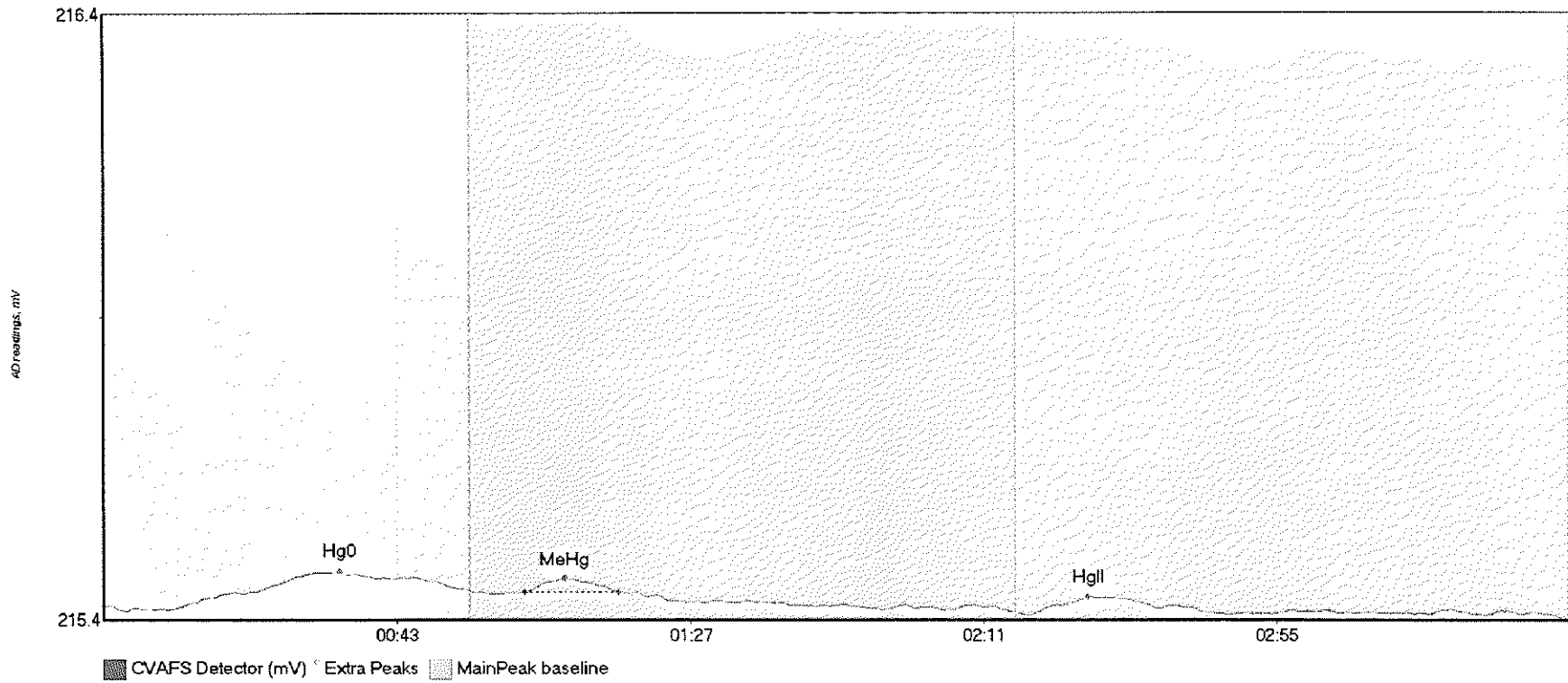
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-03 Hg0	12.785	10.5	55.0	215.50	215.55	34.2	0.079	CT	215.5002	0.00	0.01	
1706930-03 MeHg	254.823	58.7	109.1	215.55	215.54	69.4	2.031	OK	215.5002	0.00	0.01	
1706930-03 HgII	20.672	136.8	167.8	215.53	215.53	149.2	0.154	OK	215.5002	0.00	0.01	

#33: SEQ-CCV2



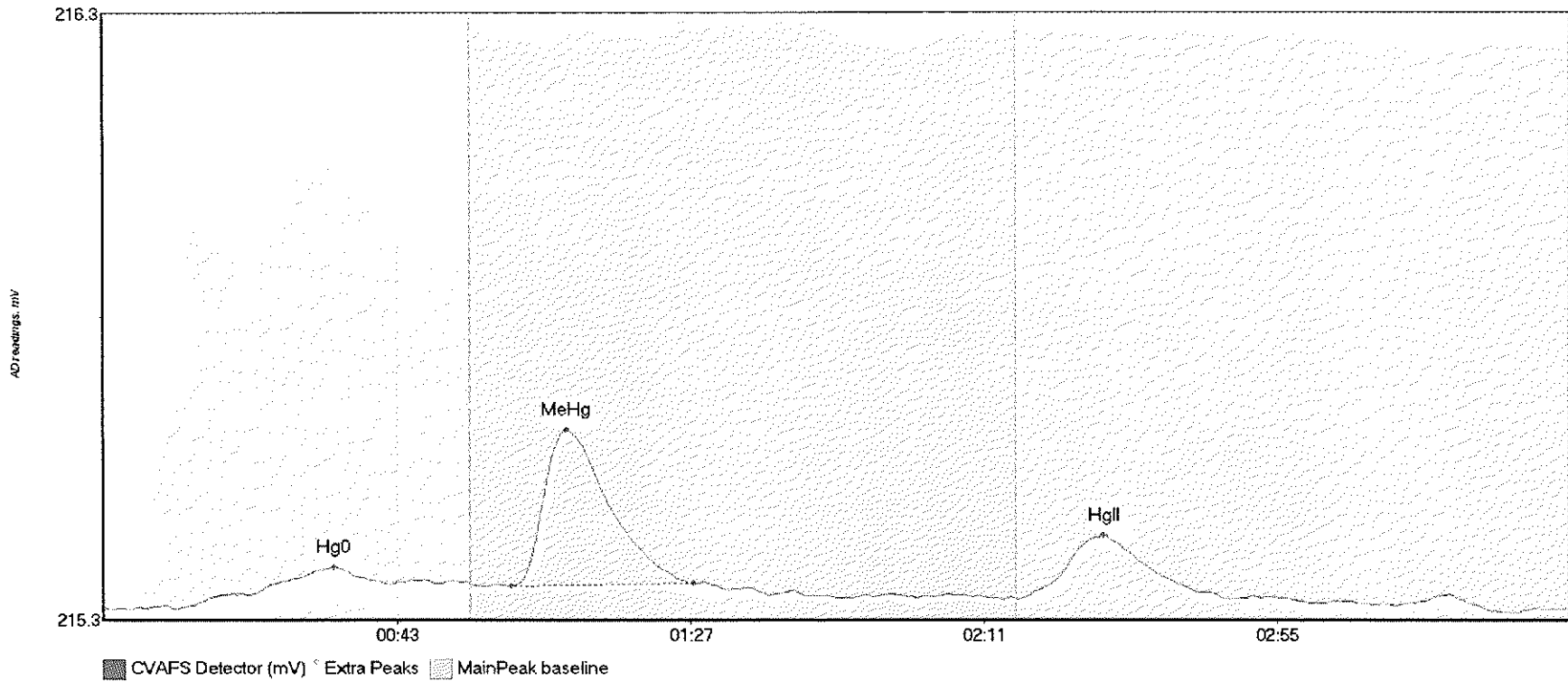
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	9.212	11.8	50.4	215.47	215.50	32.5	0.065	OK	215.4660	0.00	-0.01	
SEQ-CCV2 MeHg	196.349	59.6	102.7	215.50	215.50	69.2	1.591	OK	215.4660	0.00	-0.01	
SEQ-CCV2 HgII	2.330	141.0	158.2	215.48	215.48	150.4	0.026	OK	215.4660	0.00	-0.01	

#34: SEQ-CCB2



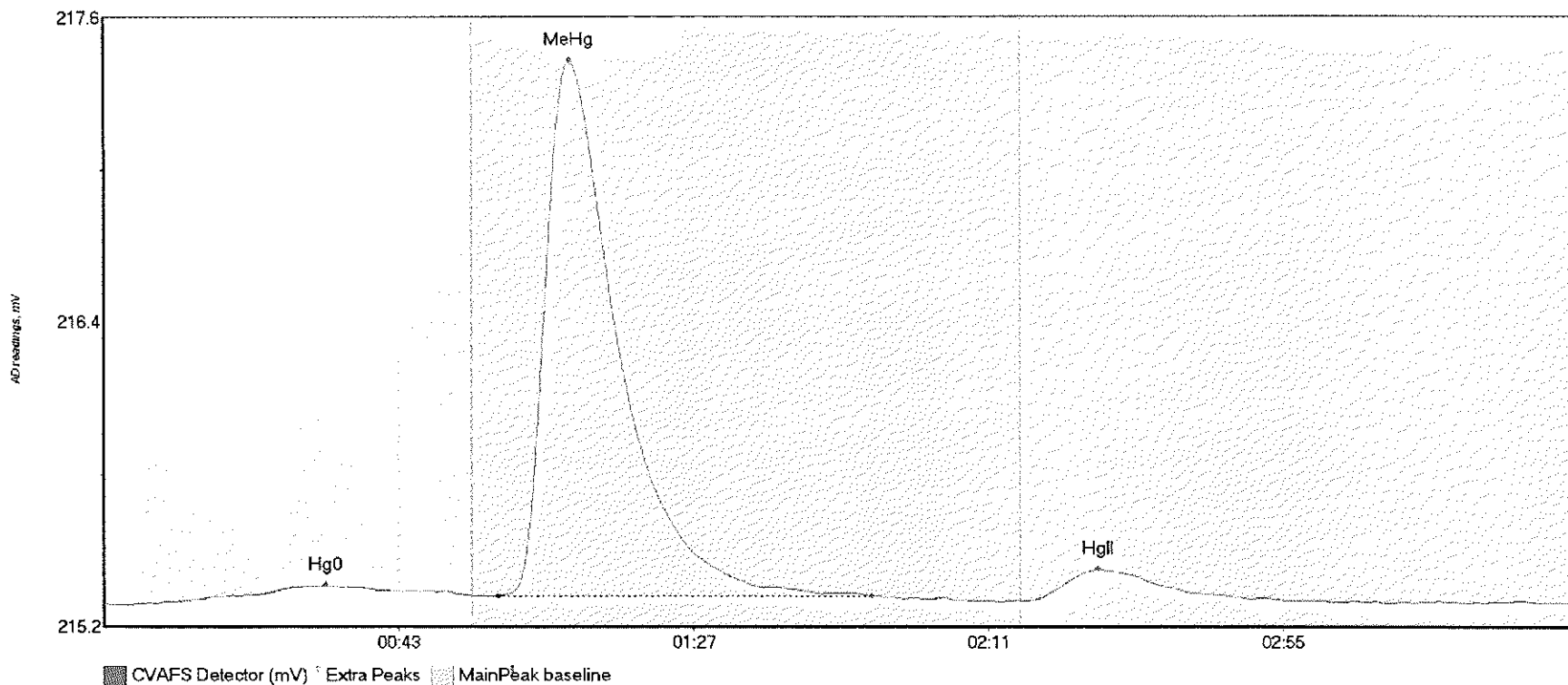
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	11.248	10.3	55.0	215.40	215.43	35.5	0.061	CT	215.4029	0.00	-0.02	
SEQ-CCB2 MeHg	1.864	63.1	77.1	215.43	215.43	69.1	0.024	OK	215.4029	0.00	-0.02	
SEQ-CCB2 HgII	4.247	139.0	165.4	215.39	215.39	147.8	0.030	OK	215.4029	0.00	-0.02	

#35: 1706930-04



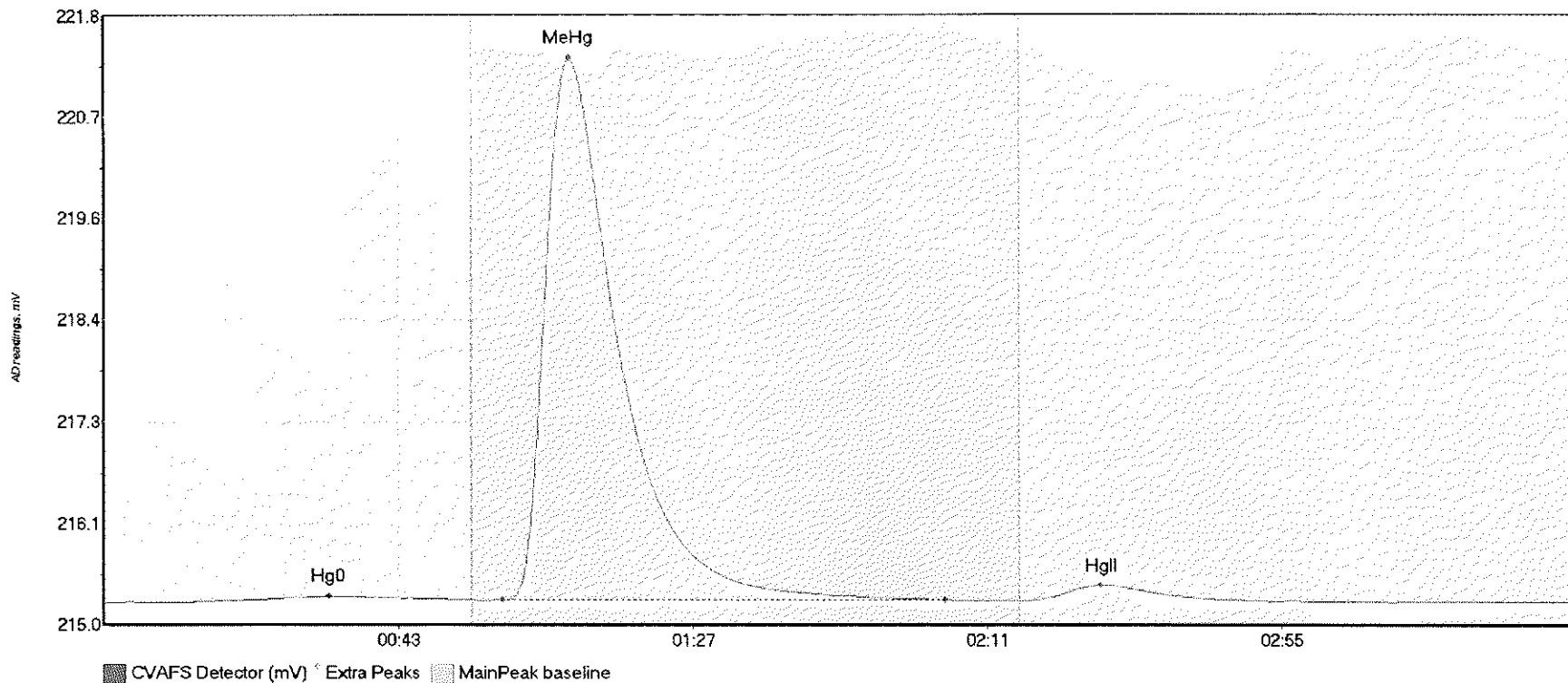
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-04 Hg0	5.314	12.8	42.8	215.35	215.39	34.6	0.064	OK	215.3478	0.00	0.00	
1706930-04 MeHg	28.903	61.1	88.5	215.38	215.39	69.5	0.258	OK	215.3478	0.00	0.00	
1706930-04 HgII	14.373	137.2	168.6	215.36	215.36	150.0	0.106	OK	215.3478	0.00	0.00	

#36: 1706930-05



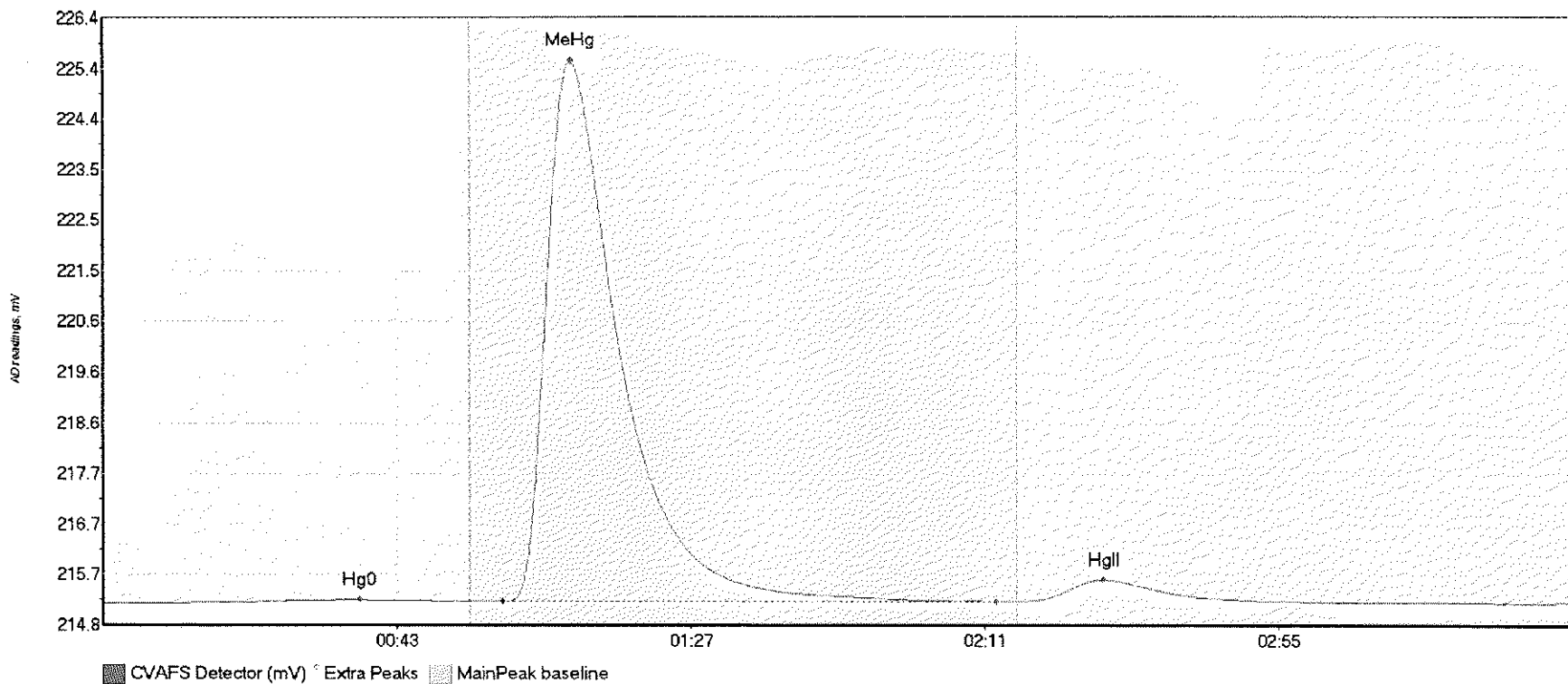
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-05 Hg0	12.373	7.9	55.0	215.30	215.33	33.1	0.067	CT	215.2963	0.00	0.00	
1706930-05 MeHg	260.210	58.9	114.6	215.33	215.33	69.6	2.057	OK	215.2963	0.00	0.00	
1706930-05 HgII	19.992	137.6	177.1	215.31	215.31	148.5	0.119	OK	215.2963	0.00	0.00	

#37: 1706930-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-06 Hg0	11.540	13.0	55.0	215.26	215.28	33.6	0.064	CT	215.2522	0.00	0.01	
1706930-06 MeHg	769.200	59.6	125.8	215.28	215.28	69.6	6.058	OK	215.2522	0.00	0.01	
1706930-06 HgII	27.390	136.8	174.3	215.27	215.27	149.0	0.178	OK	215.2522	0.00	0.01	

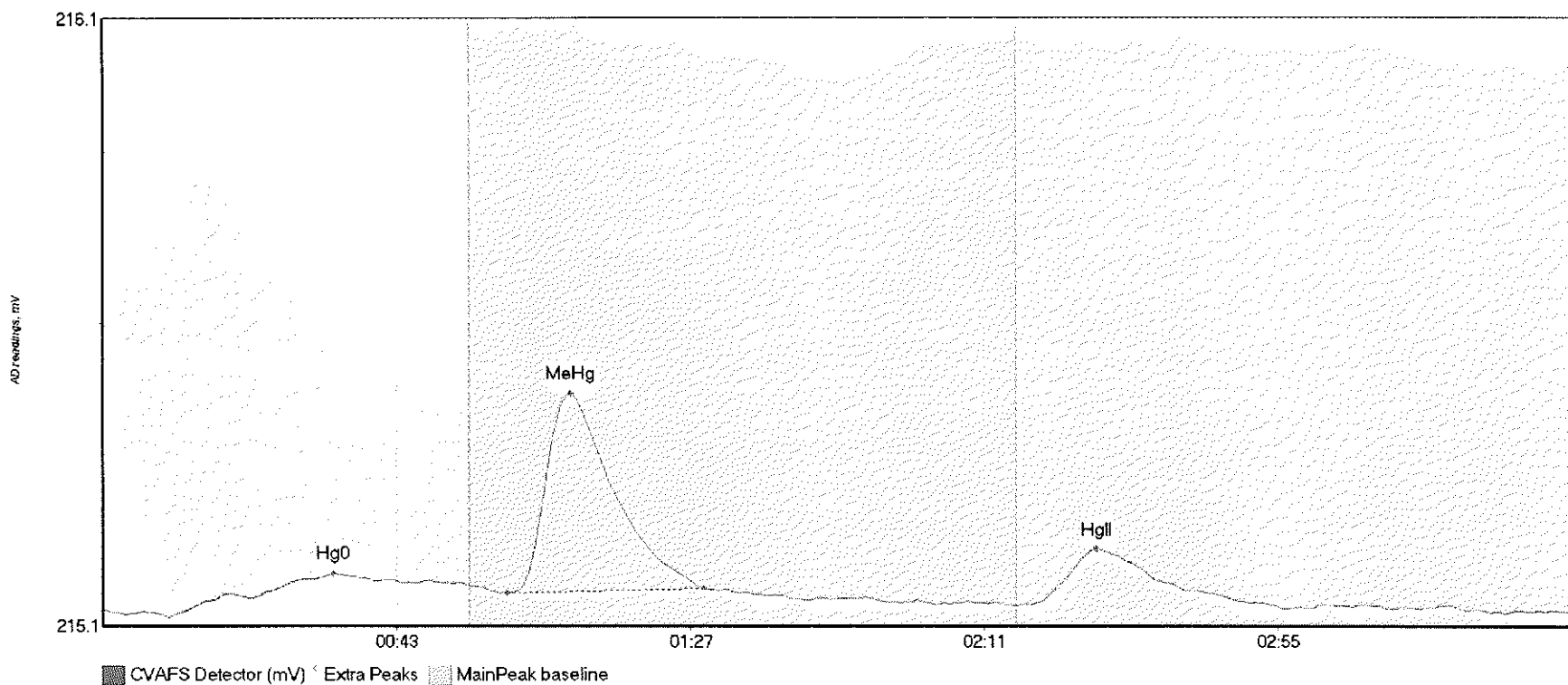
#38: 1706930-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706930-07 Hg0	12.017	9.8	53.4	215.19	215.23	38.5	0.074	OK	215.1976	0.00	0.01	
1706930-07 MeHg	1313.772	59.9	133.7	215.23	215.24	70.1	10.321	OK	215.1976	0.00	0.01	
1706930-07 HgII	59.687	137.9	174.0	215.24	215.24	149.9	0.411	OK	215.1976	0.00	0.01	

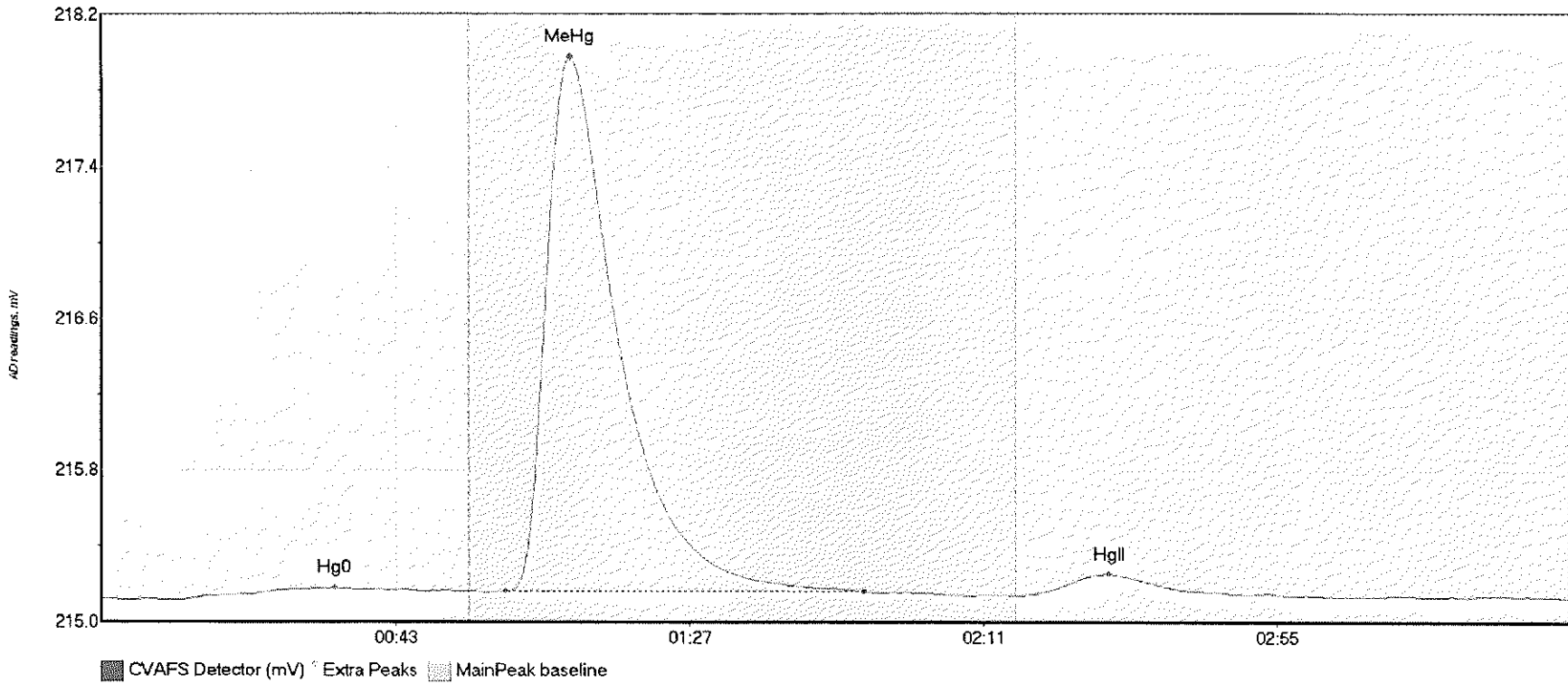


#39: 1706931-01



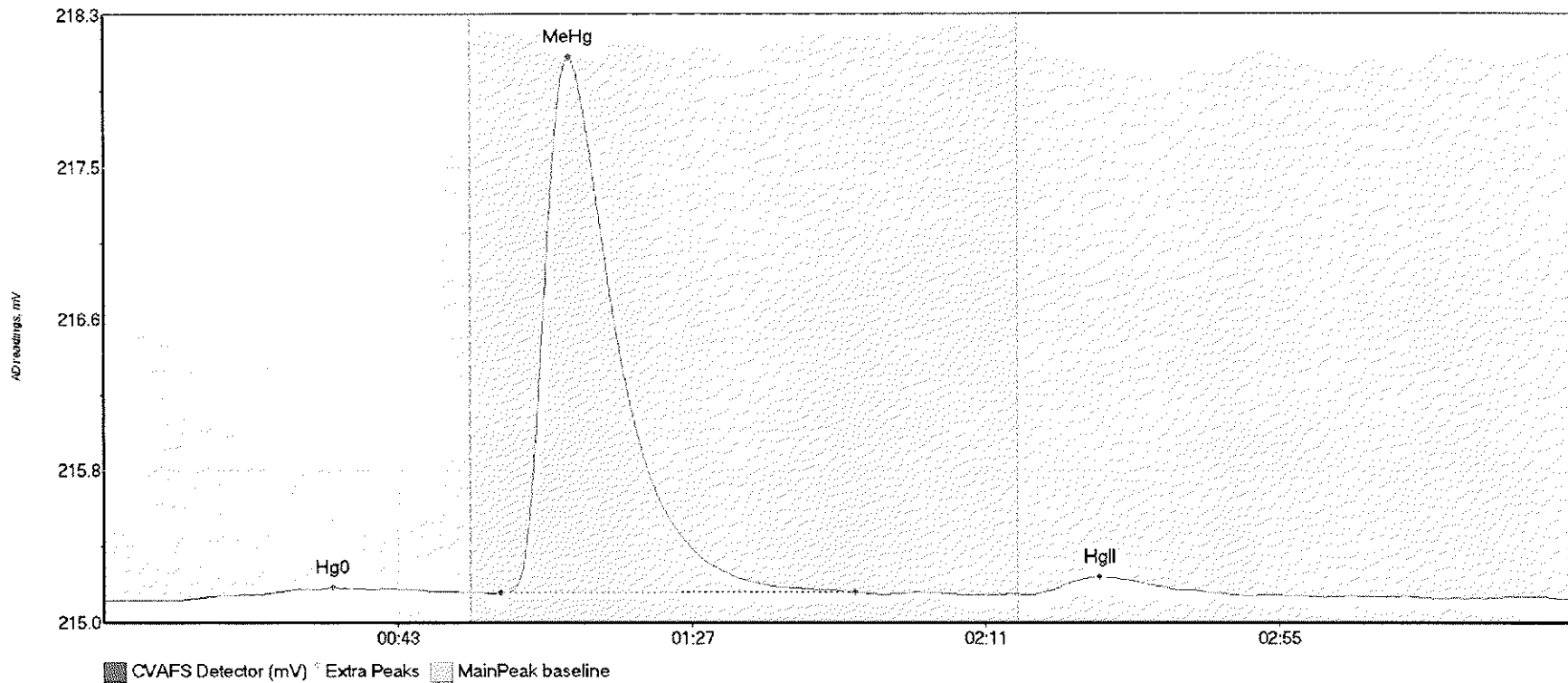
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-01 Hg0	10.430	10.0	55.0	215.15	215.20	34.6	0.071	CT	215.1565	0.00	0.00	
1706931-01 MeHg	38.153	60.6	90.0	215.19	215.19	70.1	0.330	OK	215.1565	0.00	0.00	
1706931-01 HgII	12.963	138.7	171.6	215.17	215.17	148.9	0.093	OK	215.1565	0.00	0.00	

#40: 1706931-02



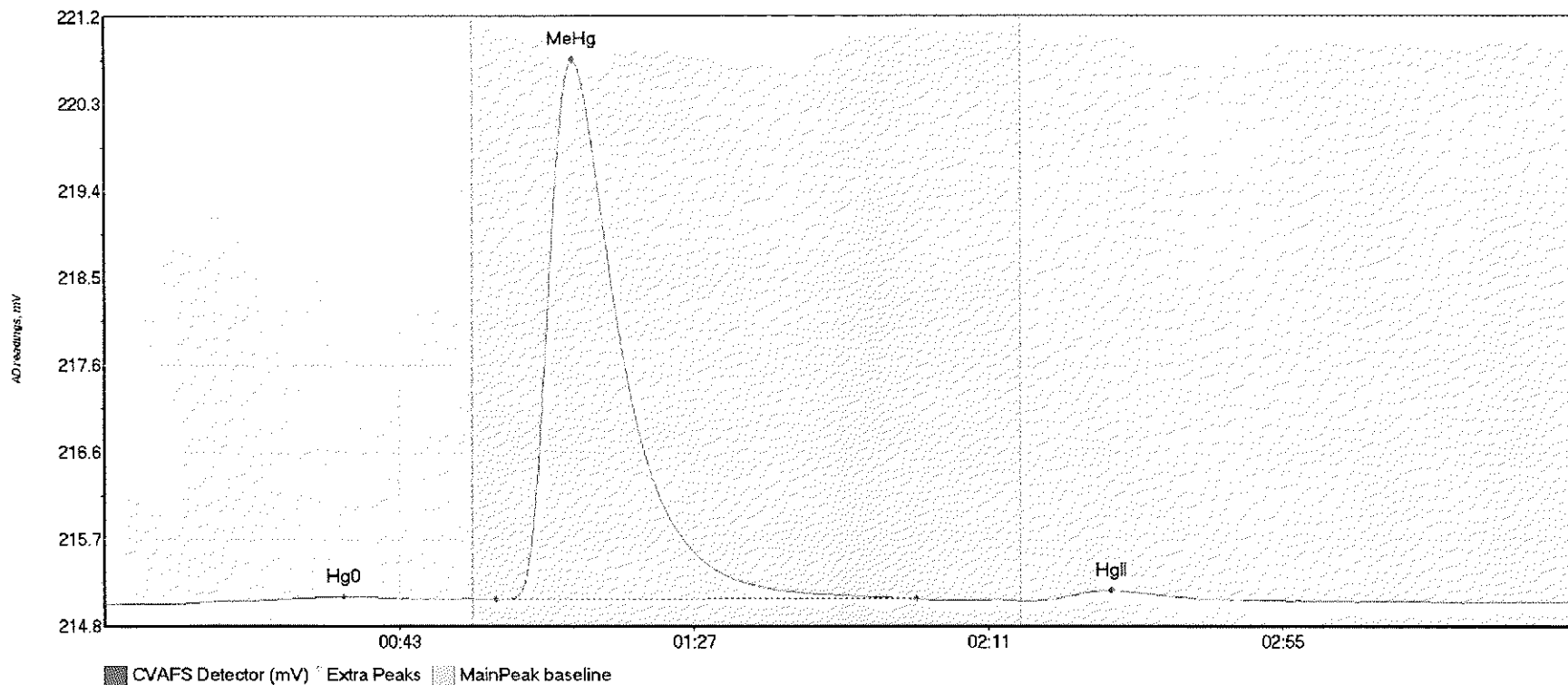
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-02 Hg0	8.834	11.3	52.7	215.11	215.16	34.8	0.065	OK	215.1146	0.00	0.00	
1706931-02 MeHg	358.585	60.5	114.1	215.15	215.15	70.2	2.848	OK	215.1146	0.00	0.00	
1706931-02 HgII	18.320	137.1	177.5	215.13	215.13	150.9	0.119	OK	215.1146	0.00	0.00	

#41: 1706931-03



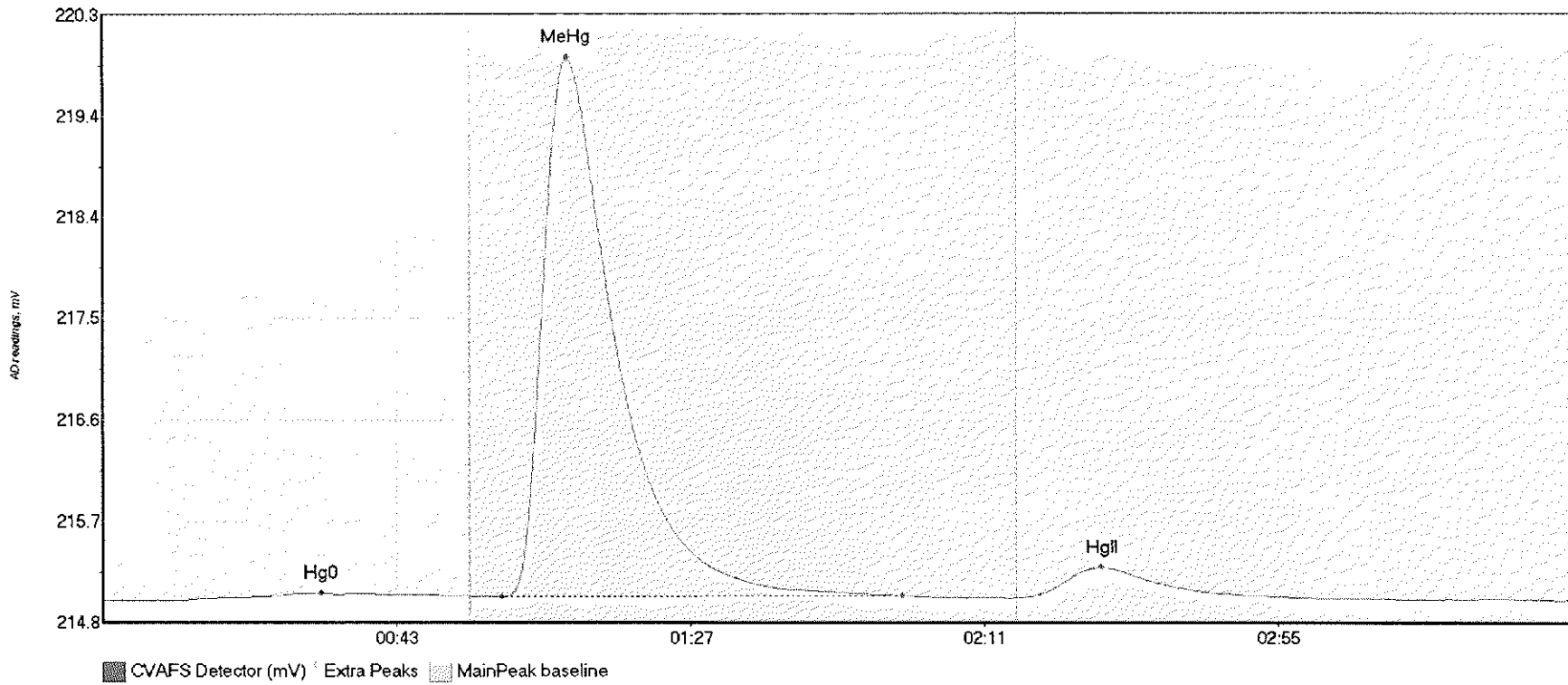
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-03 Hg0	11.171	11.3	55.0	215.08	215.12	34.3	0.068	CT	215.0802	0.00	0.01	
1706931-03 MeHg	368.924	59.4	112.5	215.12	215.12	69.7	2.937	OK	215.0802	0.00	0.01	
1706931-03 HgII	15.201	139.2	170.5	215.11	215.11	149.2	0.099	OK	215.0802	0.00	0.01	

#42: F707393-DUP1



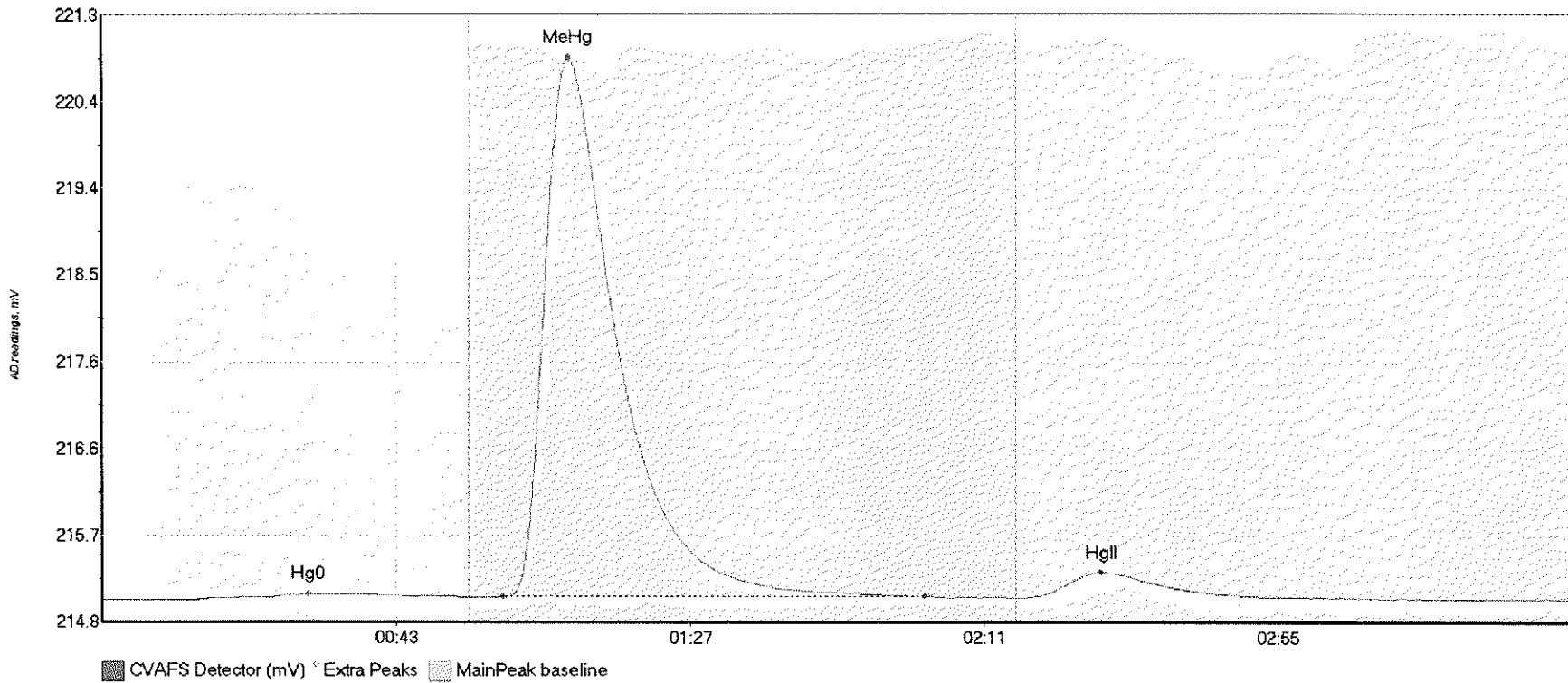
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-DUP1 Hg	9.838	10.3	51.3	215.04	215.10	35.7	0.078	OK	215.0453	0.00	0.02	
F707393-DUP1 Me	720.339	58.5	121.3	215.09	215.10	70.0	5.689	OK	215.0453	0.00	0.02	
F707393-DUP1 Hg	16.375	138.3	175.4	215.08	215.08	150.5	0.112	OK	215.0453	0.00	0.02	

#43: F707393-MS1



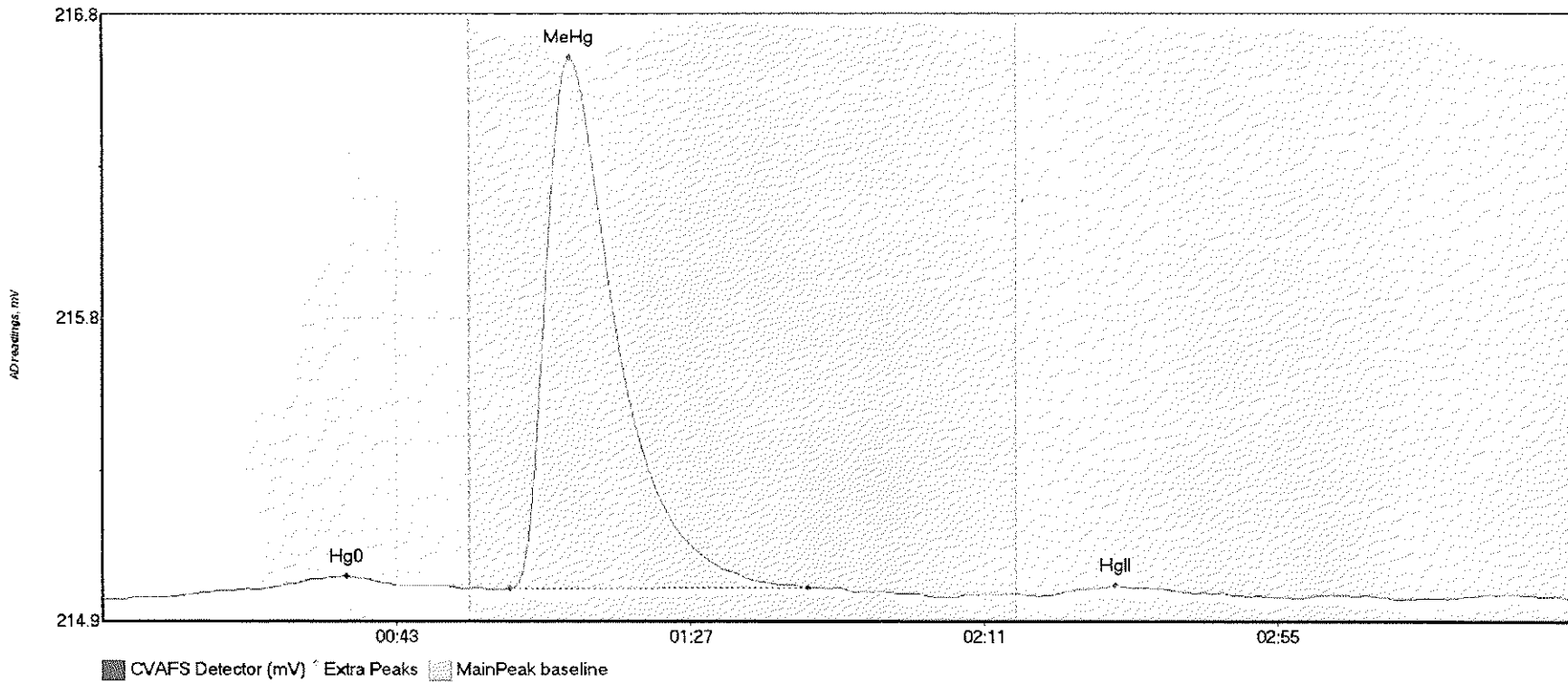
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS1 Hg0	9.767	12.3	55.0	215.02	215.06	32.7	0.060	CT	215.0202	0.00	0.01	
F707393-MS1 MeH	608.503	59.7	119.8	215.05	215.06	69.6	4.818	OK	215.0202	0.00	0.01	
F707393-MS1 HgI	42.276	136.8	178.4	215.04	215.05	149.6	0.276	OK	215.0202	0.00	0.01	

#44: F707393-MSD1



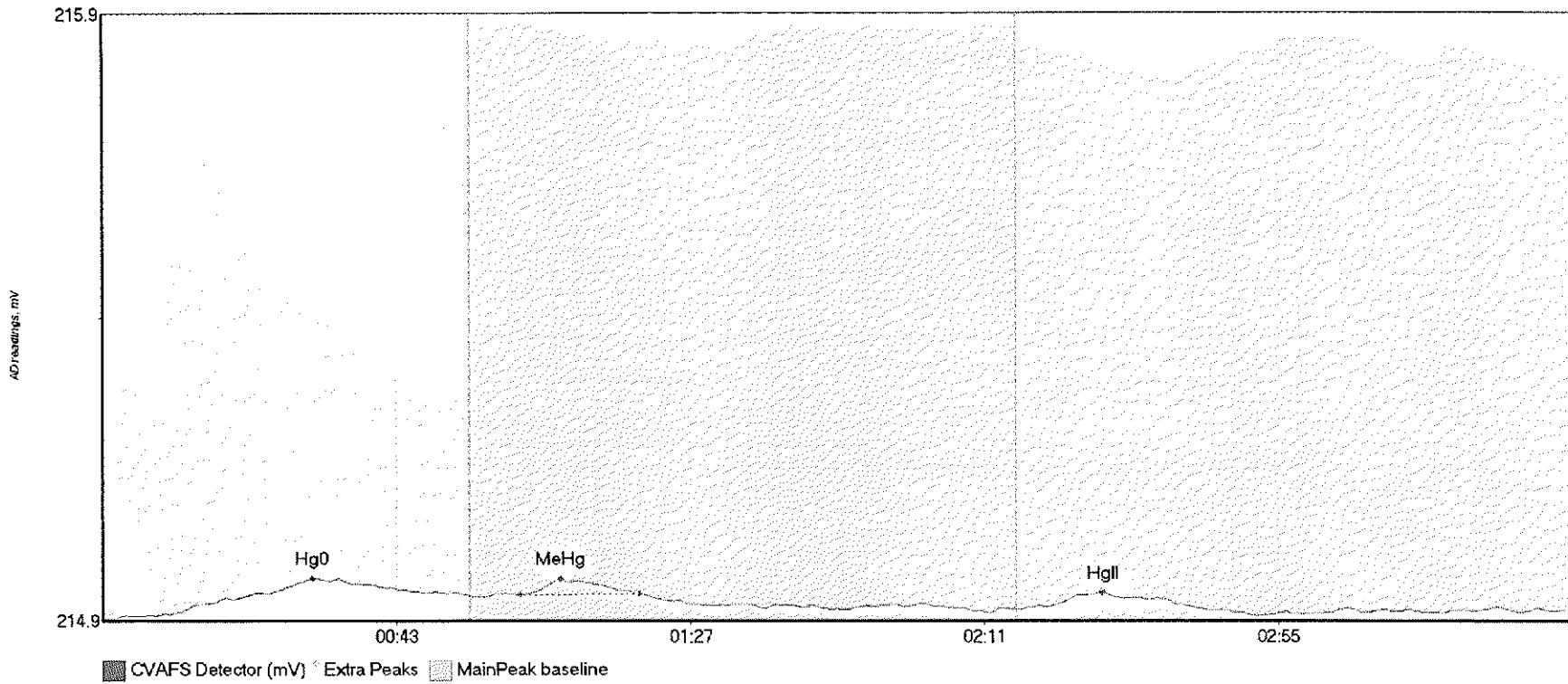
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD1 Hg	10.461	12.5	54.9	215.00	215.03	30.9	0.065	OK	214.9984	0.00	0.01	
F707393-MSD1 Me	735.949	60.0	123.2	215.03	215.03	69.9	5.821	OK	214.9984	0.00	0.01	
F707393-MSD1 Hg	42.093	137.8	176.9	215.02	215.02	149.6	0.276	OK	214.9984	0.00	0.01	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	10.019	9.6	54.3	214.97	215.00	36.6	0.066	OK	214.9682	0.00	0.00	
SEQ-CCV3 MeHg	202.571	61.0	105.6	215.00	215.00	70.0	1.641	OK	214.9682	0.00	0.00	
SEQ-CCV3 HgII	3.473	141.6	163.7	214.98	214.98	151.7	0.031	OK	214.9682	0.00	0.00	

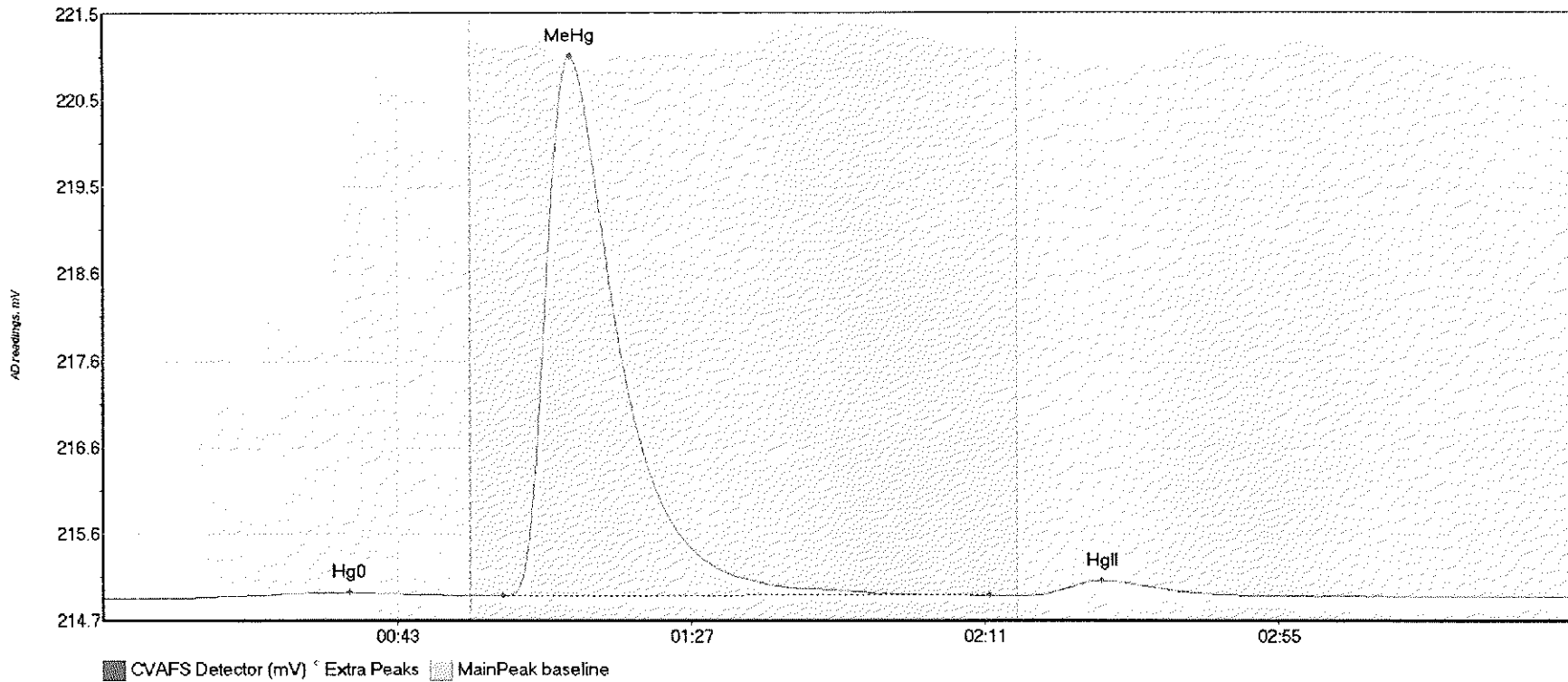
#46: SEQ-CCB3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	9.617	5.8	55.0	214.94	214.97	31.4	0.062	CT	214.9335	0.00	0.02	
SEQ-CCB3 MeHg	2.269	62.6	80.5	214.97	214.97	68.6	0.026	OK	214.9335	0.00	0.02	
SEQ-CCB3 HgII	3.003	141.9	164.0	214.95	214.95	149.7	0.024	OK	214.9335	0.00	0.02	

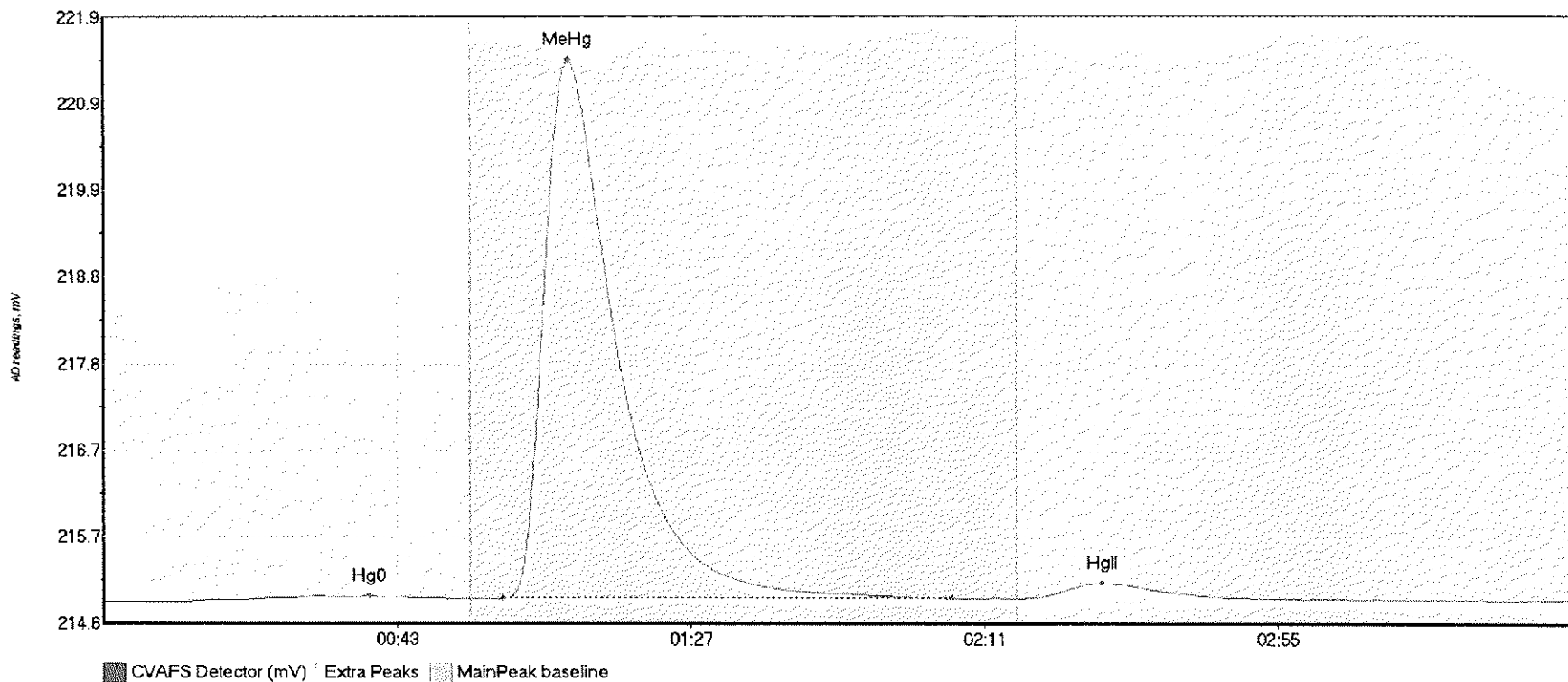


#47: F707393-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MS2 Hg0	12.091	11.0	55.0	214.92	214.95	36.9	0.070	CT	214.9230	0.00	0.02	
F707393-MS2 MeH	767.828	59.9	132.8	214.95	214.96	70.0	6.024	OK	214.9230	0.00	0.02	
F707393-MS2 HgI	23.309	139.1	171.3	214.96	214.95	149.6	0.161	OK	214.9230	0.00	0.02	

#48: F707393-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707393-MSD2 Hg	11.245	11.6	52.8	214.90	214.94	39.8	0.067	OK	214.9048	0.00	0.02	
F707393-MSD2 Me	823.300	59.8	127.2	214.94	214.94	69.7	6.474	OK	214.9048	0.00	0.02	
F707393-MSD2 Hg	26.837	137.4	171.2	214.94	214.94	149.8	0.185	OK	214.9048	0.00	0.02	



Frontier Global Sciences

### MHg27001-170727-1

#### Analysis Datasheet for Methyl Mercury in Waters

Date of Analysis: July 27, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G28007

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	18.46 units	369.30	18.46 units	369.30	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	78.33 units	391.63	78.33 units	391.63	94.4 %Rec
SEQ-CAL3	1	1.00 ng/L	456.27 units	456.27	456.27 units	456.27	109.9 %Rec
SEQ-CAL4	1	2.00 ng/L	850.56 units	425.28	850.56 units	425.28	102.5 %Rec
SEQ-CAL5	1	4.00 ng/L	1731.04 units	432.76	1731.04 units	432.76	104.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>	<b>Eff Factor</b>
415.05	+/- 34.49	8.3% RSD	415.05	<b>0.8690</b>

#### 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	0.001 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: BC 7/29/17



Frontier Global Sciences

**MHg27001-170727-2**

**Analysis Datasheet for Methyl Mercury in Soil/Tissue**

Date of Analysis: July 27, 2017

Analyst: DM2

Instrument #: Hg2700-1

Units ng/L

LIMS Sequence #: 7G28008

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	18.46 units	369.30	18.46 units	369.30	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	78.33 units	391.63	78.33 units	391.63	94.4 %Rec
SEQ-CAL3	1	1.00 ng/L	456.27 units	456.27	456.27 units	456.27	109.9 %Rec
SEQ-CAL4	1	2.00 ng/L	850.56 units	425.28	850.56 units	425.28	102.5 %Rec
SEQ-CAL5	1	4.00 ng/L	1731.04 units	432.76	1731.04 units	432.76	104.3 %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**  
 415.05            +/- 34.49            8.3% RSD            415.05

**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	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hq2700-1	DM2	CAL	SEQ-IBL1	1	7/27/17 8:54	24311-1.RAW	8:54	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	7/27/17 9:05	24312-1.RAW	#####	18.46				18.5	0.044	0.044	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	7/27/17 9:15	24313-1.RAW	#####	78.33				78.3	0.189	0.189	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	7/27/17 9:26	24314-1.RAW	#####	456.27				456.3	1.099	1.099	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	7/27/17 9:36	24315-1.RAW	#####	850.56				850.6	2.049	2.049	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	7/27/17 9:47	24316-1.RAW	#####	1731.04				1731.0	4.171	4.171	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICV1	1	7/27/17 9:57	24317-1.RAW	#####	204.16				204.2	0.492	0.492	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICB1	1	7/27/17 10:08	24318-1.RAW	#####	1.85				1.8	0.004	0.004	ng/L	
Hq2700-1	DM2	BLK	F707501-BLK1	1.25	7/27/17 10:18	24319-1.RAW	#####	1.12	1			1.1	0.003	0.004	ng/L	
Hq2700-1	DM2	BLK	F707501-BLK2	1.25	7/27/17 10:29	24320-1.RAW	#####	0.00	1			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F707501-BLK3	1.25	7/27/17 10:40	24321-1.RAW	#####	0.00	1			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F707501-BS1	1.25	7/27/17 10:50	24322-1.RAW	#####	300.30	1			300.3	0.832	1.039	ng/L	
Hq2700-1	DM2	SAM	F707501-BSD1	1.25	7/27/17 11:01	24323-1.RAW	#####	335.29	1			335.3	0.929	1.161	ng/L	
Hq2700-1	DM2	SAM	F707501-DUP1	1.25	7/27/17 11:11	24324-1.RAW	#####	18.44	1			18.4	0.050	0.063	ng/L	
Hq2700-1	DM2	SAM	F707501-MS1	1.25	7/27/17 11:22	24325-1.RAW	#####	363.06	1			363.1	1.006	1.257	ng/L	
Hq2700-1	DM2	SAM	F707501-MSD1	1.25	7/27/17 11:32	24326-1.RAW	#####	334.51	1			334.5	0.926	1.158	ng/L	
Hq2700-1	DM2	SAM	F707501-MS2	1.25	7/27/17 11:43	24327-1.RAW	#####	385.03	1			385.0	1.066	1.333	ng/L	
Hq2700-1	DM2	SAM	F707501-MSD2	1.25	7/27/17 11:53	24328-1.RAW	#####	360.66	1			360.7	0.999	1.249	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	7/27/17 12:04	24329-1.RAW	#####	195.58				195.6	0.471	0.471	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	7/27/17 12:14	24330-1.RAW	#####	0.81				0.8	0.002	0.002	ng/L	
Hq2700-1	DM2	SAM	1707102-01	1.25	7/27/17 12:25	24331-1.RAW	#####	28.94	1			28.9	0.079	0.099	ng/L	
Hq2700-1	DM2	SAM	1707102-02	1.25	7/27/17 12:35	24332-1.RAW	#####	33.05	1			33.0	0.091	0.113	ng/L	
Hq2700-1	DM2	SAM	1707102-03	1.25	7/27/17 12:46	24333-1.RAW	#####	21.17	1			21.2	0.058	0.072	ng/L	
Hq2700-1	DM2	SAM	1707102-04	1.25	7/27/17 12:56	24334-1.RAW	#####	13.53	1			13.5	0.036	0.046	ng/L	
Hq2700-1	DM2	SAM	1707102-05	1.25	7/27/17 13:07	24335-1.RAW	#####	17.61	1			17.6	0.048	0.060	ng/L	
Hq2700-1	DM2	SAM	1707102-06	1.25	7/27/17 13:17	24336-1.RAW	#####	8.72	1			8.7	0.023	0.029	ng/L	
Hq2700-1	DM2	SAM	1707293-01	1.25	7/27/17 13:28	24337-1.RAW	#####	36.27	1			36.3	0.100	0.124	ng/L	
Hq2700-1	DM2	SAM	1707293-02	1.25	7/27/17 13:38	24338-1.RAW	#####	34.35	1			34.3	0.094	0.118	ng/L	
Hq2700-1	DM2	SAM	1707293-03	1.25	7/27/17 13:49	24339-1.RAW	#####	17.84	1			17.8	0.048	0.061	ng/L	
Hq2700-1	DM2	SAM	1707293-04	1.25	7/27/17 13:59	24340-1.RAW	#####	20.53	1			20.5	0.056	0.070	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	7/27/17 14:10	24341-1.RAW	#####	176.21				176.2	0.425	0.425	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	7/27/17 14:20	24342-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1707293-05	1.25	7/27/17 14:31	24343-1.RAW	#####	21.63	1			21.6	0.059	0.074	ng/L	
Hq2700-1	DM2	SAM	1707293-06	1.25	7/27/17 14:41	24344-1.RAW	#####	12.80	1			12.8	0.034	0.043	ng/L	
Hq2700-1	DM2	SAM	1707294-01	1.25	7/27/17 14:52	24345-1.RAW	#####	59.25	1			59.2	0.163	0.204	ng/L	
Hq2700-1	DM2	SAM	1707294-02	1.25	7/27/17 15:02	24346-1.RAW	#####	41.24	1			41.2	0.113	0.142	ng/L	
Hq2700-1	DM2	SAM	1707294-03	1.25	7/27/17 15:13	24347-1.RAW	#####	41.66	1			41.7	0.114	0.143	ng/L	
Hq2700-1	DM2	SAM	1707543-01	1.25	7/27/17 15:23	24348-1.RAW	#####	29.05	1			29.0	0.080	0.099	ng/L	
Hq2700-1	DM2	SAM	1707543-03	1.25	7/27/17 15:34	24349-1.RAW	#####	30.08	1			30.1	0.082	0.103	ng/L	
Hq2700-1	DM2	SAM	1707543-04	1.25	7/27/17 15:44	24350-1.RAW	#####	21.62	1			21.6	0.059	0.074	ng/L	
Hq2700-1	DM2	SAM	1707543-05	1.25	7/27/17 15:55	24351-1.RAW	#####	15.59	1			15.6	0.042	0.053	ng/L	
Hq2700-1	DM2	SAM	1707543-06	1.25	7/27/17 16:05	24352-1.RAW	#####	27.38	1			27.4	0.075	0.094	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	7/27/17 16:16	24353-1.RAW	#####	190.03				190.0	0.458	0.458	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	7/27/17 16:26	24354-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	CAL	SEQ-IBL1	1	7/27/17 8:54	24311-1.RAW	8:54:54	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	7/27/17 9:05	24312-1.RAW	9:05:25	18.46				18.5	0.044	0.044	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	7/27/17 9:15	24313-1.RAW	9:15:55	78.33				78.3	0.189	0.189	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	7/27/17 9:26	24314-1.RAW	9:26:26	456.27				456.3	1.099	1.099	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	7/27/17 9:36	24315-1.RAW	9:36:57	850.56				850.6	2.049	2.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	7/27/17 9:47	24316-1.RAW	9:47:27	1731.04				1731.0	4.171	4.171	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	7/27/17 9:57	24317-1.RAW	9:57:58	204.16				204.2	0.492	0.492	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	7/27/17 10:08	24318-1.RAW	10:08:29	1.85				1.8	0.004	0.004	ng/L	
Hg2700-1	DM2	BLK	F707501-BLK1	1.25	7/27/17 10:18	24319-1.RAW	10:18:59	1.12		X		1.1	0.003	0.003	ng/L	
Hg2700-1	DM2	BLK	F707501-BLK2	1.25	7/27/17 10:29	24320-1.RAW	10:29:30	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707501-BLK3	1.25	7/27/17 10:40	24321-1.RAW	10:40:01	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707501-BS1	1.25	7/27/17 10:50	24322-1.RAW	10:50:32	300.30		X		300.3	0.724	0.904	ng/L	
Hg2700-1	DM2	SAM	F707501-BSD1	1.25	7/27/17 11:01	24323-1.RAW	11:01:02	335.29		X		335.3	0.808	1.010	ng/L	
Hg2700-1	DM2	SAM	F707501-DUP1	1.25	7/27/17 11:11	24324-1.RAW	11:11:33	18.44		X		18.4	0.044	0.056	ng/L	
Hg2700-1	DM2	SAM	F707501-MS1	1.25	7/27/17 11:22	24325-1.RAW	11:22:04	363.06		X		363.1	0.875	1.093	ng/L	
Hg2700-1	DM2	SAM	F707501-MSD1	1.25	7/27/17 11:32	24326-1.RAW	11:32:34	334.51		X		334.5	0.806	1.007	ng/L	
Hg2700-1	DM2	SAM	F707501-MS2	1.25	7/27/17 11:43	24327-1.RAW	11:43:05	385.03		X		385.0	0.928	1.160	ng/L	
Hg2700-1	DM2	SAM	F707501-MSD2	1.25	7/27/17 11:53	24328-1.RAW	11:53:36	360.66		X		360.7	0.869	1.086	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	7/27/17 12:04	24329-1.RAW	12:04:07	195.58				195.6	0.471	0.471	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	7/27/17 12:14	24330-1.RAW	12:14:37	0.81				0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1707102-01	1.25	7/27/17 12:25	24331-1.RAW	12:25:08	28.94		X		28.9	0.070	0.087	ng/L	
Hg2700-1	DM2	SAM	1707102-02	1.25	7/27/17 12:35	24332-1.RAW	12:35:39	33.05		X		33.0	0.080	0.100	ng/L	
Hg2700-1	DM2	SAM	1707102-03	1.25	7/27/17 12:46	24333-1.RAW	12:46:09	21.17		X		21.2	0.051	0.064	ng/L	
Hg2700-1	DM2	SAM	1707102-04	1.25	7/27/17 12:56	24334-1.RAW	12:56:40	13.53		X		13.5	0.033	0.041	ng/L	
Hg2700-1	DM2	SAM	1707102-05	1.25	7/27/17 13:07	24335-1.RAW	13:07:11	17.61		X		17.6	0.042	0.053	ng/L	
Hg2700-1	DM2	SAM	1707102-06	1.25	7/27/17 13:17	24336-1.RAW	13:17:42	8.72		X		8.7	0.021	0.026	ng/L	
Hg2700-1	DM2	SAM	1707293-01	1.25	7/27/17 13:28	24337-1.RAW	13:28:12	36.27		X		36.3	0.087	0.109	ng/L	
Hg2700-1	DM2	SAM	1707293-02	1.25	7/27/17 13:38	24338-1.RAW	13:38:43	34.35		X		34.3	0.083	0.103	ng/L	
Hg2700-1	DM2	SAM	1707293-03	1.25	7/27/17 13:49	24339-1.RAW	13:49:14	17.84		X		17.8	0.043	0.054	ng/L	
Hg2700-1	DM2	SAM	1707293-04	1.25	7/27/17 13:59	24340-1.RAW	13:59:44	20.53		X		20.5	0.049	0.062	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	7/27/17 14:10	24341-1.RAW	14:10:15	176.21				176.2	0.425	0.425	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	7/27/17 14:20	24342-1.RAW	14:20:46	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707293-05	1.25	7/27/17 14:31	24343-1.RAW	14:31:17	21.63		X		21.6	0.052	0.065	ng/L	
Hg2700-1	DM2	SAM	1707293-06	1.25	7/27/17 14:41	24344-1.RAW	14:41:47	12.80		X		12.8	0.031	0.039	ng/L	
Hg2700-1	DM2	SAM	1707294-01	1.25	7/27/17 14:52	24345-1.RAW	14:52:18	59.25		X		59.2	0.143	0.178	ng/L	
Hg2700-1	DM2	SAM	1707294-02	1.25	7/27/17 15:02	24346-1.RAW	15:02:49	41.24		X		41.2	0.099	0.124	ng/L	
Hg2700-1	DM2	SAM	1707294-03	1.25	7/27/17 15:13	24347-1.RAW	15:13:20	41.66		X		41.7	0.100	0.125	ng/L	
Hg2700-1	DM2	SAM	1707543-01	1.25	7/27/17 15:23	24348-1.RAW	15:23:50	29.05		X		29.0	0.070	0.087	ng/L	
Hg2700-1	DM2	SAM	1707543-03	1.25	7/27/17 15:34	24349-1.RAW	15:34:21	30.08		X		30.1	0.072	0.091	ng/L	
Hg2700-1	DM2	SAM	1707543-04	1.25	7/27/17 15:44	24350-1.RAW	15:44:51	21.62		X		21.6	0.052	0.065	ng/L	
Hg2700-1	DM2	SAM	1707543-05	1.25	7/27/17 15:55	24351-1.RAW	15:55:22	15.59		X		15.6	0.038	0.047	ng/L	
Hg2700-1	DM2	SAM	1707543-06	1.25	7/27/17 16:05	24352-1.RAW	16:05:53	27.38		X		27.4	0.066	0.082	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	7/27/17 16:16	24353-1.RAW	16:16:23	190.03				190.0	0.458	0.458	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	7/27/17 16:26	24354-1.RAW	16:26:54	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707394-BLK1	500	7/27/17 16:37	24355-1.RAW	16:37:25	0.00		1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707394-BLK2	500	7/27/17 16:47	24356-1.RAW	16:47:55	0.00		1		0.0	0.000	0.000	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?						
Hg2700-1	DM2	BLK	F707394-BLK3	500	7/27/17 16:58	24357-1.RAW	16:58:26	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK4	500	7/27/17 17:08	24358-1.RAW	17:08:57	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK5	500	7/27/17 17:19	24359-1.RAW	17:19:27	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK6	500	7/27/17 17:29	24360-1.RAW	17:29:58	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK7	500	7/27/17 17:40	24361-1.RAW	17:40:29	0.00	1			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707394-BS1	1000	7/27/17 17:51	24362-1.RAW	17:51:00	686.99	1			687.0	1.655	1655.208	ng/L	
Hg2700-1	DM2	SAM	F707394-BSD1	1000	7/27/17 18:01	24363-1.RAW	18:01:30	644.65	1			644.6	1.553	1553.190	ng/L	
Hg2700-1	DM2	SAM	F707394-DUP1	500	7/27/17 18:12	24364-1.RAW	18:12:01	582.34	1			582.3	1.403	701.531	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	7/27/17 18:22	24365-1.RAW	18:22:32	202.30	1			202.3	0.487	0.487	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	7/27/17 18:33	24366-1.RAW	18:33:03	1.48	1			1.5	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	F707394-MS1	500	7/27/17 18:43	24367-1.RAW	18:43:33	493.05	1			493.0	1.188	593.963	ng/L	
Hg2700-1	DM2	SAM	F707394-MSD1	500	7/27/17 18:54	24368-1.RAW	18:54:04	513.19	1			513.2	1.236	618.223	ng/L	
Hg2700-1	DM2	SAM	F707394-MS2	500	7/27/17 19:04	24369-1.RAW	19:04:35	488.23	1			488.2	1.176	588.154	ng/L	
Hg2700-1	DM2	SAM	F707394-MSD2	500	7/27/17 19:15	24370-1.RAW	19:15:06	512.44	1			512.4	1.235	617.324	ng/L	
Hg2700-1	DM2	SAM	1706931-04	500	7/27/17 19:25	24371-1.RAW	19:25:36	171.00	1			171.0	0.412	205.998	ng/L	
Hg2700-1	DM2	SAM	1706931-05	500	7/27/17 19:36	24372-1.RAW	19:36:07	536.79	1			536.8	1.293	646.656	ng/L	
Hg2700-1	DM2	SAM	1706931-06	2500	7/27/17 19:46	24373-1.RAW	19:46:38	1041.28	1			1041.3	2.509	6272.024	ng/L	
Hg2700-1	DM2	SAM	1706931-07	2500	7/27/17 19:57	24374-1.RAW	19:57:09	699.50	1			699.5	1.685	4213.387	ng/L	
Hg2700-1	DM2	SAM	1706931-08	2500	7/27/17 20:07	24375-1.RAW	20:07:39	586.03	1			586.0	1.412	3529.895	ng/L	
Hg2700-1	DM2	SAM	1706931-09	2500	7/27/17 20:18	24376-1.RAW	20:18:10	58.47	1			58.5	0.141	352.203	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	7/27/17 20:28	24377-1.RAW	20:28:41	191.16	1			191.2	0.461	0.461	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	7/27/17 20:39	24378-1.RAW	20:39:12	1.62	1			1.6	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	1706931-10	2500	7/27/17 20:49	24379-1.RAW	20:49:42	821.17	1			821.2	1.978	4946.199	ng/L	
Hg2700-1	DM2	SAM	1706932-01	500	7/27/17 21:00	24380-1.RAW	21:00:13	13.71	1			13.7	0.033	16.517	ng/L	
Hg2700-1	DM2	SAM	1706932-02	500	7/27/17 21:10	24381-1.RAW	21:10:44	88.97	1			89.0	0.214	107.181	ng/L	
Hg2700-1	DM2	SAM	1706932-03	500	7/27/17 21:21	24382-1.RAW	21:21:15	365.11	1			365.1	0.880	439.841	ng/L	
Hg2700-1	DM2	SAM	1706932-04	500	7/27/17 21:31	24383-1.RAW	21:31:45	292.93	1			292.9	0.706	352.882	ng/L	
Hg2700-1	DM2	SAM	1706932-05	500	7/27/17 21:42	24384-1.RAW	21:42:16	23.03	1			23.0	0.055	27.747	ng/L	
Hg2700-1	DM2	SAM	1706932-06	2500	7/27/17 21:52	24385-1.RAW	21:52:47	170.88	1			170.9	0.412	1029.293	ng/L	
Hg2700-1	DM2	SAM	1706932-07	2500	7/27/17 22:03	24386-1.RAW	22:03:18	129.91	1			129.9	0.313	782.479	ng/L	
Hg2700-1	DM2	SAM	1706932-08	2500	7/27/17 22:13	24387-1.RAW	22:13:48	133.12	1			133.1	0.321	801.824	ng/L	
Hg2700-1	DM2	SAM	1706932-09	2500	7/27/17 22:24	24388-1.RAW	22:24:18	126.63	1			126.6	0.305	762.763	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	7/27/17 22:34	24389-1.RAW	22:34:49	158.79	1			158.8	0.383	0.383	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	7/27/17 22:45	24390-1.RAW	22:45:19	0.82	1			0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1706932-10	2500	7/27/17 22:55	24391-1.RAW	22:55:50	93.02	1			93.0	0.224	560.325	ng/L	
Hg2700-1	DM2	SAM	1707444-01	2500	7/27/17 23:06	24392-1.RAW	23:06:21	1632.74	1			1632.7	3.934	9834.638	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7	1	7/27/17 23:16	24393-1.RAW	23:16:51	153.18	1			153.2	0.369	0.369	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7	1	7/27/17 23:27	24394-1.RAW	23:27:22	1.78	1			1.8	0.004	0.004	ng/L	

MethylMercury  
EPA1630

Operat DM  
Worket MMHg2  
Methoc 2010-01 R

BlankSub: CalibFactor:  
2010-01 R

Calib Eqn:  
Status: Calblank error: Zero

Run Date: 7/27/2017  
Run Time: 0:00:00

Blank SD:  
Blank RSD%:

SampleID	Locator	Rinse	Dilute	Blank	ConcHg0(p	ConcMeHg	ConcHg2(p	ConcPrHg	Rec%	QA	RawData	RunEnd	PeakH0 (Ra	PeakMeHg (R	PeakHg2	Raw.Pea	PrHo(Ra	Control (etf)	Flags	RunCount
											CF RSD%									
Clear											24309-1.RAW	8:33:53	0.00					cleandry	NP	1
WS	A1										24310-1.RAW	8:44:23	7.40	0.00	2.38	0.00	psample10	OK	1	
SEQ-IBL1	A2										24311-1.RAW	8:54:54	6.31	0.00	1.86	0.00	psample10	OK	1	
SEQ-CAL1	A3										24312-1.RAW	9:05:25	2.89	18.46	3.93	0.00	psample10	OK	1	
SEQ-CAL2	A4										24313-1.RAW	9:15:55	1.36	78.33	4.64	0.00	psample10	CT	1	
SEQ-CAL3	A5										24314-1.RAW	9:26:26	5.69	456.27	33.95	0.00	psample10	OK	1	
SEQ-CAL4	A6										24315-1.RAW	9:36:57	6.02	850.56	60.35	0.00	psample10	OK	1	
SEQ-CAL5	A7										24316-1.RAW	9:47:27	3.79	1731.04	118.47	0.00	psample10	OK	1	
SEQ-ICV1	A8										24317-1.RAW	9:57:58	6.95	204.16	5.38	0.00	psample10	OK	1	
SEQ-ICB1	A9										24318-1.RAW	10:08:29	5.33	1.85	3.47	0.00	psample10	CT	1	
F707501-BLK1	A10	1.25									24319-1.RAW	10:18:59	15.13	1.12	3.35	0.00	psample10	CT	1	
F707501-BLK2	A11	1.25									24320-1.RAW	10:29:30	6.25	0.00	3.91	0.00	psample10	OK	1	
F707501-BLK3	A12	1.25									24321-1.RAW	10:40:01	14.27	0.00	5.11	0.00	psample10	OK	1	
F707501-BS1	A13	1.25									24322-1.RAW	10:50:32	12.02	300.30	15.36	0.00	psample10	OK	1	
F707501-BSD1	A14	1.25									24323-1.RAW	11:01:02	9.42	335.29	64.74	0.00	psample10	OK	1	
F707501-OU1	A15	1.25									24324-1.RAW	11:11:33	8.24	18.44	15.51	0.00	psample10	OK	1	
F707501-MS1	A16	1.25									24325-1.RAW	11:22:04	13.12	363.06	17.61	0.00	psample10	OK	1	
F707501-MSD1	A17	1.25									24326-1.RAW	11:32:34	9.99	334.51	9.95	0.00	psample10	CT	1	
F707501-MS2	A18	1.25									24327-1.RAW	11:43:05	9.35	385.03	11.24	0.00	psample10	OK	1	
F707501-MSD2	A19	1.25									24328-1.RAW	11:53:36	8.93	360.66	17.49	0.00	psample10	OK	1	
SEQ-CCV1	A20	1									24329-1.RAW	12:04:07	6.33	195.58	3.52	0.00	psample10	CT	1	
SEQ-CCB1	A21	1									24330-1.RAW	12:14:37	4.01	0.81	1.80	0.00	psample10	OK	1	
1707102-01	B1	1.25									24331-1.RAW	12:25:08	3.56	28.94	69.70	0.00	psample10	OK	1	
1707102-02	B2	1.25									24332-1.RAW	12:35:39	8.59	33.05	93.94	0.00	psample10	CT	1	
1707102-03	B3	1.25									24333-1.RAW	12:46:09	7.27	21.17	131.85	0.00	psample10	CT	1	
1707102-04	B4	1.25									24334-1.RAW	12:56:40	8.06	13.53	32.76	0.00	psample10	CT	1	
1707102-05	B5	1.25									24335-1.RAW	13:07:11	9.81	17.61	57.87	0.00	psample10	CT	1	
1707102-06	B6	1.25									24336-1.RAW	13:17:42	11.14	8.72	15.17	0.00	psample10	CT	1	
1707293-01	B7	1.25									24337-1.RAW	13:28:12	10.96	36.27	94.62	0.00	psample10	CT	1	
1707293-02	B8	1.25									24338-1.RAW	13:38:43	8.15	34.35	48.05	0.00	psample10	CT	1	
1707293-03	B9	1.25									24339-1.RAW	13:49:14	8.36	17.84	16.45	0.00	psample10	CT	1	
1707293-04	B10	1.25									24340-1.RAW	13:59:44	10.82	20.53	34.76	0.00	psample10	OK	1	
SEQ-CCV2	B11	1									24341-1.RAW	14:10:15	3.21	176.21	0.00	0.00	psample10	OK	1	
SEQ-CCB2	B12	1									24342-1.RAW	14:20:46	3.73	0.00	1.30	0.00	psample10	CT	1	
1707293-05	B13	1.25									24343-1.RAW	14:31:17	10.66	21.63	56.39	0.00	psample10	OK	1	
1707293-06	B14	1.25									24344-1.RAW	14:41:47	4.91	12.80	88.70	0.00	psample10	OK	1	
1707294-01	B15	1.25									24345-1.RAW	14:52:18	7.39	59.25	11.33	0.00	psample10	CT	1	
1707294-02	B16	1.25									24346-1.RAW	15:02:49	6.26	41.24	68.39	0.00	psample10	CT	1	
1707294-03	B17	1.25									24347-1.RAW	15:13:20	7.39	41.66	34.24	0.00	psample10	CT	1	
1707543-01	B18	1.25									24348-1.RAW	15:23:50	7.78	29.05	45.05	0.00	psample10	OK	1	
1707543-03	B19	1.25									24349-1.RAW	15:34:21	8.67	30.08	224.30	0.00	psample10	OK	1	
1707543-04	B20	1.25									24350-1.RAW	15:44:51	11.48	21.62	31.18	0.00	psample10	CT	1	
1707543-05	B21	1.25									24351-1.RAW	15:55:22	7.52	15.59	21.95	0.00	psample10	OK	1	
1707543-06	C1	1.25									24352-1.RAW	16:05:53	5.53	27.38	157.54	0.00	psample10	OK	1	
SEQ-CCV3	C2	1									24353-1.RAW	16:16:23	3.65	190.03	3.83	0.00	psample10	OK	1	
SEQ-CCB3	C3	1									24354-1.RAW	16:26:54	3.39	0.00	4.18	0.00	psample10	OK	1	
F707394-BLK1	C4	500									24355-1.RAW	16:37:25	0.72	0.00	3.76	0.00	psample10	OK	1	
F707394-BLK2	C5	500									24356-1.RAW	16:47:55	2.88	0.00	4.72	0.00	psample10	OK	1	
F707394-BLK3	C6	500									24357-1.RAW	16:58:26	3.42	0.00	0.00	0.00	psample10	OK	1	
*F707394-BLK4	C7	500									24358-1.RAW	17:08:57	3.96	0.00	4.43	0.00	psample10	OK	1	
*F707394-BLK5	C8	500									24359-1.RAW	17:19:27	3.83	0.00	5.72	0.00	psample10	OK	1	
*F707394-BLK6	C9	500									24360-1.RAW	17:29:58	2.99	0.00	3.08	0.00	psample10	OK	1	
*F707394-BLK7	C10	500									24361-1.RAW	17:40:29	3.70	0.00	3.08	0.00	psample10	CT	1	
F707394-BS1	C11	1000									24362-1.RAW	17:51:00	3.87	686.99	94.15	0.00	psample10	OK	1	
F707394-BSD1	C12	1000									24363-1.RAW	18:01:30	3.92	644.65	82.99	0.00	psample10	OK	1	
F707394-OU1	C13	500									24364-1.RAW	18:12:01	5.50	582.34	26.43	0.00	psample10	CT	1	
SEQ-CCV4	C14	1									24365-1.RAW	18:22:32	4.09	202.30	2.37	0.00	psample10	OK	1	
SEQ-CCB4	C15	1									24366-1.RAW	18:33:03	3.61	1.48	0.91	0.00	psample10	OK	1	
F707394-MS1	C16	500									24367-1.RAW	18:43:33	4.06	493.05	24.59	0.00	psample10	OK	1	
F707394-MSD1	C17	500									24368-1.RAW	18:54:04	4.14	513.19	25.31	0.00	psample10	OK	1	
F707394-MS2	C18	500									24369-1.RAW	19:04:35	3.59	488.23	32.99	0.00	psample10	OK	1	
F707394-MSD2	C19	500									24370-1.RAW	19:15:06	3.02	512.44	40.49	0.00	psample10	OK	1	
1706931-04	C20	500									24371-1.RAW	19:25:36	3.62	171.00	24.04	0.00	psample10	OK	1	
1706931-05	C21	500									24372-1.RAW	19:36:07	2.58	536.79	20.89	0.00	psample10	CT	1	
1706931-06	A1	2500									24373-1.RAW	19:46:38	3.13	1041.28	24.54	0.00	psample10	OK	1	
1706931-07	A2	2500									24374-1.RAW	19:57:09	4.20	699.50	20.70	0.00	psample10	OK	1	
1706931-08	A3	2500									24375-1.RAW	20:07:39	4.37	586.03	19.73	0.00	psample10	CT	1	
1706931-09	A4	2500									24376-1.RAW	20:18:10	3.39	58.47	4.75	0.00	psample10	CT	1	
SEQ-CCV5	A5	1									24377-1.RAW	20:28:41	2.89	191.16	3.09	0.00	psample10	CT	1	
SEQ-CCB5	A6	1									24378-1.RAW	20:39:12	2.84	1.62	2.54	0.00	psample10	CT	1	
1706931-10	A7	2500									24379-1.RAW	20:49:42	2.13	821.17	34.75	0.00	psample10	OK	1	
1706932-01	A8	500									24380-1.RAW	21:00:13	3.04	13.71	5.38	0.00	psample10	OK	1	
1706932-02	A9	500									24381-1.RAW	21:10:44	5.20	88.97	11.49	0.00	psample10	OK	1	
1706932-03	A10	500									24382-1.RAW	21:21:15	5.02	365.11	9.67	0.00	psample10	CT	1	



1706932-04	A11	500	24383-1.RAW	21:31:45	4.04	292.93	5.65	0.00	psample10	OK	1
1706932-05	A12	500	24384-1.RAW	21:42:16	2.62	23.03	13.94	0.00	psample10	CT	1
1706932-06	A13	2500	24385-1.RAW	21:52:47	2.27	170.88	19.93	0.00	psample10	OK	1
1706932-07	A14	2500	24386-1.RAW	22:03:18	3.20	129.91	9.52	0.00	psample10	CT	1
1706932-08	A15	2500	24387-1.RAW	22:13:48	3.27	133.12	9.96	0.00	psample10	CT	1
1706932-09	A16	2500	24388-1.RAW	22:24:18	3.40	126.63	17.91	0.00	psample10	OK	1
SEQ-CCV6	A17	1	24389-1.RAW	22:34:49	2.16	158.79	4.18	0.00	psample10	OK	1
SEQ-CCB6	A18	1	24390-1.RAW	22:45:19	4.14	0.82	0.88	0.00	psample10	CT	1
1706932-10	A19	2500	24391-1.RAW	22:55:50	4.74	93.02	8.50	0.00	psample10	OK	1
1707444-01	A20	2500	24392-1.RAW	23:06:21	3.04	1632.74	13.83	0.00	psample10	OK	1
SEQ-CCV7	A21	1	24393-1.RAW	23:16:51	2.93	153.18	2.55	0.00	psample10	OK	1
SEQ-CCB7	B1	1	24394-1.RAW	23:27:22	4.79	1.78	1.56	0.00	psample10	OK	1

**Failing Data Report - 7G28008**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707394-MS1	MHg-CVAFS-T-KOH	42.4	1.8		26.1	35.737	ng/g	45.6	65.00	130.00			PASS-OVER	FAIL-MS	QM .07
F707394-MSD1	MHg-CVAFS-T-KOH	45.8	1.9	42.4	26.1	37.074	ng/g	53.1	65.00	130.00	15.2	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM .07

Don Matsum                      7/28/17  
 Analyst Reviewed By                      Date

[Signature]                      7/28/17  
 Peer Reviewed By                      Date



## ANALYSIS SEQUENCE

7G28007

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G28007-IBL1	QC	1			
7G28007-CAL1	QC	2	1704180		
7G28007-CAL2	QC	3	1704181		
7G28007-CAL3	QC	4	1704182		
7G28007-CAL4	QC	5	1704183		
7G28007-CAL5	QC	6	1704184		
7G28007-ICV1	QC	7	1703246		
7G28007-ICB1	QC	8			
F707501-BLK1	QC	9			
F707501-BLK2	QC	10			
F707501-BLK3	QC	11			
F707501-BS1	QC	12			
F707501-BSD1	QC	13			
F707501-DUP1	QC	14			
F707501-MS1	QC	15			
F707501-MSD1	QC	16			
F707501-MS2	QC	17			
F707501-MSD2	QC	18			
7G28007-CCV1	QC	19	1703246		
7G28007-CCB1	QC	20			
1707102-01	MHg-CVAFS-W-Dist	21			Scan all data for level IV report
1707102-02	MHg-CVAFS-W-Dist	22			Scan all data for level IV report
1707102-03	MHg-CVAFS-W-Dist	23			Scan all data for level IV report
1707102-04	MHg-CVAFS-W-Dist	24			Scan all data for level IV report
1707102-05	MHg-CVAFS-W-Dist	25			Scan all data for level IV report
1707102-06	MHg-CVAFS-W-Dist	26			Scan all data for level IV report
1707293-01	MHg-CVAFS-W-Dist	27			Scan all data for level IV report
1707293-02	MHg-CVAFS-W-Dist	28			Scan all data for level IV report
1707293-03	MHg-CVAFS-W-Dist	29			Scan all data for level IV report
1707293-04	MHg-CVAFS-W-Dist	30			Scan all data for level IV report
7G28007-CCV2	QC	31	1703246		
7G28007-CCB2	QC	32			
1707293-05	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1707293-06	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1707294-01	MHg-CVAFS-W-Dist	35			Scan all data for level IV report

Due Date: 8/3/2017

**ANALYSIS SEQUENCE**

**7G28007**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/27/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707294-02	MHg-CVAFS-W-Dist	36			Scan all data for level IV report
1707294-03	MHg-CVAFS-W-Dist	37			Scan all data for level IV report
1707543-01	MHg-CVAFS-W-Dist	38			Scan all data for level IV report
1707543-03	MHg-CVAFS-W-Dist	39			Scan all data for level IV report
1707543-04	MHg-CVAFS-W-Dist	40			Scan all data for level IV report
1707543-05	MHg-CVAFS-W-Dist	41			Scan all data for level IV report
1707543-06	MHg-CVAFS-W-Dist	42			Scan all data for level IV report
7G28007-CCV3	QC	43	1703246		
7G28007-CCB3	QC	44			

Don Matern      7/27/17  
 Samples Loaded By                      Date

Don Matern      7/28/17  
 Data Processed By                      Date

## ANALYSIS SEQUENCE

7G28008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G28008-IBL1	QC	1			
7G28008-CAL1	QC	2	1704180		
7G28008-CAL2	QC	3	1704181		
7G28008-CAL3	QC	4	1704182		
7G28008-CAL4	QC	5	1704183		
7G28008-CAL5	QC	6	1704184		
7G28008-ICV1	QC	7	1703246		
7G28008-ICB1	QC	8			
7G28008-CCV1	QC	9	1703246		
7G28008-CCB1	QC	10			
7G28008-CCV2	QC	11	1703246		
7G28008-CCB2	QC	12			
7G28008-CCV3	QC	13	1703246		
7G28008-CCB3	QC	14			
F707394-BLK1	QC	15			
F707394-BLK2	QC	16			
F707394-BLK3	QC	17			
F707394-BLK4	QC	18			
F707394-BLK5	QC	19			
F707394-BLK6	QC	20			
F707394-BLK7	QC	21			
F707394-BS1	QC	22			
F707394-BSD1	QC	23			
F707394-DUP1	QC	24			
7G28008-CCV4	QC	25	1703246		
7G28008-CCB4	QC	26			
F707394-MS1	QC	27			
F707394-MSD1	QC	28			
F707394-MS2	QC	29			
F707394-MSD2	QC	30			
1706931-04	MHg-CVAFS-T-KOH	31			Hold prep/analysis until Hg is complete
1706931-05	MHg-CVAFS-T-KOH	32			Hold prep/analysis until Hg is complete
1706931-06	MHg-CVAFS-T-KOH	33			Hold prep/analysis until Hg is complete
1706931-07	MHg-CVAFS-T-KOH	34			Hold prep/analysis until Hg is complete
1706931-08	MHg-CVAFS-T-KOH	35			Hold prep/analysis until Hg is complete

Due Date: 7/31/2017

## ANALYSIS SEQUENCE

7G28008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706931-09	MHg-CVAFS-T-KOH	36			Hold prep/analysis until Hg is complete
7G28008-CCV5	QC	37	1703246		
7G28008-CCB5	QC	38			
1706931-10	MHg-CVAFS-T-KOH	39			Hold prep/analysis until Hg is complete
1706932-01	MHg-CVAFS-T-KOH	40			Hold prep/analysis until Hg is complete
1706932-02	MHg-CVAFS-T-KOH	41			Hold prep/analysis until Hg is complete
1706932-03	MHg-CVAFS-T-KOH	42			Hold prep/analysis until Hg is complete
1706932-04	MHg-CVAFS-T-KOH	43			Hold prep/analysis until Hg is complete
1706932-05	MHg-CVAFS-T-KOH	44			Hold prep/analysis until Hg is complete
1706932-06	MHg-CVAFS-T-KOH	45			Hold prep/analysis until Hg is complete
1706932-07	MHg-CVAFS-T-KOH	46			Hold prep/analysis until Hg is complete
1706932-08	MHg-CVAFS-T-KOH	47			Hold prep/analysis until Hg is complete
1706932-09	MHg-CVAFS-T-KOH	48			Hold prep/analysis until Hg is complete
7G28008-CCV6	QC	49	1703246		
7G28008-CCB6	QC	50			
1706932-10	MHg-CVAFS-T-KOH	51			Hold prep/analysis until Hg is complete
1707444-01	MHg-CVAFS-T-KOH	52			
7G28008-CCV7	QC	53	1703246		
7G28008-CCB7	QC	54			

Don Moxem      7/27/17  
 Samples Loaded By      Date

Don Moxem      7/28/17  
 Data Processed By      Date

Due Date: 7/31/2017

**PREPARATION BENCH SHEET**

F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707394-BLK1	Blank	0.5	20					
F707394-BLK2	Blank	0.5	20					
F707394-BLK3	Blank	0.5	20					
F707394-BLK4	Blank	0.3474	20					
F707394-BLK5	Blank	0.3544	20					
F707394-BLK6	Blank	0.3609	20					1707444-01 Prep Blank
F707394-BLK7	Blank	0.3899	20					1707444-01 Post Blank
F707394-BS1	DORM-4	0.1255	20	1703305	126			
F707394-BSD1	DORM-4 Dup	0.1253	20	1703305	125			
F707394-DUP1	Duplicate [1706931-05]	0.2802	20					
F707394-MS1	Matrix Spike [1706932-04]	0.2801	20	1605978	100			
F707394-MS2	Matrix Spike [1706932-02]	0.2987	20	1605978	100			
F707394-MSD1	Matrix Spike Dup [1706932-04]	0.27	20	1605978	100			
F707394-MSD2	Matrix Spike Dup [1706932-02]	0.2742	20	1605978	100			

Standard ID(s):  
 1605978  
 1703305

Description:  
 MHg New Primary 100 ng/mL spike  
 DORM-4

Expiration:  
 15-Oct-17 00:00  
 29-May-20 00:00  
 29-May-20 00:00

Reagent ID(s):  
 1702551  
 1702696  
 1702833  
 1703704  
 1703755

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  
 28-Apr-20 00:00  
 05-Nov-17 00:00  
 18-Dec-17 00:00  
 20-Dec-17 00:00



**PREPARATION BENCH SHEET**

F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-05	MMSW-C_17BN004_062317_TIN_05_WB	0.2612	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2532	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2279	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2138	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-09	MMSW-C_17PT001_062317_SPI_04_WB	0.1387	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.2935	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.261	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.263	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2956	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2702	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2501	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2814	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.283	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2609	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2223	20	-	-	-	Hold prep/analysis until Hg is complete	
1707444-01	FY17 M06 77269 Tuna S-170706-00008 Incredible Fish	0.2968	20	-	-	-		

**PREPARATION BENCH SHEET**

F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**



Due Date: 7/31/2017

**PREPARATION BENCH SHEET**

F707501

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/26/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707501-BLK1	Blank	45	40					
F707501-BLK2	Blank	45	40					
F707501-BLK3	Blank	45	40					
F707501-BS1	LCS	45	40	1704143	45			
F707501-BSD1	LCS Dup	45	40	1704143	45			
F707501-DUP1	Duplicate [1707293-03]	45	40					
F707501-MS1	Matrix Spike [1707293-03]	45	40	1704143	45			
F707501-MS2	Matrix Spike [1707294-01]	45	40	1704143	45			
F707501-MSD1	Matrix Spike Dup [1707293-03]	45	40	1704143	45			
F707501-MSD2	Matrix Spike Dup [1707294-01]	45	40	1704143	45			

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 10-Oct-17 00:00

<u>Reagent ID(s):</u> 1703704	<u>Description:</u> Ethylating Agent (For Methyl Mercury Analysis)	<u>Expiration:</u> 18-Dec-17 00:00
1703755	Acetate Buffer	20-Dec-17 00:00
1704481	APDC	31-Jul-17 00:00
1704513	2.5% Ascorbic Acid	02-Aug-17 00:00
1704518	0.4% HCl Distillation Dilute (Made Daily)	22-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707501

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/26/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707102-01	OL-2621-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-02	OL-2621-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-03	OL-2621-03	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-04	OL-2621-04	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-05	OL-2621-05	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-06	OL-2621-06	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707293-01	OL-2626-01	45	40	-	-	-	Scan all data for level IV report	
1707293-02	OL-2626-02	45	40	-	-	-	Scan all data for level IV report	
1707293-03	OL-2626-03	45	40	-	-	-	Scan all data for level IV report	
1707293-04	OL-2626-04	45	40	-	-	-	Scan all data for level IV report	
1707293-05	OL-2626-05	45	40	-	-	-	Scan all data for level IV report	
1707293-06	OL-2626-06	45	40	-	-	-	Scan all data for level IV report	
1707294-01	OL-2643-01	45	40	-	-	-	Scan all data for level IV report	
1707294-02	OL-2643-02	45	40	-	-	-	Scan all data for level IV report	
1707294-03	OL-2643-03	45	40	-	-	-	Scan all data for level IV report	
1707543-01	OL-2629-01	45	40	-	-	-	Preservation Blank created Scan all dat	
1707543-03	OL-2629-02	45	40	-	-	-	Preservation Blank created Scan all dat	
1707543-04	OL-2629-03	45	40	-	-	-	Preservation Blank created Scan all dat	
1707543-05	OL-2629-04	45	40	-	-	-	Preservation Blank created Scan all dat	

PREPARATION BENCH SHEET

F707501

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

1707543-06	OL-2629-05	45	40	-	-	-	Preservation Blank created Scan all dat:
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PREPARATION BENCH SHEET

2700-1

F707501

7/27/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707501-BLK1	Blank	45	40					1.25X
F707501-BLK2	Blank	45	40					1.25X
F707501-BLK3	Blank	45	40					1.25X
F707501-BS1	LCS	45	40	1704143	45			1.25X
F707501-BSD1	LCS Dup	45	40	1704143	45			1.25X
F707501-DUP1	Duplicate [1707293-01]	45	40					1.25X
F707501-MS1	Matrix Spike [1707293-01]	45	40	1704143	45			1.25X
F707501-MS2	Matrix Spike [1707294-01]	45	40	1704143	45			1.25X
F707501-MSD1	Matrix Spike Dup [1707293-01]	45	40	1704143	45			1.25X
F707501-MSD2	Matrix Spike Dup [1707294-01]	45	40	1704143	45			1.25X

Standard ID(s):  
1704143

Description:  
MHg New Primary 1.0 ng/mL CAL

Expiration:  
10-Oct-17 00:00

Reagent ID(s):  
1704481  
1704518

Description:  
APDC  
0.4% HCl Distillation Dilute (Made Daily)

Expiration:  
31-Jul-17 00:00  
22-Jan-18 00:00

1703704

1703755

1704513

PREPARATION BENCH SHEET

2700-1

7/27/17 DM

F707501

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707102-01	OL-2621-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-02	OL-2621-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-03	OL-2621-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-04	OL-2621-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-05	OL-2621-05	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-06	OL-2621-06	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707293-01	OL-2626-01	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-02	OL-2626-02	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-03	OL-2626-03	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-04	OL-2626-04	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-05	OL-2626-05	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-06	OL-2626-06	45	40	-	-	-	Scan all data for level IV report	1.25X
1707294-01	OL-2643-01	45	40	-	-	-	Scan all data for level IV report	1.25X
1707294-02	OL-2643-02	45	40	-	-	-	Scan all data for level IV report	1.25X
1707294-03	OL-2643-03	45	40	-	-	-	Scan all data for level IV report	1.25X
1707543-01	OL-2629-01	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X
1707543-03	OL-2629-02	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X
1707543-04	OL-2629-03	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X
1707543-05	OL-2629-04	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X

Due Date: 8/3/2017

PREPARATION BENCH SHEET

F707501

Eurofins Frontier Global Sciences, Inc.

2700-1  
7/27/17 DM

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

1707543-06	OL-2629-05	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X
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Methyl Mercury Distillations (EPA 1630)

Name: AMB Date: 7-26-17 Batch #: F707501 Sample Matrix: Water  
 WO#: 1707102, 1707293, 1707294, 1707543

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)
BLK1	F701501-BLK1	1.0	45	3.0
BLK2	F701501-BLK2	1.0	45	3.0
BLK3	F701501-BLK3	1.0	45	3.0
BS1	F701501-BS1- <del>BLK4</del>	1.0	45	3.0
BSD1	F701501-BSD1	1.0	45	3.0
DUPI	F701501-DUPI	1.0	45	3.0
MS1	F701501-MS1	1.0	45	4.0
MSD1	F701501-MSD1	1.0	45	4.0
MS2	F701501-MS2	1.0	45	3.0
MSD2	F701501-MSD2	1.0	45	3.0
1	1707102-01A	1.0	45	3.0
2	1707102-02A	1.0	45	3.0
3	1707102-03A	1.0	45	3.0
4	1707102-04A	1.0	45	3.0
5	1707102-05A	1.0	45	3.0
6	1707102-06A	1.0	45	4.0
7	1707293-01A	1.0	45	4.0
8	1707293-02A	1.0	45	4.0
9	1707293-03A	1.0	45	3.0
10	1707293-04A	1.0	45	3.0
11	1707293-05A	1.0	45	4.0
12	1707293-06A	1.0	45	3.0
13	1707294-01	1.0	45	3.0
14	1707294-02	1.0	45	3.0
15	1707294-03	1.0	45	3.0
16	1707543-01	1.0	45	3.0
17	1707543-03	1.0	45	3.0
18	1707543-04	1.0	45	4.0
19	1707543-05	1.0	45	3.0
20	1707543-06	1.0	45	3.0

Spike ID: 1704143  
 Spike Amount: 45 µL  
 Spike Witness: PL 7/26/17  
 Balance #: 2  
 Calibrated?  Yes  No  
 Pipette #: N409643  
 Cal. Date: 7/21/17  
 Pipette #: N409653  
 Cal. Date: 7/27/17  
 Pipette #: N/A  
 Cal. Date: N/A  
 APDC ID: 1704481  
 HCl ID: 1704518

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: 121.0  
 Unit 2: 122.0  
 Unit 3: ~~123.3~~ 122.3  
 Unit 4: 120.8  
 Unit 5: 122.0  
 Unit 6: 122.0

Comments:  
 DUPI, MS1, MSD1:  
 Source 1707293-03  
 MS2, MSD2:  
 Source: 1707294-01  
 AMB 7-26-17  
 FIRST SAMPLE DONE @ 1842  
 AMB 7-26-17

~~AMB 7-26-17~~

PREPARATION BENCH SHEET

2700-1  
~~7/25/17 DM~~  
 7/27/17 DM

F707394

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707394-BLK1	Blank	0.5	20					500X
F707394-BLK2	Blank	0.5	20					500X
F707394-BLK3	Blank	0.5	20					500X
F707394-BLK4	Blank	0.3474	20					500X
F707394-BLK5	Blank	0.3544	20					500X
F707394-BLK6	Blank	0.3609	20					1707444-01 Prep Blank 500X
F707394-BLK7	Blank	0.3899	20					1707444-01 Post Blank 500X
F707394-BS1	DORM-4	0.1255	20	1703305	1255			1000X
F707394-BSD1	DORM-4 Dup	0.1253	20	1703305	1253			1000X
F707394-DUP1	Duplicate [1706931-05]	0.2802	20					500X
F707394-MS1	Matrix Spike [1706932-04]	0.2801	20	1605978	100			500X
F707394-MS2	Matrix Spike [1706932-02]	0.2987	20	1605978	100			500X
F707394-MSD1	Matrix Spike Dup [1706932-04]	0.27	20	1605978	100			500X
F707394-MSD2	Matrix Spike Dup [1706932-02]	0.2742	20	1605978	100			500X

Standard ID(s):  
 1605978  
 1703305

Description:  
 MHg New Primary 100 ng/mL spike  
 DORM-4

Expiration:  
 15-Oct-17 00:00  
 29-May-20 00:00  
 29-May-20 00:00

Reagent ID(s):  
 1702551  
 1702696  
 1702833

Description:  
 Boiling Chips for AFS prep  
 Methanol, HPLC Grade  
 25% KOH/Methanol

Expiration:  
 31-Dec-17 00:00  
 28-Apr-20 00:00  
 05-Nov-17 00:00

1703704  
 1703755

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707394

Eurofins Frontier Global Sciences, Inc.

2700-1  
~~7/25/17 DM~~  
 7/27/17 DM

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706931-05	MMSW-C_17BN004_062317_TIN_05_WB	0.2612	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2532	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2279	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2138	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-09	MMSW-C_17PT001_062317_SPI_04_WB	0.1387	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.2935	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.261	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.263	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2956	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2702	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	500x
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2501	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	500x
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2814	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.283	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2609	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2223	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1707444-01	FY17 M06 77269 Tuna S-170706-00008 Incredible Fish	0.2968	20	-	-	-		2500x

**PREPARATION BENCH SHEET**

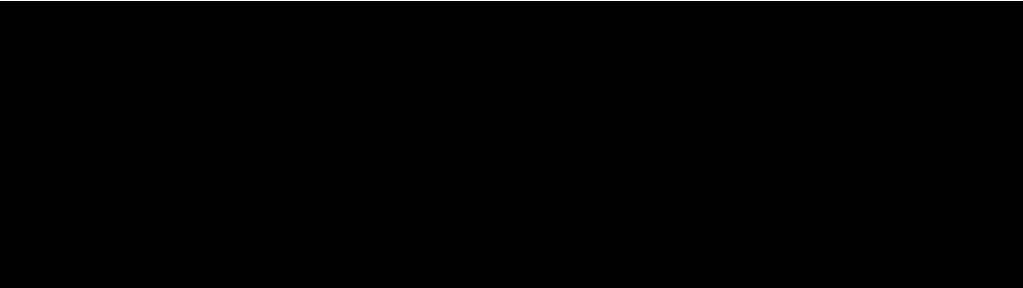
F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**



Due Date: 7/31/2017

Technician: Duyen

Batch#: F707394  
7/19/17 vs

Date: 7/14/17 7-19-17

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/CH<sub>2</sub>Cl<sub>2</sub>: 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): 79.0 °C w/ CF: 79.0 °C

Time out: 14:00 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C

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

Final vol.: 20 mL (LIMS ID: 1702696) Spike vol.: 100 µL (LIMS ID: 1605978)

Spike Witness: DM 7/19/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: NU09653 Calibration Date: 7/13/17

HNO<sub>3</sub> LIMS ID: N/A

Pipette SN#: NU01152 Calibration Date: 7/14/17

70/30 LIMS ID: N/A

Dispenser #: 02N48426 Calibrated?  Yes  No

Other Acid LIMS ID: 1702833 25% KOH Methanol Dispenser #: N/A

Glass Vial # 00067065 Boiling Chip lot # 1702551 \*Hotblock Position: E, 2

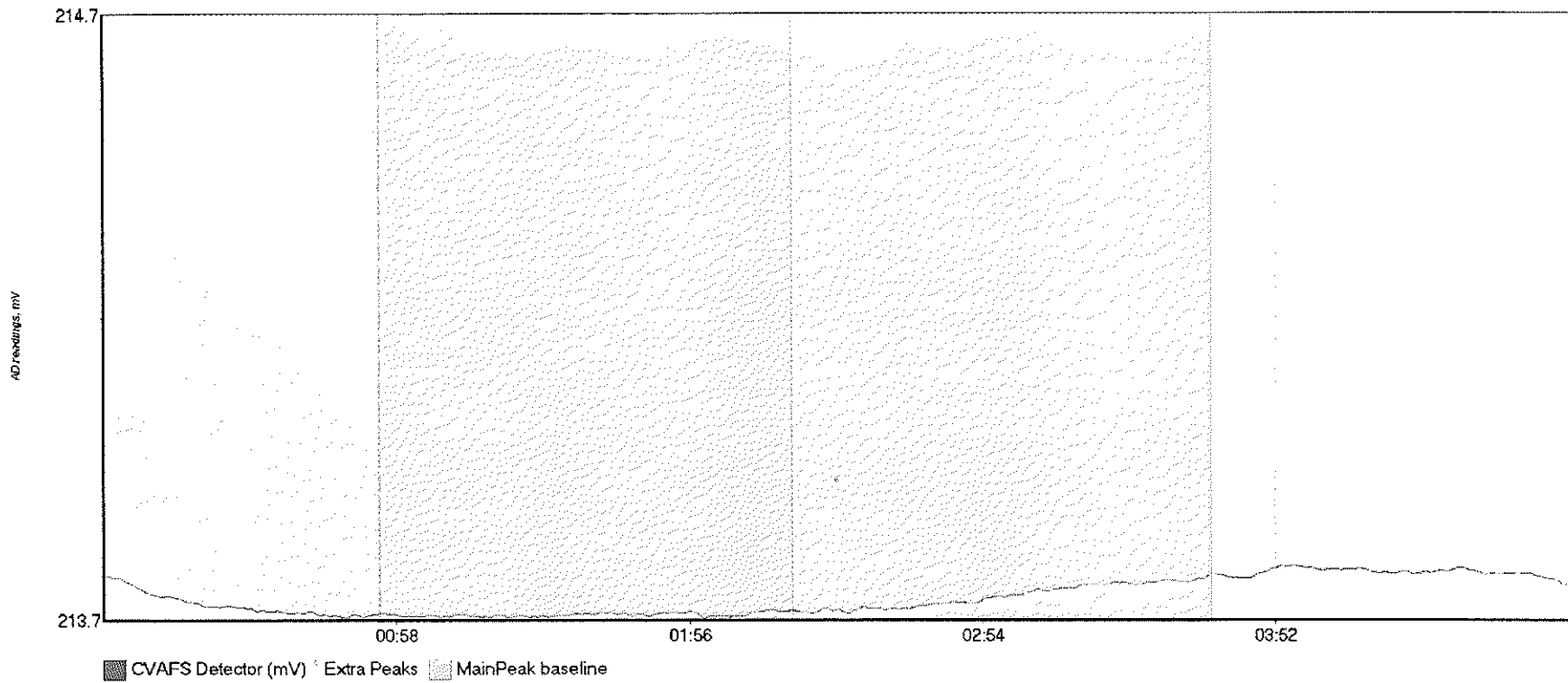
Vial #	Sample ID Number	Sample Size		Vial #	Sample ID Number	Sample Size		CRM LIMS ID <input type="checkbox"/> NA
		<input type="checkbox"/> mL	<input checked="" type="checkbox"/> µg			<input type="checkbox"/> mL	<input checked="" type="checkbox"/> µg	
1	F707394 Blk1	0.2430		23	1706932-04	0.2702		B51 B501
2	F707394 Blk2	0.2787		24	1706932-05	0.2789		DORM-4
3	F707394 Blk3	0.2712		25	1706932-06	0.2814		1703305
4	F707394 Blk4	0.3474		26	1706932-07	0.2632		Comments
5	F707394 Blk5	0.3544		27	1706932-08	0.2830		F707394
6	F707394 B51	0.1255		28	1706932-09	0.2609		Dup 1706931-05
7	F707394 B501	0.1253		29	1706932-10	0.2223		M51 M501
8	F707394 Dup1	0.2802		30	1706932-05	0.2501		1706932-04
9	F707394 M51	0.2801		31	F707394 Blk6	0.3609		M52 M502 02
10	F707394 M501	0.2700		32	F707394 Blk7	0.3899		1706932-05
11	F707394 M52	0.2987		33	1707444-01B	0.2968		1706931-07, 8
12	F707394 M502	0.2742		34				0.2299(9)
13	1706931-04	0.2810		35				not enough mass. Exhausted 7/14/17
14	1706931-05	0.2612		36				1706931-8, 9
15	1706931-06	0.2532		37				two samples not enough mass. Exhausted. 7/14/17 dit
16	1706931-07	0.2279		38				
17	1706931-08	0.2138		39				
18	1706931-09	0.1387		40				
19	1706931-10	0.2935		41				1706932-05
20	1706932-01	0.2610		42				not enough mass For GC we used
21	1706932-02	0.2630		43				1706932-02. For GC. 7/14/17
22	1706932-03	0.2956		44				F707394 Blk6, 7, 1707444-01

Eurofins Frontier Global Sciences / Mercury Sample Digestions (LOG-HG-013.15) / Effective 11/07/16 / QA2017-0088/0261422  
\*Hotblock diagram located in back of logbook

F707394 ALL samples weighted on digestion samples on 7/19/17 vs 7/14/17

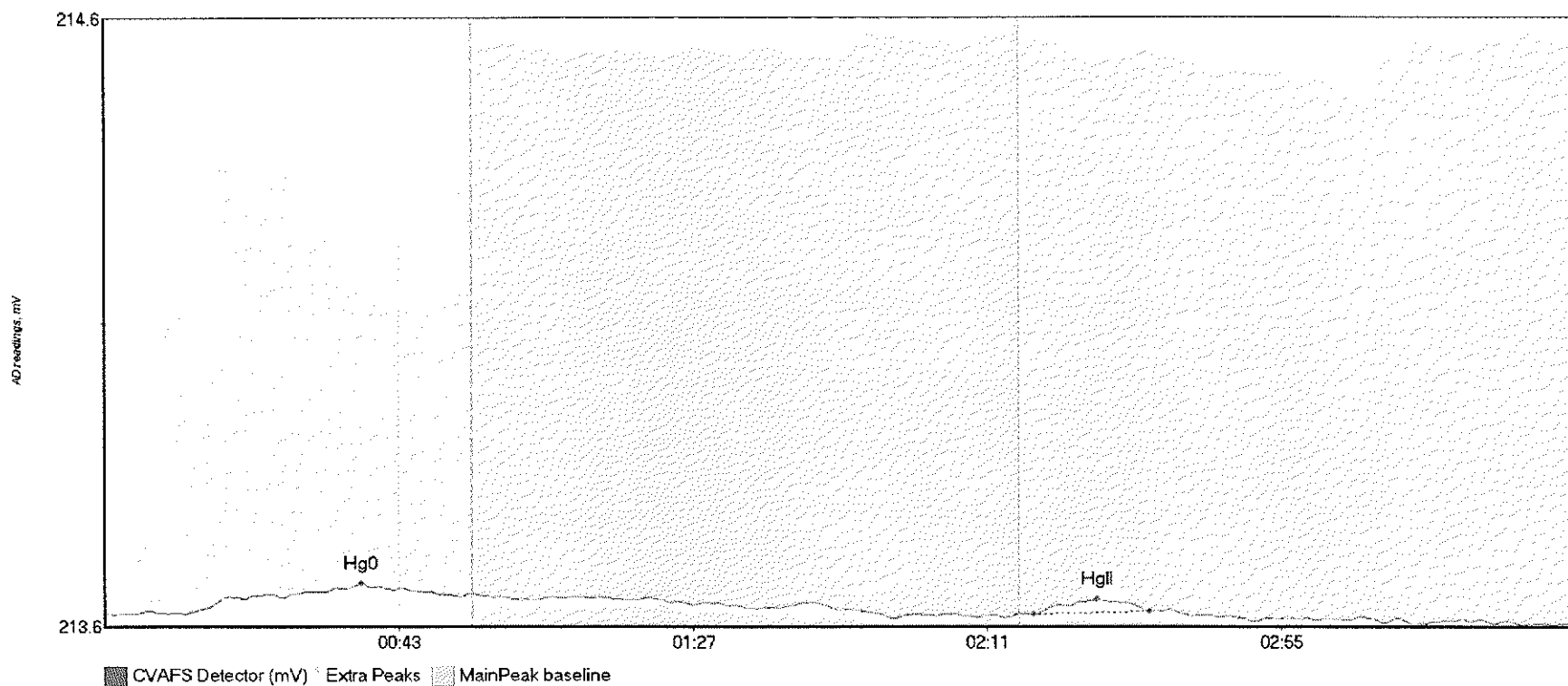
Verified By: DM 7/20/17

Clean: No peak(s) detected.



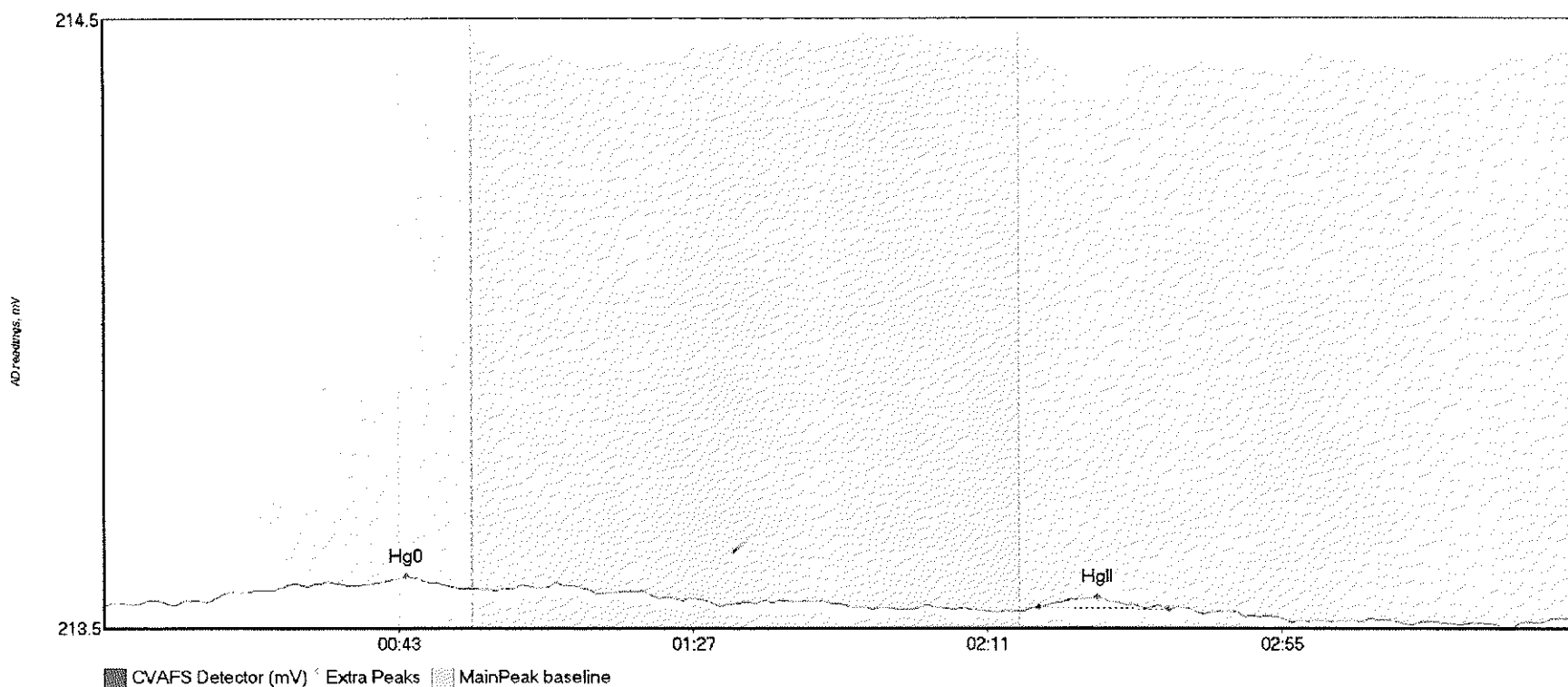
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.000	-	-	-	-	-	-	NP	213.7731	0.00	-0.01	017

#2: WS



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	7.399	11.8	53.1	213.61	213.64	38.5	0.050	OK	213.6084	0.00	-0.02	
WS HgII	2.377	139.0	156.3	213.61	213.61	148.5	0.024	OK	213.6084	0.00	-0.02	017

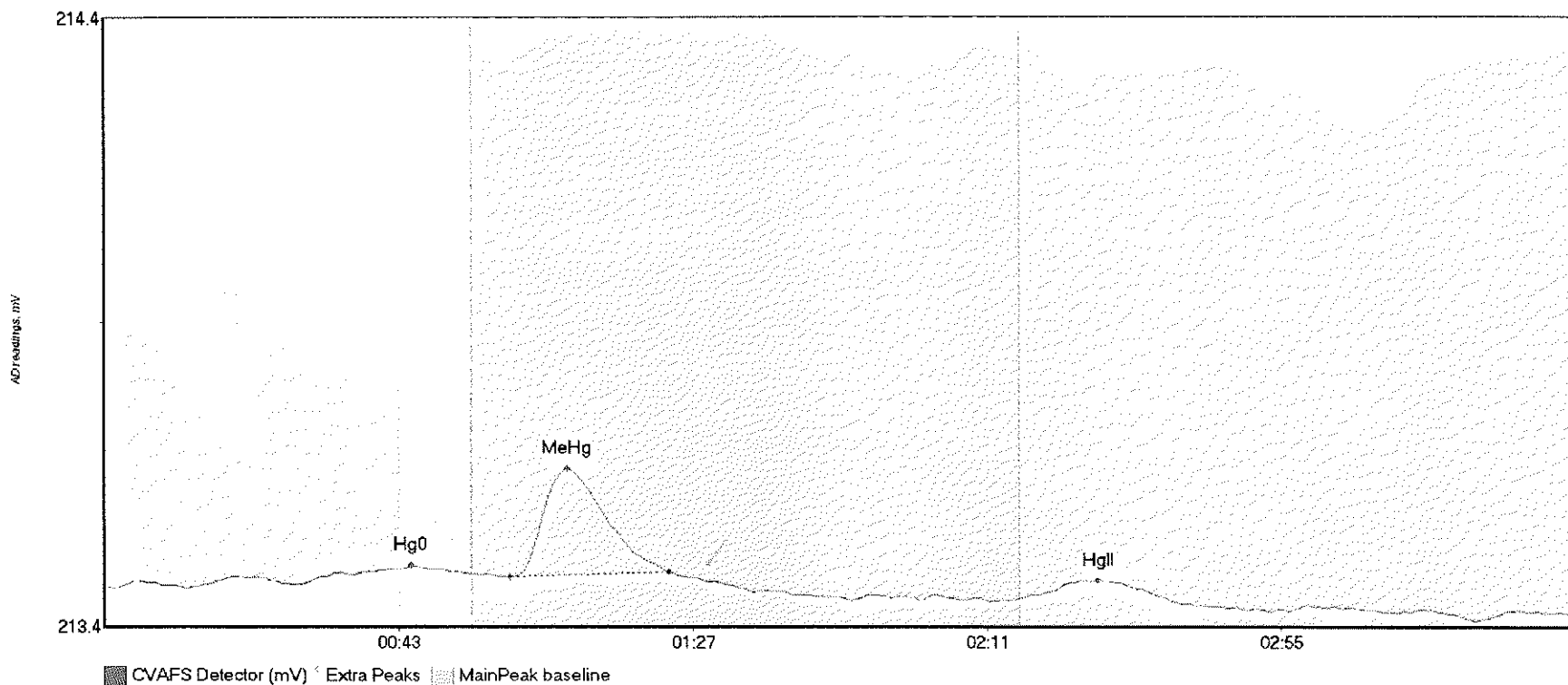
#3: SEQ-IBL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.306	10.4	53.3	213.54	213.56	45.2	0.046	OK	213.5382	0.00	-0.02	
SEQ-IBL1 HgII	1.860	139.8	159.1	213.53	213.53	148.4	0.017	OK	213.5382	0.00	-0.02	017

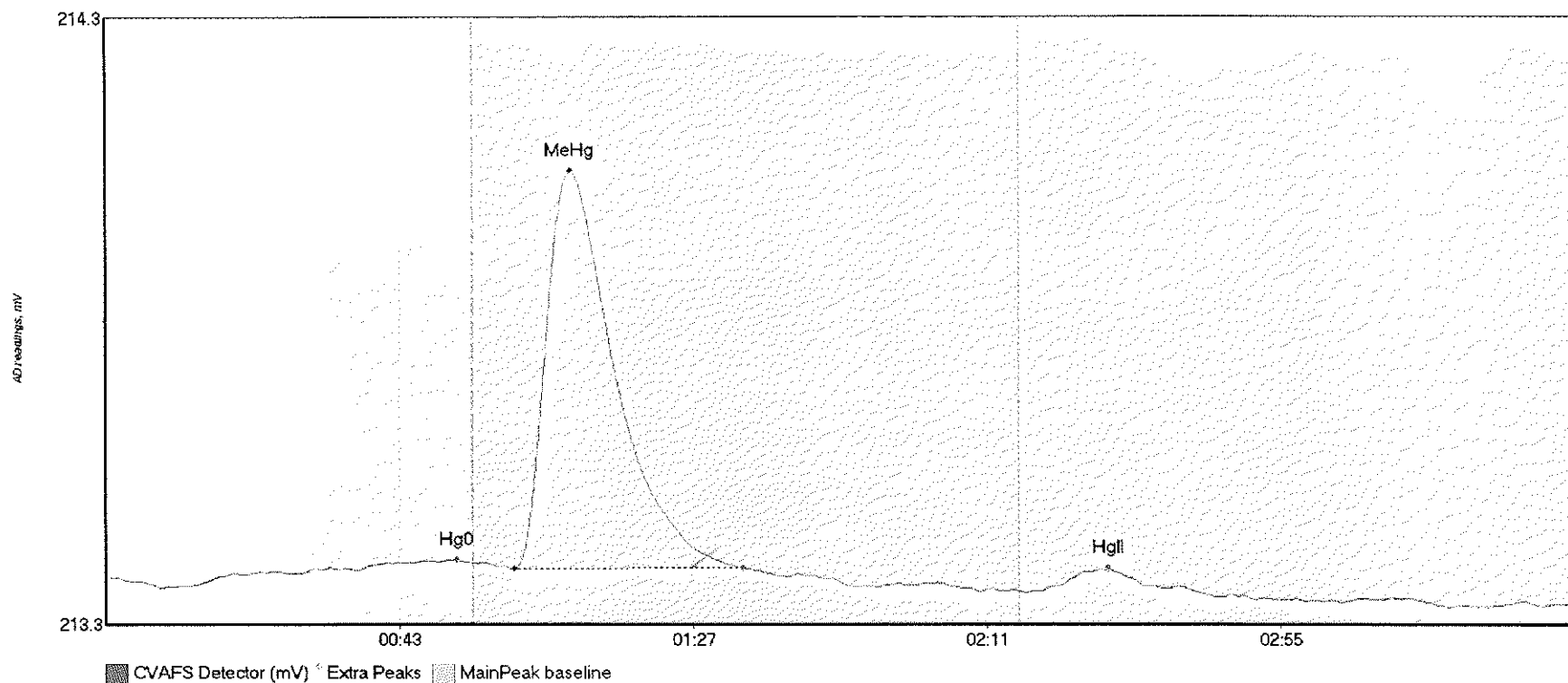


#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	2.888	29.5	54.8	213.45	213.46	45.9	0.030	OK	213.4417	0.00	-0.05	
SEQ-CAL1 MeHg	18.465	60.7	84.5	213.46	213.47	69.3	0.178	OK	213.4417	0.00	-0.05	
SEQ-CAL1 HgII	3.929	139.7	161.4	213.43	213.41	148.6	0.024	OK	213.4417	0.00	-0.05	

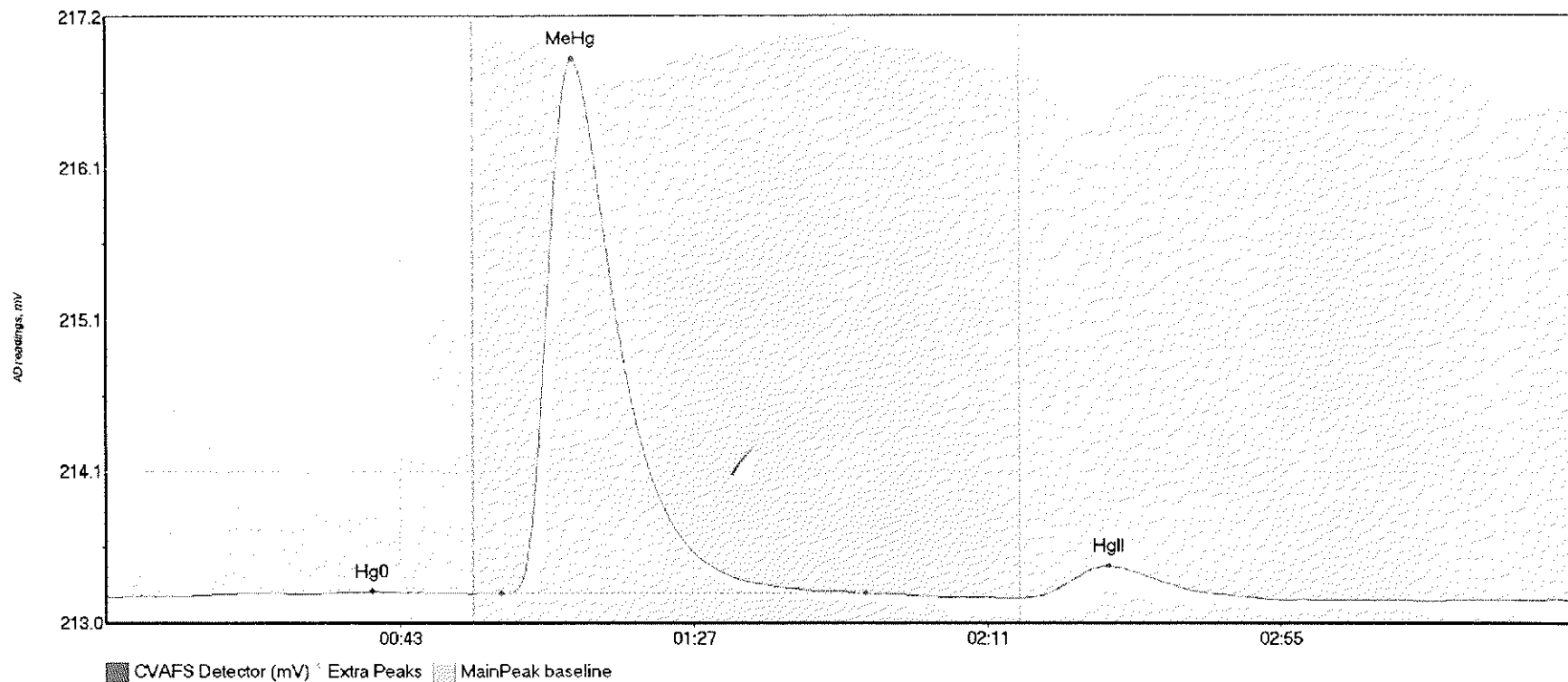
#5: SEQ-CAL2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	1.364	17.8	55.0	213.33	213.35	52.6	0.027	CT	213.3273	0.00	-0.04	
SEQ-CAL2 MeHg	78.327	61.1	95.4	213.34	213.34	69.6	0.657	OK	213.3273	0.00	-0.04	
SEQ-CAL2 HgII	4.637	140.0	165.2	213.31	213.30	150.2	0.036	OK	213.3273	0.00	-0.04	

017

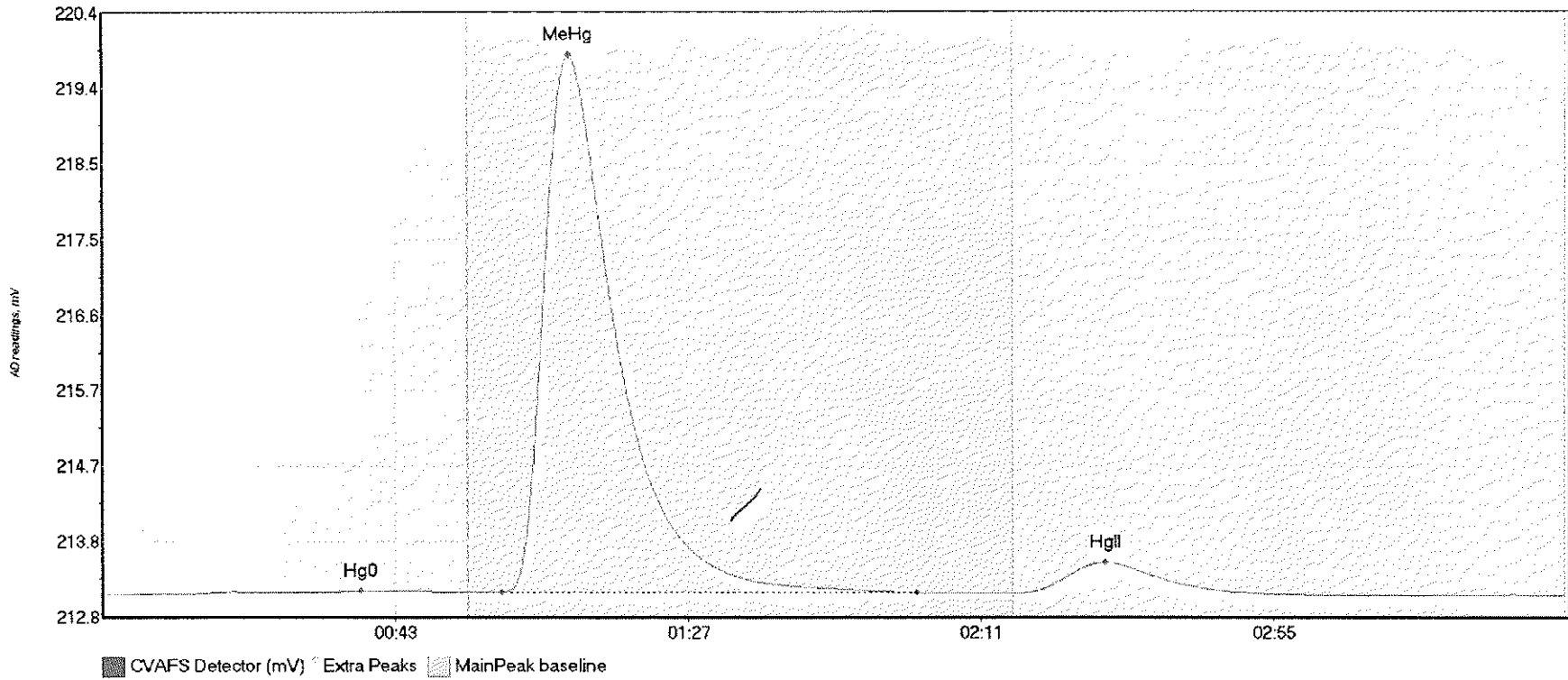
#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	5.687	11.9	54.7	213.20	213.22	39.9	0.031	OK	213.2016	0.00	-0.02	
SEQ-CAL3 MeHg	456.272	59.2	113.8	213.22	213.22	69.9	3.645	OK	213.2016	0.00	-0.02	
SEQ-CAL3 HgII	33.949	137.0	174.1	213.19	213.19	150.2	0.216	OK	213.2016	0.00	-0.02	

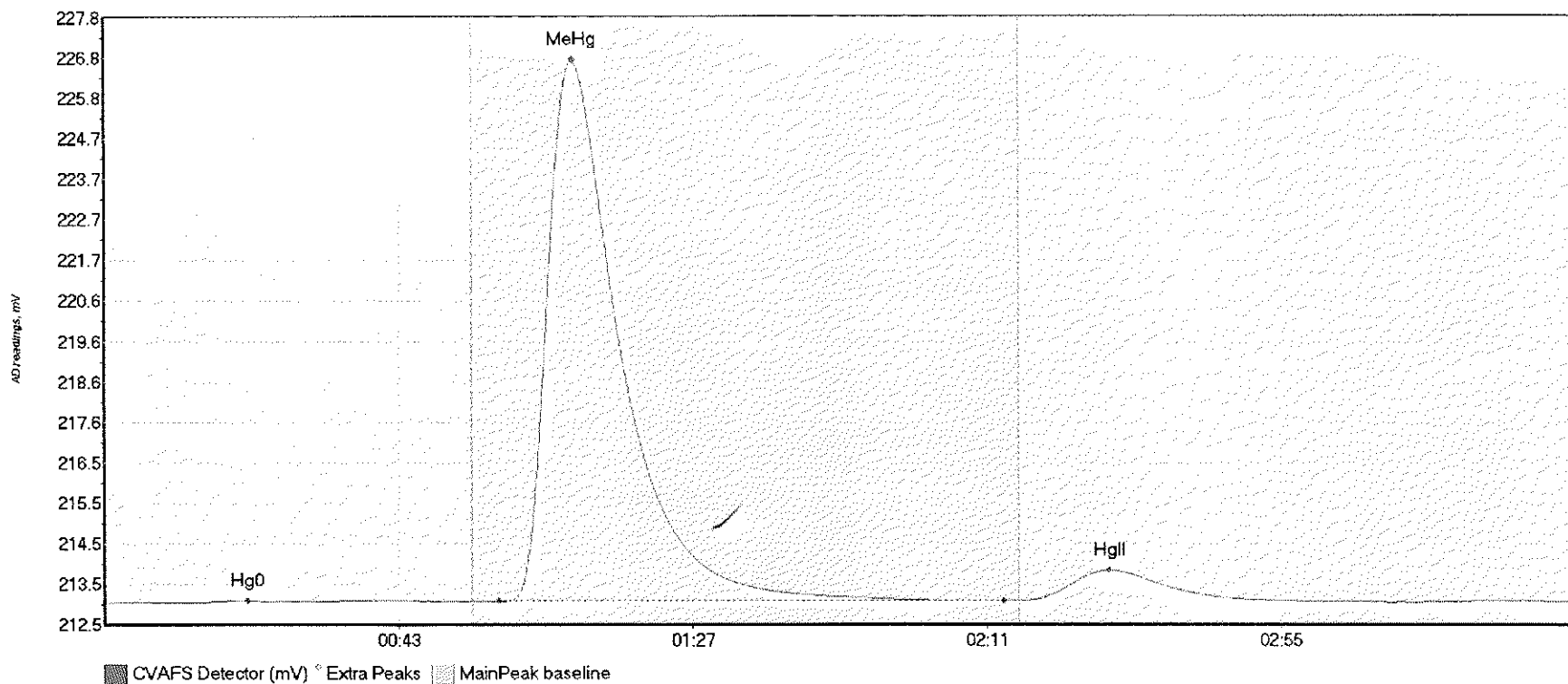
017

#7: SEQ-CAL4



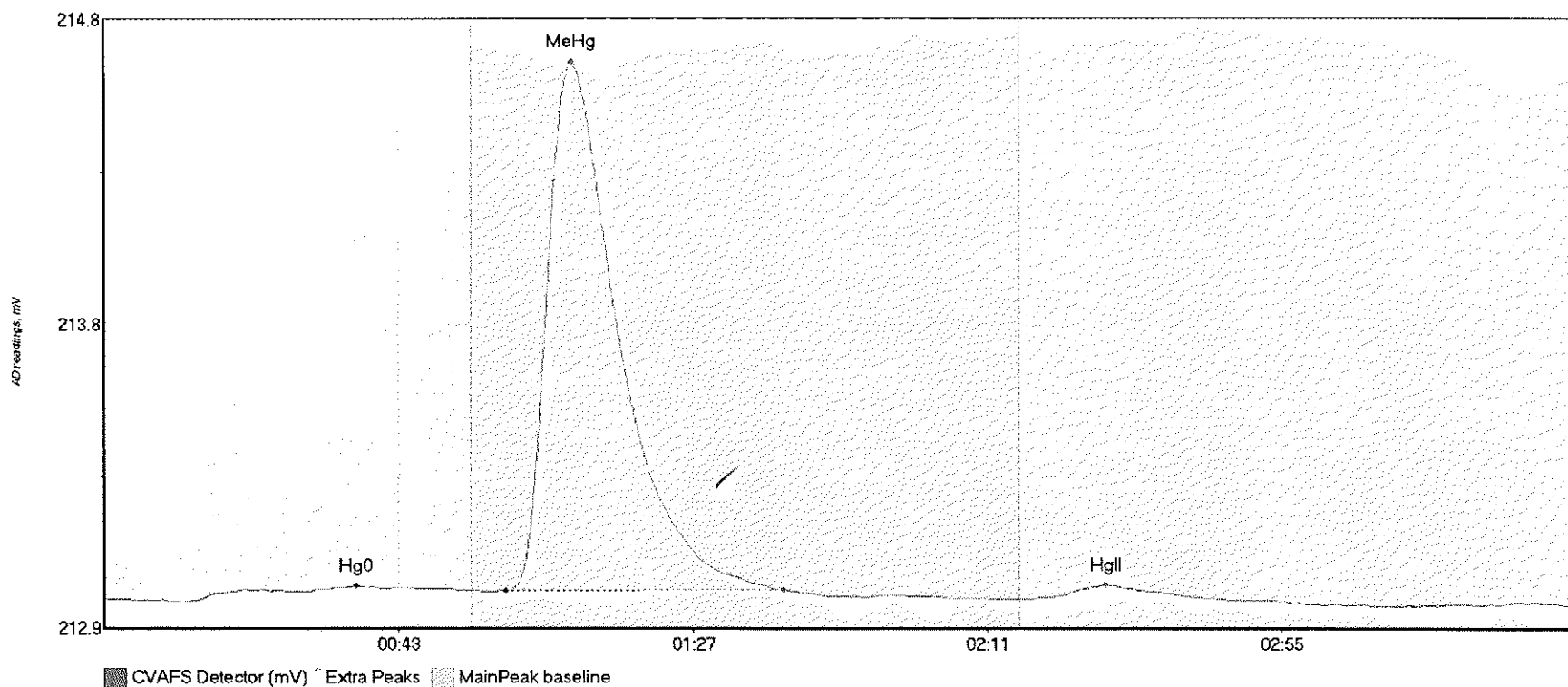
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	6.024	11.9	54.9	213.10	213.12	38.9	0.036	OK	213.1006	0.00	-0.01	
SEQ-CAL4 MeHg	950.560	60.0	122.4	213.12	213.12	70.1	6.732	OK	213.1006	0.00	-0.01	
SEQ-CAL4 HgII	60.354	137.6	175.9	213.11	213.10	150.8	0.386	OK	213.1006	0.00	-0.01	

#8: SEQ-CAL5



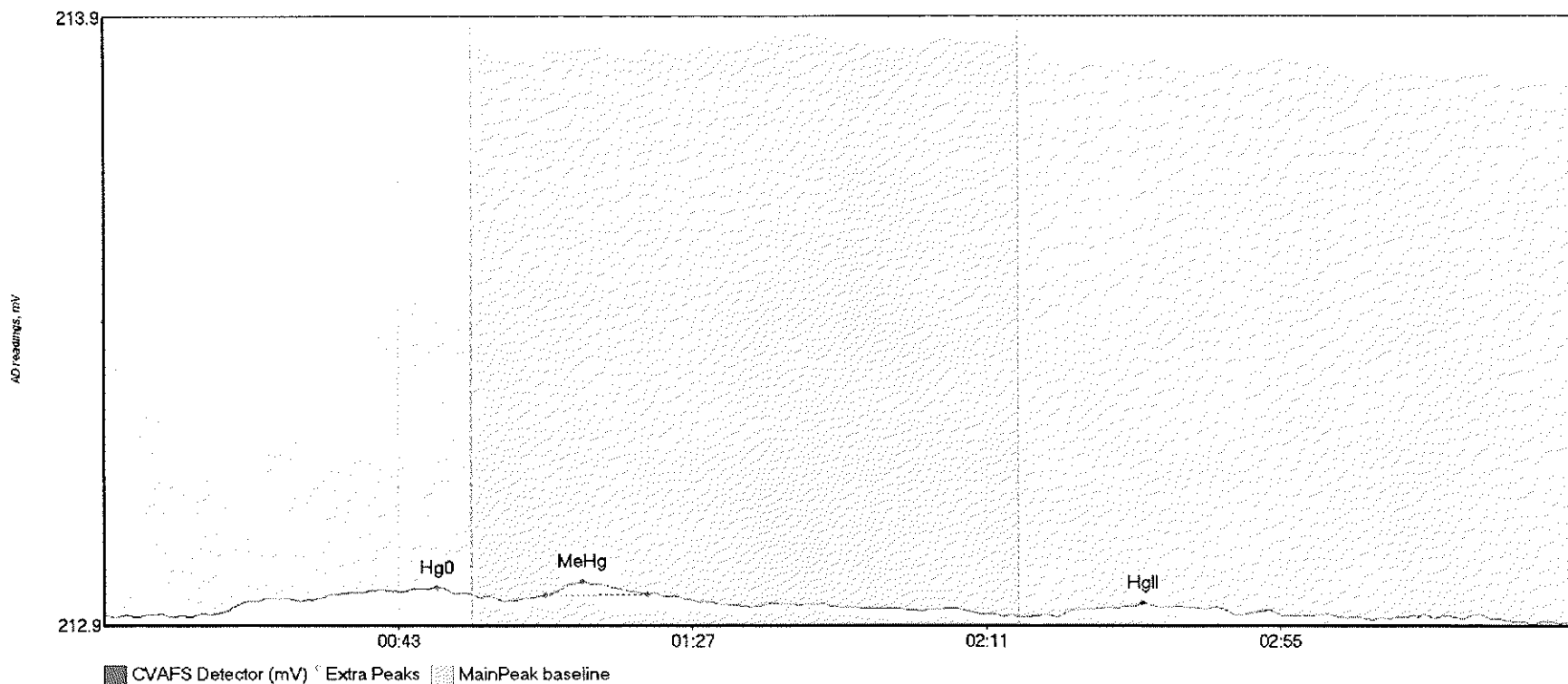
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	3.790	12.7	32.0	213.00	213.04	21.5	0.054	OK	213.0036	0.00	0.03	
SEQ-CAL5 MeHg	1731.042	59.0	134.6	213.04	213.05	70.1	13.675	OK	213.0036	0.00	0.03	
SEQ-CAL5 HgII	118.470	136.8	177.7	213.06	213.05	150.3	0.769	OK	213.0036	0.00	0.03	

#9: SEQ-ICV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	6.950	13.7	53.2	212.94	212.97	37.7	0.045	OK	212.9425	0.00	-0.02	
SEQ-ICV1 MeHg	204.159	60.0	101.4	212.97	212.97	70.0	1.656	OK	212.9425	0.00	-0.02	
SEQ-ICV1 HgII	5.377	138.4	164.9	212.94	212.94	149.8	0.044	OK	212.9425	0.00	-0.02	

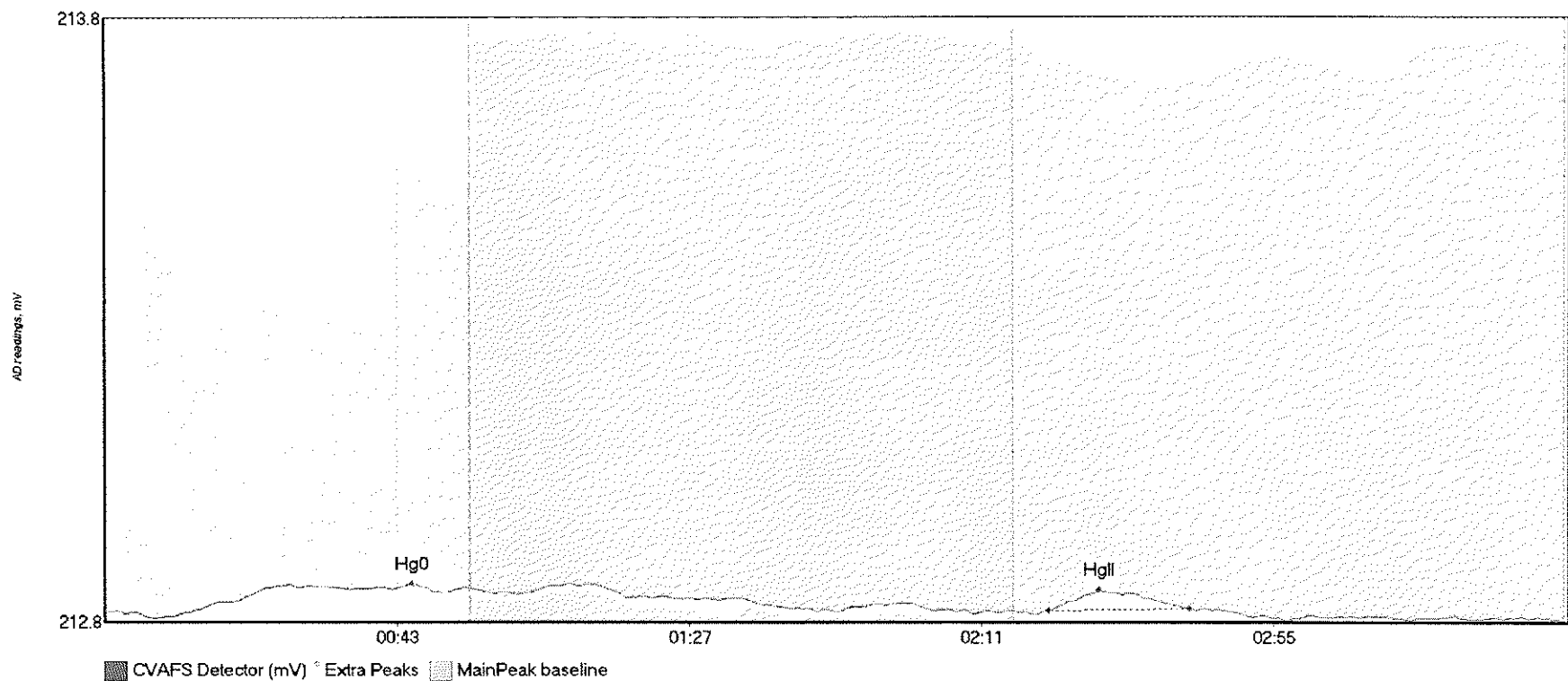
#10: SEQ-ICB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	5.328	15.9	55.0	212.87	212.91	49.9	0.045	CT	212.8724	0.00	-0.01	
SEQ-ICB1 MeHg	1.850	66.0	81.3	212.91	212.91	71.6	0.023	OK	212.8724	0.00	-0.01	
SEQ-ICB1 HgII	3.474	142.6	169.6	212.87	212.87	155.5	0.022	OK	212.8724	0.00	-0.01	

017

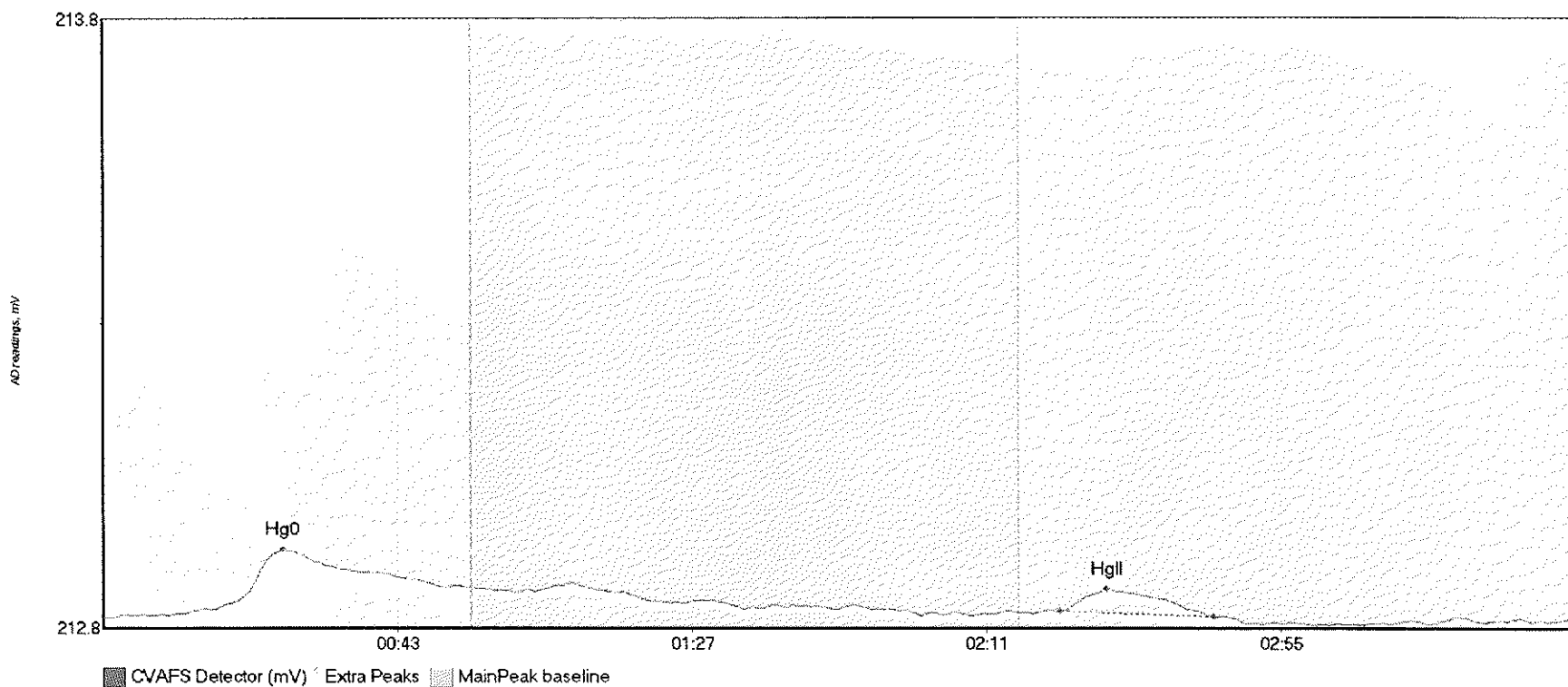
#12: F707501-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BLK2 Hg	6.247	14.1	51.5	212.81	212.83	46.3	0.043	OK	212.8029	0.00	-0.01	
F707501-BLK2 Hg	3.915	142.1	163.3	212.80	212.81	149.8	0.035	OK	212.8029	0.00	-0.01	017

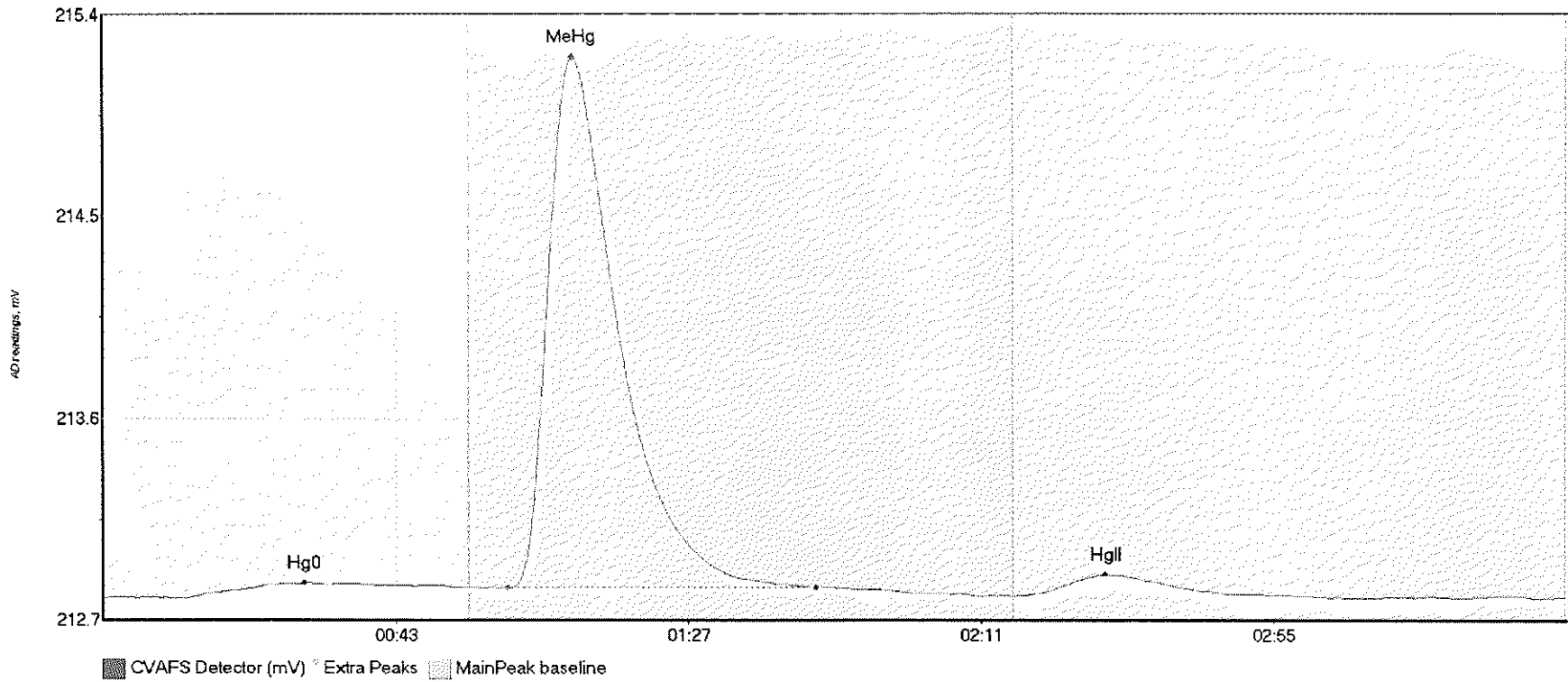


#13: F707501-BLK3



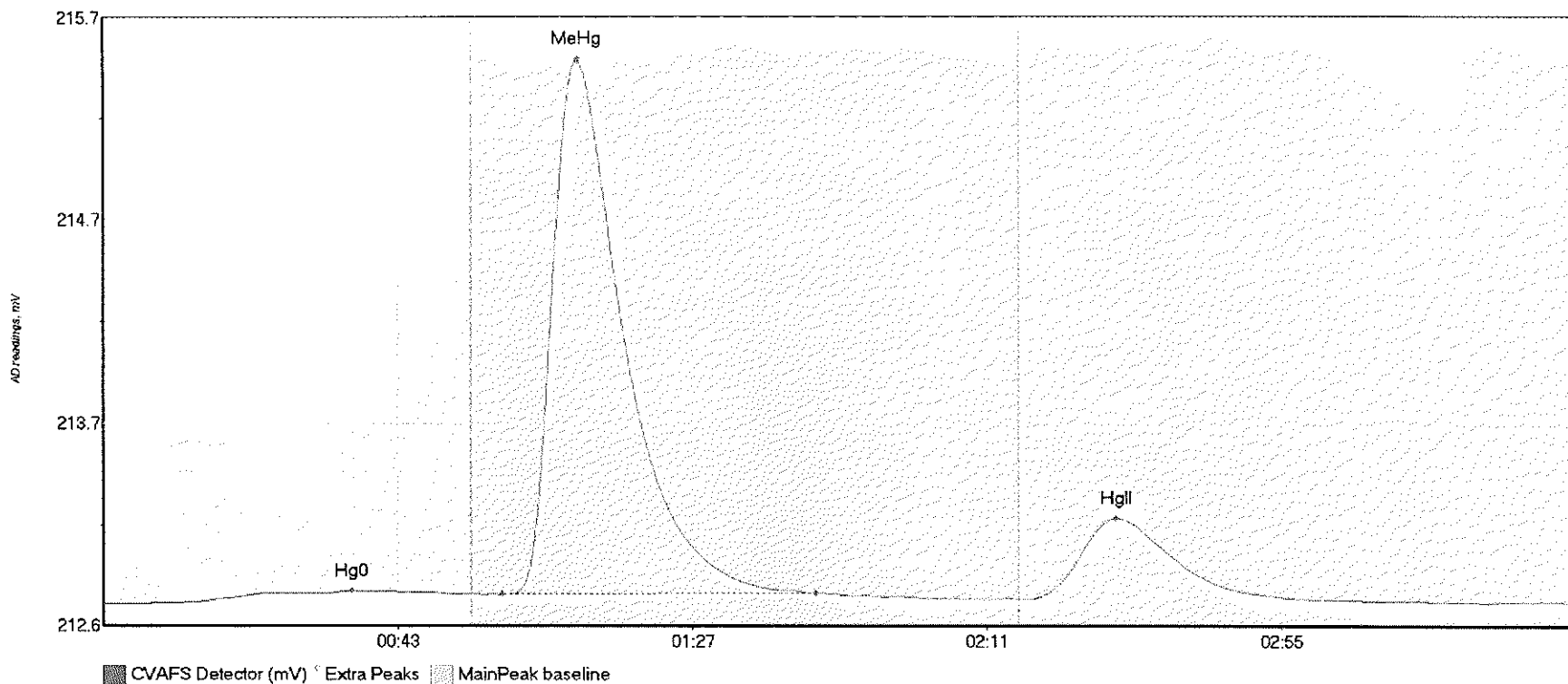
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BLK3 Hg	14.273	9.6	51.3	212.77	212.82	26.8	0.107	OK	212.7719	0.00	0.00	
F707501-BLK3 Hg	5.105	143.0	165.9	212.78	212.77	150.1	0.036	OK	212.7719	0.00	0.00	017

#14: F707501-BS1



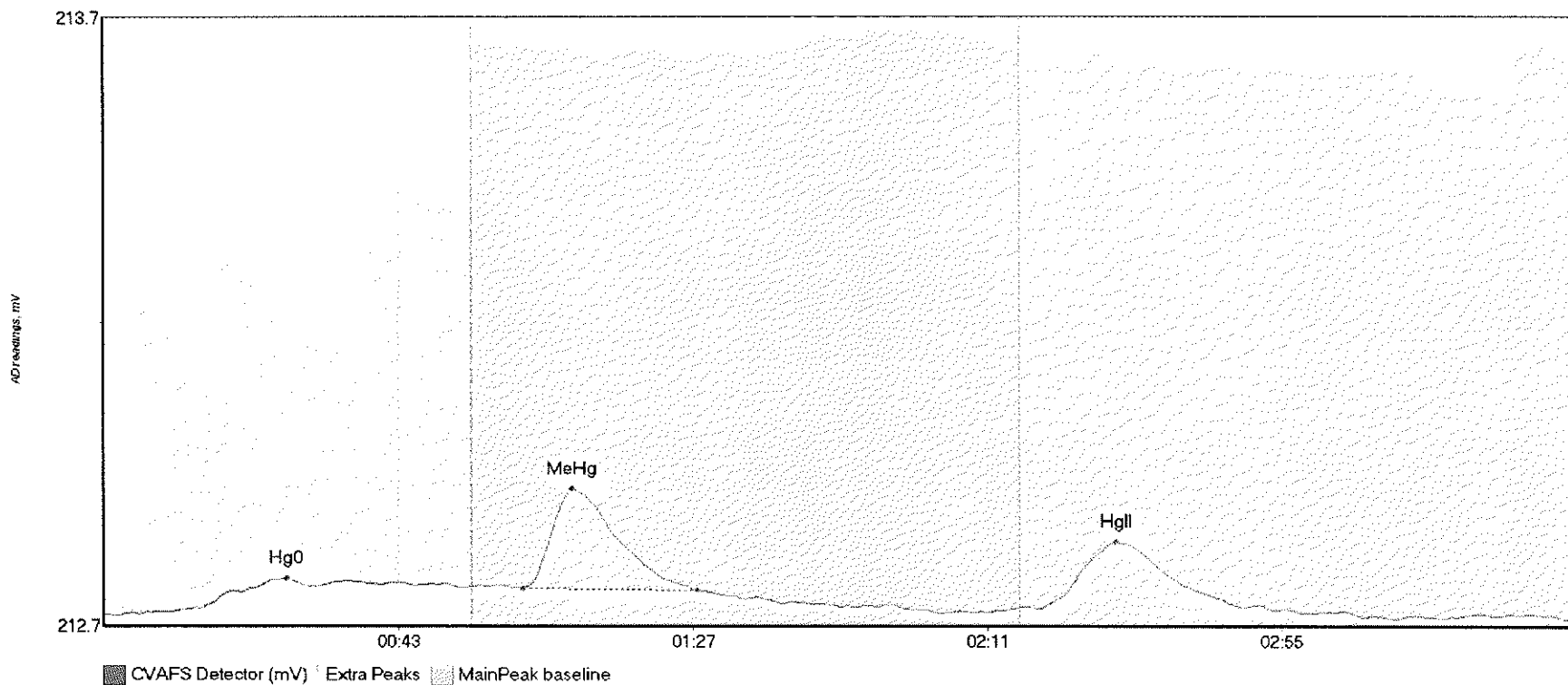
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BS1 Hg0	12.019	12.3	53.6	212.76	212.80	30.3	0.071	OK	212.7584	0.00	0.00	
F707501-BS1 MeH	300.303	60.9	107.1	212.80	212.80	70.6	2.447	OK	212.7584	0.00	0.00	
F707501-BS1 HgI	15.355	136.8	174.4	212.77	212.77	150.8	0.099	OK	212.7584	0.00	0.00	

#15: F707501-BSD1



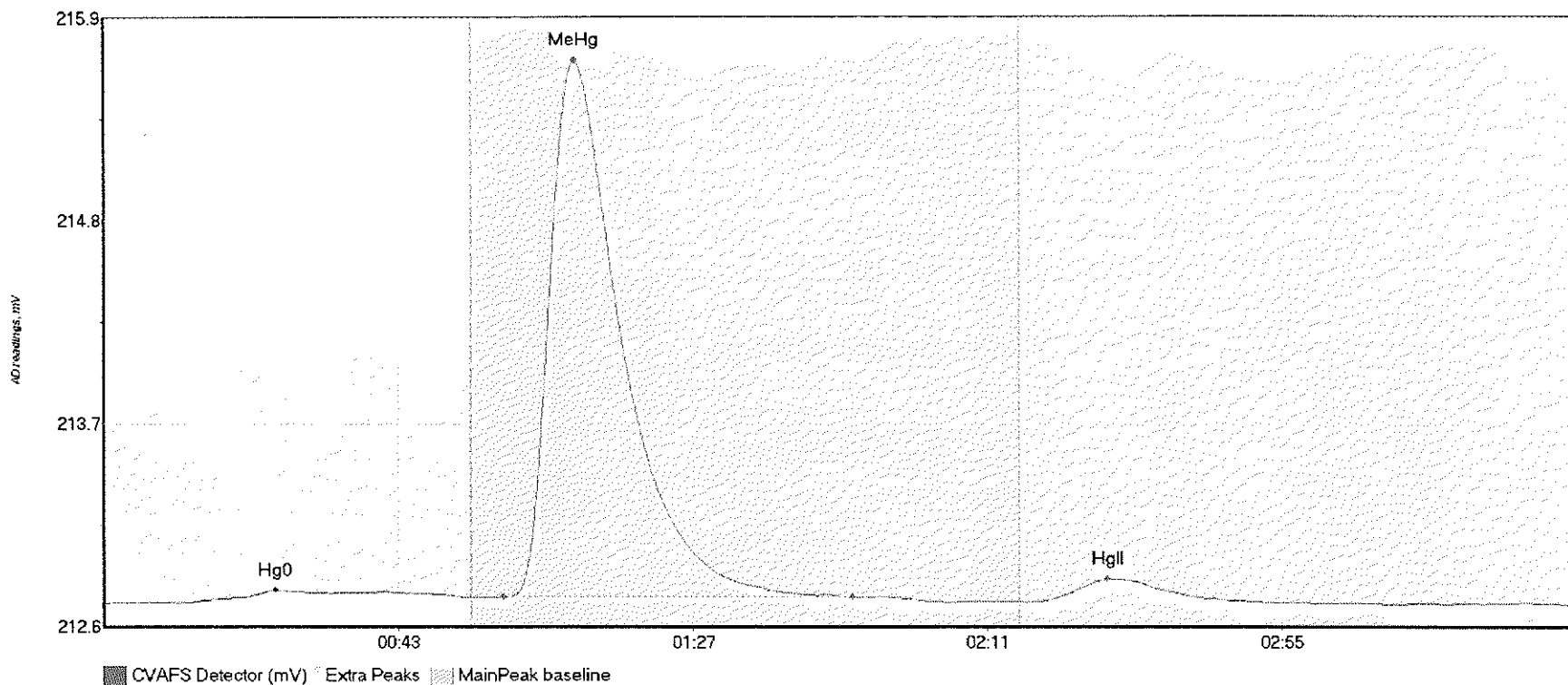
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BSD1 Hg	9.424	10.3	54.9	212.74	212.78	37.1	0.062	OK	212.7377	0.00	0.01	
F707501-BSD1 Me	335.286	59.6	106.5	212.78	212.79	70.8	2.707	OK	212.7377	0.00	0.01	
F707501-BSD1 Hg	64.737	137.6	179.2	212.76	212.76	151.5	0.415	OK	212.7377	0.00	0.01	

#16: F707501-DUP1



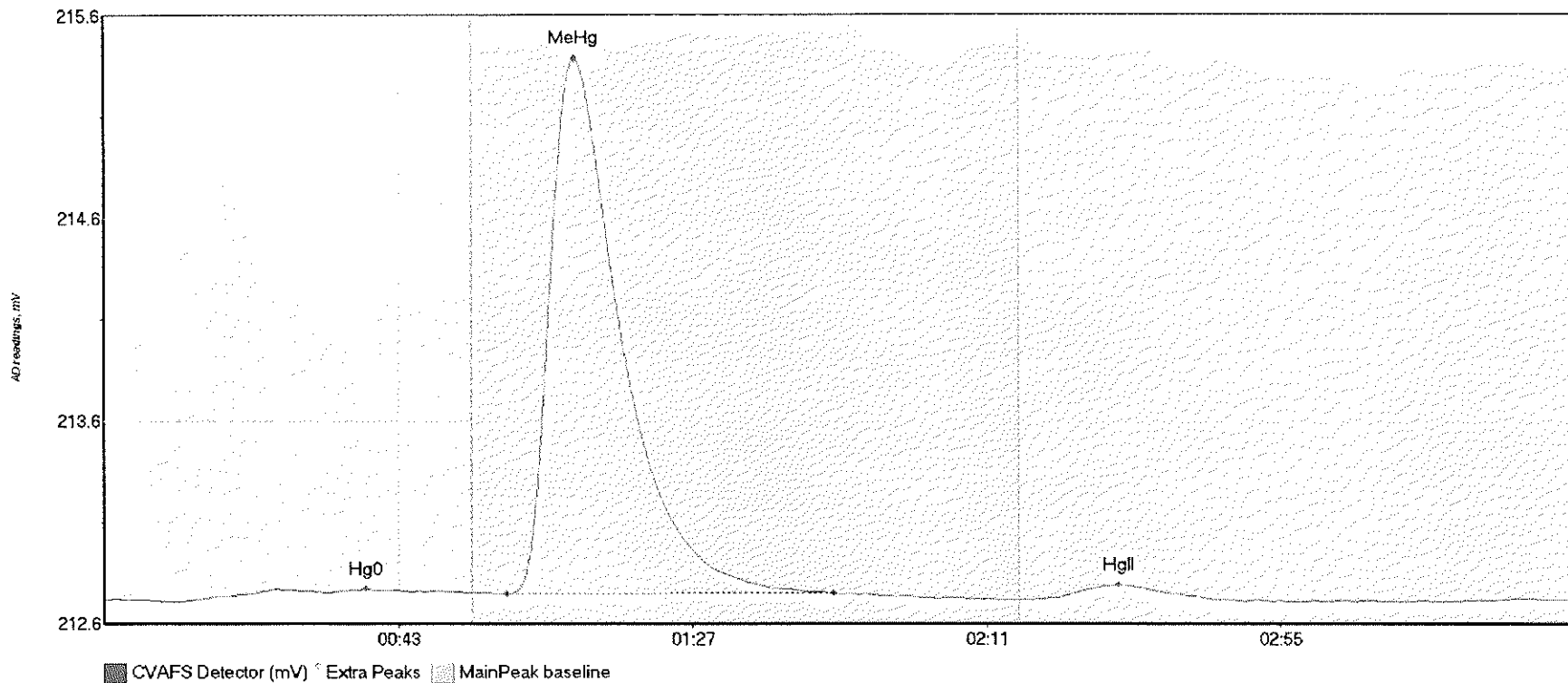
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-DUP1 Hg	8.242	10.2	53.8	212.73	212.77	27.3	0.054	OK	212.7270	0.00	-0.01	
F707501-DUP1 Me	18.440	62.6	88.7	212.77	212.76	70.0	0.164	OK	212.7270	0.00	-0.01	
F707501-DUP1 Hg	15.510	139.8	170.5	212.74	212.74	151.3	0.110	OK	212.7270	0.00	-0.01	

#17: F707501-MS1



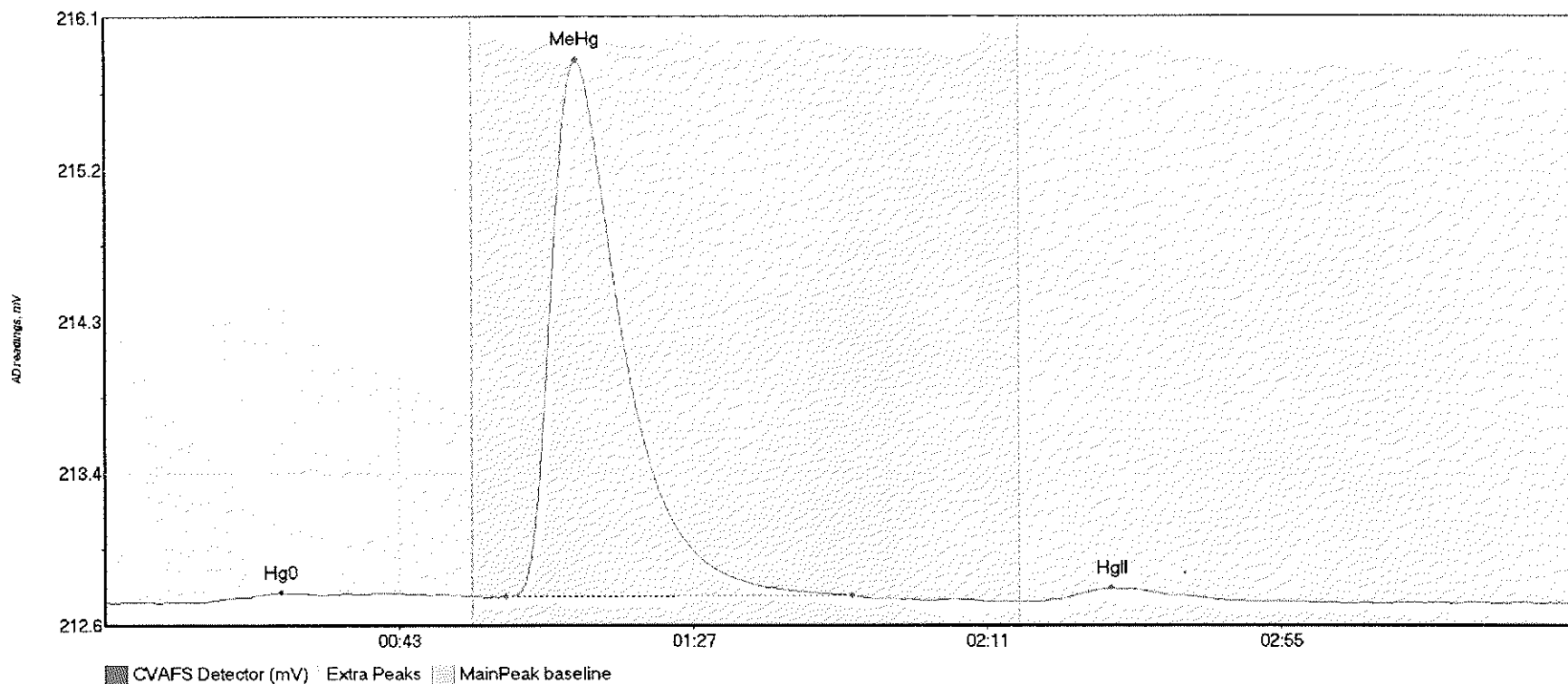
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MS1 Hg0	13.116	11.4	54.4	212.71	212.74	25.7	0.069	OK	212.7096	0.00	-0.01	
F707501-MS1 MeH	363.060	59.7	111.9	212.74	212.74	70.4	2.904	OK	212.7096	0.00	-0.01	
F707501-MS1 HgI	17.609	139.1	171.8	212.72	212.72	150.1	0.122	OK	212.7096	0.00	-0.01	

#18: F707501-MSD1



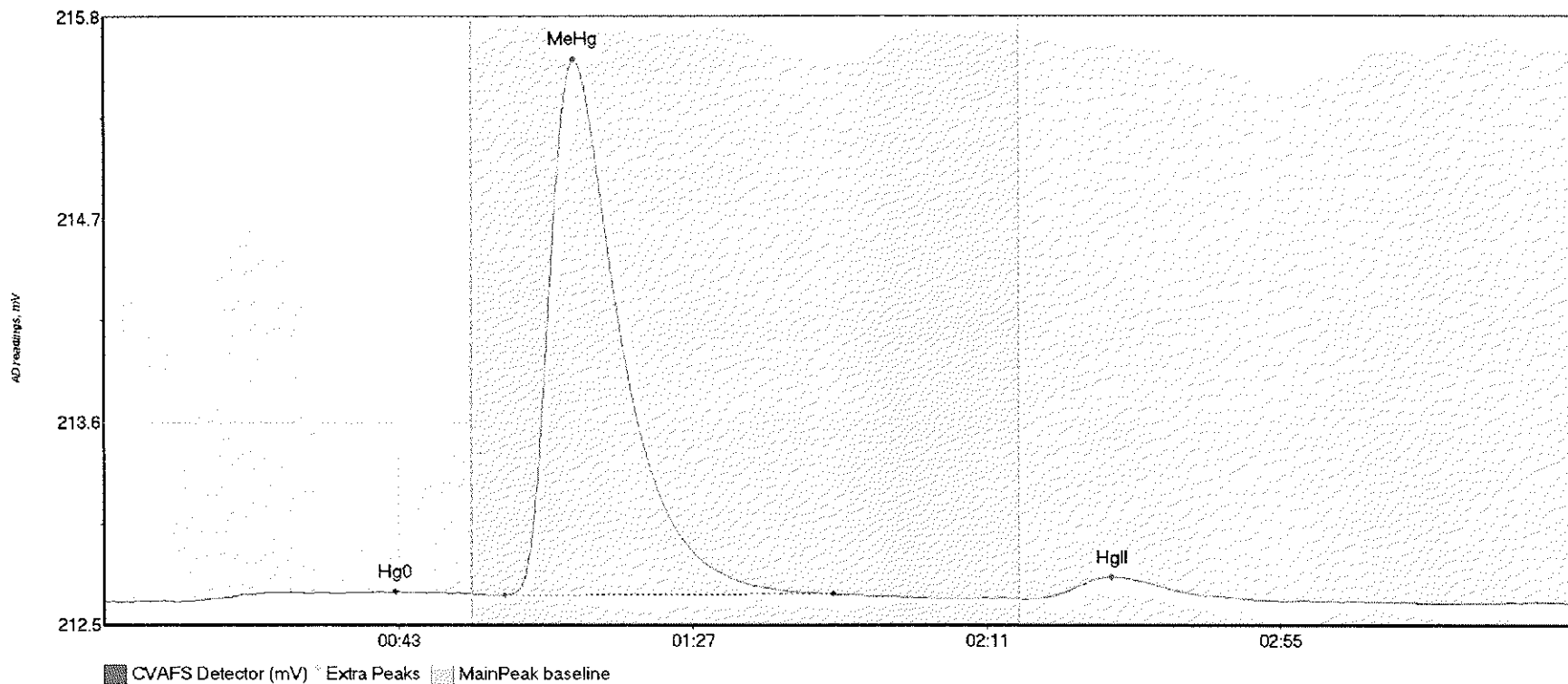
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MSD1 Hg	9.992	11.8	55.0	212.69	212.73	39.1	0.060	CT	212.7015	0.00	0.00	
F707501-MSD1 Me	334.508	60.2	109.0	212.73	212.73	70.5	2.689	OK	212.7015	0.00	0.00	
F707501-MSD1 Hg	9.549	140.1	166.7	212.70	212.70	151.7	0.069	OK	212.7015	0.00	0.00	

#19: F707501-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MS2 Hg0	9.349	14.3	54.4	212.68	212.72	26.4	0.053	OK	212.6820	0.00	-0.01	
F707501-MS2 MeH	385.029	60.0	111.8	212.72	212.72	70.6	3.084	OK	212.6820	0.00	-0.01	
F707501-MS2 HgI	11.241	140.0	171.7	212.69	212.69	150.7	0.074	OK	212.6820	0.00	-0.01	

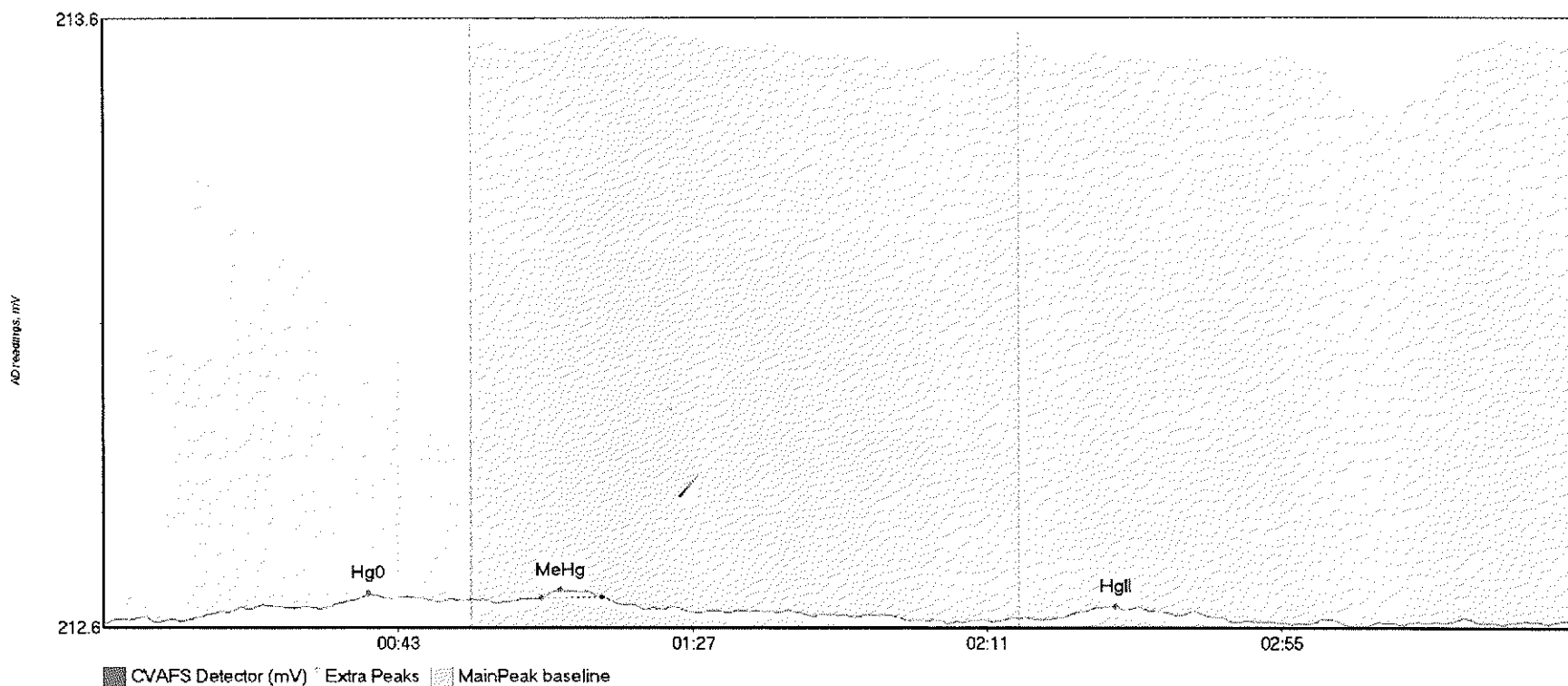
#20: F707501-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MSD2 Hg	8.928	10.9	54.9	212.67	212.71	43.6	0.054	OK	212.6708	0.00	-0.01	
F707501-MSD2 Me	360.655	59.9	109.0	212.71	212.71	70.3	2.900	OK	212.6708	0.00	-0.01	
F707501-MSD2 Hg	17.489	139.8	171.4	212.69	212.68	150.8	0.118	OK	212.6708	0.00	-0.01	

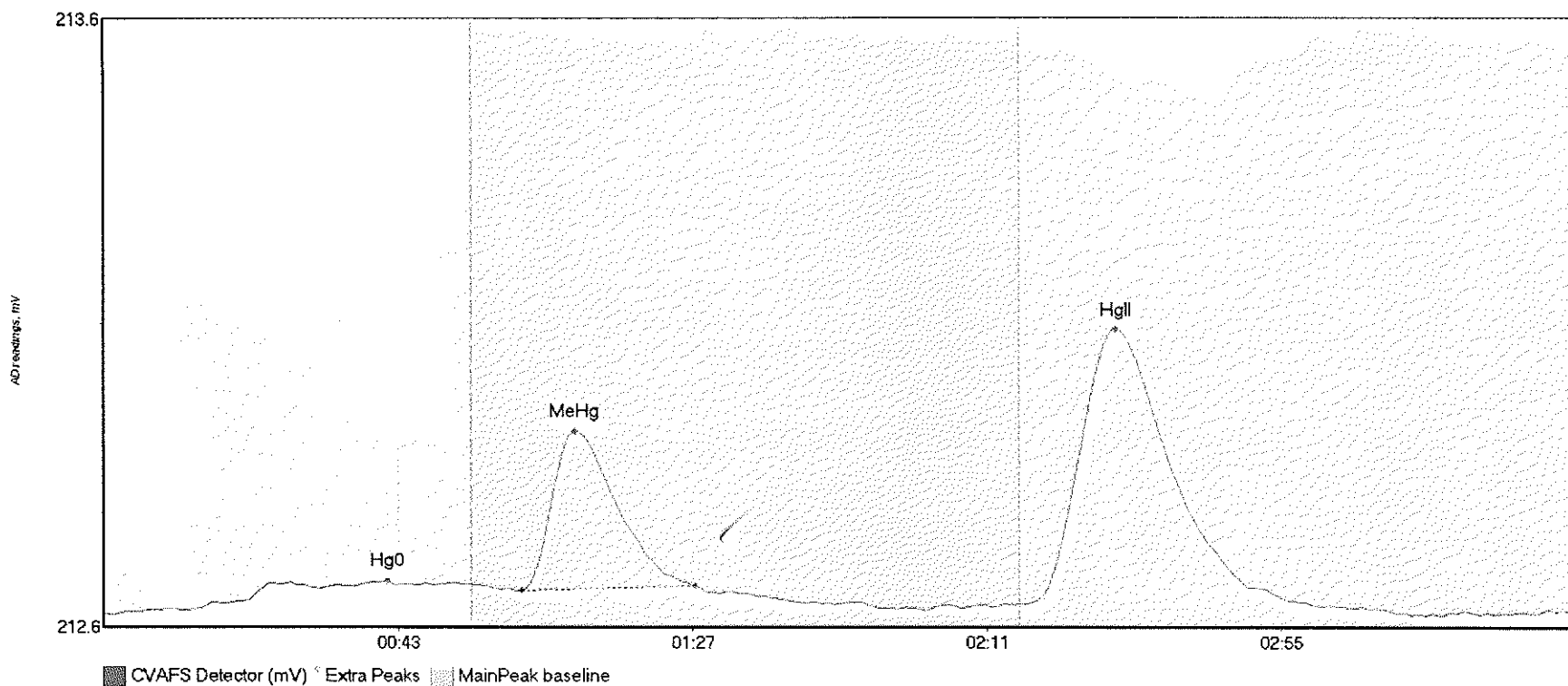


#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	4.010	11.4	50.2	212.62	212.65	39.6	0.045	OK	212.6173	0.00	0.00	
SEQ-CCB1 MeHg	0.808	65.4	74.4	212.66	212.66	68.3	0.014	OK	212.6173	0.00	0.00	
SEQ-CCB1 HgII	1.803	143.3	160.5	212.63	212.63	151.3	0.018	OK	212.6173	0.00	0.00	

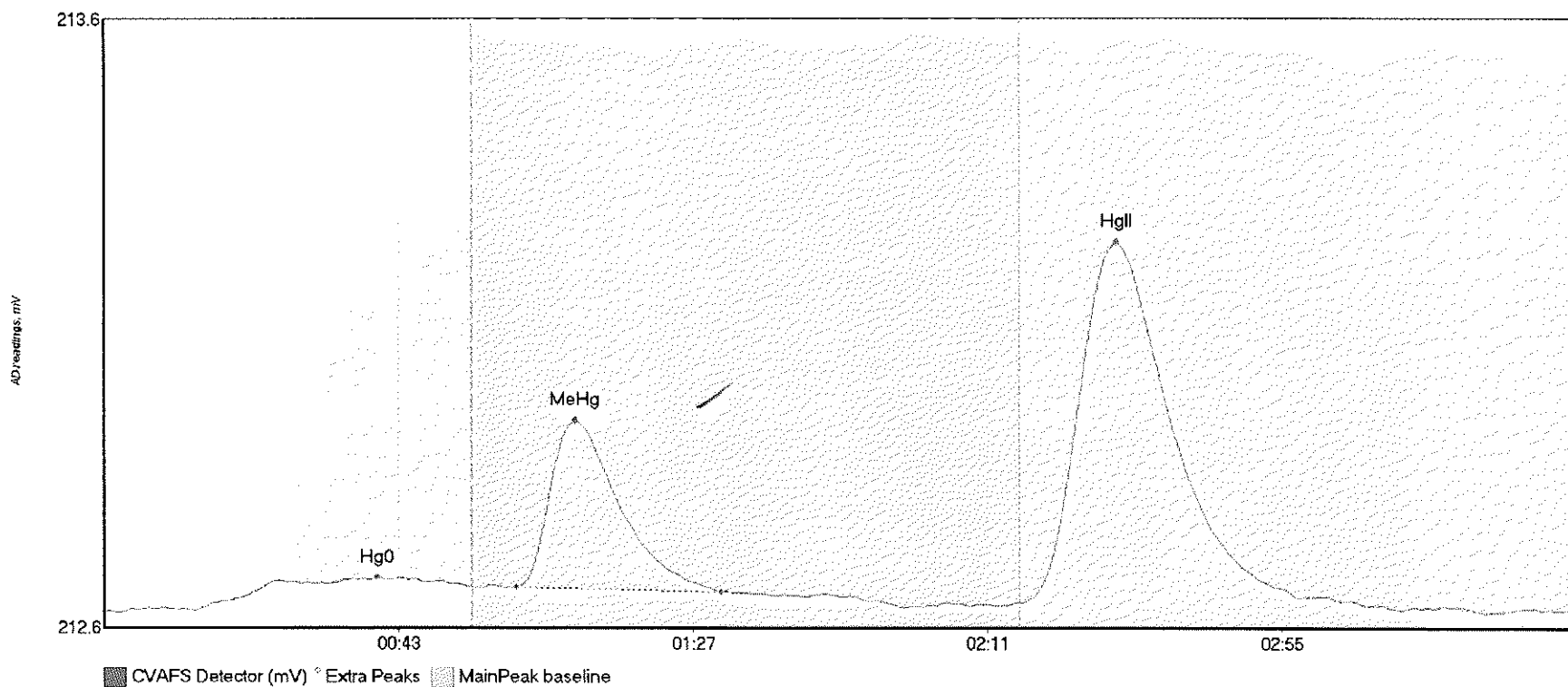
#23: 1707102-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-01 Hg0	3.564	5.5	47.0	212.61	212.65	42.4	0.051	OK	212.6066	0.00	0.00	
1707102-01 MeHg	28.937	62.4	88.4	212.64	212.65	70.5	0.262	OK	212.6066	0.00	0.00	
1707102-01 HgII	69.697	137.8	178.7	212.62	212.63	151.3	0.454	OK	212.6066	0.00	0.00	

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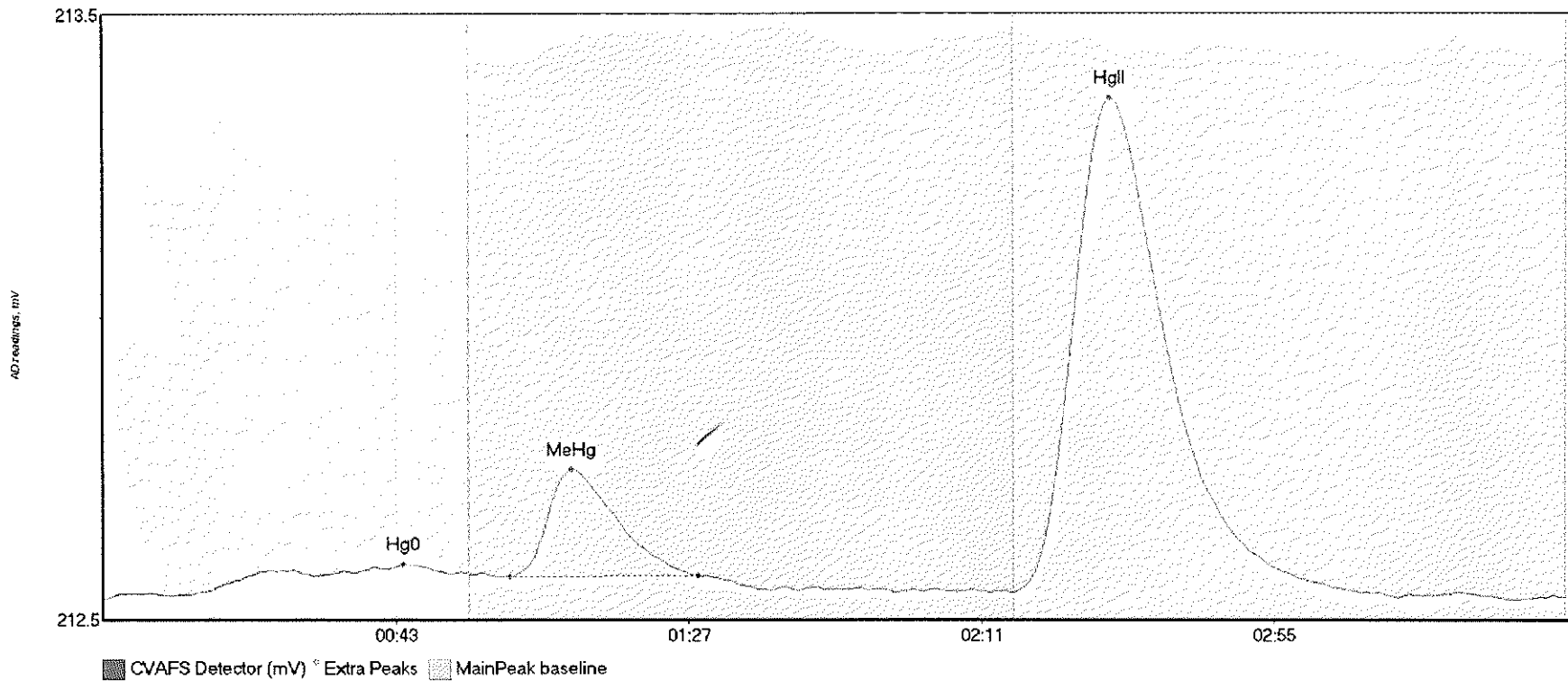
#24: 1707102-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-02 Hg0	8.586	14.0	55.0	212.58	212.62	40.9	0.053	CT	212.5826	0.00	0.01	
1707102-02 MeHg	33.045	61.6	92.2	212.62	212.61	70.4	0.274	OK	212.5826	0.00	0.01	
1707102-02 HgII	93.938	137.3	185.0	212.60	212.60	151.3	0.592	OK	212.5826	0.00	0.01	

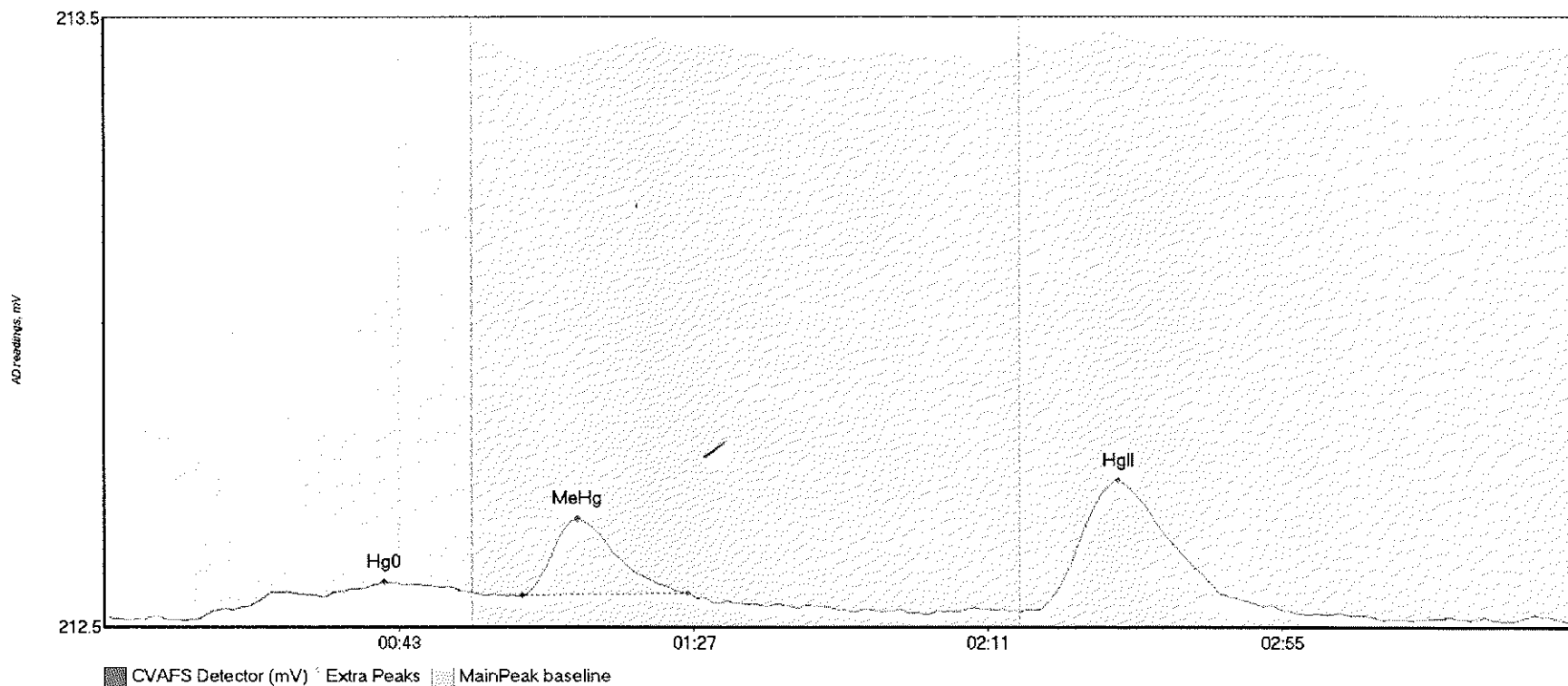
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#25: 1707102-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BjDev	BjShift	Comment
1707102-03 Hg0	7.273	12.8	55.0	212.57	212.60	45.2	0.050	CT	212.5649	0.00	0.00	
1707102-03 MeHg	21.166	61.1	89.5	212.60	212.60	70.5	0.179	OK	212.5649	0.00	0.00	
1707102-03 HgII	131.851	136.8	186.4	212.57	212.58	151.5	0.816	OK	212.5649	0.00	0.00	

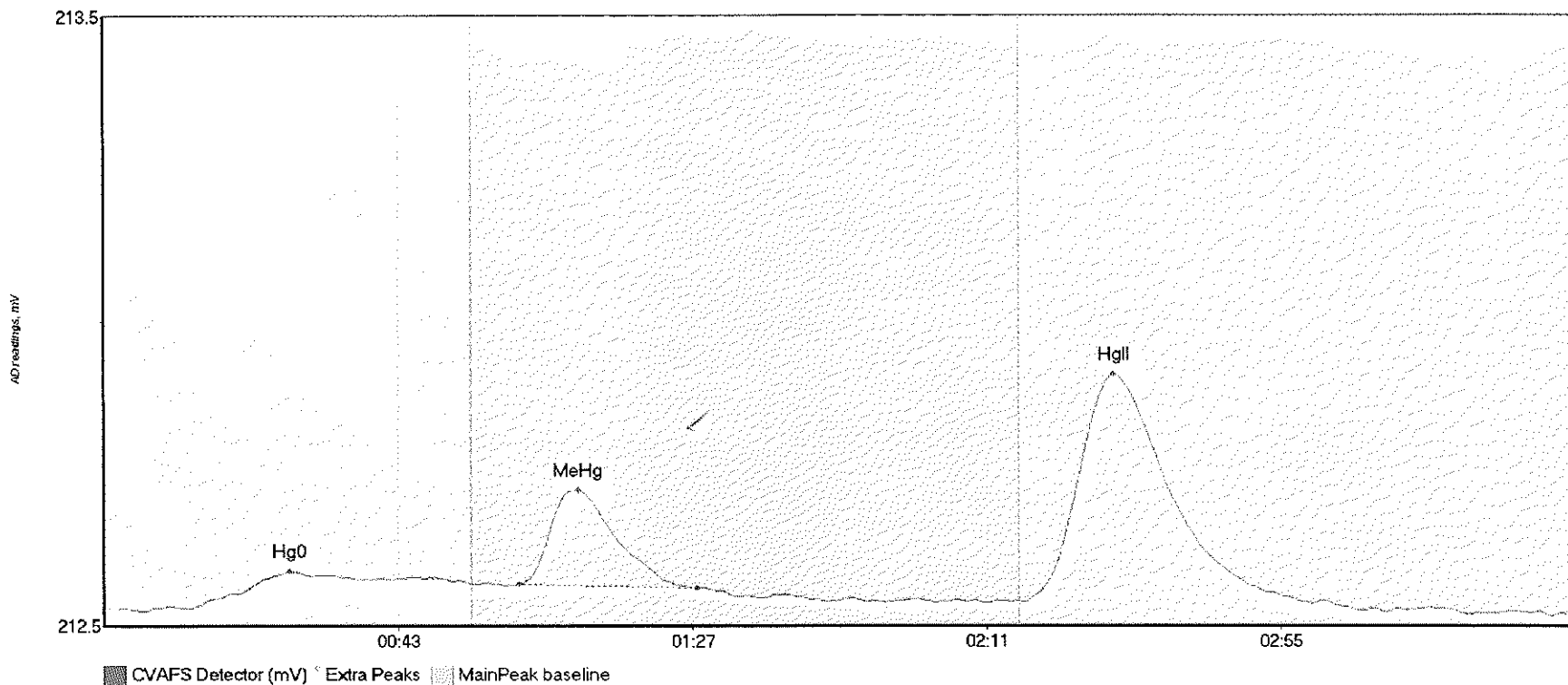
#26: 1707102-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-04 Hg0	8.059	13.7	55.0	212.54	212.59	41.8	0.062	CT	212.5471	0.00	-0.01	
1707102-04 MeHg	13.535	62.4	87.1	212.58	212.58	70.7	0.125	OK	212.5471	0.00	-0.01	
1707102-04 HgII	32.756	139.0	176.6	212.56	212.56	151.6	0.213	OK	212.5471	0.00	-0.01	

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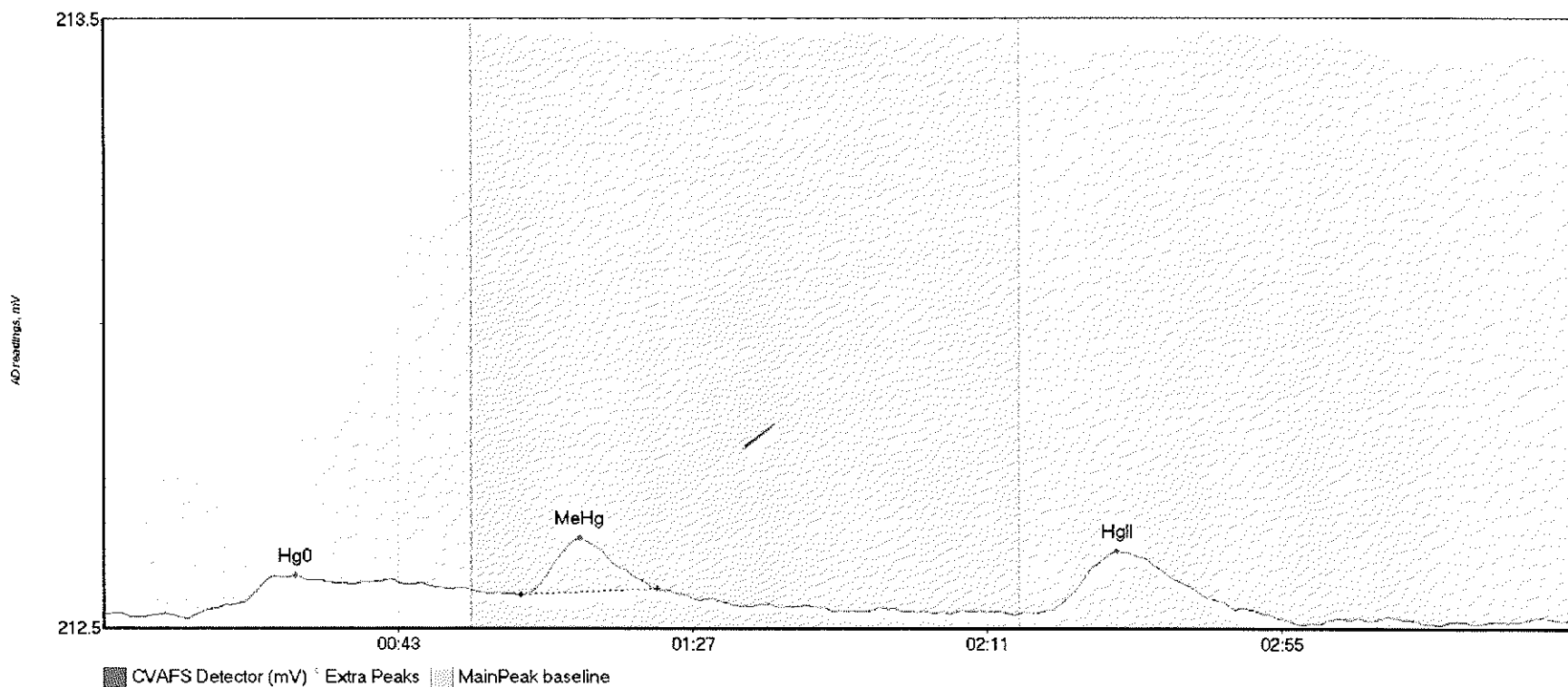
#27: 1707102-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-05 Hg0	9.807	12.9	55.0	212.53	212.57	27.9	0.061	CT	212.5255	0.00	-0.01	
1707102-05 MeHg	17.615	62.1	88.8	212.57	212.56	71.0	0.155	OK	212.5255	0.00	-0.01	
1707102-05 HgII	57.871	137.7	179.5	212.54	212.54	151.1	0.374	OK	212.5255	0.00	-0.01	

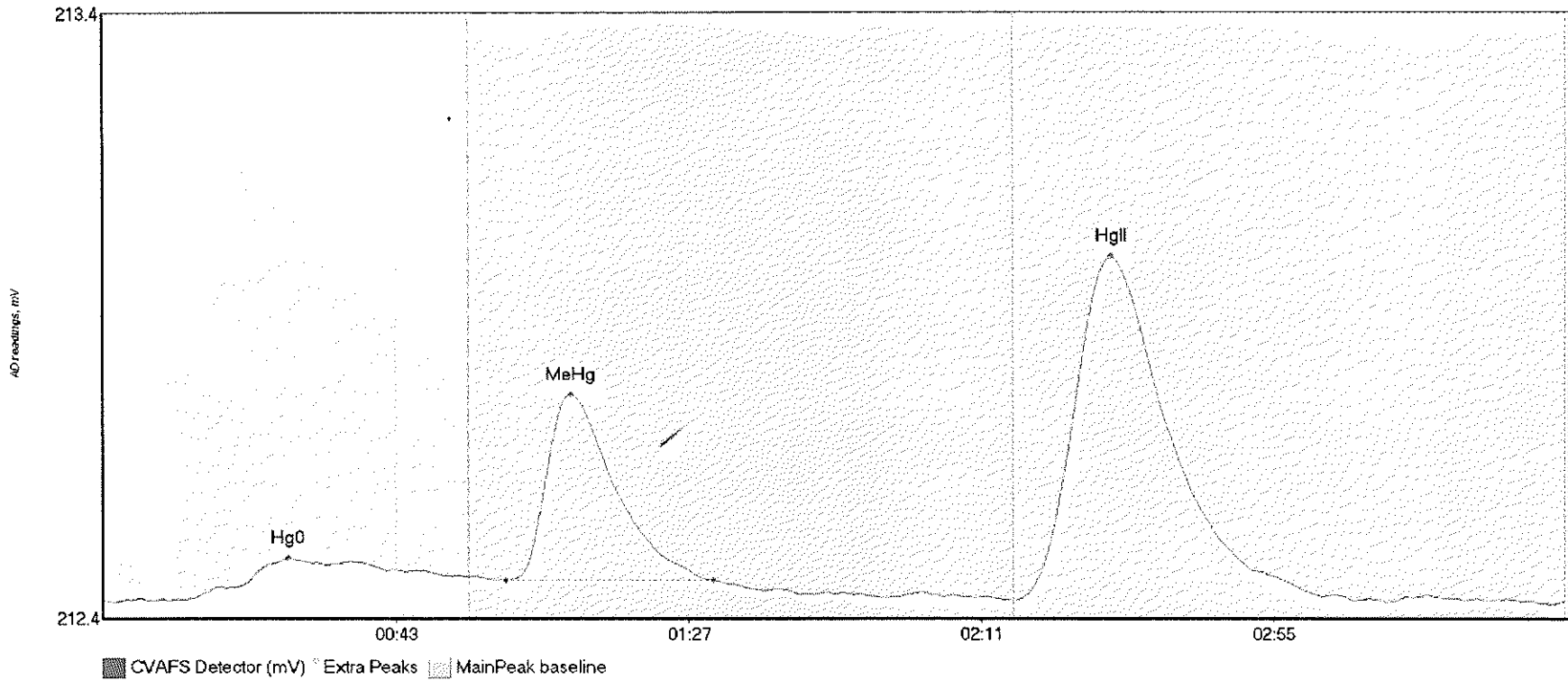
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#28: 1707102-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-06 Hg0	11.138	12.5	55.0	212.49	212.54	28.7	0.070	CT	212.4992	0.00	-0.01	
1707102-06 MeHg	8.722	62.3	82.8	212.53	212.54	71.1	0.093	OK	212.4992	0.00	-0.01	
1707102-06 HgII	15.172	141.1	173.3	212.50	212.50	151.4	0.097	OK	212.4992	0.00	-0.01	

#29: 1707293-01

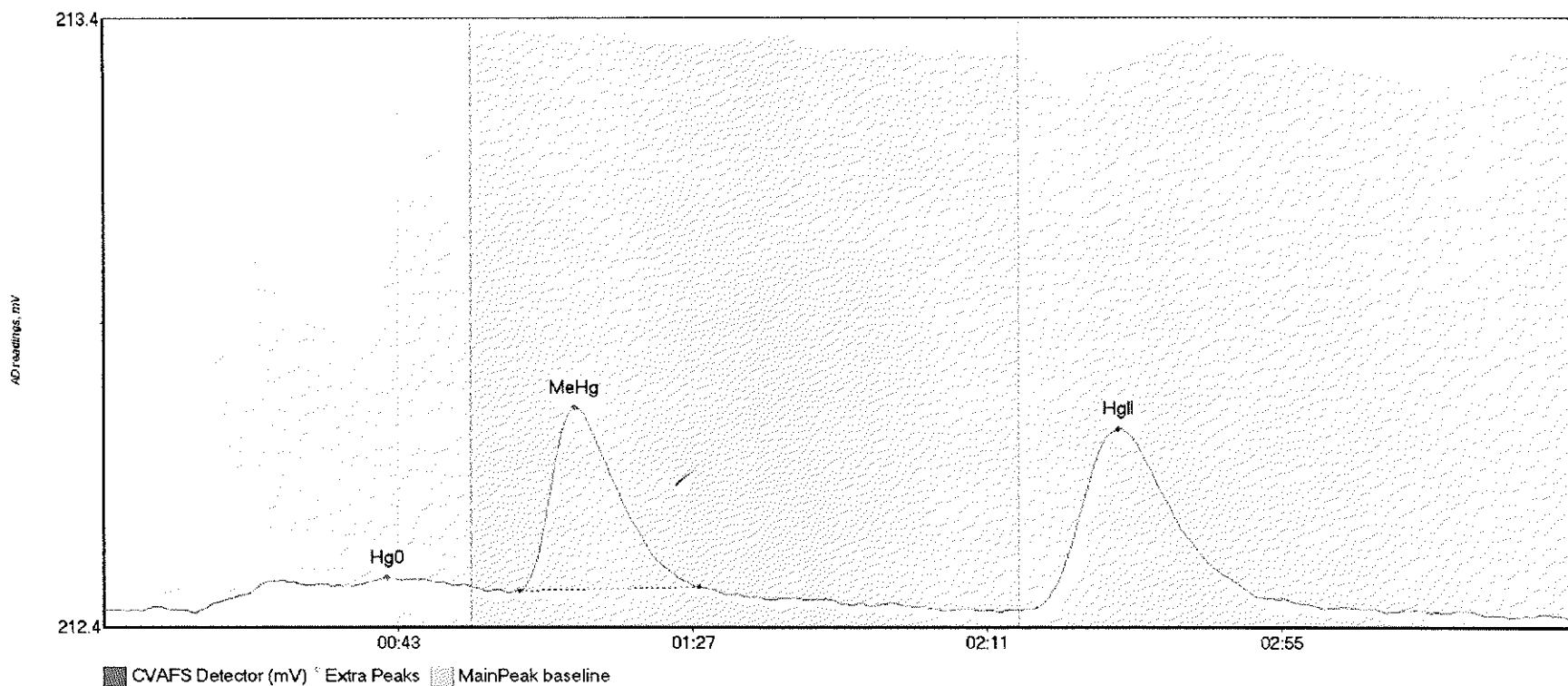


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-01 Hg0	10.956	13.2	55.0	212.47	212.51	27.8	0.067	CT	212.4687	0.00	0.00	
1707293-01 MeHg	36.270	60.6	91.7	212.50	212.50	70.4	0.307	OK	212.4687	0.00	0.00	
1707293-01 HgII	94.622	137.0	188.3	212.47	212.47	151.6	0.567	OK	212.4687	0.00	0.00	

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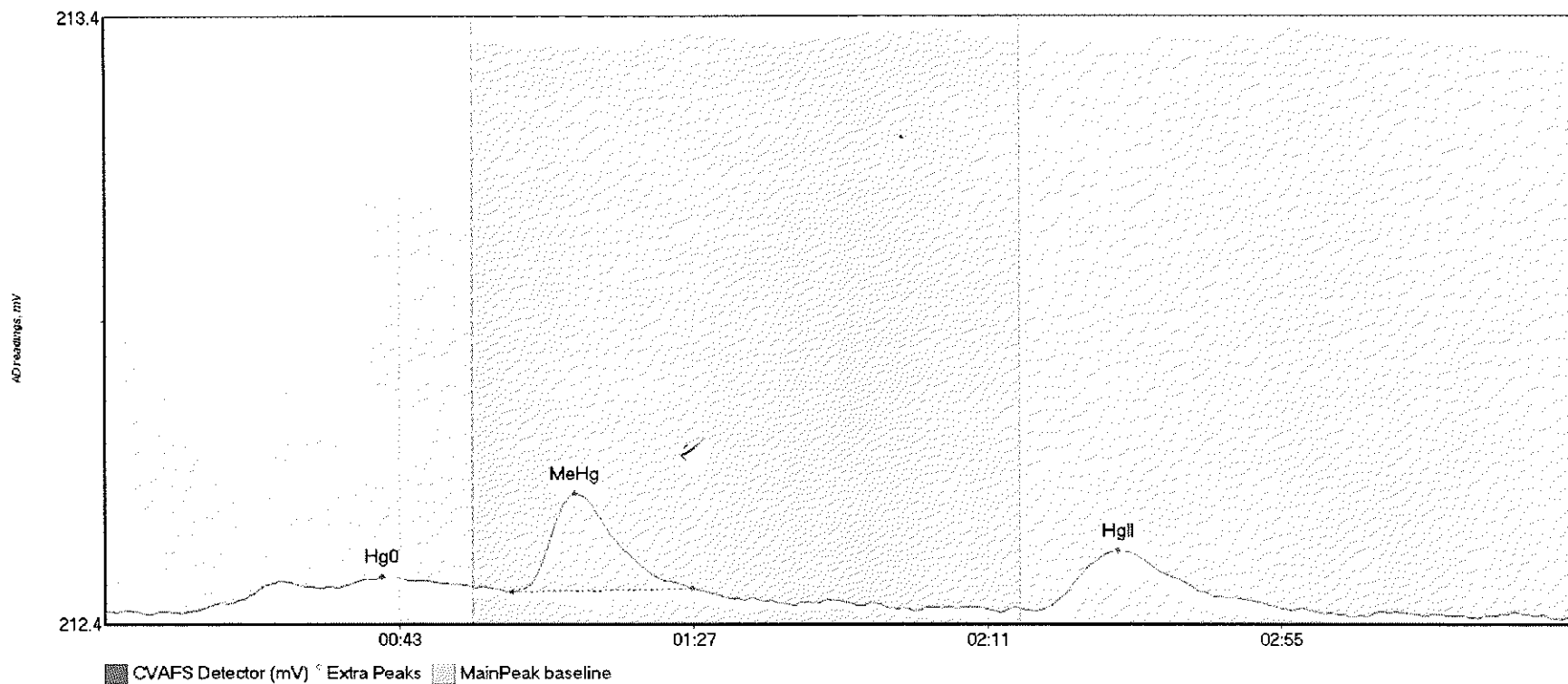


#30: 1707293-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-02 Hg0	8.151	15.0	55.0	212.45	212.49	42.4	0.053	CT	212.4490	0.00	-0.01	
1707293-02 MeHg	34.347	62.2	89.0	212.48	212.49	70.5	0.301	OK	212.4490	0.00	-0.01	
1707293-02 HgII	48.052	138.8	182.5	212.45	212.45	151.8	0.297	OK	212.4490	0.00	-0.01	

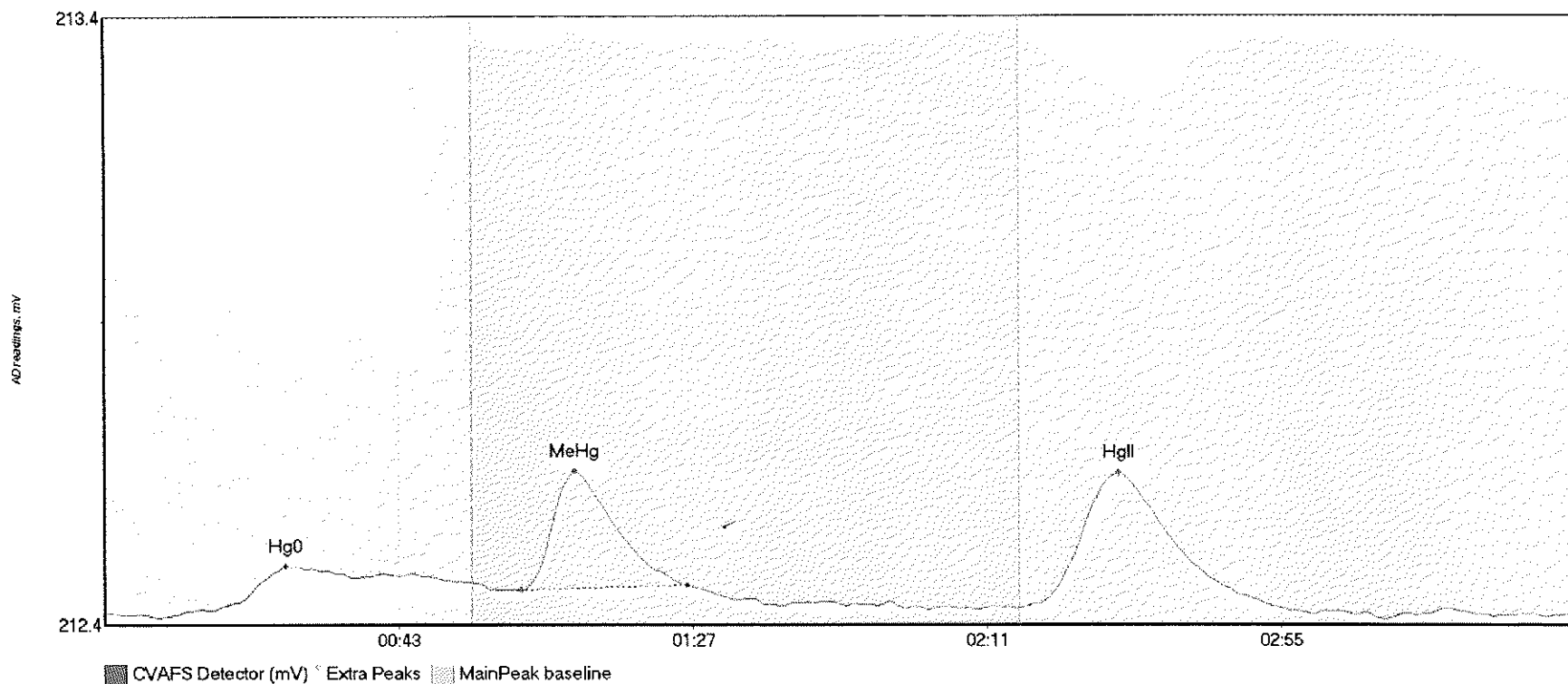
#31: 1707293-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-03 Hg0	8.356	11.4	55.0	212.42	212.46	41.4	0.060	CT	212.4227	0.00	-0.01	
1707293-03 MeHg	17.845	60.8	87.9	212.46	212.46	70.3	0.162	OK	212.4227	0.00	-0.01	
1707293-03 HgII	16.448	139.1	176.2	212.42	212.43	151.6	0.100	OK	212.4227	0.00	-0.01	

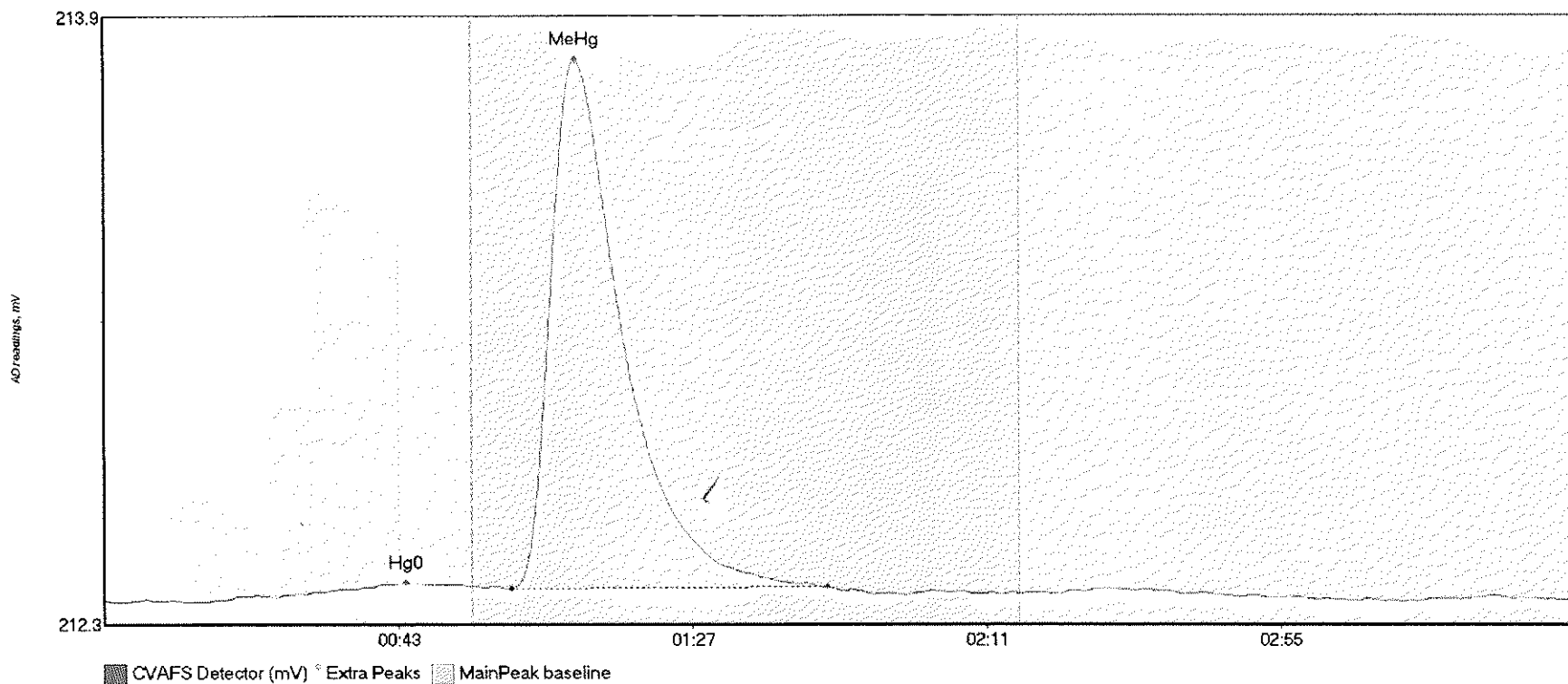
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#32: 1707293-04



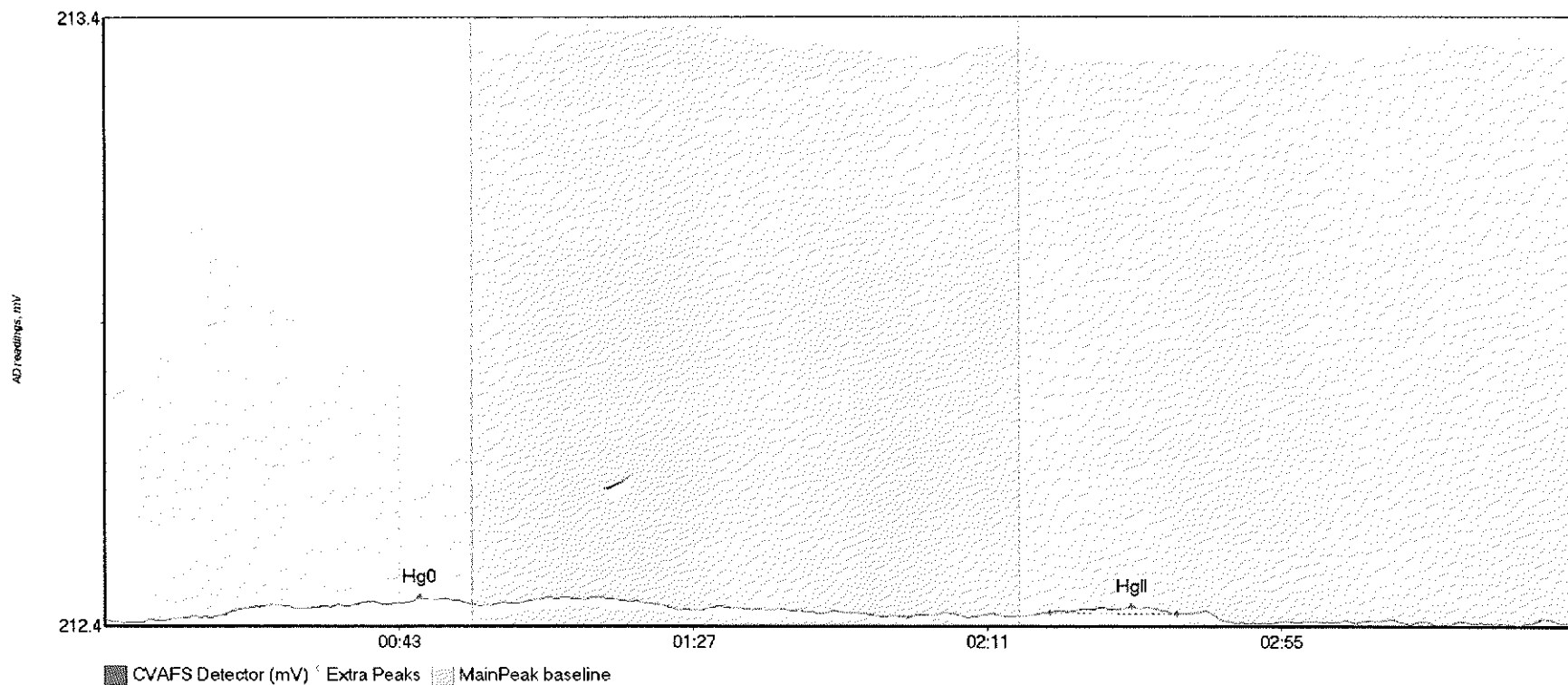
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-04 Hg0	10.816	16.1	54.6	212.41	212.46	27.1	0.073	OK	212.4042	0.00	0.00	
1707293-04 MeHg	20.530	62.3	87.1	212.44	212.45	70.3	0.196	OK	212.4042	0.00	0.00	
1707293-04 HgII	34.755	137.7	177.7	212.42	212.41	151.7	0.220	OK	212.4042	0.00	0.00	

#33: SEQ-CCV2



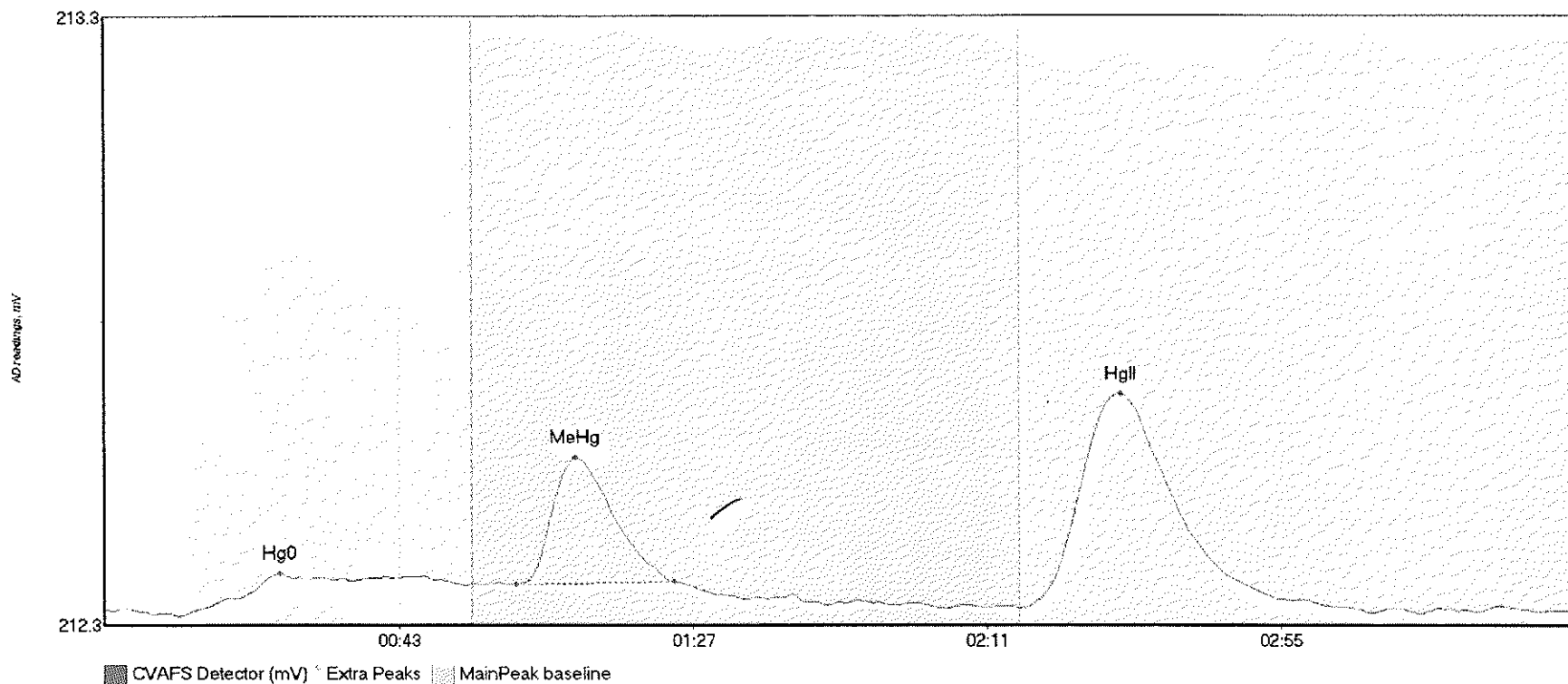
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	3.207	18.4	54.7	212.39	212.42	45.1	0.044	OK	212.3852	0.00	0.01	
SEQ-CCV2 MeHg	176.205	60.9	108.1	212.42	212.42	70.6	1.399	OK	212.3852	0.00	0.01	017

#34: SEQ-CCB2



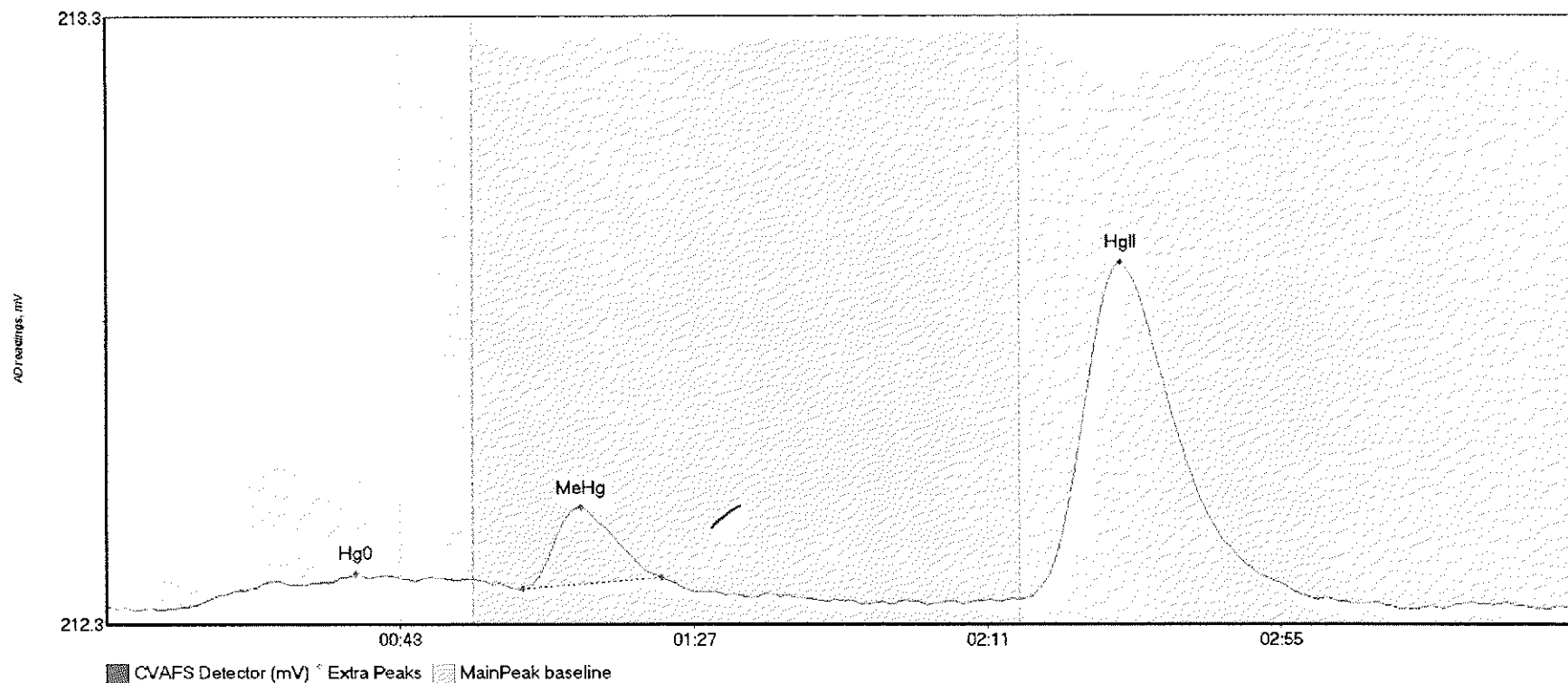
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	3.733	15.9	55.0	212.38	212.41	47.2	0.033	CT	212.3803	0.00	-0.01	
SEQ-CCB2 HgII	1.297	141.4	160.4	212.39	212.39	153.8	0.011	OK	212.3803	0.00	-0.01	017

#35: 1707293-05



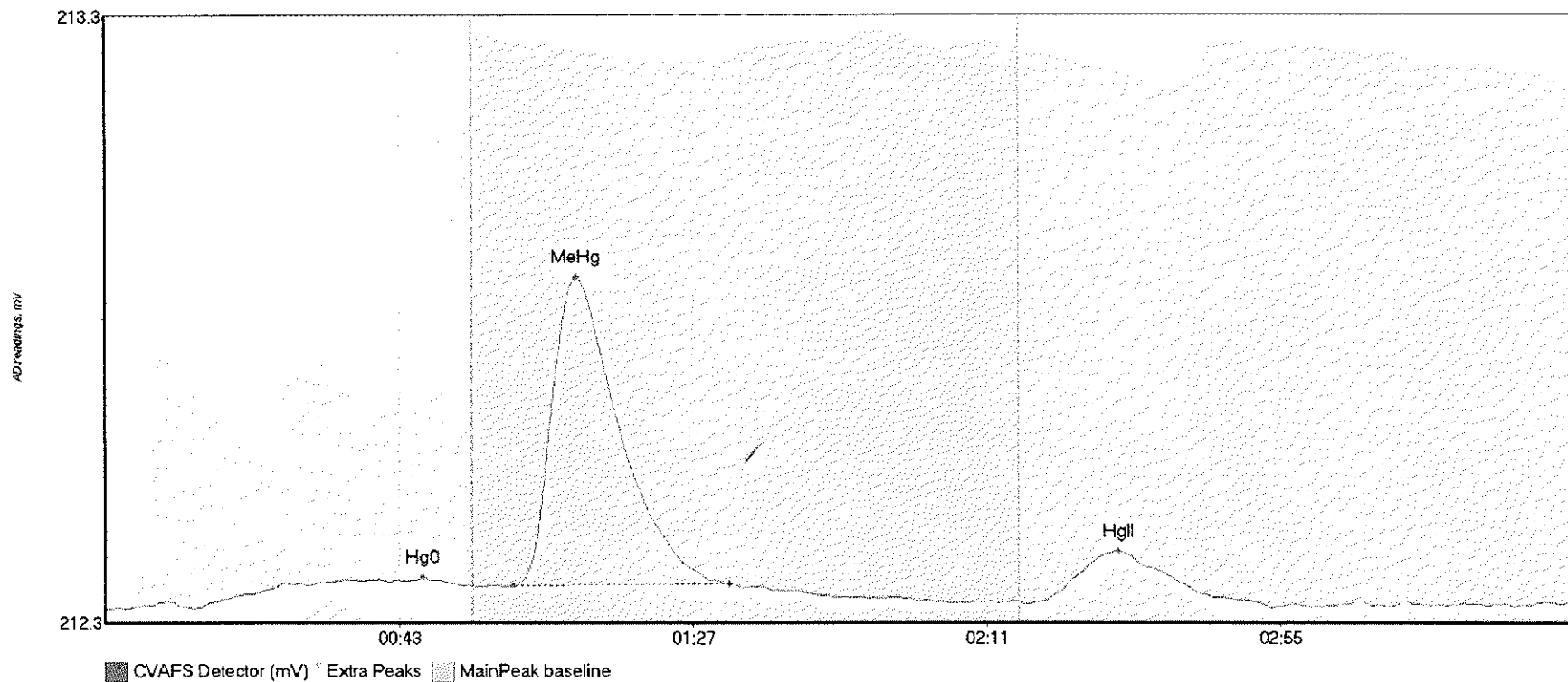
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-05 Hg0	10.660	11.7	53.7	212.36	212.41	26.3	0.069	OK	212.3716	0.00	0.00	
1707293-05 MeHg	21.631	61.6	85.1	212.41	212.42	70.5	0.209	OK	212.3716	0.00	0.00	
1707293-05 HgII	56.392	137.8	182.6	212.38	212.38	152.0	0.351	OK	212.3716	0.00	0.00	

#36: 1707293-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-06 Hg0	4.905	12.2	46.3	212.36	212.41	37.5	0.052	OK	212.3623	0.00	0.00	
1707293-06 MeHg	12.802	62.5	83.1	212.39	212.41	71.1	0.134	OK	212.3623	0.00	0.00	
1707293-06 HgII	88.696	136.8	181.6	212.38	212.38	152.0	0.554	OK	212.3623	0.00	0.00	

#37: 1707294-01

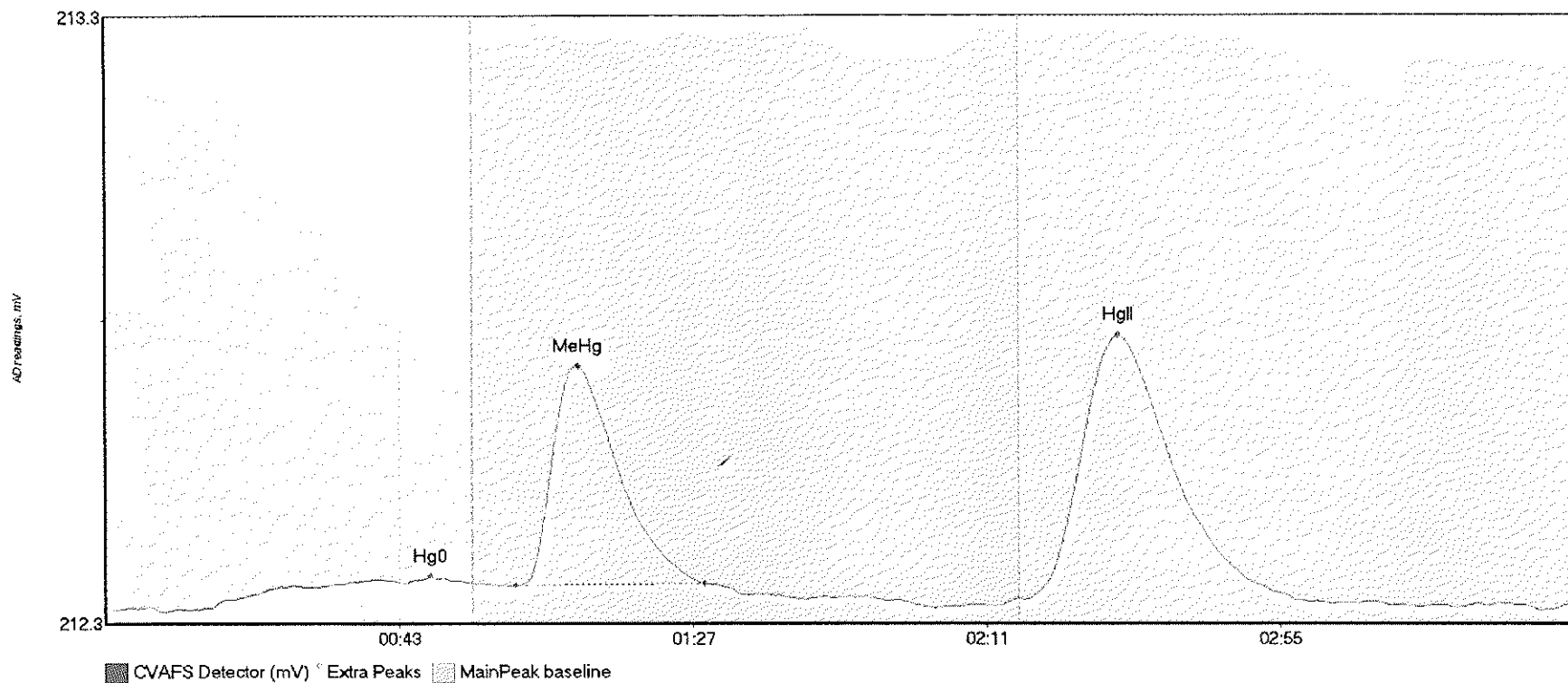


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707294-01 Hg0	7.394	13.3	55.0	212.35	212.39	47.6	0.052	CT	212.3478	0.00	0.01	
1707294-01 MeHg	59.250	61.2	93.5	212.39	212.39	70.6	0.506	OK	212.3478	0.00	0.01	
1707294-01 HgII	11.330	140.0	169.9	212.36	212.36	151.8	0.084	OK	212.3478	0.00	0.01	

017



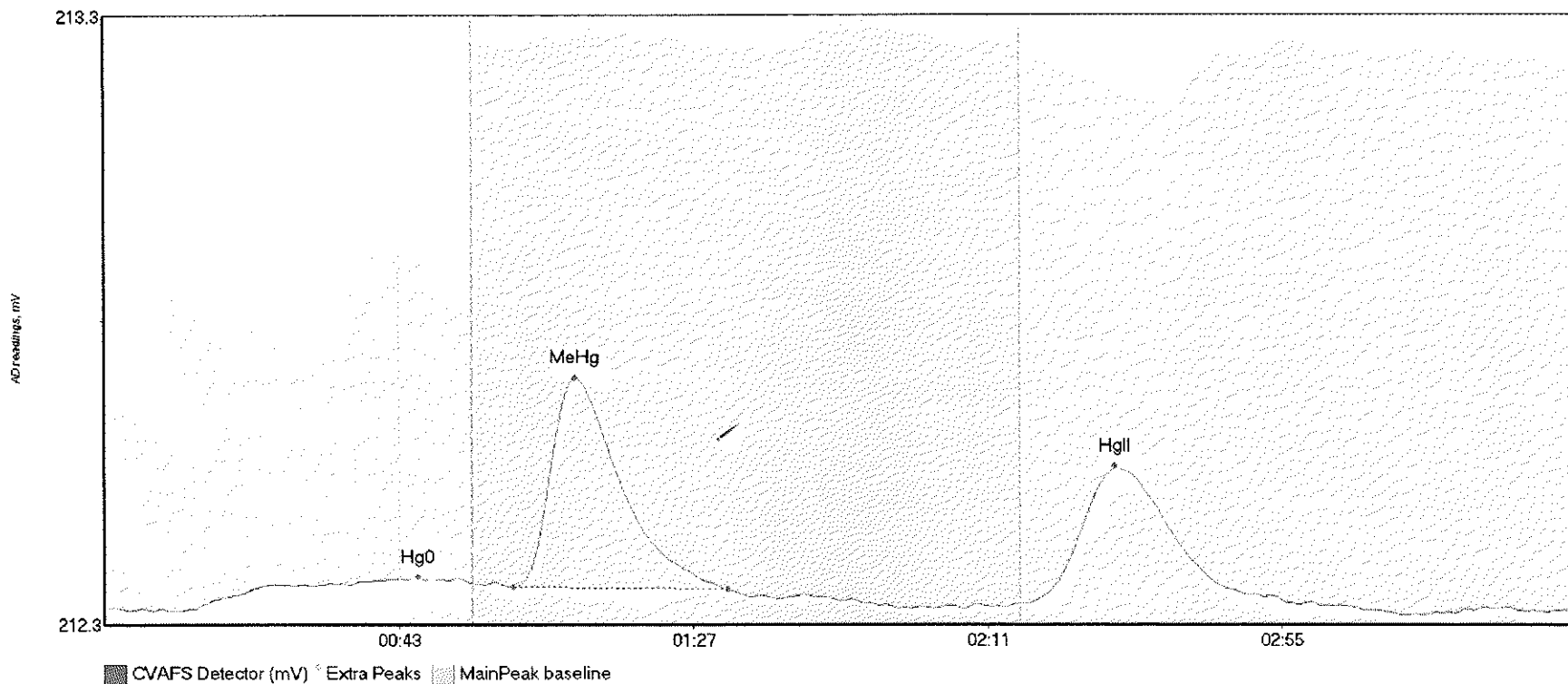
#38: 1707294-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707294-02 Hg0	6.261	15.7	55.0	212.35	212.39	48.7	0.051	CT	212.3448	0.00	0.01	
1707294-02 MeHg	41.237	61.4	89.8	212.38	212.39	70.8	0.363	OK	212.3448	0.00	0.01	
1707294-02 HgII	68.392	137.5	178.7	212.36	212.36	151.7	0.434	OK	212.3448	0.00	0.01	

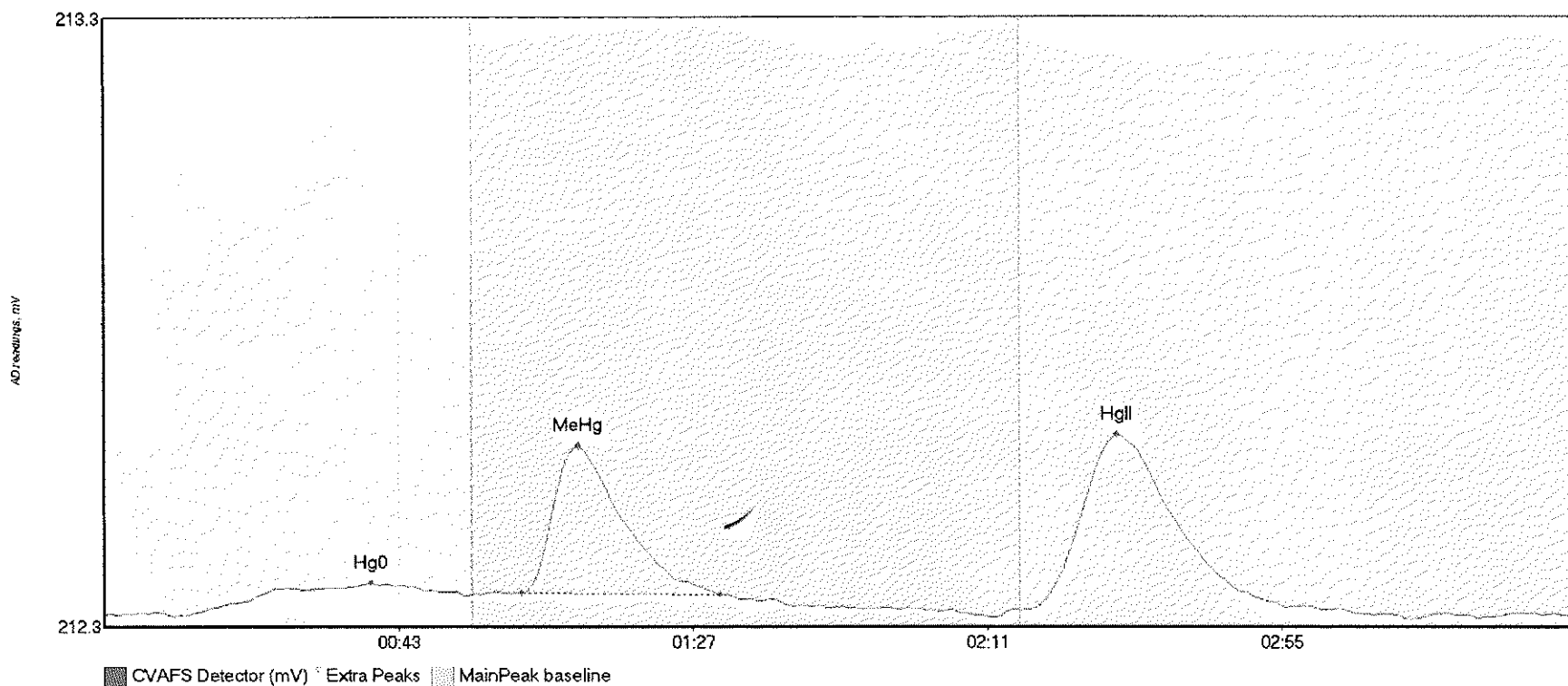
017

#39: 1707294-03



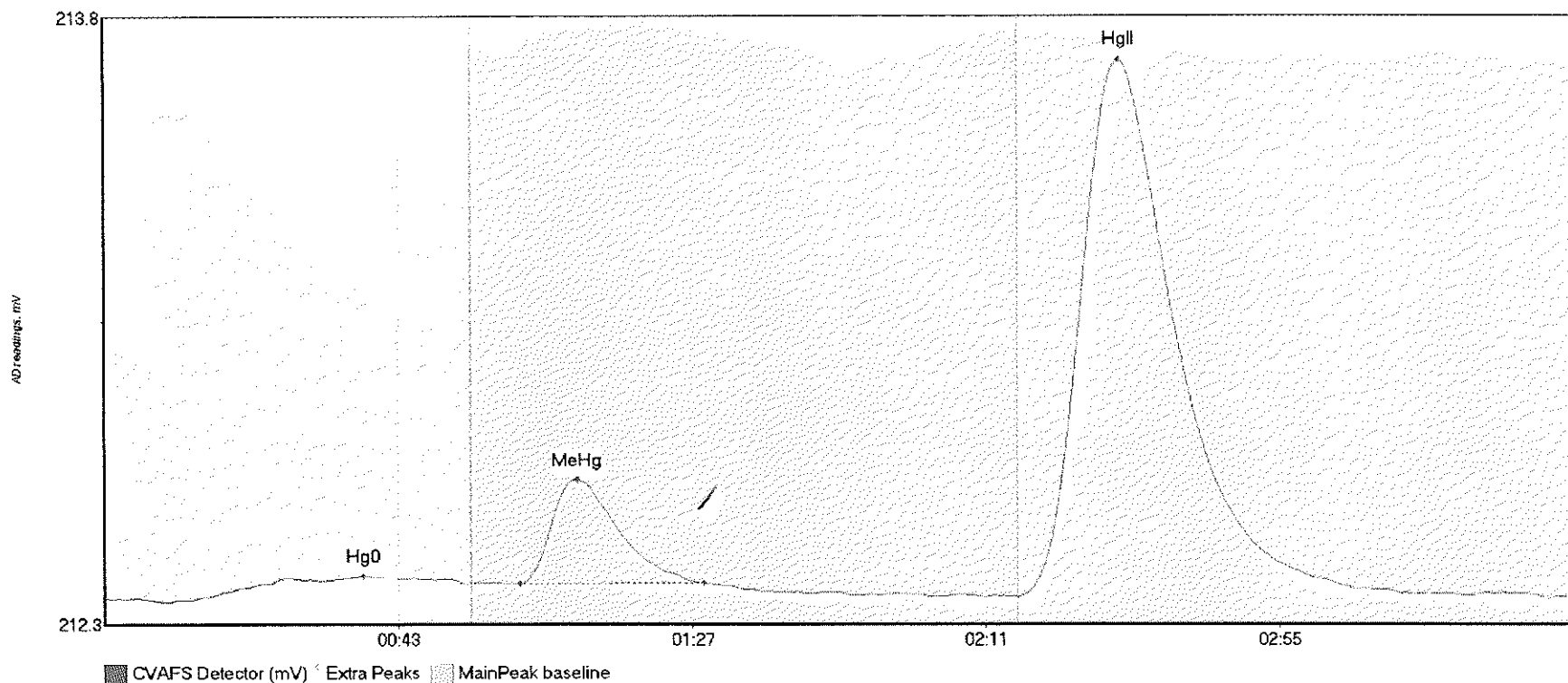
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707294-03 Hg0	7.393	13.2	55.0	212.34	212.38	46.8	0.053	CT	212.3423	0.00	-0.01	
1707294-03 MeHg	41.665	61.2	93.1	212.38	212.37	70.4	0.343	OK	212.3423	0.00	-0.01	
1707294-03 HgII	34.245	138.1	176.8	212.35	212.35	151.1	0.226	OK	212.3423	0.00	-0.01	

#40: 1707543-01



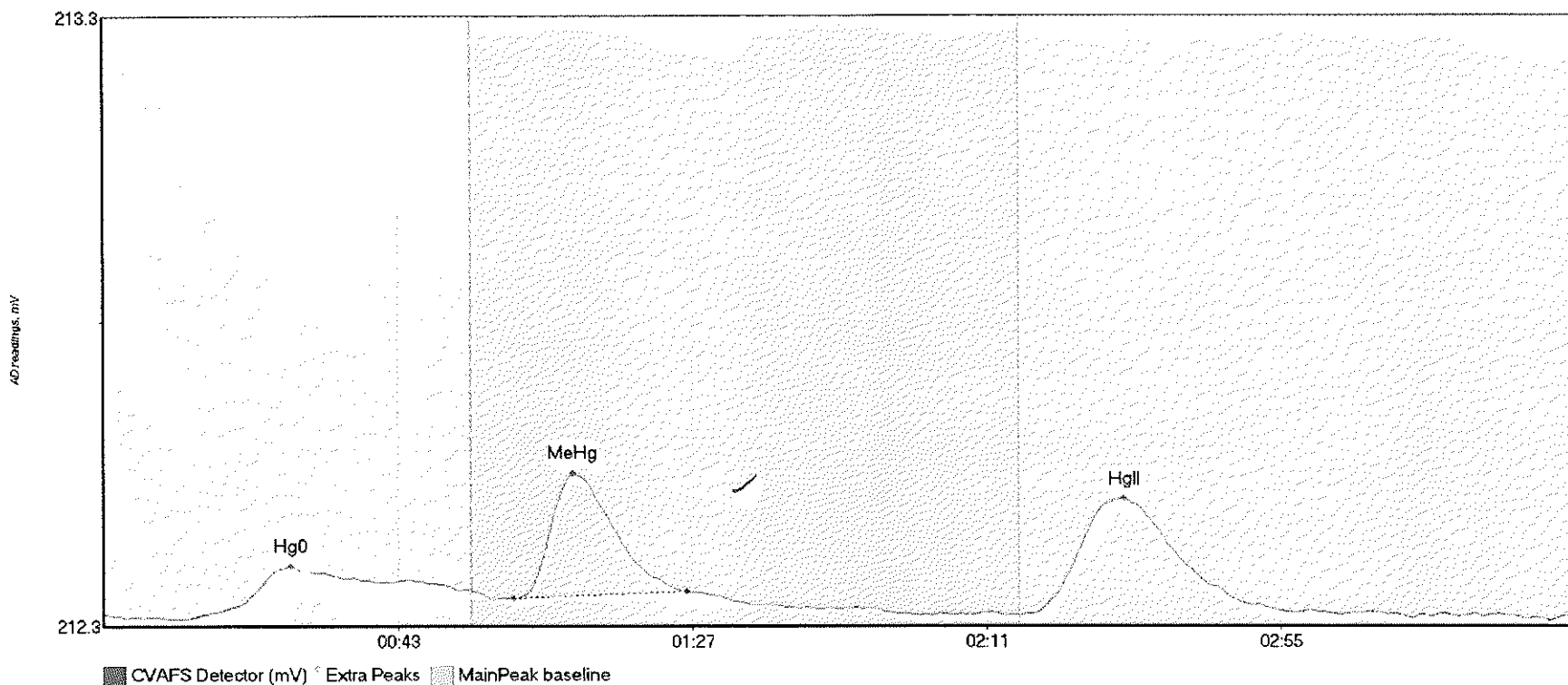
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-01 Hg0	7.783	14.4	54.1	212.33	212.36	39.8	0.047	OK	212.3267	0.00	0.00	
1707543-01 MeHg	29.048	62.3	92.0	212.36	212.36	70.8	0.241	OK	212.3267	0.00	0.00	
1707543-01 HgII	45.052	138.5	176.9	212.34	212.34	151.3	0.287	OK	212.3267	0.00	0.00	

#41: 1707543-03



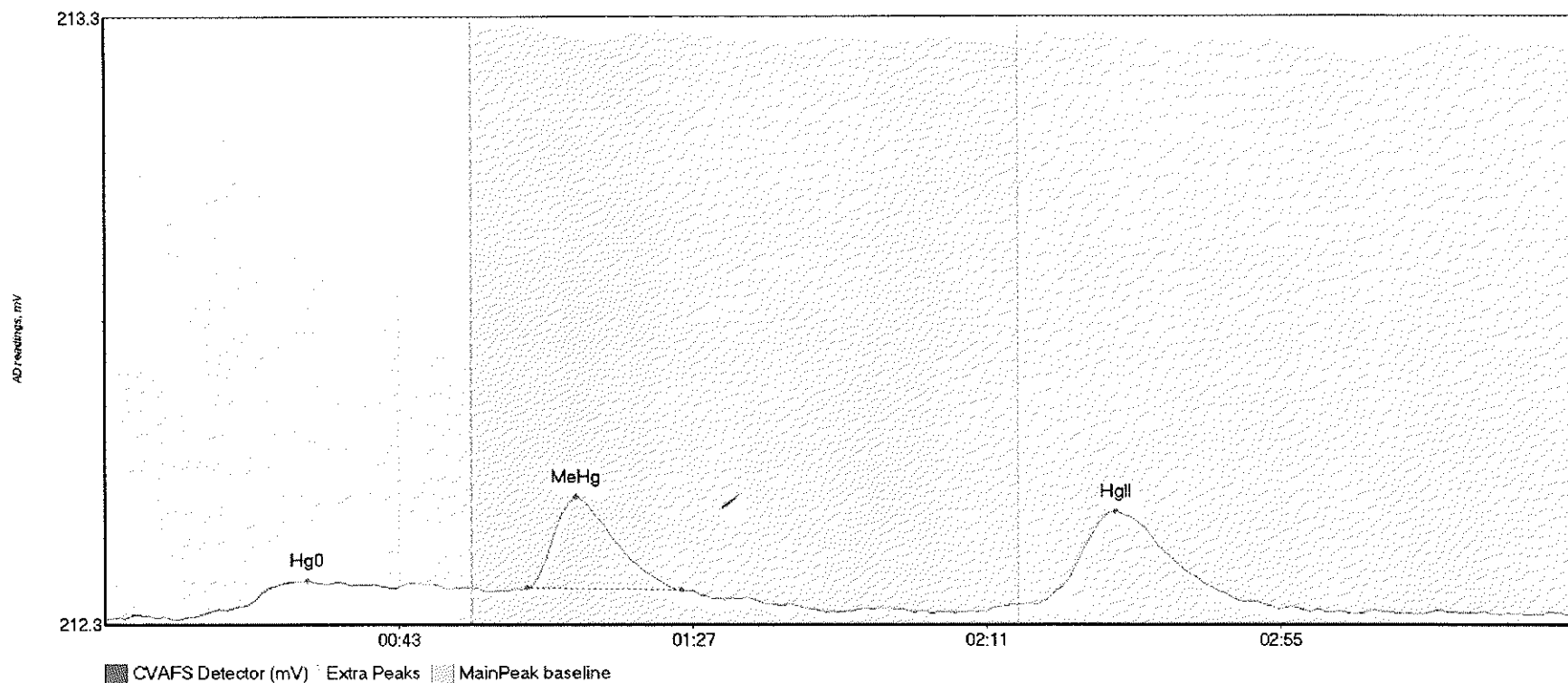
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-03 Hg0	8.671	16.0	54.1	212.33	212.36	38.9	0.052	OK	212.3222	0.00	0.00	
1707543-03 MeHg	30.081	62.3	89.8	212.36	212.36	70.8	0.264	OK	212.3222	0.00	0.00	
1707543-03 HgII	224.296	136.9	196.4	212.33	212.33	152.1	1.354	OK	212.3222	0.00	0.00	

#42: 1707543-04



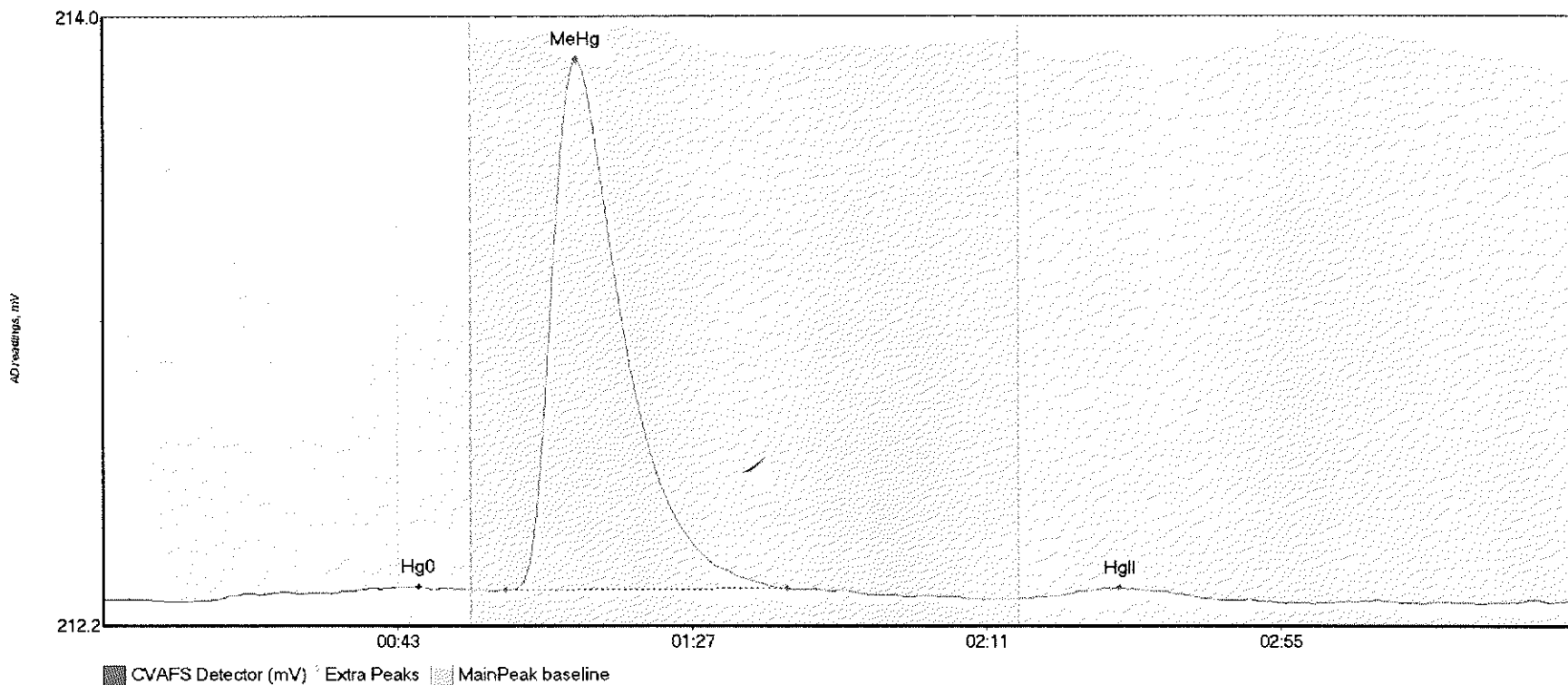
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-04 Hg0	11.476	17.2	55.0	212.32	212.36	28.0	0.075	CT	212.3163	0.00	0.00	
1707543-04 MeHg	21.616	61.3	87.2	212.34	212.35	70.2	0.206	OK	212.3163	0.00	0.00	
1707543-04 HgII	31.182	138.7	178.4	212.32	212.32	152.6	0.189	OK	212.3163	0.00	0.00	

#43: 1707543-05



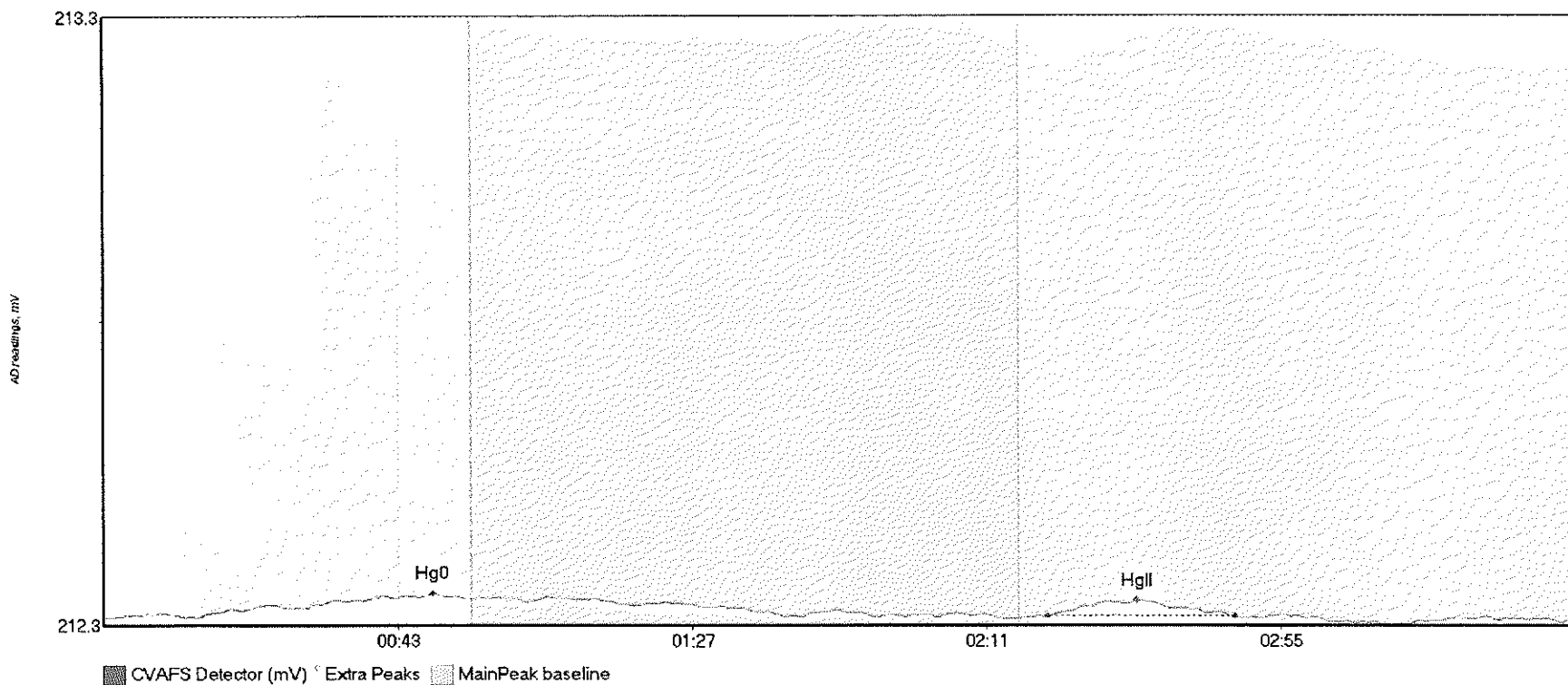
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-05 Hg0	7.519	13.1	51.8	212.30	212.35	30.3	0.059	OK	212.2981	0.00	0.01	
1707543-05 MeHg	15.586	63.3	86.3	212.35	212.35	70.6	0.149	OK	212.2981	0.00	0.01	
1707543-05 HgII	21.946	139.5	171.1	212.32	212.33	151.5	0.153	OK	212.2981	0.00	0.01	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	3.652	16.8	54.7	212.29	212.32	47.1	0.036	OK	212.2865	0.00	0.00	
SEQ-CCV3 MeHg	190.031	60.2	102.2	212.31	212.32	70.9	1.534	OK	212.2865	0.00	0.00	
SEQ-CCV3 HgII	3.832	140.4	164.6	212.30	212.29	151.9	0.026	OK	212.2865	0.00	0.00	

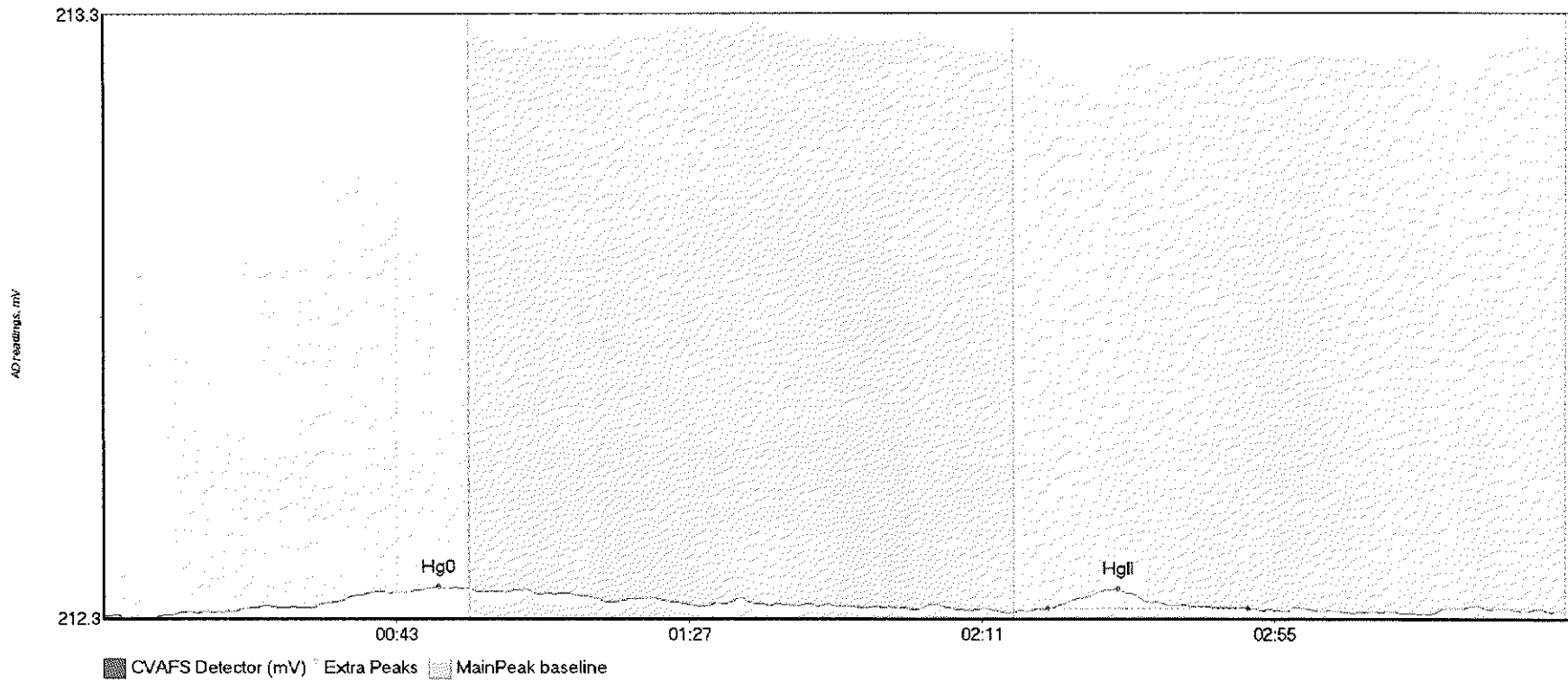
#46: SEQ-CCB3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	3.393	14.1	55.0	212.27	212.30	49.1	0.040	CT	212.2685	0.00	0.00	
SEQ-CCB3 HgII	4.176	141.1	169.2	212.27	212.27	154.5	0.027	OK	212.2685	0.00	0.00	017

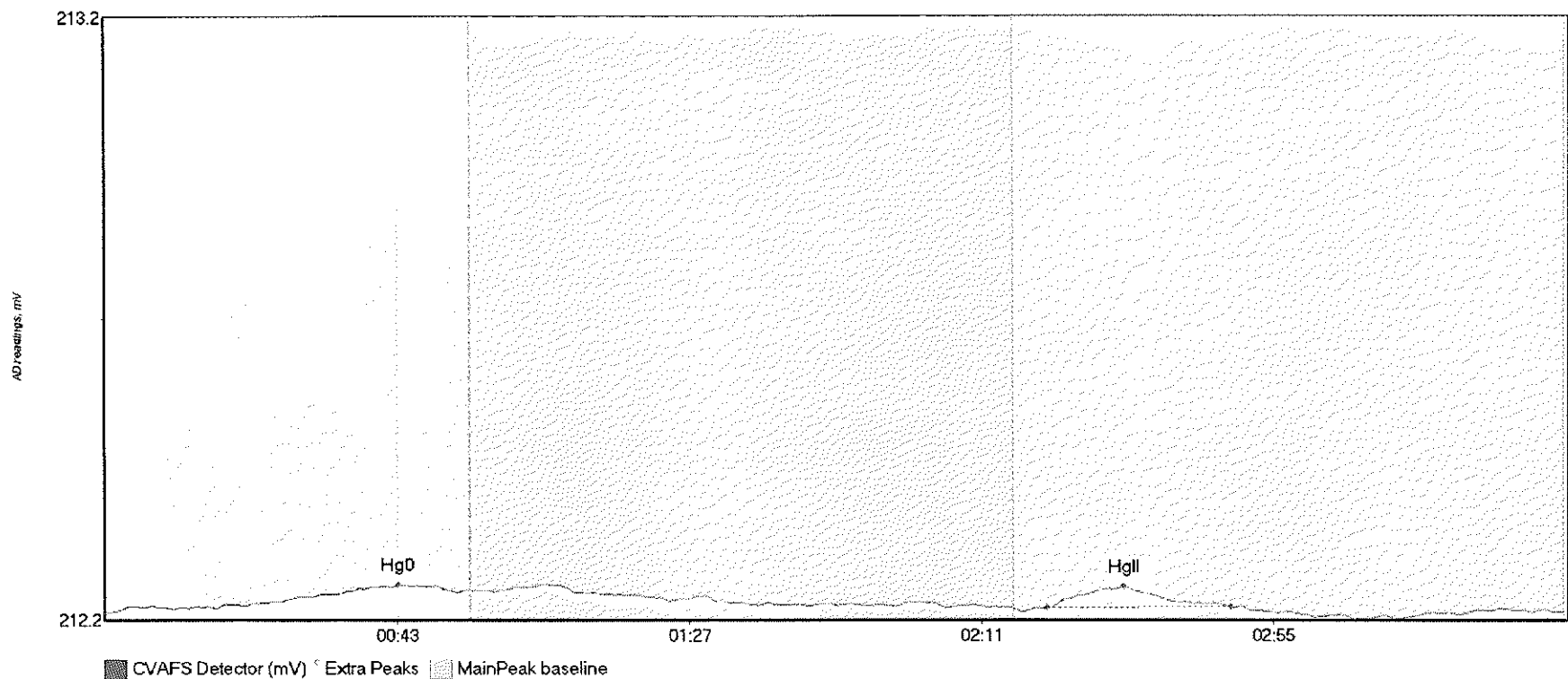


#47: F707394-BLK1



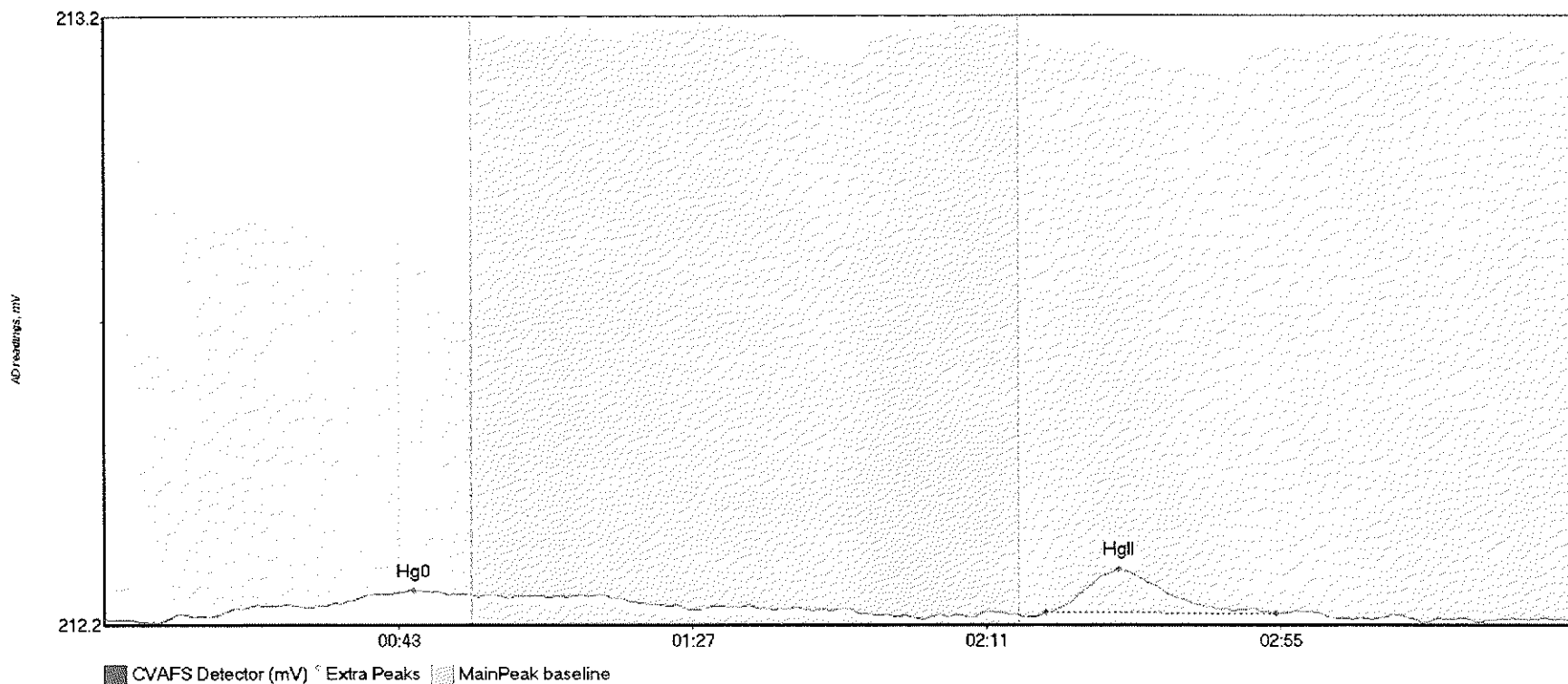
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BLK1 Hg	0.715	9.9	51.7	212.26	212.30	50.5	0.047	OK	212.2546	0.00	0.01	
F707394-BLK1 Hg	3.762	142.0	172.1	212.27	212.27	152.6	0.033	OK	212.2546	0.00	0.01	017

#48: F707394-BLK2



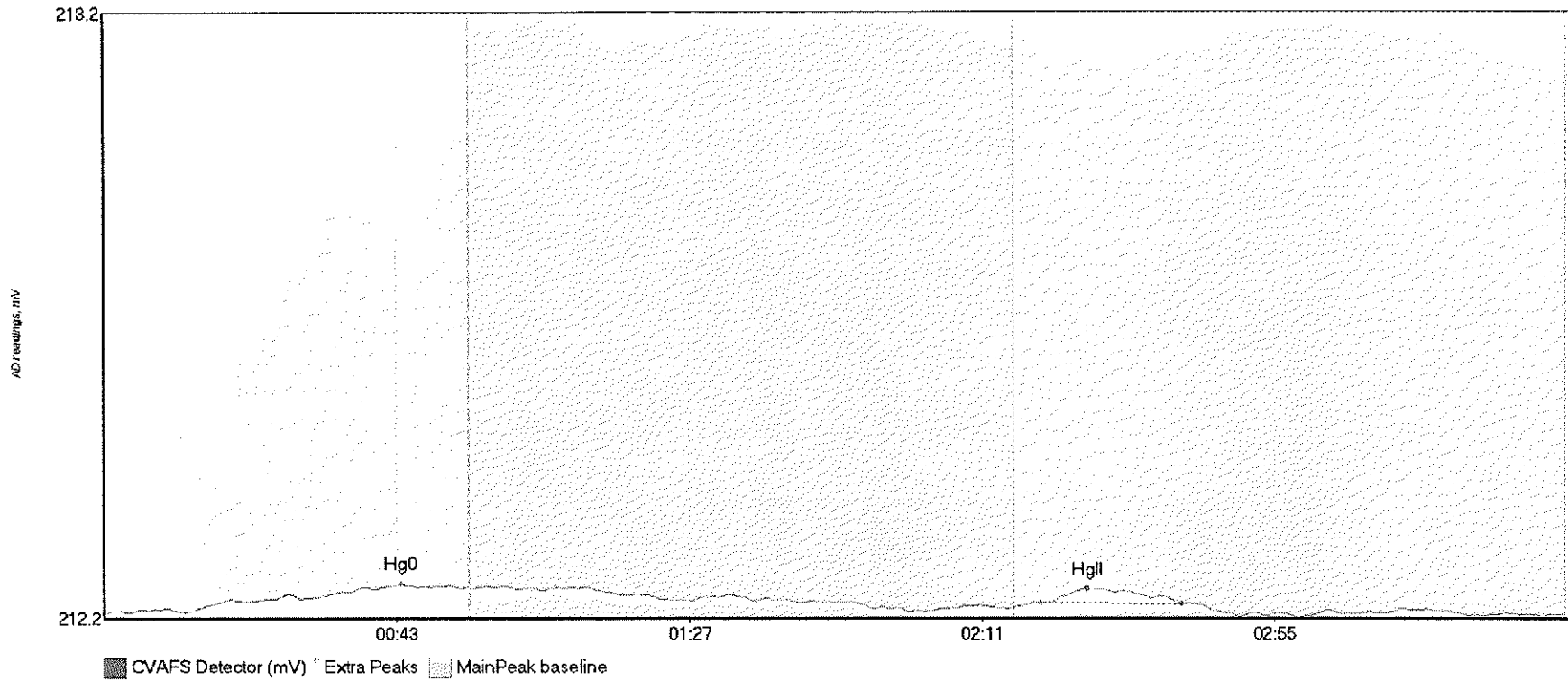
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BLK2 Hg	2.878	2.4	53.1	212.25	212.28	44.1	0.041	OK	212.2495	0.00	0.00	
F707394-BLK2 Hg	4.725	141.9	169.6	212.26	212.26	153.5	0.035	OK	212.2495	0.00	0.00	017

#49: F707394-BLK3



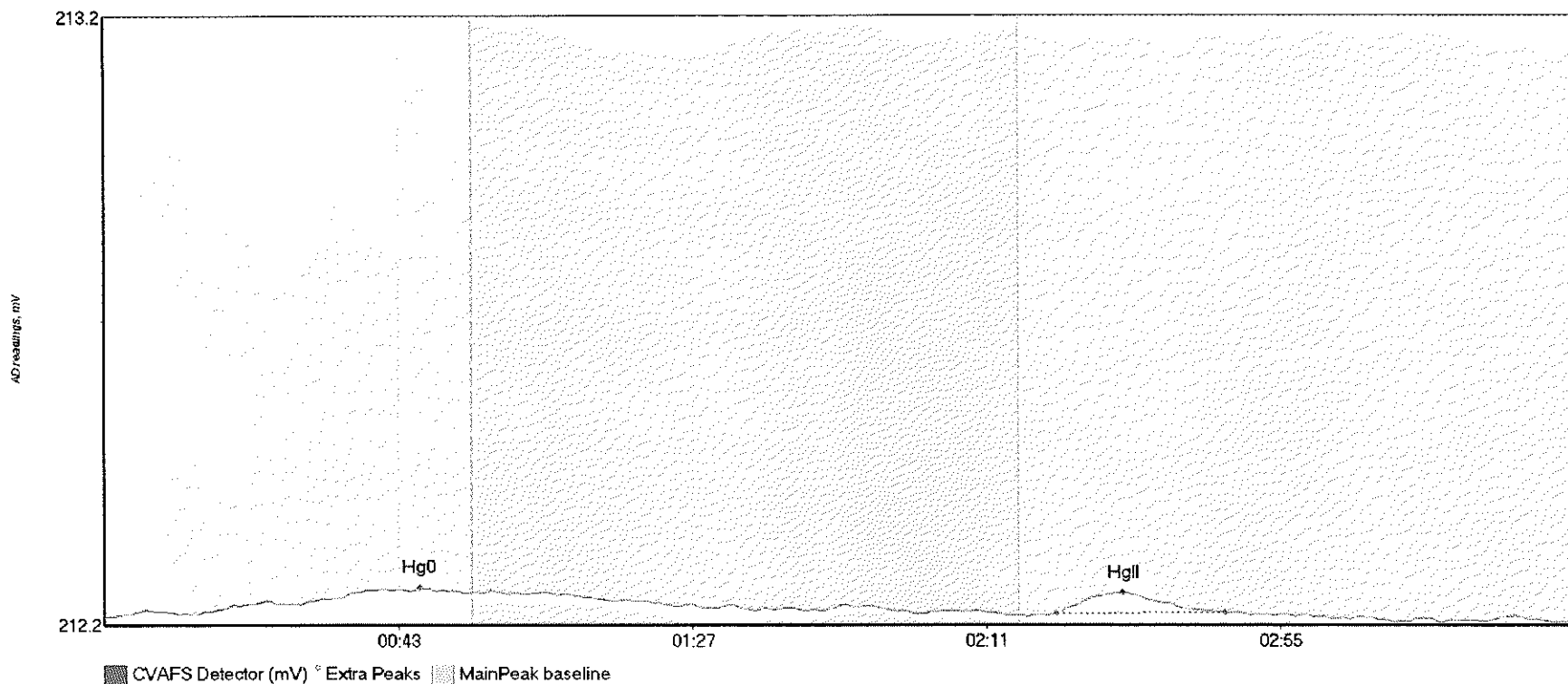
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BLK3 Hg	3.421	16.6	54.9	212.24	212.28	46.3	0.043	OK	212.2368	0.00	0.00	
F707394-BLK3 Hg	9.862	140.9	175.3	212.25	212.25	151.8	0.072	OK	212.2368	0.00	0.00	017

#50: \*F707394-BLK4



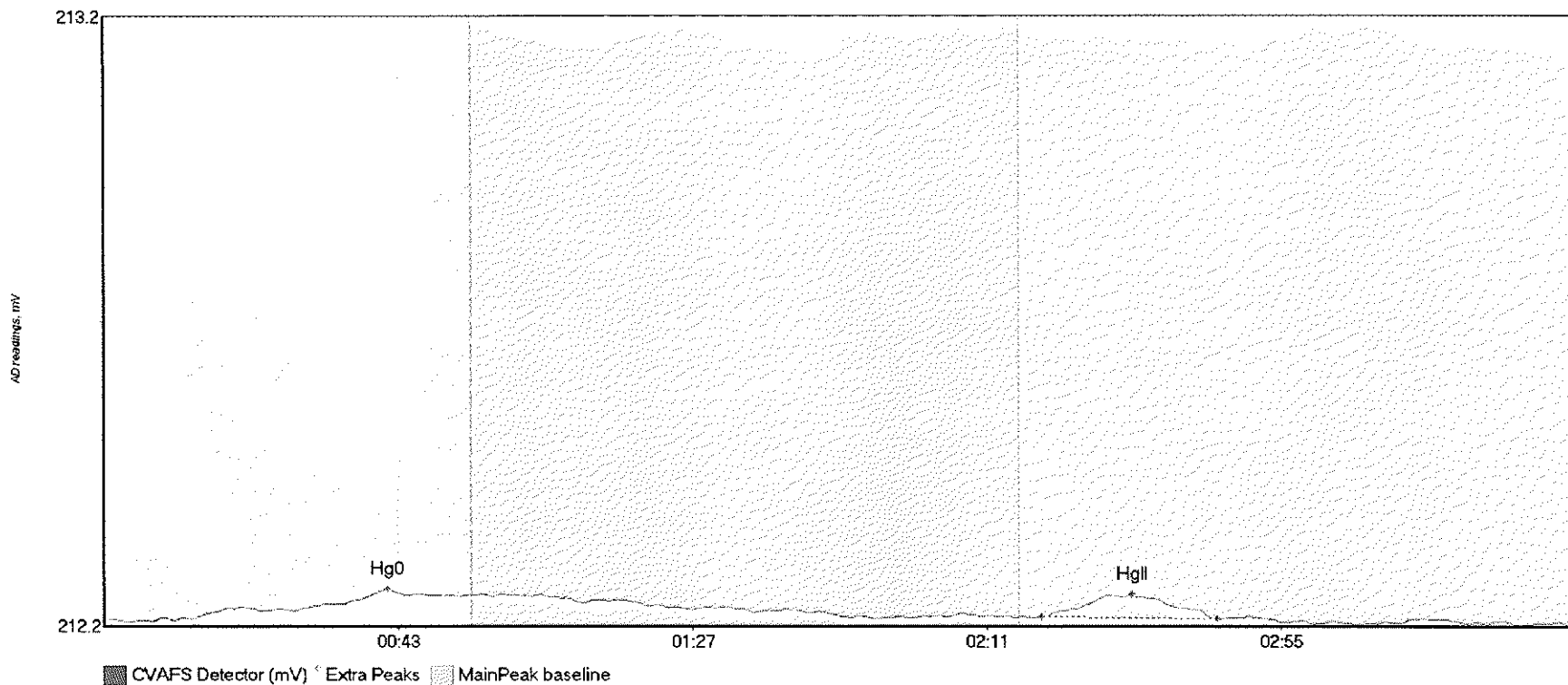
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK4 H	3.959	12.5	53.8	212.22	212.26	44.7	0.046	OK	212.2185	0.00	0.00	017
*F707394-BLK4 H	3.125	140.9	162.2	212.23	212.23	147.9	0.025	OK	212.2185	0.00	0.00	

#51: \*F707394-BLK5



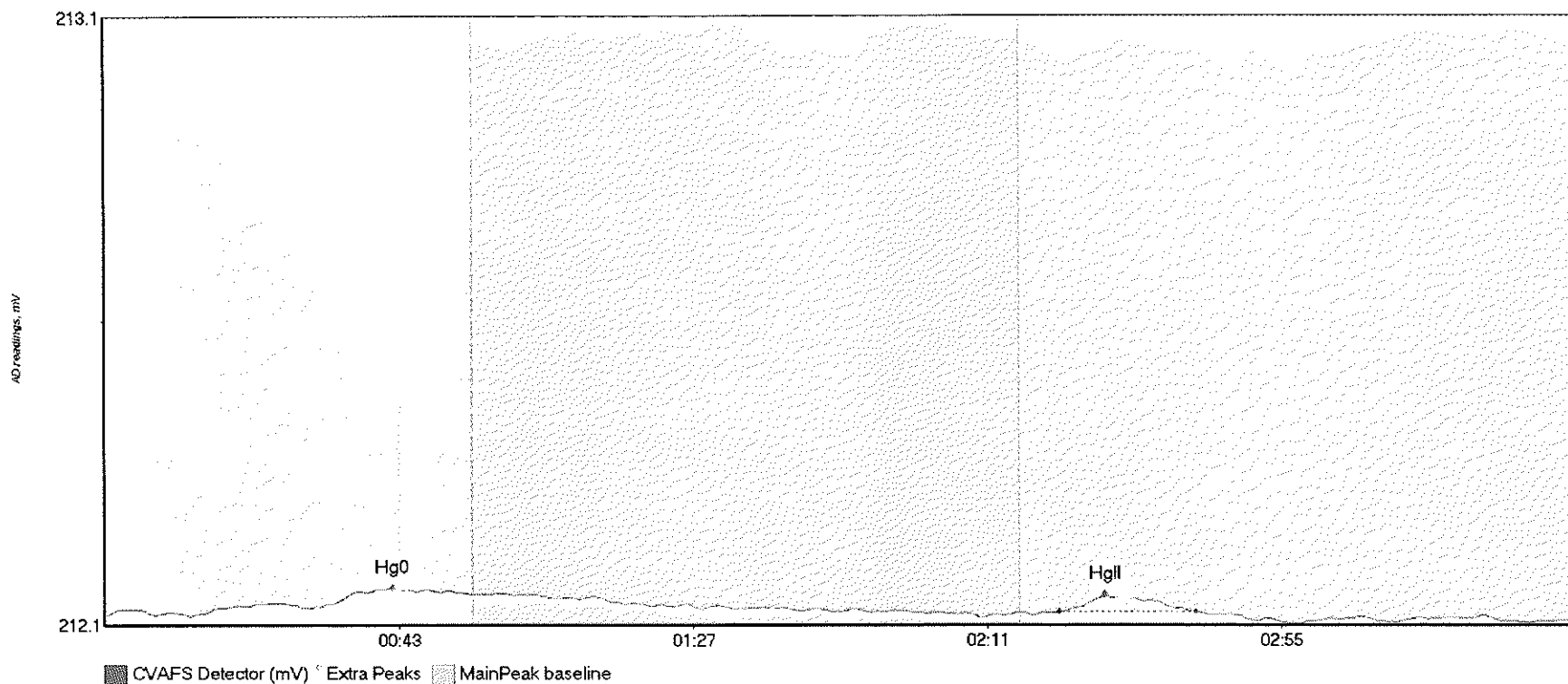
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK5 H	3.830	13.6	54.1	212.21	212.24	47.2	0.043	OK	212.2046	0.00	-0.01	
*F707394-BLK5 H	4.434	142.5	167.7	212.21	212.21	152.5	0.035	OK	212.2046	0.00	-0.01	017

#52: \*F707394-BLK6



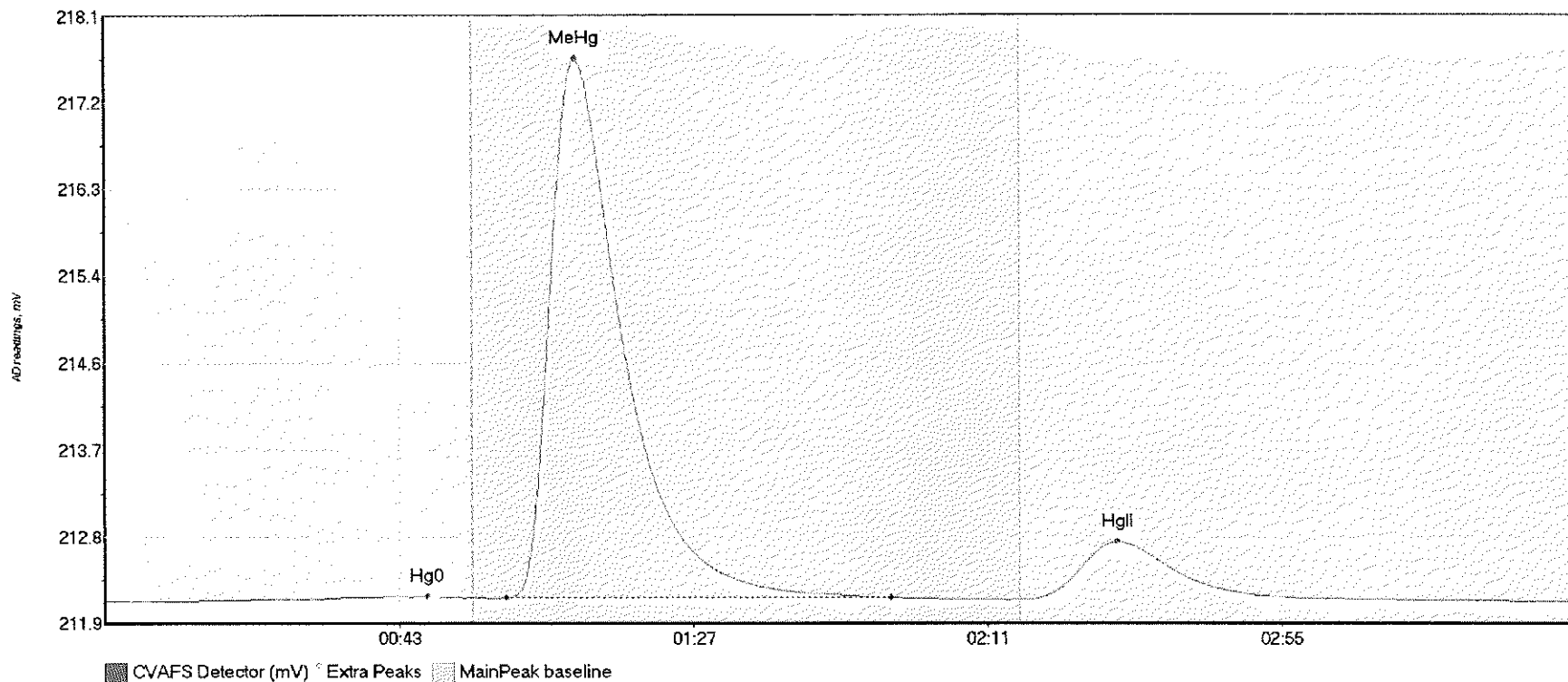
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK6 H	2.989	13.1	53.2	212.19	212.22	42.4	0.049	OK	212.1855	0.00	-0.01	
*F707394-BLK6 H	5.722	140.2	166.4	212.19	212.19	153.7	0.036	OK	212.1855	0.00	-0.01	017

#53: \*F707394-BLK7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK7 H	3.703	14.0	55.0	212.17	212.20	43.0	0.043	CT	212.1656	0.00	-0.01	
*F707394-BLK7 H	3.078	142.7	163.2	212.17	212.17	149.6	0.027	OK	212.1656	0.00	-0.01	017

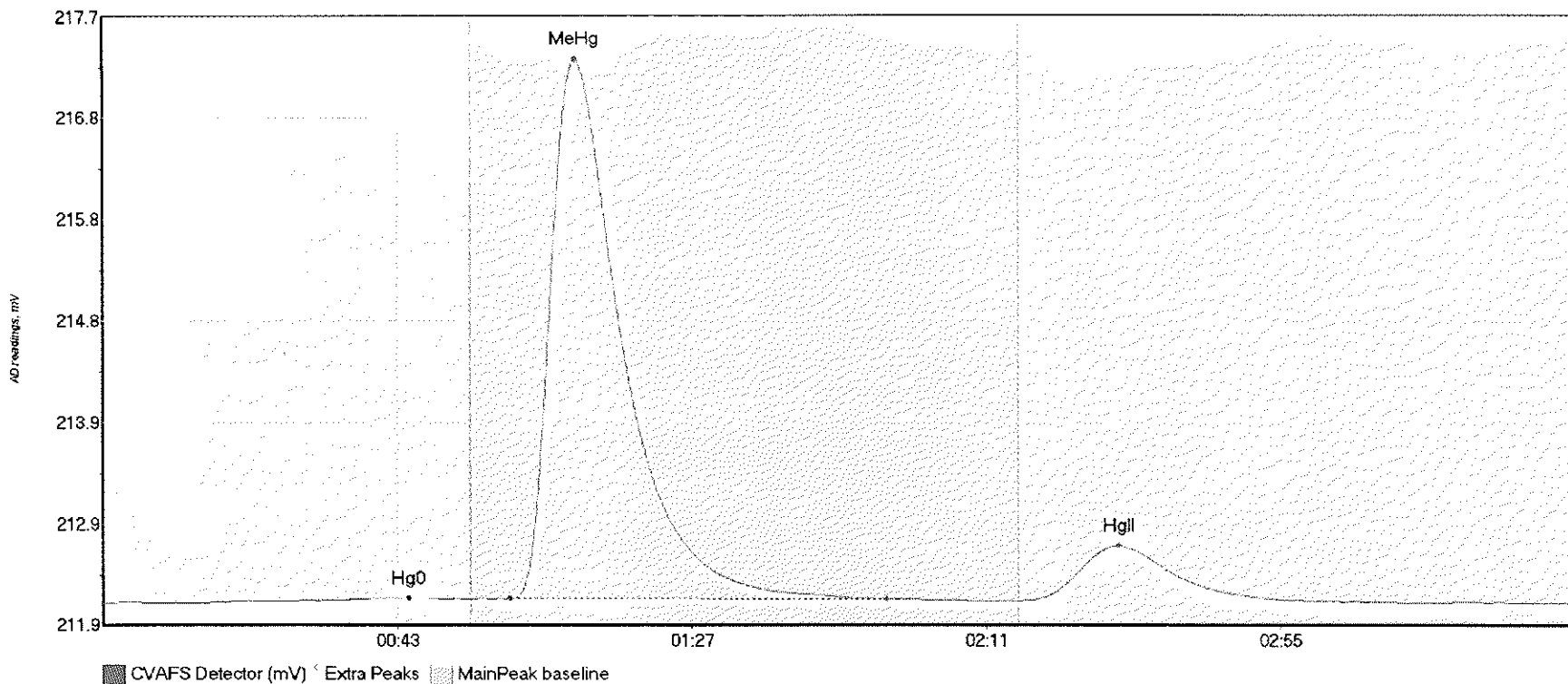
#54: F707394-BS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BS1 Hg0	3.875	17.5	53.9	212.15	212.17	48.1	0.042	OK	212.1430	0.00	0.00	
F707394-BS1 MeH	686.992	60.0	117.6	212.18	212.18	70.4	5.455	OK	212.1430	0.00	0.00	
F707394-BS1 HgI	94.151	137.2	187.3	212.16	212.16	151.5	0.591	OK	212.1430	0.00	0.00	

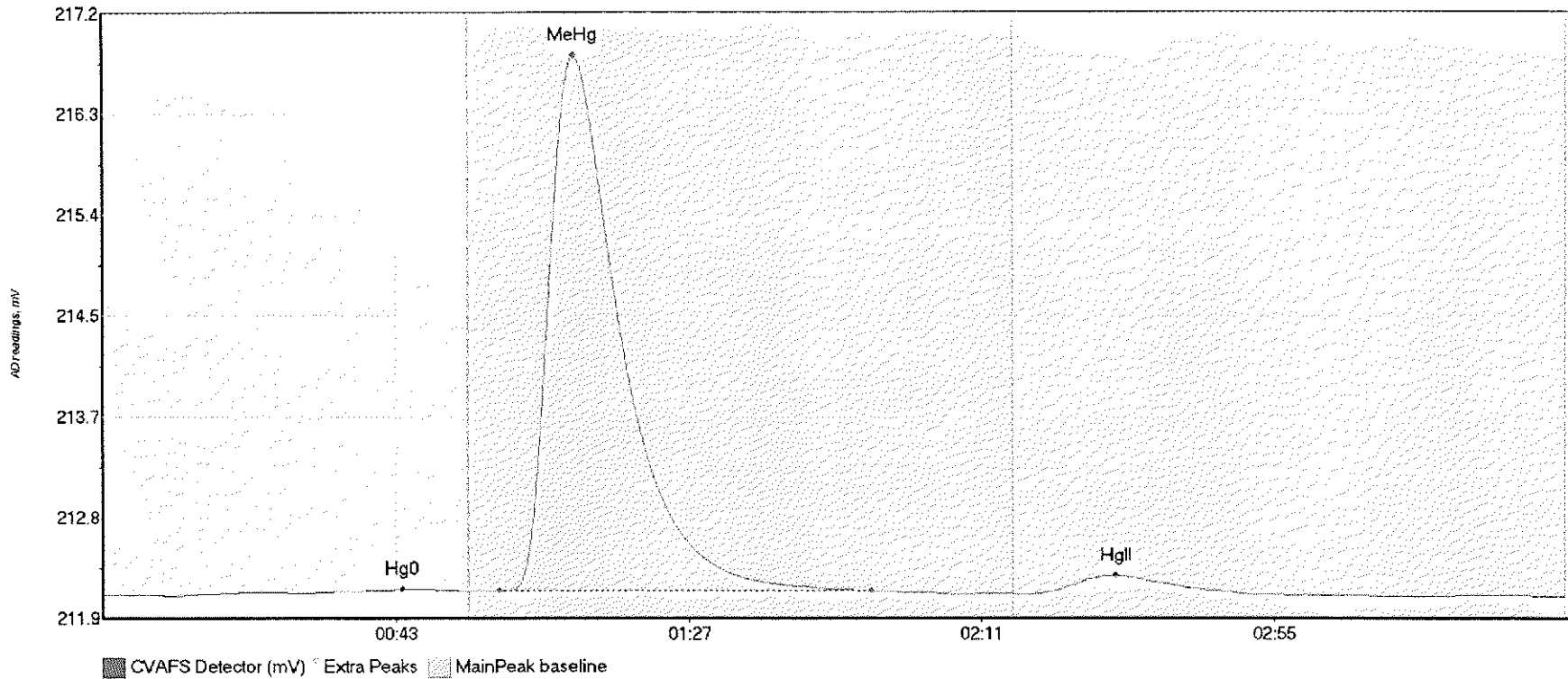


#55: F707394-BSD1



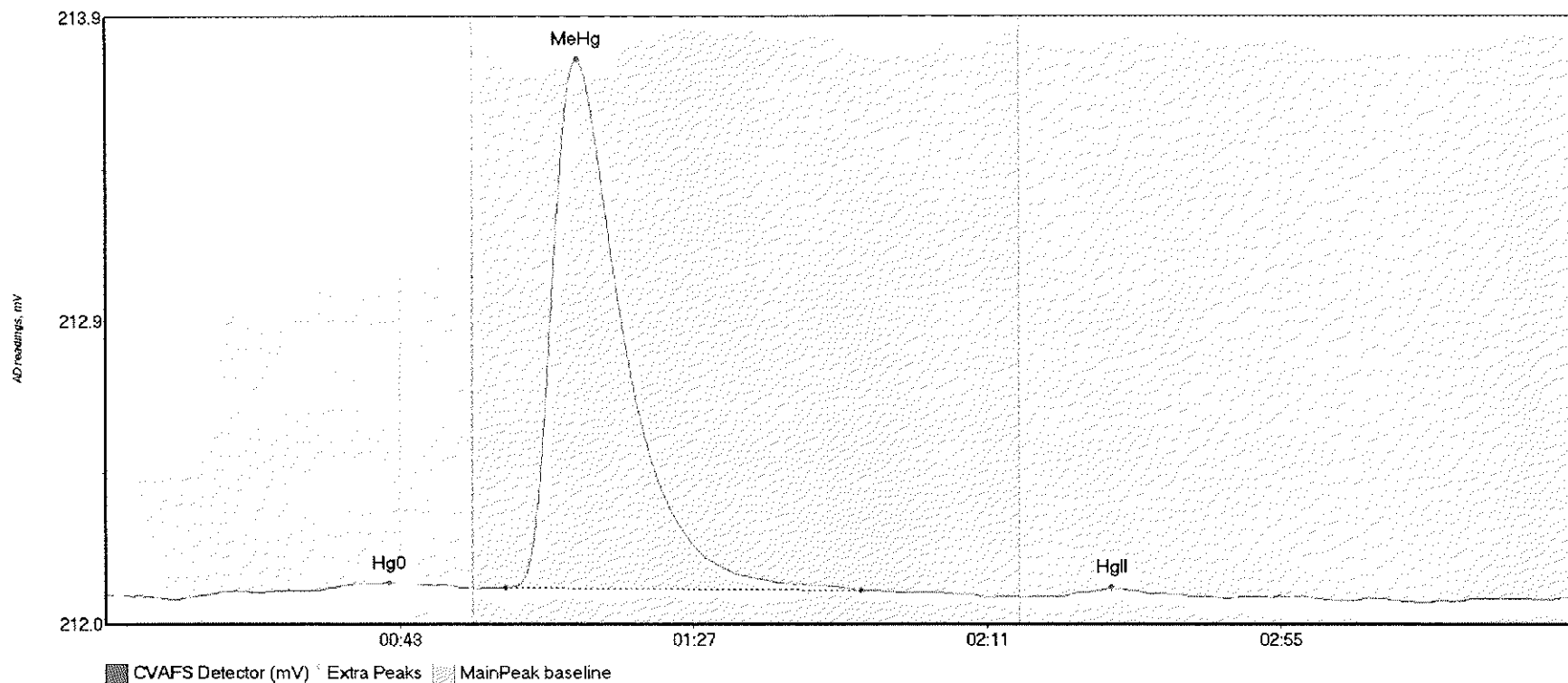
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BSD1 Hg	3.917	15.3	54.6	212.12	212.16	45.7	0.044	OK	212.1211	0.00	0.00	
F707394-BSD1 Me	644.650	60.8	117.2	212.16	212.16	70.7	5.170	OK	212.1211	0.00	0.00	
F707394-BSD1 Hg	82.991	136.8	178.6	212.14	212.14	151.9	0.531	OK	212.1211	0.00	0.00	

#56: F707394-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-DUP1 Hg	5.502	13.1	55.0	212.10	212.14	45.0	0.050	CT	212.1012	0.00	-0.01	
F707394-DUP1 Me	582.339	59.6	115.4	212.14	212.14	70.9	4.663	OK	212.1012	0.00	-0.01	
F707394-DUP1 Hg	26.427	138.6	174.2	212.11	212.11	152.3	0.165	OK	212.1012	0.00	-0.01	

#57: SEQ-CCV4

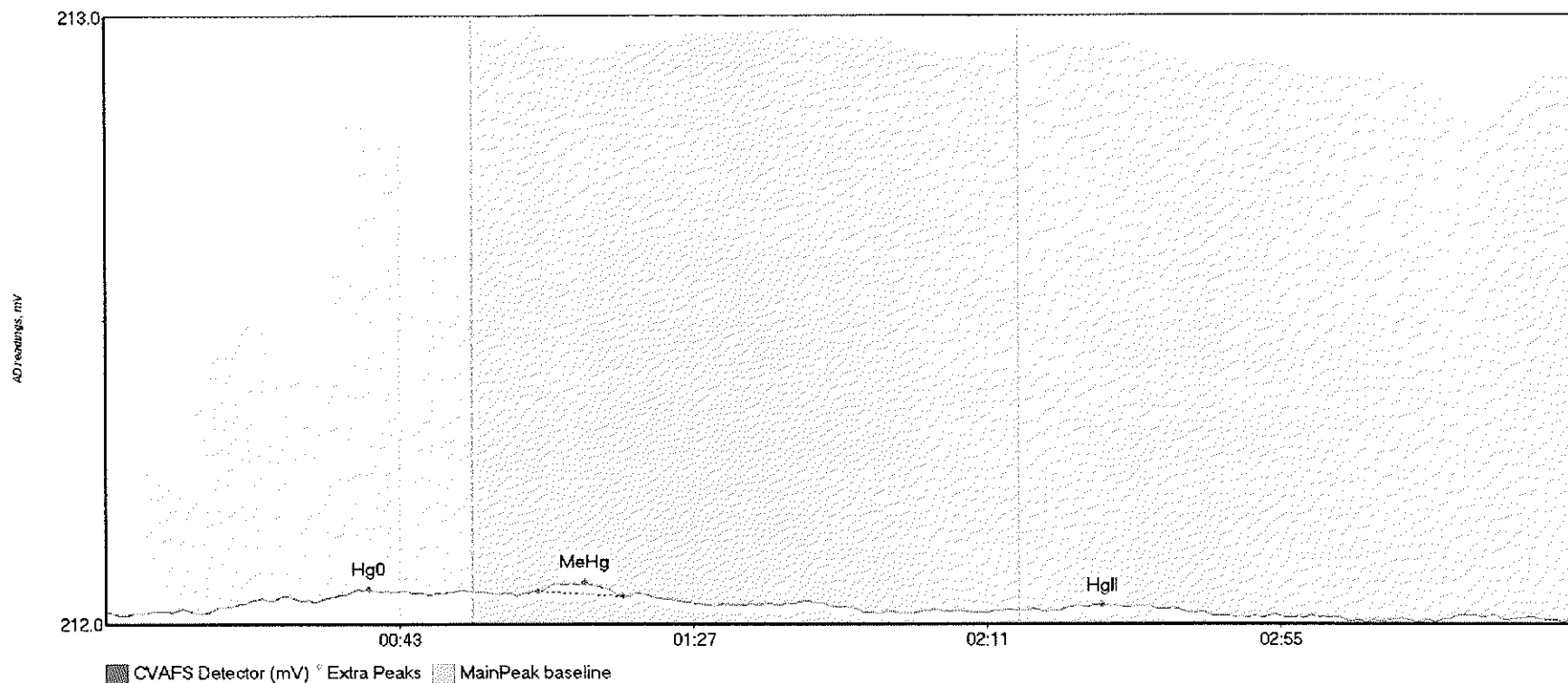


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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	4.091	16.1	54.9	212.09	212.11	42.5	0.034	OK	212.0879	0.00	-0.01	
SEQ-CCV4 MeHg	202.305	59.9	113.1	212.11	212.10	70.7	1.618	OK	212.0879	0.00	-0.01	
SEQ-CCV4 HgII	2.375	143.0	162.4	212.08	212.08	150.7	0.025	OK	212.0879	0.00	-0.01	

017

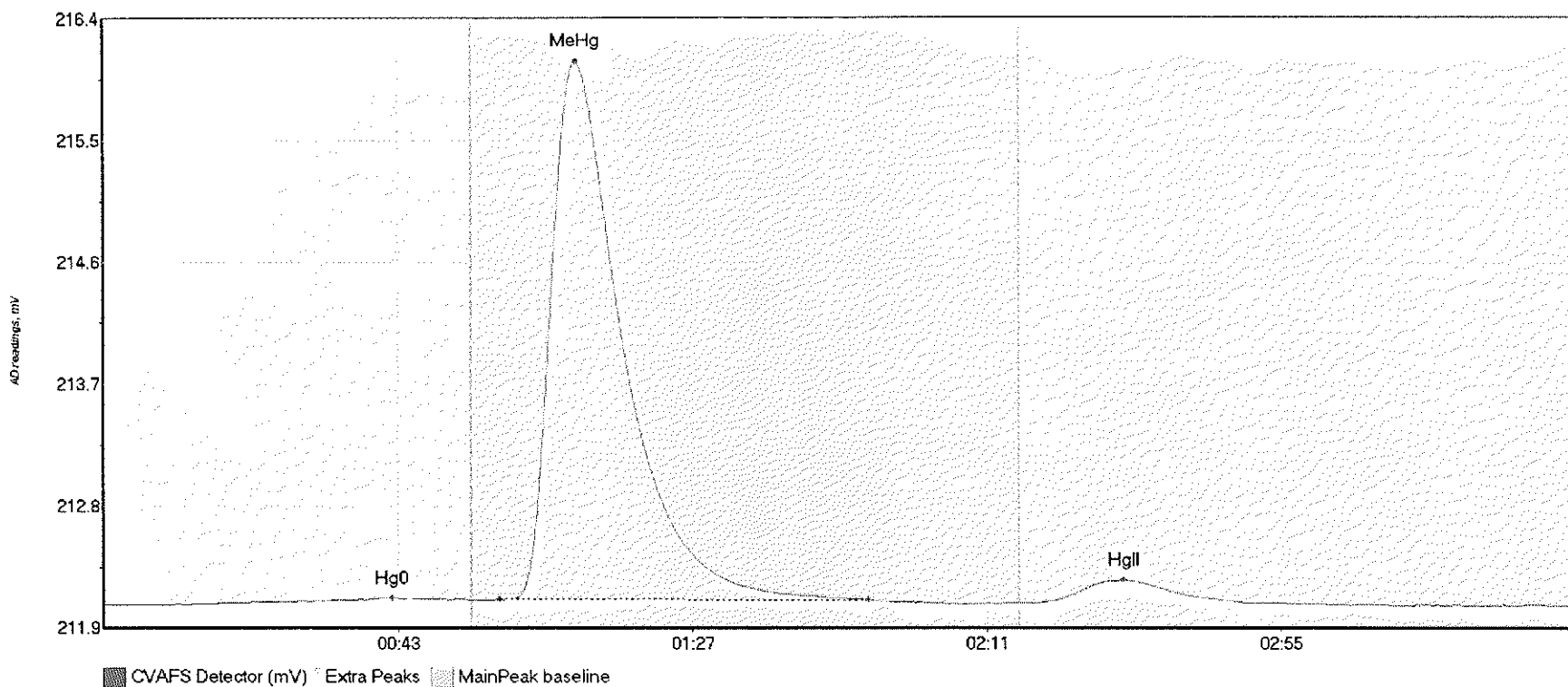
#58: SEQ-CCB4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.612	14.2	48.5	212.05	212.08	39.4	0.040	OK	212.0559	0.00	-0.01	
SEQ-CCB4 MeHg	1.480	64.7	77.4	212.09	212.08	71.7	0.014	OK	212.0559	0.00	-0.01	
SEQ-CCB4 HgII	0.905	142.5	157.9	212.06	212.06	149.3	0.011	OK	212.0559	0.00	-0.01	

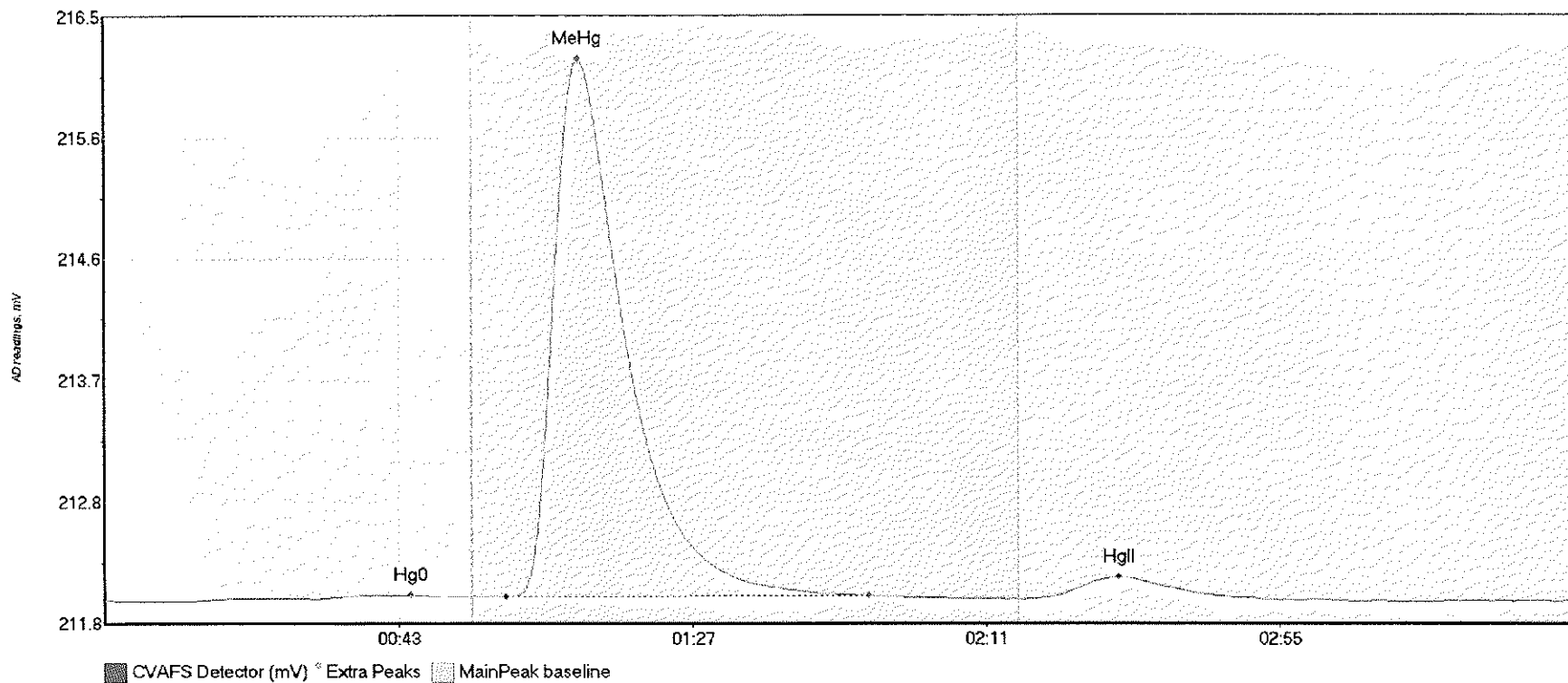
017

#59: F707394-MS1



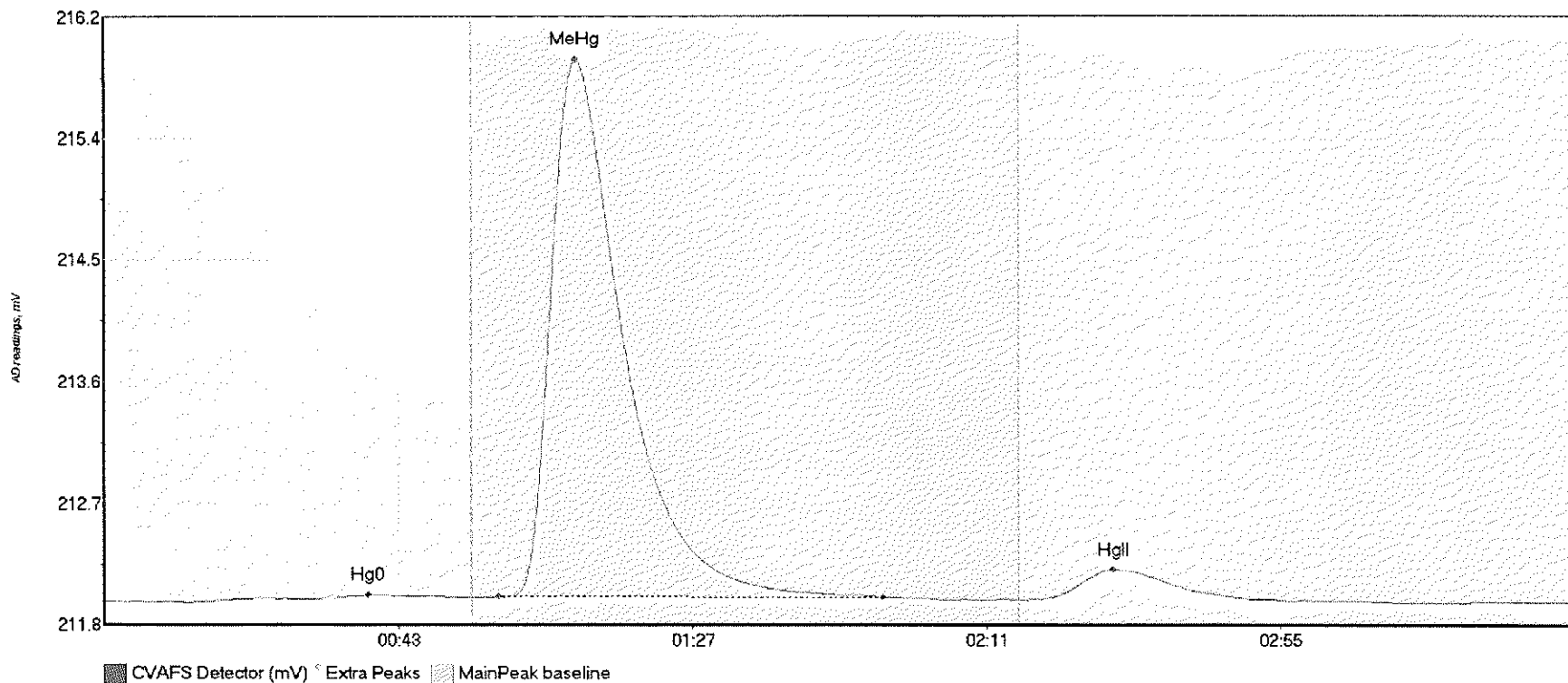
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MS1 Hg0	4.057	13.1	54.9	212.04	212.07	43.1	0.045	OK	212.0332	0.00	-0.01	
F707394-MS1 MeH	493.047	59.2	114.3	212.07	212.07	70.7	3.963	OK	212.0332	0.00	-0.01	
F707394-MS1 HgI	24.586	138.8	171.2	212.05	212.05	152.5	0.167	OK	212.0332	0.00	-0.01	

#60: F707394-MSD1



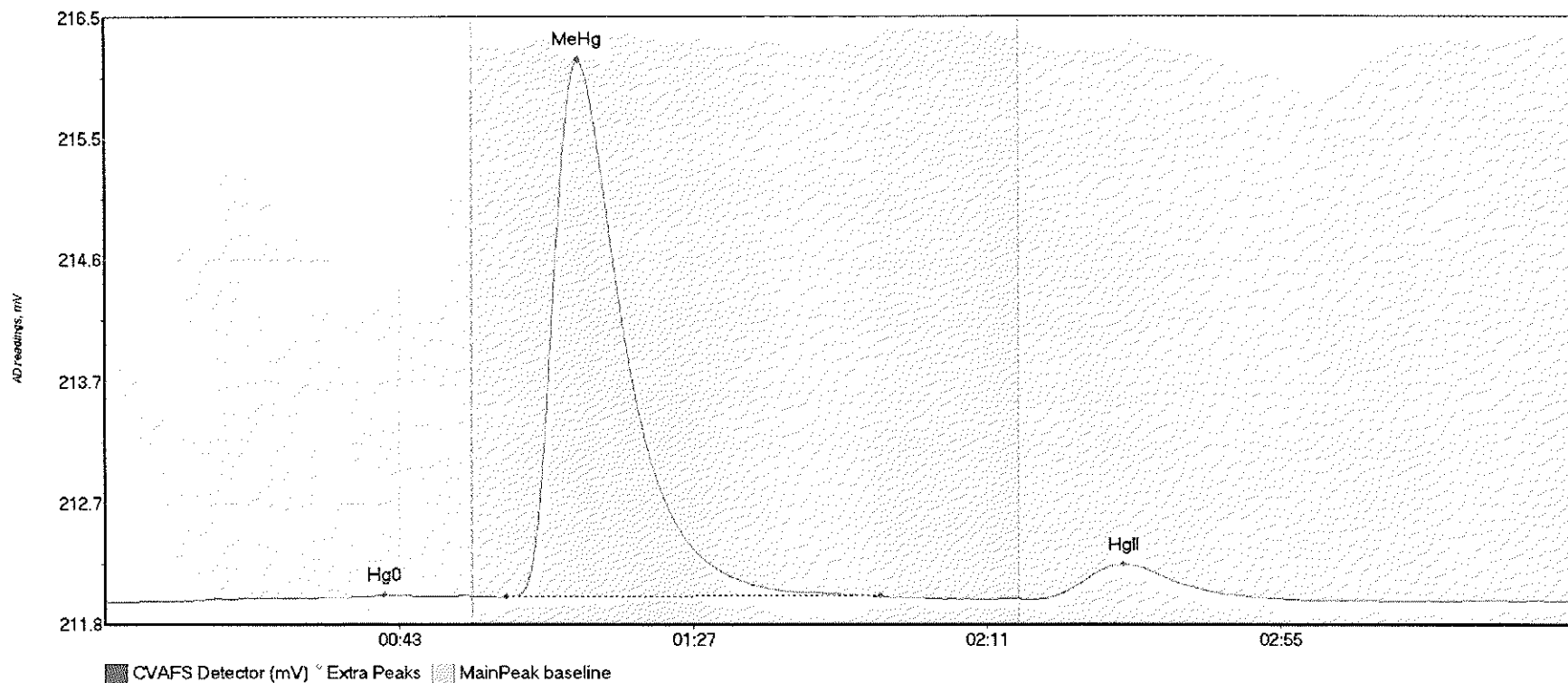
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MSD1 Hg	4.142	14.4	54.1	212.02	212.05	45.8	0.045	OK	212.0180	0.00	0.00	
F707394-MSD1 Me	513.186	60.0	114.4	212.05	212.05	71.0	4.110	OK	212.0180	0.00	0.00	
F707394-MSD1 Hg	25.305	138.6	173.6	212.03	212.03	151.9	0.169	OK	212.0180	0.00	0.00	

#61: F707394-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MS2 Hg0	3.586	18.0	53.5	212.01	212.03	39.4	0.037	OK	212.0053	0.00	-0.01	
F707394-MS2 MeH	488.225	59.0	116.4	212.03	212.03	70.6	3.893	OK	212.0053	0.00	-0.01	
F707394-MS2 HgI	32.989	137.6	174.7	212.01	212.02	151.1	0.221	OK	212.0053	0.00	-0.01	

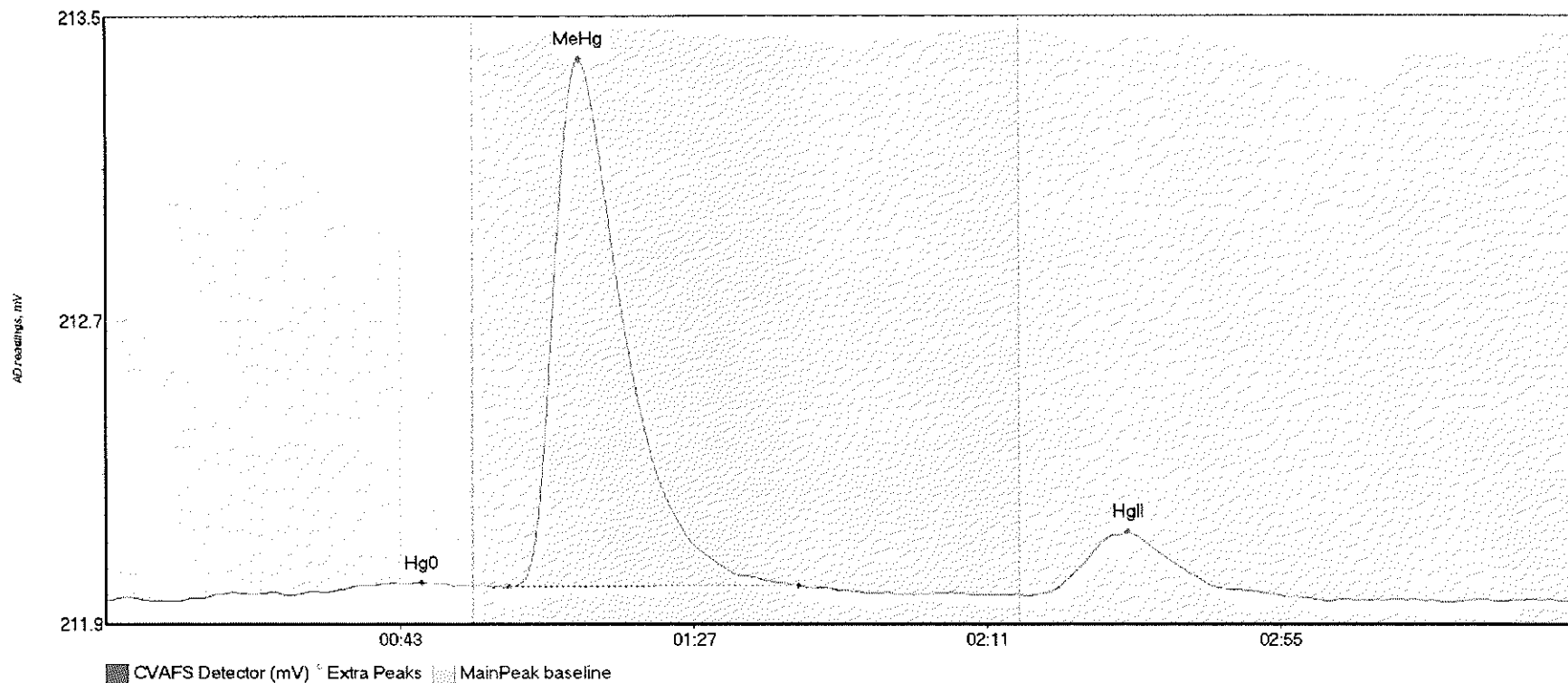
#62: F707394-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MSD2 Hg	3.020	10.0	48.7	211.98	212.02	41.8	0.046	OK	211.9798	0.00	0.01	
F707394-MSD2 Me	512.439	60.0	116.1	212.02	212.02	70.9	4.105	OK	211.9798	0.00	0.01	
F707394-MSD2 Hg	40.485	138.8	175.3	212.00	212.01	152.6	0.270	OK	211.9798	0.00	0.01	

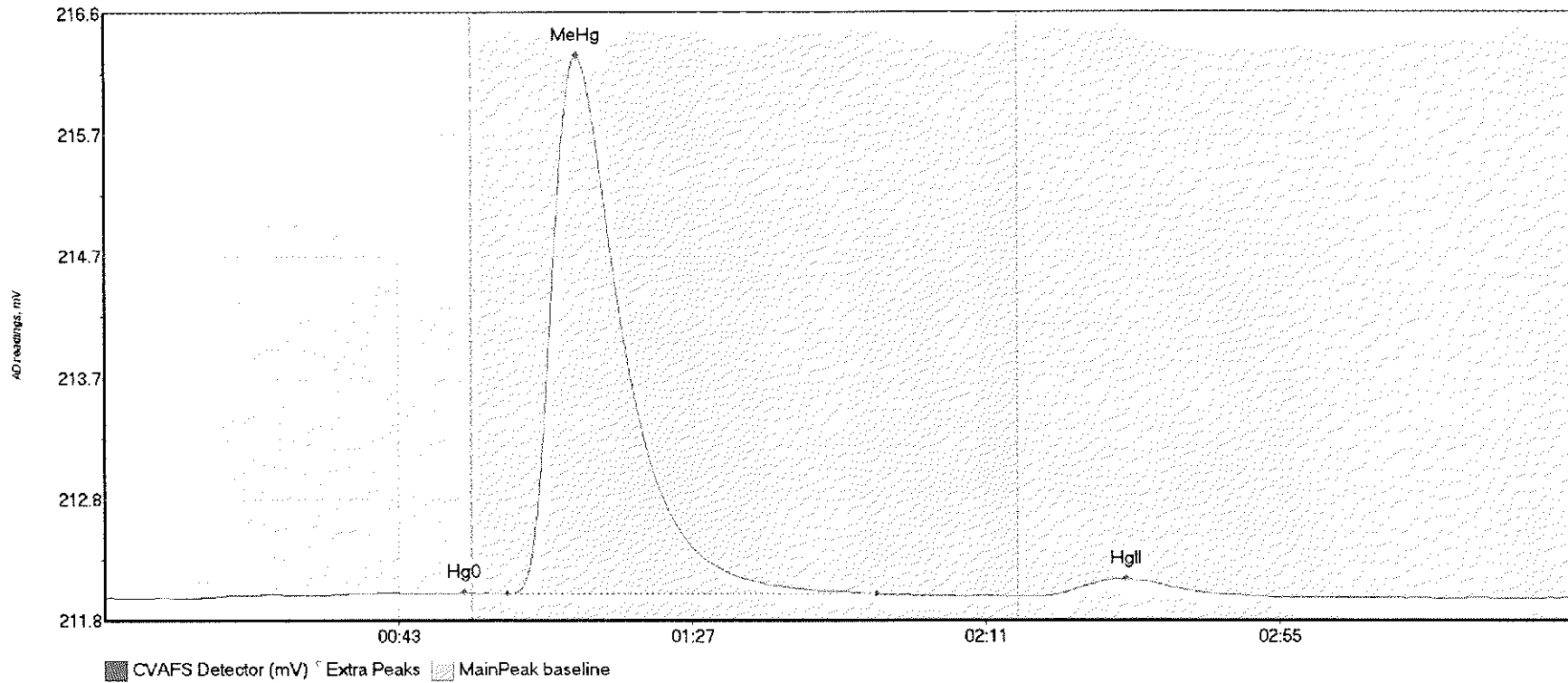


#63: 1706931-04



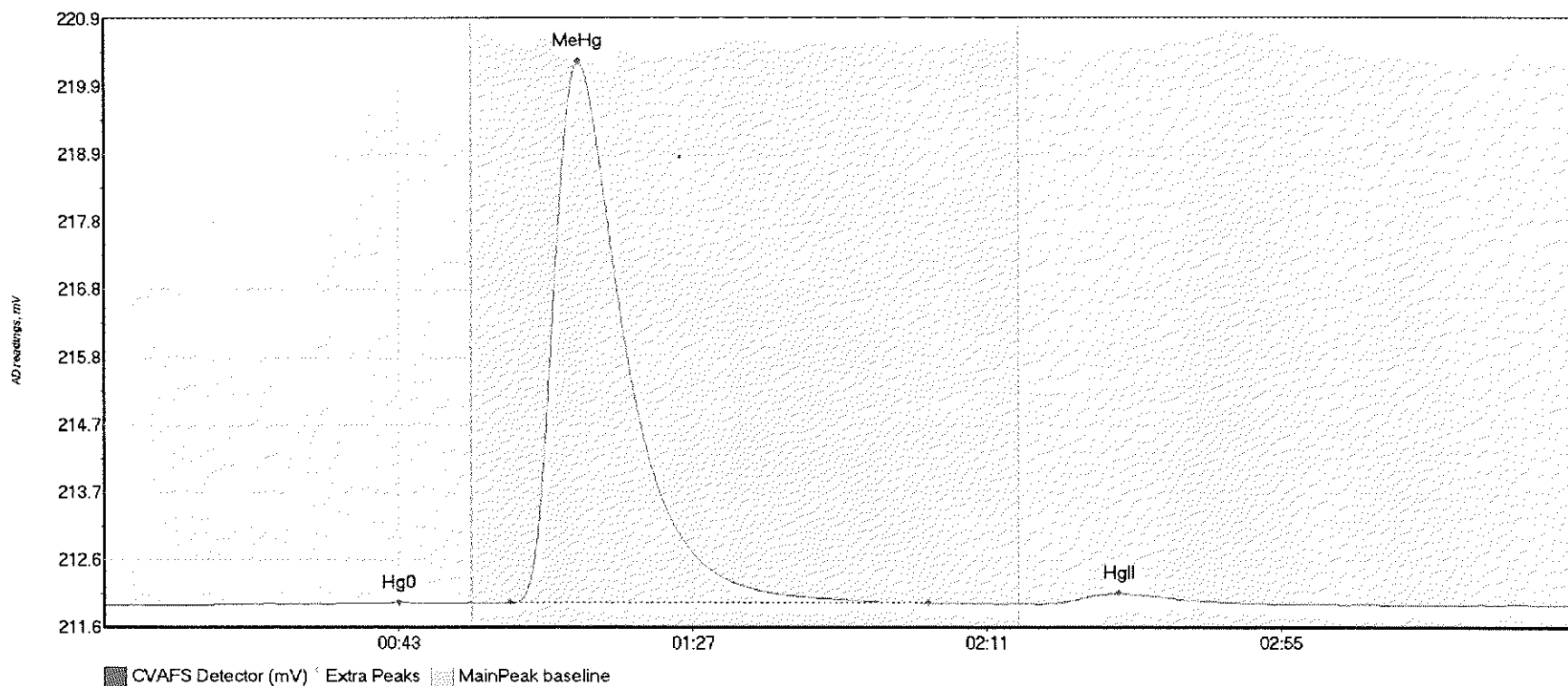
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-04 Hg0	3.624	11.0	52.3	211.97	212.01	47.3	0.049	OK	211.9742	0.00	0.00	
1706931-04 MeHg	170.998	60.4	103.7	212.01	212.01	71.0	1.400	OK	211.9742	0.00	0.00	
1706931-04 HgII	24.042	139.3	173.8	211.99	211.99	153.2	0.168	OK	211.9742	0.00	0.00	

#64: 1706931-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-05 Hg0	2.578	15.7	55.0	211.98	212.01	53.8	0.037	CT	211.9729	0.00	0.00	
1706931-05 MeHg	536.788	60.3	115.8	212.01	212.00	70.8	4.294	OK	211.9729	0.00	0.00	
1706931-05 HgII	20.887	140.2	172.1	211.98	211.99	153.0	0.142	OK	211.9729	0.00	0.00	

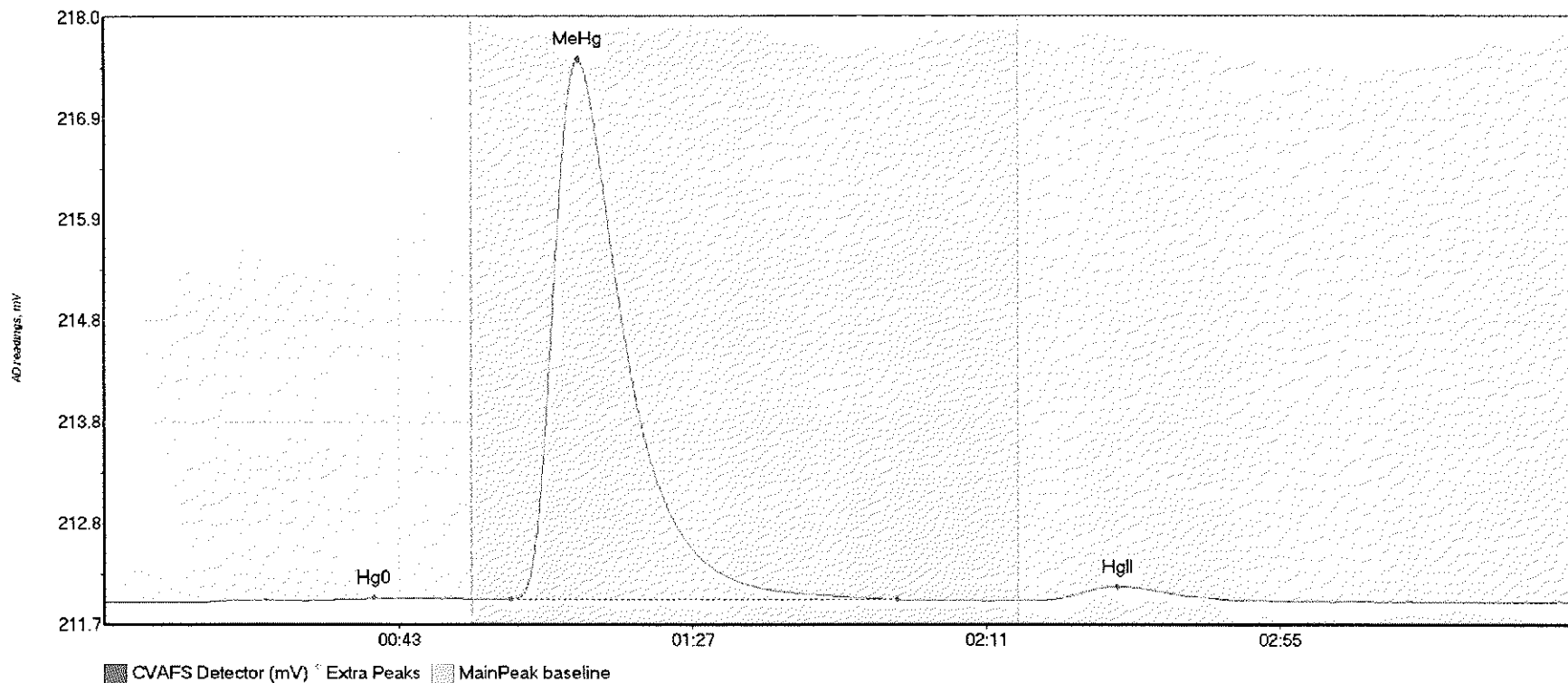
#65: 1706931-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-06 Hg0	3.131	10.5	48.5	211.95	211.98	44.2	0.044	OK	211.9447	0.00	0.01	
1706931-06 MeHg	1041.279	60.7	123.3	211.98	211.99	71.0	8.294	OK	211.9447	0.00	0.01	
1706931-06 HgII	24.544	140.1	175.9	211.97	211.97	151.9	0.160	OK	211.9447	0.00	0.01	

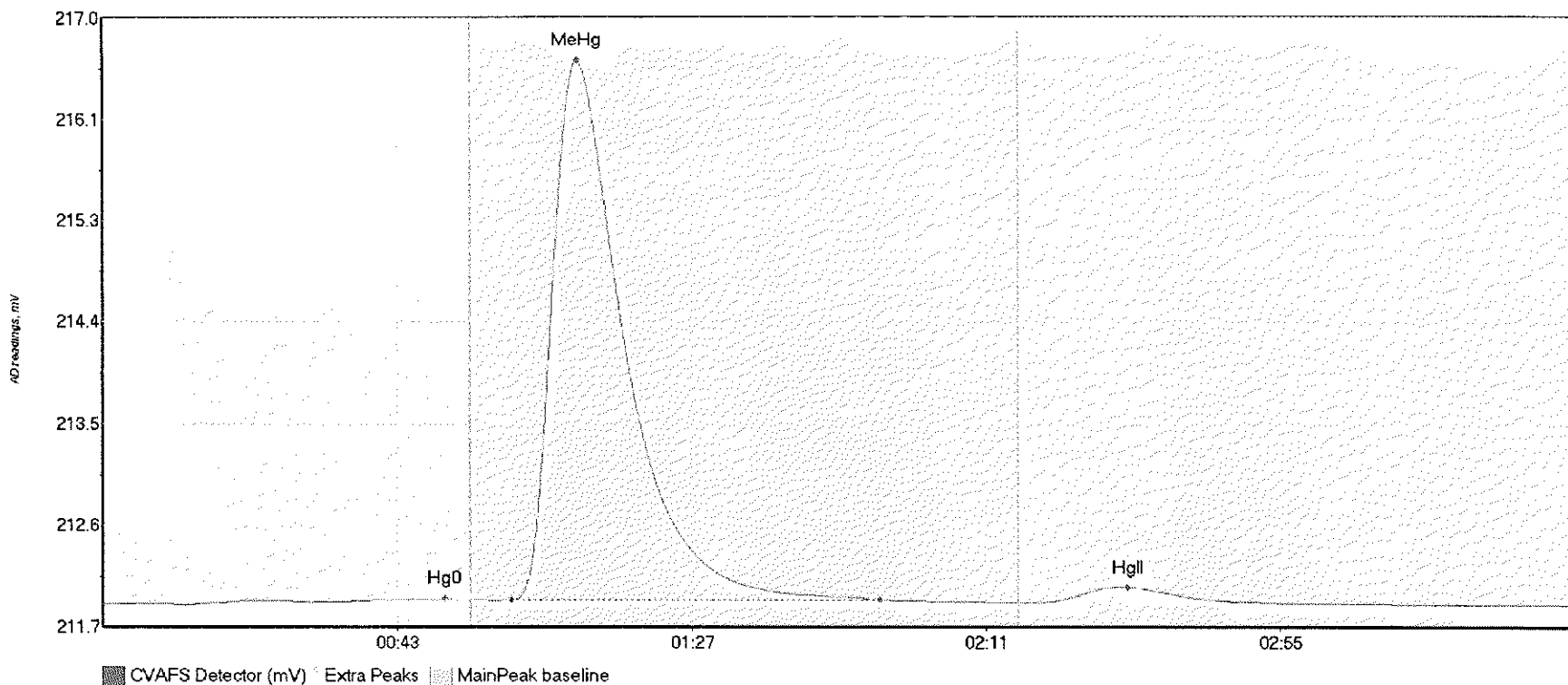
017

#66: 1706931-07



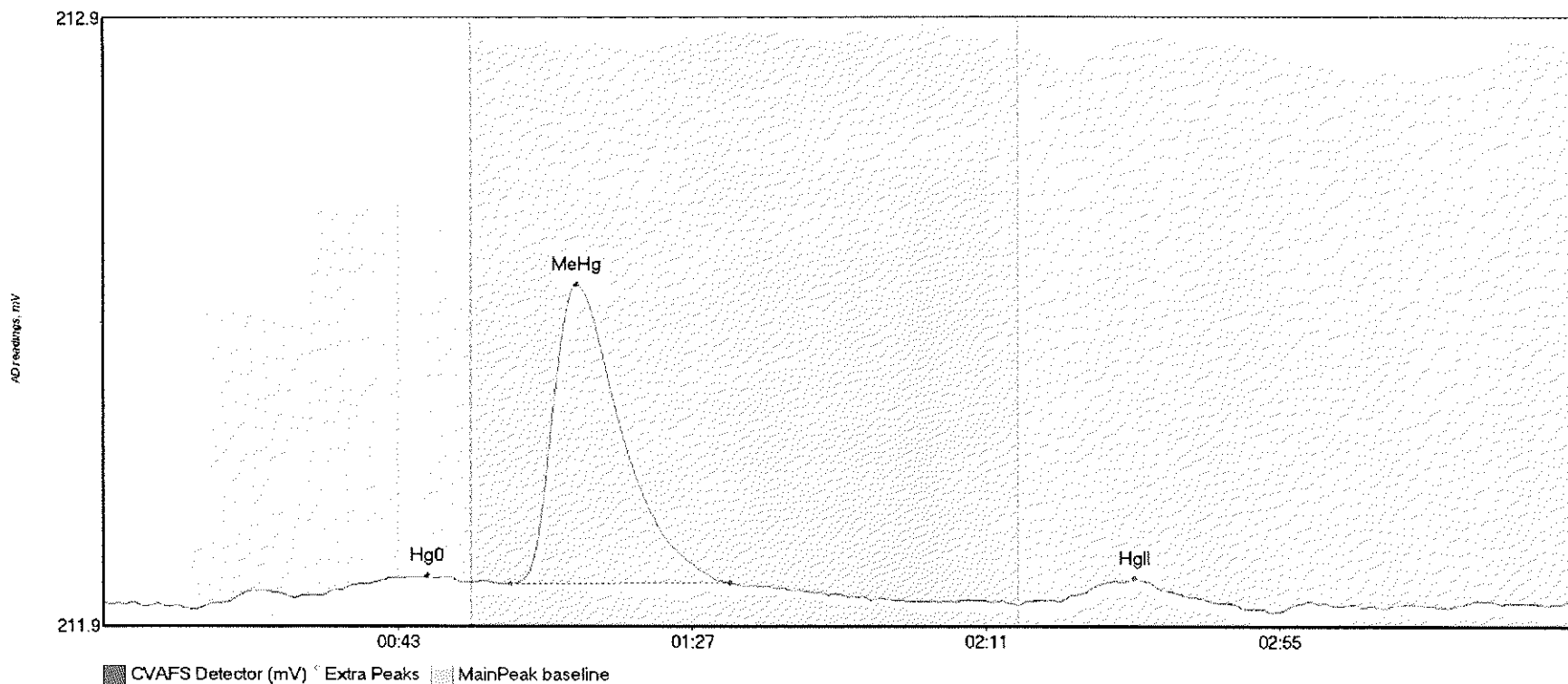
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-07 Hg0	4.200	15.0	54.4	211.93	211.97	40.3	0.041	OK	211.9331	0.00	0.00	
1706931-07 MeHg	699.505	60.8	118.8	211.96	211.96	71.0	5.573	OK	211.9331	0.00	0.00	
1706931-07 HgII	20.704	139.6	170.4	211.95	211.95	151.7	0.144	OK	211.9331	0.00	0.00	

#67: 1706931-08



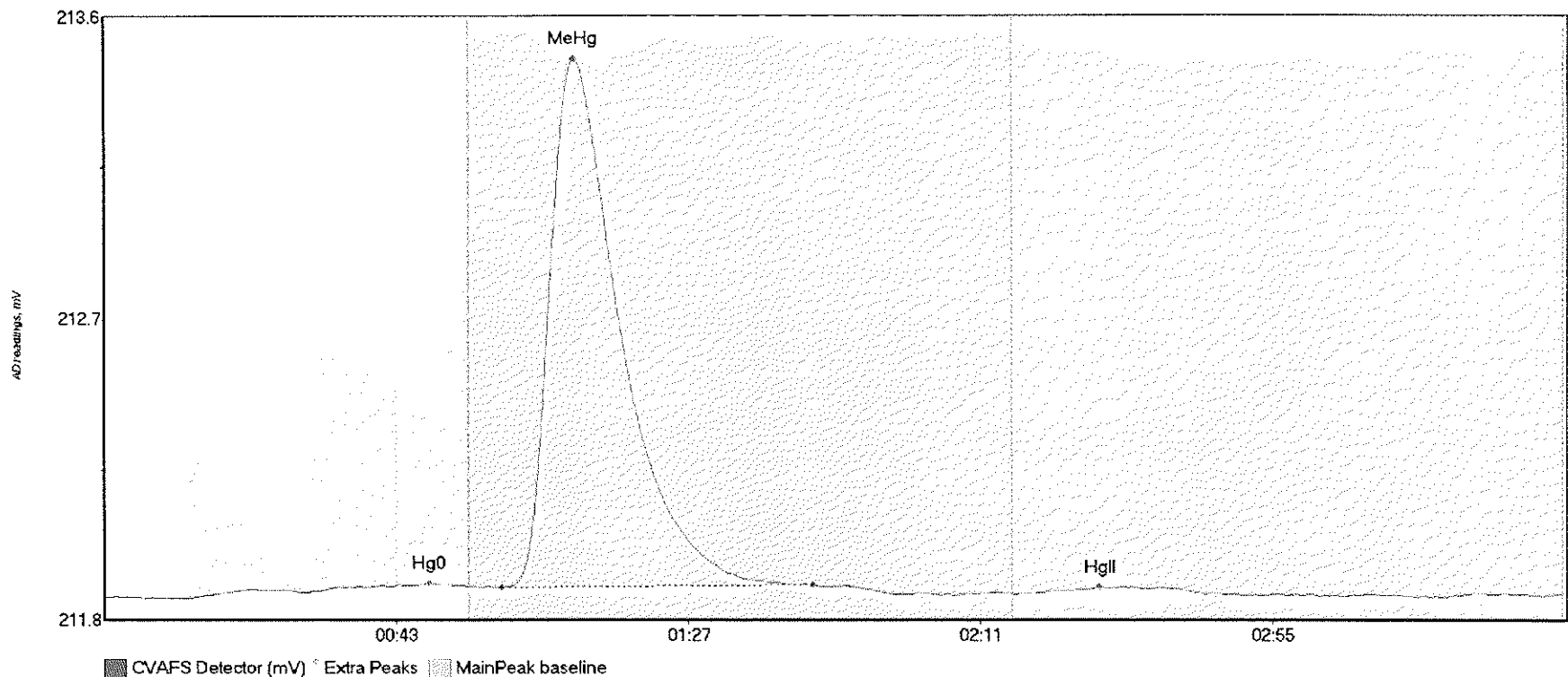
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-08 Hg0	4.365	12.8	55.0	211.91	211.96	51.2	0.050	CT	211.9209	0.00	-0.01	
1706931-08 MeHg	586.032	61.1	116.1	211.95	211.95	71.0	4.689	OK	211.9209	0.00	-0.01	
1706931-08 HgII	19.730	139.9	173.6	211.93	211.93	153.3	0.135	OK	211.9209	0.00	-0.01	

#68: 1706931-09



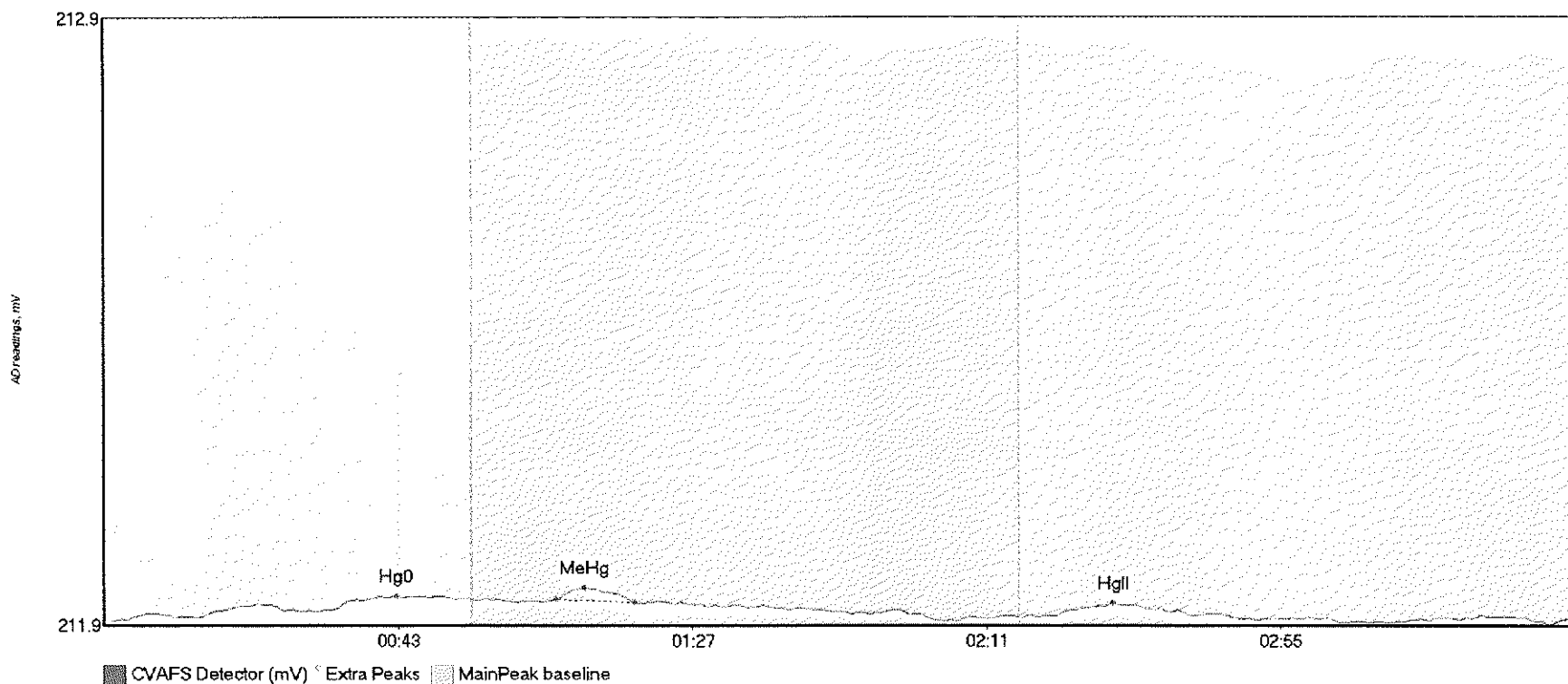
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-09 Hg0	3.387	18.4	55.0	211.91	211.94	48.5	0.043	CT	211.9029	0.00	0.00	
1706931-09 MeHg	58.473	60.9	93.7	211.93	211.94	70.9	0.492	OK	211.9029	0.00	0.00	
1706931-09 HgII	4.752	143.2	166.8	211.91	211.90	154.3	0.037	OK	211.9029	0.00	0.00	

#69: SEQ-CCV5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	2.886	15.4	55.0	211.90	211.92	49.0	0.036	CT	211.8943	0.00	0.01	
SEQ-CCV5 MeHg	191.161	59.8	106.8	211.92	211.93	70.9	1.553	OK	211.8943	0.00	0.01	
SEQ-CCV5 HgII	3.088	141.0	166.2	211.91	211.90	150.1	0.017	OK	211.8943	0.00	0.01	

#70: SEQ-CCB5

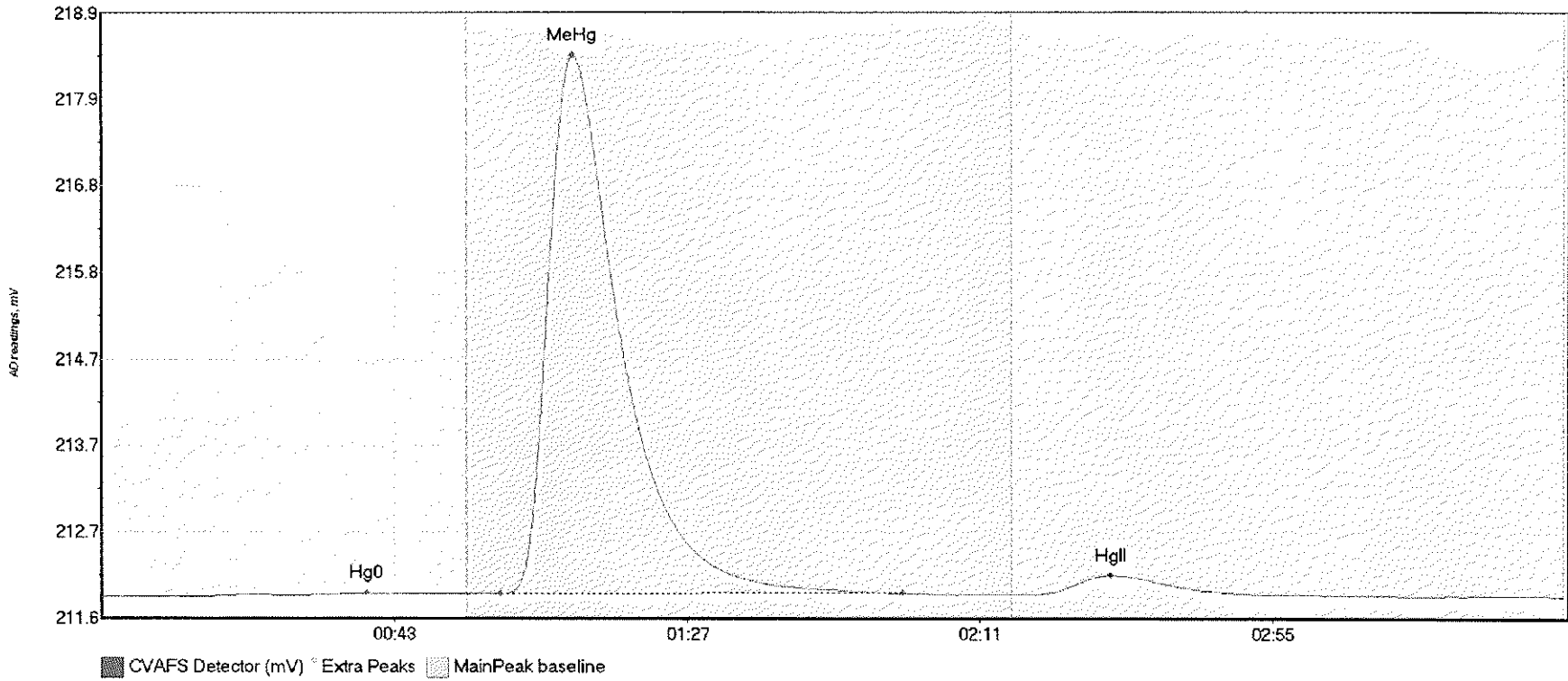


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	2.838	3.5	55.0	211.88	211.91	43.7	0.039	CT	211.8739	0.00	0.00	
SEQ-CCB5 MeHg	1.616	67.6	79.3	211.91	211.91	71.8	0.019	OK	211.8739	0.00	0.00	
SEQ-CCB5 HgII	2.535	142.1	162.9	211.88	211.88	151.0	0.021	OK	211.8739	0.00	0.00	

017

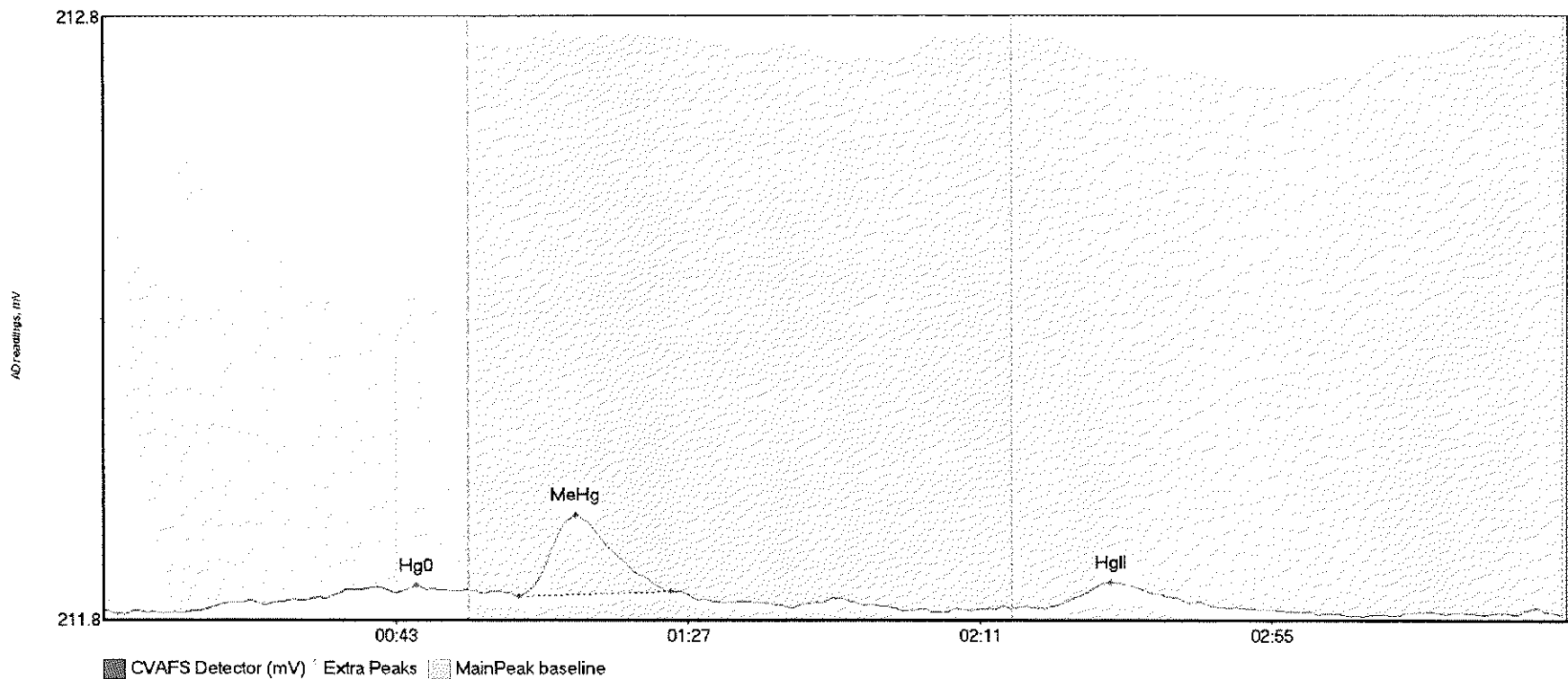


#71: 1706931-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-10 Hg0	2.130	16.1	47.1	211.87	211.90	39.9	0.035	OK	211.8718	0.00	0.00	
1706931-10 MeHg	821.166	60.0	120.4	211.90	211.91	70.9	6.521	OK	211.8718	0.00	0.00	
1706931-10 HgII	34.752	140.0	175.7	211.89	211.89	151.8	0.234	OK	211.8718	0.00	0.00	

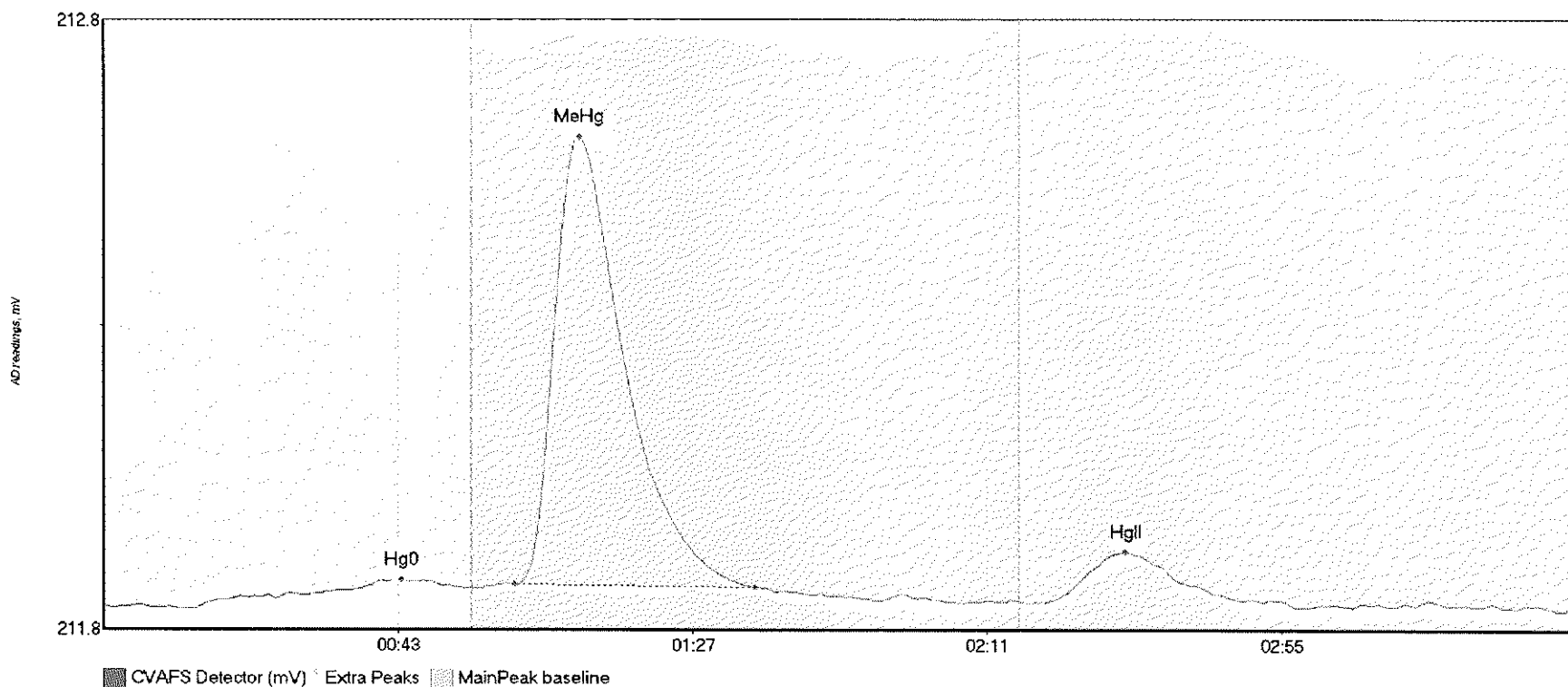
#72: 1706932-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-01 Hg0	3.038	14.2	52.7	211.86	211.89	47.2	0.041	OK	211.8557	0.00	-0.01	
1706932-01 MeHg	13.710	62.6	85.4	211.88	211.89	71.2	0.134	OK	211.8557	0.00	-0.01	
1706932-01 HgII	5.379	141.8	167.6	211.86	211.86	151.7	0.042	OK	211.8557	0.00	-0.01	

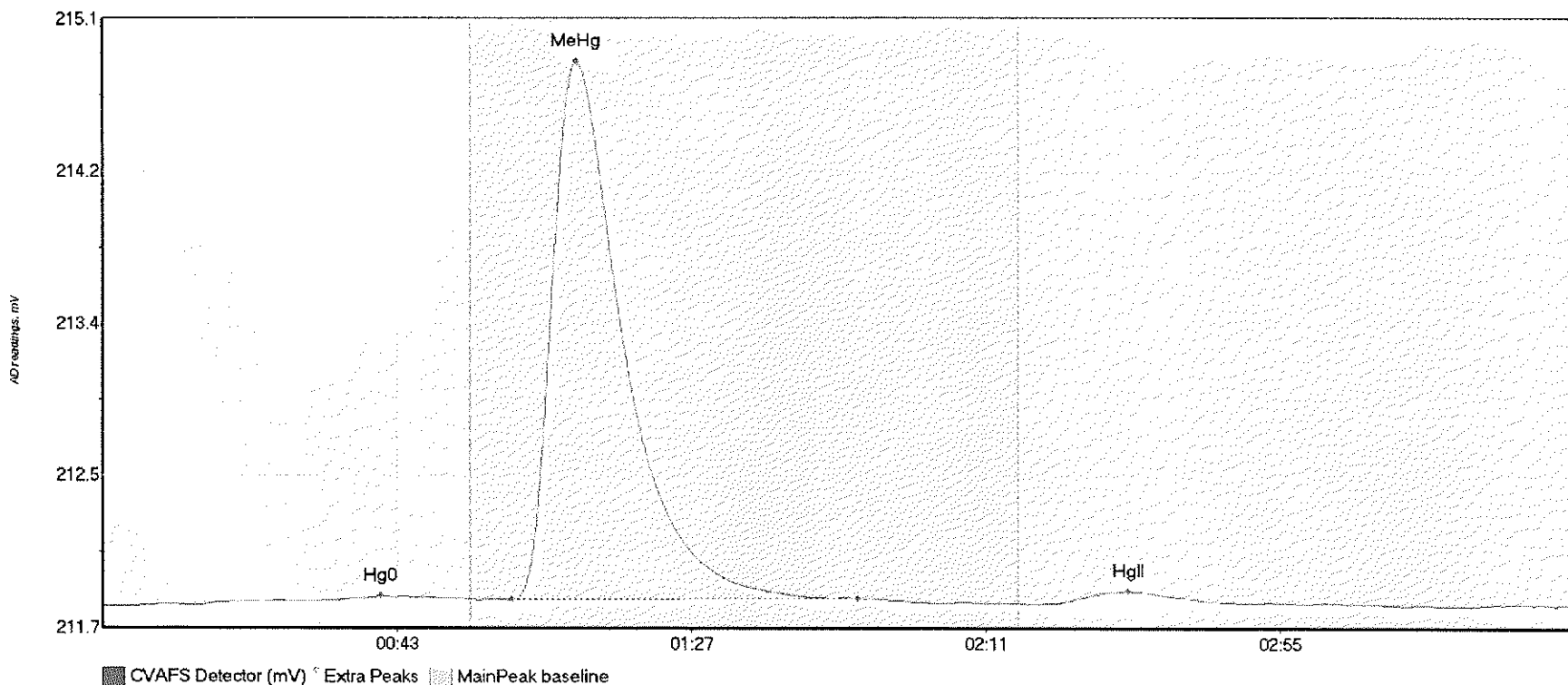
017

#73: 1706932-02



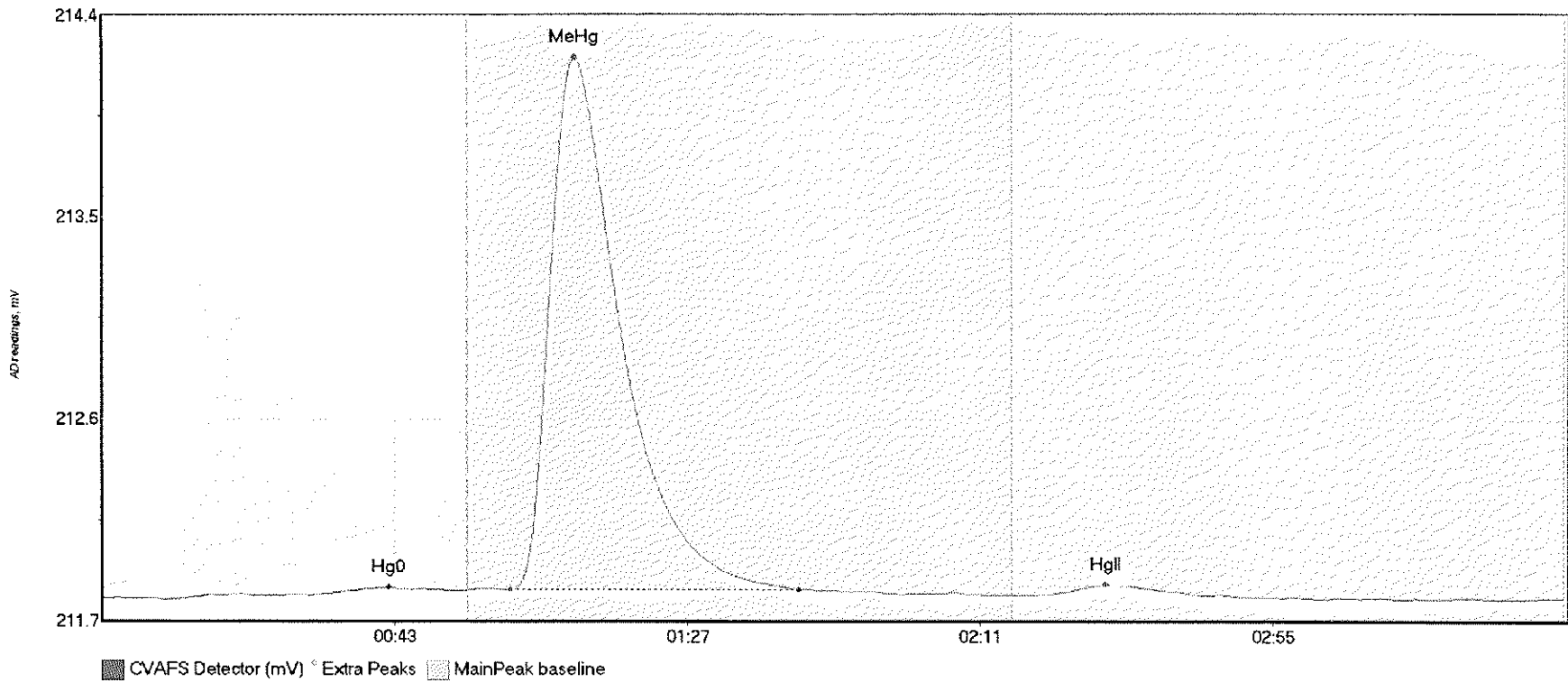
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-02 Hg0	5.203	13.5	54.9	211.84	211.87	44.6	0.047	OK	211.8402	0.00	0.00	
1706932-02 MeHg	88.970	61.5	97.3	211.87	211.87	71.1	0.735	OK	211.8402	0.00	0.00	
1706932-02 HgII	11.490	140.5	169.9	211.85	211.85	152.8	0.083	OK	211.8402	0.00	0.00	

#74: 1706932-03



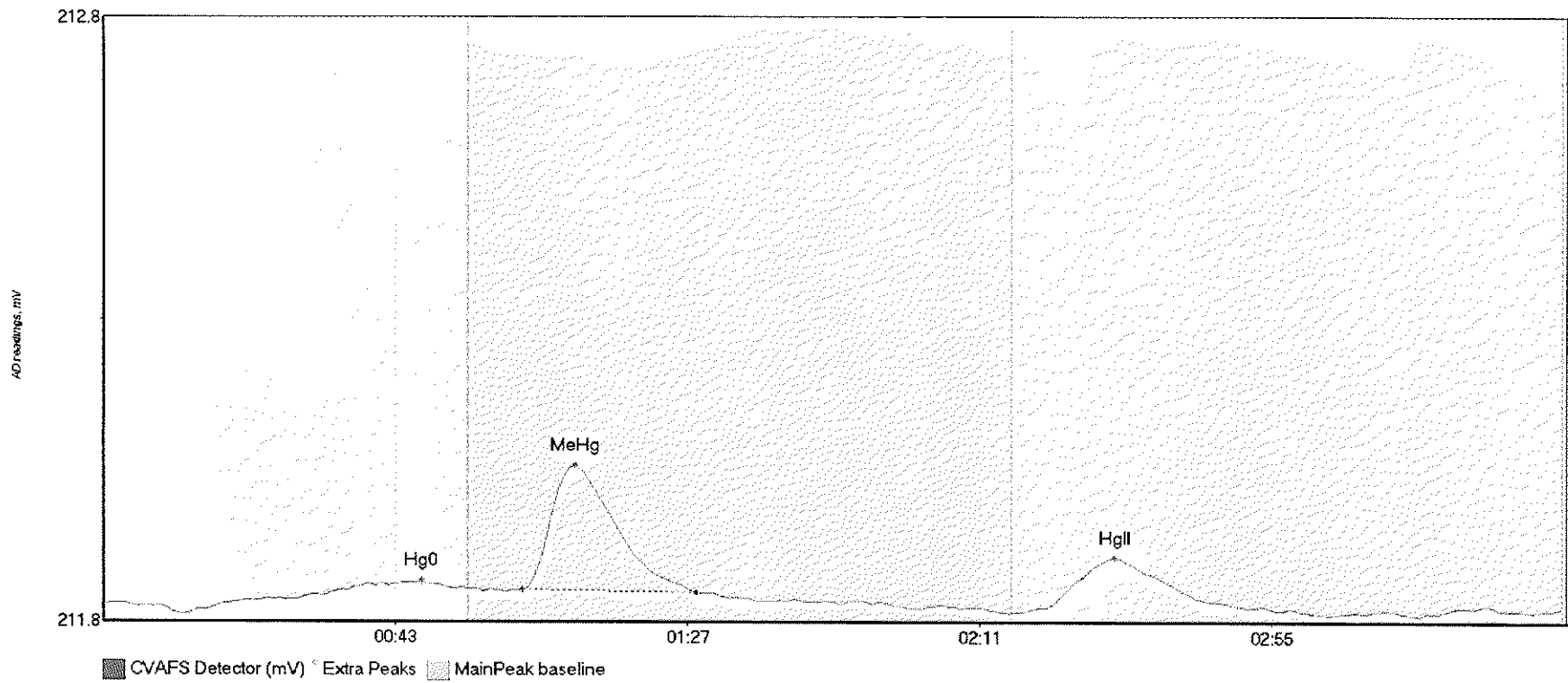
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-03 Hg0	5.016	6.2	55.0	211.83	211.87	41.6	0.050	CF	211.8276	0.00	0.00	
1706932-03 MeHg	365.111	61.1	112.9	211.86	211.87	70.9	2.952	OK	211.8276	0.00	0.00	
1706932-03 HgII	9.665	141.7	170.3	211.84	211.84	153.3	0.068	OK	211.8276	0.00	0.00	

#75: 1706932-04



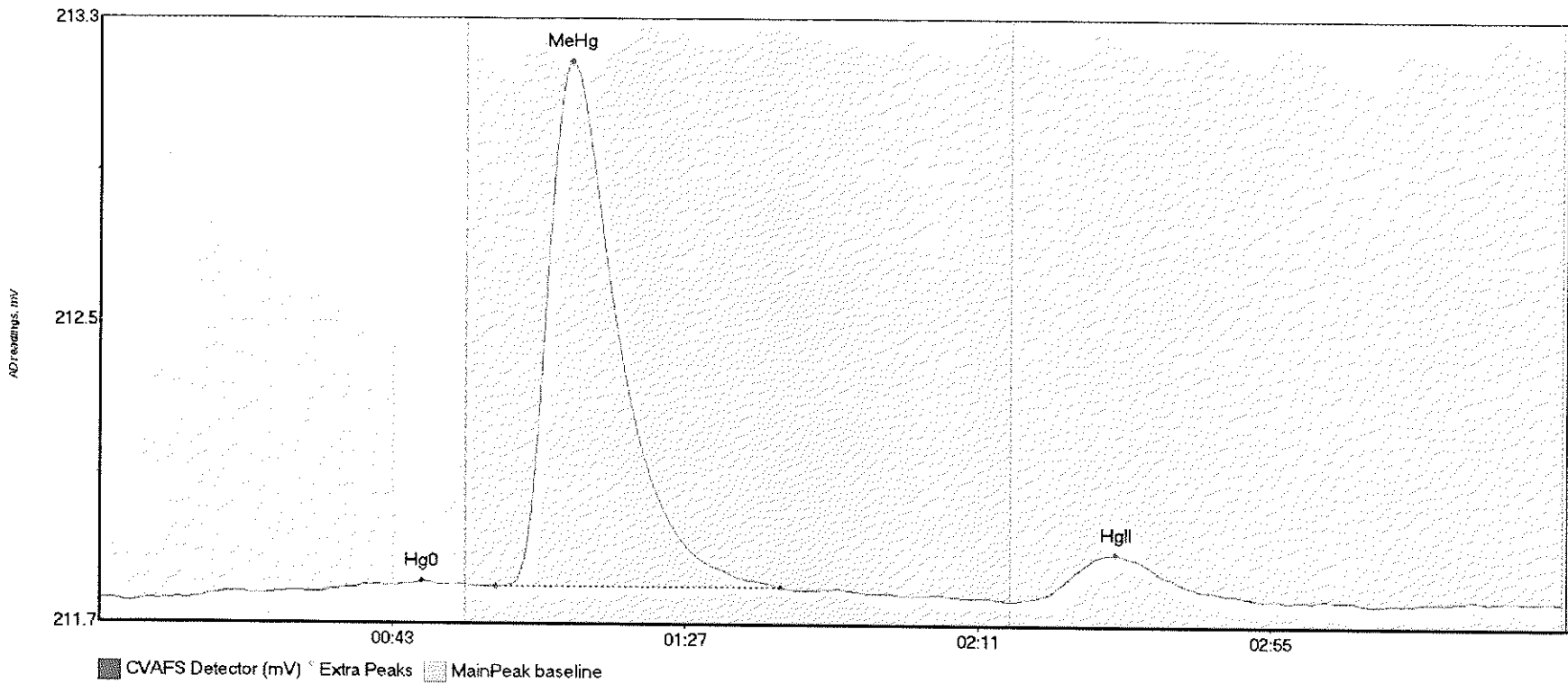
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-04 Hg0	4.037	12.0	54.1	211.81	211.85	43.1	0.050	OK	211.8126	0.00	0.00	
1706932-04 MeHg	292.927	61.5	104.7	211.85	211.85	71.1	2.378	OK	211.8126	0.00	0.00	
1706932-04 HgII	5.652	142.4	166.4	211.83	211.82	150.9	0.042	OK	211.8126	0.00	0.00	

#76: 1706932-05



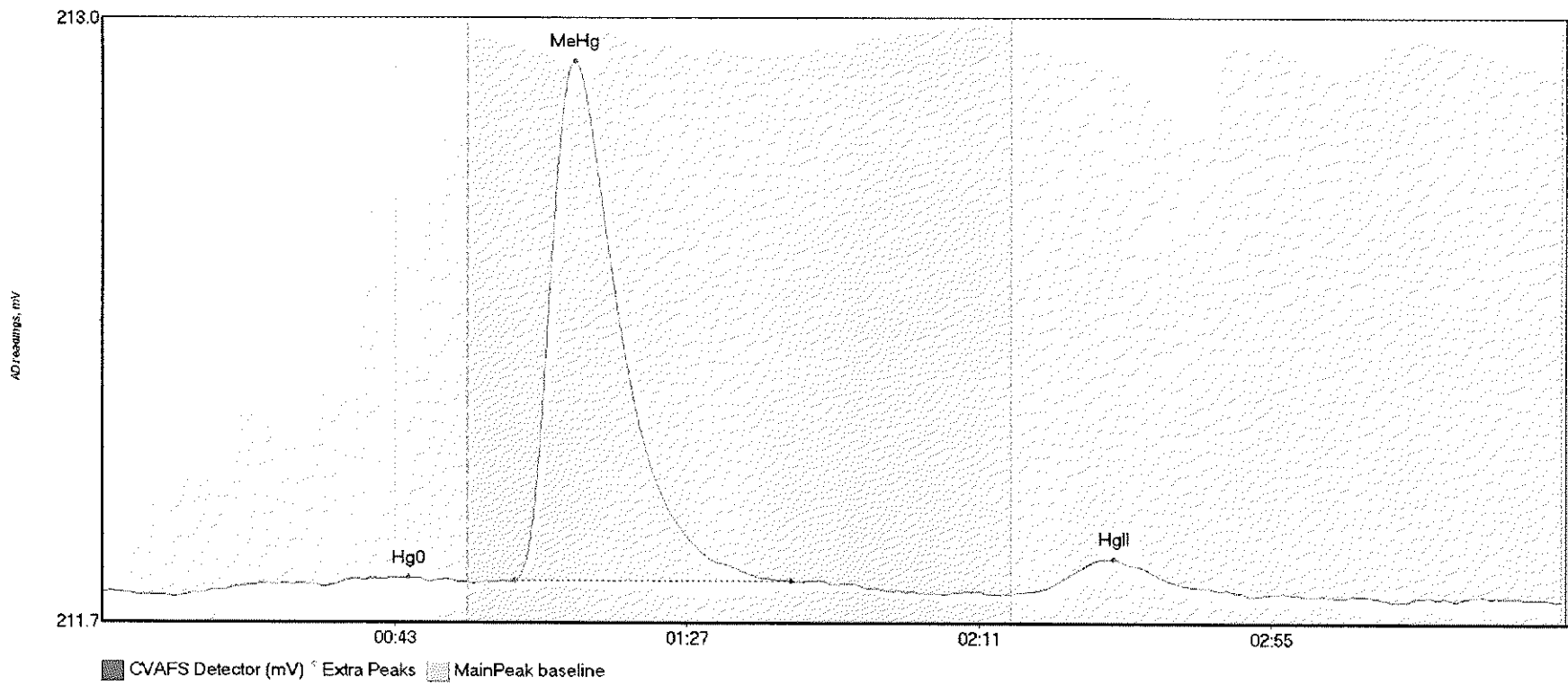
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-05 Hg0	2.624	20.2	55.0	211.81	211.83	48.0	0.032	CT	211.8083	0.00	-0.01	
1706932-05 MeHg	23.033	63.1	89.3	211.83	211.83	71.1	0.206	OK	211.8083	0.00	-0.01	
1706932-05 HgII	13.940	138.6	177.1	211.80	211.80	152.5	0.091	OK	211.8083	0.00	-0.01	

#77: 1706932-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-06 Hg0	2.271	14.2	51.8	211.79	211.82	48.4	0.044	OK	211.7886	0.00	0.00	
1706932-06 MeHg	170.883	59.6	102.3	211.82	211.82	70.9	1.391	OK	211.7886	0.00	0.00	
1706932-06 HgII	19.932	137.1	174.9	211.79	211.79	152.7	0.127	OK	211.7886	0.00	0.00	

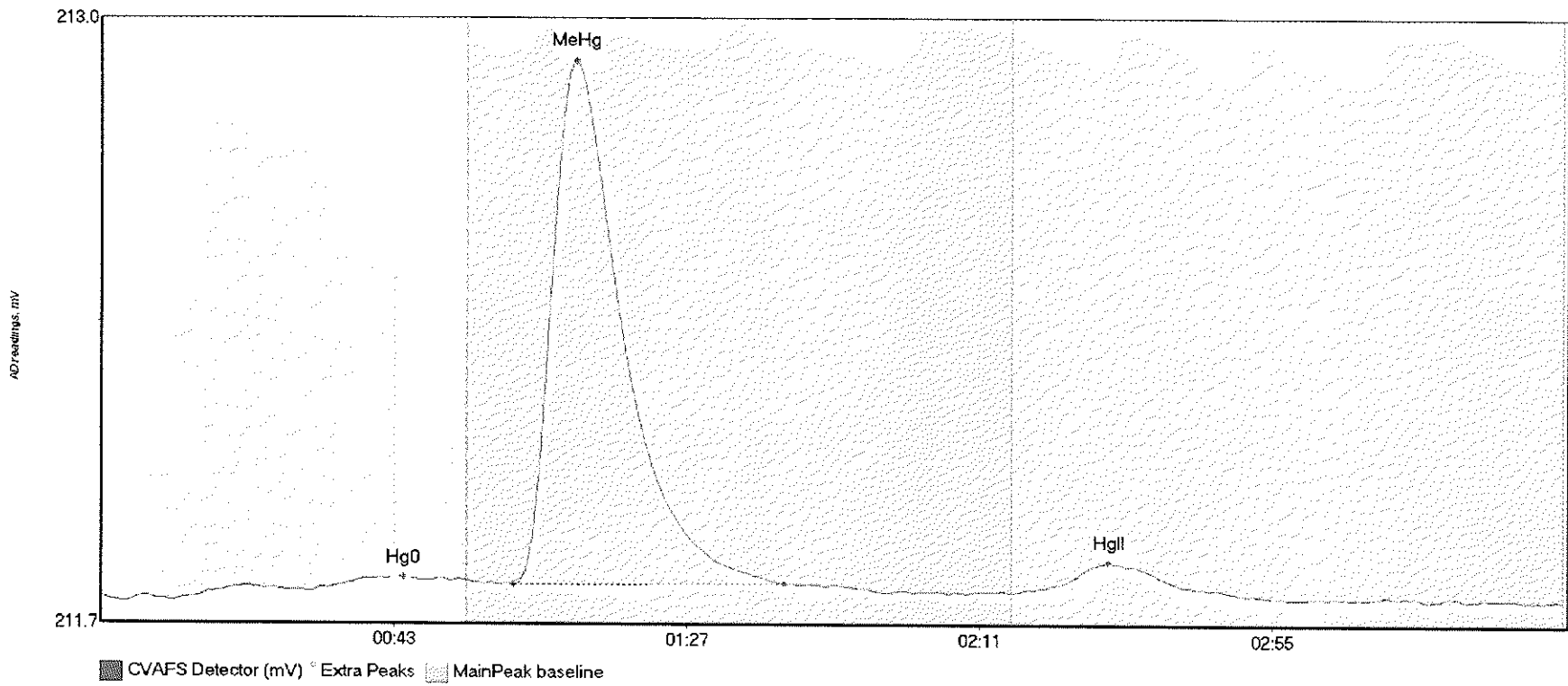
#78: 1706932-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-07 Hg0	3.198	18.5	55.0	211.79	211.80	46.1	0.027	CT	211.7836	0.00	-0.02	
1706932-07 MeHg	129.907	62.0	103.8	211.81	211.81	71.1	1.057	OK	211.7836	0.00	-0.02	
1706932-07 HgII	9.519	139.6	170.7	211.78	211.78	152.3	0.068	OK	211.7836	0.00	-0.02	

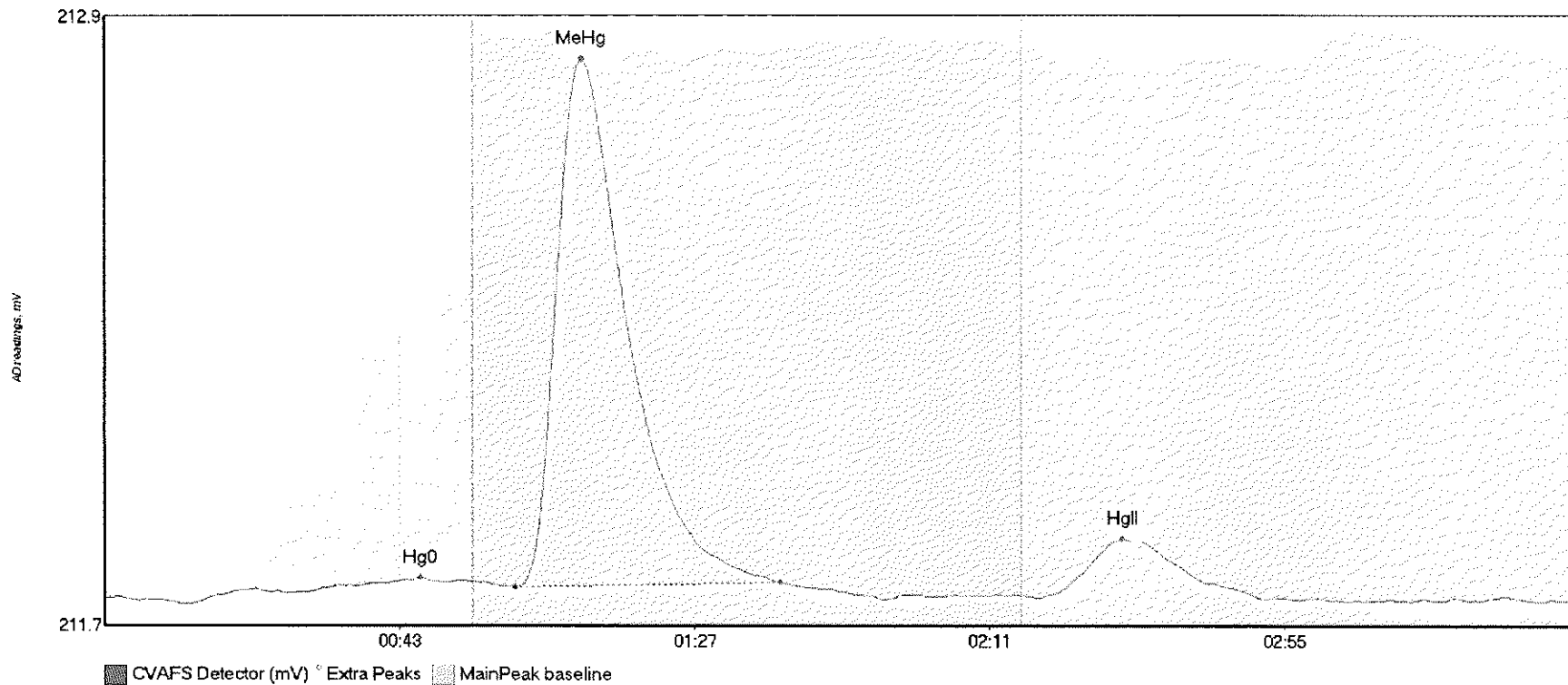


#79: 1706932-08



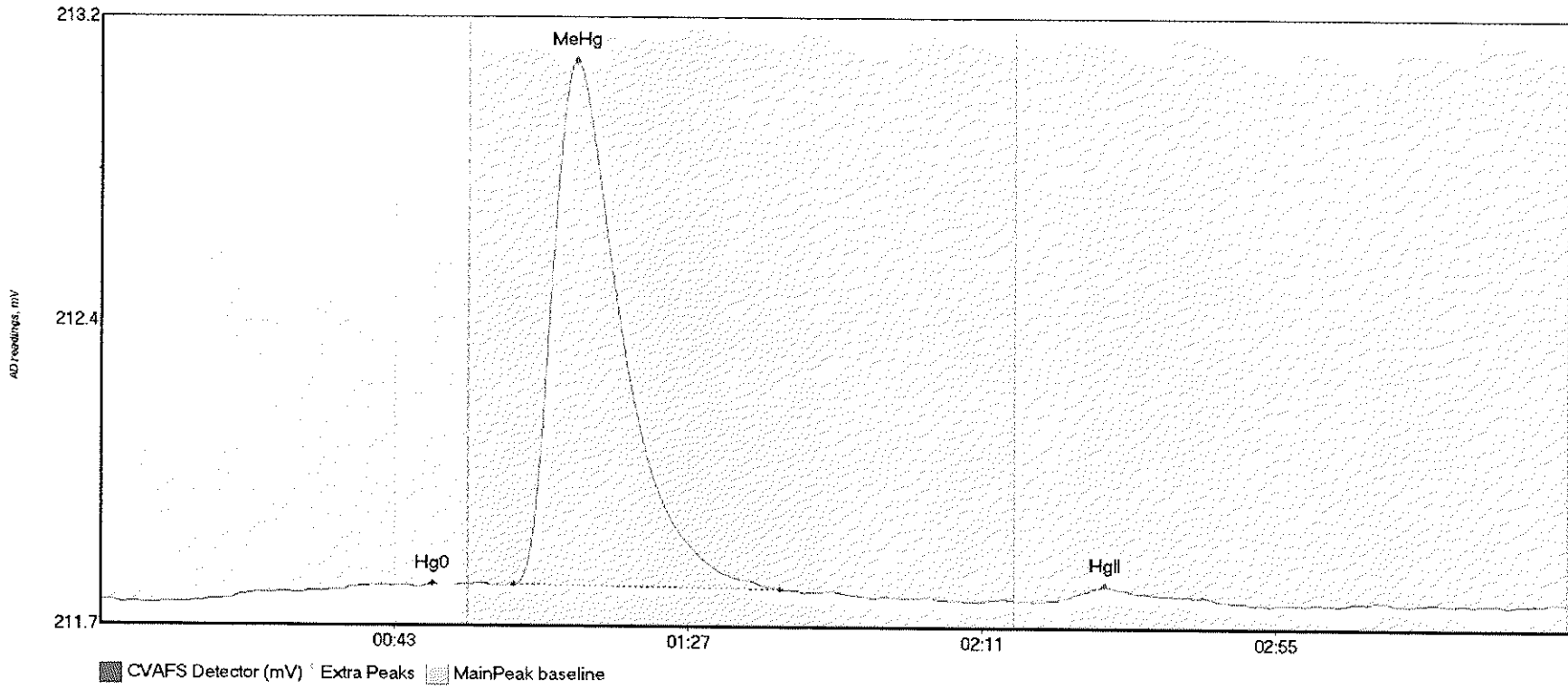
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-08 Hg0	3.271	14.3	55.0	211.76	211.79	45.4	0.040	CT	211.7589	0.00	0.00	
1706932-08 MeHg	133.119	62.0	102.7	211.79	211.79	71.4	1.079	OK	211.7589	0.00	0.00	
1706932-08 HgII	9.964	136.8	171.8	211.77	211.76	151.5	0.065	OK	211.7589	0.00	0.00	

#80: 1706932-09



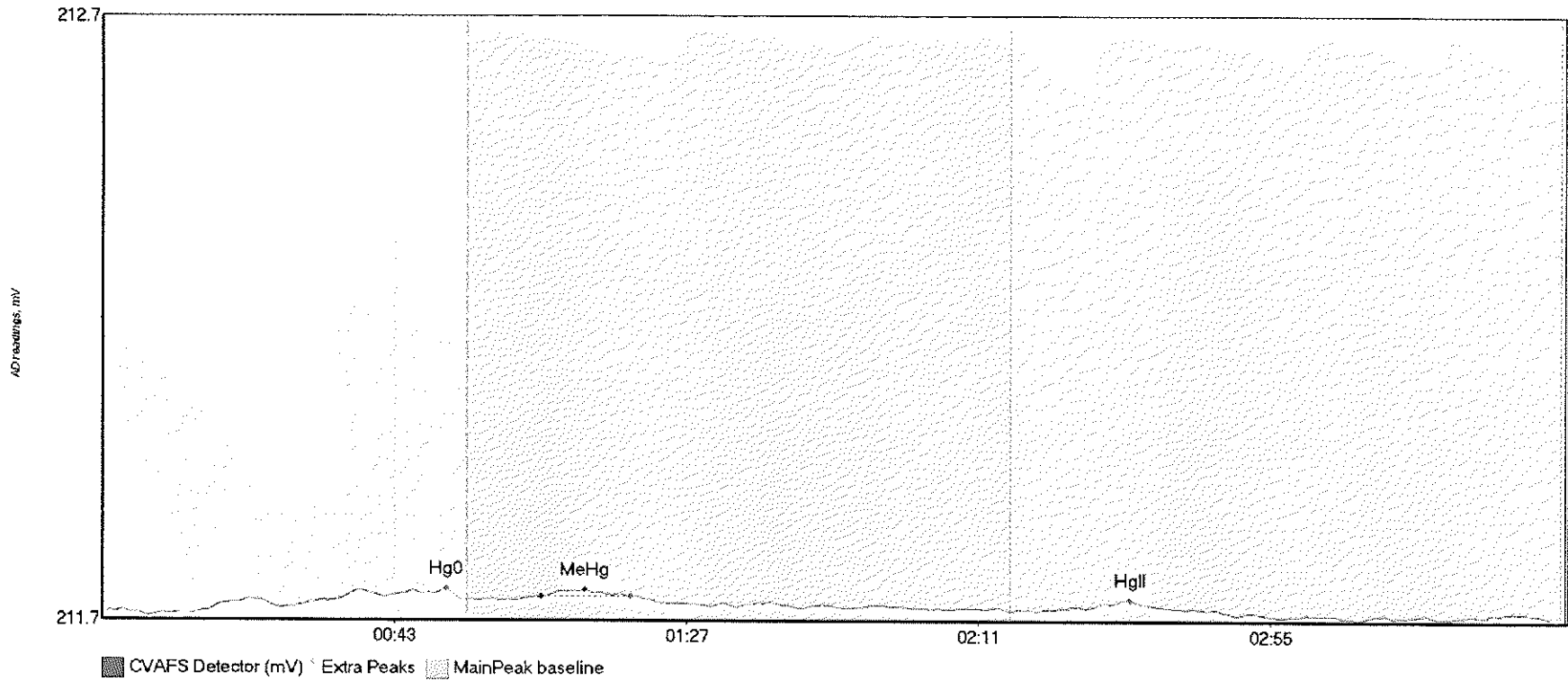
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-09 Hg0	3.396	13.7	51.3	211.74	211.78	47.1	0.047	OK	211.7476	0.00	-0.01	
1706932-09 MeHg	126.634	61.3	100.9	211.77	211.78	71.2	1.034	OK	211.7476	0.00	-0.01	
1706932-09 HgII	17.908	139.5	173.2	211.75	211.74	151.9	0.115	OK	211.7476	0.00	-0.01	

#81: SEQ-CCV6



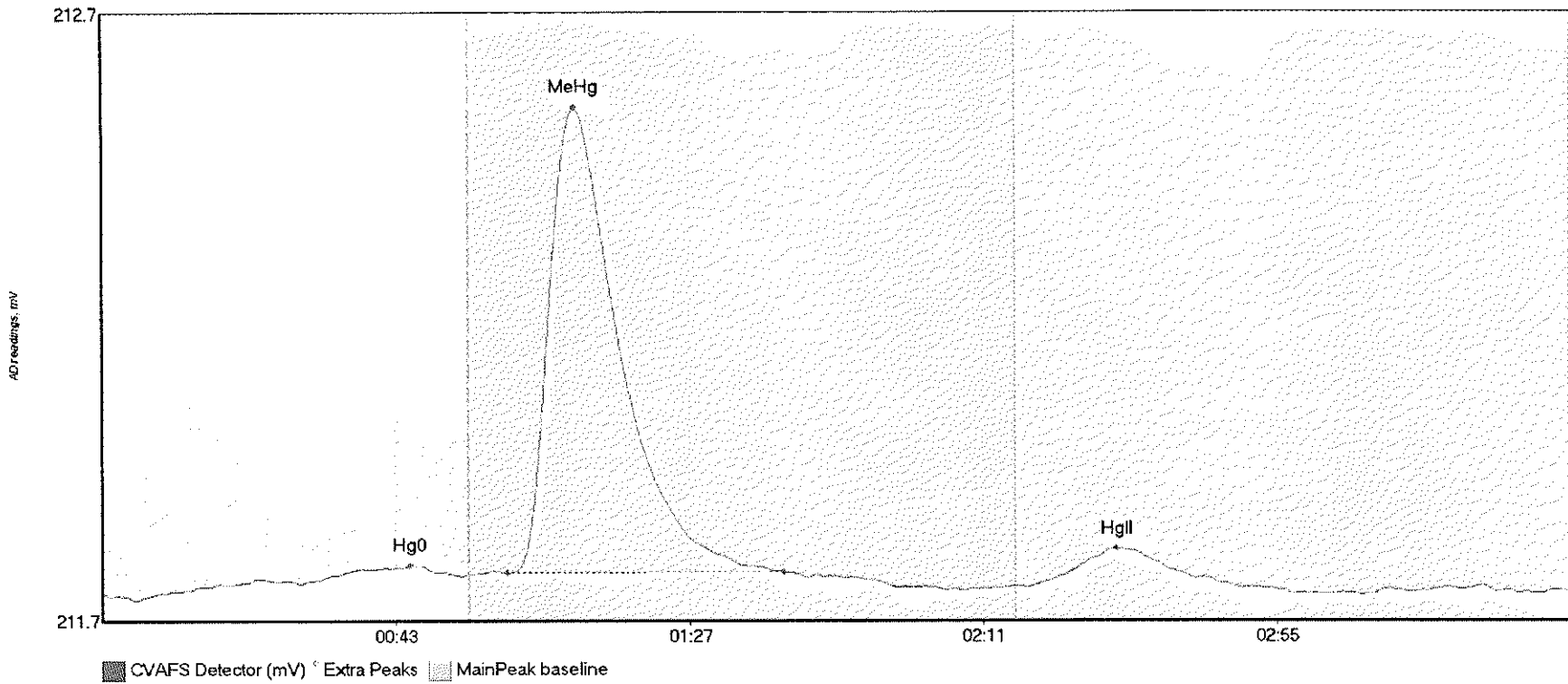
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	2.158	19.0	51.9	211.74	211.77	49.7	0.037	OK	211.7367	0.00	0.00	
SEQ-CCV6 MeHg	158.788	61.8	101.8	211.77	211.77	71.1	1.309	OK	211.7367	0.00	0.00	
SEQ-CCV6 HgII	4.184	142.6	168.4	211.74	211.74	150.5	0.036	OK	211.7367	0.00	0.00	

#82: SEQ-CCB6



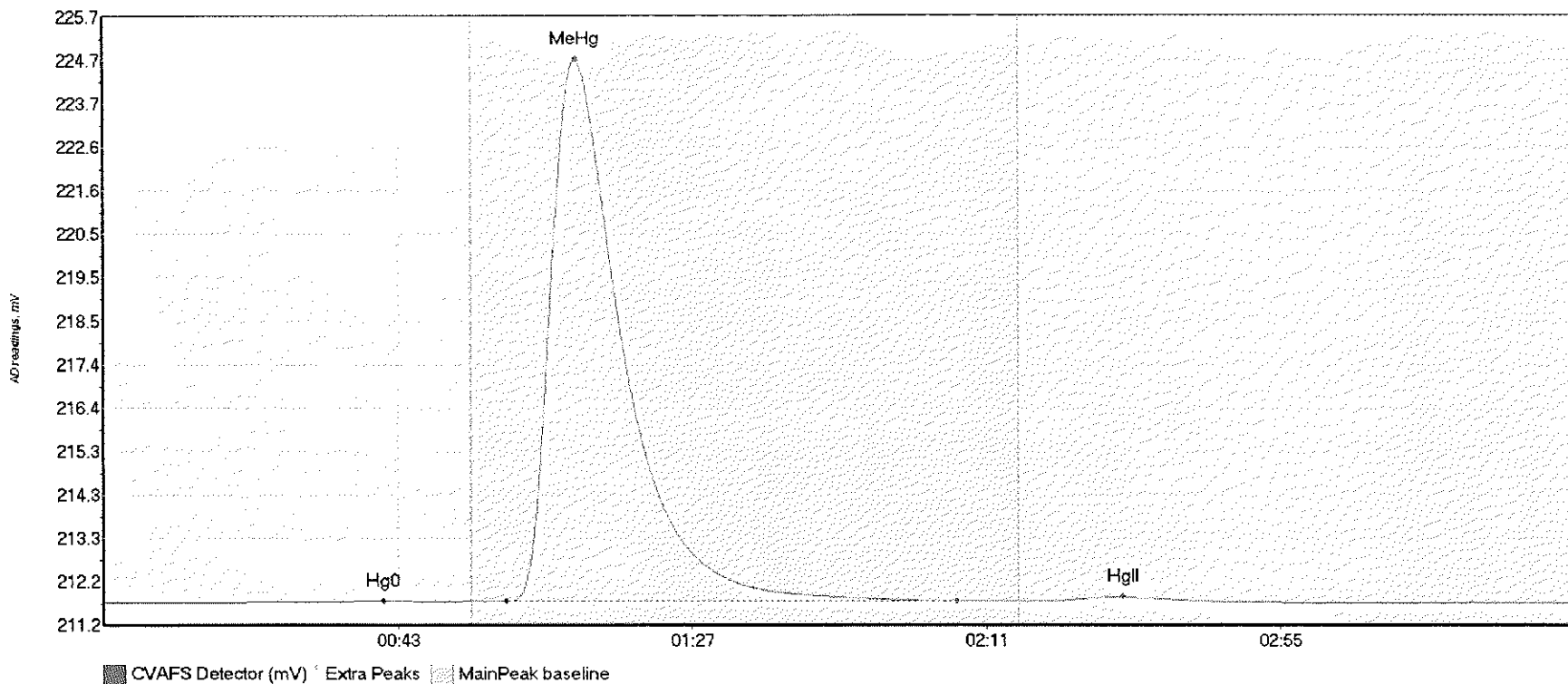
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	4.143	15.3	55.0	211.72	211.74	51.9	0.035	CT	211.7227	0.00	-0.01	
SEQ-CCB6 MeHg	0.822	66.1	79.6	211.75	211.75	72.7	0.011	OK	211.7227	0.00	-0.01	
SEQ-CCB6 HgII	0.878	148.3	161.3	211.73	211.73	154.9	0.014	OK	211.7227	0.00	-0.01	

#89: 1706932-10



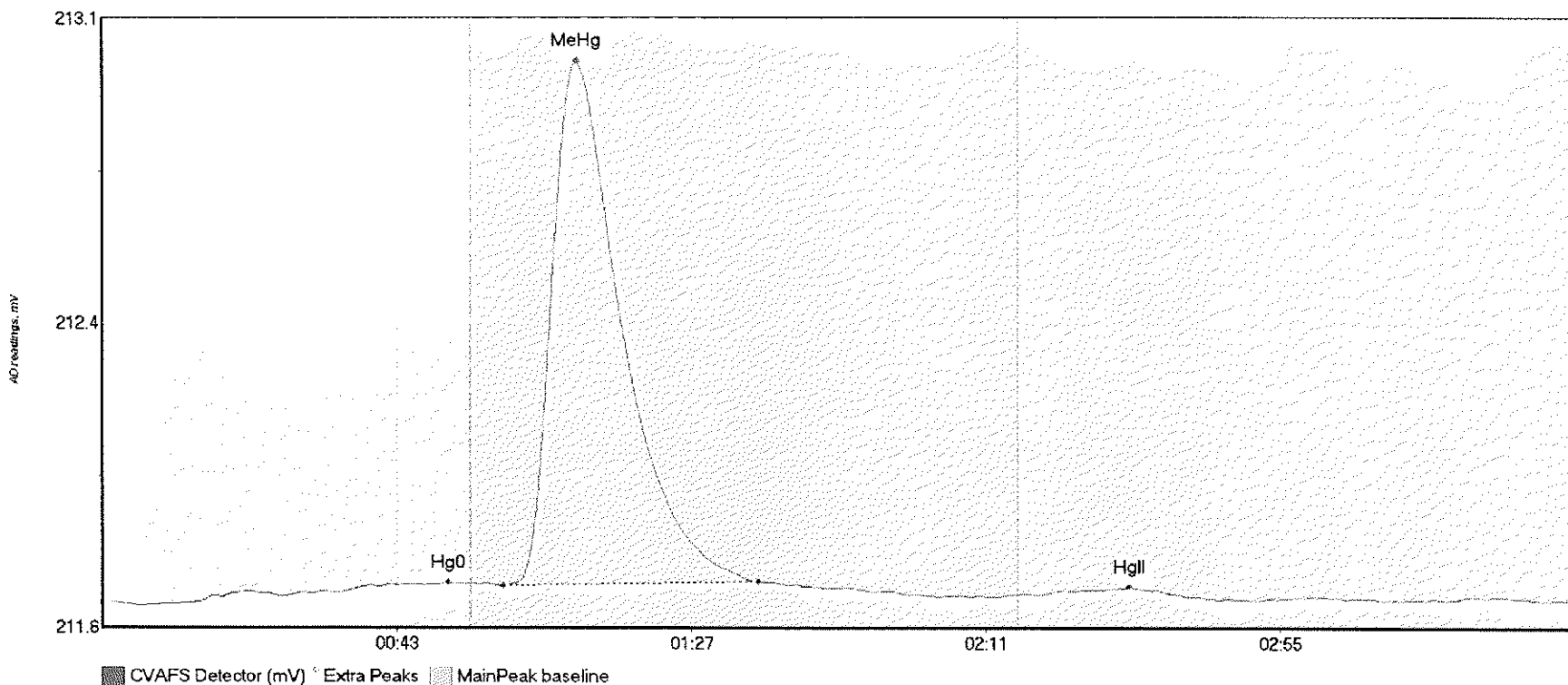
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-10 Hg0	4.736	11.4	54.0	211.71	211.73	46.2	0.044	OK	211.7042	0.00	0.01	
1706932-10 MeHg	93.025	60.7	102.0	211.74	211.74	70.8	0.765	OK	211.7042	0.00	0.01	
1706932-10 HgII	8.504	138.6	167.7	211.72	211.72	152.0	0.064	OK	211.7042	0.00	0.01	

#84: 1707444-01



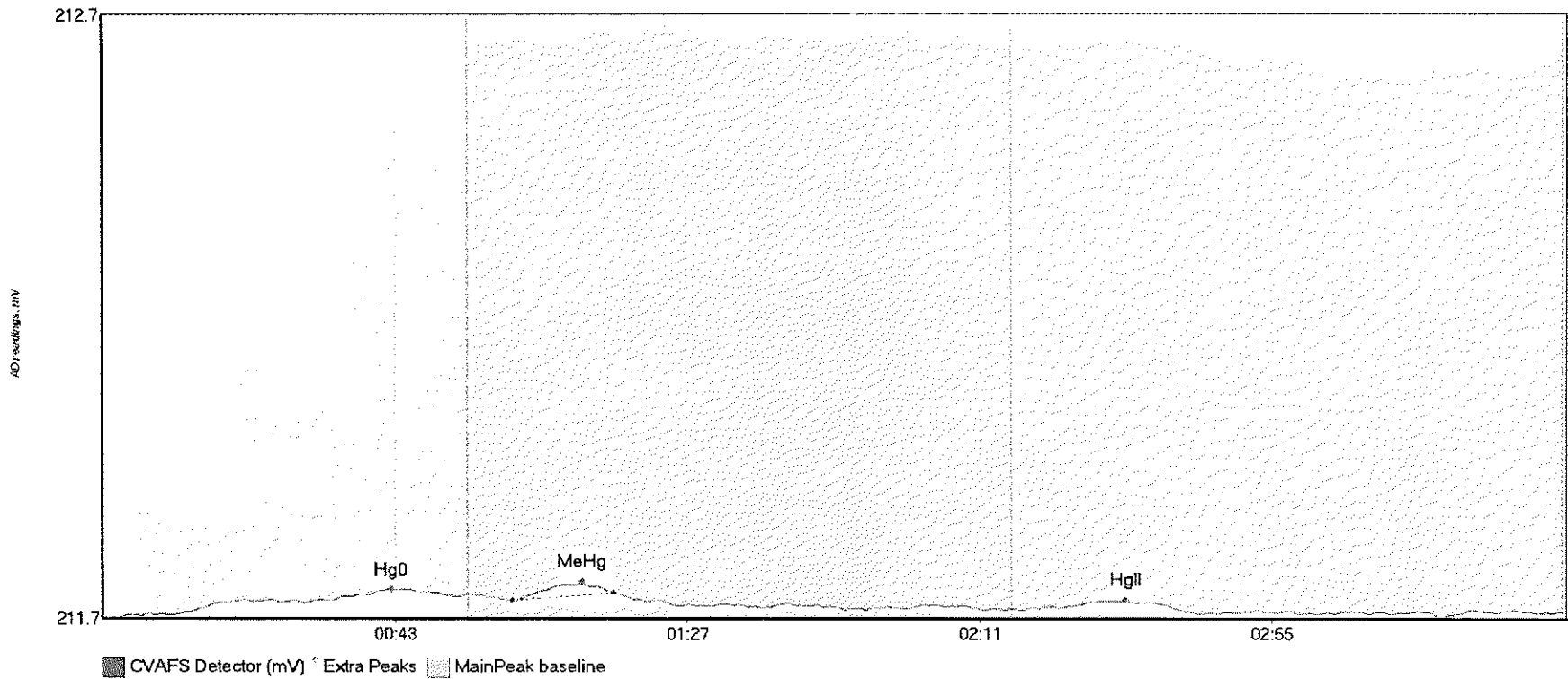
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707444-01 Hg0	3.038	15.9	50.7	211.70	211.73	41.9	0.041	OK	211.7042	0.00	0.00	
1707444-01 MeHg	1632.742	60.1	127.6	211.74	211.74	70.7	12.956	OK	211.7042	0.00	0.00	
1707444-01 HgII	13.835	141.3	167.0	211.74	211.73	152.5	0.101	OK	211.7042	0.00	0.00	

#85: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	2.926	14.2	54.7	211.69	211.73	51.7	0.047	OK	211.6893	0.00	0.00	
SEQ-CCV7 MeHg	153.176	59.8	98.0	211.73	211.74	70.8	1.267	OK	211.6893	0.00	0.00	
SEQ-CCV7 HgII	2.551	140.6	162.3	211.71	211.70	153.5	0.017	OK	211.6893	0.00	0.00	

#86: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB7 Hg0	4.790	10.7	53.8	211.68	211.71	43.4	0.042	OK	211.6773	0.00	0.01	
SEQ-CCB7 MeHg	1.781	61.6	76.9	211.70	211.72	72.1	0.029	OK	211.6773	0.00	0.01	
SEQ-CCB7 HgII	1.562	146.0	163.1	211.69	211.69	154.0	0.010	OK	211.6773	0.00	0.01	

017



**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G28007, 7G28008
<b>Reviewer:</b> <i>BC</i> 7/29/17	<b>Dataset ID #:</b> MMHg27001-170727-1, MMHg27001-170728-2
<b>Date:</b> 7-28-17	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F707394, F707501	<b>Client(s):</b> 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:

*BC*

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 type="checkbox"/> YES	<input checked="" 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 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"/>
<b>QA/QC Data Checked</b>			
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: _____			

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G28007, 7G28008
<b>Reviewer:</b>	0 <i>BC</i> 7/28/17	<b>Dataset ID #:</b>	MMHg27001-170727-1, MMsHg27001-170728-2
<b>Date:</b>	7/28/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	f707394, f707501	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*BC*

- |  |  |  |   |
|--|--|--|---|
| 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 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 checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <del>F707501 DUPL FAILED: HIGH RPD</del> <i>BC 7/29/17</i>                         |  |  |   |
| 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 checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707394-MS1 FAILED. LOW RECOVERY</b>  |  |  |   |
| 23. MSD (ASD) % Recoveries (65-130%)   | <input checked="" type="checkbox"/> PASS | <input checked="" type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: <b>F707394-MSD1 FAILED. LOW RECOVERY</b>   |  |  |   |
| 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G28007, 7G28008
<b>Reviewer:</b>	0 <i>[Signature]</i>	<b>Dataset ID #:</b>	MMHg27001-170727-1, MMRHg27001-170727-2
<b>Date:</b>	7/28/2017	<b>WO #:</b>	various
<b>Batch #(s):</b>	F707394, F707501	<b>Client(s):</b>	various

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*BC*

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

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1706932

July 31, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1706932

### Table of Contents

July 31, 2017

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	16
Notes and Definitions	33
Raw Data: 7G14006	34
Raw Data: 7G14008	76
Raw Data: 7G28008	113

**Total Pages – 225**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ADD-01_17BN001_062317_TIN_01_WB	1706932-01	Tissue	23-Jun-17 16:20	30-Jun-17 09:50
ADD-01_17BN002_062317_TIN_02_WB	1706932-02	Tissue	23-Jun-17 16:25	30-Jun-17 09:50
ADD-01_17BN003_062317_TIN_03_WB	1706932-03	Tissue	23-Jun-17 16:30	30-Jun-17 09:50
ADD-01_17BN004_062317_TIN_04_WB	1706932-04	Tissue	23-Jun-17 16:35	30-Jun-17 09:50
ADD-01_17HC002_062317_TIN_05_WB	1706932-05	Tissue	23-Jun-17 11:20	30-Jun-17 09:50
ADD-01_17HC001_062317_SPI_01_WB	1706932-06	Tissue	23-Jun-17 11:20	30-Jun-17 09:50
ADD-01_17HC001_062717_SPI_02_WB	1706932-07	Tissue	27-Jun-17 11:20	30-Jun-17 09:50
ADD-01_17HC001_062717_SPI_03_WB	1706932-08	Tissue	27-Jun-17 10:45	30-Jun-17 09:50
ADD-01_17HC002_062717_SPI_04_WB	1706932-09	Tissue	27-Jun-17 11:00	30-Jun-17 09:50
ADD-01_17HC001_062717_SPI_05_WB	1706932-10	Tissue	27-Jun-17 11:30	30-Jun-17 09:50

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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:**  
31-Jul-17 13:27

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 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 prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1630 (EFGS SOP2808).

The samples were prepped in batch F707394 for Methyl Mercury and analyzed in sequence 7G28008. The total Mercury samples were prepped in batches F707326 and F707327. They were analyzed in sequences 7G14006 and 7G14008. Per client request, samples 1706930-04 and 1706930-05 were used as the source QC in batch F707327. Due to limited volume, the lab had to use samples 1706930-04 and 1706930-02 for the source QC in batch F707394.

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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AMEC Foster Wheeler  
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31-Jul-17 13:27

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: 1706932

Client: AMEZ Foster Wheeler

Date & Time Received: 6/30/17 9:50

Date Labeled: 7/5/17 Labeled By: CSF

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>40.2 °C</u>	Date/time: <u>6/30/17 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-34 °C</u>	w/ CF: <u>-32.8 °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>Y</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):

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1706932

Environmental Analysis Request/Chain of Custody

Client: Amec Foster Wheeler 1511 Congress St. Suite 200 Portland, ME 0410				Matrix				Analyses Requested				For Lab Use Only											
Project Name#: URS/Technology				Pin #: 36 5186352 015 084				Preservation Codes				QF #											
Project Manager: Rod Pendleton				PIC #								SCR #											
Sampler: 1 Mil V				PWSID #																			
Phone A				Quote #																			
State where samples were collected: ME				For Compliance: Yes No																			
Sample Identification		Date	Time	Site	Composite	Soil	Sediment	Probable	Plausible	Surface	Water	Other	Whole Body	Total # of Containers	Hg Total (BVA Method 1631) (uL/g)	Freezer	Remarks						
1	ADD-01_176N001_062317_TIN_01_WB	6/23/2017	1620	Grab								X			1		Target 2 grams <del>misc</del> Misc (2.0g)						
2	ADD-01_176N002_062317_TIN_02_WB	6/23/2017	1626	Grab								X			1		Misc 2.0g						
3	ADD-01_176N003_062317_TIN_03_WB	6/23/2017	1630	Grab								X			1		dragonfly 2.2g						
4	ADD-01_176N004_062317_TIN_04_WB	6/23/2017	1638	Grab								X			1		dragonfly 2.4g MS/MD						
5	ADD-01_17HC001_062317_TR_01_WB	6/23/2017	1120	Grab								X			1		Dross 1.4g						
6	ADD-01_17HC002_062317_TIN_05_WB MS	6/23/2017	1035	Grab								X			1		Extra volume from sample for MS/MD						
7	ADD-01_17HC003_062317_TIN_06_WB MD	6/23/2017	1638	Grab								X			1		Extra volume from sample for MS/MD						
8	ADD-01_17HC001_062317_SPL_01_W5	6/23/2017	1000	Grab								X			1		1.1g						
9	ADD-01_17HC001_062317_SPL_02_W5	6/23/2017	1030	Grab								X			1		0.9g						
10	ADD-01_17HC001_062317_SPL_03_W5	6/23/2017	1045	Grab								X			1		1.3g						
11	ADD-01_17HC001_062317_SPL_04_W5	6/23/2017	1100	Grab								X			1		1.1g						
12	ADD-01_17HC001_062317_SPL_05_W5	6/23/2017	1130	Grab								X			1		0.7g						
13	ADD-01_17HC001_062317_SPL_06_W5	6/23/2017	1100	Grab								X			1		Extra volume from sample for MS/MD						
14	ADD-01_17HC001_062317_SPL_07_W5 MD	6/23/2017	1035	Grab								X			1		Extra volume from sample for MS/MD						
Turnaround Time Requested (TAT) (rush 1-2)						Standard		Rush		Relinquished by		Date		Time		Received by		Date		Time			
(Rush 1-2 is subject to laboratory approval and surcharges.)										X-12		6-29-17		1600		[Signature]		6/29/17		9:50			
Notes:						Relinquished by		Date		Time		Received by		Date		Time		Received by		Date		Time	
FedEx # 810426642029						Relinquished by		Date		Time		Received by		Date		Time		Received by		Date		Time	
Sample disposal - Hold Equipment Boxes 1-4 until 30 days prior delivery of report. Report and EDC to: science@amecfl.com 1978692/2639						Relinquished by		Date		Time		Received by		Date		Time		Received by		Date		Time	
Data Package Options (please check if required)						Relinquished by Commercial Carrier		Date		Time		Received by		Date		Time		Received by		Date		Time	
High Speed						Relinquished by		Date		Time		Received by		Date		Time		Received by		Date		Time	
EDD Required? Yes No						Relinquished by		Date		Time		Received by		Date		Time		Received by		Date		Time	
If yes, format:						URS		FedEx		Other		Temperature upon receipt:		-33.8									

Seal intact



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	<b>Reported:</b> 31-Jul-17 13:27
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**ADD-01\_17BN001\_062317\_TIN\_01\_WB  
1706932-01**

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)	1.3	0.5	1.9	ng/g	500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	J
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	1.54	0.086	0.772	ng/g	20	F707327	11-Jul-17	7G14006	13-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:**  
31-Jul-17 13:27

**ADD-01\_17BN002\_062317\_TIN\_02\_WB  
1706932-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	8.2	0.5	1.9	ng/g	500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	11.5	0.086	0.769	ng/g	20	F707327	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:**  
31-Jul-17 13:27

**ADD-01\_17BN003\_062317\_TIN\_03\_WB  
1706932-03**

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)	29.8	0.4	1.7	ng/g	500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	41.8	0.082	0.733	ng/g	20	F707327	11-Jul-17	7G14006	13-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:**  
31-Jul-17 13:27

**ADD-01\_17BN004\_062317\_TIN\_04\_WB**  
**1706932-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	26.1	0.5	1.9	ng/g	500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	25.0	0.075	0.672	ng/g	20	F707327	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:**  
31-Jul-17 13:27

**ADD-01\_17HC002\_062317\_TIN\_05\_WB  
1706932-05**

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)	2.2	0.5	2.0	ng/g	500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	2.62	0.086	0.765	ng/g	20	F707327	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:**  
31-Jul-17 13:27

**ADD-01\_17HC001\_062317\_SPI\_01\_WB  
1706932-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	73.2	2.2	8.9	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	67.5	1.59	14.2	ng/g	400	F707326	11-Jul-17	7G14008	13-Jul-17	EPA 1631B	





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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**ADD-01\_17HC001\_062717\_SPI\_02\_WB  
1706932-07**

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)	59.5	2.4	9.5	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	51.2	1.73	15.5	ng/g	400	F707326	11-Jul-17	7G14008	13-Jul-17	EPA 1631B	
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Amy Goodall, Project Manager



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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**ADD-01\_17HC001\_062717\_SPI\_03\_WB  
1706932-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion</b>											
Methyl Mercury (as Mercury)	56.7	2.2	8.8	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	44.2	1.78	15.9	ng/g	400	F707327	11-Jul-17	7G14006	13-Jul-17	EPA 1631B	

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271 Mill Road  
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Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**ADD-01\_17HC002\_062717\_SPI\_04\_WB  
1706932-09**

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)	58.5	2.4	9.6	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	57.3	1.71	15.3	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:**  
31-Jul-17 13:27

**ADD-01\_17HC001\_062717\_SPI\_05\_WB  
1706932-10**

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)	50.4	2.8	11.2	ng/g	2500	F707394	19-Jul-17	7G28008	27-Jul-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	55.0	0.437	3.90	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:**  
31-Jul-17 13:27

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G14006 - F707327</b>											
<b>Cal Standard (7G14006-CAL1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.563	-		ng/L	0.50100		112				
<b>Cal Standard (7G14006-CAL2)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	1.054	-		ng/L	1.0020		105				
<b>Cal Standard (7G14006-CAL3)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	4.787	-		ng/L	5.0100		95.5				
<b>Cal Standard (7G14006-CAL4)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	18.52	-		ng/L	20.040		92.4				
<b>Cal Standard (7G14006-CAL5)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	37.49	-		ng/L	40.080		93.5				
<b>Calibration Blank (7G14006-CCB1)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.006	-		ng/L							
<b>Calibration Blank (7G14006-CCB2)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.012	-		ng/L							
<b>Calibration Blank (7G14006-CCB3)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.031	-		ng/L							
<b>Calibration Blank (7G14006-CCB4)</b>					Prepared & Analyzed: 13-Jul-17						
Mercury	0.025	-		ng/L							
<b>Calibration Blank (7G14006-CCB5)</b>					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: 31-Jul-17 13:27
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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
<b>Batch 7G14006 - F707327</b>											
<b>Calibration Blank (7G14006-CCB6)</b>											
Mercury	0.076	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14006-CCB7)</b>											
Mercury	0.080	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14006-CCB8)</b>											
Mercury	0.066	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14006-CCB9)</b>											
Mercury	0.049	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14006-CCBA)</b>											
Mercury	0.071	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Check (7G14006-CCV1)</b>											
Mercury	4.815	-		ng/L	5.0000		96.3	77-123			Prepared & Analyzed: 13-Jul-17
<b>Calibration Check (7G14006-CCV2)</b>											
Mercury	4.822	-		ng/L	5.0000		96.4	77-123			Prepared & Analyzed: 13-Jul-17
<b>Calibration Check (7G14006-CCV3)</b>											
Mercury	4.819	-		ng/L	5.0000		96.4	77-123			Prepared & Analyzed: 13-Jul-17
<b>Calibration Check (7G14006-CCV4)</b>											
Mercury	4.734	-		ng/L	5.0000		94.7	77-123			Prepared & Analyzed: 13-Jul-17
<b>Calibration Check (7G14006-CCV5)</b>											
Mercury	4.863	-		ng/L	5.0000		97.3	77-123			Prepared & Analyzed: 13-Jul-17

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 13:27

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			
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Calibration Check (7G14006-CCV7) Prepared & Analyzed: 13-Jul-17

Mercury	4.950	-		ng/L	5.0000		99.0	77-123			
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Calibration Check (7G14006-CCV8) Prepared & Analyzed: 13-Jul-17

Mercury	4.907	-		ng/L	5.0000		98.1	77-123			
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Calibration Check (7G14006-CCV9) Prepared & Analyzed: 13-Jul-17

Mercury	4.918	-		ng/L	5.0000		98.4	77-123			
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Calibration Check (7G14006-CCVA) Prepared & Analyzed: 13-Jul-17

Mercury	4.905	-		ng/L	5.0000		98.1	77-123			
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Instrument Blank (7G14006-IBL1) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14006-IBL2) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14006-IBL3) Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G14006-ICV1) Prepared & Analyzed: 13-Jul-17

Mercury	4.939	-		ng/L	5.0000		98.8	79-121			
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Batch 7G14008 - F707326

Cal Standard (7G14008-CAL1) Prepared & Analyzed: 13-Jul-17

Mercury	0.548	-		ng/L	0.50100		109				
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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:**  
31-Jul-17 13:27

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G14008 - F707326</b>											
<b>Cal Standard (7G14008-CAL2)</b>											
Mercury	1.072	-		ng/L	1.0020		107				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL3)</b>											
Mercury	4.837	-		ng/L	5.0100		96.6				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL4)</b>											
Mercury	18.66	-		ng/L	20.040		93.1				Prepared & Analyzed: 13-Jul-17
<b>Cal Standard (7G14008-CAL5)</b>											
Mercury	37.32	-		ng/L	40.080		93.1				Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB1)</b>											
Mercury	0.034	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB2)</b>											
Mercury	0.032	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB3)</b>											
Mercury	0.024	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB4)</b>											
Mercury	0.047	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB5)</b>											
Mercury	0.077	-		ng/L							Prepared & Analyzed: 13-Jul-17
<b>Calibration Blank (7G14008-CCB6)</b>											
Mercury	0.040	-		ng/L							Prepared & Analyzed: 13-Jul-17

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 13:27

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 7G14008 - F707326

<b>Calibration Blank (7G14008-CCB7)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.122	-		ng/L							
<b>Calibration Blank (7G14008-CCB8)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.121	-		ng/L							
<b>Calibration Blank (7G14008-CCB9)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	0.160	-		ng/L							
<b>Calibration Check (7G14008-CCV1)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.829	-		ng/L	5.0000		96.6	77-123			
<b>Calibration Check (7G14008-CCV2)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.884	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (7G14008-CCV3)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	5.048	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G14008-CCV4)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.911	-		ng/L	5.0000		98.2	77-123			
<b>Calibration Check (7G14008-CCV5)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.948	-		ng/L	5.0000		99.0	77-123			
<b>Calibration Check (7G14008-CCV6)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	4.886	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (7G14008-CCV7)</b>											
Prepared & Analyzed: 13-Jul-17											
Mercury	5.100	-		ng/L	5.0000		102	77-123			

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 13:27

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 7G14008 - F707326

Calibration Check (7G14008-CCV8)

Prepared & Analyzed: 13-Jul-17

Mercury	5.081	-		ng/L	5.0000		102	77-123			
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Calibration Check (7G14008-CCV9)

Prepared & Analyzed: 13-Jul-17

Mercury	5.216	-		ng/L	5.0000		104	77-123			
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Instrument Blank (7G14008-IBL1)

Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14008-IBL2)

Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G14008-IBL3)

Prepared & Analyzed: 13-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G14008-ICV1)

Prepared & Analyzed: 13-Jul-17

Mercury	4.970	-		ng/L	5.0000		99.4	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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Cal Standard (7G19019-CAL3)

Prepared & Analyzed: 18-Jul-17

Mercury	5.086	-		ng/L	5.0100		102				
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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 13:27

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

<b>Cal Standard (7G19019-CAL4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	19.23	-		ng/L	20.040		95.9				
<b>Cal Standard (7G19019-CAL5)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	38.49	-		ng/L	40.080		96.0				
<b>Calibration Blank (7G19019-CCB1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.074	-		ng/L							
<b>Calibration Blank (7G19019-CCB2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.106	-		ng/L							
<b>Calibration Blank (7G19019-CCB3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.169	-		ng/L							
<b>Calibration Blank (7G19019-CCB4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	0.511	-		ng/L							
<b>Calibration Check (7G19019-CCV1)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.030	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7G19019-CCV2)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.178	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7G19019-CCV3)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.258	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7G19019-CCV4)</b>					Prepared & Analyzed: 18-Jul-17						
Mercury	5.931	-		ng/L	5.0000		119	77-123			

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Project Manager: Denise King

Reported:  
31-Jul-17 13:27

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

Instrument Blank (7G19019-IBL1) Prepared & Analyzed: 18-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G19019-IBL2) Prepared & Analyzed: 18-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Instrument Blank (7G19019-IBL3) Prepared & Analyzed: 18-Jul-17											
Mercury	ND	0.004	0.040	ng/L							U
Initial Cal Check (7G19019-ICV1) Prepared & Analyzed: 18-Jul-17											
Mercury	5.365	-		ng/L	5.0000		107	79-121			

Batch 7G28008 - F707394

Cal Standard (7G28008-CAL1) Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		88.9				
Cal Standard (7G28008-CAL2) Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		94.3				
Cal Standard (7G28008-CAL3) Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		110				
Cal Standard (7G28008-CAL4) Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		102				
Cal Standard (7G28008-CAL5) Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	4.2	-		ng/L	4.0040		104				

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Project Manager: Denise King

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31-Jul-17 13:27

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7G28008 - F707394</b>											
<b>Calibration Blank (7G28008-CCB1)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G28008-CCB2)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G28008-CCB3)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G28008-CCB4)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7G28008-CCB5)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7G28008-CCB6)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G28008-CCB7)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Check (7G28008-CCV1)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		94.2	67-133			
<b>Calibration Check (7G28008-CCV2)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133			
<b>Calibration Check (7G28008-CCV3)</b> Prepared & Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		91.5	67-133			

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**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 7G28008 - F707394**

**Calibration Check (7G28008-CCV4)**

Prepared & Analyzed: 27-Jul-17

Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.4	67-133			
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**Calibration Check (7G28008-CCV5)**

Prepared & Analyzed: 27-Jul-17

Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.0	67-133			
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**Calibration Check (7G28008-CCV6)**

Prepared & Analyzed: 27-Jul-17

Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		76.4	67-133			
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**Calibration Check (7G28008-CCV7)**

Prepared & Analyzed: 27-Jul-17

Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		73.7	67-133			
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**Instrument Blank (7G28008-IBL1)**

Prepared & Analyzed: 27-Jul-17

Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
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**Initial Cal Blank (7G28008-ICB1)**

Prepared & Analyzed: 27-Jul-17

Methyl Mercury (as Mercury)	0.004	-		ng/L							
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**Initial Cal Check (7G28008-ICV1)**

Prepared & Analyzed: 27-Jul-17

Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		98.3	69-131			
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**Batch 7G28017 - F707391**

**Cal Standard (7G28017-CAL1)**

Prepared & Analyzed: 28-Jul-17

Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		93.2				
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**Cal Standard (7G28017-CAL2)**

Prepared & Analyzed: 28-Jul-17

Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		92.7				
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Project Number: 2017 Penobscot Biota  
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 7G28017 - F707391

<b>Cal Standard (7G28017-CAL3)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		105				
<b>Cal Standard (7G28017-CAL4)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		98.9				
<b>Cal Standard (7G28017-CAL5)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		110				
<b>Calibration Blank (7G28017-CCB1)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7G28017-CCB2)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7G28017-CCB3)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							
<b>Calibration Blank (7G28017-CCB4)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.006	-		ng/L							
<b>Calibration Check (7G28017-CCV1)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.1	67-133			
<b>Calibration Check (7G28017-CCV2)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		83.4	67-133			
<b>Calibration Check (7G28017-CCV3)</b>					Prepared & Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		79.3	67-133			

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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:**  
31-Jul-17 13:27

**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 7G28017 - F707391**

**Calibration Check (7G28017-CCV4)**

Prepared & Analyzed: 28-Jul-17

Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		83.8	67-133			
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**Instrument Blank (7G28017-IBL1)**

Prepared & Analyzed: 28-Jul-17

Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
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**Initial Cal Blank (7G28017-ICB1)**

Prepared & Analyzed: 28-Jul-17

Methyl Mercury (as Mercury)	0.009	-		ng/L							
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**Initial Cal Check (7G28017-ICV1)**

Prepared & Analyzed: 28-Jul-17

Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.2	69-131			
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**Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion**

**Blank (F707326-BLK1)**

Prepared: 11-Jul-17 Analyzed: 13-Jul-17

Mercury	ND	0.090	0.800	ng/g							U
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**Blank (F707326-BLK2)**

Prepared: 11-Jul-17 Analyzed: 13-Jul-17

Mercury	ND	0.090	0.800	ng/g							U
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**Blank (F707326-BLK3)**

Prepared: 11-Jul-17 Analyzed: 13-Jul-17

Mercury	ND	0.090	0.800	ng/g							U
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**Blank (F707326-BLK4)**

Prepared: 11-Jul-17 Analyzed: 13-Jul-17

Mercury	ND	0.088	0.782	ng/g							F-03, U
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**Blank (F707326-BLK5)**

Prepared: 11-Jul-17 Analyzed: 13-Jul-17

Mercury	ND	0.086	0.770	ng/g							F-03, 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: 31-Jul-17 13:27
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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
<b>Batch F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F707326-BLK6)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.085	0.762	ng/g							F-03, U
<b>Blank (F707326-BLK7)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	ND	0.085	0.760	ng/g							F-03, U
<b>Blank (F707326-BLK8)</b> Prepared: 11-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.195	0.045	0.400	ng/g							J
<b>Blank (F707326-BLK9)</b> Prepared: 11-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.098	0.045	0.400	ng/g							J
<b>Blank (F707326-BLKA)</b> Prepared: 11-Jul-17 Analyzed: 18-Jul-17											
Mercury	0.078	0.045	0.400	ng/g							J
<b>LCS (F707326-BS1)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	7.533	0.090	0.800	ng/g	8.0160		94.0	75-125			
<b>LCS Dup (F707326-BSD1)</b> Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	7.797	0.090	0.800	ng/g	8.0160		97.3	75-125	3.45	24	
<b>Duplicate (F707326-DUP2)</b> Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	50.07	0.078	0.693	ng/g		49.71			0.735	24	AD
<b>Duplicate (F707326-DUP3)</b> Source: 1706929-05 Prepared: 11-Jul-17 Analyzed: 18-Jul-17											
Mercury	94.87	0.218	1.94	ng/g		49.71			62.5	24	QR-07
<b>Matrix Spike (F707326-MS1)</b> Source: 1706930-01RE1 Prepared: 11-Jul-17 Analyzed: 13-Jul-17											
Mercury	696.3	1.52	13.6	ng/g	680.94	71.71	91.7	71-125			

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**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 F707326 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike (F707326-MS2)</b>		<b>Source: 1706930-06</b>		Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	602.0	1.68	15.0	ng/g	375.70 278.4 86.1 71-125
<b>Matrix Spike Dup (F707326-MSD1)</b>		<b>Source: 1706930-01RE1</b>		Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	689.6	1.56	13.9	ng/g	696.32 71.71 88.7 71-125 3.30 24
<b>Matrix Spike Dup (F707326-MSD2)</b>		<b>Source: 1706930-06</b>		Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	584.3	1.62	14.5	ng/g	362.65 278.4 84.4 71-125 2.06 24

**Batch F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F707327-BLK1)</b>				Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	0.102	0.090	0.800	ng/g	J
<b>Blank (F707327-BLK2)</b>				Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	ND	0.090	0.800	ng/g	U
<b>Blank (F707327-BLK3)</b>				Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	0.160	0.090	0.800	ng/g	J
<b>LCS (F707327-BS1)</b>				Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	7.484	0.090	0.800	ng/g	8.0160 93.4 75-125
<b>LCS Dup (F707327-BSD1)</b>				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
<b>Duplicate (F707327-DUP1)</b>		<b>Source: 1706931-04RE1</b>		Prepared: 11-Jul-17 Analyzed: 13-Jul-17	
Mercury	18.29	0.087	0.779	ng/g	11.59 44.8 24 QR-07

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**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 F707327 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Duplicate (F707327-DUP2)</b>		<b>Source: 1706931-04RE1</b>		Prepared: 11-Jul-17 Analyzed: 13-Jul-17							
Mercury	11.43	0.087	0.776	ng/g		11.59			1.42	24	AD
<b>Matrix Spike (F707327-MS1)</b>		<b>Source: 1706932-04</b>		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			
<b>Matrix Spike (F707327-MS2)</b>		<b>Source: 1706932-05</b>		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			
<b>Matrix Spike Dup (F707327-MSD1)</b>		<b>Source: 1706932-04</b>		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	
<b>Matrix Spike Dup (F707327-MSD2)</b>		<b>Source: 1706932-05</b>		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	

**Batch F707394 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F707394-BLK1)</b>				Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLK2)</b>				Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLK3)</b>				Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLK4)</b>				Prepared: 19-Jul-17 Analyzed: 27-Jul-17							
Methyl Mercury (as Mercury)	ND	0.4	1.4	ng/g							F-03, U

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
31-Jul-17 13:27

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F707394 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F707394-BLK5)</b> Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	ND	0.4	1.4	ng/g							F-03, U
<b>Blank (F707394-BLK6)</b> Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.4	ng/g							F-03, U
<b>Blank (F707394-BLK7)</b> Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.3	ng/g							F-03, U
<b>Blank (F707394-BLK8)</b> Prepared: 19-Jul-17 Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLK9)</b> Prepared: 19-Jul-17 Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F707394-BLKA)</b> Prepared: 19-Jul-17 Analyzed: 28-Jul-17											
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F707394-BS1)</b> Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	263.8	2.0	8.0	ng/g	331.60		79.5	70-130			
<b>LCS Dup (F707394-BSD1)</b> Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	247.9	2.0	8.0	ng/g	329.49		75.2	70-130	5.56	25	
<b>Duplicate (F707394-DUP1)</b> Source: 1706931-05 Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	50.1	0.4	1.8	ng/g		49.5			1.12	35	
<b>Matrix Spike (F707394-MS1)</b> Source: 1706932-04 Prepared: 19-Jul-17 Analyzed: 27-Jul-17											
Methyl Mercury (as Mercury)	42.4	0.4	1.8	ng/g	35.737	26.1	45.6	65-130			QM-07

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Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
31-Jul-17 13:27

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 F707394 - EFGS-010 KOH/Methanol Hg Digestion

<b>Matrix Spike (F707394-MS2)</b>		<b>Source: 1706932-02</b>			Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	39.4	0.4	1.7	ng/g	33.512	8.2	93.2	65-130			
<b>Matrix Spike (F707394-MS3)</b>		<b>Source: 1706932-04</b>			Prepared: 19-Jul-17 Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	91.6	0.5	1.9	ng/g	74.093	26.1	88.4	65-130			AS
<b>Matrix Spike Dup (F707394-MSD1)</b>		<b>Source: 1706932-04</b>			Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	45.8	0.5	1.9	ng/g	37.074	26.1	53.1	65-130	15.2	35	QM-07
<b>Matrix Spike Dup (F707394-MSD2)</b>		<b>Source: 1706932-02</b>			Prepared: 19-Jul-17 Analyzed: 27-Jul-17						
Methyl Mercury (as Mercury)	45.0	0.5	1.8	ng/g	36.506	8.2	101	65-130	8.06	35	
<b>Matrix Spike Dup (F707394-MSD3)</b>		<b>Source: 1706932-04</b>			Prepared: 19-Jul-17 Analyzed: 28-Jul-17						
Methyl Mercury (as Mercury)	86.3	0.5	1.9	ng/g	74.093	26.1	81.3	65-130	8.47	35	AS

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 Project Number: 2017 Penobscot Biota  
 Project Manager: Denise King

**Reported:**  
 31-Jul-17 13:27

**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.
- QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- 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.
- 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.
- 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 7:27:46	70922-1.RAW	7:27:46 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	1706930-07	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	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	169.92	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	8:50:35 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			104.9	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	24.491	569.829	ng/L	
Hg2600-3	DM2	SAM	1706932-05	20	7/13/2017 9:11:18	70947-1.RAW	9:11:18 AM	1896.09	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	139.50	1			137.9	1.385	554.595	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:23:43	70950-1.RAW	9:23:43 AM	187.81	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 9:36:09	70953-1.RAW	9:36:09 AM	701.78	1			700.2	7.041	704.125	ng/L	
Hg2600-3	DM2	SAM	1706933-02	100	7/13/2017 9:40:18	70954-1.RAW	9:40:18 AM	4312.33	1			4310.8	43.612	4341.163	ng/L	
Hg2600-3	DM2	SAM	1706933-03	100	7/13/2017 9:44:27	70955-1.RAW	9:44:27 AM	830.71	1			829.2	8.340	834.010	ng/L	
Hg2600-3	DM2	SAM	1706933-04	20	7/13/2017 9:48:36	70956-1.RAW	9:48:36 AM	3737.77	1			3736.2	37.926	3792.612	ng/L	
Hg2600-3	DM2	SAM	1706933-07	100	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	1706933-08	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	1706933-09	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	1706933-04	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	BLK	F707328-BLK1	20	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-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	0.083	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	471.57	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-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	4589.00	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 11:59:01	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			21277.9	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	484.29				483.7	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	22741.129	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	1706934-06	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	1864.734	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-DUP1	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 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	F70732-BL1	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	6.75				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 Thg26003-17073 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			98.79		70827-1.RAW	7:48:30	3722.97	Sample	FB	1
F707327-BLK1	A10	20	1	1.55	1.27					70828-1.RAW	7:52:38	491.90	Sample	OK	1
F707327-BLK2	A11	20	1	1.55	0.42					70829-1.RAW	7:56:46	7.85	Sample	OK	1
F707327-BLK3	A12	20	1	1.55	2.00					70830-1.RAW	8:00:55	3.69	Sample	OK	1
F707327-BSD1	B1	20	1	1.55	91.78					70831-1.RAW	8:05:03	11.48	Sample	OK	1
F707327-BSD2	B2	20	1	1.55	94.42					70832-1.RAW	8:09:12	472.03	Sample	OK	1
1706930-04	B3	100	1	1.55	30.09					70833-1.RAW	8:13:20	470.19	Sample	OK	1
1706930-05	B4	100	1	1.55	250.82					70834-1.RAW	8:17:29	39.95	Sample	OK	1
1706930-07	B5	100	1	1.55	6718.51					70835-1.RAW	8:21:37	290.25	Sample	OK	1
1706931-03	B6	100	1	1.55	523.55					70836-1.RAW	8:25:45	8871.14	Sample	FB	1
1706931-04	B7	100	1	1.55	166.80					70837-1.RAW	8:29:54	521.29	Sample	OK	1
SEQ-CCV1	B8	1	1	1.55	4.32			96.33		70838-1.RAW	8:34:02	109.92	Sample	OK	1
SEQ-CCB1	B9	1	1	1.55	0.07			0.00		70839-1.RAW	8:38:11	479.55	Sample	OK	1
1706931-06	B10	400	1	1.55	5163.44					70840-1.RAW	8:42:19	2.18	Sample	OK	1
1706931-07	B11	400	1	1.55	3907.03					70841-1.RAW	8:46:28	1283.01	Sample	OK	1
1706931-08	B12	400	1	1.55	4188.03					70842-1.RAW	8:50:36	971.18	Sample	OK	1
1706932-01	C1	20	1	1.55	21.13					70843-1.RAW	8:54:44	1035.97	Sample	OK	1
1706932-02	C2	20	1	1.55	150.38					70844-1.RAW	8:58:53	103.42	Sample	OK	1
1706932-03	C3	20	1	1.55	571.06					70845-1.RAW	9:03:01	747.99	Sample	OK	1
1706932-04	C4	20	1	1.55	373.63					70846-1.RAW	9:07:10	2636.06	Sample	OK	1
1706932-05	C5	20	1	1.55	35.51					70847-1.RAW	9:11:18	1856.09	Sample	OK	1
1706932-06	C6	400	1	1.55	555.83					70848-1.RAW	9:15:26	177.80	Sample	OK	1
1706932-08	C8	400	1	1.55	730.80					70849-1.RAW	9:19:35	139.50	Sample	OK	1
1706932-09	C7	400	1	1.55	730.80					70850-1.RAW	9:23:43	167.84	Sample	OK	1
SEQ-CCV2	C8	1	1	1.55	4.82			96.45		70851-1.RAW	9:27:52	480.28	Sample	OK	1
SEQ-CCB2	C9	1	1	1.55	0.01			0.00		70852-1.RAW	9:32:00	2.76	Sample	OK	1
1706932-10	C10	100	1	1.55	705.36					70853-1.RAW	9:36:08	701.78	Sample	OK	1
1706933-01	C11	100	1	1.55	4342.40					70854-1.RAW	9:40:16	4312.53	Sample	OK	1
1706933-02	C12	100	1	1.55	835.24					70855-1.RAW	9:44:24	300.71	Sample	OK	1
1706933-03	D1	100	1	1.55	3793.85					70856-1.RAW	9:48:32	6757.77	Sample	FB	1
1706930-04RE1	D2	20	1	1.55	42.06					70857-1.RAW	10:00:14	210.33	Sample	OK	1
1706930-07RE1	D3	400	1	1.55	8860.89					70858-1.RAW	10:04:23	1704.26	Sample	OK	1
1706931-03RE1	D4	100	1	1.55	515.12					70859-1.RAW	10:08:31	512.92	Sample	OK	1
1706931-04RE1	D5	20	1	1.55	150.57					70860-1.RAW	10:12:40	748.93	Sample	OK	1
F707327-DUP1	D6	20	1	1.55	235.83					70861-1.RAW	10:16:48	1172.14	Sample	OK	1
F707327-MS1	D7	400	1	1.55	4456.02			1881.48		70862-1.RAW	10:20:56	1107.45	Sample	OK	1
SEQ-CCV3	D8	1	1	1.55	4.82			96.38		70863-1.RAW	10:25:05	479.95	Sample	OK	1
SEQ-CCB3	D9	1	1	1.55	0.03			0.00		70864-1.RAW	10:29:13	4.80	Sample	OK	1
F707327-MSU1	D10	400	1	1.55	4544.86					70865-1.RAW	10:33:22	1129.52	Sample	OK	1
F707327-MS2	D11	400	1	1.55	4930.77			94.58		70866-1.RAW	10:37:30	1008.92	Sample	OK	1
F707327-MSD2	D12	400	1	1.55	4055.69					70867-1.RAW	10:41:38	1008.09	Sample	OK	1
1706933-01RE1	A1	400	1	1.55	4535.12					70868-1.RAW	10:45:47	1077.44	Sample	OK	1
1706933-02RE1	A2	100	1	1.55	793.03					70869-1.RAW	10:49:55	791.78	Sample	OK	1
F707328-BLK1	A3	20	1	1.55	0.36					70870-1.RAW	10:54:04	8.45	Sample	OK	1
F707328-BLK2	A4	20	1	1.55	0.88					70871-1.RAW	10:58:12	6.43	Sample	OK	1
F707328-BLK3	A5	20	1	1.55	0.67					70872-1.RAW	11:02:21	4.67	Sample	OK	1
F707328-RS1	A6	20	1	1.55	94.22					70873-1.RAW	11:06:29	439.21	Sample	OK	1
F707328-BSD1	A7	20	1	1.55	93.24					70874-1.RAW	11:10:37	464.36	Sample	OK	1
SEQ-CCV4	A8	1	1	1.55	4.73			94.63		70875-1.RAW	11:14:45	471.51	Sample	OK	1
SEQ-CCB4	A9	1	1	1.55	0.03			0.00		70876-1.RAW	11:18:54	4.03	Sample	OK	1

F707327-DUP2	A10	20	1.55	148.47			
1706933-04	A11	100	1.55	11703.95			
1706933-05	A12	100	1.55	8199.30			
1706933-08	B1	100	1.55	8145.30			
1706933-07	B2	100	1.55	8471.35			
1706933-08	B3	100	1.55	4632.07			
1706933-09	B4	100	1.55	3981.02			
1706933-10	B5	100	1.55	12243.79			
1706933-11	B8	100	1.55	9568.03			
clean			0.00	0.11			
ws			1.55	0.20			
1706935-12	B7	100	1.55	21434.01			
clean			0.00	0.17			
ws			1.55	0.27			
ws			1.55	0.10			
SEQ-CCV5	B8	1	1.55	4.08	97.26		
SEQ-CCD5	B9	1	1.55	0.08	0.00		
1706934-01	B10	400	1.55	541.45			
1706935-02	B11	400	1.55	18228.91			
1706933-04RE1	B12	400	1.55	11752.28			
1706933-05RE1	C1	400	1.55	6273.39			
1706933-06RE1	C2	400	1.55	5229.97			
1706933-07RE1	C3	400	1.55	8428.12			
1706933-08RE1	C4	400	1.55	4525.05			
1706933-09RE1	C5	400	1.55	4400.37			
1706933-10RE1	C8	400	1.55	12577.30			
1706933-11RE1	C7	400	1.55	9918.58			
SEQ-CCV6	C9	1	1.55	4.97	98.42		
SEQ-CCB6	C9	1	1.55	0.08	0.00		
1706933-12RE1	C10	1000	1.55	22742.14			
1706935-02RE1	C11	1000	1.55	19930.16			
1706935-04RE2	C12	400	1.55	17189.63			
1706934-02	D1	400	1.55	24124.16			
1706934-03	D2	400	1.55	6807.96			
1706934-04	D3	400	1.55	3509.94			
1706934-05	D4	400	1.55	10813.17			
1706935-03	D8	1000	1.55	17710.21			
1706935-04	D8	1000	1.55	7207.54			
1706935-05	D7	1000	1.55	17213.48			
SEQ-CCV7	D8	1	1.55	4.95	99.01		
SEQ-CCP7	D8	1	1.55	0.08	0.00		
1706935-06	D10	1000	1.55	1865.75			
1706935-07	D11	1000	1.55	5081.79			
1706934-02RE1	D12	1000	1.55	24033.41			
1706934-03RE1	A1	400	1.55	6841.65			
F707328-DUP1	A2	400	1.55	1250.13			
F707328-MS1	A3	400	1.55	9921.03	792.57		
F707328-MSD1	A4	400	1.55	10392.67			
F707328-MS2	A5	400	1.55	5170.62	49.74		
F707328-MSD2	A6	400	1.55	5457.62			
F707323-DUP2	A8	400	1.55	6571.48			
SEQ-CCV8	A7	1	1.55	4.91	99.14		
SEQ-CCB8	A8	1	1.55	0.07	0.00		
F707372-BLK1	A10	1	1.55	0.01			
F707372-BLK2	A11	1	1.55	0.02			
F707372-BLK3	A12	1	1.55	0.03			
F707372-BLK4	B1	1	1.55	0.02			
F707372-BLK5	B2	1	1.55	0.03			
F707372-BLK6	B3	1	1.55	0.05			
F707372-BLK7	B4	1	1.55	0.02			
F707372-BLK8	B5	1	1.55	0.02			
F707372-BLK9	B6	1	1.55	0.02			
F707372-BS1	B7	1	1.55	14.93			
SEQ-CCV9	B8	1	1.55	4.92	98.35		
SEQ-CCB9	B9	1	1.55	0.05	0.00		
F707328-MS3	B10	1000	1.55	24793.38	813082.28		
F707328-MSD3	B11	1000	1.55	24773.42			
70977-1	RAW						
70978-1	RAW			11:23:03	738.46	Sample	OK
70979-1	RAW			11:27:11	11620.28	Sample	FB
70980-1	RAW			11:31:19	6154.72	Sample	OK
70981-1	RAW			11:35:28	6102.11	Sample	OK
70982-1	RAW			11:39:36	8419.23	Sample	OK
70983-1	RAW			11:43:45	4589.80	Sample	FB
70984-1	RAW			11:47:53	3953.59	Sample	OK
70985-1	RAW			11:52:02	12150.19	Sample	FB
70986-1	RAW			11:56:10	9499.92	Sample	FB
70987-1	RAW			11:59:01	11.12	Clean	OK
70988-1	RAW			12:03:10	21.59	Sample	OK
70989-1	RAW			12:07:18	21279.50	Sample	FB
70990-1	RAW			12:10:10	17.01	Clean	OK
70991-1	RAW			12:14:18	28.76	Sample	OK
70992-1	RAW			12:18:26	11.36	Sample	OK
70993-1	RAW			12:22:35	484.26	Sample	OK
70994-1	RAW			12:26:43	9.94	Sample	OK
70995-1	RAW			12:30:52	138.88	Sample	OK
70996-1	RAW			12:35:00	4325.60	Sample	FB
70997-1	RAW			12:39:08	2518.23	Sample	FB
70998-1	RAW			12:43:17	1658.48	Sample	OK
70999-1	RAW			12:47:25	1547.71	Sample	OK
71000-1	RAW			12:51:34	2083.24	Sample	OK
71001-1	RAW			12:55:42	1124.58	Sample	OK
71002-1	RAW			12:59:51	1093.64	Sample	OK
71003-1	RAW			13:03:59	3122.98	Sample	OK
71004-1	RAW			13:08:07	2463.14	Sample	FB
71005-1	RAW			13:12:16	495.05	Sample	OK
71006-1	RAW			13:16:24	9.05	Sample	OK
71007-1	RAW			13:20:33	2259.21	Sample	OK
71008-1	RAW			13:24:41	1090.71	Sample	FB
71009-1	RAW			13:28:49	3026.77	Sample	FB
71010-1	RAW			13:32:58	5588.88	Sample	FB
71011-1	RAW			13:37:08	1881.15	Sample	FB
71012-1	RAW			13:41:15	872.95	Sample	OK
71013-1	RAW			13:45:23	2685.18	Sample	OK
71014-1	RAW			13:49:32	1759.68	Sample	OK
71015-1	RAW			13:53:40	716.57	Sample	OK
71016-1	RAW			13:57:48	710.37	Sample	OK
71017-1	RAW			14:01:57	492.69	Sample	OK
71018-1	RAW			14:06:05	9.48	Sample	OK
71019-1	RAW			14:10:14	198.77	Sample	OK
71020-1	RAW			14:14:22	605.30	Sample	OK
71021-1	RAW			14:18:30	2387.36	Sample	OK
71022-1	RAW			14:22:39	1649.68	Sample	OK
71023-1	RAW			14:26:47	511.81	Sample	OK
71024-1	RAW			14:30:55	2493.75	Sample	OK
71025-1	RAW			14:35:04	2580.80	Sample	OK
71026-1	RAW			14:39:13	1284.80	Sample	OK
71027-1	RAW			14:43:22	1356.02	Sample	OK
71028-1	RAW			14:47:30	1582.57	Sample	OK
71029-1	RAW			14:51:39	488.70	Sample	OK
71030-1	RAW			14:55:47	8.13	Sample	OK
71031-1	RAW			14:59:56	2.79	Sample	OK
71032-1	RAW			15:04:04	3.46	Sample	OK
71033-1	RAW			15:08:13	4.30	Sample	OK
71034-1	RAW			15:12:21	3.69	Sample	OK
71035-1	RAW			15:16:30	7.45	Sample	OK
71036-1	RAW			15:20:38	5.14	Sample	OK
71037-1	RAW			15:24:46	3.37	Sample	OK
71038-1	RAW			15:28:55	3.82	Sample	OK
71039-1	RAW			15:33:03	0.00	Sample	NP
71040-1	RAW			15:37:12	1464.74	Sample	OK
71041-1	RAW			15:41:20	489.72	Sample	OK
71042-1	RAW			15:45:29	6.45	Sample	OK
71043-1	RAW			15:49:37	2467.84	Sample	OK
71044-1	RAW			15:53:45	2480.85	Sample	OK

F707372-BSD1	B12	1	1.55	15.19	71044-1.RAW	15:57.54	1509.32	Sample	OK	1
1706469-06	C1	10	1.55	30.17	71045-1.RAW	16:02.02	301.06	Sample	OK	1
1707148-01	C2	1	1.55	0.38	71046-1.RAW	16:06.11	39.37	Sample	OK	1
1707148-02	C3	1	1.55	0.08	71047-1.RAW	16:10.19	9.81	Sample	OK	1
1707292-01	C4	1	1.55	2.19	71048-1.RAW	16:14.28	216.13	Sample	OK	1
1707292-02	C5	1	1.55	0.03	71049-1.RAW	16:18.36	4.60	Sample	OK	1
F707372-DUP1	C6	1	1.55	2.23	71050-1.RAW	16:22.44	223.41	Sample	OK	1
F707372-MS1	C7	1	1.55	10.93	71051-1.RAW	16:26.53	1086.11	Sample	OK	1
SEQ-CCVA	C8	1	1.55	4.91	71052-1.RAW	16:31.01	489.50	Sample	OK	1
SEQ-CCBA	C9	1	1.55	0.07	71053-1.RAW	16:35.10	8.64	Sample	OK	1
F707372-MSD1	C10	1	1.55	11.08	71054-1.RAW	16:39.18	1101.19	Sample	OK	1
SEQ-CCVB	C11	1	1.55	4.89	71055-1.RAW	16:43.26	485.62	Sample	OK	1
SEQ-CCB3	C12	1	1.55	0.05	71056-1.RAW	16:47.35	5.95	Sample	OK	1


337.73

**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	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

  
 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	ISID 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

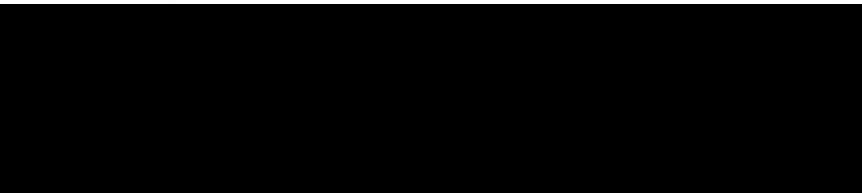
**Eurofins Frontier Global Sciences, Inc.**

**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_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_BI	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_BI	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	50.5 104	1024715	100			IX
F707372-BSD1	LCS Dup	50 100	50.5 104	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



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	<del>101</del> 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%;">                     ALL 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: \_\_\_\_\_  
\_\_\_\_\_

Reviewed  
2/28/17  
DM

# 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: 48px; 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: \_\_\_\_\_

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)	<del>300</del> <sup>20</sup> 10.00	<del>3.00</del> <sup>20</sup> 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  
*[Signature]*  
 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~~ <sup>cc</sup> ~~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 <sup>CIC</sup> <sub>7/12/17</sub>	0.25	20	1702555	20			20X
F707327-DUP1	Duplicate [ <del>1706932-04</del> ] 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 - FITA*

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~~ <sup>7/11/2017</sup>  
7/12/17 <sup>CLL</sup>



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/CH<sub>2</sub>Cl<sub>2</sub>: 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 <sup>cell</sup> 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  
 HNO<sub>3</sub> 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	<del>1706932-06</del>	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
10	F707327-MSD2	0.2684	32			1706931-04
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	<del>1706931-05</del>	<del>0.2577</del>	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			

*CL/DH*  
*7/11/17*  
*MS1/MSD1*  
*SRC: 1706932-04*  
*MS2/MSD2*  
*SRC: 1706932-05*  
*Dup SRC*  
*1706931-04*  
*BS/BSD spiked*  
*20ul of 100ug/ml*  
*1702555*  
*CL/DH*  
*7/12/17*



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 <del>1706933-06</del> <sup>7/13/17</sup>	0.25	20	1702555	20			20X
F707328-DUP1	Duplicate [ <del>1706933-06</del> ] <sup>7/13/17</sup> 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

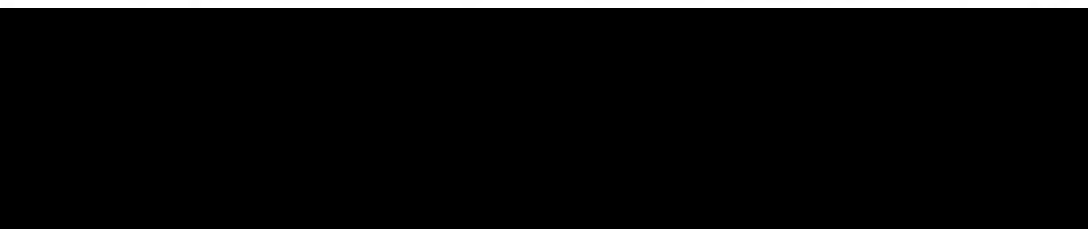
Eurofins Frontier Global Sciences, Inc.

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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> 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  
 HNO<sub>3</sub> 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: <u>DON MORAN</u>	Sequence(s) #: <u>7G14006 7G14007</u>
Reviewer: <u>[Signature]</u>	Dataset ID(s): <u>THG26003-170713-1</u>
Date: <u>7/14/2017</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F707372, F707327, F707328</u>	

• 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: 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? | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/>                              |
| Naming convention: THg26001-yyymmdd-1 or THg26002-yyymmdd-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 (expiration).            | <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 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 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 2800 CV-AFS (SOP2822) 2016 Rev 1 (04/1/2016)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	<i>[Signature]</i> 7/14/17	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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     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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G14006, 7G14007
<b>Reviewer:</b>	<i>[Signature]</i>	<b>Dataset ID(s):</b>	THG26003-170713-1
<b>Date:</b>	7/14/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	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 13, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7G14008, 7G14009

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	180.35 units	360.70	166.42 units	332.85	109.5 %Rec
SEQ-CAL2	1	1.00 ng/L	339.69 units	339.69	325.77 units	325.77	107.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1484.36 units	296.87	1470.43 units	294.09	96.7 %Rec
SEQ-CAL4	1	20.00 ng/L	5684.88 units	284.24	5670.95 units	283.55	93.3 %Rec
SEQ-CAL5	1	40.00 ng/L	11357.43 units	283.94	11343.51 units	283.59	93.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>
303.97	+/- 23.66	7.8% RSD	313.09

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	13.92 units	±1.92	0.04 ng/L	±0.01

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.006 ng/L	±0.104
BLK	2	3	0.778 ng/L	±0.146
BLK	3	3	0.873 ng/L	±0.200
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 7/14/17

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	7/13/2017 7:20:26	80990-1.RAW	7:20:26 AM	15.77			1.8	0.006	0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	7/13/2017 7:24:35	80991-1.RAW	7:24:35 AM	11.93			-2.0	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	7/13/2017 7:28:43	80992-1.RAW	7:28:43 AM	14.07			0.1	0.000	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	7/13/2017 7:32:52	80993-1.RAW	7:32:52 AM	180.35			166.4	0.548	0.548	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	7/13/2017 7:37:01	80994-1.RAW	7:37:01 AM	339.69			325.8	1.072	1.072	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	7/13/2017 7:41:10	80995-1.RAW	7:41:10 AM	1484.36			1470.4	4.837	4.837	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	7/13/2017 7:45:19	80996-1.RAW	7:45:19 AM	5684.88			5671.0	18.656	18.656	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	7/13/2017 7:49:27	80997-1.RAW	7:49:27 AM	11357.43			11343.5	37.318	37.318	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	7/13/2017 7:53:36	80998-1.RAW	7:53:36 AM	1524.50			1510.6	4.970	4.970	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK1	10	7/13/2017 7:57:44	80999-1.RAW	7:57:44 AM	47.93	1		34.0	0.112	0.112	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK2	10	7/13/2017 8:01:53	81000-1.RAW	8:01:53 AM	43.89	1		30.0	0.099	0.098	ng/L	
Hg2600-2	DM2	BLK	F707251-BLK3	10	7/13/2017 8:06:01	81001-1.RAW	8:06:01 AM	41.68	1		27.8	0.091	0.091	ng/L	
Hg2600-2	DM2	SAM	F707251-BS1	10	7/13/2017 8:10:10	81002-1.RAW	8:10:10 AM	4483.26	1		4469.3	14.603	14.6028	ng/L	
Hg2600-2	DM2	SAM	F707251-BSD1	10	7/13/2017 8:14:18	81003-1.RAW	8:14:18 AM	4738.40	1		4724.5	15.442	15.4421	ng/L	
Hg2600-2	DM2	SAM	1706563-01	10	7/13/2017 8:18:27	81004-1.RAW	8:18:27 AM	188.30	1		174.4	0.473	0.4731	ng/L	
Hg2600-2	DM2	SAM	1706563-04	10	7/13/2017 8:22:35	81005-1.RAW	8:22:35 AM	302.88	1		289.0	0.850	0.850	ng/L	
Hg2600-2	DM2	SAM	1706563-05	10	7/13/2017 8:26:43	81006-1.RAW	8:26:43 AM	301.52	1		287.6	0.846	0.846	ng/L	
Hg2600-2	DM2	SAM	1706564-01	10	7/13/2017 8:30:52	81007-1.RAW	8:30:52 AM	106.49	1		92.6	0.204	0.204	ng/L	
Hg2600-2	DM2	SAM	1706564-05	10	7/13/2017 8:35:00	81008-1.RAW	8:35:00 AM	131.62	1		117.7	0.287	0.286	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	7/13/2017 8:39:09	81009-1.RAW	8:39:09 AM	1481.92			1468.0	4.829	4.829	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	7/13/2017 8:43:17	81010-1.RAW	8:43:17 AM	24.33			10.4	0.034	0.034	ng/L	
Hg2600-2	DM2	SAM	1706564-08	10	7/13/2017 8:48:08	81011-1.RAW	8:48:08 AM	158.17	1		144.2	0.374	0.374	ng/L	
Hg2600-2	DM2	SAM	1706565-01	10	7/13/2017 8:52:16	81012-1.RAW	8:52:16 AM	18.66	1		4.7	-0.085	-0.850	ng/L	
Hg2600-2	DM2	SAM	1706565-04	10	7/13/2017 8:56:25	81013-1.RAW	8:56:25 AM	507.52	1		493.6	1.523	1.5233	ng/L	
Hg2600-2	DM2	SAM	1706565-07	10	7/13/2017 9:00:33	81014-1.RAW	9:00:33 AM	205.69	1		191.8	0.530	0.5303	ng/L	
Hg2600-2	DM2	SAM	1706565-10	10	7/13/2017 9:04:42	81015-1.RAW	9:04:42 AM	247.32	1		233.4	0.667	0.6672	ng/L	
Hg2600-2	DM2	SAM	1706565-13	10	7/13/2017 9:08:50	81016-1.RAW	9:08:50 AM	224.99	1		211.1	0.594	0.5938	ng/L	
Hg2600-2	DM2	SAM	1706565-16	10	7/13/2017 9:12:59	81017-1.RAW	9:12:59 AM	634.80	1		620.9	1.942	1.942	ng/L	
Hg2600-2	DM2	SAM	1706565-19	10	7/13/2017 9:17:07	81018-1.RAW	9:17:07 AM	591.16	1		577.2	1.798	1.7984	ng/L	
Hg2600-2	DM2	SAM	1706565-25	10	7/13/2017 9:21:16	81019-1.RAW	9:21:16 AM	444.81	1		430.9	1.317	1.3170	ng/L	
Hg2600-2	DM2	SAM	1706565-29	100000	7/13/2017 9:25:24	81020-1.RAW	9:25:24 AM	1701.34	1		1687.4	5.551	5.55128,805	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	7/13/2017 9:29:32	81021-1.RAW	9:29:32 AM	1498.58			1484.7	4.884	4.884	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	7/13/2017 9:33:41	81022-1.RAW	9:33:41 AM	23.59			9.7	0.032	0.032	ng/L	
Hg2600-2	DM2	SAM	1706565-30	2500	7/13/2017 9:37:49	81023-1.RAW	9:37:49 AM	2410.86	1		2396.9	7.885	19712.689	ng/L	
Hg2600-2	DM2	SAM	1706565-31	50000	7/13/2017 9:41:58	81024-1.RAW	9:41:58 AM	1520.28	1		1506.4	4.956	247780.629	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP1	10	7/13/2017 9:46:06	81025-1.RAW	9:46:06 AM	235.62	1		221.7	0.629	0.6288	ng/L	
Hg2600-2	DM2	SAM	F707251-DUP2	10	7/13/2017 9:50:15	81026-1.RAW	9:50:15 AM	125.12	1		111.2	0.265	0.2652	ng/L	
Hg2600-2	DM2	SAM	F707251-MS1	10	7/13/2017 9:54:23	81027-1.RAW	9:54:23 AM	1000.33	1		966.4	3.145	31.445	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD1	10	7/13/2017 9:58:32	81028-1.RAW	9:58:32 AM	957.21	1		943.3	3.003	30.027	ng/L	
Hg2600-2	DM2	SAM	F707251-MS2	10	7/13/2017 10:02:40	81029-1.RAW	10:02:40 AM	947.59	1		933.7	2.971	29.710	ng/L	
Hg2600-2	DM2	SAM	F707251-MSD2	10	7/13/2017 10:06:49	81030-1.RAW	10:06:49 AM	940.07	1		926.1	2.946	29.463	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK1	10	7/13/2017 10:10:57	81031-1.RAW	10:10:57 AM	39.58	2		25.7	0.084	0.844	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK2	10	7/13/2017 10:15:05	81032-1.RAW	10:15:05 AM	40.66	2		26.7	0.088	0.879	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	7/13/2017 10:19:14	81033-1.RAW	10:19:14 AM	1548.41			1534.5	5.048	5.048	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	7/13/2017 10:23:22	81034-1.RAW	10:23:22 AM	21.09			7.2	0.024	0.024	ng/L	
Hg2600-2	DM2	BLK	F707289-BLK3	10	7/13/2017 10:27:30	81035-1.RAW	10:27:30 AM	32.51	2		18.6	0.061	0.612	ng/L	
Hg2600-2	DM2	SAM	F707289-BS1	10	7/13/2017 10:31:38	81036-1.RAW	10:31:38 AM	4634.08	2		4620.2	15.122	151.217	ng/L	
Hg2600-2	DM2	SAM	F707289-BSD1	10	7/13/2017 10:35:47	81037-1.RAW	10:35:47 AM	4592.28	2		4578.4	14.984	149.841	ng/L	
Hg2600-2	DM2	SAM	1706565-17	10	7/13/2017 10:39:55	81038-1.RAW	10:39:55 AM	627.51	2		613.6	1.941	19.407	ng/L	
Hg2600-2	DM2	SAM	1706565-18	10	7/13/2017 10:44:03	81039-1.RAW	10:44:03 AM	1647.19	2		1633.3	5.295	52.953	ng/L	
Hg2600-2	DM2	SAM	1706565-20	10	7/13/2017 10:48:12	81040-1.RAW	10:48:12 AM	1255.45	2		1241.5	4.007	40.066	ng/L	
Hg2600-2	DM2	SAM	1706565-21	10	7/13/2017 10:52:20	81041-1.RAW	10:52:20 AM	761.36	2		747.4	2.381	23.811	ng/L	
Hg2600-2	DM2	SAM	1706565-22	10	7/13/2017 10:56:29	81042-1.RAW	10:56:29 AM	1036.28	2		1022.4	3.286	32.855	ng/L	
Hg2600-2	DM2	SAM	1706565-23	10	7/13/2017 11:00:37	81043-1.RAW	11:00:37 AM	1259.20	2		1245.3	4.019	40.189	ng/L	
Hg2600-2	DM2	SAM	1706565-24	10	7/13/2017 11:04:46	81044-1.RAW	11:04:46 AM	1815.15	2		1801.2	5.848	58.479	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	7/13/2017 11:08:54	81045-1.RAW	11:08:54 AM	1506.81			1492.9	4.911	4.911	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	7/13/2017 11:13:02	81046-1.RAW	11:13:02 AM	28.16			14.2	0.047	0.047	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	1706565-26	10	7/13/2017 11:17:11	81047-1.RAW	11:17:11 AM	463.61	2		449.7	1.402	14.016	ng/L	
Hg2600-2	DM2	SAM	1706565-27	10	7/13/2017 11:21:19	81048-1.RAW	11:21:19 AM	467.63	2		453.7	1.415	14.148	ng/L	
Hg2600-2	DM2	SAM	1706565-28	10	7/13/2017 11:25:28	81049-1.RAW	11:25:28 AM	1030.39	2		1016.5	3.266	32.662	ng/L	
Hg2600-2	DM2	SAM	1706565-32	100000	7/13/2017 11:29:36	81050-1.RAW	11:29:36 AM	1651.12	2		1637.2	5.386	538606.862	ng/L	
Hg2600-2	DM2	SAM	1706565-33	2500	7/13/2017 11:33:45	81051-1.RAW	11:33:45 AM	2440.76	2		2426.8	7.984	19958.864	ng/L	
Hg2600-2	DM2	SAM	1706565-34	50000	7/13/2017 11:37:53	81052-1.RAW	11:37:53 AM	1507.38	2		1493.5	4.913	245659.187	ng/L	
Hg2600-2	DM2	SAM	F707289-DUP1	10	7/13/2017 11:42:01	81053-1.RAW	11:42:01 AM	1049.95	2		1036.0	3.331	33.305	ng/L	
Hg2600-2	DM2	SAM	F707289-MS1	10	7/13/2017 11:46:10	81054-1.RAW	11:46:10 AM	3905.92	2		3892.0	12.726	127.261	ng/L	
Hg2600-2	DM2	SAM	F707289-MSD1	10	7/13/2017 11:50:18	81055-1.RAW	11:50:18 AM	3968.99	2		3955.1	12.934	129.336	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	7/13/2017 11:54:27	81056-1.RAW	11:54:27 AM	1517.82			1503.9	4.948	4.948	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	7/13/2017 11:58:35	81057-1.RAW	11:58:35 AM	37.21385366			23.3	0.077	0.077	ng/L	
Hg2600-2	DM2	BLK	F707326-BLK1	20	7/13/2017 12:02:43	81058-1.RAW	12:02:43 PM	29.54	3		15.6	0.051	1.028	ng/L	
Hg2600-2	DM2	BLK	F707326-BLK2	20	7/13/2017 12:06:52	81059-1.RAW	12:06:52 PM	28.30	3		14.4	0.047	0.946	ng/L	
Hg2600-2	DM2	BLK	F707326-BLK3	20	7/13/2017 12:11:00	81060-1.RAW	12:11:00 PM	23.76	3		9.8	0.032	0.647	ng/L	
Hg2600-2	DM2	SAM	*F707326-BLK4	20	7/13/2017 12:15:09	81061-1.RAW	12:15:09 PM	25.55	3		11.6	-0.005	-0.108	ng/L	
Hg2600-2	DM2	SAM	*F707326-BLK5	20	7/13/2017 12:19:17	81062-1.RAW	12:19:17 PM	24.12	3		10.2	-0.010	-0.202	ng/L	
Hg2600-2	DM2	SAM	*F707326-BLK6	20	7/13/2017 12:23:26	81063-1.RAW	12:23:26 PM	23.71	3		9.8	-0.011	-0.229	ng/L	
Hg2600-2	DM2	SAM	*F707326-BLK7	20	7/13/2017 12:27:34	81064-1.RAW	12:27:34 PM	22.48	3		8.6	-0.016	-0.310	ng/L	
Hg2600-2	DM2	SAM	F707326-BS1	20	7/13/2017 12:31:42	81065-1.RAW	12:31:42 PM	1458.25	3		1444.3	4.708	94.158	ng/L	
Hg2600-2	DM2	SAM	F707326-BSD1	20	7/13/2017 12:35:51	81066-1.RAW	12:35:51 PM	1508.49	3		1494.6	4.873	97.464	ng/L	
Hg2600-2	DM2	SAM	1706929-01	400	7/13/2017 12:39:59	81067-1.RAW	12:39:59 PM	93.42	3		79.5	0.259	103.744	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	7/13/2017 12:44:08	81068-1.RAW	12:44:08 PM	1499.25			1485.3	4.886	4.886	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	7/13/2017 12:48:16	81069-1.RAW	12:48:16 PM	26.06			12.1	0.040	0.040	ng/L	
Hg2600-2	DM2	SAM	1706929-02	20	7/13/2017 12:52:24	81070-1.RAW	12:52:24 PM	7123.57	3		7109.6	23.346	466.916	ng/L	
Hg2600-2	DM2	SAM	1706929-03	20	7/13/2017 12:56:33	81071-1.RAW	12:56:33 PM	1109.68	3		1095.8	3.561	71.223	ng/L	
Hg2600-2	DM2	SAM	1706929-04	20	7/13/2017 13:00:41	81072-1.RAW	1:00:41 PM	1319.06	3		1305.1	4.250	85.000	ng/L	
Hg2600-2	DM2	SAM	1706929-05	20	7/13/2017 13:04:50	81073-1.RAW	1:04:50 PM	10925.08	3		10911.2	35.852	717.042	ng/L	
Hg2600-2	DM2	SAM	1706929-06	400	7/13/2017 13:08:58	81074-1.RAW	1:08:58 PM	3168.27	3		3154.3	10.375	4150.017	ng/L	
Hg2600-2	DM2	SAM	1706929-07	400	7/13/2017 13:13:07	81075-1.RAW	1:13:07 PM	3262.97	3		3249.0	10.687	4274.639	ng/L	
Hg2600-2	DM2	SAM	1706929-08	400	7/13/2017 13:17:15	81076-1.RAW	1:17:15 PM	3560.56	3		3546.6	11.666	4666.243	ng/L	
Hg2600-2	DM2	SAM	1706929-09	400	7/13/2017 13:21:23	81077-1.RAW	1:21:23 PM	2901.05	3		2887.1	9.496	3798.380	ng/L	
Hg2600-2	DM2	SAM	1706929-10	400	7/13/2017 13:25:32	81078-1.RAW	1:25:32 PM	3940.16	3		3926.2	12.914	5165.771	ng/L	
Hg2600-2	DM2	SAM	1706930-01	20	7/13/2017 13:29:40	81079-1.RAW	1:29:40 PM	13671.87	3		13657.9	44.889	897.771	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	7/13/2017 13:33:49	81080-1.RAW	1:33:49 PM	1564.23			1550.3	5.100	5.100	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	7/13/2017 13:37:57	81081-1.RAW	1:37:57 PM	51.04			37.1	0.122	0.122	ng/L	
Hg2600-2	DM2	SAM	1706929-01RE1	20	7/13/2017 13:42:05	81082-1.RAW	1:42:05 PM	1455.96	3		1442.0	4.700	94.007	ng/L	
Hg2600-2	DM2	SAM	1706930-02	20	7/13/2017 13:46:14	81083-1.RAW	1:46:14 PM	1536.04	3		1522.1	4.964	99.277	ng/L	
Hg2600-2	DM2	SAM	1706930-03	20	7/13/2017 13:50:22	81084-1.RAW	1:50:22 PM	4706.45	3		4692.5	15.394	307.878	ng/L	
Hg2600-2	DM2	SAM	1706930-06	400	7/13/2017 13:54:31	81085-1.RAW	1:54:31 PM	2771.35	3		2757.4	9.069	3627.704	ng/L	
Hg2600-2	DM2	SAM	1706931-01	20	7/13/2017 13:58:39	81086-1.RAW	1:58:39 PM	856.15	3		842.2	2.727	54.542	ng/L	
Hg2600-2	DM2	SAM	1706931-02	20	7/13/2017 14:02:48	81087-1.RAW	2:02:48 PM	6894.32	3		6880.4	22.592	451.832	ng/L	
Hg2600-2	DM2	SAM	1706931-10	400	7/13/2017 14:06:56	81088-1.RAW	2:06:56 PM	2933.13	3		2919.2	9.601	3840.594	ng/L	
Hg2600-2	DM2	SAM	1706932-06	400	7/13/2017 14:11:04	81089-1.RAW	2:11:04 PM	736.41	3		722.5	2.375	949.862	ng/L	
Hg2600-2	DM2	SAM	1706932-07	400	7/13/2017 14:15:13	81090-1.RAW	2:15:13 PM	517.98	3		504.1	1.656	662.430	ng/L	
Hg2600-2	DM2	SAM	F707326-DUP1	20	7/13/2017 14:19:22	81091-1.RAW	2:19:22 PM	15644.11	3		15630.2	51.377	1027.537	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	7/13/2017 14:23:31	81092-1.RAW	2:23:31 PM	1558.33			1544.4	5.081	5.081	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	7/13/2017 14:27:39	81093-1.RAW	2:27:39 PM	50.81			36.9	0.121	0.121	ng/L	
Hg2600-2	DM2	SAM	1706930-01RE1	50	7/13/2017 14:31:48	81094-1.RAW	2:31:48 PM	6124.67	3		6110.7	20.086	1004.290	ng/L	
Hg2600-2	DM2	SAM	F707326-MS1	400	7/13/2017 14:35:56	81095-1.RAW	2:35:56 PM	7800.40	3		7786.5	25.614	10245.578	ng/L	
Hg2600-2	DM2	SAM	F707326-MSD1	400	7/13/2017 14:40:04	81096-1.RAW	2:40:04 PM	7556.08	3		7542.2	24.810	9924.065	ng/L	
Hg2600-2	DM2	SAM	F707326-MS2	400	7/13/2017 14:44:13	81097-1.RAW	2:44:13 PM	6114.64	3		6100.7	20.068	8027.230	ng/L	
Hg2600-2	DM2	SAM	F707326-MSD2	400	7/13/2017 14:48:22	81098-1.RAW	2:48:22 PM	6149.21	3		6135.3	20.182	8072.721	ng/L	
Hg2600-2	DM2	SAM	F707326-DUP2	20	7/13/2017 14:52:30	81099-1.RAW	2:52:30 PM	11005.47	3		10991.5	36.117	722.331	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	7/13/2017 14:56:39	81100-1.RAW	2:56:39 PM	1599.47			1585.5	5.216	5.216	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	7/13/2017 15:00:48	81101-1.RAW	3:00:48 PM	62.56			48.6	0.160	0.160	ng/L	
Hg2600-2	DM2	BLK	F707347-BLK1	50	7/13/2017 15:04:56	81102-1.RAW	3:04:56 PM	49.40		X	35.5	0.117	5.835	ng/L	
Hg2600-2	DM2	BLK	F707347-BLK2	50	7/13/2017 15:09:05	81103-1.RAW	3:09:05 PM	48.48		X	34.6	0.114	5.685	ng/L	
Hg2600-2	DM2	BLK	F707347-BLK3	50	7/13/2017 15:13:13	81104-1.RAW	3:13:13 PM	37.31		X	23.4	0.077	3.847	ng/L	
Hg2600-2	DM2	SAM	F707347-BS1	400	7/13/2017 15:17:22	81105-1.RAW	3:17:22 PM	3634.12		X	3620.2	11.910	4763.915	ng/L	
Hg2600-2	DM2	SAM	F707347-BSD1	400	7/13/2017 15:21:30	81106-1.RAW	3:21:30 PM	3617.57		X	3603.6	11.855	4742.136	ng/L	
Hg2600-2	DM2	SAM	1707030-01	400	7/13/2017 15:25:39	81107-1.RAW	3:25:39 PM	75.06		X	61.1	0.201	80.446	ng/L	
Hg2600-2	DM2	SAM	1707030-02	400	7/13/2017 15:29:47	81108-1.RAW	3:29:47 PM	126.57		X	112.7	0.371	148.240	ng/L	
Hg2600-2	DM2	SAM	1707030-03	400	7/13/2017 15:33:55	81109-1.RAW	3:33:55 PM	90.24		X	76.3	0.251	100.424	ng/L	
Hg2600-2	DM2	SAM	1707030-04	400	7/13/2017 15:38:04	81110-1.RAW	3:38:04 PM	1491.62		X	1477.7	4.861	1944.540	ng/L	
Hg2600-2	DM2	SAM	1707030-05	400	7/13/2017 15:42:13	81111-1.RAW	3:42:13 PM	3762.49		X	3748.6	12.332	4932.846	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	CAL	SEQ-CCVA	1	7/13/2017 15:46:22	81112-1.RAW	3:46:22 PM	1605.11			1591.2	5.235	5.235	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	7/13/2017 15:50:30	81113-1.RAW	3:50:30 PM	34.80			20.9	0.069	0.069	ng/L	
Hg2600-2	DM2	SAM	1707041-01	400	7/13/2017 15:54:40	81114-1.RAW	3:54:40 PM	307636.79		X	307622.9	1012.024	404809.675	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:03:07	81115-1.RAW	4:03:07 PM	674.50		X	660.6	2.173	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:07:15	81116-1.RAW	4:07:15 PM	2699.32		X	2685.4	8.834	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:11:23	81117-1.RAW	4:11:23 PM	1625.49		X	1611.6	5.302	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:14:15	81118-1.RAW	4:14:15 PM	177.00		X	163.1	0.536	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:18:23	81119-1.RAW	4:18:23 PM	1060.43		X	1046.5	3.443	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/13/2017 16:21:15	81120-1.RAW	4:21:15 PM	134.20		X	120.3	0.396	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:25:23	81121-1.RAW	4:25:23 PM	753.32		X	739.4	2.432	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:29:31	81122-1.RAW	4:29:31 PM	582.17		X	568.2	1.869	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:33:40	81123-1.RAW	4:33:40 PM	523.70		X	509.8	1.677	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 16:37:48	81124-1.RAW	4:37:48 PM	437.50		X	423.6	1.393	0.000	ng/L	
Hg2600-2	DM2	SAM	1707041-02	50000	7/13/2017 16:41:57	81125-1.RAW	4:41:57 PM	115240.55		X	115226.6	379.075	18953748.612	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:51:36	81126-1.RAW	4:51:36 PM	2.53		X	-11.4	-0.037	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 16:59:16	81127-1.RAW	4:59:16 PM	0.69		X	-13.2	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:05:05	81128-1.RAW	5:05:05 PM	1.18		X	-12.7	-0.042	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:09:00	81129-1.RAW	5:09:00 PM	0.56		X	-13.4	-0.044	0.000	ng/L	
Hg2600-2	DM2	SAM	clean		7/13/2017 17:12:38	81130-1.RAW	5:12:38 PM	0.30		X	-13.6	-0.045	0.000	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:20:27	81131-2.RAW	5:20:27 PM	4098.62		X	4084.7	13.438	13.438	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:24:35	81132-1.RAW	5:24:35 PM	158.27		X	144.3	0.475	0.475	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:28:44	81133-1.RAW	5:28:44 PM	130.63		X	116.7	0.384	0.384	ng/L	
Hg2600-2	DM2	SAM	BLANK	1	7/13/2017 17:32:52	81134-1.RAW	5:32:52 PM	116.04		X	102.1	0.336	0.336	ng/L	
Hg2600-2	DM2	SAM	WS		7/13/2017 17:37:01	81135-1.RAW	5:37:01 PM	127.78		X	113.9	0.375	0.000	ng/L	

TotalMercury EPA1631 Operat: DM BlankS: 13.924 Calib Eqn: Conc = (Area-13.92 Run Date: 7/13/2017 Blank SD: 1.922222169  
 Worksh: THg260: CalibFa 303.97 Status: QC Warnings:8/QC E Run Time: 17:16:18 Blank RSD%: 13.80552781  
 Method: #### R: 1 R2: 1 CF SD: 23.66088862  
 Descrip: THg26002-170713-1 CF RSD%: 7.784008984

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	2.24					80985-1.RAW	7:01:01	681.10	Clean	OK	1
clean				0.00	0.01					80986-1.RAW	7:03:53	4.50	Clean	OK	1
ws				13.92	0.01					80987-1.RAW	7:08:01	16.83	Sample	OK	1
ws				13.92	0.00					80988-1.RAW	7:12:09	11.79	Sample	OK	1
ws				13.92	0.00					80989-1.RAW	7:16:18	10.04	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.05					80990-1.RAW	7:20:26	15.77	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					80991-1.RAW	7:24:35	11.93	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					80992-1.RAW	7:28:43	14.07	Sample	OK	1
SEQ-CAL1	A4		1	13.92	0.55			109.50		80993-1.RAW	7:32:52	180.35	Sample	OK	1
SEQ-CAL2	A5		1	13.92	1.07			107.17		80994-1.RAW	7:37:01	339.69	Sample	OK	1
SEQ-CAL3	A6		1	13.92	4.84			96.75		80995-1.RAW	7:41:10	1484.36	Sample	OK	1
SEQ-CAL4	A7		1	13.92	18.66			93.28		80996-1.RAW	7:45:19	5684.88	Sample	OK	1
SEQ-CAL5	A8		1	13.92	37.32			93.30		80997-1.RAW	7:49:27	11357.43	Sample	OK	1
SEQ-ICV1	A9		1	13.92	4.97			99.39		80998-1.RAW	7:53:36	1524.50	Sample	OK	1
F707251-BLK1	A10		10	13.92	1.12					80999-1.RAW	7:57:44	47.93	Sample	OK	1
F707251-BLK2	A11		10	13.92	0.99					81000-1.RAW	8:01:53	43.89	Sample	OK	1
F707251-BLK3	A12		10	13.92	0.91					81001-1.RAW	8:06:01	41.68	Sample	OK	1
F707251-BS1	A13		10	13.92	147.03					81002-1.RAW	8:10:10	4483.26	Sample	OK	1
F707251-BSD1	A14		10	13.92	155.43					81003-1.RAW	8:14:18	4738.40	Sample	OK	1
1706563-01	A15		10	13.92	5.74					81004-1.RAW	8:18:27	188.30	Sample	OK	1
1706563-04	A16		10	13.92	9.51					81005-1.RAW	8:22:35	302.88	Sample	OK	1
1706563-05	A17		10	13.92	9.46					81006-1.RAW	8:26:43	301.52	Sample	OK	1
1706564-01	A18		10	13.92	3.05					81007-1.RAW	8:30:52	106.49	Sample	OK	1
1706564-05	A19		10	13.92	3.87					81008-1.RAW	8:35:00	131.62	Sample	OK	1
SEQ-CCV1	A20		1	13.92	4.83			96.59		81009-1.RAW	8:39:09	1481.92	Sample	OK	1
SEQ-CCB1	A21		1	13.92	0.03			0.00		81010-1.RAW	8:43:17	24.33	Sample	OK	1
1706564-08	B1		10	13.92	4.75					81011-1.RAW	8:48:08	158.17	Sample	OK	1
1706565-01	B2		10	13.92	0.16					81012-1.RAW	8:52:16	18.66	Sample	OK	1
1706565-04	B3		10	13.92	16.24					81013-1.RAW	8:56:25	507.52	Sample	OK	1
1706565-07	B4		10	13.92	6.31					81014-1.RAW	9:00:33	205.69	Sample	OK	1
1706565-10	B5		10	13.92	7.68					81015-1.RAW	9:04:42	247.32	Sample	OK	1
1706565-13	B6		10	13.92	6.94					81016-1.RAW	9:08:50	224.99	Sample	OK	1
1706565-16	B7		10	13.92	20.43					81017-1.RAW	9:12:59	634.80	Sample	OK	1
1706565-19	B8		10	13.92	18.99					81018-1.RAW	9:17:07	591.16	Sample	OK	1
1706565-25	B9		10	13.92	14.18					81019-1.RAW	9:21:16	444.81	Sample	OK	1
1706565-29	B10		100000	13.92	555129.81					81020-1.RAW	9:25:24	1701.34	Sample	OK	1
SEQ-CCV2	B11		1	13.92	4.88			97.68		81021-1.RAW	9:29:32	1498.58	Sample	OK	1
SEQ-CCB2	B12		1	13.92	0.03			0.00		81022-1.RAW	9:33:41	23.59	Sample	OK	1
1706565-30	B13		2500	13.92	19713.69					81023-1.RAW	9:37:49	2410.86	Sample	OK	1
1706565-31	B14		50000	13.92	247781.63					81024-1.RAW	9:41:58	1520.28	Sample	OK	1
F707251-DUP1	B15		10	13.92	7.29					81025-1.RAW	9:46:06	235.62	Sample	OK	1
F707251-DUP2	B16		10	13.92	3.66					81026-1.RAW	9:50:15	125.12	Sample	OK	1
F707251-MS1	B17		10	13.92	32.45			698.64		81027-1.RAW	9:54:23	1000.33	Sample	OK	1
F707251-MSD1	B18		10	13.92	31.03					81028-1.RAW	9:58:32	957.21	Sample	OK	1
F707251-MS2	B19		10	13.92	30.72			92.99		81029-1.RAW	10:02:40	947.59	Sample	OK	1
F707251-MSD2	B20		10	13.92	30.47					81030-1.RAW	10:06:49	940.07	Sample	OK	1
F707289-BLK1	B21		10	13.92	0.84					81031-1.RAW	10:10:57	39.58	Sample	OK	1
F707289-BLK2	C1		10	13.92	0.88					81032-1.RAW	10:15:05	40.66	Sample	OK	1
SEQ-CCV3	C2		1	13.92	5.05			100.96		81033-1.RAW	10:19:14	1548.41	Sample	OK	1
SEQ-CCB3	C3		1	13.92	0.02			0.00		81034-1.RAW	10:23:22	21.09	Sample	OK	1
F707289-BLK3	C4		10	13.92	0.61					81035-1.RAW	10:27:30	32.51	Sample	OK	1
F707289-BS1	C5		10	13.92	151.99					81036-1.RAW	10:31:38	4634.08	Sample	OK	1
F707289-BSD1	C6		10	13.92	150.62					81037-1.RAW	10:35:47	4592.28	Sample	OK	1
1706565-17	C7		10	13.92	20.19					81038-1.RAW	10:39:55	627.51	Sample	OK	1
1706565-18	C8		10	13.92	53.73					81039-1.RAW	10:44:03	1647.19	Sample	OK	1
1706565-20	C9		10	13.92	40.84					81040-1.RAW	10:48:12	1255.45	Sample	OK	1
1706565-21	C10		10	13.92	24.59					81041-1.RAW	10:52:20	781.36	Sample	OK	1
1706565-22	C11		10	13.92	33.63					81042-1.RAW	10:56:29	1036.28	Sample	OK	1
1706565-23	C12		10	13.92	40.97					81043-1.RAW	11:00:37	1259.20	Sample	OK	1
1706565-24	C13		10	13.92	59.26					81044-1.RAW	11:04:46	1815.15	Sample	OK	1
SEQ-CCV4	C14		1	13.92	4.91			98.23		81045-1.RAW	11:08:54	1506.81	Sample	OK	1
SEQ-CCB4	C15		1	13.92	0.05			0.00		81046-1.RAW	11:13:02	28.16	Sample	OK	1
1706565-26	C16		10	13.92	14.79					81047-1.RAW	11:17:11	463.61	Sample	OK	1

1706565-27	C17	10	13.92	14.93		81048-1.RAW	11:21:19	467.63	Sample	OK	1
1706565-28	C18	10	13.92	33.44		81049-1.RAW	11:25:28	1030.39	Sample	OK	1
1706565-32	C19	100000	13.92	538607.64		81050-1.RAW	11:29:36	1651.12	Sample	OK	1
1706565-33	C20	2500	13.92	19959.64		81051-1.RAW	11:33:45	2440.76	Sample	OK	1
1706565-34	C21	50000	13.92	245659.96		81052-1.RAW	11:37:53	1507.38	Sample	OK	1
F707289-DUP1	A1	10	13.92	34.08		81053-1.RAW	11:42:01	1049.95	Sample	OK	1
F707289-MS1	A2	10	13.92	128.04	364.96	81054-1.RAW	11:46:10	3905.92	Sample	OK	1
F707289-MSD1	A3	10	13.92	130.11		81055-1.RAW	11:50:18	3968.99	Sample	OK	1
SEQ-CCV5	A4	1	13.92	4.95	98.95	81056-1.RAW	11:54:27	1517.62	Sample	OK	1
SEQ-CCB5	A5	1	13.92	0.08	0.00	81057-1.RAW	11:58:35	37.21	Sample	OK	1
F707326-BLK1	A6	20	13.92	1.03		81058-1.RAW	12:02:43	29.54	Sample	OK	1
F707326-BLK2	A7	20	13.92	0.95		81059-1.RAW	12:06:52	28.30	Sample	OK	1
F707326-BLK3	A8	20	13.92	0.65		81060-1.RAW	12:11:00	23.76	Sample	OK	1
*F707326-BLK4	A9	20	13.92	0.76		81061-1.RAW	12:15:09	25.55	Sample	OK	1
*F707326-BLK5	A10	20	13.92	0.67		81062-1.RAW	12:19:17	24.12	Sample	OK	1
*F707326-BLK6	A11	20	13.92	0.64		81063-1.RAW	12:23:26	23.71	Sample	OK	1
*F707326-BLK7	A12	20	13.92	0.56		81064-1.RAW	12:27:34	22.48	Sample	OK	1
F707326-BS1	A13	20	13.92	95.03		81065-1.RAW	12:31:42	1458.25	Sample	OK	1
F707326-BSD1	A14	20	13.92	98.34		81066-1.RAW	12:35:51	1508.49	Sample	OK	1
1706929-01	A15	400	13.92	104.62		81067-1.RAW	12:39:59	93.42	Sample	OK	1
SEQ-CCV6	A16	1	13.92	4.89	97.73	81068-1.RAW	12:44:08	1499.25	Sample	OK	1
SEQ-CCB6	A17	1	13.92	0.04	0.00	81069-1.RAW	12:48:16	26.06	Sample	OK	1
1706929-02	A18	20	13.92	467.79		81070-1.RAW	12:52:24	7123.57	Sample	OK	1
1706929-03	A19	20	13.92	72.10		81071-1.RAW	12:56:33	1109.68	Sample	OK	1
1706929-04	A20	20	13.92	85.87		81072-1.RAW	13:00:41	1319.06	Sample	OK	1
1706929-05	A21	20	13.92	717.92		81073-1.RAW	13:04:50	10925.08	Sample	OK	1
1706929-06	B1	400	13.92	4150.89		81074-1.RAW	13:08:58	3168.27	Sample	OK	1
1706929-07	B2	400	13.92	4275.51		81075-1.RAW	13:13:07	3262.97	Sample	OK	1
1706929-08	B3	400	13.92	4667.12		81076-1.RAW	13:17:15	3560.56	Sample	OK	1
1706929-09	B4	400	13.92	3799.25		81077-1.RAW	13:21:23	2901.05	Sample	OK	1
1706929-10	B5	400	13.92	5166.64		81078-1.RAW	13:25:32	3940.16	Sample	OK	1
1706930-01	B6	20	13.92	898.64		81079-1.RAW	13:29:40	13671.87	Sample	OK	1
SEQ-CCV7	B7	1	13.92	5.10	102.00	81080-1.RAW	13:33:49	1564.23	Sample	OK	1
SEQ-CCB7	B8	1	13.92	0.12	0.00	81081-1.RAW	13:37:57	51.04	Sample	OK	1
1706929-01RE1	B9	20	13.92	94.88		81082-1.RAW	13:42:05	1455.96	Sample	OK	1
1706930-02	B10	20	13.92	100.15		81083-1.RAW	13:46:14	1536.04	Sample	OK	1
1706930-03	B11	20	13.92	308.75		81084-1.RAW	13:50:22	4706.45	Sample	OK	1
1706930-06	B12	400	13.92	3628.58		81085-1.RAW	13:54:31	2771.35	Sample	OK	1
1706931-01	B13	20	13.92	55.42		81086-1.RAW	13:58:39	856.15	Sample	OK	1
1706931-02	B14	20	13.92	452.71		81087-1.RAW	14:02:48	6894.32	Sample	OK	1
1706931-10	B15	400	13.92	3841.47		81088-1.RAW	14:06:56	2933.13	Sample	FB	1
1706932-06	B16	400	13.92	950.74		81089-1.RAW	14:11:04	736.41	Sample	OK	1
1706932-07	B17	400	13.92	663.30		81090-1.RAW	14:15:13	517.98	Sample	OK	1
F707326-DUP1	B18	20	13.92	1028.41		81091-1.RAW	14:19:22	15644.11	Sample	OK	1
SEQ-CCV8	B19	1	13.92	5.08	101.62	81092-1.RAW	14:23:31	1558.33	Sample	OK	1
SEQ-CCB8	B20	1	13.92	0.12	0.00	81093-1.RAW	14:27:39	50.81	Sample	OK	1
1706930-01RE1	B21	50	13.92	1005.16		81094-1.RAW	14:31:48	6124.67	Sample	OK	1
F707326-MS1	C1	400	13.92	10246.45	1018.37	81095-1.RAW	14:35:56	7800.40	Sample	OK	1
F707326-MSD1	C2	400	13.92	9924.94		81096-1.RAW	14:40:04	7556.08	Sample	OK	1
F707326-MS2	C3	400	13.92	8028.10	80.87	81097-1.RAW	14:44:13	6114.64	Sample	OK	1
F707326-MSD2	C4	400	13.92	8073.59		81098-1.RAW	14:48:22	6149.21	Sample	OK	1
F707326-DUP2	C7	20	13.92	723.20		81099-1.RAW	14:52:30	11005.47	Sample	OK	1
SEQ-CCV9	C5	1	13.92	5.22	104.32	81100-1.RAW	14:56:39	1599.47	Sample	OK	1
SEQ-CCB9	C6	1	13.92	0.16	0.00	81101-1.RAW	15:00:48	62.56	Sample	OK	1
F707347-BLK1	C8	50	13.92	5.83		81102-1.RAW	15:04:56	49.40	Sample	OK	1
F707347-BLK2	C9	50	13.92	5.88		81103-1.RAW	15:09:05	48.48	Sample	OK	1
F707347-BLK3	C10	50	13.92	3.85		81104-1.RAW	15:13:13	37.31	Sample	OK	1
F707347-BS1	C11	400	13.92	4763.92		81105-1.RAW	15:17:22	3634.12	Sample	OK	1
F707347-BSD1	C12	400	13.92	4742.14		81106-1.RAW	15:21:30	3617.57	Sample	OK	1
1707030-01	C13	400	13.92	80.45		81107-1.RAW	15:25:39	75.06	Sample	OK	1
1707030-02	C14	400	13.92	148.24		81108-1.RAW	15:29:47	126.57	Sample	OK	1
1707030-03	C15	400	13.92	100.42		81109-1.RAW	15:33:55	90.24	Sample	OK	1
1707030-04	C16	400	13.92	1944.54		81110-1.RAW	15:38:04	1491.62	Sample	OK	1
1707030-05	C17	400	13.92	4932.85		81111-1.RAW	15:42:13	3762.49	Sample	OK	1
SEQ-CCVA	C18	1	13.92	5.23		81112-1.RAW	15:46:22	1805.11	Sample	OK	1
SEQ-CCBA	C19	1	13.92	0.07		81113-1.RAW	15:50:30	34.80	Sample	OK	1
1707041-01	C20	400	13.92	404809.67		81114-1.RAW	15:54:40	307636.79	Sample	OLFB	1
CLEAN			0.00	2.22		81115-1.RAW	16:03:07	674.50	Clean	OK	1

WS		13.92	8.83	81116-1.RAW	16:07:15	2699.32	Sample	OK	1
WS		13.92	5.30	81117-1.RAW	16:11:23	1625.49	Sample	OK	1
CLEAN		0.00	0.58	81118-1.RAW	16:14:15	177.00	Clean	OK	1
WS		13.92	3.44	81119-1.RAW	16:18:23	1060.43	Sample	OK	1
CLEAN		0.00	0.44	81120-1.RAW	16:21:15	134.20	Clean	OK	1
WS		13.92	2.43	81121-1.RAW	16:25:23	753.32	Sample	OK	1
WS		13.92	1.87	81122-1.RAW	16:29:31	582.17	Sample	OK	1
WS		13.92	1.68	81123-1.RAW	16:33:40	523.70	Sample	OK	1
WS		13.92	1.39	81124-1.RAW	16:37:48	437.50	Sample	OK	1
1707041-02	C21	50000	13.92	18953748.61	81125-1.RAW	16:41:57	115240.55	Sample	OLFB
clean			0.00	0.01	81126-1.RAW	16:51:36	2.53	Clean	OK
clean			0.00	0.00	81127-1.RAW	16:59:16	0.69	Clean	OK
clean			0.00	0.00	81128-1.RAW	17:05:05	1.18	Clean	OK
clean			0.00	0.00	81129-1.RAW	17:09:00	0.56	Clean	OK
clean			0.00	0.00	81130-1.RAW	17:12:38	0.30	Clean	OK
BLANK	C19	1	13.92	13.44	81131-2.RAW	17:20:27	4098.62	Sample	OK
BLANK	C20	1	13.92	0.47	81132-1.RAW	17:24:35	158.27	Sample	FB
BLANK	C21	1	13.92	0.38	81133-1.RAW	17:28:44	130.63	Sample	OK
BLANK	C20	1	13.92	0.34	81134-1.RAW	17:32:52	116.04	Sample	OK
WS			13.92	0.37	81135-1.RAW	17:37:01	127.78	Sample	OK

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14008

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R*

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14008-IBL1 ✓	QC	1			
7G14008-IBL2 ✓	QC	2			
7G14008-IBL3 ✓	QC	3			
7G14008-CAL1 ✓	QC	4	1702602 ✓		
7G14008-CAL2 ✓	QC	5	1702603 ✓		
7G14008-CAL3 ✓	QC	6	1702604 ✓		
7G14008-CAL4 ✓	QC	7	1702605 ✓		
7G14008-CAL5 ✓	QC	8	1702606 ✓		
7G14008-ICV1 ✓	QC	9	1703679 ✓		
7G14008-CCV1 ✓	QC	10	1703679 ✓		
7G14008-CCB1 ✓	QC	11			
7G14008-CCV2 ✓	QC	12	1703679 ✓		
7G14008-CCB2 ✓	QC	13			
7G14008-CCV3 ✓	QC	14	1703679 ✓		
7G14008-CCB3 ✓	QC	15			
7G14008-CCV4 ✓	QC	16	1703679 ✓		
7G14008-CCB4 ✓	QC	17			
7G14008-CCV5 ✓	QC	18	1703679 ✓		
7G14008-CCB5 ✓	QC	19			
F707326-BLK1 ✓	QC	20			
F707326-BLK2 ✓	QC	21			
F707326-BLK3 ✓	QC	22			
F707326-BLK4 ✓	QC	23			
F707326-BLK5 ✓	QC	24			
F707326-BLK6 ✓	QC	25			
F707326-BLK7 ✓	QC	26			
F707326-BS1 ✓	QC	27			
F707326-BSD1 ✓	QC	28			
1706929-01 ✓	Hg-CVAFS-T-7030	29			
7G14008-CCV6 ✓	QC	30	1703679 ✓		
7G14008-CCB6 ✓	QC	31			
1706929-02 ✓	Hg-CVAFS-T-7030	32			
1706929-03 ✓	Hg-CVAFS-T-7030	33			
1706929-04 ✓	Hg-CVAFS-T-7030	34			
1706929-05 ✓	Hg-CVAFS-T-7030	35			

Due Date: 7/31/2017

83 of 225

Page 1 of 2



**ANALYSIS SEQUENCE**

**7G14008**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 7/13/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706929-06 ✓	Hg-CVAFS-T-7030	36			
1706929-07 ✓	Hg-CVAFS-T-7030	37			
1706929-08 ✓	Hg-CVAFS-T-7030	38			
1706929-09 ✓	Hg-CVAFS-T-7030	39			
1706929-10 ✓	Hg-CVAFS-T-7030	40			
1706930-01 ✓	Hg-CVAFS-T-7030	41			
7G14008-CCV7 ✓	QC	42	1703679 ✓		
7G14008-CCB7 ✓	QC	43			
1706929-01RE1 ✓	Hg-CVAFS-T-7030	44			Added 7/14/2017 by DM2
1706930-02 ✓	Hg-CVAFS-T-7030	45			
1706930-03 ✓	Hg-CVAFS-T-7030	46			
1706930-06 ✓	Hg-CVAFS-T-7030	47			
1706931-01 ✓	Hg-CVAFS-T-7030	48			
1706931-02 ✓	Hg-CVAFS-T-7030	49			
1706931-10 ✓	Hg-CVAFS-T-7030	50			
1706932-06 ✓	Hg-CVAFS-T-7030	51			
1706932-07 ✓	Hg-CVAFS-T-7030	52			
F707326-DUP1 ✓	QC	53			
7G14008-CCV8 ✓	QC	54	1703679 ✓		
7G14008-CCB8 ✓	QC	55			
1706930-01RE1 ✓	Hg-CVAFS-T-7030	56			Added 7/14/2017 by DM2
F707326-MS1 ✓	QC	57			
F707326-MSD1 ✓	QC	58			
F707326-MS2 ✓	QC	59			
F707326-MSD2 ✓	QC	60			
F707326-DUP2 ✓	QC	61			
7G14008-CCV9 ✓	QC	62	1703679 ✓		
7G14008-CCB9 ✓	QC	63			

Don Mooren                      7/13/17  
 Samples Loaded By                      Date

Don Mooren                      7/14/17  
 Data Processed By                      Date

**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-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-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

**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

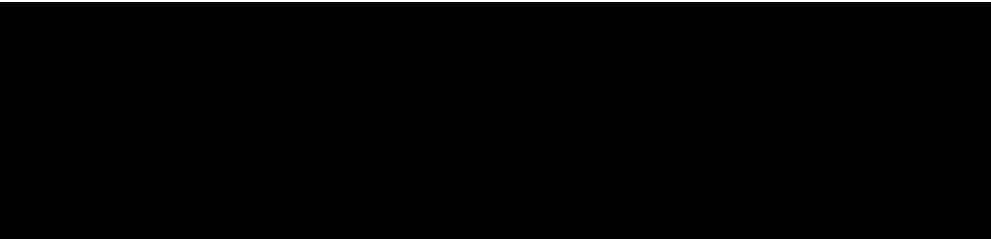
Eurofins Frontier Global Sciences, Inc.

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

2000-2  
7/13/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 7/11/2017 ~~7/10/2017~~ EAZAT

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					20X ✓
F707326-BLK2	Blank	0.25	20					20X ✓
F707326-BLK3	Blank	0.25	20					20X ✓
F707326-BLK4	Pre BLK 1706929	0.2556	20					20X ✓
F707326-BLK5	Post BLK 1706929	0.2596	20					20X ✓
F707326-BLK6	PRE BLK 1706930,931,932	0.2624	20					20X ✓
F707326-BLK7	POST BLK 1706930,931,932	0.2633	20					20X ✓
F707326-BS1	LCS	0.25	20	1702555	20			20X ✓
F707326-BSD1	LCS Dup	0.25	20	1702555	20			20X ✓
F707326-DUP1	Duplicate [1706929-05]	0.2571	20					20X ✓
F707326-MS1	Matrix Spike [1706930-01] RE1	0.2943	20	1700685	200			400X ✓
F707326-MS2	Matrix Spike [1706930-06]	0.2667	20	1700685	100			400X ✓
F707326-MSD1	Matrix Spike Dup [1706930-01] RE1	0.2878	20	1700685	200			400X ✓
F707326-MSD2	Matrix Spike Dup [1706930-06]	0.2763	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	31-Jul-17 00:00	1704061	70/30 Digestion Acid	02-Jan-18 00:00
		26-Jul-17 00:00	1704145	5% BrCl	18-Dec-17 00:00
			1704177	70/30 Digestion Acid	07-Jan-18 00:00

DDP2 - AD 20X ✓

1706929-05

1709976

1703377

1703152

1704095

Due Date: 7/31/2017

PREPARATION BENCH SHEET

2000-2  
7/19/17 DM

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: ~~7/10/2017~~ 7/11/2017 <sup>alc</sup> HAZI

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	-	-	-		400X → 20X
1706929-02	W17-N_17BN004_062417_TIN_02_WB	0.2561	20	-	-	-		20X
1706929-03	W17-N_17BN001_062517_TIN_03_WB	0.2745	20	-	-	-		20X
1706929-04	W17-N_17BN001_062517_TIN_04_WB	0.2981	20	-	-	-		20X
1706929-05	W17-N_17MN001_062517_TIN_05_WB	0.2885	20	-	-	-		20X
1706929-06	W17-N_17PT003_062417_SPI_01_WB	0.2744	20	-	-	-		400X
1706929-07	W17-N_17PT003_062417_SPI_02_WB	0.2718	20	-	-	-		400X
1706929-08	W17-N_17PT002_062517_SPI_03_WB	0.2677	20	-	-	-		400X
1706929-09	W17-N_17PT004_062517_SPI_04_WB	0.2595	20	-	-	-		400X
1706929-10	W17-N_17PT001_062517_SPI_05_WB	0.2569	20	-	-	-		400X
1706930-01	MMSE-1_17BN001_062117_TIN_01_WB	0.2801	20	QC	-	-	MS/MSD	20X → 50X
1706930-02	MMSE-1_17BN001_062117_TIN_02_WB	0.2607	20	-	-	-		20X
1706930-03	MMSE-1_17BN004_062117_TIN_03_WB	0.2508	20	-	-	-		20X
1706930-06	MMSE-1_17PT003_062117_SPI_01_WB	0.2606	20	QC	-	-	MS/MSD	400X
1706931-01	MMSW-C_17BN003_062317_TIN_01_WB	0.2908	20	-	-	-		20X
1706931-02	MMSW-C_17BN002_062317_TIN_02_WB	0.2535	20	-	-	-		20X
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.275	20	-	-	-		400X
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2816	20	-	-	-		400X
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2588	20	-	-	-		400X

PREPARATION BENCH SHEET

F707326

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: ~~7/10/2017~~ 7/11/2017 *etc*



Due Date: 7/31/2017

Technician: CC Batch#: F707326 Date: 7/10/17 / 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/CH<sub>2</sub>Cl<sub>2</sub>: 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) <sup>MS/MSD</sup> Spike vol.: 100 µL (LIMS ID: 1700685)  
 Spike Witness: DM 7/11/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MM11619 Calibration Date: 7/5/17  
 HNO<sub>3</sub> LIMS ID: NA Pipette SN#: NA Calibration Date: NA  
 70/30 LIMS ID: 1704061/1704177 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068124 Boiling Chip lot # 1702551 \*Hotblock Position: L4

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"/> NA
1	F707326-BLK1	0.2633	23	1706929-09	0.2595	
2	F707326-BLK2	0.2578	24	1706929-10	0.2569	
3	F707326-BLK3	0.2636	25	1706930-01	0.2801	
4	F707326-BLK4	0.2556	26	1706930-02	0.2607	Comments
5	F707326-BLK5	0.2596	27	1706930-03	0.2508	BLK4: Pre BLK
6	F707326-BLK6	0.2624	28	1706930-06	0.2606	for 1706929
7	F707326-BLK7	0.2633	29	1706931-01	0.2908	BLK6: Post BLK
8	F707326-BS1	0.2728	30	1706931-02	0.2535	for 1706929
9	F707326-BSD1	0.2808	31	<del>1706931-09</del>	<del>0.2711</del>	BLK6: Pre BLK
10	F707326-DUP1	0.2571	32	1706931-10	0.2750	for 1706930, 931, 932
11	F707326-MS1	0.2943	33	1706932-06	0.2816	BLK7: Post BLK
12	F707326-MSD1	0.2878	34	1706932-07	0.2588	for 1706930, 931, 932
13	F707326-MS2	0.2667	35			DUP1/MS1/MSD1
14	F707326-MSD2	0.2763	36			Source: 1706930-01
15	1706929-01	0.2851	37			MS2/MSD2
16	1706929-02	0.2561	38			Source: 1706930-06
17	1706929-03	0.2745	39			Dup L SRC:
18	1706929-04	0.2981	40			1706929-05
19	1706929-05	0.2885	41			BS/BSD spike
20	1706929-06	0.2744	42			20ml of 1000 µg/mL
21	1706929-07	0.2718	43			1702555
22	1706929-08	0.2677	44			MS1 + MSD1 were spiked w/ 200 µg digested 7/11/17



# Failing Data Report - 7G14008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1706930-01	Hg-CVAFS-T-7030	64.1	0.714				ng/g						FAIL-OVER	PASS	E
F707326-DUP1	Hg-CVAFS-T-7030	79.93	0.778	49.71	49.71		ng/g				46.6	24.00	FAIL-OVER	FAIL-DUP	E, QR-07

Don Moxem      7/14/17  
 Analyst Reviewed By      Date

RLW      7/14/17  
 Peer Reviewed By      Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G14009

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *PL* 7/14/17 Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G14009-IBL1 ✓	QC	1			
7G14009-IBL2 ✓	QC	2			
7G14009-IBL3 ✓	QC	3			
7G14009-CAL1 ✓	QC	4	1702602	✓	
7G14009-CAL2 ✓	QC	5	1702603	✓	
7G14009-CAL3 ✓	QC	6	1702604	✓	
7G14009-CAL4 ✓	QC	7	1702605	✓	
7G14009-CAL5 ✓	QC	8	1702606	✓	
7G14009-ICV1 ✓	QC	9	1703679	✓	
F707251-BLK1 ✓	QC	10			
F707251-BLK2 ✓	QC	11			
F707251-BLK3 ✓	QC	12			
F707251-BS1 ✓	QC	13			
F707251-BSD1 ✓	QC	14			
1706563-01 ✓	Hg-CVAFS-S-SSE-F2	15			
1706563-04 ✓	Hg-CVAFS-S-SSE-F2	16			
1706563-05 ✓	Hg-CVAFS-S-SSE-F2	17			
1706564-01 ✓	Hg-CVAFS-S-SSE-F2	18			
1706564-05 ✓	Hg-CVAFS-S-SSE-F2	19			
7G14009-CCV1 ✓	QC	20	1703679	✓	
7G14009-CCB1 ✓	QC	21			
1706564-08 ✓	Hg-CVAFS-S-SSE-F2	22			
1706565-01 ✓	Hg-CVAFS-S-SSE-F2	23			
1706565-04 ✓	Hg-CVAFS-S-SSE-F2	24			
1706565-07 ✓	Hg-CVAFS-S-SSE-F2	25			
1706565-10 ✓	Hg-CVAFS-S-SSE-F2	26			
1706565-13 ✓	Hg-CVAFS-S-SSE-F2	27			
1706565-16 ✓	Hg-CVAFS-S-SSE-F2	28			
1706565-19 ✓	Hg-CVAFS-S-SSE-F2	29			
1706565-25 ✓	Hg-CVAFS-S-SSE-F2	30			
1706565-29 ✓	Hg-CVAFS-S-SSE-F2	31			
7G14009-CCV2 ✓	QC	32	1703679	✓	
7G14009-CCB2 ✓	QC	33			
1706565-30 ✓	Hg-CVAFS-S-SSE-F2	34			
1706565-31 ✓	Hg-CVAFS-S-SSE-F2	35			

## ANALYSIS SEQUENCE

7G14009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F707251-DUP1 ✓	QC	36			
F707251-DUP2 ✓	QC	37			
F707251-MS1 ✓	QC	38			
F707251-MSD1 ✓	QC	39			
F707251-MS2 ✓	QC	40			
F707251-MSD2 ✓	QC	41			
F707289-BLK1 ✓	QC	42			
F707289-BLK2 ✓	QC	43			
7G14009-CCV3 ✓	QC	44	1703679	✓	
7G14009-CCB3 ✓	QC	45			
F707289-BLK3 ✓	QC	46			
F707289-BS1 ✓	QC	47			
F707289-BSD1 ✓	QC	48			
1706565-17 ✓	Hg-CVAFS-S-SSE-F2	49			
1706565-18 ✓	Hg-CVAFS-S-SSE-F2	50			
1706565-20 ✓	Hg-CVAFS-S-SSE-F2	51			
1706565-21 ✓	Hg-CVAFS-S-SSE-F2	52			
1706565-22 ✓	Hg-CVAFS-S-SSE-F2	53			
1706565-23 ✓	Hg-CVAFS-S-SSE-F2	54			
1706565-24 ✓	Hg-CVAFS-S-SSE-F2	55			
7G14009-CCV4 ✓	QC	56	1703679	✓	
7G14009-CCB4 ✓	QC	57			
1706565-26 ✓	Hg-CVAFS-S-SSE-F2	58			
1706565-27 ✓	Hg-CVAFS-S-SSE-F2	59			
1706565-28 ✓	Hg-CVAFS-S-SSE-F2	60			
1706565-32 ✓	Hg-CVAFS-S-SSE-F2	61			
1706565-33 ✓	Hg-CVAFS-S-SSE-F2	62			
1706565-34 ✓	Hg-CVAFS-S-SSE-F2	63			
F707289-DUP1 ✓	QC	64			
F707289-MS1 ✓	QC	65			
F707289-MSD1 ✓	QC	66			
7G14009-CCV5 ✓	QC	67	1703679	✓	
7G14009-CCB5 ✓	QC	68			

Due Date: 7/18/2017

ANALYSIS SEQUENCE

7G14009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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    Dan Maxam              7/13/17      
Samples Loaded By                      Date

    Dan Maxam              7/14/17      
Data Processed By                      Date

**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707251-BLK1	Blank	0.46	125					
F707251-BLK2	Blank	0.414	125					
F707251-BLK3	Blank	0.407	125					
F707251-BS1	LCS	0.016	5 ✓	1604715 ✓	100 ✓			
F707251-BSD1	LCS Dup	0.016 ✓	5 ✓	1604715	100			
F707251-DUP1	Duplicate [1706563-01] ✓	0.426	125					
F707251-DUP2	Duplicate [1706564-01] ✓	0.418	125					
F707251-MS1	Matrix Spike [1706563-01] ✓	0.0162	5	1702557 ✓	125 ✓			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL ✓
F707251-MS2	Matrix Spike [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD1	Matrix Spike Dup [1706563-01] ✓	0.0162	5	1702557	125			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 5mL
F707251-MSD2	Matrix Spike Dup [1706564-01] ✓	0.01804	5	1702557	125			[Spk] 0.451g->125mL; 125mL->125mL; Spiked 5mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1702557	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-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
1703376	THg Washstation (0.5% BrCl)	03-Oct-17 00:00
1703377	THg Dilute 1% BrCl	
1703678	SSE pH2	17-Dec-17 00:00
1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
1704213	SSE pH2	08-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	QC	-	-	MS/MSD	
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	

**PREPARATION BENCH SHEET**

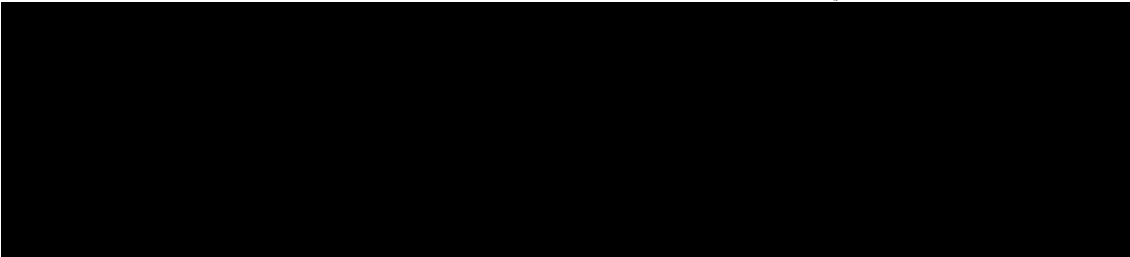
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**



**Due Date: 7/18/2017**

PREPARATION BENCH SHEET

2000-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707251-BLK1	Blank	0.46	125					10X ✓
F707251-BLK2	Blank	0.414	125					10X ✓
F707251-BLK3	Blank	0.407	125					10X ✓
F707251-BS1	LCS 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125	1604715	100			10X ✓
F707251-BSD1	LCS Dup 0.016	0.4	2 <sup>5</sup> / <sub>3</sub> 125	1604715	100			10X ✓
F707251-DUP1	Duplicate [1706563-01]	0.426	125					10X ✓
F707251-DUP2	Duplicate [1706564-01]	0.418	125					10X ✓
F707251-MS1	Matrix Spike 1706563-01	0.4	125	1702557	125			10X ✓
F707251-MSD1	Matrix Spike Dup 1706563-01	0.4	125	1702557	125			10X ✓

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

MS2, MSD2 - 10X ✓

1706564-01

125ul 1702557

1703376

1703377

1703182

1704096

Due Date: 7/18/2017



PREPARATION BENCH SHEET

2600-2

7/13/17 DM

F707251

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	QC	-	-	MS/MSD	10X ✓
1706563-04	BG05SB10-SD-0.00-170613Hg	0.404	125	-	-	-		10X ✓
1706563-05	BG05SB10-S-0.00-170613Hg	0.427	125	-	-	-		10X ✓
1706564-01	BG02SB01-S-0.00-170615Hg	0.451	125	QC	-	-	MS/MSD	10X ✓
1706564-05	BG02SB05-S-0.00-170615Hg	0.467	125	-	-	-		10X ✓
1706564-08	BG02SB09-S-0.00-170616Hg	0.413	125	-	-	-		10X ✓
1706565-01	BG03SB01-S-0.00-170612Hg	0.447	125	-	-	-		10X ✓
1706565-04	BG03SB05-S-0.00-170612Hg	0.422	125	-	-	-		10X ✓
1706565-07	BG03SB07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-10	BG04SB08-S-0.00-170612Hg	0.416	125	-	-	-		10X ✓
1706565-13	BG05SB02-S-0.00-170612Hg	0.45	125	-	-	-		10X ✓
1706565-16	UDPSB-05-S-0.00-170612Hg	0.415	125	-	-	-		10X ✓
1706565-19	UDPSB-07-S-0.00-170612Hg	0.41	125	-	-	-		10X ✓
1706565-25	UDPSB-11-S-0.00-170612Hg	0.424	125	-	-	-		10X ✓
1706565-29	HgO for First SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X ✓
1706565-30	HgS for First SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X ✓
1706565-31	Hg2Cl2 for First SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X ✓

**PREPARATION BENCH SHEET**

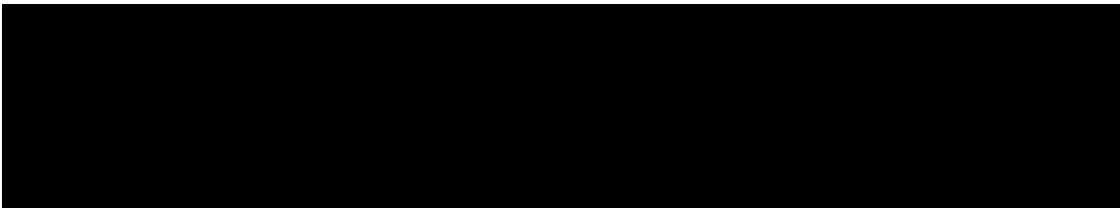
F707251

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/3/2017**



**Due Date: 7/18/2017**

Technician: W.F. Batch#: F707250(F<sub>1</sub>) 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub>  
 Balance#: 6 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser:  yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: \_\_\_\_\_ 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 70/30 LIMS ID: SSE #2: 1703672, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: KOH = 1703709, 1704329, 1704234 Dispenser #: \_\_\_\_\_  
 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 <sub>2</sub> O - 1605057
2	F707250 - BLU2	0.414	24			HgS - 1605058
3	F707250 - BLU3	0.407	25			Hg <sub>2</sub> Cl <sub>2</sub> - 1605056
4	1706563 - 01	0.405	26			
5	F707250 - DUP1	0.426	27			<b>Comments</b>
6	1706563 - 04	0.404	28			F707250 - DUP1 SOURCE = 1706563-04
7	1706563 - 05	0.427	29			F707250 - DUP2 SOURCE = 1706564-01
8	1706564 - 01	0.451	30			
9	F707250 - DUP2	0.418	31			F <sub>1</sub> = F707250 Excl: 1703700 Pipette: J07631 vol added: 1.25ml
10	1706564 - 05	0.467	32			
11	1706564 - 08	0.413	33			
12	1706565 - 01	0.447	34			F <sub>2</sub> = F707251 Excl: 1703700 Pipette: J07631 vol added: 1.25ml
13	1706565 - 04	0.422	35			
14	1706565 - 07	0.410	36			
15	1706565 - 10	0.416	37			F <sub>3</sub> = F707252 Excl: 1703700 Pipette: J07631 vol added: 10.0ml
16	1706565 - 13	0.450	38			
17	1706565 - 16	0.415	39			
18	1706565 - 19	0.410	40			F <sub>4</sub> = F707254 Excl: F707253 Pipette: J07631 vol added: 1.25ml
19	1706565 - 25	0.424	41			
20	1706565 - 29	0.442	42			
21	1706565 - 30	0.440	43			F <sub>5</sub> = F707254 Excl: LIMS: BS weight: BSE weight:
22	1706565 - 31	0.464	44			

**PREPARATION BENCH SHEET**

F707289

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**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
F707289-BLK1	Blank	0.46	125					
F707289-BLK2	Blank	0.414	125					
F707289-BLK3	Blank	0.407	125					
F707289-BS1	LCS	0.016	5	1604715	100			
F707289-BSD1	LCS Dup	0.016	5	1604715	100			
F707289-DUP1	Duplicate [1706565-22]	0.423	125					
F707289-MS1	Matrix Spike [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL
F707289-MSD1	Matrix Spike Dup [1706565-22]	0.01616	5	1702556	50			[Spk] 0.404g->125mL; 125mL->125mL; Spiked 5mL

<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	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	
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704095	3% SnCl2 THg reductant	25-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707289

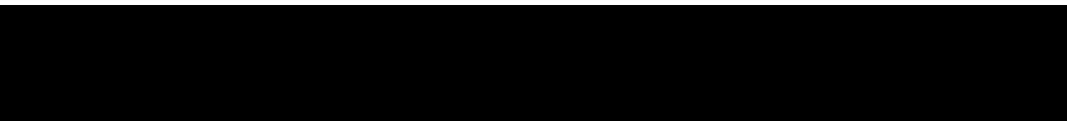
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 7/11/2017**

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	125	-	-	-		
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	



PREPARATION BENCH SHEET

2600.2  
7/13/17 DM

F707289

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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
F707289-BLK1	Blank	0.46	125					10X ✓
F707289-BLK2	Blank	0.414	125					10X ✓
F707289-BLK3	Blank	0.407	125					10X ✓
F707289-BS1	LCS 0.010	0.4	5 125	1604715	100			10X ✓
F707289-BSD1	LCS Dup 0.010	0.4	5 125	1604715	100			10X ✓
F707289-DUP1	Duplicate [1706565-22]	0.423	125					10X ✓
F707289-MS1	Matrix Spike 1706565-22	0.4	125	1702556	50			10X ✓
F707289-MSD1	Matrix Spike Dup 1706565-22	0.4	125	1702556	50			10X ✓

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
			1703678	SSE pH2	17-Dec-17 00:00
			1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1704213	SSE pH2	08-Jan-18 00:00

1703376  
1703377  
1703182  
1704095

Due Date: 7/18/2017

PREPARATION BENCH SHEET

2600.2  
7/13/17 DM

F707289

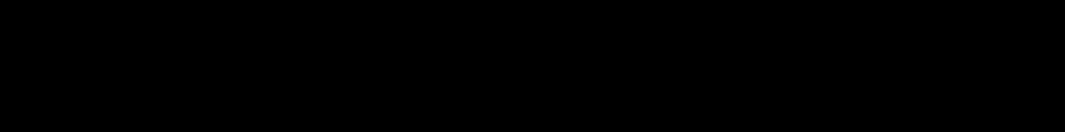
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

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	125	-	-	-		10X /
1706565-18	UDPSB-05-S-1.00-170612Hg	0.406	125	-	-	-		10X /
1706565-20	UDPSB-07-S-0.50-170612Hg	0.423	125	-	-	-		10X /
1706565-21	UDPSB-07-S-1.00-170612Hg	0.414	125	-	-	-		10X /
1706565-22	UDPSB-10-S-0.00-170612Hg	0.404	125	QC	-	-	MS/MSD	10X /
1706565-23	UDPSB-10-S-0.50-170612Hg	0.452	125	-	-	-		10X /
1706565-24	UDPSB-10-S-1.00-170612Hg	0.416	125	-	-	-		10X /
1706565-26	UDPSB-11-SD-0.50-170612Hg	0.424	125	-	-	-		10X /
1706565-27	UDPSB-11-S-0.50-170612Hg	0.41	125	-	-	-		10X /
1706565-28	UDPSB-11-S-1.00-170612Hg	0.403	125	-	-	-		10X /
1706565-32	HgO for Second SSE Batch	0.442	125	-	-	-	These are CRMs, Not used in F0 analys	100,000X /
1706565-33	HgS for Second SSE Batch	0.44	125	-	-	-	These are CRMs, Not used in F0 analys	2500X /
1706565-34	Hg2Cl2 for Second SSE Batch	0.464	125	-	-	-	These are CRMs, Not used in F0 analys	50,000X /



Technician: wf Batch#: F707288(F<sub>1</sub>) Date: 7/10/17 <sup>wf</sup> 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 F<sub>1</sub>, F<sub>2</sub>, F<sub>3</sub>, F<sub>4</sub>, F<sub>5</sub> 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.: \_\_\_\_\_ mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)  
 Spike Witness: \_\_\_\_\_ (initial and date) Dispenser: Yes

HCl LIMS ID: \_\_\_\_\_ Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_  
 HNO<sub>3</sub> LIMS ID: 12N HNO<sub>3</sub> Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_

70:30 LIMS ID: SSE #2: 1703678, 1704213 Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No  
 Other Acid LIMS ID: 1703705, 1704239 Dispenser #: \_\_\_\_\_  
 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 checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F707288 - Blk1	0.460	23			HgO = 1606057
2	F707288 - Blk2	0.414	24			HgS = 1605058
3	F707288 - Blk3	0.407	25			HgCl <sub>2</sub> = 1605056
4	1706565 - 17	0.405	26			Comments
5	F707288 - DUP1	0.423	27			F707288-DUP1
6	1706565 - 18	0.406	28			source = 1706565-22
7	1706565 - 20	0.423	29			F <sub>1</sub> = 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 <sub>2</sub> = 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: 1.00 ml
15	1706565 - 32	0.442	37			F <sub>3</sub> = F707290
16	1706565 - 33	0.440	38			Brd: 1703700
17	1706565 - 34	0.464	39			Pipette: J0H7631
18			40			vol added:
19			41			F <sub>4</sub> = F707291
20			42			Brd:
21			43			Pipette:
22			44			vol added:







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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> 0 <i>R 7/14/18</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	0

**Analyst Initials** *DM*                      **Reviewer Initials** *R 7/14/18*

- 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: *1706930-01 HIGH SAMPLE. ABOVE CALS. F707326-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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G14008, 7G14009
<b>Reviewer:</b> 0 <i>R 7/14/17</i>	<b>Dataset ID(s):</b> THG26002-170713-1
<b>Date:</b> 7/14/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707251, F707289, F707326	0

Analyst Initials DM                      Reviewer Initials R 7/14/17

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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>12/1/16, 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>5/9/17, 4/25/17</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, 4-25-17</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

### MHg27001-170727-1

**Analysis Datasheet for Methyl Mercury in Waters**

Date of Analysis: July 27, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7G28007

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	18.46 units	369.30	18.46 units	369.30	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	78.33 units	391.63	78.33 units	391.63	94.4 %Rec
SEQ-CAL3	1	1.00 ng/L	456.27 units	456.27	456.27 units	456.27	109.9 %Rec
SEQ-CAL4	1	2.00 ng/L	850.56 units	425.28	850.56 units	425.28	102.5 %Rec
SEQ-CAL5	1	4.00 ng/L	1731.04 units	432.76	1731.04 units	432.76	104.3 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b>	<b>Corr. St Dev RF</b>	<b>Corr. RSD CF</b>	<b>Uncorr. Mean RF</b>	<b>Eff Factor</b>
415.05	+/- 34.49	8.3% RSD	415.05	<b>0.8690</b>

**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	0.001 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: BC 7/29/17



Frontier Global Sciences

# MHg27001-170727-2

## Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: July 27, 2017

Analyst: DM2

Instrument #: Hg2700-1

Units ng/L

LIMS Sequence #: 7G28008

### Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.05 ng/L	18.46 units	369.30	18.46 units	369.30	89.0 %Rec
SEQ-CAL2	1	0.20 ng/L	78.33 units	391.63	78.33 units	391.63	94.4 %Rec
SEQ-CAL3	1	1.00 ng/L	456.27 units	456.27	456.27 units	456.27	109.9 %Rec
SEQ-CAL4	1	2.00 ng/L	850.56 units	425.28	850.56 units	425.28	102.5 %Rec
SEQ-CAL5	1	4.00 ng/L	1731.04 units	432.76	1731.04 units	432.76	104.3 %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**  
 415.05            +/- 34.49            8.3% RSD            415.05

### 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	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hq2700-1	DM2	CAL	SEQ-IBL1	1	7/27/17 8:54	24311-1.RAW	8:54	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	7/27/17 9:05	24312-1.RAW	#####	18.46				18.5	0.044	0.044	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	7/27/17 9:15	24313-1.RAW	#####	78.33				78.3	0.189	0.189	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	7/27/17 9:26	24314-1.RAW	#####	456.27				456.3	1.099	1.099	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	7/27/17 9:36	24315-1.RAW	#####	850.56				850.6	2.049	2.049	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	7/27/17 9:47	24316-1.RAW	#####	1731.04				1731.0	4.171	4.171	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICV1	1	7/27/17 9:57	24317-1.RAW	#####	204.16				204.2	0.492	0.492	ng/L	
Hq2700-1	DM2	CAL	SEQ-ICB1	1	7/27/17 10:08	24318-1.RAW	#####	1.85				1.8	0.004	0.004	ng/L	
Hq2700-1	DM2	BLK	F707501-BLK1	1.25	7/27/17 10:18	24319-1.RAW	#####	1.12	1			1.1	0.003	0.004	ng/L	
Hq2700-1	DM2	BLK	F707501-BLK2	1.25	7/27/17 10:29	24320-1.RAW	#####	0.00	1			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F707501-BLK3	1.25	7/27/17 10:40	24321-1.RAW	#####	0.00	1			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F707501-BS1	1.25	7/27/17 10:50	24322-1.RAW	#####	300.30	1			300.3	0.832	1.039	ng/L	
Hq2700-1	DM2	SAM	F707501-BSD1	1.25	7/27/17 11:01	24323-1.RAW	#####	335.29	1			335.3	0.929	1.161	ng/L	
Hq2700-1	DM2	SAM	F707501-DUP1	1.25	7/27/17 11:11	24324-1.RAW	#####	18.44	1			18.4	0.050	0.063	ng/L	
Hq2700-1	DM2	SAM	F707501-MS1	1.25	7/27/17 11:22	24325-1.RAW	#####	363.06	1			363.1	1.006	1.257	ng/L	
Hq2700-1	DM2	SAM	F707501-MSD1	1.25	7/27/17 11:32	24326-1.RAW	#####	334.51	1			334.5	0.926	1.158	ng/L	
Hq2700-1	DM2	SAM	F707501-MS2	1.25	7/27/17 11:43	24327-1.RAW	#####	385.03	1			385.0	1.066	1.333	ng/L	
Hq2700-1	DM2	SAM	F707501-MSD2	1.25	7/27/17 11:53	24328-1.RAW	#####	360.66	1			360.7	0.999	1.249	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	7/27/17 12:04	24329-1.RAW	#####	195.58				195.6	0.471	0.471	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	7/27/17 12:14	24330-1.RAW	#####	0.81				0.8	0.002	0.002	ng/L	
Hq2700-1	DM2	SAM	1707102-01	1.25	7/27/17 12:25	24331-1.RAW	#####	28.94	1			28.9	0.079	0.099	ng/L	
Hq2700-1	DM2	SAM	1707102-02	1.25	7/27/17 12:35	24332-1.RAW	#####	33.05	1			33.0	0.091	0.113	ng/L	
Hq2700-1	DM2	SAM	1707102-03	1.25	7/27/17 12:46	24333-1.RAW	#####	21.17	1			21.2	0.058	0.072	ng/L	
Hq2700-1	DM2	SAM	1707102-04	1.25	7/27/17 12:56	24334-1.RAW	#####	13.53	1			13.5	0.036	0.046	ng/L	
Hq2700-1	DM2	SAM	1707102-05	1.25	7/27/17 13:07	24335-1.RAW	#####	17.61	1			17.6	0.048	0.060	ng/L	
Hq2700-1	DM2	SAM	1707102-06	1.25	7/27/17 13:17	24336-1.RAW	#####	8.72	1			8.7	0.023	0.029	ng/L	
Hq2700-1	DM2	SAM	1707293-01	1.25	7/27/17 13:28	24337-1.RAW	#####	36.27	1			36.3	0.100	0.124	ng/L	
Hq2700-1	DM2	SAM	1707293-02	1.25	7/27/17 13:38	24338-1.RAW	#####	34.35	1			34.3	0.094	0.118	ng/L	
Hq2700-1	DM2	SAM	1707293-03	1.25	7/27/17 13:49	24339-1.RAW	#####	17.84	1			17.8	0.048	0.061	ng/L	
Hq2700-1	DM2	SAM	1707293-04	1.25	7/27/17 13:59	24340-1.RAW	#####	20.53	1			20.5	0.056	0.070	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	7/27/17 14:10	24341-1.RAW	#####	176.21				176.2	0.425	0.425	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	7/27/17 14:20	24342-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1707293-05	1.25	7/27/17 14:31	24343-1.RAW	#####	21.63	1			21.6	0.059	0.074	ng/L	
Hq2700-1	DM2	SAM	1707293-06	1.25	7/27/17 14:41	24344-1.RAW	#####	12.80	1			12.8	0.034	0.043	ng/L	
Hq2700-1	DM2	SAM	1707294-01	1.25	7/27/17 14:52	24345-1.RAW	#####	59.25	1			59.2	0.163	0.204	ng/L	
Hq2700-1	DM2	SAM	1707294-02	1.25	7/27/17 15:02	24346-1.RAW	#####	41.24	1			41.2	0.113	0.142	ng/L	
Hq2700-1	DM2	SAM	1707294-03	1.25	7/27/17 15:13	24347-1.RAW	#####	41.66	1			41.7	0.114	0.143	ng/L	
Hq2700-1	DM2	SAM	1707543-01	1.25	7/27/17 15:23	24348-1.RAW	#####	29.05	1			29.0	0.080	0.099	ng/L	
Hq2700-1	DM2	SAM	1707543-03	1.25	7/27/17 15:34	24349-1.RAW	#####	30.08	1			30.1	0.082	0.103	ng/L	
Hq2700-1	DM2	SAM	1707543-04	1.25	7/27/17 15:44	24350-1.RAW	#####	21.62	1			21.6	0.059	0.074	ng/L	
Hq2700-1	DM2	SAM	1707543-05	1.25	7/27/17 15:55	24351-1.RAW	#####	15.59	1			15.6	0.042	0.053	ng/L	
Hq2700-1	DM2	SAM	1707543-06	1.25	7/27/17 16:05	24352-1.RAW	#####	27.38	1			27.4	0.075	0.094	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	7/27/17 16:16	24353-1.RAW	#####	190.03				190.0	0.458	0.458	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	7/27/17 16:26	24354-1.RAW	#####	0.00				0.0	0.000	0.000	ng/L	



Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hg2700-1	DM2	CAL	SEQ-IBL1	1	7/27/17 8:54	24311-1.RAW	8:54:54	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	7/27/17 9:05	24312-1.RAW	9:05:25	18.46				18.5	0.044	0.044	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	7/27/17 9:15	24313-1.RAW	9:15:55	78.33				78.3	0.189	0.189	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	7/27/17 9:26	24314-1.RAW	9:26:26	456.27				456.3	1.099	1.099	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	7/27/17 9:36	24315-1.RAW	9:36:57	850.56				850.6	2.049	2.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	7/27/17 9:47	24316-1.RAW	9:47:27	1731.04				1731.0	4.171	4.171	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	7/27/17 9:57	24317-1.RAW	9:57:58	204.16				204.2	0.492	0.492	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	7/27/17 10:08	24318-1.RAW	10:08:29	1.85				1.8	0.004	0.004	ng/L	
Hg2700-1	DM2	BLK	F707501-BLK1	1.25	7/27/17 10:18	24319-1.RAW	10:18:59	1.12		X		1.1	0.003	0.003	ng/L	
Hg2700-1	DM2	BLK	F707501-BLK2	1.25	7/27/17 10:29	24320-1.RAW	10:29:30	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707501-BLK3	1.25	7/27/17 10:40	24321-1.RAW	10:40:01	0.00		X		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707501-BS1	1.25	7/27/17 10:50	24322-1.RAW	10:50:32	300.30		X		300.3	0.724	0.904	ng/L	
Hg2700-1	DM2	SAM	F707501-BSD1	1.25	7/27/17 11:01	24323-1.RAW	11:01:02	335.29		X		335.3	0.808	1.010	ng/L	
Hg2700-1	DM2	SAM	F707501-DUP1	1.25	7/27/17 11:11	24324-1.RAW	11:11:33	18.44		X		18.4	0.044	0.056	ng/L	
Hg2700-1	DM2	SAM	F707501-MS1	1.25	7/27/17 11:22	24325-1.RAW	11:22:04	363.06		X		363.1	0.875	1.093	ng/L	
Hg2700-1	DM2	SAM	F707501-MSD1	1.25	7/27/17 11:32	24326-1.RAW	11:32:34	334.51		X		334.5	0.806	1.007	ng/L	
Hg2700-1	DM2	SAM	F707501-MS2	1.25	7/27/17 11:43	24327-1.RAW	11:43:05	385.03		X		385.0	0.928	1.160	ng/L	
Hg2700-1	DM2	SAM	F707501-MSD2	1.25	7/27/17 11:53	24328-1.RAW	11:53:36	360.66		X		360.7	0.869	1.086	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	7/27/17 12:04	24329-1.RAW	12:04:07	195.58				195.6	0.471	0.471	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	7/27/17 12:14	24330-1.RAW	12:14:37	0.81				0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1707102-01	1.25	7/27/17 12:25	24331-1.RAW	12:25:08	28.94		X		28.9	0.070	0.087	ng/L	
Hg2700-1	DM2	SAM	1707102-02	1.25	7/27/17 12:35	24332-1.RAW	12:35:39	33.05		X		33.0	0.080	0.100	ng/L	
Hg2700-1	DM2	SAM	1707102-03	1.25	7/27/17 12:46	24333-1.RAW	12:46:09	21.17		X		21.2	0.051	0.064	ng/L	
Hg2700-1	DM2	SAM	1707102-04	1.25	7/27/17 12:56	24334-1.RAW	12:56:40	13.53		X		13.5	0.033	0.041	ng/L	
Hg2700-1	DM2	SAM	1707102-05	1.25	7/27/17 13:07	24335-1.RAW	13:07:11	17.61		X		17.6	0.042	0.053	ng/L	
Hg2700-1	DM2	SAM	1707102-06	1.25	7/27/17 13:17	24336-1.RAW	13:17:42	8.72		X		8.7	0.021	0.026	ng/L	
Hg2700-1	DM2	SAM	1707293-01	1.25	7/27/17 13:28	24337-1.RAW	13:28:12	36.27		X		36.3	0.087	0.109	ng/L	
Hg2700-1	DM2	SAM	1707293-02	1.25	7/27/17 13:38	24338-1.RAW	13:38:43	34.35		X		34.3	0.083	0.103	ng/L	
Hg2700-1	DM2	SAM	1707293-03	1.25	7/27/17 13:49	24339-1.RAW	13:49:14	17.84		X		17.8	0.043	0.054	ng/L	
Hg2700-1	DM2	SAM	1707293-04	1.25	7/27/17 13:59	24340-1.RAW	13:59:44	20.53		X		20.5	0.049	0.062	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	7/27/17 14:10	24341-1.RAW	14:10:15	176.21				176.2	0.425	0.425	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	7/27/17 14:20	24342-1.RAW	14:20:46	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707293-05	1.25	7/27/17 14:31	24343-1.RAW	14:31:17	21.63		X		21.6	0.052	0.065	ng/L	
Hg2700-1	DM2	SAM	1707293-06	1.25	7/27/17 14:41	24344-1.RAW	14:41:47	12.80		X		12.8	0.031	0.039	ng/L	
Hg2700-1	DM2	SAM	1707294-01	1.25	7/27/17 14:52	24345-1.RAW	14:52:18	59.25		X		59.2	0.143	0.178	ng/L	
Hg2700-1	DM2	SAM	1707294-02	1.25	7/27/17 15:02	24346-1.RAW	15:02:49	41.24		X		41.2	0.099	0.124	ng/L	
Hg2700-1	DM2	SAM	1707294-03	1.25	7/27/17 15:13	24347-1.RAW	15:13:20	41.66		X		41.7	0.100	0.125	ng/L	
Hg2700-1	DM2	SAM	1707543-01	1.25	7/27/17 15:23	24348-1.RAW	15:23:50	29.05		X		29.0	0.070	0.087	ng/L	
Hg2700-1	DM2	SAM	1707543-03	1.25	7/27/17 15:34	24349-1.RAW	15:34:21	30.08		X		30.1	0.072	0.091	ng/L	
Hg2700-1	DM2	SAM	1707543-04	1.25	7/27/17 15:44	24350-1.RAW	15:44:51	21.62		X		21.6	0.052	0.065	ng/L	
Hg2700-1	DM2	SAM	1707543-05	1.25	7/27/17 15:55	24351-1.RAW	15:55:22	15.59		X		15.6	0.038	0.047	ng/L	
Hg2700-1	DM2	SAM	1707543-06	1.25	7/27/17 16:05	24352-1.RAW	16:05:53	27.38		X		27.4	0.066	0.082	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	7/27/17 16:16	24353-1.RAW	16:16:23	190.03				190.0	0.458	0.458	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	7/27/17 16:26	24354-1.RAW	16:26:54	0.00				0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707394-BLK1	500	7/27/17 16:37	24355-1.RAW	16:37:25	0.00		1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F707394-BLK2	500	7/27/17 16:47	24356-1.RAW	16:47:55	0.00		1		0.0	0.000	0.000	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP				
Hg2700-1	DM2	BLK	F707394-BLK3	500	7/27/17 16:58	24357-1.RAW	16:58:26	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK4	500	7/27/17 17:08	24358-1.RAW	17:08:57	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK5	500	7/27/17 17:19	24359-1.RAW	17:19:27	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK6	500	7/27/17 17:29	24360-1.RAW	17:29:58	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F707394-BLK7	500	7/27/17 17:40	24361-1.RAW	17:40:29	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F707394-BS1	1000	7/27/17 17:51	24362-1.RAW	17:51:00	686.99	1		687.0	1.655	1655.208	ng/L	
Hg2700-1	DM2	SAM	F707394-BSD1	1000	7/27/17 18:01	24363-1.RAW	18:01:30	644.65	1		644.6	1.553	1553.190	ng/L	
Hg2700-1	DM2	SAM	F707394-DUP1	500	7/27/17 18:12	24364-1.RAW	18:12:01	582.34	1		582.3	1.403	701.531	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	7/27/17 18:22	24365-1.RAW	18:22:32	202.30	1		202.3	0.487	0.487	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	7/27/17 18:33	24366-1.RAW	18:33:03	1.48	1		1.5	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	F707394-MS1	500	7/27/17 18:43	24367-1.RAW	18:43:33	493.05	1		493.0	1.188	593.963	ng/L	
Hg2700-1	DM2	SAM	F707394-MSD1	500	7/27/17 18:54	24368-1.RAW	18:54:04	513.19	1		513.2	1.236	618.223	ng/L	
Hg2700-1	DM2	SAM	F707394-MS2	500	7/27/17 19:04	24369-1.RAW	19:04:35	488.23	1		488.2	1.176	588.154	ng/L	
Hg2700-1	DM2	SAM	F707394-MSD2	500	7/27/17 19:15	24370-1.RAW	19:15:06	512.44	1		512.4	1.235	617.324	ng/L	
Hg2700-1	DM2	SAM	1706931-04	500	7/27/17 19:25	24371-1.RAW	19:25:36	171.00	1		171.0	0.412	205.998	ng/L	
Hg2700-1	DM2	SAM	1706931-05	500	7/27/17 19:36	24372-1.RAW	19:36:07	536.79	1		536.8	1.293	646.656	ng/L	
Hg2700-1	DM2	SAM	1706931-06	2500	7/27/17 19:46	24373-1.RAW	19:46:38	1041.28	1		1041.3	2.509	6272.024	ng/L	
Hg2700-1	DM2	SAM	1706931-07	2500	7/27/17 19:57	24374-1.RAW	19:57:09	699.50	1		699.5	1.685	4213.387	ng/L	
Hg2700-1	DM2	SAM	1706931-08	2500	7/27/17 20:07	24375-1.RAW	20:07:39	586.03	1		586.0	1.412	3529.895	ng/L	
Hg2700-1	DM2	SAM	1706931-09	2500	7/27/17 20:18	24376-1.RAW	20:18:10	58.47	1		58.5	0.141	352.203	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	7/27/17 20:28	24377-1.RAW	20:28:41	191.16	1		191.2	0.461	0.461	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	7/27/17 20:39	24378-1.RAW	20:39:12	1.62	1		1.6	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	1706931-10	2500	7/27/17 20:49	24379-1.RAW	20:49:42	821.17	1		821.2	1.978	4946.199	ng/L	
Hg2700-1	DM2	SAM	1706932-01	500	7/27/17 21:00	24380-1.RAW	21:00:13	13.71	1		13.7	0.033	16.517	ng/L	
Hg2700-1	DM2	SAM	1706932-02	500	7/27/17 21:10	24381-1.RAW	21:10:44	88.97	1		89.0	0.214	107.181	ng/L	
Hg2700-1	DM2	SAM	1706932-03	500	7/27/17 21:21	24382-1.RAW	21:21:15	365.11	1		365.1	0.880	439.841	ng/L	
Hg2700-1	DM2	SAM	1706932-04	500	7/27/17 21:31	24383-1.RAW	21:31:45	292.93	1		292.9	0.706	352.882	ng/L	
Hg2700-1	DM2	SAM	1706932-05	500	7/27/17 21:42	24384-1.RAW	21:42:16	23.03	1		23.0	0.055	27.747	ng/L	
Hg2700-1	DM2	SAM	1706932-06	2500	7/27/17 21:52	24385-1.RAW	21:52:47	170.88	1		170.9	0.412	1029.293	ng/L	
Hg2700-1	DM2	SAM	1706932-07	2500	7/27/17 22:03	24386-1.RAW	22:03:18	129.91	1		129.9	0.313	782.479	ng/L	
Hg2700-1	DM2	SAM	1706932-08	2500	7/27/17 22:13	24387-1.RAW	22:13:48	133.12	1		133.1	0.321	801.824	ng/L	
Hg2700-1	DM2	SAM	1706932-09	2500	7/27/17 22:24	24388-1.RAW	22:24:18	126.63	1		126.6	0.305	762.763	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	7/27/17 22:34	24389-1.RAW	22:34:49	158.79	1		158.8	0.383	0.383	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	7/27/17 22:45	24390-1.RAW	22:45:19	0.82	1		0.8	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1706932-10	2500	7/27/17 22:55	24391-1.RAW	22:55:50	93.02	1		93.0	0.224	560.325	ng/L	
Hg2700-1	DM2	SAM	1707444-01	2500	7/27/17 23:06	24392-1.RAW	23:06:21	1632.74	1		1632.7	3.934	9834.638	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7	1	7/27/17 23:16	24393-1.RAW	23:16:51	153.18	1		153.2	0.369	0.369	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7	1	7/27/17 23:27	24394-1.RAW	23:27:22	1.78	1		1.8	0.004	0.004	ng/L	

MethylMercury  
EPA1630

Operat DM  
Worket MMHg2  
Method 2010-01 R:

BlankSub: CalibFactor:  
2010-01 R:

Calib Eqn:  
Status:

Run Date: 7/27/2017  
Run Time: 0:00:00

Blank SD:  
Blank RSD%:

CalibAnalyte:  
CF SD:  
CF RSD%:

SampleID	Locator	Rinse	Dilute	Blank	ConcHg0(p	ConcMeHg	ConcHg2(p	ConcPrHg0(r	Rec%	QA	RawData	RunEnd	PeakH0 (Ra	PeakMeHg (R	PeakHg2(Ra	PeakPrHg0(Ra	Control (eff)	Flags	RunCount
Clear											24309-1.RAW	8:33:53	0.00				cleandry	NP	1
WS	A1										24310-1.RAW	8:44:23	7.40	0.00	2.38	0.00	psample10	OK	1
SEQ-IBL1	A2										24311-1.RAW	8:54:54	6.31	0.00	1.86	0.00	psample10	OK	1
SEQ-CAL1	A3										24312-1.RAW	9:05:25	2.89	18.46	3.93	0.00	psample10	OK	1
SEQ-CAL2	A4										24313-1.RAW	9:15:55	1.36	78.33	4.64	0.00	psample10	CT	1
SEQ-CAL3	A5										24314-1.RAW	9:26:26	5.69	456.27	33.95	0.00	psample10	OK	1
SEQ-CAL4	A6										24315-1.RAW	9:36:57	6.02	850.56	60.35	0.00	psample10	OK	1
SEQ-CAL5	A7										24316-1.RAW	9:47:27	3.79	1731.04	118.47	0.00	psample10	OK	1
SEQ-ICV1	A8										24317-1.RAW	9:57:58	6.95	204.16	5.38	0.00	psample10	OK	1
SEQ-ICB1	A9										24318-1.RAW	10:08:29	5.33	1.85	3.47	0.00	psample10	CT	1
F707501-BLK1	A10	1.25									24319-1.RAW	10:18:59	15.13	1.12	3.35	0.00	psample10	CT	1
F707501-BLK2	A11	1.25									24320-1.RAW	10:29:30	6.25	0.00	3.91	0.00	psample10	OK	1
F707501-BLK3	A12	1.25									24321-1.RAW	10:40:01	14.27	0.00	5.11	0.00	psample10	OK	1
F707501-BS1	A13	1.25									24322-1.RAW	10:50:32	12.02	300.30	15.36	0.00	psample10	OK	1
F707501-BSD1	A14	1.25									24323-1.RAW	11:01:02	9.42	335.29	64.74	0.00	psample10	OK	1
F707501-OUP1	A15	1.25									24324-1.RAW	11:11:33	8.24	18.44	15.51	0.00	psample10	OK	1
F707501-MS1	A16	1.25									24325-1.RAW	11:22:04	13.12	363.06	17.61	0.00	psample10	OK	1
F707501-MSD1	A17	1.25									24326-1.RAW	11:32:34	9.99	334.51	9.95	0.00	psample10	CT	1
F707501-MS2	A18	1.25									24327-1.RAW	11:43:05	9.35	385.03	11.24	0.00	psample10	OK	1
F707501-MSD2	A19	1.25									24328-1.RAW	11:53:36	8.93	360.66	17.49	0.00	psample10	OK	1
SEQ-CCV1	A20	1									24329-1.RAW	12:04:07	6.33	195.58	3.52	0.00	psample10	CT	1
SEQ-CCB1	A21	1									24330-1.RAW	12:14:37	4.01	0.81	1.80	0.00	psample10	OK	1
1707102-01	B1	1.25									24331-1.RAW	12:25:08	3.56	28.94	69.70	0.00	psample10	OK	1
1707102-02	B2	1.25									24332-1.RAW	12:35:39	8.59	33.05	93.94	0.00	psample10	CT	1
1707102-03	B3	1.25									24333-1.RAW	12:46:09	7.27	21.17	131.85	0.00	psample10	CT	1
1707102-04	B4	1.25									24334-1.RAW	12:56:40	8.06	13.53	32.76	0.00	psample10	CT	1
1707102-05	B5	1.25									24335-1.RAW	13:07:11	9.81	17.61	57.87	0.00	psample10	CT	1
1707102-06	B6	1.25									24336-1.RAW	13:17:42	11.14	8.72	15.17	0.00	psample10	CT	1
1707293-01	B7	1.25									24337-1.RAW	13:28:12	10.96	36.27	94.62	0.00	psample10	CT	1
1707293-02	B8	1.25									24338-1.RAW	13:38:43	8.15	34.35	48.05	0.00	psample10	CT	1
1707293-03	B9	1.25									24339-1.RAW	13:49:14	8.36	17.84	16.45	0.00	psample10	CT	1
1707293-04	B10	1.25									24340-1.RAW	13:59:44	10.82	20.53	34.76	0.00	psample10	OK	1
SEQ-CCV2	B11	1									24341-1.RAW	14:10:15	3.21	176.21	0.00	0.00	psample10	OK	1
SEQ-CCB2	B12	1									24342-1.RAW	14:20:46	3.73	0.00	1.30	0.00	psample10	CT	1
1707293-05	B13	1.25									24343-1.RAW	14:31:17	10.66	21.63	56.39	0.00	psample10	OK	1
1707293-06	B14	1.25									24344-1.RAW	14:41:47	4.91	12.80	88.70	0.00	psample10	OK	1
1707294-01	B15	1.25									24345-1.RAW	14:52:18	7.39	59.25	11.33	0.00	psample10	CT	1
1707294-02	B16	1.25									24346-1.RAW	15:02:49	6.26	41.24	68.39	0.00	psample10	CT	1
1707294-03	B17	1.25									24347-1.RAW	15:13:20	7.39	41.66	34.24	0.00	psample10	CT	1
1707543-01	B18	1.25									24348-1.RAW	15:23:50	7.78	29.05	45.05	0.00	psample10	OK	1
1707543-03	B19	1.25									24349-1.RAW	15:34:21	8.67	30.08	224.30	0.00	psample10	OK	1
1707543-04	B20	1.25									24350-1.RAW	15:44:51	11.48	21.62	31.18	0.00	psample10	CT	1
1707543-05	B21	1.25									24351-1.RAW	15:55:22	7.52	15.59	21.95	0.00	psample10	OK	1
1707543-06	C1	1.25									24352-1.RAW	16:05:53	5.53	27.38	157.54	0.00	psample10	OK	1
SEQ-CCV3	C2	1									24353-1.RAW	16:16:23	3.65	190.03	3.83	0.00	psample10	OK	1
SEQ-CCB3	C3	1									24354-1.RAW	16:26:54	3.39	0.00	4.18	0.00	psample10	CT	1
F707394-BLK1	C4	500									24355-1.RAW	16:37:25	0.72	0.00	3.76	0.00	psample10	OK	1
F707394-BLK2	C5	500									24356-1.RAW	16:47:55	2.88	0.00	4.72	0.00	psample10	OK	1
F707394-BLK3	C6	500									24357-1.RAW	16:58:26	3.42	0.00	9.86	0.00	psample10	OK	1
*F707394-BLK4	C7	500									24358-1.RAW	17:08:57	3.96	0.00	3.13	0.00	psample10	OK	1
*F707394-BLK5	C8	500									24359-1.RAW	17:19:27	3.83	0.00	4.43	0.00	psample10	OK	1
*F707394-BLK6	C9	500									24360-1.RAW	17:29:58	2.99	0.00	5.72	0.00	psample10	OK	1
*F707394-BLK7	C10	500									24361-1.RAW	17:40:29	3.70	0.00	3.08	0.00	psample10	CT	1
F707394-BS1	C11	1000									24362-1.RAW	17:51:00	3.87	686.99	94.15	0.00	psample10	OK	1
F707394-BSD1	C12	1000									24363-1.RAW	18:01:30	3.92	644.65	82.99	0.00	psample10	OK	1
F707394-OUP1	C13	500									24364-1.RAW	18:12:01	5.50	582.34	26.43	0.00	psample10	CT	1
SEQ-CCV4	C14	1									24365-1.RAW	18:22:32	4.09	202.30	2.37	0.00	psample10	OK	1
SEQ-CCB4	C15	1									24366-1.RAW	18:33:03	3.61	1.48	0.91	0.00	psample10	OK	1
F707394-MS1	C16	500									24367-1.RAW	18:43:33	4.06	493.05	24.59	0.00	psample10	OK	1
F707394-MSD1	C17	500									24368-1.RAW	18:54:04	4.14	513.19	25.31	0.00	psample10	OK	1
F707394-MS2	C18	500									24369-1.RAW	19:04:35	3.59	488.23	32.99	0.00	psample10	OK	1
F707394-MSD2	C19	500									24370-1.RAW	19:15:06	3.02	512.44	40.49	0.00	psample10	OK	1
1706931-04	C20	500									24371-1.RAW	19:25:36	3.62	171.00	24.04	0.00	psample10	OK	1
1706931-05	C21	500									24372-1.RAW	19:36:07	2.58	536.79	20.89	0.00	psample10	CT	1
1706931-06	A1	2500									24373-1.RAW	19:46:38	3.13	1041.28	24.54	0.00	psample10	OK	1
1706931-07	A2	2500									24374-1.RAW	19:57:09	4.20	699.50	20.70	0.00	psample10	OK	1
1706931-08	A3	2500									24375-1.RAW	20:07:39	4.37	586.03	19.73	0.00	psample10	CT	1
1706931-09	A4	2500									24376-1.RAW	20:18:10	3.39	58.47	4.75	0.00	psample10	CT	1
SEQ-CCV5	A5	1									24377-1.RAW	20:28:41	2.89	191.16	3.09	0.00	psample10	CT	1
SEQ-CCB5	A6	1									24378-1.RAW	20:39:12	2.84	1.62	2.54	0.00	psample10	CT	1
1706931-10	A7	2500									24379-1.RAW	20:49:42	2.13	821.17	34.75	0.00	psample10	OK	1
1706932-01	A8	500									24380-1.RAW	21:00:13	3.04	13.71	5.38	0.00	psample10	OK	1
1706932-02	A9	500									24381-1.RAW	21:10:44	5.20	88.97	13.49	0.00	psample10	OK	1
1706932-03	A10	500									24382-1.RAW	21:21:15	5.02	365.11	9.67	0.00	psample10	CT	1

1706932-04	A11	500	24383-1.RAW	21:31:45	4.04	292.93	5.65	0.00	psample10	OK	1
1706932-05	A12	500	24384-1.RAW	21:42:16	2.62	23.03	13.94	0.00	psample10	CT	1
1706932-06	A13	2500	24385-1.RAW	21:52:47	2.27	170.88	19.93	0.00	psample10	OK	1
1706932-07	A14	2500	24386-1.RAW	22:03:18	3.20	129.91	9.52	0.00	psample10	CT	1
1706932-08	A15	2500	24387-1.RAW	22:13:48	3.27	133.12	9.96	0.00	psample10	CT	1
1706932-09	A16	2500	24388-1.RAW	22:24:18	3.40	126.63	17.91	0.00	psample10	OK	1
SEQ-CCV6	A17	1	24389-1.RAW	22:34:49	2.16	158.79	4.18	0.00	psample10	OK	1
SEQ-CCB6	A18	1	24390-1.RAW	22:45:19	4.14	0.82	0.88	0.00	psample10	CT	1
1706932-10	A19	2500	24391-1.RAW	22:55:50	4.74	93.02	8.50	0.00	psample10	OK	1
1707444-01	A20	2500	24392-1.RAW	23:06:21	3.04	1632.74	13.83	0.00	psample10	OK	1
SEQ-CCV7	A21	1	24393-1.RAW	23:16:51	2.93	153.18	2.55	0.00	psample10	OK	1
SEQ-CCB7	B1	1	24394-1.RAW	23:27:22	4.79	1.78	1.56	0.00	psample10	OK	1

**Failing Data Report - 7G28008**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F707394-MS1	MHg-CVAFS-T-KOH	42.4	1.8		26.1	35.737	ng/g	45.6	65.00	130.00			PASS-OVER	FAIL-MS	QM .07
F707394-MSD1	MHg-CVAFS-T-KOH	45.8	1.9	42.4	26.1	37.074	ng/g	53.1	65.00	130.00	15.2	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM .07

Don Matsum                      7/28/17  
 Analyst Reviewed By                      Date

[Signature]                      7/28/17  
 Peer Reviewed By                      Date



## ANALYSIS SEQUENCE

7G28007

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G28007-IBL1	QC	1			
7G28007-CAL1	QC	2	1704180		
7G28007-CAL2	QC	3	1704181		
7G28007-CAL3	QC	4	1704182		
7G28007-CAL4	QC	5	1704183		
7G28007-CAL5	QC	6	1704184		
7G28007-ICV1	QC	7	1703246		
7G28007-ICB1	QC	8			
F707501-BLK1	QC	9			
F707501-BLK2	QC	10			
F707501-BLK3	QC	11			
F707501-BS1	QC	12			
F707501-BSD1	QC	13			
F707501-DUP1	QC	14			
F707501-MS1	QC	15			
F707501-MSD1	QC	16			
F707501-MS2	QC	17			
F707501-MSD2	QC	18			
7G28007-CCV1	QC	19	1703246		
7G28007-CCB1	QC	20			
1707102-01	MHg-CVAFS-W-Dist	21			Scan all data for level IV report
1707102-02	MHg-CVAFS-W-Dist	22			Scan all data for level IV report
1707102-03	MHg-CVAFS-W-Dist	23			Scan all data for level IV report
1707102-04	MHg-CVAFS-W-Dist	24			Scan all data for level IV report
1707102-05	MHg-CVAFS-W-Dist	25			Scan all data for level IV report
1707102-06	MHg-CVAFS-W-Dist	26			Scan all data for level IV report
1707293-01	MHg-CVAFS-W-Dist	27			Scan all data for level IV report
1707293-02	MHg-CVAFS-W-Dist	28			Scan all data for level IV report
1707293-03	MHg-CVAFS-W-Dist	29			Scan all data for level IV report
1707293-04	MHg-CVAFS-W-Dist	30			Scan all data for level IV report
7G28007-CCV2	QC	31	1703246		
7G28007-CCB2	QC	32			
1707293-05	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1707293-06	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1707294-01	MHg-CVAFS-W-Dist	35			Scan all data for level IV report

Due Date: 8/3/2017

## ANALYSIS SEQUENCE

7G28007

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707294-02	MHg-CVAFS-W-Dist	36			Scan all data for level IV report
1707294-03	MHg-CVAFS-W-Dist	37			Scan all data for level IV report
1707543-01	MHg-CVAFS-W-Dist	38			Scan all data for level IV report
1707543-03	MHg-CVAFS-W-Dist	39			Scan all data for level IV report
1707543-04	MHg-CVAFS-W-Dist	40			Scan all data for level IV report
1707543-05	MHg-CVAFS-W-Dist	41			Scan all data for level IV report
1707543-06	MHg-CVAFS-W-Dist	42			Scan all data for level IV report
7G28007-CCV3	QC	43	1703246		
7G28007-CCB3	QC	44			

Don Matern 7/27/17  
 Samples Loaded By Date

Don Matern 7/28/17  
 Data Processed By Date

Due Date: 8/3/2017



## ANALYSIS SEQUENCE

7G28008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G28008-IBL1	QC	1			
7G28008-CAL1	QC	2	1704180		
7G28008-CAL2	QC	3	1704181		
7G28008-CAL3	QC	4	1704182		
7G28008-CAL4	QC	5	1704183		
7G28008-CAL5	QC	6	1704184		
7G28008-ICV1	QC	7	1703246		
7G28008-ICB1	QC	8			
7G28008-CCV1	QC	9	1703246		
7G28008-CCB1	QC	10			
7G28008-CCV2	QC	11	1703246		
7G28008-CCB2	QC	12			
7G28008-CCV3	QC	13	1703246		
7G28008-CCB3	QC	14			
F707394-BLK1	QC	15			
F707394-BLK2	QC	16			
F707394-BLK3	QC	17			
F707394-BLK4	QC	18			
F707394-BLK5	QC	19			
F707394-BLK6	QC	20			
F707394-BLK7	QC	21			
F707394-BS1	QC	22			
F707394-BSD1	QC	23			
F707394-DUP1	QC	24			
7G28008-CCV4	QC	25	1703246		
7G28008-CCB4	QC	26			
F707394-MS1	QC	27			
F707394-MSD1	QC	28			
F707394-MS2	QC	29			
F707394-MSD2	QC	30			
1706931-04	MHg-CVAFS-T-KOH	31			Hold prep/analysis until Hg is complete
1706931-05	MHg-CVAFS-T-KOH	32			Hold prep/analysis until Hg is complete
1706931-06	MHg-CVAFS-T-KOH	33			Hold prep/analysis until Hg is complete
1706931-07	MHg-CVAFS-T-KOH	34			Hold prep/analysis until Hg is complete
1706931-08	MHg-CVAFS-T-KOH	35			Hold prep/analysis until Hg is complete

Due Date: 7/31/2017

## ANALYSIS SEQUENCE

7G28008

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 7/27/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1706931-09	MHg-CVAFS-T-KOH	36			Hold prep/analysis until Hg is complete
7G28008-CCV5	QC	37	1703246		
7G28008-CCB5	QC	38			
1706931-10	MHg-CVAFS-T-KOH	39			Hold prep/analysis until Hg is complete
1706932-01	MHg-CVAFS-T-KOH	40			Hold prep/analysis until Hg is complete
1706932-02	MHg-CVAFS-T-KOH	41			Hold prep/analysis until Hg is complete
1706932-03	MHg-CVAFS-T-KOH	42			Hold prep/analysis until Hg is complete
1706932-04	MHg-CVAFS-T-KOH	43			Hold prep/analysis until Hg is complete
1706932-05	MHg-CVAFS-T-KOH	44			Hold prep/analysis until Hg is complete
1706932-06	MHg-CVAFS-T-KOH	45			Hold prep/analysis until Hg is complete
1706932-07	MHg-CVAFS-T-KOH	46			Hold prep/analysis until Hg is complete
1706932-08	MHg-CVAFS-T-KOH	47			Hold prep/analysis until Hg is complete
1706932-09	MHg-CVAFS-T-KOH	48			Hold prep/analysis until Hg is complete
7G28008-CCV6	QC	49	1703246		
7G28008-CCB6	QC	50			
1706932-10	MHg-CVAFS-T-KOH	51			Hold prep/analysis until Hg is complete
1707444-01	MHg-CVAFS-T-KOH	52			
7G28008-CCV7	QC	53	1703246		
7G28008-CCB7	QC	54			

Don Moxem 7/27/17  
 Samples Loaded By Date

Don Moxem 7/28/17  
 Data Processed By Date

Due Date: 7/31/2017

**PREPARATION BENCH SHEET**

F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707394-BLK1	Blank	0.5	20					
F707394-BLK2	Blank	0.5	20					
F707394-BLK3	Blank	0.5	20					
F707394-BLK4	Blank	0.3474	20					
F707394-BLK5	Blank	0.3544	20					
F707394-BLK6	Blank	0.3609	20					1707444-01 Prep Blank
F707394-BLK7	Blank	0.3899	20					1707444-01 Post Blank
F707394-BS1	DORM-4	0.1255	20	1703305	126			
F707394-BSD1	DORM-4 Dup	0.1253	20	1703305	125			
F707394-DUP1	Duplicate [1706931-05]	0.2802	20					
F707394-MS1	Matrix Spike [1706932-04]	0.2801	20	1605978	100			
F707394-MS2	Matrix Spike [1706932-02]	0.2987	20	1605978	100			
F707394-MSD1	Matrix Spike Dup [1706932-04]	0.27	20	1605978	100			
F707394-MSD2	Matrix Spike Dup [1706932-02]	0.2742	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1702551  
1702696  
1702833  
1703704  
1703755

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  
28-Apr-20 00:00  
05-Nov-17 00:00  
18-Dec-17 00:00  
20-Dec-17 00:00

**PREPARATION BENCH SHEET**

F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-05	MMSW-C_17BN004_062317_TIN_05_WB	0.2612	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2532	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2279	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2138	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-09	MMSW-C_17PT001_062317_SPI_04_WB	0.1387	20	-	-	-	Hold prep/analysis until Hg is complete	
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.2935	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.261	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.263	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2956	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2702	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2501	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is complete	
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2814	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.283	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2609	20	-	-	-	Hold prep/analysis until Hg is complete	
1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2223	20	-	-	-	Hold prep/analysis until Hg is complete	
1707444-01	FY17 M06 77269 Tuna S-170706-00008 Incredible Fish	0.2968	20	-	-	-		

**PREPARATION BENCH SHEET**

F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**



Due Date: 7/31/2017

**PREPARATION BENCH SHEET**

F707501

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/26/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707501-BLK1	Blank	45	40					
F707501-BLK2	Blank	45	40					
F707501-BLK3	Blank	45	40					
F707501-BS1	LCS	45	40	1704143	45			
F707501-BSD1	LCS Dup	45	40	1704143	45			
F707501-DUP1	Duplicate [1707293-03]	45	40					
F707501-MS1	Matrix Spike [1707293-03]	45	40	1704143	45			
F707501-MS2	Matrix Spike [1707294-01]	45	40	1704143	45			
F707501-MSD1	Matrix Spike Dup [1707293-03]	45	40	1704143	45			
F707501-MSD2	Matrix Spike Dup [1707294-01]	45	40	1704143	45			

Standard ID(s): 1704143  
Description: MHg New Primary 1.0 ng/mL CAL

Expiration: 10-Oct-17 00:00

<u>Reagent ID(s):</u> 1703704	<u>Description:</u> Ethylating Agent (For Methyl Mercury Analysis)	<u>Expiration:</u> 18-Dec-17 00:00
1703755	Acetate Buffer	20-Dec-17 00:00
1704481	APDC	31-Jul-17 00:00
1704513	2.5% Ascorbic Acid	02-Aug-17 00:00
1704518	0.4% HCl Distillation Dilute (Made Daily)	22-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707501

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 7/26/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707102-01	OL-2621-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-02	OL-2621-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-03	OL-2621-03	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-04	OL-2621-04	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-05	OL-2621-05	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707102-06	OL-2621-06	45	40	-	-	-	Preservation Blank Created Scan all dat	
1707293-01	OL-2626-01	45	40	-	-	-	Scan all data for level IV report	
1707293-02	OL-2626-02	45	40	-	-	-	Scan all data for level IV report	
1707293-03	OL-2626-03	45	40	-	-	-	Scan all data for level IV report	
1707293-04	OL-2626-04	45	40	-	-	-	Scan all data for level IV report	
1707293-05	OL-2626-05	45	40	-	-	-	Scan all data for level IV report	
1707293-06	OL-2626-06	45	40	-	-	-	Scan all data for level IV report	
1707294-01	OL-2643-01	45	40	-	-	-	Scan all data for level IV report	
1707294-02	OL-2643-02	45	40	-	-	-	Scan all data for level IV report	
1707294-03	OL-2643-03	45	40	-	-	-	Scan all data for level IV report	
1707543-01	OL-2629-01	45	40	-	-	-	Preservation Blank created Scan all dat	
1707543-03	OL-2629-02	45	40	-	-	-	Preservation Blank created Scan all dat	
1707543-04	OL-2629-03	45	40	-	-	-	Preservation Blank created Scan all dat	
1707543-05	OL-2629-04	45	40	-	-	-	Preservation Blank created Scan all dat	

PREPARATION BENCH SHEET

F707501

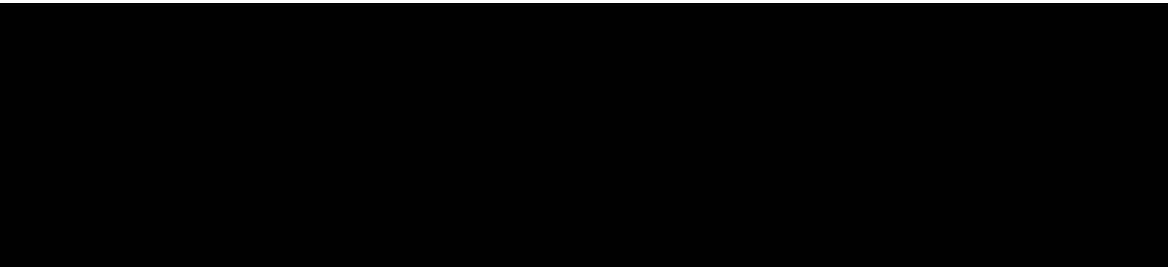
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

1707543-06	OL-2629-05	45	40	-	-	-	Preservation Blank created Scan all dat
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PREPARATION BENCH SHEET

2700-1

F707501

7/27/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707501-BLK1	Blank	45	40					1.25X
F707501-BLK2	Blank	45	40					1.25X
F707501-BLK3	Blank	45	40					1.25X
F707501-BS1	LCS	45	40	1704143	45			1.25X
F707501-BSD1	LCS Dup	45	40	1704143	45			1.25X
F707501-DUP1	Duplicate [1707293-01]	45	40					1.25X
F707501-MS1	Matrix Spike [1707293-01]	45	40	1704143	45			1.25X
F707501-MS2	Matrix Spike [1707294-01]	45	40	1704143	45			1.25X
F707501-MSD1	Matrix Spike Dup [1707293-01]	45	40	1704143	45			1.25X
F707501-MSD2	Matrix Spike Dup [1707294-01]	45	40	1704143	45			1.25X

Standard ID(s):  
1704143

Description:  
MHg New Primary 1.0 ng/mL CAL

Expiration:  
10-Oct-17 00:00

Reagent ID(s):  
1704481  
1704518

Description:  
APDC  
0.4% HCl Distillation Dilute (Made Daily)

Expiration:  
31-Jul-17 00:00  
22-Jan-18 00:00

1703704

1703755

1704513

Due Date: 8/3/2017

PREPARATION BENCH SHEET

2700-1

7/27/17 DM

F707501

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707102-01	OL-2621-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-02	OL-2621-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-03	OL-2621-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-04	OL-2621-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-05	OL-2621-05	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707102-06	OL-2621-06	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1707293-01	OL-2626-01	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-02	OL-2626-02	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-03	OL-2626-03	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-04	OL-2626-04	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-05	OL-2626-05	45	40	-	-	-	Scan all data for level IV report	1.25X
1707293-06	OL-2626-06	45	40	-	-	-	Scan all data for level IV report	1.25X
1707294-01	OL-2643-01	45	40	-	-	-	Scan all data for level IV report	1.25X
1707294-02	OL-2643-02	45	40	-	-	-	Scan all data for level IV report	1.25X
1707294-03	OL-2643-03	45	40	-	-	-	Scan all data for level IV report	1.25X
1707543-01	OL-2629-01	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X
1707543-03	OL-2629-02	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X
1707543-04	OL-2629-03	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X
1707543-05	OL-2629-04	45	40	-	-	-	Preservation Blank created Scan all dat:	1.25X

Due Date: 8/3/2017

PREPARATION BENCH SHEET

F707501

Eurofins Frontier Global Sciences, Inc.

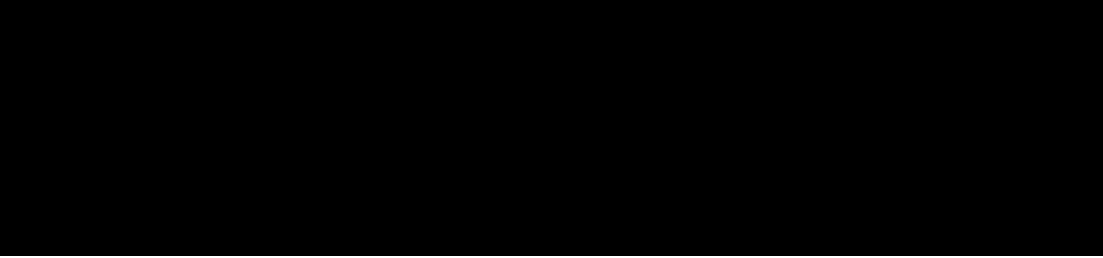
2700-1  
7/27/17 DM

Matrix: Water

Prepared using: Hg Aquatic/Solids - EFGS-013 Methyl Hg Distillation for Water

Prepared: 7/26/2017

1707543-06	OL-2629-05	45	40	-	-	-	Preservation Blank created Scan all data:	1.25X
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Methyl Mercury Distillations (EPA 1630)

Name: AMB Date: 7-26-17 Batch #: F707501 Sample Matrix: Water  
 WO#: 1707102, 1707293, 1707294, 1707543

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)
BLK1	F701501-BLK1	1.0	45	3.0
BLK2	F701501-BLK2	1.0	45	3.0
BLK3	F701501-BLK3	1.0	45	3.0
BS1	F701501-BS1- <del>BLK4</del>	1.0	45	3.0
BSD1	F701501-BSD1	1.0	45	3.0
DUPI	F701501-DUPI	1.0	45	3.0
MS1	F701501-MS1	1.0	45	4.0
MSD1	F701501-MSD1	1.0	45	4.0
MS2	F701501-MS2	1.0	45	3.0
MSD2	F701501-MSD2	1.0	45	3.0
1	1707102-01A	1.0	45	3.0
2	1707102-02A	1.0	45	3.0
3	1707102-03A	1.0	45	3.0
4	1707102-04A	1.0	45	3.0
5	1707102-05A	1.0	45	3.0
6	1707102-06A	1.0	45	4.0
7	1707293-01A	1.0	45	4.0
8	1707293-02A	1.0	45	4.0
9	1707293-03A	1.0	45	3.0
10	1707293-04A	1.0	45	3.0
11	1707293-05A	1.0	45	4.0
12	1707293-06A	1.0	45	3.0
13	1707294-01	1.0	45	3.0
14	1707294-02	1.0	45	3.0
15	1707294-03	1.0	45	3.0
16	1707543-01	1.0	45	3.0
17	1707543-03	1.0	45	3.0
18	1707543-04	1.0	45	4.0
19	1707543-05	1.0	45	3.0
20	1707543-06	1.0	45	3.0

Spike ID: 1704143  
 Spike Amount: 45 µL  
 Spike Witness: PL 7/26/17  
 Balance #: 2  
 Calibrated?  Yes  No  
 Pipette #: N409643  
 Cal. Date: 7/21/17  
 Pipette #: N409653  
 Cal. Date: 7/27/17  
 Pipette #: N/A  
 Cal. Date: N/A  
 APDC ID: 1704481  
 HCl ID: 1704518

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: 121.0  
 Unit 2: 122.0  
 Unit 3: ~~123.3~~ 122.3  
 Unit 4: 120.8  
 Unit 5: 122.0  
 Unit 6: 122.0

Comments:  
 DUPI, MS1, MSD1:  
 Source 1707293-03  
 MS2, MSD2:  
 Source: 1707294-01  
 AMB 7-26-17  
 FIRST SAMPLE DONE @ 1842  
 AMB 7-26-17

~~AMB 7-26-17~~

PREPARATION BENCH SHEET

2700-1  
~~7/25/17 DM~~  
 7/27/17 DM

F707394

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707394-BLK1	Blank	0.5	20					500X
F707394-BLK2	Blank	0.5	20					500X
F707394-BLK3	Blank	0.5	20					500X
F707394-BLK4	Blank	0.3474	20					500X
F707394-BLK5	Blank	0.3544	20					500X
F707394-BLK6	Blank	0.3609	20					1707444-01 Prep Blank 500X
F707394-BLK7	Blank	0.3899	20					1707444-01 Post Blank 500X
F707394-BS1	DORM-4	0.1255	20	1703305	1255			1000X
F707394-BSD1	DORM-4 Dup	0.1253	20	1703305	1253			1000X
F707394-DUP1	Duplicate [1706931-05]	0.2802	20					500X
F707394-MS1	Matrix Spike [1706932-04]	0.2801	20	1605978	100			500X
F707394-MS2	Matrix Spike [1706932-02]	0.2987	20	1605978	100			500X
F707394-MSD1	Matrix Spike Dup [1706932-04]	0.27	20	1605978	100			500X
F707394-MSD2	Matrix Spike Dup [1706932-02]	0.2742	20	1605978	100			500X

Standard ID(s):  
 1605978  
 1703305

Description:  
 MHg New Primary 100 ng/mL spike  
 DORM-4

Expiration:  
 15-Oct-17 00:00  
 29-May-20 00:00  
 29-May-20 00:00

Reagent ID(s):  
 1702551  
 1702696  
 1702833

Description:  
 Boiling Chips for AFS prep  
 Methanol, HPLC Grade  
 25% KOH/Methanol

Expiration:  
 31-Dec-17 00:00  
 28-Apr-20 00:00  
 05-Nov-17 00:00

1703704  
 1703755

Due Date: 7/31/2017

PREPARATION BENCH SHEET

F707394

Eurofins Frontier Global Sciences, Inc.

2700-1  
~~7/25/17 DM~~  
 7/27/17 DM

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 7/19/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1706931-04	MMSW-C_17BN001_062317_TIN_04_WB	0.281	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706931-05	MMSW-C_17BN004_062317_TIN_05_WB	0.2612	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706931-06	MMSW-C_17PT002_062317_SPI_01_WB	0.2532	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-07	MMSW-C_17PT002_062317_SPI_02_WB	0.2279	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-08	MMSW-C_17PT003_062317_SPI_03_WB	0.2138	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-09	MMSW-C_17PT001_062317_SPI_04_WB	0.1387	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706931-10	MMSW-C_17PT005_062317_SPI_05_WB	0.2935	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-01	ADD-01_17BN001_062317_TIN_01_WB	0.261	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706932-02	ADD-01_17BN002_062317_TIN_02_WB	0.263	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706932-03	ADD-01_17BN003_062317_TIN_03_WB	0.2956	20	-	-	-	Hold prep/analysis until Hg is complete	500x
1706932-04	ADD-01_17BN004_062317_TIN_04_WB	0.2702	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	500x
1706932-05	ADD-01_17HC002_062317_TIN_05_WB	0.2501	20	QC	-	-	MS/MSD Hold prep/analysis until Hg is	500x
1706932-06	ADD-01_17HC001_062317_SPI_01_WB	0.2814	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-07	ADD-01_17HC001_062717_SPI_02_WB	0.2632	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-08	ADD-01_17HC001_062717_SPI_03_WB	0.283	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-09	ADD-01_17HC002_062717_SPI_04_WB	0.2609	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1706932-10	ADD-01_17HC001_062717_SPI_05_WB	0.2223	20	-	-	-	Hold prep/analysis until Hg is complete	2500x
1707444-01	FY17 M06 77269 Tuna S-170706-00008 Incredible Fish	0.2968	20	-	-	-		2500x

**PREPARATION BENCH SHEET**

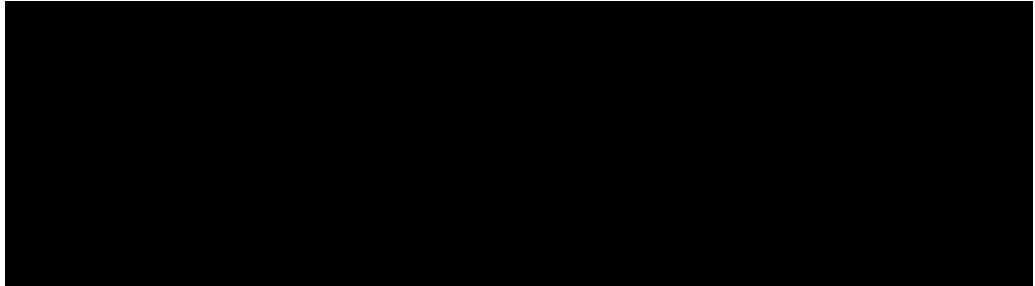
F707394

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 7/19/2017**



Due Date: 7/31/2017

Technician: Duyen

Batch#: F707394  
7/19/17 vs

Date: 7/14/17 7-19-17

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/CH<sub>2</sub>Cl<sub>2</sub>: 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): 79.0 °C w/ CF: 79.0 °C

Time out: 14:00 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C

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

Final vol.: 20 mL (LIMS ID: 1702696) Spike vol.: 100 µL (LIMS ID: 1605978)

Spike Witness: DM 7/19/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: NU09653 Calibration Date: 7/13/17

HNO<sub>3</sub> LIMS ID: N/A

Pipette SN#: NU01152 Calibration Date: 7/14/17

70/30 LIMS ID: N/A

Dispenser #: 02N48426 Calibrated?  Yes  No

Other Acid LIMS ID: 1702833 25% KOH Methanol Dispenser #: N/A

Glass Vial # 00067065 Boiling Chip lot # 1702551 \*Hotblock Position: E, 2

Vial #	Sample ID Number	Sample Size		Vial #	Sample ID Number	Sample Size		CRM LIMS ID
		<input type="checkbox"/> mL	<input checked="" type="checkbox"/> µg			<input type="checkbox"/> mL	<input checked="" type="checkbox"/> µg	
1	F707394 Blk1	0.2430		23	1706932-04	0.2702		B51 B501
2	F707394 Blk2	0.2787		24	1706932-05	0.2789		DORM-4
3	F707394 Blk3	0.2712		25	1706932-06	0.2814		1703305
4	F707394 Blk4	0.3474		26	1706932-07	0.2632		Comments
5	F707394 Blk5	0.3544		27	1706932-08	0.2830		F707394
6	F707394 B51	0.1255		28	1706932-09	0.2609		DUP 1706931-05
7	F707394 B501	0.1253		29	1706932-10	0.2223		M51 M501
8	F707394 DUP1	0.2802		30	1706932-05	0.2501		1706932-04
9	F707394 M51	0.2801		31	F707394 Blk6	0.3609		M52 M502 02
10	F707394 M501	0.2700		32	F707394 Blk7	0.3899		1706932-05
11	F707394 M52	0.2987		33	1707444-01B	0.2968		1706931-07, 8
12	F707394 M502	0.2742		34				0.2299(g)
13	1706931-04	0.2810		35				not enough mass. Exhausted 7/14/17
14	1706931-05	0.2612		36				1706931-8, 9
15	1706931-06	0.2532		37			7/19/17	two samples
16	1706931-07	0.2279		38			vs	not enough mass. Exhausted. 7/14/17 dit
17	1706931-08	0.2138		39				
18	1706931-09	0.1387		40				1706932-05
19	1706931-10	0.2935		41				not enough mass
20	1706932-01	0.2610		42				For UC we used
21	1706932-02	0.2630		43				1706932-02. For UC. 7/14/17
22	1706932-03	0.2956		44				F707394 Blk6, 7, 1707444-01

Eurofins Frontier Global Sciences / Mercury Sample Digestions (LOG-HG-013.15) / Effective 11/07/16 / QA2017-0088/0261422

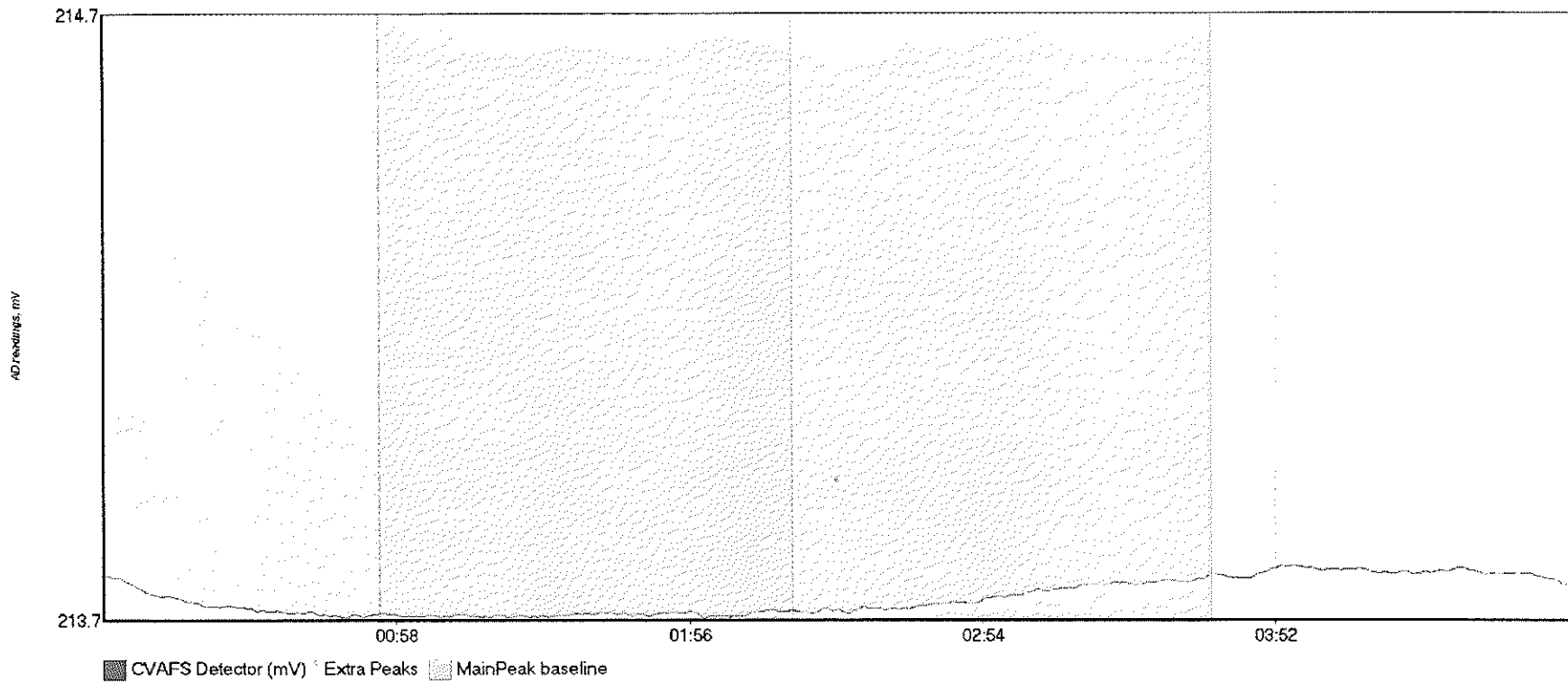
\*Hotblock diagram located in back of logbook

F707394 ALL samples weighted on digestion samples on 7/19/17 vs 7/14/17

Verified By: DM 7/20/17

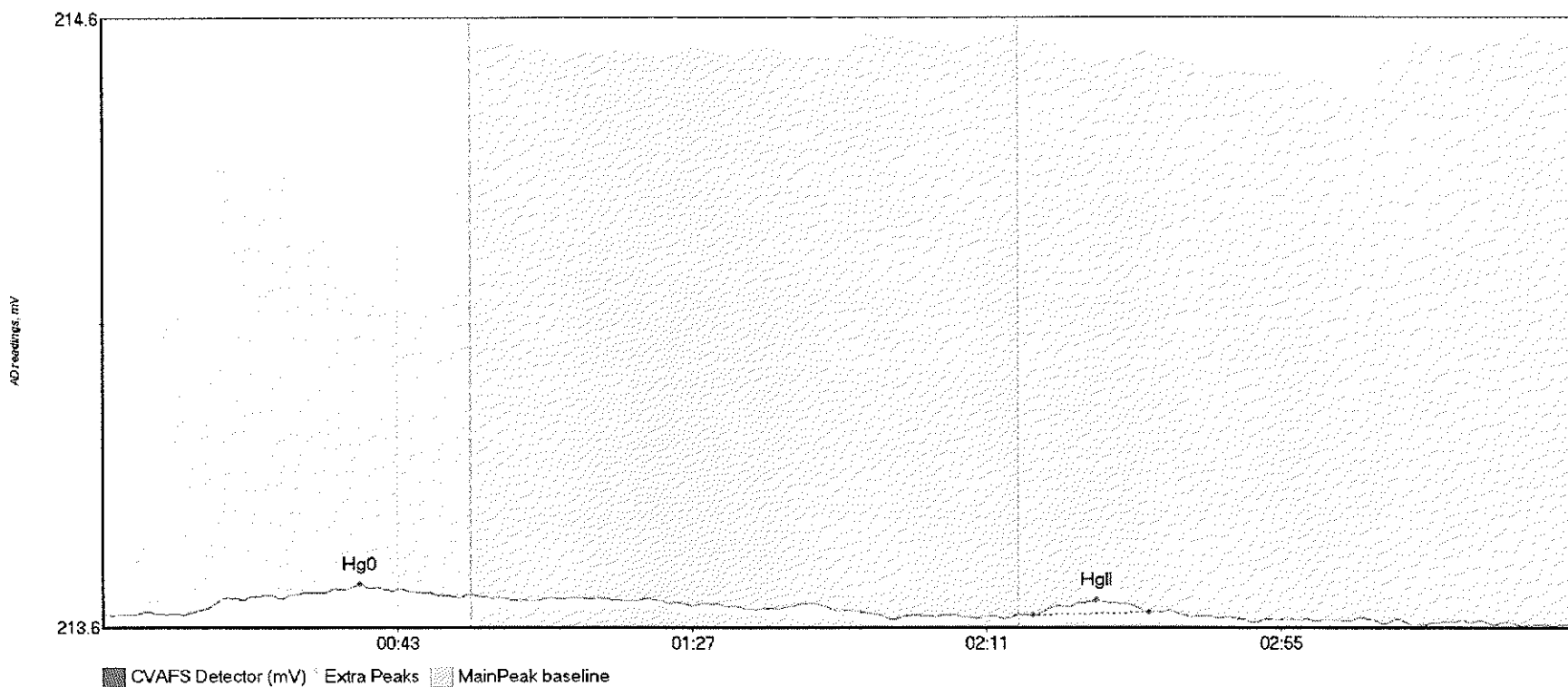


Clean: No peak(s) detected.



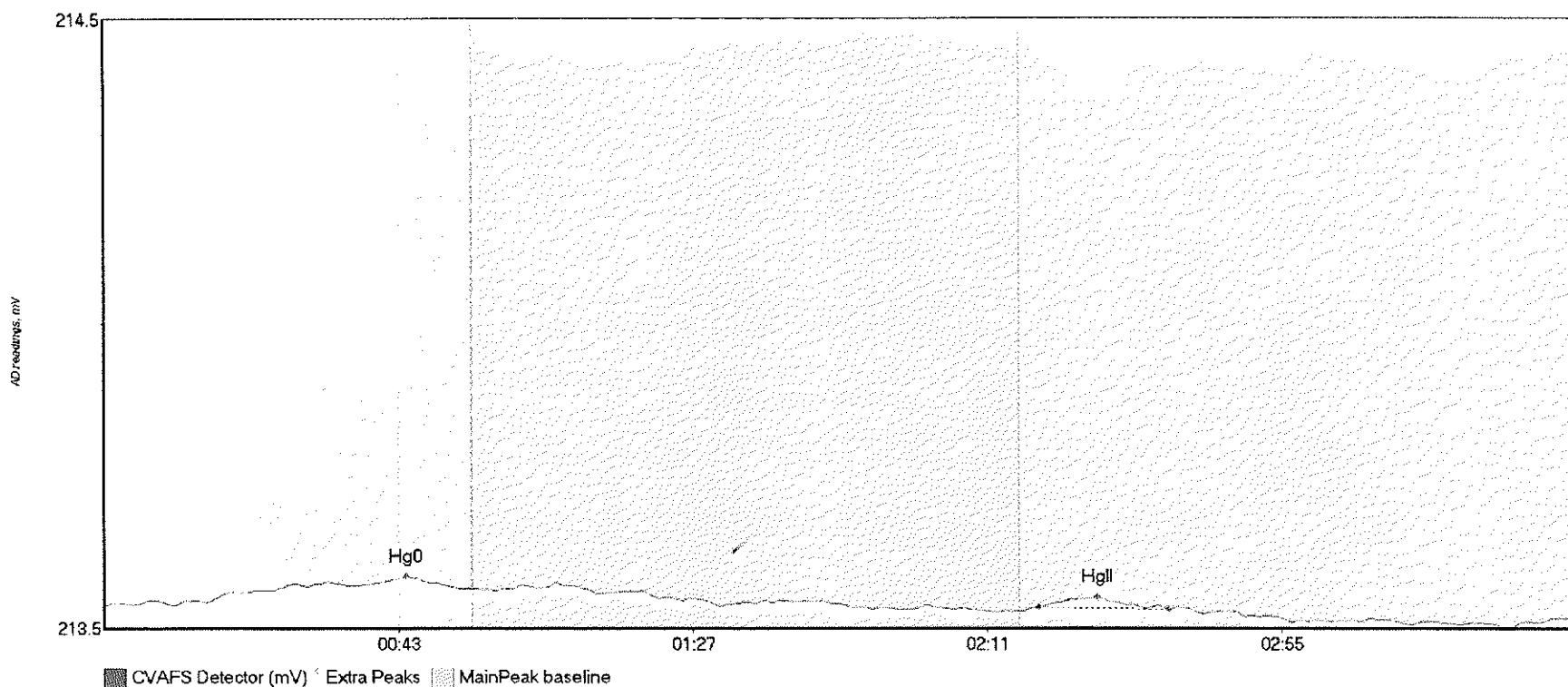
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.000	-	-	-	-	-	-	NP	213.7731	0.00	-0.01	017

#2: WS



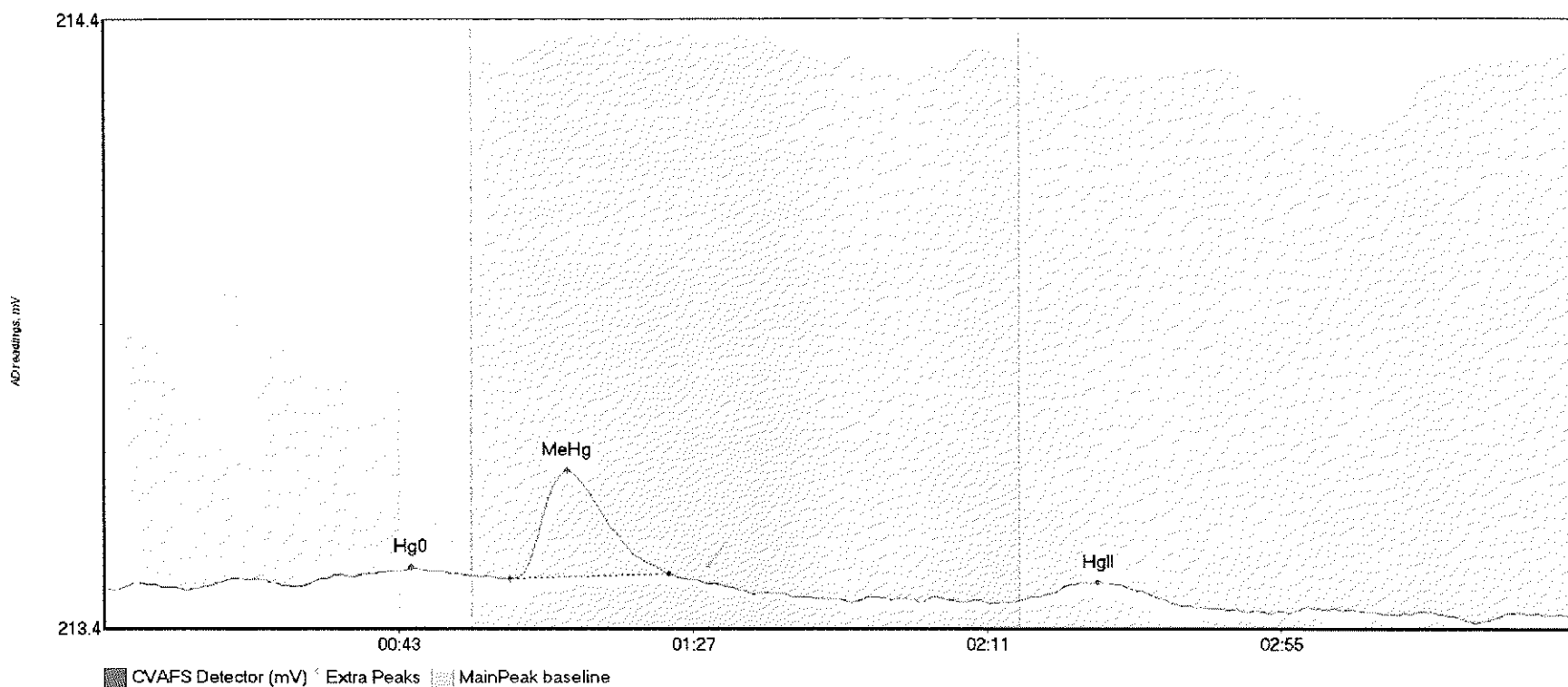
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	7.399	11.8	53.1	213.61	213.64	38.5	0.050	OK	213.6084	0.00	-0.02	
WS HgII	2.377	139.0	156.3	213.61	213.61	148.5	0.024	OK	213.6084	0.00	-0.02	017

#3: SEQ-IBL1



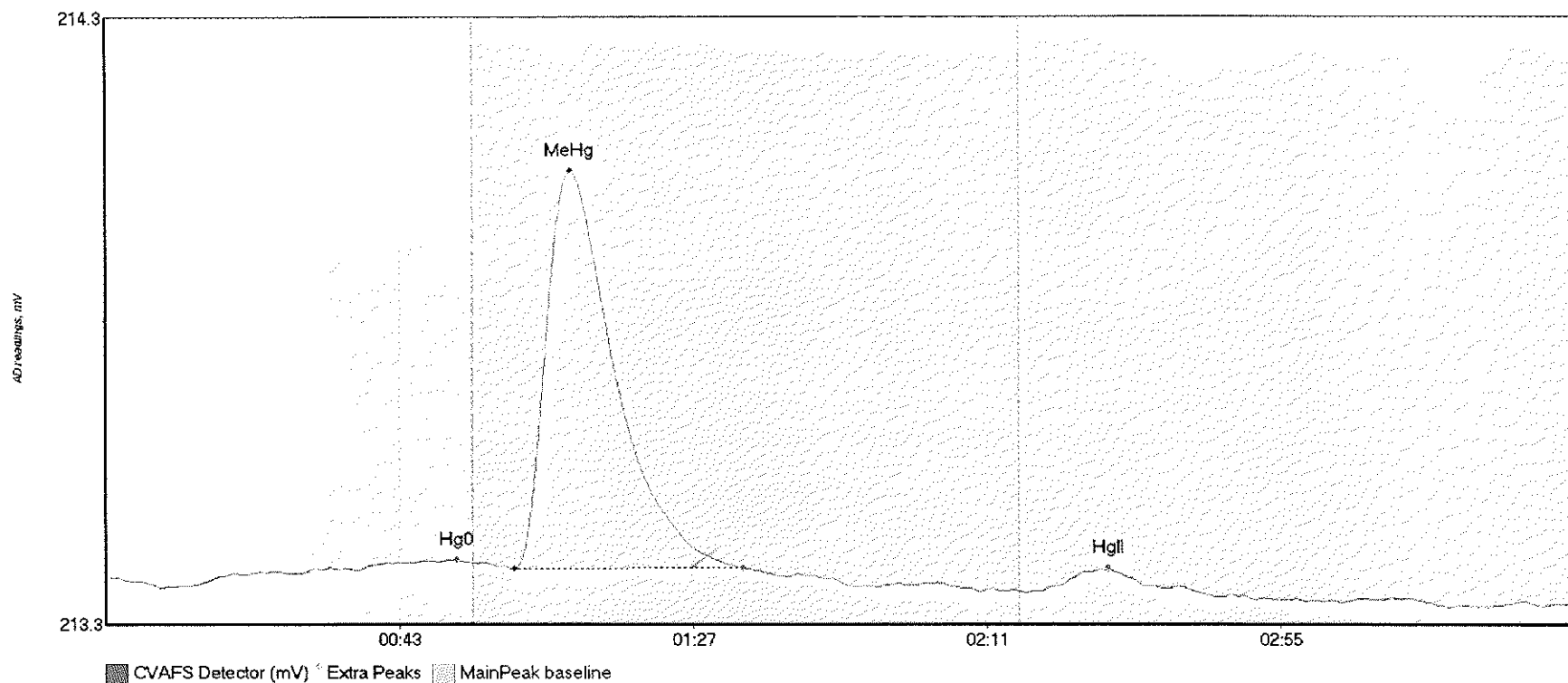
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.306	10.4	53.3	213.54	213.56	45.2	0.046	OK	213.5382	0.00	-0.02	
SEQ-IBL1 HgII	1.860	139.8	159.1	213.53	213.53	148.4	0.017	OK	213.5382	0.00	-0.02	017

#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	2.888	29.5	54.8	213.45	213.46	45.9	0.030	OK	213.4417	0.00	-0.05	
SEQ-CAL1 MeHg	18.465	60.7	84.5	213.46	213.47	69.3	0.178	OK	213.4417	0.00	-0.05	
SEQ-CAL1 HgII	3.929	139.7	161.4	213.43	213.41	148.6	0.024	OK	213.4417	0.00	-0.05	

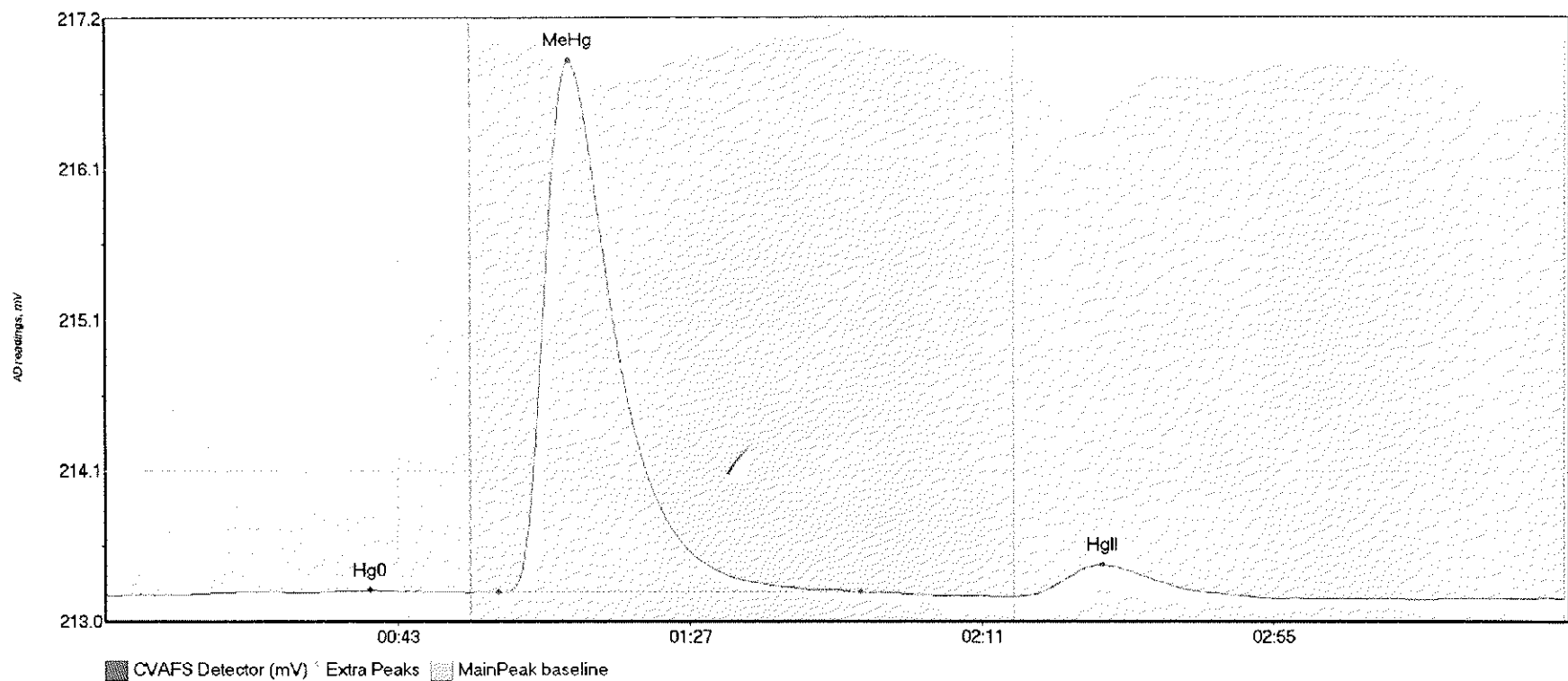
#5: SEQ-CAL2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	1.364	17.8	55.0	213.33	213.35	52.6	0.027	CT	213.3273	0.00	-0.04	
SEQ-CAL2 MeHg	78.327	61.1	95.4	213.34	213.34	69.6	0.657	OK	213.3273	0.00	-0.04	
SEQ-CAL2 HgII	4.637	140.0	165.2	213.31	213.30	150.2	0.036	OK	213.3273	0.00	-0.04	

017

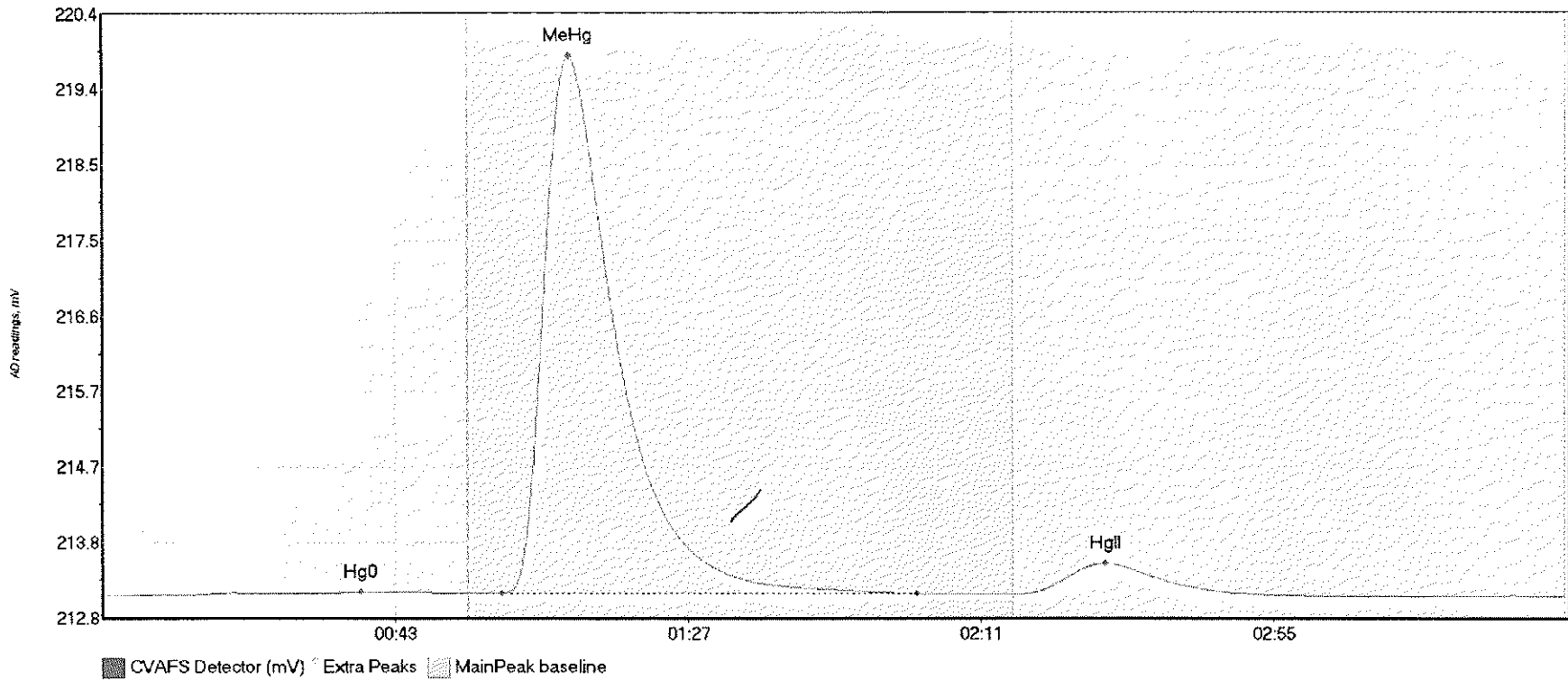
#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	5.687	11.9	54.7	213.20	213.22	39.9	0.031	OK	213.2016	0.00	-0.02	
SEQ-CAL3 MeHg	456.272	59.2	113.8	213.22	213.22	69.9	3.645	OK	213.2016	0.00	-0.02	
SEQ-CAL3 HgII	33.949	137.0	174.1	213.19	213.19	150.2	0.216	OK	213.2016	0.00	-0.02	

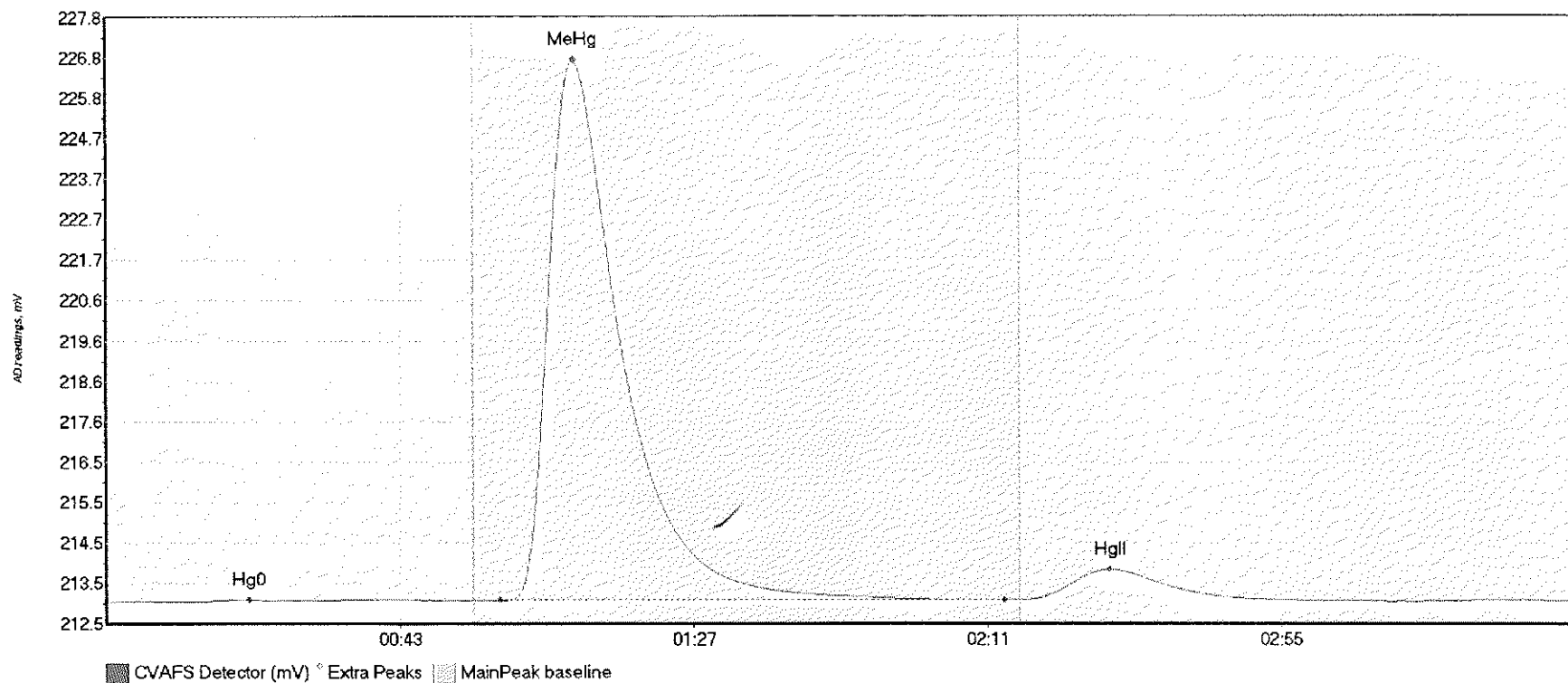
017

#7: SEQ-CAL4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	6.024	11.9	54.9	213.10	213.12	38.9	0.036	OK	213.1006	0.00	-0.01	
SEQ-CAL4 MeHg	950.560	60.0	122.4	213.12	213.12	70.1	6.732	OK	213.1006	0.00	-0.01	
SEQ-CAL4 HgII	60.354	137.6	175.9	213.11	213.10	150.8	0.386	OK	213.1006	0.00	-0.01	

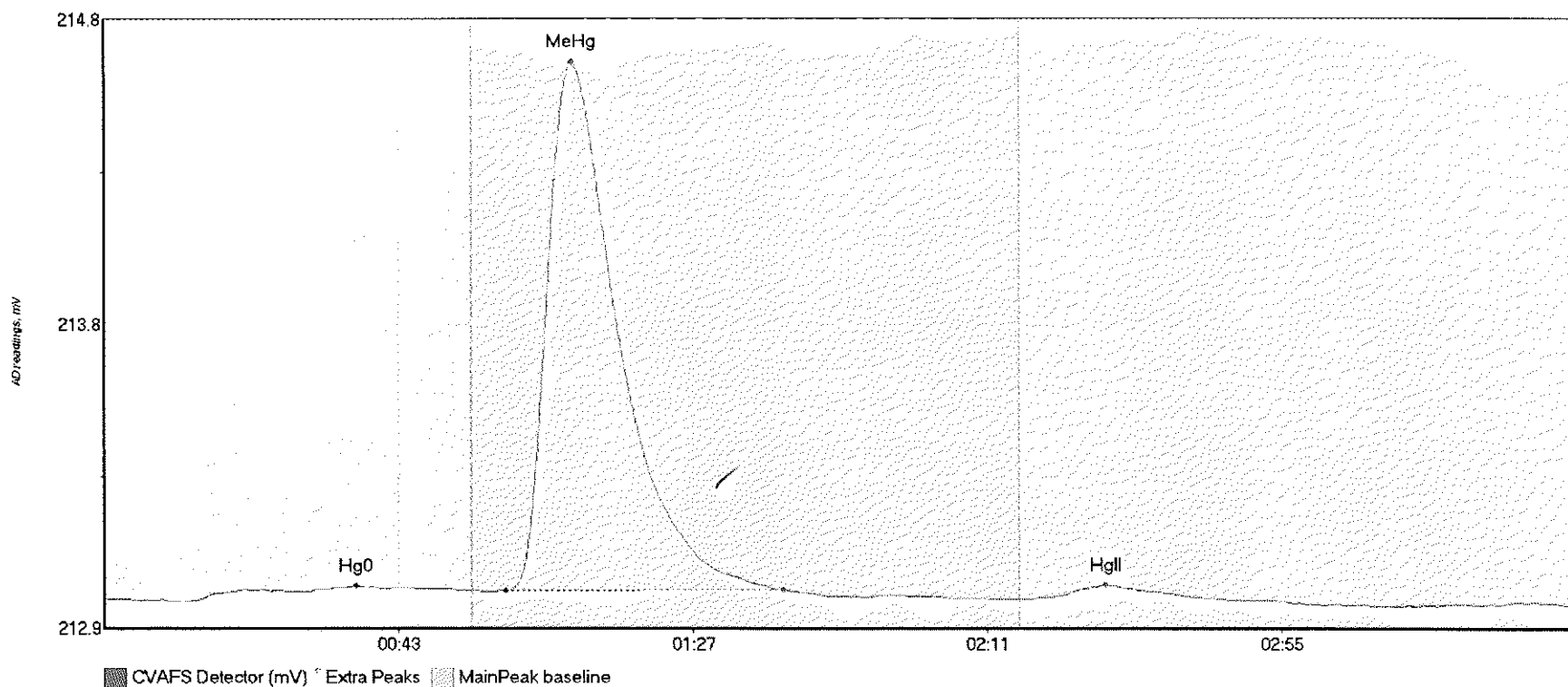
#8: SEQ-CAL5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	3.790	12.7	32.0	213.00	213.04	21.5	0.054	OK	213.0036	0.00	0.03	
SEQ-CAL5 MeHg	1731.042	59.0	134.6	213.04	213.05	70.1	13.675	OK	213.0036	0.00	0.03	
SEQ-CAL5 HgII	118.470	136.8	177.7	213.06	213.05	150.3	0.769	OK	213.0036	0.00	0.03	

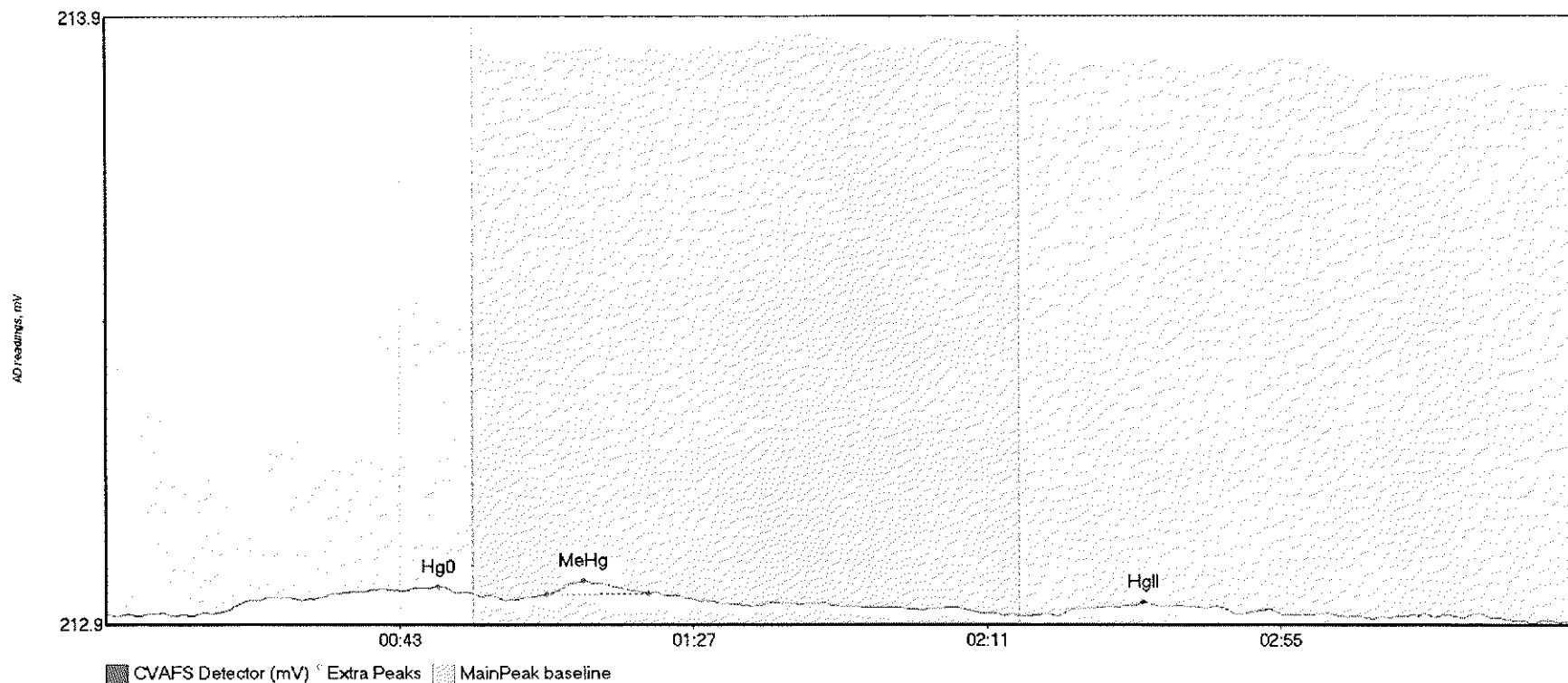


#9: SEQ-ICV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	6.950	13.7	53.2	212.94	212.97	37.7	0.045	OK	212.9425	0.00	-0.02	
SEQ-ICV1 MeHg	204.159	60.0	101.4	212.97	212.97	70.0	1.656	OK	212.9425	0.00	-0.02	
SEQ-ICV1 HgII	5.377	138.4	164.9	212.94	212.94	149.8	0.044	OK	212.9425	0.00	-0.02	

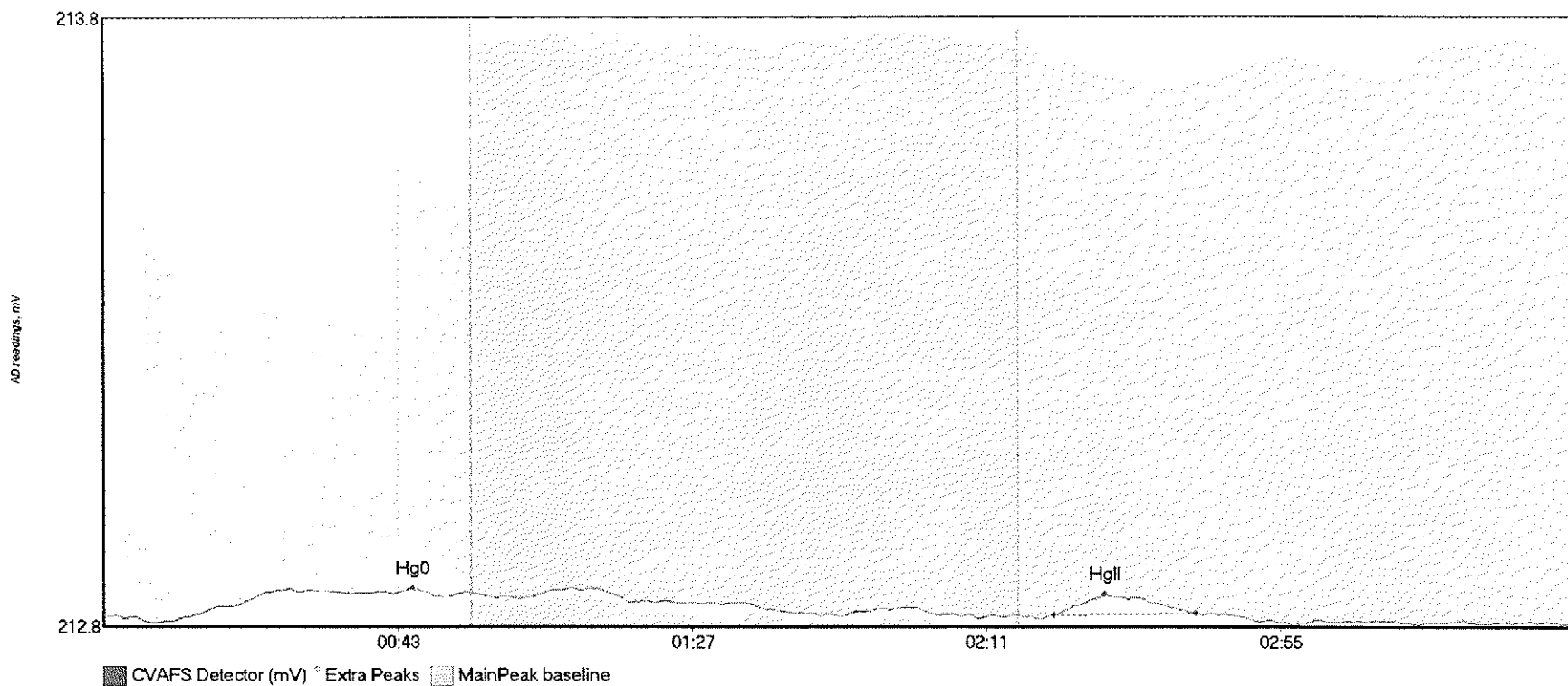
#10: SEQ-ICB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	5.328	15.9	55.0	212.87	212.91	49.9	0.045	CT	212.8724	0.00	-0.01	
SEQ-ICB1 MeHg	1.850	66.0	81.3	212.91	212.91	71.6	0.023	OK	212.8724	0.00	-0.01	
SEQ-ICB1 HgII	3.474	142.6	169.6	212.87	212.87	155.5	0.022	OK	212.8724	0.00	-0.01	

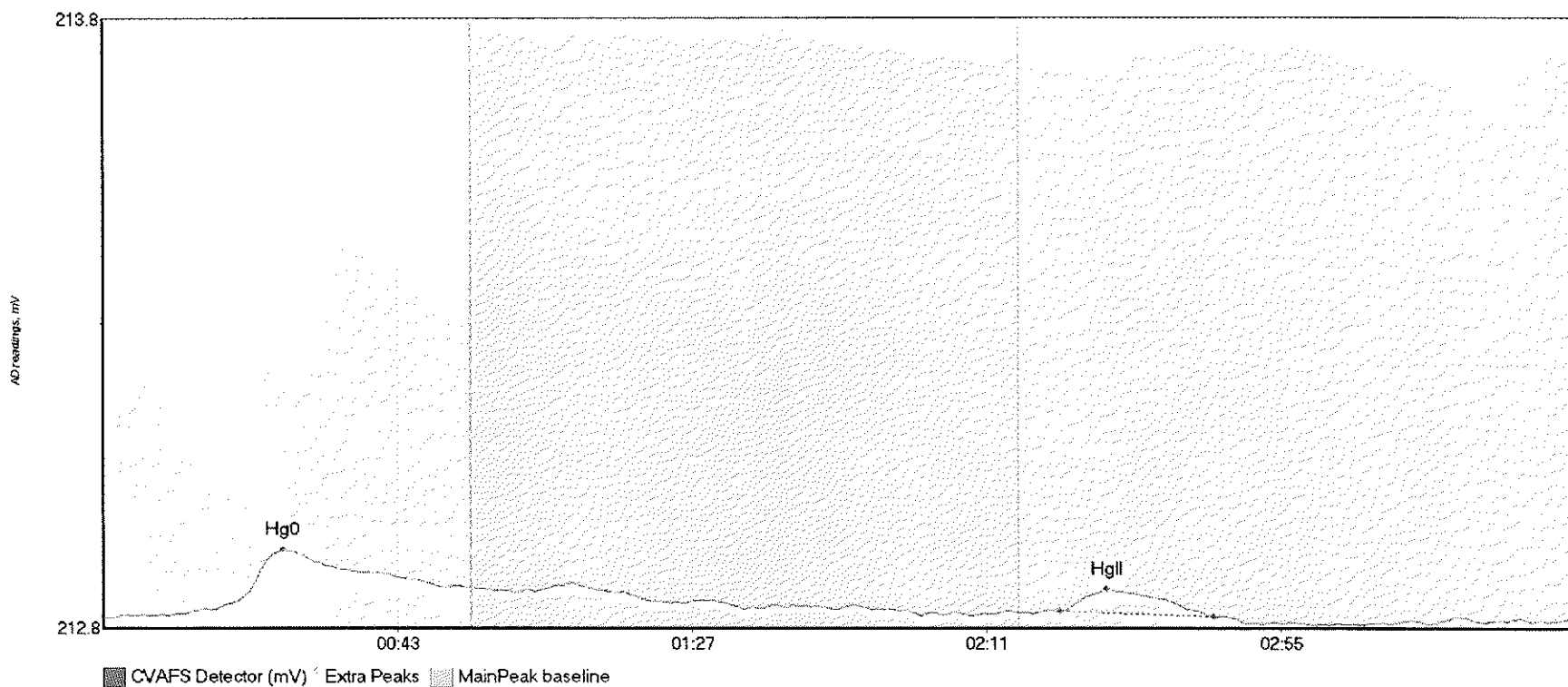
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#12: F707501-BLK2



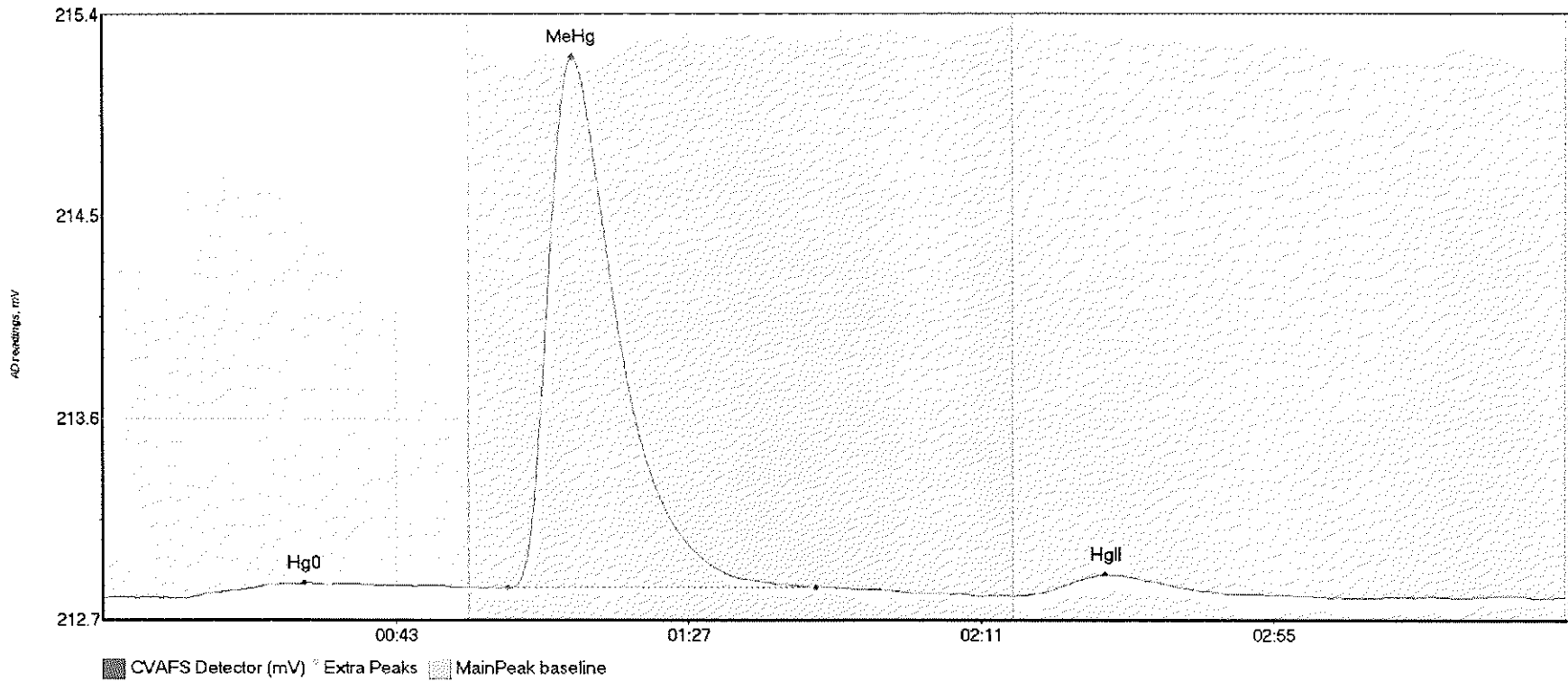
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BLK2 Hg	6.247	14.1	51.5	212.81	212.83	46.3	0.043	OK	212.8029	0.00	-0.01	
F707501-BLK2 Hg	3.915	142.1	163.3	212.80	212.81	149.8	0.035	OK	212.8029	0.00	-0.01	017

#13: F707501-BLK3



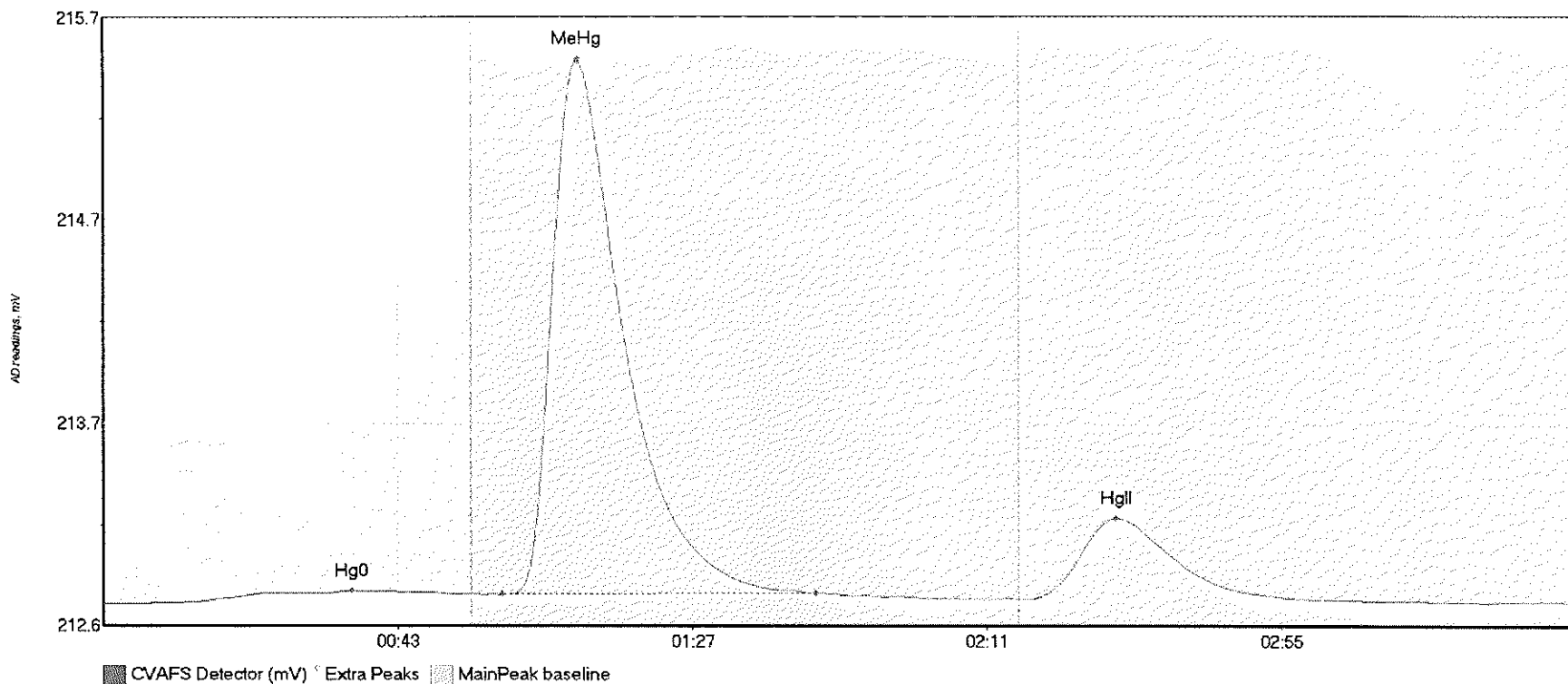
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BLK3 Hg	14.273	9.6	51.3	212.77	212.82	26.8	0.107	OK	212.7719	0.00	0.00	
F707501-BLK3 Hg	5.105	143.0	165.9	212.78	212.77	150.1	0.036	OK	212.7719	0.00	0.00	017

#14: F707501-BS1



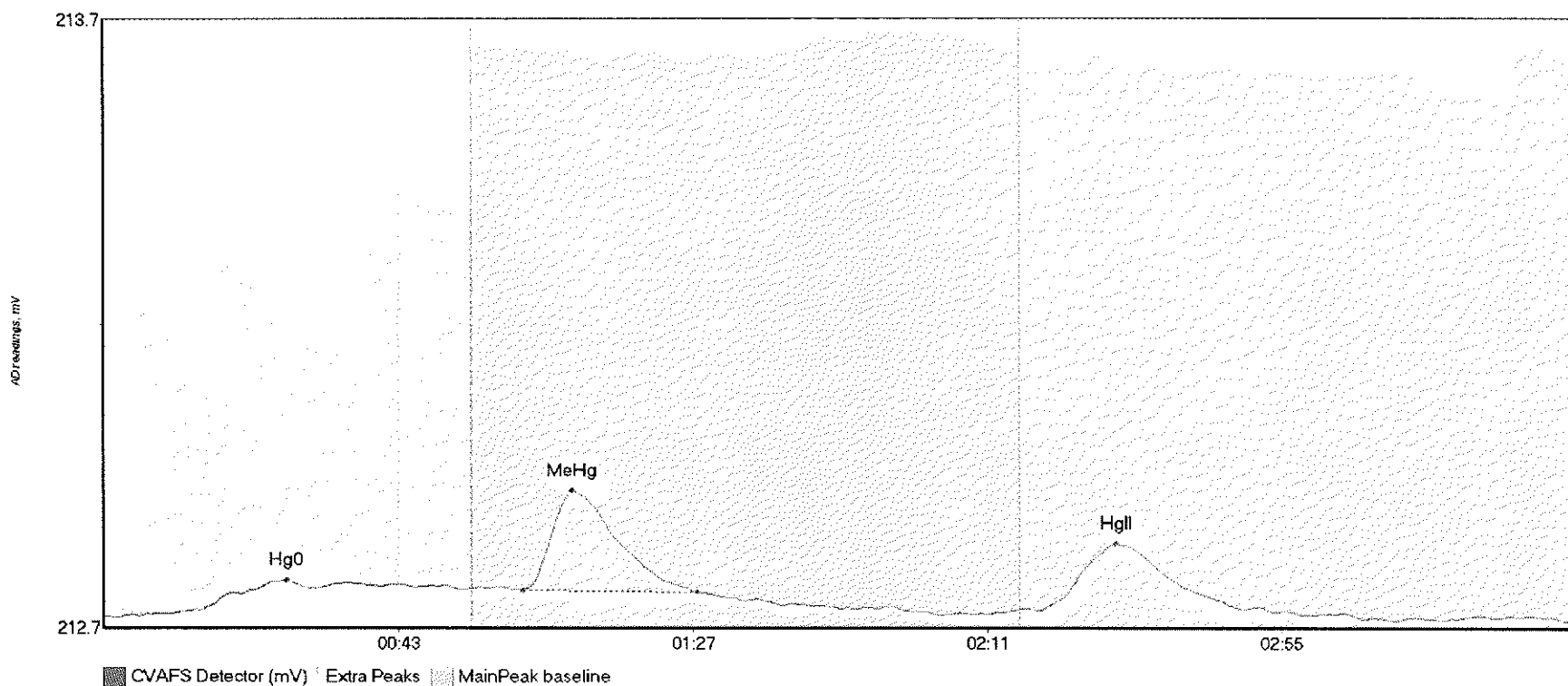
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BS1 Hg0	12.019	12.3	53.6	212.76	212.80	30.3	0.071	OK	212.7584	0.00	0.00	
F707501-BS1 MeH	300.303	60.9	107.1	212.80	212.80	70.6	2.447	OK	212.7584	0.00	0.00	
F707501-BS1 HgI	15.355	136.8	174.4	212.77	212.77	150.8	0.099	OK	212.7584	0.00	0.00	

#15: F707501-BSD1



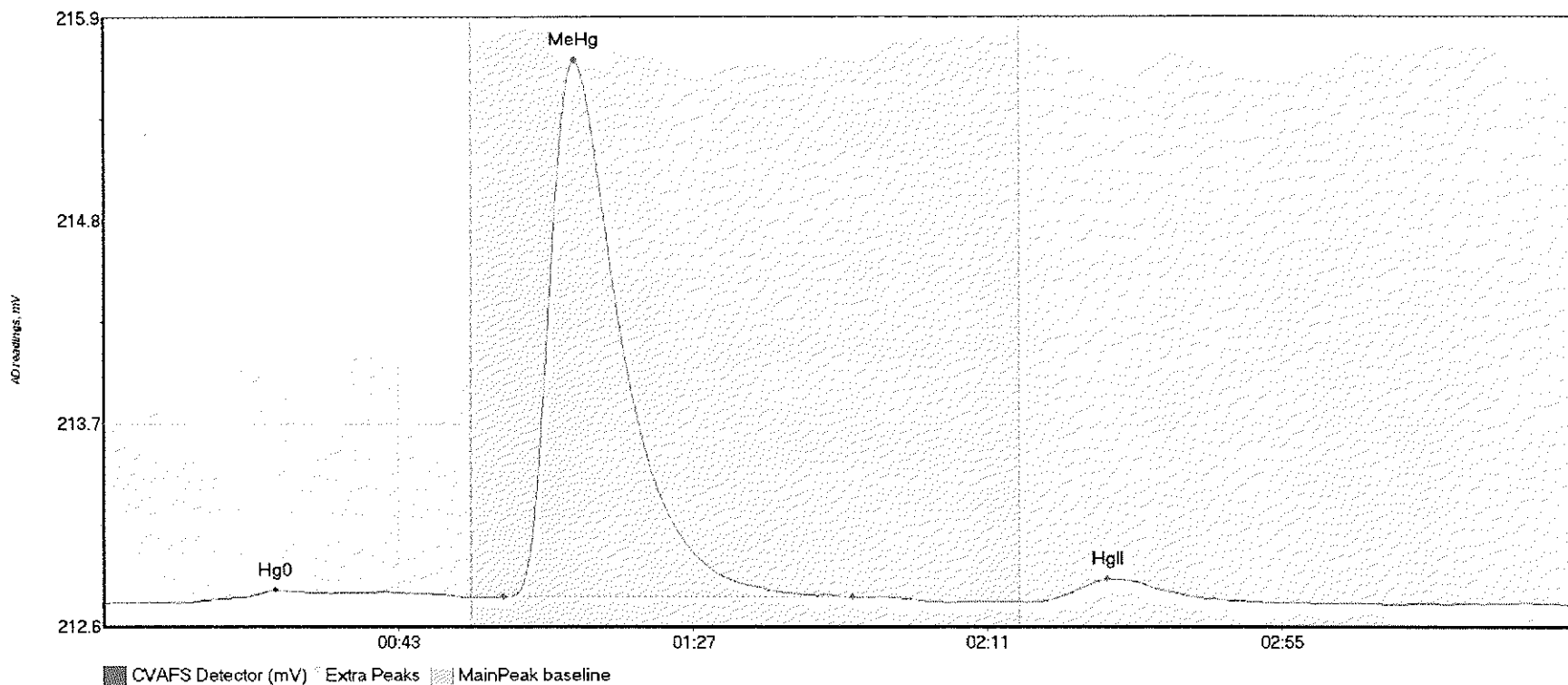
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-BSD1 Hg	9.424	10.3	54.9	212.74	212.78	37.1	0.062	OK	212.7377	0.00	0.01	
F707501-BSD1 Me	335.286	59.6	106.5	212.78	212.79	70.8	2.707	OK	212.7377	0.00	0.01	
F707501-BSD1 Hg	64.737	137.6	179.2	212.76	212.76	151.5	0.415	OK	212.7377	0.00	0.01	

#16: F707501-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-DUP1 Hg	8.242	10.2	53.8	212.73	212.77	27.3	0.054	OK	212.7270	0.00	-0.01	
F707501-DUP1 Me	18.440	62.6	88.7	212.77	212.76	70.0	0.164	OK	212.7270	0.00	-0.01	
F707501-DUP1 Hg	15.510	139.8	170.5	212.74	212.74	151.3	0.110	OK	212.7270	0.00	-0.01	

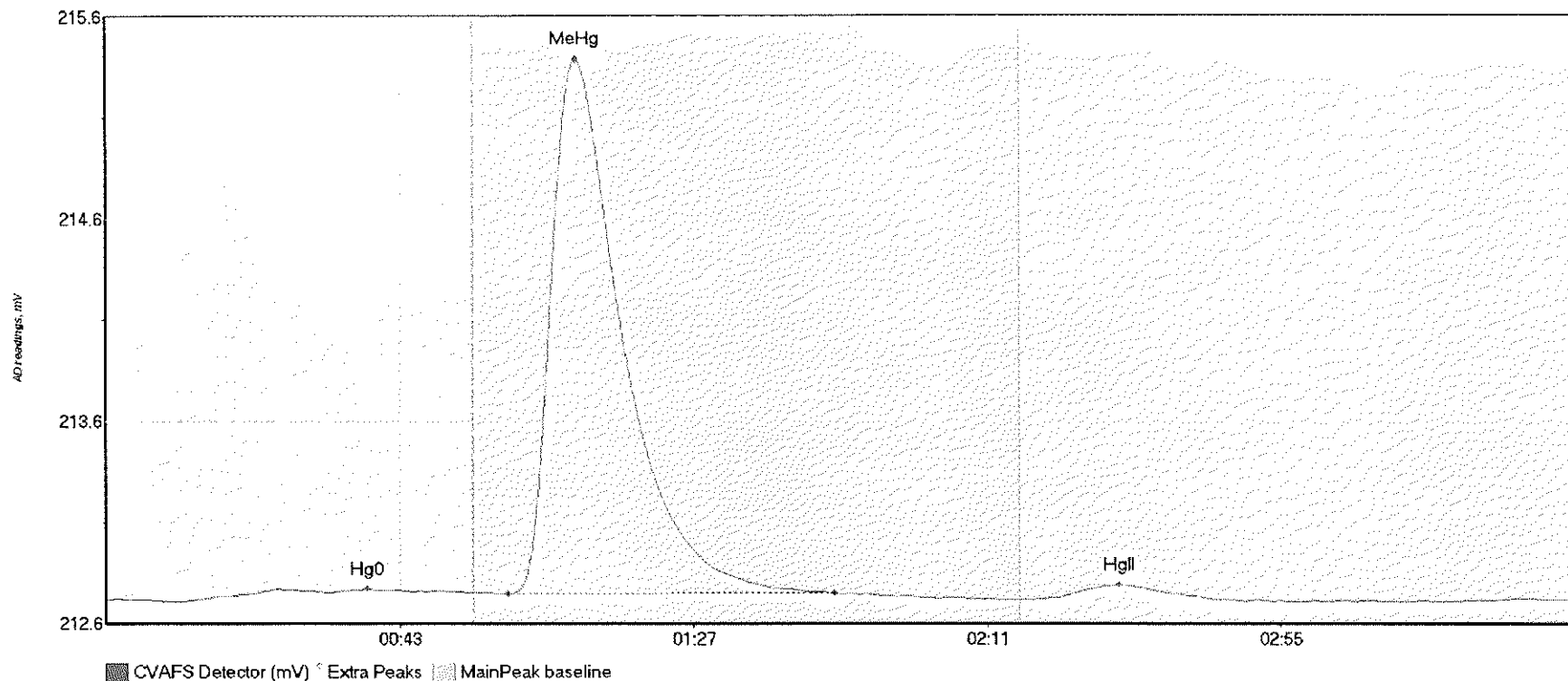
#17: F707501-MS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MS1 Hg0	13.116	11.4	54.4	212.71	212.74	25.7	0.069	OK	212.7096	0.00	-0.01	
F707501-MS1 MeH	363.060	59.7	111.9	212.74	212.74	70.4	2.904	OK	212.7096	0.00	-0.01	
F707501-MS1 HgI	17.609	139.1	171.8	212.72	212.72	150.1	0.122	OK	212.7096	0.00	-0.01	

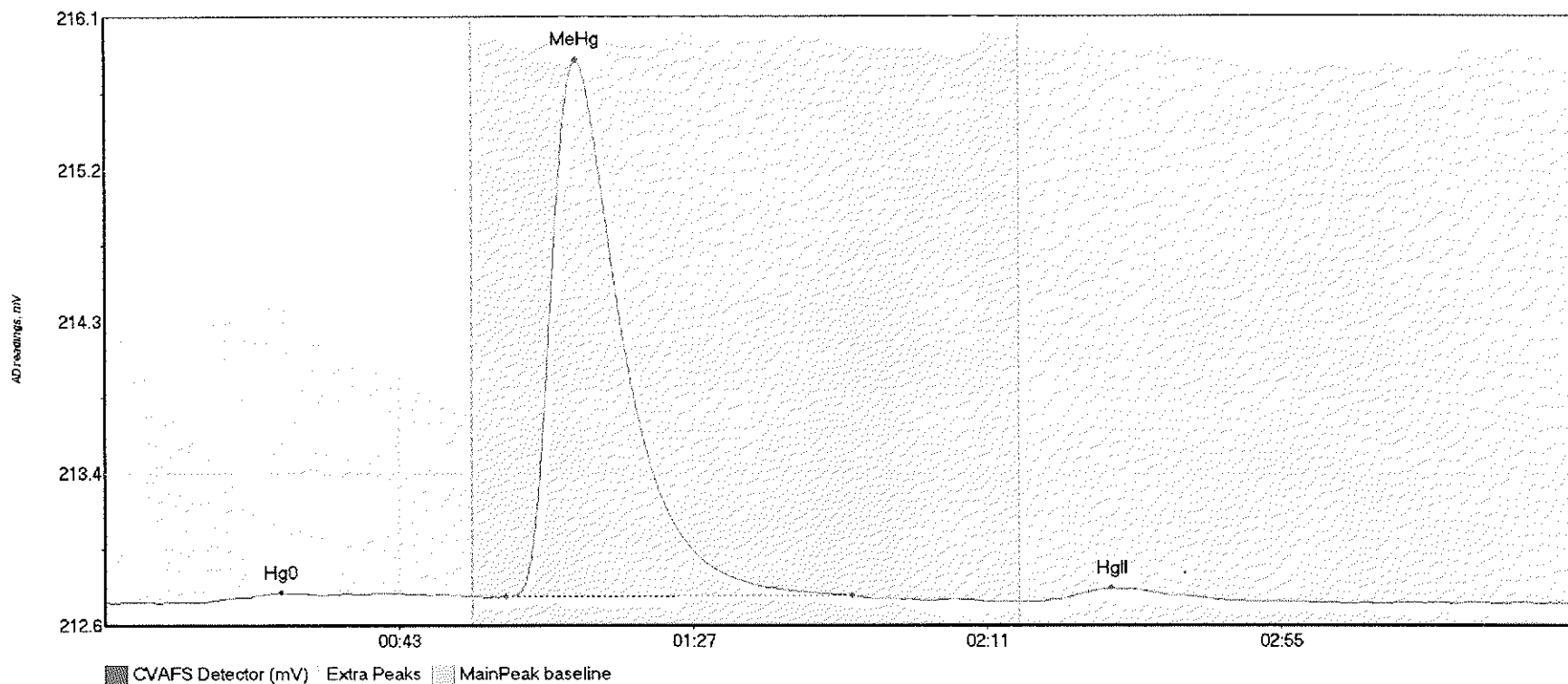


#18: F707501-MSD1



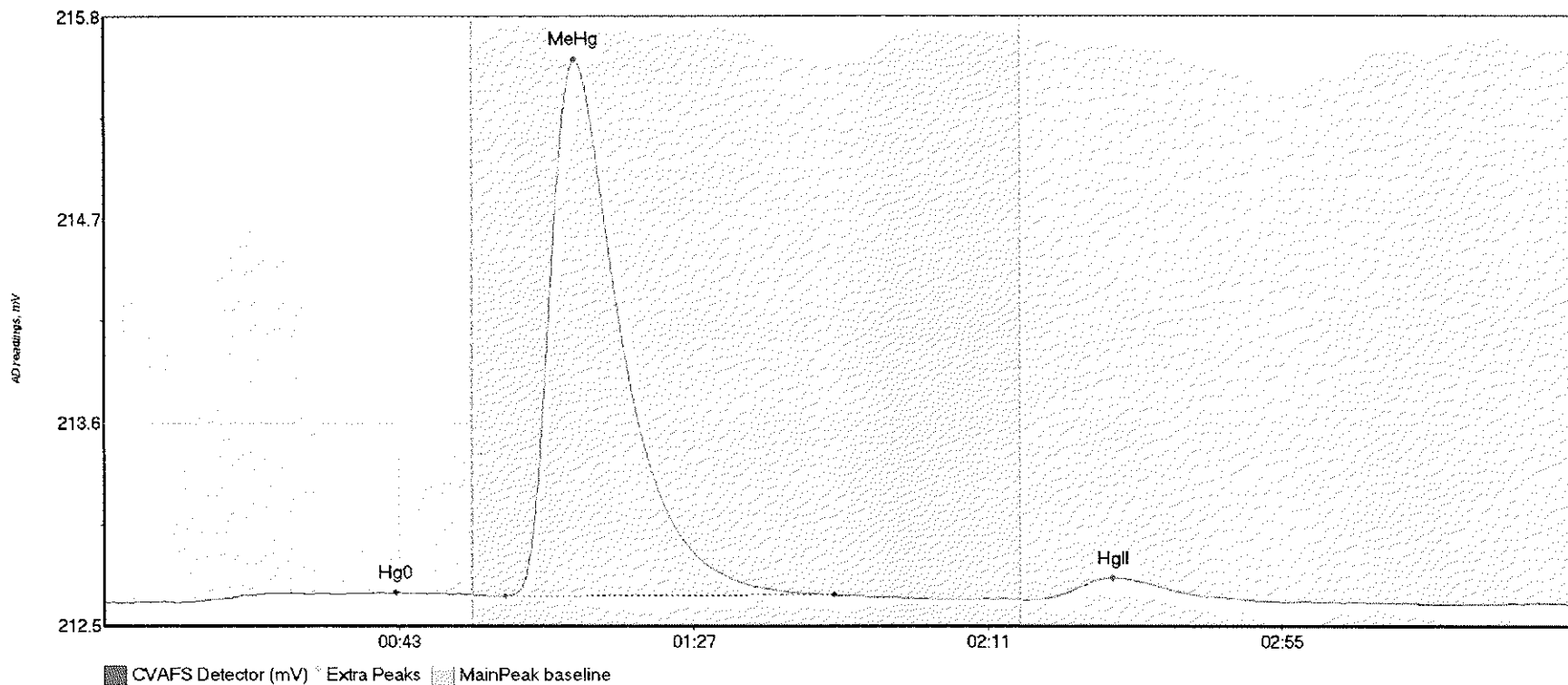
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MSD1 Hg	9.992	11.8	55.0	212.69	212.73	39.1	0.060	CT	212.7015	0.00	0.00	
F707501-MSD1 Me	334.508	60.2	109.0	212.73	212.73	70.5	2.689	OK	212.7015	0.00	0.00	
F707501-MSD1 Hg	9.549	140.1	166.7	212.70	212.70	151.7	0.069	OK	212.7015	0.00	0.00	

#19: F707501-MS2



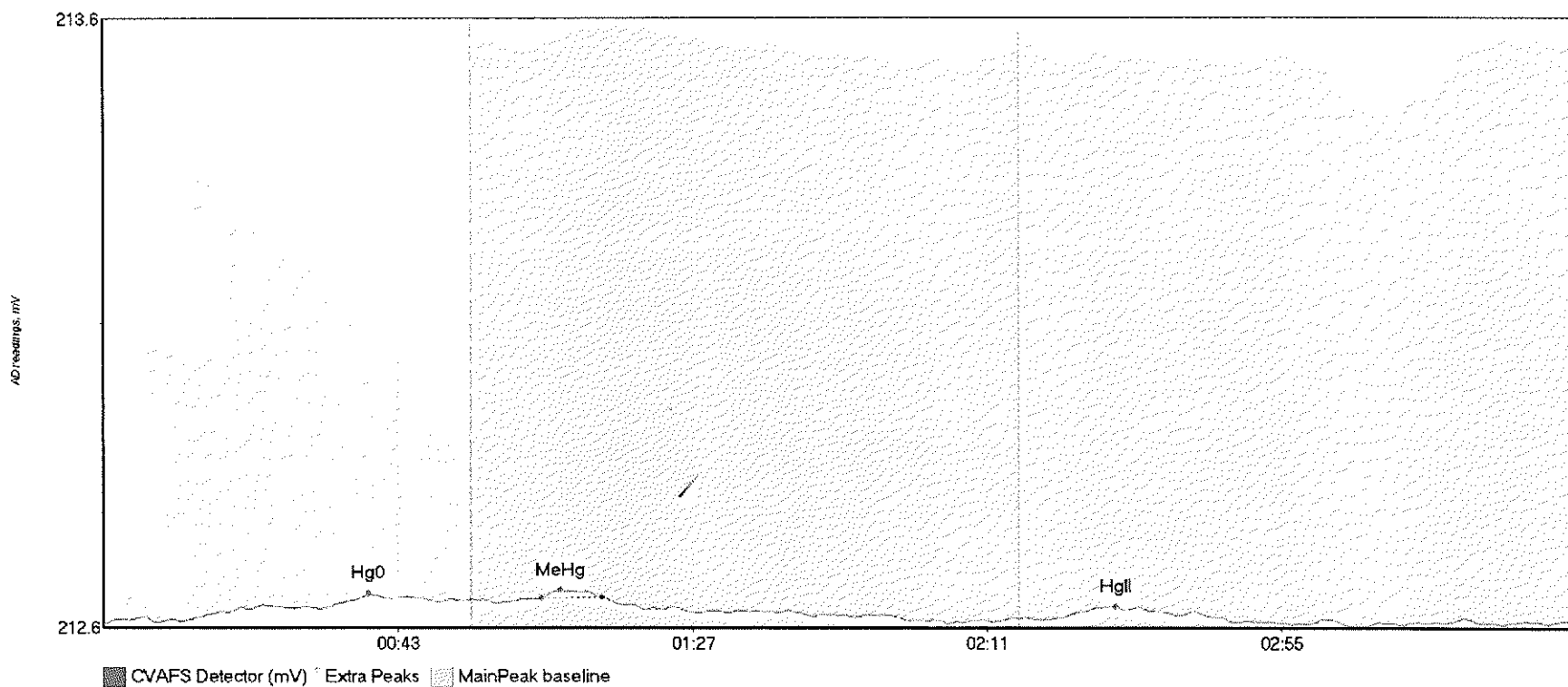
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MS2 Hg0	9.349	14.3	54.4	212.68	212.72	26.4	0.053	OK	212.6820	0.00	-0.01	
F707501-MS2 MeH	385.029	60.0	111.8	212.72	212.72	70.6	3.084	OK	212.6820	0.00	-0.01	
F707501-MS2 HgI	11.241	140.0	171.7	212.69	212.69	150.7	0.074	OK	212.6820	0.00	-0.01	

#20: F707501-MSD2



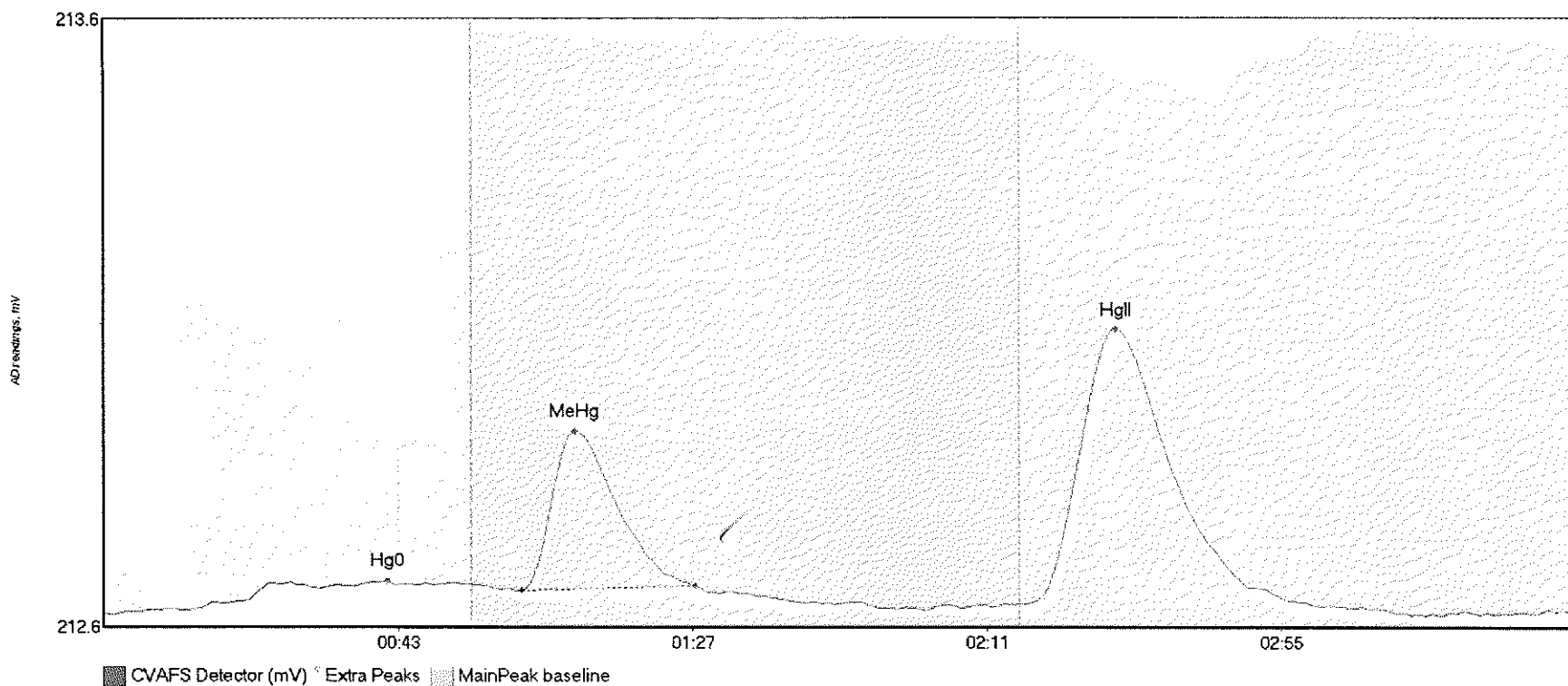
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707501-MSD2 Hg	8.928	10.9	54.9	212.67	212.71	43.6	0.054	OK	212.6708	0.00	-0.01	
F707501-MSD2 Me	360.655	59.9	109.0	212.71	212.71	70.3	2.900	OK	212.6708	0.00	-0.01	
F707501-MSD2 Hg	17.489	139.8	171.4	212.69	212.68	150.8	0.118	OK	212.6708	0.00	-0.01	

#22: SEQ-CCB1



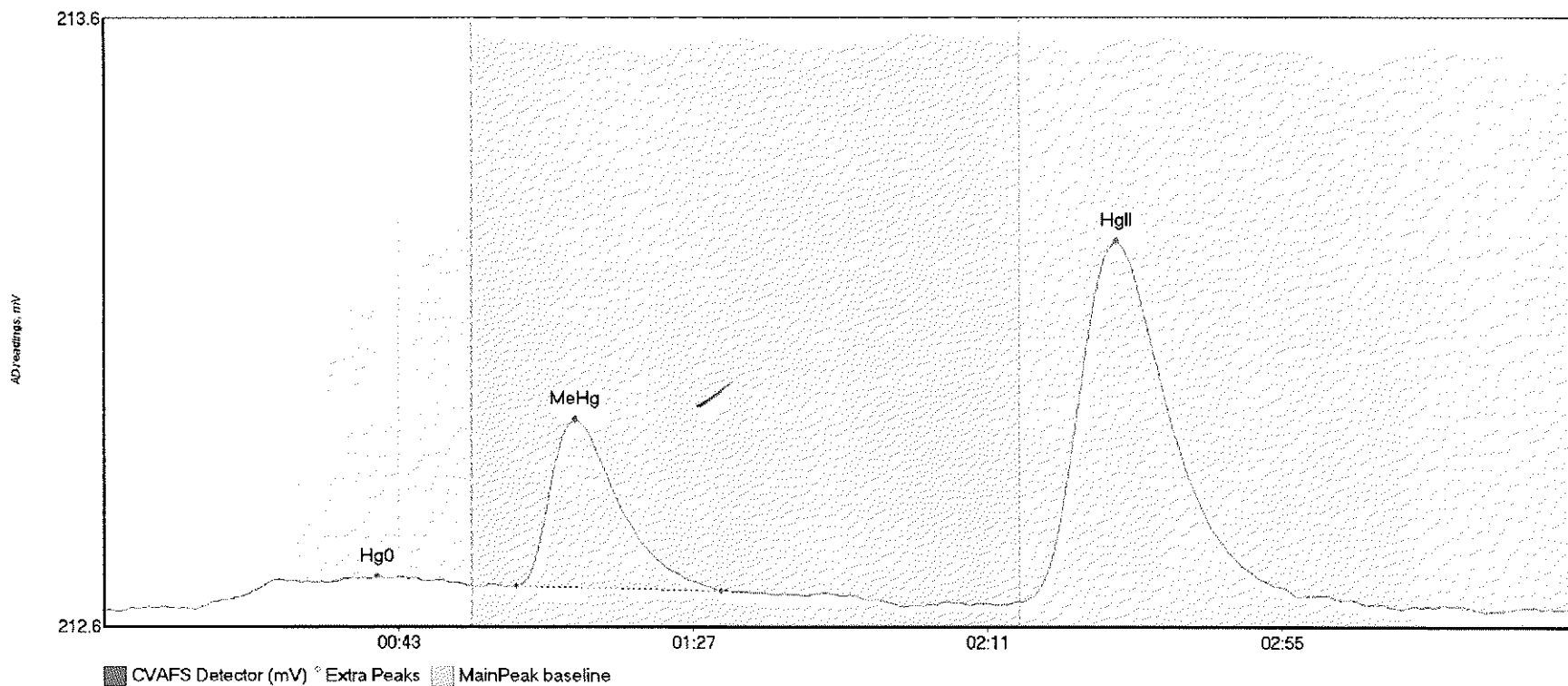
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	4.010	11.4	50.2	212.62	212.65	39.6	0.045	OK	212.6173	0.00	0.00	
SEQ-CCB1 MeHg	0.808	65.4	74.4	212.66	212.66	68.3	0.014	OK	212.6173	0.00	0.00	
SEQ-CCB1 HgII	1.803	143.3	160.5	212.63	212.63	151.3	0.018	OK	212.6173	0.00	0.00	

#23: 1707102-01



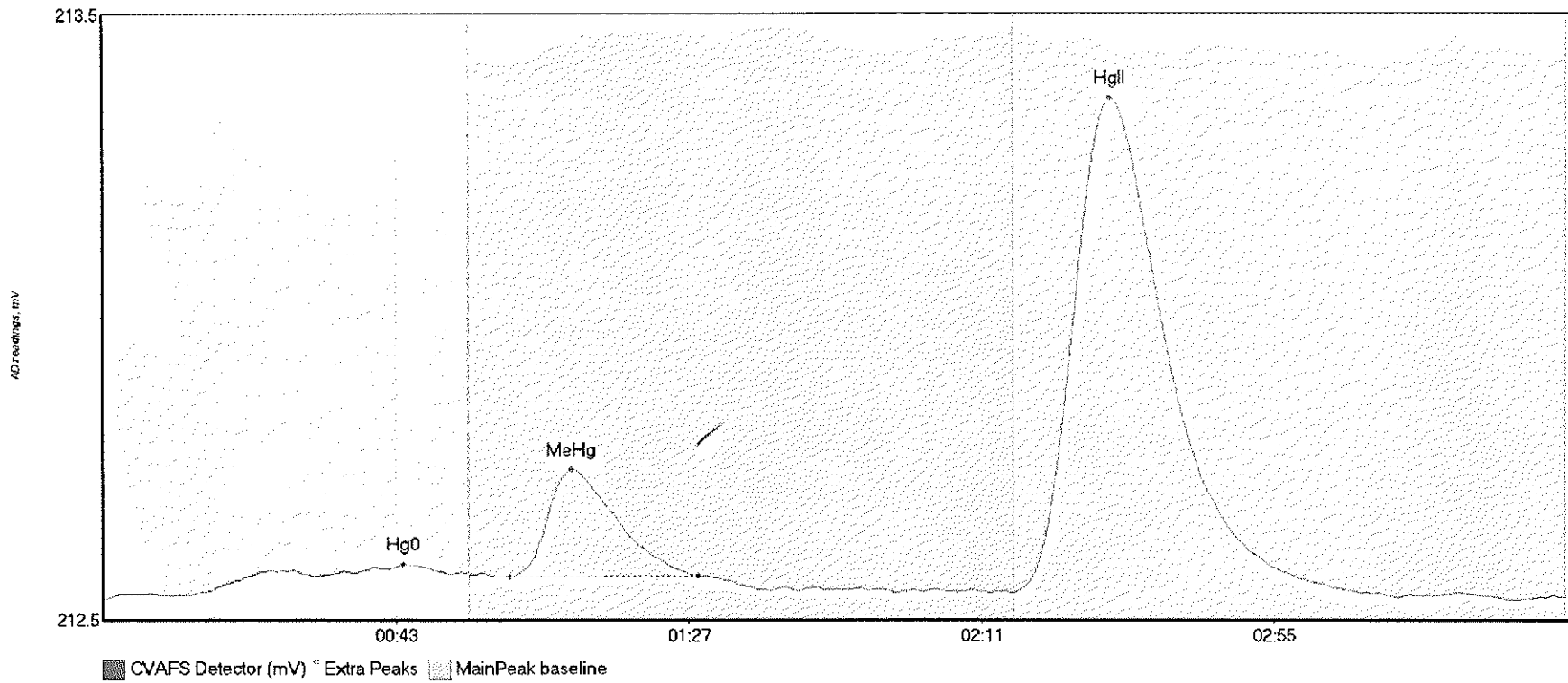
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-01 Hg0	3.564	5.5	47.0	212.61	212.65	42.4	0.051	OK	212.6066	0.00	0.00	
1707102-01 MeHg	28.937	62.4	88.4	212.64	212.65	70.5	0.262	OK	212.6066	0.00	0.00	
1707102-01 HgII	69.697	137.8	178.7	212.62	212.63	151.3	0.454	OK	212.6066	0.00	0.00	

#24: 1707102-02



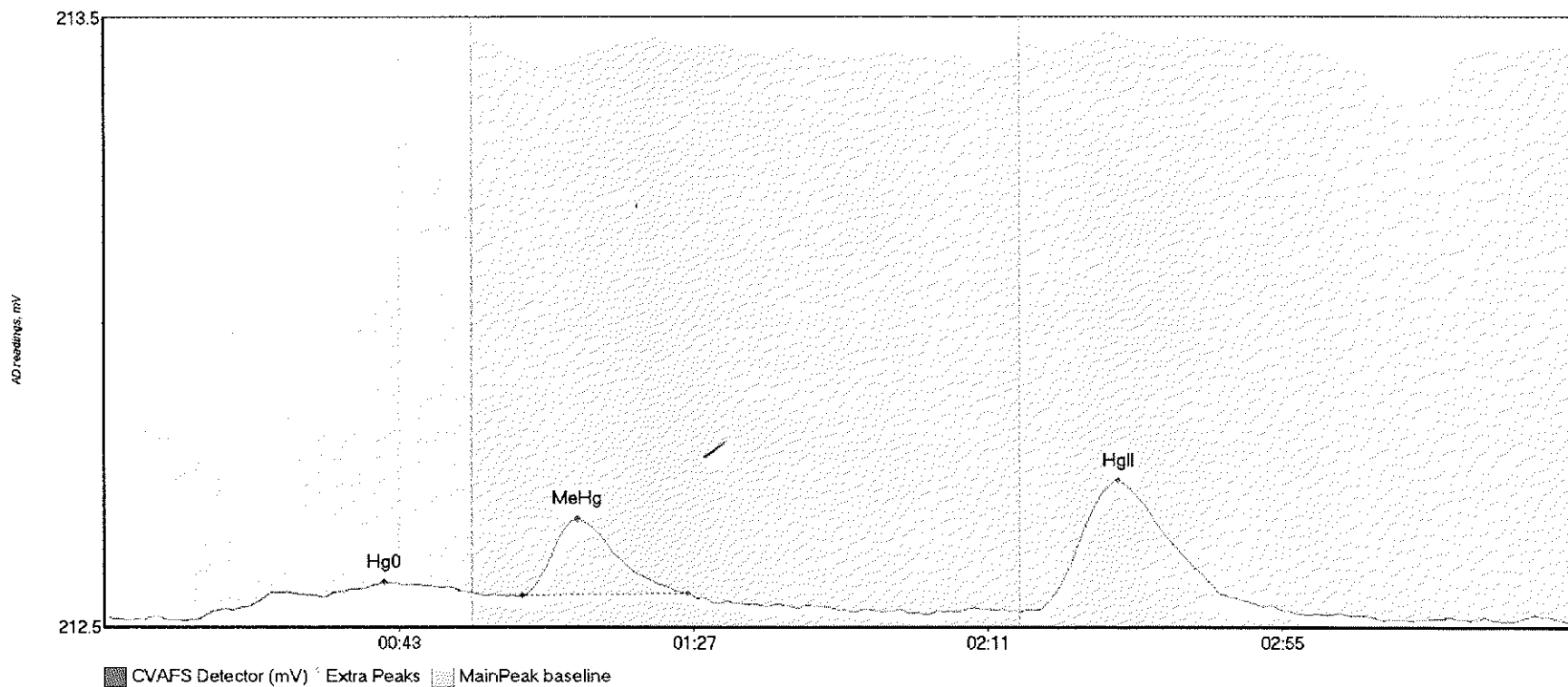
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-02 Hg0	8.586	14.0	55.0	212.58	212.62	40.9	0.053	CT	212.5826	0.00	0.01	
1707102-02 MeHg	33.045	61.6	92.2	212.62	212.61	70.4	0.274	OK	212.5826	0.00	0.01	
1707102-02 HgII	93.938	137.3	185.0	212.60	212.60	151.3	0.592	OK	212.5826	0.00	0.01	

#25: 1707102-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BjDev	BjShift	Comment
1707102-03 Hg0	7.273	12.8	55.0	212.57	212.60	45.2	0.050	CT	212.5649	0.00	0.00	
1707102-03 MeHg	21.166	61.1	89.5	212.60	212.60	70.5	0.179	OK	212.5649	0.00	0.00	
1707102-03 HgII	131.851	136.8	186.4	212.57	212.58	151.5	0.816	OK	212.5649	0.00	0.00	

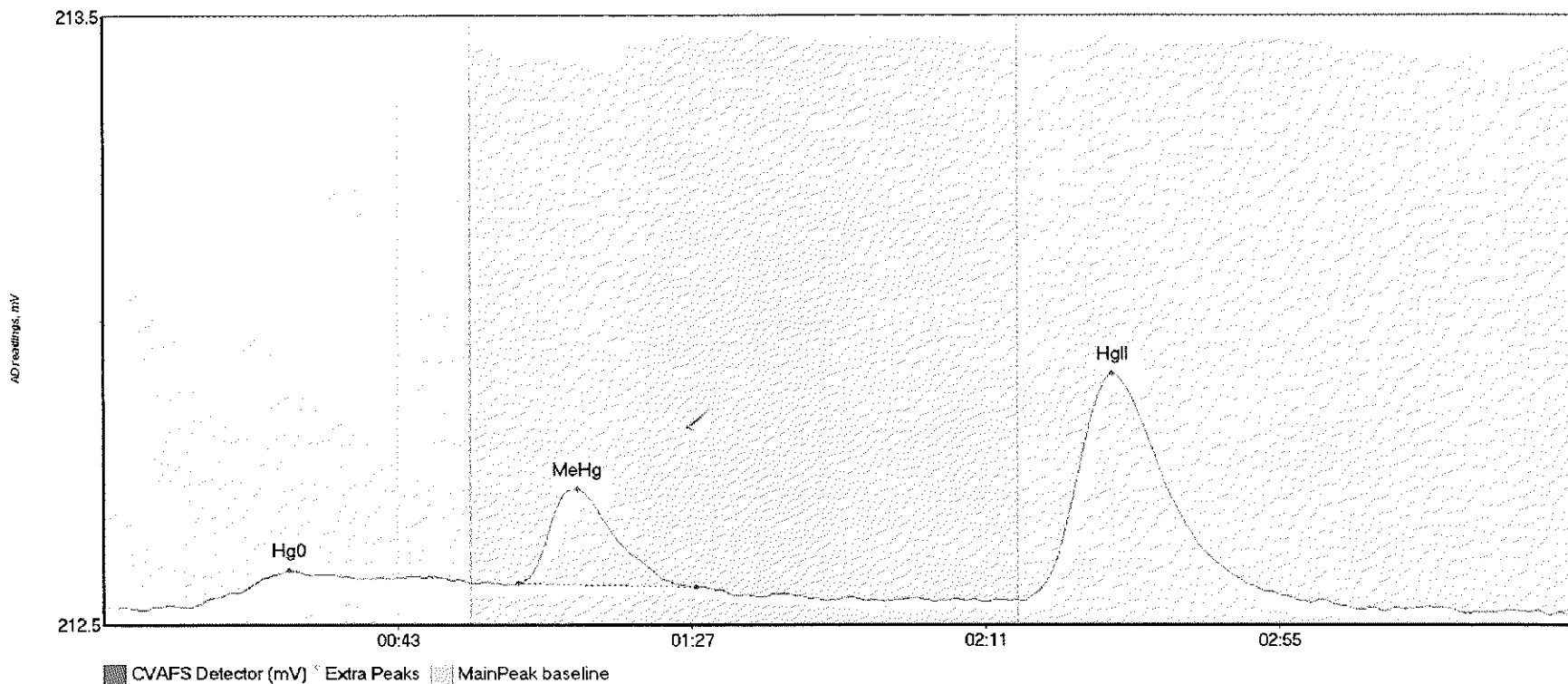
#26: 1707102-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-04 Hg0	8.059	13.7	55.0	212.54	212.59	41.8	0.062	CT	212.5471	0.00	-0.01	
1707102-04 MeHg	13.535	62.4	87.1	212.58	212.58	70.7	0.125	OK	212.5471	0.00	-0.01	
1707102-04 HgII	32.756	139.0	176.6	212.56	212.56	151.6	0.213	OK	212.5471	0.00	-0.01	



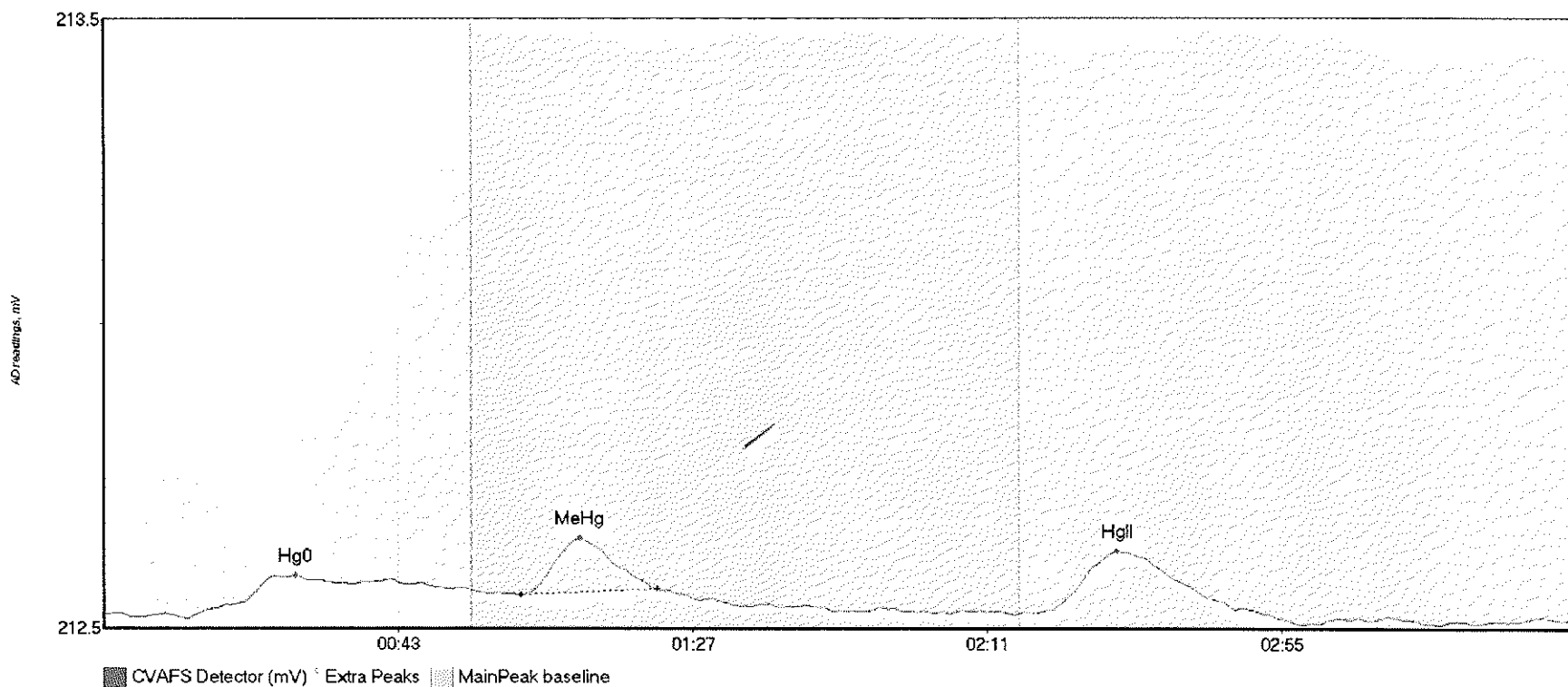
#27: 1707102-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-05 Hg0	9.807	12.9	55.0	212.53	212.57	27.9	0.061	CT	212.5255	0.00	-0.01	
1707102-05 MeHg	17.615	62.1	88.8	212.57	212.56	71.0	0.155	OK	212.5255	0.00	-0.01	
1707102-05 HgII	57.871	137.7	179.5	212.54	212.54	151.1	0.374	OK	212.5255	0.00	-0.01	

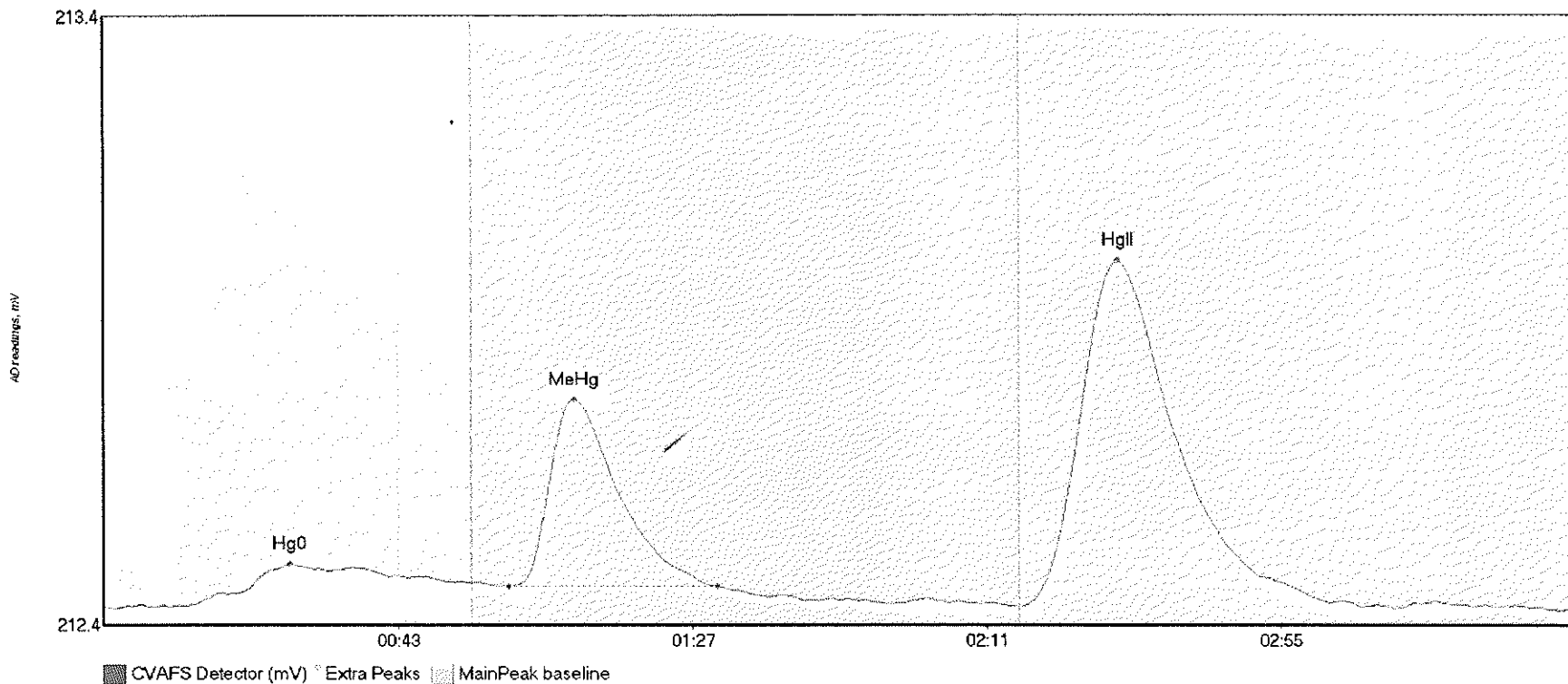
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#28: 1707102-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707102-06 Hg0	11.138	12.5	55.0	212.49	212.54	28.7	0.070	CT	212.4992	0.00	-0.01	
1707102-06 MeHg	8.722	62.3	82.8	212.53	212.54	71.1	0.093	OK	212.4992	0.00	-0.01	
1707102-06 HgII	15.172	141.1	173.3	212.50	212.50	151.4	0.097	OK	212.4992	0.00	-0.01	

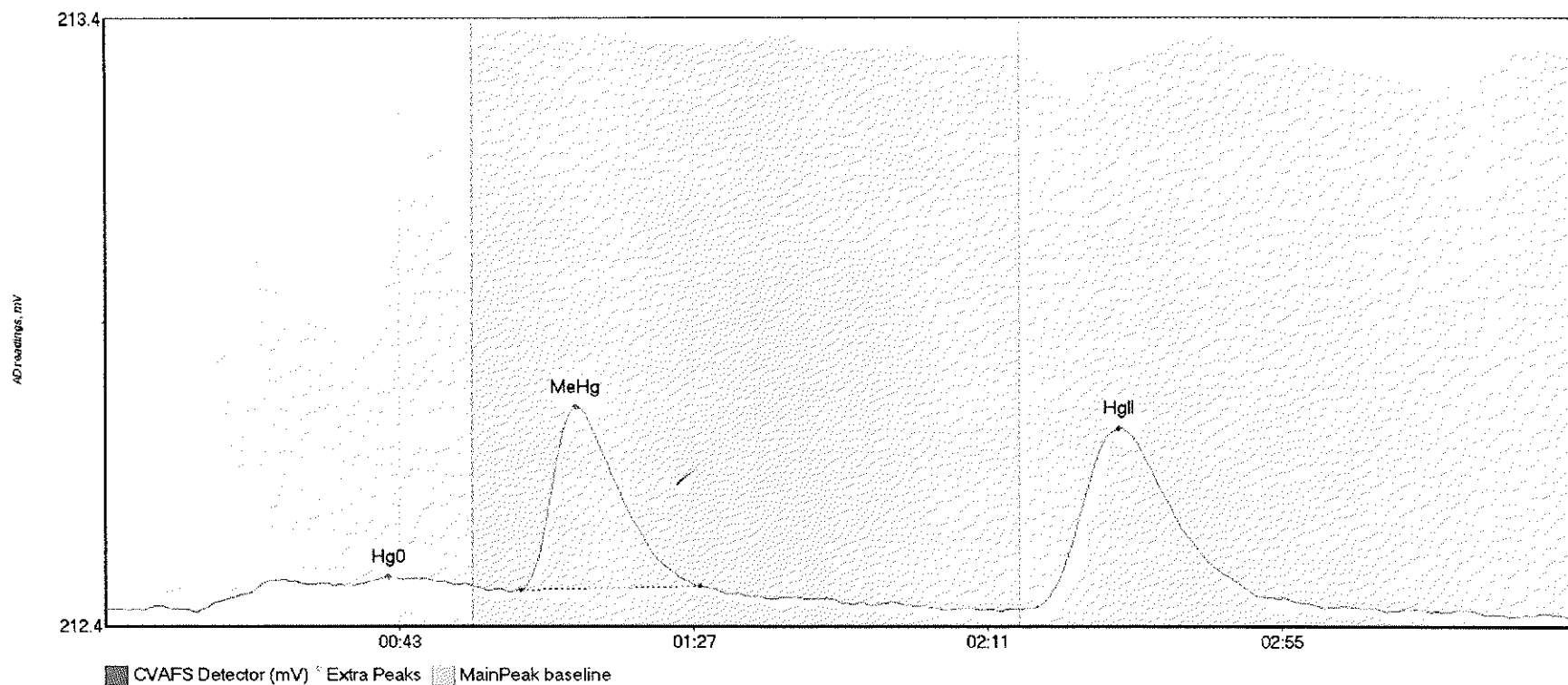
#29: 1707293-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-01 Hg0	10.956	13.2	55.0	212.47	212.51	27.8	0.067	CT	212.4687	0.00	0.00	
1707293-01 MeHg	36.270	60.6	91.7	212.50	212.50	70.4	0.307	OK	212.4687	0.00	0.00	
1707293-01 HgII	94.622	137.0	188.3	212.47	212.47	151.6	0.567	OK	212.4687	0.00	0.00	

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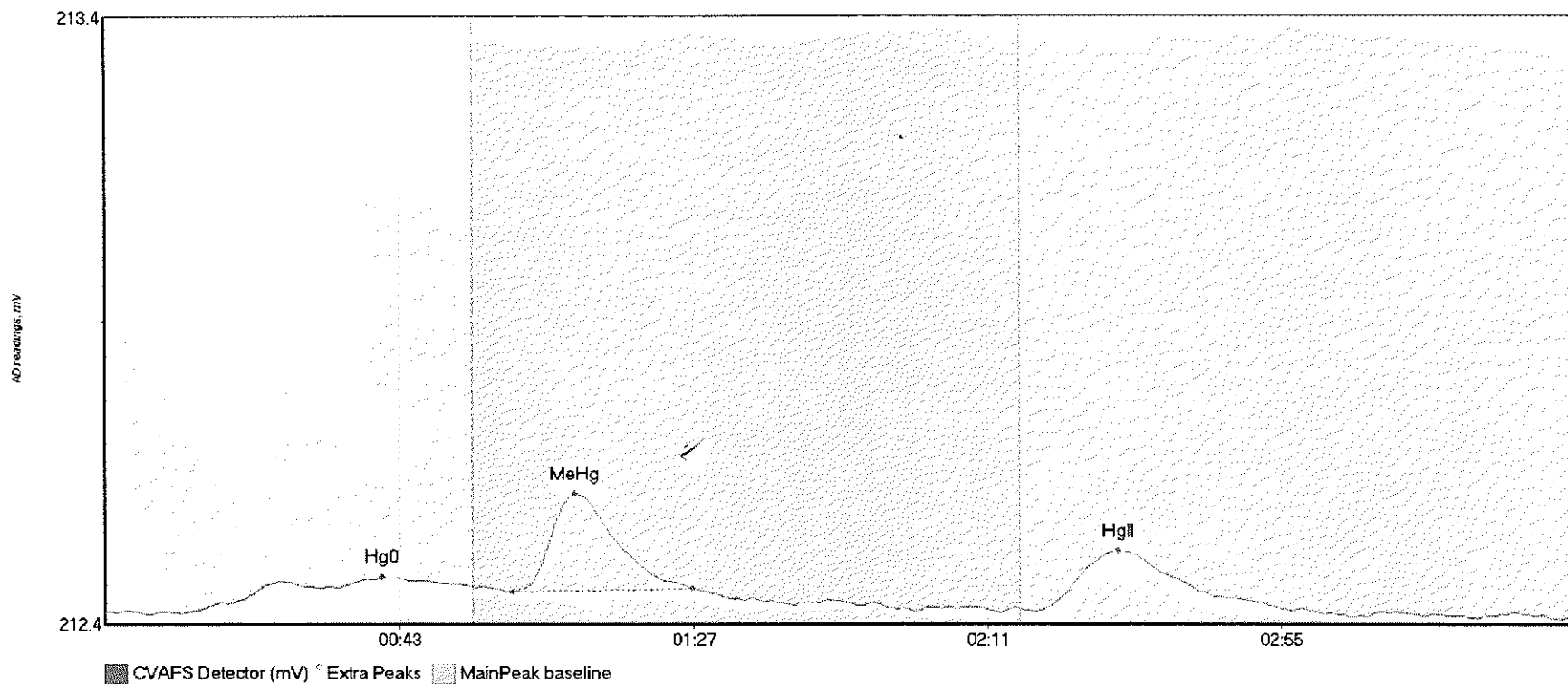
#30: 1707293-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-02 Hg0	8.151	15.0	55.0	212.45	212.49	42.4	0.053	CT	212.4490	0.00	-0.01	
1707293-02 MeHg	34.347	62.2	89.0	212.48	212.49	70.5	0.301	OK	212.4490	0.00	-0.01	
1707293-02 HgII	48.052	138.8	182.5	212.45	212.45	151.8	0.297	OK	212.4490	0.00	-0.01	

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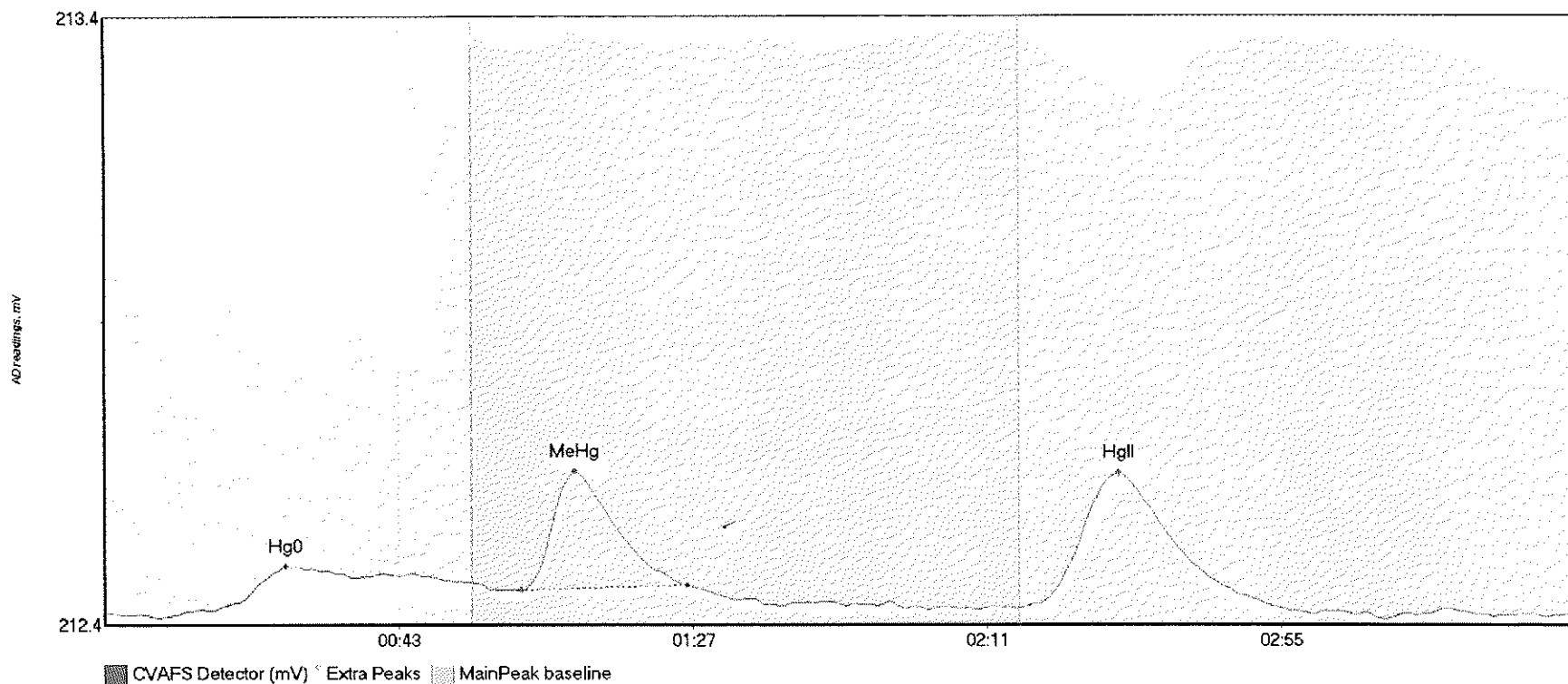
#31: 1707293-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-03 Hg0	8.356	11.4	55.0	212.42	212.46	41.4	0.060	CT	212.4227	0.00	-0.01	
1707293-03 MeHg	17.845	60.8	87.9	212.46	212.46	70.3	0.162	OK	212.4227	0.00	-0.01	
1707293-03 HgII	16.448	139.1	176.2	212.42	212.43	151.6	0.100	OK	212.4227	0.00	-0.01	

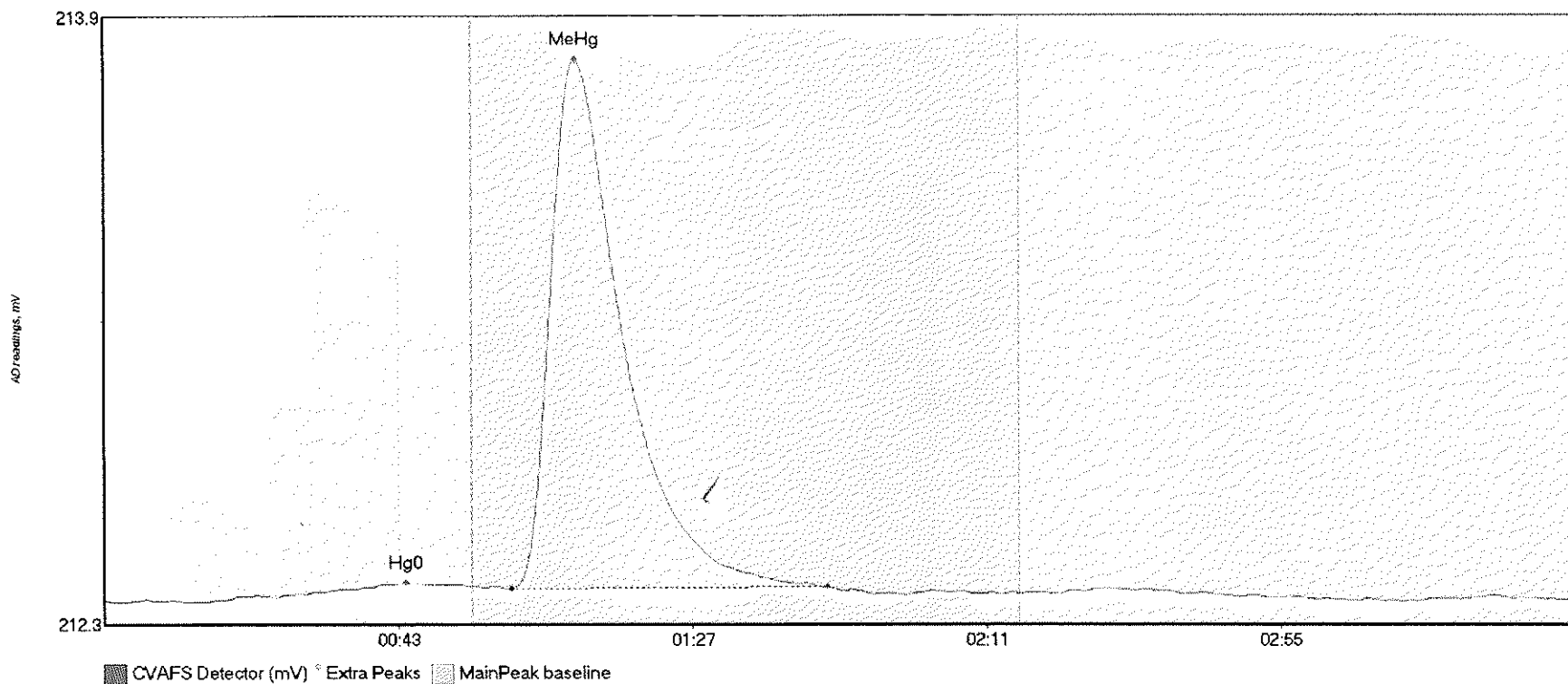
017

#32: 1707293-04



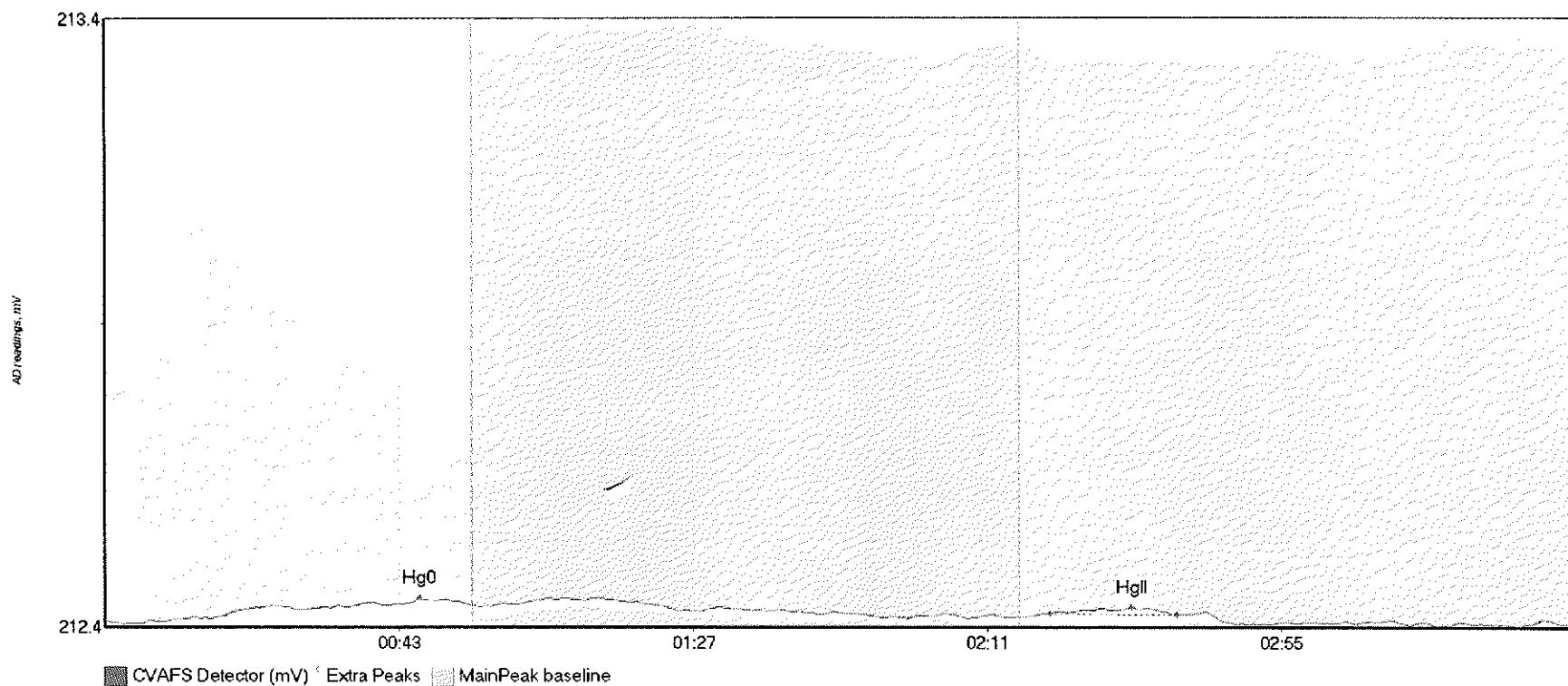
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-04 Hg0	10.816	16.1	54.6	212.41	212.46	27.1	0.073	OK	212.4042	0.00	0.00	
1707293-04 MeHg	20.530	62.3	87.1	212.44	212.45	70.3	0.196	OK	212.4042	0.00	0.00	
1707293-04 HgII	34.755	137.7	177.7	212.42	212.41	151.7	0.220	OK	212.4042	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	3.207	18.4	54.7	212.39	212.42	45.1	0.044	OK	212.3852	0.00	0.01	
SEQ-CCV2 MeHg	176.205	60.9	108.1	212.42	212.42	70.6	1.399	OK	212.3852	0.00	0.01	017

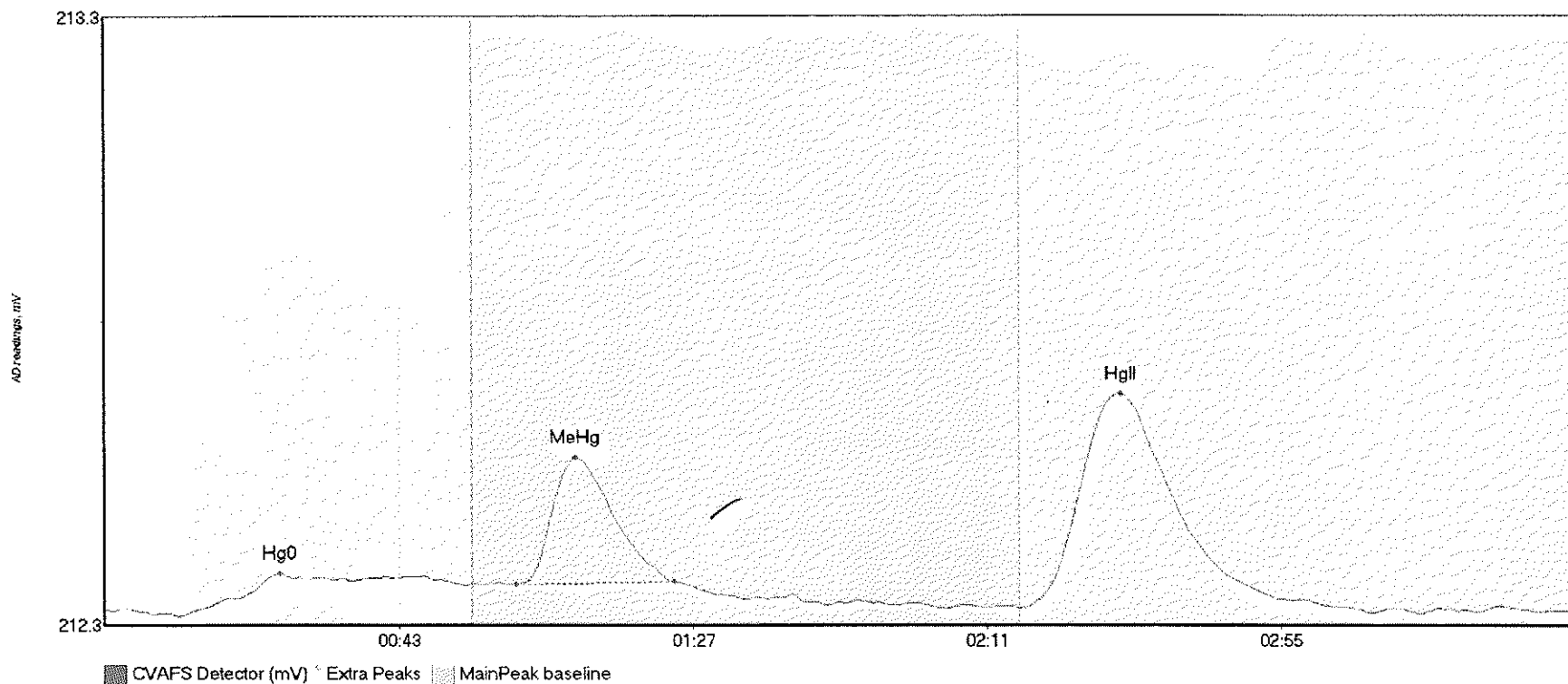
#34: SEQ-CCB2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	3.733	15.9	55.0	212.38	212.41	47.2	0.033	CT	212.3803	0.00	-0.01	
SEQ-CCB2 HgII	1.297	141.4	160.4	212.39	212.39	153.8	0.011	OK	212.3803	0.00	-0.01	017

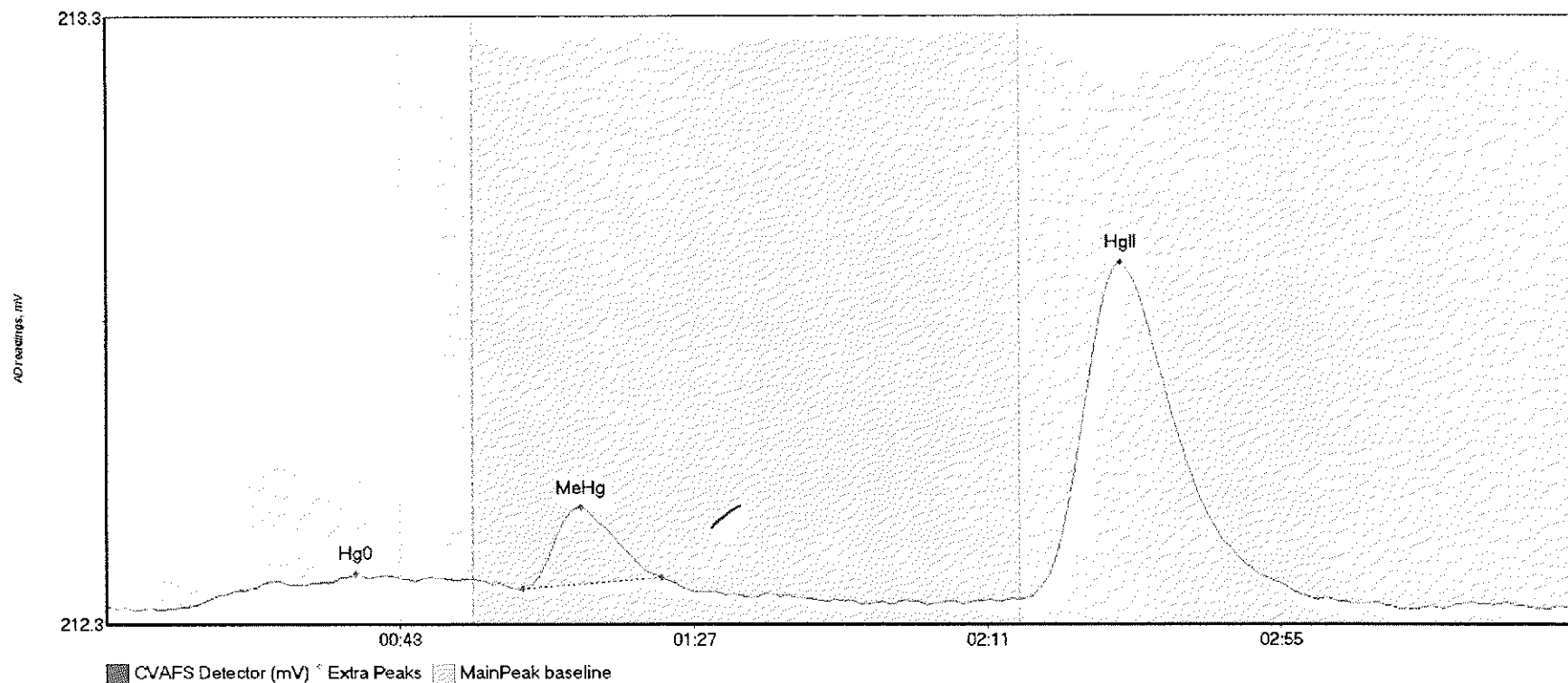


#35: 1707293-05



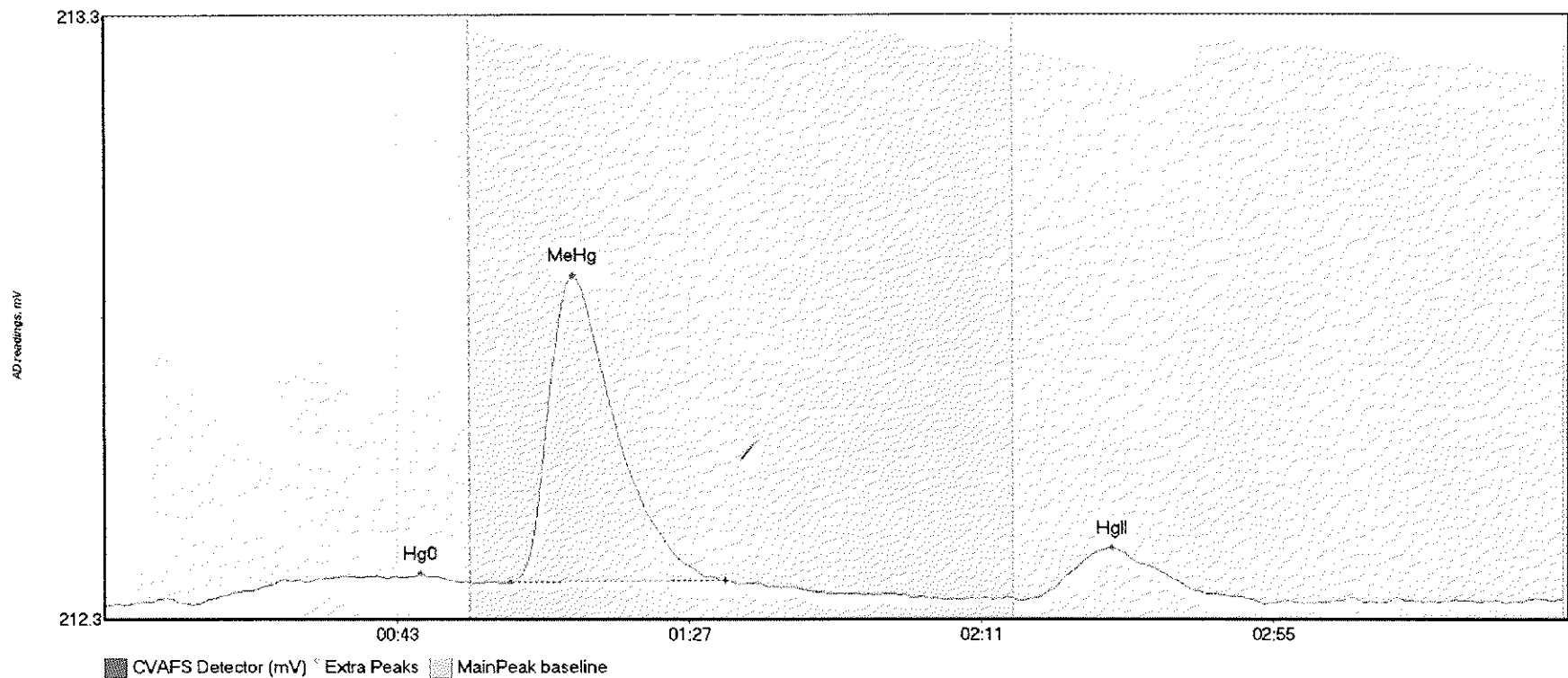
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-05 Hg0	10.660	11.7	53.7	212.36	212.41	26.3	0.069	OK	212.3716	0.00	0.00	
1707293-05 MeHg	21.631	61.6	85.1	212.41	212.42	70.5	0.209	OK	212.3716	0.00	0.00	
1707293-05 HgII	56.392	137.8	182.6	212.38	212.38	152.0	0.351	OK	212.3716	0.00	0.00	

#36: 1707293-06



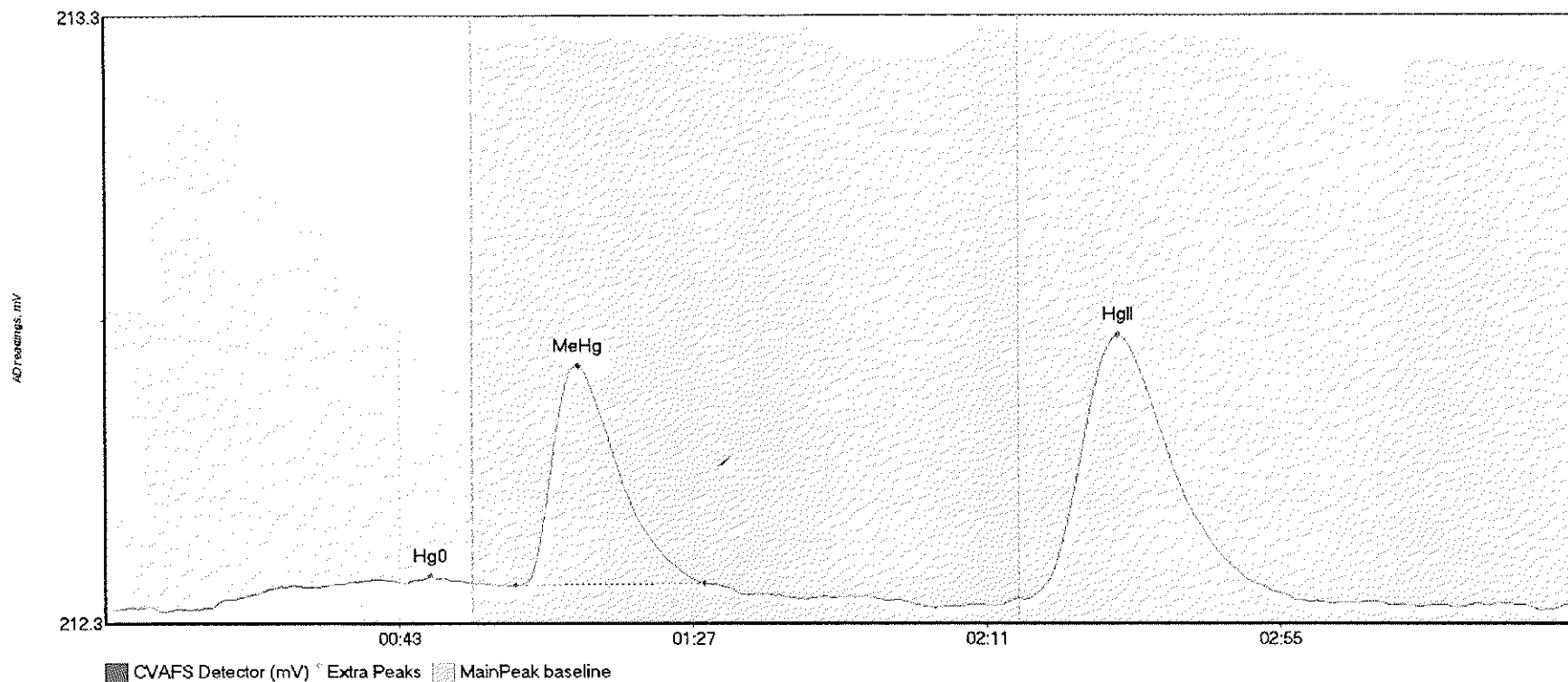
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707293-06 Hg0	4.905	12.2	46.3	212.36	212.41	37.5	0.052	OK	212.3623	0.00	0.00	
1707293-06 MeHg	12.802	62.5	83.1	212.39	212.41	71.1	0.134	OK	212.3623	0.00	0.00	
1707293-06 HgII	88.696	136.8	181.6	212.38	212.38	152.0	0.554	OK	212.3623	0.00	0.00	

#37: 1707294-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707294-01 Hg0	7.394	13.3	55.0	212.35	212.39	47.6	0.052	CT	212.3478	0.00	0.01	
1707294-01 MeHg	59.250	61.2	93.5	212.39	212.39	70.6	0.506	OK	212.3478	0.00	0.01	
1707294-01 HgII	11.330	140.0	169.9	212.36	212.36	151.8	0.084	OK	212.3478	0.00	0.01	

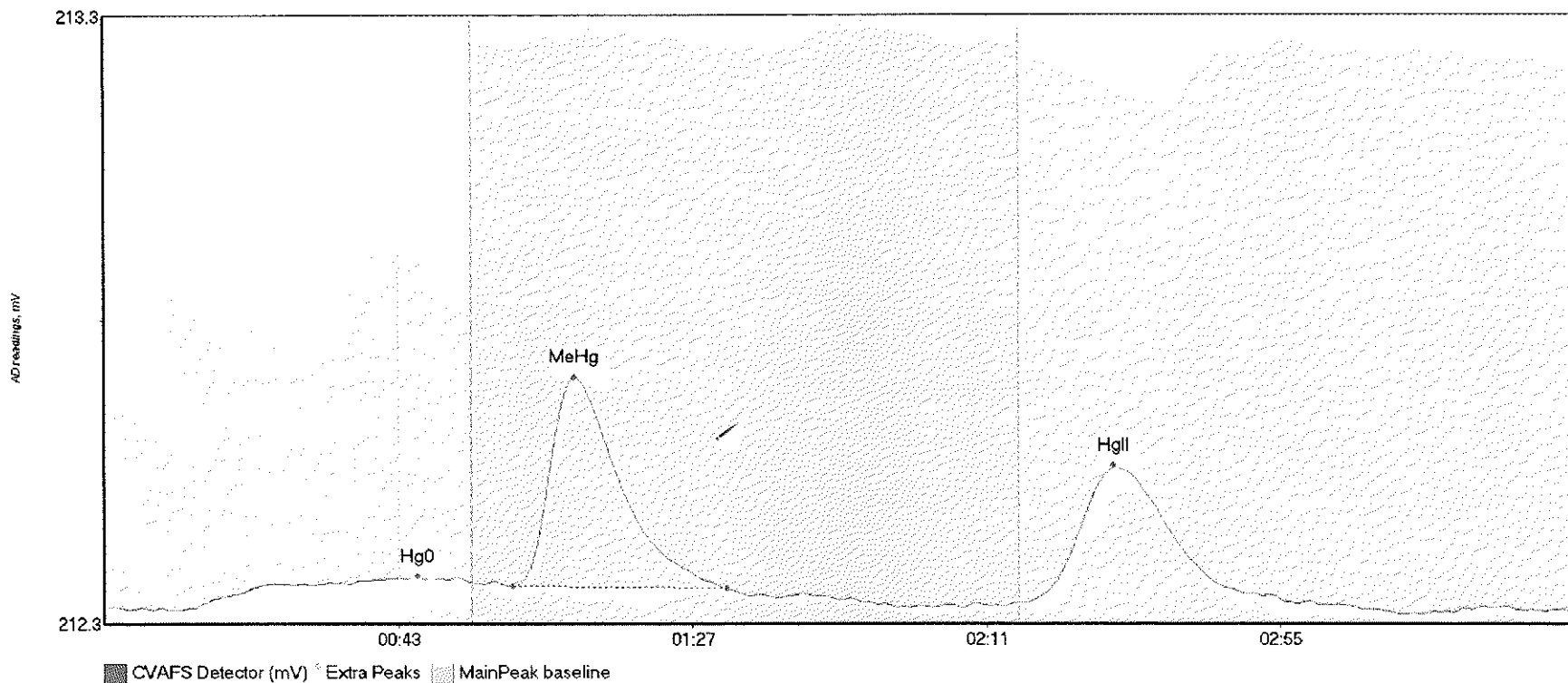
#38: 1707294-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707294-02 Hg0	6.261	15.7	55.0	212.35	212.39	48.7	0.051	CT	212.3448	0.00	0.01	
1707294-02 MeHg	41.237	61.4	89.8	212.38	212.39	70.8	0.363	OK	212.3448	0.00	0.01	
1707294-02 HgII	68.392	137.5	178.7	212.36	212.36	151.7	0.434	OK	212.3448	0.00	0.01	

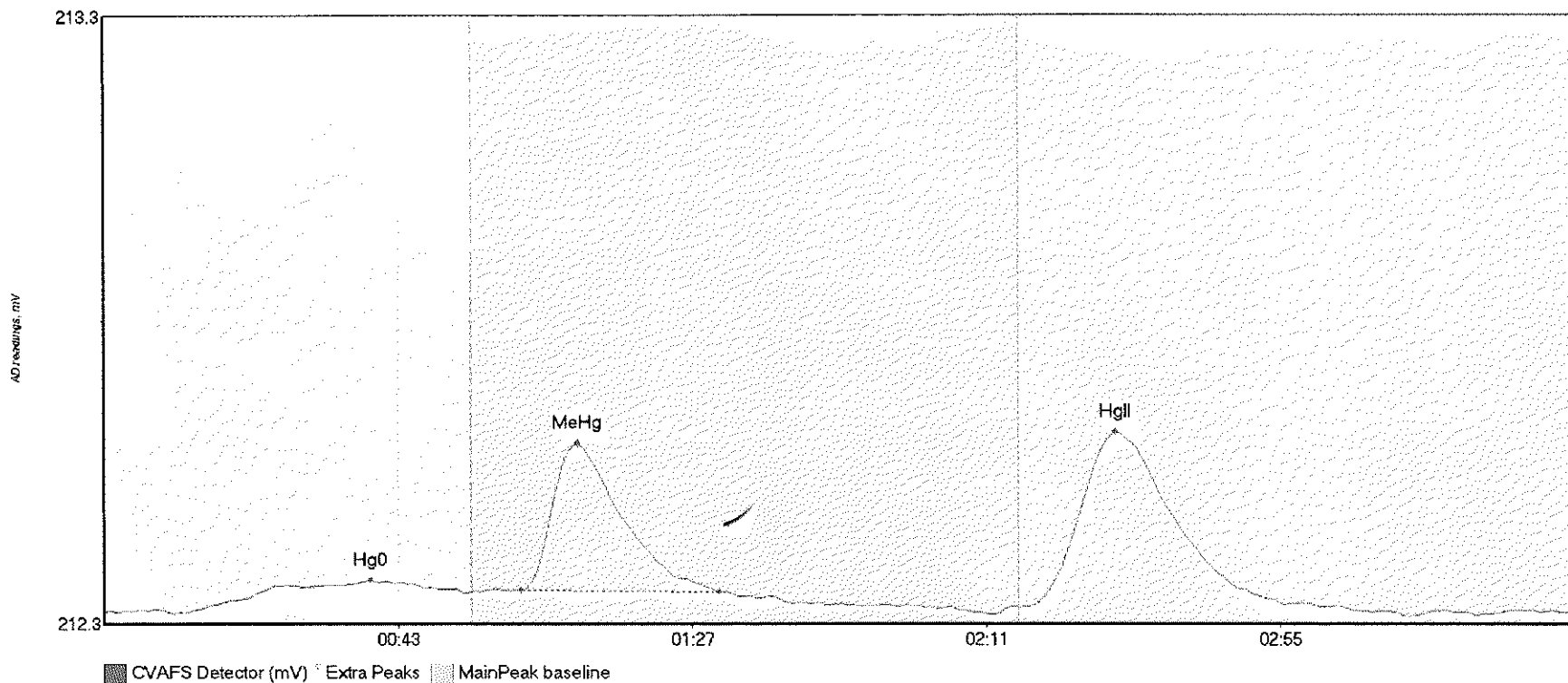
017

#39: 1707294-03



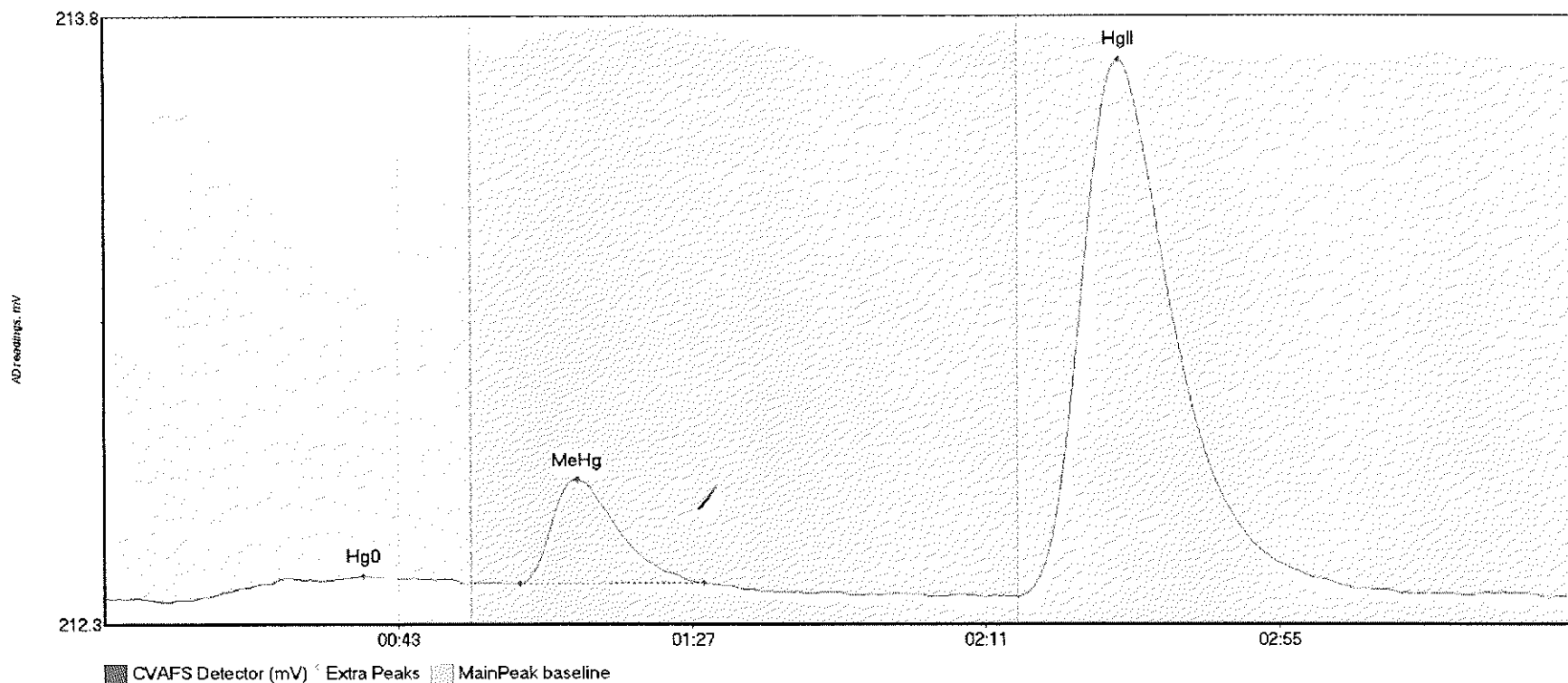
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707294-03 Hg0	7.393	13.2	55.0	212.34	212.38	46.8	0.053	CT	212.3423	0.00	-0.01	
1707294-03 MeHg	41.665	61.2	93.1	212.38	212.37	70.4	0.343	OK	212.3423	0.00	-0.01	
1707294-03 HgII	34.245	138.1	176.8	212.35	212.35	151.1	0.226	OK	212.3423	0.00	-0.01	

#40: 1707543-01



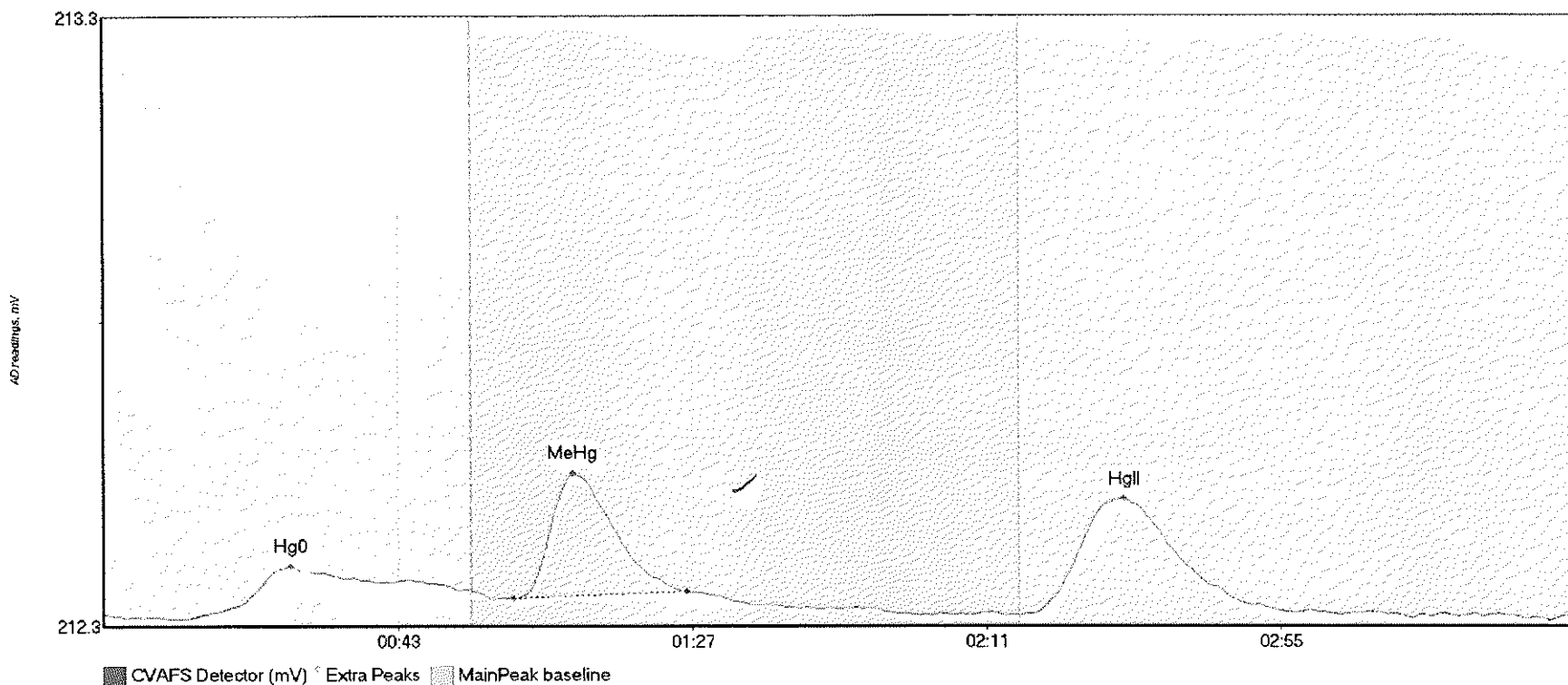
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-01 Hg0	7.783	14.4	54.1	212.33	212.36	39.8	0.047	OK	212.3267	0.00	0.00	
1707543-01 MeHg	29.048	62.3	92.0	212.36	212.36	70.8	0.241	OK	212.3267	0.00	0.00	
1707543-01 HgII	45.052	138.5	176.9	212.34	212.34	151.3	0.287	OK	212.3267	0.00	0.00	

#41: 1707543-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-03 Hg0	8.671	16.0	54.1	212.33	212.36	38.9	0.052	OK	212.3222	0.00	0.00	
1707543-03 MeHg	30.081	62.3	89.8	212.36	212.36	70.8	0.264	OK	212.3222	0.00	0.00	
1707543-03 HgII	224.296	136.9	196.4	212.33	212.33	152.1	1.354	OK	212.3222	0.00	0.00	

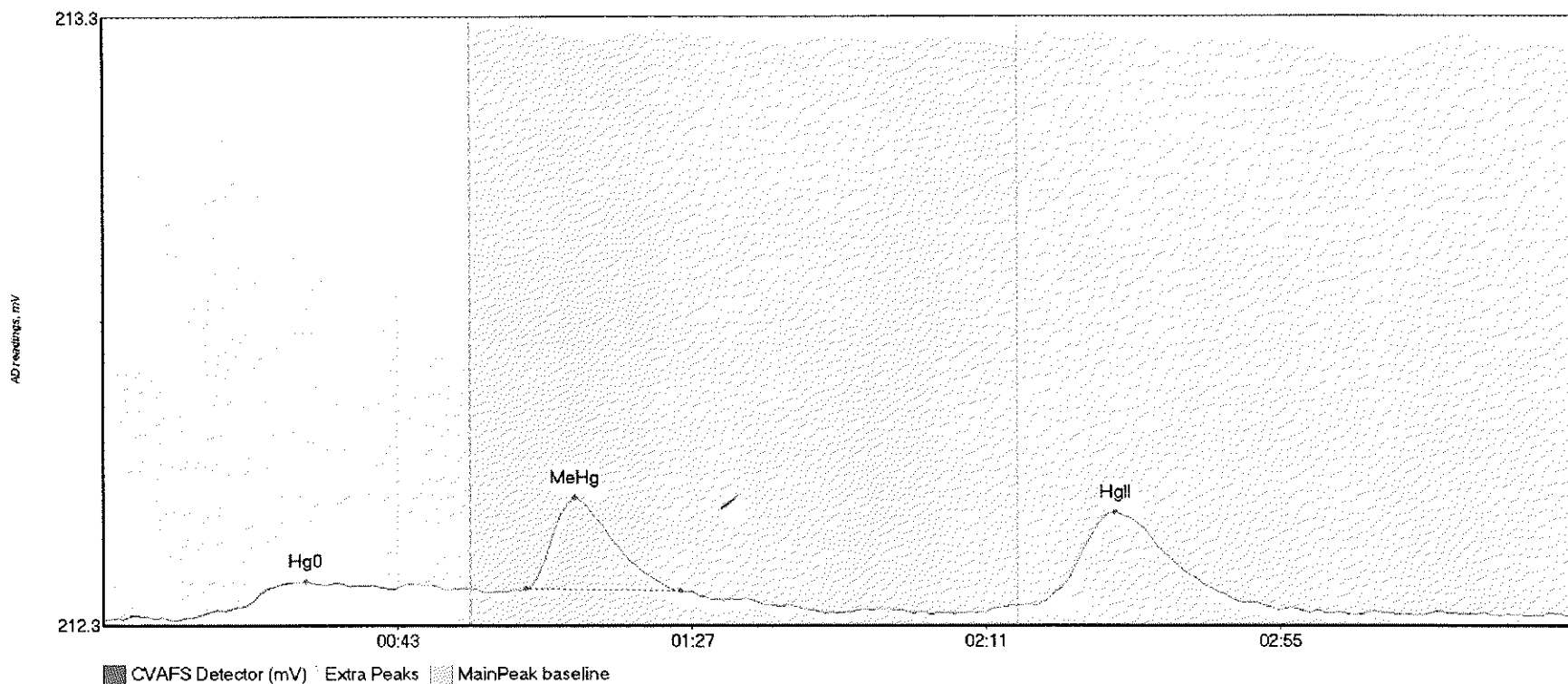
#42: 1707543-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-04 Hg0	11.476	17.2	55.0	212.32	212.36	28.0	0.075	CT	212.3163	0.00	0.00	
1707543-04 MeHg	21.616	61.3	87.2	212.34	212.35	70.2	0.206	OK	212.3163	0.00	0.00	
1707543-04 HgII	31.182	138.7	178.4	212.32	212.32	152.6	0.189	OK	212.3163	0.00	0.00	

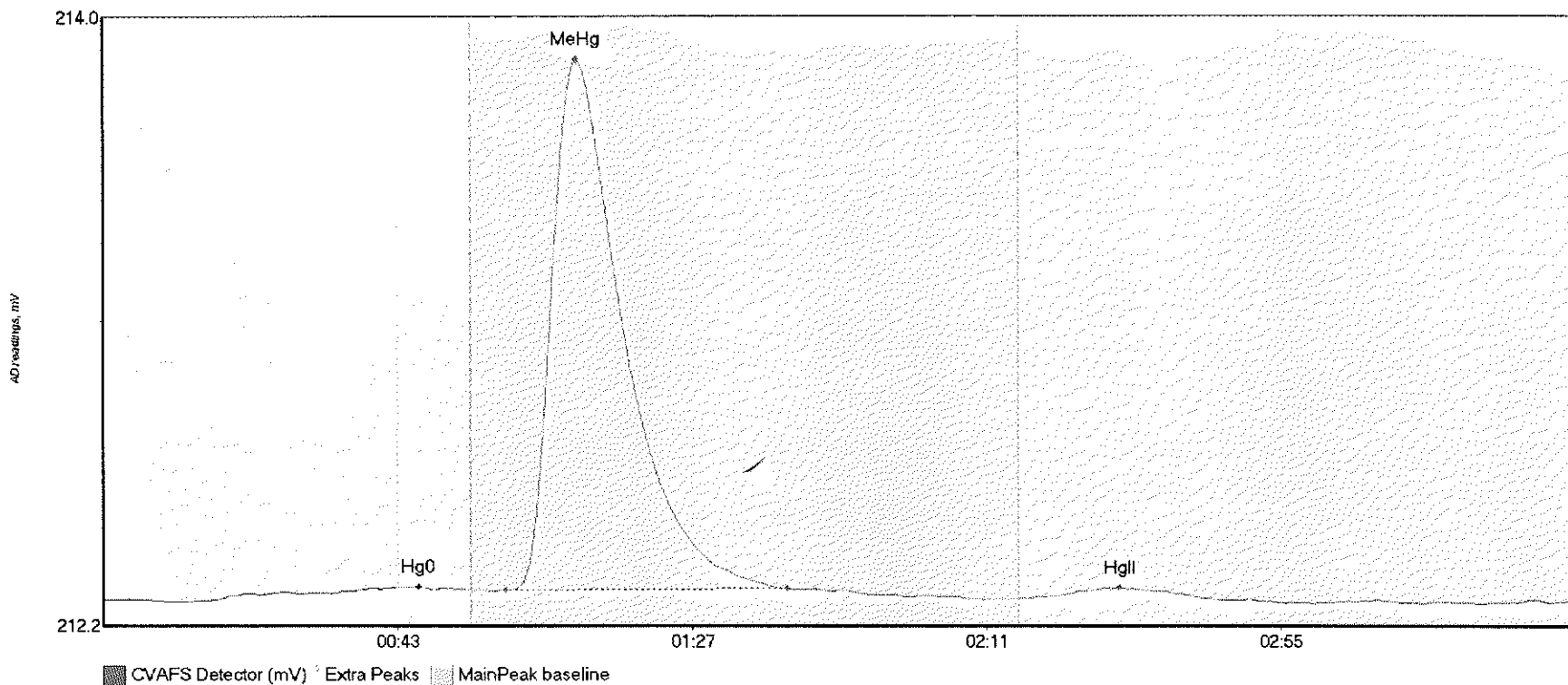


#43: 1707543-05



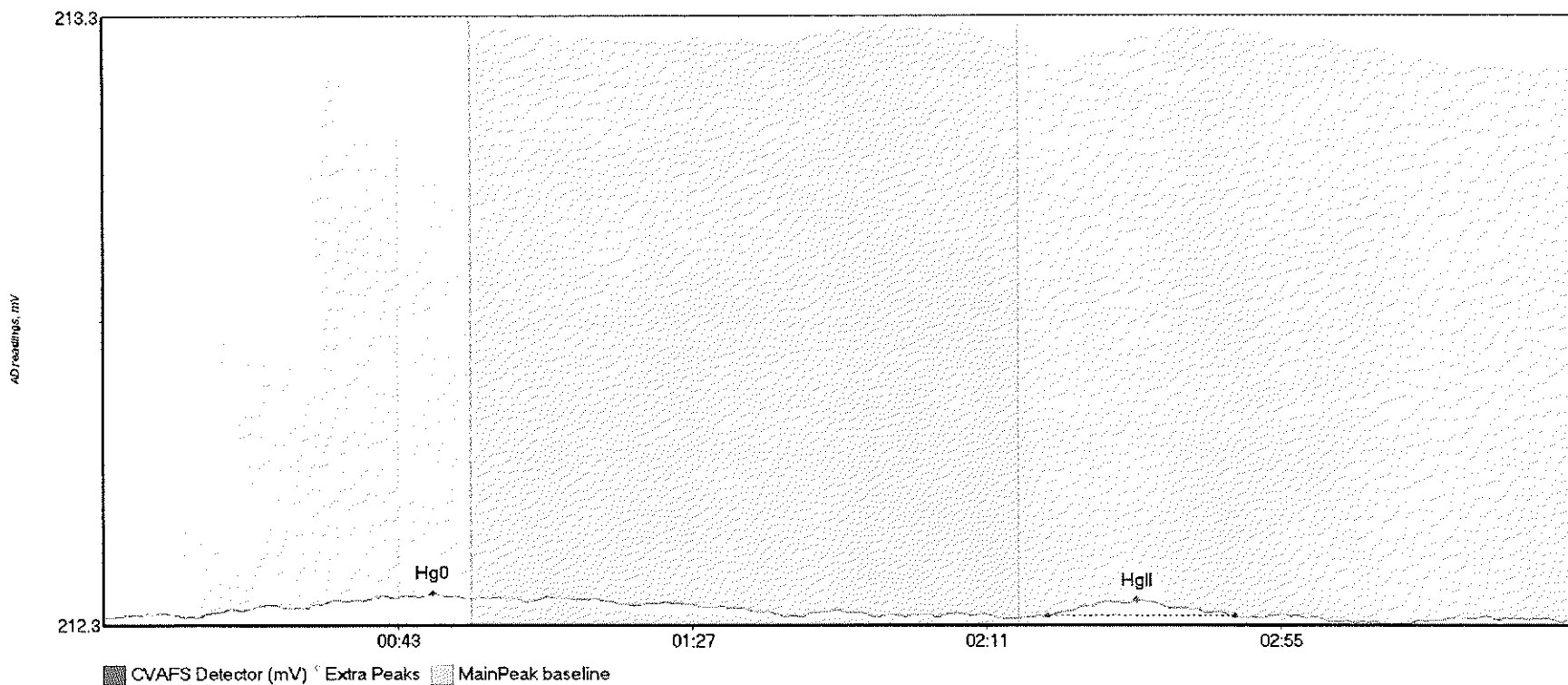
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707543-05 Hg0	7.519	13.1	51.8	212.30	212.35	30.3	0.059	OK	212.2981	0.00	0.01	
1707543-05 MeHg	15.586	63.3	86.3	212.35	212.35	70.6	0.149	OK	212.2981	0.00	0.01	
1707543-05 HgII	21.946	139.5	171.1	212.32	212.33	151.5	0.153	OK	212.2981	0.00	0.01	

#45: SEQ-CCV3



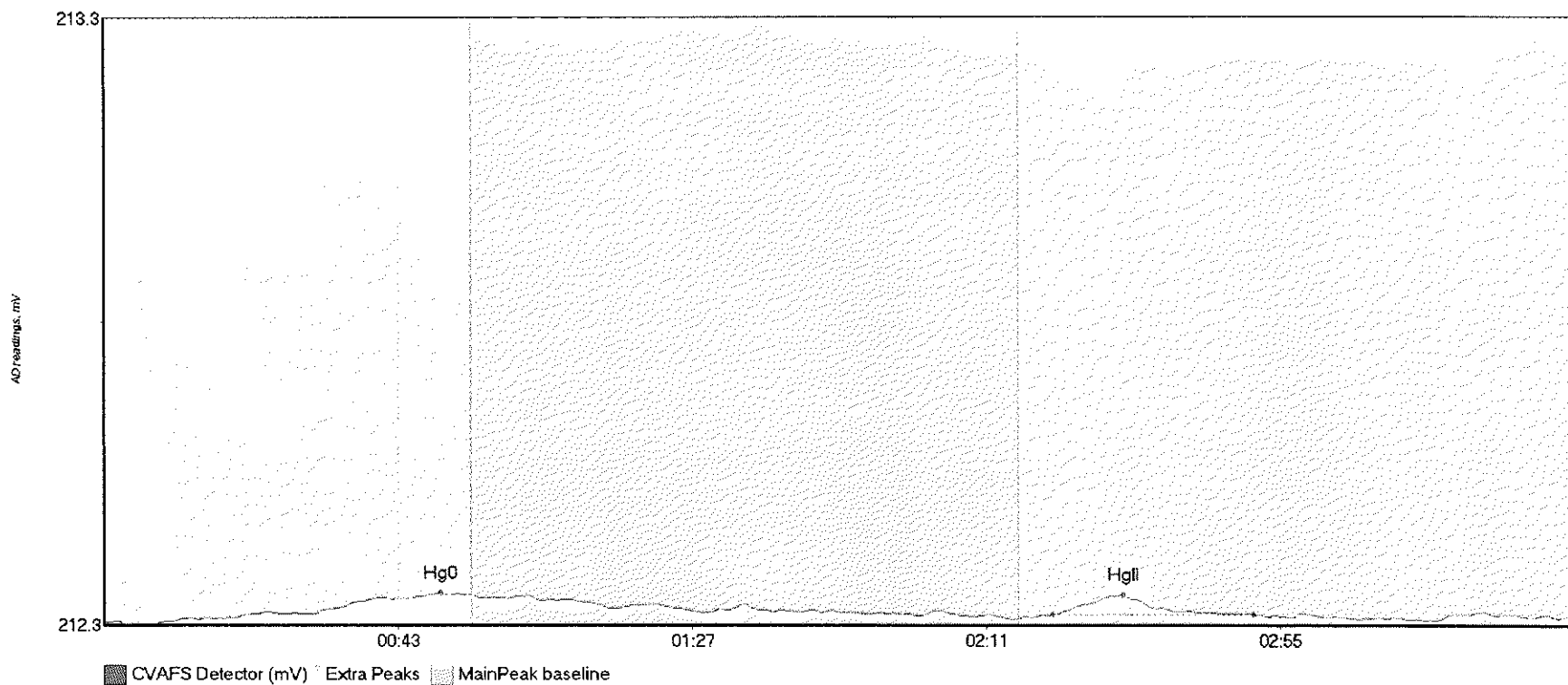
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	3.652	16.8	54.7	212.29	212.32	47.1	0.036	OK	212.2865	0.00	0.00	
SEQ-CCV3 MeHg	190.031	60.2	102.2	212.31	212.32	70.9	1.534	OK	212.2865	0.00	0.00	
SEQ-CCV3 HgII	3.832	140.4	164.6	212.30	212.29	151.9	0.026	OK	212.2865	0.00	0.00	

#46: SEQ-CCB3



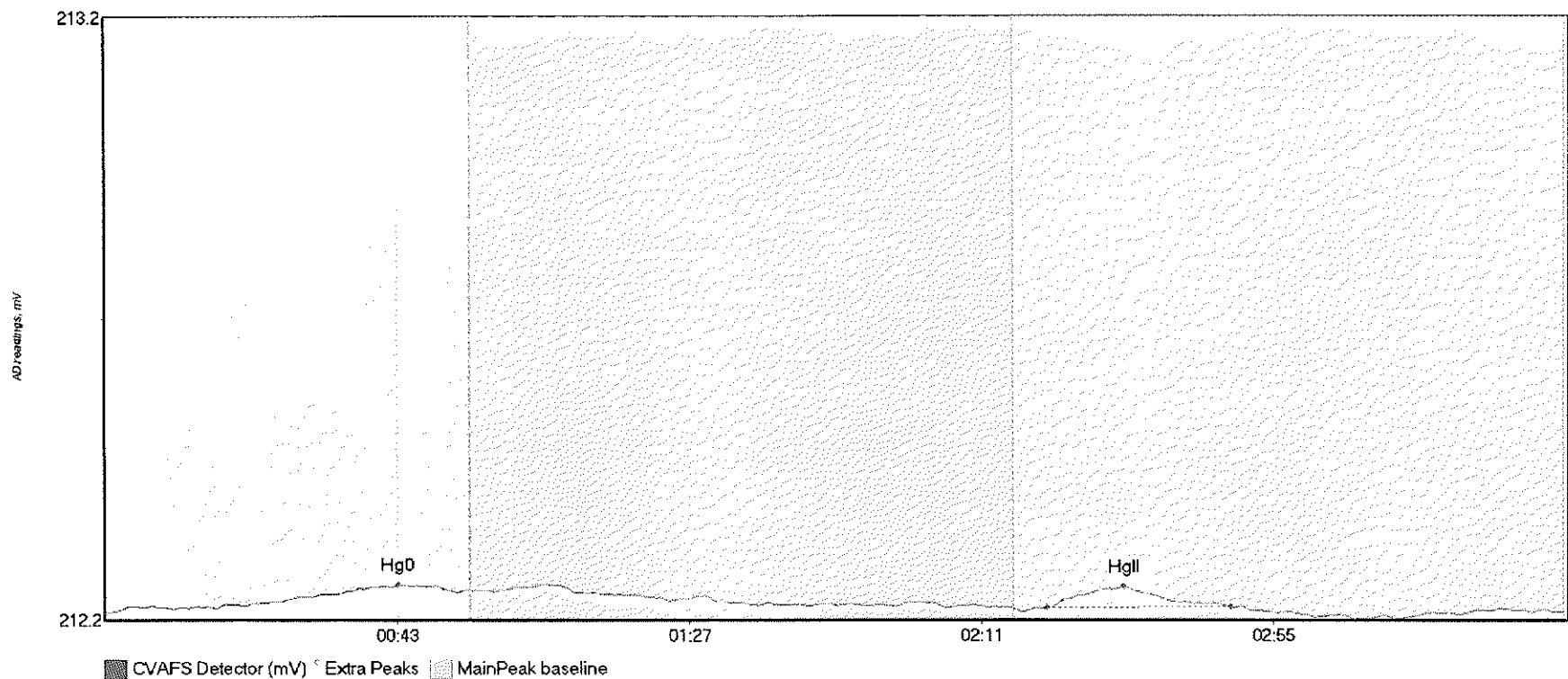
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	3.393	14.1	55.0	212.27	212.30	49.1	0.040	CT	212.2685	0.00	0.00	
SEQ-CCB3 HgII	4.176	141.1	169.2	212.27	212.27	154.5	0.027	OK	212.2685	0.00	0.00	017

#47: F707394-BLK1



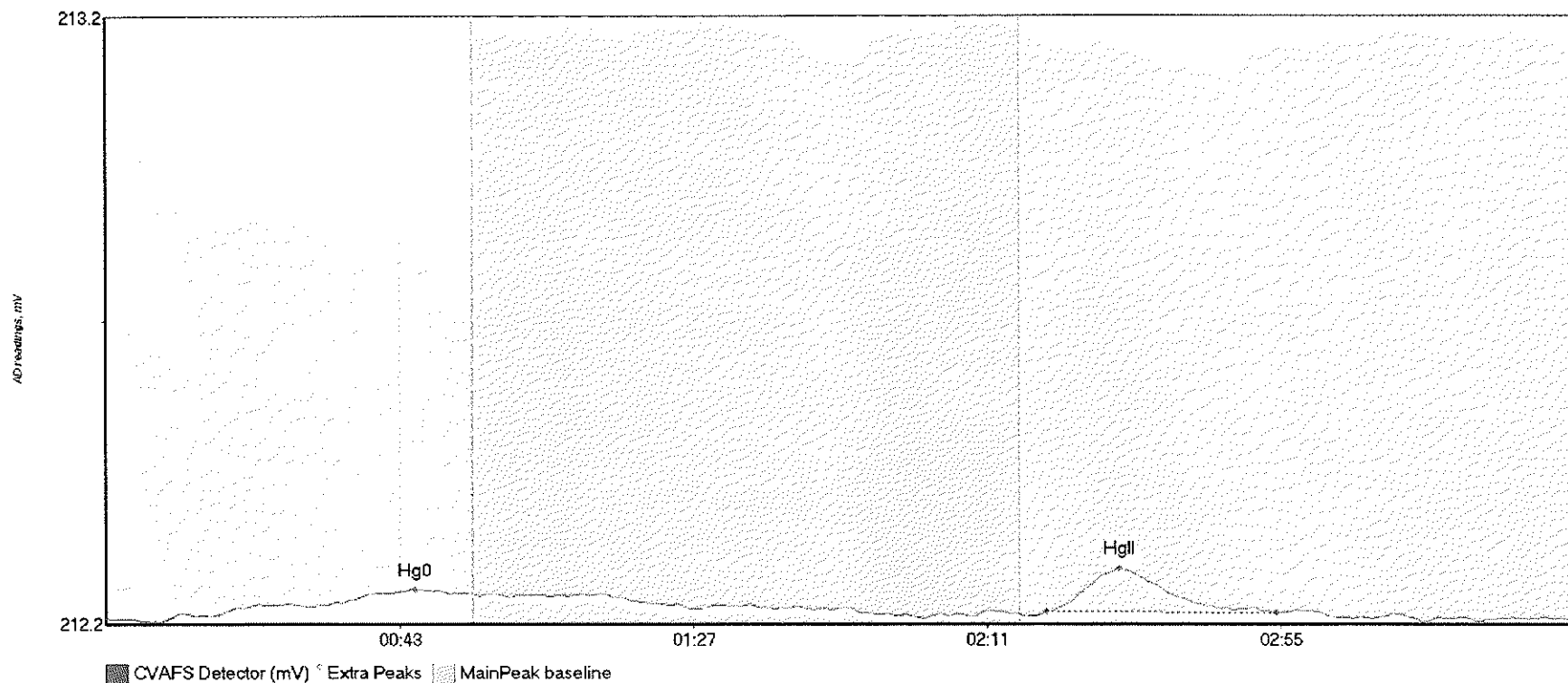
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BLK1 Hg	0.715	9.9	51.7	212.26	212.30	50.5	0.047	OK	212.2546	0.00	0.01	
F707394-BLK1 Hg	3.762	142.0	172.1	212.27	212.27	152.6	0.033	OK	212.2546	0.00	0.01	017

#48: F707394-BLK2



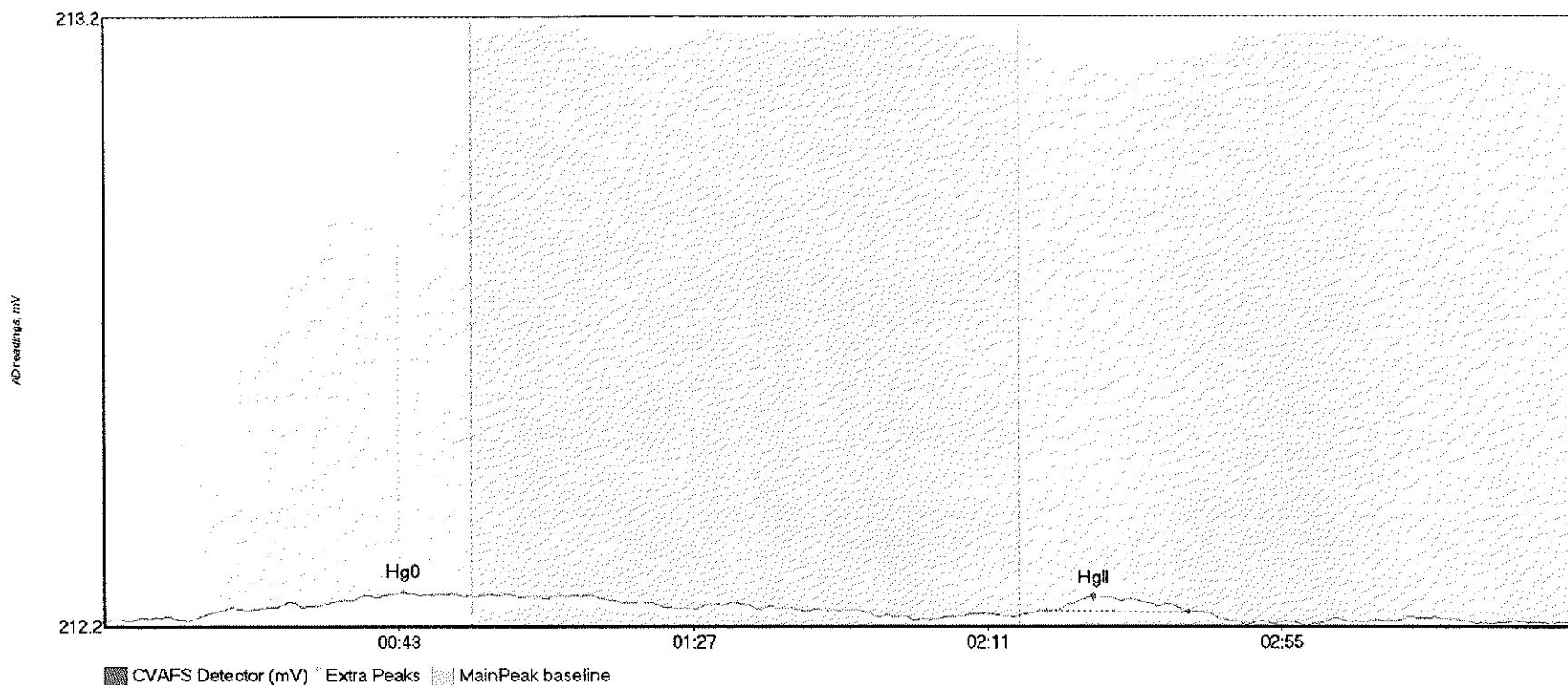
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BLK2 Hg	2.878	2.4	53.1	212.25	212.28	44.1	0.041	OK	212.2495	0.00	0.00	
F707394-BLK2 Hg	4.725	141.9	169.6	212.26	212.26	153.5	0.035	OK	212.2495	0.00	0.00	017

#49: F707394-BLK3



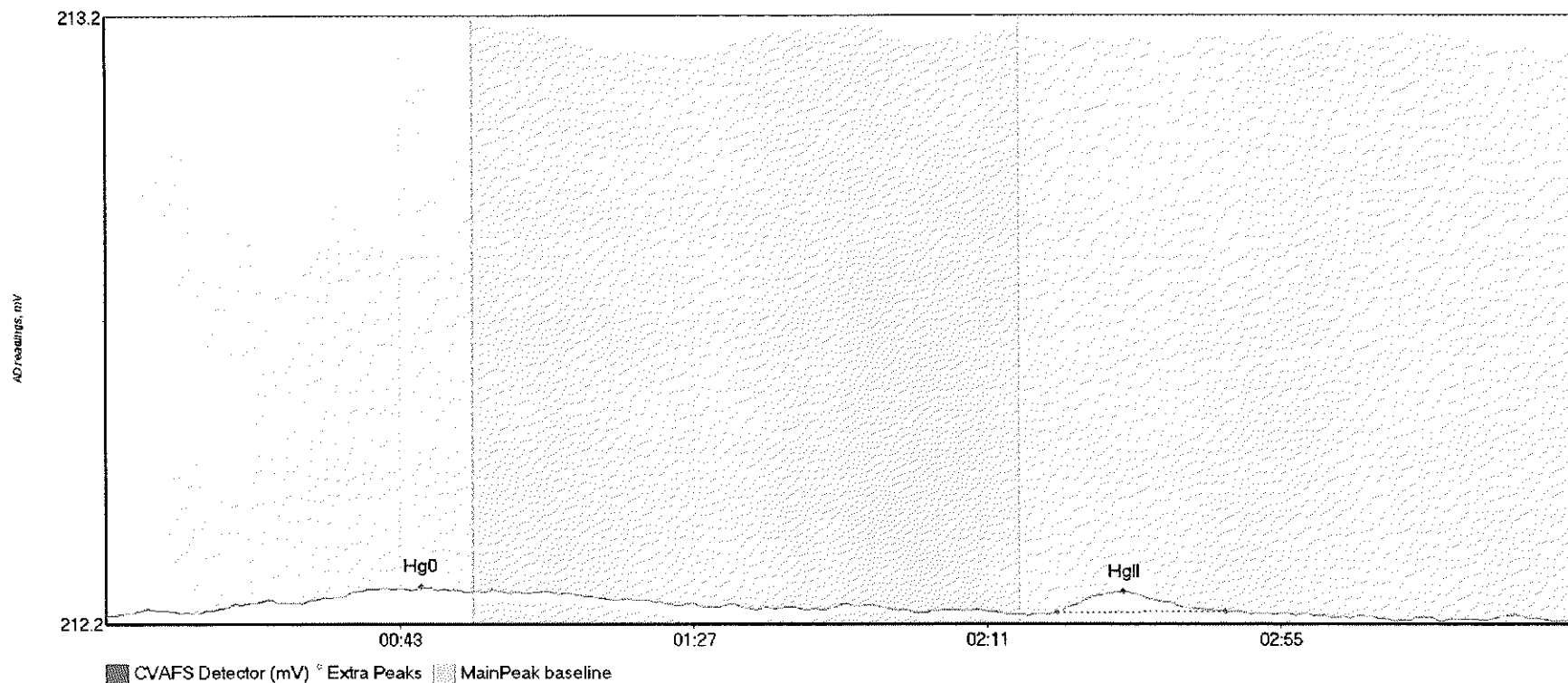
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BLK3 Hg	3.421	16.6	54.9	212.24	212.28	46.3	0.043	OK	212.2368	0.00	0.00	
F707394-BLK3 Hg	9.862	140.9	175.3	212.25	212.25	151.8	0.072	OK	212.2368	0.00	0.00	017

#50: \*F707394-BLK4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK4 H	3.959	12.5	53.8	212.22	212.26	44.7	0.046	OK	212.2185	0.00	0.00	017
*F707394-BLK4 H	3.125	140.9	162.2	212.23	212.23	147.9	0.025	OK	212.2185	0.00	0.00	

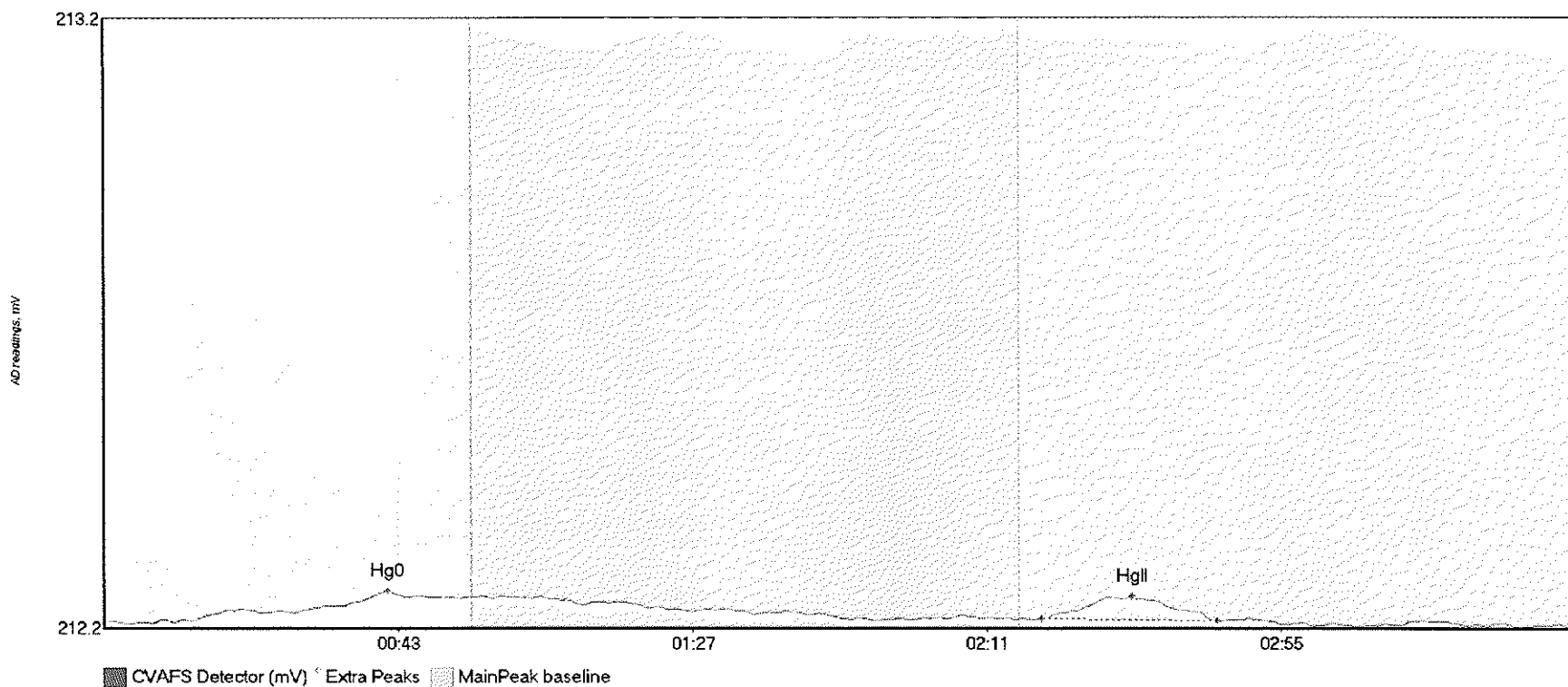
#51: \*F707394-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK5 H	3.830	13.6	54.1	212.21	212.24	47.2	0.043	OK	212.2046	0.00	-0.01	
*F707394-BLK5 H	4.434	142.5	167.7	212.21	212.21	152.5	0.035	OK	212.2046	0.00	-0.01	017

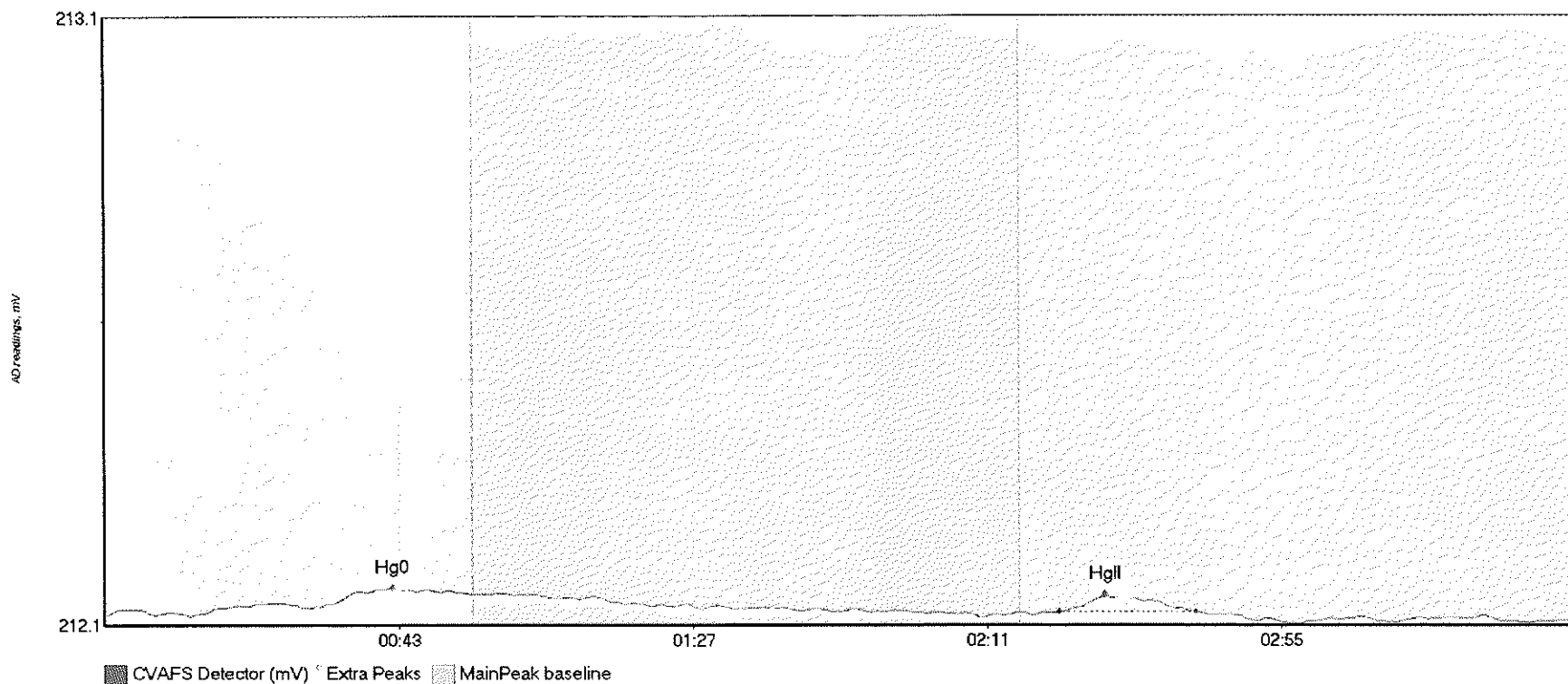


#52: \*F707394-BLK6



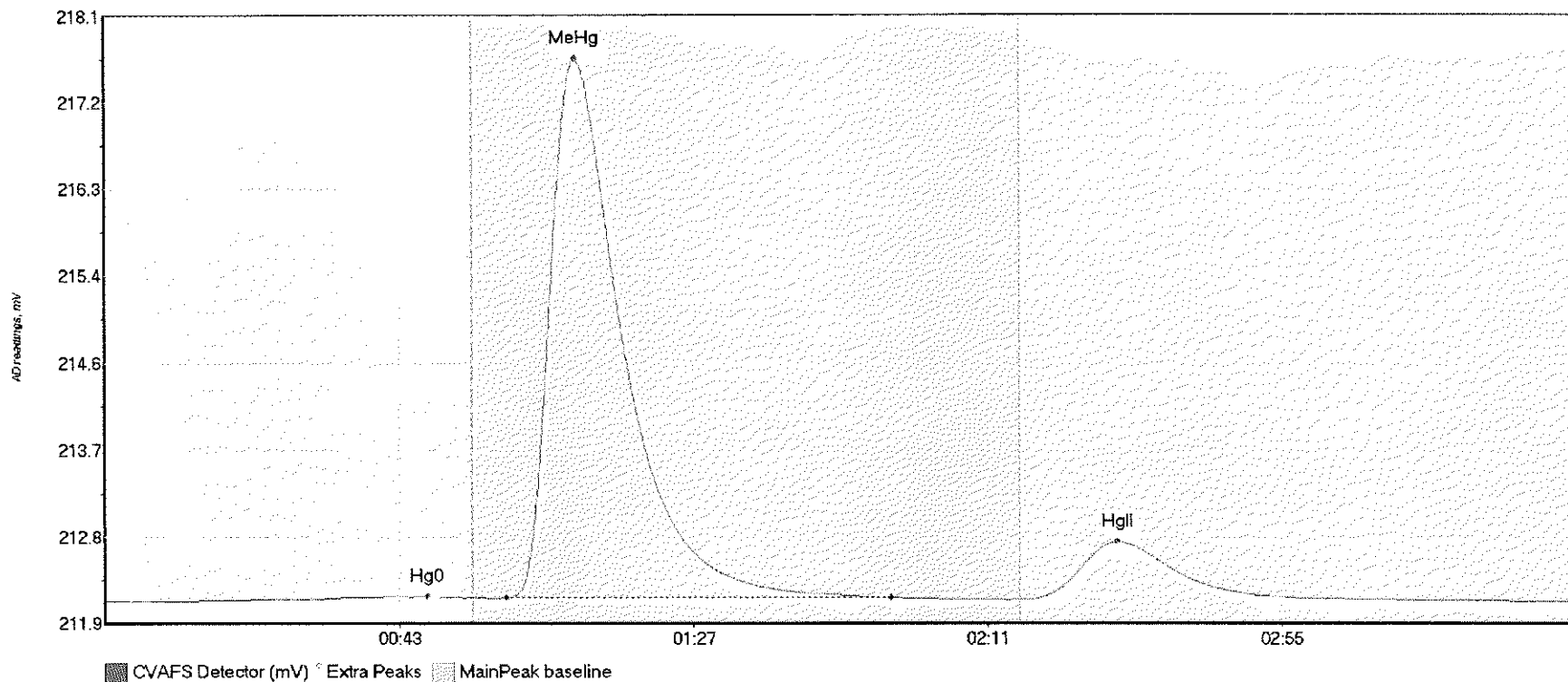
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK6 H	2.989	13.1	53.2	212.19	212.22	42.4	0.049	OK	212.1855	0.00	-0.01	
*F707394-BLK6 H	5.722	140.2	166.4	212.19	212.19	153.7	0.036	OK	212.1855	0.00	-0.01	017

#53: \*F707394-BLK7



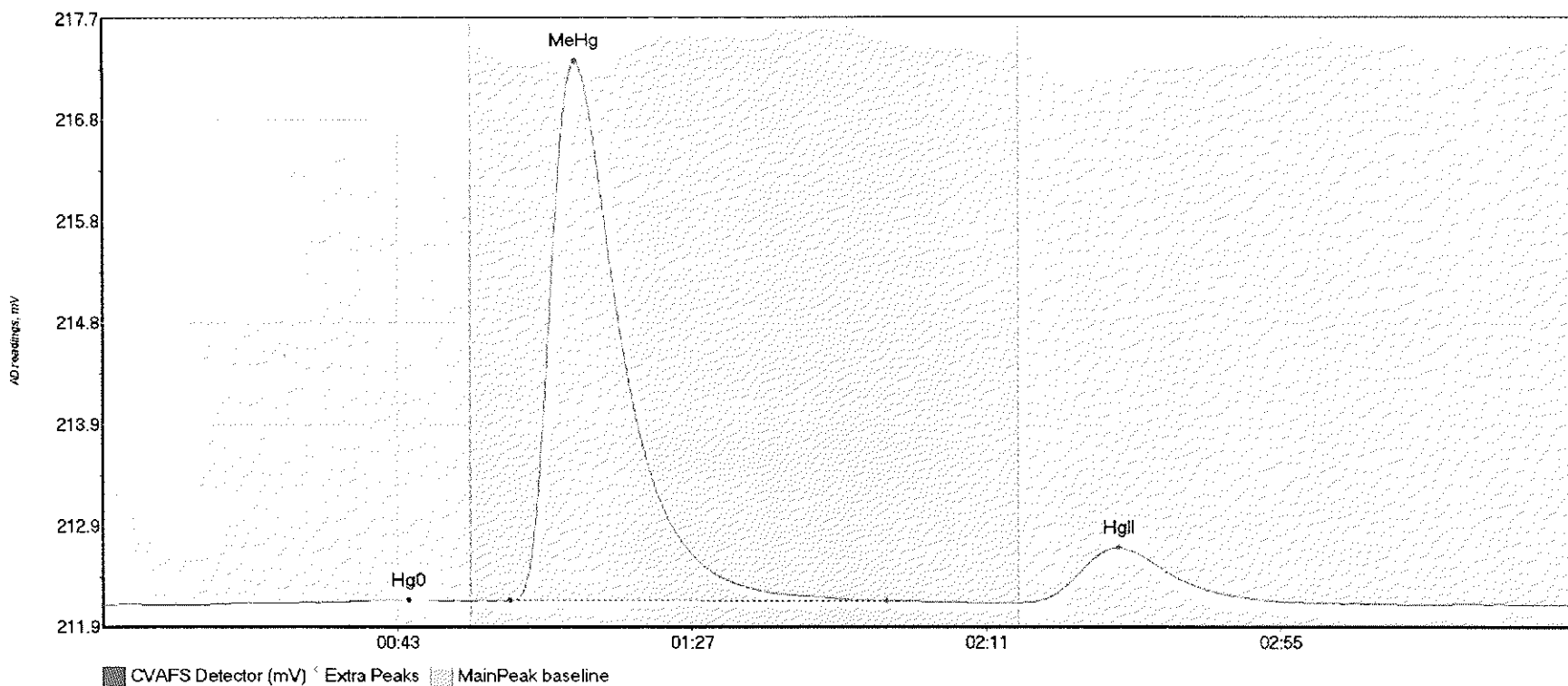
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F707394-BLK7 H	3.703	14.0	55.0	212.17	212.20	43.0	0.043	CT	212.1656	0.00	-0.01	
*F707394-BLK7 H	3.078	142.7	163.2	212.17	212.17	149.6	0.027	OK	212.1656	0.00	-0.01	017

#54: F707394-BS1



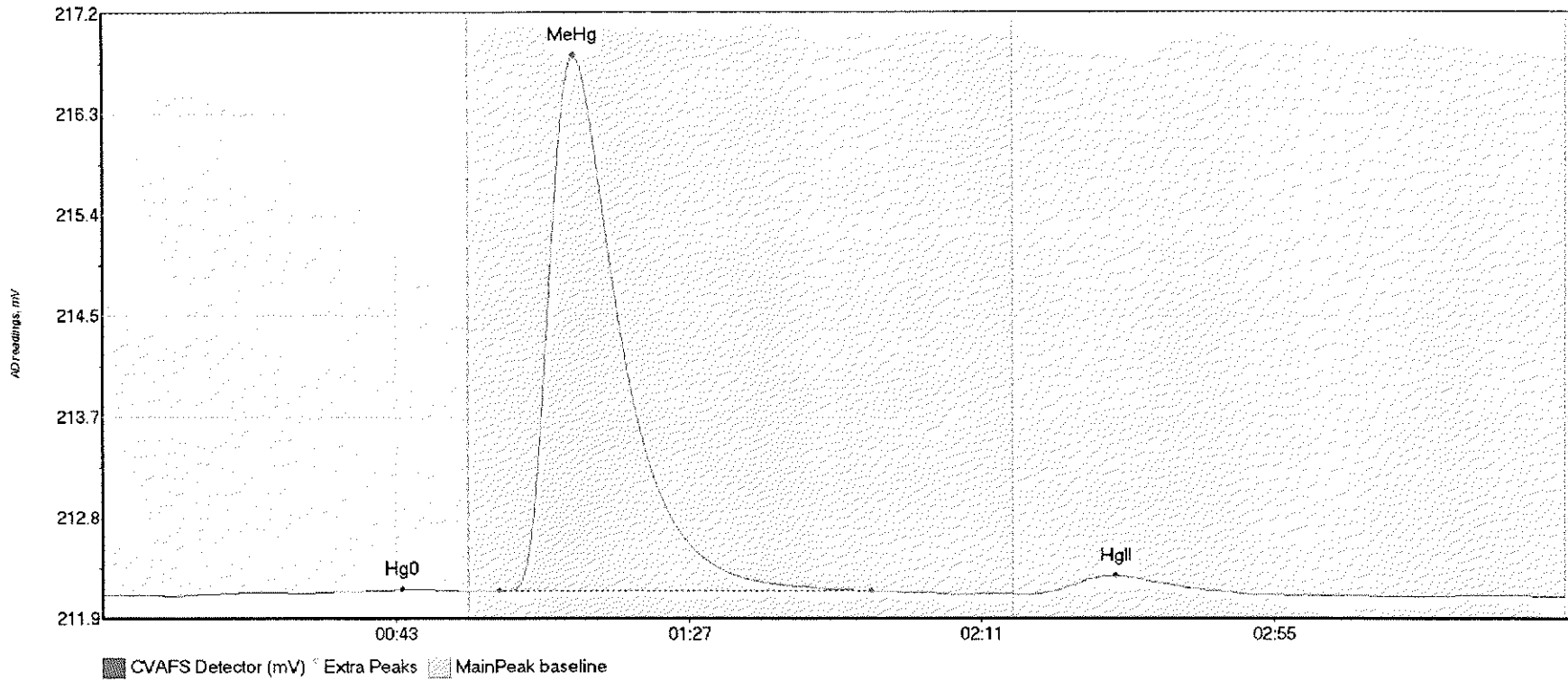
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BS1 Hg0	3.875	17.5	53.9	212.15	212.17	48.1	0.042	OK	212.1430	0.00	0.00	
F707394-BS1 MeH	686.992	60.0	117.6	212.18	212.18	70.4	5.455	OK	212.1430	0.00	0.00	
F707394-BS1 HgI	94.151	137.2	187.3	212.16	212.16	151.5	0.591	OK	212.1430	0.00	0.00	

#55: F707394-BSD1



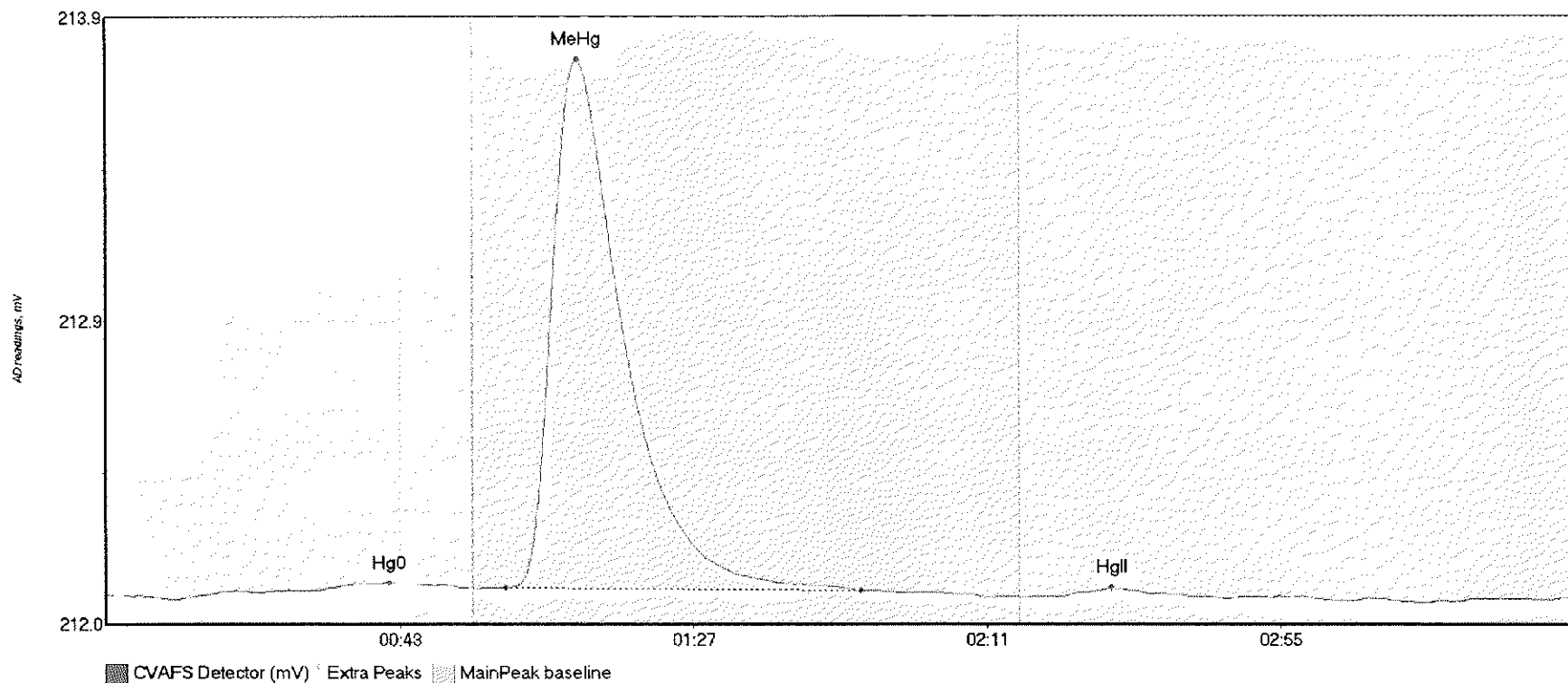
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-BSD1 Hg	3.917	15.3	54.6	212.12	212.16	45.7	0.044	OK	212.1211	0.00	0.00	
F707394-BSD1 Me	644.650	60.8	117.2	212.16	212.16	70.7	5.170	OK	212.1211	0.00	0.00	
F707394-BSD1 Hg	82.991	136.8	178.6	212.14	212.14	151.9	0.531	OK	212.1211	0.00	0.00	

#56: F707394-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-DUP1 Hg	5.502	13.1	55.0	212.10	212.14	45.0	0.050	CT	212.1012	0.00	-0.01	
F707394-DUP1 Me	582.339	59.6	115.4	212.14	212.14	70.9	4.663	OK	212.1012	0.00	-0.01	
F707394-DUP1 Hg	26.427	138.6	174.2	212.11	212.11	152.3	0.165	OK	212.1012	0.00	-0.01	

#57: SEQ-CCV4

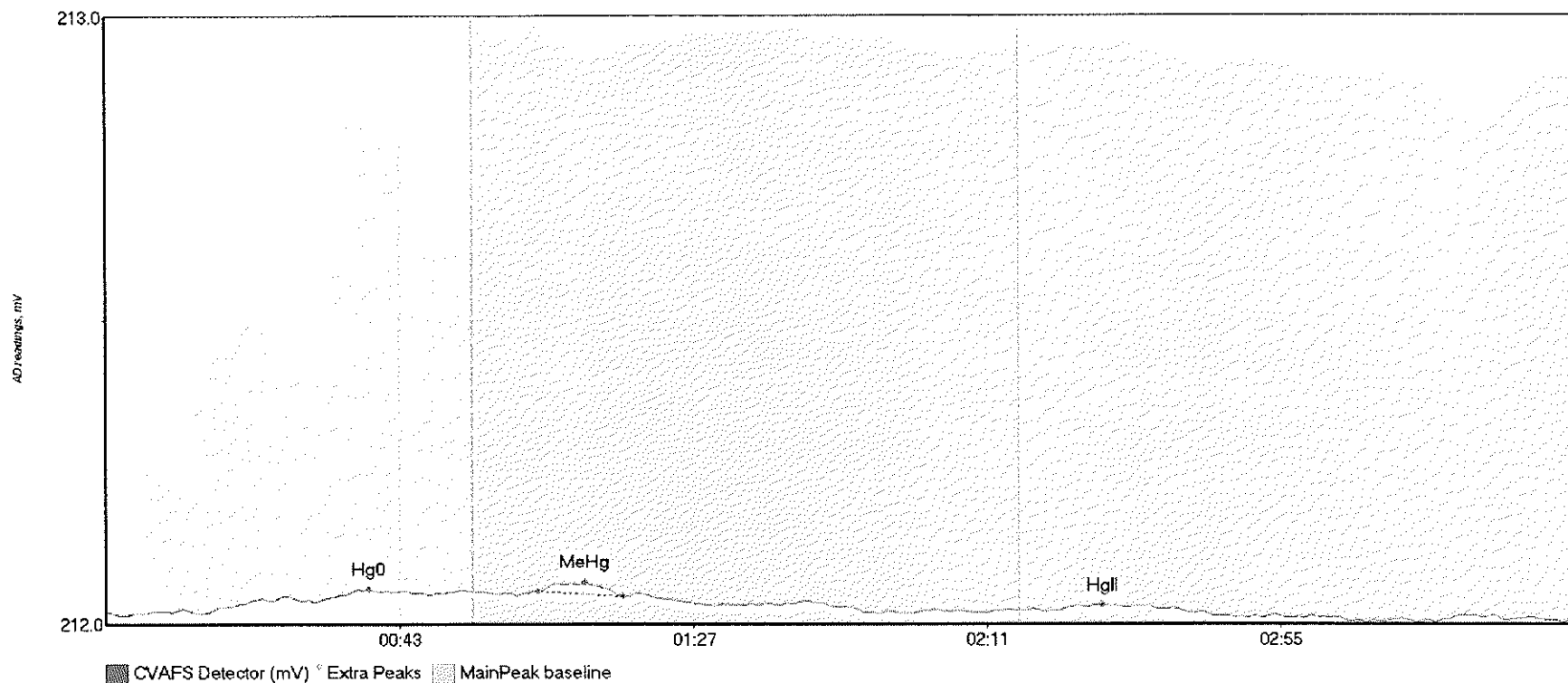


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Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	4.091	16.1	54.9	212.09	212.11	42.5	0.034	OK	212.0879	0.00	-0.01	
SEQ-CCV4 MeHg	202.305	59.9	113.1	212.11	212.10	70.7	1.618	OK	212.0879	0.00	-0.01	
SEQ-CCV4 HgII	2.375	143.0	162.4	212.08	212.08	150.7	0.025	OK	212.0879	0.00	-0.01	

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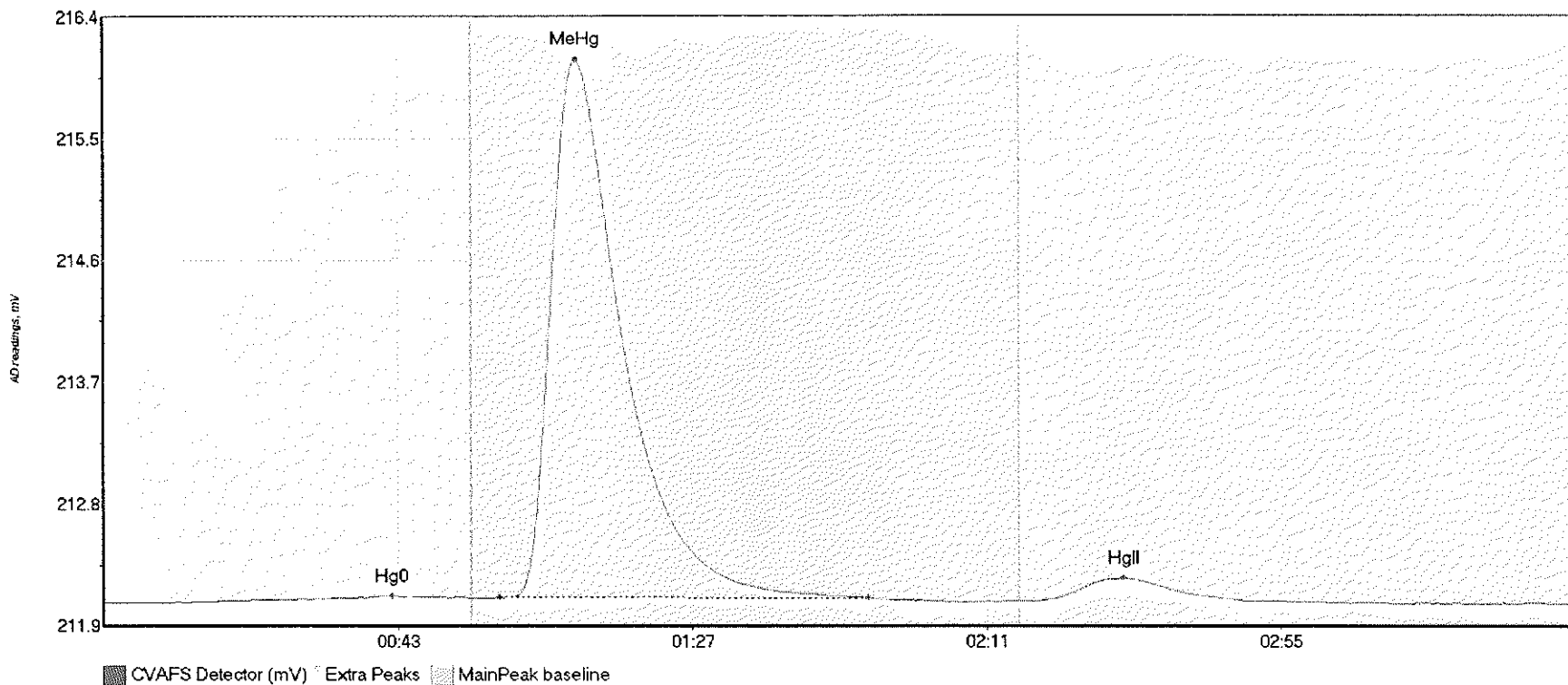
#58: SEQ-CCB4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.612	14.2	48.5	212.05	212.08	39.4	0.040	OK	212.0559	0.00	-0.01	
SEQ-CCB4 MeHg	1.480	64.7	77.4	212.09	212.08	71.7	0.014	OK	212.0559	0.00	-0.01	
SEQ-CCB4 HgII	0.905	142.5	157.9	212.06	212.06	149.3	0.011	OK	212.0559	0.00	-0.01	

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#59: F707394-MS1

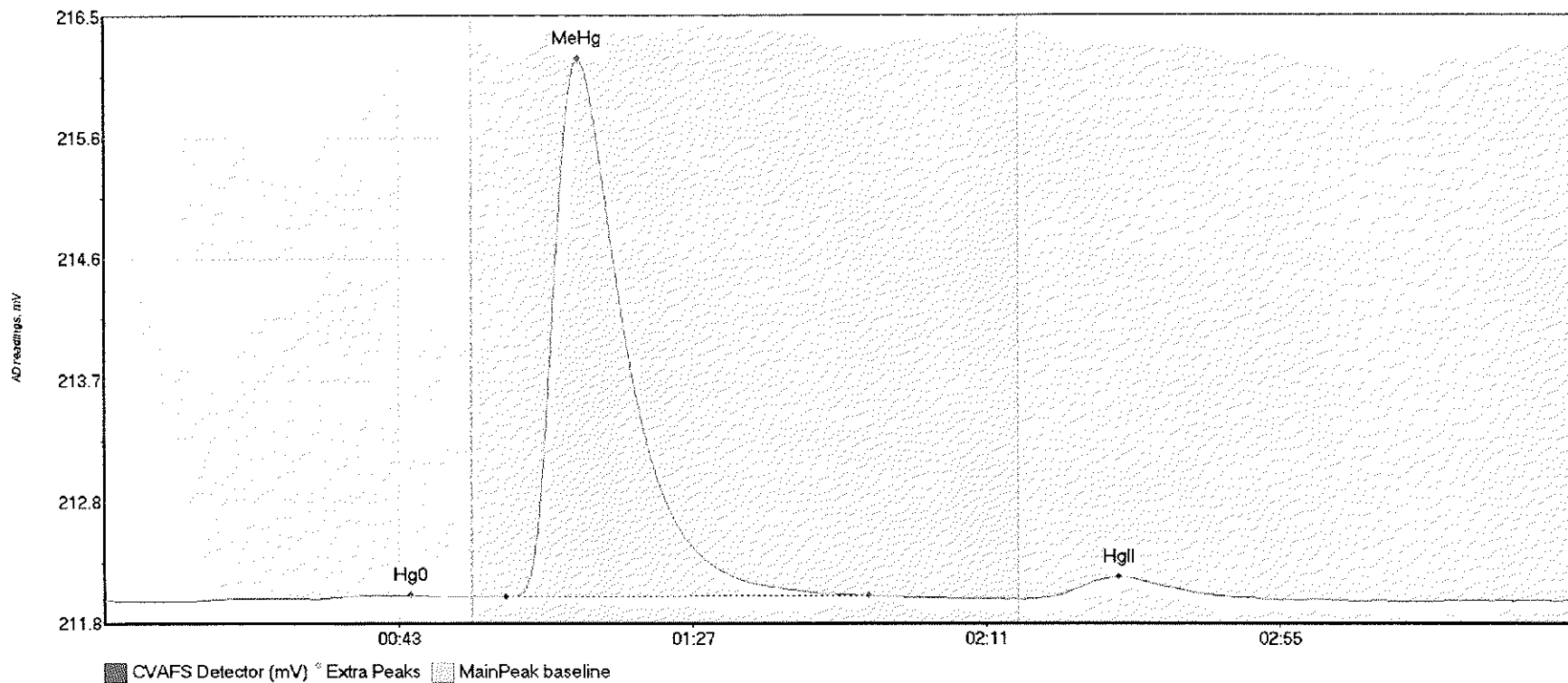


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MS1 Hg0	4.057	13.1	54.9	212.04	212.07	43.1	0.045	OK	212.0332	0.00	-0.01	
F707394-MS1 MeH	493.047	59.2	114.3	212.07	212.07	70.7	3.963	OK	212.0332	0.00	-0.01	
F707394-MS1 HgI	24.586	138.8	171.2	212.05	212.05	152.5	0.167	OK	212.0332	0.00	-0.01	

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#60: F707394-MSD1

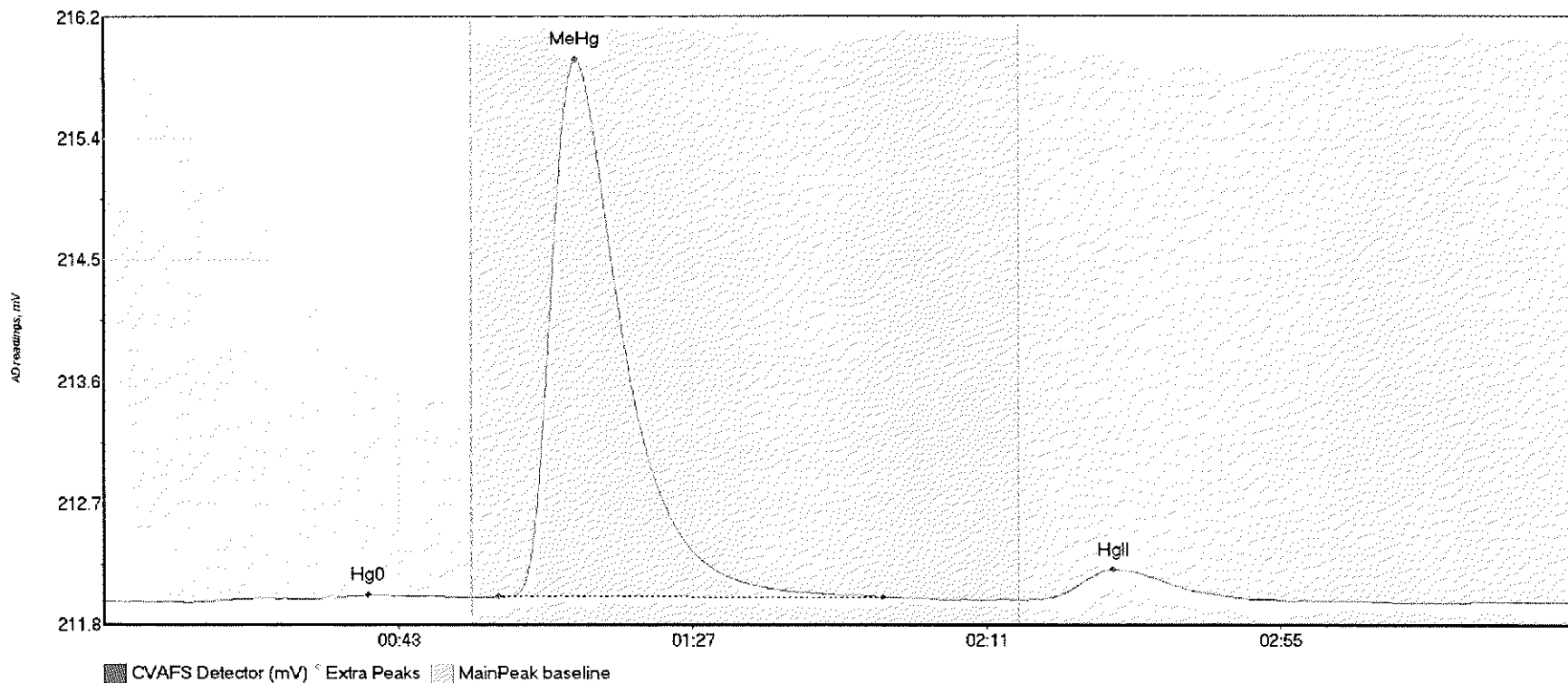


6

Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MSD1 Hg	4.142	14.4	54.1	212.02	212.05	45.8	0.045	OK	212.0180	0.00	0.00	
F707394-MSD1 Me	513.186	60.0	114.4	212.05	212.05	71.0	4.110	OK	212.0180	0.00	0.00	
F707394-MSD1 Hg	25.305	138.6	173.6	212.03	212.03	151.9	0.169	OK	212.0180	0.00	0.00	

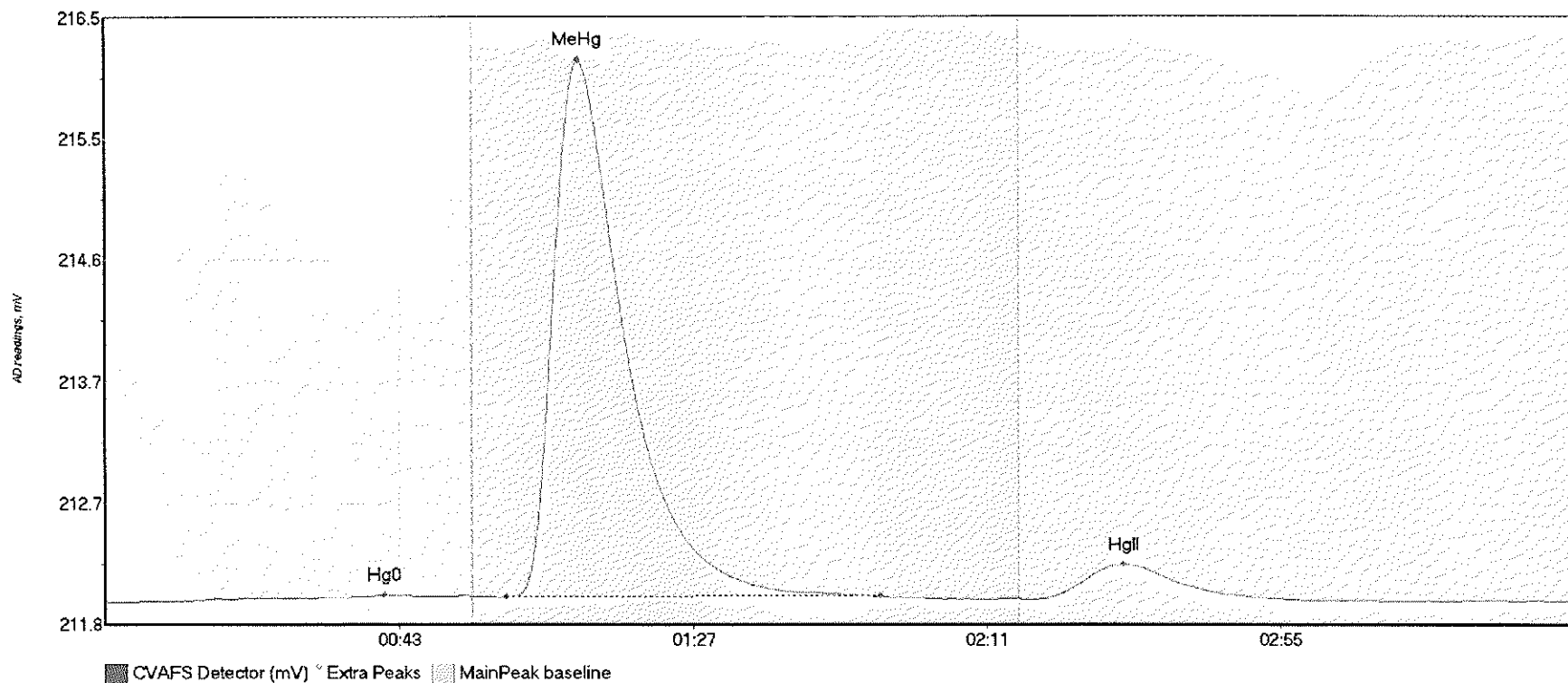
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#61: F707394-MS2



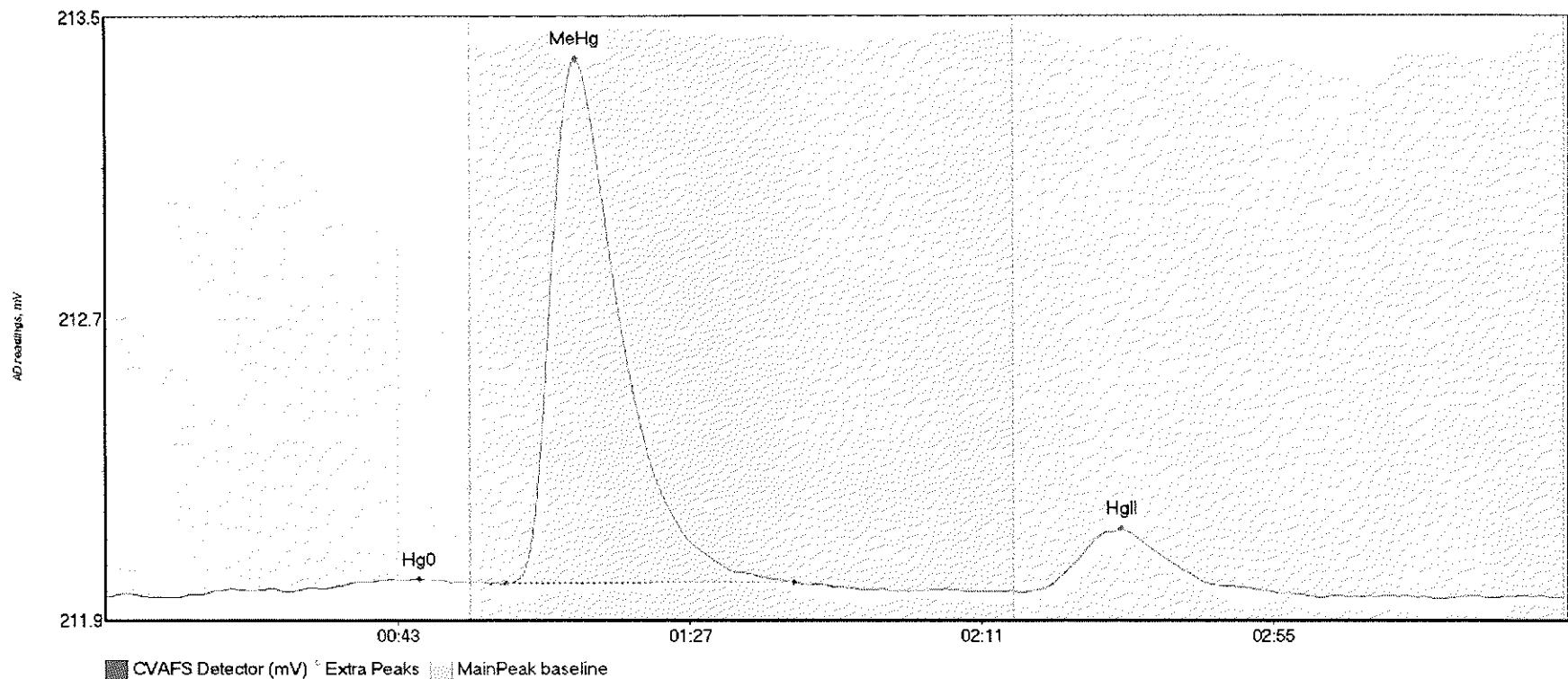
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MS2 Hg0	3.586	18.0	53.5	212.01	212.03	39.4	0.037	OK	212.0053	0.00	-0.01	
F707394-MS2 MeH	488.225	59.0	116.4	212.03	212.03	70.6	3.893	OK	212.0053	0.00	-0.01	
F707394-MS2 HgI	32.989	137.6	174.7	212.01	212.02	151.1	0.221	OK	212.0053	0.00	-0.01	

#62: F707394-MSD2



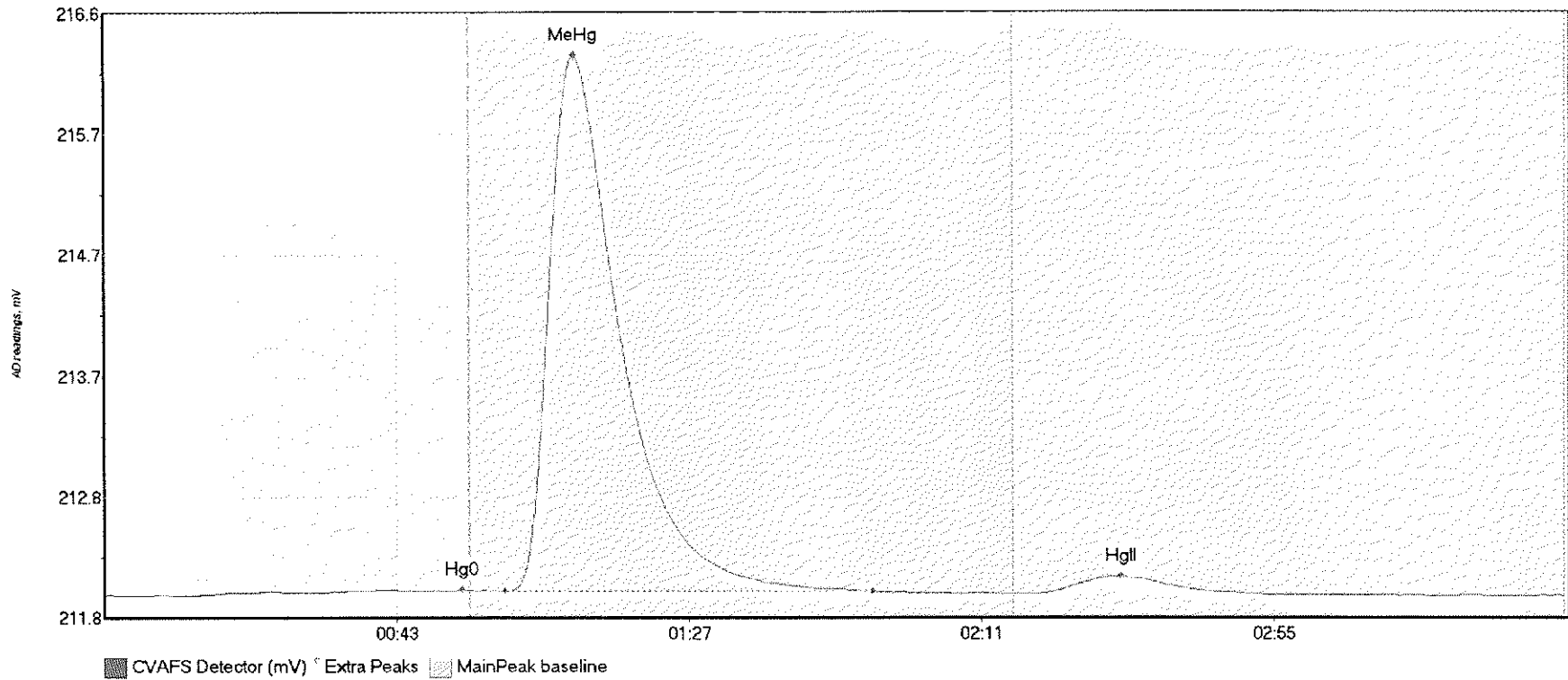
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707394-MSD2 Hg	3.020	10.0	48.7	211.98	212.02	41.8	0.046	OK	211.9798	0.00	0.01	
F707394-MSD2 Me	512.439	60.0	116.1	212.02	212.02	70.9	4.105	OK	211.9798	0.00	0.01	
F707394-MSD2 Hg	40.485	138.8	175.3	212.00	212.01	152.6	0.270	OK	211.9798	0.00	0.01	

#63: 1706931-04



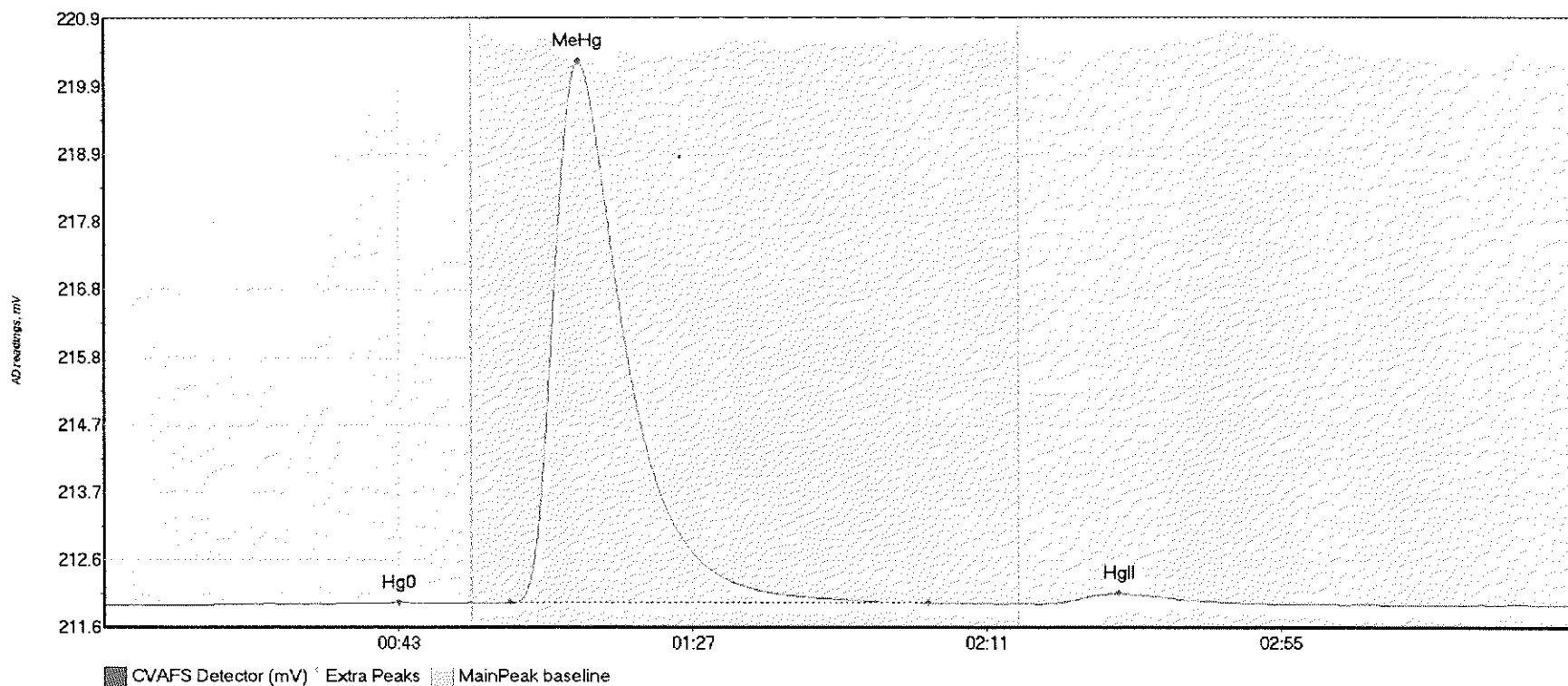
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-04 Hg0	3.624	11.0	52.3	211.97	212.01	47.3	0.049	OK	211.9742	0.00	0.00	
1706931-04 MeHg	170.998	60.4	103.7	212.01	212.01	71.0	1.400	OK	211.9742	0.00	0.00	
1706931-04 HgII	24.042	139.3	173.8	211.99	211.99	153.2	0.168	OK	211.9742	0.00	0.00	

#64: 1706931-05



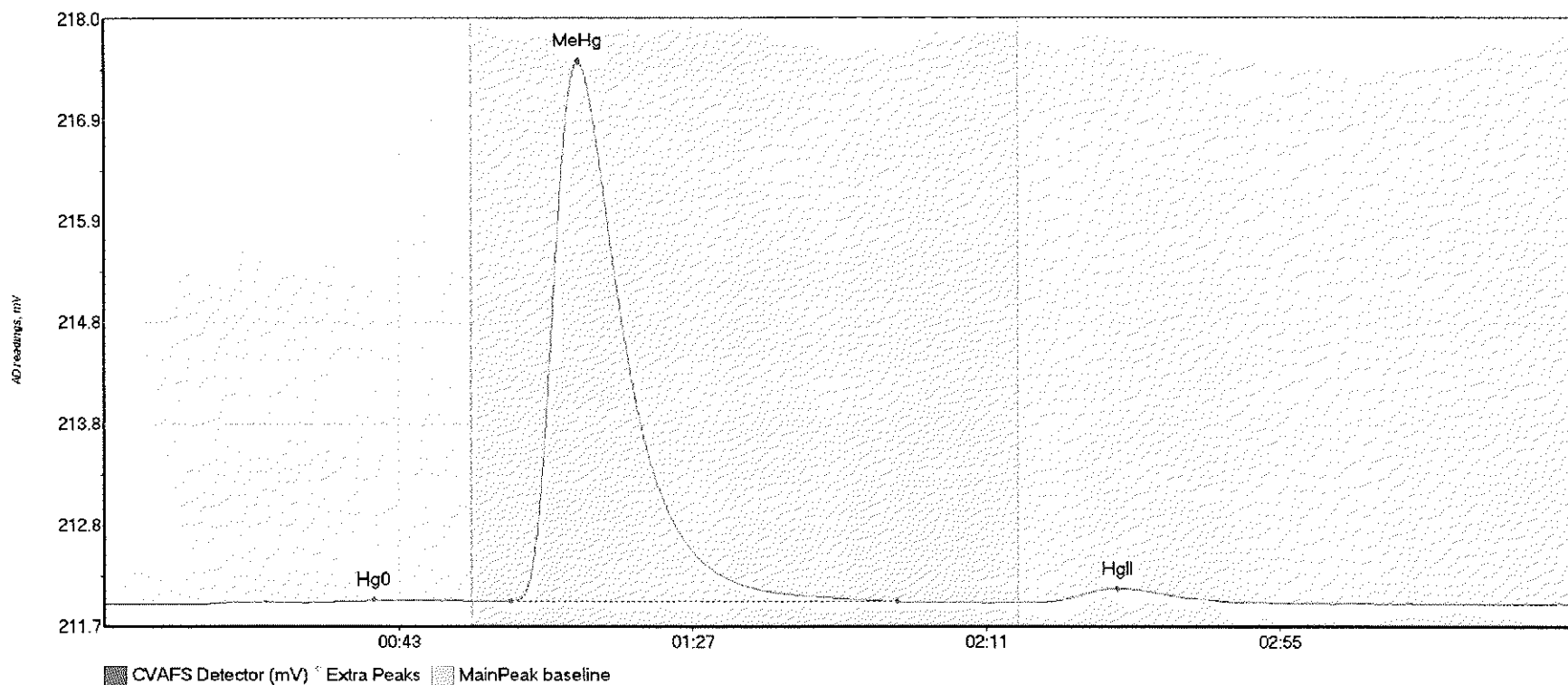
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-05 Hg0	2.578	15.7	55.0	211.98	212.01	53.8	0.037	CT	211.9729	0.00	0.00	
1706931-05 MeHg	536.788	60.3	115.8	212.01	212.00	70.8	4.294	OK	211.9729	0.00	0.00	
1706931-05 HgII	20.887	140.2	172.1	211.98	211.99	153.0	0.142	OK	211.9729	0.00	0.00	

#65: 1706931-06



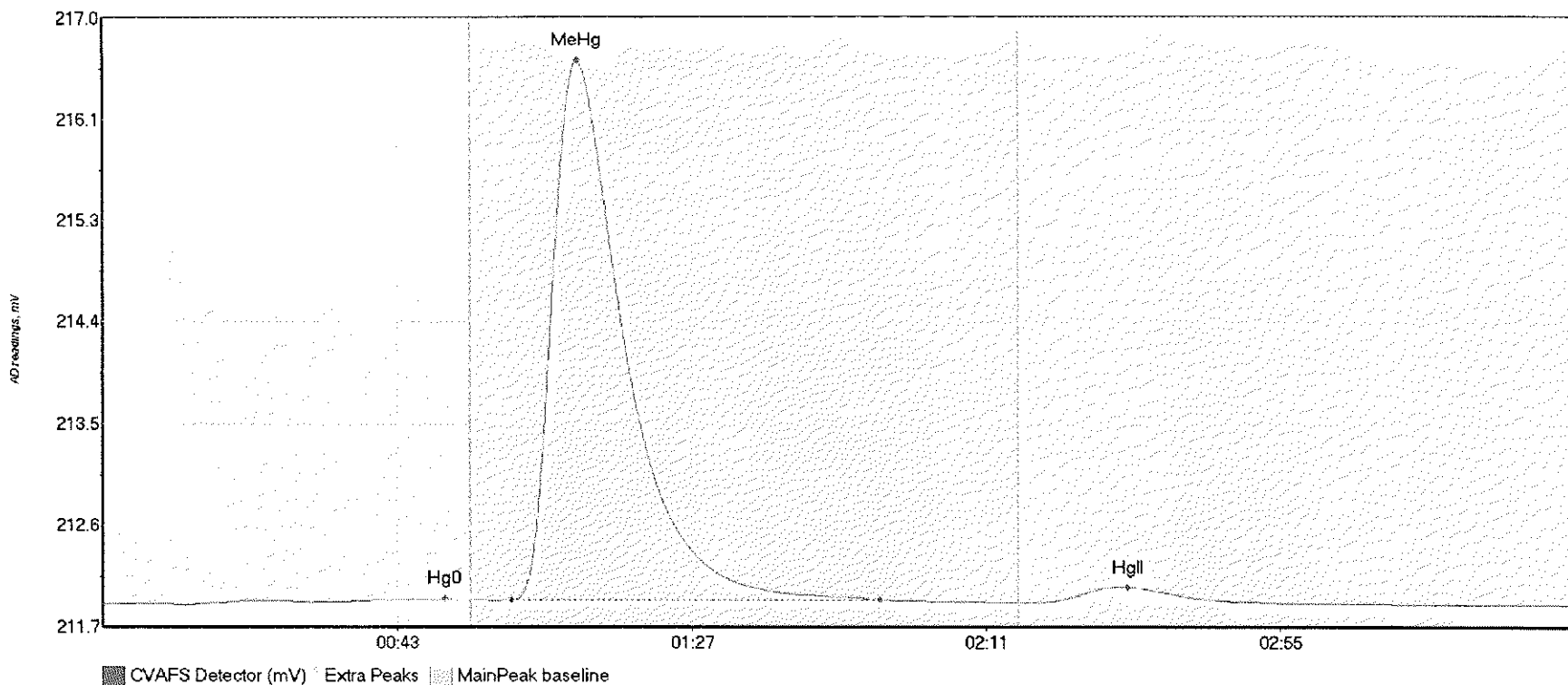
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-06 Hg0	3.131	10.5	48.5	211.95	211.98	44.2	0.044	OK	211.9447	0.00	0.01	
1706931-06 MeHg	1041.279	60.7	123.3	211.98	211.99	71.0	8.294	OK	211.9447	0.00	0.01	
1706931-06 HgII	24.544	140.1	175.9	211.97	211.97	151.9	0.160	OK	211.9447	0.00	0.01	

#66: 1706931-07



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-07 Hg0	4.200	15.0	54.4	211.93	211.97	40.3	0.041	OK	211.9331	0.00	0.00	
1706931-07 MeHg	699.505	60.8	118.8	211.96	211.96	71.0	5.573	OK	211.9331	0.00	0.00	
1706931-07 HgII	20.704	139.6	170.4	211.95	211.95	151.7	0.144	OK	211.9331	0.00	0.00	

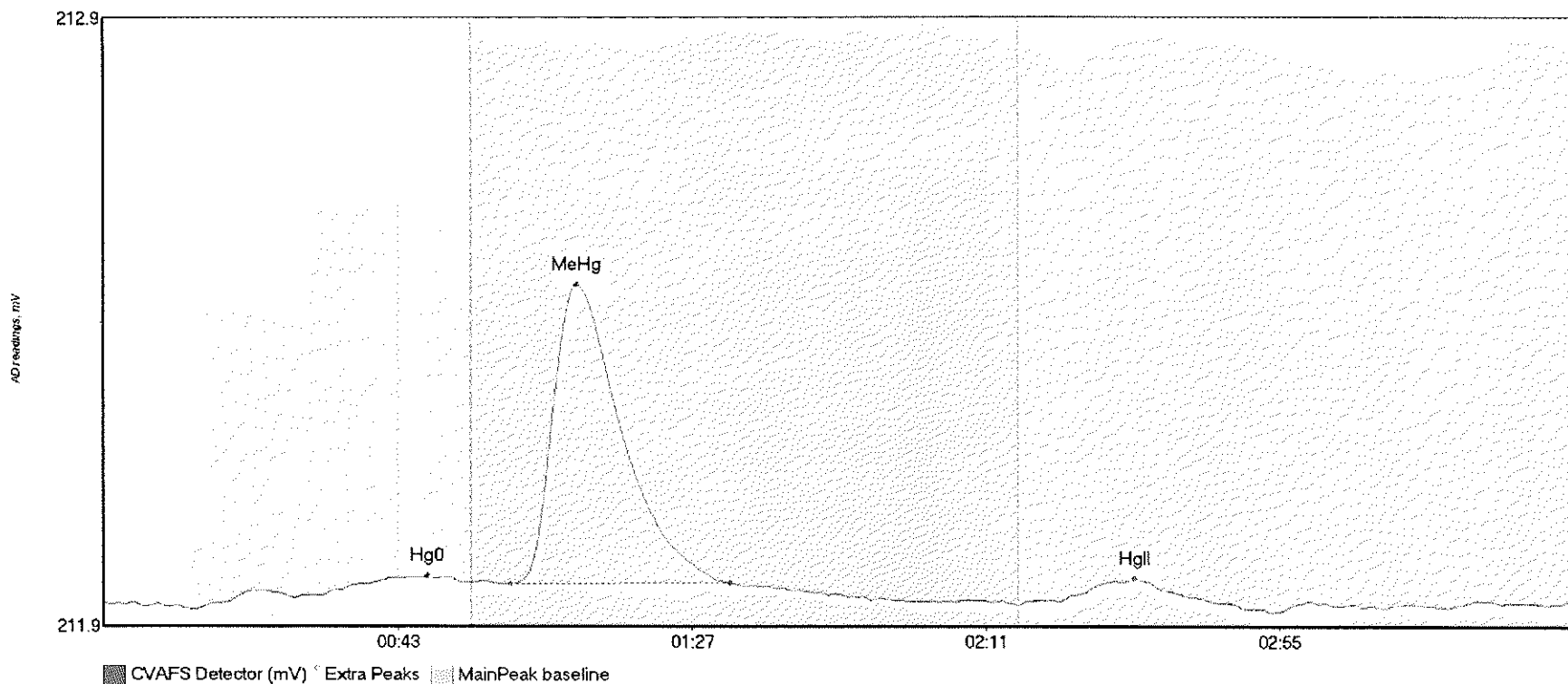
#67: 1706931-08



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-08 Hg0	4.365	12.8	55.0	211.91	211.96	51.2	0.050	CT	211.9209	0.00	-0.01	
1706931-08 MeHg	586.032	61.1	116.1	211.95	211.95	71.0	4.689	OK	211.9209	0.00	-0.01	
1706931-08 HgII	19.730	139.9	173.6	211.93	211.93	153.3	0.135	OK	211.9209	0.00	-0.01	



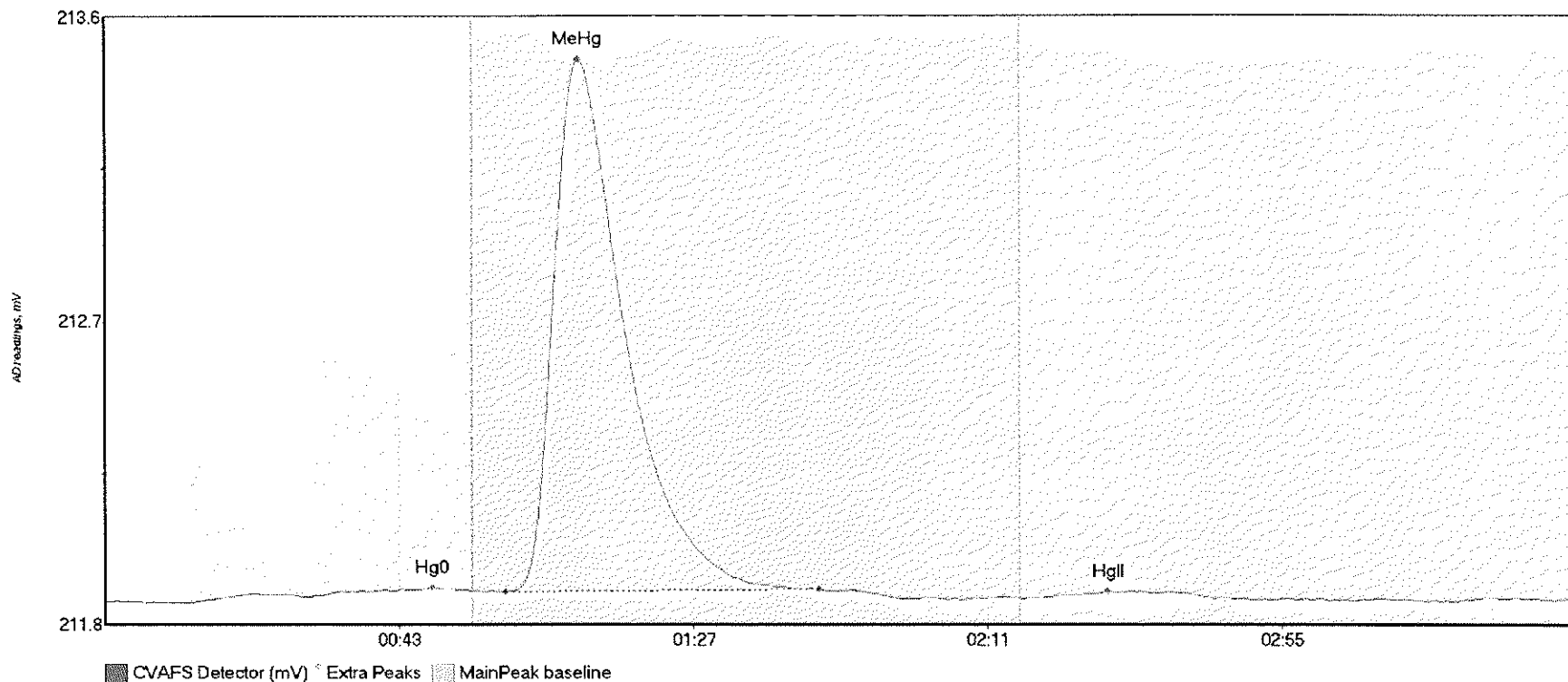
#68: 1706931-09



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-09 Hg0	3.387	18.4	55.0	211.91	211.94	48.5	0.043	CT	211.9029	0.00	0.00	
1706931-09 MeHg	58.473	60.9	93.7	211.93	211.94	70.9	0.492	OK	211.9029	0.00	0.00	
1706931-09 HgII	4.752	143.2	166.8	211.91	211.90	154.3	0.037	OK	211.9029	0.00	0.00	

017

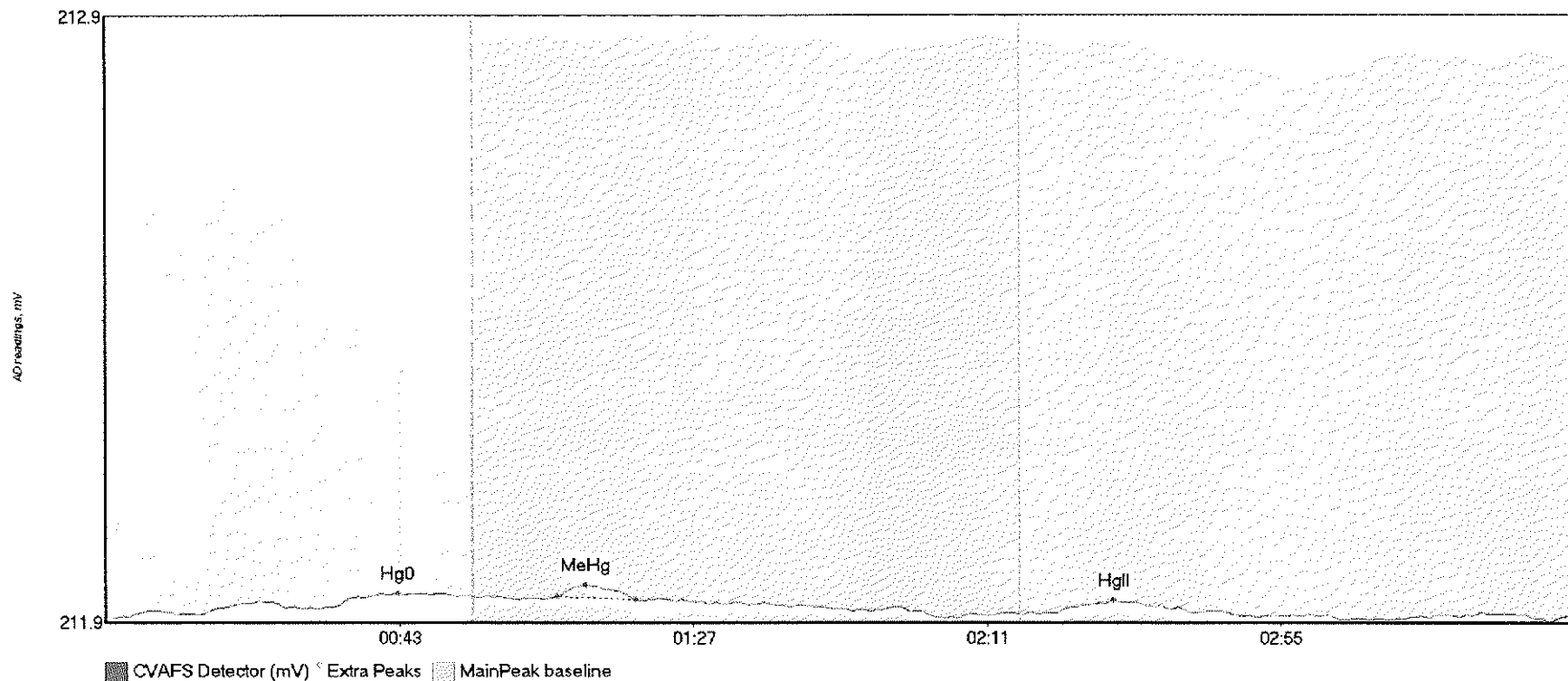
#69: SEQ-CCV5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	2.886	15.4	55.0	211.90	211.92	49.0	0.036	CT	211.8943	0.00	0.01	
SEQ-CCV5 MeHg	191.161	59.8	106.8	211.92	211.93	70.9	1.553	OK	211.8943	0.00	0.01	
SEQ-CCV5 HgII	3.088	141.0	166.2	211.91	211.90	150.1	0.017	OK	211.8943	0.00	0.01	

017

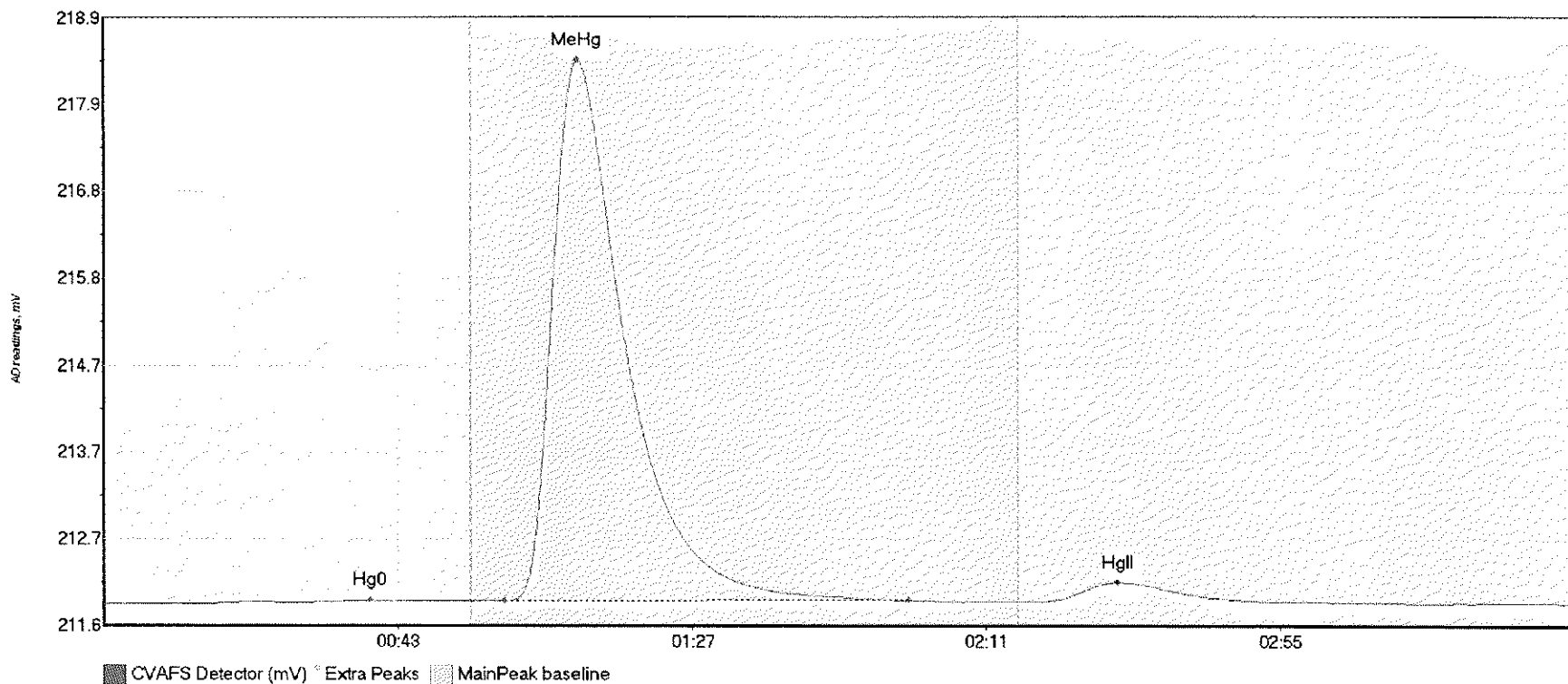
#70: SEQ-CCB5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	2.838	3.5	55.0	211.88	211.91	43.7	0.039	CT	211.8739	0.00	0.00	
SEQ-CCB5 MeHg	1.616	67.6	79.3	211.91	211.91	71.8	0.019	OK	211.8739	0.00	0.00	
SEQ-CCB5 HgII	2.535	142.1	162.9	211.88	211.88	151.0	0.021	OK	211.8739	0.00	0.00	

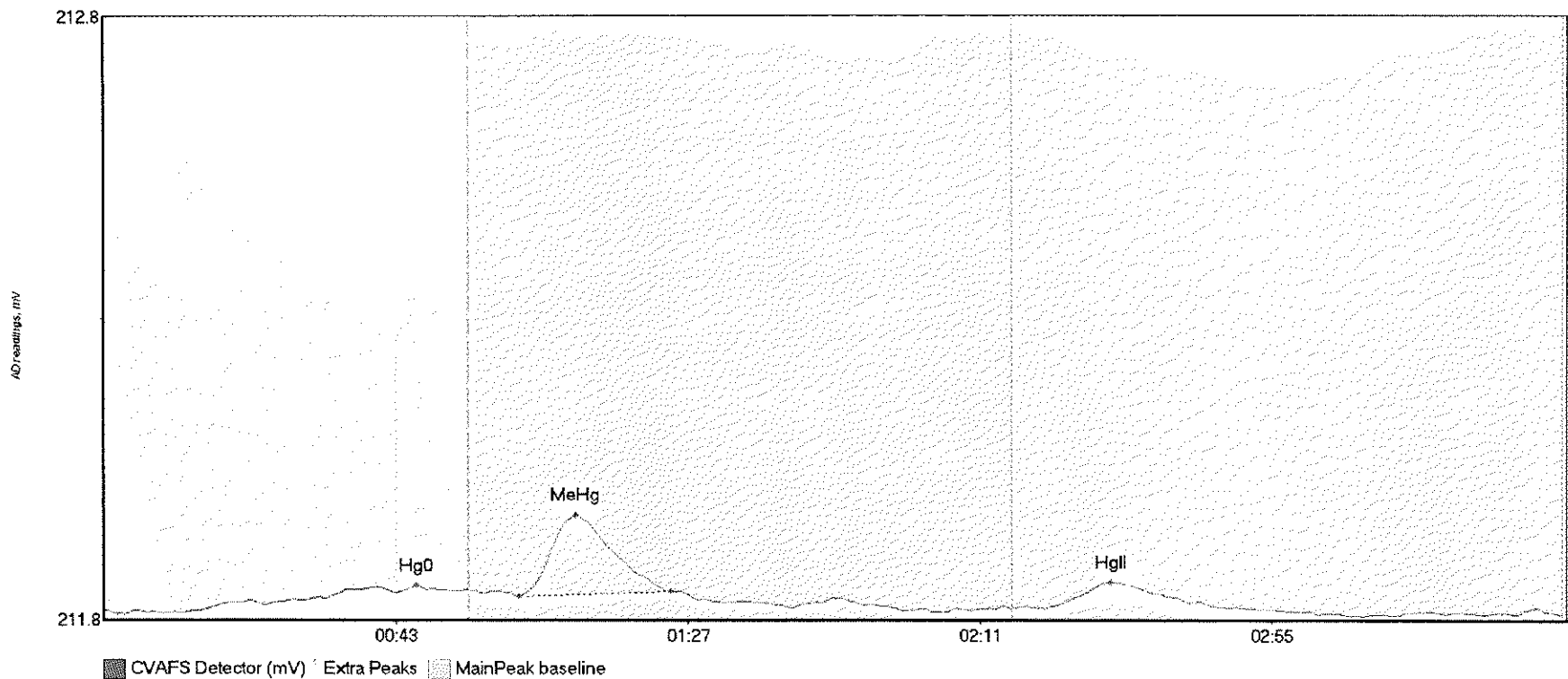
017

#71: 1706931-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706931-10 Hg0	2.130	16.1	47.1	211.87	211.90	39.9	0.035	OK	211.8718	0.00	0.00	
1706931-10 MeHg	821.166	60.0	120.4	211.90	211.91	70.9	6.521	OK	211.8718	0.00	0.00	
1706931-10 HgII	34.752	140.0	175.7	211.89	211.89	151.8	0.234	OK	211.8718	0.00	0.00	

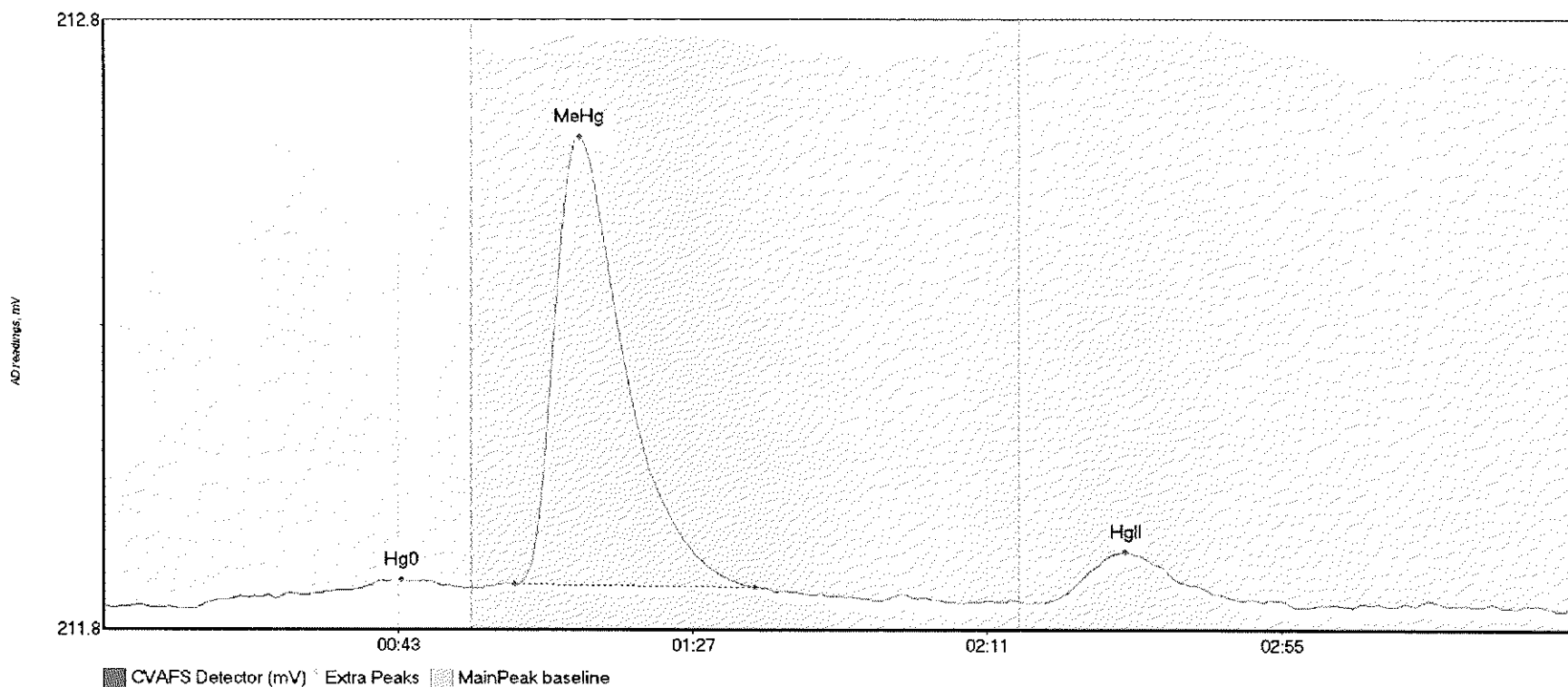
#72: 1706932-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-01 Hg0	3.038	14.2	52.7	211.86	211.89	47.2	0.041	OK	211.8557	0.00	-0.01	
1706932-01 MeHg	13.710	62.6	85.4	211.88	211.89	71.2	0.134	OK	211.8557	0.00	-0.01	
1706932-01 HgII	5.379	141.8	167.6	211.86	211.86	151.7	0.042	OK	211.8557	0.00	-0.01	

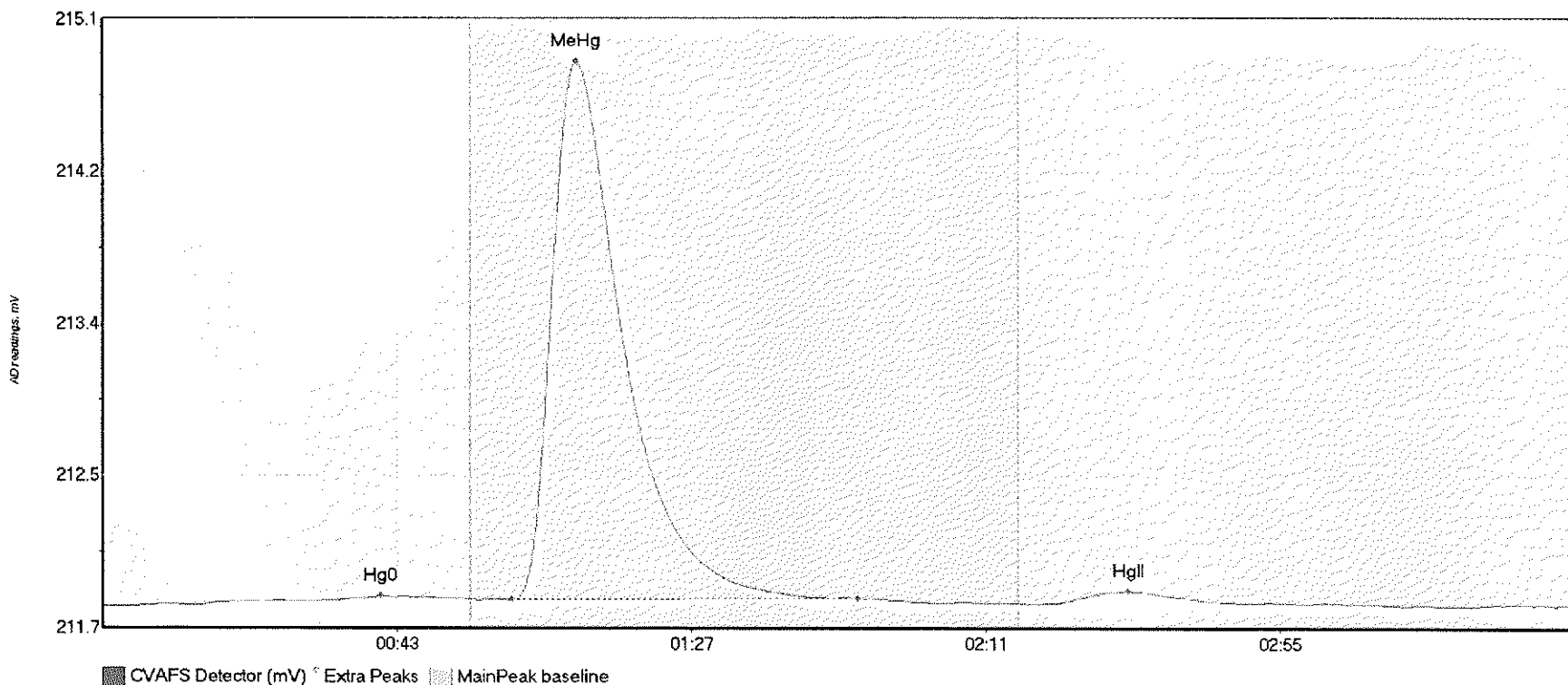
017

#73: 1706932-02



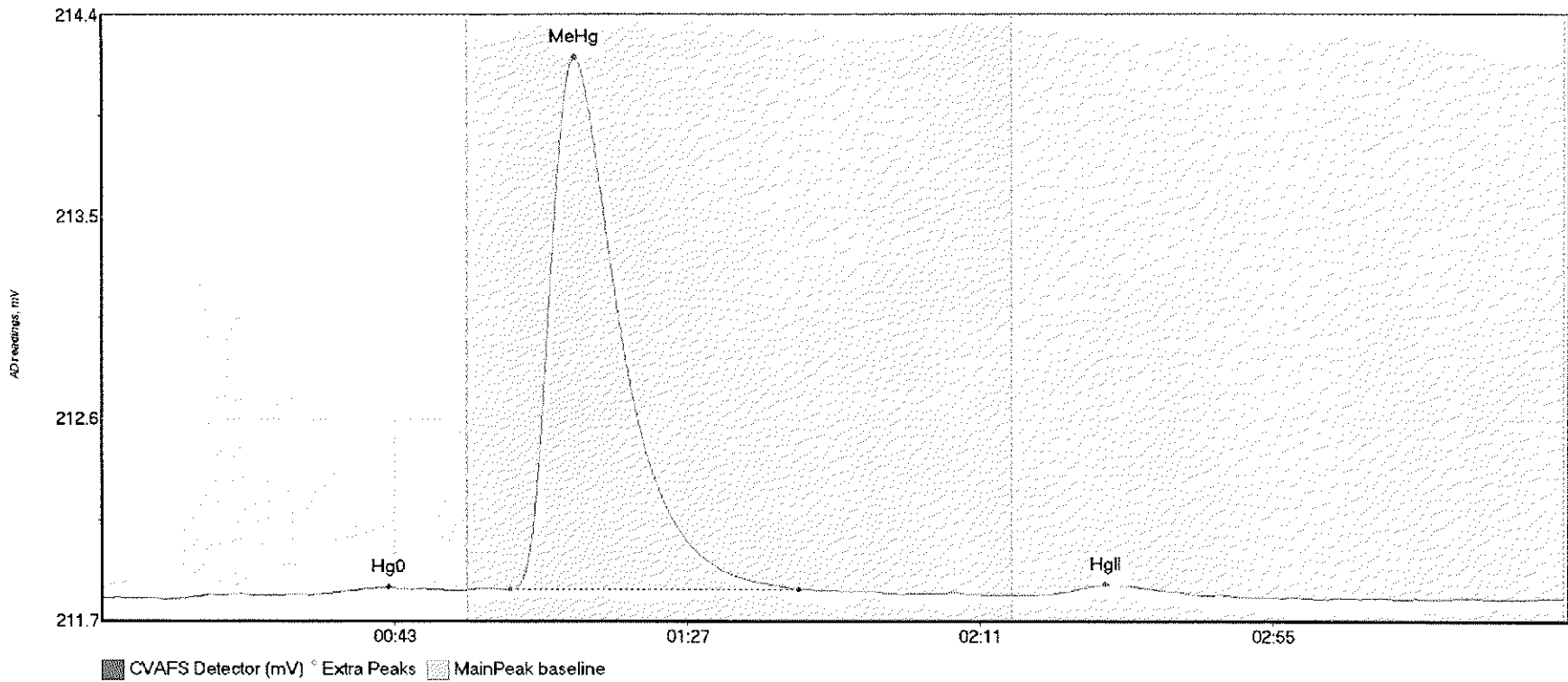
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-02 Hg0	5.203	13.5	54.9	211.84	211.87	44.6	0.047	OK	211.8402	0.00	0.00	
1706932-02 MeHg	88.970	61.5	97.3	211.87	211.87	71.1	0.735	OK	211.8402	0.00	0.00	
1706932-02 HgII	11.490	140.5	169.9	211.85	211.85	152.8	0.083	OK	211.8402	0.00	0.00	

#74: 1706932-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-03 Hg0	5.016	6.2	55.0	211.83	211.87	41.6	0.050	CF	211.8276	0.00	0.00	
1706932-03 MeHg	365.111	61.1	112.9	211.86	211.87	70.9	2.952	OK	211.8276	0.00	0.00	
1706932-03 HgII	9.665	141.7	170.3	211.84	211.84	153.3	0.068	OK	211.8276	0.00	0.00	

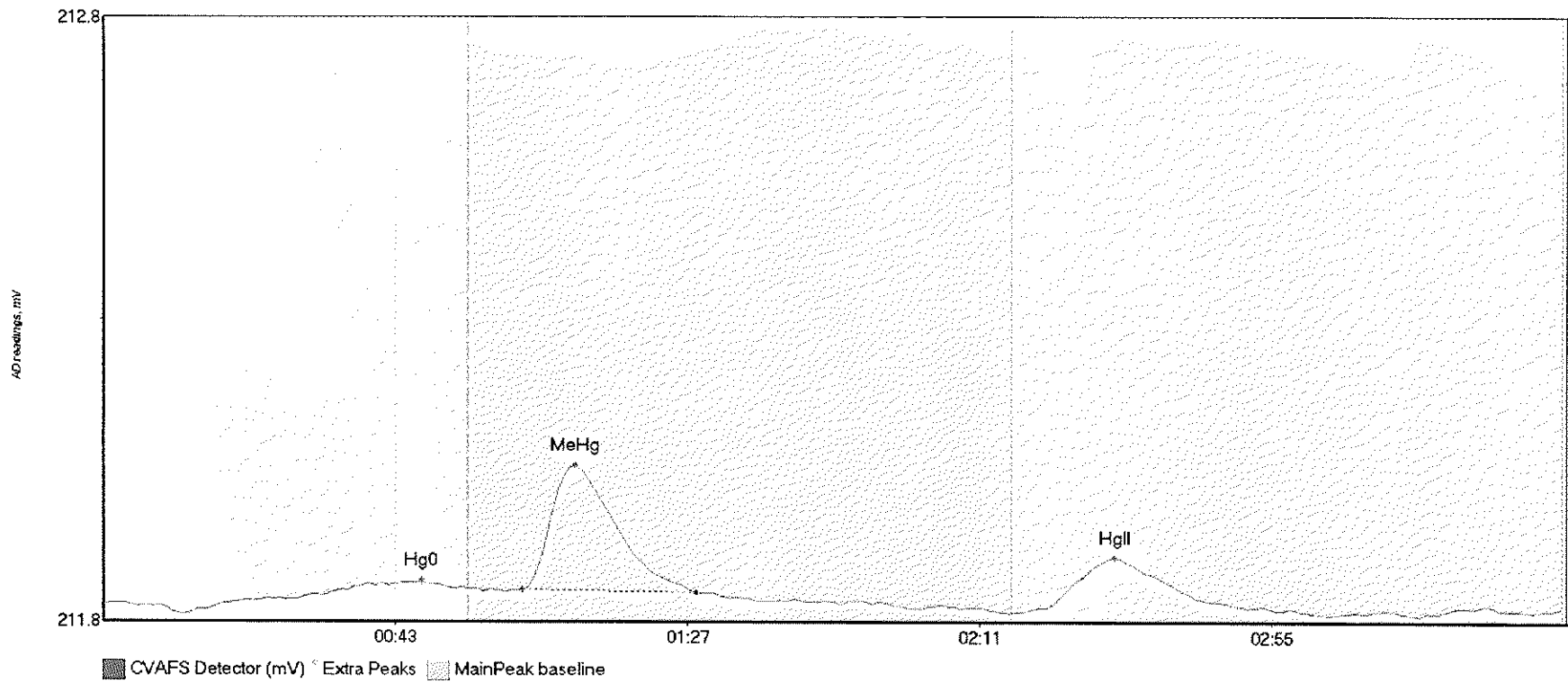
#75: 1706932-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-04 Hg0	4.037	12.0	54.1	211.81	211.85	43.1	0.050	OK	211.8126	0.00	0.00	
1706932-04 MeHg	292.927	61.5	104.7	211.85	211.85	71.1	2.378	OK	211.8126	0.00	0.00	
1706932-04 HgII	5.652	142.4	166.4	211.83	211.82	150.9	0.042	OK	211.8126	0.00	0.00	

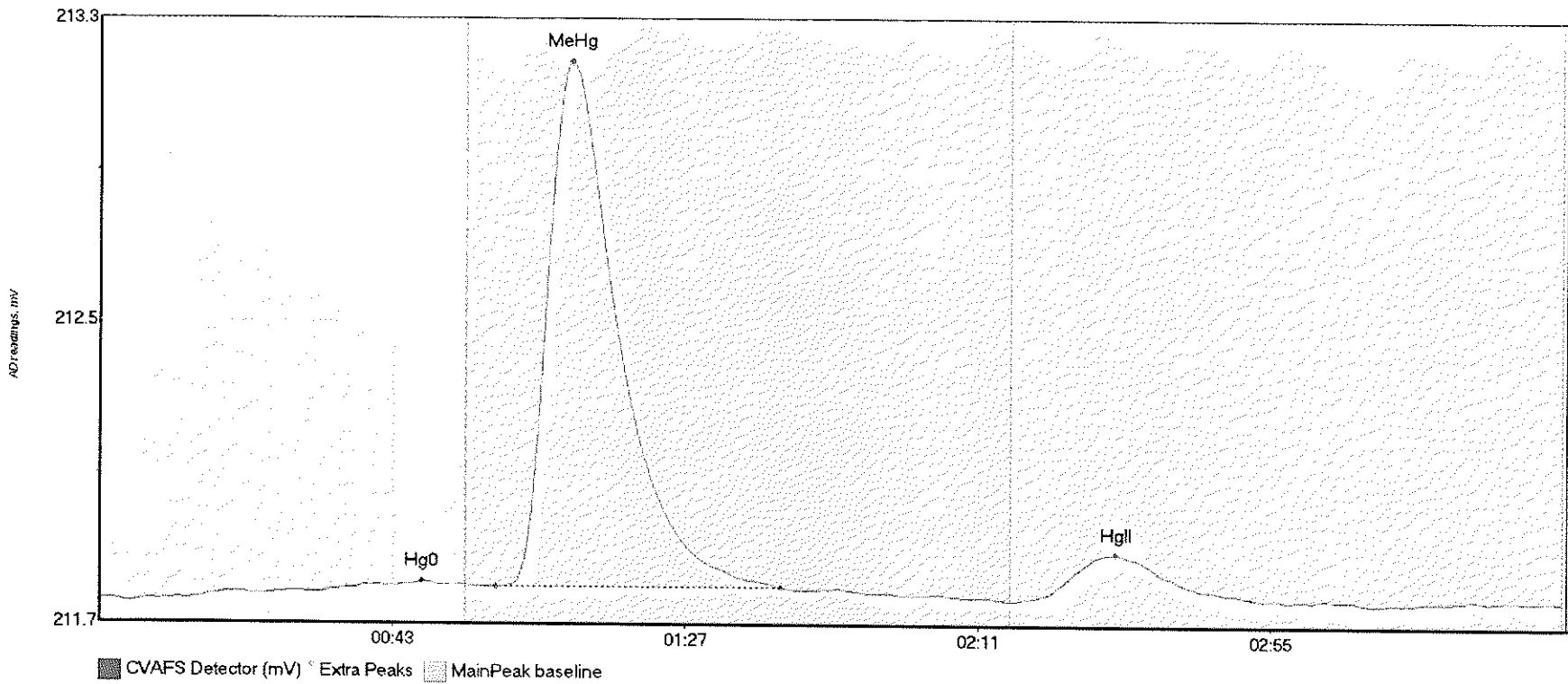


#76: 1706932-05



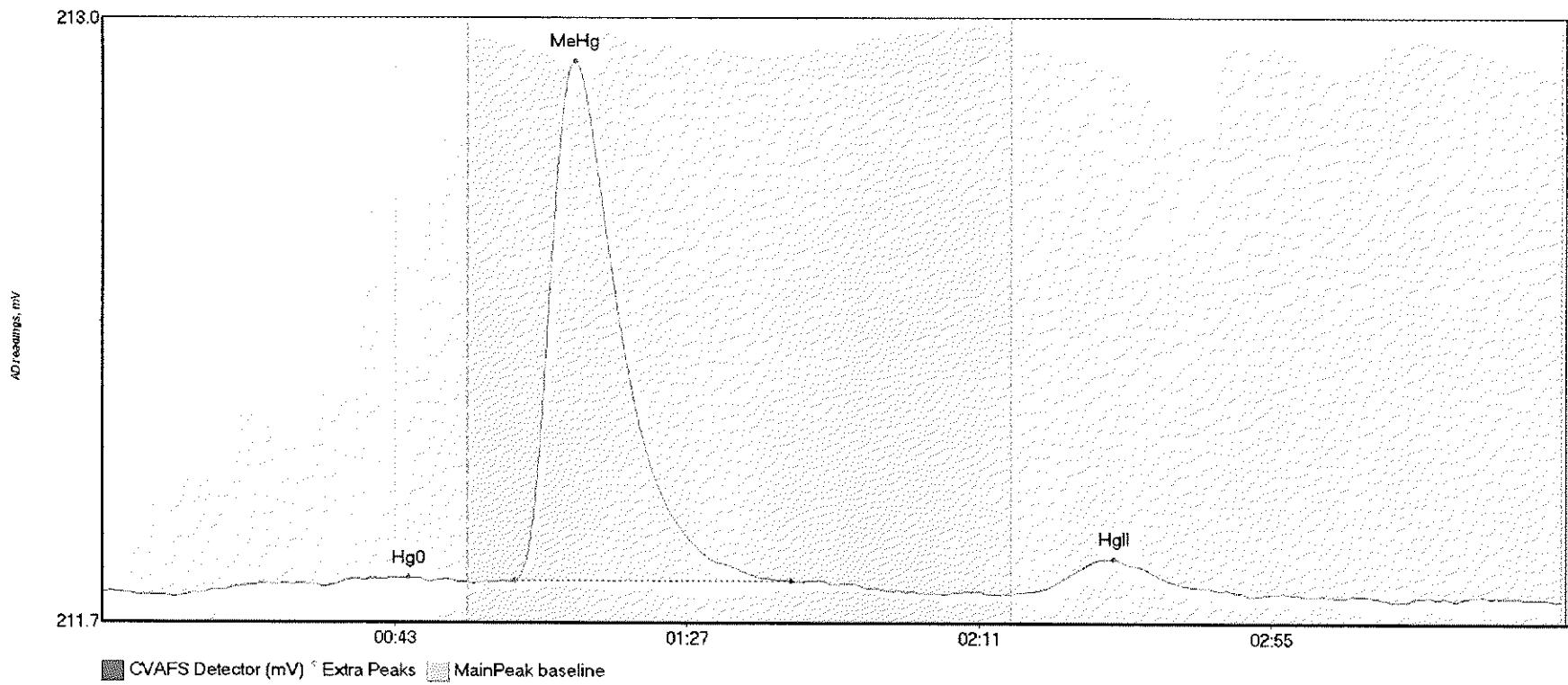
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-05 Hg0	2.624	20.2	55.0	211.81	211.83	48.0	0.032	CT	211.8083	0.00	-0.01	
1706932-05 MeHg	23.033	63.1	89.3	211.83	211.83	71.1	0.206	OK	211.8083	0.00	-0.01	
1706932-05 HgII	13.940	138.6	177.1	211.80	211.80	152.5	0.091	OK	211.8083	0.00	-0.01	

#77: 1706932-06



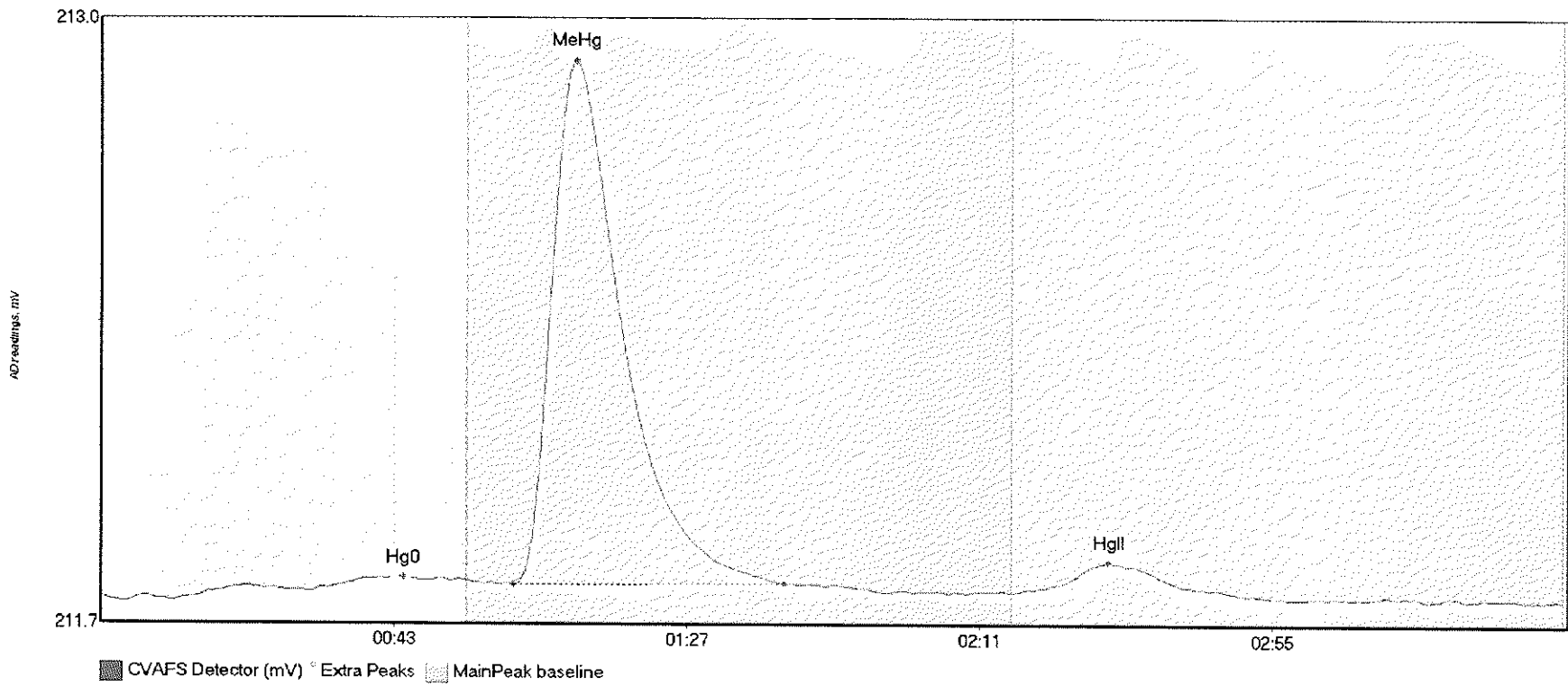
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-06 Hg0	2.271	14.2	51.8	211.79	211.82	48.4	0.044	OK	211.7886	0.00	0.00	
1706932-06 MeHg	170.883	59.6	102.3	211.82	211.82	70.9	1.391	OK	211.7886	0.00	0.00	
1706932-06 HgII	19.932	137.1	174.9	211.79	211.79	152.7	0.127	OK	211.7886	0.00	0.00	

#78: 1706932-07



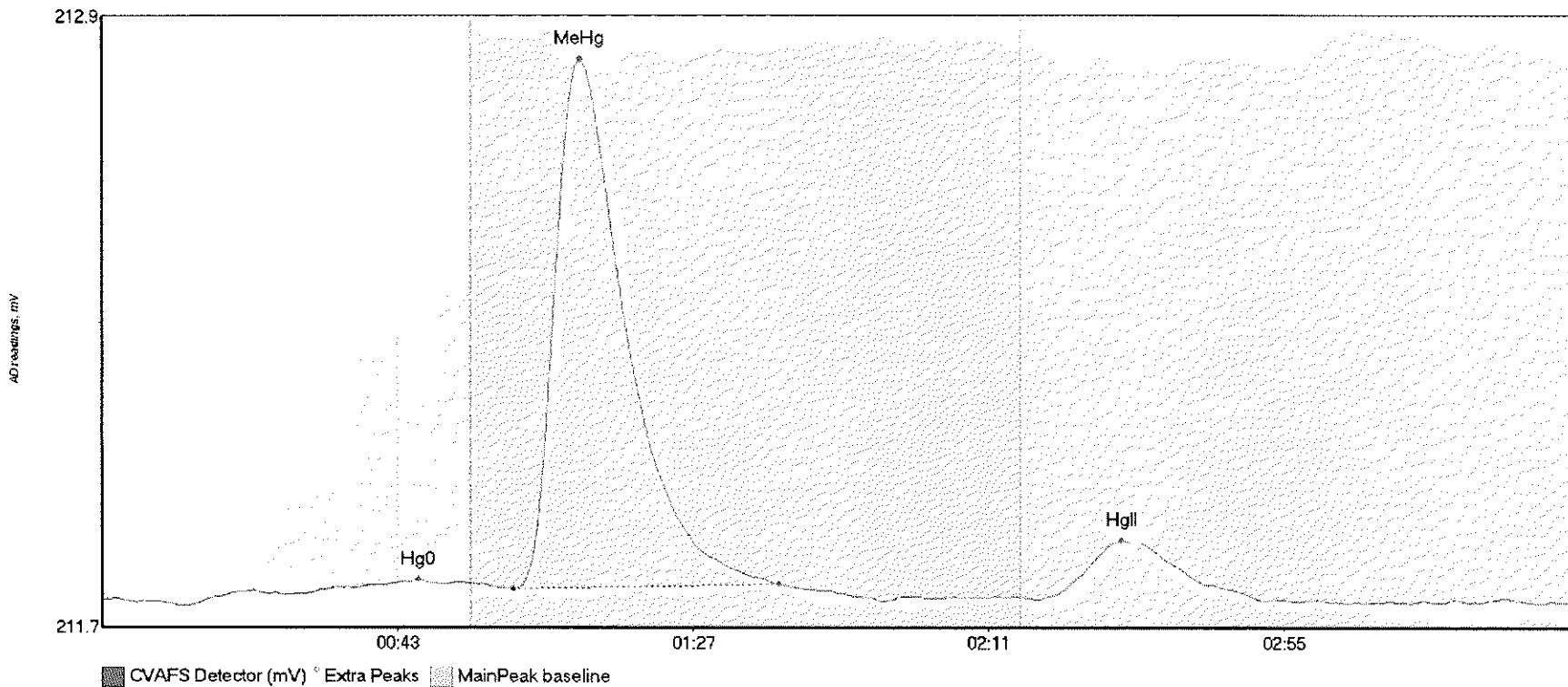
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-07 Hg0	3.198	18.5	55.0	211.79	211.80	46.1	0.027	CT	211.7836	0.00	-0.02	
1706932-07 MeHg	129.907	62.0	103.8	211.81	211.81	71.1	1.057	OK	211.7836	0.00	-0.02	
1706932-07 HgII	9.519	139.6	170.7	211.78	211.78	152.3	0.068	OK	211.7836	0.00	-0.02	

#79: 1706932-08



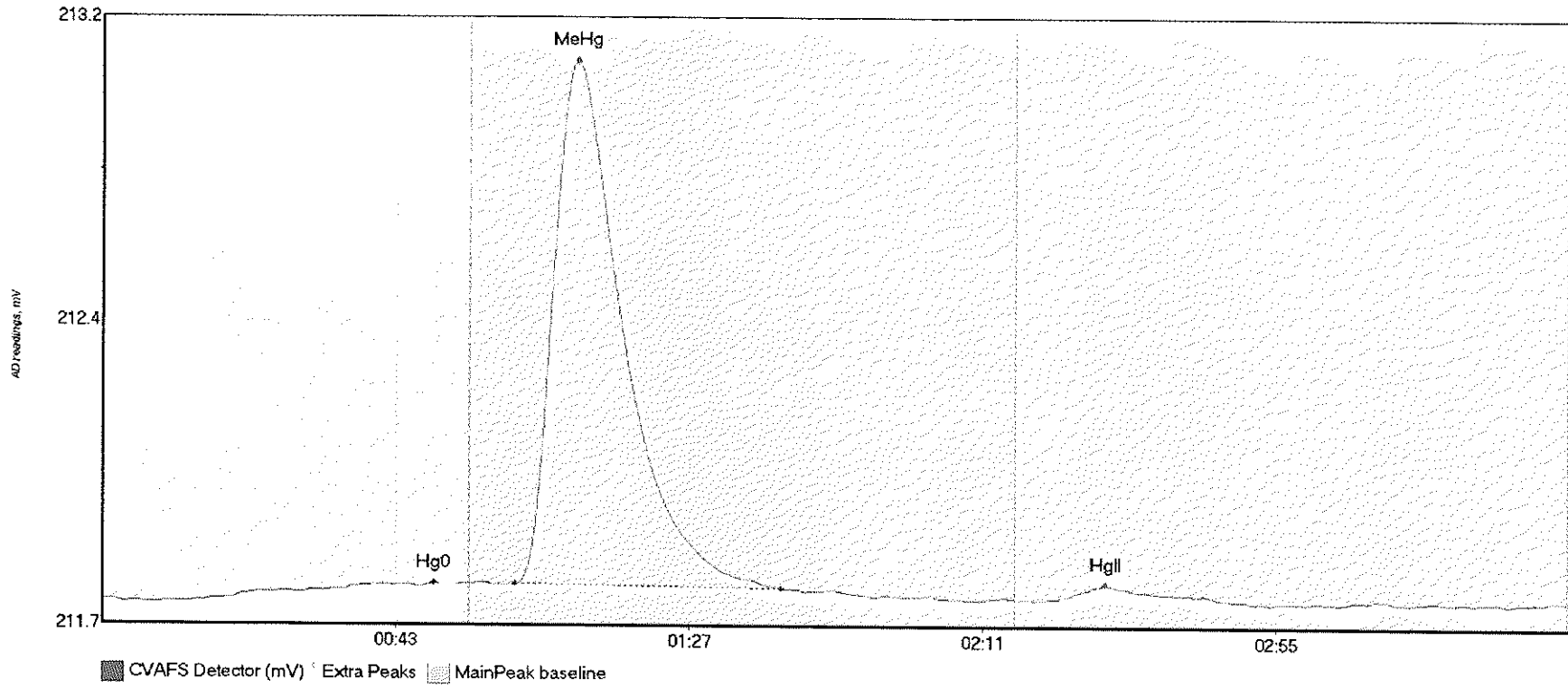
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-08 Hg0	3.271	14.3	55.0	211.76	211.79	45.4	0.040	CT	211.7589	0.00	0.00	
1706932-08 MeHg	133.119	62.0	102.7	211.79	211.79	71.4	1.079	OK	211.7589	0.00	0.00	
1706932-08 HgII	9.964	136.8	171.8	211.77	211.76	151.5	0.065	OK	211.7589	0.00	0.00	

#80: 1706932-09



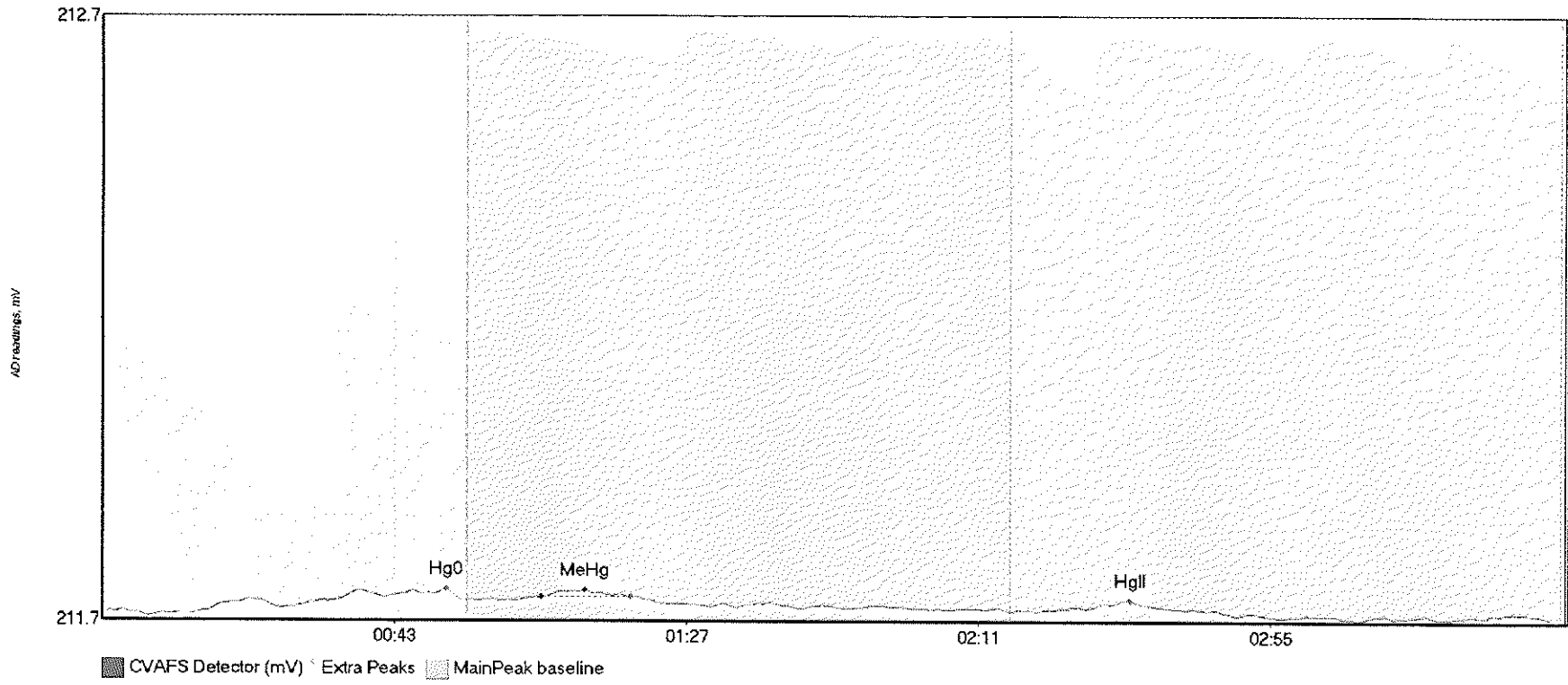
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-09 Hg0	3.396	13.7	51.3	211.74	211.78	47.1	0.047	OK	211.7476	0.00	-0.01	
1706932-09 MeHg	126.634	61.3	100.9	211.77	211.78	71.2	1.034	OK	211.7476	0.00	-0.01	
1706932-09 HgII	17.908	139.5	173.2	211.75	211.74	151.9	0.115	OK	211.7476	0.00	-0.01	

#81: SEQ-CCV6



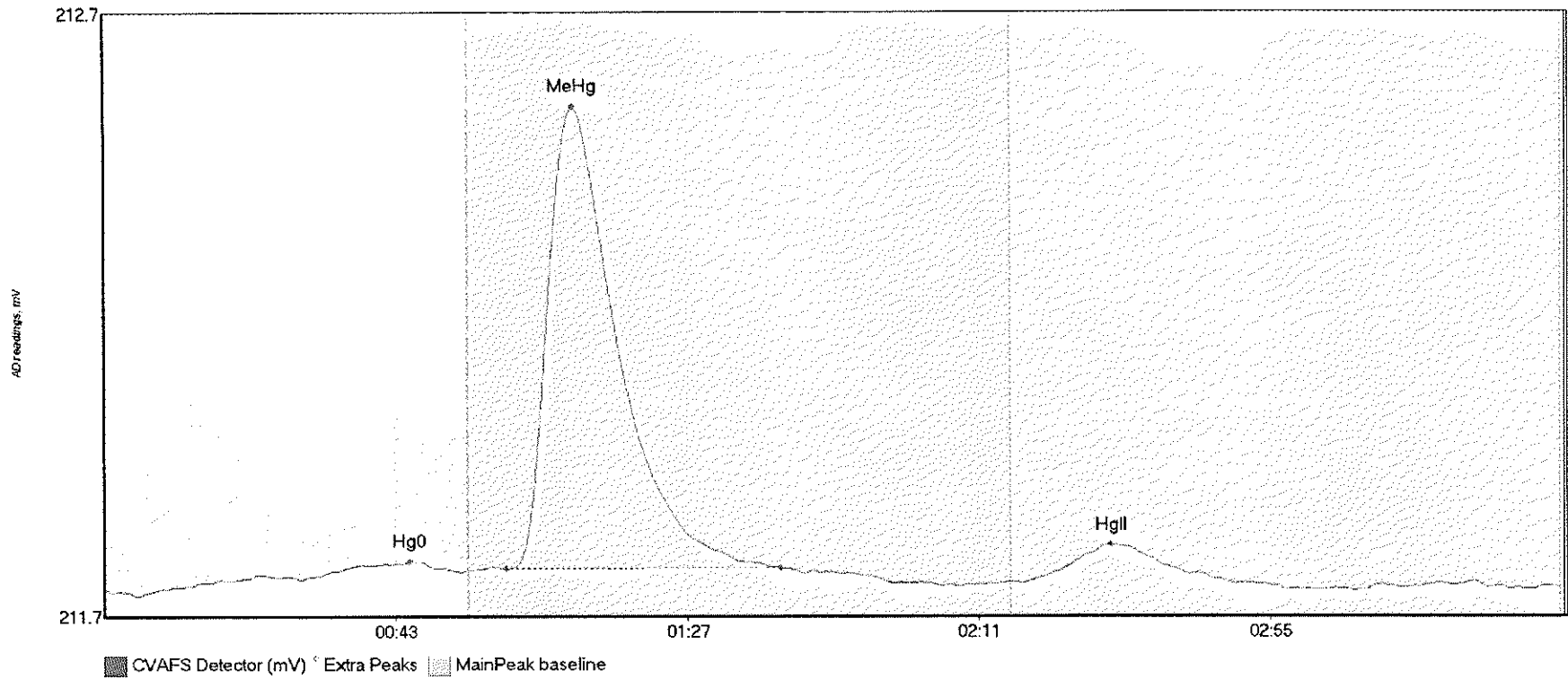
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	2.158	19.0	51.9	211.74	211.77	49.7	0.037	OK	211.7367	0.00	0.00	
SEQ-CCV6 MeHg	158.788	61.8	101.8	211.77	211.77	71.1	1.309	OK	211.7367	0.00	0.00	
SEQ-CCV6 HgII	4.184	142.6	168.4	211.74	211.74	150.5	0.036	OK	211.7367	0.00	0.00	

#82: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	4.143	15.3	55.0	211.72	211.74	51.9	0.035	CT	211.7227	0.00	-0.01	
SEQ-CCB6 MeHg	0.822	66.1	79.6	211.75	211.75	72.7	0.011	OK	211.7227	0.00	-0.01	
SEQ-CCB6 HgII	0.878	148.3	161.3	211.73	211.73	154.9	0.014	OK	211.7227	0.00	-0.01	

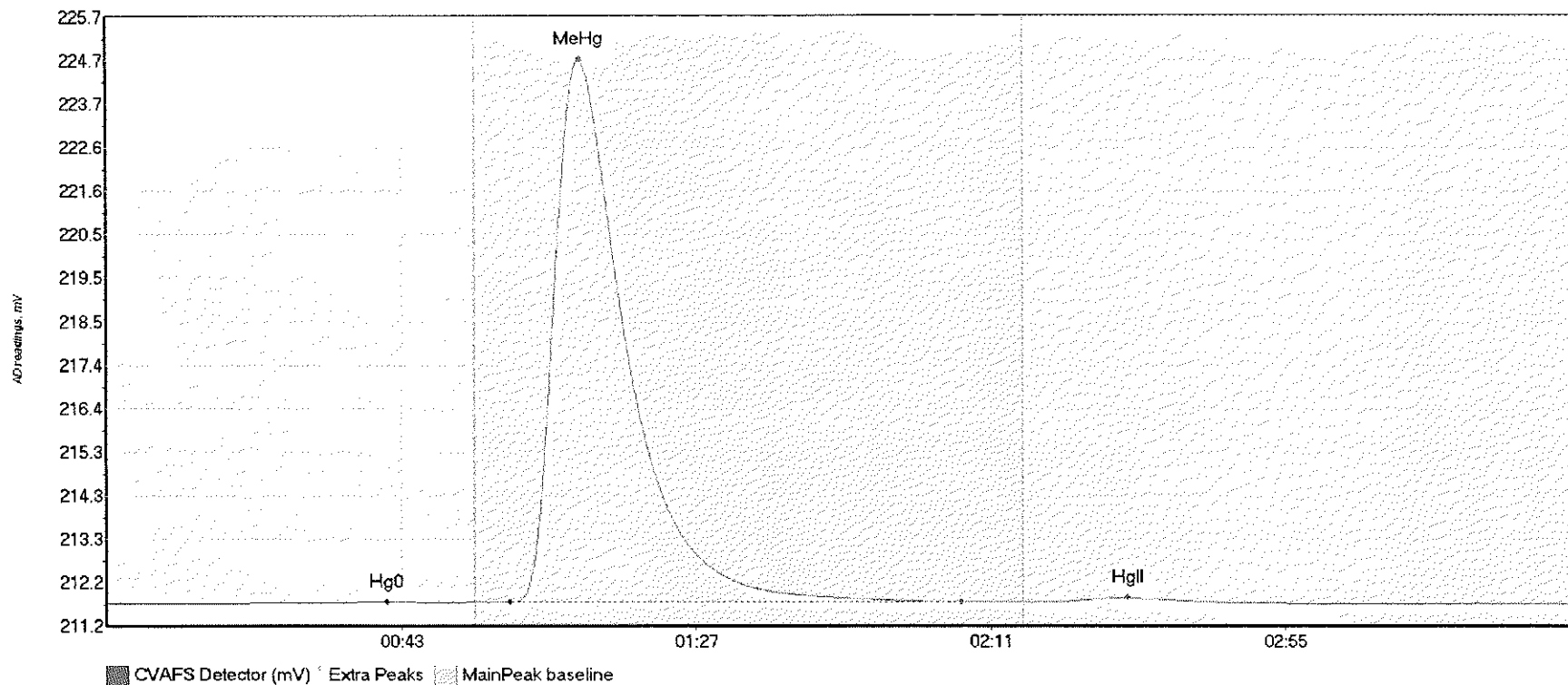
#89: 1706932-10



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1706932-10 Hg0	4.736	11.4	54.0	211.71	211.73	46.2	0.044	OK	211.7042	0.00	0.01	
1706932-10 MeHg	93.025	60.7	102.0	211.74	211.74	70.8	0.765	OK	211.7042	0.00	0.01	
1706932-10 HgII	8.504	138.6	167.7	211.72	211.72	152.0	0.064	OK	211.7042	0.00	0.01	

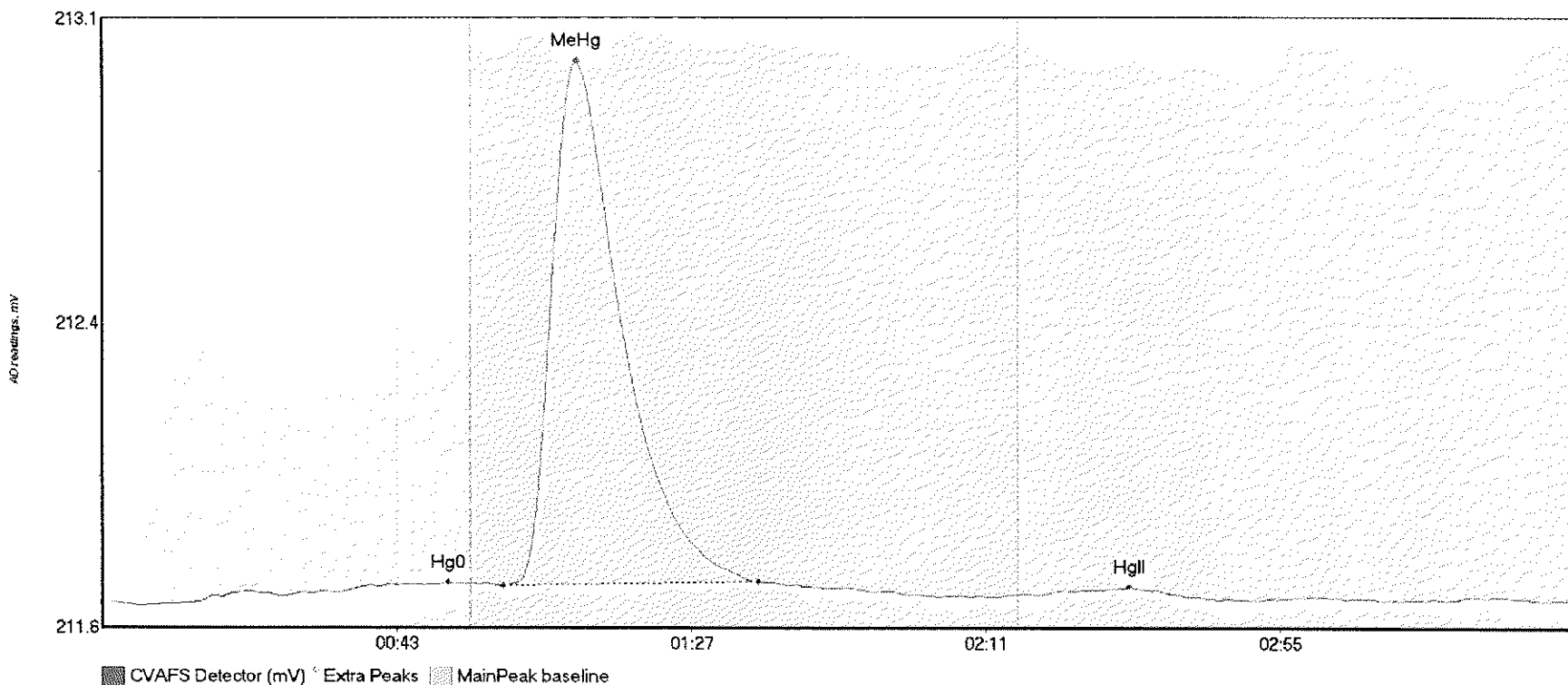


#84: 1707444-01



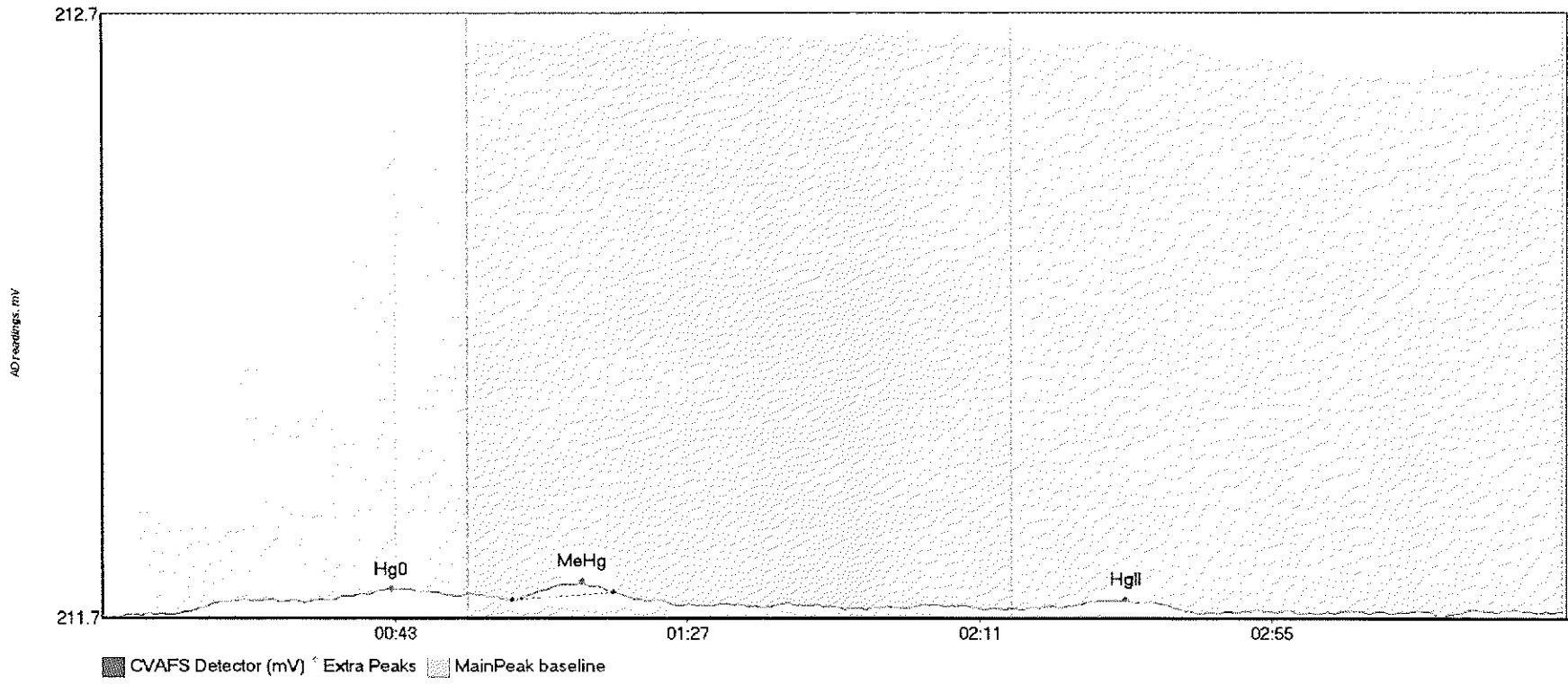
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707444-01 Hg0	3.038	15.9	50.7	211.70	211.73	41.9	0.041	OK	211.7042	0.00	0.00	
1707444-01 MeHg	1632.742	60.1	127.6	211.74	211.74	70.7	12.956	OK	211.7042	0.00	0.00	
1707444-01 HgII	13.835	141.3	167.0	211.74	211.73	152.5	0.101	OK	211.7042	0.00	0.00	

#85: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	2.926	14.2	54.7	211.69	211.73	51.7	0.047	OK	211.6893	0.00	0.00	
SEQ-CCV7 MeHg	153.176	59.8	98.0	211.73	211.74	70.8	1.267	OK	211.6893	0.00	0.00	
SEQ-CCV7 HgII	2.551	140.6	162.3	211.71	211.70	153.5	0.017	OK	211.6893	0.00	0.00	

#86: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB7 Hg0	4.790	10.7	53.8	211.68	211.71	43.4	0.042	OK	211.6773	0.00	0.01	
SEQ-CCB7 MeHg	1.781	61.6	76.9	211.70	211.72	72.1	0.029	OK	211.6773	0.00	0.01	
SEQ-CCB7 HgII	1.562	146.0	163.1	211.69	211.69	154.0	0.010	OK	211.6773	0.00	0.01	017

## Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7G28007, 7G28008
<b>Reviewer:</b> <i>BC</i> 7/29/17	<b>Dataset ID #:</b> MMHg27001-170727-1, MMHg27001-170728-2
<b>Date:</b> 7-28-17	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F707394, F707501	<b>Client(s):</b> 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:		Reviewer Initials:	
	<i>DM</i>		<i>BC</i>	
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 type="checkbox"/> YES	<input checked="" 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	<input checked="" type="checkbox"/>
(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"/>
(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"/>
(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"/>
(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"/>
(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"/>
(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"/>
(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"/>
<b>QA/QC Data Checked</b>				
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"/>
Comments: _____				
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"/>
Comments: _____				
8. RSD CF (≤ 15%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: _____				

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G28007, 7G28008
<b>Reviewer:</b>	0 <i>BC</i> 7/28/17	<b>Dataset ID #:</b>	MMHg27001-170727-1, MMsHg27001-170728-2
<b>Date:</b>	7/28/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	f707394, f707501	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*BC*

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 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 checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
Comments: <del>F707501 DUPL FAILED: HIGH RPD</del> <i>BC 7/29/17</i>			<i>BC 7/28/17</i>
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 checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
Comments: <b>F707394-MS1 FAILED. LOW RECOVERY</b>			
23. MSD (ASD) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input checked="" type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
Comments: <b>F707394-MSD1 FAILED. LOW RECOVERY</b>			
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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7G28007, 7G28008
<b>Reviewer:</b>	0 <i>[Signature]</i>	<b>Dataset ID #:</b>	MMHg27001-170727-1, MMRHg27001-170727-2
<b>Date:</b>	7/28/2017	<b>WO #:</b>	various
<b>Batch #(s):</b>	F707394, F707501	<b>Client(s):</b>	various

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*BC*

- |  |   |  |   |                                     |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):<br>Was a bubbler and trap test run before the analytical run continued?<br>Comments: _____ | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Do re-run results compare to initial analysis (< 35% RPD)?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Are qualifiers consistent with the data review flowcharts?<br>Comments: _____  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?<br>Comments: _____                                  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 34. 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"/> |
| 35. Narrations in MMO box in LIMS?<br>Comments: _____  |   |  |   |                                     |
| 36. Are there any HIGH QA projects within the data?<br>If so, place dataset to the QA office.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |   |                                     |
| 37. Does the data set need scanning?<br><u>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</u>                 | <input type="checkbox"/> YES            |  | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>6/13/2017</u> IDOC/CDOC within last 12 months?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 39. Date of analyst's SOP reading: <u>5/23/2016</u> Current SOP revision?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>4-24-17, 5-8-17</u> LOD within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 41. Date of LOQ: <u>4-24-17, 5-8-17</u> LOQ within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 42. If MDN samples, date of last MDL study: _____  |   |  |   |                                     |
| 43. MDL study within last 12 months?   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <b>Data can not be reported without a current IDOC/CDOC, LOD or LOQ.</b>   |   |  |   |                                     |
| Additional Comments:   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1707703

PO#

C012505850

August 23, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1707703

### Table of Contents

August 23, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	7
Notes and Definitions	14
Raw Data: 7H01022	15
Raw Data: 7H18015	54

**Total Pages – 170**





AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-050  
Project Manager: Rod Pendleton

**Reported:**  
23-Aug-17 16:30

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EQ_072517_TWEEZER_QC	1707703-01	Water	25-Jul-17 17:00	26-Jul-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.*

Amy Goodall, Project Manager

AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-050  
Project Manager: Rod Pendleton**Reported:**  
23-Aug-17 16:30

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 7/26/2017 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at 4.2 degrees Celsius.

## SAMPLE PREPARATION AND ANALYSIS

Samples were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

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-070).

Samples were prepped for Total Mercury in batch F708258 and analyzed in sequence 7H01022. Samples were prepped for Methyl Mercury in batch F708434 and analyzed in sequence 7H18015.

## 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 fell within 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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Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-050  
Project Manager: Rod Pendleton

**Reported:**  
23-Aug-17 16:30

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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

# Sample Receipt Checklist

FFGS Work Order: 1707703

Client: AMSE Fark Whale

Date & Time Received: 7/26/17 09:50

Date Labeled: 7/26/17 Labeled By: Ww

Project: \_\_\_\_\_

Received By: LM

Label Verified By: ESR

# 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:	CF:	°C	Date/Time:	By:
Cooler 1:	<u>4.2</u>	<u>°C</u>	<u>7/26/17 4:18</u>	<u>LM</u>
Cooler 2:	<u>4.2</u>	<u>°C</u>		
Cooler 3:				
Cooler 4:				
Cooler 5:				
Cooler 6:				

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>Y</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):

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1707703



# Environmental Analysis Request/Chain of Custody

Page 1 of 1

Client: <b>Ames Exter Wheeler / 511 Congress St Suite 200 Portland, ME 04101</b>		Project Name: <b>USDO Perseus</b>		PR # <b>387618002.DA.03</b>	
Project Manager: <b>Rod Pendleton</b>		P.C. #			
Sampler: <b>BW/FL/T</b>		PWSID #			
Pilot #		Cont #			
State where samples were collected: <b>ME</b>		To Compliance: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
Sample Identification		Collection		Grab <input checked="" type="checkbox"/> Composite <input type="checkbox"/>	
1 <b>LO 072517_IWELER_OC</b>		Date <b>7/25/2017</b> Time <b>1700</b>			
2					
3					
4					
5					
6					
7					
8					
9					
10					
Turnaround Time Requested (TAT) (Please check):		Standard <input type="checkbox"/> Rush <input type="checkbox"/>			
Notes:		Matrix		Analysis Requested	
Feder # <b>8103 4444 8587</b> # of Containers Sample disposal - Hold Equipment Blank 14 min 30 days after delivery of report Request and EDD to: <a href="mailto:sales.king@amedia.com">sales.king@amedia.com</a> 878.682.6833		<input checked="" type="checkbox"/> Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> Water <input checked="" type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> NPDES <input type="checkbox"/> Other: Tissue		Preservation Codes Hg 1631e 16 Oz P/ Freeze Hg 1631e 8 oz P4 Deg c MeHg 1630 16 Oz P/ Freeze Hg 1631e 7.5oz P/ Freeze Hg 1631e 7.5oz P/ Freeze Hg 1631e 250 ml P4 Deg c MeHg 1630 250 ml Glass/ 4 deg c	
Data Package Options (please check if required): High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Total # of Containers: <b>3</b>		For Lab Use Only SCR # Generation Code H=Hd I=Inside N=NOB R=ROB S=SPY P=HPY C=Other	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If Yes, format: _____		Requisitioned by: <b>[Signature]</b> Date: <b>7-25-17</b> Time: <b>1700</b> Received by: <b>[Signature]</b> Date: <b>7/26/17</b> Time: <b>9/30</b>		Temperature upon receipt: <b>4.2</b> °C	

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-050 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:30
--	---	------------------------------

**EQ\_072517\_TWEEZER\_QC**  
**1707703-01**

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

**Sample Preparation: EFGS-013 Methyl Hg Distillation for Water**

Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L	1.25	F708434	16-Aug-17	7H18015	17-Aug-17	EPA 1630/FGS-070	U
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**Sample Preparation: EPA 1631E BrCl Oxidation**

Mercury	0.58	0.08	0.50	ng/L	1	F708258	26-Jul-17	7H01022	01-Aug-17	EPA 1631E	
---------	------	------	------	------	---	---------	-----------	---------	-----------	-----------	--

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-050 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:30
--	---	------------------------------

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H01022 - F708258</b>											
<b>Cal Standard (7H01022-CAL1)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.52	-		ng/L	0.50100		105				
<b>Cal Standard (7H01022-CAL2)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.99	-		ng/L	1.0020		98.9				
<b>Cal Standard (7H01022-CAL3)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	4.82	-		ng/L	5.0100		96.1				
<b>Cal Standard (7H01022-CAL4)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	19.62	-		ng/L	20.040		97.9				
<b>Cal Standard (7H01022-CAL5)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	40.70	-		ng/L	40.080		102				
<b>Calibration Blank (7H01022-CCB1)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.07	-		ng/L							
<b>Calibration Blank (7H01022-CCB2)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.15	-		ng/L							
<b>Calibration Blank (7H01022-CCB3)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7H01022-CCB4)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.23	-		ng/L							
<b>Calibration Blank (7H01022-CCB5)</b> Prepared & Analyzed: 01-Aug-17											
Mercury	0.14	-		ng/L							

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-050  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:30

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 7H01022 - F708258

<b>Calibration Blank (7H01022-CCB6)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7H01022-CCB7)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	0.19	-		ng/L							
<b>Calibration Blank (7H01022-CCB8)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	0.28	-		ng/L							
<b>Calibration Check (7H01022-CCV1)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.16	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (7H01022-CCV2)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.39	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7H01022-CCV3)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.06	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7H01022-CCV4)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.72	-		ng/L	5.0000		114	77-123			
<b>Calibration Check (7H01022-CCV5)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.41	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7H01022-CCV6)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.25	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7H01022-CCV7)</b>											
Prepared & Analyzed: 01-Aug-17											
Mercury	5.33	-		ng/L	5.0000		107	77-123			

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-050  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:30

Quality Control Data

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

Batch 7H01022 - F708258

Calibration Check (7H01022-CCV8)											
											Prepared & Analyzed: 01-Aug-17
Mercury	5.60	-		ng/L	5.0000		112	77-123			
Instrument Blank (7H01022-IBL1)											
											Prepared & Analyzed: 01-Aug-17
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (7H01022-IBL2)											
											Prepared & Analyzed: 01-Aug-17
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (7H01022-IBL3)											
											Prepared & Analyzed: 01-Aug-17
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Check (7H01022-ICV1)											
											Prepared & Analyzed: 01-Aug-17
Mercury	5.20	-		ng/L	5.0000		104	79-121			

Batch 7H18015 - F708434

Cal Standard (7H18015-CAL1)											
											Prepared & Analyzed: 17-Aug-17
Methyl Mercury (as Mercury)	0.049	-		ng/L	0.050050		98.3				
Cal Standard (7H18015-CAL2)											
											Prepared & Analyzed: 17-Aug-17
Methyl Mercury (as Mercury)	0.187	-		ng/L	0.20020		93.4				
Cal Standard (7H18015-CAL3)											
											Prepared & Analyzed: 17-Aug-17
Methyl Mercury (as Mercury)	1.079	-		ng/L	1.0010		108				
Cal Standard (7H18015-CAL4)											
											Prepared & Analyzed: 17-Aug-17
Methyl Mercury (as Mercury)	1.963	-		ng/L	2.0020		98.1				

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-050 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:30
--	---	------------------------------

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H18015 - F708434</b>											
<b>Cal Standard (7H18015-CAL5)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	4.083	-		ng/L	4.0040		102				
<b>Calibration Blank (7H18015-CCB1)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H18015-CCB2)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H18015-CCB3)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.000	-		ng/L							U
<b>Calibration Blank (7H18015-CCB4)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.000	-		ng/L							U
<b>Calibration Check (7H18015-CCV1)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.487	-		ng/L	0.50049		97.4	67-133			
<b>Calibration Check (7H18015-CCV2)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.469	-		ng/L	0.50049		93.8	67-133			
<b>Calibration Check (7H18015-CCV3)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.467	-		ng/L	0.50049		93.4	67-133			
<b>Calibration Check (7H18015-CCV4)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	0.494	-		ng/L	0.50049		98.8	67-133			
<b>Instrument Blank (7H18015-IBL1)</b>					Prepared & Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	ND	0.021	0.040	ng/L							U

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-050  
Project Manager: Rod Pendleton

Reported:  
23-Aug-17 16:30

**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 7H18015 - F708434**

**Initial Cal Blank (7H18015-ICB1)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury)	0.007	-		ng/L							
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**Initial Cal Check (7H18015-ICV1)**

Prepared & Analyzed: 17-Aug-17

Methyl Mercury (as Mercury)	0.492	-		ng/L	0.50049		98.3	69-131			
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**Batch F708258 - EPA 1631E BrCl Oxidation**

**Blank (F708258-BLK1)**

Prepared & Analyzed: 01-Aug-17

Mercury	0.33	0.08	0.50	ng/L							J
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**Blank (F708258-BLK2)**

Prepared & Analyzed: 01-Aug-17

Mercury	0.13	0.08	0.50	ng/L							J
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**Blank (F708258-BLK3)**

Prepared & Analyzed: 01-Aug-17

Mercury	0.10	0.08	0.50	ng/L							J
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**LCS (F708258-BS1)**

Prepared & Analyzed: 01-Aug-17

Mercury	15.67	0.08	0.50	ng/L	15.679		100	80-120			
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**LCS Dup (F708258-BSD1)**

Prepared & Analyzed: 01-Aug-17

Mercury	15.81	0.08	0.50	ng/L	15.679		101	80-120	0.870	24	
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**Duplicate (F708258-DUP1)**

Source: 1707371-04

Prepared & Analyzed: 01-Aug-17

Mercury	44.53	0.83	5.00	ng/L		44.38			0.327	24	
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**Matrix Spike (F708258-MS1)**

Source: 1707371-04

Prepared & Analyzed: 01-Aug-17

Mercury	242.4	0.83	5.00	ng/L	202.40	44.38	97.8	71-125			
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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-050 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:30
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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 F708258 - EPA 1631E BrCl Oxidation**

<b>Matrix Spike (F708258-MS2)</b>		<b>Source: 1707717-02</b>			Prepared & Analyzed: 01-Aug-17						
Mercury	247.0	0.83	5.00	ng/L	202.40	50.35	97.2	71-125			
<b>Matrix Spike Dup (F708258-MSD1)</b>		<b>Source: 1707371-04</b>			Prepared & Analyzed: 01-Aug-17						
Mercury	244.3	0.83	5.00	ng/L	202.40	44.38	98.8	71-125	0.784	24	
<b>Matrix Spike Dup (F708258-MSD2)</b>		<b>Source: 1707717-02</b>			Prepared & Analyzed: 01-Aug-17						
Mercury	255.5	0.83	5.00	ng/L	202.40	50.35	101	71-125	3.37	24	

**Batch F708434 - EFGS-013 Methyl Hg Distillation for Water**

<b>Blank (F708434-BLK1)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
<b>Blank (F708434-BLK2)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
<b>Blank (F708434-BLK3)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L							U
<b>LCS (F708434-BS1)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	0.957	0.026	0.050	ng/L	1.0010		95.6	70-130			
<b>LCS Dup (F708434-BSD1)</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17									
Methyl Mercury (as Mercury)	0.976	0.026	0.050	ng/L	1.0010		97.5	70-130	1.98	35	
<b>Duplicate (F708434-DUP1)</b>		<b>Source: 1707704-01</b>			Prepared: 16-Aug-17 Analyzed: 17-Aug-17						
Methyl Mercury (as Mercury)	ND	0.026	0.050	ng/L		ND				35	U

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Sediment and Surface Water Monitoring Project Number: WO-04A-050 Project Manager: Rod Pendleton	Reported: 23-Aug-17 16:30
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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 F708434 - EFGS-013 Methyl Hg Distillation for Water**

<b>Matrix Spike (F708434-MS1)</b>		<b>Source: 1707732-02</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17							
Methyl Mercury (as Mercury)	1.762	0.026	0.050	ng/L	1.0010	0.713	105	65-130			
<b>Matrix Spike (F708434-MS2)</b>		<b>Source: 1708082-01</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17							
Methyl Mercury (as Mercury)	1.118	0.026	0.050	ng/L	1.0010	0.093	102	65-130			
<b>Matrix Spike Dup (F708434-MSD1)</b>		<b>Source: 1707732-02</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17							
Methyl Mercury (as Mercury)	1.598	0.026	0.050	ng/L	1.0010	0.713	88.5	65-130	9.72	35	
<b>Matrix Spike Dup (F708434-MSD2)</b>		<b>Source: 1708082-01</b>		Prepared: 16-Aug-17 Analyzed: 17-Aug-17							
Methyl Mercury (as Mercury)	1.083	0.026	0.050	ng/L	1.0010	0.093	99.0	65-130	3.19	35	

Eurofins Frontier Global Sciences, Inc.



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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Sediment and Surface Water Monitoring  
Project Number: WO-04A-050  
Project Manager: Rod Pendleton

**Reported:**  
23-Aug-17 16:30

**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

THg26002-170801-1

Analysis Datasheet for Total Mercury

Date of Analysis: August 01, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LTMS Sequence #: 7H01022, 7H01023, 7H01024

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	97.63 units	195.26	85.48 units	170.95	104.7 %Rec
SEQ-CAL2	1	1.00 ng/L	173.84 units	173.84	161.69 units	161.69	99.1 %Rec
SEQ-CAL3	1	5.00 ng/L	798.41 units	159.68	786.25 units	157.25	96.3 %Rec
SEQ-CAL4	1	20.00 ng/L	3215.37 units	160.77	3203.72 units	160.16	98.1 %Rec
SEQ-CAL5	1	40.00 ng/L	6654.61 units	166.37	6642.46 units	166.06	101.7 %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  
 163.22            +/- 5.37            3.3% RSD            171.18

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	12.16 units	±0.52	0.07 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	7.137 ng/L	±3.760
BLK	2	3	0.181 ng/L	±0.174
BLK	3	3	13.249 ng/L	±3.710
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 8/2/17

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	8/1/2017 7:40:17	82350-1.RAW	7:40:17 AM	11.60			-0.6	-0.003	-0.003	ng/L	
Hg2600-2	DM2	CAI	SEQ-IBL2	1	8/1/2017 7:44:26	82351-1.RAW	7:44:26 AM	12.25			0.1	0.001	0.001	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	8/1/2017 7:48:34	82352-1.RAW	7:48:34 AM	12.62			0.5	0.003	0.003	ng/L	
Hg2600-2	DM2	CAI	SEQ-CAL1	1	8/1/2017 7:52:43	82353-1.RAW	7:52:43 AM	97.93			85.5	0.524	0.524	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	8/1/2017 7:56:51	82354-1.RAW	7:56:51 AM	173.84			161.7	0.991	0.991	ng/L	
Hg2600-2	DM2	CAI	SEQ-CAL3	1	8/1/2017 8:00:59	82355-1.RAW	8:00:59 AM	798.41			786.3	4.817	4.817	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	8/1/2017 8:05:08	82356-1.RAW	8:05:08 AM	3215.37			3203.2	19.625	19.625	ng/L	
Hg2600-2	DM2	CAI	SEQ-CAL5	1	8/1/2017 8:09:15	82357-1.RAW	8:09:15 AM	9354.31			6642.5	40.696	40.696	ng/L	
Hg2600-2	DM2	CAL	SEQ-CV1	1	8/1/2017 8:13:25	82358-1.RAW	8:13:25 AM	861.53			849.4	5.204	5.204	ng/L	
Hg2600-2	DM2	BLK	F707541-BLK1	100	8/1/2017 8:17:33	82359-1.RAW	8:17:33 AM	30.64	1		18.5	0.113	11.324	ng/L	
Hg2600-2	DM2	BLK	F707541-BLK2	100	8/1/2017 8:21:42	82360-1.RAW	8:21:42 AM	18.76	1		6.6	0.040	4.049	ng/L	
Hg2600-2	DM2	BLK	F707541-BLK3	100	8/1/2017 8:25:50	82361-1.RAW	8:25:50 AM	22.01	1		9.9	0.060	6.037	ng/L	
Hg2600-2	DM2	SAM	F707541-BS1	400	8/1/2017 8:29:58	82362-1.RAW	8:29:58 AM	300.97	1		888.8	5.428	2171.021	ng/L	
Hg2600-2	DM2	SAM	F707541-BSD1	400	8/1/2017 8:34:07	82363-1.RAW	8:34:07 AM	890.73	1		868.6	5.304	2121.432	ng/L	
Hg2600-2	DM2	SAM	1707698-01	100	8/1/2017 8:38:15	82364-1.RAW	8:38:15 AM	1442.00	1		1429.8	8.689	868.869	ng/L	
Hg2600-2	DM2	SAM	1707698-02	100	8/1/2017 8:42:24	82365-1.RAW	8:42:24 AM	302.99	1		290.8	1.710	171.046	ng/L	
Hg2600-2	DM2	SAM	1707698-03	100	8/1/2017 8:46:32	82366-1.RAW	8:46:32 AM	441.05	1		428.9	2.556	255.631	ng/L	
Hg2600-2	DM2	SAM	1707698-04	100	8/1/2017 8:50:40	82367-1.RAW	8:50:40 AM	895.92	1		883.8	5.343	534.310	ng/L	
Hg2600-2	DM2	SAM	1707698-05	100	8/1/2017 8:54:49	82368-1.RAW	8:54:49 AM	259.71	1		277.6	1.629	162.908	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	8/1/2017 8:58:57	82369-1.RAW	8:58:57 AM	654.52			842.4	5.161	5.161	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	8/1/2017 9:03:06	82370-1.RAW	9:03:06 AM	22.63			10.8	0.066	0.066	ng/L	
Hg2600-2	DM2	SAM	1707698-08	100	8/1/2017 9:07:14	82371-1.RAW	9:07:14 AM	237.52	1		275.4	1.516	161.570	ng/L	
Hg2600-2	DM2	SAM	1707698-07	100	8/1/2017 9:11:23	82372-1.RAW	9:11:23 AM	178.79	1		164.6	0.937	93.730	ng/L	
Hg2600-2	DM2	SAM	F707541-DUP1	100	8/1/2017 9:15:31	82373-1.RAW	9:15:31 AM	1422.69	1		1410.5	8.570	857.039	ng/L	
Hg2600-2	DM2	SAM	F707541-MS1	100	8/1/2017 9:19:39	82374-1.RAW	9:19:39 AM	4902.13	1		4890.0	25.987	2986.743	ng/L	
Hg2600-2	DM2	SAM	F707541-MS2	100	8/1/2017 9:23:48	82375-1.RAW	9:23:48 AM	4828.69	1		4816.7	25.439	2943.874	ng/L	
Hg2600-2	DM2	BLK	F708258-BLK1	1	8/1/2017 9:27:57	82376-1.RAW	9:27:57 AM	64.86	2		52.8	0.324	0.324	ng/L	
Hg2600-2	DM2	BLK	F708258-BLK2	1	8/1/2017 9:32:06	82377-1.RAW	9:32:06 AM	32.63	2		20.4	0.125	0.125	ng/L	
Hg2600-2	DM2	BLK	F708258-BLK3	1	8/1/2017 9:36:14	82378-1.RAW	9:36:14 AM	27.73	2		15.6	0.095	0.095	ng/L	
Hg2600-2	DM2	SAM	F708258-BS1	1	8/1/2017 9:40:23	82379-1.RAW	9:40:23 AM	2674.48	2		2662.3	15.517	15.517	ng/L	
Hg2600-2	DM2	SAM	F708258-BSD1	1	8/1/2017 9:44:31	82380-1.RAW	9:44:31 AM	2090.62	2		2584.5	15.653	15.653	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	8/1/2017 9:48:40	82381-1.RAW	9:48:40 AM	862.63			890.5	5.394	5.394	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	8/1/2017 9:52:48	82382-1.RAW	9:52:48 AM	37.30			25.1	0.154	0.154	ng/L	
Hg2600-2	DM2	SAM	1707371-02	10	8/1/2017 9:56:57	82383-1.RAW	9:56:57 AM	278.49	2		266.3	1.614	16.136	ng/L	
Hg2600-2	DM2	SAM	1707371-04	10	8/1/2017 10:01:05	82384-1.RAW	10:01:05 AM	732.39	2		720.2	4.394	43.945	ng/L	
Hg2600-2	DM2	SAM	1707371-06	10	8/1/2017 10:05:13	82385-1.RAW	10:05:13 AM	254.02	2		241.9	1.464	14.637	ng/L	
Hg2600-2	DM2	SAM	1707702-01	1	8/1/2017 10:09:22	82386-1.RAW	10:09:22 AM	162.12	2		150.0	0.737	0.737	ng/L	
Hg2600-2	DM2	SAM	1707703-01	1	8/1/2017 10:13:30	82387-1.RAW	10:13:30 AM	36.80	2		123.6	0.576	0.576	ng/L	
Hg2600-2	DM2	SAM	1707704-01	1	8/1/2017 10:17:39	82388-1.RAW	10:17:39 AM	66.03	2		53.9	0.149	0.149	ng/L	
Hg2600-2	DM2	SAM	1707704-02	1	8/1/2017 10:21:47	82389-1.RAW	10:21:47 AM	44.19	2		32.0	0.015	0.015	ng/L	
Hg2600-2	DM2	SAM	1707717-02	10	8/1/2017 10:25:56	82390-1.RAW	10:25:56 AM	828.73	2		815.6	4.985	49.847	ng/L	
Hg2600-2	DM2	SAM	1707717-04	1	8/1/2017 10:30:04	82391-1.RAW	10:30:04 AM	358.62	2		344.4	1.928	1.928	ng/L	
Hg2600-2	DM2	SAM	1707732-01	1	8/1/2017 10:34:13	82392-1.RAW	10:34:13 AM	26.23	2		14.1	-0.095	0.095	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	8/1/2017 10:38:21	82393-1.RAW	10:38:21 AM	837.69			825.5	5.058	5.058	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	8/1/2017 10:42:29	82394-1.RAW	10:42:29 AM	27.40			15.2	0.093	0.093	ng/L	
Hg2600-2	DM2	SAM	1707732-02	1	8/1/2017 10:46:38	82395-1.RAW	10:46:38 AM	648.19	2		636.0	3.715	3.715	ng/L	
Hg2600-2	DM2	SAM	1707732-03	1	8/1/2017 10:50:46	82396-1.RAW	10:50:46 AM	664.25	2		652.1	3.814	3.814	ng/L	
Hg2600-2	DM2	SAM	1707732-04	1	8/1/2017 10:54:55	82397-1.RAW	10:54:55 AM	685.04	2		672.9	3.941	3.941	ng/L	
Hg2600-2	DM2	SAM	1707732-05	1	8/1/2017 10:59:03	82398-1.RAW	10:59:03 AM	25.64	2		14.7	-0.091	-0.091	ng/L	
Hg2600-2	DM2	SAM	F708258-DUP1	10	8/1/2017 11:03:12	82399-1.RAW	11:03:12 AM	734.75	2		722.6	4.409	44.089	ng/L	
Hg2600-2	DM2	SAM	F708258-MS1	10	8/1/2017 11:07:20	82400-1.RAW	11:07:20 AM	360.92	2		3919.8	23.997	239.966	ng/L	
Hg2600-2	DM2	SAM	F708258-MSD1	10	8/1/2017 11:11:29	82401-1.RAW	11:11:29 AM	3682.76	2		3950.6	24.186	241.856	ng/L	
Hg2600-2	DM2	SAM	F708258-MS2	10	8/1/2017 11:15:37	82402-1.RAW	11:15:37 AM	4005.75	2		3994.6	24.455	244.551	ng/L	
Hg2600-2	DM2	SAM	F708258-MSD2	10	8/1/2017 11:19:45	82403-1.RAW	11:19:45 AM	4123.36	2		4131.2	25.292	252.921	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	8/1/2017 11:23:54	82404-1.RAW	11:23:54 AM	945.25			933.1	5.717	5.717	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	8/1/2017 11:28:02	82405-1.RAW	11:28:02 AM	49.24			37.1	0.227	0.227	ng/L	
Hg2600-2	DM2	BLK	F707561-BLK1	100	8/1/2017 11:32:11	82406-1.RAW	11:32:11 AM	39.61	3		27.5	0.168	16.820	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	BLK	F707561-BLK2	100	8/1/2017 11:36:19	82407-1.RAW	11:35:19 AM	34.21	3		22.1	0.135	13.513	ng/L	
Hg2600-2	DM2	BLK	F707561-BLK3	100	8/1/2017 11:40:28	82408-1.RAW	11:40:28 AM	27.52	3		15.4	0.094	9.414	ng/L	
Hg2600-2	DM2	SAM	F707561-BS1	400	8/1/2017 11:44:36	82409-1.RAW	11:44:36 AM	817.85	3		805.7	4.903	1961.223	ng/L	
Hg2600-2	DM2	SAM	F707561-BSD1	400	8/1/2017 11:48:44	82410-1.RAW	11:48:44 AM	781.52	3		769.4	4.630	1872.192	ng/L	
Hg2600-2	DM2	SAM	1707715-01	2500	8/1/2017 11:52:53	82411-1.RAW	11:52:53 AM	3814.36	3		3802.2	23.289	58222.900	ng/L	
Hg2600-2	DM2	SAM	1707715-02	2500	8/1/2017 11:57:01	82412-1.RAW	11:57:01 AM	4001.78	3		3589.6	24.437	61093.548	ng/L	
Hg2600-2	DM2	SAM	1707799-01	2500	8/1/2017 12:01:10	82413-1.RAW	12:01:16 PM	502.53	3		490.5	3.000	7499.017	ng/L	
Hg2600-2	DM2	SAM	1707799-02	2500	8/1/2017 12:05:18	82414-1.RAW	12:05:18 PM	417.25	3		405.1	2.477	6191.349	ng/L	
Hg2600-2	DM2	SAM	1707800-01	2500	8/1/2017 12:09:27	82415-1.RAW	12:09:27 PM	145.56	3		133.5	0.813	2031.638	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	8/1/2017 12:13:35	82415-1.RAW	12:13:35 PM	890.30			883.1	5.411	5.411	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	8/1/2017 12:17:41	82417-1.RAW	12:17:44 PM	34.66985326			22.5	0.138	0.138	ng/L	
Hg2600-2	DM2	SAM	1707800-02	2500	8/1/2017 12:21:52	82418-1.RAW	12:21:52 PM	109.72	3		97.6	0.592	1481.023	ng/L	
Hg2600-2	DM2	SAM	1707801-01	2500	8/1/2017 12:25:00	82419-1.RAW	12:26:00 PM	3755.58	3		3743.4	24.929	57522.771	ng/L	
Hg2600-2	DM2	SAM	1707801-02	2500	8/1/2017 12:30:09	82420-1.RAW	12:30:09 PM	4459.61	3		4447.5	27.242	68106.008	ng/L	
Hg2600-2	DM2	SAM	1707715-01B	100	8/1/2017 12:34:17	82421-1.RAW	12:34:17 PM	90.07	3		77.9	0.345	34.487	ng/L	
Hg2600-2	DM2	SAM	1707715-02B	100	8/1/2017 12:38:26	82422-1.RAW	12:38:28 PM	69.72	3		57.6	0.220	22.015	ng/L	
Hg2600-2	DM2	SAM	1707799-01B	100	8/1/2017 12:42:34	82423-1.RAW	12:42:34 PM	38.05	3		25.9	0.026	2.622	ng/L	
Hg2600-2	DM2	SAM	1707799-02B	100	8/1/2017 12:46:43	82424-1.RAW	12:46:43 PM	44.81	3		32.7	0.068	6.815	ng/L	
Hg2600-2	DM2	SAM	1707800-01B	100	8/1/2017 12:50:51	82425-1.RAW	12:50:51 PM	69.27	3		57.1	0.217	21.744	ng/L	
Hg2600-2	DM2	SAM	1707800-02B	100	8/1/2017 12:55:00	82426-1.RAW	12:55:00 PM	29.24	3		17.1	0.028	-2.781	ng/L	
Hg2600-2	DM2	SAM	1707801-01B	100	8/1/2017 12:59:08	82427-1.RAW	12:59:08 PM	89.90	3		77.7	0.344	34.381	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	8/1/2017 13:03:16	82428-1.RAW	1:03:16 PM	868.57			856.1	5.247	5.247	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	8/1/2017 13:07:25	82429-1.RAW	1:07:25 PM	77.38			15.2	0.093	0.093	ng/L	
Hg2600-2	DM2	SAM	1707801-02B	100	8/1/2017 13:11:33	82430-1.RAW	1:11:33 PM	69.16	3		57.0	0.217	21.674	ng/L	
Hg2600-2	DM2	SAM	1707800-01RE1	1000	8/1/2017 13:15:42	82431-1.RAW	1:15:42 PM	771.77	3		259.6	1.577	1577.287	ng/L	
Hg2600-2	DM2	SAM	1707800-02RE1	1000	8/1/2017 13:19:50	82432-1.RAW	1:19:50 PM	234.95	3		222.8	1.352	1351.742	ng/L	
Hg2600-2	DM2	SAM	1707801-01RE1	2500	8/1/2017 13:23:59	82433-1.RAW	1:23:59 PM	3658.11	3		3646.0	22.332	55829.850	ng/L	
Hg2600-2	DM2	SAM	1707801-02RE1	2500	8/1/2017 13:28:07	82434-1.RAW	1:28:07 PM	4263.76	3		4251.6	26.042	65106.180	ng/L	
Hg2600-2	DM2	SAM	1707715-01C	2500	8/1/2017 13:32:16	82435-1.RAW	1:32:16 PM	3732.26	3		3720.1	19.723	49307.240	ng/L	
Hg2600-2	DM2	SAM	1707715-02C	2500	8/1/2017 13:36:24	82436-1.RAW	1:36:24 PM	3256.40	3		3244.2	19.871	49677.015	ng/L	
Hg2600-2	DM2	SAM	1707799-01C	2500	8/1/2017 13:40:32	82437-1.RAW	1:40:32 PM	1744.71	3		1732.1	10.606	26515.681	ng/L	
Hg2600-2	DM2	SAM	1707799-02C	2500	8/1/2017 13:44:41	82438-1.RAW	1:44:41 PM	1655.37	3		1643.2	10.667	25154.930	ng/L	
Hg2600-2	DM2	SAM	1707800-01C	2500	8/1/2017 13:48:49	82439-1.RAW	1:48:49 PM	1548.50	3		1536.3	9.407	23518.054	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	8/1/2017 13:52:58	82440-1.RAW	1:52:58 PM	882.33			870.2	5.331	5.331	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	8/1/2017 13:57:06	82441-1.RAW	1:57:06 PM	42.65			30.5	0.187	0.187	ng/L	
Hg2600-2	DM2	SAM	1707540-02	1	8/1/2017 14:01:16	82442-1.RAW	2:01:15 PM	34.89	2		22.7	-0.042	0.042	ng/L	
Hg2600-2	DM2	SAM	1707800-02C	2500	8/1/2017 14:05:23	82443-1.RAW	2:05:23 PM	1674.60	3		1662.4	10.180	25449.527	ng/L	
Hg2600-2	DM2	SAM	1707801-01C	5000	8/1/2017 14:09:32	82444-1.RAW	2:09:32 PM	4793.75	3		4781.6	29.292	146460.674	ng/L	
Hg2600-2	DM2	SAM	1707801-02C	5000	8/1/2017 14:13:40	82445-1.RAW	2:13:40 PM	4632.88	3		4620.7	28.307	141533.038	ng/L	
Hg2600-2	DM2	SAM	F707561-DUP1	2500	8/1/2017 14:17:48	82446-1.RAW	2:17:48 PM	527.68	3		515.7	3.154	7885.858	ng/L	
Hg2600-2	DM2	SAM	F707561-MS1	2500	8/1/2017 14:21:57	82447-1.RAW	2:21:57 PM	2162.09	3		2149.9	13.166	32916.085	ng/L	
Hg2600-2	DM2	SAM	F707561-MSD1	2500	8/1/2017 14:26:05	82448-1.RAW	2:26:05 PM	2153.21	3		2141.1	13.112	32780.038	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	8/1/2017 14:30:14	82449-1.RAW	2:30:14 PM	526.45			914.3	5.601	5.601	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	8/1/2017 14:34:22	82450-1.RAW	2:34:22 PM	57.53			45.4	0.278	0.278	ng/L	

Sample/ID	Locator	Rinse	Drute	Blank	Conc (ppt)	M3%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (atf)	Flags	RunCount
Clean				0.00	0.00					82345-1.RAW	7:20:52	1583.75	Clean	OK	1
clean				0.00	0.04					82346-1.RAW	7:23:44	6.34	Clean	OK	1
ws				12.16	0.00					82347-1.RAW	7:27:52	11.50	Sample	OK	1
ws				12.16	0.02					82348-1.RAW	7:32:01	15.45	Sample	OK	1
ws				12.16	0.00					82349-1.RAW	7:36:09	9.00	Sample	OK	1
SEQ-BL1	A1		1	0.00	0.07					82350-1.RAW	7:40:17	11.60	Sample	OK	1
SEQ-BL2	A2		1	0.00	0.08					82351-1.RAW	7:44:26	12.25	Sample	OK	1
SEQ-BL3	A3		1	0.00	0.08					82352-1.RAW	7:48:34	12.62	Sample	OK	1
SEQ-CAL1	A4		1	12.16	0.52		104.74			82353-1.RAW	7:52:43	97.62	Sample	OK	1
SEQ-CAL2	A5		1	12.16	0.99		99.99			82354-1.RAW	7:56:51	173.84	Sample	OK	1
SEQ-CAL3	A6		1	12.16	4.82		96.34			82355-1.RAW	8:00:59	798.41	Sample	OK	1
SEQ-CAL4	A7		1	12.16	19.62		98.12			82356-1.RAW	8:05:08	3215.37	Sample	OK	1
SEQ-CAL5	A8		1	12.16	40.70		101.74			82357-1.RAW	8:09:10	6664.61	Sample	OK	1
SFQ-ICV1	A9		1	12.16	5.20		104.07			82358-1.RAW	8:13:25	601.53	Sample	OK	1
F707541-BLK1	A10		100	12.16	11.32					82359-1.RAW	8:17:33	30.64	Sample	OK	1
F707541-BLK2	A11		100	12.16	4.05					82360-1.RAW	8:21:42	18.76	Sample	OK	1
F707541-BLK3	A12		100	12.16	6.04					82361-1.RAW	8:25:50	22.01	Sample	OK	1
F707541-BS1	A13		400	12.16	2778.18					82362-1.RAW	8:29:58	800.87	Sample	OK	1
F707541-BSU1	A14		400	12.16	2720.97					82363-1.RAW	8:34:07	860.73	Sample	OK	1
1707699-C1	A15		100	12.16	876.03					82364-1.RAW	8:38:15	1442.00	Sample	OK	1
1707699-C2	A16		100	12.16	178.18					82365-1.RAW	8:42:24	302.89	Sample	OK	1
1707699-C3	A17		100	12.16	262.77					82366-1.RAW	8:46:32	411.05	Sample	OK	1
1707699-C4	A18		100	12.16	541.45					82367-1.RAW	8:50:40	895.92	Sample	OK	1
1707699-C6	A19		100	12.16	170.04					82368-1.RAW	8:54:49	289.71	Sample	OK	1
SFQ-CCV1	A20		1	12.16	5.16		103.77			82369-1.RAW	8:58:57	854.52	Sample	OK	1
SFQ-CCB1	A21		1	12.16	0.07		0.00			82370-1.RAW	9:03:06	22.93	Sample	OK	1
1707699-06	B1		100	12.16	188.71					82371-1.RAW	9:07:14	287.52	Sample	OK	1
1707699-07	B2		100	12.16	100.87					82372-1.RAW	9:11:23	176.79	Sample	OK	1
F707541-DUP1	B3		100	12.16	334.18					82373-1.RAW	9:15:31	1427.69	Sample	OK	1
F707541-MS1	B4		100	12.16	2995.86		549.27			82374-1.RAW	9:19:39	4902.13	Sample	OK	1
F707541-MSD1	D5		100	12.16	2951.01					82375-1.RAW	9:23:48	4828.89	Sample	OK	1
F708258-BLK1	B6		1	12.16	0.32					82376-1.RAW	9:27:57	84.98	Sample	OK	1
F708258-BLK2	B7		1	12.16	0.12					82377-1.RAW	9:32:05	32.53	Sample	OK	1
F708258-BLK3	B8		1	12.16	0.10					82378-1.RAW	9:36:14	27.73	Sample	OK	1
F708258-BS1	B9		1	12.16	15.70					82379-1.RAW	9:40:23	2574.48	Sample	OK	1
F708258-BSD1	B10		1	12.16	15.83					82380-1.RAW	9:44:31	2596.62	Sample	OK	1
SEQ-CCV2	B11		1	12.16	5.36		107.89			82381-1.RAW	9:48:40	892.63	Sample	OK	1
SEQ-CCB2	B12		1	12.16	0.15		0.00			82382-1.RAW	9:52:48	37.30	Sample	OK	1
1707371-02	B13		10	12.16	18.32					82383-1.RAW	9:56:57	278.40	Sample	OK	1
1707371-04	B14		10	12.16	44.13					82384-1.RAW	10:01:05	732.20	Sample	OK	1
1707371-06	D15		10	12.16	14.82					82385-1.RAW	10:05:13	254.02	Sample	OK	1
1707702-01	B15		1	12.16	0.92					82386-1.RAW	10:09:22	182.12	Sample	OK	1
1707703-01	B17		1	12.16	0.76					82387-1.RAW	10:13:30	135.80	Sample	OK	1
1707704-01	B18		1	12.16	0.33					82388-1.RAW	10:17:39	65.03	Sample	OK	1
1707704-02	B19		1	12.16	0.20					82389-1.RAW	10:21:47	44.18	Sample	OK	1
1707717-02	B20		10	12.16	50.03					82390-1.RAW	10:25:56	628.72	Sample	OK	1
1707717-04	E21		1	12.16	2.11					82391-1.RAW	10:30:04	555.52	Sample	OK	1
1707732-01	C1		1	12.16	0.09					82392-1.RAW	10:34:13	25.26	Sample	OK	1
SEQ-CCV3	C2		1	12.16	0.06		101.15			82393-1.RAW	10:38:21	637.68	Sample	OK	1
SEQ-CCB3	C3		1	12.16	0.09		0.00			82394-1.RAW	10:42:29	27.40	Sample	OK	1
1707732-02	C4		1	12.16	0.90					82395-1.RAW	10:46:38	645.19	Sample	OK	1
1707732-03	C5		1	12.16	4.00					82396-1.RAW	10:50:46	664.25	Sample	OK	1
1707732-04	C6		1	12.16	4.12					82397-1.RAW	10:54:55	685.04	Sample	OK	1
1707732-05	C7		1	12.16	0.09					82398-1.RAW	10:59:03	26.84	Sample	OK	1
F708258-DU1	C8		0	12.16	44.77					82399-1.RAW	11:03:12	734.75	Sample	OK	1
F708258-MS1	C9		0	12.16	240.15		530.48			82400-1.RAW	11:07:20	3931.92	Sample	OK	1
F708258-MSD1	C10		0	12.16	242.04					82401-1.RAW	11:11:29	3962.76	Sample	OK	1
F708258-MS2	C11		0	12.16	244.73		100.28			82402-1.RAW	11:15:37	4006.75	Sample	OK	1
F708258-MSD2	C12		10	12.16	253.10					82403-1.RAW	11:19:45	4143.38	Sample	OK	1
SEQ-CCV4	C13		1	12.16	5.72		114.83			82404-1.RAW	11:23:54	845.25	Sample	OK	1

SEQ-CCB4	C14	1	12.16	0.23	0.00	82405-1.RAW	11:28:02	49.24	Sample	OK	1
F707561-BLK1	C15	100	12.16	16.82		82406-1.RAW	11:32:11	39.61	Sample	OK	1
F707561-BLK2	C16	100	12.16	13.51		82407-1.RAW	11:36:19	34.21	Sample	OK	1
F707561-BLK3	C17	100	12.16	9.41		82408-1.RAW	11:40:28	27.52	Sample	OK	1
F707561-BS1	C18	400	12.16	1974.47		82409-1.RAW	11:44:36	817.85	Sample	OK	1
F707561-BS01	C19	400	12.16	1885.44		82410-1.RAW	11:48:44	781.52	Sample	OK	1
1707715-01	C20	2500	12.16	58236.24		82411-1.RAW	11:52:53	3614.36	Sample	OK	1
1707715-02	C21	2500	12.16	61106.80		82412-1.RAW	11:57:01	4001.78	Sample	OK	1
1707799-01	A1	2500	12.16	7512.26		82413-1.RAW	12:01:10	502.33	Sample	OK	1
1707799-02	A2	2500	12.16	3204.60		82414-1.RAW	12:05:18	417.25	Sample	OK	1
1707600-01	A3	2500	12.16	2044.69		82415-1.RAW	12:09:27	145.36	Sample	OK	1
SEQ-CCV5	A4	1	12.16	5.41	106.21	82416-1.RAW	12:13:35	895.30	Sample	OK	1
SEQ-CCB5	A5	1	12.16	0.14	0.00	82417-1.RAW	12:17:44	34.57	Sample	OK	1
1707800-02	A6	2500	12.16	1494.27		82418-1.RAW	12:21:52	109.72	Sample	OK	1
1707801-01	A7	2500	12.16	57336.02		82419-1.RAW	12:26:00	3755.58	Sample	OK	1
1707801-02	A8	2500	12.16	68119.26		82420-1.RAW	12:30:09	4456.61	Sample	OK	1
1707715-01B	A9	100	12.16	47.74		82421-1.RAW	12:34:17	90.07	Sample	OK	1
1707715-02B	A10	100	12.16	35.26		82422-1.RAW	12:38:26	66.72	Sample	OK	1
1707799-01B	A11	100	12.16	15.87		82423-1.RAW	12:42:34	38.06	Sample	OK	1
1707799-02B	A12	100	12.16	20.06		82424-1.RAW	12:46:43	44.91	Sample	OK	1
1707800-01B	A13	100	12.16	34.89		82425-1.RAW	12:50:51	69.27	Sample	OK	1
1707800-02B	A14	100	12.16	10.47		82426-1.RAW	12:55:00	29.24	Sample	OK	1
1707801-01B	A15	100	12.16	47.63		82427-1.RAW	12:59:08	89.90	Sample	OK	1
SEQ-CCV6	A16	1	12.16	5.25	104.94	82428-1.RAW	13:03:16	858.57	Sample	OK	1
SEQ-CCB6	A17	1	12.16	0.05	0.00	82429-1.RAW	13:07:25	27.98	Sample	OK	1
1707801-02D	A18	100	12.16	34.92		82430-1.RAW	13:11:33	69.16	Sample	OK	1
1707800-01RE1	A19	1000	12.16	1593.54		82431-1.RAW	13:15:42	271.77	Sample	OK	1
1707800-02RE1	A20	1000	12.16	1364.96		82432-1.RAW	13:19:50	234.65	Sample	OK	1
1707801-01RF1	A21	2500	12.16	56843.10		82433-1.RAW	13:23:59	3699.11	Sample	OK	1
1707801-02RF1	B1	2500	12.16	65119.43		82434-1.RAW	13:28:07	4283.76	Sample	OK	1
1707715-01C	B2	2500	12.16	48320.49		82435-1.RAW	13:32:16	3232.26	Sample	OK	1
1707715-02C	B3	2500	12.16	49699.26		82436-1.RAW	13:36:24	3253.40	Sample	OK	1
1707799-01C	B4	2500	12.16	26523.93		82437-1.RAW	13:40:32	1744.21	Sample	OK	1
1707799-02C	B5	2500	12.16	25169.78		82438-1.RAW	13:44:41	1655.37	Sample	OK	1
1707800-01C	B6	2500	12.16	23531.30		82439-1.RAW	13:48:49	1648.50	Sample	OK	1
SEQ-CCV7	B7	1	12.16	5.33	106.62	82440-1.RAW	13:52:58	882.33	Sample	OK	1
SEQ-CCB7	B8	1	12.16	0.19	0.00	82441-1.RAW	13:57:06	42.65	Sample	OK	1
1707540-02	B9	1	12.16	0.14		82442-1.RAW	14:01:15	34.89	Sample	OK	1
1707800-02C	B10	2500	12.16	25462.78		82443-1.RAW	14:05:23	1674.50	Sample	OK	1
1707801-01C	B11	5000	12.16	145473.92		82444-1.RAW	14:09:32	4793.75	Sample	OK	1
1707801-02C	B12	5000	12.16	141546.29		82445-1.RAW	14:13:40	4632.88	Sample	OK	1
F707561-DUP1	B13	2500	12.16	7896.11		82446-1.RAW	14:17:48	527.88	Sample	OK	1
F707561-MS1	B14	2500	12.16	32929.33	416.62	82447-1.RAW	14:21:57	2162.09	Sample	FB	1
F707561-MS11	B15	2500	12.16	32792.23		82448-1.RAW	14:26:05	2153.21	Sample	OK	1
SEQ-CCV8	B16	1	12.16	5.60	112.03	82449-1.RAW	14:30:14	926.45	Sample	OK	1
SEQ-CCB8	B17	1	12.16	0.23	0.00	82450-1.RAW	14:34:22	57.53	Sample	OK	1

**Failing Data Report - 7H01022**

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 Moxem*  
 Analyst Reviewed By

*8/1/17*  
 Date

*Becis*  
 Peer Reviewed By

*8/2/17*  
 Date

# Failing Data Report - 7H01023

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 Mason                      8/1/17  
 Analyst Reviewed By                      Date

[Signature]                      8/2/17  
 Peer Reviewed By                      Date

# Failing Data Report - 7H01024

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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Analyst Reviewed By Don M. Green

Date 8/1/17

Peer Reviewed By [Signature] Date 8/2/17

## ANALYSIS SEQUENCE

7H01022



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H01022-IBL1	QC	1			
7H01022-IBL2	QC	2			
7H01022-IBL3	QC	3			
7H01022-CAL1	QC	4	1704505		
7H01022-CAL2	QC	5	1704506		
7H01022-CAL3	QC	6	1704507		
7H01022-CAL4	QC	7	1704508		
7H01022-CAL5	QC	8	1704509		
7H01022-ICV1	QC	9	1703679		
7H01022-CCV1	QC	10	1703679		
7H01022-CCB1	QC	11			
F708258-BLK1	QC	12			
F708258-BLK2	QC	13			
F708258-BLK3	QC	14			
F708258-BS1	QC	15			
F708258-BSD1	QC	16			
7H01022-CCV2	QC	17	1703679		
7H01022-CCB2	QC	18			
1707371-02	Hg-CVAFS-W-1631	19			
1707371-04	Hg-CVAFS-W-1631	20			
1707371-06	Hg-CVAFS-W-1631	21			
1707702-01	Hg-CVAFS-W-1631	22			Scan all data - Level IV
1707703-01	Hg-CVAFS-W-1631	23			Scan all data - Level IV
1707704-01	Hg-CVAFS-W-1631	24			Scan all data - Level IV
1707704-02	Hg-CVAFS-W-1631	25			Scan all data - Level IV
1707717-02	Hg-CVAFS-W-1631	26			Scan Data for Level IV
1707717-04	Hg-CVAFS-W-1631	27			Scan Data for Level IV
1707732-01	Hg-CVAFS-W-1631	28			
7H01022-CCV3	QC	29	1703679		
7H01022-CCB3	QC	30			
1707732-02	Hg-CVAFS-W-1631	31			
1707732-03	Hg-CVAFS-W-1631	32			
1707732-04	Hg-CVAFS-W-1631	33			
1707732-05	Hg-CVAFS-W-1631	34			
F708258-DUP1	QC	35			

Due Date: 8/3/2017

**ANALYSIS SEQUENCE**

7H01022



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F708258-MS1	QC	36			
F708258-MSD1	QC	37			
F708258-MS2	QC	38			
F708258-MSD2	QC	39			
7H01022-CCV4	QC	40	1703679		
7H01022-CCB4	QC	41			
7H01022-CCV5	QC	42	1703679		
7H01022-CCB5	QC	43			
7H01022-CCV6	QC	44	1703679		
7H01022-CCB6	QC	45			
7H01022-CCV7	QC	46	1703679		
7H01022-CCB7	QC	47			
1707540-02	Hg-CVAFS-W-1631	48			
7H01022-CCV8	QC	49	1703679		
7H01022-CCB8	QC	50			

Don Moran                      8/1/17  
 Samples Loaded By                      Date

Don Moran                      8/2/17  
 Data Processed By                      Date



## ANALYSIS SEQUENCE

7H01022

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/1/2017

Lab Number	Analysis	Order	STD ID	ISID ID	Comments
7H01022-IBL1	QC	1			
7H01022-IBL2	QC	2			
7H01022-IBL3	QC	3			
7H01022-CAL1	QC	4	1704505		
7H01022-CAL2	QC	5	1704506		
7H01022-CAL3	QC	6	1704507		
7H01022-CAL4	QC	7	1704508		
7H01022-CAL5	QC	8	1704509		
7H01022-ICV1	QC	9	1703679		
F708258-BLK1	QC	10			
F708258-BLK2	QC	11			
F708258-BLK3	QC	12			
F708258-BS1	QC	13			
7H01022-CCV1	QC	14	1703679		
7H01022-CCB1	QC	15			
F708258-BSD1	QC	16			
1707371-02	Hg-CVAFS-W-1631	17			
1707371-04	Hg-CVAFS-W-1631	18			
1707371-06	Hg-CVAFS-W-1631	19			
1707702-01	Hg-CVAFS-W-1631	20			Scan all data - Level IV
1707703-01	Hg-CVAFS-W-1631	21			Scan all data - Level IV
1707704-01	Hg-CVAFS-W-1631	22			Scan all data - Level IV
1707704-02	Hg-CVAFS-W-1631	23			Scan all data - Level IV
1707717-02	Hg-CVAFS-W-1631	24			Scan Data for Level IV
1707717-04	Hg-CVAFS-W-1631	25			Scan Data for Level IV
7H01022-CCV2	QC	26	1703679		
7H01022-CCB2	QC	27			
1707732-01	Hg-CVAFS-W-1631	28			
1707732-02	Hg-CVAFS-W-1631	29			
1707732-03	Hg-CVAFS-W-1631	30			
1707732-04	Hg-CVAFS-W-1631	31			
1707732-05	Hg-CVAFS-W-1631	32			
F708258-DUP1	QC	33			
F708258-MS1	QC	34			
F708258-MSD1	QC	35			

Due Date: 8/3/2017

**ANALYSIS SEQUENCE**

**7H01022**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/1/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F708258-MS2	QC	36			
F708258-MSD2	QC	37			
7H01022-CCV3	QC	38	1703679		
7H01022-CCB3	QC	39			
7H01022-CCV4	QC	40	1703679		
7H01022-CCB4	QC	41			
7H01022-CCV5	QC	42	1703679		
7H01022-CCB5	QC	43			
7H01022-CCV6	QC	44	1703679		
7H01022-CCB6	QC	45			
7H01022-CCV7	QC	46	1703679		
7H01022-CCB7	QC	47			
1707540-02	Hg-CVAFS-W-1631	48			
7H01022-CCV8	QC	49	1703679		
7H01022-CCB8	QC	50			

Don M. Mason 8/1/17  
 Samples Loaded By                      Date

Don M. Mason 8/1/17  
 Data Processed By                      Date

BC  
 8/2/17



## ANALYSIS SEQUENCE

7H01024

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 8/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H01024-IBL1	QC	1			
7H01024-IBL2	QC	2			
7H01024-IBL3	QC	3			
7H01024-CAL1	QC	4	1704505		
7H01024-CAL2	QC	5	1704506		
7H01024-CAL3	QC	6	1704507		
7H01024-CAL4	QC	7	1704508		
7H01024-CAL5	QC	8	1704509		
7H01024-ICV1	QC	9	1703679		
7H01024-CCV1	QC	10	1703679		
7H01024-CCB1	QC	11			
7H01024-CCV2	QC	12	1703679		
7H01024-CCB2	QC	13			
7H01024-CCV3	QC	14	1703679		
7H01024-CCB3	QC	15			
7H01024-CCV4	QC	16	1703679		
7H01024-CCB4	QC	17			
F707561-BLK1	QC	18			
F707561-BLK2	QC	19			
F707561-BLK3	QC	20			
F707561-BS1	QC	21			
F707561-BSD1	QC	22			
1707715-01	Hg_FSTM_TRAP_A	23			
1707715-02	Hg_FSTM_TRAP_A	24			
1707799-01	Hg_FSTM_TRAP_A	25			AFS - Take photos of trap if heavy particulate present and send to PM
1707799-02	Hg_FSTM_TRAP_A	26			AFS - Take photos of trap if heavy particulate present and send to PM
1707800-01	Hg_FSTM_TRAP_A	27			AFS - Take photos of trap if heavy particulate present and send to PM
7H01024-CCV5	QC	28	1703679		
7H01024-CCB5	QC	29			
1707800-02	Hg_FSTM_TRAP_A	30			AFS - Take photos of trap if heavy particulate present and send to PM
1707801-01	Hg_FSTM_TRAP_A	31			
1707801-02	Hg_FSTM_TRAP_A	32			
7H01024-CCV6	QC	33	1703679		
7H01024-CCB6	QC	34			
1707800-01REF1	Hg_FSTM_TRAP_A	35			Added 8/1/2017 by DM2

Due Date: 8/3/2017



**PREPARATION BENCH SHEET**

F707561

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/31/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707561-BLK1	Blank	1	100					
F707561-BLK2	Blank	1	100					
F707561-BLK3	Blank	1	100					
F707561-BS1	LCS	1	100	1701763	200			
F707561-BSD1	LCS Dup	1	100	1701763	200			
F707561-DU.P1	Duplicate [1707799-01]	1	100					
F707561-MS1	Matrix Spike [1707799-01]	0.0002	0.02	1704422	50			[Spk] 1Trap->100mL; 20mL->20mL, Spiked 0.02mL
F707561-MSD1	Matrix Spike Dup [1707799-01]	0.0002	0.02	1704422	50			[Spk] 1Trap->100mL; 20mL->20mL, Spiked 0.02mL

<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	1702565	FSTM Lot 170426B	26-Apr-18 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-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	
			1704303	3% SnCl2 THg reductant	03-Jan-18 00:00
			1704418	5% BrCl	18-Dec-17 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704575	5% BrCl	18-Dec-17 00:00

**PREPARATION BENCH SHEET**

F707561

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/31/2017**

Lab Number	Sample ID	Initial (Trap)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707715-01	EFGS06573 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1876.71 L	
1707715-02	EFGS07671 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1877.57 L	
1707799-01	EFGS09124 31/32 TRAPA 7/21/17 - 7/24/17	1	100	-	-	-	1442.464 L AFS - Take photos of trap if	
1707799-02	EFGS09167 31/32 TRAP B 7/21/17 - 7/24/17	1	100	-	-	-	1235.578 L AFS - Take photos of trap if	
1707800-01	EFGS09161 Unit 31-2 Trap A 7/19/17 - 7/21/17	1	100	-	-	-	572.611 L AFS - Take photos of trap if	
1707800-01RE1	EFGS09161 Unit 31-2 Trap A 7/19/17 - 7/21/17	1	100	-	-	-	572.611 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2
1707800-02	EFGS09173 Unit 31-2 Trap B 7/19/17 - 7/21/17	1	100	-	-	-	525.234 L AFS - Take photos of trap if	
1707800-02RE1	EFGS09173 Unit 31-2 Trap B 7/19/17 - 7/21/17	1	100	-	-	-	525.234 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2
1707801-01	EFGS08834 Trap A	1	100	-	-	-	2867.47 L	
1707801-01RE1	EFGS08834 Trap A	1	100	-	-	-	2867.47 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2
1707801-02	EFGS08937 Trap B	1	100	-	-	-	2867.83 L	
1707801-02RE1	EFGS08937 Trap B	1	100	-	-	-	2867.83 L Added 8/1/2017 by DM2	Added 8/1/2017 by DM2

**PREPARATION BENCH SHEET**

F707541

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707541-BLK1	Blank	1	25					
F707541-BLK2	Blank	1	25					
F707541-BLK3	Blank	1	25					
F707541-BS1	LCS	1	25	1701763	50			
F707541-BSD1	LCS Dup	1	25	1701763	50			
F707541-DUP1	Duplicate [1707698-01]	1	25					
F707541-MS1	Matrix Spike [1707698-01]	0.02	0.5	1704422	100			[Spk] 1Trap->25mL; 25mL->25mL; Spiked 0.5mL
F707541-MSD1	Matrix Spike Dup [1707698-01]	0.02	0.5	1704422	100			[Spk] 1Trap->25mL; 25mL->25mL; 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>
1701763	THg 1,000ng/mL Secondary Spiking Standard	22-Sep-17 00:00	1702551	Boiling Chips for AFS prep	31-Dec-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703003	Omnitrace Hydrochloric Acid	16-May-20 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	
			1704303	3% SnCl2 THg reductant	03-Jan-18 00:00
			1704484	Fisher Nitric Acid, Tracemetal Grade	15-Mar-19 00:00



**PREPARATION BENCH SHEET**

F707541

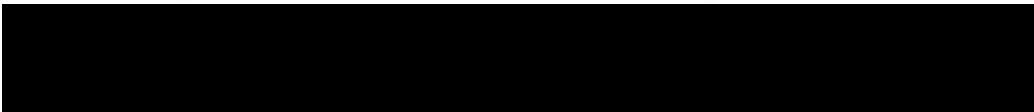
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/28/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707698-01	SID0126601	1	25	-	-	-	Sample Volume: 1.78 L	
1707698-02	SID0126602	1	25	-	-	-	Sample Volume: 1.82 L	
1707698-03	SID0126603	1	25	-	-	-	No Sample Volume Provided	
1707698-04	SID0126604	1	25	-	-	-	No Sample Volume Provided	
1707698-05	SID0126605	1	25	-	-	-	No Sample Volume Provided	
1707698-06	SID0126606	1	25	-	-	-	No Sample Volume Provided	
1707698-07	SID0126607	1	25	-	-	-	No Sample Volume Provided	



**PREPARATION BENCH SHEET**

F708258

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/1/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708258-BLK1	Blank	100	101					
F708258-BLK2	Blank	100	101					
F708258-BLK3	Blank	100	101					
F708258-BS1	LCS	50	50.5	1604715	100			
F708258-BSD1	LCS Dup	50	50.5	1604715	100			
F708258-DUP1	Duplicate [1707371-04]	100	101					
F708258-MS1	Matrix Spike [1707371-04]	4.950495	5	1704422	100			[Spk] 100mL->101mL, 101mL->101mL; Spiked 5mL
F708258-MS2	Matrix Spike [1707717-02]	4.950495	5	1704422	100			[Spk] 100mL->101mL, 101mL->101mL; Spiked 5mL
F708258-MSD1	Matrix Spike Dup [1707371-04]	4.950495	5	1704422	100			[Spk] 100mL->101mL, 101mL->101mL; Spiked 5mL
F708258-MSD2	Matrix Spike Dup [1707717-02]	4.950495	5	1704422	100			[Spk] 100mL->101mL, 101mL->101mL; Spiked 5mL

<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
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
			1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704303	3% SnCl2 THg reductant	03-Jan-18 00:00

**PREPARATION BENCH SHEET**

F708258

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 8/1/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707371-02	B172738 Salem MH (Background)	100	101	-	-	-		
1707371-04	B172740 Salem MH (Background)	100	101	-	-	-		
1707371-06	B172753 Salem MH (Background)	100	101	-	-	-		
1707540-02	Stream B/B1 - Blank	100	101	-	-	-		
1707702-01	EQ_072517_PONAR_QC	100	101	-	-	-	Scan all data - Level IV	
1707703-01	EQ_072517_TWEEZER_QC	100	101	-	-	-	Scan all data - Level IV	
1707704-01	EQ_072517_CSHOE_QC	100	101	-	-	-	Scan all data - Level IV	
1707704-02	EQ_072517_CORE_QC	100	101	-	-	-	Scan all data - Level IV	
1707717-02	B-172998 Plant Inf. (Hg) #17-10171	100	101	-	-	-	Scan Data for Level IV	
1707717-04	B-172980 Plant Eff. (Hg) #17-10173	100	101	-	-	-	Scan Data for Level IV	
1707732-01	P89218-1	100	101	-	-	-		
1707732-02	P89218-2	100	101	-	-	-		
1707732-03	P89218-6	100	101	-	-	-		
1707732-04	P89218-7	100	101	-	-	-		
1707732-05	P89218-8	100	101	-	-	-		

PREPARATION BENCH SHEET

F708258

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/1/2017



PREPARATION BENCH SHEET

200-2

8/1/17 DM

F707561

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/31/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707561-BLK1	Blank	1	100					100x
F707561-BLK2	Blank	1	100					100x
F707561-BLK3	Blank	1	100					100x
F707561-BS1	LCS	1	100	1701763	200			400x
F707561-BSD1	LCS Dup 1707799-01	1	100	1701763	200			400x
F707561-DUP1	Duplicate 170312-	1	100					2500x
F707561-MS1	Matrix Spike 1707799-01	1	100	1704422	50			2500x
F707561-MSD1	Matrix Spike Dup 1707799-01	1	100	1704422	50			2500x

<u>Standard ID(s):</u> 1701763	<u>Description:</u> TlHg 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
			1704418	5% BrCl	18-Dec-17 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704575	5% BrCl	18-Dec-17 00:00

1703182  
1703701  
1703702  
1704303

PREPARATION BENCH SHEET

20002  
3/1/17 2M

F707561

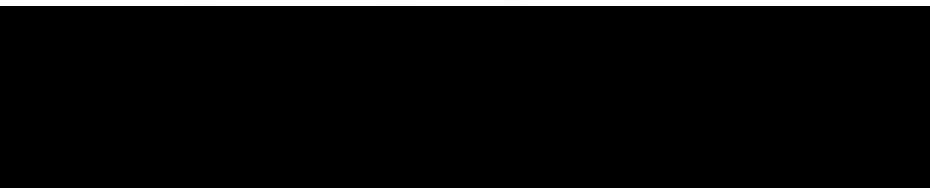
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/31/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments	C
1707715-01	EFGS06573 CO4 Stack Trap A	1	100	-	-	-	Sample Volume: 1876.71 L 2500X	100X	2500X
1707715-02	EFGS07671 CO4 Stack Trap B	1	100	-	-	-	Sample Volume: 1877.57 L 2500X	100X	2500X
1707799-01	EFGS09124 31/32 TRAP A 7/21/17 - 7/24/17	1	100	-	-	-	1442.464 L AFS - Take photos of trap ii 2500X	100X	2500X
1707799-02	EFGS09167 31/32 TRAP B 7/21/17 - 7/24/17	1	100	-	-	-	1235.578 L AFS - Take photos of trap ii 2500X	100X	2500X
1707800-01	EFGS09161 Unit 31-2 Trap A 7/19/17 - 7/21/17	1	100	-	-	-	572.611 L AFS - Take photos of trap if1 2500X → 1000X	100X	2500X
1707800-02	EFGS09173 Unit 31-2 Trap B 7/19/17 - 7/21/17	1	100	-	-	-	525.234 L AFS - Take photos of trap if1 2500X → 1000X	100X	2500X
1707801-01	EFGS08834 Trap A	1	100	-	-	-	2867.47 L 2500X → 1000X	100X	5000X
1707801-02	EFGS08937 Trap B	1	100	-	-	-	2867.83 L 2500X → 2500X	100X	5000X



### Trap Digestions

Name: CWF Date: 7/31/17 Batch ID: F707561

Work Order(s): 1707715, 1707799, 1707800 Analysis:  Total Hg  Other

Sample Matrix:  ASTM  KCl  PHg Plug  Other

Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)

start time: 15:30, start temp (°C): 56.0 (raw) 55.8 (w/ CF)

end time: 19:09, end temp (°C): 65.0 (raw) 54.8 (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)	
F707561	—	100	Blk 1
F707561	—	100	Blk 2
F707561	—	100	Blk 3
F707561	—	100	BS1
F707561	—	100	BSD1
1707715	—	100	01A
1707715	—	100	01B
1707715	—	100	01C
1707715	—	100	02A
1707715	—	100	02B
1707715	—	100	02C
1707799	—	100	01A
1707799	—	100	01B
1707799	—	100	01C
1707799	—	100	02A
1707799	—	100	02B
1707799	—	100	02C
1707800	—	100	01A
1707800	—	100	01B
1707800	—	100	01C
1707800	—	100	02A
1707800	—	100	02B
1707800	—	100	02C
1707801	—	100	01A
1707801	—	100	01B
1707801	—	100	01C
1707801	—	100	02A
1707801	—	100	02B
1707801	—	100	02C

Spike ID: 1701763

Spike Amount (µL): 200

Spike Witness: AMMS 7/31/17

BrCl ID: 1704575, 1704418

70/30: 1704571

Other: N/A

Thermometer: 14545

Dispensers: 02K27494

04N73497

Other 15406603

Pipette ID: MU11619

Cal. Date: 7/26/17

Vials and Jars lot# 00068335

Trap Material Lot#: 170296

Loader Mass Verified:  Yes  No

Note: Samples were left on hot plate over 2 hrs 8/1/17

Comments: 1707715 all c-beds spiked @ 5000 ng

1707799 and 1707800 on 11 c-beds spiked @ 2700 ng

1707801 all c-beds spiked @ 16,000 ng

CWF 7/31/17

Testlan liner for cap of 1707800-01C fell into replaced CWF 8/1/17

Traps were digested for 3.5 hours

PREPARATION BENCH SHEET

2600-2

F707541

8/1/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707541-BLK1	Blank	1	25					100X
F707541-BLK2	Blank	1	25					100X
F707541-BLK3	Blank	1	25					100X
F707541-BS1	LCS	1	25	1701763	50			400X
F707541-BSD1	LCS Dup	1	25	1701763	50			400X
F707541-DUP1	Duplicate 1707695-01	1	25					100X
F707541-MS1	Matrix Spike 1707695-01	1	25	1704422 1703422	100			100X
F707541-MSD1	Matrix Spike Dup 1707695-01	1	25	1704422 1703422	100			100X

Standard ID(s): 1701763  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 22-Sep-17 00:00

Reagent ID(s): 1702551  
1703003  
1704484

Description: Boiling Chips for AFS prep  
Omnitrace Hydrochloric Acid  
Fisher Nitric Acid, Tracemetal Grade

Expiration: 31-Dec-17 00:00  
16-May-20 00:00  
15-Mar-19 00:00

1704303  
1703182  
1703701  
1703702



PREPARATION BENCH SHEET

2600-2

8/1/17 DM

F707541

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707698-01	SID0126601	1	25	-	-	-	Sample Volume: 1.78 L	100X
1707698-02	SID0126602	1	25	-	-	-	Sample Volume: 1.82 L	100X
1707698-03	SID0126603	1	25	-	-	-	No Sample Volume Provided	100X
1707698-04	SID0126604	1	25	-	-	-	No Sample Volume Provided	100X
1707698-05	SID0126605	1	25	-	-	-	No Sample Volume Provided	100X
1707698-06	SID0126606	1	25	-	-	-	No Sample Volume Provided	100X
1707698-07	SID0126607	1	25	-	-	-	No Sample Volume Provided	100X



Trap Digestions

Name: AMB Date: 7/28/17 Batch ID: F707541  
 Work Order(s): 1707698 Analysis:  Total Hg  Other  
 Sample Matrix:  FSTM  KCl  PHg Plug  Other Sorbent badges  
 Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)

start time: N/A, start temp (°C): N/A (raw) N/A (w/ CF)  
 end time: N/A, end temp (°C): N/A (raw) N/A (w/ CF) Timer?  Yes  No

5% BrCl Oxidation (EFGS-031) start time: \_\_\_\_\_ (allow samples to sit for at least 4 hr before analysis)  
 Other 5mL HCl, 5mL HNO<sub>3</sub>, bring to vol. with 15 mL H<sub>2</sub>O.

AMB 7/28/17

Sample ID Number	Digest vol. (mL)
F707541-BLK1	25
F707541-BLK2	25
F707541-BLK3	25
F707541-BSI	25
F707541-BSDI	25
1707698-01	25
1707698-02	25
1707698-03	25
1707698-04	25
1707698-05	25
1707698-06	25
1707698-07	25

Spike ID: 1701703  
 Spike Amount (µL): 50  
 Spike Witness: AMB 7/28/17

AMB  
 7-28-17  
 AMB 70/30: HCl: 1703003  
 HNO<sub>3</sub>: 1704484  
 Other: N/A

Thermometer: N/A  
 Dispensers: 02K27494  AMB  
 04N73497  AMB  
 Other 09N45351  
 Other 08Y2293

Pipette ID: 0407852  
 Cal. Date: 7/28/17

Vials and Jars lot# 00068424  
 Trap Material Lot#: N/A  
 Loader Mass Verified:  Yes  No N/A  
 AMB 7/28/17

Comments:  
Boiling chips: 1702551  
AMB 7/28/17  
Brought up to volume by wF  
7/31/17  
Pipette = NU01049 wF 7/31/17  
Cal = 7/26/17

AMB 7/28/17

PREPARATION BENCH SHEET

F708258

Eurofins Frontier Global Sciences, Inc.

200-2  
8/1/17 DM

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/1/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708258-BLK1	Blank	100	101					ix
F708258-BLK2	Blank	100	101					ix
F708258-BLK3	Blank	100	101					ix
F708258-BS1	LCS	50 100	50.5 101	1204715	100			ix
F708258-BSD1	LCS Dup	50 100	50.5 101	1204715	100			ix
F708258-DUP1	Duplicate 1707371-04	100	101					10x
F708258-MS1	Matrix Spike 1707371-04	100	101	1704422	100			10x
F708258-MS2	Matrix Spike 1707117-02	100	101	1704422	100			10x
F708258-MSD1	Matrix Spike Dup 1707371-04	100	101	1704422	100			10x
F708258-MSD2	Matrix Spike Dup 1707117-02	100	101	1704422	100			10x

Standard ID(s): Description:

Expiration:

1703700  
1704423  
1703182  
1703701  
1703702

PREPARATION BENCH SHEET

2600-2

8/1/17 DM

F708258

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/1/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707371-02	B172738 Salem Mill (Background)	100	101	-	-	-		10X
1707371-04	B172740 Salem Mill (Background)	100	101	-	-	-		10X
1707371-06	B172753 Salem Mill (Background)	100	101	-	-	-		10X
1707702-01	EQ_072517_PONAR_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707703-01	EQ_072517_TWEEZER_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707704-01	EQ_072517_CSHOE_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707704-02	EQ_072517_CORE_QC	100	101	-	-	-	Scan all data - Level IV	1X
1707717-02	B-172998 Plant InE. (Hg) #17-10171	100	101	-	-	-	Scan Data for Level IV	10X
1707717-04	B-172980 Plant Eff. (Hg) #17-10173	100	101	-	-	-	Scan Data for Level IV	1X
1707732-01	P89218-1	100	101	-	-	-		1X
1707732-02	P89218-2	100	101	-	-	-		1X
1707732-03	P89218-6	100	101	-	-	-		1X
1707732-04	P89218-7	100	101	-	-	-		1X
1707732-05	P89218-8	100	101	-	-	-		1X

1707540-02 1X

**PREPARATION BENCH SHEET**

F708258

**Eurofins Frontier Global Sciences, Inc.**

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 8/1/2017



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: NW Date: 7/26/17 Time Completed: 1654

Work Orders: 1707695, 1707696  
1707702, 1707703, 1707704

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700

Pipette SN: 507631

Cal. Date: 7/19/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707695-01A	300	3.00	Y			
1707695-02A	300	3.00	Y			
1707695-03A	300	3.00	Y			
1707695-04A	300	3.00	Y			
1707695-05B	10	10	Y			
1707695-06A	300	3.00	Y			
1707696-01A	300	3.00	Y			
1707696-02A	300	3.00	Y			
1707696-03A	300	3.00	Y			
1707696-04A	300	3.00	Y			
1707696-05A	300	3.00	Y			
1707696-06A	300	3.00	Y			
1707702-01A	300	3.00	Y			
1707703-01A	300	3.00	Y			
1707704-01A	300	3.00	Y			
1707704-02A	300	3.00	Y			
NW 7/26/17						

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

Comments: \_\_\_\_\_

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: C58 Date: 7/27/17 Time Completed: 1615

Work Orders: 1707717  
1707732

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703705  
Pipette SN: 307631  
Cal. Date: 7/27/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707717-02A	300	3.00	y			
1707717-04A	300	3.00	y			
1707732-01B	300	3.00	y			
1707732-02B	300	3.00	y			
1707732-03B	300	3.00	y			
1707732-04B	300	3.00	y			
1707732-05B	300	3.00	y			
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>C58 7/27/17</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: \_\_\_\_\_

# Total Mercury Preservation Logbook

1707372

**Initial preservation and/or verification**

Technician: BW Date: 7/14/17 Time Completed: 1430

Work Orders: 1707367 1707371

1707368, 1707369, 1707370

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700

Pipette SN: 507631

Cal. Date: 7/19/17 7/12/17

BW 7/14/17

**Additional preservation (as needed)**

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707367-01A	290	2.90	Y			
1707367-02A	300	3.00	Y			
1707367-03A	300	3.00	Y			
1707368-01A	260	2.60	Y			
1707368-02A	300	3.00	Y			
1707368-03A	300	3.00	Y			
1707369-01A	280	2.80	Y			
1707369-02A	300	3.00	Y			
1707369-03A	300	3.00	Y			
1707370-01A	275	2.75	Y			
1707370-02A	300	3.00	Y			
1707370-03A	300	3.00	Y			
1707371-02A	300	3.00	Y			
1707371-04A	300	3.00	Y			
1707371-06A	300	3.00	Y			
1707372-02A	300	3.00	Y			
1707372-04A	300	3.00	Y			
1707372-06A	300	3.00	Y			
1707372-08A	300	3.00	Y			
1707372-10A	300	3.00	Y			
1707372-12A	300	3.00	Y			
1707372-14A	300	3.00	Y			
1707372-16A	300	3.00	Y			
<u>BW</u> <u>7/14/17</u>						

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

489/24/17 DM



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CSF Date: 7/21/17 Time Completed: 1324

Work Orders: 1707539  
1707540, 1707579

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700  
Pipette SN: J07631  
Cal. Date: 7/19/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
<u>1707539-02A</u> <small>CSF 7/21/17</small>	<u>150</u>	<u>1.50</u>	<u>y</u>			
<u>1707540-02A</u> <small>CSF 7/21/17</small>	<u>150</u>	<u>1.50</u>	<u>y</u>			
<u>1707578-01A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-02A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-03A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-04A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg);"></div> <p><u>CSF</u> <u>7/21/17</u></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: \_\_\_\_\_

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

Analyst:	DON MORAN	Sequence(s) #:	7H01022, 7H01023, 7H01024
Reviewer:	<i>[Signature]</i> 8/2/17	Dataset ID(s):	THG26002-170801-1
Date:	8/1/2017	WO (s) #:	VARIOUS
Batch #(s):	F707561, F707541, F708258		

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2865	FSTM Trap 70-30 Digest Air/Gas
<input type="checkbox"/> THg	FFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Sol
<input type="checkbox"/> THg	FFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest Sed/Sol
<input type="checkbox"/> THg	EFTM-T-IM-SOP2825	Nitric Acid Oven Bomb Sed/Sol
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2785	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: 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?<br>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<br>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 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?<br>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): <u>8/1/17</u>   | <input checked="" 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) #:	7H01022, 7H01023, 7H01024
Reviewer:	0 <i>[Signature]</i> 8/2/17	Dataset ID(s):	THG26002-170801-1
Date:	8/1/2017	WO (s) #:	VARIOUS
Batch #(s):	F707561, F707541, F708258		0

Analyst Initials DM

Reviewer Initials BC

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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 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: <b>NONE</b>  |  |  |   |                                     |
| 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)**

<b>Analyst:</b>	DOM MORAN	<b>Sequence(s) #:</b>	7H01022, 7H01023, 7H01024
<b>Reviewer:</b>	0 <i>BC</i> 8/2/17	<b>Dataset ID(s):</b>	THG26002-170801-1
<b>Date:</b>	8/1/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F707561, F707541, F708258		0

Analyst Initials DM

Reviewer Initials BC

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: \_\_\_\_\_ 12/15/2016 \_\_\_\_\_ IDOC/CDOC within last 12 months?  YES  NO
37. Date of analyst's SOP reading for method: \_\_\_\_\_ 5/20/2016 \_\_\_\_\_ Current SOP revision read?  YES  NO
38. Date of LOD: \_\_\_\_\_ 4/27/17, 4/26/17 \_\_\_\_\_ LOD within last 3 months?  YES  NO
39. Date of LOQ: \_\_\_\_\_ 4/27/17, 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

MHg27001-170817-1

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 17, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7H18012

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	22.31 units	446.29	22.31 units	446.29	98.4 %Rec
SEQ-CAL2	1	0.20 ng/L	84.83 units	424.16	84.83 units	424.16	93.5 %Rec
SEQ-CAL3	1	1.00 ng/L	489.83 units	489.83	489.83 units	489.83	107.9 %Rec
SEQ-CAL4	1	2.00 ng/L	890.79 units	445.40	890.79 units	445.40	98.2 %Rec
SEQ-CAL5	1	4.00 ng/L	1852.56 units	463.14	1852.56 units	463.14	102.1 %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  
 453.76            +/- 24.45            5.4% RSD            453.76

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	0.012 ng/L	±0.021
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: PL 8/18/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber						Batch ID	Correction?					
Hg2700-1	DM2	CAL	SEQ-1BL1	1	8/17/17 9:18	25080-1.RAW	9:18:16	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/17/17 9:28	25081-1.RAW	9:28:46	22.31			22.3	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/17/17 9:39	25082-1.RAW	9:39:17	89.83			89.8	0.187	0.187	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/17/17 9:49	25083-1.RAW	9:49:48	489.83			489.8	1.079	1.079	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/17/17 10:00	25084-1.RAW	10:00:18	890.79			890.8	1.963	1.963	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/17/17 10:10	25085-1.RAW	10:10:49	1852.56			1852.6	4.083	4.083	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV1	1	8/17/17 10:21	25086-1.RAW	10:21:20	223.21			223.2	0.492	0.492	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV1	1	8/17/17 10:31	25087-1.RAW	10:31:50	3.07			3.1	0.007	0.007	ng/L	
Hg2700-1	DM2	SAM	F708-16-RS1	1.000	8/17/17 10:42	25088-1.RAW	10:42:21	954.97		1	955.0	2.105	2104.539	ng/L	
Hg2700-1	DM2	SAM	F708-16-RSD1	1.000	8/17/17 11:00	25089-2.RAW	11:00:19	885.39		1	886.4	1.953	1953.910	ng/L	
Hg2700-1	DM2	BLK	F708-34-ULC1	1.25	8/17/17 11:10	25090-1.RAW	11:10:50	3.77		X	3.8	0.008	0.010	ng/L	
Hg2700-1	DM2	BLK	F708-34-BLQ2	1.25	8/17/17 11:21	25091-1.RAW	11:21:21	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708-34-BLQ3	1.25	8/17/17 11:31	25092-1.RAW	11:31:52	0.64		X	0.6	0.001	0.002	ng/L	
Hg2700-1	DM2	SAM	F708-34-RS	1.25	8/17/17 11:42	25093-1.RAW	11:42:22	341.02		X	341.0	0.752	0.939	ng/L	
Hg2700-1	DM2	SAM	F708-34-RSD1	1.25	8/17/17 11:52	25094-1.RAW	11:52:53	347.80		X	347.8	0.766	0.958	ng/L	
Hg2700-1	DM2	SAM	F708-34-DUP1	1.25	8/17/17 12:03	25095-1.RAW	12:03:24	1.89		X	1.9	0.004	0.005	ng/L	
Hg2700-1	DM2	SAM	F708-34-MS1	1.25	8/17/17 12:13	25096-1.RAW	12:13:54	626.72		X	626.7	1.361	1.726	ng/L	
Hg2700-1	DM2	SAM	F708-34-MSD1	1.25	8/17/17 12:24	25097-1.RAW	12:24:25	568.74		X	568.7	1.253	1.587	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV1	1	8/17/17 12:34	25098-1.RAW	12:34:56	221.11			221.1	0.487	0.487	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV1	1	8/17/17 12:45	25099-1.RAW	12:45:26	1.17			1.2	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	F708-34-MS2	1.25	8/17/17 12:55	25100-1.RAW	12:55:57	398.34		X	398.3	0.878	1.097	ng/L	
Hg2700-1	DM2	SAM	F708-34-MSD2	1.25	8/17/17 13:06	25101-1.RAW	13:06:28	385.87		X	385.9	0.850	1.053	ng/L	
Hg2700-1	DM2	SAM	1707702-01	1.25	8/17/17 13:16	25102-1.RAW	13:16:59	2.45		X	2.5	0.005	0.007	ng/L	
Hg2700-1	DM2	SAM	1707703-01	1.25	8/17/17 13:27	25103-1.RAW	13:27:29	4.71		X	4.7	0.010	0.013	ng/L	
Hg2700-1	DM2	SAM	1707704-01	1.25	8/17/17 13:38	25104-1.RAW	13:38:00	0.69		X	0.7	0.002	0.002	ng/L	
Hg2700-1	DM2	SAM	1707704-02	1.25	8/17/17 13:48	25105-1.RAW	13:48:31	0.97		X	1.0	0.002	0.003	ng/L	
Hg2700-1	DM2	SAM	1707732-01	1.25	8/17/17 13:59	25106-1.RAW	13:59:01	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707732-02	1.25	8/17/17 14:09	25107-1.RAW	14:09:32	254.35		X	254.4	0.561	0.701	ng/L	
Hg2700-1	DM2	SAM	1707732-03	1.25	8/17/17 14:20	25108-1.RAW	14:20:05	269.69		X	269.6	0.594	0.743	ng/L	
Hg2700-1	DM2	SAM	1707732-04	1.25	8/17/17 14:30	25109-1.RAW	14:30:33	241.49		X	241.5	0.537	0.655	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV2	1	8/17/17 14:41	25110-1.RAW	14:41:04	212.96			213.0	0.469	0.469	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV2	1	8/17/17 14:51	25111-1.RAW	14:51:35	1.57			1.6	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1707732-05	1.25	8/17/17 15:02	25112-1.RAW	15:02:06	0.00		X	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708082-01	1.25	8/17/17 15:12	25113-1.RAW	15:12:36	34.32		X	34.3	0.076	0.095	ng/L	
Hg2700-1	DM2	SAM	1708082-03	1.25	8/17/17 15:23	25114-1.RAW	15:23:07	47.57		X	47.6	0.103	0.131	ng/L	
Hg2700-1	DM2	SAM	1708082-04	1.25	8/17/17 15:33	25115-1.RAW	15:33:38	25.72		X	25.7	0.057	0.071	ng/L	
Hg2700-1	DM2	SAM	1708082-05	1.25	8/17/17 15:44	25116-1.RAW	15:44:08	17.48		X	17.5	0.039	0.048	ng/L	
Hg2700-1	DM2	SAM	1708082-07	1.25	8/17/17 15:54	25117-1.RAW	15:54:39	11.93		X	11.9	0.026	0.033	ng/L	
Hg2700-1	DM2	SAM	1708082-08	1.25	8/17/17 16:05	25118-1.RAW	16:05:10	16.26		X	16.3	0.036	0.045	ng/L	
Hg2700-1	DM2	SAM	1708150-01	1.25	8/17/17 16:15	25119-1.RAW	16:15:41	5.24		X	5.2	0.012	0.014	ng/L	
Hg2700-1	DM2	SAM	1708269-01	1.25	8/17/17 16:31	25120-1.RAW	16:31:15	33.55		X	33.6	0.074	0.092	ng/L	
Hg2700-1	DM2	SAM	1708269-02	1.25	8/17/17 16:41	25121-1.RAW	16:41:45	46.12		X	46.1	0.102	0.127	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV3	1	8/17/17 16:52	25122-1.RAW	16:52:15	212.08			212.1	0.467	0.467	ng/L	
Hg2700-1	DM2	CAL	SEQ-CV3	1	8/17/17 17:02	25123-1.RAW	17:02:47	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708269-03	1.25	8/17/17 17:13	25124-1.RAW	17:13:18	31.15		X	31.2	0.069	0.086	ng/L	
Hg2700-1	DM2	SAM	1708269-04	1.25	8/17/17 17:23	25125-1.RAW	17:23:48	44.28		X	44.3	0.098	0.122	ng/L	

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	BLK	F708415-BLK1	500	8/17/17 7:34	25125-1.RAW	17:34:16	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708415-BLK2	500	8/17/17 7:44	25127-1.RAW	17:44:50	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708415-BLK3	500	8/17/17 7:55	25128-1.RAW	17:55:20	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F708416-BLK4	500	8/17/17 18:05	25129-1.RAW	18:05:51	0.00	1		0.0	0.000	-0.012	ng/L	
Hg2700-1	DM2	SAM	*F708416-BLK5	500	8/17/17 18:16	25130-1.RAW	18:16:22	0.00	1		0.0	0.000	-0.012	ng/L	
Hg2700-1	DM2	SAM	F708415-DUP1	2500	8/17/17 18:26	25131-1.RAW	18:26:52	373.55	1		373.6	0.823	2058.082	ng/L	
Hg2700-1	DM2	SAM	F708416-MS1	2500	8/17/17 18:37	25132-1.RAW	18:37:23	460.93	1		460.9	1.615	2539.480	ng/L	
Hg2700-1	DM2	SAM	F708416-MSD1	2500	8/17/17 18:47	25133-1.RAW	18:47:54	522.36	1		522.4	1.451	2877.938	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/17/17 18:58	25134-1.RAW	18:58:25	224.38	1		224.4	0.494	0.494	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/17/17 19:08	25135-1.RAW	19:08:55	3.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F708416-MS2	2500	8/17/17 19:19	25136-1.RAW	19:19:26	433.04	1		433.0	0.968	2413.891	ng/L	
Hg2700-1	DM2	SAM	F708416-MSD2	2500	8/17/17 19:29	25137-1.RAW	19:29:57	475.99	1		477.0	1.051	2627.957	ng/L	
Hg2700-1	DM2	SAM	1707810-33	500	8/17/17 19:40	25138-1.RAW	19:40:27	20.98	1		21.0	0.045	23.101	ng/L	
Hg2700-1	DM2	SAM	1707810-31	500	8/17/17 19:50	25139-1.RAW	19:50:58	10.76	1		10.8	0.024	11.847	ng/L	
Hg2700-1	DM2	SAM	1707810-41	500	8/17/17 20:01	25140-1.RAW	20:01:29	55.17	1		55.2	0.122	60.774	ng/L	
Hg2700-1	DM2	SAM	1707810-45	500	8/17/17 20:11	25141-1.RAW	20:11:59	72.61	1		72.6	0.160	80.002	ng/L	
Hg2700-1	DM2	SAM	1707810-34	500	8/17/17 20:22	25142-1.RAW	20:22:30	24.25	1		24.3	0.053	26.712	ng/L	
Hg2700-1	DM2	SAM	1707810-55	500	8/17/17 20:33	25143-1.RAW	20:33:01	9.91	1		9.9	0.022	10.920	ng/L	
Hg2700-1	DM2	SAM	1708148-01	2500	8/17/17 20:43	25144-1.RAW	20:43:32	430.64	1		430.6	0.969	2372.566	ng/L	
Hg2700-1	DM2	SAM	1708148-02	2500	8/17/17 20:54	25145-1.RAW	20:54:02	1007.13	1		1007.1	2.220	5540.785	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/17/17 21:04	25146-1.RAW	21:04:33	241.4	1		241.4	0.532	0.532	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/17/17 21:15	25147-1.RAW	21:15:04	0.64	1		0.6	0.001	0.001	ng/L	
Hg2700-1	DM2	SAM	1708151-01	500	8/17/17 21:25	25148-1.RAW	21:25:34	121.83	1		121.8	0.268	134.227	ng/L	
Hg2700-1	DM2	SAM	1708151-02	500	8/17/17 21:36	25149-1.RAW	21:36:05	117.69	1		117.7	0.259	129.668	ng/L	
Hg2700-1	DM2	SAM	1708151-03	500	8/17/17 21:46	25150-1.RAW	21:46:35	57.70	1		57.7	0.127	60.506	ng/L	
Hg2700-1	DM2	SAM	1708156-01	500	8/17/17 21:57	25151-1.RAW	21:57:05	12.86	1		12.9	0.028	14.178	ng/L	
Hg2700-1	DM2	SAM	1708156-02	500	8/17/17 22:07	25152-1.RAW	22:07:37	12.73	1		12.7	0.028	14.011	ng/L	
Hg2700-1	DM2	SAM	1708156-03	500	8/17/17 22:18	25153-1.RAW	22:18:08	10.32	1		10.3	0.023	11.360	ng/L	
Hg2700-1	DM2	SAM	1708156-04	500	8/17/17 22:28	25154-1.RAW	22:28:39	48.48	1		48.5	0.107	53.411	ng/L	
Hg2700-1	DM2	SAM	1708156-05	500	8/17/17 22:39	25155-1.RAW	22:39:09	0.60	1		0.0	0.000	-0.012	ng/L	
Hg2700-1	DM2	SAM	1708156-06	500	8/17/17 22:49	25156-1.RAW	22:49:40	34.57	1		34.6	0.076	38.085	ng/L	
Hg2700-1	DM2	SAM	1708156-07	500	8/17/17 23:00	25157-1.RAW	23:00:11	67.30	1		67.3	0.148	74.143	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/17/17 23:10	25158-1.RAW	23:10:41	209.43	1		209.4	0.452	0.462	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/17/17 23:21	25159-1.RAW	23:21:12	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1708156-08	500	8/17/17 23:31	25160-1.RAW	23:31:43	12.38	1		12.4	0.027	13.633	ng/L	
Hg2700-1	DM2	SAM	1708367-01	2500	8/17/17 23:42	25161-1.RAW	23:42:13	469.16	1		469.2	1.034	2504.845	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV7	1	8/17/17 23:52	25162-1.RAW	23:52:44	218.88	1		218.9	0.482	0.482	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB7	1	8/17/17 0:03	25163-1.RAW	0:03:15	0.00	1		0.0	0.000	0.000	ng/L	



## ANALYSIS SEQUENCE

7H18012

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H18012-IBL1 ✓	QC	1			
7H18012-CAL1 ✓	QC	2	1704180 ✓		
7H18012-CAL2 ✓	QC	3	1704181 ✓		
7H18012-CAL3 ✓	QC	4	1704182 ✓		
7H18012-CAL4 ✓	QC	5	1704183 ✓		
7H18012-CAL5 ✓	QC	6	1704184 ✓		
7H18012-ICV1 ✓	QC	7	1703246 ✓		
7H18012-ICB1 ✓	QC	8			
F708416-BS1 ✓	QC	9			
F708416-BSD1 ✓	QC	10			
7H18012-CCV1 ✓	QC	11	1703246 ✓		
7H18012-CCB1 ✓	QC	12			
7H18012-CCV2 ✓	QC	13	1703246 ✓		
7H18012-CCB2 ✓	QC	14			
7H18012-CCV3 ✓	QC	15	1703246 ✓		
7H18012-CCB3 ✓	QC	16			
F708416-BLK1 ✓	QC	17			
F708416-BLK2 ✓	QC	18			
F708416-BLK3 ✓	QC	19			
F708416-BLK4 ✓	QC	20			
F708416-BLK5 ✓	QC	21			
F708416-DUP1 ✓	QC	22			
F708416-MS1 ✓	QC	23			
F708416-MSD1 ✓	QC	24			
7H18012-CCV4 ✓	QC	25	1703246 ✓		
7H18012-CCB4 ✓	QC	26			
F708416-MS2 ✓	QC	27			
F708416-MSD2 ✓	QC	28			
1707810-30 ✓	MHg-CVAFS-S-KOH	29			
1707810-31 ✓	MHg-CVAFS-S-KOH	30			
1707810-44 ✓	MHg-CVAFS-S-KOH	31			
1707810-45 ✓	MHg-CVAFS-S-KOH	32			
1707810-54 ✓	MHg-CVAFS-S-KOH	33			
1707810-55 ✓	MHg-CVAFS-S-KOH	34			
1708148-01 ✓	MHg-CVAFS-S-KOH	35			BatchQC

Due Date: 8/18/2017

57 of 170

Page 1 of 2

**ANALYSIS SEQUENCE**

**7H18012**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/17/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708148-01 ✓	MHg-CVAFS-T-KOH	36			
1708148-02 ✓	MHg-CVAFS-T-KOH	37			
7H18012-CCV5 ✓	QC	38	1703246		
7H18012-CCB5 ✓	QC	39			
1708151-01 ✓	MHg-CVAFS-S-KOH	40			
1708151-02 ✓	MHg-CVAFS-S-KOH	41			
1708151-03 ✓	MHg-CVAFS-S-KOH	42			
1708156-01 ✓	MHg-CVAFS-S-KOH	43			
1708156-02 ✓	MHg-CVAFS-S-KOH	44			
1708156-03 ✓	MHg-CVAFS-S-KOH	45			
1708156-04 ✓	MHg-CVAFS-S-KOH	46			
1708156-05 ✓	MHg-CVAFS-S-KOH	47			
1708156-06 ✓	MHg-CVAFS-S-KOH	48			
1708156-07 ✓	MHg-CVAFS-S-KOH	49			
7H18012-CCV6 ✓	QC	50	1703246		
7H18012-CCB6 ✓	QC	51			
1708156-08 ✓	MHg-CVAFS-S-KOH	52			
1708367-01 ✓	MHg-CVAFS-S-KOH	53			BatchQC
1708367-01 ✓	MHg-CVAFS-T-KOH	54			
7H18012-CCV7 ✓	QC	55	1703246		
7H18012-CCB7 ✓	QC	56			

Don Moore                      8/17/17  
 Samples Loaded By                      Date

Don Moore                      8/18/17  
 Data Processed By                      Date

**PREPARATION BENCH SHEET**

F708416

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol IIg Digestion**

**Prepared: 8/14/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708416-BLK1	Blank	0.5	20					
F708416-BLK2	Blank	0.5	20					
F708416-BLK3	Blank	0.5	20					
F708416-BLK4	Blank	0.293	20					Homogenization Pre Blank 1708148 + 1708367
F708416-BLK5	Blank	0.2741	20					Homogenization Post Blank 1708148 + 1708367
F708416-BS1	LCS	0.1685	20	1703305	168.5			
F708416-BSD1	LCS Dup	0.1363	20	1703305	136.3			
F708416-DUP1	Duplicate [1708148-01]	0.2651	20					
F708416-MS1	Matrix Spike [1708148-01]	0.2792	20	1605978	100			
F708416-MS2	Matrix Spike [1708367-01]	0.25	20	1605978	100			
F708416-MSD1	Matrix Spike Dup [1708148-01]	0.2721	20	1605978	100			
F708416-MSD2	Matrix Spike Dup [1708367-01]	0.2581	20	1605978	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1704399	Ethylating Agent (For Methyl Mercury Analysis)	16-Jan-18 00:00
1703305	DORM-4	29-May-20 00:00	1704707	Acetate Buffer	29-Jan-18 00:00
		29-May-20 00:00			

**PREPARATION BENCH SHEET**

F708416

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/14/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707810-30	BO-05_072517_SED_00-01	0.2541	20	-	-	-		
1707810-31	BO-05_072517_SED_01-03	0.2692	20	-	-	-		
1707810-44	W-21-UM-Central-E_072517_SED_00-01	0.2511	20	-	-	-		
1707810-45	W-21-UM-Central-E_072517_SED_01-03	0.2551	20	-	-	-		
1707810-54	W-65-Intertidal_072517_SED_00-01	0.2543	20	-	-	-		
1707810-55	W-65-Intertidal_072517_SED_01-03	0.2582	20	-	-	-		
1708148-01	170717-00814 NW 1033 912291 Canned Albacore Tuna FY17 M07	0.2724	20	-	-	-	BatchQC	Added for BatchQC in: F708416
1708148-02	170717-00816 SD 1022 912291 Canned Albacore Tuna FY17 M07	0.2523	20	-	-	-		
1708151-01	W-100-A_080117_SED_00-01	0.2941	20	-	-	-		
1708151-02	W-100-A_080117_SED_01-03	0.2651	20	-	-	-		
1708151-03	W-101-INTA_080117_SED_00-01	0.2744	20	-	-	-		
1708156-01	MM-MR_080117_SED_00-03_R1	0.2882	20	-	-	-		
1708156-02	MM-MR_080117_SED_00-03_R2	0.2913	20	-	-	-		
1708156-03	MM-MR_080117_SED_00-03_R3	0.2771	20	-	-	-		
1708156-04	ES-02_073117_SED_00-03	0.2592	20	-	-	-		
1708156-05	BO-04_080117_SED_00-03	0.2562	20	-	-	-		
1708156-06	OB-04_072717_SED_00-03	0.2742	20	-	-	-		
1708156-07	OB-05S_072717_SED_00-03	0.2503	20	-	-	-		
1708156-08	ES-04_072817_SED_00-03	0.2501	20	-	-	-		

PREPARATION BENCH SHEET

F708416

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

1708367-01	170717-00815 BA 146 912291 Canned Albacore Tuna FY17 M07	0.254	20	-	-	-	BatchQC	Added for BatchQC in: F708416
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PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708416

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708416-BLK1	Blank	0.5	20					500X
F708416-BLK2	Blank	0.5	20					500X
F708416-BLK3	Blank	0.5	20					500X
F708416-BLK4	Blank	0.293	20					Homogenization Pre Blank 1708148 + 1708367 500X
F708416-BLK5	Blank	0.2741	20					Homogenization Post Blank 1708148 + 1708367 500X
F708416-BS1	LCS	0.1685	20	1703305	168.5			1000X
F708416-BSD1	LCS Dup	0.1363	20	1703305	136.3			1000X
F708416-DUP1	Duplicate [1708148-01]	0.2651	20					2500X
F708416-MS1	Matrix Spike [1708148-01]	0.2792	20	1605978	100			2500X
F708416-MS2	Matrix Spike [1708367-01]	0.25	20	1605978	100			2500X
F708416-MSD1	Matrix Spike Dup [1708148-01]	0.2721	20	1605978	100			2500X
F708416-MSD2	Matrix Spike Dup [1708367-01]	0.2581	20	1605978	100			2500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

1704399  
1704757

PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708416

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707810-30	BO-05_072517_SED_00-01	0.2541	20	-	-	-		500X
1707810-31	BO-05_072517_SED_01-03	0.2692	20	-	-	-		500X
1707810-44	W-21-UM-Central-E_072517_SED_00-01	0.2511	20	-	-	-		500X
1707810-45	W-21-UM-Central-E_072517_SED_01-03	0.2551	20	-	-	-		500X
1707810-54	W-65-Intertidal_072517_SED_00-01	0.2543	20	-	-	-		500X
1707810-55	W-65-Intertidal_072517_SED_01-03	0.2582	20	-	-	-		500X
1708148-01	170717-00814 NW 1033 912291 Canned Albacore Tuna FY17 M07	0.2724	20	-	-	-	BatchQC	Added for BatchQC in: F708416 2500X
1708148-02	170717-00816 SD 1022 912291 Canned Albacore Tuna FY17 M07	0.2523	20	-	-	-		2500X
1708151-01	W-100-A_080117_SED_00-01	0.2941	20	-	-	-		500X
1708151-02	W-100-A_080117_SED_01-03	0.2651	20	-	-	-		500X
1708151-03	W-101-INTA_080117_SED_00-01	0.2744	20	-	-	-		500X
1708156-01	MM-MR_080117_SED_00-03_R1	0.2882	20	-	-	-		500X
1708156-02	MM-MR_080117_SED_00-03_R2	0.2913	20	-	-	-		500X
1708156-03	MM-MR_080117_SED_00-03_R3	0.2771	20	-	-	-		500X
1708156-04	ES-02_073117_SED_00-03	0.2592	20	-	-	-		500X
1708156-05	BO-04_080117_SED_00-03	0.2562	20	-	-	-		500X
1708156-06	OB-04_072717_SED_00-03	0.2742	20	-	-	-		500X
1708156-07	OB-05S_072717_SED_00-03	0.2503	20	-	-	-		500X
1708156-08	ES-04_072817_SED_00-03	0.2501	20	-	-	-		500X

PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708416

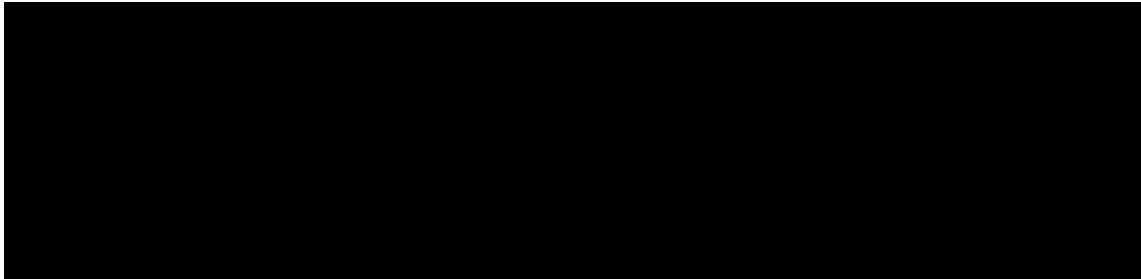
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/14/2017

1708367-01	170717-00815 BA 146 912291 Canned Albacore Tuna FY17 M07	0.254	20	-	-	-	BatchQC	Added for BatchQC in F708416 250X
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Technician: cwF

Batch#: F708416

Date: 8/14/17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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#: 1019 8/14/17 Calibrated?  Yes  No Therm.#: 14545 Vial Type:  Glass  Teflon  
 \*Time in: 13:00 Actual Temp. (raw): 77.0 °C w/ CF: 771 °C Calibrated?  Yes  No  
 Time out: 16:00 Actual Temp. (raw): 77.0 °C w/ CF: 771 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1806119 8/17) Spike vol.: 100 µL (LIMS ID: 1605178)  
 Spike Witness: DH 8/15/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 11000-NO NV 9083 Calibration Date: 8/10/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NW01152 Calibration Date: 8/15/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: KOH/methanol = 1704725 Dispenser #: N/A  
 Glass Vial # 0008824 Boiling Chip lot # 1704424 \*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	F708416 - BLK1	0.2998	23	1708156 - 04	0.2592	BS/BSD = 1708156
2	F708416 - BLK2	0.2942	24	1708156 - 05	0.2562	
3	F708416 - BLK3	0.2809	25	1708156 - 06	0.2742	LFMS/703305
4	F708416 - BSI	0.1685	26	1708156 - 07	0.2503	
5	F708416 - (BSD)	0.1363	27	1708156 - 08	0.2501	Comments
6	<del>F70780</del> 1707810-30	0.2541	28	1708367 - 01	0.2540	
7	1707810 - 31	0.2592	29	F708416 - BLK4	0.2930	DUP, MS1, MSD1 source = 1708148-01
8	1707810 - 44	0.2511	30	F708416 - BLK5	0.2741	
9	1707810 - 45	0.2551	31	F708416 - MSZ	0.2500	MSZ MSD2 source = 1708367-01
10	1707810 - 54	0.2543	32	F708416 - MSD2	0.2581	
11	1707810 - 55	0.2582	33			BLK4 is Nomeny Arc - blank
12	1708148 - 01	0.2724	34			
13	F708416 - DUP1	0.2651	35			BLK5 is Nomeny Arc - blank
14	F708416 - MS1	0.2792	36			
15	F708416 - MSD1	0.2721	37			cwF 8/15/17
16	1708148 - 02	0.2523	38			
17	1708151 - 01	0.2941	39			
18	1708151 - 02	0.2651	40			
19	1708151 - 03	0.2744	41			
20	1708156 - 01	0.2882	42			
21	1708156 - 02	0.2913	43			
22	1708156 - 03	0.2771	44			

**Failing Data Report - 7H18012**

Sample ID	Analysis	Result	MRI	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F708416-MS1	MHg-CVAFS-S-KOH ✓	181.9	9.0		174.2	35.852	ng/g	21.5	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD1	MHg-CVAFS-S-KOH ✓	211.5	9.2	181.9	174.2	36.788	ng/g	101	65.00	130.00	130	35.00	PASS-OVER	FAIL-MSD (RPD)	QR-078 8-15
F708416-MS2	MHg-CVAFS-S-KOH ✓	193.5	10.0		203.5	40.040	ng/g	-25.0	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD2	MHg-CVAFS-S-KOH ✓	203.6	9.7	193.5	203.5	38.783	ng/g	0.277	65.00	130.00	-204	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-02, QR-08
F708416-MS1	MHg-CVAFS-T-KOH ✓	181.9	9.0		174.2	35.852	ng/g	21.5	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD1	MHg-CVAFS-T-KOH ✓	211.5	9.2	181.9	174.2	36.788	ng/g	101	65.00	130.00	130	35.00	PASS-OVER	FAIL-MSD (RPD)	QR-08
F708416-MS2	MHg-CVAFS-T-KOH ✓	193.5	10.0		203.5	40.040	ng/g	-25.0	65.00	130.00			PASS-OVER	FAIL-MS	QM-02
F708416-MSD2	MHg-CVAFS-T-KOH ✓	203.6	9.7	193.5	203.5	38.783	ng/g	0.277	65.00	130.00	-204	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-02, QR-08

Don Moxem                      8/18/17  
 Analyst Reviewed By                      Date

[Signature]                      8/18/17  
 Peer Reviewed By                      Date



Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB			InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP	InitialResult			FinalResult
Hq2700-1	DM2	CAL	SEQ-1BL1	1	8/17/17 9:18	25080-1.RAW	9:18	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL1	1	8/17/17 9:28	25081-1.RAW	###	22.31			22.3	0.049	0.049	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL2	1	8/17/17 9:39	25082-1.RAW	###	81.83			81.8	0.187	0.187	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL3	1	8/17/17 9:49	25083-1.RAW	###	489.83			489.8	1.079	1.079	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL4	1	8/17/17 10:00	25084-1.RAW	###	890.79			890.8	1.963	1.963	ng/L	
Hq2700-1	DM2	CAL	SEQ-CAL5	1	8/17/17 10:10	25085-1.RAW	###	1852.56			1852.6	4.083	4.083	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	8/17/17 10:21	25086-1.RAW	###	223.21			223.2	0.492	0.492	ng/L	
Hq2700-1	DM2	CAL	SEQ-1CB1	1	8/17/17 10:31	25087-1.RAW	###	3.07			3.1	0.007	0.007	ng/L	
Hq2700-1	DM2	SAM	F708415-BS1	1000	8/17/17 10:42	25088-1.RAW	###	554.97		x	955.0	2.422	2421.803	ng/L	
Hq2700-1	DM2	SAM	F708415-RSD1	1000	8/17/17 11:00	25089-2.RAW	###	885.39		x	886.4	2.248	2247.897	ng/L	
Hq2700-1	DM2	BLK	F708434-BLK1	1.25	8/17/17 11:10	25090-1.RAW	###	3.77			3.8	0.010	0.010	ng/L	
Hq2700-1	DM2	BLK	F708434-BLK2	1.25	8/17/17 11:21	25091-1.RAW	###	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F708434-BLK3	1.25	8/17/17 11:31	25092-1.RAW	###	0.64			0.6	0.002	0.002	ng/L	
Hq2700-1	DM2	SAM	F708434-BS1	1.25	8/17/17 11:42	25093-1.RAW	###	341.02			341.0	0.851	1.076	ng/L	
Hq2700-1	DM2	SAM	F708434-RSD1	1.25	8/17/17 11:52	25094-1.RAW	###	347.80			347.8	0.878	1.098	ng/L	
Hq2700-1	DM2	SAM	F708434-DUP1	1.25	8/17/17 12:03	25095-1.RAW	###	1.89			1.9	0.001	0.001	ng/L	
Hq2700-1	DM2	SAM	F708434-MS1	1.25	8/17/17 12:13	25096-1.RAW	###	626.72			626.7	1.586	1.582	ng/L	
Hq2700-1	DM2	SAM	F708434-MSD1	1.25	8/17/17 12:24	25097-1.RAW	###	568.74			568.7	1.439	1.798	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV1	1	8/17/17 12:34	25098-1.RAW	###	221.11			221.1	0.487	0.487	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB1	1	8/17/17 12:45	25099-1.RAW	###	1.17			1.2	0.003	0.003	ng/L	
Hq2700-1	DM2	SAM	F708434-MS2	1.25	8/17/17 12:55	25100-1.RAW	###	398.34			398.3	1.006	1.258	ng/L	
Hq2700-1	DM2	SAM	F708434-MSD2	1.25	8/17/17 13:06	25101-1.RAW	###	385.87			385.9	0.975	1.219	ng/L	
Hq2700-1	DM2	SAM	1707702-01	1.25	8/17/17 13:16	25102-1.RAW	###	2.45			2.5	0.002	0.003	ng/L	
Hq2700-1	DM2	SAM	1707703-01	1.25	8/17/17 13:27	25103-1.RAW	###	4.71			4.7	0.008	0.010	ng/L	
Hq2700-1	DM2	SAM	1707704-01	1.25	8/17/17 13:38	25104-1.RAW	###	0.69			0.7	-0.002	-0.002	ng/L	
Hq2700-1	DM2	SAM	1707704-02	1.25	8/17/17 13:48	25105-1.RAW	###	0.97			1.0	0.001	0.002	ng/L	
Hq2700-1	DM2	SAM	1707732-01	1.25	8/17/17 13:59	25106-1.RAW	###	0.00			0.0	-0.004	-0.005	ng/L	
Hq2700-1	DM2	SAM	1707732-02	1.25	8/17/17 14:09	25107-1.RAW	###	254.39			254.4	0.541	0.802	ng/L	
Hq2700-1	DM2	SAM	1707732-03	1.25	8/17/17 14:20	25108-1.RAW	###	269.63			269.6	0.580	0.850	ng/L	
Hq2700-1	DM2	SAM	1707732-04	1.25	8/17/17 14:30	25109-1.RAW	###	241.49			241.5	0.509	0.761	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV2	1	8/17/17 14:41	25110-1.RAW	###	212.95			213.0	0.469	0.469	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB2	1	8/17/17 14:51	25111-1.RAW	###	1.57			1.6	0.003	0.003	ng/L	
Hq2700-1	DM2	SAM	1707732-05	1.25	8/17/17 15:02	25112-1.RAW	###	0.00			0.0	-0.004	-0.005	ng/L	
Hq2700-1	DM2	SAM	1708082-01	1.25	8/17/17 15:12	25113-1.RAW	###	34.32			34.3	0.083	0.104	ng/L	
Hq2700-1	DM2	SAM	1708082-02	1.25	8/17/17 15:23	25114-1.RAW	###	47.57			47.6	0.117	0.145	ng/L	
Hq2700-1	DM2	SAM	1708082-04	1.25	8/17/17 15:33	25115-1.RAW	###	25.72			25.7	0.061	0.077	ng/L	
Hq2700-1	DM2	SAM	1708082-05	1.25	8/17/17 15:44	25116-1.RAW	###	17.48			17.5	0.041	0.051	ng/L	
Hq2700-1	DM2	SAM	1708082-07	1.25	8/17/17 15:54	25117-1.RAW	###	11.92			11.9	0.026	0.033	ng/L	
Hq2700-1	DM2	SAM	1708082-08	1.25	8/17/17 16:05	25118-1.RAW	###	16.28			16.3	0.038	0.047	ng/L	
Hq2700-1	DM2	SAM	1708150-01	1.25	8/17/17 16:15	25119-1.RAW	###	5.24			5.2	0.010	0.012	ng/L	
Hq2700-1	DM2	SAM	1708269-01	1.25	8/17/17 16:31	25120-1.RAW	###	33.55			33.6	0.081	0.102	ng/L	
Hq2700-1	DM2	SAM	1708269-02	1.25	8/17/17 16:41	25121-1.RAW	###	46.12			46.1	0.113	0.142	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV3	1	8/17/17 16:52	25122-1.RAW	###	212.08			212.1	0.467	0.467	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB3	1	8/17/17 17:02	25123-1.RAW	###	0.00			0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1708269-03	1.25	8/17/17 17:13	25124-1.RAW	###	31.15			31.2	0.075	0.094	ng/L	
Hq2700-1	DM2	SAM	1708269-04	1.25	8/17/17 17:23	25125-1.RAW	###	44.28			44.3	0.109	0.136	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB			InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP	InitialResult			FinalResult
Hq2700-1	DM2	BLK	F708416-BLK1	500	8/17/17 17:34	25126-1.RAW	#####	0.03		X	0.0	0.000	0.042	ng/L	
Hq2700-1	DM2	BLK	F708416-BLK2	500	8/17/17 17:44	25127-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	BLK	F708416-BLK3	500	8/17/17 17:55	25128-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	*F708416-BLK4	500	8/17/17 18:05	25129-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	*F708416-BLK5	500	8/17/17 18:16	25130-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F708416-DUP1	2500	8/17/17 18:26	25131-1.RAW	#####	373.55		X	373.6	0.347	2366.348	ng/L	
Hq2700-1	DM2	SAM	F706416-M51	2500	8/17/17 18:37	25132-1.RAW	#####	460.93		X	460.9	1.169	2922.325	ng/L	
Hq2700-1	DM2	SAM	F708416-M5D1	2500	8/17/17 18:47	25133-1.RAW	#####	522.36		X	522.4	1.325	3311.795	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV4	1	8/17/17 18:58	25134-1.RAW	#####	224.38		X	224.4	0.494	0.494	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB4	1	8/17/17 19:08	25135-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	F708416-M52	2500	8/17/17 19:19	25136-1.RAW	#####	439.04		X	439.0	1.113	2763.548	ng/L	
Hq2700-1	DM2	SAM	F708416-M5D2	2500	8/17/17 19:29	25137-1.RAW	#####	476.99		X	477.0	1.210	3024.130	ng/L	
Hq2700-1	DM2	SAM	1707810-30	500	8/17/17 19:40	25138-1.RAW	#####	20.98		X	21.0	0.053	26.597	ng/L	
Hq2700-1	DM2	SAM	1707810-31	500	8/17/17 19:50	25139-1.RAW	#####	10.76		X	10.8	0.027	13.542	ng/L	
Hq2700-1	DM2	SAM	1707810-44	500	8/17/17 20:01	25140-1.RAW	#####	55.17		X	55.2	0.140	69.950	ng/L	
Hq2700-1	DM2	SAM	1707810-45	500	8/17/17 20:11	25141-1.RAW	#####	72.61		X	72.6	0.184	92.076	ng/L	
Hq2700-1	DM2	SAM	1707810-54	500	8/17/17 20:22	25142-1.RAW	#####	24.25		X	24.3	0.062	30.753	ng/L	
Hq2700-1	DM2	SAM	1707810-55	500	8/17/17 20:33	25143-1.RAW	#####	9.91		X	9.9	0.025	12.559	ng/L	
Hq2700-1	DM2	SAM	1708148-01	2500	8/17/17 20:43	25144-1.RAW	#####	430.64		X	430.6	1.092	2730.244	ng/L	
Hq2700-1	DM2	SAM	1708148-02	2500	8/17/17 20:54	25145-1.RAW	#####	1007.13		X	1007.1	2.554	6385.267	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV5	1	8/17/17 21:04	25146-1.RAW	#####	241.42		X	241.4	0.532	0.532	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB5	1	8/17/17 21:15	25147-1.RAW	#####	0.64		X	0.6	0.001	0.001	ng/L	
Hq2700-1	DM2	SAM	1708151-01	500	8/17/17 21:25	25148-1.RAW	#####	121.83		X	121.8	0.309	154.476	ng/L	
Hq2700-1	DM2	SAM	1708151-02	500	8/17/17 21:36	25149-1.RAW	#####	117.69		X	117.7	0.290	149.229	ng/L	
Hq2700-1	DM2	SAM	1708151-33	500	8/17/17 21:46	25150-1.RAW	#####	57.70		X	57.7	0.146	73.153	ng/L	
Hq2700-1	DM2	SAM	1708156-01	500	8/17/17 21:57	25151-1.RAW	#####	12.68		X	12.9	0.033	16.329	ng/L	
Hq2700-1	DM2	SAM	1708156-02	500	8/17/17 22:07	25152-1.RAW	#####	12.73		X	12.7	0.032	16.138	ng/L	
Hq2700-1	DM2	SAM	1708156-03	500	8/17/17 22:18	25153-1.RAW	#####	10.32		X	10.3	0.026	13.087	ng/L	
Hq2700-1	DM2	SAM	1708156-04	500	8/17/17 22:28	25154-1.RAW	#####	48.48		X	48.5	0.123	61.477	ng/L	
Hq2700-1	DM2	SAM	1708156-05	500	8/17/17 22:39	25155-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1708156-06	500	8/17/17 22:49	25156-1.RAW	#####	34.57		X	34.6	0.088	43.840	ng/L	
Hq2700-1	DM2	SAM	1708156-07	500	8/17/17 23:00	25157-1.RAW	#####	67.30		X	67.3	0.171	85.334	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV6	1	8/17/17 23:10	25158-1.RAW	#####	209.43		X	209.4	0.462	0.462	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB6	1	8/17/17 23:21	25159-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	
Hq2700-1	DM2	SAM	1708156-08	500	8/17/17 23:31	25160-1.RAW	#####	12.38		X	12.4	0.031	15.702	ng/L	
Hq2700-1	DM2	SAM	1708367-01	2500	8/17/17 23:42	25161-1.RAW	#####	469.15		X	469.2	1.190	2974.519	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCV7	1	8/17/17 23:52	25162-1.RAW	#####	218.88		X	218.9	0.482	0.482	ng/L	
Hq2700-1	DM2	CAL	SEQ-CCB7	1	8/17/17 00:03	25163-1.RAW	#####	0.00		X	0.0	0.000	0.000	ng/L	

**ANALYSIS SEQUENCE**

**7H18015**

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H18015-IBL1 ✓	QC	1			
7H18015-CAL1 ✓	QC	2	1704180 ✓		
7H18015-CAL2 ✓	QC	3	1704181 ✓		
7H18015-CAL3 ✓	QC	4	1704182 ✓		
7H18015-CAL4 ✓	QC	5	1704183 ✓		
7H18015-CAL5 ✓	QC	6	1704184 ✓		
7H18015-ICV1 ✓	QC	7	1703246 ✓		
7H18015-ICB1 ✓	QC	8			
F708434-BLK1 ✓	QC	9			
F708434-BLK2 ✓	QC	10			
F708434-BLK3 ✓	QC	11			
F708434-BS1 ✓	QC	12			
F708434-BSD1 ✓	QC	13			
F708434-DUP1 ✓	QC	14			
F708434-MS1 ✓	QC	15			
F708434-MSD1 ✓	QC	16			
7H18015-CCV1 ✓	QC	17	1703246 ✓		
7H18015-CCB1 ✓	QC	18			
F708434-MS2 ✓	QC	19			
F708434-MSD2 ✓	QC	20			
1707702-01 ✓	MIHg-CVAFS-W-Dist	21			Scan all data - Level IV
1707703-01 ✓	MHg-CVAFS-W-Dist	22			Scan all data - Level IV
1707704-01 ✓	MHg-CVAFS-W-Dist	23			Scan all data - Level IV
1707704-02 ✓	MHg-CVAFS-W-Dist	24			Scan all data - Level IV
1707732-01 ✓	MHg-CVAFS-W-Dist	25			
1707732-02 ✓	MIHg-CVAFS-W-Dist	26			
1707732-03 ✓	MHg-CVAFS-W-Dist	27			
1707732-04 ✓	MHg-CVAFS-W-Dist	28			
7H18015-CCV2 ✓	QC	29	1703246 ✓		
7H18015-CCB2 ✓	QC	30			
1707732-05 ✓	MIHg-CVAFS-W-Dist	31			
1708082-01 ✓	MHg-CVAFS-W-Dist	32			Scan all data for level IV report
1708082-03 ✓	MHg-CVAFS-W-Dist	33			Scan all data for level IV report
1708082-04 ✓	MHg-CVAFS-W-Dist	34			Scan all data for level IV report
1708082-05 ✓	MHg-CVAFS-W-Dist	35			Scan all data for level IV report

Due Date: 8/18/2017

**ANALYSIS SEQUENCE**

**7H18015**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/17/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1708082-07 ✓	MHg-CVAFS-W-Dist	36			Scan all data for level IV report
1708082-08 ✓	MHg-CVAFS-W-Dist	37			Scan all data for level IV report
1708150-01 ✓	MHg-CVAFS-W-Dist	38			
1708269-01 ✓	MHg-CVAFS-W-Dist	39			Scan all data for level IV report
1708269-02 ✓	MHg-CVAFS-W-Dist	40			Scan all data for level IV report
7H18015-CCV3 ✓	QC	41	1703246 ✓		
7H18015-CCB3 ✓	QC	42			
1708269-03 ✓	MHg-CVAFS-W-Dist	43			Scan all data for level IV report
1708269-04 ✓	MHg-CVAFS-W-Dist	44			Scan all data for level IV report
7H18015-CCV4 ✓	QC	45	1703246 ✓		
7H18015-CCB4 ✓	QC	46			

Don Moxem      8/17/17  
 Samples Loaded By                      Date

Don Moxem      8/18/17  
 Data Processed By                      Date

**PREPARATION BENCH SHEET**

F708434

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 8/16/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F708434-BLK1	Blank	45	40					
F708434-BLK2	Blank	45	40					
F708434-BLK3	Blank	45	40					
F708434-BS1	Blank Spike	45	40	1704143	45			
F708434-BSD1	Blank Spike dup	45	40	1704143	45			
F708434-DUP1	Duplicate [1707704-01]	45	40					
F708434-MS1	Matrix Spike [1707732-02]	45	40	1704143	45			
F708434-MS2	Matrix Spike [1708082-01]	45	40	1704143	45			
F708434-MSD1	Matrix Spike Dup [1707732-02]	45	40	1704143	45			
F708434-MSD2	Matrix Spike Dup [1708082-01]	45	40	1704143	45			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704143	MIHg New Primary 1.0 ng/mL CAL	10-Oct-17 00:00	1704399	Ethylating Agent (For Methyl Mercury Analysis)	16-Jan-18 00:00
			1704707	Acetate Buffer	29-Jan-18 00:00
			1704976	APDC	03-Sep-17 00:00
			1704978	0.4% HCl Distillation Dilute (Made Daily)	17-Aug-17 00:00
			1705016	2.5% Ascorbic Acid	24-Aug-17 00:00



**PREPARATION BENCH SHEET**

F708434

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water**

**Prepared: 8/16/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707702-01	FQ_072517_PONAR_QC	45	40	-	-	-	Scan all data - Level IV	
1707703-01	EQ_072517_TWEEZER_QC	45	40	-	-	-	Scan all data - Level IV	
1707704-01	EQ_072517_CSHOE_QC	45	40	-	-	-	Scan all data - Level IV	
1707704-02	EQ_072517_CORE_QC	45	40	-	-	-	Scan all data - Level IV	
1707732-01	P89218-1	45	40	-	-	-		
1707732-02	P89218-2	45	40	-	-	-		
1707732-03	P89218-6	45	40	-	-	-		
1707732-04	P89218-7	45	40	-	-	-		
1707732-05	P89218-8	45	40	-	-	-		
1708082-01	OL-2637-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-03	OL-2637-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-04	OL-2637-03	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-05	OL-2637-04	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-07	OL-2637-05	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708082-08	OL-2637-06	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708150-01	Sewer_Comp1	45	40	-	-	-		
1708269-01	OL-2642-01	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708269-02	OL-2642-02	45	40	-	-	-	Preservation Blank Created Scan all dat	
1708269-03	OL-2642-03	45	40	-	-	-	Preservation Blank Created Scan all dat	

PREPARATION BENCH SHEET

F708434

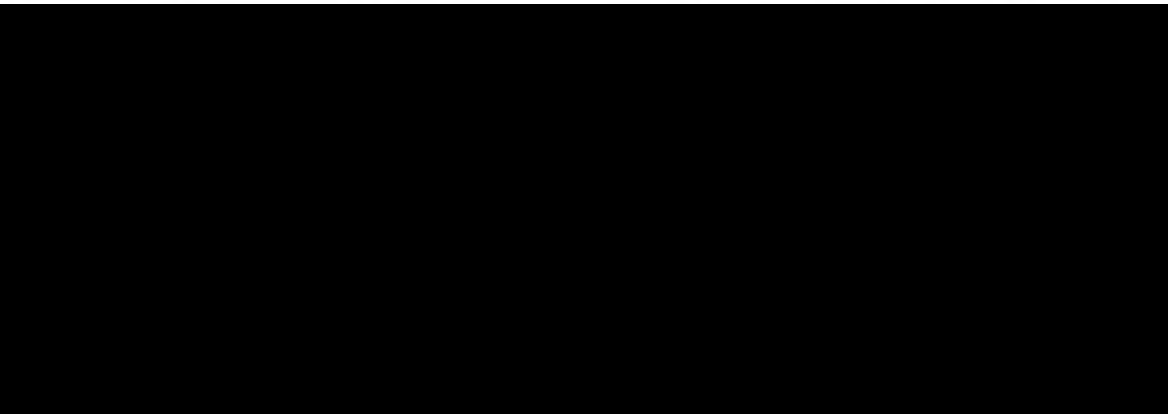
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/16/2017

1708269-04	OL-2642-04	45	40	-	-	-	Preservation Blank Created Scan all dat
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PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F708434

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/16/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F708434-BLK1	Blank	45	40					1.25X
F708434-BLK2	Blank	45	40					1.25X
F708434-BLK3	Blank	45	40					1.25X
F708434-BS1	Blank Spike	45	40	1704143	45			1.25X
F708434-BSD1	Blank Spike dup	45	40	1704143	45			1.25X
F708434-DUP1	Duplicate [1707704-01]	45	40					1.25X
F708434-MS1	Matrix Spike [1707732-02]	45	40	1704143	45			1.25X
F708434-MS2	Matrix Spike [1708082-01]	45	40	1704143	45			1.25X
F708434-MSD1	Matrix Spike Dup [1707732-02]	45	40	1704143	45			1.25X
F708434-MSD2	Matrix Spike Dup [1708082-01]	45	40	1704143	45			1.25X

Standard ID(s):  
1704143

Description:  
MHg New Primary 1.0 ng/mL CAL

Expiration:  
10-Oct-17 00:00

Reagent ID(s):  
1704976  
1704978

Description:  
APDC  
0.4% HCl Distillation Dilute (Made Daily)

Expiration:  
03-Sep-17 00:00  
17-Aug-17 00:00

1705014  
1704309  
1704707

PREPARATION BENCH SHEET

F708434

Eurofins Frontier Global Sciences, Inc.

2700-1  
8/17/17 DM

Matrix: Water

Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/16/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707702-01	EQ_072517_PONAR_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707703-01	EQ_072517_TWEEZER_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707704-01	EQ_072517_CSHOE_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707704-02	EQ_072517_CORE_QC	45	40	-	-	-	Scan all data - Level IV	1.25X
1707732-01	P89218-1	45	40	-	-	-		1.25X
1707732-02	P89218-2	45	40	-	-	-		1.25X
1707732-03	P89218-6	45	40	-	-	-		1.25X
1707732-04	P89218-7	45	40	-	-	-		1.25X
1707732-05	P89218-8	45	40	-	-	-		1.25X
1708082-01	OL-2637-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-03	OL-2637-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-04	OL-2637-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-05	OL-2637-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-07	OL-2637-05	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708082-08	OL-2637-06	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708150-01	Sewer_Comp1	45	40	-	-	-		1.25X
1708269-01	OL-2642-01	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708269-02	OL-2642-02	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
1708269-03	OL-2642-03	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X

PREPARATION BENCH SHEET

2200-1  
8/17/17 DM

F708434

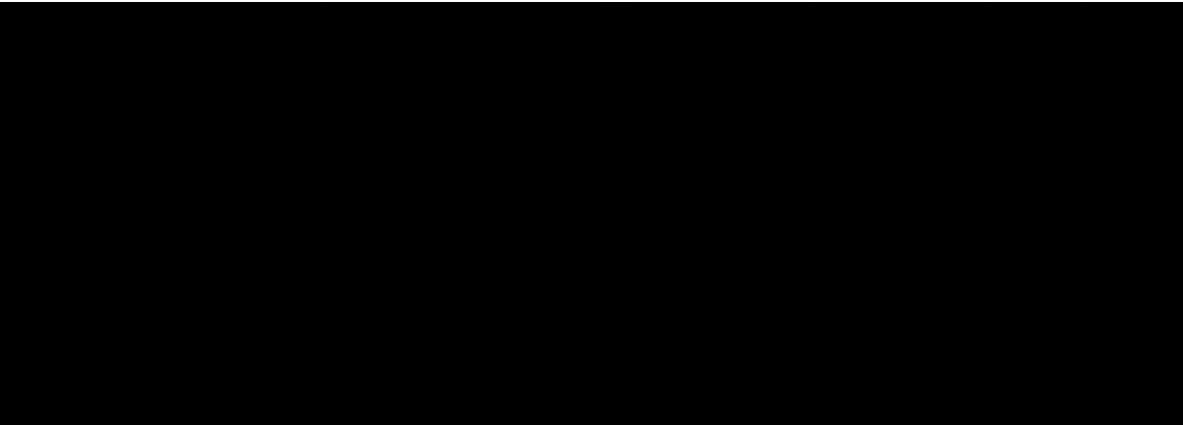
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EFGS-013 Methyl Hg Distillation for Water

Prepared: 8/16/2017

1708269-04	OL-2642-04	45	40	-	-	-	Preservation Blank Created Scan all dat	1.25X
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Methyl Mercury Distillations (EPA 1630)

Name: Duyen Date: 8/16/17 Batch #: F708434 Sample Matrix: Water  
 WO#: 1707702, 1707703, 1707704, 1707732, 1708082, 1708150, 1708269

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)	
Blk1	F708434 Blk1	1.0	45	3.0	Spike ID: <u>1704143</u> Spike Amount: <u>45</u> µL Spike Witness: <u>DAC 8-16-17</u> Balance #: <u>2</u> Calibrated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Pipette #: <u>MW09653</u> Cal. Date: <u>8-10-17</u> Pipette #: <u>MW09643</u> Cal. Date: <u>8/16/17</u> Pipette #: <u>N/A</u> Cal. Date: <u>N/A</u> APDC ID: <u>1704976</u> HCl ID: <u>1704978</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>120.5</u> Unit 2: <u>122.0</u> Unit 3: <u>120.6</u> Unit 4: <u>120.4</u> Unit 5: <u>122.0</u> Unit 6: <u>122.0</u> Time First samples is OFF 13:15 Comments: <u>F708424 Source dupl 1707704-01</u> <u>F708424 MS1 MS01</u> <u>1707732-02 8/16/17</u> <u>F708424 MS2 MS02</u> <u>1708082-01</u> <u>8/16/17 1708082-01</u>
Blk2	F708434 Blk2	1.0	45	3.0	
Blk3	F708434 Blk3	1.0	45	3.0	
BS1	F708434 BS1	1.0	45	3.0	
BS01	F708434 BS01	1.0	45	3.0	
Dup1	F708434 Dup1	1.0	45	4.0	
MS1	F708434 MS1	1.0	45	4.0	
MS01	F708434 MS01	1.0	45	4.0	
MS2	F708434 MS2	1.0	45	3.0	
MS02	F708434 MS02	1.0	45	3.0	
1	1707702-01B	1.0	45	4.0	
2	1707703-01B	1.0	45	4.0	
3	1707704-01B	1.0	45	4.0	
4	1707704-02B	1.0	45	4.0	
5	1707732-01A	1.0	45	3.0	
6	1707732-02A	1.0	45	3.0	
7	1707732-03A	1.0	45	3.0	
8	1707732-04A	1.0	45	3.0	
9	1707732-05A	1.0	45	3.0	
10	1708082-01B	1.0	45	3.0	
11	1708082-03B	1.0	45	3.0	
12	1708082-04B	1.0	45	4.0	
13	1708082-05B	1.0	45	3.0	
14	1708082-07B	1.0	45	3.0	
15	1708082-08B	1.0	45	3.0	
16	1708150-01A	1.0	45	3.0	
17	1708269-01B	1.0	45	2.0	
18	1708269-02B	1.0	45	3.0	
19	1708269-03B	1.0	45	3.0	
20	1708269-04B	1.0	45	3.0	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg);"></div>					

**Failing Data Report - 7H18015**

Sample ID	Analysis	Result	MRI	Dup Result	Source Result	True Value	Units	% Rec.	Rec. I.C.L.	Rec. U.C.L.	RPD	RPD Limit	Over Cal	Failure	Qualifier
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Don Mattem      8/18/17  
Analyst Reviewed By      Date

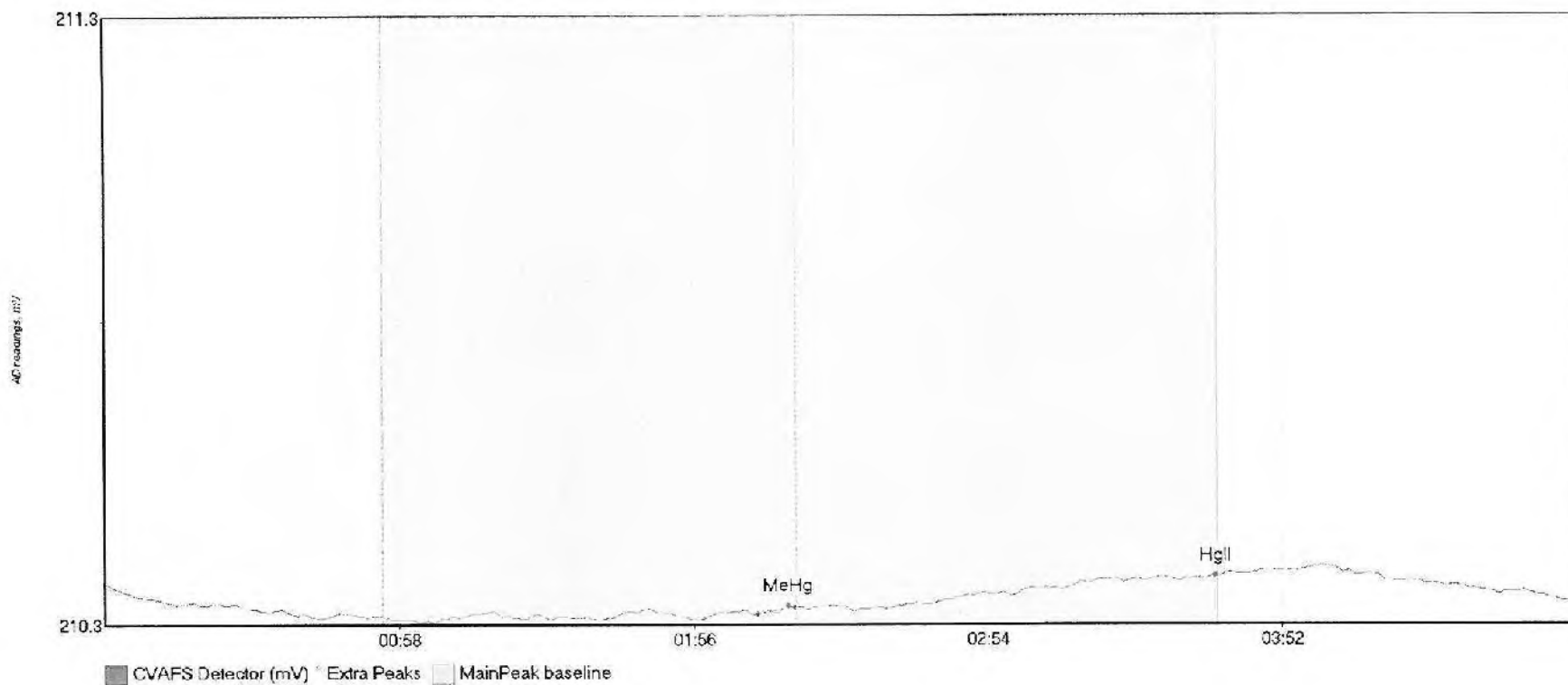
[Signature]      8/18/17  
Peer Reviewed By      Date



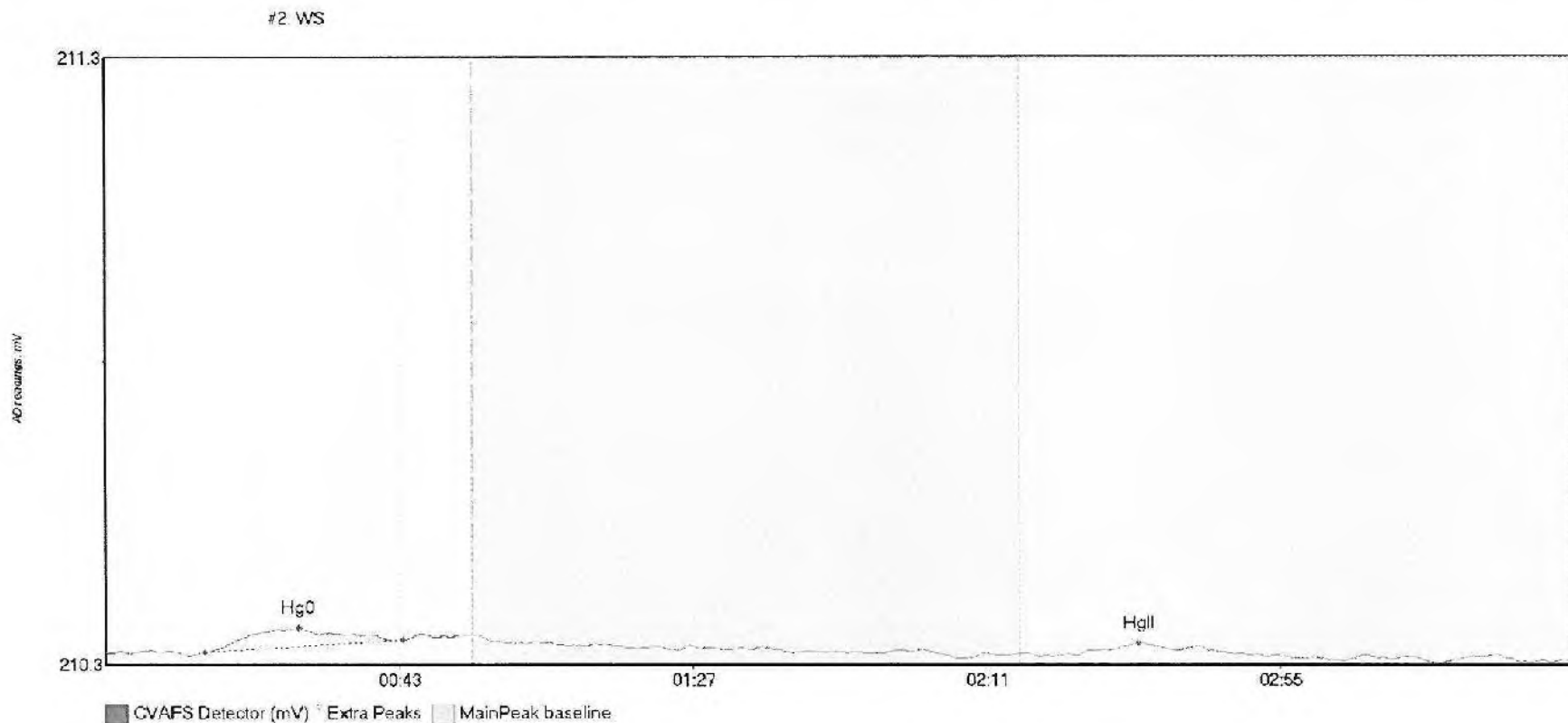


1708156-02	A11	500	25152-1.RAW	4.02070075	12.72675124	479.799511	0	psample10	OK	1
1708156-03	A12	500	25153-1.RAW	5.95628768	10.32097564	534.510582	0	psample10	OK	1
1708156-04	A13	500	25154-1.RAW	23:28:59 4.74507575	48.4832386	11515.51893	0	psample10	CT	1
1708156-05	A14	500	25155-1.RAW	3.05445075	0	-93.1611032	0	psample10	OK	1
1708156-06	A15	500	25156-1.RAW	3.92175185	34.5736873	541.405449	0	psample10	OK	1
1708156-07	A16	500	25157-1.RAW	2.6502932	67.2573185	1038.55617	0	psample10	CT	1
SEQ-CCV6	A17	1	25158-1.RAW	2:10:13:40 2.11013140	10.432152	8.96425436	0	psample10	CT	1
SEQ-CCB5	A18	1	25159-1.RAW	3.77525408	0	-1.49514678	0	psample10	OK	1
1408156-08	A19	500	25150-1.RAW	2.54320549	12.383428	521.428813	0	psample10	CT	1
1708167-01	A20	2500	25151-1.RAW	5.45890152	469.364512	123.3027576	0	psample10	CT	1
SEQ-CCV7	A21	1	25152-1.RAW	4.21510417	218.678409	12.0877131	0	psample10	OK	1
SEQ-CCB7	B1	1	25153-1.RAW	0:03:15 3.77579524	0	8.29658322	0	psample10	OK	1

#1: Clean

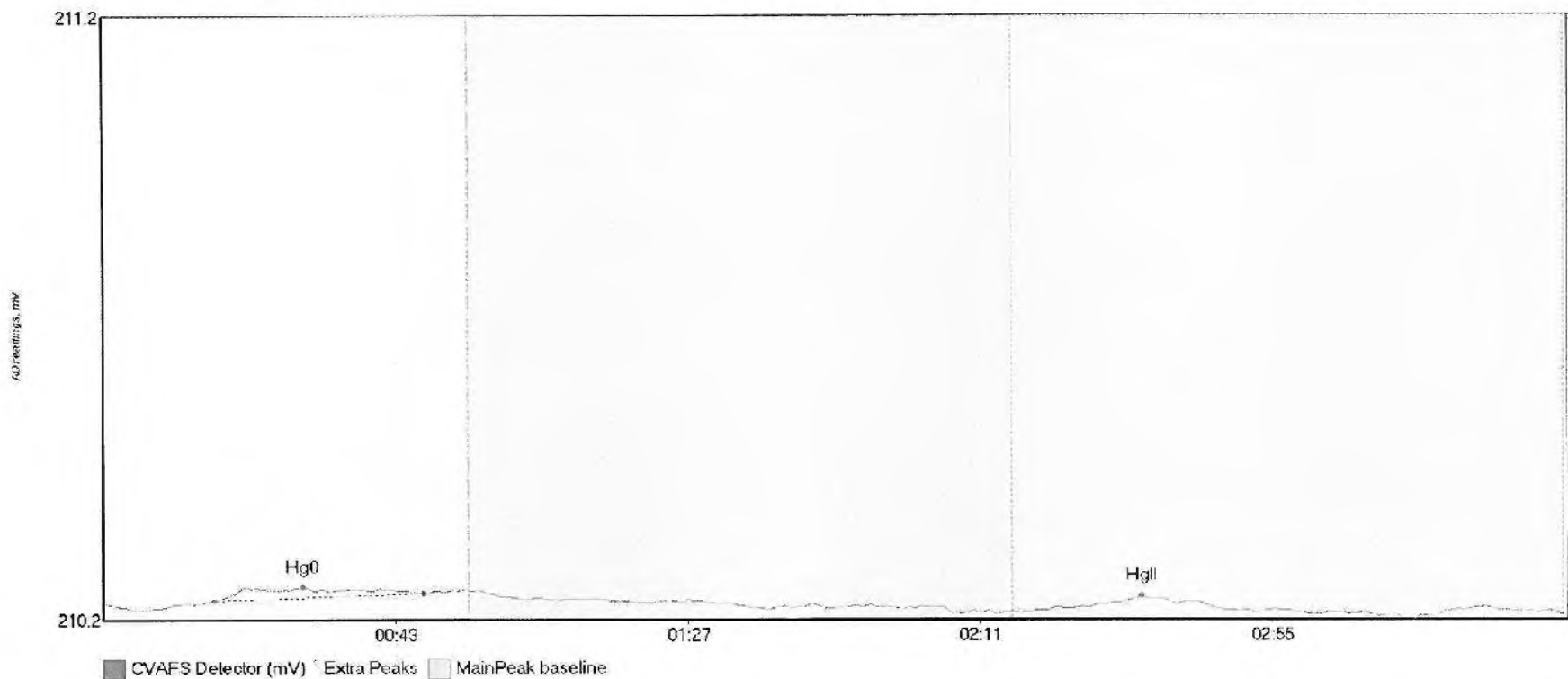


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean MeHg	0.092	129.2	136.3	210.35	210.37	135.2	0.014	OK	210.4046	0.00	-0.03	
Clean HgII	3.855	162.4	219.8	210.37	210.42	219.5	0.047	CT	210.4046	0.00	-0.03	017



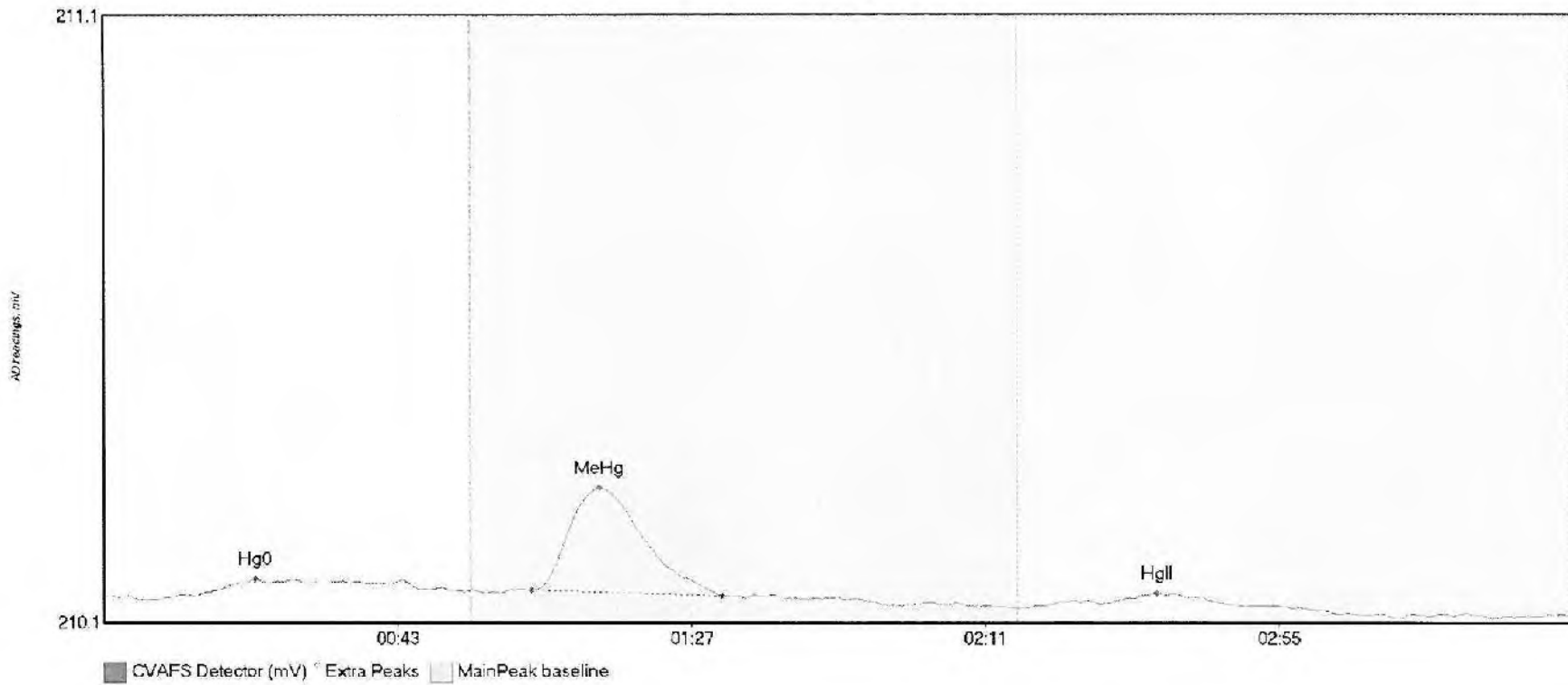
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	4.972	14.9	44.4	210.26	210.30	26.6	0.039	OK	210.2774	0.00	-0.01	
WS HgII	0.760	148.3	160.3	210.28	210.28	154.7	0.013	OK	210.2774	0.00	-0.01	017

#3: SEQ-IBL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	3.419	16.7	48.1	210.22	210.24	30.0	0.023	CK	210.2190	0.00	-0.02	
SEQ-IBL1 HgII	2.521	145.1	169.1	210.21	210.21	156.3	0.020	CR	210.2190	0.00	-0.02	017

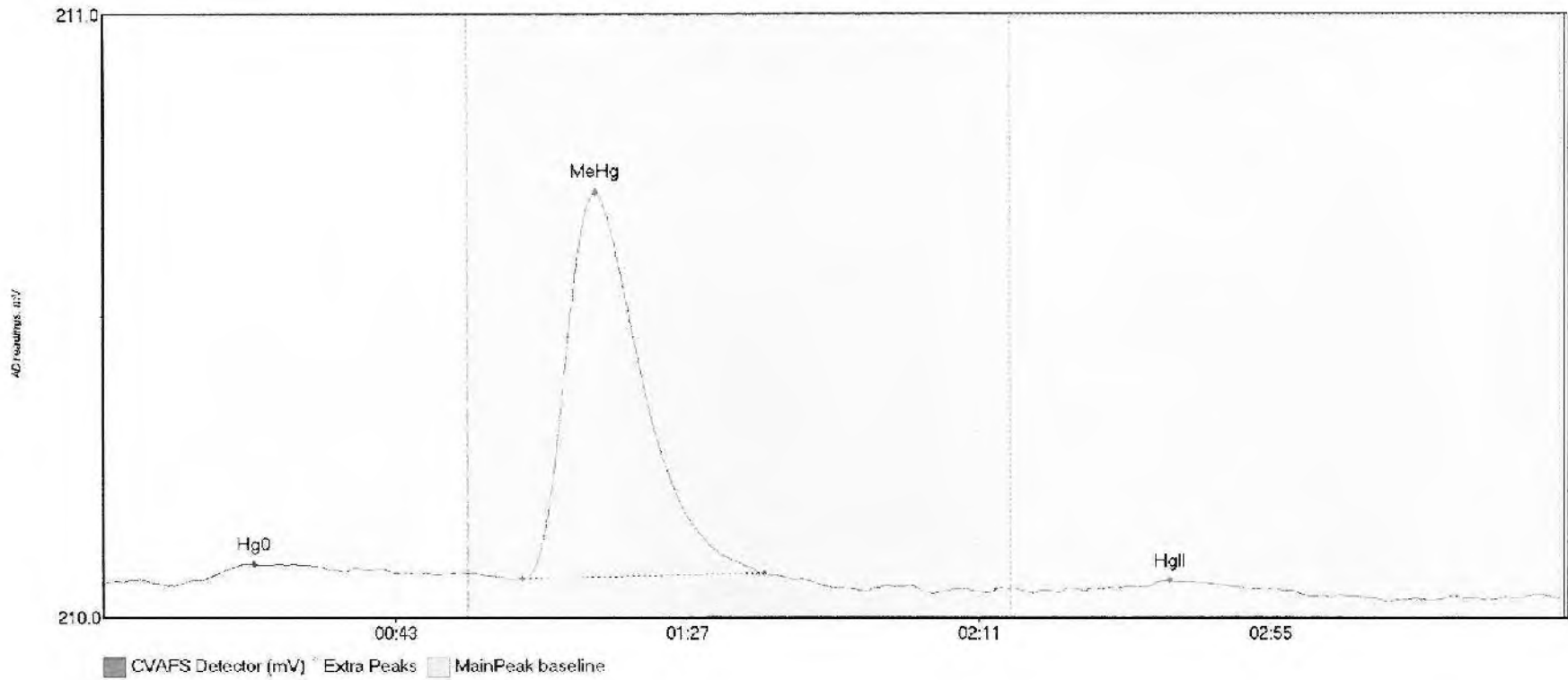
#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	Shift	Comment
SEQ-CAL1 Hg0	6.229	13.9	54.0	210.15	210.15	22.7	0.027	OK	210.1474	0.00	-0.03	
SEQ-CAL1 MeHg	22.315	64.1	92.6	210.16	210.15	74.3	0.170	OK	210.1474	0.00	-0.03	
SEQ-CAL1 HgII	2.940	141.0	170.3	210.13	210.13	157.8	0.020	OK	210.1474	0.00	-0.03	

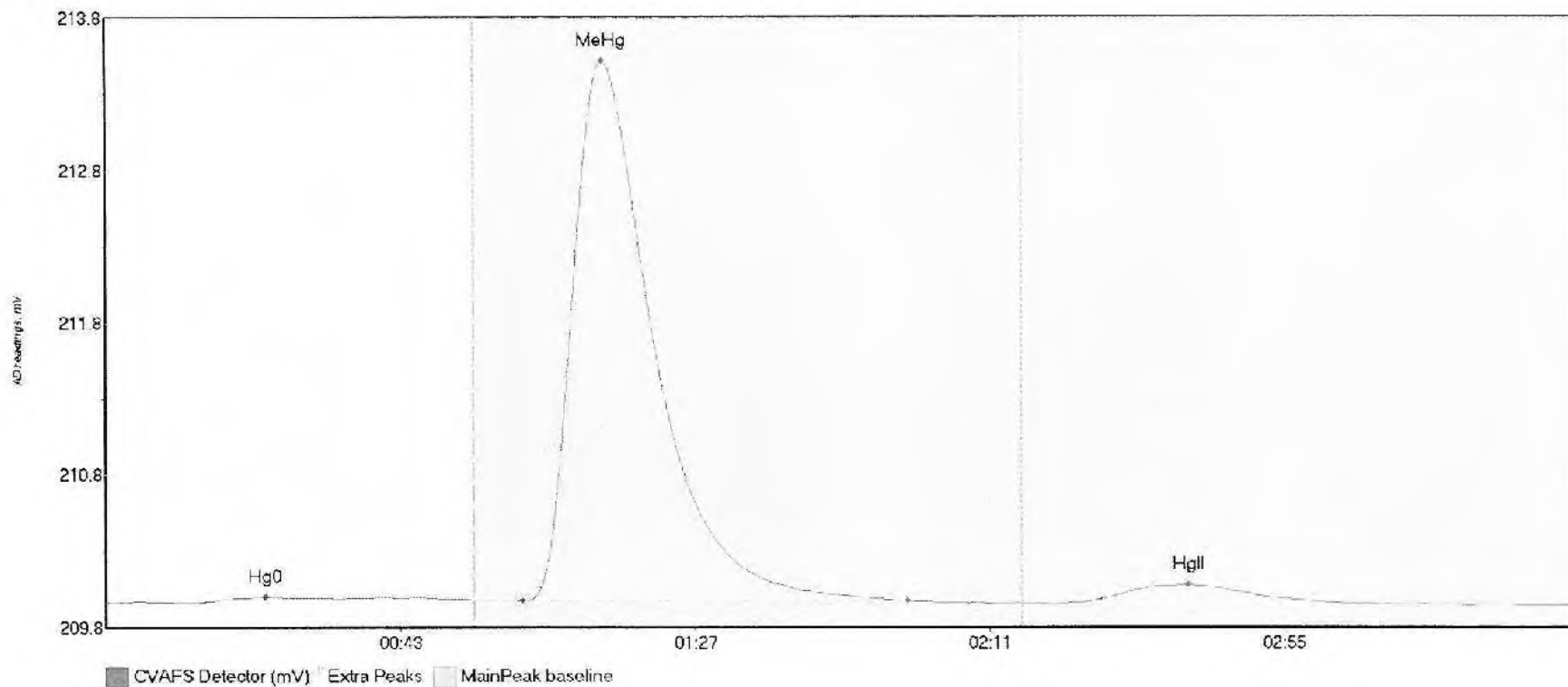
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#5: SEQ-CAL2



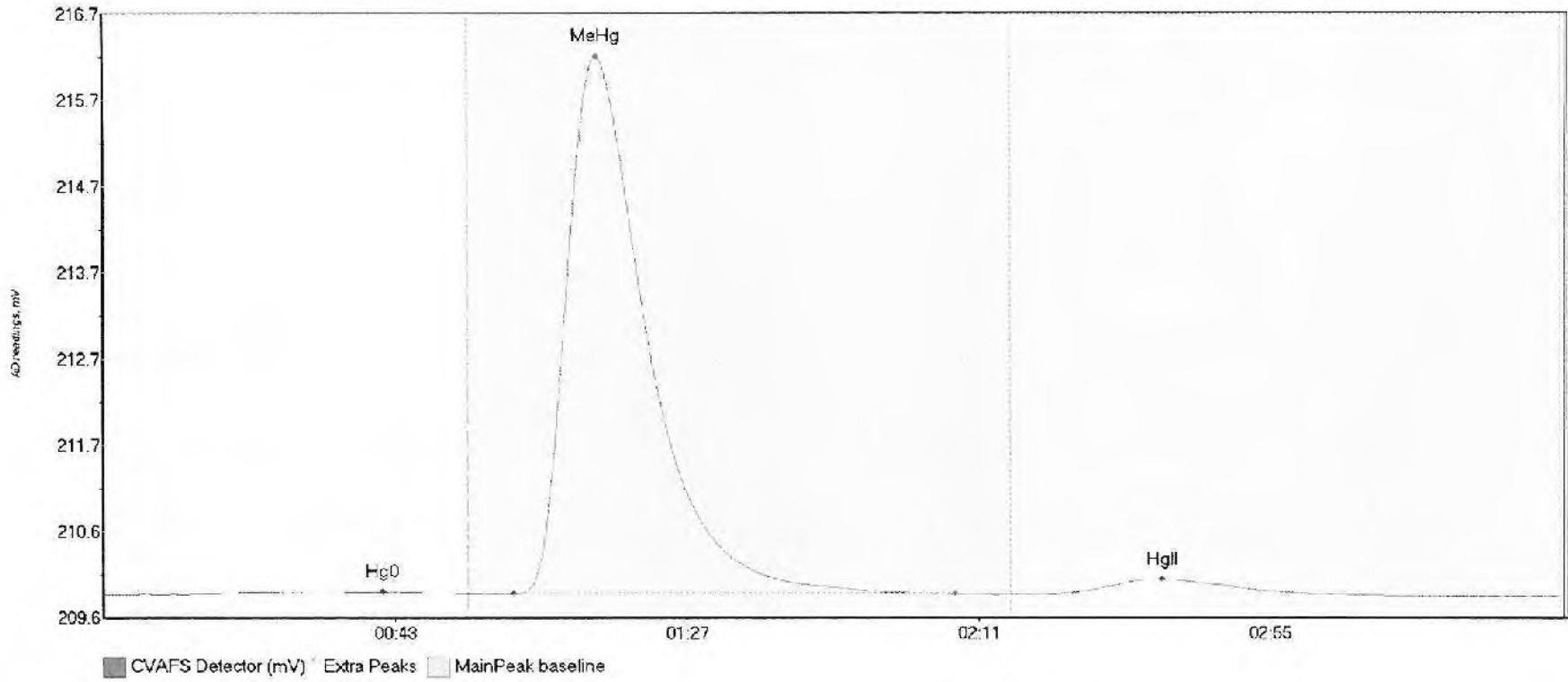
Name	Area	Start Time	EndTime	Start Value	End Value	Peak Max	Peak Height	Flags	Baseline	RI Dev	RI Shift	Comment
SEQ-CAL2 Hg0	5.182	14.5	50.5	210.07	210.08	22.7	0.028	OK	210.0631	0.00	-0.02	
SEQ-CAL2 MeHg	34.832	63.2	99.7	210.07	210.00	74.3	0.639	OK	210.0631	0.00	-0.02	
SEQ-CAL2 HgII	0.809	157.5	170.6	210.06	210.06	150.9	0.010	OK	210.0631	0.00	-0.02	

#6 SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BDDev	BSHIFT	Comment
SEQ-CAL3 Hg0	6.367	14.1	55.0	209.99	210.00	23.8	0.033	CL	209.9871	0.00	-0.02	
SEQ-CAL3 MeHg	489.823	62.2	119.7	209.99	209.99	74.2	3.480	OK	209.9871	0.00	-0.02	
SEQ-CAL3 HgI1	22.242	145.6	184.4	209.99	209.98	161.8	0.113	OK	209.9871	0.00	-0.02	

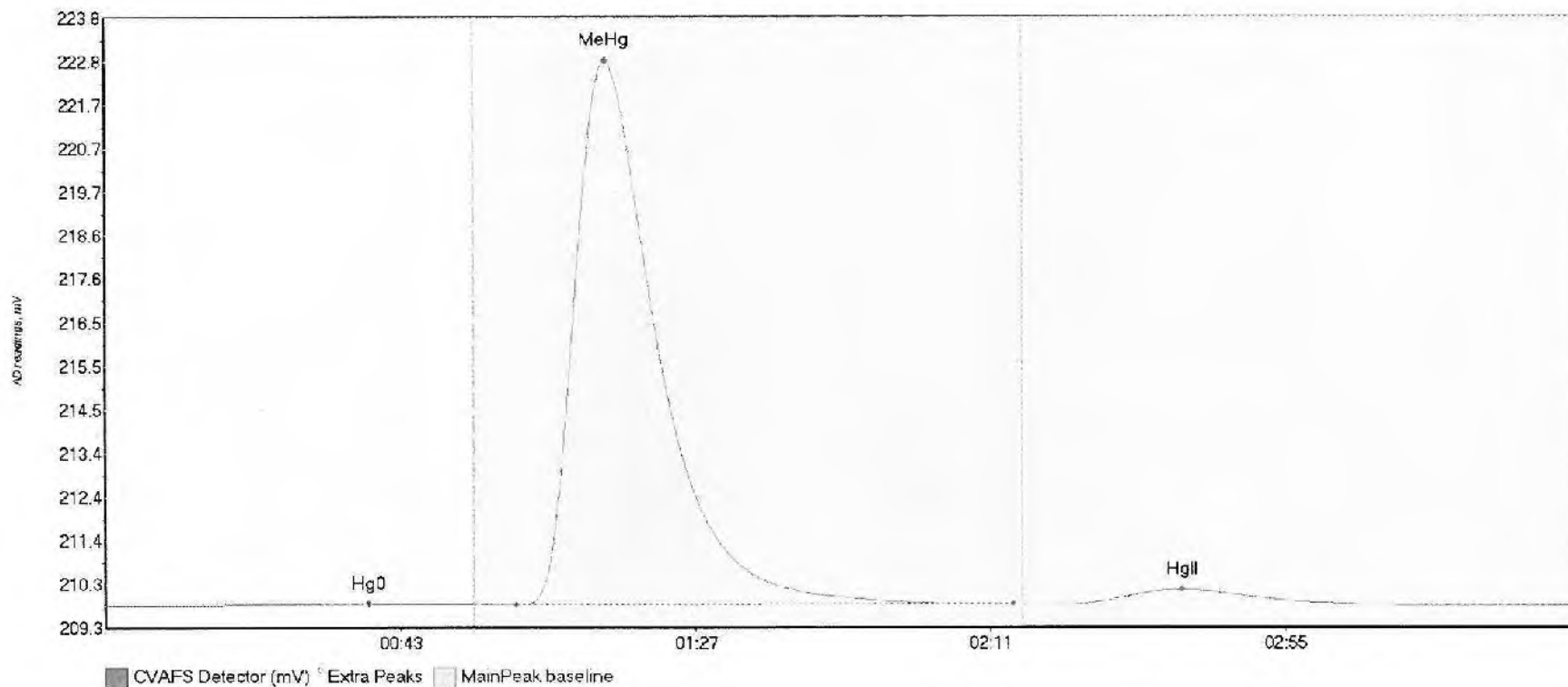
#7: SEQ-CAL4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	ElShift	Comment
SEQ-CAL4 Hg0	7.701	8.1	55.0	209.91	209.92	42.1	0.034	CT	209.9058	0.00	-0.01	
SEQ-CAL4 MeHg	890.793	61.8	128.4	209.92	209.92	74.4	6.288	OK	209.9058	0.00	-0.01	
SEQ-CAL4 HgII	33.658	142.8	182.8	209.92	209.92	159.8	0.172	OK	209.9058	0.00	-0.01	

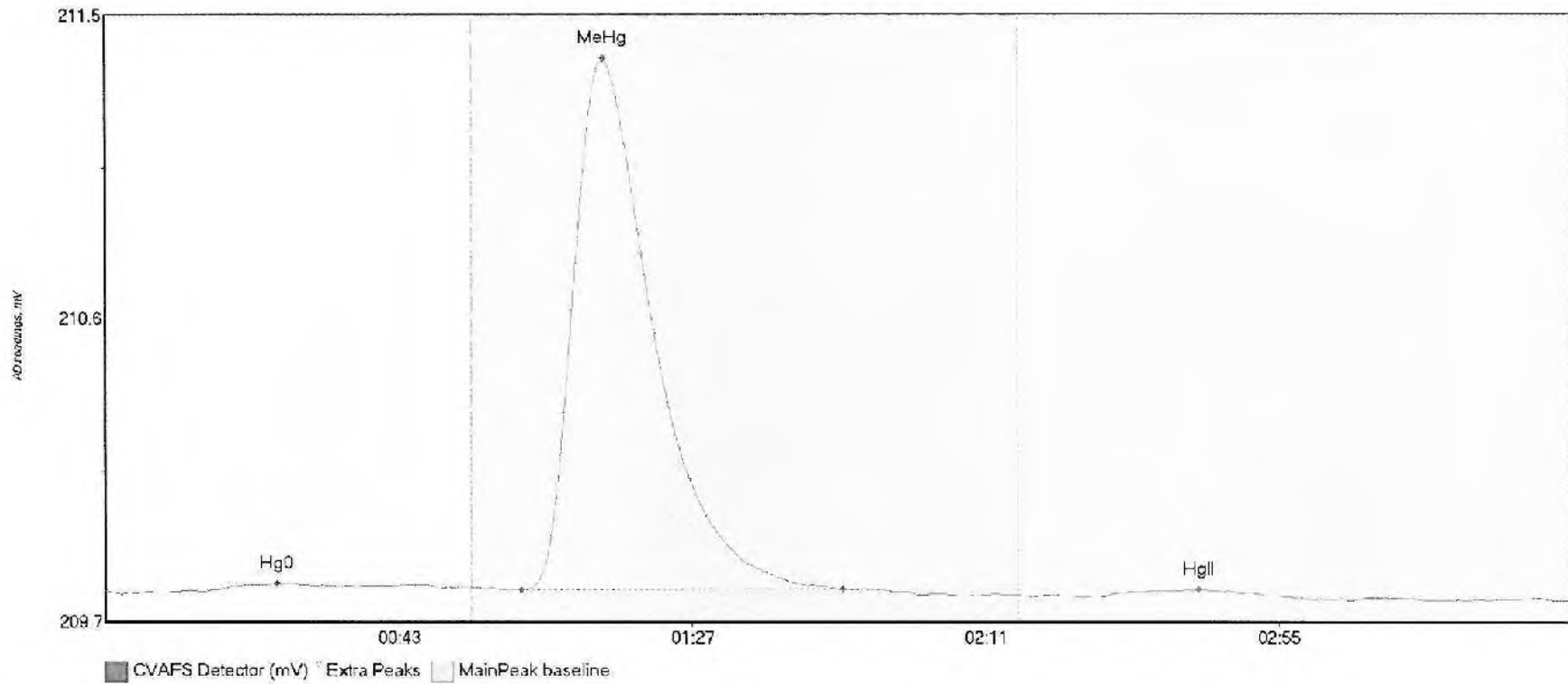


#8 SEQ-CAL5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakPoint	Flags	Baseline	RDev	RShift	Comment
SEQ-CAL5 Hg0	6.417	14.7	55.0	209.82	209.84	39.3	0.042	CP	209.8193	0.00	0.01	
SEQ-CAL5 MeHg	1852.558	61.3	135.5	209.84	209.85	74.6	12.919	OK	209.8193	0.00	0.01	
SEQ-CAL5 HgII	73.303	142.5	190.1	209.65	209.84	160.6	0.350	OK	209.8193	0.00	0.01	

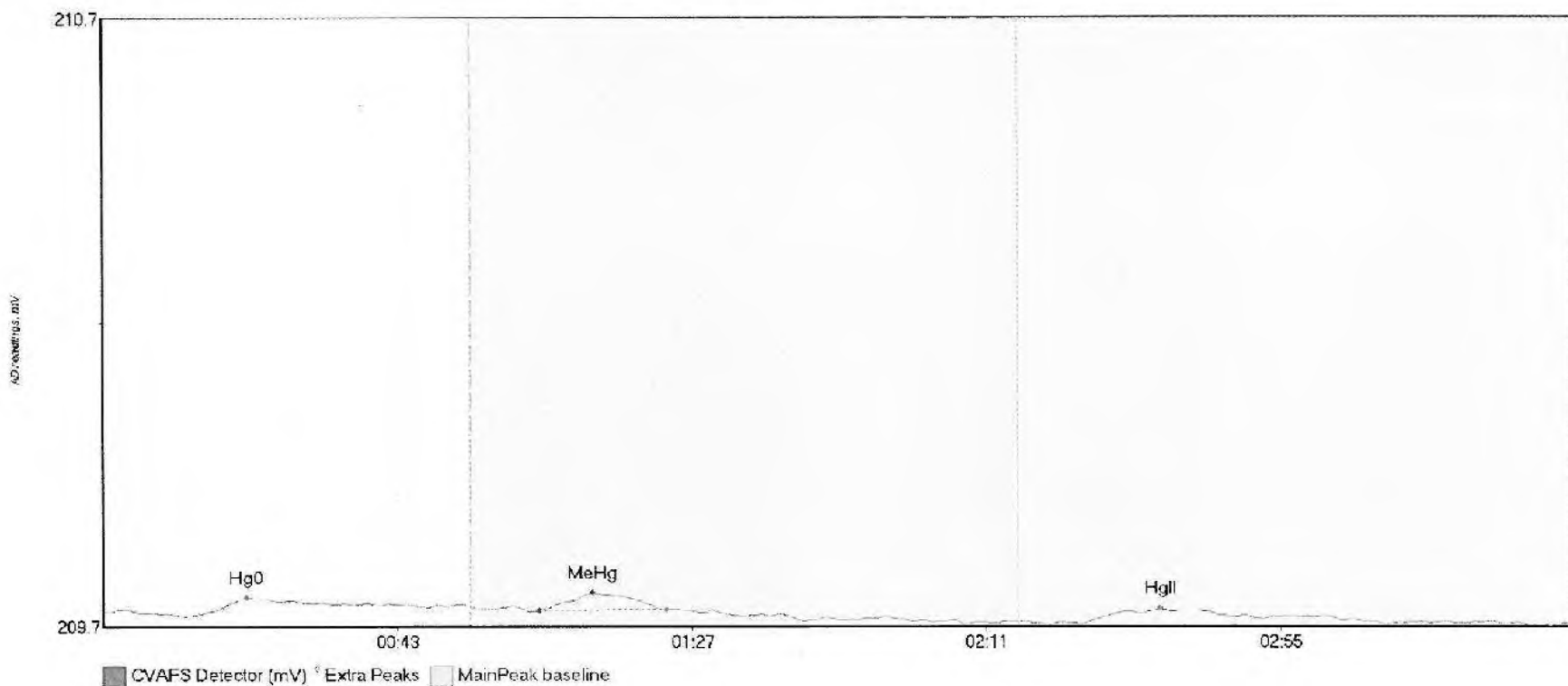
#9: SEQ-ICV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BIDev	BIShift	Comment
SEQ-ICV1 Hg0	3.459	16.4	55.0	209.77	209.78	25.7	0.019	CF	209.7684	0.00	-0.03	
SEQ-ICV1 MeHg	223.209	62.4	110.6	209.77	209.77	74.7	1.613	OK	209.7684	0.00	-0.03	
SEQ-ICV1 HgII	2.985	149.8	174.3	209.75	209.76	164.0	0.019	OK	209.7684	0.00	-0.03	

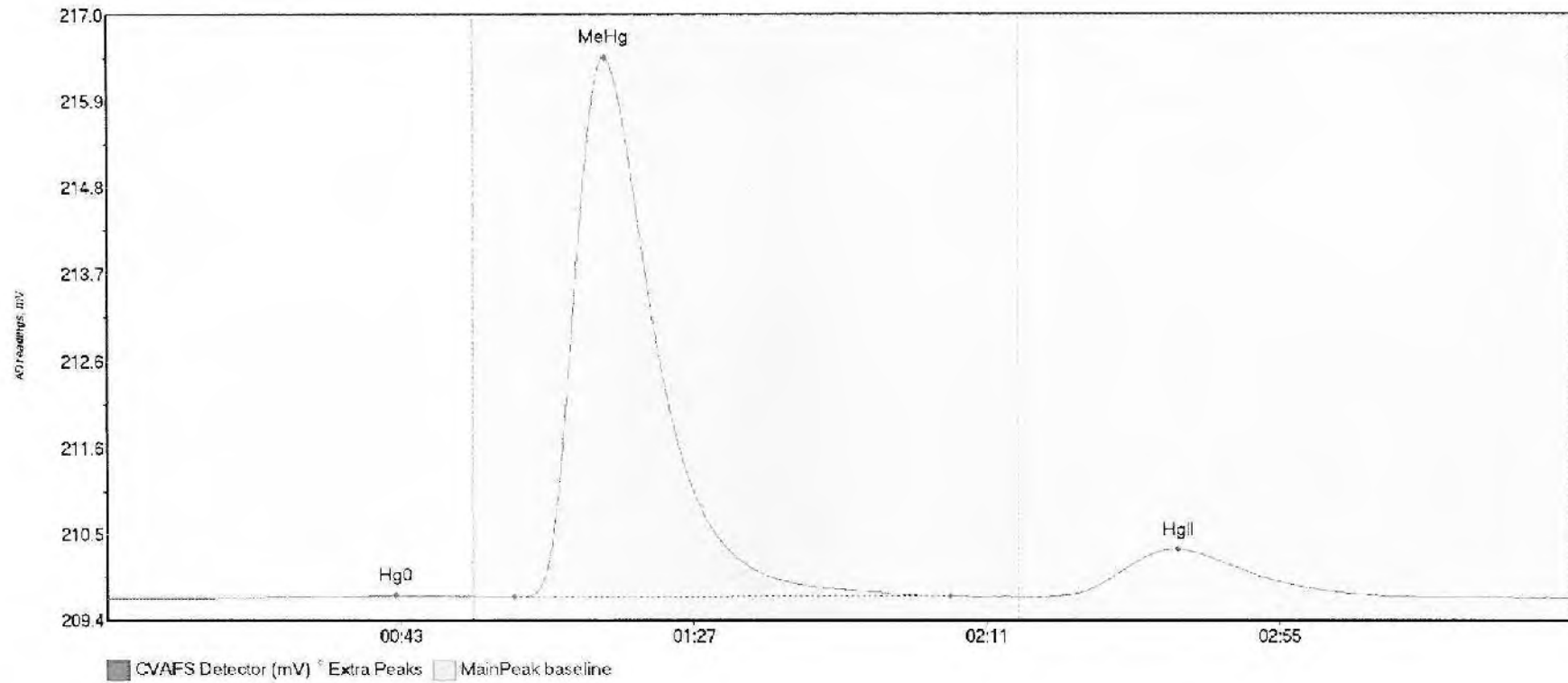
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#10: SEQ-ICB1



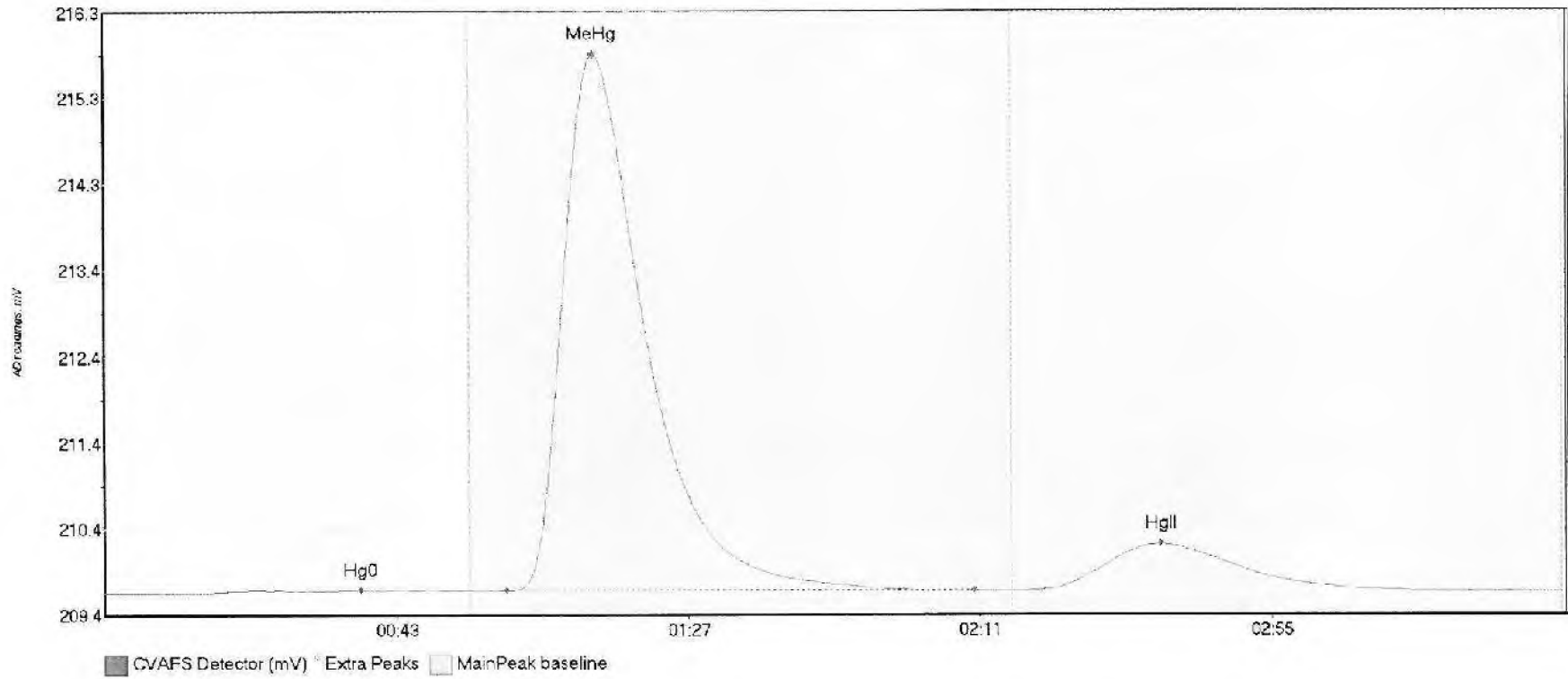
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RIDev	RIShift	Comment
SEQ-ICB1 Hg0	3.183	16.4	48.6	209.72	209.73	21.5	0.022	OK	209.7199	0.00	-0.02	
SEQ-ICB1 MeHg	3.066	65.1	84.1	209.72	209.72	73.2	0.029	OK	209.7199	0.00	-0.02	
SEQ-ICB1 HgII	3.135	146.4	172.6	209.70	209.71	158.1	0.025	OK	209.7199	0.00	-0.02	

#11: F708416-BS1



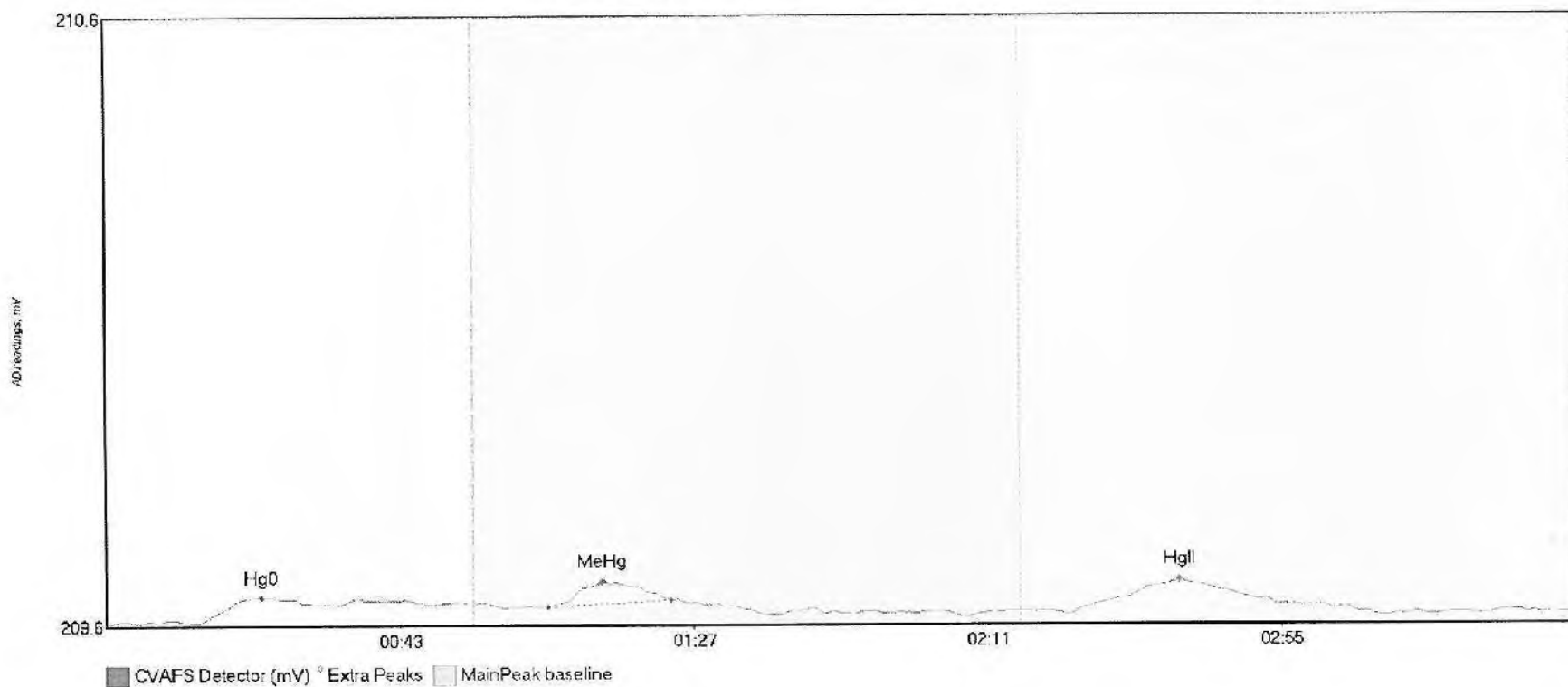
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RIDev	RIShift	Comment
F708416-BS1 Hg0	4.229	13.1	53.2	209.67	209.71	43.3	0.042	OK	209.6720	0.00	0.02	
F708416-BS1 MeH	954.966	61.2	126.6	209.70	209.71	74.7	6.742	OK	209.6720	0.00	0.02	
F708416-BS1 HgI	127.621	140.3	194.3	209.70	209.71	160.9	0.596	OK	209.6720	0.00	0.02	

#12: F708416-BSD1



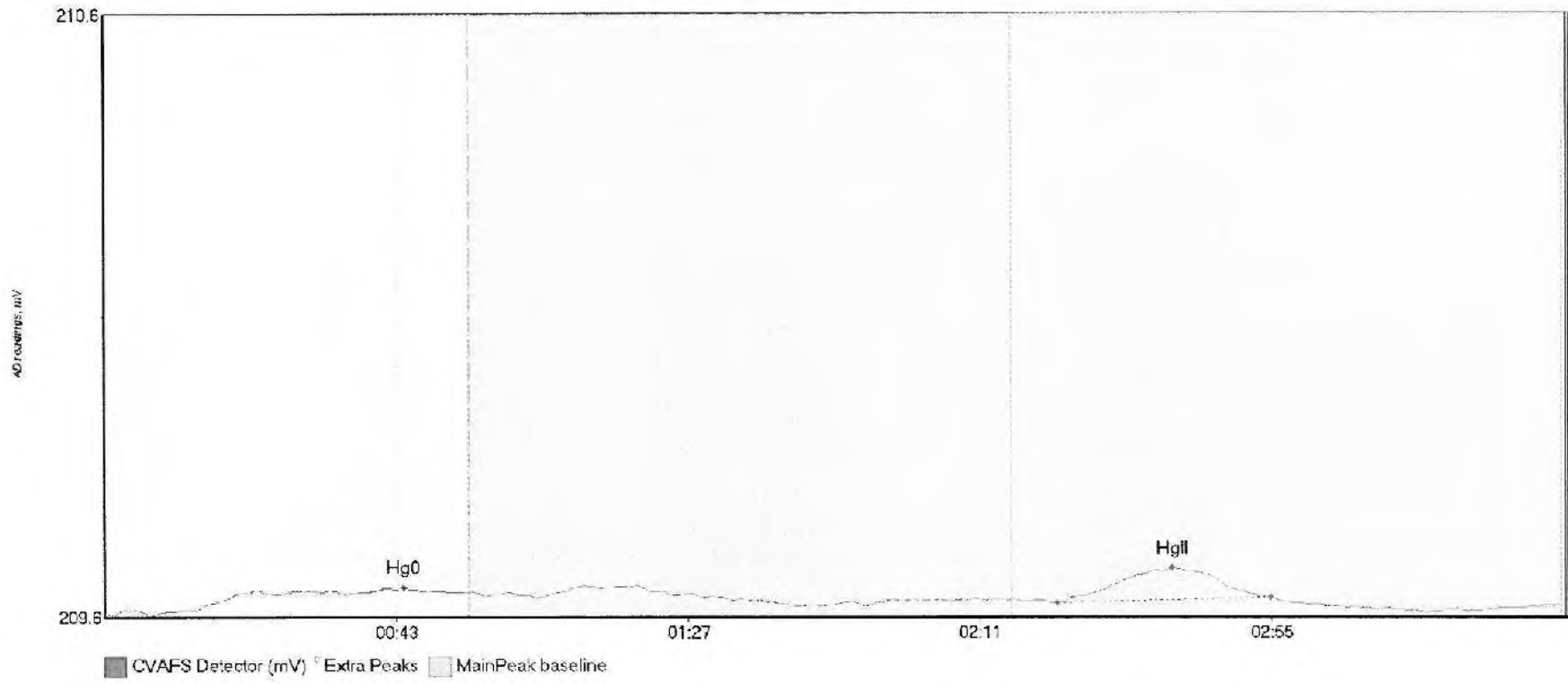
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RI Dev	RI Shift	Comment
F708416-BSD1 Hg	5.233	15.7	55.0	209.66	209.68	38.6	0.030	CT	209.6528	0.00	0.01	
F708416-BSD1 Me	886.390	60.6	151.1	209.68	209.68	73.8	6.150	OK	209.6528	0.00	0.01	
F708416-BSD1 Hg	118.481	139.1	197.2	209.68	209.68	159.3	0.531	OK	209.6528	0.00	0.01	

#13 F708434-BLK1



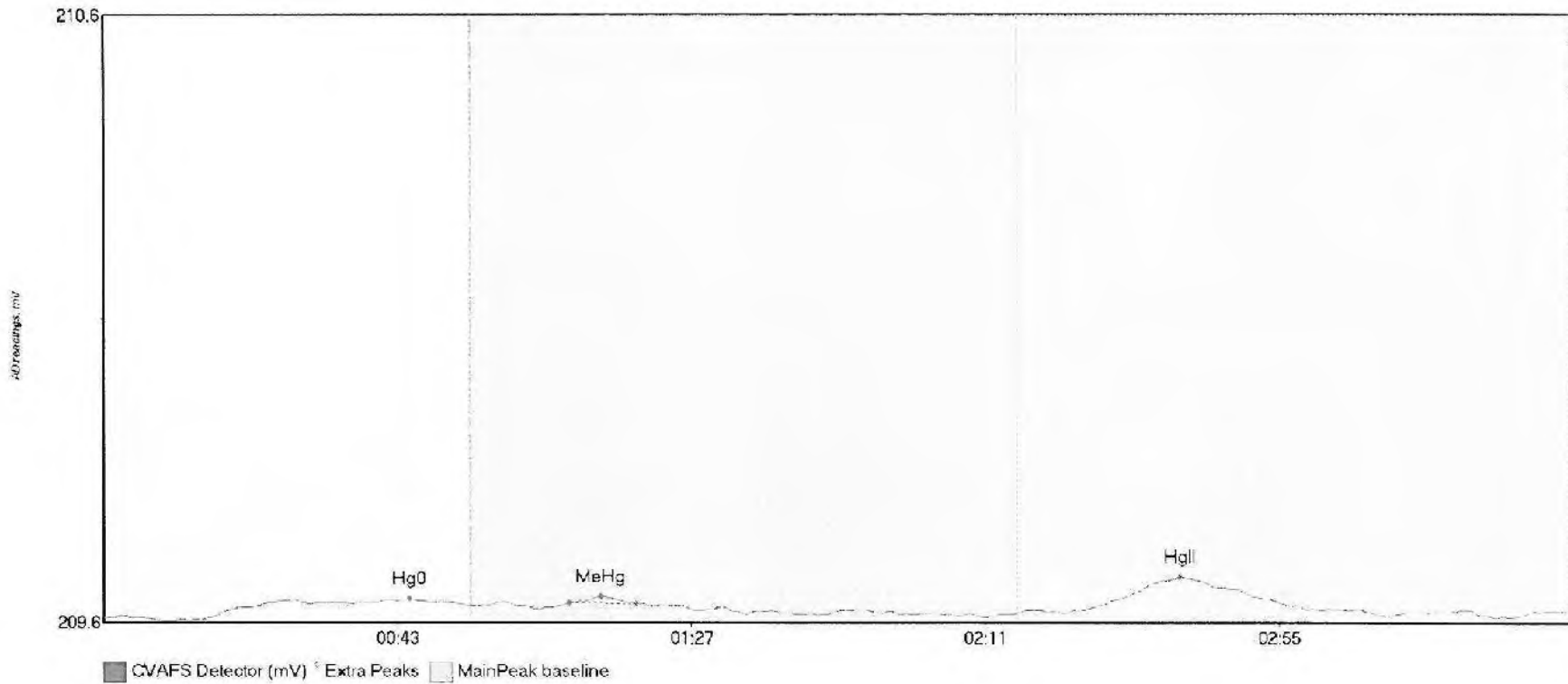
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BLK1 Hg	6.303	13.8	48.3	209.63	209.66	23.3	0.042	OK	209.6308	0.00	0.01	
F708434-BLK1 Me	3.774	65.2	84.6	209.66	209.67	74.3	0.041	OK	209.6308	0.00	0.01	117
F708434-BLK1 Hg	9.937	144.3	183.9	209.64	209.65	160.8	0.055	OK	209.6308	0.00	0.01	

#14: F708434-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	StShift	Comment
F708434-BLK2 Hg	5.840	7.2	52.2	209.62	209.66	45.2	0.045	OK	209.6203	0.00	0.02	
F708434-BLK2 Hg	9.013	143.7	175.9	209.64	209.65	161.0	0.058	OK	209.6203	0.00	0.02	017

#15: F708434-BLK3

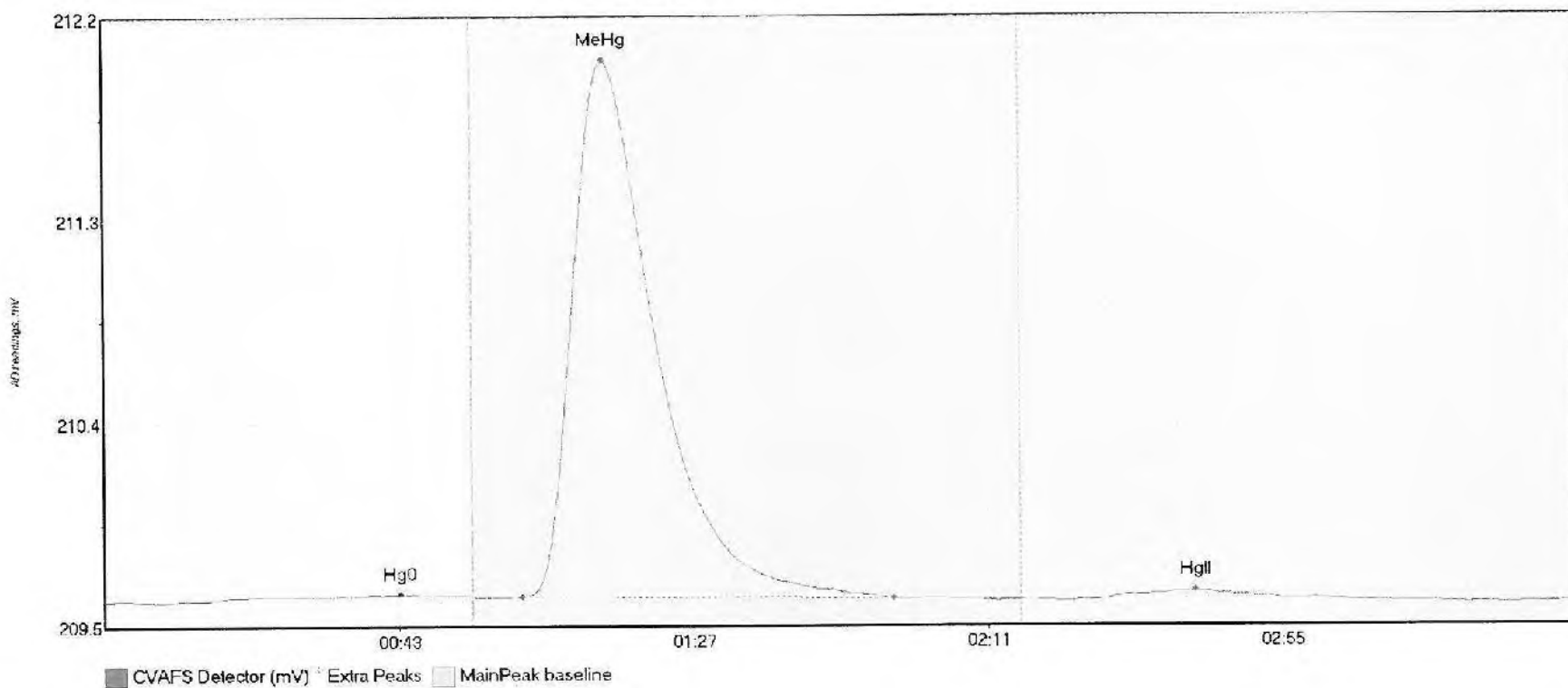


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BLK3 Hg	5.792	14.5	55.0	209.61	209.64	45.8	0.034	OT	209.6180	0.00	0.01	
F708434-BLK3 Me	0.638	69.7	79.8	209.64	209.64	74.4	0.011	OK	209.6180	0.00	0.01	
F708434-BLK3 Hg	9.124	146.8	180.2	209.63	209.63	161.2	0.054	OK	209.6180	0.00	0.01	

017

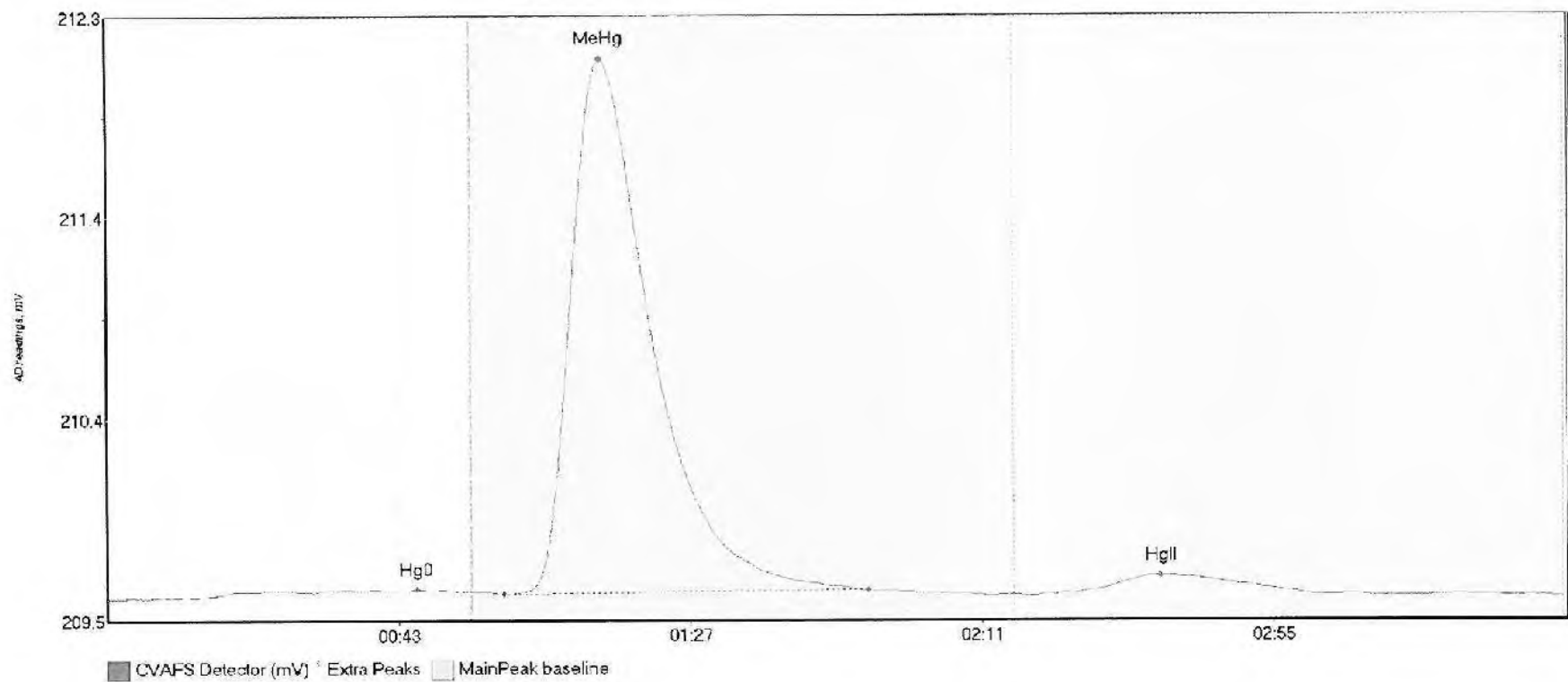


#16: F708434-BS1



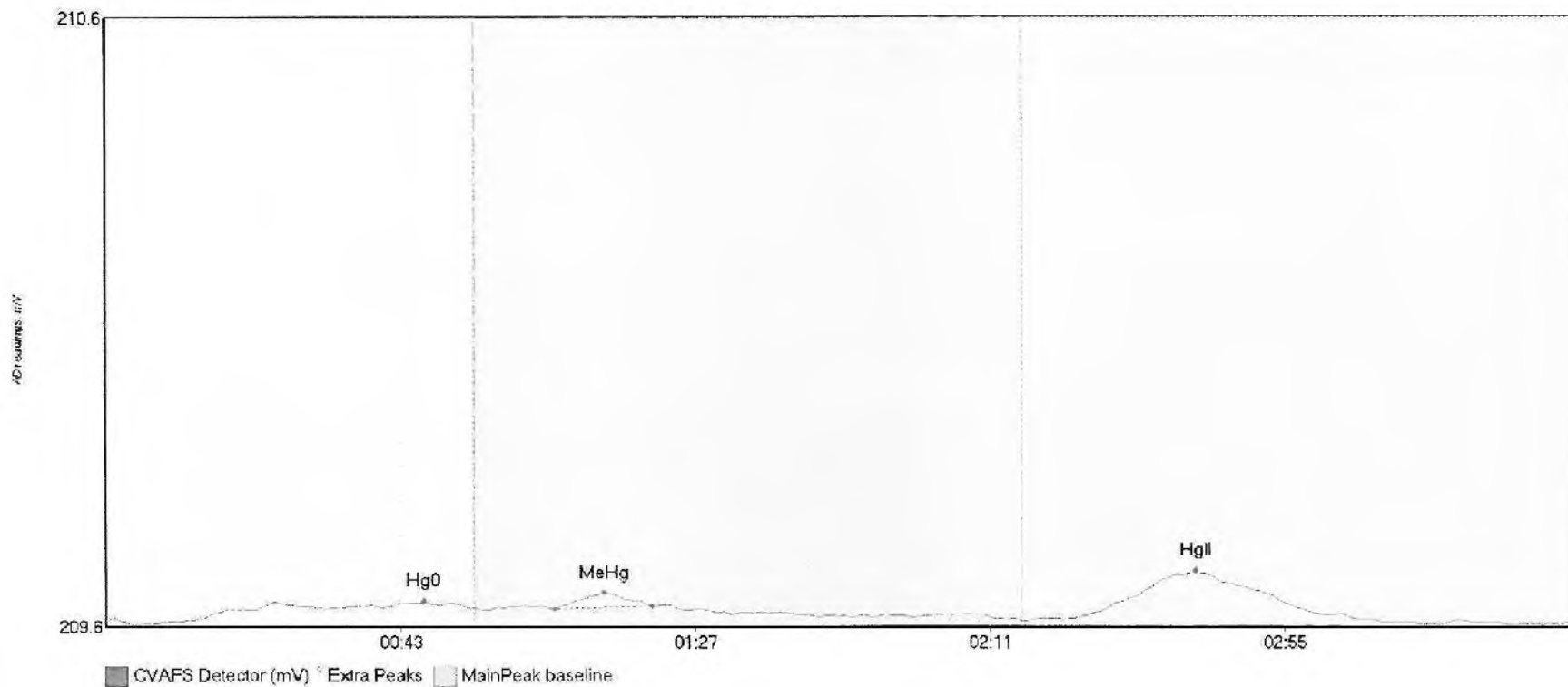
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708434-BS1 Hg0	4.128	14.5	55.0	209.62	209.64	44.2	0.026	CT	209.6181	0.00	0.00	
F708434-BS1 MeHg	341.025	62.1	117.9	209.64	209.63	74.7	2.395	OK	209.6181	0.00	0.00	
F708434-BS1 HgII	5.678	148.4	176.5	209.62	209.63	163.0	0.038	OK	209.6181	0.00	0.00	

#17: F708434-BSD1



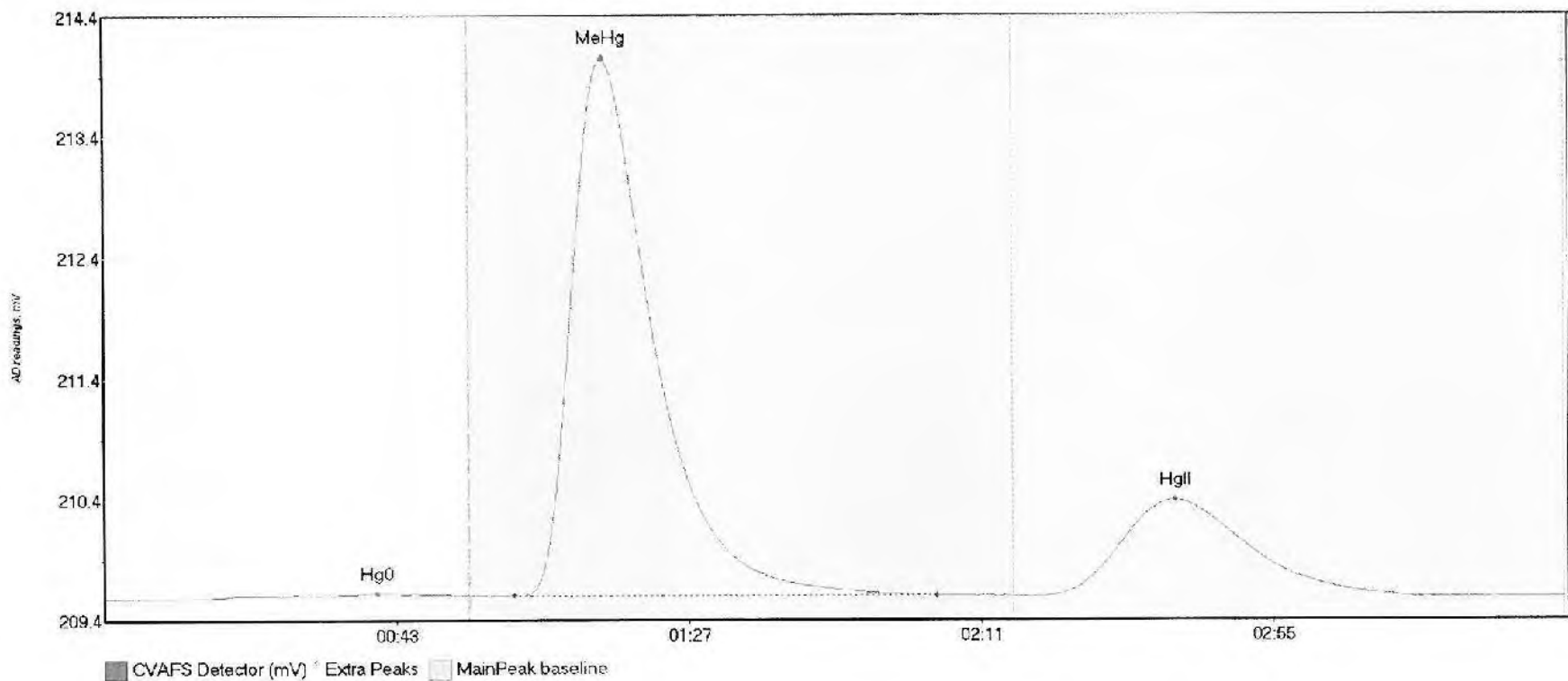
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RDev	BSFit	Comment
F708434-BSD1 Hg	6.037	10.4	55.0	209.61	209.64	46.7	0.037	OT	209.6084	0.00	0.01	
F708434-BSD1 Me	347.799	59.8	114.8	209.63	209.64	74.8	2.472	OK	209.6084	0.00	0.01	
F708434-BSD1 Hg	17.526	143.2	181.9	209.63	209.63	159.0	0.088	OK	209.6084	0.00	0.01	

#18: F708434-DUP1



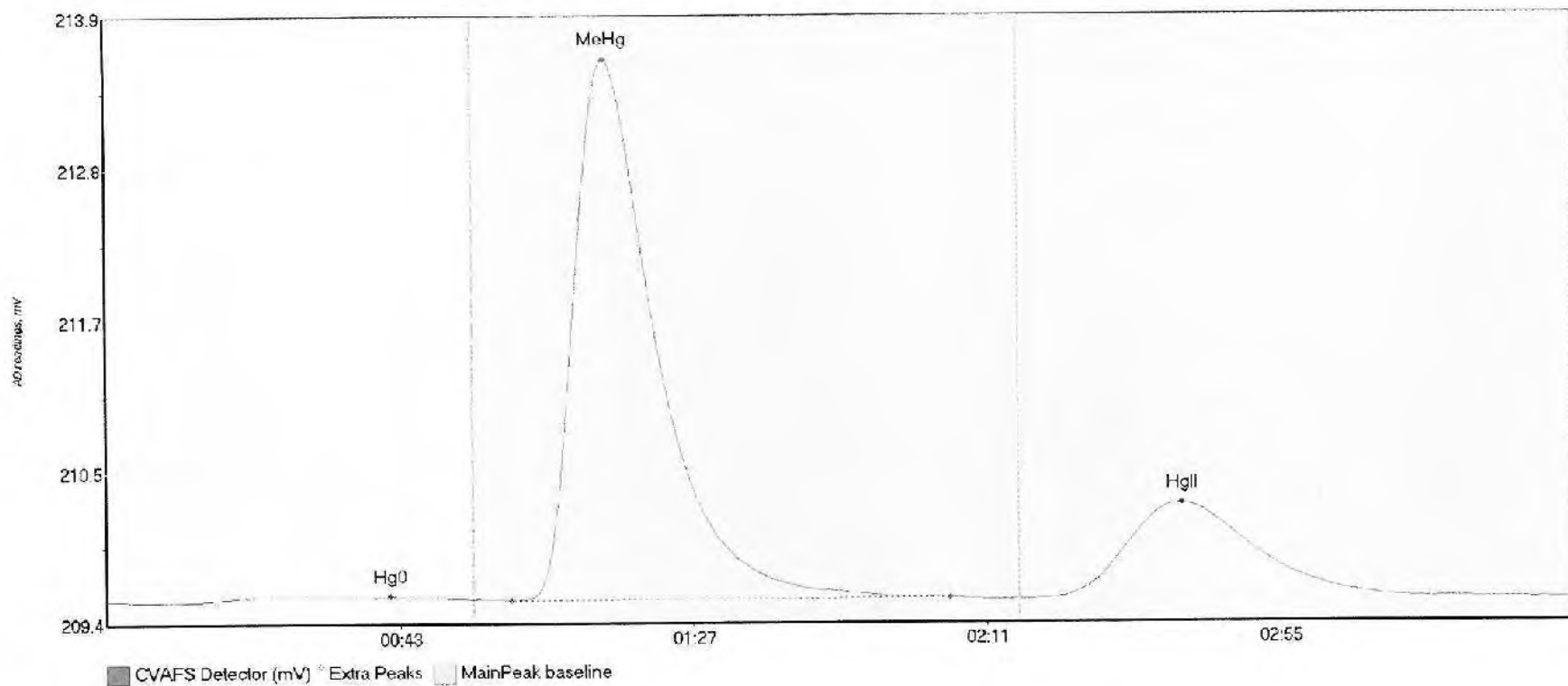
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BIDev	BIShift	Comment
F708434-DUP1 Hg	4.433	14.2	54.2	209.62	209.63	47.5	0.029	OK	209.6142	0.00	0.00	
F708434-DUP1 Me	1.091	67.0	91.6	209.63	209.64	74.5	0.027	OK	209.6142	0.00	0.00	
F708434-DUP1 Hg	15.336	144.8	186.3	209.62	209.62	162.8	0.076	OK	209.6142	0.00	0.00	

#19: F708434-MS1



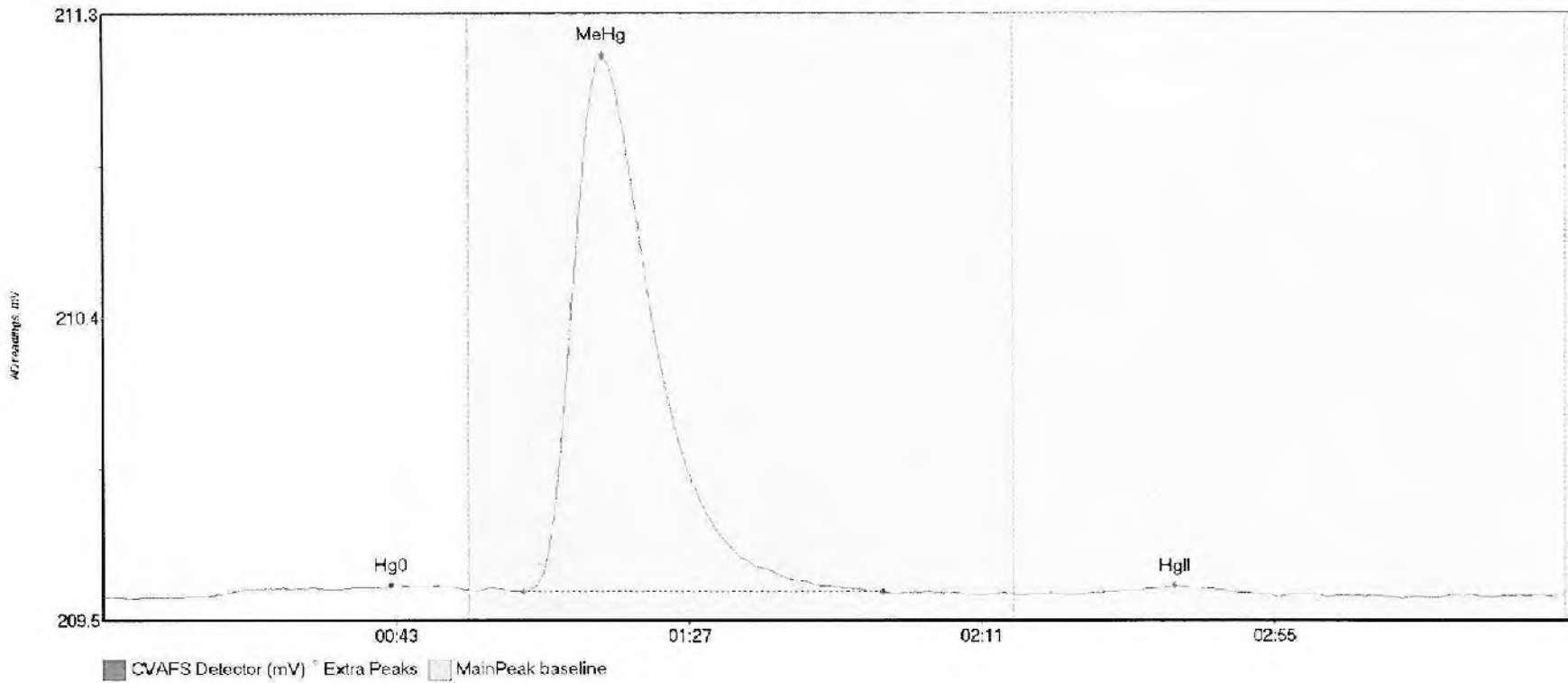
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	ElShift	Comment
F708434-MS1 Hg0	5.258	16.0	53.4	209.60	209.62	41.2	0.037	OK	209.6012	0.00	0.00	
F708434-MS1 MeHg	626.715	61.7	128.3	209.62	209.62	75.1	4.412	OK	209.6012	0.00	0.00	017
F708434-MS1 HgI	173.814	141.0	197.4	209.61	209.61	161.3	0.797	OK	209.6012	0.00	0.00	

#20: F708434-MSD1



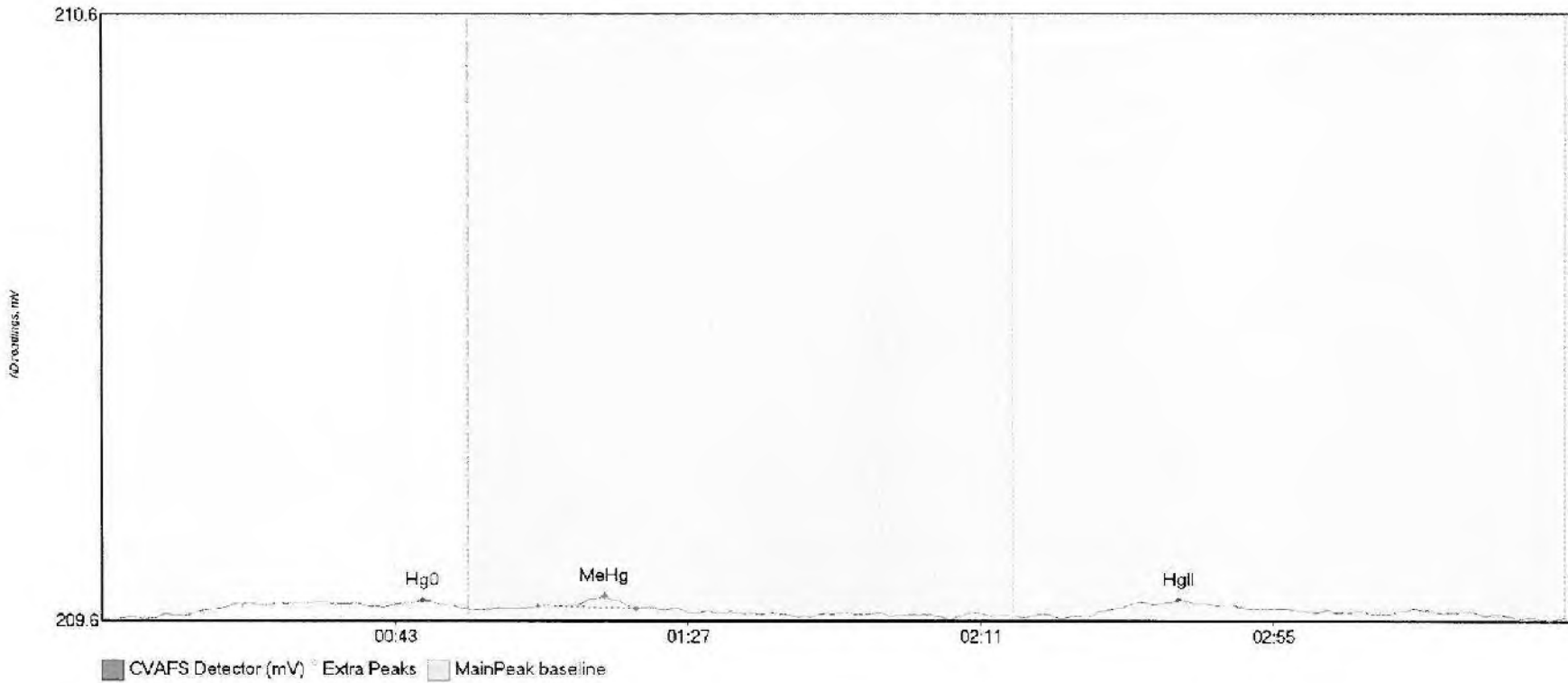
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	BlShi (%)	Comment
F708434-MSD1 Hg	8.479	14.0	54.8	209.58	209.60	42.6	0.039	OK	209.5846	0.00	0.00	
F708434-MSD1 Me	568.733	60.6	126.5	209.59	209.60	74.9	3.991	OK	209.5846	0.00	0.00	
F708434-MSD1 Hg	154.559	140.8	205.9	209.60	209.59	161.3	0.700	OK	209.5846	0.00	0.00	

#21: SEQ-CCV1



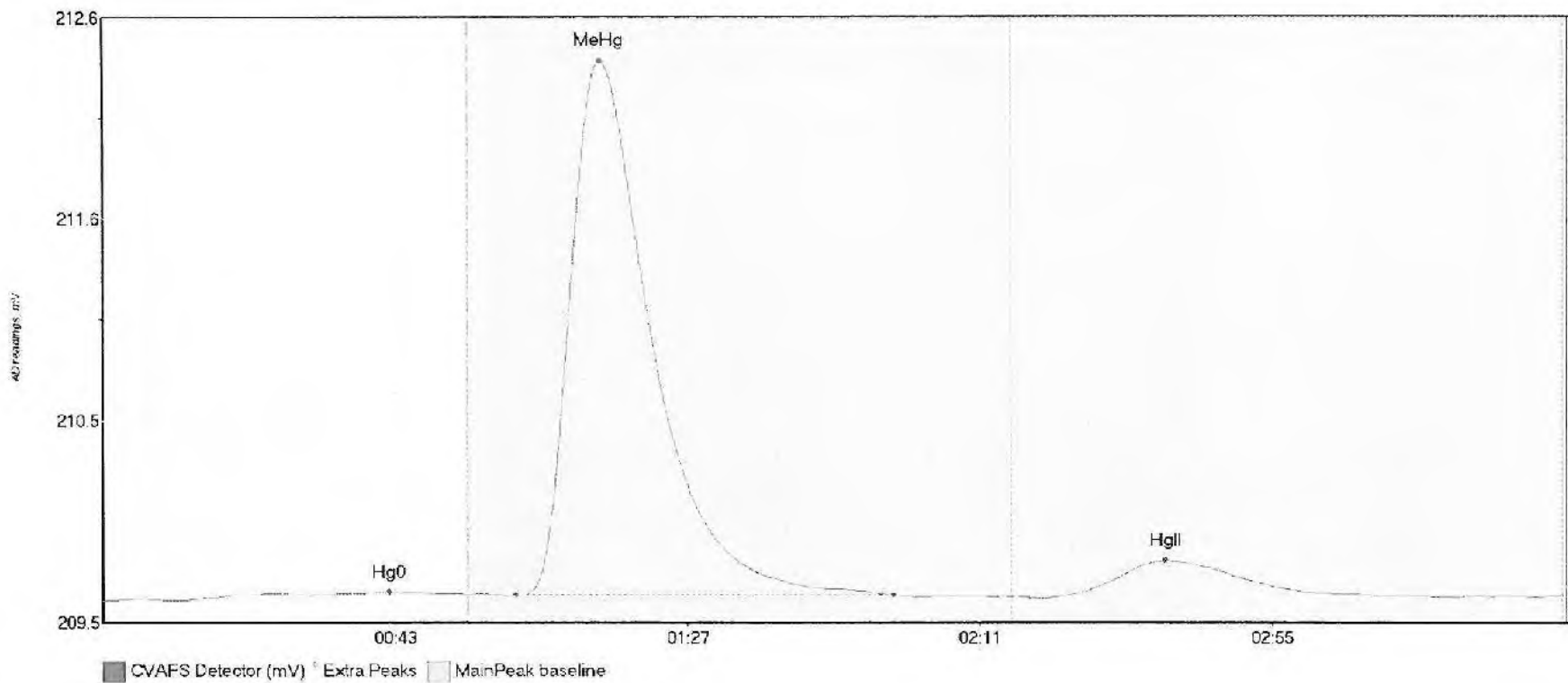
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	BShift	Comment
SEQ-CCV1 Hg0	5.230	15.2	54.9	209.57	209.59	43.3	0.031	OK	209.5689	0.00	0.01	
SEQ-CCV1 MeHg	221.105	63.1	117.1	209.59	209.50	75.2	1.552	OK	209.5689	0.00	0.01	
SEQ-CCV1 HgII	2.137	149.5	171.2	209.58	209.58	161.0	0.020	OK	209.5689	0.00	0.01	

#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StdDev	PLShift	Comment
SEQ-CCB1 Hg0	5.895	0.1	55.0	209.57	209.58	43.2	0.029	OK	209.5642	0.00	0.00	
SEQ-CCB1 MeHg	1.170	65.5	80.1	209.58	209.58	75.5	0.017	OK	209.5642	0.00	0.00	
SEQ-CCB1 HgII	5.545	148.5	191.3	209.57	209.57	161.7	0.026	OK	209.5642	0.00	0.00	

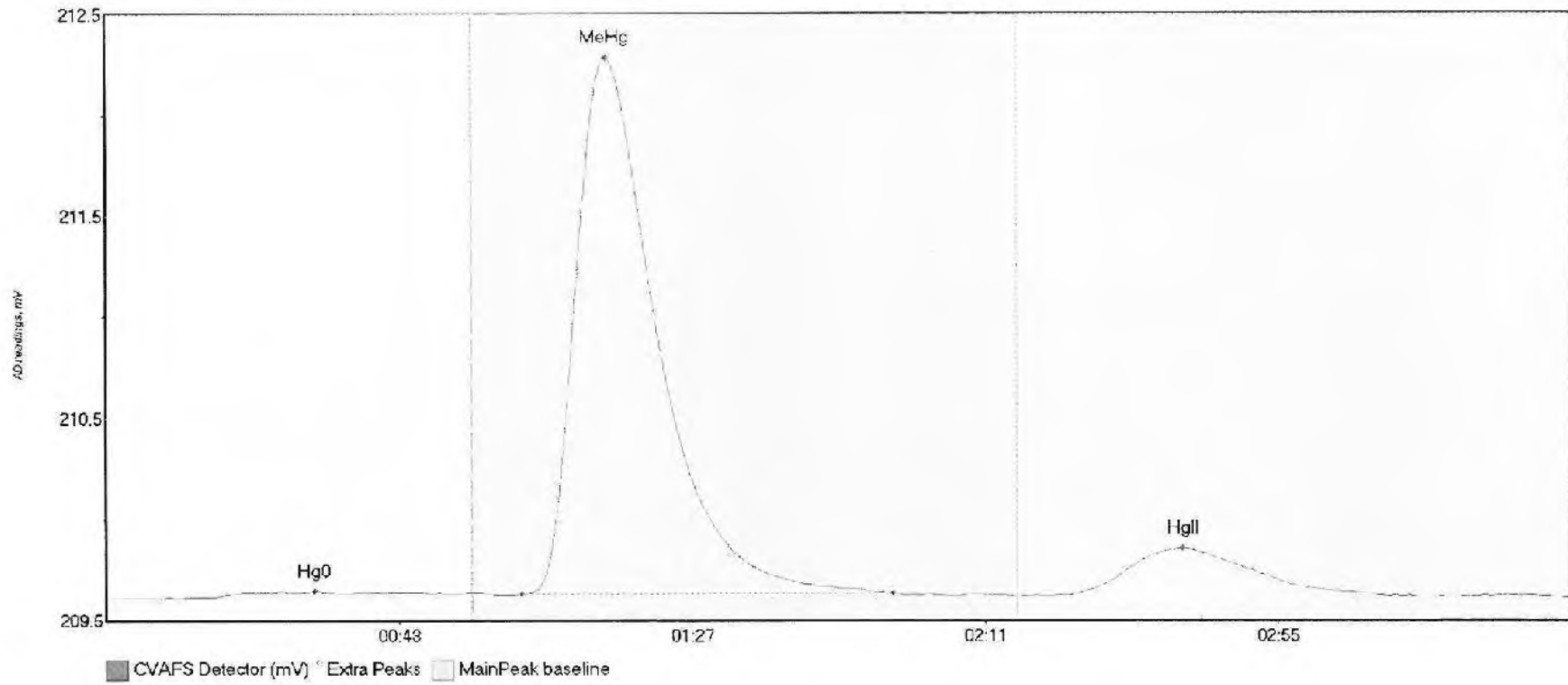
#23: F708434-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	StShift	Comment
F708434-MS2 Hg0	7.227	12.3	54.9	209.57	209.60	43.1	0.044	OK	209.5697	0.00	0.03	
F708434-MS2 MeH	398.340	62.1	119.0	209.60	209.60	74.9	2.807	OK	209.5697	0.00	0.03	
F708434-MS2 HgI	38.549	143.0	191.6	209.59	209.60	160.1	0.192	OK	209.5697	0.00	0.03	

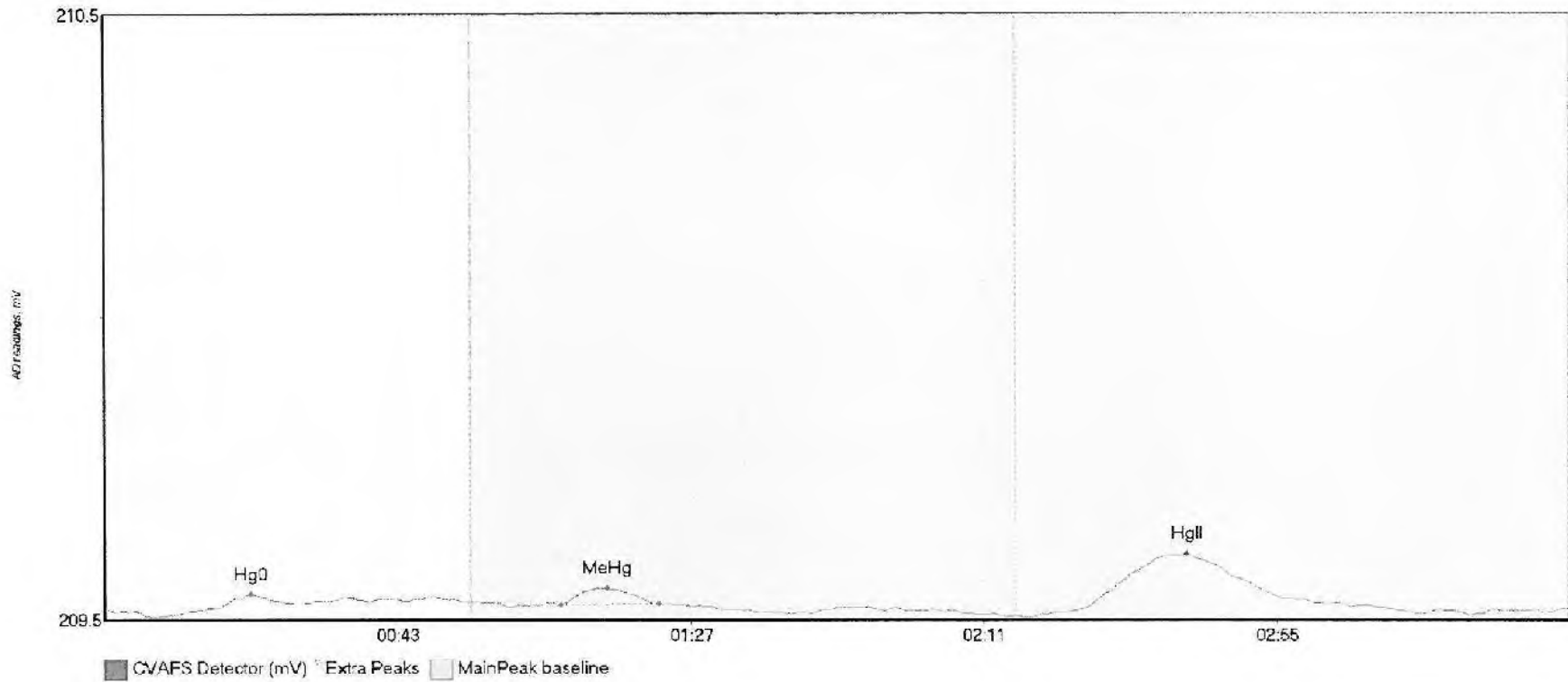


#24: F708434-MSD2



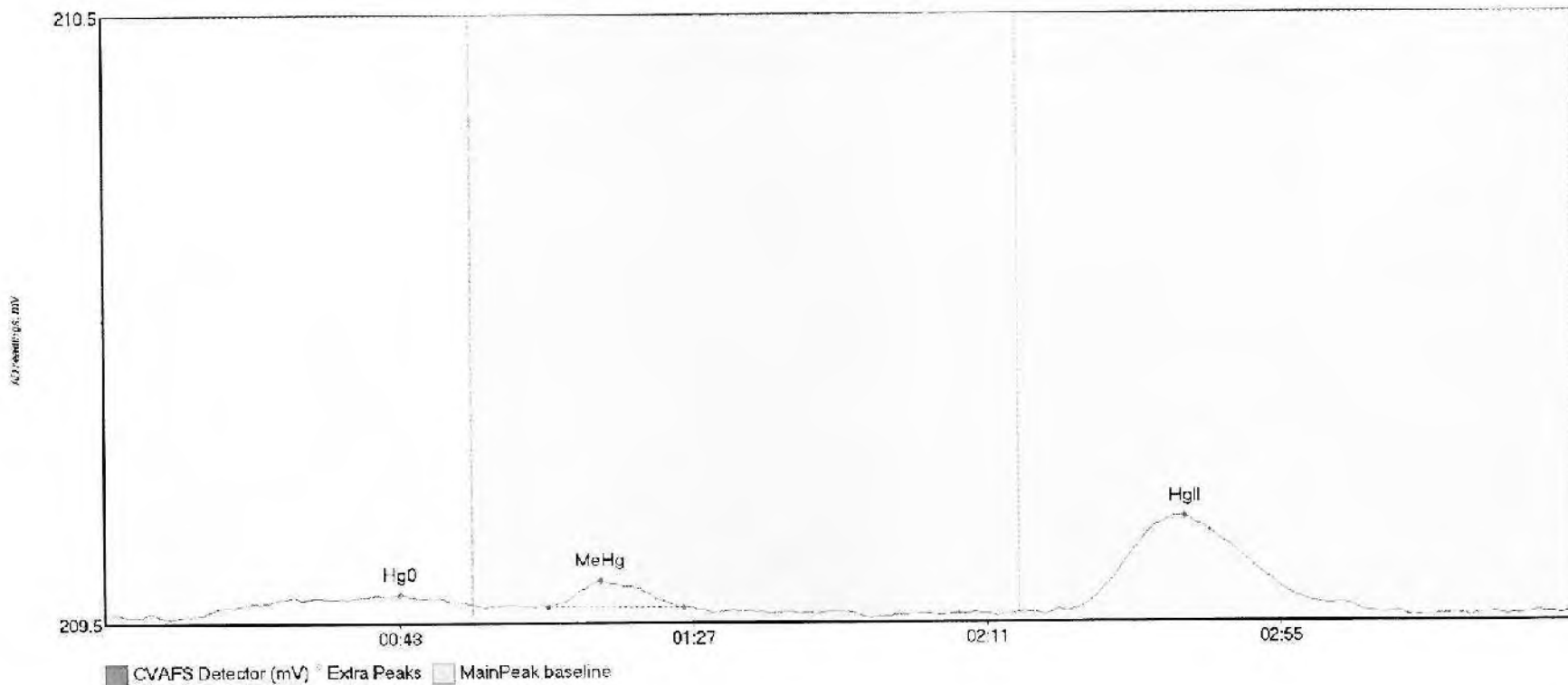
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	D1Dev	D1Shift	Comment
F708434-MSD2 Hg	5.122	16.0	53.0	209.57	209.59	31.3	0.030	OK	209.5669	0.00	0.01	
F708434-MSD2 Me	385.871	62.5	118.1	209.59	209.59	75.2	2.720	OK	209.5669	0.00	0.01	
F708434-MSD2 Hg	51.180	141.1	192.7	209.58	209.58	161.7	0.242	OK	209.5669	0.00	0.01	

#25: 1707702-01



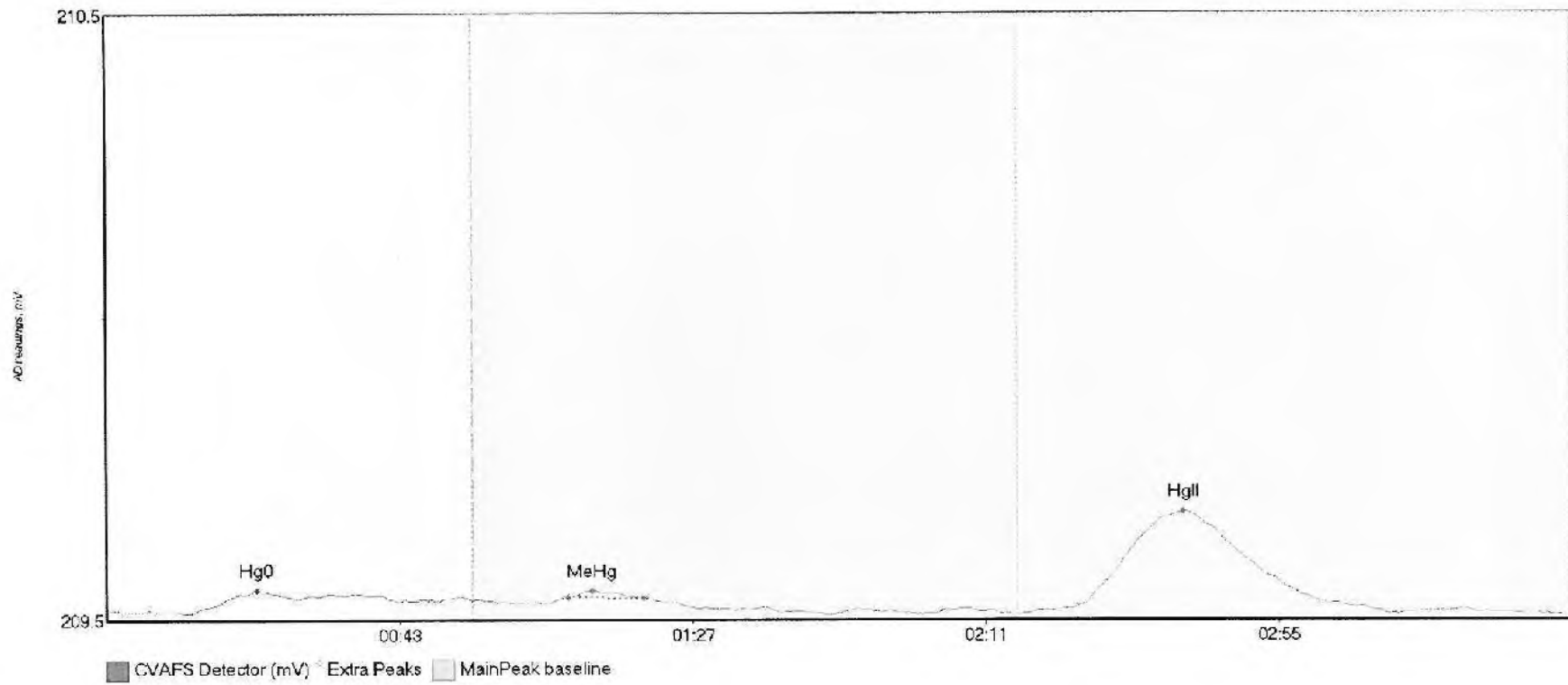
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	BiShift	Comment
1707702-01 Hg0	1.254	15.8	29.4	209.56	209.57	22.0	0.024	OK	209.5619	0.00	0.00	
1707702-01 MeHg	2.450	68.4	83.1	209.57	209.57	75.4	0.027	OK	209.5619	0.00	0.00	
1707702-01 HgII	22.118	141.4	197.0	209.55	209.56	162.5	0.089	OK	209.5609	0.00	0.00	

#26: 1707703-01



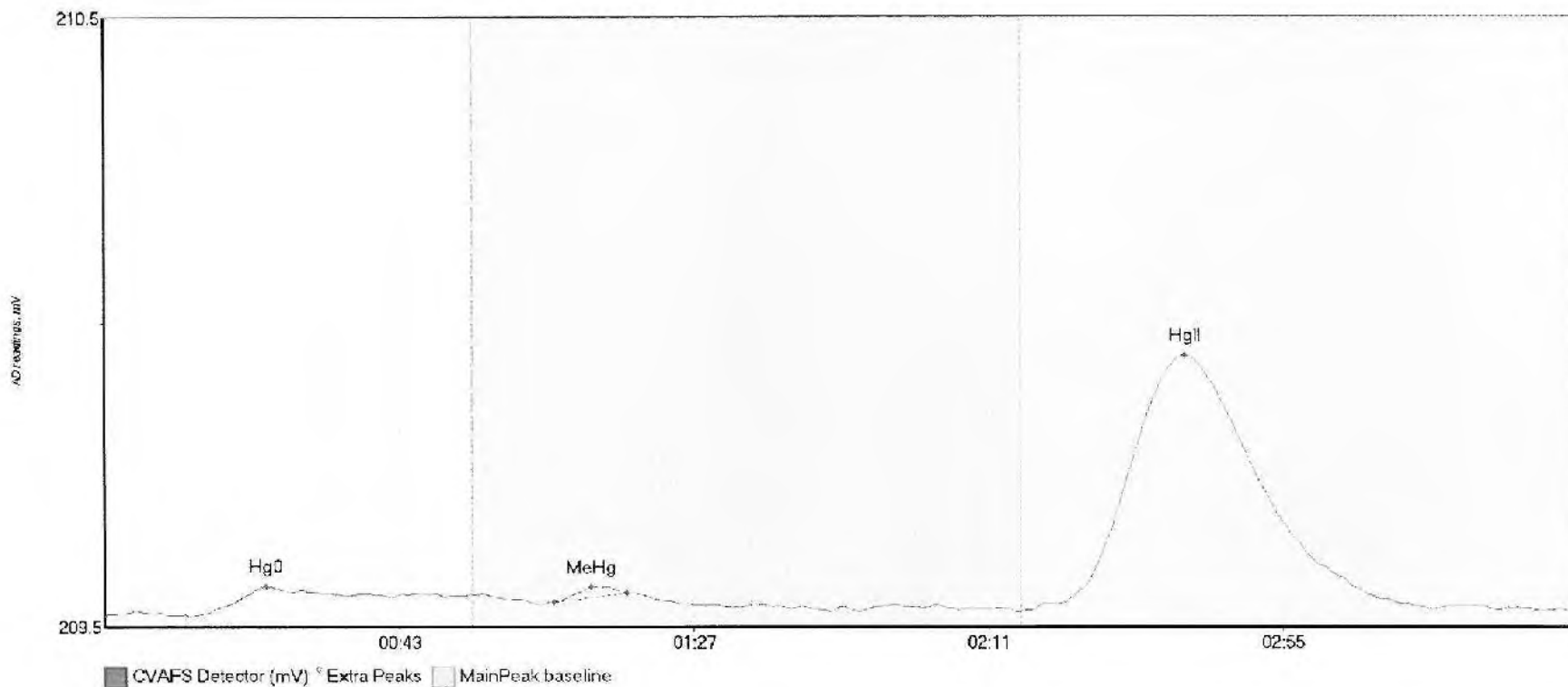
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RIDev	RIShift	Comment
1707703-01 Hg0	5.052	14.0	55.0	209.55	209.57	44.1	0.033	CF	209.5559	0.00	0.00	
1707703-01 MeHg	4.712	65.3	86.6	209.57	209.56	74.1	0.043	OK	209.5559	0.00	0.00	
1707703-01 HgII	31.509	144.0	188.5	209.56	209.56	161.8	0.157	OK	209.5559	0.00	0.00	

#27: 1707704-01



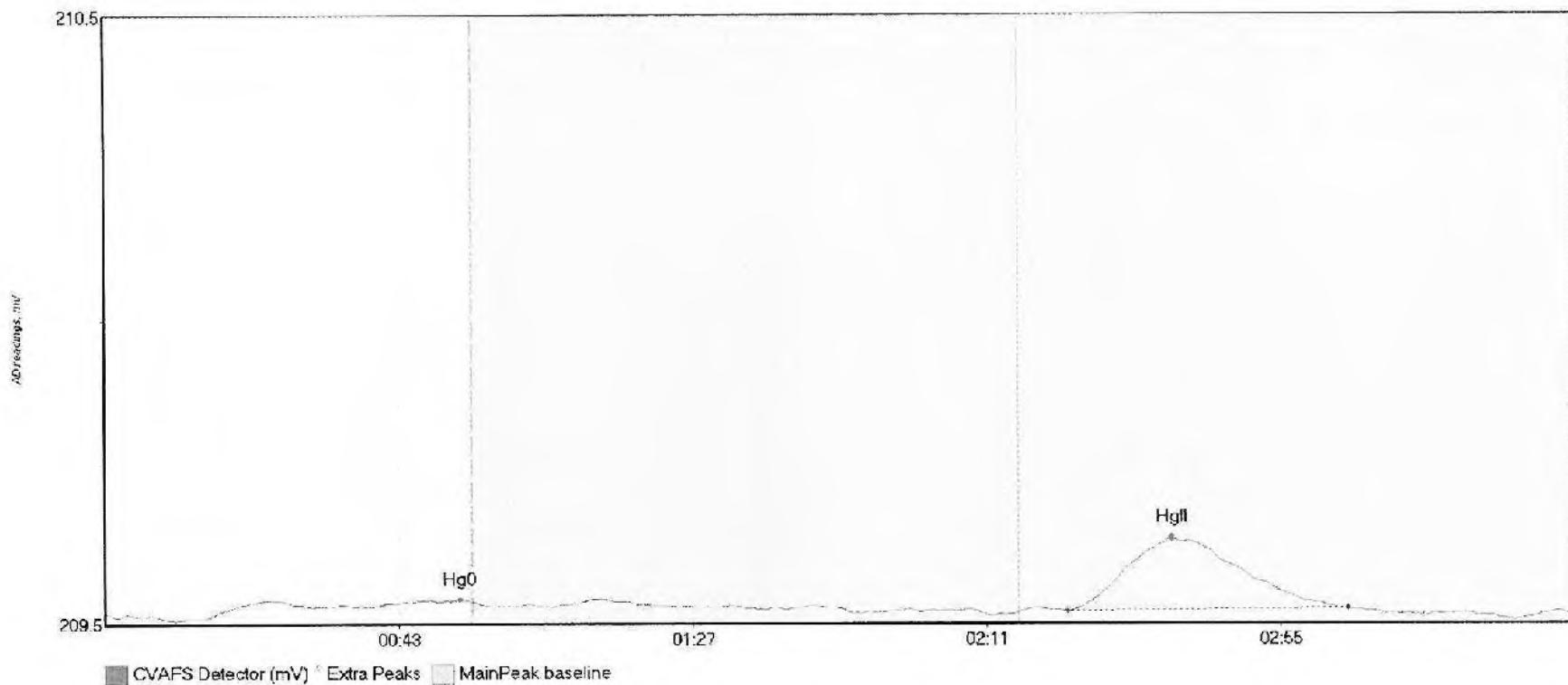
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	R Dev	BlShift	Comment
1707704-01 Hg0	5.172	12.1	46.2	209.54	209.56	22.8	0.038	OK	209.5447	0.00	-0.01	
1707704-01 MeHg	0.690	69.3	80.6	209.57	209.57	72.8	0.010	OK	209.5447	0.00	-0.01	
1707704-01 HgII	35.531	138.8	192.9	209.54	209.54	161.7	0.168	OK	209.5447	0.00	-0.01	

#28: 1707704-02



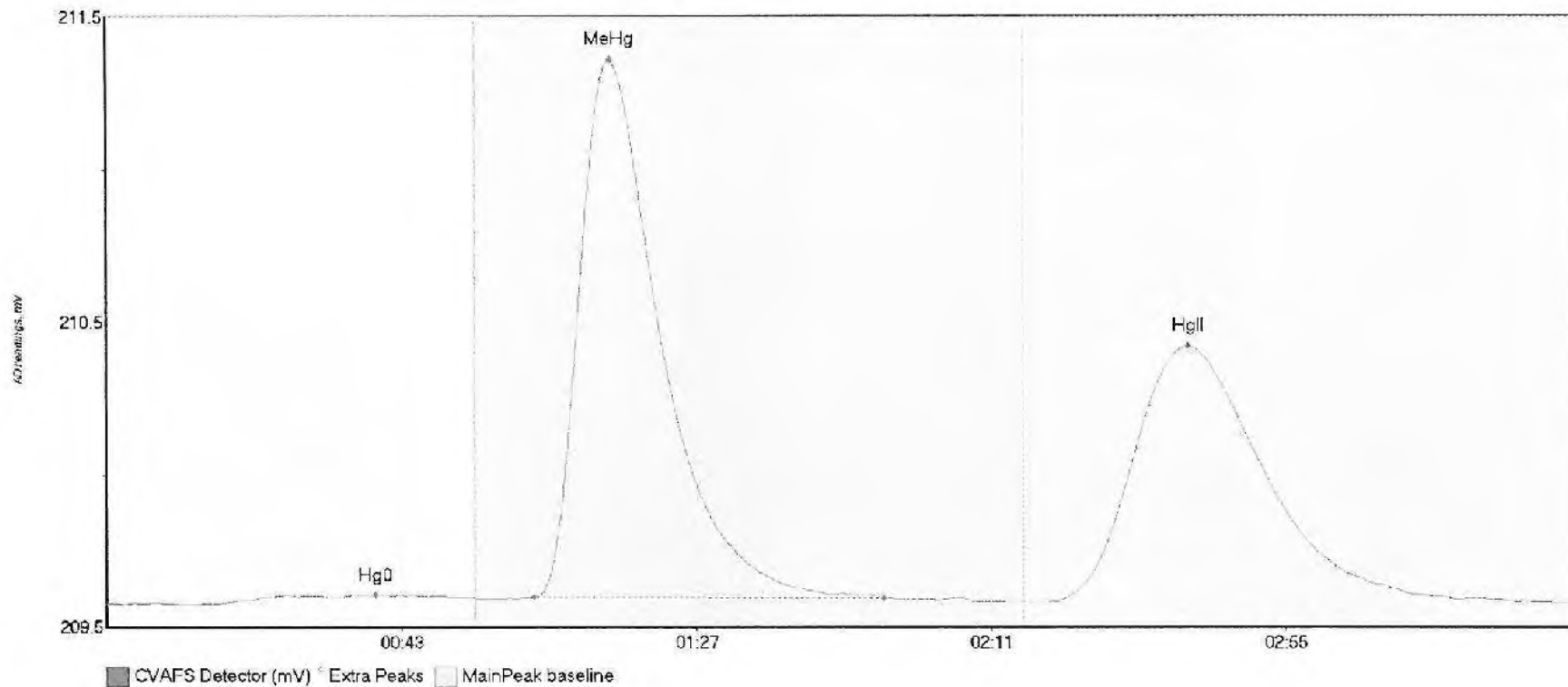
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StdDev	B1Std11	Comment
1707704-02 Hg0	4.956	13.3	42.6	209.54	209.57	24.2	0.049	OK	209.5381	0.00	0.01	
1707704-02 MeHg	0.969	67.1	78.0	209.56	209.57	72.7	0.024	OK	209.5381	0.00	0.01	
1707704-02 HgII	91.394	138.4	197.7	209.55	209.55	161.4	0.418	OK	209.5381	0.00	0.01	

#29: 1707732-01



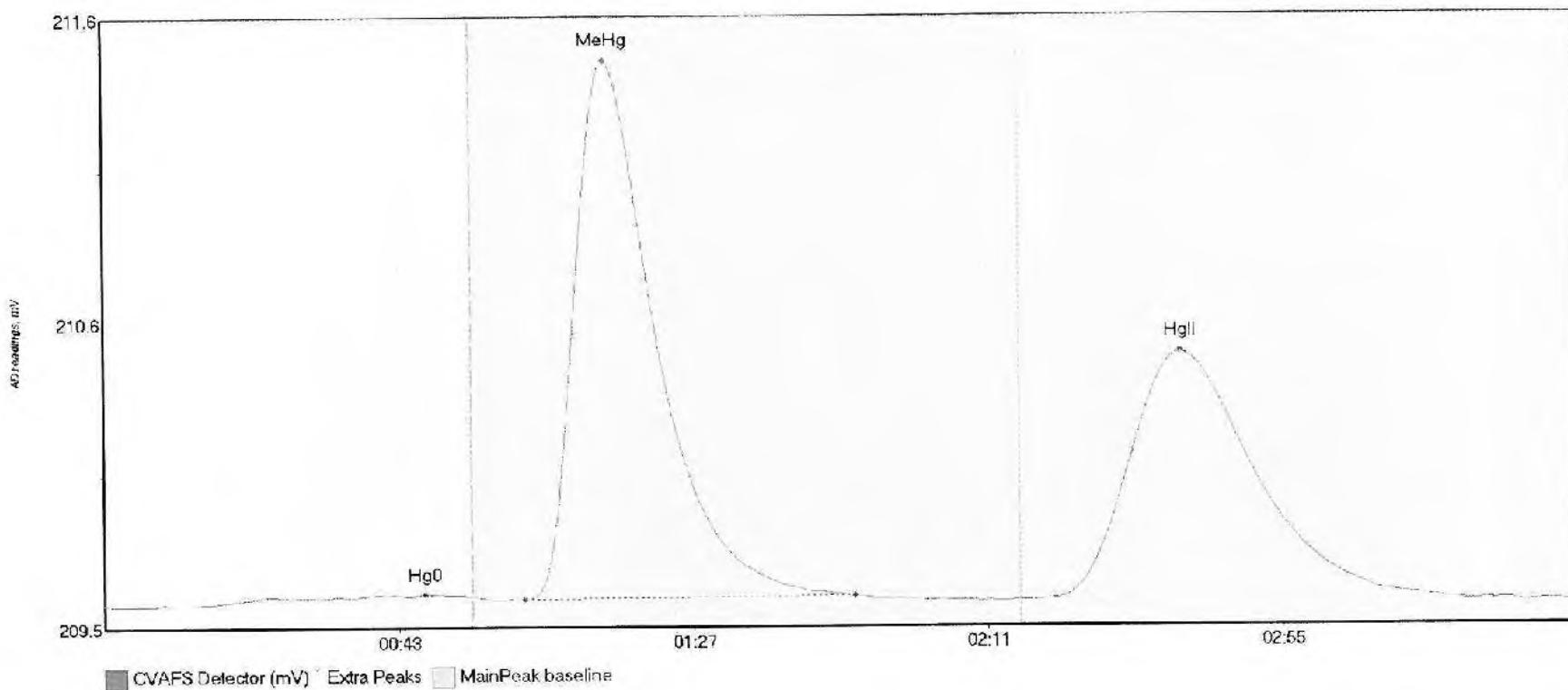
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-01 Hg0	3.731	14.5	55.0	209.53	209.56	55.1	0.031	CT	209.5421	0.00	0.00	
1707732-01 HgII	22.837	144.2	186.2	209.55	209.55	159.7	0.119	OK	209.5421	0.00	0.00	017

#30: 1707732.02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	StShift	Comment
1707732-02 Hg0	5.566	15.7	55.0	209.54	209.56	40.1	0.032	CT	209.5402	0.00	0.01	
1707732-02 MeHg	254.390	63.7	115.9	209.56	209.56	75.1	1.809	OK	209.5402	0.00	0.01	
1707732-02 HgII	192.911	141.4	211.9	209.55	209.55	161.4	0.861	OK	209.5402	0.00	0.01	

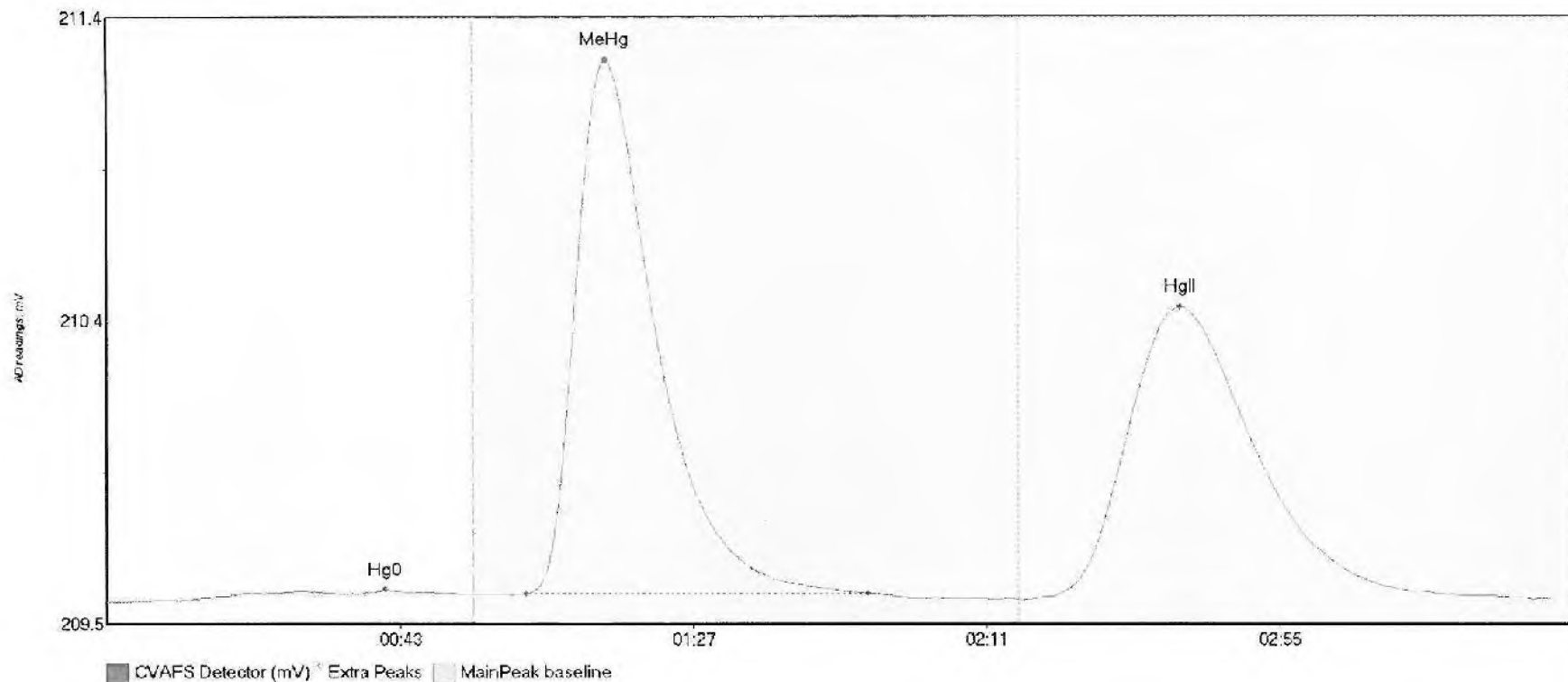
#31: 1707732-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-03 Hg0	4.793	13.1	55.0	209.54	209.56	48.0	0.035	OK	209.5356	0.00	0.00	
1707732-03 MeHg	269.631	62.8	112.1	209.55	209.55	75.0	1.940	OK	209.5356	0.00	0.00	
1707732-03 HgII	190.306	139.3	200.7	209.55	209.55	160.9	0.892	OK	209.5356	0.00	0.00	

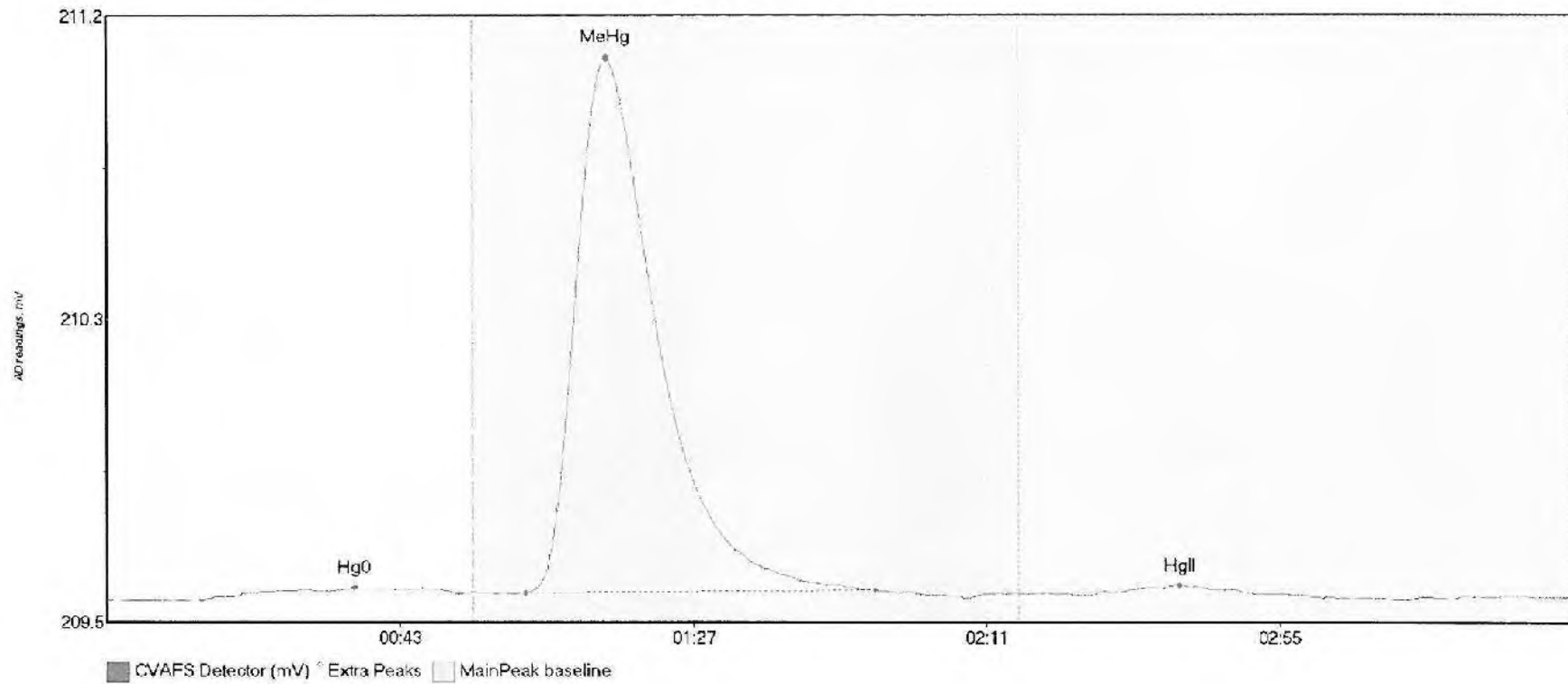


#32: 1707732-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RI Dev	RI Shift	Comment
1707732-04 Hg0	5.302	10.7	53.2	209.53	209.56	41.7	0.035	OK	209.5298	0.00	0.02	
1707732-04 MeHg	241.493	62.8	114.1	209.55	209.56	74.9	1.726	OK	209.5298	0.00	0.02	
1707732-04 HgII	210.774	138.6	213.9	209.54	209.54	161.1	0.946	OK	209.5298	0.00	0.02	

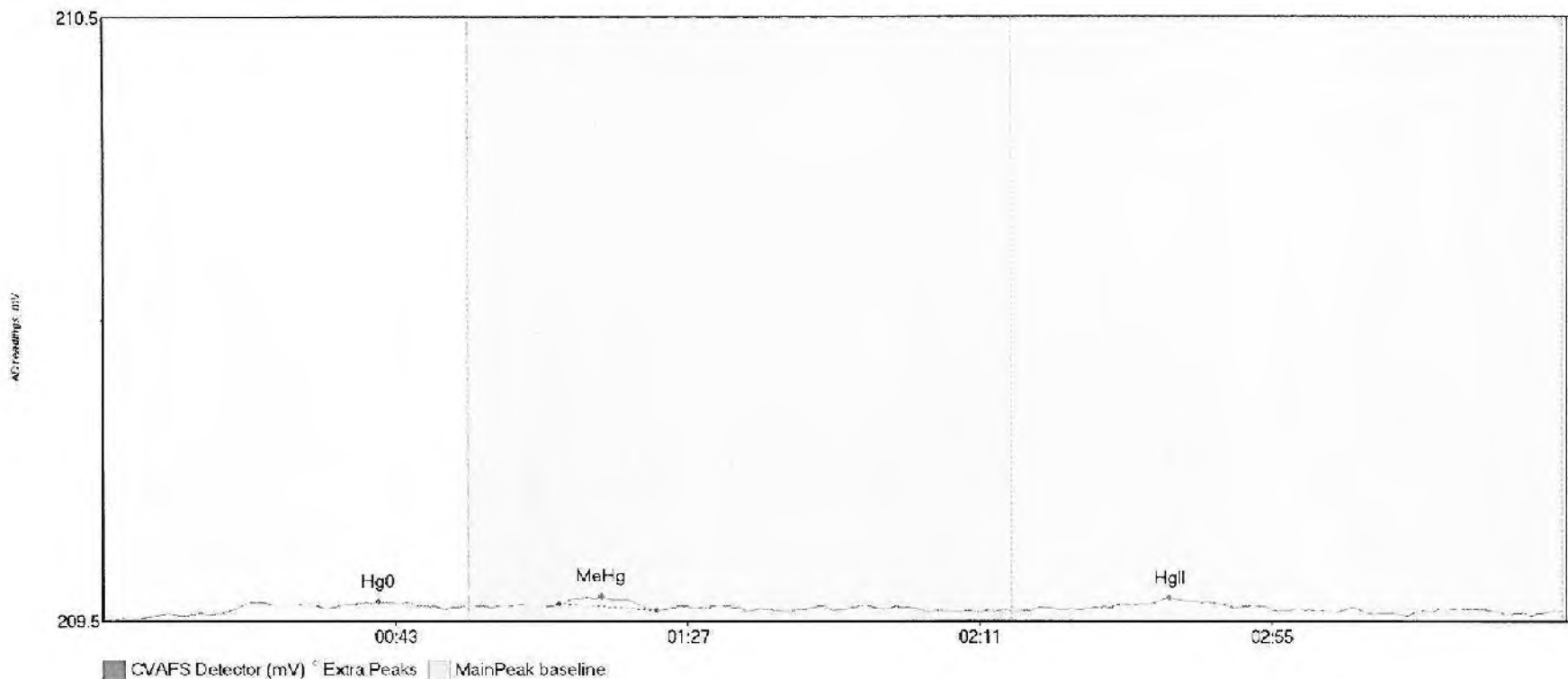
#33: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RDov	RDShift	Comment
SEQ-CCV2 Hg0	6.307	14.4	52.9	209.53	209.54	37.1	0.034	OK	209.5244	0.00	0.01	
SEQ-CCV2 MeHg	212.964	62.9	116.3	209.55	209.55	75.0	1.500	OK	209.5244	0.00	0.01	
SEQ-CCV2 HgII	2.554	151.0	171.1	209.55	209.55	161.1	0.021	OK	209.5244	0.00	0.01	

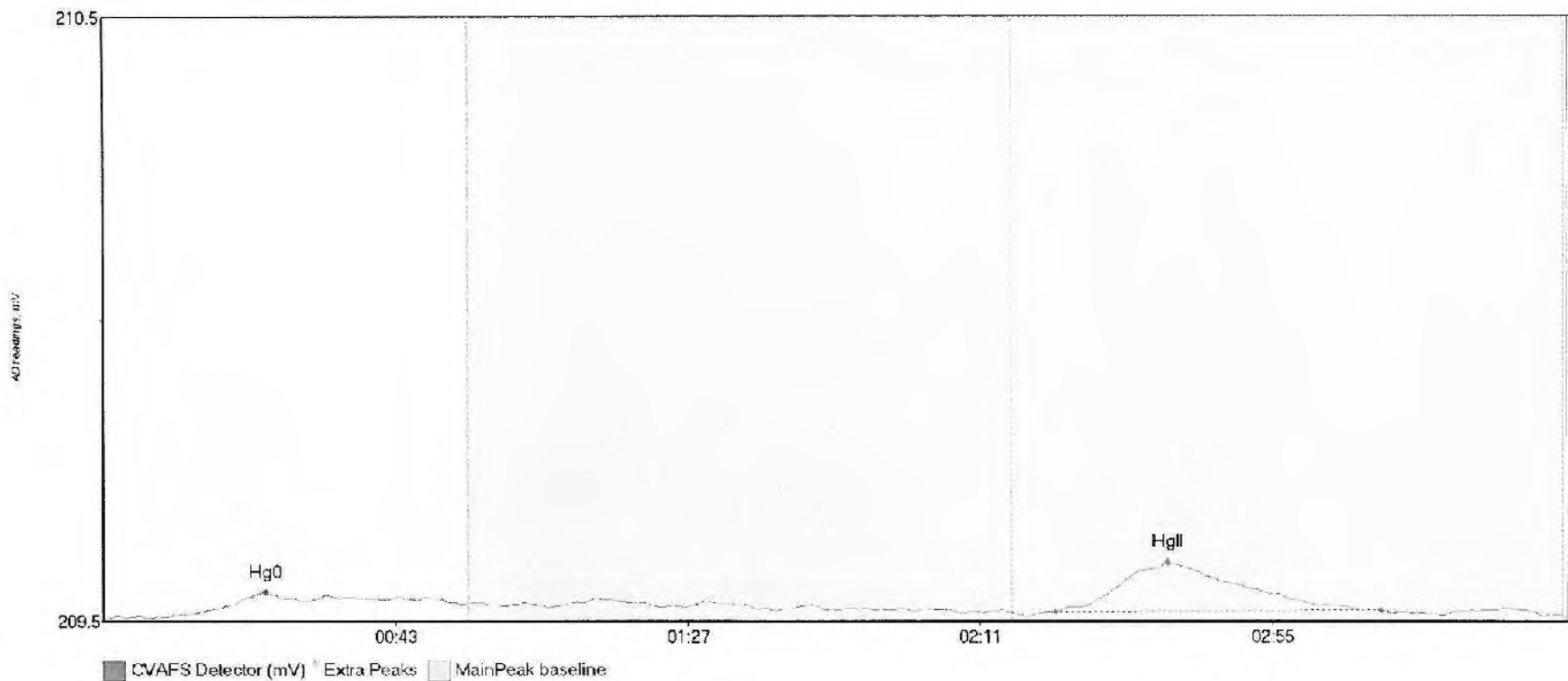
017

#34: SEQ-CCB2



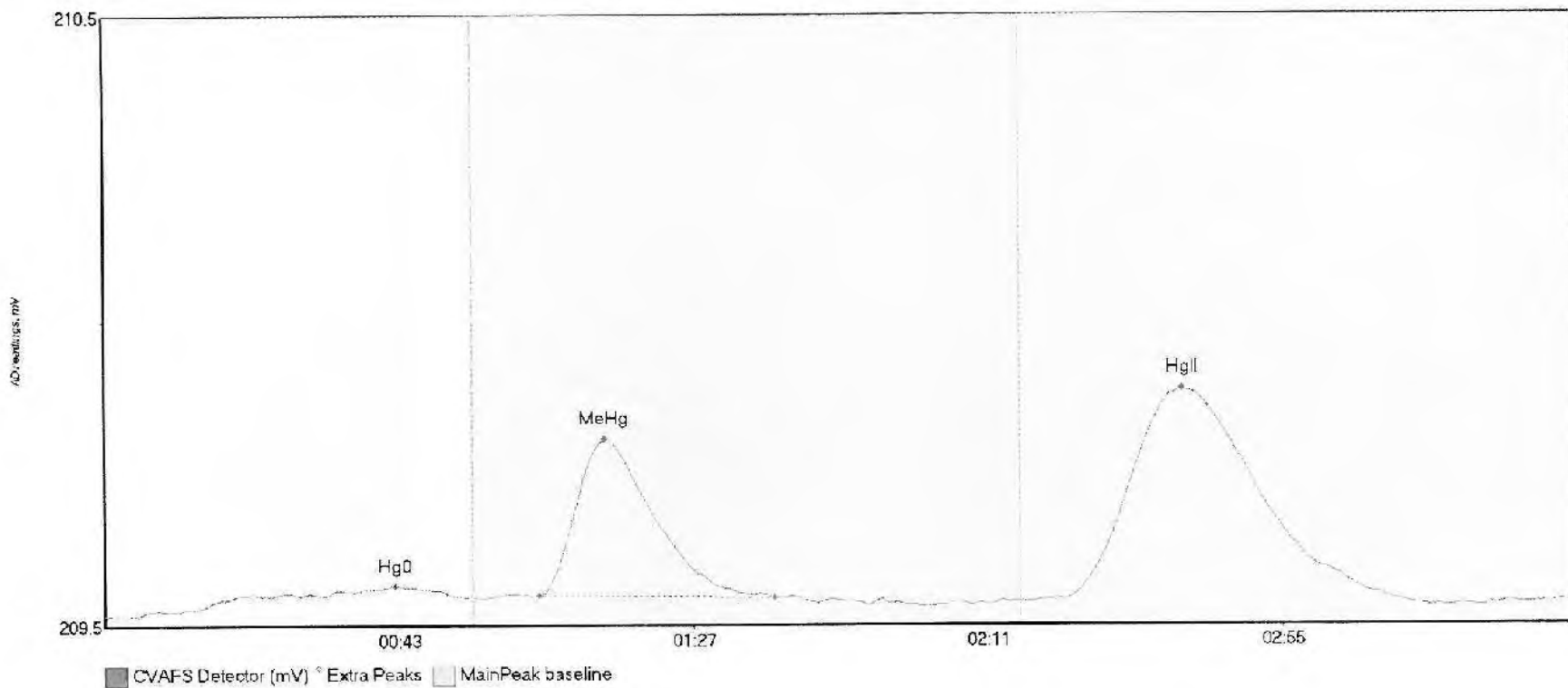
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BI02v	BIShift	Comment
SEQ-CCB2 Hg0	3.836	7.6	51.3	209.54	209.55	41.5	0.024	OK	209.5307	0.00	0.01	
SEQ-CCB2 MeHg	1.575	68.6	83.3	209.56	209.55	75.0	0.012	OK	209.5307	0.00	0.01	
SEQ-CCB2 HgII	2.721	147.8	176.9	209.55	209.54	160.5	0.019	OK	209.5307	0.00	0.01	017

#35: 1707732-05



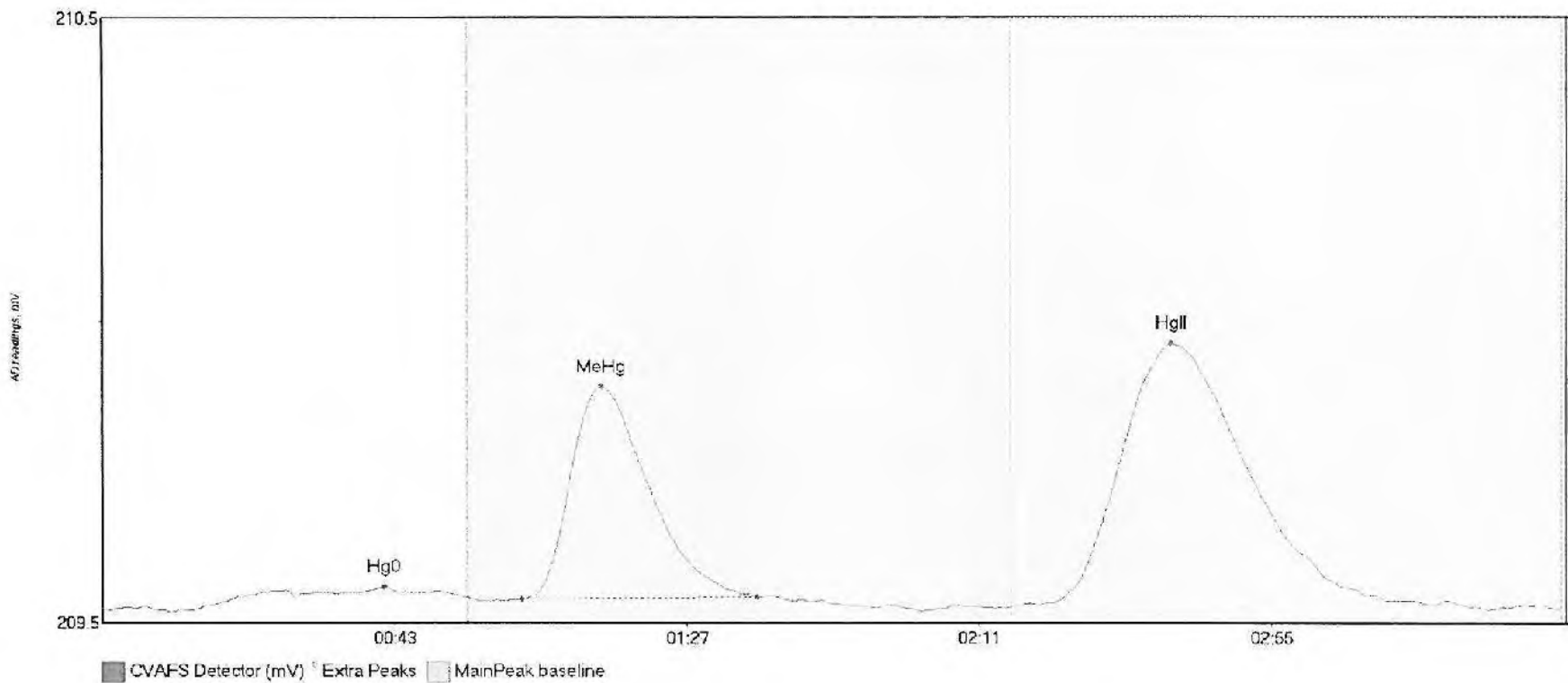
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707732-05 Hg0	6.729	9.5	54.1	209.54	209.56	24.4	0.040	OK	209.5359	0.00	0.01	
1707732-05 HgII	16.796	143.5	192.4	209.55	209.55	160.3	0.061	OK	209.5359	0.00	0.01	017

#36: 1708082-01



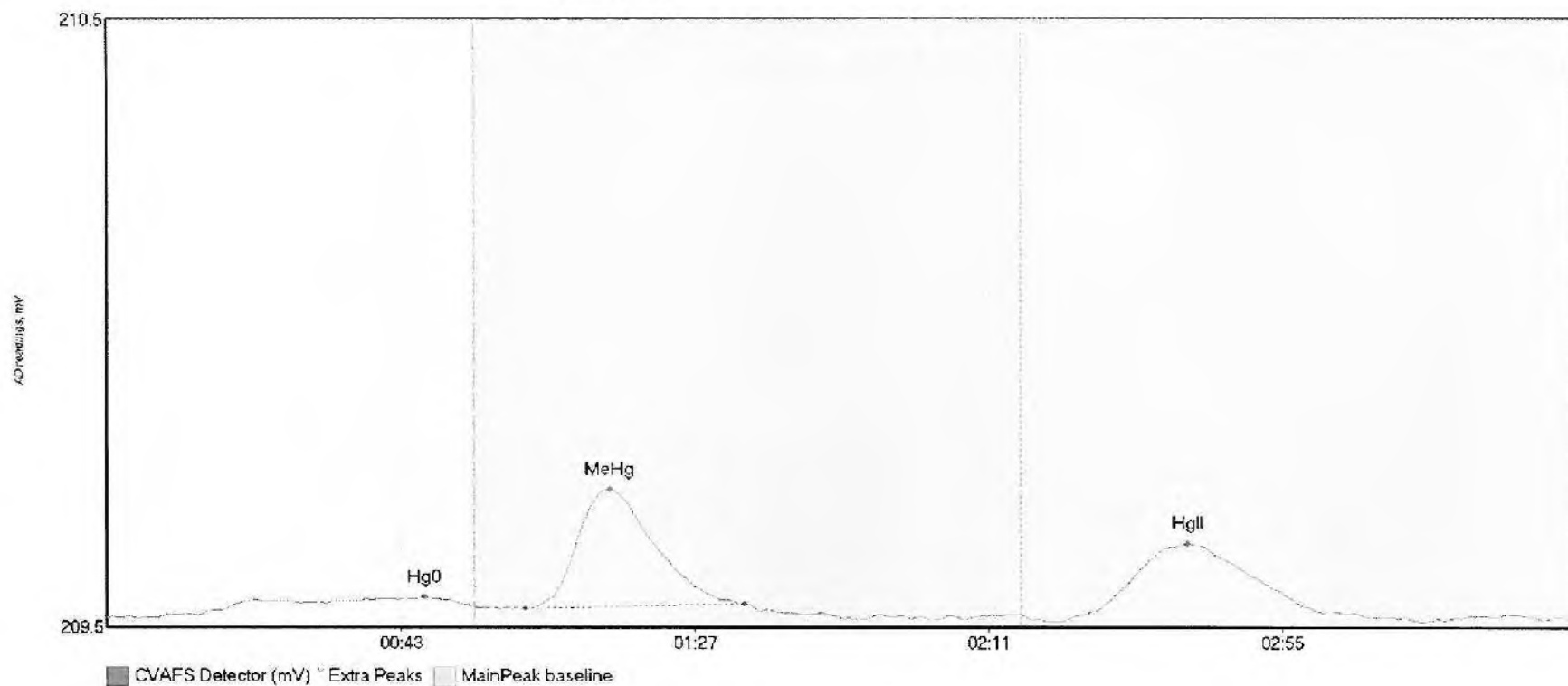
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-01 Hg0	7.621	4.7	54.0	209.53	209.55	43.4	0.049	OK	209.5281	0.00	0.02	
1708082-01 MeHg	34.315	54.8	100.0	209.56	209.58	74.8	0.256	OK	209.5281	0.00	0.02	
1708082-01 Hg11	73.434	143.4	192.2	209.56	209.58	161.0	0.344	OK	209.5281	0.00	0.02	

#37: 1708082-03



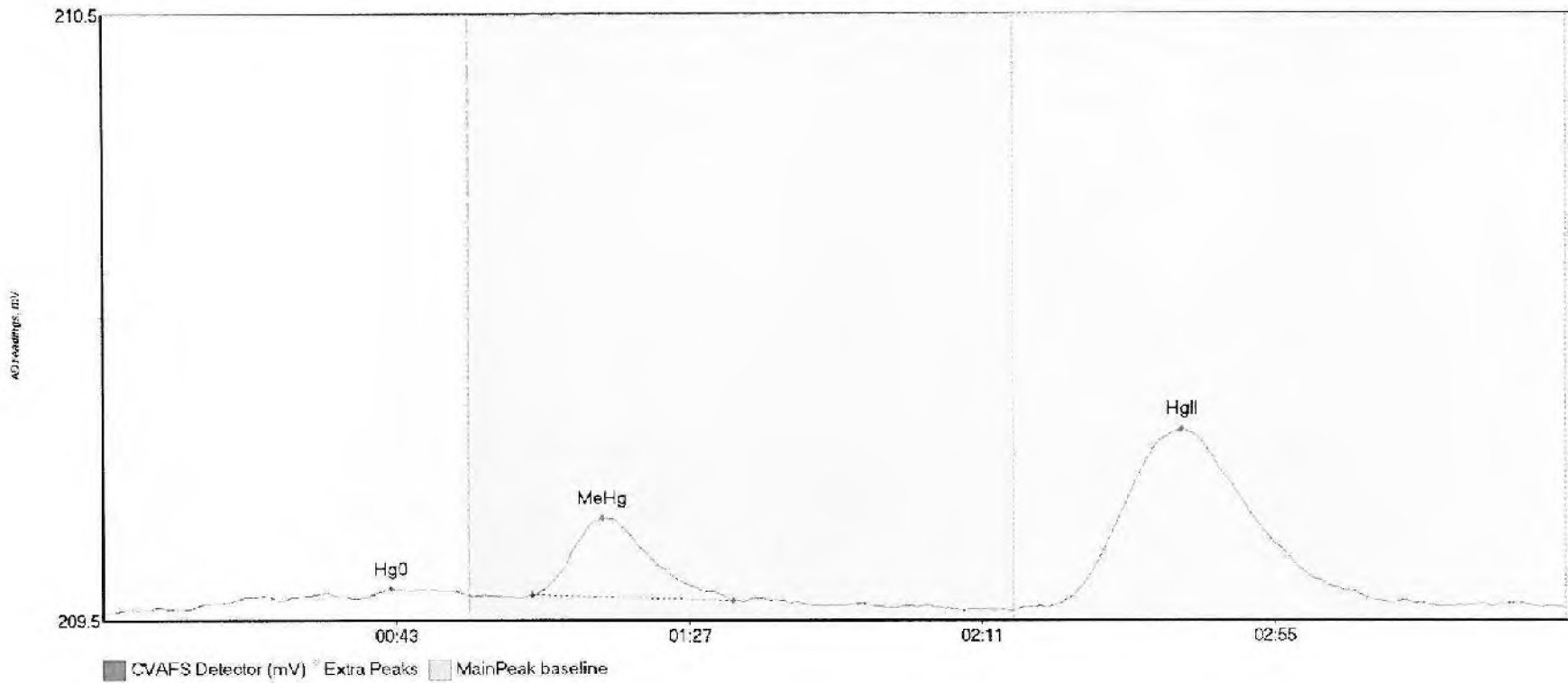
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	3lDev	l1Shift	Comment
1708082-03 Hg0	6.395	13.6	55.0	209.52	209.55	42.5	0.039	OT	209.5256	0.00	0.00	
1708082-03 MeHg	47.566	63.1	93.6	209.54	209.55	75.1	0.352	OK	209.5256	0.00	0.00	
1708082-03 HgII	93.335	141.1	200.4	209.53	209.53	161.1	0.432	OK	209.5256	0.00	0.00	

#38: 1708082-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StdDev	BaselineShift	Comment
1708082-04 Hg0	6.228	13.6	55.0	209.52	209.54	47.6	0.031	CF	209.5194	0.00	0.00	
1708082-04 MeHg	25.717	62.6	95.4	209.53	209.54	75.3	0.196	OK	209.5194	0.00	0.00	
1708082-04 HgII	22.565	145.6	185.7	209.52	209.52	161.9	0.119	OK	209.5194	0.00	0.00	

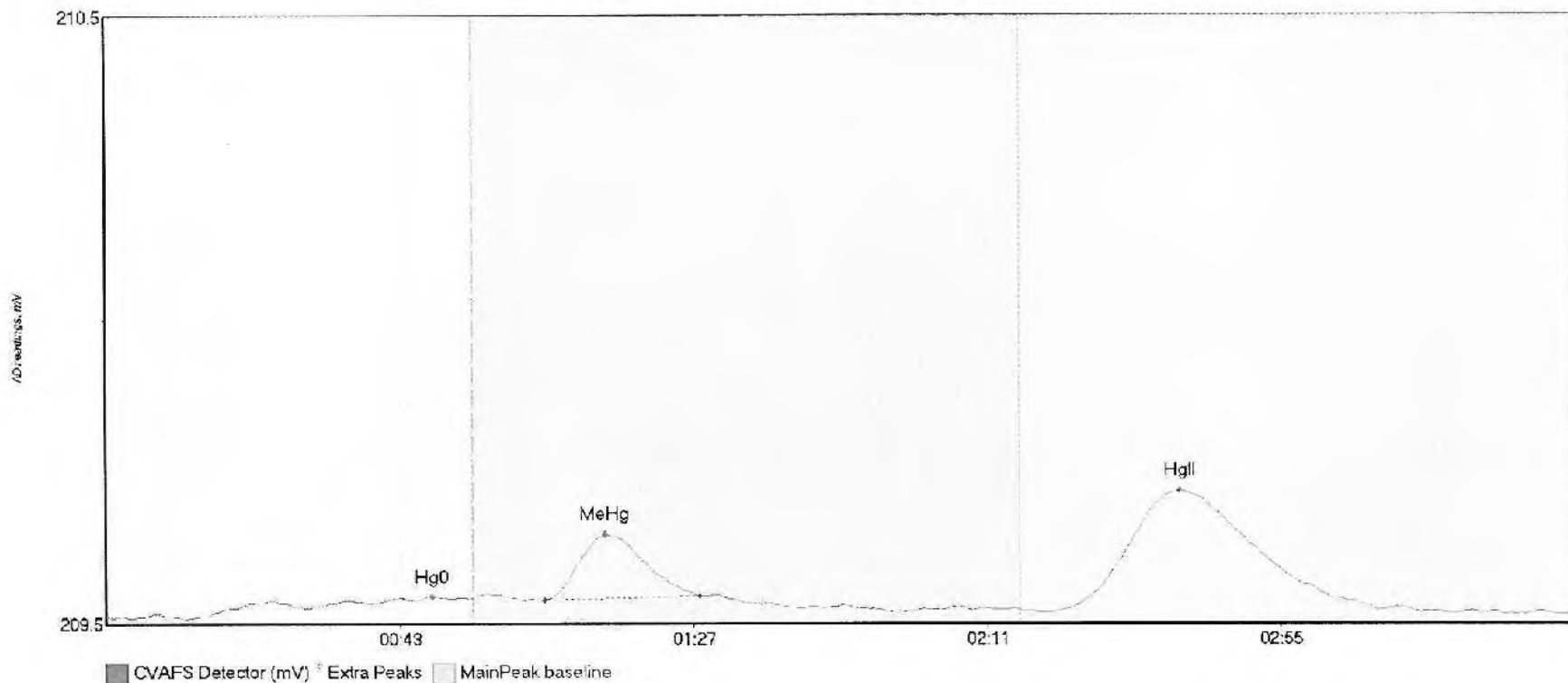
#39: 1708062-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	ElShift	Comment
1708082-05 Hg0	4.428	11.5	55.0	209.51	209.53	43.3	0.034	CT	209.5037	0.00	0.01	
1708082-05 MeHg	17.478	64.4	94.6	209.53	209.52	75.0	0.126	OK	209.5037	0.00	0.01	
1708082-05 HgII	85.772	142.0	216.0	209.51	209.51	162.2	0.294	OK	209.5037	0.00	0.01	

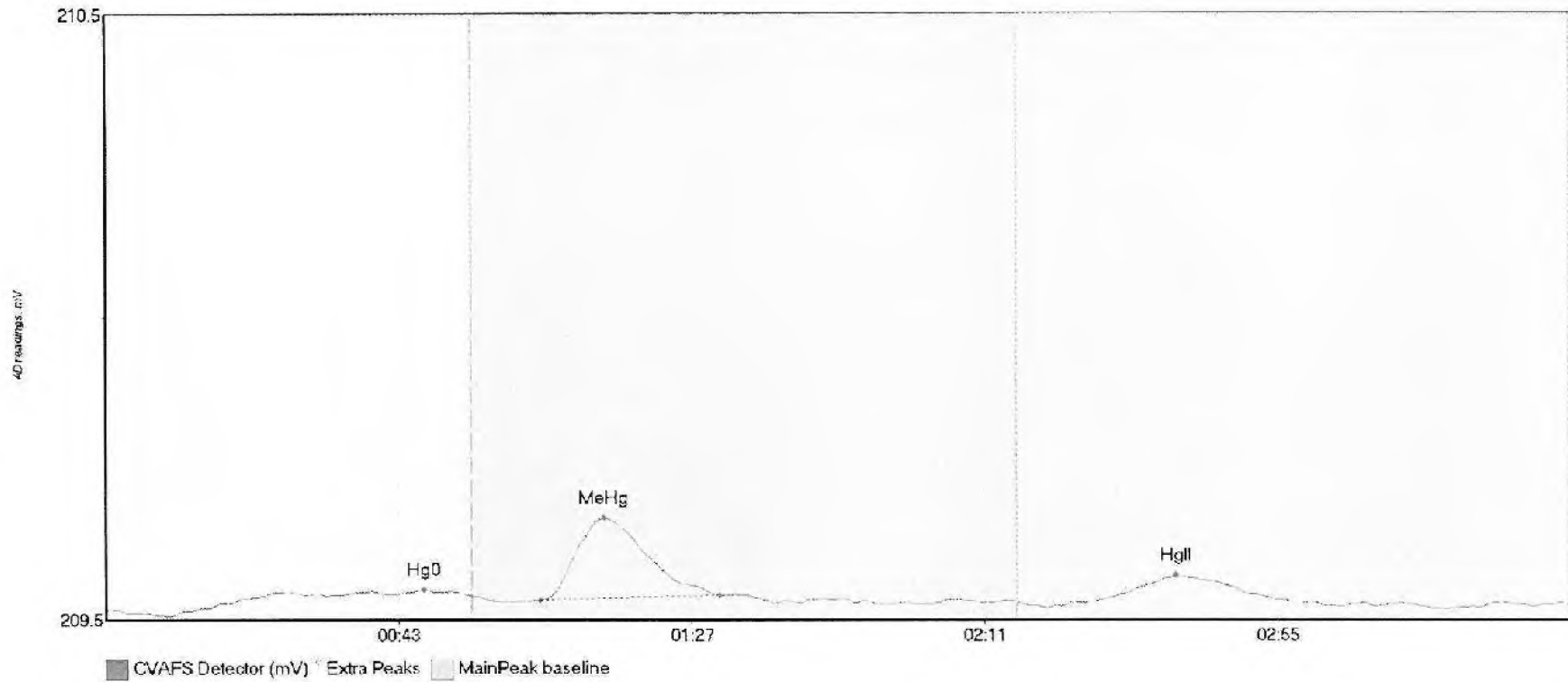


#40: 1708082-07



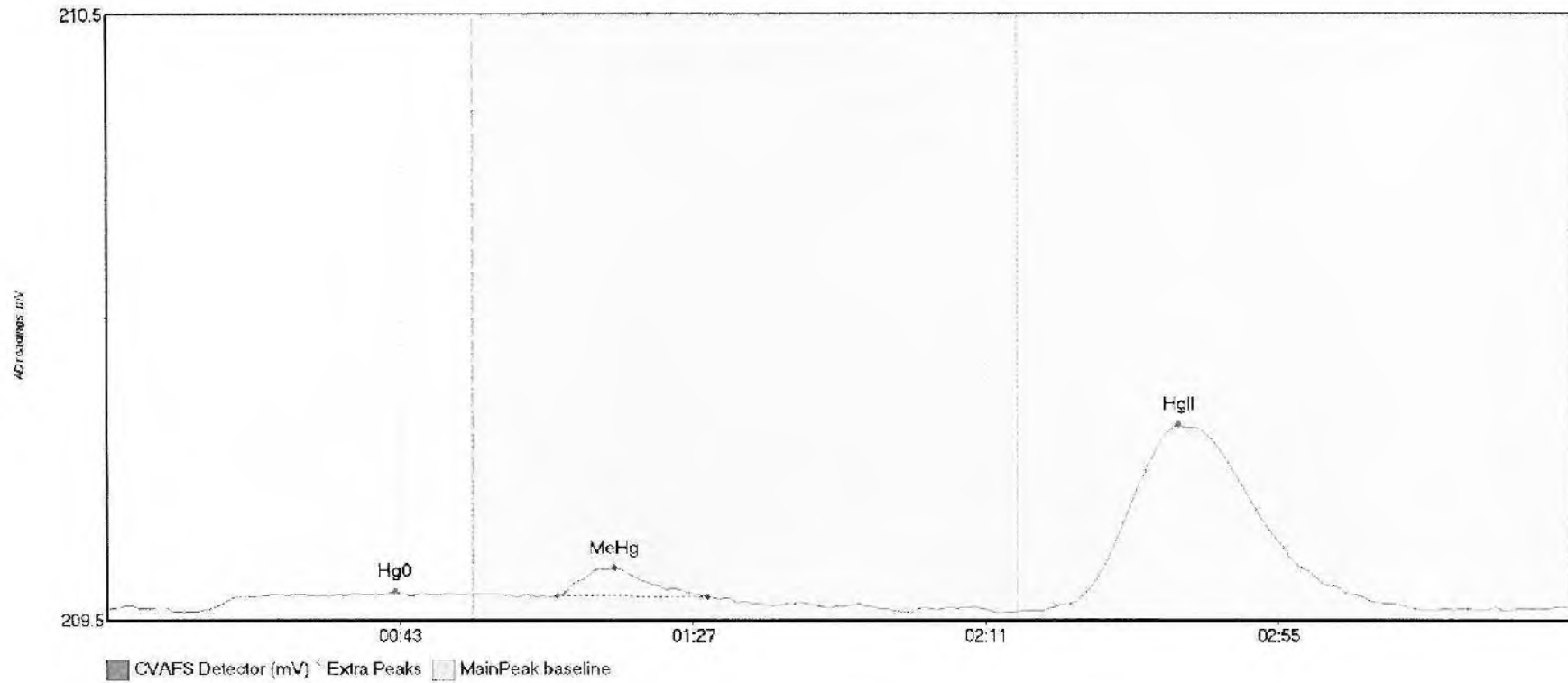
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-07 Hg0	2.596	15.3	51.8	209.51	209.54	48.8	0.032	OK	209.5077	0.00	0.01	
1708082-07 MeHg	11.918	65.7	88.9	209.54	209.54	74.0	0.109	OK	209.5077	0.00	0.01	
1708082-07 HgII	42.706	141.4	190.7	209.52	209.52	160.9	0.201	OK	209.5077	0.00	0.01	

#41: 1708082-08



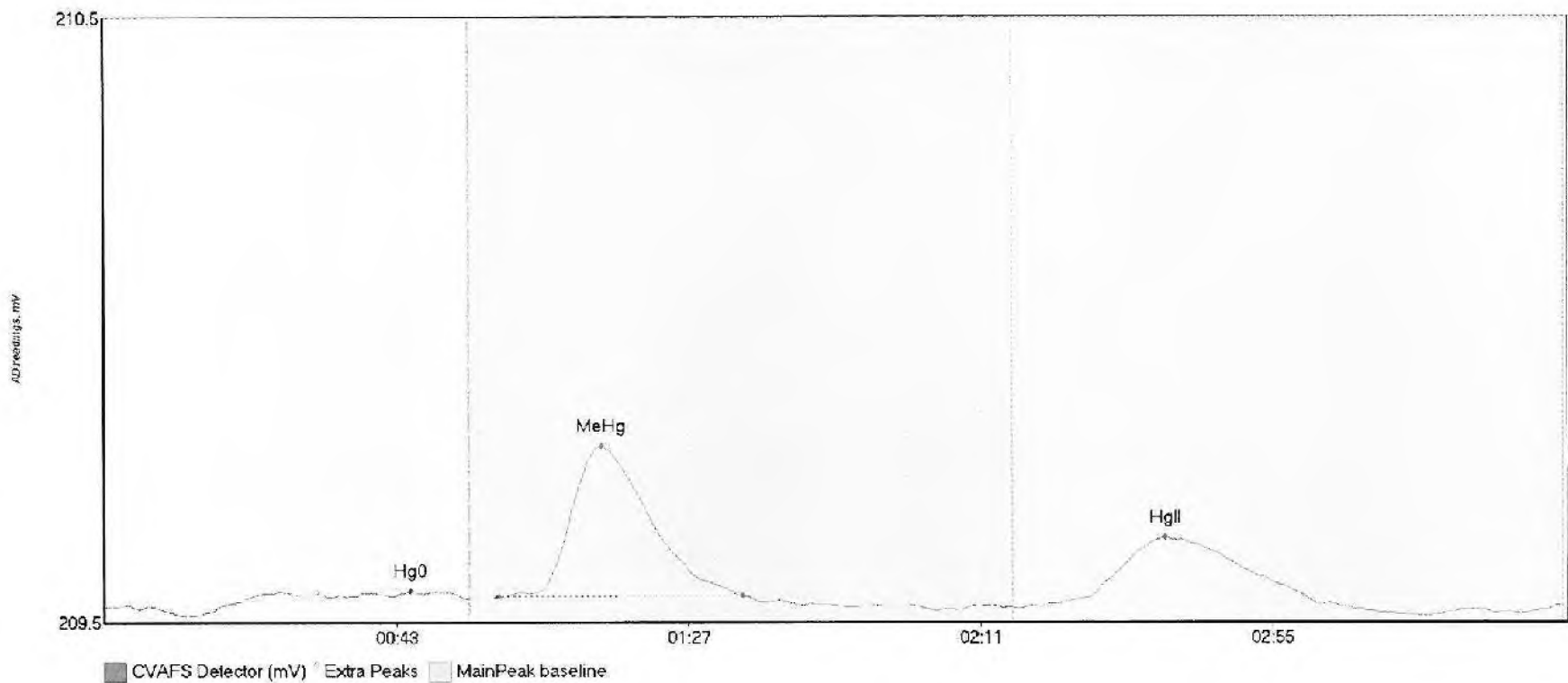
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708082-08 Hg0	1.775	15.3	55.0	209.50	209.52	47.8	0.031	CP	209.5010	0.00	0.01	
1708082-08 MeHg	16.277	66.3	92.2	209.52	209.52	74.9	0.137	OK	209.5010	0.00	0.01	
1708082-08 HgII	6.000	149.3	176.1	209.51	209.52	160.7	0.043	OK	209.5010	0.00	0.01	

#42: 1708150-01



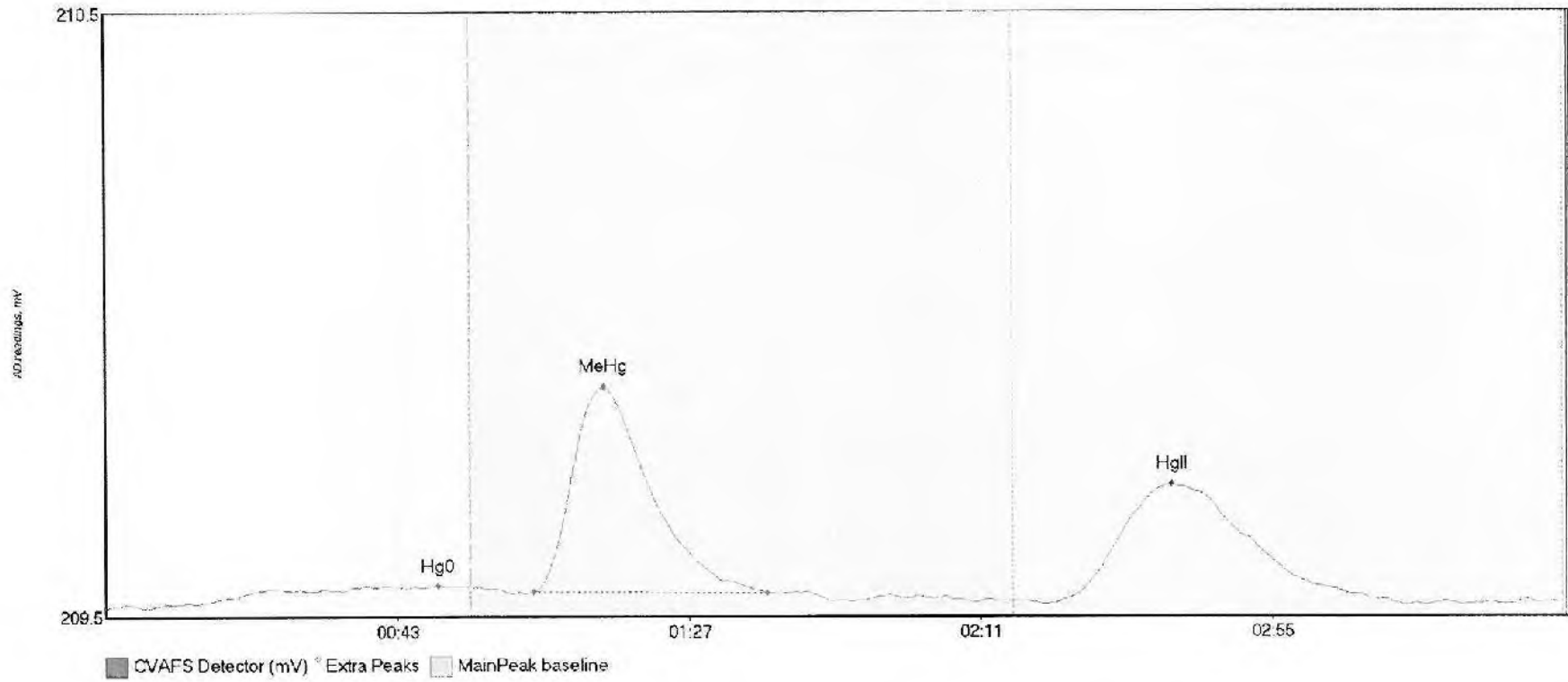
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1708150-01 Hg0	3.741	13.6	45.8	209.50	209.52	13.3	0.033	OK	209.5036	0.00	0.00	
1708150-01 MeHg	5.235	67.7	90.2	209.52	209.52	76.3	0.047	OK	209.5036	0.00	0.00	
1708150-01 HgII	67.595	140.6	196.3	209.50	209.50	161.0	0.308	OK	209.5036	0.00	0.00	

#43: 1708269-01



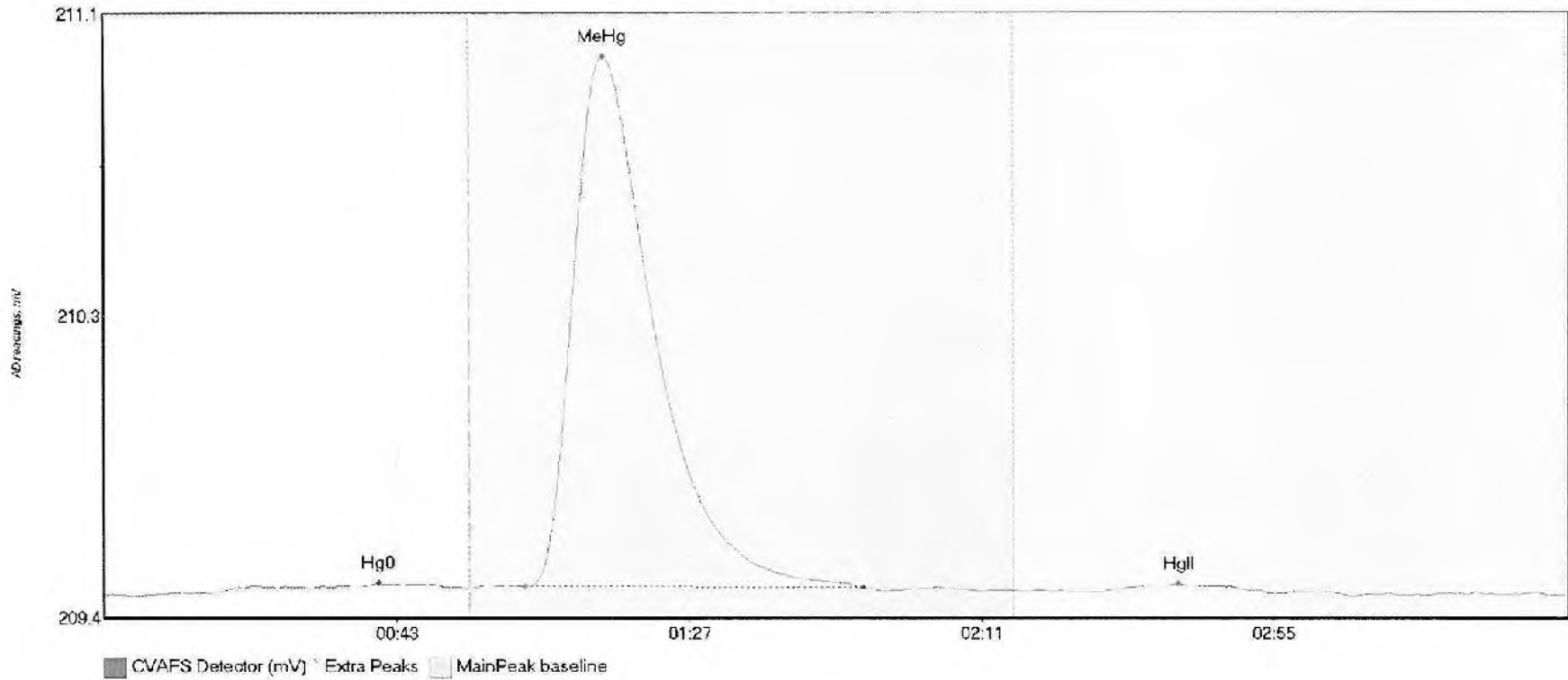
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StdDev	Shift	Comment
1708269-01 Hg0	7.003	13.5	54.5	209.48	209.51	46.2	0.040	OK	209.4951	0.00	0.00	
1708269-01 MeHg	32.551	59.5	96.2	209.50	209.51	75.0	0.250	OK	209.4951	0.00	0.00	
1708269-01 HgII	24.158	141.0	186.6	209.50	209.50	159.9	0.114	OK	209.4951	0.00	0.00	

#44: 1708269-02



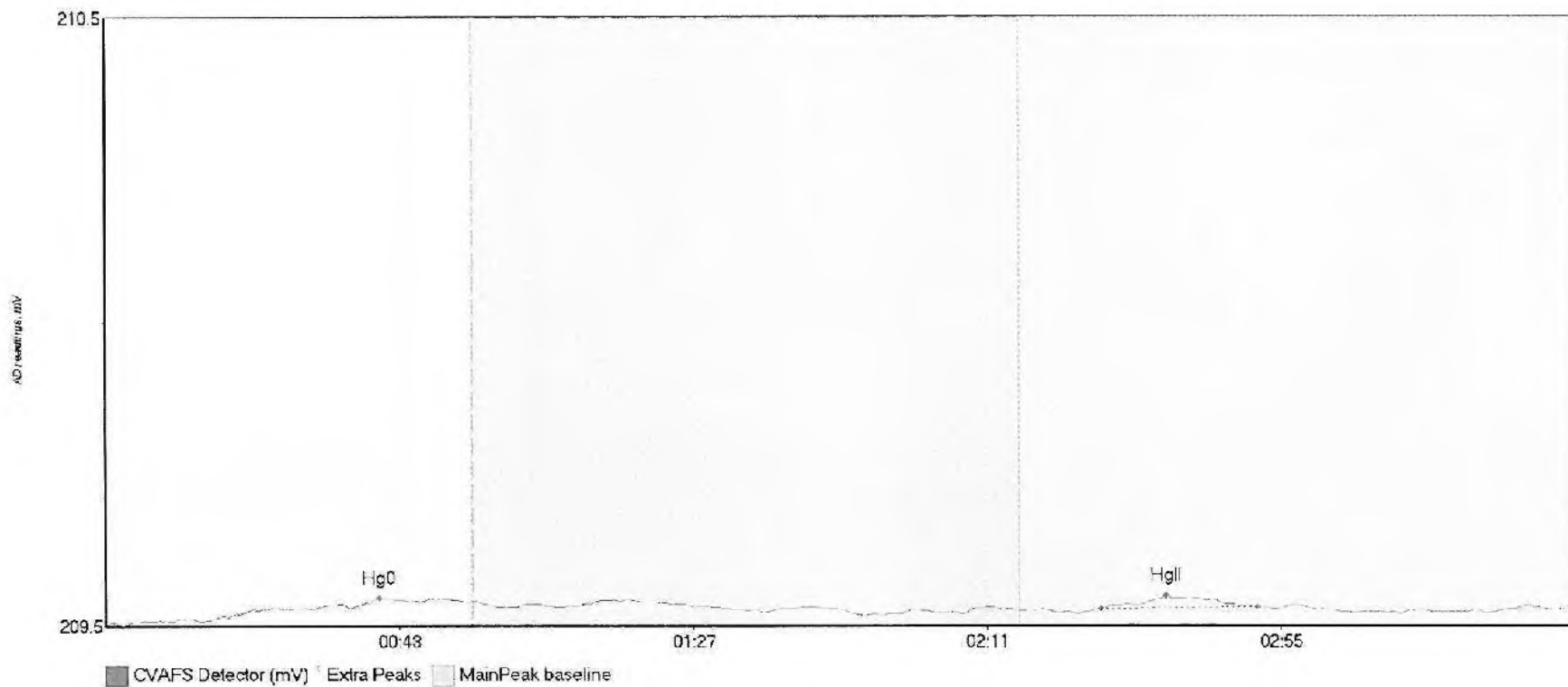
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708269-02 Hg0	3.377	13.7	54.0	209.48	209.51	50.2	0.031	OK	209.4802	0.00	0.01	
1708269-02 MeHg	46.124	54.4	99.7	209.51	209.50	75.1	0.339	OK	209.4802	0.00	0.01	
1708269-02 HgII	41.294	113.3	190.8	209.49	209.50	160.9	0.196	OK	209.4802	0.00	0.01	

#45: SEQ-CCV3



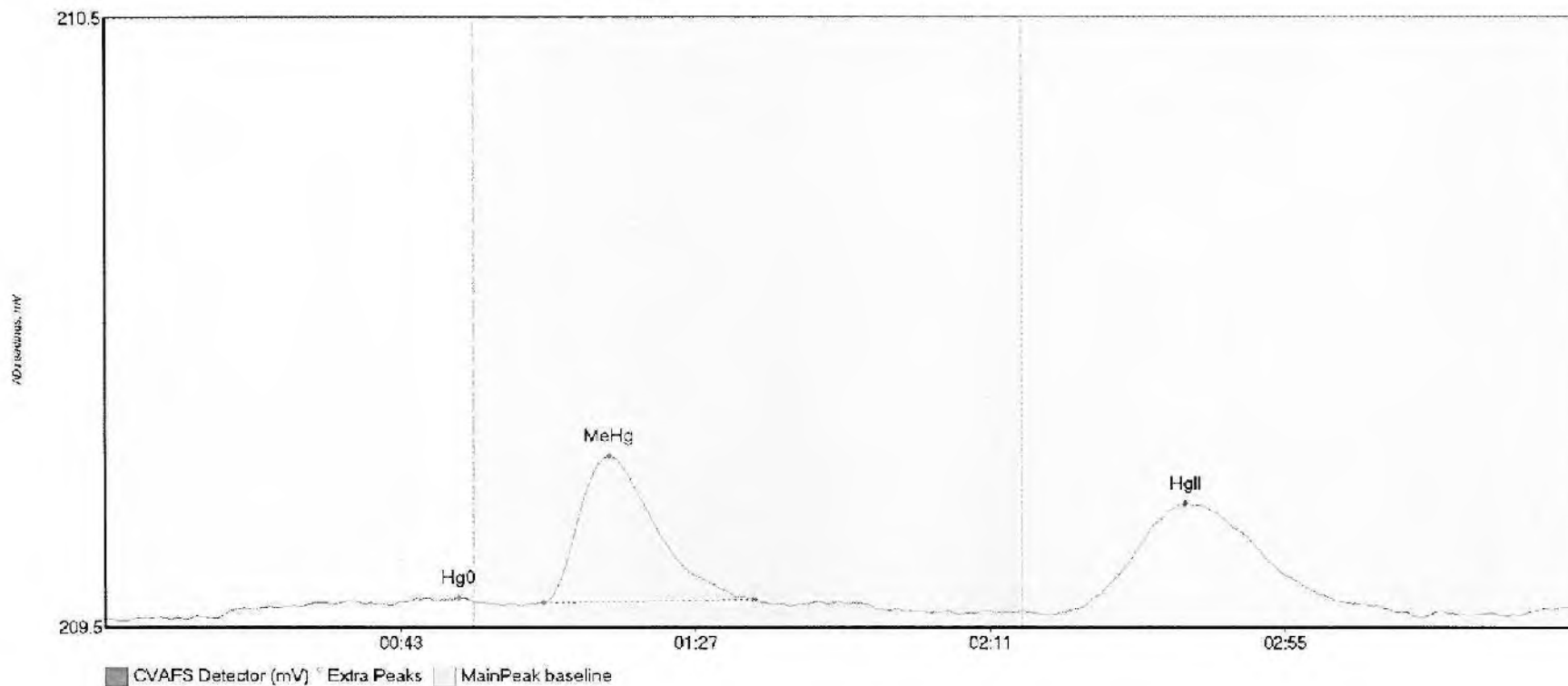
Name	Area	Start Time	End Time	Start Value	End Value	Peak Max	Peak Height	Flags	Baseline	StDev	Shift	Comment
SEQ-CCV3 Hg0	4.717	9.2	54.7	209.49	209.50	41.3	0.029	OK	209.4846	0.00	0.00	
SEQ-CCV3 MeHg	212.083	63.4	114.1	209.51	209.50	75.2	1.499	OK	209.4846	0.00	0.00	
SEQ-CCV3 HgII	1.663	153.3	172.3	209.50	209.50	161.8	0.013	OK	209.4846	0.00	0.00	

#46: SEQ-CCB3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RIDev	RIShift	Comment
SEQ-CCB3 Hg0	3.573	15.6	54.1	209.48	209.51	41.0	0.037	OK	209.4762	0.00	0.03	
SEQ-CCB3 HgII	2.398	149.1	172.4	209.50	209.50	156.8	0.021	OK	209.4762	0.00	0.03	017

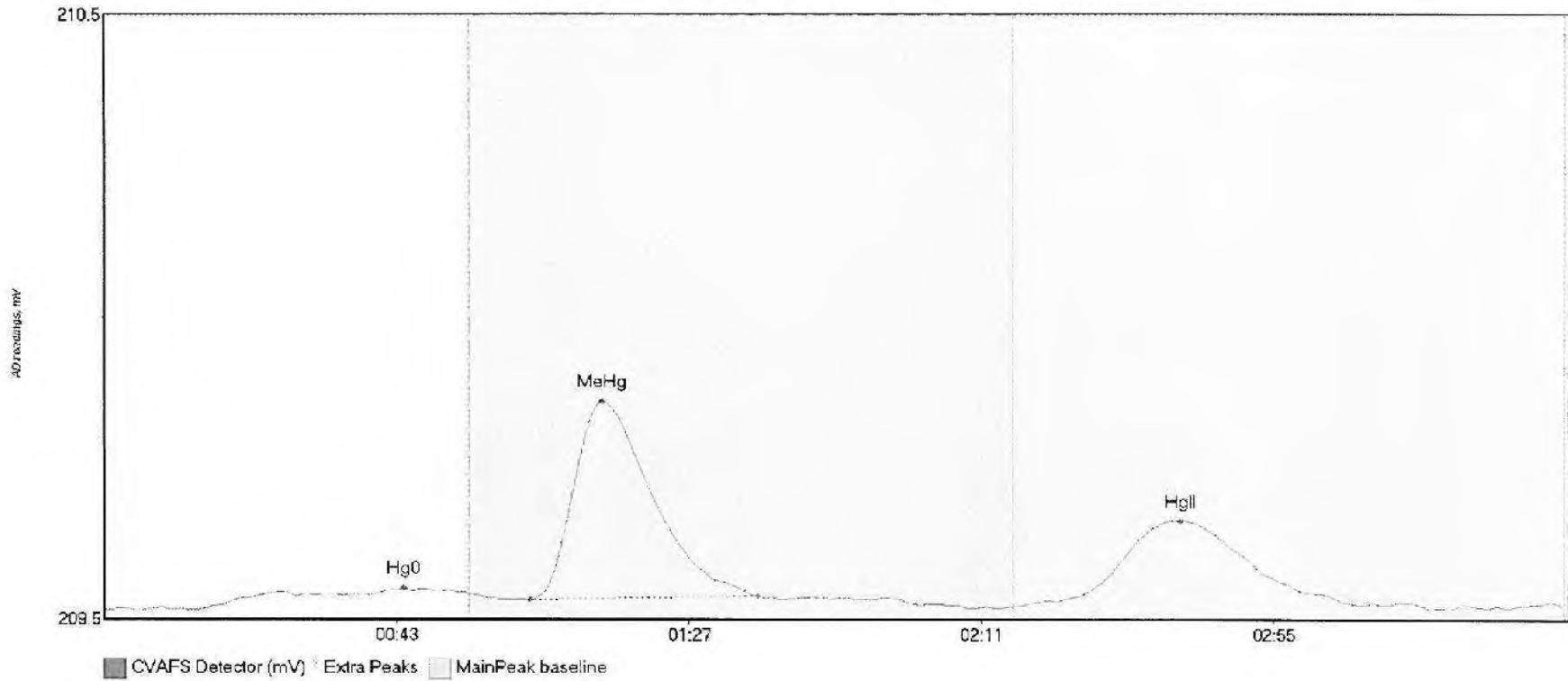
#47: 1708269-03



Name	Area	Start Time	End Time	Start Value	End Value	Peak Max	Peak Height	Flags	Baseline	StDev	Shift	Comment
1708269-03 Hg0	3.643	16.4	55.0	209.49	209.52	52.7	0.032	CF	209.4891	0.00	0.02	
1708269-03 MeHg	31.153	65.4	96.7	209.51	209.52	75.3	0.241	OK	209.4891	0.00	0.02	
1708269-03 HgII	40.136	141.2	192.9	209.49	209.50	161.2	0.183	OK	209.4891	0.00	0.02	

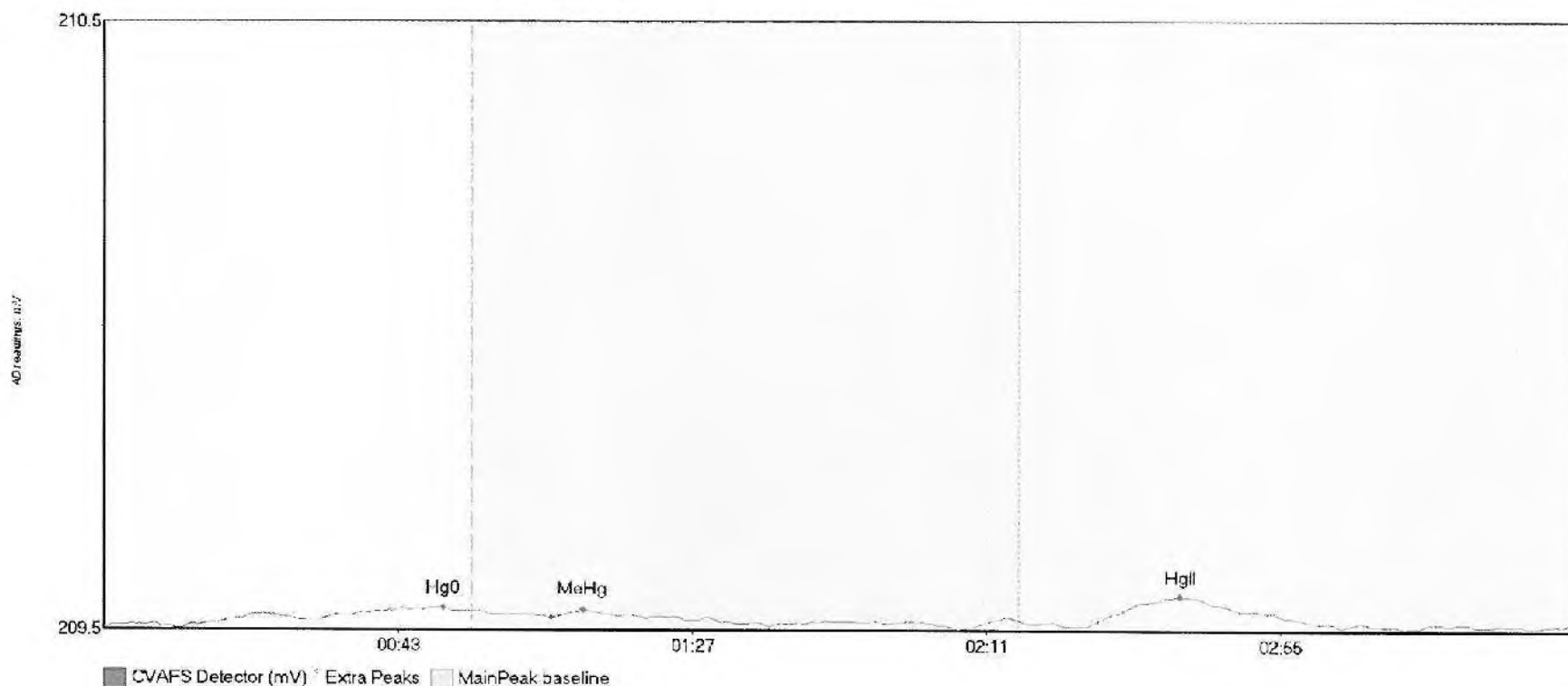


#48: 170826S-04



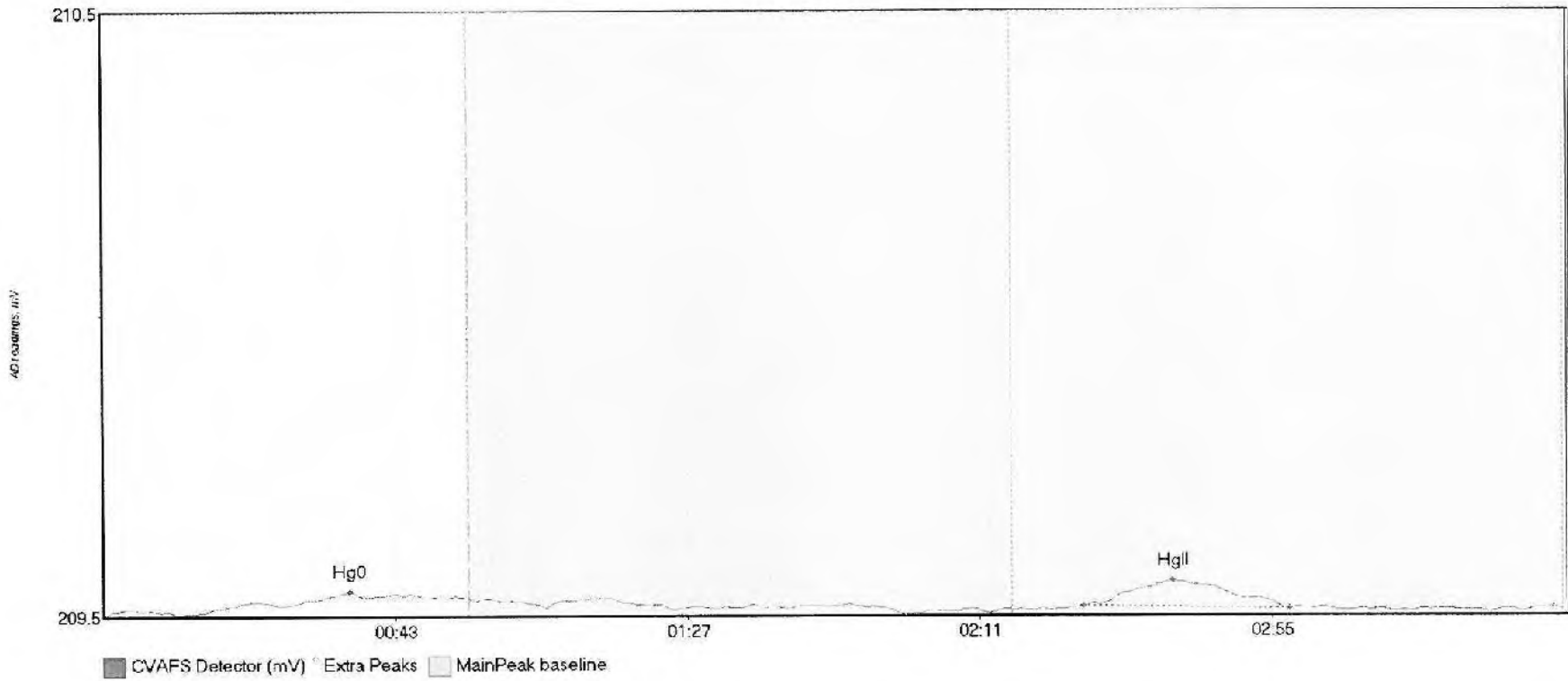
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	ElShift	Comment
1708269-04 Hg0	4.611	14.3	55.0	209.48	209.51	45.1	0.035	OK	209.4794	0.00	0.01	
1708269-04 MeHg	44.277	64.1	98.3	209.50	209.50	75.0	0.029	OK	209.4794	0.00	0.01	
1708269-04 HgII	30.604	137.8	189.2	209.49	209.49	162.1	0.144	OK	209.4794	0.00	0.01	

#49: F708416-BLK1

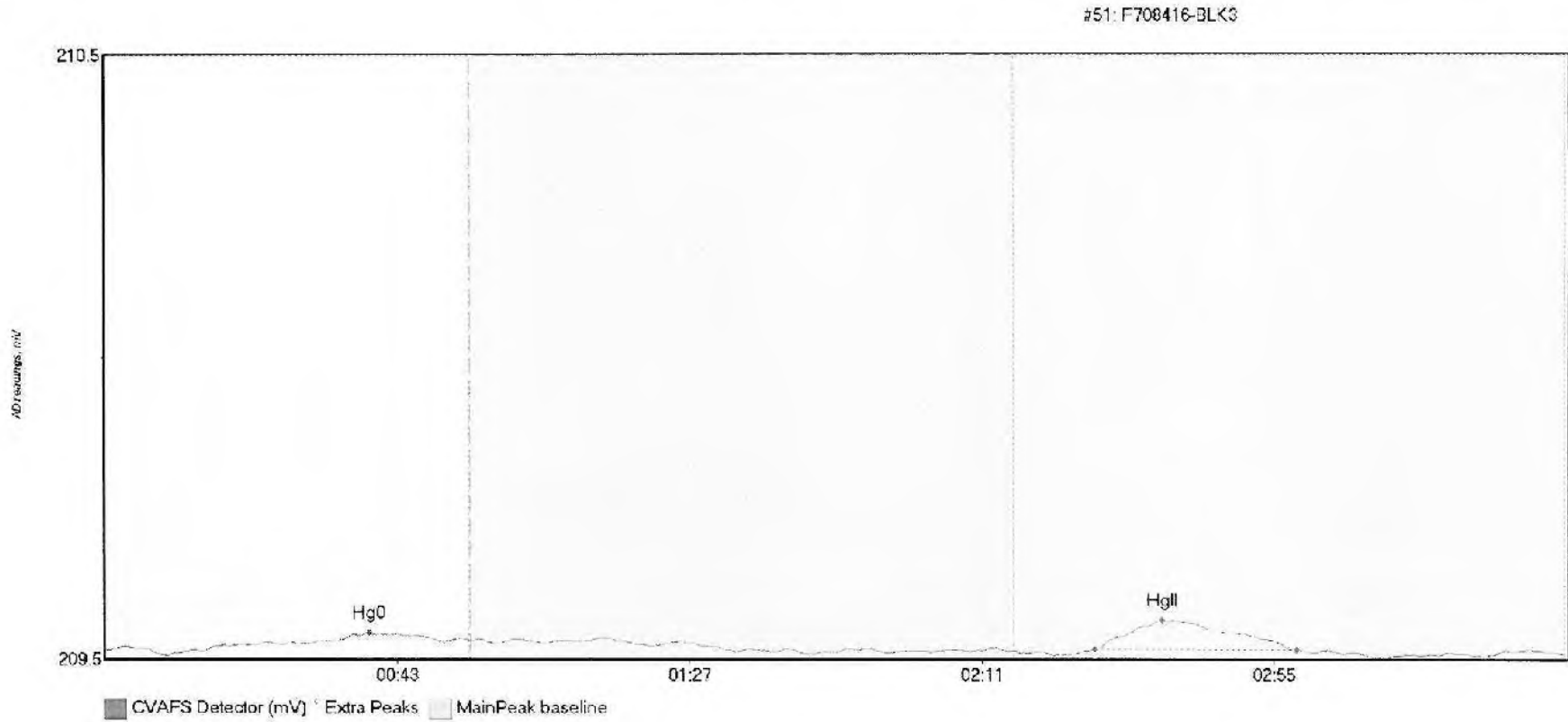


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
F708416-BLK1 Hg	2.150	14.5	53.4	209.48	209.50	50.7	0.029	OK	209.4787	0.00	0.01	
F708416-BLK1 Me	0.033	66.9	71.7	209.49	209.51	71.6	0.014	OK	209.4787	0.00	0.01	
F708416-BLK1 Hg	7.473	146.5	177.8	209.48	209.49	161.1	0.050	OK	209.4787	0.00	0.01	

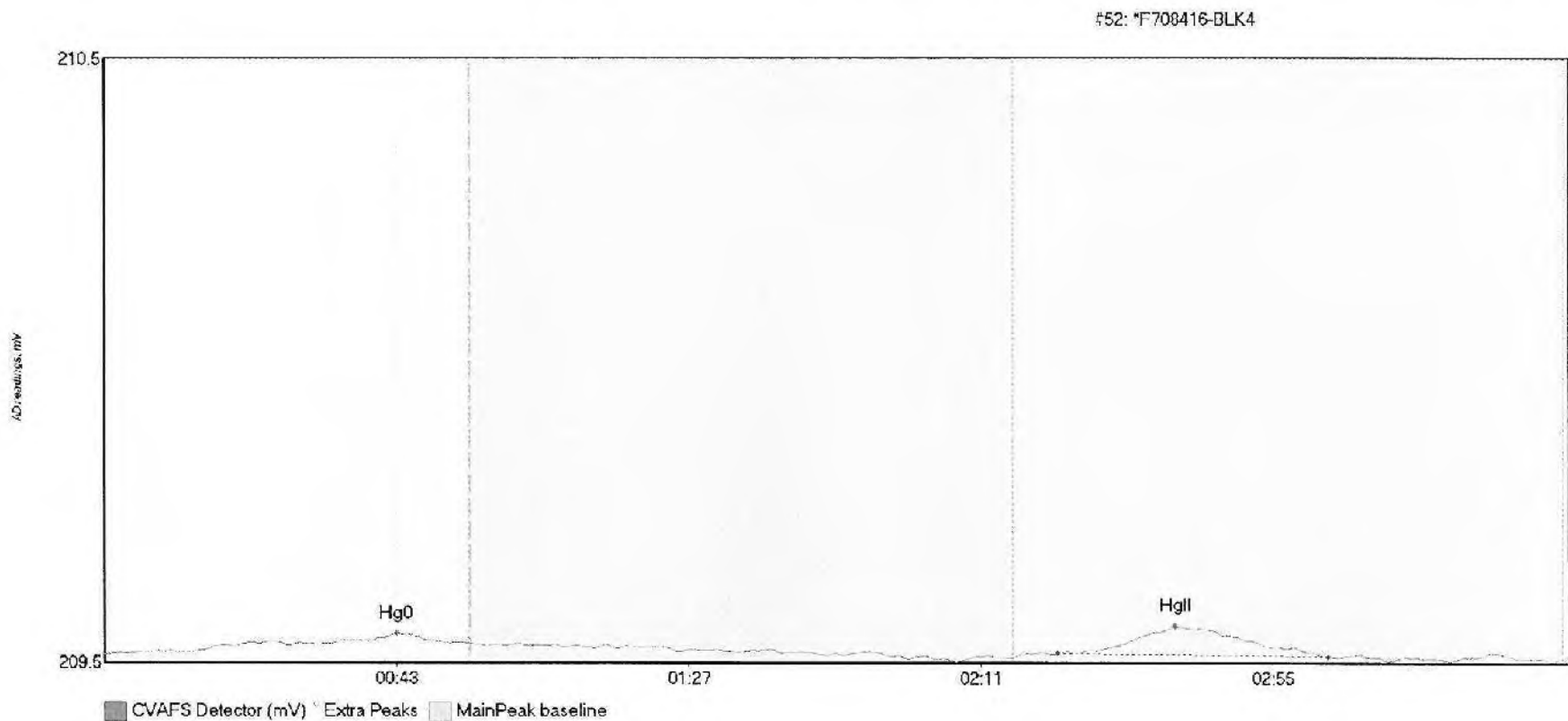
#50: F708416-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comments
F708416-BLK2 Hg	3.937	15.1	55.0	209.49	209.51	37.2	0.033	OT	209.4900	0.00	0.01	
F708416-BLK2 Hg	7.360	147.6	178.6	209.50	209.50	161.1	0.042	OK	209.4900	0.00	0.01	

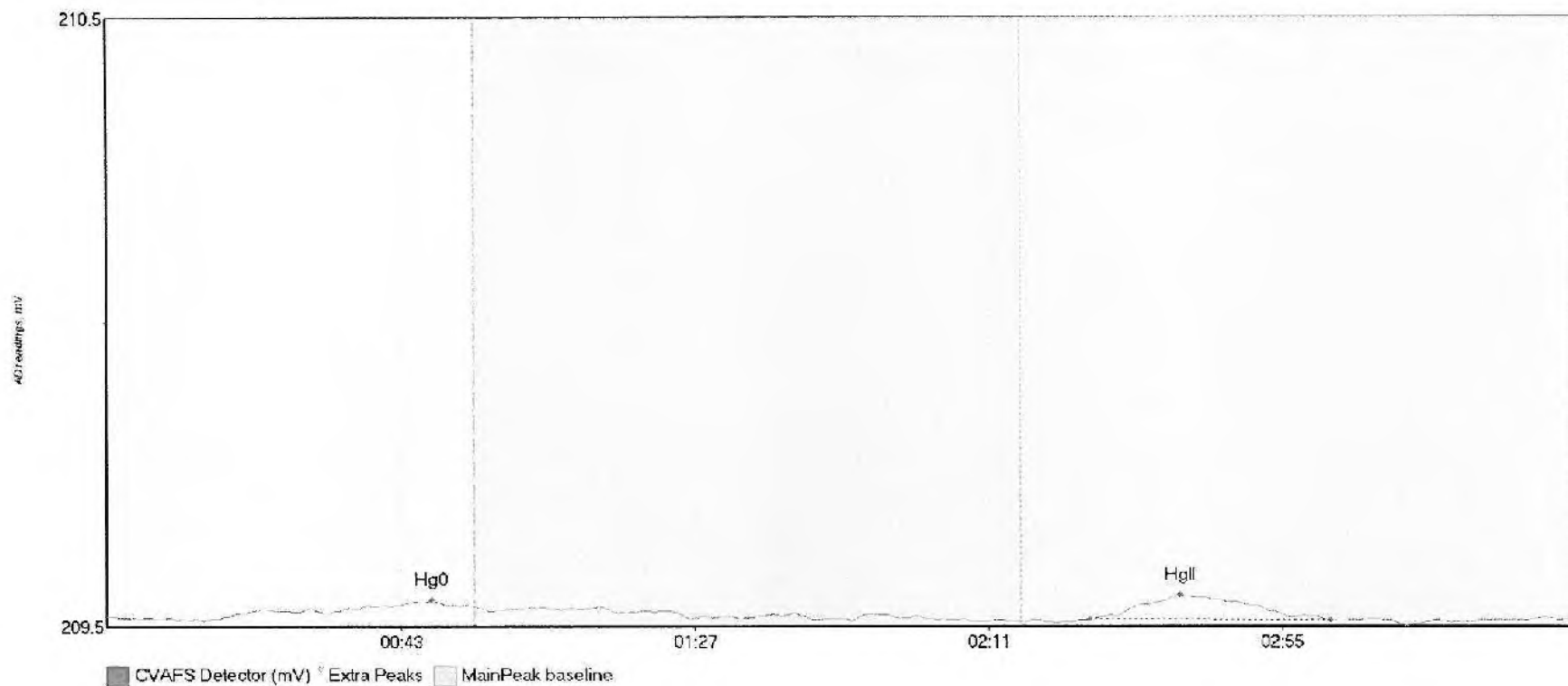


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-BLK3 Hg	2.560	16.3	51.0	209.51	209.52	39.8	0.023	OK	209.5069	0.00	-0.01	
F708416-BLK3 Hg	3.556	149.0	179.5	209.51	209.51	159.2	0.049	OK	209.5069	0.00	-0.01	117



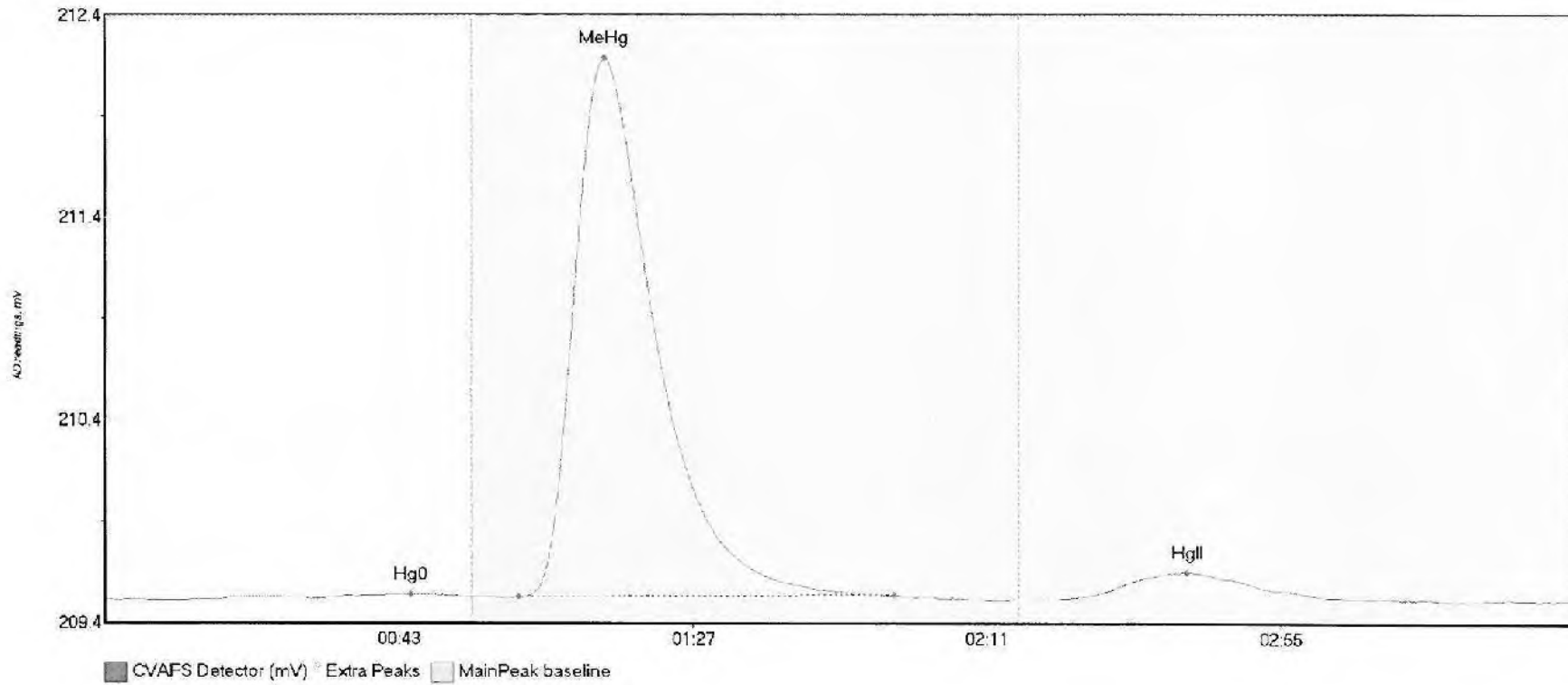
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	R Dev	BlShift	Comment
*F708416-BLK4 H	3.571	13.1	52.1	209.51	209.52	44.0	0.031	OK	209.5059	0.00	-0.01	
*F708416-BLK4 H	9.145	143.6	184.3	209.51	209.50	161.3	0.045	OK	209.5059	0.00	-0.01	017

#53: \*F708416-BLK5



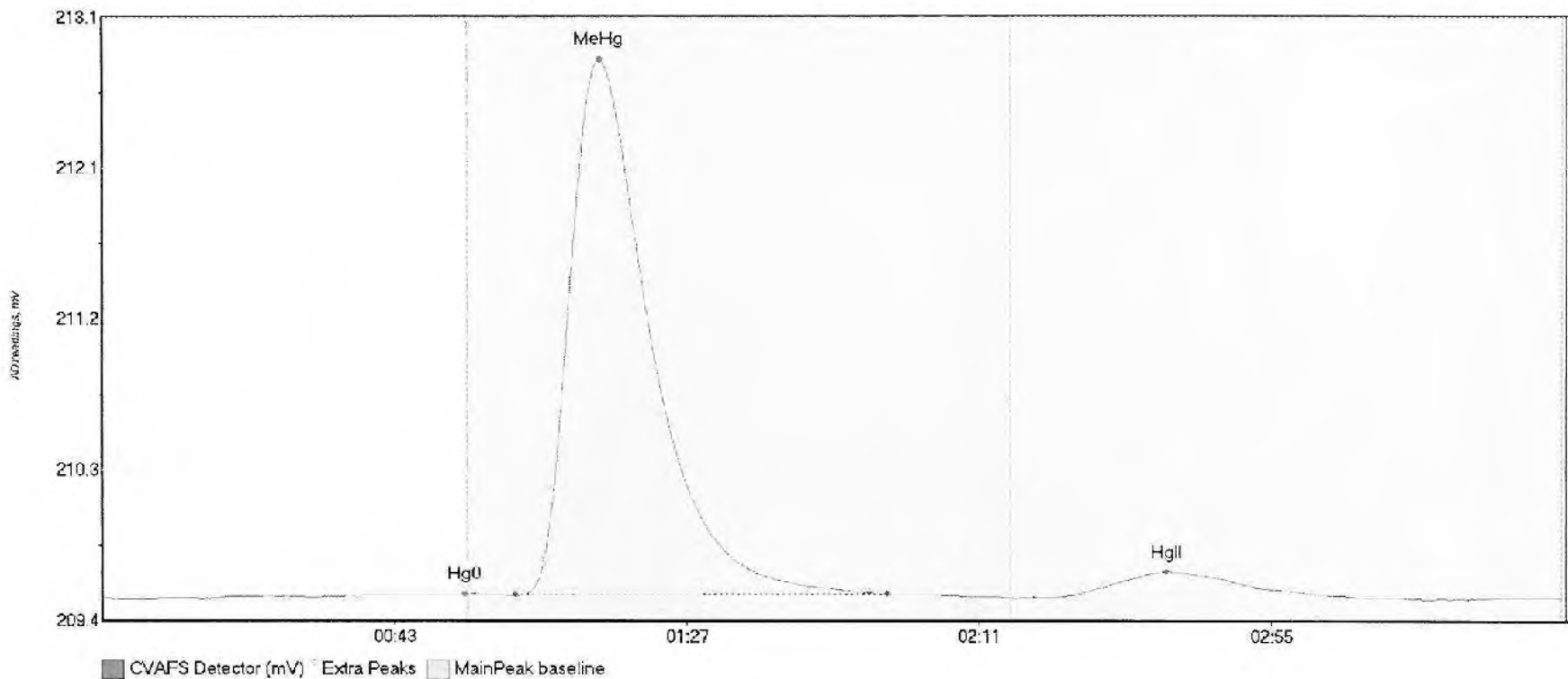
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F708416-BLK5 H	2.116	17.9	55.0	209.51	209.52	48.6	0.027	CP	209.5075	0.00	0.00	
*F708416-BLK5 H	7.518	147.1	183.3	209.50	209.50	160.7	0.039	OK	209.5075	0.00	0.00	017

#54: F708416-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-DUP1 Hg	2.365	31.8	55.0	209.51	209.52	45.9	0.024	ST	209.5066	0.00	0.00	
F708416-DUP1 Me	373.554	61.9	118.1	209.52	209.53	74.6	2.651	OK	209.5066	0.00	0.00	
F708416-DUP1 Hg	27.649	142.3	189.6	209.51	209.51	162.1	0.132	OK	209.5066	0.00	0.00	

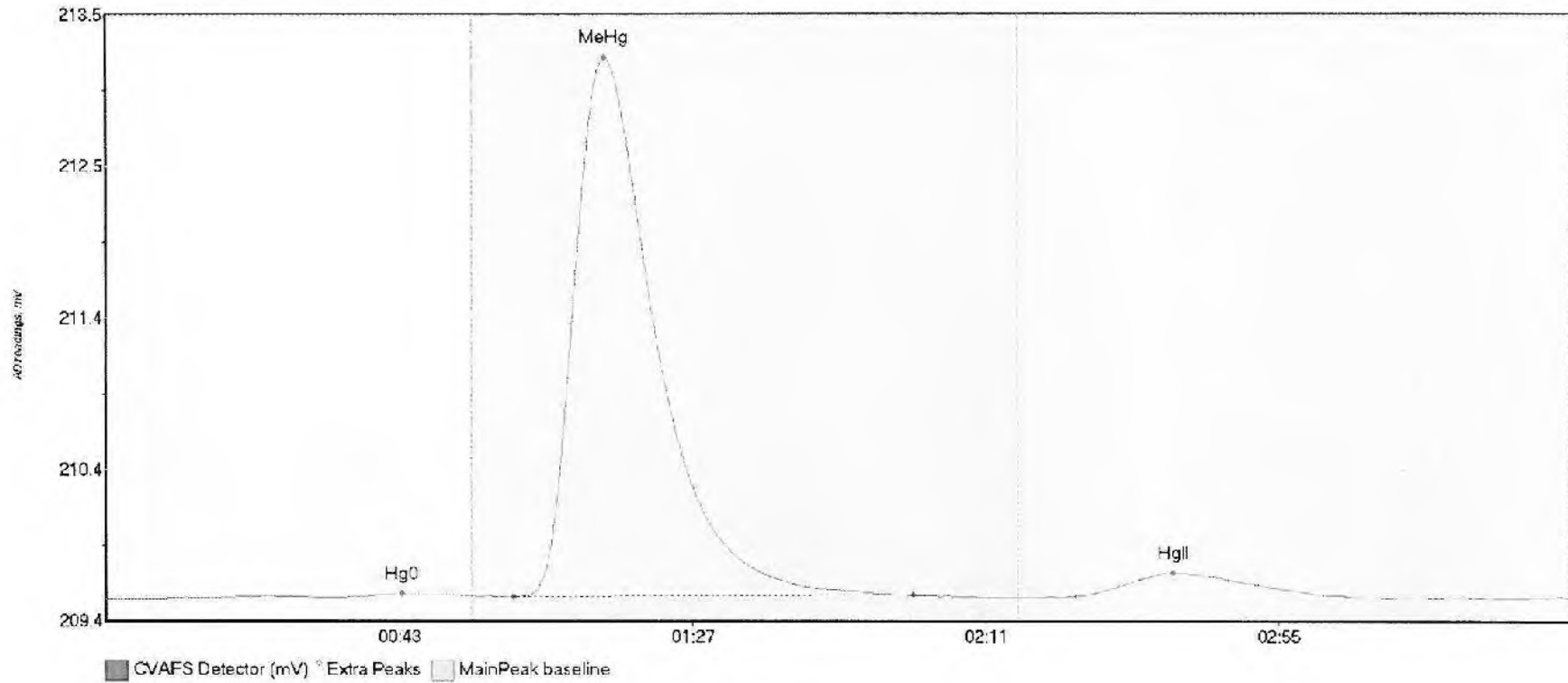
#55: F708416-MS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MS1 Hg0	1.992	16.7	55.0	209.51	209.53	54.6	0.028	CF	209.5067	0.00	0.01	
F708416-MS1 MeHg	460.932	62.2	119.1	209.53	209.54	74.9	3.273	OK	209.5067	0.00	0.01	
F708416-MS1 HgII	32.916	143.5	189.4	209.51	209.51	160.2	0.156	OK	209.5067	0.00	0.01	

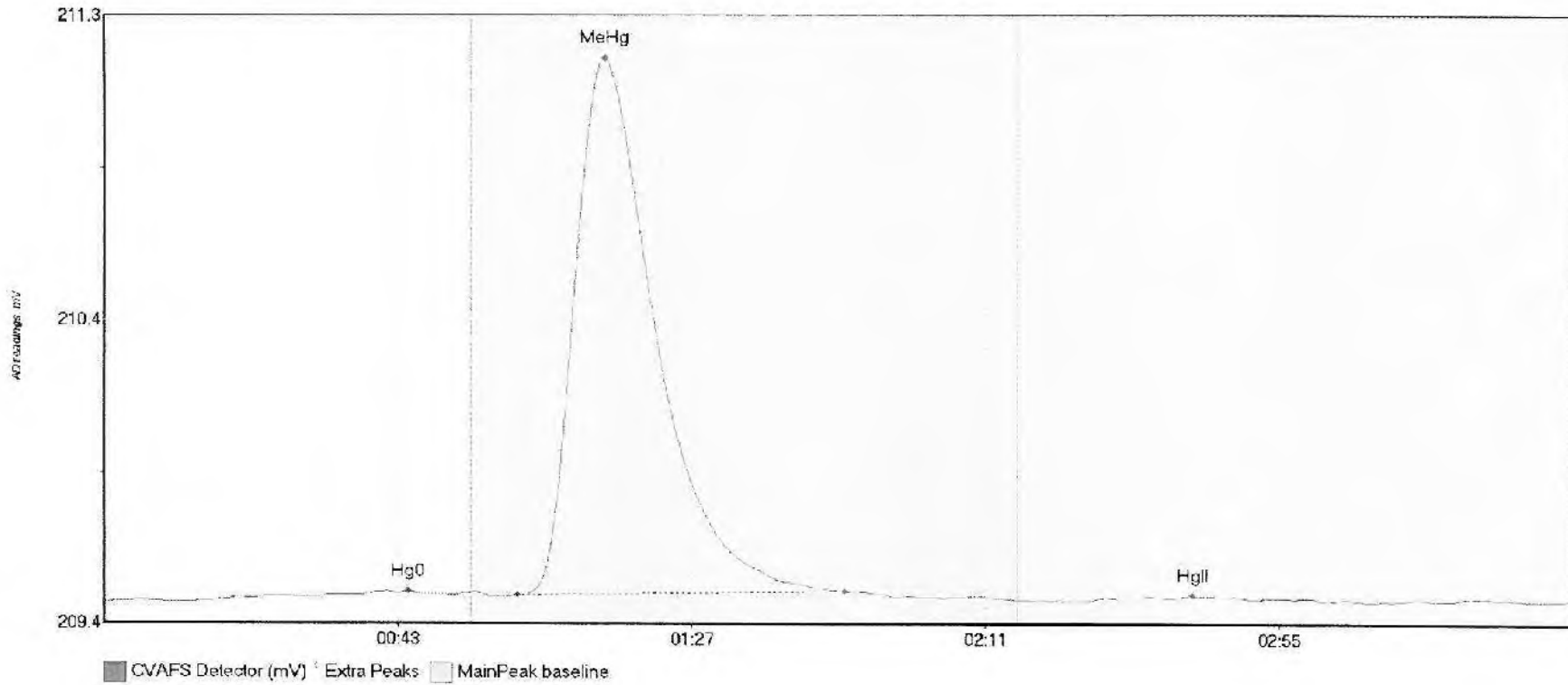


#56: F708416-MSD1



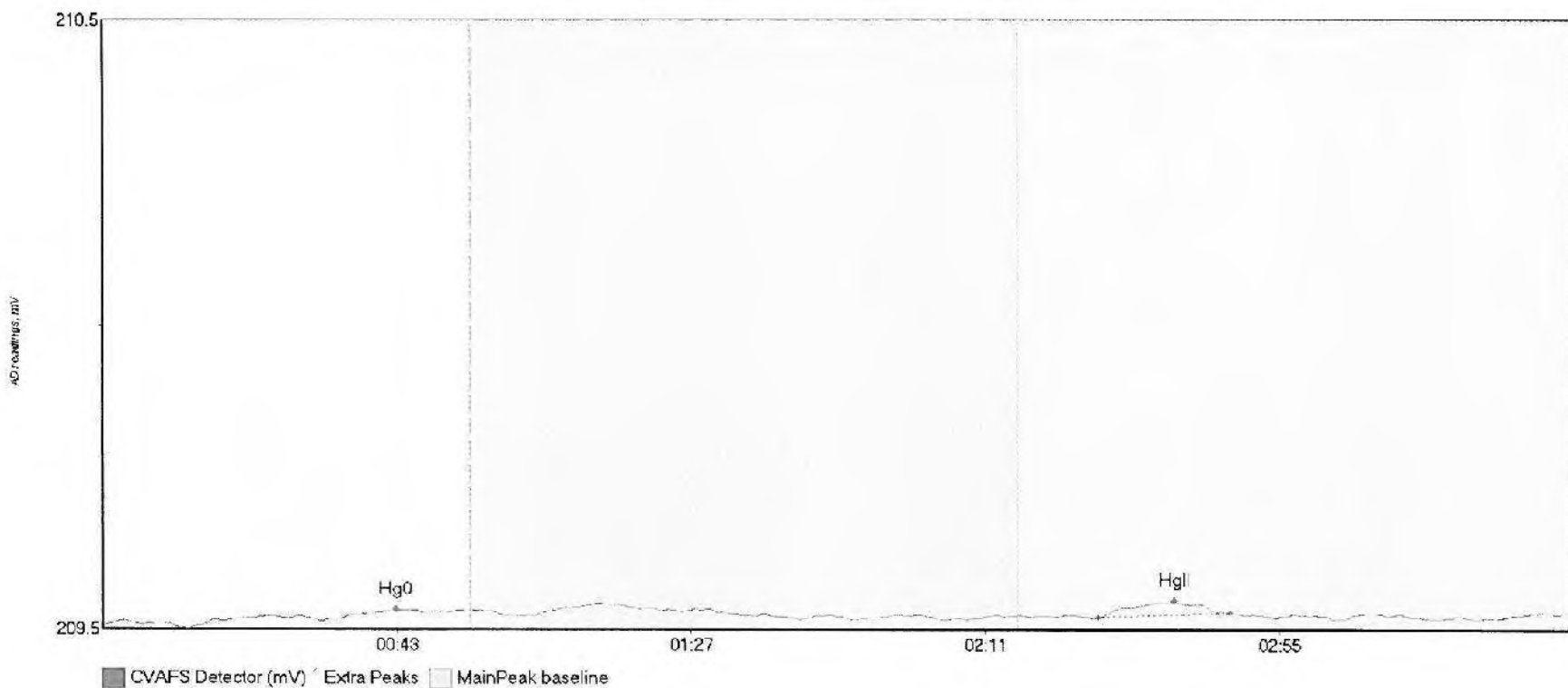
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MSD1 Hg	3.162	15.6	55.0	209.52	209.54	44.5	0.032	CF	209.5134	0.00	0.01	
F708416-MSD1 Me	522.362	61.2	121.1	209.53	209.54	74.9	3.669	OK	209.5134	0.00	0.01	
F708416-MSD1 Hg	24.587	143.1	187.3	209.53	209.53	160.2	0.163	OK	209.5134	0.00	0.01	

#57: SEQ-CCV4



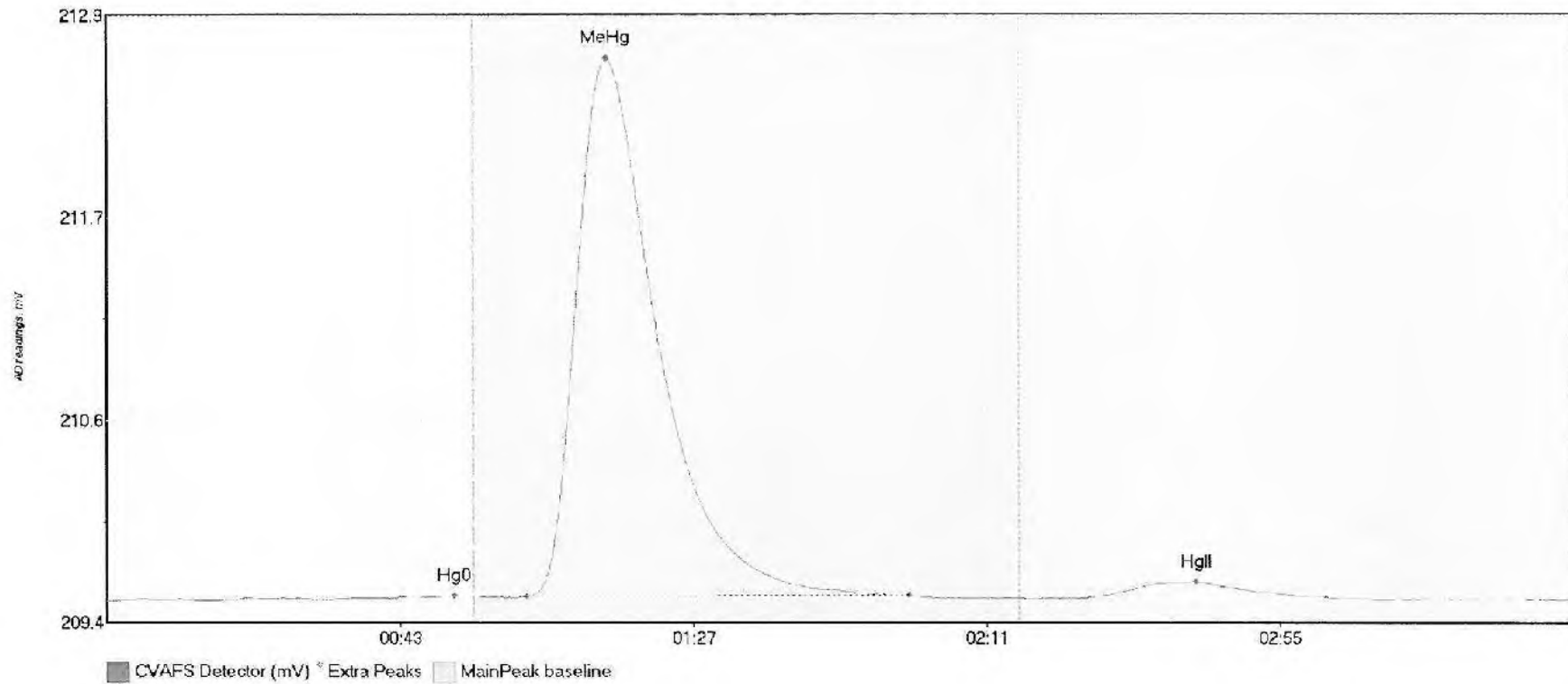
Name	Area	Start Time	EndTime	StartValue	Endvalue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	2.576	16.0	52.6	209.52	209.54	45.6	0.027	OK	209.5143	0.00	0.01	
SEQ-CCV4 MeHg	224.381	61.9	110.9	209.53	209.55	75.0	1.603	OK	209.5143	0.00	0.01	
SEQ-CCV4 HgII	1.394	147.5	171.4	209.52	209.52	163.1	0.016	OK	209.5143	0.00	0.01	

#58: SEQ-CCB4



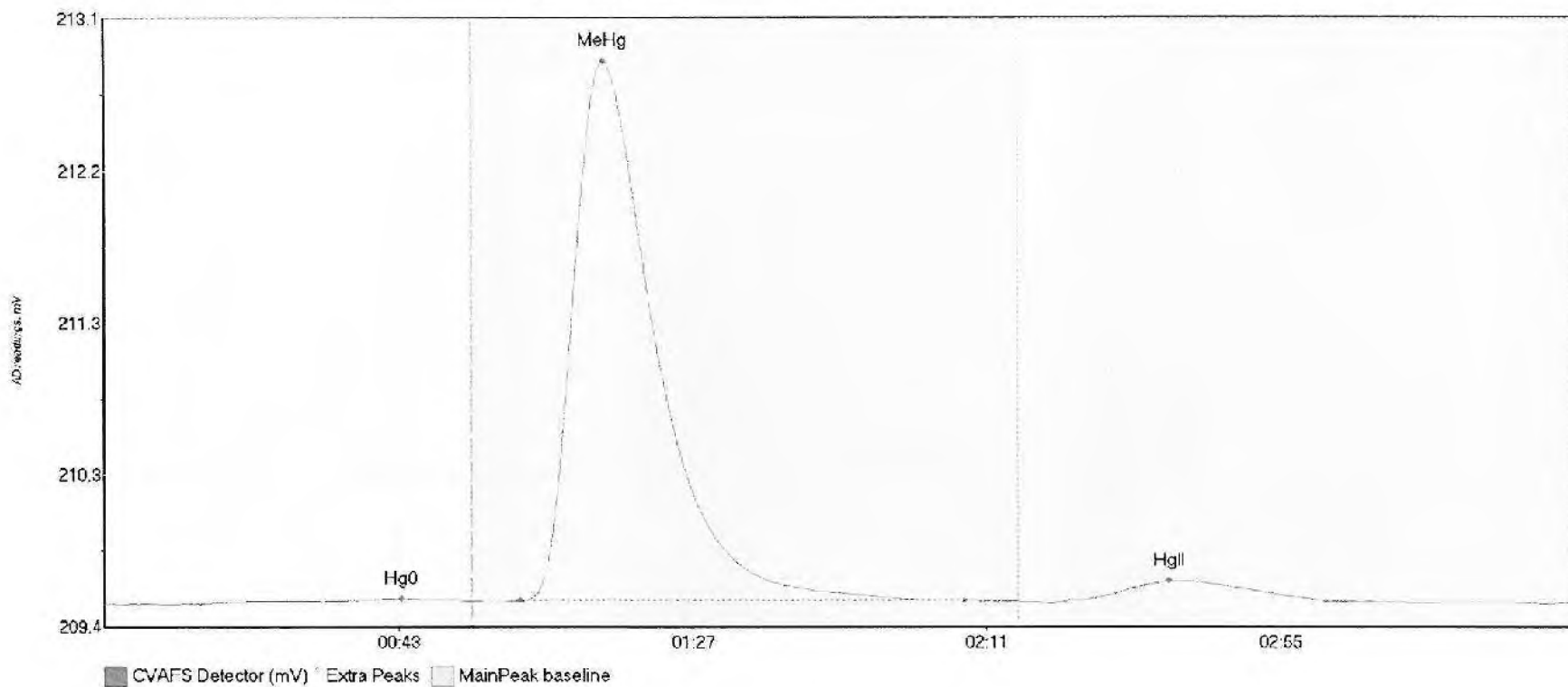
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	R Shift	Comment
SEQ-CCB4 Hg0	1.643	14.6	48.2	209.52	209.54	43.9	0.026	CR	209.5176	0.00	0.02	
SEQ-CCB4 HgI	2.745	148.9	168.6	209.53	209.54	160.3	0.027	CR	209.5176	0.00	0.02	

#59: F708416-MS2



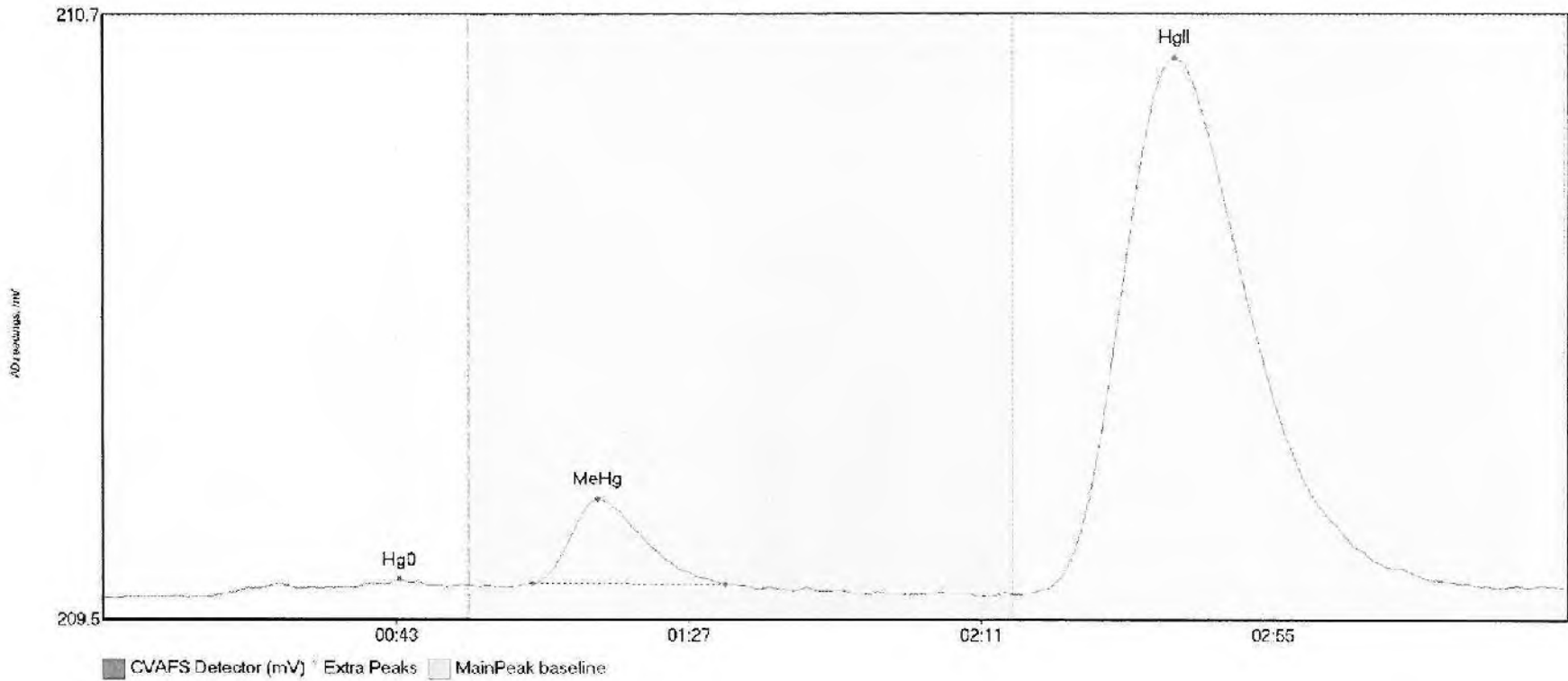
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MS2 Hg0	1.546	15.4	54.5	209.52	209.55	52.2	0.033	OK	209.5197	0.00	0.00	
F708416-MS2 MeH	439.043	63.0	120.3	209.54	209.55	75.0	3.118	OK	209.5197	0.00	0.00	
F708416-MS2 HgI	13.758	146.1	186.6	209.54	209.53	163.4	0.093	OK	209.5197	0.00	0.00	

#60: F708416-MSD2



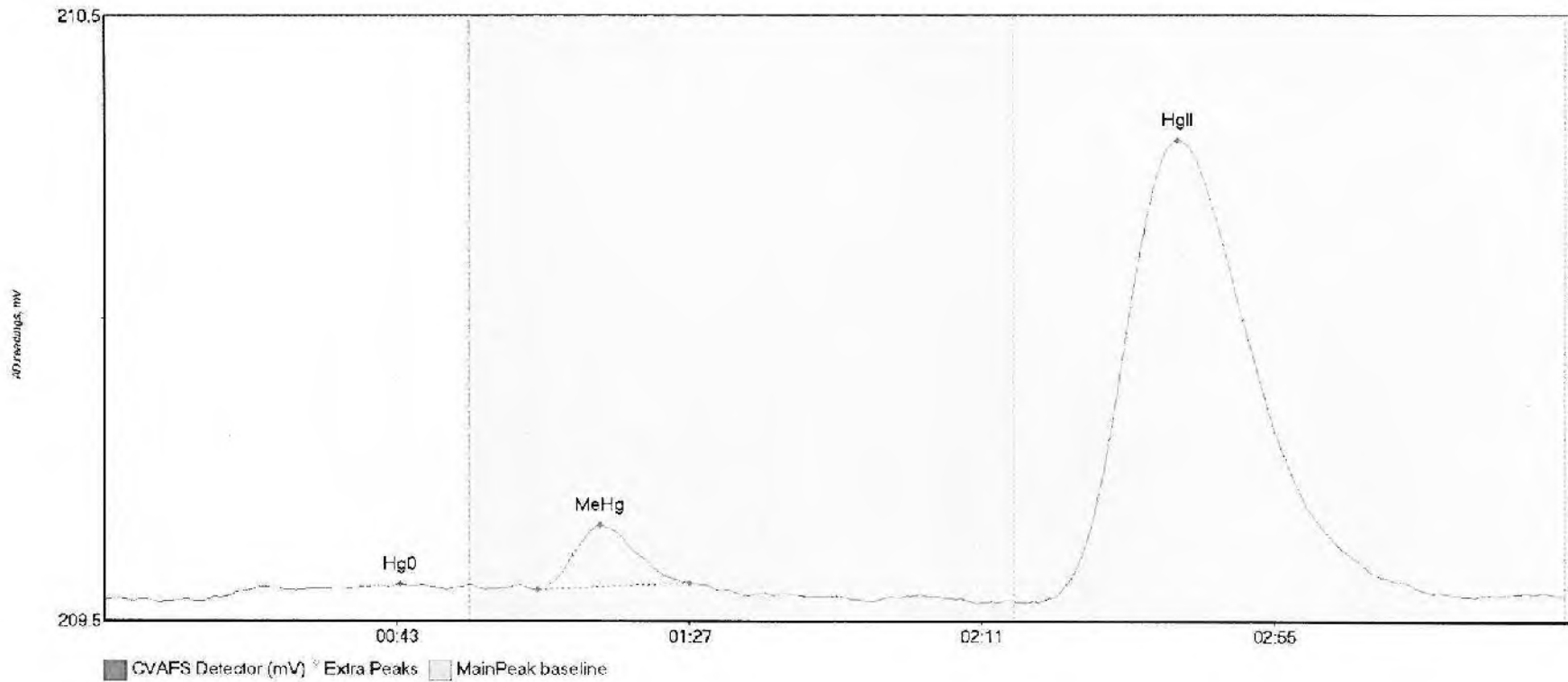
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708416-MSD2 Hg	4.013	16.3	55.0	209.52	209.54	44.5	0.029	CT	209.5188	0.00	0.00	
F708416-MSD2 Me	476.989	62.2	128.9	209.54	209.54	74.7	3.334	OK	209.5188	0.00	0.00	
F708416-MSD2 Hg	28.647	141.8	183.9	209.53	209.53	159.4	0.135	OK	209.5188	0.00	0.00	

#61: 1707810-30



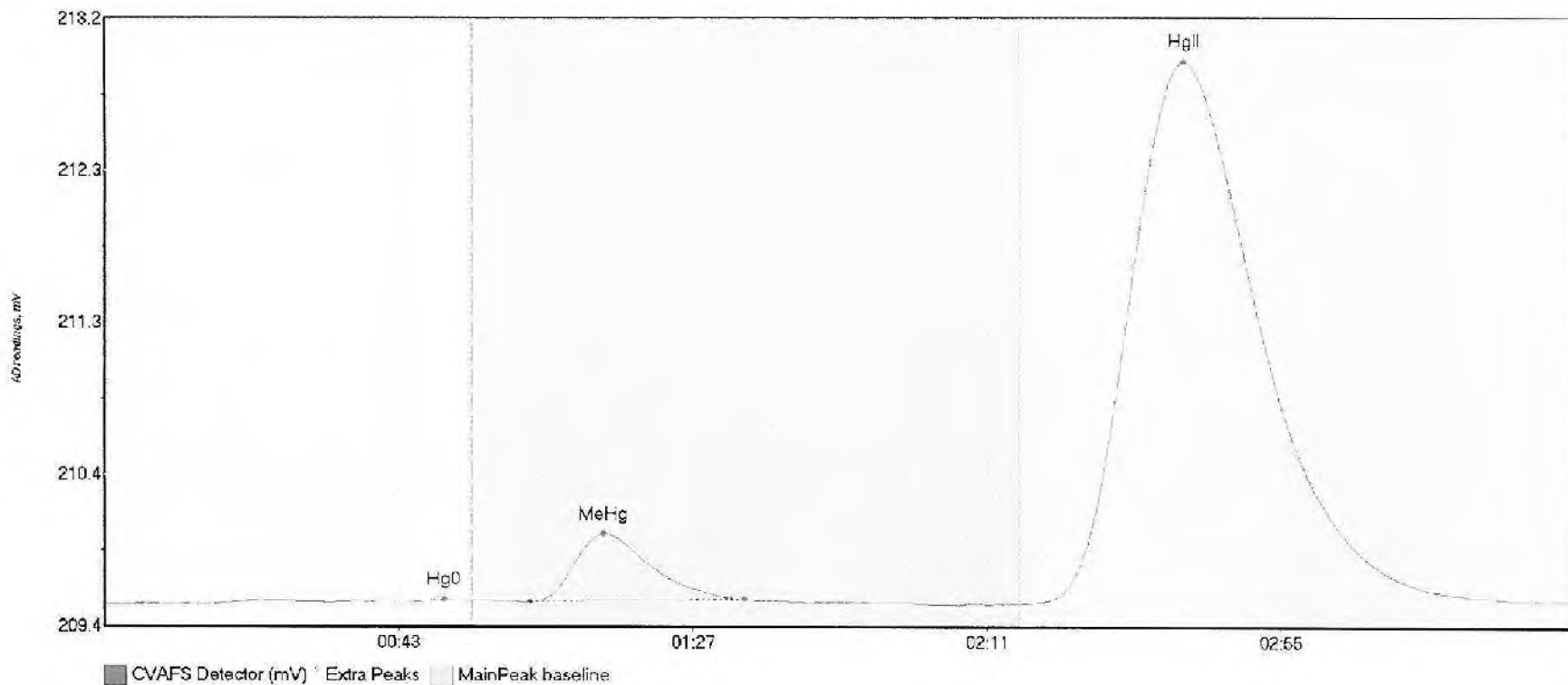
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	D1Dev	D1Shift	Comment
1707810-30 Hg0	3.621	15.5	51.7	209.52	209.54	44.8	0.033	OK	209.5215	0.00	0.02	
1707810-30 MeHg	20.976	64.6	93.8	209.55	209.55	74.4	0.166	OK	209.5215	0.00	0.02	
1707810-30 HgII	235.692	139.3	209.9	209.53	209.54	161.3	1.045	OK	209.5215	0.00	0.02	

#62: 1707810-31



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-31 Hg0	2.846	17.3	51.3	209.55	209.55	44.6	0.020	OK	209.5455	0.00	0.01	
1707810-31 MeHg	10.758	53.1	88.0	209.56	209.57	74.6	0.107	OK	209.5455	0.00	0.01	
1707810-31 HgII	170.362	140.5	206.1	209.54	209.55	161.4	0.765	OK	209.5455	0.00	0.01	

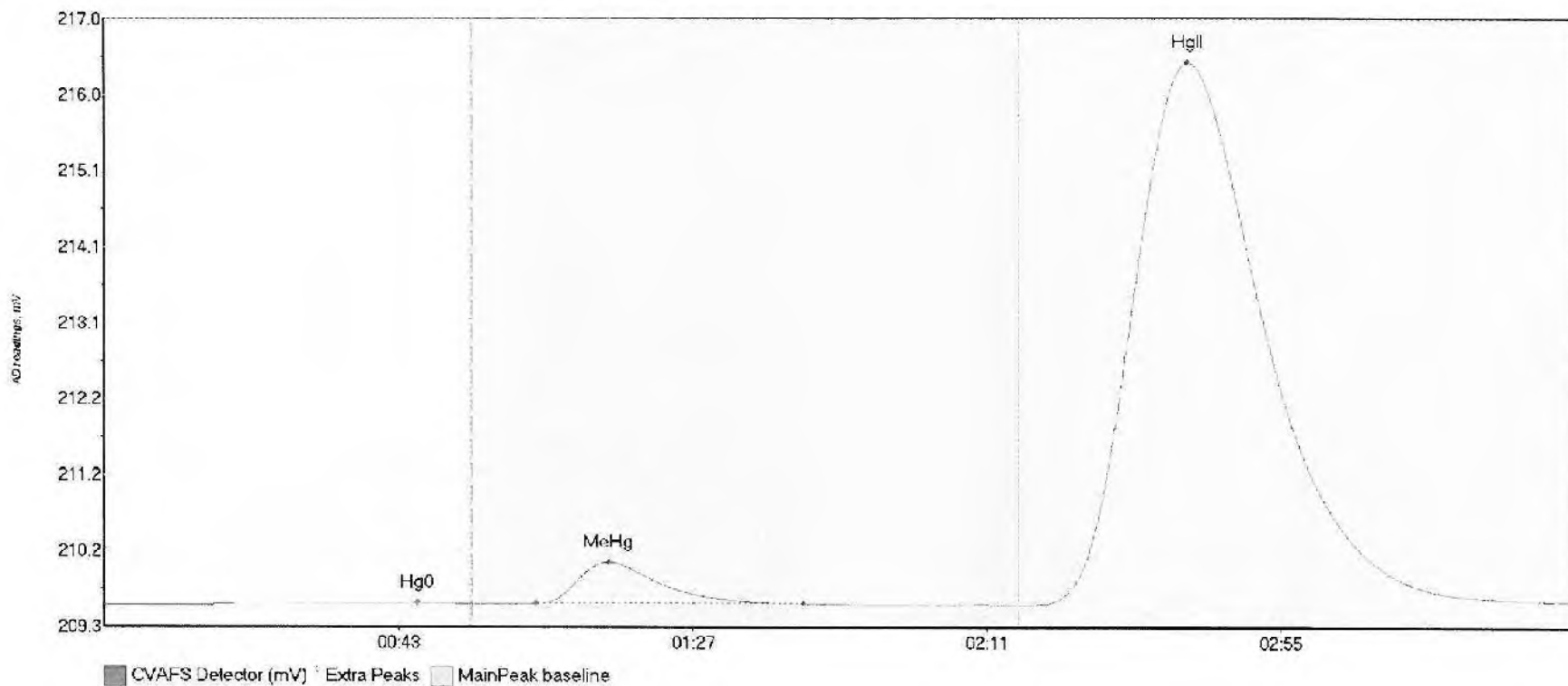
#63: 1707810-44



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-44 Hg0	2.214	16.0	52.3	209.55	209.58	50.8	0.030	OK	209.5450	0.00	0.03	
1707810-44 MeHg	55.165	63.7	95.8	209.57	209.58	74.8	0.430	OK	209.5450	0.00	0.03	
1707810-44 HgII	769.460	137.8	216.4	209.55	209.57	161.4	3.417	OK	209.5450	0.00	0.03	

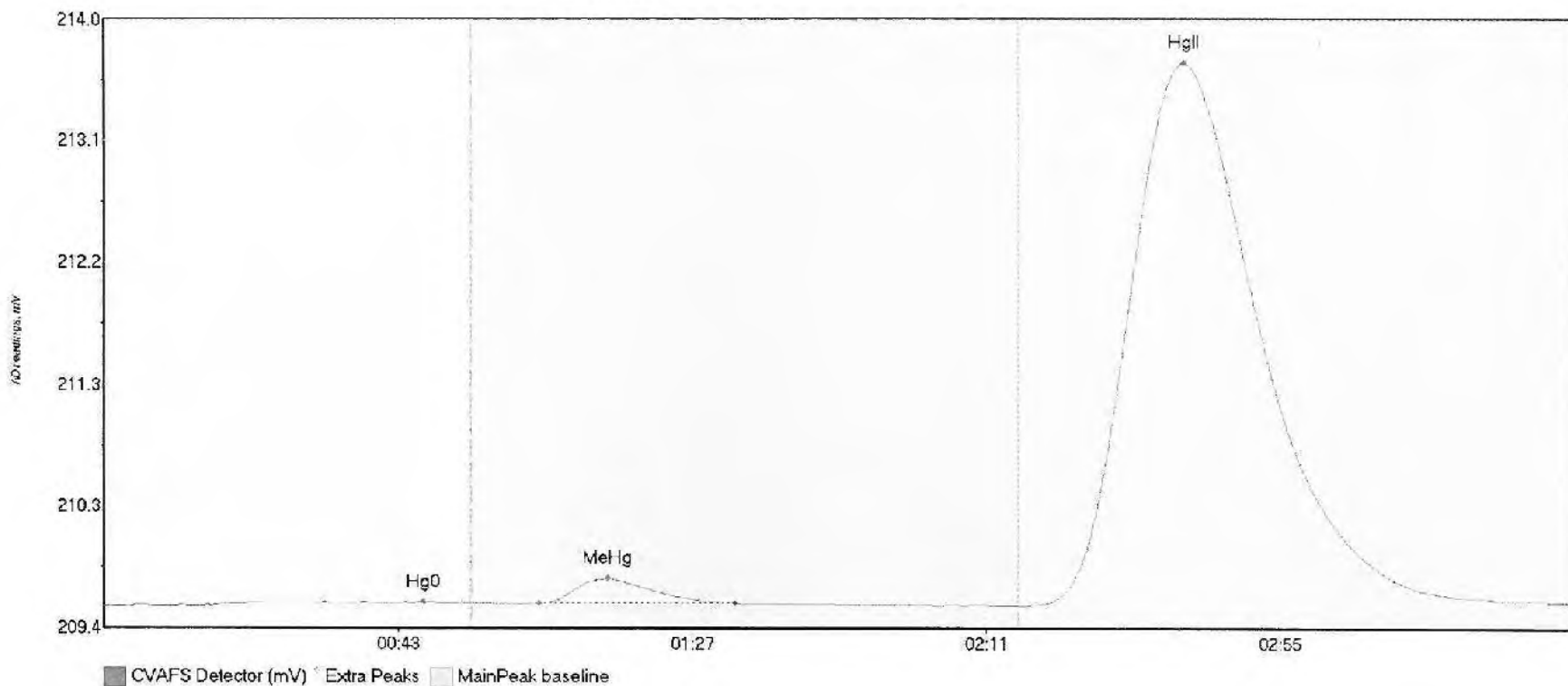


#64: 1707810-45



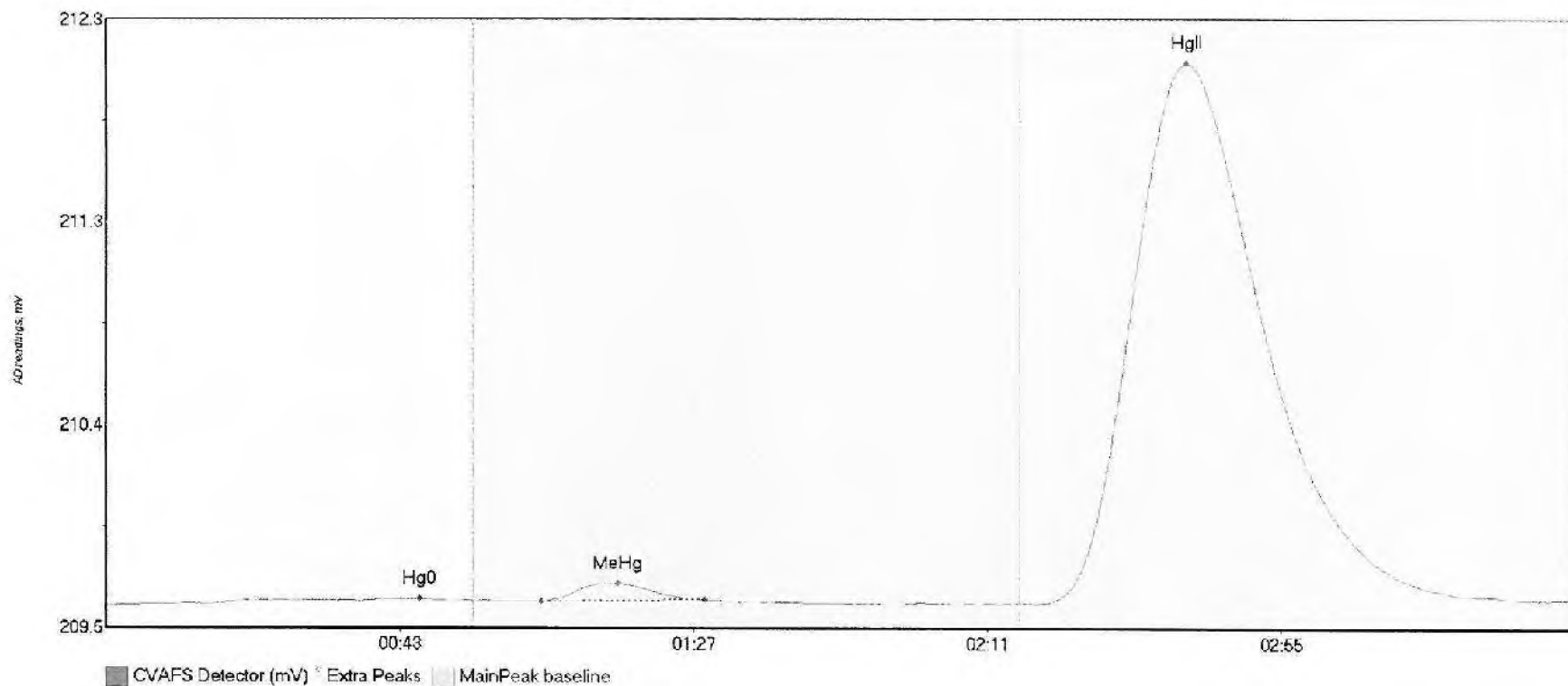
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	RIDev	RIShift	Comment
1707810-45 Hg0	6.188	14.1	55.0	209.56	209.50	46.3	0.031	CT	209.5574	0.00	0.06	
1707810-45 MeHg	72.615	64.6	104.6	209.58	209.58	75.5	0.528	OK	209.5574	0.00	0.06	
1707810-45 HgII	1553.797	137.5	219.8	209.56	209.62	162.1	6.899	CT	209.5574	0.00	0.06	

#65: 1707810-54



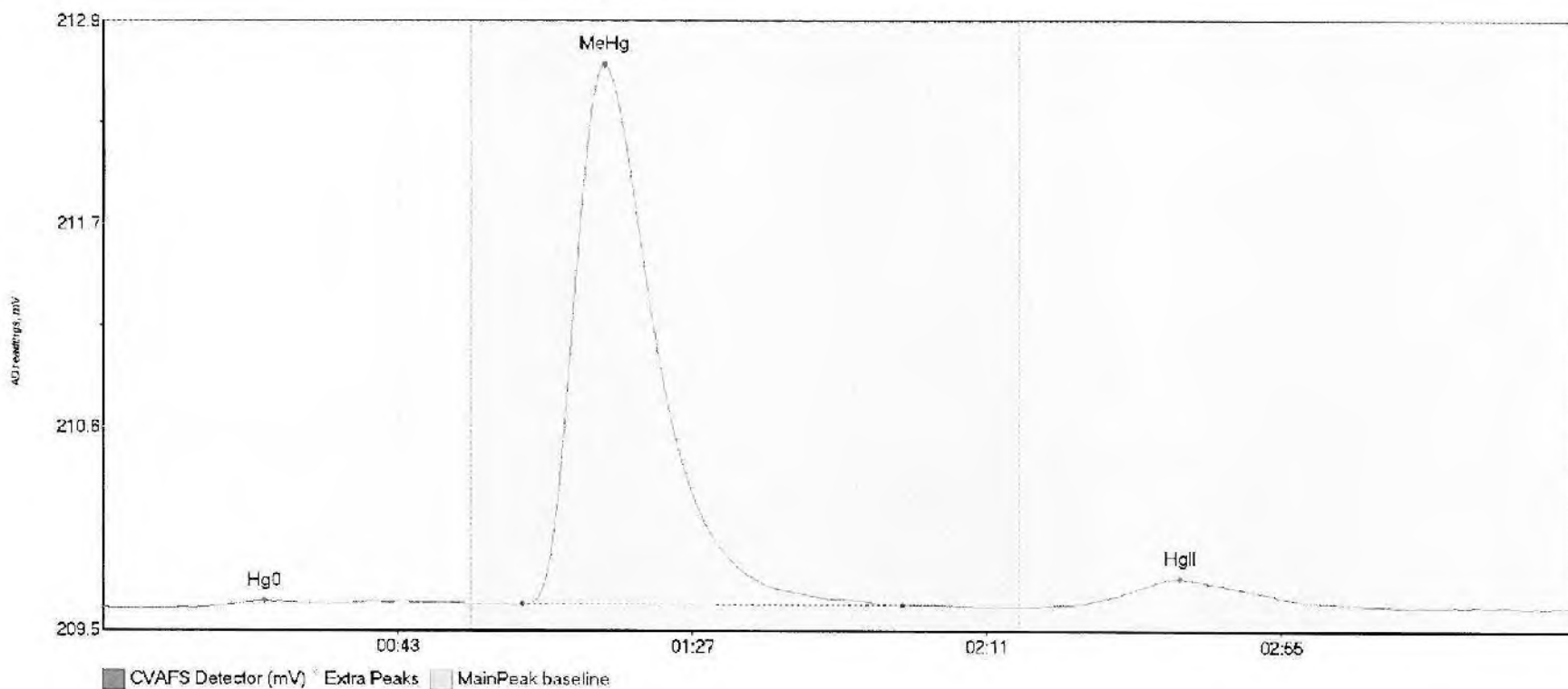
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	SDDev	DIShift	Comment
1707810-54 Hg0	3.971	14.1	51.6	209.56	209.58	47.8	0.029	OK	209.5605	0.00	0.03	
1707810-54 MeHg	24.253	65.1	94.5	209.58	209.58	75.4	0.190	OK	209.5605	0.00	0.03	
1707810-54 HgII	929.231	137.8	219.8	209.56	209.59	161.6	4.140	CT	209.5605	0.00	0.03	

#66: 1707810-55



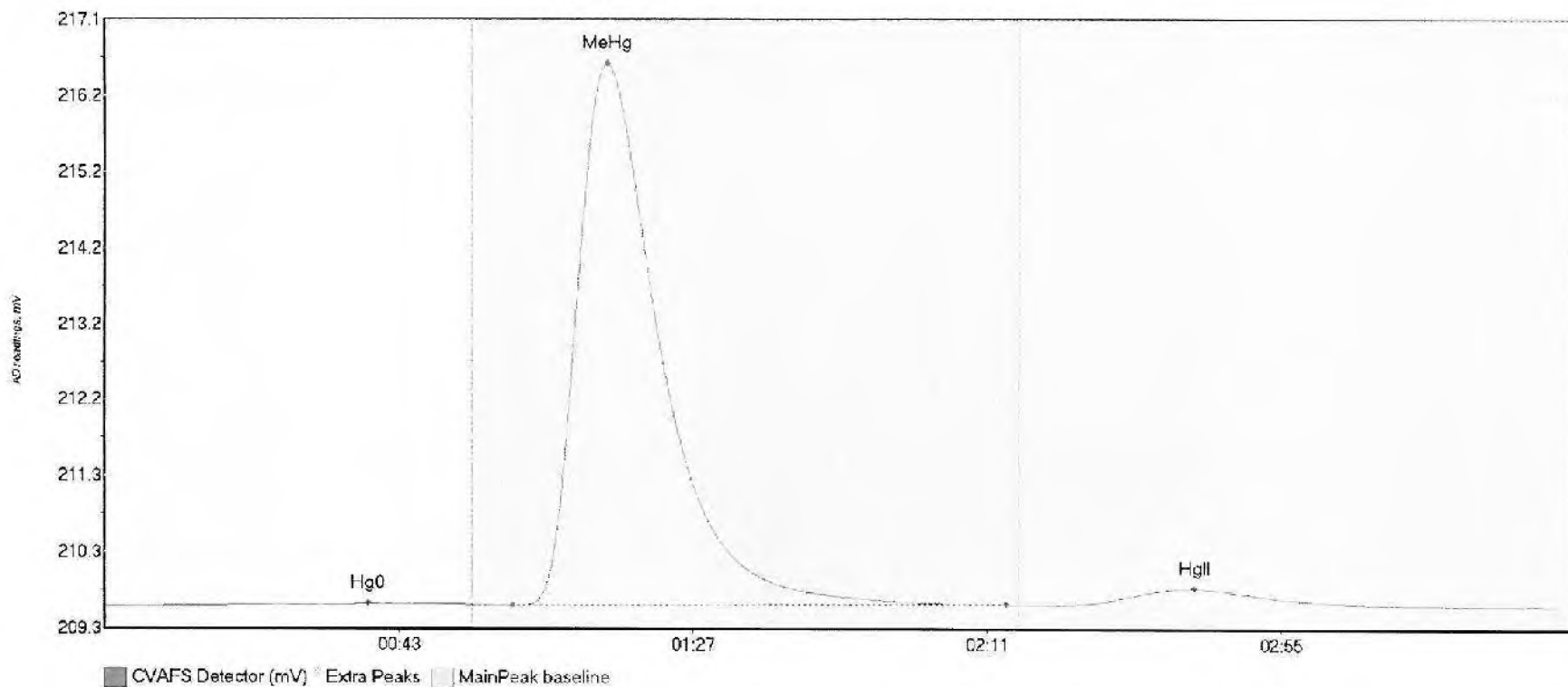
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	HlDev	B1Shift	Comment
1707810-55 Hg0	5.027	0.1	51.4	209.56	209.58	47.0	0.035	OK	209.5600	0.00	0.03	
1707810-55 MeHg	9.912	65.2	09.7	209.58	209.59	76.7	0.083	OK	209.5600	0.00	0.03	
1707810-55 HgII	564.056	139.9	216.1	209.57	209.59	161.3	2.503	OK	209.5600	0.00	0.03	017

#67: 1708148-01



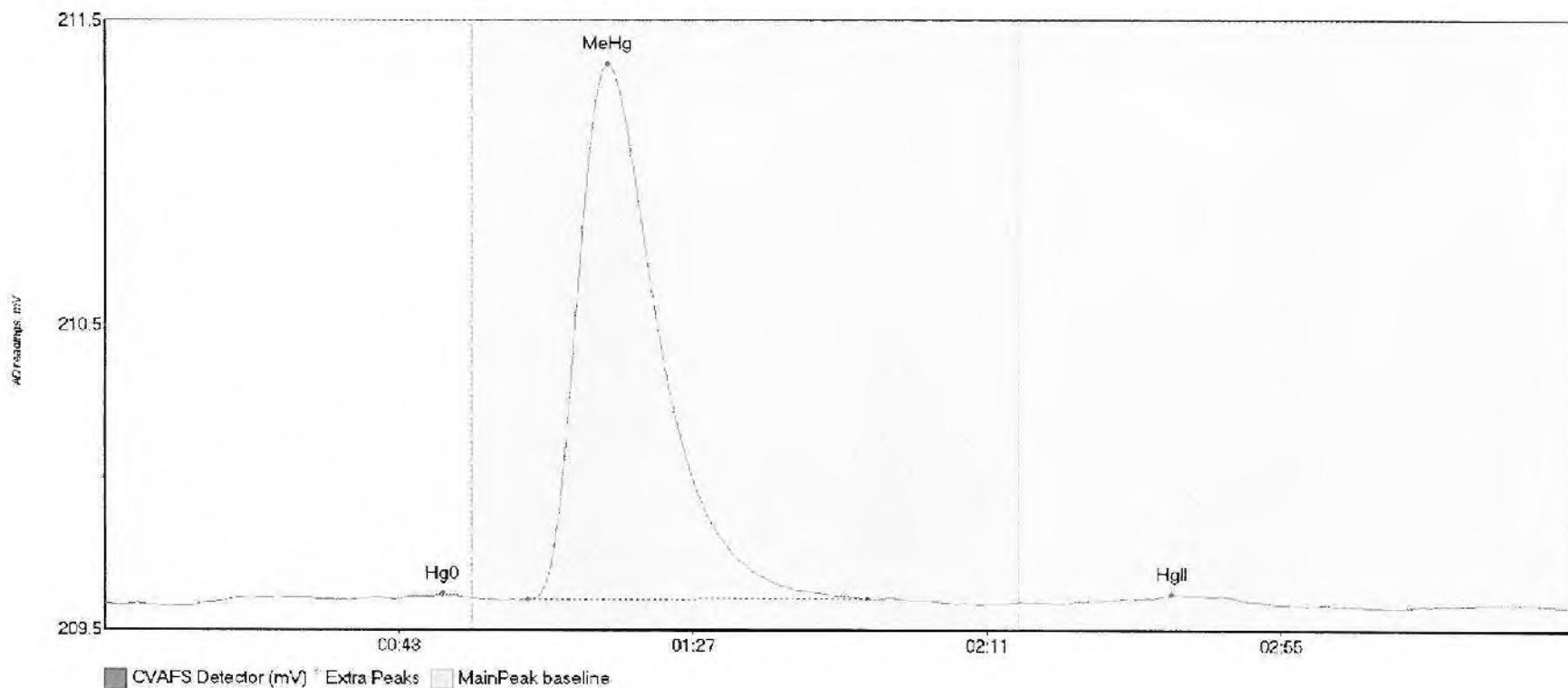
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708148-01 Hg0	6.378	13.8	55.0	209.59	209.61	24.2	0.038	CT	209.5878	0.00	0.00	
1708148-01 MeHg	430.635	62.5	119.4	209.61	209.60	74.9	3.027	OK	209.5878	0.00	0.00	
1708148-01 HgII	31.990	139.6	189.1	209.59	209.60	160.9	0.157	OK	209.5878	0.00	0.00	

#68: 1708148-02



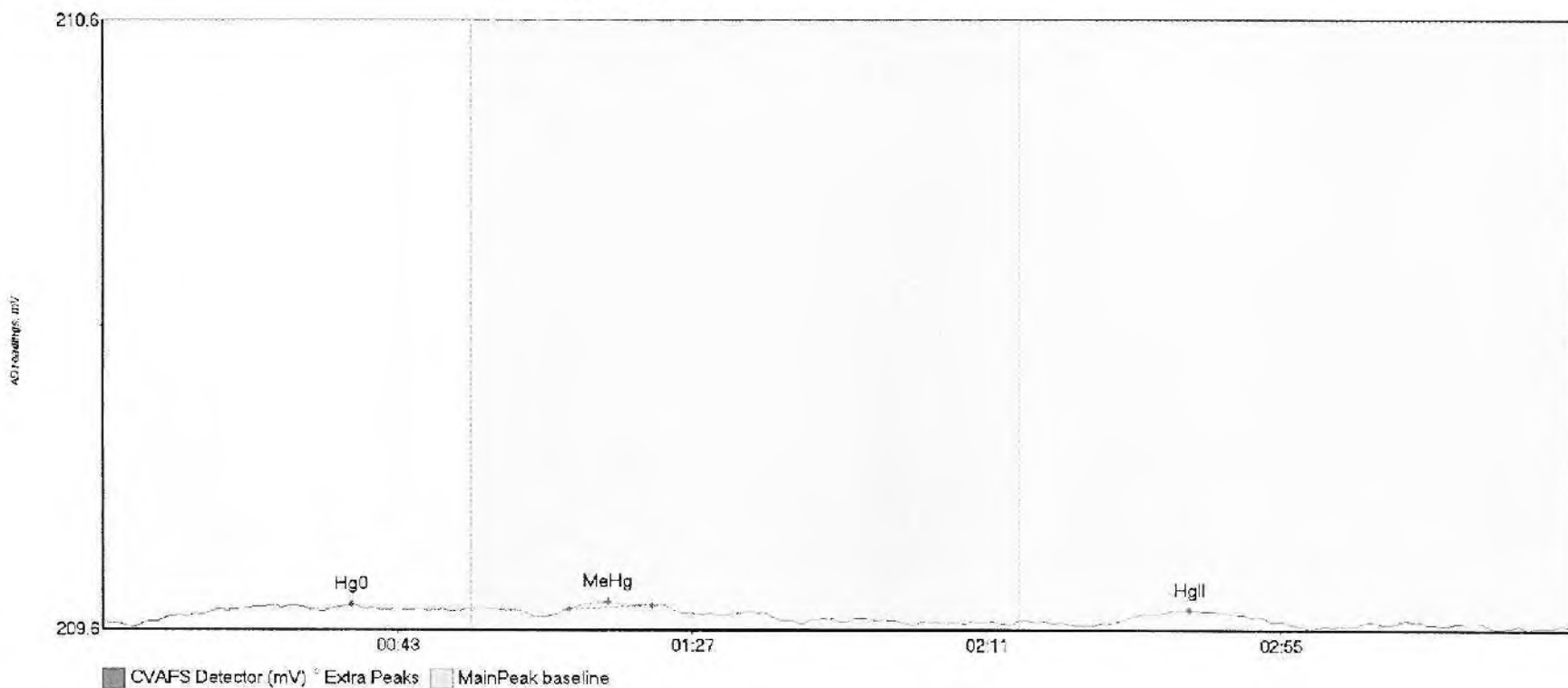
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708148-02 Hg0	5.581	5.9	55.0	209.59	209.61	39.4	0.039	CT	209.5865	0.00	0.01	
1708148-02 MeHg	1007.134	61.0	134.9	209.61	209.62	75.3	6.966	OK	209.5865	0.00	0.01	
1708148-02 HgII	44.552	144.2	190.0	209.61	209.61	163.1	0.216	OK	209.5865	0.00	0.01	

#69: SEQ-CCV5



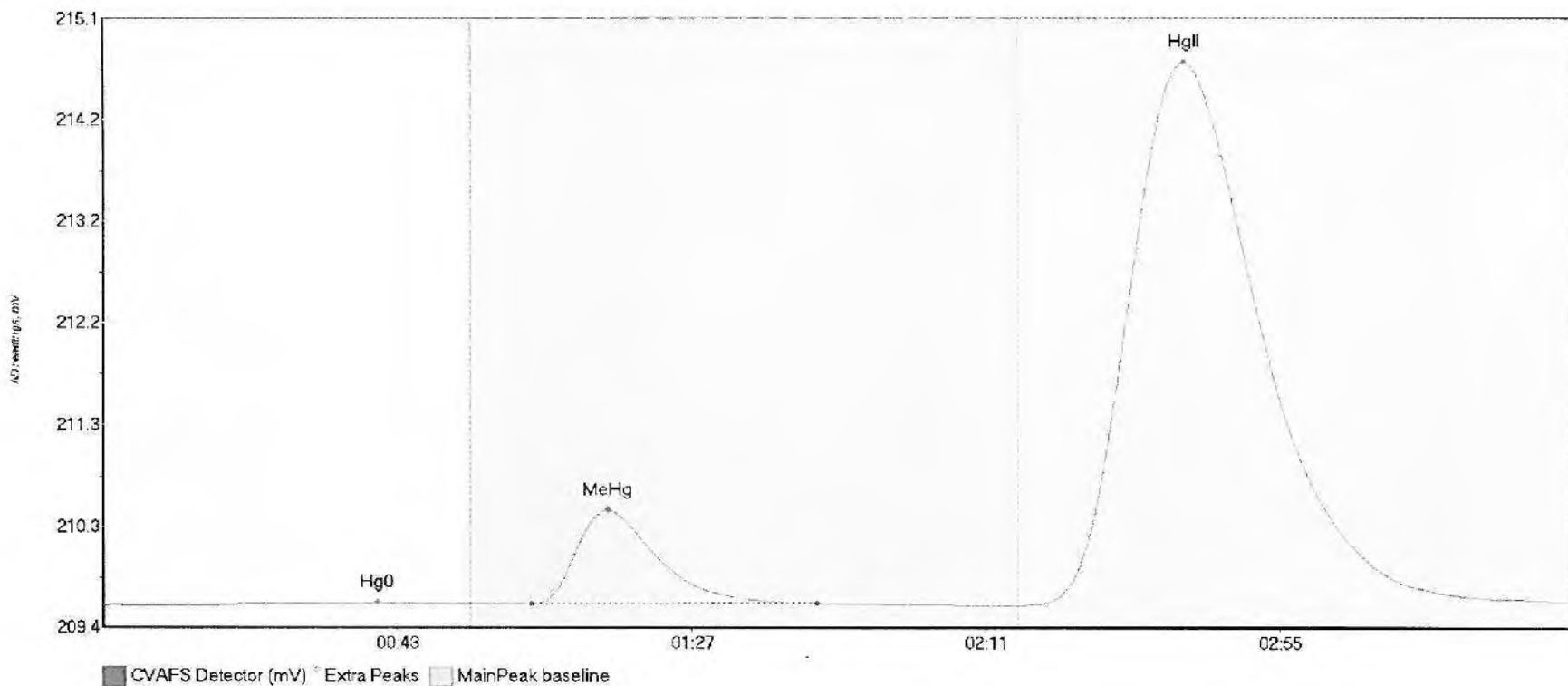
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	4.919	12.8	55.0	209.60	209.62	50.6	0.037	CT	209.6053	0.00	-0.01	
SEQ-CCV5 MeHg	241.424	63.5	114.1	209.62	209.62	75.3	1.701	OK	209.6053	0.00	-0.01	
SEQ-CCV5 HgII	2.440	149.6	171.8	209.62	209.61	159.9	0.019	OK	209.6053	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	4.459	8.2	51.9	209.60	209.61	37.1	0.027	OK	209.5942	0.00	-0.01	
SEQ-CCB5 MeHg	0.644	69.6	82.0	209.62	209.62	75.5	0.011	OK	209.5942	0.00	-0.01	
SEQ-CCB5 HgII	1.952	152.1	171.6	209.60	209.60	162.3	0.019	OK	209.5942	0.00	-0.01	

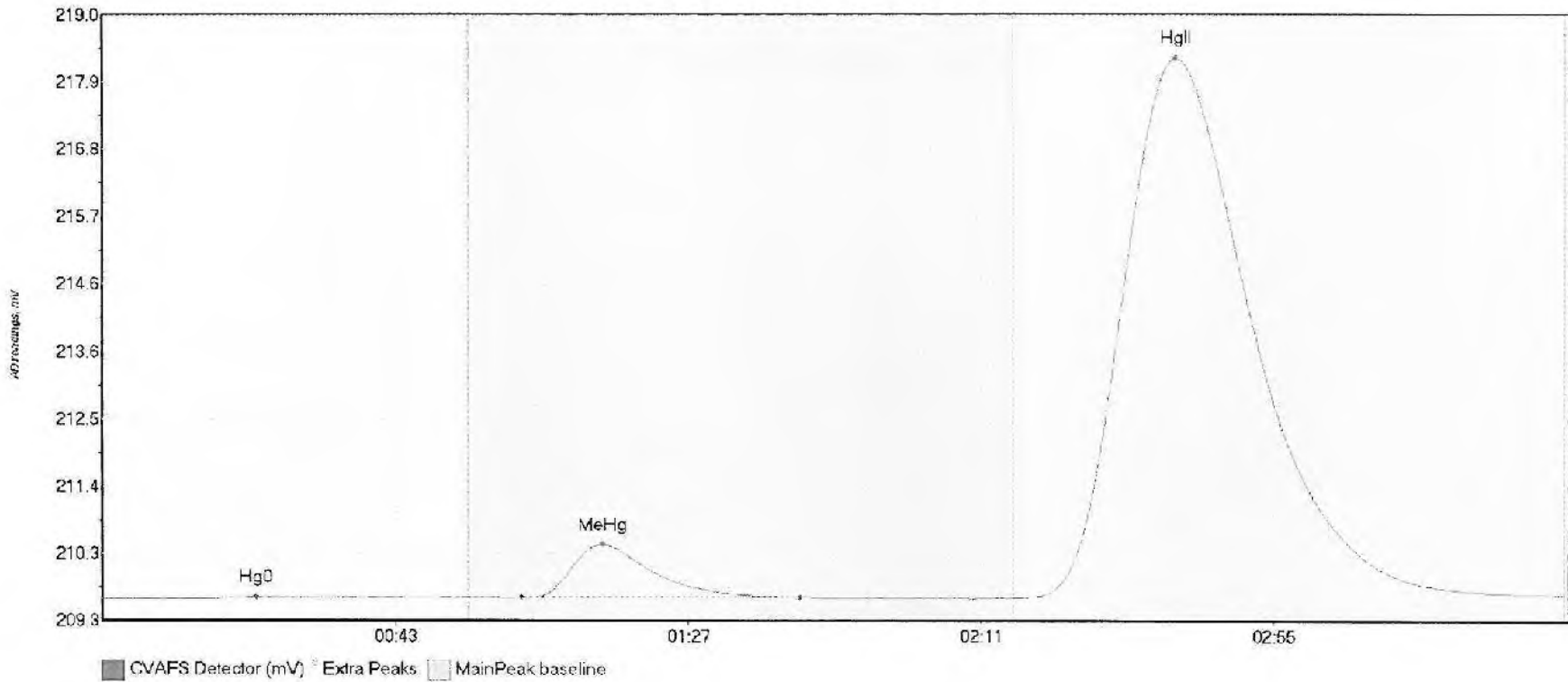
#71: 1708151-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708151-01 Hg0	2.323	18.7	49.9	209.61	209.62	41.0	0.020	OK	209.6018	0.00	0.04	
1708151-01 MeHg	121.826	64.0	105.8	209.61	209.62	75.4	0.881	OK	209.6018	0.00	0.04	
1708151-01 HgII	1152.992	137.5	219.1	209.60	209.64	161.6	5.095	OK	209.6018	0.00	0.04	

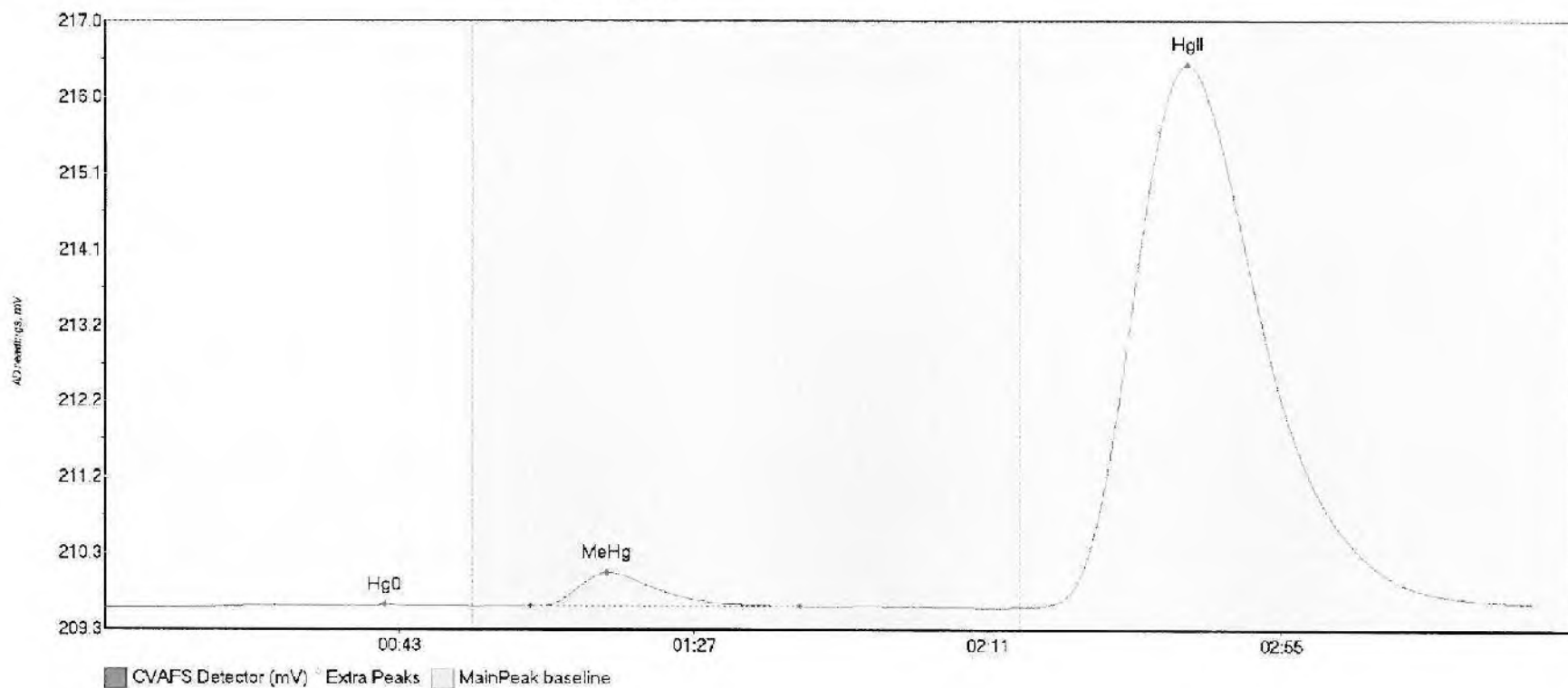


#72: 1708151-02



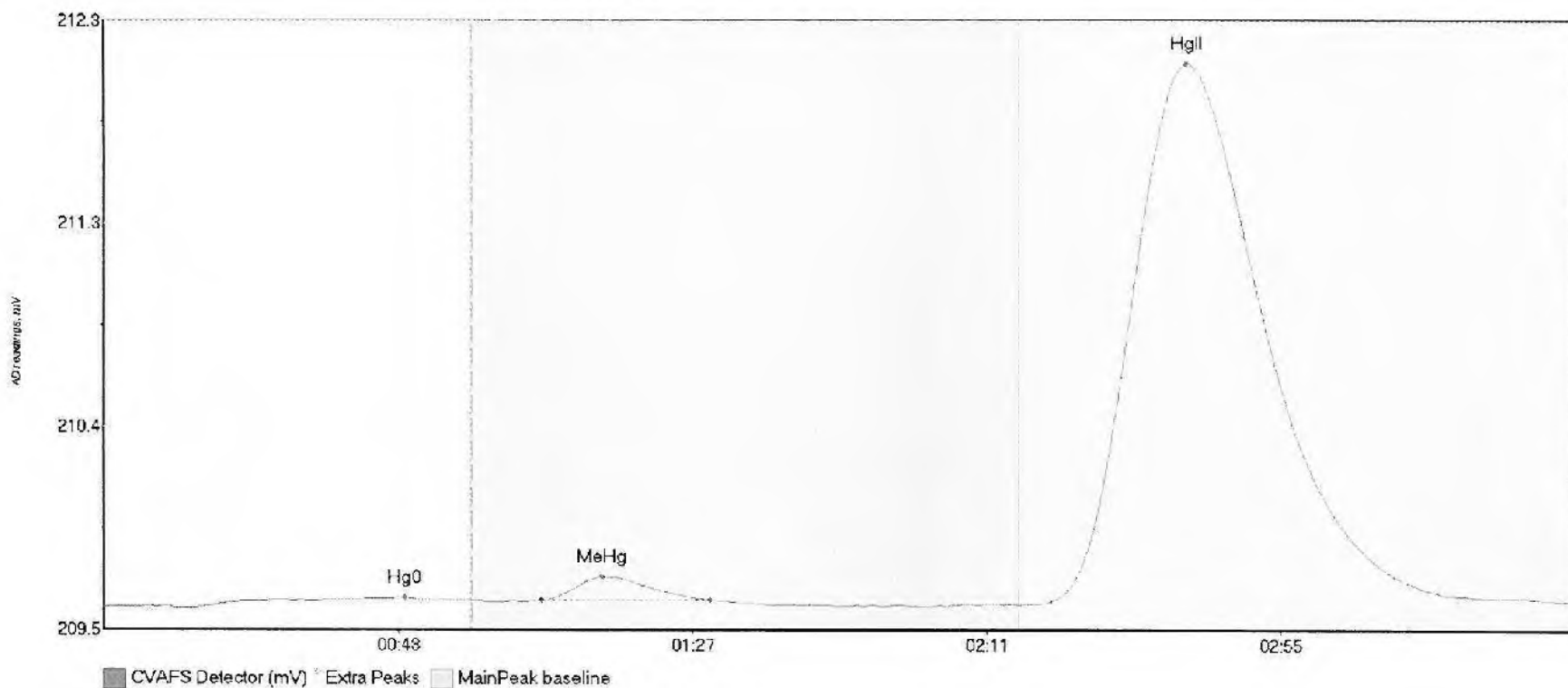
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708151-02 Hg0	1.838	16.1	31.9	209.62	209.62	23.2	0.026	OK	209.6021	0.00	0.07	
1708151-02 MeHg	117.683	62.8	104.8	209.62	209.63	75.1	0.834	OK	209.6021	0.00	0.07	
1708151-02 HgII	1925.593	136.8	219.8	209.62	209.67	161.3	0.645	CF	209.6021	0.00	0.07	

#73: 1708151-03



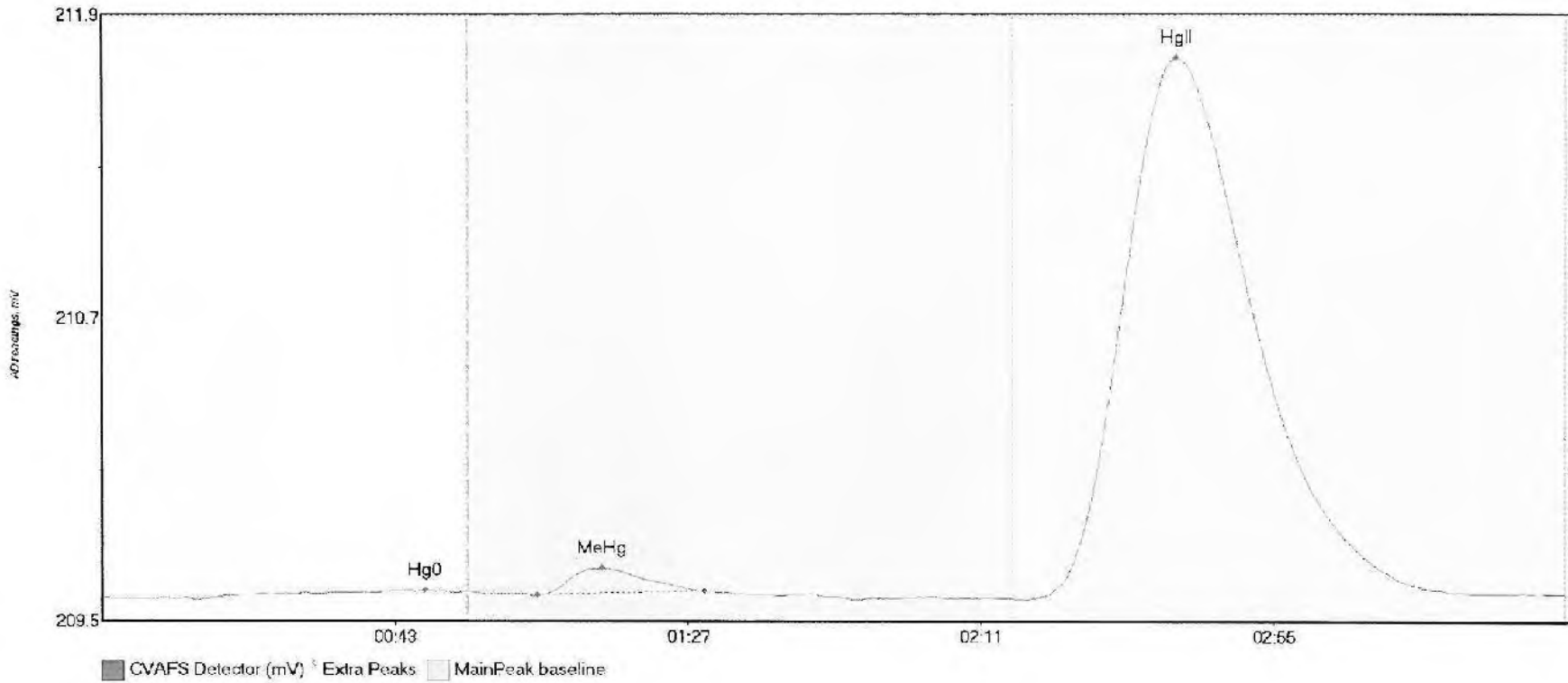
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BIdev	BIShift	Comment
1708151-03 Hg0	6.112	14.2	55.0	209.60	209.62	41.8	0.033	CF	209.6027	0.00	0.06	
1708151-03 MeHg	57.699	63.6	103.9	209.63	209.62	75.0	0.417	OK	209.6027	0.00	0.06	
1708151-03 HgII	1531.710	137.0	219.8	209.61	209.66	161.9	6.847	CF	209.6027	0.00	0.06	

#74: 1708156-01



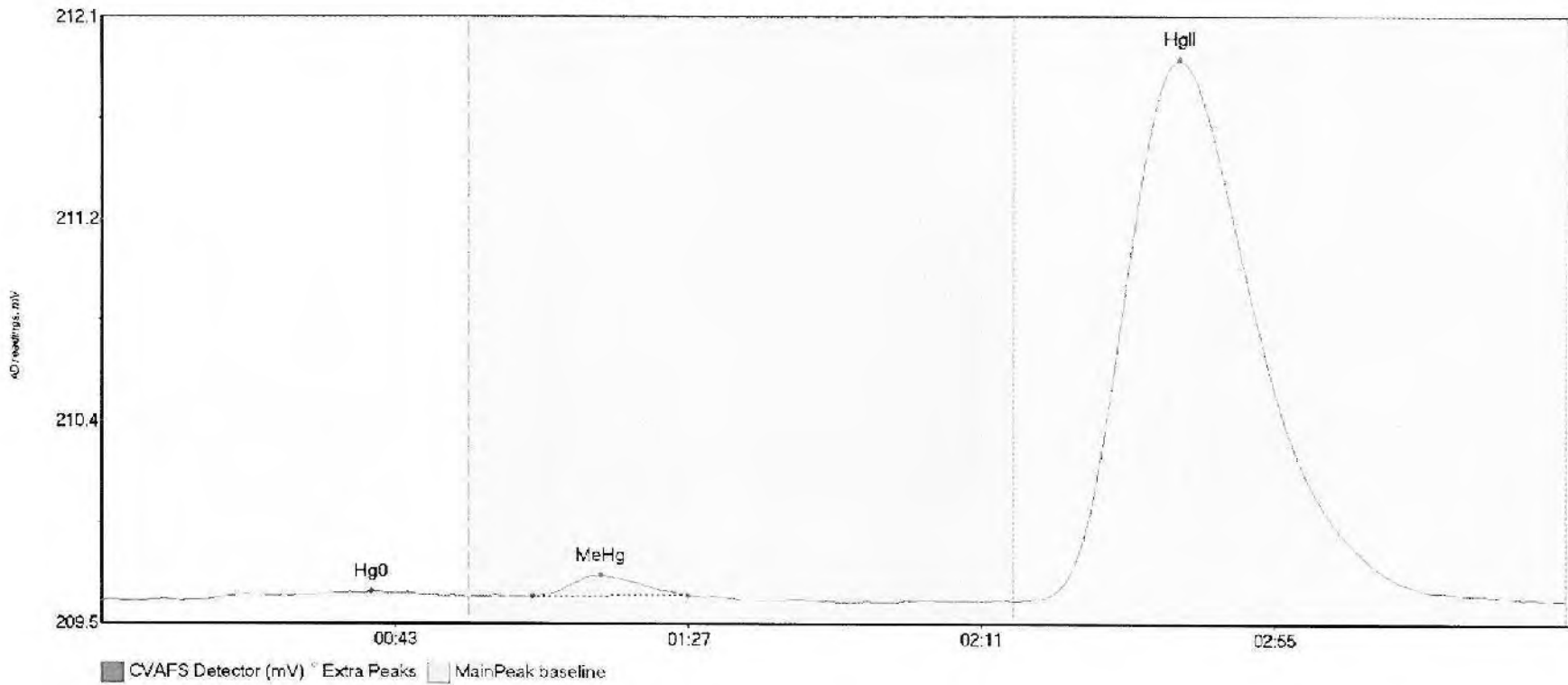
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	ElShift	Comment
1708156-01 Hg0	5.673	13.1	49.4	209.59	209.63	45.0	0.045	OK	209.5976	0.00	0.03	
1708156-01 MeHg	12.878	65.5	90.6	209.63	209.63	74.4	0.105	OK	209.5976	0.00	0.03	
1708156-01 HgII	562.208	139.5	219.8	209.61	209.62	161.9	2.456	CT	209.5876	0.00	0.03	

#75: 1708156-02



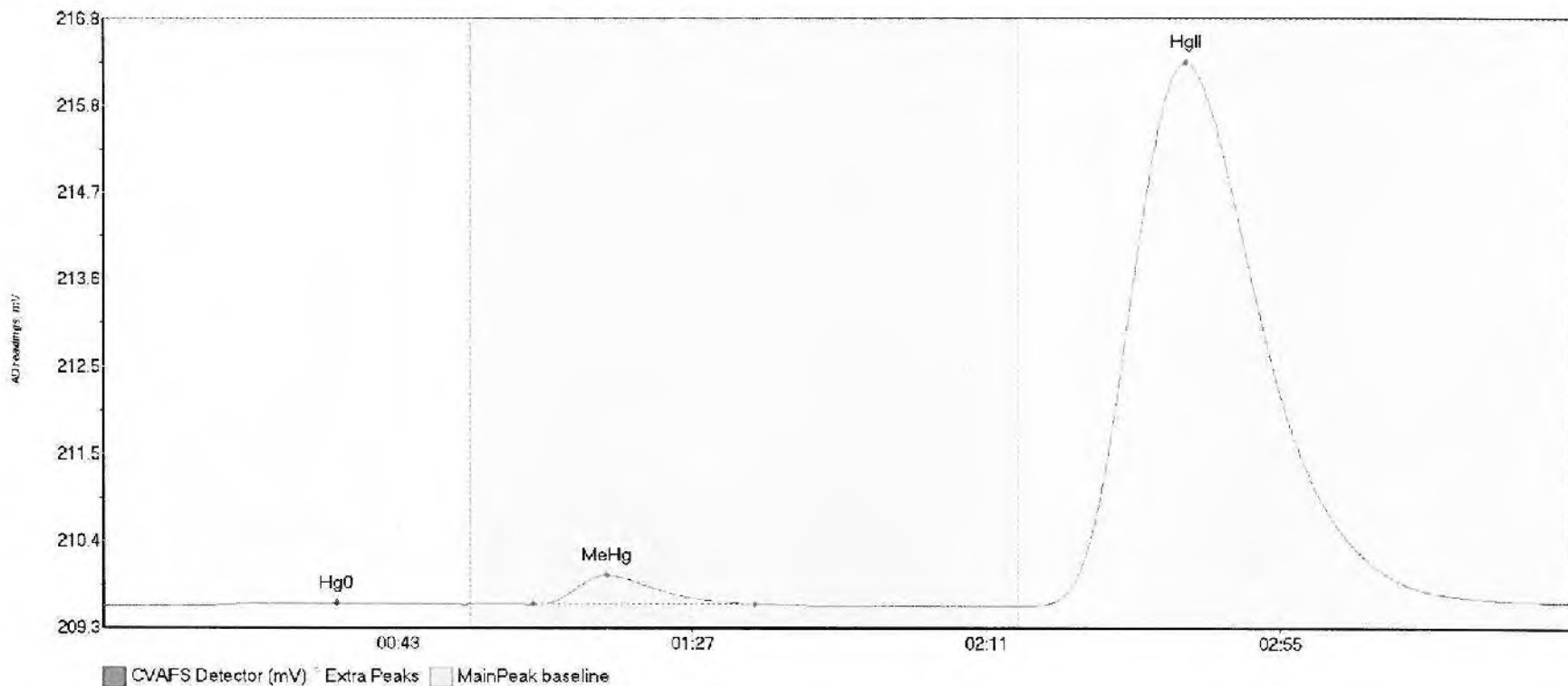
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-02 Hg0	4.061	14.6	53.3	209.59	209.61	48.6	0.035	OK	209.5944	0.00	0.02	
1708156-02 MeHg	12.727	85.5	90.5	209.60	209.62	75.2	0.107	OK	209.5944	0.00	0.02	
1708156-02 HgII	479.800	138.3	216.0	209.59	209.61	161.4	2.128	OK	209.5944	0.00	0.02	

#76: 1708156-03



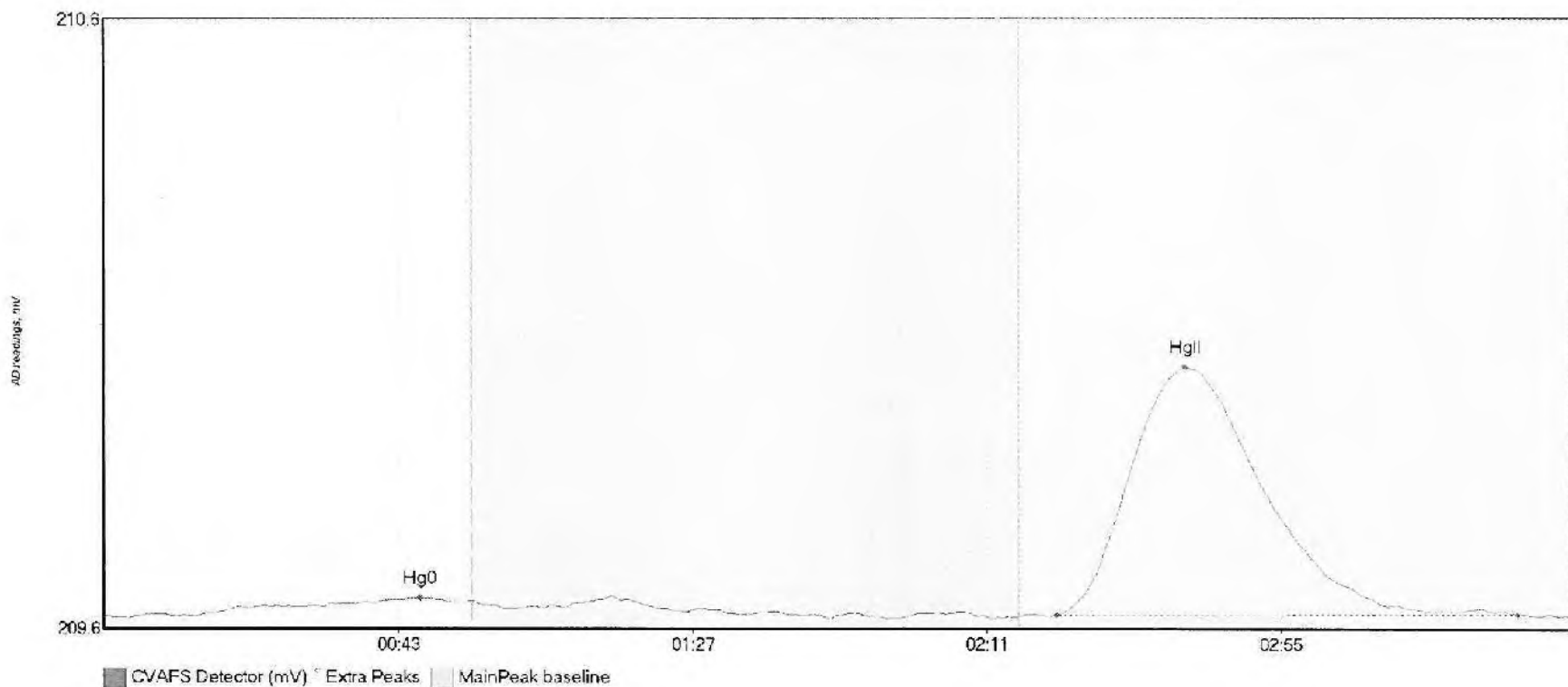
Name	Area	Start Time	End Time	Start Value	End Value	Peak Max	Peak Height	Flags	Baseline	Std Dev	Shift	Comment
1708156-03 Hg0	5.966	15.4	54.9	209.58	209.60	40.5	0.032	OK	209.5819	0.00	0.01	
1708156-03 MeHg	10.321	64.6	87.9	209.60	209.60	74.9	0.091	OK	209.5819	0.00	0.01	
1708156-03 HgII	534.511	137.6	217.2	209.58	209.58	161.7	2.332	OK	209.5819	0.00	0.01	

#77: 1708156-04



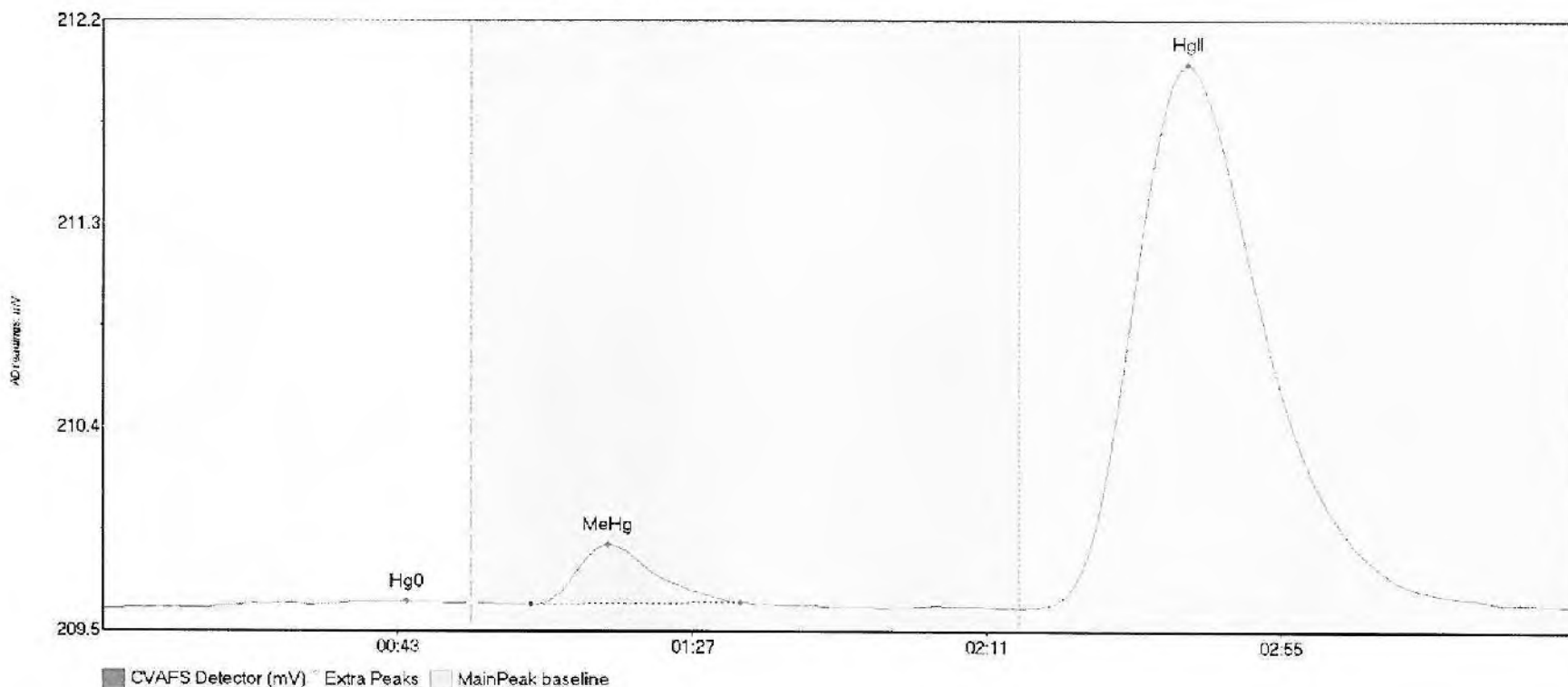
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708156-04 Hg0	4.745	13.3	54.2	209.58	209.60	34.8	0.028	OK	209.5779	0.00	0.05	
1708156-04 MeHg	48.483	54.3	97.5	209.59	209.60	75.3	0.363	OK	209.5779	0.00	0.05	
1708156-04 HgII	1519.519	138.1	219.8	209.58	209.62	162.0	6.708	OK	209.5779	0.00	0.05	

#78: 1708156-05



Name	Area	Start Time	End Time	Start Value	End Value	Peak Max	Peak Height	Flags	Baseline	StdDev	Shift	Comment
1708156-05 Hg0	3.054	13.5	52.4	209.58	209.61	47.3	0.031	OK	209.5831	0.00	0.00	
1708156-05 HgII	93.161	142.4	211.6	209.50	209.59	161.0	0.409	OK	209.5831	0.00	0.00	017

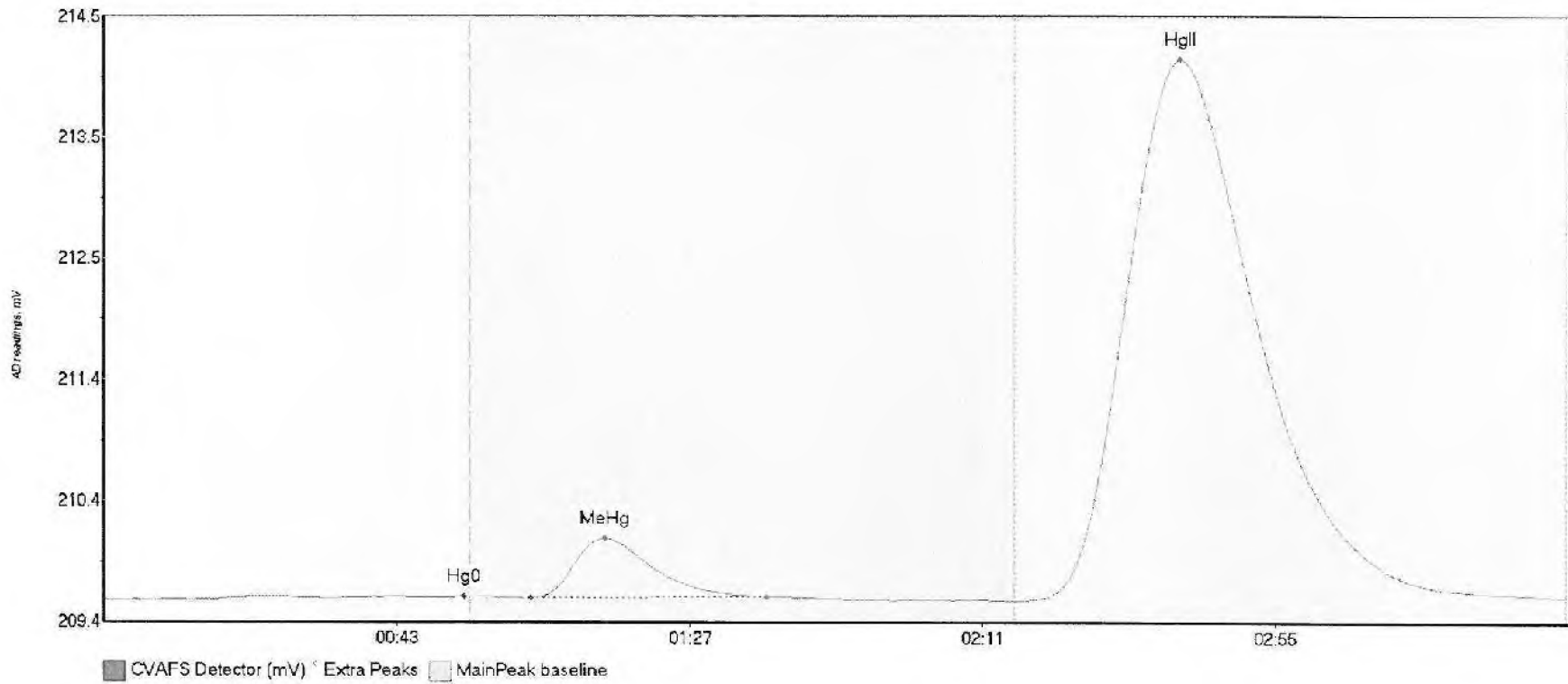
#79: 1709156-06



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1709156-06 Hg0	3.902	15.1	52.9	209.59	209.61	45.4	0.031	OK	209.5059	0.00	0.02	
1709156-06 MeHg	34.574	54.0	95.2	209.61	209.61	75.4	0.263	OK	209.5859	0.00	0.02	
1709156-06 HgII	541.405	139.5	218.3	209.59	209.60	162.1	2.382	OK	209.5859	0.00	0.02	

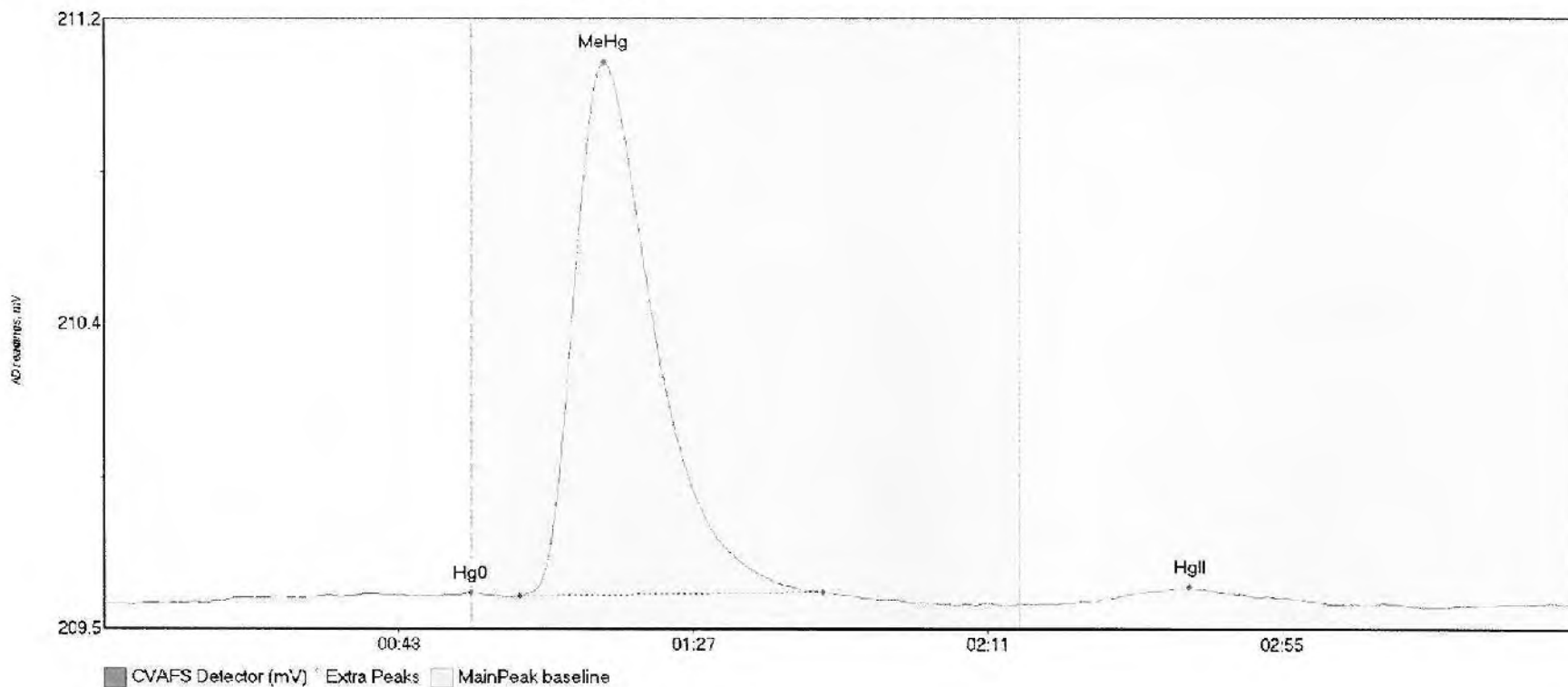


#30: 1708156-07



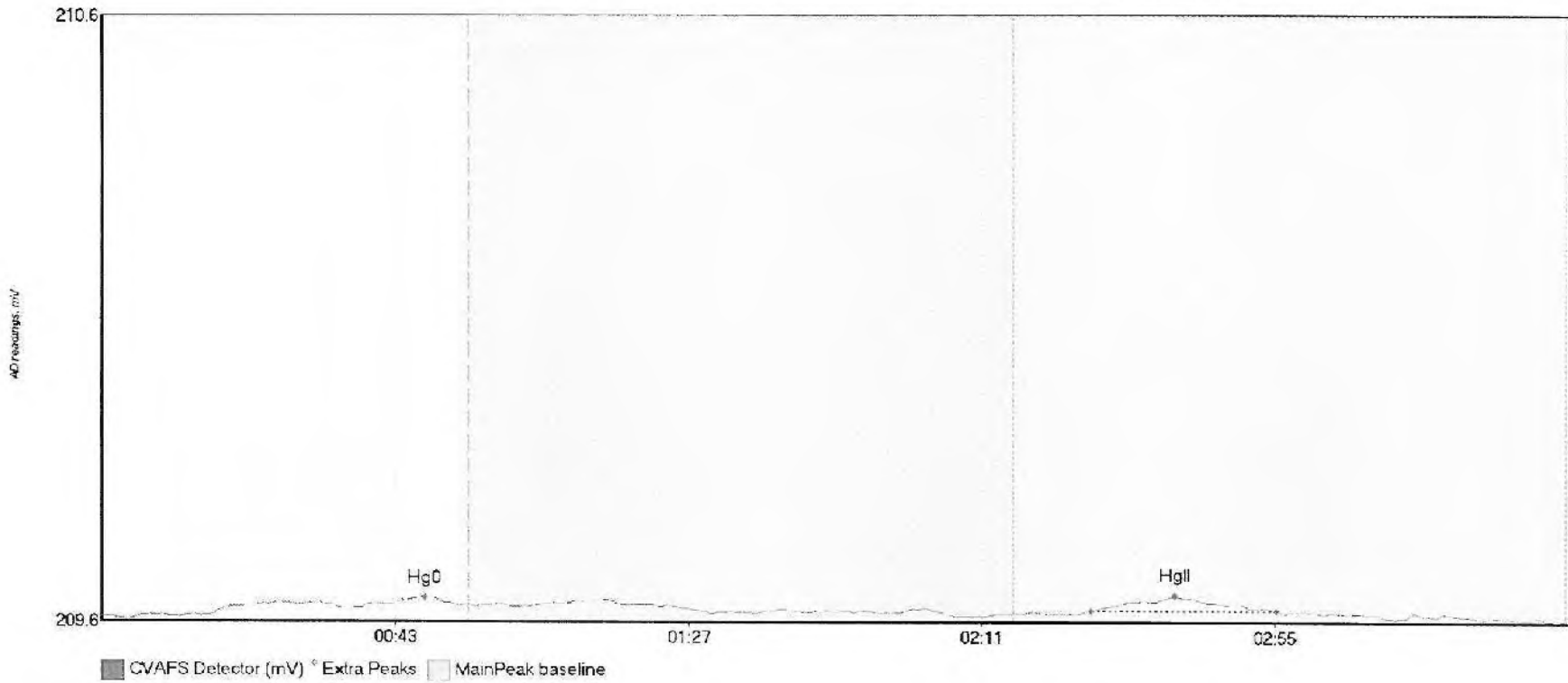
Name	Area	Start Time	End Time	Start Value	End Value	Peak Max	Peak Height	Flags	Baseline	BlDev	BlShift	Comment
1708156-07 Hg0	2.650	16.3	55.0	209.58	209.61	54.1	0.026	OT	209.5783	0.00	0.03	
1708156-07 MeHg	67.297	54.2	99.6	209.59	209.60	75.3	0.505	OK	209.5783	0.00	0.03	
1708156-07 HgII	1038.556	137.3	219.8	209.57	209.60	161.8	4.576	OT	209.5783	0.00	0.03	

#81: SEQ-CCV6



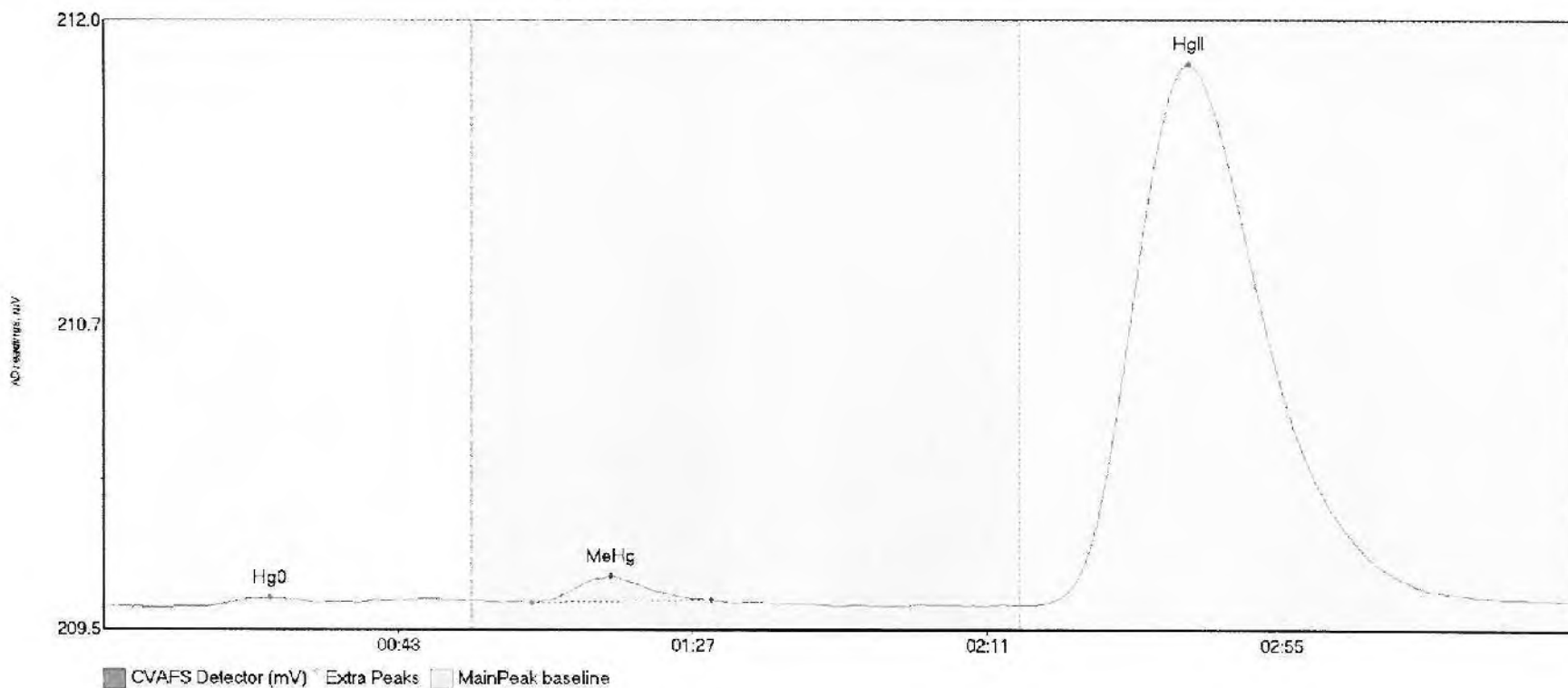
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	2.110	15.2	55.0	209.58	209.61	54.8	0.029	OK	209.5762	0.00	0.00	
SEQ-CCV6 MeHg	209.433	62.1	107.5	209.60	209.61	74.8	1.513	OK	209.5762	0.00	0.00	017
SEQ-CCV6 HgII	8.965	144.6	183.8	209.58	209.57	162.3	0.043	OK	209.5762	0.00	0.00	

#82: SEQ-CCB6



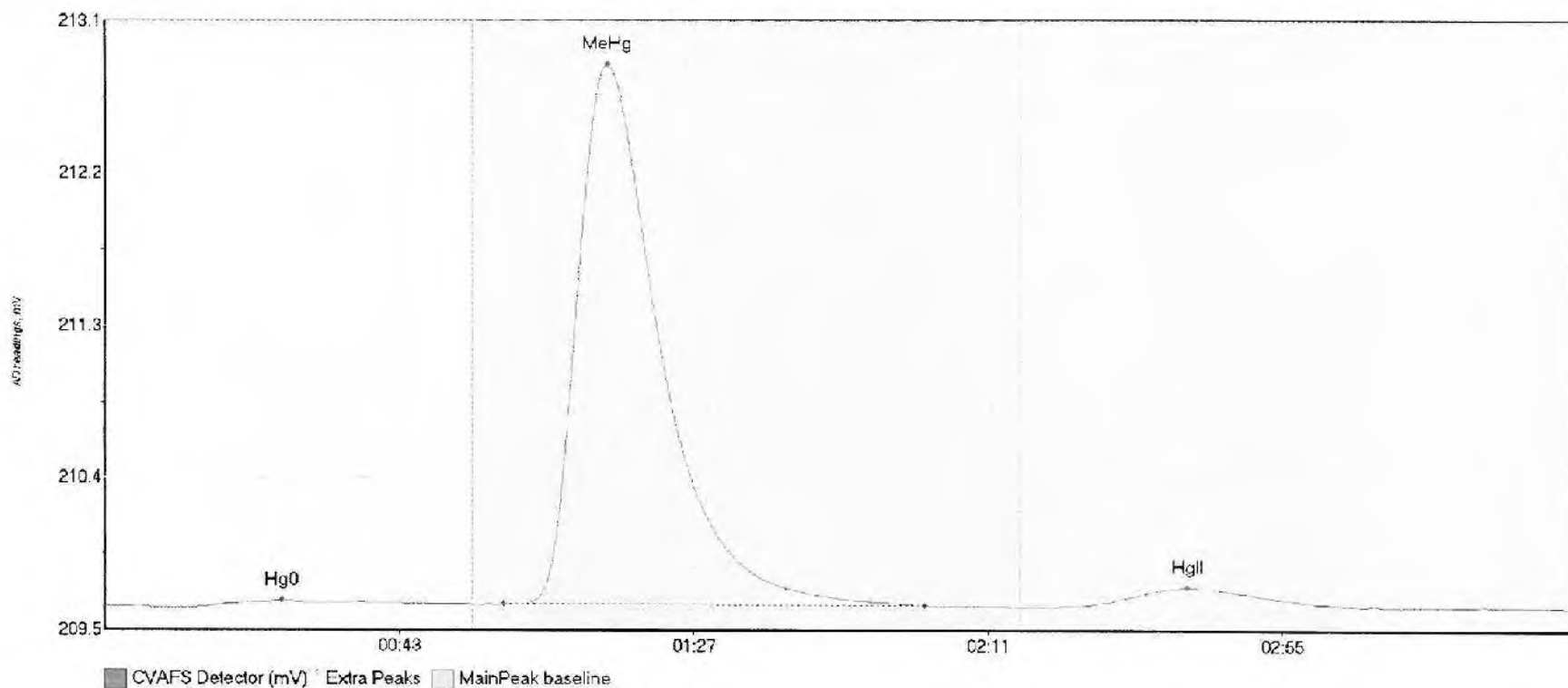
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BLDov	BLShift	Comment
SEQ-CCB6 HgC	3.775	16.2	54.0	209.58	209.59	48.5	0.029	OK	209.5743	0.00	-0.01	
SEQ-CCB6 HgII	3.495	148.5	176.3	209.58	209.58	162.0	0.024	OK	209.5743	0.00	-0.01	117

#83: 1708156-08



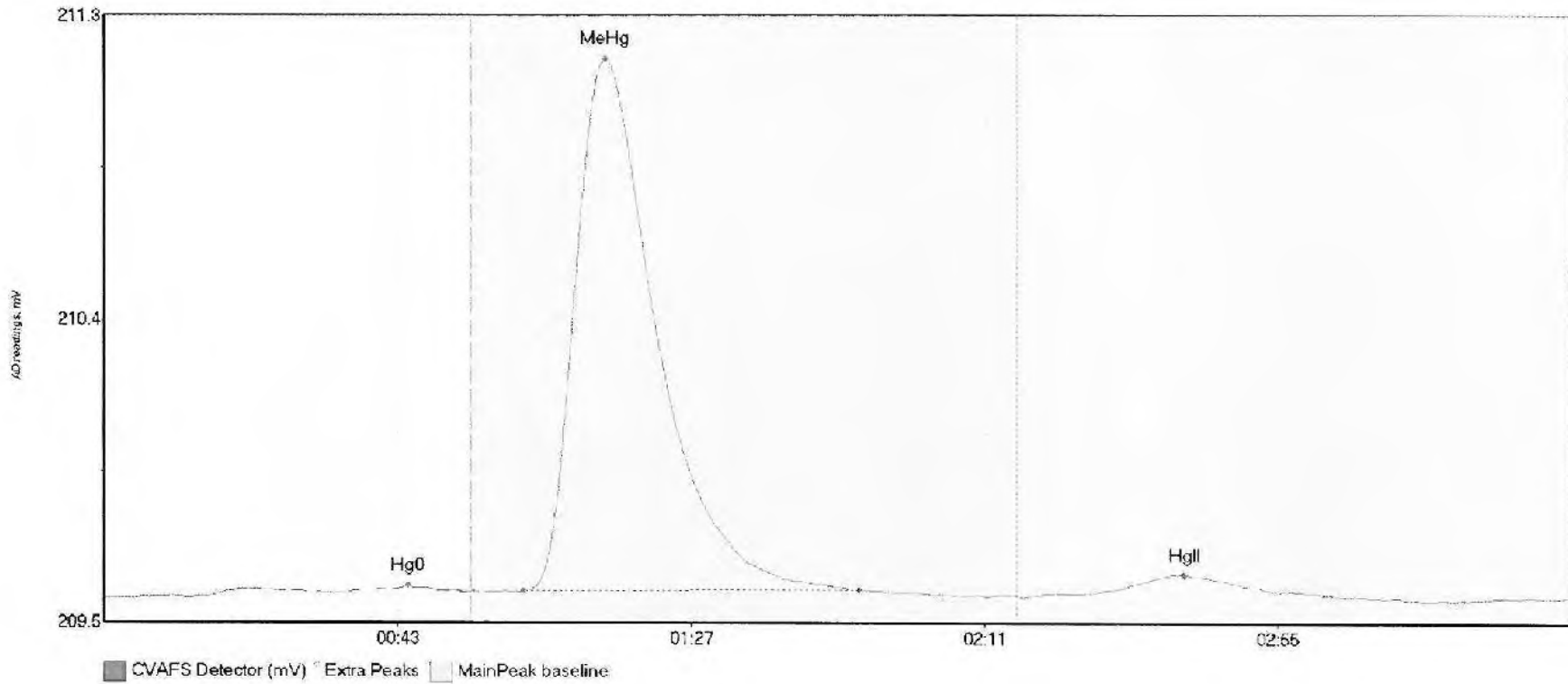
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	SDDev	BIShift	Comment
1708156-08 Hg0	2.543	15.4	32.6	209.58	209.60	24.9	0.033	OK	209.5869	0.00	0.02	
1708156-08 MeHg	12.383	64.0	90.8	209.60	209.61	75.9	0.107	OK	209.5869	0.00	0.02	
1708156-08 HgII	501.459	139.9	219.8	209.59	209.60	162.0	2.200	CT	209.5869	0.00	0.02	

#84: 1708367-01



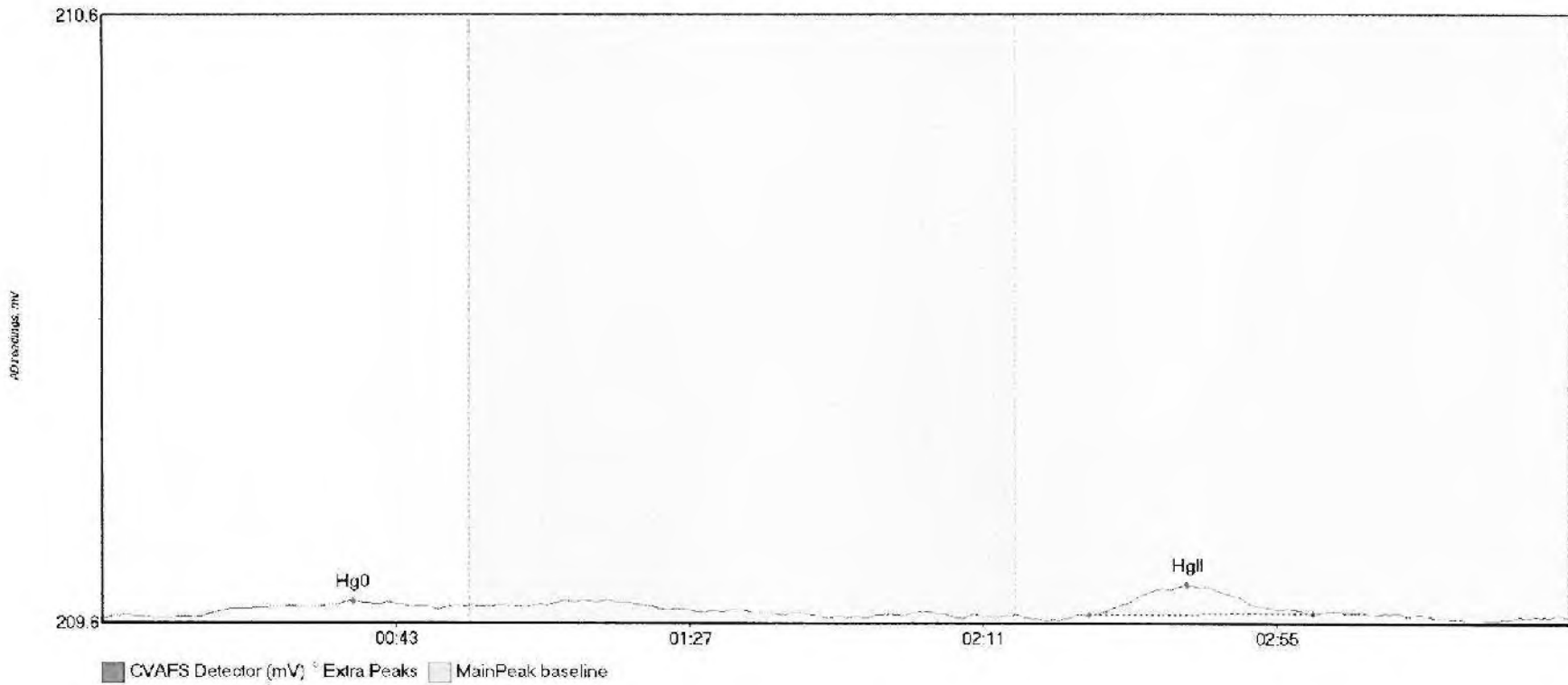
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	BlShift	Comment
1708367-01 Hg0	6.459	14.3	55.0	209.59	209.61	26.6	0.036	CT	209.5965	0.00	-0.01	
1708367-01 MeHg	469.165	59.6	122.6	209.61	209.60	75.2	3.255	OK	209.5965	0.00	-0.01	
1708367-01 HgII	23.301	144.4	187.1	209.60	209.60	161.9	0.112	OK	209.5965	0.00	-0.01	

#85: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	4.215	15.2	51.4	209.58	209.59	45.6	0.020	OK	209.5725	0.00	0.00	
SEQ-CCV7 MeHg	218.378	62.9	113.1	209.59	209.59	75.2	1.546	OK	209.5725	0.00	0.00	
SEQ-CCV7 HgII	12.088	139.8	136.6	209.58	209.57	162.0	0.060	OK	209.5725	0.00	0.00	

#86: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB7 Hg0	3.777	14.8	50.5	209.56	209.58	37.6	0.025	OK	209.5606	0.00	0.00	
SEQ-CCB7 HgII	3.097	147.9	181.4	209.57	209.57	162.6	0.050	OK	209.5606	0.00	0.00	217

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H18012, 7H18015
<b>Reviewer:</b>	<i>R 8/10/17</i>	<b>Dataset ID #:</b>	MMHG27001-170817-1, MMHG27001-170817-2
<b>Date:</b>	<i>8.18.17</i>	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708434, F708416	<b>Client(s):</b>	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

	<b>Analyst Initials:</b> <i>DM</i>		<b>Reviewer Initials:</b> <i>R 8/10/17</i>
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 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"/>
<b>QA/QC Data Checked</b>			
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: _____			



**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H18012, 7H18015
<b>Reviewer:</b>	0 <i>PC 8/18/17</i>	<b>Dataset ID #:</b>	MMHG27001-170817-1, MMHG27001-170817-2
<b>Date:</b>	8/18/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708434, F708416	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*PC 8/18/17*

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 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 checked="" type="checkbox"/> FAIL		<input type="checkbox"/>
Comments: <b>F708416-MSD1,MSD2 FAILED. MSD1 HIGH RPD AND MSD2 LOW RPD</b>				
22. MS (AS) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input checked="" type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>F708416-MS1, MS2 FAILED. LOW RECOVERIES</b>				
23. MSD (ASD) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input checked="" type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>F708416-MSD2 FAILED. LOW RECOVERY</b>				
24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630)	<input checked="" type="checkbox"/> YES	<input checked="" 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H18012, 7H18015
<b>Reviewer:</b>	0 <u>A. G. 10/17</u>	<b>Dataset ID #:</b>	MMHG27001-170817-1, MMHG27001-170817-2
<b>Date:</b>	8/18/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708434, F708416	<b>Client(s):</b>	VAROUS

**Analyst Initials:**

DM

**Reviewer Initials:**

A. G. 8/18/17

- |  |   |  |   |                                     |
|--|---|--|---|-------------------------------------|
| 29. Are re-runs noted with reason?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):<br>Was a bubbler and trap test run before the analytical run continued?<br>Comments: _____ | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 31. Do re-run results compare to initial analysis (< 35% RPD)?<br>Comments: _____  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 32. Are qualifiers consistent with the data review flowcharts?<br>Comments: _____  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 33. Have non-reportable samples been imported into LIMS and clicked to non-reportable?<br>Comments: _____                                  | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 34. 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"/> |
| 35. Narrations in MMO box in LIMS?<br>Comments: _____  |   |  |   |                                     |
| 36. Are there any HIGH QA projects within the data?<br>If so, place dataset to the QA office.  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO |   |                                     |
| 37. Does the data set need scanning?<br><u>Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs</u>                 | <input checked="" type="checkbox"/> YES |  | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 38. Date of analyst IDOC/CDOC: <u>8/13/2017</u> IDOC/CDOC within last 12 months?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 39. Date of analyst's SOP reading: <u>5/23/2016</u> Current SOP revision?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 40. Date of LOD: <u>4-24-17, 5-8-17</u> LOD within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 41. Date of LOQ: <u>4-24-17, 5-8-17</u> LOQ within last 3 months (within 12 months for MDN)?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| 42. If MDN samples, date of last MDL study: _____  |   |  |   |                                     |
| 43. MDL study within last 12 months?<br><b>Data can not be reported without a current IDOC/CDOC, LOD or LOQ.</b>                           | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| Additional Comments: _____   | <input type="checkbox"/> YES            | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1707706

August 18, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1707706

### Table of Contents

August 18, 2017

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	9
Notes and Definitions	18
Raw Data: 7G31019	19
Raw Data: 7H10014	55
Raw Data: 7H11011	155

**Total Pages – 288**



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 16:57

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMSE-1_17HC005_071917_SPI_03_WB	1707706-01	Tissue	19-Jul-17 16:00	22-Jul-17 09:30
MMSE-1_17HC005_071917_SPI_04_WB	1707706-02	Tissue	19-Jul-17 16:05	22-Jul-17 09:30
MMSE-1_17HC005_071917_SPI_05_WB	1707706-03	Tissue	19-Jul-17 16:10	22-Jul-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, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
18-Aug-17 16:57

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 7/22/2017 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -49.8 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 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 in batch F707517 and analyzed in sequence 7G31019 for total Mercury. The samples were prepped in batch F708268 for Methyl Mercury, and analyzed in two sequences; 7H10014 and 7H11011.

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: 2017 Penobscot Biota  
Project Manager: Denise King

**Reported:**  
18-Aug-17 16:57

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: 1707706

Client: AMEC

Date & Time Received: 7/20/17 9:30

Date Labeled: 7/20/17 Labeled By: LM

Project: \_\_\_\_\_

Received By: CSR

Label Verified By: ISC

# 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:	CF:	Date/Time:	By:
Cooler 1: <u>3150</u>	<u>-5.0 °C</u>	<u>7/20/17 9:30</u>	
Cooler 2:	<u>°C</u>	<u>°C</u>	<u>°C</u>
Cooler 3:	<u>°C</u>	<u>°C</u>	<u>°C</u>
Cooler 4:	<u>°C</u>	<u>°C</u>	<u>°C</u>
Cooler 5:	<u>°C</u>	<u>°C</u>	<u>°C</u>
Cooler 6:	<u>°C</u>	<u>°C</u>	<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>Y</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):

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1707-206

ME 04101  
 Project Name: LSEC/Terriscon  
 Project Manager: Rob Pendragon  
 P.O. #: 79133163052-344-054  
 Sampler: KRLT  
 Phone #:   
 State where samples were collected: ME  
 Matrix: Sediment  
 Matrix Substrate: Potable Ground Water  
 Matrix Contaminant: NPD/ES  
 Matrix Other: Whole Body  
 Matrix Total # of Containers: 1  
 Matrix Preservation Method: H<sub>2</sub> Total 1651ml M/H<sub>2</sub> 1630ml (2 oz P) Frozen  
 For Lab Use Only: EI #   
 Scale #   
 Preservation Codes: 1 = 1 MO/ALS  
 4 = MO/ALS  
 5 = MO/ALS  
 6 = MO/ALS  
 7 = MO/ALS  
 8 = MO/ALS  
 9 = MO/ALS

Sample Identification	Date	Time	Grab	Composite	Soil	Sediment	Water	Other	Total # of Containers	Analysis Requested	Preservation Codes	Remarks
1 NWS-E-174003 6/29/17 SPT 03 WB	7/1/17	1800	Grab						1			0.8g
2 MWS-E-174003 6/29/17 SPT 02 WB	7/1/17	1805	Grab						1			1.1g
3 MWS-E-174003 6/29/17 SPT 05 WB	7/1/17	1810	Grab					*	1			0.8g
Turnaround Time Requested (TAT) (Leave blank)												
Notes: FREQ # 2 of Cores Sample received - Ho of Equipment Status 1 (4 hrs) 30 days after 03 MO of report Report and EDC to: dennis@dominick.com 1-203-525-6533 Data Package Options (to case check "required") HQT EDD Required? Yes No Yes Format: Standard												
Retrieved by:	Date	Time	Received by:	Date	Time	Temperature upon receipt:						
Retrieved by:	Date	Time	Received by:	Date	Time							
Retrieved by:	Date	Time	Received by:	Date	Time							
Retrieved by:	Date	Time	Received by:	Date	Time							

N/A  
 -49.8°C  
 Feels by  
 a30

8103 4444 8565



AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 2017 Penobscot Biota Project Manager: Denise King	<b>Reported:</b> 18-Aug-17 16:57
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**MMSE-1\_17HC005\_071917\_SPI\_03\_WB**  
**1707706-01**

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)	544	2.3	9.2	ng/g	2500	F708268	01-Aug-17	7H11011	10-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	622	1.67	14.9	ng/g	400	F707517	27-Jul-17	7G31019	31-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:**  
18-Aug-17 16:57

**MMSE-1\_17HC005\_071917\_SPI\_04\_WB**  
**1707706-02**

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)	748	3.2	12.7	ng/g	2500	F708268	01-Aug-17	7H11011	10-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	581	1.58	14.1	ng/g	400	F707517	27-Jul-17	7G31019	31-Jul-17	EPA 1631B	
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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:**  
18-Aug-17 16:57

**MMSE-1\_17HC005\_071917\_SPI\_05\_WB**  
**1707706-03**

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)	564	7.8	31.0	ng/g	2500	F708268	01-Aug-17	7H11011	10-Aug-17	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	560	1.78	15.9	ng/g	400	F707517	27-Jul-17	7G31019	31-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 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
<b>Batch 7G31019 - F707517</b>											
<b>Cal Standard (7G31019-CAL1)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	0.516	-		ng/L	0.50100		103				
<b>Cal Standard (7G31019-CAL2)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	0.988	-		ng/L	1.0020		98.7				
<b>Cal Standard (7G31019-CAL3)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	5.002	-		ng/L	5.0100		99.8				
<b>Cal Standard (7G31019-CAL4)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	19.81	-		ng/L	20.040		98.8				
<b>Cal Standard (7G31019-CAL5)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	39.54	-		ng/L	40.080		98.7				
<b>Calibration Blank (7G31019-CCB1)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	0.068	-		ng/L							
<b>Calibration Blank (7G31019-CCB2)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	0.285	-		ng/L							
<b>Calibration Blank (7G31019-CCB3)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	0.187	-		ng/L							
<b>Calibration Check (7G31019-CCV1)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	5.202	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7G31019-CCV2)</b>					Prepared & Analyzed: 31-Jul-17						
Mercury	5.643	-		ng/L	5.0000		113	77-123			

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Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
18-Aug-17 16:57

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 7G31019 - F707517

Calibration Check (7G31019-CCV3) Prepared & Analyzed: 31-Jul-17

Mercury	5.110	-		ng/L	5.0000		102	77-123			
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Instrument Blank (7G31019-IBL1) Prepared & Analyzed: 31-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G31019-IBL2) Prepared & Analyzed: 31-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7G31019-IBL3) Prepared & Analyzed: 31-Jul-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7G31019-ICV1) Prepared & Analyzed: 31-Jul-17

Mercury	5.113	-		ng/L	5.0000		102	79-121			
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Batch 7H10014 - F708268

Cal Standard (7H10014-CAL1) Prepared & Analyzed: 09-Aug-17

Methyl Mercury (as Mercury)	0.04	-		ng/L	0.050050		87.8				
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Cal Standard (7H10014-CAL2) Prepared & Analyzed: 09-Aug-17

Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		92.9				
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Cal Standard (7H10014-CAL3) Prepared & Analyzed: 09-Aug-17

Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		106				
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Cal Standard (7H10014-CAL4) Prepared & Analyzed: 09-Aug-17

Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		98.4				
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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 16:57

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 7H10014 - F708268

<b>Cal Standard (7H10014-CAL5)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	4.6	-		ng/L	4.0040		114				
<b>Calibration Blank (7H10014-CCB1)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H10014-CCB2)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7H10014-CCB3)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7H10014-CCB4)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.006	-		ng/L							
<b>Calibration Blank (7H10014-CCB5)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H10014-CCB6)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Check (7H10014-CCV1)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		94.2	67-133			
<b>Calibration Check (7H10014-CCV2)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		90.5	67-133			
<b>Calibration Check (7H10014-CCV3)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.0	67-133			

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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 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 7H10014 - F708268**

<b>Calibration Check (7H10014-CCV4)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		99.8	67-133			
<b>Calibration Check (7H10014-CCV5)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		99.3	67-133			
<b>Calibration Check (7H10014-CCV6)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.8	67-133			
<b>Instrument Blank (7H10014-IBL1)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7H10014-ICB1)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.006	-		ng/L							
<b>Initial Cal Check (7H10014-ICV1)</b>					Prepared & Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		106	69-131			

**Batch 7H11011 - F708268**

<b>Cal Standard (7H11011-CAL1)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		106				
<b>Cal Standard (7H11011-CAL2)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		91.1				
<b>Cal Standard (7H11011-CAL3)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		100				

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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 16:57

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7H11011 - F708268</b>											
<b>Cal Standard (7H11011-CAL4)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	1.9	-		ng/L	2.0020		96.7				
<b>Cal Standard (7H11011-CAL5)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	4.2	-		ng/L	4.0040		106				
<b>Calibration Blank (7H11011-CCB1)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H11011-CCB2)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.004	-		ng/L							
<b>Calibration Blank (7H11011-CCB3)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H11011-CCB4)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H11011-CCB5)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.003	-		ng/L							
<b>Calibration Blank (7H11011-CCB6)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H11011-CCB7)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.0	-		ng/L							U
<b>Calibration Blank (7H11011-CCB8)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.002	-		ng/L							

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Project: 2017 Penobscot Biota  
Project Number: 2017 Penobscot Biota  
Project Manager: Denise King

Reported:  
18-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
<b>Batch 7H11011 - F708268</b>											
<b>Calibration Check (7H11011-CCV1)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.3	67-133			
<b>Calibration Check (7H11011-CCV2)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.0	67-133			
<b>Calibration Check (7H11011-CCV3)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.3	67-133			
<b>Calibration Check (7H11011-CCV4)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		95.3	67-133			
<b>Calibration Check (7H11011-CCV5)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		98.4	67-133			
<b>Calibration Check (7H11011-CCV6)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		97.7	67-133			
<b>Calibration Check (7H11011-CCV7)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		95.2	67-133			
<b>Calibration Check (7H11011-CCV8)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		82.7	67-133			
<b>Instrument Blank (7H11011-IBL1)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U
<b>Initial Cal Blank (7H11011-ICB1)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.004	-		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	<b>Reported:</b> 18-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 7H11011 - F708268**

<b>Initial Cal Check (7H11011-ICV1)</b>					Prepared & Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		99.8	69-131			

**Batch F707517 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F707517-BLK1)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	0.221	0.090	0.800	ng/g							J

<b>Blank (F707517-BLK2)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	0.122	0.090	0.800	ng/g							J

<b>Blank (F707517-BLK3)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	ND	0.090	0.800	ng/g							U

<b>Blank (F707517-BLK4)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	ND	0.077	0.690	ng/g							U, F-03

<b>Blank (F707517-BLK5)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	ND	0.080	0.715	ng/g							U, F-03

<b>Blank (F707517-BLK6)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	ND	0.087	0.778	ng/g							U, F-03

<b>Blank (F707517-BLK7)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	ND	0.085	0.756	ng/g							U, F-03

<b>LCS (F707517-BS1)</b>					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	7.699	0.090	0.800	ng/g	8.0160		96.0	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:  
18-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 F707517 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS Dup (F707517-BSD1)</b>											
					Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	7.571	0.090	0.800	ng/g	8.0160		94.5	75-125	1.68	24	
<b>Duplicate (F707517-DUP1)</b>											
					Source: 1707706-03RE1 Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	613.3	1.70	15.2	ng/g	560.4				9.02	24	
<b>Matrix Spike (F707517-MS1)</b>											
					Source: 1707706-02RE1 Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	1011	1.74	15.5	ng/g	388.22	581.0	111	71-125			
<b>Matrix Spike Dup (F707517-MSD1)</b>											
					Source: 1707706-02RE1 Prepared: 27-Jul-17 Analyzed: 31-Jul-17						
Mercury	1011	1.72	15.4	ng/g	385.38	581.0	112	71-125	0.774	24	

**Batch F708268 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F708268-BLK1)</b>											
					Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F708268-BLK2)</b>											
					Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F708268-BLK3)</b>											
					Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F708268-BLK4)</b>											
					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F708268-BLK5)</b>											
					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U



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 16:57

**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 F708268 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F708268-BLK6)</b>					Prepared: 04-Aug-17 Analyzed: 10-Aug-17						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>LCS (F708268-BS1)</b>					Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	342.7	2.0	7.9	ng/g	330.28		104	70-130			
<b>LCS Dup (F708268-BSD1)</b>					Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	312.0	2.0	8.0	ng/g	330.28		94.5	70-130	9.38	25	
<b>Duplicate (F708268-DUP1)</b>					Source: 1707737-01 Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	5.0	0.4	1.7	ng/g		6.8			30.1	35	
<b>Matrix Spike (F708268-MS1)</b>					Source: 1707737-01 Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	35.3	0.4	1.8	ng/g	35.572	6.8	80.0	65-130			
<b>Matrix Spike (F708268-MS2)</b>					Source: 1707810-35 Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	49.0	0.4	1.7	ng/g	34.805	5.7	124	65-130			
<b>Matrix Spike Dup (F708268-MSD1)</b>					Source: 1707737-01 Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	29.1	0.4	1.7	ng/g	33.356	6.8	66.8	65-130	18.0	35	
<b>Matrix Spike Dup (F708268-MSD2)</b>					Source: 1707810-35 Prepared: 04-Aug-17 Analyzed: 09-Aug-17						
Methyl Mercury (as Mercury)	44.8	0.4	1.7	ng/g	34.293	5.7	114	65-130	8.60	35	

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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: 2017 Penobscot Biota  
 Project Manager: Denise King

**Reported:**  
 18-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.
- 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-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- 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.
- 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.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- 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

### THg26002-170731-1

**Analysis Datasheet for Total Mercury**

Date of Analysis: July 31, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7G31019, 7G31020, 7G31022

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	85.94 units	171.89	78.25 units	156.49	103.2 %Rec
SEQ-CAL2	1	1.00 ng/L	157.56 units	157.56	149.87 units	149.87	98.8 %Rec
SEQ-CAL3	1	5.00 ng/L	766.11 units	153.22	758.41 units	151.68	100.0 %Rec
SEQ-CAL4	1	20.00 ng/L	3010.63 units	150.53	3002.93 units	150.15	99.0 %Rec
SEQ-CAL5	1	40.00 ng/L	6002.62 units	150.07	5994.92 units	149.87	98.9 %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**  
 151.61            +/- 2.83            1.9% RSD            156.65

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	7.70 units	±2.81	0.05 ng/L	±0.02

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.802 ng/L	±0.859
BLK	2	3	27.916 ng/L	±8.975
BLK	3	3	0.066 ng/L	±0.018
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: A 8/1/17

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	7/31/2017 7:54:22	82233-1.RAW	7:54:22 AM	5.43			-2.3	-0.015	-0.015	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	7/31/2017 7:58:30	82234-1.RAW	7:58:30 AM	10.95			3.1	0.021	0.021	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	7/31/2017 8:02:39	82235-1.RAW	8:02:39 AM	6.82			-0.9	-0.006	-0.006	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	7/31/2017 8:06:47	82236-1.RAW	8:06:47 AM	85.94			78.2	0.516	0.516	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	7/31/2017 8:10:56	82237-1.RAW	8:10:56 AM	157.56			149.9	0.988	0.988	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	7/31/2017 8:15:04	82238-1.RAW	8:15:04 AM	766.11			758.4	5.002	5.002	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	7/31/2017 8:19:13	82239-1.RAW	8:19:13 AM	3010.63			3002.9	19.807	19.807	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	7/31/2017 8:23:21	82240-1.RAW	8:23:21 AM	6002.62			5994.9	39.541	39.541	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	7/31/2017 8:27:29	82241-1.RAW	8:27:29 AM	782.82			775.1	5.113	5.113	ng/L	
Hg2600-2	DM2	SAM	EFGS02840 500NG	1000	7/31/2017 8:31:38	82242-1.RAW	8:31:38 AM	1733.75		X	1726.1	11.385	11384.701	ng/L	
Hg2600-2	DM2	SAM	EFGS03172 500NG	1000	7/31/2017 8:35:46	82243-1.RAW	8:35:46 AM	1893.71		X	1886.0	12.440	12439.734	ng/L	
Hg2600-2	DM2	BLK	F707517-BLK1	20	7/31/2017 8:39:55	82244-1.RAW	8:39:55 AM	28.65		1	21.0	0.138	2.764	ng/L	
Hg2600-2	DM2	BLK	F707517-BLK2	20	7/31/2017 8:44:03	82245-1.RAW	8:44:03 AM	19.29		1	11.6	0.076	1.530	ng/L	
Hg2600-2	DM2	BLK	F707517-BLK3	20	7/31/2017 8:48:12	82246-1.RAW	8:48:12 AM	16.12		1	8.4	0.056	1.112	ng/L	
Hg2600-2	DM2	SAM	*F707517-BLK4	20	7/31/2017 8:52:20	82247-1.RAW	8:52:20 AM	16.20		1	8.5	-0.034	-0.681	ng/L	
Hg2600-2	DM2	SAM	*F707517-BLK5	20	7/31/2017 8:56:29	82248-1.RAW	8:56:29 AM	13.19		1	5.5	-0.054	-1.077	ng/L	
Hg2600-2	DM2	SAM	*F707517-BLK6	20	7/31/2017 9:00:37	82249-1.RAW	9:00:37 AM	12.60		1	4.9	-0.058	-1.156	ng/L	
Hg2600-2	DM2	SAM	*F707517-BLK7	20	7/31/2017 9:04:45	82250-1.RAW	9:04:45 AM	15.55		1	7.9	-0.038	-0.766	ng/L	
Hg2600-2	DM2	SAM	F707517-BS1	20	7/31/2017 9:08:54	82251-1.RAW	9:08:54 AM	750.92		1	743.2	4.812	96.241	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	7/31/2017 9:13:02	82252-1.RAW	9:13:02 AM	796.41			788.7	5.202	5.202	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	7/31/2017 9:17:11	82253-1.RAW	9:17:11 AM	17.98			10.3	0.068	0.068	ng/L	
Hg2600-2	DM2	SAM	F707517-BSD1	20	7/31/2017 9:21:19	82254-1.RAW	9:21:19 AM	738.80		1	731.1	4.732	94.641	ng/L	
Hg2600-2	DM2	SAM	1707104-01	100	7/31/2017 9:25:28	82255-1.RAW	9:25:28 AM	308.60		1	298.9	1.953	195.349	ng/L	
Hg2600-2	DM2	SAM	1707544-01	100	7/31/2017 9:29:36	82256-1.RAW	9:29:36 AM	420.93		1	413.2	2.708	270.754	ng/L	
Hg2600-2	DM2	SAM	1707706-01	100	7/31/2017 9:33:44	82257-1.RAW	9:33:44 AM	12346.71		1	12339.0	81.368	8136.750	ng/L	
Hg2600-2	DM2	SAM	1707706-02	100	7/31/2017 9:37:53	82258-1.RAW	9:37:53 AM	12421.62		1	12413.9	81.862	8186.163	ng/L	
Hg2600-2	DM2	SAM	1707706-03	100	7/31/2017 9:42:01	82259-1.RAW	9:42:01 AM	10089.33		1	10081.6	66.478	6647.831	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/31/2017 9:44:53	82260-1.RAW	9:44:53 AM	52.53		X	44.8	0.296	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/31/2017 9:49:01	82261-1.RAW	9:49:01 AM	84.53		X	76.8	0.507	0.000	ng/L	
Hg2600-2	DM2	SAM	F707517-DUP1	400	7/31/2017 9:53:10	82262-1.RAW	9:53:10 AM	3064.24		1	3056.5	20.156	8062.328	ng/L	
Hg2600-2	DM2	SAM	F707517-MS1	400	7/31/2017 9:57:18	82263-1.RAW	9:57:18 AM	4951.61		1	4943.9	32.604	13041.788	ng/L	
Hg2600-2	DM2	SAM	F707517-MSD1	400	7/31/2017 10:01:27	82264-1.RAW	10:01:27 AM	4988.86		1	4981.2	32.850	13140.077	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	7/31/2017 10:05:35	82265-1.RAW	10:05:35 AM	863.29			855.6	5.643	5.643	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	7/31/2017 10:09:43	82266-1.RAW	10:09:43 AM	50.95			43.3	0.285	0.285	ng/L	
Hg2600-2	DM2	SAM	1707706-01RE1	400	7/31/2017 10:13:52	82267-1.RAW	10:13:52 AM	3187.64		1	3159.9	20.838	8335.126	ng/L	
Hg2600-2	DM2	SAM	1707706-02RE1	400	7/31/2017 10:18:00	82268-1.RAW	10:18:00 AM	3136.77		1	3129.1	20.634	8253.684	ng/L	
Hg2600-2	DM2	SAM	1707706-03RE1	400	7/31/2017 10:22:09	82269-1.RAW	10:22:09 AM	2676.20		1	2668.5	17.596	7038.542	ng/L	
Hg2600-2	DM2	BLK	F707540-BLK1	100	7/31/2017 10:26:17	82270-1.RAW	10:26:17 AM	65.66		2	58.0	0.382	38.230	ng/L	
Hg2600-2	DM2	BLK	F707540-BLK2	100	7/31/2017 10:30:26	82271-1.RAW	10:30:26 AM	43.52		2	35.8	0.236	23.628	ng/L	
Hg2600-2	DM2	BLK	F707540-BLK3	100	7/31/2017 10:34:34	82272-1.RAW	10:34:34 AM	40.88		2	33.2	0.219	21.889	ng/L	
Hg2600-2	DM2	SAM	F707540-BS1	400	7/31/2017 10:38:42	82273-1.RAW	10:38:42 AM	3678.81		2	3671.1	24.144	9657.646	ng/L	
Hg2600-2	DM2	SAM	F707540-BSD1	400	7/31/2017 10:42:51	82274-1.RAW	10:42:51 AM	3717.54		2	3709.8	24.400	9759.823	ng/L	
Hg2600-2	DM2	SAM	1707697-02	100	7/31/2017 10:46:59	82275-1.RAW	10:46:59 AM	72.56		2	64.9	0.149	14.863	ng/L	
Hg2600-2	DM2	SAM	1707697-04	100	7/31/2017 10:51:08	82276-1.RAW	10:51:08 AM	41.09		2	33.4	-0.059	-5.890	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	7/31/2017 10:55:16	82277-1.RAW	10:55:16 AM	782.37			774.7	5.110	5.110	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	7/31/2017 10:59:25	82278-1.RAW	10:59:25 AM	35.98			28.3	0.187	0.187	ng/L	
Hg2600-2	DM2	SAM	1707697-06	100	7/31/2017 11:04:10	82279-1.RAW	11:04:10 AM	40.73		2	33.0	-0.061	-6.126	ng/L	
Hg2600-2	DM2	SAM	1707697-08	100	7/31/2017 11:08:18	82280-1.RAW	11:08:18 AM	28.85		2	19.1	-0.153	-15.285	ng/L	
Hg2600-2	DM2	SAM	1707697-02B	100	7/31/2017 11:12:27	82281-1.RAW	11:12:27 AM	64.97		2	57.3	0.099	9.857	ng/L	
Hg2600-2	DM2	SAM	1707697-04B	100	7/31/2017 11:16:35	82282-1.RAW	11:16:35 AM	28.83		2	21.2	-0.139	-13.911	ng/L	
Hg2600-2	DM2	SAM	1707697-06B	100	7/31/2017 11:20:43	82283-1.RAW	11:20:43 AM	333.13		2	325.4	1.867	186.735	ng/L	
Hg2600-2	DM2	SAM	1707697-08B	100	7/31/2017 11:24:52	82284-1.RAW	11:24:52 AM	17638.42		2	17630.7	116.009	11600.941	ng/L	
Hg2600-2	DM2	SAM	CLEAN		7/31/2017 11:28:19	82286-1.RAW	11:28:19 AM	61.14		X	53.4	0.352	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/31/2017 11:32:27	82287-1.RAW	11:32:27 AM	82.31		X	74.6	0.492	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		7/31/2017 11:36:36	82288-1.RAW	11:36:36 AM	42.11		X	34.4	0.227	0.000	ng/L	
Hg2600-2	DM2	SAM	F707540-DUP1	100	7/31/2017 11:40:44	82285-2.RAW	11:40:44 AM	49.62		2	41.9	-0.003	-0.266	ng/L	
Hg2600-2	DM2	SAM	F707540-MS1	100	7/31/2017 11:44:53	82289-1.RAW	11:44:53 AM	421.17		2	413.5	2.448	244.800	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	F707540-MSD1	100	7/31/2017 11:49:01	82290-1.RAW	11:49:01 AM	420.65	2		413.0	2.445	244.459	ng/L	
Hg2600-2	DM2	SAM	1707697-06RE1B	100	7/31/2017 11:53:10	82291-1.RAW	11:53:10 AM	366.17	2		358.5	2.085	208.528	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	7/31/2017 11:57:18	82292-1.RAW	11:57:18 AM	798.22			790.5	5.214	5.214	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	7/31/2017 12:01:27	82293-1.RAW	12:01:27 PM	25.43			17.7	0.117	0.117	ng/L	
Hg2600-2	DM2	SAM	1707697-08RE1B	400	7/31/2017 12:05:35	82294-1.RAW	12:05:35 PM	4094.12	2		4086.4	26.883	10753.353	ng/L	
Hg2600-2	DM2	SAM	BRCL 1704515-1	1	7/31/2017 12:09:43	82295-1.RAW	12:09:43 PM	52.17		X	44.5	0.293	0.293	ng/L	
Hg2600-2	DM2	SAM	BRCL 1704515-2	1	7/31/2017 12:13:52	82296-1.RAW	12:13:52 PM	29.48		X	21.8	0.144	0.144	ng/L	
Hg2600-2	DM2	SAM	BRCL1704515-3	1	7/31/2017 12:18:00	82297-1.RAW	12:18:00 PM	26.64		X	18.9	0.125	0.125	ng/L	
Hg2600-2	DM2	SAM	BRCL 1704515-4	1	7/31/2017 12:22:09	82298-1.RAW	12:22:09 PM	15.65		X	7.9	0.052	0.052	ng/L	
Hg2600-2	DM2	BLK	F707559-BLK1	1	7/31/2017 12:26:17	82299-1.RAW	12:26:17 PM	16.30	3		8.6	0.057	0.057	ng/L	
Hg2600-2	DM2	BLK	F707559-BLK2	1	7/31/2017 12:30:26	82300-1.RAW	12:30:26 PM	20.81632594	3		13.1	0.087	0.087	ng/L	
Hg2600-2	DM2	BLK	F707559-BLK3	1	7/31/2017 12:34:34	82301-1.RAW	12:34:34 PM	16.10	3		8.4	0.055	0.055	ng/L	
Hg2600-2	DM2	SAM	F707559-BS1	1	7/31/2017 12:38:43	82302-1.RAW	12:38:43 PM	2370.56	3		2362.9	15.519	15.519	ng/L	
Hg2600-2	DM2	SAM	F707559-BSD1	1	7/31/2017 12:42:51	82303-1.RAW	12:42:51 PM	2393.69	3		2386.0	15.671	15.671	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	7/31/2017 12:46:59	82304-1.RAW	12:46:59 PM	827.81			820.1	5.409	5.409	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	7/31/2017 12:51:08	82305-1.RAW	12:51:08 PM	36.32			28.6	0.189	0.189	ng/L	
Hg2600-2	DM2	SAM	BRCL 1704515-1	1	7/31/2017 12:55:16	82306-1.RAW	12:55:16 PM	23.00		X	15.3	0.101	0.101	ng/L	
Hg2600-2	DM2	SAM	1707543-01	1	7/31/2017 12:59:25	82307-1.RAW	12:59:25 PM	144.69	3		137.0	0.837	0.837	ng/L	
Hg2600-2	DM2	SAM	1707543-02	1	7/31/2017 13:03:33	82308-1.RAW	1:03:33 PM	79.70	3		72.0	0.409	0.409	ng/L	
Hg2600-2	DM2	SAM	1707543-03	1	7/31/2017 13:07:42	82309-1.RAW	1:07:42 PM	121.38	3		113.7	0.684	0.684	ng/L	
Hg2600-2	DM2	SAM	1707543-04	1	7/31/2017 13:11:50	82310-1.RAW	1:11:50 PM	128.59	3		120.9	0.731	0.731	ng/L	
Hg2600-2	DM2	SAM	1707543-05	1	7/31/2017 13:15:59	82311-1.RAW	1:15:59 PM	128.04	3		120.3	0.728	0.728	ng/L	
Hg2600-2	DM2	SAM	1707543-06	1	7/31/2017 13:20:07	82312-1.RAW	1:20:07 PM	144.90	3		137.2	0.839	0.839	ng/L	
Hg2600-2	DM2	SAM	1707543-07	1	7/31/2017 13:24:15	82313-1.RAW	1:24:15 PM	34.15	3		26.5	0.108	0.108	ng/L	
Hg2600-2	DM2	SAM	1707543-09	1	7/31/2017 13:28:24	82314-1.RAW	1:28:24 PM	22.25	3		14.6	0.030	0.030	ng/L	
Hg2600-2	DM2	SAM	1707578-01	1	7/31/2017 13:32:32	82315-1.RAW	1:32:32 PM	55329.01	3		55321.3	364.822	364.822	ng/L	
Hg2600-2	DM2	SAM	CLEAN	1	7/31/2017 13:40:59	82316-1.RAW	1:40:59 PM	54.91		X	47.2	0.311	0.000	ng/L	
Hg2600-2	DM2	SAM	CLEAN	1	7/31/2017 13:43:51	82317-1.RAW	1:43:51 PM	44.17		X	36.5	0.241	0.000	ng/L	
Hg2600-2	DM2	SAM	WS	1	7/31/2017 13:47:59	82318-1.RAW	1:47:59 PM	51.76		X	44.1	0.291	0.000	ng/L	
Hg2600-2	DM2	SAM	WS	1	7/31/2017 13:52:08	82319-1.RAW	1:52:08 PM	35.19		X	27.5	0.181	0.000	ng/L	
Hg2600-2	DM2	SAM	WS	1	7/31/2017 13:56:16	82320-1.RAW	1:56:16 PM	24.41		X	16.7	0.110	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	7/31/2017 14:00:25	82321-1.RAW	2:00:25 PM	816.32			808.6	5.333	5.333	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	7/31/2017 14:04:33	82322-1.RAW	2:04:33 PM	34.39			26.7	0.176	0.176	ng/L	
Hg2600-2	DM2	SAM	1707578-02	10	7/31/2017 14:08:41	82323-1.RAW	2:08:41 PM	27040.36	3		27032.7	178.295	1782.952	ng/L	
Hg2600-2	DM2	SAM	1707578-03	10	7/31/2017 14:12:50	82324-1.RAW	2:12:50 PM	169.54	3		161.8	1.061	10.608	ng/L	
Hg2600-2	DM2	SAM	1707578-04	10	7/31/2017 14:16:58	82325-1.RAW	2:16:58 PM	82.64	3		74.9	0.488	4.877	ng/L	
Hg2600-2	DM2	SAM	1707696-01	1	7/31/2017 14:21:07	82326-1.RAW	2:21:07 PM	152.16	3		144.5	0.887	0.887	ng/L	
Hg2600-2	DM2	SAM	1707696-02	1	7/31/2017 14:25:15	82327-1.RAW	2:25:15 PM	136.01	3		128.3	0.780	0.780	ng/L	
Hg2600-2	DM2	SAM	1707696-03	1	7/31/2017 14:29:24	82328-1.RAW	2:29:24 PM	95.52	3		87.8	0.513	0.513	ng/L	
Hg2600-2	DM2	SAM	1707696-04	1	7/31/2017 14:33:32	82329-1.RAW	2:33:32 PM	121.25	3		113.6	0.683	0.683	ng/L	
Hg2600-2	DM2	SAM	1707696-05	1	7/31/2017 14:37:40	82330-1.RAW	2:37:40 PM	150.03	3		142.3	0.873	0.873	ng/L	
Hg2600-2	DM2	SAM	1707696-06	1	7/31/2017 14:41:49	82331-1.RAW	2:41:49 PM	53.46	3		45.8	0.236	0.236	ng/L	
Hg2600-2	DM2	SAM	1707578-01RE1	10	7/31/2017 14:45:57	82332-1.RAW	2:45:57 PM	5528.70	3		5521.0	36.409	364.088	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	7/31/2017 14:50:06	82333-1.RAW	2:50:06 PM	860.41			852.7	5.624	5.624	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	7/31/2017 14:54:14	82334-1.RAW	2:54:14 PM	53.30			45.6	0.301	0.301	ng/L	
Hg2600-2	DM2	SAM	1707578-02RE1	100	7/31/2017 14:58:23	82335-1.RAW	2:58:23 PM	2756.48	3		2748.8	18.130	1812.969	ng/L	
Hg2600-2	DM2	SAM	1707578-03RE1	1	7/31/2017 15:02:31	82336-1.RAW	3:02:31 PM	56.82	3		49.1	0.258	0.258	ng/L	
Hg2600-2	DM2	SAM	1707578-04RE1	1	7/31/2017 15:06:40	82337-1.RAW	3:06:40 PM	47.09	3		39.4	0.194	0.194	ng/L	
Hg2600-2	DM2	SAM	F707559-DUP1	10	7/31/2017 15:10:48	82338-1.RAW	3:10:48 PM	5603.44	3		5595.7	36.902	369.017	ng/L	
Hg2600-2	DM2	SAM	F707559-MS1	100	7/31/2017 15:14:55	82339-1.RAW	3:14:55 PM	2165.96	3		2158.3	14.235	1423.480	ng/L	
Hg2600-2	DM2	SAM	F707559-MSD1	100	7/31/2017 15:19:03	82340-1.RAW	3:19:03 PM	2113.47	3		2105.8	13.889	1388.858	ng/L	
Hg2600-2	DM2	SAM	F707559-MS2	400	7/31/2017 15:23:11	82341-1.RAW	3:23:11 PM	3973.98	3		3966.3	26.161	10464.246	ng/L	
Hg2600-2	DM2	SAM	F707559-MSD2	400	7/31/2017 15:27:20	82342-1.RAW	3:27:20 PM	3664.92	3		3657.2	24.122	9648.852	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	7/31/2017 15:31:28	82343-1.RAW	3:31:28 PM	872.69			865.0	5.705	5.705	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	7/31/2017 15:35:37	82344-1.RAW	3:35:37 PM	60.51			52.8	0.348	0.348	ng/L	

TotalMercury EPA1631 Operat DM BlankS 7.6987 Calib Eqn: Conc = (Area-7.698 Run Date: 7/31/2017 Blank SD: 2.814072206  
 Works THg260 CalibFa 151.61 Status: QC Warnings:12/QC Run Time: 11:25:27 Blank RSD%: 36.55258588  
 Method #### R: 1 R2: 1 CF SD: 2.82989381  
 Descrip THg26002-170731-1 CF RSD%: 1.86653868

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	12.45					82228-1.RAW	7:34:57	1888.10	Clean	OK	1
clean				0.00	0.00					82229-1.RAW	7:37:48	0.37	Clean	OK	1
ws				7.70	0.01					82230-1.RAW	7:41:56	9.26	Sample	OK	1
ws				7.70	0.01					82231-1.RAW	7:46:05	9.40	Sample	OK	1
ws				7.70	0.00					82232-1.RAW	7:50:13	4.21	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					82233-1.RAW	7:54:22	5.43	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					82234-1.RAW	7:58:30	10.85	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					82235-1.RAW	8:02:39	6.82	Sample	OK	1
SEQ-CAL1	A4		1	7.70	0.52		103.22			82236-1.RAW	8:06:47	85.94	Sample	OK	1
SEQ-CAL2	A5		1	7.70	0.99		98.85			82237-1.RAW	8:10:56	157.56	Sample	OK	1
SEQ-CAL3	A6		1	7.70	5.00		100.05			82238-1.RAW	8:15:04	766.11	Sample	OK	1
SEQ-CAL4	A7		1	7.70	19.81		99.03			82239-1.RAW	8:19:13	3010.63	Sample	OK	1
SEQ-CAL5	A8		1	7.70	39.54		98.85			82240-1.RAW	8:23:21	8002.62	Sample	OK	1
SEQ-ICV1	A9		1	7.70	5.11		102.25			82241-1.RAW	8:27:29	782.82	Sample	OK	1
EFGS02840 500	A10		1000	7.70	11384.70					82242-1.RAW	8:31:38	1733.75	Sample	OK	1
EFGS03172 500	A11		1000	7.70	12439.73					82243-1.RAW	8:35:46	1893.71	Sample	OK	1
F707517-BLK1	A12		20	7.70	2.76					82244-1.RAW	8:39:55	28.65	Sample	OK	1
F707517-BLK2	A13		20	7.70	1.53					82245-1.RAW	8:44:03	19.29	Sample	OK	1
F707517-BLK3	A14		20	7.70	1.11					82246-1.RAW	8:48:12	16.12	Sample	OK	1
*F707517-BLK4	A15		20	7.70	1.12					82247-1.RAW	8:52:20	16.20	Sample	OK	1
*F707517-BLK5	A16		20	7.70	0.72					82248-1.RAW	8:56:29	13.19	Sample	OK	1
*F707517-BLK6	A17		20	7.70	0.65					82249-1.RAW	9:00:37	12.60	Sample	OK	1
*F707517-BLK7	A18		20	7.70	1.04					82250-1.RAW	9:04:45	15.55	Sample	OK	1
F707517-BS1	A19		20	7.70	98.04					82251-1.RAW	9:08:54	750.92	Sample	OK	1
SEQ-CCV1	A20		1	7.70	5.20		104.04			82252-1.RAW	9:13:02	796.41	Sample	OK	1
SEQ-CCB1	A21		1	7.70	0.07		0.00			82253-1.RAW	9:17:11	17.98	Sample	OK	1
F707517-BSD1	B1		20	7.70	96.44					82254-1.RAW	9:21:19	738.80	Sample	OK	1
1707104-01	B2		100	7.70	197.15					82255-1.RAW	9:25:28	306.60	Sample	OK	1
1707544-01	B3		100	7.70	272.56					82256-1.RAW	9:29:36	420.93	Sample	OK	1
1707706-01	B4		100	7.70	8138.55					82257-1.RAW	9:33:44	12346.71	Sample	OK	1
1707706-02	B5		100	7.70	8187.96					82258-1.RAW	9:37:53	12421.62	Sample	OK	1
1707706-03	B6		100	7.70	6649.63					82259-1.RAW	9:42:01	10089.33	Sample	FB	1
CLEAN				0.00	0.35					82260-1.RAW	9:44:53	52.53	Clean	OK	1
WS				7.70	0.51					82261-1.RAW	9:49:01	84.53	Sample	OK	1
F707517-DUP1	B7		400	7.70	8064.13					82262-1.RAW	9:53:10	3064.24	Sample	OK	1
F707517-MS1	B8		400	7.70	13043.59		161.73			82263-1.RAW	9:57:18	4951.61	Sample	OK	1
F707517-MSD1	B9		400	7.70	13141.88					82264-1.RAW	10:01:27	4988.86	Sample	OK	1
SEQ-CCV2	B10		1	7.70	5.64		112.87			82265-1.RAW	10:05:35	883.29	Sample	OK	1
SEQ-CCB2	B11		1	7.70	0.29		0.00			82266-1.RAW	10:09:43	60.95	Sample	OK	1
1707706-01RE1	B12		400	7.70	8336.93					82267-1.RAW	10:13:52	3167.64	Sample	OK	1
1707706-02RE1	B13		400	7.70	8255.49					82268-1.RAW	10:18:00	3136.77	Sample	OK	1
1707706-03RE1	B14		400	7.70	7040.34					82269-1.RAW	10:22:09	2676.20	Sample	OK	1
F707540-BLK1	B15		100	7.70	38.23					82270-1.RAW	10:26:17	65.66	Sample	OK	1
F707540-BLK2	B16		100	7.70	23.63					82271-1.RAW	10:30:26	43.52	Sample	OK	1
F707540-BLK3	B17		100	7.70	21.89					82272-1.RAW	10:34:34	40.88	Sample	OK	1
F707540-BS1	B18		400	7.70	9685.56					82273-1.RAW	10:38:42	3678.81	Sample	OK	1
F707540-BSD1	B19		400	7.70	9787.74					82274-1.RAW	10:42:51	3717.54	Sample	OK	1
1707697-02	B20		100	7.70	42.78					82275-1.RAW	10:46:59	72.56	Sample	OK	1
1707697-04	B21		100	7.70	22.03					82276-1.RAW	10:51:08	41.09	Sample	OK	1
SEQ-CCV3	C1		1	7.70	5.11		102.19			82277-1.RAW	10:55:16	782.37	Sample	OK	1
SEQ-CCB3	C2		1	7.70	0.19		0.00			82278-1.RAW	10:59:25	35.98	Sample	OK	1
1707697-06	C3		100	7.70	21.79					82279-1.RAW	11:04:10	40.73	Sample	OK	1
1707697-08	C4		100	7.70	12.63					82280-1.RAW	11:08:18	26.85	Sample	OK	1
1707697-02B	C5		100	7.70	37.77					82281-1.RAW	11:12:27	64.97	Sample	OK	1
1707697-04B	C6		100	7.70	14.00					82282-1.RAW	11:16:35	28.93	Sample	OK	1
1707697-06B	C7		100	7.70	214.65					82283-1.RAW	11:20:43	333.13	Sample	OK	1
1707697-08B	C8		100	7.70	11628.86					82284-1.RAW	11:24:52	17638.42	Sample	FB	1
CLEAN				0.00	0.40					82286-1.RAW	11:28:19	61.14	Clean	OK	1
WS				7.70	0.49					82287-1.RAW	11:32:27	82.31	Sample	OK	1
WS				7.70	0.23					82288-1.RAW	11:36:36	42.11	Sample	OK	1
F707540-DUP1	C9		100	7.70	27.65					82285-2.RAW	11:40:44	49.82	Sample	OK	1
F707540-MS1	C10		100	7.70	272.72		951.90			82289-1.RAW	11:44:53	421.17	Sample	OK	1

F707540-MSD1	C11	100	7.70	272.37		82290-1.RAW	11:49:01	420.65	Sample	OK	1
1707697-08RE11	C12	100	7.70	236.44		82291-1.RAW	11:53:10	366.17	Sample	OK	1
SEQ-CCV4	C13	1	7.70	5.21	104.28	82292-1.RAW	11:57:18	798.22	Sample	OK	1
SEQ-CCB4	C14	1	7.70	0.12	0.00	82293-1.RAW	12:01:27	25.43	Sample	OK	1
1707697-08RE11	C19	400	7.70	10781.27		82294-1.RAW	12:05:35	4094.12	Sample	OK	1
BRCL 1704515-1	C15	1	7.70	0.29		82295-1.RAW	12:09:43	52.17	Sample	OK	1
BRCL 1704515-2	C16	1	7.70	0.14		82296-1.RAW	12:13:52	29.48	Sample	OK	1
BRCL 1704515-3	C17	1	7.70	0.12		82297-1.RAW	12:18:00	26.64	Sample	OK	1
BRCL 1704515-4	C18	1	7.70	0.05		82298-1.RAW	12:22:09	15.65	Sample	OK	1
F707559-BLK1	C20	1	7.70	0.06		82299-1.RAW	12:26:17	16.30	Sample	OK	1
F707559-BLK2	C21	1	7.70	0.09		82300-1.RAW	12:30:26	20.82	Sample	OK	1
F707559-BLK3	A1	1	7.70	0.08		82301-1.RAW	12:34:34	16.10	Sample	OK	1
F707559-BS1	A2	1	7.70	15.58		82302-1.RAW	12:38:43	2370.56	Sample	OK	1
F707559-BSD1	A3	1	7.70	15.74		82303-1.RAW	12:42:51	2393.69	Sample	OK	1
SEQ-CCV5	A4	1	7.70	5.41	108.19	82304-1.RAW	12:46:59	827.81	Sample	OK	1
SEQ-CCB5	A5	1	7.70	0.19	0.00	82305-1.RAW	12:51:08	36.32	Sample	OK	1
BRCL 1704515-1	A6	1	7.70	0.10		82306-1.RAW	12:55:16	23.00	Sample	OK	1
1707543-01	A7	1	7.70	0.90		82307-1.RAW	12:59:25	144.69	Sample	OK	1
1707543-02	A8	1	7.70	0.47		82308-1.RAW	13:03:33	79.70	Sample	OK	1
1707543-03	A9	1	7.70	0.75		82309-1.RAW	13:07:42	121.38	Sample	OK	1
1707543-04	A10	1	7.70	0.80		82310-1.RAW	13:11:50	128.59	Sample	OK	1
1707543-05	A11	1	7.70	0.79		82311-1.RAW	13:15:59	128.04	Sample	OK	1
1707543-06	A12	1	7.70	0.90		82312-1.RAW	13:20:07	144.90	Sample	OK	1
1707543-07	A13	1	7.70	0.17		82313-1.RAW	13:24:15	34.15	Sample	OK	1
1707543-09	A14	1	7.70	0.10		82314-1.RAW	13:28:24	22.25	Sample	OK	1
1707578-01	A15	1	7.70	364.89		82315-1.RAW	13:32:32	55329.01	Sample	OK	1
CLEAN			0.00	0.38		82316-1.RAW	13:40:59	54.91	Clean	OK	1
CLEAN			0.00	0.29		82317-1.RAW	13:43:51	44.17	Clean	OK	1
WS			7.70	0.29		82318-1.RAW	13:47:59	51.76	Sample	OK	1
WS			7.70	0.18		82319-1.RAW	13:52:08	35.19	Sample	OK	1
WS			7.70	0.11		82320-1.RAW	13:56:16	24.41	Sample	OK	1
SEQ-CCV6	A16	1	7.70	5.33	106.67	82321-1.RAW	14:00:25	816.32	Sample	OK	1
SEQ-CCB6	A17	1	7.70	0.18	0.00	82322-1.RAW	14:04:33	34.39	Sample	OK	1
1707578-02	A18	10	7.70	1783.02		82323-1.RAW	14:08:41	27040.36	Sample	FB	1
1707578-03	A19	10	7.70	10.67		82324-1.RAW	14:12:50	169.54	Sample	OK	1
1707578-04	A20	10	7.70	4.94		82325-1.RAW	14:16:58	82.64	Sample	OK	1
1707696-01	A21	1	7.70	0.95		82326-1.RAW	14:21:07	152.16	Sample	OK	1
1707696-02	B1	1	7.70	0.85		82327-1.RAW	14:25:15	136.01	Sample	OK	1
1707696-03	B2	1	7.70	0.58		82328-1.RAW	14:29:24	95.52	Sample	OK	1
1707696-04	B3	1	7.70	0.75		82329-1.RAW	14:33:32	121.25	Sample	OK	1
1707696-05	B4	1	7.70	0.94		82330-1.RAW	14:37:40	150.03	Sample	OK	1
1707696-06	B5	1	7.70	0.30		82331-1.RAW	14:41:49	53.46	Sample	OK	1
1707578-01RE1	B6	10	7.70	364.15		82332-1.RAW	14:45:57	5528.70	Sample	OK	1
SEQ-CCV7	B7	1	7.70	5.62	112.49	82333-1.RAW	14:50:06	860.41	Sample	OK	1
SEQ-CCB7	B8	1	7.70	0.30	0.00	82334-1.RAW	14:54:14	53.30	Sample	OK	1
1707578-02RE1	B9	100	7.70	1813.04		82335-1.RAW	14:58:23	2756.48	Sample	OK	1
1707578-03RE1	B10	1	7.70	0.32		82336-1.RAW	15:02:31	56.82	Sample	OK	1
1707578-04RE1	B11	1	7.70	0.26		82337-1.RAW	15:06:40	47.09	Sample	OK	1
F707559-DUP1	B12	10	7.70	369.08		82338-1.RAW	15:10:48	5603.44	Sample	OK	1
F707559-MS1	B13	100	7.70	1423.55	384.66	82339-1.RAW	15:14:55	2185.96	Sample	OK	1
F707559-MSD1	B14	100	7.70	1388.92		82340-1.RAW	15:19:03	2113.47	Sample	OK	1
F707559-MS2	B15	400	7.70	10464.31	752.33	82341-1.RAW	15:23:11	3973.98	Sample	OK	1
F707559-MSD2	B16	400	7.70	9648.92		82342-1.RAW	15:27:20	3664.92	Sample	OK	1
SEQ-CCV8	B17	1	7.70	5.71	114.11	82343-1.RAW	15:31:28	872.69	Sample	OK	1
SEQ-CCB8	B18	1	7.70	0.35	0.00	82344-1.RAW	15:35:37	60.51	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G31020

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *ez e/l/j* Analyzed: 7/31/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G31020-IBL1 ✓	QC	1			
7G31020-IBL2 ✓	QC	2			
7G31020-IBL3 ✓	QC	3			
7G31020-CAL1 ✓	QC	4	1704505 ✓		
7G31020-CAL2 ✓	QC	5	1704506 ✓		
7G31020-CAL3 ✓	QC	6	1704507 ✓		
7G31020-CAL4 ✓	QC	7	1704508 ✓		
7G31020-CAL5 ✓	QC	8	1704509 ✓		
7G31020-ICV1 ✓	QC	9	1703679 ✓		
7G31020-CCV1 ✓	QC	10	1703679 ✓		
7G31020-CCB1 ✓	QC	11			
7G31020-CCV2 ✓	QC	12	1703679 ✓		
7G31020-CCB2 ✓	QC	13			
7G31020-CCV3 ✓	QC	14	1703679 ✓		
7G31020-CCB3 ✓	QC	15			
7G31020-CCV4 ✓	QC	16	1703679 ✓		
7G31020-CCB4 ✓	QC	17			
F707559-BLK1 ✓	QC	18			
F707559-BLK2 ✓	QC	19			
F707559-BLK3 ✓	QC	20			
F707559-BS1 ✓	QC	21			
F707559-BSD1 ✓	QC	22			
7G31020-CCV5 ✓	QC	23	1703679 ✓		
7G31020-CCB5 ✓	QC	24			
1707543-01 ✓	Hg-CVAFS-W-1631	25			Scan all data for level IV report
1707543-02 ✓	Hg-CVAFS-W-1631	26			Scan all data for level IV report
1707543-03 ✓	Hg-CVAFS-W-1631	27			Scan all data for level IV report
1707543-04 ✓	Hg-CVAFS-W-1631	28			Scan all data for level IV report
1707543-05 ✓	Hg-CVAFS-W-1631	29			Scan all data for level IV report
1707543-06 ✓	Hg-CVAFS-W-1631	30			Scan all data for level IV report
1707543-07 ✓	Hg-CVAFS-W-1631	31			Scan all data for level IV report
1707543-09 ✓	Hg-CVAFS-W-1631	32			Scan all data for level IV report
1707578-01 ✓	Hg-CVAFS-W-1631	33			
7G31020-CCV6 ✓	QC	34	1703679 ✓		
7G31020-CCB6 ✓	QC	35			



**PREPARATION BENCH SHEET**

F707559

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 7/31/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707559-BLK1	Blank	100	101					source 1707543-08
F707559-BLK2	Blank	100	101					source 1707543-08
F707559-BLK3	Blank	100	101					source 1707543-08
F707559-BS1	LCS	50	50.5 ✓	1604715	100 ✓			
F707559-BSD1	LCS Dup	50	50.5	1604715	100			
F707559-DUP1	Duplicate [1707578-01RE1] ✓	100	101					
F707559-MS1	Matrix Spike [1707578-01RE1] ✓	0.4950495	0.5	1704422	50 ✓			[Spk] 100mL->101mL; 101mL->101mL; Spiked 0.5mL
F707559-MS2	Matrix Spike [1707578-02RE1] ✓	0.1237624	0.125	1704422	100 ✓			[Spk] 100mL->101mL; 101mL->101mL; Spiked 0.125mL
F707559-MSD1	Matrix Spike Dup [1707578-01RE1] ✓	0.4950495	0.5	1704422	50 ✓			[Spk] 100mL->101mL; 101mL->101mL; Spiked 0.5mL
F707559-MSD2	Matrix Spike Dup [1707578-02RE1] ✓	0.1237624	0.125	1704422	100 ✓			[Spk] 100mL->101mL; 101mL->101mL; 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	1703182	25% Hydroxylamine-HCl working solution	24-Nov-17 00:00
1704422	THg 10ng/mL Calibration Standard	21-Oct-17 00:00	1703700	0.2 N BRCL JUNE 2017	18-Dec-17 00:00
		21-Oct-17 00:00	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704520	3% SnCl2 THg reductant	13-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707559

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 7/31/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707543-01	OL-2629-01	100	101	-	-	-	Preservation Blank created Scan all data	
1707543-02	OL-2629-01 Dissolved	100	101	-	-	-	Preservation Blank created Scan all data	
1707543-03	OL-2629-02	100	101	-	-	-	Preservation Blank created Scan all data	
1707543-04	OL-2629-03	100	101	-	-	-	Preservation Blank created Scan all data	
1707543-05	OL-2629-04	100	101	-	-	-	Preservation Blank created Scan all data	
1707543-06	OL-2629-05	100	101	-	-	-	Preservation Blank created Scan all data	
1707543-07	OL-2629-06	100	101	-	-	-	Preservation Blank created Scan all data	
1707543-09	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report	
1707578-01	39246.1	100	101	-	-	-		
1707578-01RE1	39246.1	100	101	-	-	-	Added 7/31/2017 by DM2	Added 7/31/2017 by DM2
1707578-02	39246.2	100	101	-	-	-		
1707578-02RE1	39246.2	100	101	-	-	-	Added 7/31/2017 by DM2	Added 7/31/2017 by DM2
1707578-03	39245.1	100	101	-	-	-		
1707578-03RE1	39245.1	100	101	-	-	-	Added 7/31/2017 by DM2	Added 7/31/2017 by DM2
1707578-04	39245.2	100	101	-	-	-		
1707578-04RE1	39245.2	100	101	-	-	-	Added 7/31/2017 by DM2	Added 7/31/2017 by DM2
1707696-01	OL-2634-01	100	101	-	-	-	Scan all data for level IV report	
1707696-02	OL-2634-02	100	101	-	-	-	Scan all data for level IV report	
1707696-03	OL-2634-03	100	101	-	-	-	Scan all data for level IV report	

**PREPARATION BENCH SHEET**

F707559

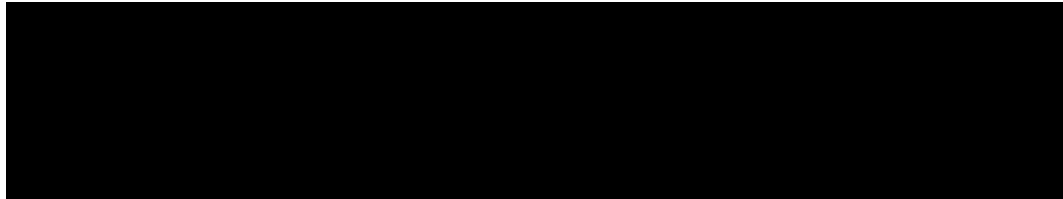
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 7/31/2017**

1707696-04	OL-2634-04	100	101	-	-	-	Scan all data for level IV report	
1707696-05	OL-2634-05	100	101	-	-	-	Scan all data for level IV report	
1707696-06	OL-2634-06	100	101	-	-	-	Scan all data for level IV report	





PREPARATION BENCH SHEET

2600-2  
7/31/17 DM

F707559

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/31/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707559-BLK1	Blank	100	101					Spiked 1707543-08 1X
F707559-BLK2	Blank	100	101					" " 1X
F707559-BLK3	Blank	100	101					" " 1X
F707559-BS1	LCS	50 <del>100</del>	30.5 <del>101</del>	K04715	100			1X
F707559-BSD1	LCS Dup	50 <del>100</del>	30.5 <del>101</del>	K04715	100			1X
F707559-DUP1	Duplicate 1707578-01RE1	100	101					10X
F707559-MS1	Matrix Spike 1707578-01RE1	100	101	1704422	50			100X
F707559-MS2	Matrix Spike 1707578-02RE1	100	101	1704422	100			400X
F707559-MSD1	Matrix Spike Dup 1707578-01RE1	100	101	1704422	50			100X
F707559-MSD2	Matrix Spike Dup 1707578-02RE1	100	101	1704422	100			400X

Standard ID(s): Description:

Expiration:

1704520  
1703701  
1703702  
1703182

PREPARATION BENCH SHEET

F707559

Eurofins Frontier Global Sciences, Inc.

2000.2  
7/31/17 DM

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 7/31/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707543-01	OL-2629-01	100	101	-	-	-	Preservation Blank created Scan all data	IX
1707543-02	OL-2629-01 Dissolved	100	101	-	-	-	Preservation Blank created Scan all data	IX
1707543-03	OL-2629-02	100	101	-	-	-	Preservation Blank created Scan all data	IX
1707543-04	OL-2629-03	100	101	-	-	-	Preservation Blank created Scan all data	IX
1707543-05	OL-2629-04	100	101	-	-	-	Preservation Blank created Scan all data	IX
1707543-06	OL-2629-05	100	101	-	-	-	Preservation Blank created Scan all data	IX
1707543-07	OL-2629-06	100	101	-	-	-	Preservation Blank created Scan all data	IX
1707543-09	Laboratory Filter Blank	100	101	-	-	-	Scan all data for level IV report	IX
1707578-01	39246.1	100	101	-	-	-		IX → 10X
1707578-02	39246.2	100	101	-	-	-		10X → 100X
1707578-03	39245.1	100	101	-	-	-		10X → 10X IX on 7/31/17
1707578-04	39245.2	100	101	-	-	-		10X → IX
1707696-01	OL-2634-01	100	101	-	-	-	Scan all data for level IV report	IX
1707696-02	OL-2634-02	100	101	-	-	-	Scan all data for level IV report	IX
1707696-03	OL-2634-03	100	101	-	-	-	Scan all data for level IV report	IX
1707696-04	OL-2634-04	100	101	-	-	-	Scan all data for level IV report	IX
1707696-05	OL-2634-05	100	101	-	-	-	Scan all data for level IV report	IX
1707696-06	OL-2634-06	100	101	-	-	-	Scan all data for level IV report	IX

**PREPARATION BENCH SHEET**

**F707559**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

**Prepared using: AFS - EPA 1631E BrCl Oxidation**

**Prepared: 7/31/2017**

**Due Date: 8/17/2017**

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: BW Date: 7/20/17 Time Completed: 1515

Work Orders: 1707543  
1707545 ~~1707546~~ BW 7/20/17  
1707536

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
 Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700  
 Pipette SN: J07681  
 Cal. Date: 7/19/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707543-01A	<del>300</del> 150	<del>3.00</del> 1.50	Y			
1707543-02A	<del>300</del> 150	<del>3.00</del> 1.50	Y			
1707543-03A	300	3.00	Y			
1707543-04A	300	3.00	Y			
1707543-05A	300	3.00	Y			
1707543-06A	300	3.00	Y			
1707543-07A	300	3.00	Y			
1707543-08A	300	3.00	Y			
1707543-09A	300	3.00	Y			
1707545-02A	300	3.00	Y			
1707545-04A	300	3.00	Y			
1707545-06A	300	3.00	Y			
1707545-08A	300	3.00	Y			
1707545-10A	300	3.00	Y			
1707536-01A	300	3.00	Y			
1707536-02A	300	3.00	Y			
1707536-03A	300	3.00	Y			
1707536-04A	300	3.00	Y			
1707536-06A	300	3.00	Y			
1707536-05B	10	10	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: CSF Date: 7/21/17 Time Completed: 1324

Work Orders: 1707539  
1707590, 1707578

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700  
Pipette SN: J07631  
Cal. Date: 7/19/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
<u>1707539-02A</u> <small>CSF 7/21/17</small>	<u>150</u>	<u>1.50</u>	<u>y</u>			
<u>1707540-02A</u> <small>CSF 7/21/17</small>	<u>150</u>	<u>1.50</u>	<u>y</u>			
<u>1707578-01A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-02A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-03A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<u>1707578-04A</u>	<u>300</u>	<u>3.00</u>	<u>y</u>			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 0 auto;"> <span style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CSF</span> <span style="position: absolute; top: 60%; left: 50%; transform: translate(-50%, -50%); font-size: 1.5em;">7/21/17</span> </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: mw Date: 7/26/17 Time Completed: 1654

Work Orders: 1707695, 1707696  
1707702, 1707703, 1707704

**Additional preservation and/or verification (as needed)**

Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_  
 Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1703700

Pipette SN: 507631

Cal. Date: 7/19/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1707695-01A	300	3.00	Y			
1707695-02A	300	3.00	Y			
1707695-03A	300	3.00	Y			
1707695-04A	300	3.00	Y			
1707695-05B	10	10	Y			
1707695-06A	300	3.00	Y			
1707696-01A	300	3.00	Y			
1707696-02A	300	3.00	Y			
1707696-03A	300	3.00	Y			
1707696-04A	300	3.00	Y			
1707696-05A	300	3.00	Y			
1707696-06A	300	3.00	Y			
1707702-01A	300	3.00	Y			
1707703-01A	300	3.00	Y			
1707704-01A	300	3.00	Y			
1707704-02A	300	3.00	Y			
mw 7/26/17						

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

Comments: \_\_\_\_\_

# Failing Data Report - 7G31020

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1707578-01	Hg-CVAFS-W-1631	368	0.50				ng/L						FAIL-OVER	PASS	E /
1707578-02	Hg-CVAFS-W-1631	1800	5.00				ng/L						FAIL-OVER	PASS	E /

Don Mace                      7/31/17  
 Analyst Reviewed By                      Date

 8/1/17  
 Peer Reviewed By                      Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G31022

PEER-REVIEWED

Instrument: Hg2600-2 ✓

Calibration ID: UNASSIGNED

INITIALS: PL 8/1/17 Analyzed: 7/31/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G31022-IBL1 ✓	QC	1			
7G31022-IBL2 ✓	QC	2			
7G31022-IBL3 ✓	QC	3			
7G31022-CAL1 ✓	QC	4	1704505 ✓		
7G31022-CAL2 ✓	QC	5	1704506 ✓		
7G31022-CAL3 ✓	QC	6	1704507 ✓		
7G31022-CAL4 ✓	QC	7	1704508 ✓		
7G31022-CAL5 ✓	QC	8	1704509 ✓		
7G31022-ICV1 ✓	QC	9	1703679 ✓		
7G31022-CCV1 ✓	QC	10	1703679 ✓		
7G31022-CCB1 ✓	QC	11			
7G31022-CCV2 ✓	QC	12	1703679 ✓		
7G31022-CCB2 ✓	QC	13			
F707540-BLK1 ✓	QC	14			
F707540-BLK2 ✓	QC	15			
F707540-BLK3 ✓	QC	16			
F707540-BS1 ✓	QC	17			
F707540-BSD1 ✓	QC	18			
1707697-02 ✓	Hg_FSTM_TRAP_A	19			
1707697-04 ✓	Hg_FSTM_TRAP_A	20			
7G31022-CCV3 ✓	QC	21	1703679 ✓		
7G31022-CCB3 ✓	QC	22			
1707697-06 ✓	Hg_FSTM_TRAP_A	23			
1707697-08 ✓	Hg_FSTM_TRAP_A	24			
F707540-DUP1 ✓	QC	25			
F707540-MS1 ✓	QC	26			
F707540-MSD1 ✓	QC	27			
7G31022-CCV4 ✓	QC	28	1703679 ✓		
7G31022-CCB4 ✓	QC	29			
7G31022-CCV5 ✓	QC	30	1703679 ✓		
7G31022-CCB5 ✓	QC	31			

Don Moxem 7/31/17  
 Samples Loaded By Date

Don Moxem 7/31/17  
 Data Processed By Date

Due Date: 8/9/2017



**PREPARATION BENCH SHEET**

F707540

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/28/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707540-BLK1	Blank	1	20					
F707540-BLK2	Blank	1	20					
F707540-BLK3	Blank	1	20					
F707540-BS1	LCS	1	20	1701763	200			
F707540-BSD1	LCS Dup	1	20	1701763	200			
F707540-DUP1	Duplicate [1707697-02] ✓	1	20					
F707540-MS1	Matrix Spike [1707697-02] ✓	0.025	0.5	1704483	125 ✓			[Spk] 1Trap->20mL; 20mL->20mL; Spiked 0.5mL ✓
F707540-MSD1	Matrix Spike Dup [1707697-02] ✓	0.025	0.5	1704483	125			[Spk] 1Trap->20mL; 20mL->20mL; Spiked 0.5mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>
1701763	THg 1,000ng/mL Secondary Spiking Standard
1704483	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
22-Sep-17 00:00
24-Oct-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1702564	FSTM Lot 170426A	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	
1704520	3% SnCl2 THg reductant	13-Jan-18 00:00
1704524	70/30 Digestion Acid	22-Jan-18 00:00
1704575	5% BrCl	18-Dec-17 00:00

**PREPARATION BENCH SHEET**

F707540

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 7/28/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707697-02	SID0119802	1	20	-	-	-	Sample Volume: 0.5 L	
1707697-04	SID0119805	1	20	-	-	-	No Sample Volume Provided	
1707697-06	SID0119807	1	20	-	-	-	Sample Volume: 0.3 L	
1707697-06RE1	SID0119807	1	20	-	-	-	Sample Volume: 0.3 L Added 7/31/2017	Added 7/31/2017 by DM2
1707697-08	SID0119811	1	20	-	-	-	Sample Volume: 0.5 L	
1707697-08RE1	SID0119811	1	20	-	-	-	Sample Volume: 0.5 L Added 7/31/2017	Added 7/31/2017 by DM2



PREPARATION BENCH SHEET

2000-2

7/31/17 DM

F707540

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707540-BLK1	Blank	1	20					100x
F707540-BLK2	Blank	1	20					100x
F707540-BLK3	Blank	1	20					100x
F707540-BS1	LCS	1	20	1701763	200			400
F707540-BSD1	LCS Dup	1	20	1701763	200			400
F707540-DUP1	Duplicate 1707091-02	1	20					100x
F707540-MS1	Matrix Spike 1707091-02	1	20	1704483	125			100x
F707540-MSD1	Matrix Spike Dup 1707091-02	1	20	1704483	125			100x

<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> 1702564 1704524 1704575	<u>Description:</u> FSTM Lot 170426A 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 26-Apr-18 00:00 22-Jan-18 00:00 18-Dec-17 00:00
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1704520  
1703182  
1703701  
1703702

PREPARATION BENCH SHEET

F707540

Eurofins Frontier Global Sciences, Inc.

2600-2  
7/31/17 DM

Matrix: Air

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

Prepared: 7/28/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments	
								A	B
1707697-02	SID0119802	1	20	-	-	-	Sample Volume: 0.5 L	100X	100X
1707697-04	SID0119805	1	20	-	-	-	No Sample Volume Provided	100X	100X
1707697-06	SID0119807	1	20	-	-	-	Sample Volume: 0.3 L	100X	100X → 100X
1707697-08	SID0119811	1	20	-	-	-	Sample Volume: 0.5 L	100X	100X → 400X



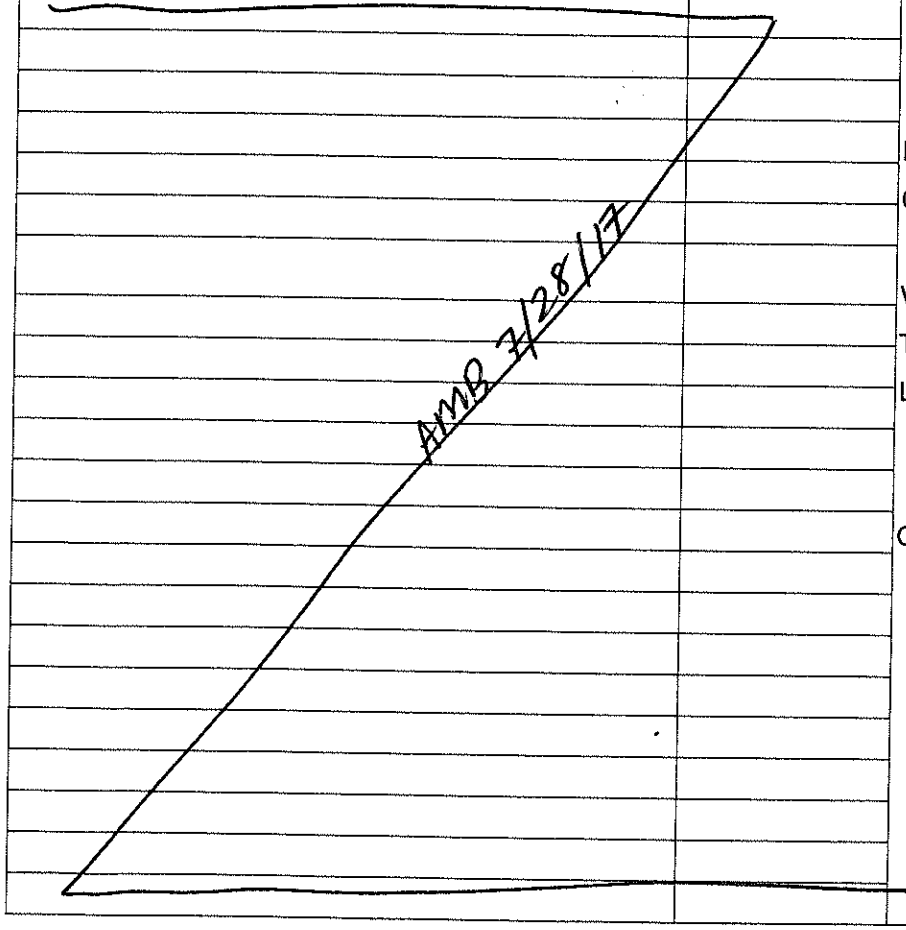
Trap Digestions

Name: AMB Date: 7/28/17 Batch ID: F707540  
 Work Order(s): 1707697 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): 55.0 (raw) 57.8 (w/ CF)  
 end time: 1820, 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)
F707540-BLK1	20
F707540-BLK2	20
F707540-BLK3	20
F707540-BS1	20
F707540-BSDI	20
1707697-01A-02A	20
1707697-01B-02B	20
1707697-04A	20
1707697-04B	20
1707697-06A	20
1707697-06B	20
1707697-08A	20
1707697-08B	20

7-28-17

Spike ID: AMB 1701763  
~~170763~~  
 Spike Amount (µL): 200  
 Spike Witness: DM 7/28/17  
 BrCl ID: 1704575  
 70/30: 1704524  
 Other: N/A  
 Thermometer: 14545  
 Dispensers: 02K27494   
 04N73497   
 Other 15406623  
 Pipette ID: OU 07852  
 Cal. Date: 7/28/17  
 Vials and Jars lot# 00068647  
 Trap Material Lot#: 1702564  
 Loader Mass Verified:  Yes  No  
 Comments:  
All samples unspiked.  
AMB 7/28/17



# Failing Data Report - 7G31022

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 M. Saem 7/31/17  
Analyst Reviewed By Date

[Signature] 8/1/17  
Peer Reviewed By Date

ANALYSIS SEQUENCE

QUALITY ASSURANCE

7G31019

PEER-REVIEWED

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *R* 8/1/17 Analyzed: 7/31/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7G31019-IBL1 ✓	QC	1			
7G31019-IBL2 ✓	QC	2			
7G31019-IBL3	QC	3			
7G31019-CAL1 ✓	QC	4	1704505		
7G31019-CAL2 ✓	QC	5	1704506		
7G31019-CAL3 ✓	QC	6	1704507		
7G31019-CAL4 ✓	QC	7	1704508		
7G31019-CAL5 ✓	QC	8	1704509		
7G31019-ICV1 ✓	QC	9	1703679		
F707517-BLK1 ✓	QC	10			
F707517-BLK2 ✓	QC	11			
F707517-BLK3 ✓	QC	12			
F707517-BLK4 ✓	QC	13			
F707517-BLK5 ✓	QC	14			
F707517-BLK6 ✓	QC	15			
F707517-BLK7 ✓	QC	16			
F707517-BS1 ✓	QC	17			
7G31019-CCV1 ✓	QC	18	1703679		
7G31019-CCB1 ✓	QC	19			
F707517-BSD1 ✓	QC	20			
1707104-01 ✓	Hg-CVAFS-T-7030	21			Scan all data for level IV report
1707544-01 ✓	Hg-CVAFS-T-7030	22			Scan all data for level IV report
1707706-01 ✓	Hg-CVAFS-T-7030	23			
1707706-02 ✓	Hg-CVAFS-T-7030	24			
1707706-03 ✓	Hg-CVAFS-T-7030	25			
F707517-DUP1 ✓	QC	26			
F707517-MS1 ✓	QC	27			
F707517-MSD1 ✓	QC	28			
7G31019-CCV2 ✓	QC	29	1703679		
7G31019-CCB2	QC	30			
1707706-01RE1 ✓	Hg-CVAFS-T-7030	31			Added 7/31/2017 by DM2
1707706-02RE1 ✓	Hg-CVAFS-T-7030	32			Added 7/31/2017 by DM2
1707706-03RE1 ✓	Hg-CVAFS-T-7030	33			Added 7/31/2017 by DM2
7G31019-CCV3 ✓	QC	34	1703679		
7G31019-CCB3 ✓	QC	35			

Due Date: 8/3/2017

ANALYSIS SEQUENCE

7G31019

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 7/31/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Moxen      7/31/17  
Samples Loaded By      Date

Don Moxen      7/31/17  
Data Processed By      Date



**PREPARATION BENCH SHEET**

F707517

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 7/27/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707517-BLK1	Blank	0.25	20					
F707517-BLK2	Blank	0.25	20					
F707517-BLK3	Blank	0.25	20					
F707517-BLK4	Filter BLK for 1707104-01	0.2899 ✓	20					
F707517-BLK5	Filter BLK for 1707544-01	0.2798 ✓	20					
F707517-BLK6	Pre BLK for 1707706	0.257 ✓	20					
F707517-BLK7	Post BLK for 1707706	0.2644 ✓	20					
F707517-BS1	LCS	0.25	20	1704421	20			
F707517-BSD1	LCS Dup	0.25	20	1704421	20			
F707517-DUP1	Duplicate [1707706-03RE1] ✓	0.2629	20					
F707517-MS1	Matrix Spike [1707706-02RE1] ✓	0.2581	20	1704420	100			
F707517-MSD1	Matrix Spike Dup [1707706-02RE1] ✓	0.26	20	1704420	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1704420	THg 1,000ng/mL Primary Spiking Standard	21-Jan-18 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	1703701	THg Washstation (0.5% BrCl)	21-Dec-17 00:00
			1703702	THg Dilute 1% BrCl	
			1704418	5% BrCl	18-Dec-17 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704520	3% SnCl2 THg reductant	13-Jan-18 00:00
			1704524	70/30 Digestion Acid	22-Jan-18 00:00
			1704575	5% BrCl	18-Dec-17 00:00

**PREPARATION BENCH SHEET**

F707517

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 7/27/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707104-01	OL-2622-01	0.23	20	-	-	-	Scan all data for level IV report	
1707544-01	OL-2630-01	0.2817	20	-	-	-	Scan all data for level IV report	
1707706-01	MMSE-1_17HC005_071917_SPI_03_WB	0.2682	20	-	-	-		
1707706-01RE1	MMSE-1_17HC005_071917_SPI_03_WB	0.2682	20	-	-	-	Added 7/31/2017 by DM2	Added 7/31/2017 by DM2
1707706-02	MMSE-1_17HC005_071917_SPI_04_WB	0.2841	20	-	-	-		
1707706-02RE1	MMSE-1_17HC005_071917_SPI_04_WB	0.2841	20	-	-	-	Added 7/31/2017 by DM2	Added 7/31/2017 by DM2
1707706-03	MMSE-1_17HC005_071917_SPI_05_WB	0.2512	20	-	-	-		
1707706-03RE1	MMSE-1_17HC005_071917_SPI_05_WB	0.2512	20	-	-	-	Added 7/31/2017 by DM2	Added 7/31/2017 by DM2

PREPARATION BENCH SHEET

2000-2

7/31/17 DM

F707517

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 7/27/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707517-BLK1	Blank	0.25	20					20X
F707517-BLK2	Blank	0.25	20					20X
F707517-BLK3	Blank	0.25	20					20X
F707517-BLK4	Filter BLK for 1707104-01	0.2899	20					20X
F707517-BLK5	Filter BLK for 1707544-01	0.2798	20					20X
F707517-BLK6	Pre BLK for 1707706	0.257	20					20X
F707517-BLK7	Post BLK for 1707706	0.2644	20					20X
F707517-BS1	LCS	0.25	20	1704421	20			20X
F707517-BSD1	LCS Dup	0.25	20	1704421	20			20X
F707517-DUP1	Duplicate [1707706-03] RE1	0.2629	20					DM 7-31-17 100X 400X
F707517-MS1	Matrix Spike [1707706-02] RE1	0.2581	20	1704420	100			400X
F707517-MSD1	Matrix Spike Dup [1707706-02] RE1	0.26	20	1704420	100			400X

Standard ID(s):  
 1704420 Description: THg 1,000ng/mL Primary Spiking Standard  
 1704421 Description: THg 100ng/mL Primary Spiking Standard

Expiration:  
 21-Jan-18 00:00  
 21-Oct-17 00:00

Reagent ID(s):  
 1704418 Description: 5% BrCl  
 1704424 Description: Boiling Chips for AFS prep  
 1704524 Description: 70/30 Digestion Acid  
 1704575 Description: 5% BrCl

Expiration:  
 18-Dec-17 00:00  
 21-Jan-18 00:00  
 22-Jan-18 00:00  
 18-Dec-17 00:00

1704520  
 1703182  
 1703701  
 1703102

Due Date: 8/3/2017

PREPARATION BENCH SHEET

2600-2  
7/31/17 DM

F707517

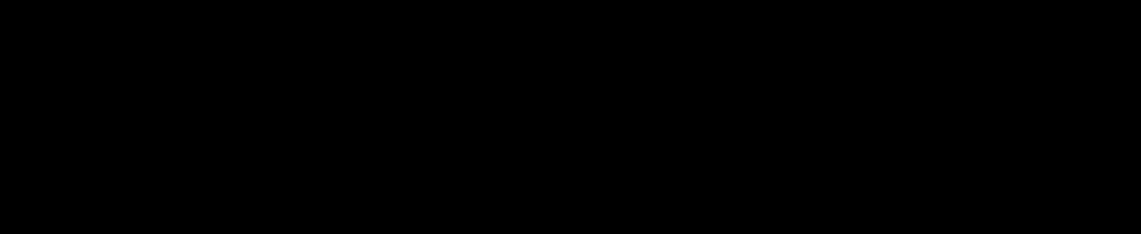
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 7/27/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707104-01	OL-2622-01	0.23	20	-	-	-	Scan all data for level IV report	100X ✓
1707544-01	OL-2630-01	0.2817	20	-	-	-	Scan all data for level IV report	100X ✓
1707706-01	MMSE-1_17HC005_071917_SPI_03_WB	0.2682	20	-	-	-		100X ✓, 400X ✓
1707706-02	MMSE-1_17HC005_071917_SPI_04_WB	0.2841	20	-	-	-		100X ✓ → 400X ✓
1707706-03	MMSE-1_17HC005_071917_SPI_05_WB	0.2512	20	-	-	-		100X ✓ → 400X ✓



Technician: CU Batch#: F707517 Date: 7/27/17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 15698 Vial Type:  Glass  Teflon  
 \*Time in: 1750 1747 Actual Temp. (raw): 72.0 °C w/ CF: 72.0 °C Calibrated?  Yes  No  
 Time out: 1942 Actual Temp. (raw): 73.0 °C w/ CF: 73.0 °C  
 \*Time in can't begin before target temperature is reached

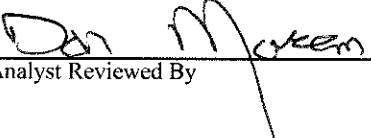
Final vol.: 20 mL (LIMS ID: 1704418 / 1704535) Spike vol.: 100 µL (LIMS ID: 1704420)  
 Spike Witness: PL 7/27/17 (initial and date)

HCl LIMS ID: NA Pipette SN#: MU4619 Calibration Date: 7/26/17  
 HNO<sub>3</sub> LIMS ID: NA Pipette SN#: NA Calibration Date: NA  
 70/30 LIMS ID: 1704524 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: NA Dispenser #: 15406623, Yes Calibrated  
 Glass Vial # 00068124 Boiling Chip lot # 1704424 \*Hotblock Position: M6

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 type="checkbox"/> µg	CRM LIMS ID <input checked="" type="checkbox"/> NA
1	F707517-BLK1	0.2504	23			
2	F707517-BLK2	0.2933	24			
3	F707517-BLK3	0.2786	25			
4	F707517-BS1	0.2686	26			
5	F707517-BSD1	0.2755	27			
6	F707517-DUP1	0.2629	28			BLK4 is Filter
7	F707517-MS1	0.2581	29			BLK for F707
8	F707517-MSD1	0.2600	30			F707104-01.
9	1707104-01	0.234	31			BLK5 is Filter
10	1707544-01	0.2817	32			BLK for 1707544-01.
11	1707706-01	0.2682	33			DUP1 Source:
12	1707706-02	0.2841	34			1707706-03
13	1707706-03	0.2512	35			MS1/MSD1 SRC6
14	F707517-BLK4	0.2899	36			1707706-02
15	F707517-BLK5	0.2798	37			BLK6 is Pre BLK
16	F707517-BLK6	0.2570	38			for 1707706
17	F707517-BLK7	0.2644	39			BLK7 is Post BLK
18			40			for 1707706.
19			41			
20			42			BS1/BSD spikes
21			43			20 µL of 1000 µg/mL
22			44			1704421

**Failing Data Report - 7G31019**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1707706-01	Hg-CVAFS-T-7030	607	3.73				ng/g						FAIL-OVER	PASS	E ✓
1707706-02	Hg-CVAFS-T-7030	576	3.52				ng/g						FAIL-OVER	PASS	E ✓
1707706-03	Hg-CVAFS-T-7030	529	3.98				ng/g						FAIL-OVER	PASS	E ✓


 Analyst Reviewed By \_\_\_\_\_  
 Date 7/31/17


 Peer Reviewed By \_\_\_\_\_  
 Date 8/1/17

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

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G31019, 7G31020, 7G31022
<b>Reviewer:</b>	<i>P. Moran</i>	<b>Dataset ID(s):</b>	THG26002-170731-1
<b>Date:</b>	7/31/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F707559, F707540, F707517		

• 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 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: DM

Reviewer Initials: P. Moran

- |   |   |  |                                     |                                     |
|---|---|--|-------------------------------------|-------------------------------------|
| 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?<br>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<br>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?<br>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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7G31019, 7G31020, 7G31022
<b>Reviewer:</b>	0 <i>A 8/1/17</i>	<b>Dataset ID(s):</b>	THG26002-170731-1
<b>Date:</b>	7/31/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F707559, F707540, F707517		0

Analyst Initials DM                      Reviewer Initials A 8/1/17

- 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: HIGH SAMPLES. ABOVE CALS
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)**

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 7G31019, 7G31020, 7G31022
<b>Reviewer:</b> 0 <u>RL 8/1/17</u>	<b>Dataset ID(s):</b> THG26002-170731-1
<b>Date:</b> 7/31/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F707559, F707540, F707517	0

**Analyst Initials** DM                      **Reviewer Initials** RL 8/1/17

- |  |  |  |   |
|--|--|--|---|
| 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input 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 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 checked="" type="checkbox"/> NO | <input 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 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: <u>12-15-16, 11-29-16</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>4-27-17, 4-26-17, 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, 4-26-17, 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.**

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

Analyst:	DON MORAN	Sequence(s) #:	7G31019, 7G31020, 7G31022
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26002-170731-1
Date:	7/31/2017	WO (s) #:	VARIOUS
Batch #(s):	F707559, F707540, F707517		0

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary): *DM*


Additional Page (s)?  YES



Frontier Global Sciences

### MHg27001-170809-1

#### Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 09, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7H10014

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	18.35 units	367.00	18.35 units	367.00	87.9 %Rec
SEQ-CAL2	1	0.20 ng/L	77.70 units	388.51	77.70 units	388.51	93.0 %Rec
SEQ-CAL3	1	1.00 ng/L	443.02 units	443.02	443.02 units	443.02	106.1 %Rec
SEQ-CAL4	1	2.00 ng/L	822.69 units	411.34	822.69 units	411.34	98.5 %Rec
SEQ-CAL5	1	4.00 ng/L	1914.51 units	478.63	1914.51 units	478.63	114.6 %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
417.70	+/- 44.21	10.6% RSD	417.70

#### 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	0.613 ng/L	±1.061
BLK	2	3	0.176 ng/L	±0.304
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: AL 8/12/17

Sample				Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					Comments
Instrument	Analyst	Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	
Hg2700-1	DM2	CAL	SEQ-IBL1	1	8/9/17 9:04	24823-1.RAW	9:04:58	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/9/17 9:15	24824-1.RAW	9:15:29	18.35			18.3	0.044	0.044	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/9/17 9:26	24825-1.RAW	9:26:00	77.70			77.7	0.186	0.186	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/9/17 9:36	24826-1.RAW	9:36:30	443.02			443.0	1.061	1.061	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/9/17 9:47	24827-1.RAW	9:47:01	822.69			822.7	1.970	1.970	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/9/17 9:57	24828-1.RAW	9:57:32	1914.51			1914.5	4.583	4.583	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	8/9/17 10:08	24829-1.RAW	10:08:02	221.10			221.1	0.529	0.529	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	8/9/17 10:18	24830-1.RAW	10:18:33	2.44			2.4	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F708293-BLK1	500	8/9/17 10:29	24831-1.RAW	10:29:04	1.54	1		1.5	0.004	1.838	ng/L	
Hg2700-1	DM2	BLK	F708293-BLK2	500	8/9/17 10:39	24832-1.RAW	10:39:35	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708293-BLK3	500	8/9/17 10:50	24833-1.RAW	10:50:05	0.00	1		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	*F708293-BLK4	500	8/9/17 11:00	24834-1.RAW	11:00:36	0.00	1		0.0	-0.001	-0.613	ng/L	
Hg2700-1	DM2	SAM	*F708293-BLK5	500	8/9/17 11:11	24835-1.RAW	11:11:07	0.00	1		0.0	-0.001	-0.613	ng/L	
Hg2700-1	DM2	SAM	*F708293-BLK6	500	8/9/17 11:21	24836-1.RAW	11:21:38	0.00	1		0.0	-0.001	-0.613	ng/L	
Hg2700-1	DM2	SAM	F708293-BS1	1000	8/9/17 11:32	24837-1.RAW	11:32:09	774.26	1		774.3	1.853	1853.014	ng/L	
Hg2700-1	DM2	SAM	F708293-BSD1	1000	8/9/17 11:42	24838-1.RAW	11:42:40	785.51	1		785.5	1.880	1879.959	ng/L	
Hg2700-1	DM2	SAM	1708077-01	2500	8/9/17 11:53	24839-1.RAW	11:53:11	146.58	1		146.6	0.351	876.666	ng/L	
Hg2700-1	DM2	SAM	1708077-02	2500	8/9/17 12:03	24840-1.RAW	12:03:41	145.31	1		145.3	0.348	869.114	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	8/9/17 12:14	24841-1.RAW	12:14:12	197.01			197.0	0.472	0.472	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/9/17 12:24	24842-1.RAW	12:24:43	1.10			1.1	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	1708077-03	2500	8/9/17 12:35	24843-1.RAW	12:35:14	756.37	1		756.4	1.811	4526.390	ng/L	
Hg2700-1	DM2	SAM	1708077-04	2500	8/9/17 12:45	24844-1.RAW	12:45:44	510.83	1		510.8	1.223	3056.811	ng/L	
Hg2700-1	DM2	SAM	1708077-05	2500	8/9/17 12:56	24845-1.RAW	12:56:15	692.40	1		692.4	1.657	4143.492	ng/L	
Hg2700-1	DM2	SAM	1708077-06	2500	8/9/17 13:06	24846-1.RAW	13:06:46	764.42	1		764.4	1.830	4574.591	ng/L	
Hg2700-1	DM2	SAM	1708077-07	2500	8/9/17 13:17	24847-1.RAW	13:17:17	100.12	1		100.1	0.239	598.626	ng/L	
Hg2700-1	DM2	SAM	1708077-08	2500	8/9/17 13:27	24848-1.RAW	13:27:47	134.87	1		134.9	0.323	806.580	ng/L	
Hg2700-1	DM2	SAM	1708078-01	500	8/9/17 13:38	24849-1.RAW	13:38:18	374.05	1		374.0	0.894	447.135	ng/L	
Hg2700-1	DM2	SAM	1708078-02	500	8/9/17 13:48	24850-1.RAW	13:48:49	71.56	1		71.6	0.170	85.044	ng/L	
Hg2700-1	DM2	SAM	1708084-01	500	8/9/17 13:59	24851-1.RAW	13:59:20	19.76	1		19.8	0.046	23.037	ng/L	
Hg2700-1	DM2	SAM	F708293-DUP1	2500	8/9/17 14:09	24852-1.RAW	14:09:50	172.17	1		172.2	0.412	1029.830	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	8/9/17 14:20	24853-1.RAW	14:20:21	189.25			189.2	0.453	0.453	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/9/17 14:30	24854-1.RAW	14:30:52	1.67			1.7	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	F708293-MS1	2500	8/9/17 14:41	24855-1.RAW	14:41:23	300.93	1		300.9	0.720	1800.504	ng/L	
Hg2700-1	DM2	SAM	F708293-MSD1	2500	8/9/17 14:51	24856-1.RAW	14:51:53	337.09	1		337.1	0.807	2016.919	ng/L	
Hg2700-1	DM2	SAM	F708293-MS2	500	8/9/17 15:02	24857-1.RAW	15:02:24	688.79	1		688.8	1.648	823.897	ng/L	
Hg2700-1	DM2	SAM	F708293-MSD2	500	8/9/17 15:12	24858-1.RAW	15:12:55	599.50	1		599.5	1.434	717.005	ng/L	
Hg2700-1	DM2	BLK	F708268-BLK1	500	8/9/17 15:23	24859-1.RAW	15:23:26	0.44	2		0.4	0.001	0.527	ng/L	
Hg2700-1	DM2	BLK	F708268-BLK2	500	8/9/17 15:33	24860-1.RAW	15:33:56	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708268-BLK3	500	8/9/17 15:44	24861-1.RAW	15:44:27	0.00	2		0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	F708268-BS1	1000	8/9/17 15:54	24862-1.RAW	15:54:58	900.36	2		900.4	2.155	2155.350	ng/L	
Hg2700-1	DM2	SAM	F708268-BSD1	1000	8/9/17 16:05	24863-1.RAW	16:05:28	816.45	2		816.5	1.954	1954.467	ng/L	
Hg2700-1	DM2	SAM	F708268-DUP1	500	8/9/17 16:15	24864-1.RAW	16:15:59	63.92	2		63.9	0.153	76.343	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	8/9/17 16:26	24865-1.RAW	16:26:30	192.37			192.4	0.461	0.461	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	8/9/17 16:37	24866-1.RAW	16:37:01	1.81			1.8	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	F708268-MS1	500	8/9/17 16:47	24867-1.RAW	16:47:31	415.05	2		415.0	0.993	496.653	ng/L	
Hg2700-1	DM2	SAM	F708268-MSD1	500	8/9/17 16:58	24868-1.RAW	16:58:02	365.03	2		365.0	0.874	436.779	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB					
		Type	LabNumber							Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	DM2	SAM	F708268-MS2	500	8/9/17 17:08	24869-1.RAW	17:08:33	588.33	2		588.3	1.408	704.070	ng/L	
Hg2700-1	DM2	SAM	F708268-MSD2	500	8/9/17 17:19	24870-1.RAW	17:19:04	546.47	2		546.5	1.308	653.972	ng/L	
Hg2700-1	DM2	SAM	1707706-01	500	8/9/17 17:29	24871-1.RAW	17:29:34	4400.36	2		4400.4	10.534	5267.194	ng/L	
Hg2700-1	DM2	SAM	1707706-02	500	8/9/17 17:40	24872-1.RAW	17:40:05	5811.30	2		5811.3	13.912	6956.138	ng/L	
Hg2700-1	DM2	SAM	1707706-03	500	8/9/17 17:50	24873-1.RAW	17:50:36	2251.49	2		2251.5	5.390	2694.929	ng/L	
Hg2700-1	DM2	SAM	1707737-01	500	8/9/17 18:01	24874-1.RAW	18:01:07	83.50	2		83.5	0.200	99.773	ng/L	
Hg2700-1	DM2	SAM	1707737-02	500	8/9/17 18:11	24875-1.RAW	18:11:37	68.47	2		68.5	0.164	81.788	ng/L	
Hg2700-1	DM2	SAM	1707737-03	500	8/9/17 18:22	24876-1.RAW	18:22:08	86.67	2		86.7	0.207	103.575	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/9/17 18:32	24877-1.RAW	18:32:39	208.66			208.7	0.500	0.500	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	8/9/17 18:43	24878-1.RAW	18:43:10	2.39			2.4	0.006	0.006	ng/L	
Hg2700-1	DM2	SAM	1707737-04	500	8/9/17 18:53	24879-1.RAW	18:53:40	29.59	2		29.6	0.070	35.246	ng/L	
Hg2700-1	DM2	SAM	1707737-11	500	8/9/17 19:04	24880-1.RAW	19:04:11	66.70	2		66.7	0.159	79.672	ng/L	
Hg2700-1	DM2	SAM	1707737-12	500	8/9/17 19:14	24881-1.RAW	19:14:42	20.36	2		20.4	0.048	24.195	ng/L	
Hg2700-1	DM2	SAM	1707737-13	500	8/9/17 19:25	24882-1.RAW	19:25:12	37.39	2		37.4	0.089	44.580	ng/L	
Hg2700-1	DM2	SAM	1707810-34	500	8/9/17 19:35	24883-1.RAW	19:35:43	51.96	2		52.0	0.124	62.024	ng/L	
Hg2700-1	DM2	SAM	1707810-35	500	8/9/17 19:46	24884-1.RAW	19:46:14	71.40	2		71.4	0.171	85.291	ng/L	
Hg2700-1	DM2	SAM	1707810-36	500	8/9/17 19:56	24885-1.RAW	19:56:45	84.06	2		84.1	0.201	100.443	ng/L	
Hg2700-1	DM2	SAM	1707810-37	500	8/9/17 20:07	24886-1.RAW	20:07:15	15.19	2		15.2	0.036	18.008	ng/L	
Hg2700-1	DM2	SAM	1707810-38	500	8/9/17 20:17	24887-1.RAW	20:17:45	44.49	2		44.5	0.106	53.079	ng/L	
Hg2700-1	DM2	SAM	1707810-39	500	8/9/17 20:28	24888-1.RAW	20:28:15	41.10	2		41.1	0.098	49.019	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/9/17 20:38	24889-1.RAW	20:38:46	207.53			207.5	0.497	0.497	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/9/17 20:49	24890-1.RAW	20:49:16	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707810-40	500	8/9/17 20:59	24891-1.RAW	20:59:47	86.95	2		87.0	0.208	103.911	ng/L	
Hg2700-1	DM2	SAM	1707810-41	500	8/9/17 21:10	24892-1.RAW	21:10:18	37.09	2		37.1	0.088	44.222	ng/L	
Hg2700-1	DM2	SAM	1707810-42	500	8/9/17 21:20	24893-1.RAW	21:20:48	40.78	2		40.8	0.097	48.645	ng/L	
Hg2700-1	DM2	SAM	1707810-43	500	8/9/17 21:31	24894-1.RAW	21:31:19	53.41	2		53.4	0.128	63.759	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	8/9/17 21:41	24895-1.RAW	21:41:50	194.10			194.1	0.465	0.465	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	8/9/17 21:52	24896-1.RAW	21:52:21	0.00			0.0	0.000	0.000	ng/L	

## ANALYSIS SEQUENCE

7H10014

Instrument: Hg2700-1 ✓

Calibration ID: UNASSIGNED

Analyzed: 8/9/2017 ✓

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H10014-IBL1 ✓	QC	1			
7H10014-CAL1 ✓	QC	2	1704180 ✓		
7H10014-CAL2 ✓	QC	3	1704181 ✓		
7H10014-CAL3 ✓	QC	4	1704182 ✓		
7H10014-CAL4 ✓	QC	5	1704183 ✓		
7H10014-CAL5 ✓	QC	6	1704184 ✓		
7H10014-ICV1 ✓	QC	7	1703246 ✓		
7H10014-ICB1 ✓	QC	8			
F708293-BLK1 ✓	QC	9			
F708293-BLK2 ✓	QC	10			
F708293-BLK3 ✓	QC	11			
F708293-BLK4 ✓	QC	12			
F708293-BLK5 ✓	QC	13			
F708293-BLK6 ✓	QC	14			
F708293-BS1 ✓	QC	15			
F708293-BSD1 ✓	QC	16			
1708077-01 ✓	MHg-CVAFS-T-KOH	17			
1708077-02 ✓	MHg-CVAFS-T-KOH	18			
7H10014-CCV1 ✓	QC	19	1703246 ✓		
7H10014-CCB1 ✓	QC	20			
1708077-03 ✓	MHg-CVAFS-T-KOH	21			
1708077-04 ✓	MHg-CVAFS-T-KOH	22			
1708077-05 ✓	MHg-CVAFS-T-KOH	23			
1708077-06 ✓	MHg-CVAFS-T-KOH	24			
1708077-07 ✓	MHg-CVAFS-T-KOH	25			
1708077-08 ✓	MHg-CVAFS-T-KOH	26			
1708078-01 ✓	MHg-CVAFS-T-KOH	27			
1708078-02 ✓	MHg-CVAFS-T-KOH	28			
1708084-01 ✓	MHg-CVAFS-T-KOH	29			Scan all data for level IV report
F708293-DUP1 ✓	QC	30			
7H10014-CCV2 ✓	QC	31	1703246 ✓		
7H10014-CCB2 ✓	QC	32			
F708293-MS1 ✓	QC	33			
F708293-MSD1 ✓	QC	34			
F708293-MS2 ✓	QC	35			

Due Date: 8/16/2017

## ANALYSIS SEQUENCE

7H10014

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F708293-MSD2 ✓	QC	36			
F708268-BLK1 ✓	QC	37			
F708268-BLK2 ✓	QC	38			
F708268-BLK3 ✓	QC	39			
F708268-BS1 ✓	QC	40			
F708268-BSD1 ✓	QC	41			
F708268-DUP1 ✓	QC	42			
7H10014-CCV3 ✓	QC	43	1703246 ✓		
7H10014-CCB3 ✓	QC	44			
F708268-MS1 ✓	QC	45			
F708268-MSD1 ✓	QC	46			
F708268-MS2 ✓	QC	47			
F708268-MSD2 ✓	QC	48			
1707706-01 ✓	MHg-CVAFS-T-KOH	49			Hold prep/analysis until Hg is complete
1707706-02 ✓	MHg-CVAFS-T-KOH	50			Hold prep/analysis until Hg is complete
1707706-03 ✓	MHg-CVAFS-T-KOH	51			Hold prep/analysis until Hg is complete
1707737-01 ✓	MHg-CVAFS-S-KOH	52			
1707737-01 ✓	MHg-CVAFS-T-KOH	53			BatchQC
1707737-02 ✓	MHg-CVAFS-S-KOH	54			
1707737-03 ✓	MHg-CVAFS-S-KOH	55			
7H10014-CCV4 ✓	QC	56	1703246 ✓		
7H10014-CCB4 ✓	QC	57			
1707737-04 ✓	MHg-CVAFS-S-KOH	58			
1707737-11 ✓	MHg-CVAFS-S-KOH	59			
1707737-12 ✓	MHg-CVAFS-S-KOH	60			
1707737-13 ✓	MHg-CVAFS-S-KOH	61			
1707810-34 ✓	MHg-CVAFS-S-KOH	62			
1707810-35 ✓	MHg-CVAFS-S-KOH	63			
1707810-35 ✓	MHg-CVAFS-T-KOH	64			BatchQC
1707810-36 ✓	MHg-CVAFS-S-KOH	65			
1707810-37 ✓	MHg-CVAFS-S-KOH	66			
1707810-38 ✓	MHg-CVAFS-S-KOH	67			
1707810-39 ✓	MHg-CVAFS-S-KOH	68			
7H10014-CCV5 ✓	QC	69	1703246		
7H10014-CCB5 ✓	QC	70			

Due Date: 8/16/2017

## ANALYSIS SEQUENCE

7H10014

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/9/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707810-40 ✓	MHg-CVAFS-S-KOH	71			
1707810-41 ✓	MHg-CVAFS-S-KOH	72			
1707810-42 ✓	MHg-CVAFS-S-KOH	73			
1707810-43 ✓	MHg-CVAFS-S-KOH	74			
7H10014-CCV6 ✓	QC	75	1703246		
7H10014-CCB6 ✓	QC	76			

Don Moran      8/9/17  
Samples Loaded By      Date

Don Moran      8/10/17  
Data Processed By      Date



**PREPARATION BENCH SHEET**

F708268

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708268-BLK1	Blank	0.25	20					
F708268-BLK2	Blank	0.25	20					
F708268-BLK3	Blank	0.25	20					
F708268-BS1	DORM-4	0.1258	20	1703305	126			
F708268-BSD1	DORM-4 Dup	0.1253	20	1703305	125			
F708268-DUP1	Duplicate [1707737-01]	0.3026	20					
F708268-MS1	Matrix Spike [1707737-01]	0.2814	20	1605978	100			
F708268-MS2	Matrix Spike [1707810-35]	0.2876	20	1605978	100			
F708268-MSD1	Matrix Spike Dup [1707737-01]	0.3001	20	1605978	100			
F708268-MSD2	Matrix Spike Dup [1707810-35]	0.2919	20	1605978	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1606119	Methanol, HPLC Grade	17-Oct-19 00:00
1703305	DORM-4	29-May-20 00:00	1704399	Ethylating Agent (For Methyl Mercury Analysis)	16-Jan-18 00:00
		29-May-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704707	Acetate Buffer	29-Jan-18 00:00
			1704725	25% KOH/Methanol	30-Jan-18 00:00

**PREPARATION BENCH SHEET**

F708268

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707706-01	MMSE-1_17HC005_071917_SPI_03_WB	0.2727	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-02	MMSE-1_17HC005_071917_SPI_04_WB	0.1963	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-03	MMSE-1_17HC005_071917_SPI_05_WB	0.0806	20	-	-	-	Hold prep/analysis until Hg is complete	
1707737-01	MMSE-1_N2_072417_SED_00-01	0.292	20	-	-	-		
1707737-02	MMSE-1_N2_072417_SED_01-03	0.3008	20	-	-	-		
1707737-03	MMSW-C_S_072417_SED_00-01	0.299	20	-	-	-		
1707737-04	MMSW-C_S_072417_SED_01-03	0.2902	20	-	-	-		
1707737-11	MMSW-C_SW_072517_SED_00-01	0.3059	20	-	-	-		
1707737-12	MMSW-C_SW_072517_SED_01-03	0.2895	20	-	-	-	Original jar broken, created container D	
1707737-13	W-21-UM-West-A_072517_SED_00-01	0.3085	20	-	-	-		
1707810-34	W-17-Intertidal_072517_SED_00-01	0.304	20	-	-	-		
1707810-35	W-17-Intertidal_072517_SED_01-03	0.2998	20	-	-	-		
1707810-36	W-21-High_072517_SED_00-01	0.2801	20	-	-	-		
1707810-37	W-21-High_072517_SED_01-03	0.2802	20	-	-	-		
1707810-38	W-21-Intertidal_072517_SED_00-01	0.3148	20	-	-	-		
1707810-39	W-21-Intertidal_072517_SED_01-03	0.318	20	-	-	-		
1707810-40	W-21-Low_072517_SED_00-01	0.2868	20	-	-	-		
1707810-41	W-21-Low_072517_SED_01-03	0.3031	20	-	-	-		
1707810-42	W-21-Mid_072517_SED_00-01	0.2939	20	-	-	-		

Due Date: 8/21/2017

PREPARATION BENCH SHEET

F708268

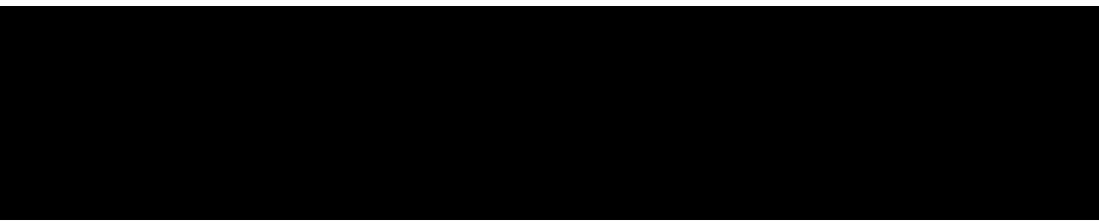
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

1707810-43	W-21-Mid_072517_SED_01-03	0.3015	20	-	-	-		
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PREPARATION BENCH SHEET

2700-1  
8/9/17 DM

F708268

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708268-BLK1	Blank	0.25	20					500X
F708268-BLK2	Blank	0.25	20					500X
F708268-BLK3	Blank	0.25	20					500X
F708268-BS1	DORM-4	0.1258	20	1703305	126			1000X
F708268-BSD1	DORM-4 Dup	0.1253	20	1703305	125			1000X
F708268-DUP1	Duplicate [1707737-01]	0.2919	20					500X
F708268-MS1	Matrix Spike [1707737-01]	0.2919	20	1605978	100			500X
F708268-MS2	Matrix Spike [1707810-35]	0.2919	20	1605978	100			500X
F708268-MSD1	Matrix Spike Dup [1707737-01]	0.2919	20	1605978	100			500X
F708268-MSD2	Matrix Spike Dup [1707810-35]	0.2919	20	1605978	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1606119	Methanol, HPLC Grade	17-Oct-19 00:00
1703305	DORM-4	29-May-20 00:00	1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
		29-May-20 00:00	1704725	25% KOH/Methanol	30-Jan-18 00:00

1704707

1704339

PREPARATION BENCH SHEET

2700-1  
8/9/17 DM

F708268

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707706-01	MMSE-1_17HC005_071917_SPI_03_WB	0.2727	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1707706-02	MMSE-1_17HC005_071917_SPI_04_WB	0.1963	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1707706-03	MMSE-1_17HC005_071917_SPI_05_WB	0.0806	20	-	-	-	Hold prep/analysis until Hg is complete	500X
1707737-01	MMSE-1_N2_072417_SED_00-01	0.292	20	-	-	-		500X
1707737-02	MMSE-1_N2_072417_SED_01-03	0.3008	20	-	-	-		500X
1707737-03	MMSW-C_S_072417_SED_00-01	0.299	20	-	-	-		500X
1707737-04	MMSW-C_S_072417_SED_01-03	0.2902	20	-	-	-		500X
1707737-11	MMSW-C_SW_072517_SED_00-01	0.3059	20	-	-	-		500X
1707737-12	MMSW-C_SW_072517_SED_01-03	0.2895	20	-	-	-	Original jar broken, created container E	500X
1707737-13	W-21-UM-West-A_072517_SED_00-01	0.3085	20	-	-	-		500X
1707810-34	W-17-Intertidal_072517_SED_00-01	0.304	20	-	-	-		500X
1707810-35	W-17-Intertidal_072517_SED_01-03	0.2998	20	-	-	-		500X
1707810-36	W-21-High_072517_SED_00-01	0.2801	20	-	-	-		500X
1707810-37	W-21-High_072517_SED_01-03	0.2802	20	-	-	-		500X
1707810-38	W-21-Intertidal_072517_SED_00-01	0.3148	20	-	-	-		500X
1707810-39	W-21-Intertidal_072517_SED_01-03	0.318	20	-	-	-		500X
1707810-40	W-21-Low_072517_SED_00-01	0.2868	20	-	-	-		500X
1707810-41	W-21-Low_072517_SED_01-03	0.3031	20	-	-	-		500X
1707810-42	W-21-Mid_072517_SED_00-01	0.2939	20	-	-	-		500X

Due Date: 8/21/2017

PREPARATION BENCH SHEET

2700-1  
8/9/17 DM

F708268

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

1707810-43	W-21-Mid_072517_SED_01-03	0.3015	20	-	-	-		500X
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Technician: Duyen Batch#: F708268 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 14:20 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C  
 Time out: 7:20 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1606119) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: DM 8/4/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: N409653 Calibration Date: 8-3-17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N401152 Calibration Date: 7/31/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1704725 25% KOH Dispenser #: N/A  
 Glass Vial # 00066804 Boiling Chip lot # 1704424 \*Hotblock Position: N5

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	F708268 Rk1	0.3040	23	1707810-36A	0.2801	BS1/BS01
2	F708268 Rk2	0.3277	24	1707810-37A	0.2802	D0244
3	F708268 Rk3	0.3350	25	1707810-38A	0.3148	1703305
4	F708268 BS1	0.1258	26	1707810-39A	0.3180	Comments
5	F708268 BS01	0.1253	27	1707810-40A	0.2868	F708268 Sample
6	1707706-01A	0.2727	28	1707810-41A	0.3031	Dupl MS1 MS1
7	1707706-02A	0.1963	29	1707810-42A	0.2939	= 170773701
8	1707706-03A	0.0806	30	1707810-43A	0.3015	F708268
9	1707737-01A	0.2920	31			MS2 MS02
10	F708268-dupl	0.3026	32			1707810-35
11	F708268-MS1	0.2814	33			1707706-021
12	F708268 MS01	0.3001	34			03 - not enough
13	1707737-02A	0.3008	35			mat. Less than
14	1707737-03A	0.2990	36			than 0.2508 -
15	1707737-04A	0.2902	37			was exhausted
16	1707737-11A	0.3059	38			8/4/17 b4
17	1707737-12A	0.2895	39			
18	1707737-13A	0.3085	40			
19	1707810-34A	0.3040	41			
20	1707810-35A	0.2998	42			
21	F708268-MS2	0.2876	43			
22	F708268-MS02	0.2919	44			

**PREPARATION BENCH SHEET**

F708293

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708293-BLK1	Blank	0.25	20					
F708293-BLK2	Blank	0.25	20					
F708293-BLK3	Blank	0.25	20					
F708293-BLK4	Pre Blank	0.3441	20					
F708293-BLK5	Post Blank	0.3609	20					
F708293-BLK6	Filter Blank	0.3933	20					1708084-01
F708293-BS1	DORM-4	0.1253	20	1703305	125			
F708293-BSD1	DORM-4	0.1252	20	1703305	125			
F708293-DUP1	Duplicate [1708077-01]	0.2838	20					
F708293-MS1	Matrix Spike [1708077-01]	0.2858	20	1605978	100			
F708293-MS2	Matrix Spike [1708078-01]	0.2813	20	1605978	100			
F708293-MSD1	Matrix Spike Dup [1708077-01]	0.305	20	1605978	100			
F708293-MSD2	Matrix Spike Dup [1708078-01]	0.3019	20	1605978	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1606305	Methanol, HPLC Grade	28-Oct-19 00:00
1703305	DORM-4	29-May-20 00:00	1700863	25% KOH/Methanol	09-Aug-17 00:00
			1704399	Ethylating Agent (For Methyl Mercury Analysis)	16-Jan-18 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
			1704707	Acetate Buffer	29-Jan-18 00:00



**PREPARATION BENCH SHEET**

F708293

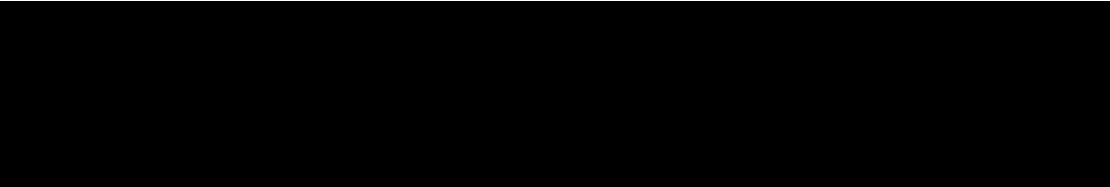
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708077-01	S-170703-01626 417382 Halibut Trident	0.2699	20	-	-	-		
1708077-02	S-170703-01627 417382 Halibut S.M Products	0.2877	20	-	-	-		
1708077-03	S-170703-01628 417382 Halibut S.M Products	0.3066	20	-	-	-		
1708077-04	S-170703-01629 417382 Halibut S.M Products	0.2877	20	-	-	-		
1708077-05	S-170703-01630 417382 Halibut S.M Products	0.2827	20	-	-	-		
1708077-06	S-170703-01632 417382 Halibut S.M Products	0.2859	20	-	-	-		
1708077-07	S-170717-00593 699794 Atlantic Cod Hofseth	0.2854	20	-	-	-		
1708077-08	S-170717-00594 699794 Atlantic Cod Hofseth	0.298	20	-	-	-		
1708078-01	S-170714-00934 43178 Cold Water Shrimp Pacific Seafood	0.3018	20	-	-	-		
1708078-02	S-170717-00925 40604 Seafood Medley OreCal	0.3062	20	-	-	-		
1708084-01	OL-2638-01	0.293	20	-	-	-	Preservation Blank Created Scan all dat	



PREPARATION BENCH SHEET

2700-1  
8/9/17 DM

F708293

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708293-BLK1	Blank	0.25	20					500X
F708293-BLK2	Blank	0.25	20					500X
F708293-BLK3	Blank	0.25	20					500X
F708293-BLK4	Pre Blank	0.3441	20					500X
F708293-BLK5	Post Blank	0.3609	20					500X
F708293-BLK6	Filter Blank	0.3933	20					1708084-01 500X
F708293-BS1	DORM-4	0.1253	20	1703305	125			1000X
F708293-BSD1	DORM-4	0.1252	20	1703305	125			1000X
F708293-DUP1	Duplicate [1708077-01]	0.2838	20					2500X
F708293-MS1	Matrix Spike [1708077-01]	0.2858	20	1605978	100			2500X
F708293-MS2	Matrix Spike [1708078-01]	0.2813	20	1605978	100			500X
F708293-MSD1	Matrix Spike Dup [1708077-01]	0.305	20	1605978	100			2500X
F708293-MSD2	Matrix Spike Dup [1708078-01]	0.3019	20	1605978	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605978	MHg New Primary 100 ng/mL spike	15-Oct-17 00:00	1606305	Methanol, HPLC Grade	28-Oct-19 00:00
1703305	DORM-4	29-May-20 00:00	1700863	25% KOH/Methanol	09-Aug-17 00:00
			1704424	Boiling Chips for AFS prep	21-Jan-18 00:00

1704707  
1704339

PREPARATION BENCH SHEET

2700-1  
8/9/17 TJM

F708293

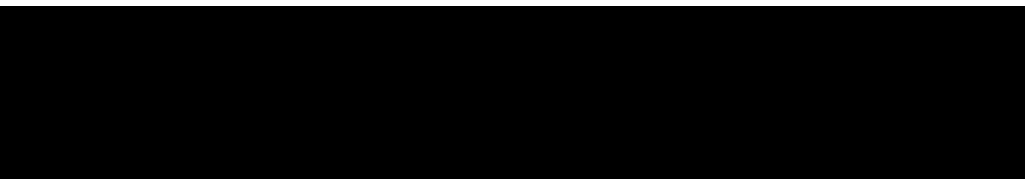
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708077-01	S-170703-01626 417382 Halibut Trident	0.2699	20	-	-	-		2500x
1708077-02	S-170703-01627 417382 Halibut S.M Products	0.2877	20	-	-	-		2500x
1708077-03	S-170703-01628 417382 Halibut S.M Products	0.3066	20	-	-	-		2500x
1708077-04	S-170703-01629 417382 Halibut S.M Products	0.2877	20	-	-	-		2500x
1708077-05	S-170703-01630 417382 Halibut S.M Products	0.2827	20	-	-	-		2500x
1708077-06	S-170703-01632 417382 Halibut S.M Products	0.2859	20	-	-	-		2500x
1708077-07	S-170717-00593 699794 Atlantic Cod Hofseth	0.2854	20	-	-	-		2500x
1708077-08	S-170717-00594 699794 Atlantic Cod Hofseth	0.298	20	-	-	-		2500x
1708078-01	S-170714-00934 43178 Cold Water Shrimp Pacific Seafood	0.3018	20	-	-	-		500x
1708078-02	S-170717-00925 40604 Seafood Medley OreCal	0.3062	20	-	-	-		500x
1708084-01	OL-2638-01	0.293	20	-	-	-	Preservation Blank Created Scan all dat	500x



Technician: Duyen Batch#: F708293 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 10:05 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C  
 Time out: 13:05 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: 1606305) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: CNK 8/4/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NW09653 Calibration Date: 8/3/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NW01152 Calibration Date: 7/31/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1700863 2% KCl Dispenser #: N/A  
 Glass Vial # 00068647 Boiling Chip lot # 1704424 \*Hotblock Position: B, 2

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	F708293 Blk1	0.2550	23	1708078-02B	0.3062	BS1 BS01
2	F708293 Blk2	0.3075	24	1708084-01B	0.2930	DOM-4
3	F708293 Blk3	0.2885	25			1703305
4	F708293 Blk4	0.3441	26			<b>Comments</b>
5	F708293 Blk5	0.3609	27			F708293
6	F708293 Blk6	0.3933	28			Blank 4.05
7	F708293 BS1	0.1253	29			Homogen. Blank post-blanc
8	F708293 BS01	0.1252	30			1708077
9	1708077-01	0.2699	31			1708078
10	F708293 Dup1	0.2838	32			F708293
11	F708293 MS1	0.2858	33			Blank 6 Filter blank
12	F708293 MS01	0.3050	34			1708084-01
13	1708077-02	0.2877	35			1708077-03 = 0.3066cg
14	1708077-03	0.3066	36			F708293
15	1708077-04B	0.2877	37			small
16	1708077-05B	0.2827	38			Dup1 MS1 MS01
17	1708077-06B	0.2859	39			1708077-01
18	1708077-07B	0.2854	40			F708293
19	1708077-08B	0.2980	41			MS2, MS02
20	1708078-01B	0.3018	42			1708078-01
21	F708293-MS2	0.2813	43			8/7/17 CW
22	F708293-MS02	0.3019	44			

# Failing Data Report - 7H10014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1707706-01	MHg-CVAFS-T-KOH ✓	386	1.8				ng/g						FAIL-OVER	PASS	E ✓
1707706-02	MHg-CVAFS-T-KOH ✓	709	2.5				ng/g						FAIL-OVER	PASS	E ✓
1707706-03	MHg-CVAFS-T-KOH ✓	669	6.2				ng/g						FAIL-OVER	PASS	E ✓
F708293-MS1	MHg-CVAFS-T-KOH ✓	126.0	8.7		65.0	35.024	ng/g	174	65.00	130.00			PASS-OVER	FAIL-MS	QM-02 ✓
F708293-MSD1	MHg-CVAFS-T-KOH ✓	132.3	8.2	126.0	65.0	32.820	ng/g	205	65.00	130.00	16.2	35.00	PASS-OVER	FAIL-MSD (Rec.)	QM-02 ✓
F708293-MSD2	MHg-CVAFS-T-KOH ✓	47.5	1.7	58.6	29.6	33.157	ng/g	53.9	65.00	130.00	40.6	35.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM-07, QR-08 ✓

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

Peer Reviewed By [Signature] Date 8/12/12

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7H10014
<b>Reviewer:</b> <u>R 8/12/17</u>	<b>Dataset ID #:</b> MMHG27001-170809-1
<b>Date:</b> 8/10/17	<b>WO #:</b> [REDACTED]
<b>Batch #(s):</b> F708293, F708268	<b>Client(s):</b> [REDACTED]

• 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 8/12/17

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	<input checked="" type="checkbox"/>
(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"/>
(e) Check standards & reagents in sequence & bench sheet for correct usage (i.e. expires).	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(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"/>
(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"/>
(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"/>
(i) Is the pH>3.0 for all distilled samples? _____	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(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"/>
<b>QA/QC Data Checked</b>				
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"/>
Comments: _____				
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"/>
Comments: _____				
8. RSD CF (≤ 15%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: _____				

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H10014
<b>Reviewer:</b>	0 <i>pc g/n/h</i>	<b>Dataset ID #:</b>	MMHG27001-170809-1
<b>Date:</b>	8/10/2017	<b>WO #:</b>	[REDACTED]
<b>Batch #(s):</b>	F708293, F708268	<b>Client(s):</b>	[REDACTED]

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*pc g/n/h*

- |  |   |   |                                     |
|--|---|---|-------------------------------------|
| <p>9. ICV % Recoveries 67-133%</p> <p>Comments: _____</p>  | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>10. CCV % Recoveries 67-133%</p> <p>Comments: _____</p>   | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>11. Are the absolute value of the ICB and CCBs &lt; PQL?</p> <p>Comments: _____</p>   | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%)</p> <p>Comments: _____</p>   | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>13. LCS/LCSD or BS/BSD RPD (&lt; 25%)</p> <p>Comments: _____</p>  | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>14. Water: Average of Preparation Blanks &lt; 0.045 ng/L and standard deviation of 0.015 ng/L?</p> <p>Comments: _____</p>   | <input type="checkbox"/> PASS <input type="checkbox"/> FAIL                       | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| <p>15. Sediment/Tissue: Individually, are the Preparation Blanks &lt; PQL for the matrix?</p> <p>Comments: _____</p>   | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <p>16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)</p>  | <input type="checkbox"/> YES <input type="checkbox"/> NO                          | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| <p>17. Is the correct 'Source' designated for MD/MS/MSD?</p>   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO               | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>18. For digested preps: was there a spike witness signature &amp; date on the prep bench sheet?</p>   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO               | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <p>19. MD RPD/MT RSD(&lt; 35%)</p> <p>Comments: _____</p>  | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>20. Is there one set of MS/MSD per every 10 samples?</p> <p>Comments: _____</p>   | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL            | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>21. MS/MSD RPD(&lt; 35%)</p> <p>Comments: <b><i>F708293-MSD2 FAILED. HIGH RPD.</i></b></p>  | <input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>22. MS (AS) % Recoveries (65-130%)</p> <p>Comments: <b><i>F708293-MS1 FAILED. HIGH RECOVERY. UNDERSPIKED.</i></b></p>   | <input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>23. MSD (ASD) % Recoveries (65-130%)</p> <p>Comments: <b><i>F708293-MSD1, MSD2 FAILED. MSD1 HIGH RECOVERY AND UNDERSPIKED. MSD2 LOW RECOVERY</i></b></p>                  | <input checked="" type="checkbox"/> PASS <input checked="" type="checkbox"/> FAIL | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630)</p>   | <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO    | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>25. Are all samples within instrument calibration range (or at maximum aliquot size)?</p> <p>Comments: <b><i>1707706-01, 02, 03 OFF CURVE. ABOVE CALS</i></b></p>         | <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO    | <input type="checkbox"/>                | <input checked="" type="checkbox"/> |
| <p>26. For instrumental dilutions, is the dilution factor in excel correct?</p> <p>Is the sample volume, diluents, and final volume of the dilution noted on benchsheet?</p> | <input checked="" type="checkbox"/> PASS <input type="checkbox"/> NO              | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| <p>27. Dissolved &lt; Total metals (if applicable)</p> <p>Comments: _____</p>  | <input type="checkbox"/> PASS <input type="checkbox"/> NO                         | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| <p>28. Effluent &lt; Influent metals (visually confirm if needed)</p> <p>Comments: _____</p>   | <input type="checkbox"/> PASS <input type="checkbox"/> NO                         | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H10014
<b>Reviewer:</b>	0 <i>DM</i>	<b>Dataset ID #:</b>	MMHG27001-170809-1
<b>Date:</b>	8/10/2017	<b>WO #:</b>	[REDACTED]
<b>Batch #(s):</b>	F708293, F708268	<b>Client(s):</b>	[REDACTED]

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

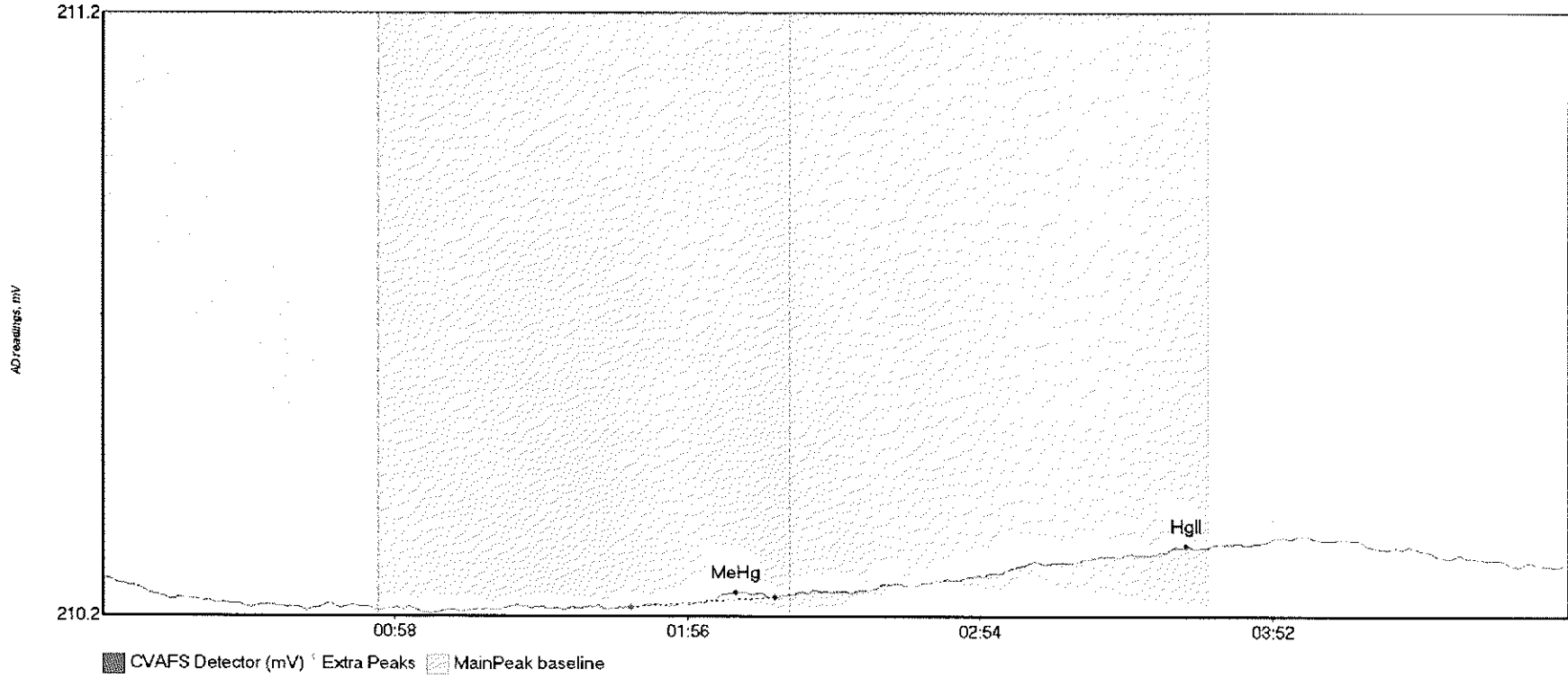
29. Are re-runs noted with reason?  YES  NO  N/A
- Comments: \_\_\_\_\_
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):  YES  NO  N/A
- Was a bubbler and trap test run before the analytical run continued?
- Comments: \_\_\_\_\_
31. Do re-run results compare to initial analysis (< 35% RPD)?  YES  NO  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?  YES  NO  N/A
- 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  NO  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: 4/24/2017 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



SampleID	Location	Raise	Dilute	Blank	ConcHq0	ConcMeHg0	ConcHq2	ConcPrHq	Rec%	QA	RawData	RunEnd	PeakHq	Raw	PeakMeHg	R	PeakHq2	Raw	PeakPrHq	Raw	Control	(err)	Flags	RunCount
Clean																								
WS	A1																							
SEQ-1BL1	A2			1																				
SEQ-CAL1	A3			1																				
SEQ-CAL2	A4			1																				
SEQ-CAL3	A5			1																				
SEQ-CAL4	A6			1																				
SEQ-CAL5	A7			1																				
SEQ-1CV1	A8			1																				
SEQ-1CB1	A9			1																				
F708293-BLK1	A10			500																				
F708293-BLK2	A11			500																				
F708293-BLK3	A12			500																				
*F708293-BLK4	A13			500																				
*F708293-BLK5	A14			500																				
*F708293-BLK6	A15			500																				
F708293-BS1	A16			1000																				
F708293-BSD1	A17			1000																				
1708077-01	A18			2500																				
1708077-02	A19			2500																				
SEQ-CCV1	A20			1																				
SEQ-CCB1	A21			1																				
1708077-03	B1			2500																				
1708077-04	B2			2500																				
1708077-05	B3			2500																				
1708077-06	B4			2500																				
1708077-07	B5			2500																				
1708077-08	B6			2500																				
1708078-01	B7			500																				
1708078-02	B8			500																				
1708084-01	B9			500																				
F708293-DUP1	B10			2500																				
SEQ-CCV2	B11			1																				
SEQ-CCB2	B12			1																				
F708293-MS1	B13			2500																				
F708293-MSD1	B14			2500																				
F708293-MS2	B15			500																				
F708293-MSD2	B16			500																				
F708268-BLK1	B17			500																				
F708268-BLK2	B18			500																				
F708268-BLK3	B19			500																				
F708268-BS1	B20			1000																				
F708268-BSD1	B21			1000																				
F708268-DUP1	C1			500																				
SEQ-CCV3	C2			1																				
SEQ-CCB3	C3			1																				
F708268-MS1	C4			500																				
F708268-MSD1	C5			500																				
F708268-MS2	C6			500																				
F708268-MSD2	C7			500																				
1707706-01	C8			500																				
1707706-02	C9			500																				
1707706-03	C10			500																				
1707737-01	C11			500																				
1707737-02	C12			500																				
1707737-03	C13			500																				
SEQ-CCV4	C14			1																				
SEQ-CCB4	C15			1																				
1707737-04	C16			500																				
1707737-11	C17			500																				
1707737-12	C18			500																				
1707737-13	C19			500																				
1707810-34	C20			500																				
1707810-35	C21			500																				
1707810-36	A1			500																				
1707810-37	A2			500																				
1707810-38	A3			500																				
1707810-39	A4			500																				
SEQ-CCV5	A5			1																				
SEQ-CCB5	A6			1																				
1707810-40	A7			500																				
1707810-41	A8			500																				
1707810-42	A9			500																				
1707810-43	A10			500																				

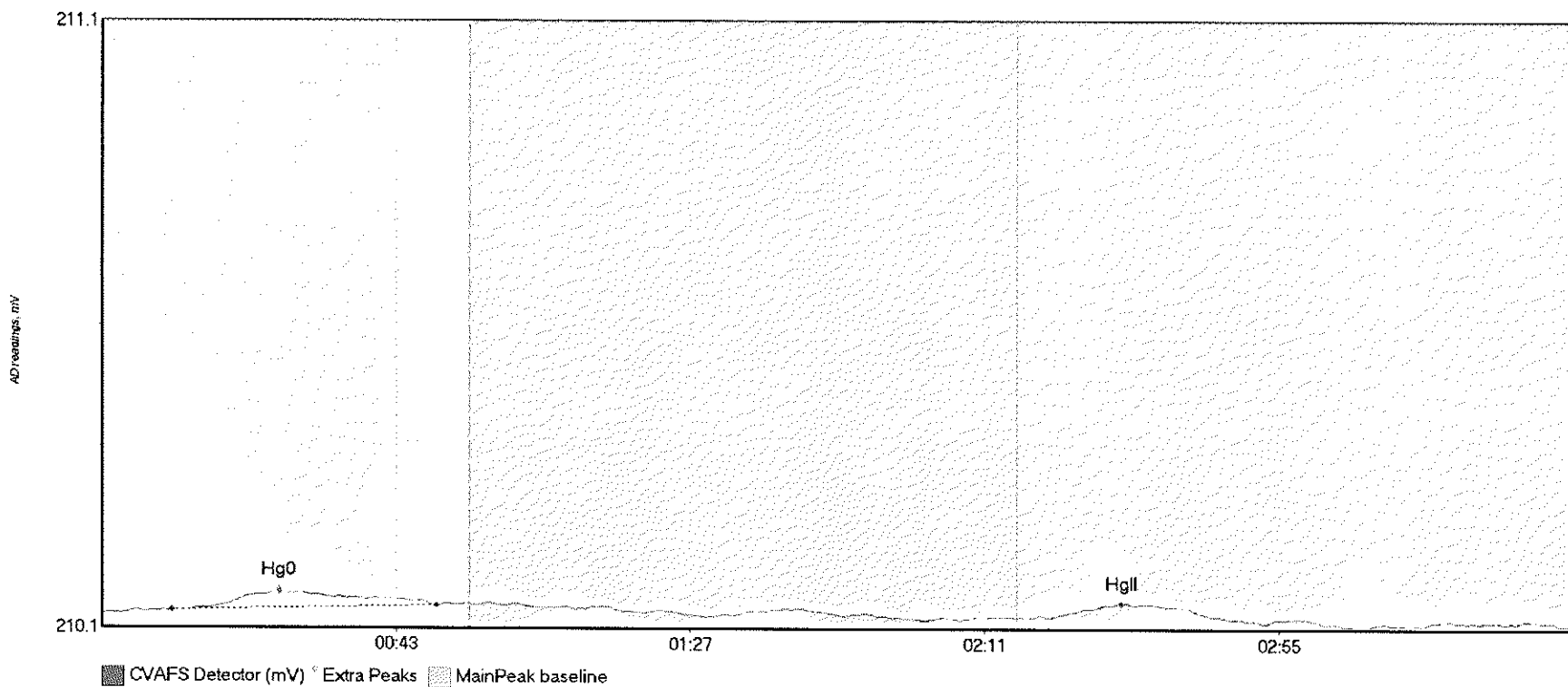
SEQ-CCV6	A11	1	24895-1.RAW	21:41:50	4.04	194.10	23.70	0.00	psample10	OK	1
SEQ-CCB6	412	1	24896-1.RAW	21:52:21	7.42	0.00	12.09	0.00	psample10	OK	1

#1: Clean



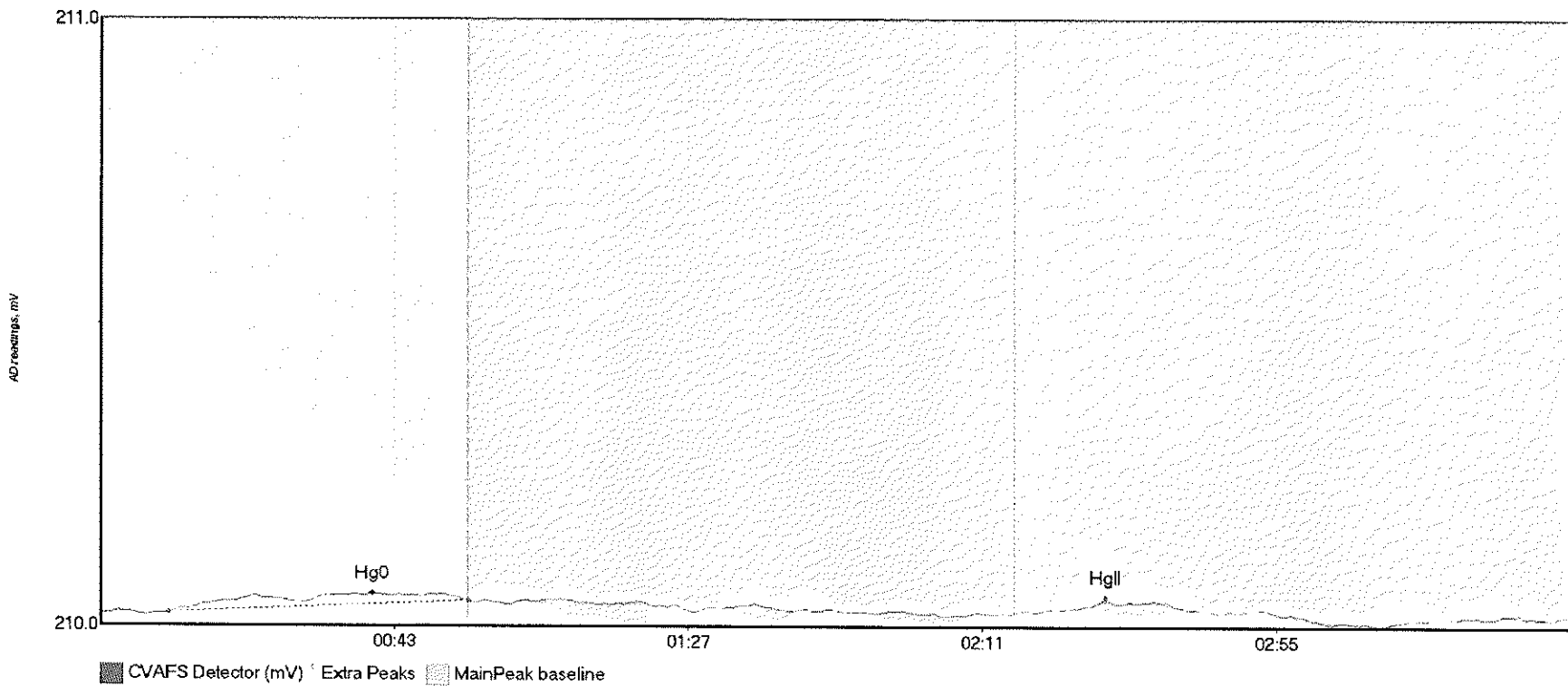
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean MeHg	1.140	105.1	133.9	210.19	210.20	126.2	0.024	OK	210.2354	0.00	0.02	
Clean HgII	2.544	149.0	217.5	210.21	210.28	215.7	0.078	OK	210.2354	0.00	0.02	017

#2: WS



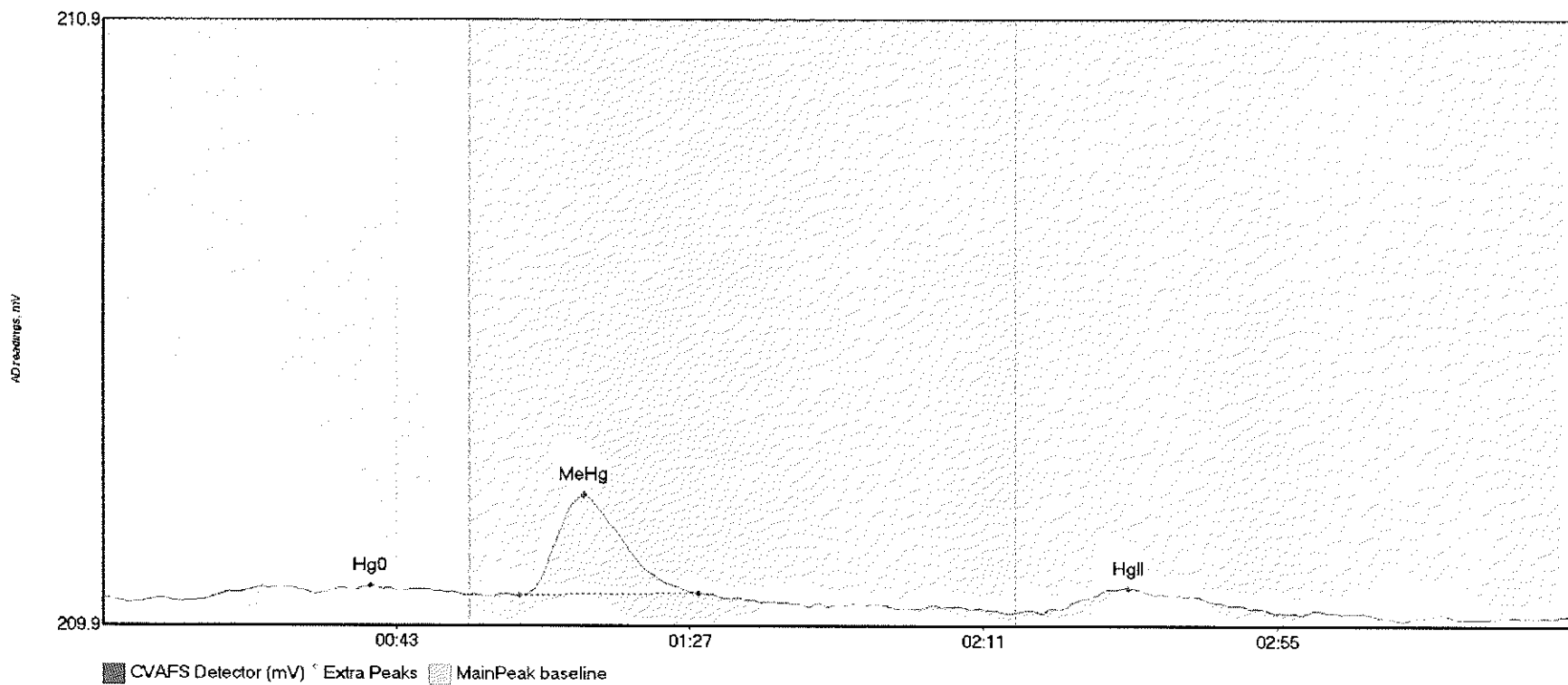
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	5.554	10.4	50.0	210.12	210.13	26.6	0.031	OK	210.1180	0.00	-0.02	
WS HgII	3.604	141.4	166.4	210.11	210.11	152.5	0.025	OK	210.1180	0.00	-0.02	017

#3: SEQ-IBL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	R1Dev	B1Shift	Comment
SEQ-IBL1 Hg0	6.014	10.1	55.0	210.06	210.08	40.7	0.032	CF	210.0568	0.00	0.00	
SEQ-IBL1 HgII	1.863	143.2	163.2	210.06	210.06	150.4	0.017	OK	210.0568	0.00	0.00	017

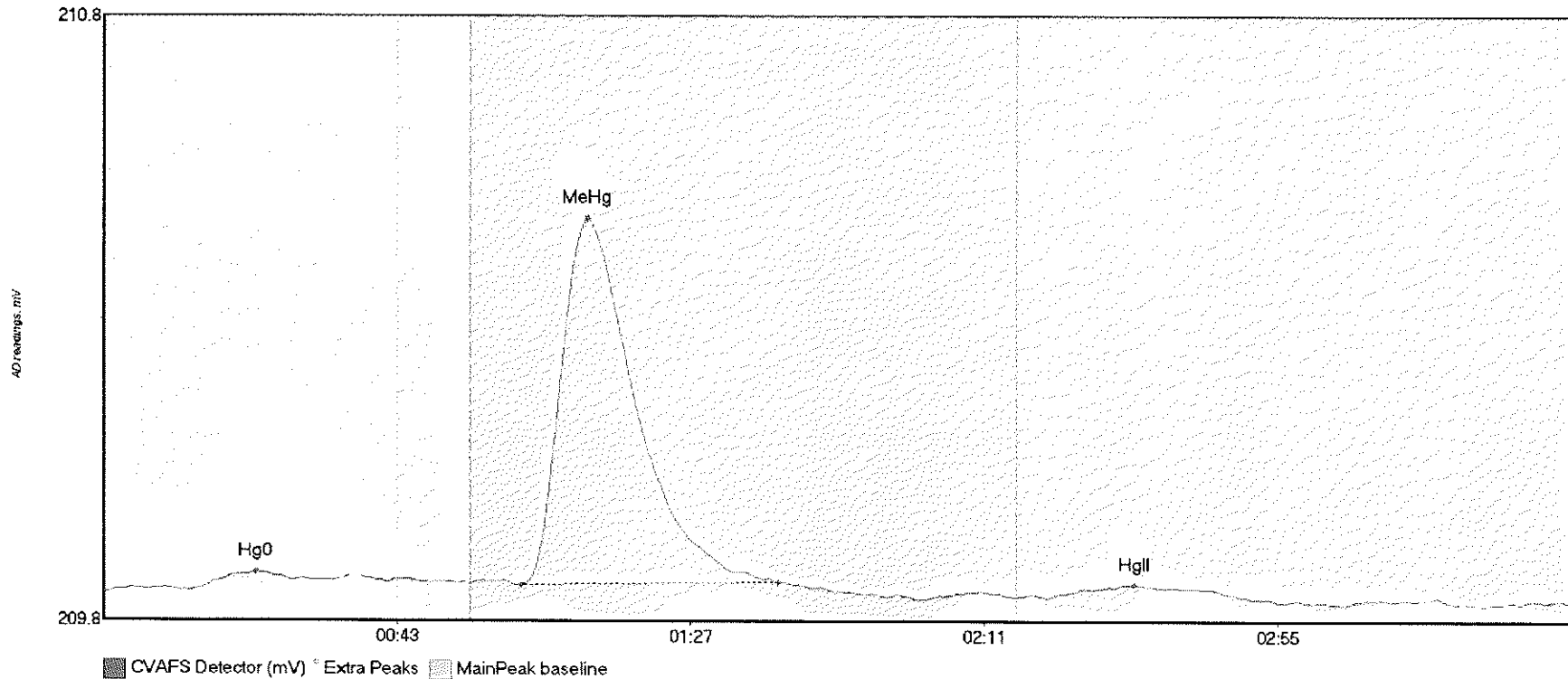
#4: SEQ-CAL1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	4.667	14.8	54.6	209.99	210.00	40.2	0.022	OK	209.9917	0.00	-0.03	
SEQ-CAL1 MeHg	18.350	62.5	89.3	210.00	210.00	72.2	0.164	OK	209.9917	0.00	-0.03	
SEQ-CAL1 HgII	7.854	140.9	176.0	209.97	209.97	153.8	0.041	OK	209.9917	0.00	-0.03	

017

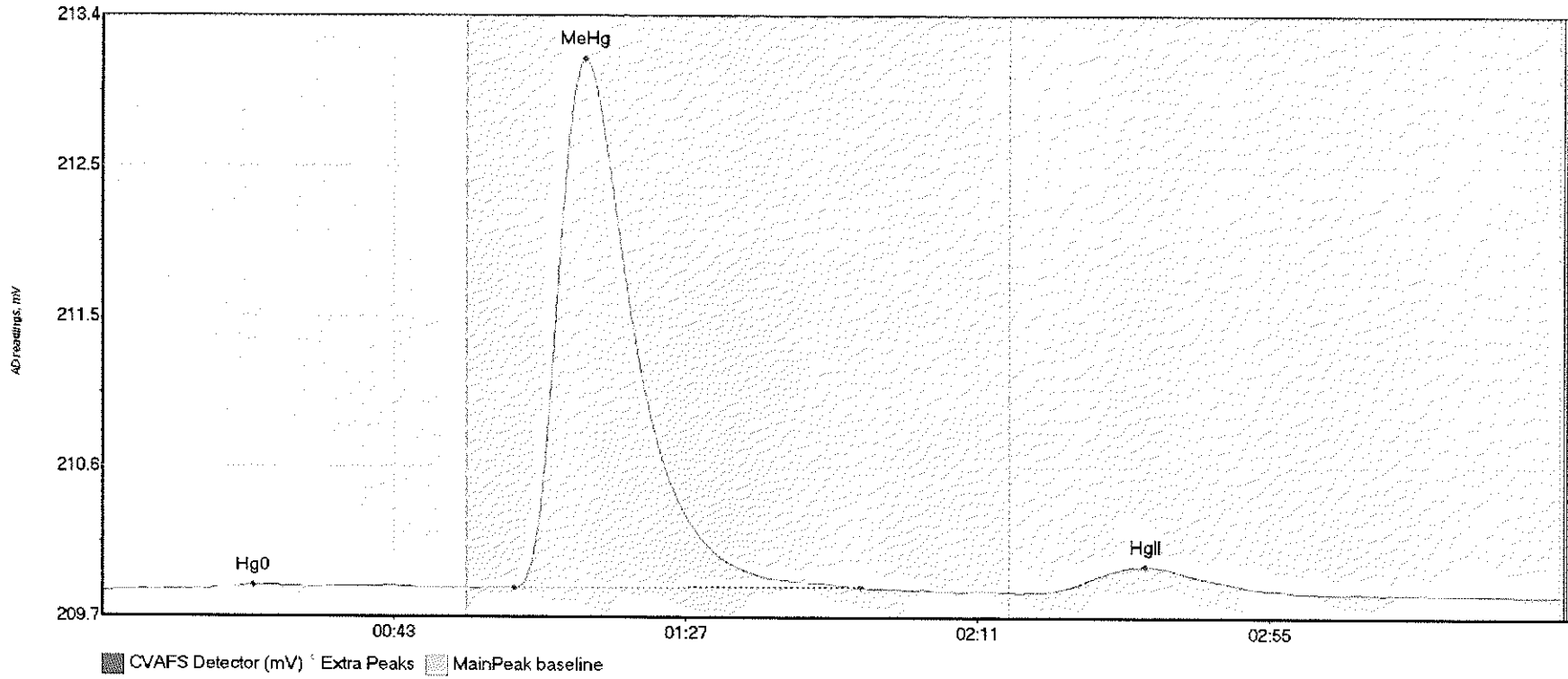
#5: SEQ-CAL2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	4.994	13.7	54.8	209.90	209.91	22.9	0.029	OK	209.8916	0.00	-0.02	
SEQ-CAL2 MeHg	77.701	62.6	101.2	209.90	209.91	72.6	0.605	OK	209.8916	0.00	-0.02	
SEQ-CAL2 HgII	2.136	144.2	168.3	209.89	209.89	154.4	0.015	OK	209.8916	0.00	-0.02	

017

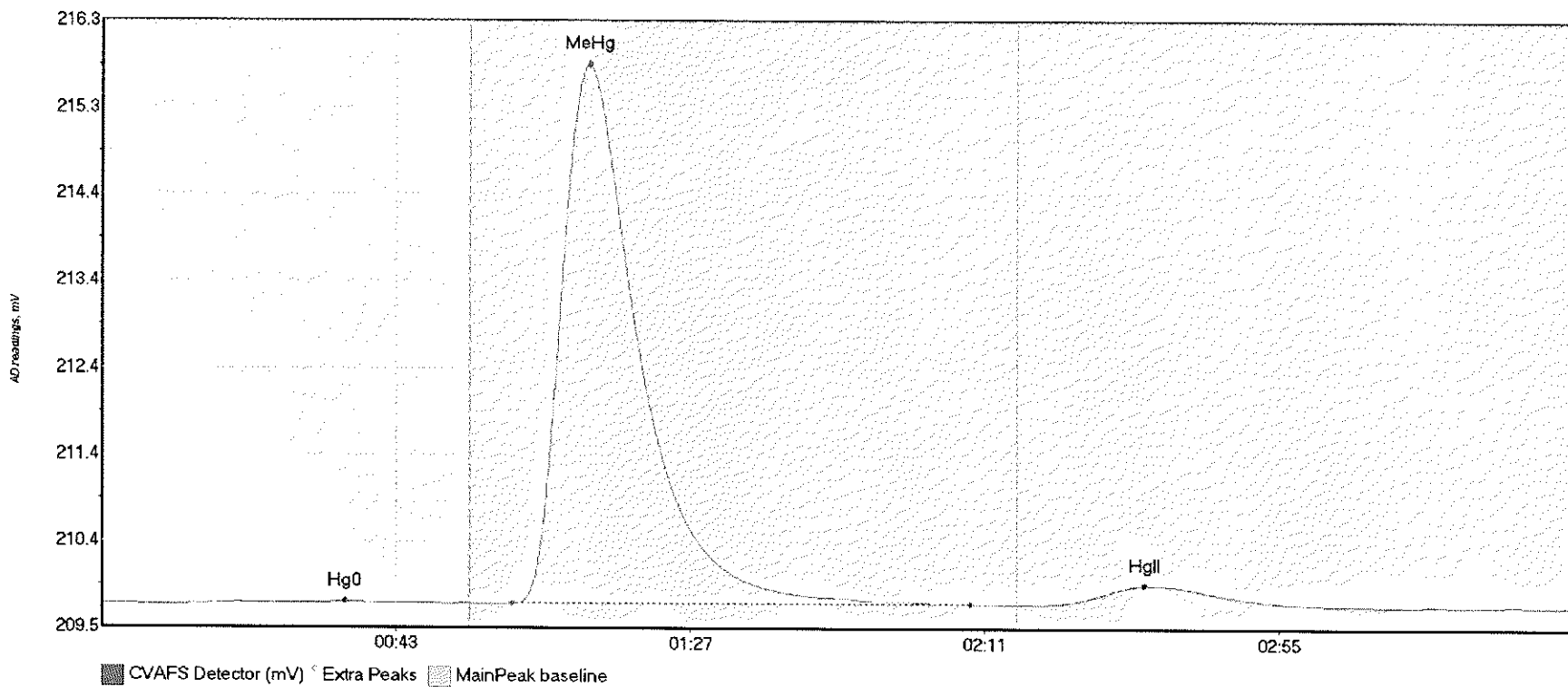
#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	5.115	8.7	52.9	209.82	209.83	22.9	0.029	OK	209.8143	0.00	-0.03	
SEQ-CAL3 MeHg	443.024	62.1	114.4	209.83	209.84	72.9	3.322	OK	209.8143	0.00	-0.03	
SEQ-CAL3 HgII	29.727	141.5	180.8	209.81	209.81	157.3	0.159	OK	209.8143	0.00	-0.03	

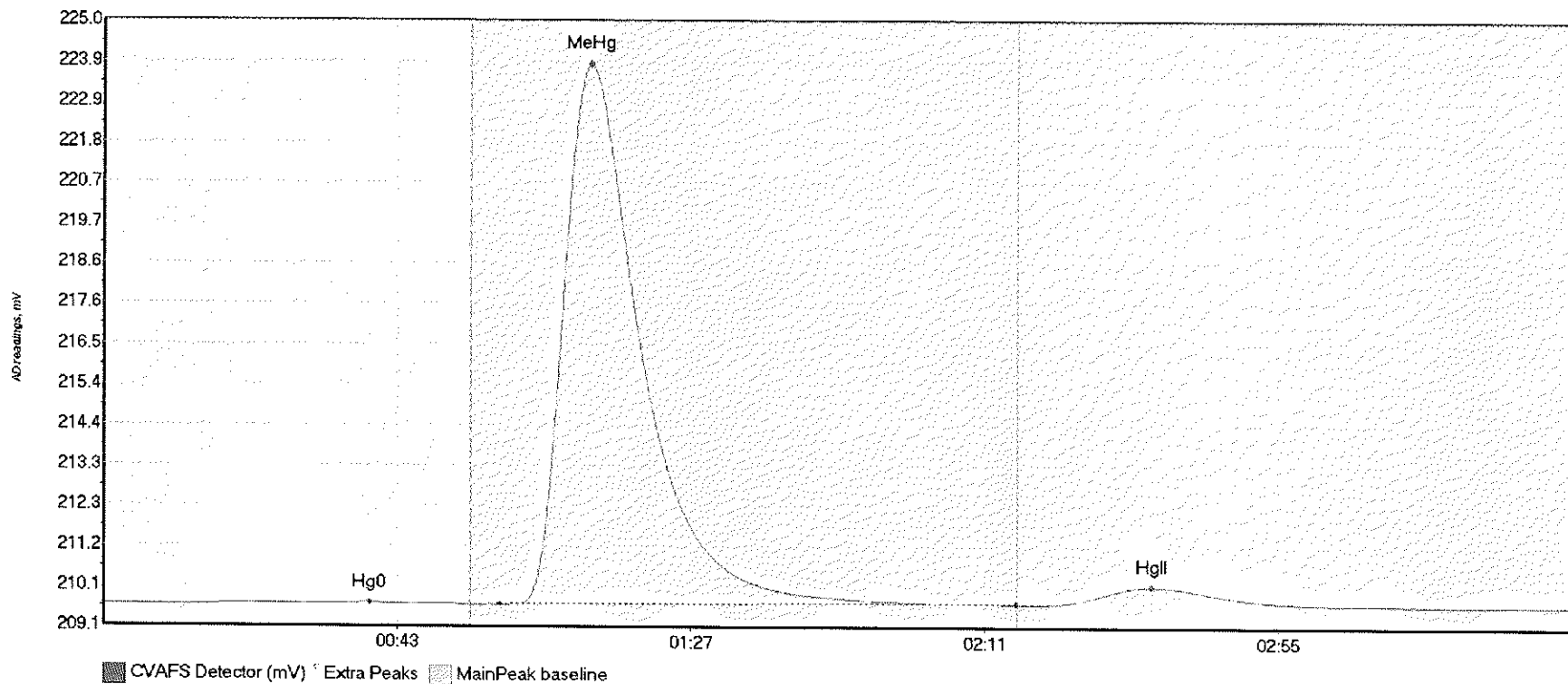


#7: SEQ-CAL4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	5.019	12.4	50.9	209.72	209.74	36.4	0.029	OK	209.7334	0.00	-0.02	
SEQ-CAL4 MeHg	822.689	61.3	129.9	209.73	209.74	72.8	6.085	OK	209.7334	0.00	-0.02	
SEQ-CAL4 HgII	38.109	141.5	178.2	209.74	209.74	155.9	0.214	OK	209.7334	0.00	-0.02	

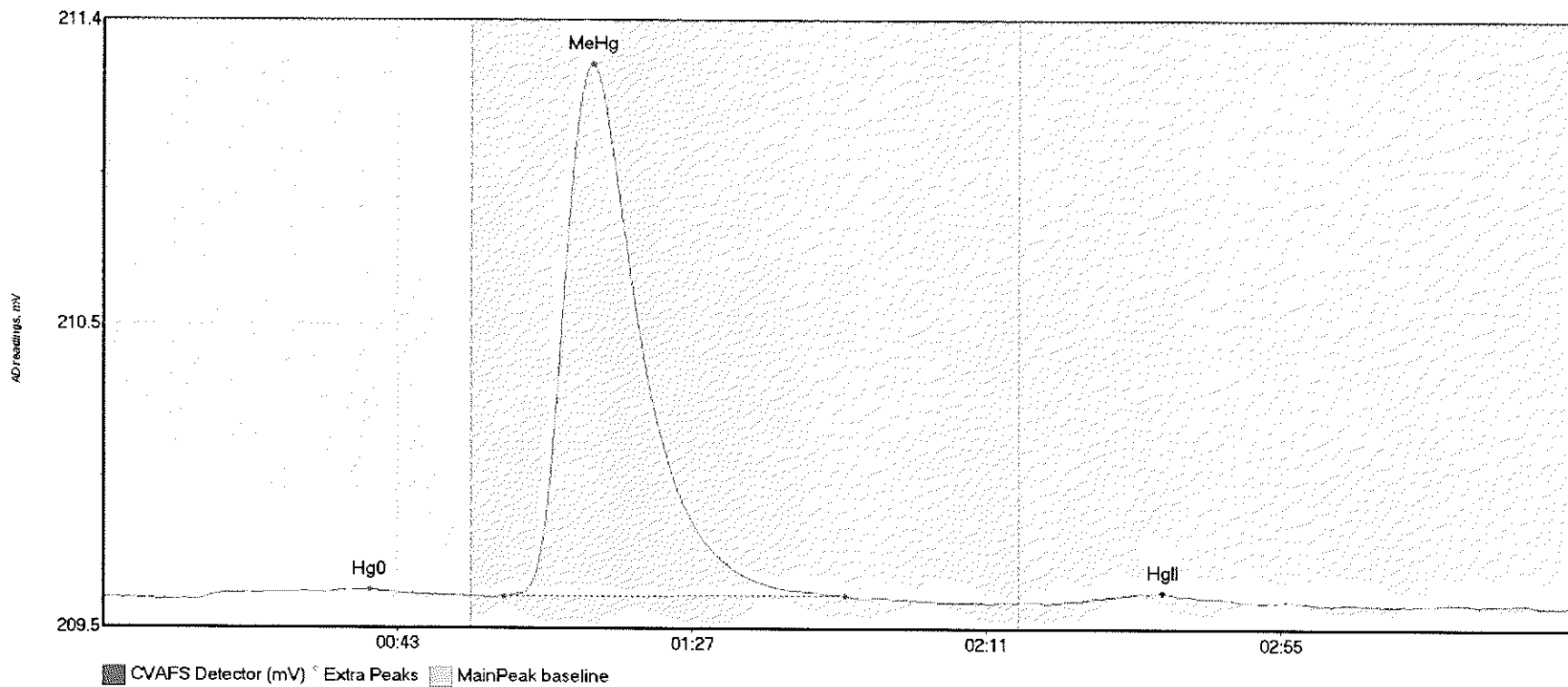
#8: SEQ-CAL5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	8.517	13.4	54.8	209.65	209.67	39.9	0.049	OK	209.6450	0.00	0.01	
SEQ-CAL5 MeHg	1914.510	59.3	136.8	209.66	209.69	73.0	14.171	CT	209.6450	0.00	0.01	
SEQ-CAL5 HgII	88.132	140.5	185.5	209.69	209.69	157.0	0.475	OK	209.6450	0.00	0.01	

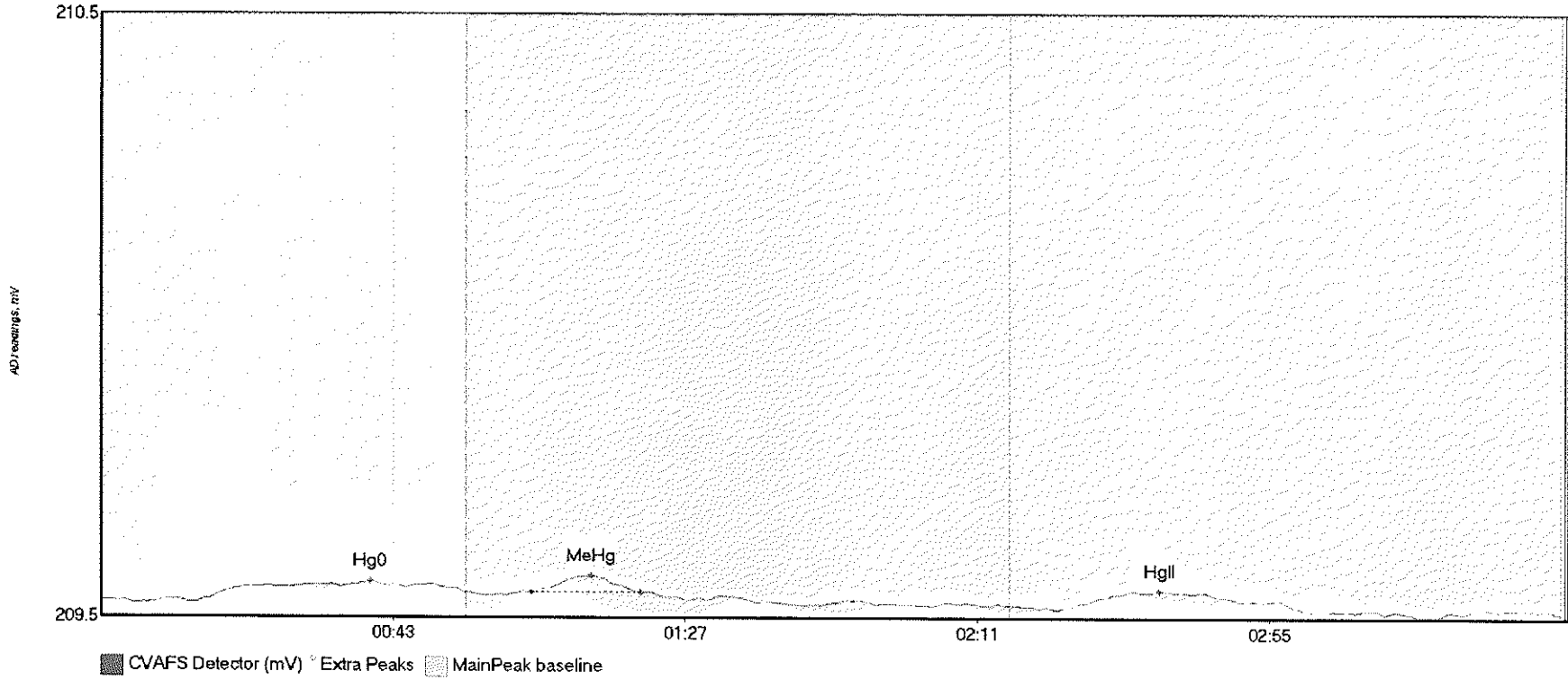
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#9: SEQ-ICV1



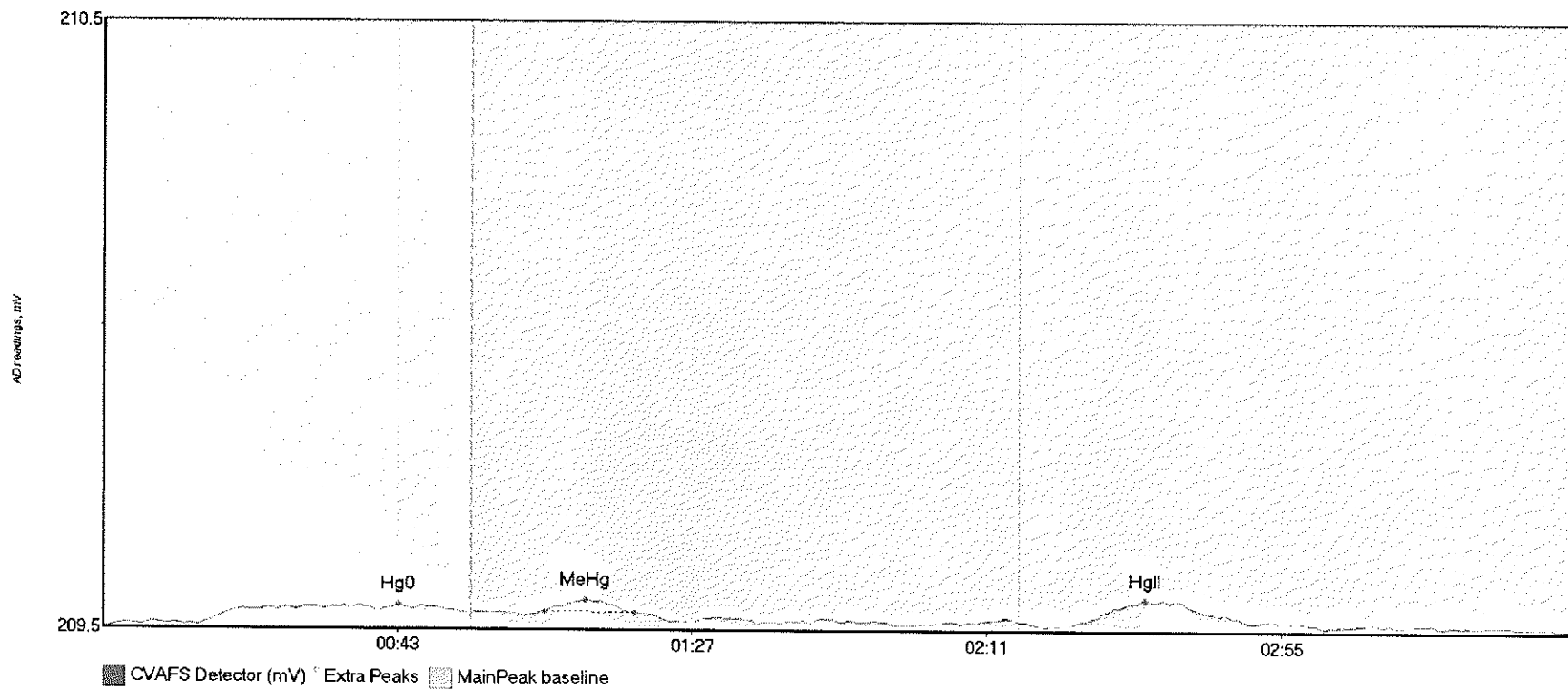
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	6.545	14.0	54.7	209.60	209.61	39.8	0.032	OK	209.6048	0.00	-0.02	
SEQ-ICV1 MeHg	221.097	59.9	110.9	209.61	209.61	73.1	1.665	OK	209.6048	0.00	-0.02	
SEQ-ICV1 HgII	3.405	146.0	170.1	209.60	209.60	158.3	0.024	OK	209.6048	0.00	-0.02	

#10: SEQ-ICB1



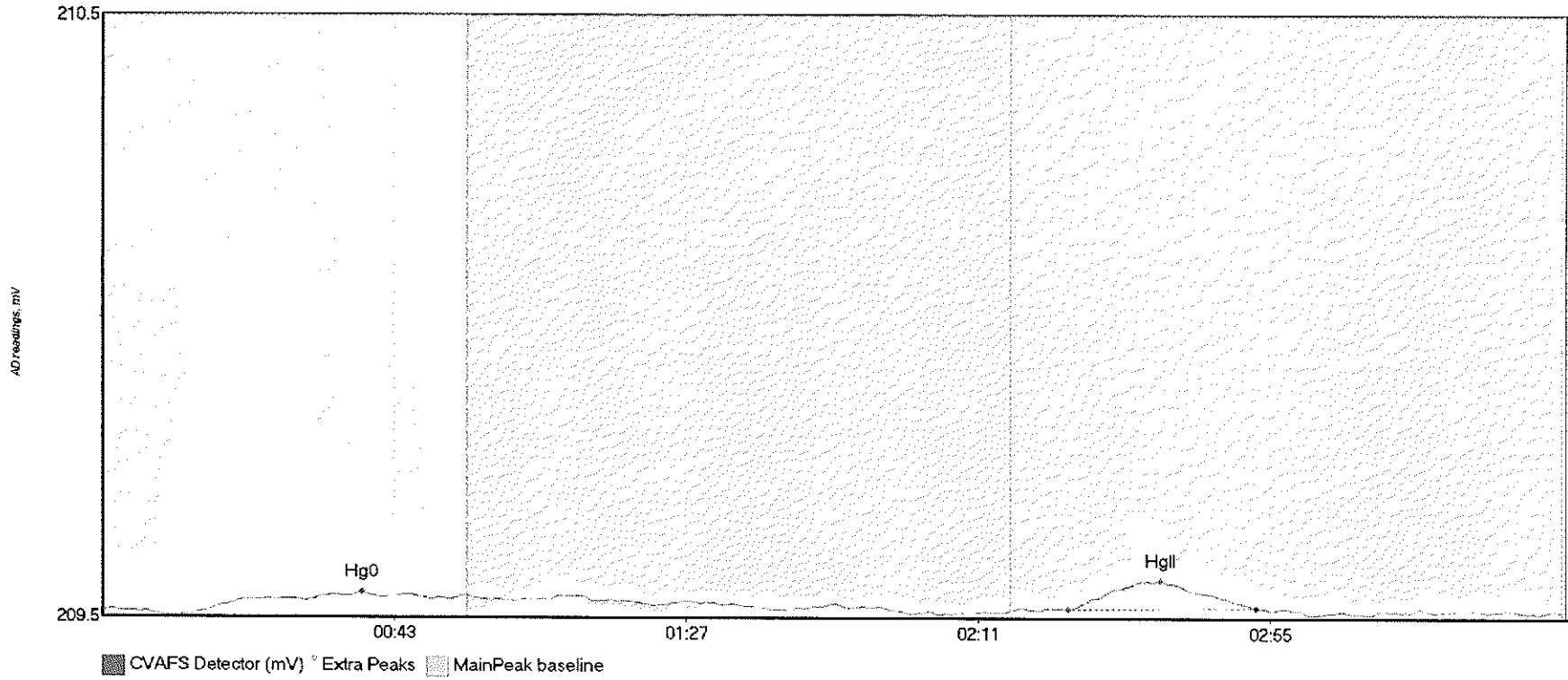
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	5.496	16.1	55.0	209.55	209.56	40.6	0.027	CT	209.5450	0.00	-0.02	
SEQ-ICB1 MeHg	2.445	64.9	81.3	209.56	209.56	73.9	0.027	OK	209.5450	0.00	-0.02	
SEQ-ICB1 HgII	5.289	148.1	181.0	209.54	209.53	159.5	0.021	OK	209.5450	0.00	-0.02	

#11: F708293-BLK1



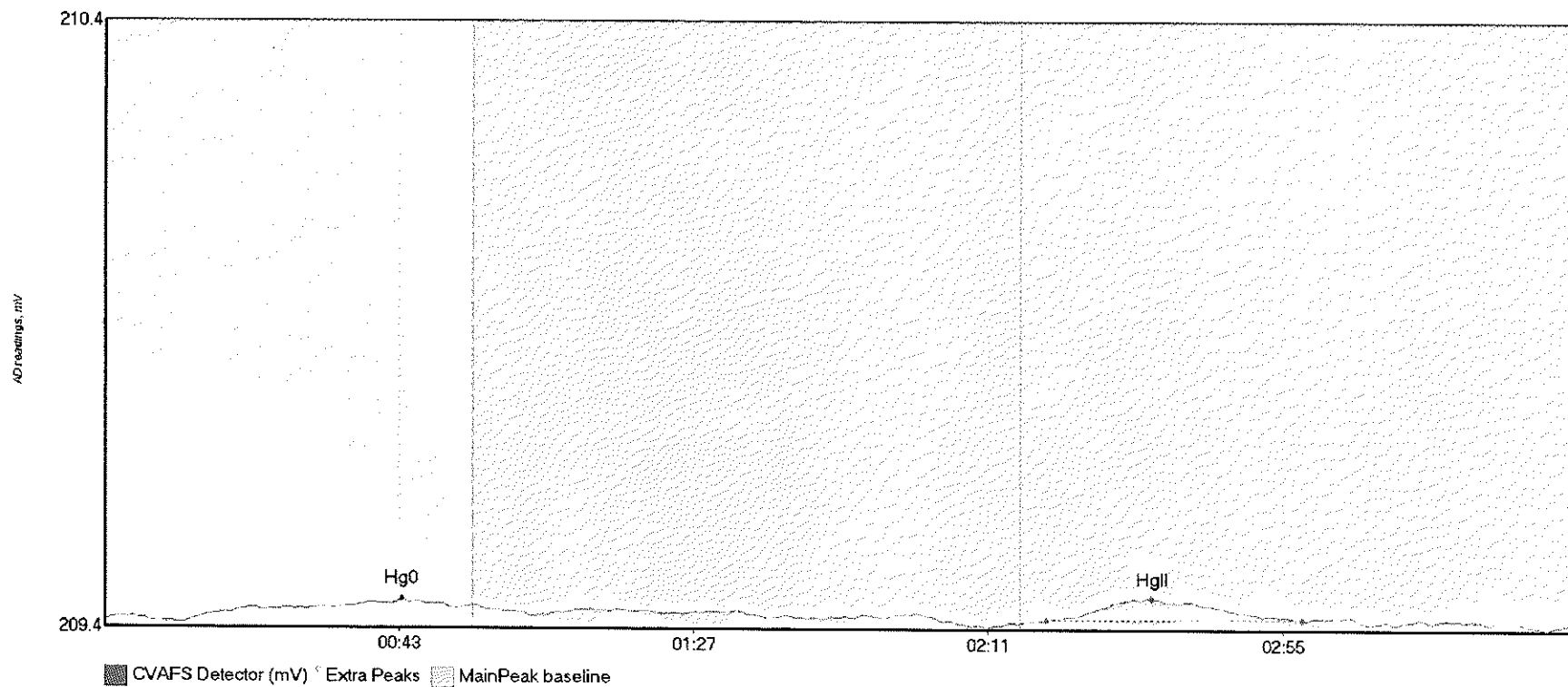
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BLK1 Hg	6.177	14.0	54.3	209.51	209.53	44.1	0.032	OK	209.5029	0.00	0.00	
F708293-BLK1 Me	1.535	65.8	79.3	209.53	209.53	72.0	0.018	OK	209.5029	0.00	0.00	
F708293-BLK1 Hg	6.066	143.6	171.0	209.51	209.51	155.6	0.045	OK	209.5029	0.00	0.00	

#12: F708293-BLK2



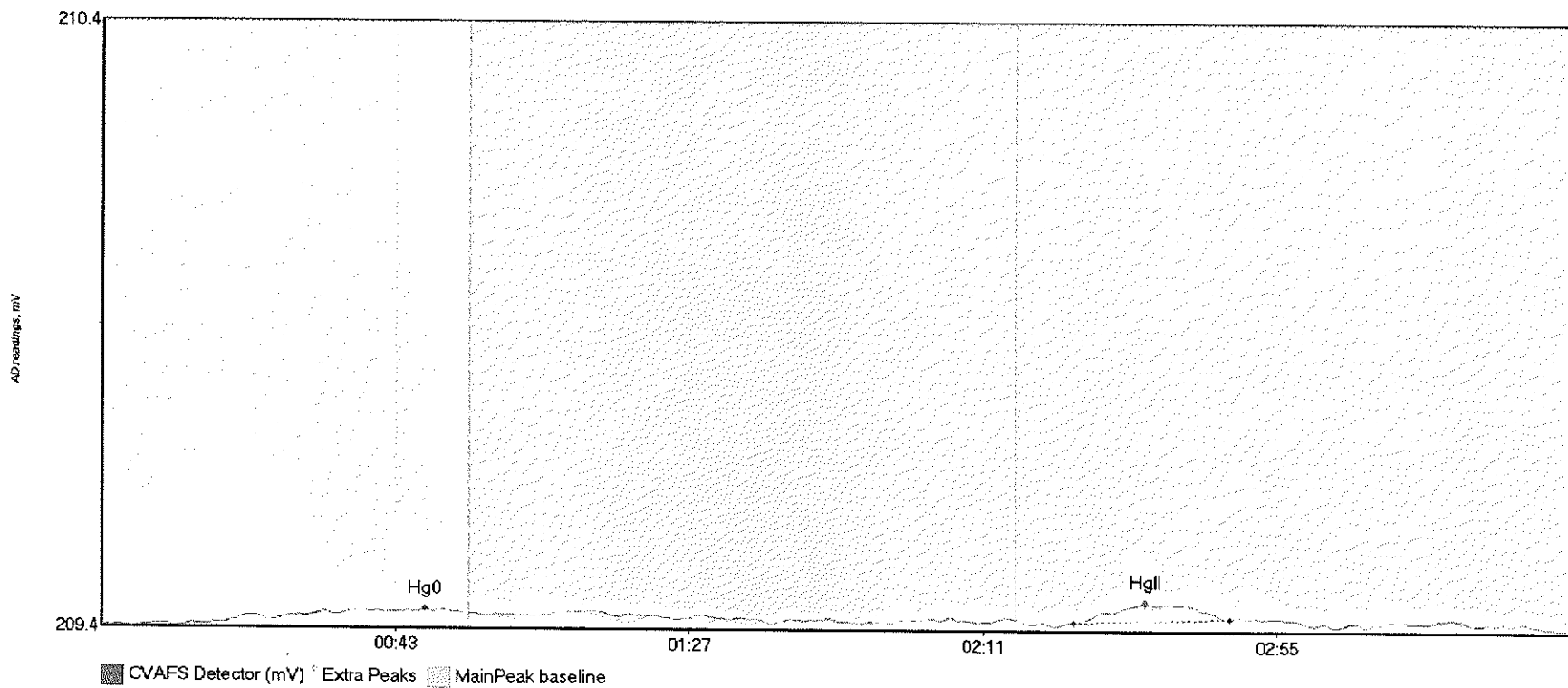
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BLK2 Hg	4.580	12.9	49.3	209.48	209.51	39.1	0.038	OK	209.4892	0.00	0.00	
F708293-BLK2 Hg	7.300	145.5	173.9	209.49	209.49	159.4	0.047	OK	209.4892	0.00	0.00	017

#13: F708293-BLK3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BLK3 Hg	4.985	11.8	52.6	209.46	209.48	44.5	0.038	OK	209.4628	0.00	0.00	
F708293-BLK3 Hg	6.795	140.8	178.9	209.46	209.46	156.5	0.037	OK	209.4628	0.00	0.00	017

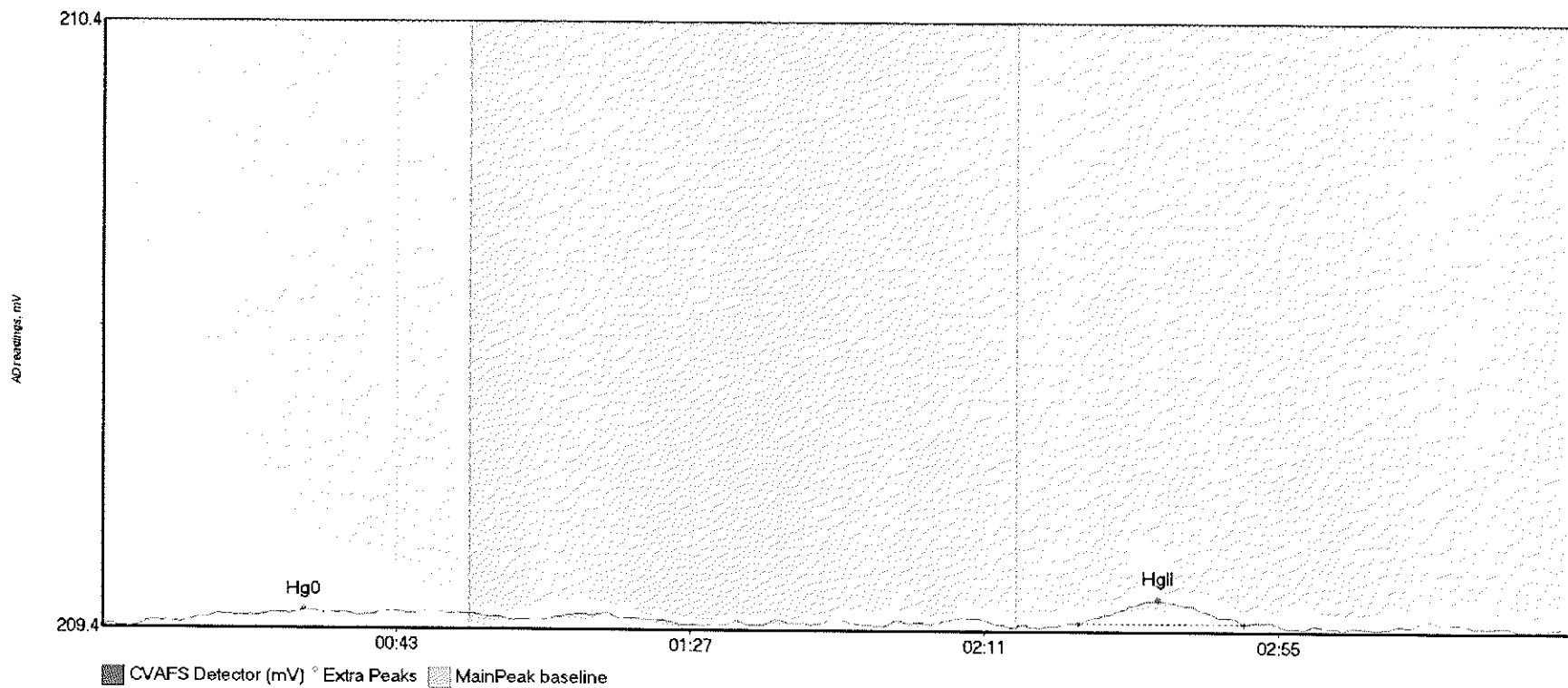
#14: \*F708293-BLK4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F708293-BLK4	H 2.912	15.9	55.0	209.45	209.47	48.4	0.026	CT	209.4437	0.00	0.00	
*F708293-BLK4	H 4.178	145.6	169.0	209.45	209.46	156.3	0.032	OK	209.4437	0.00	0.00	117

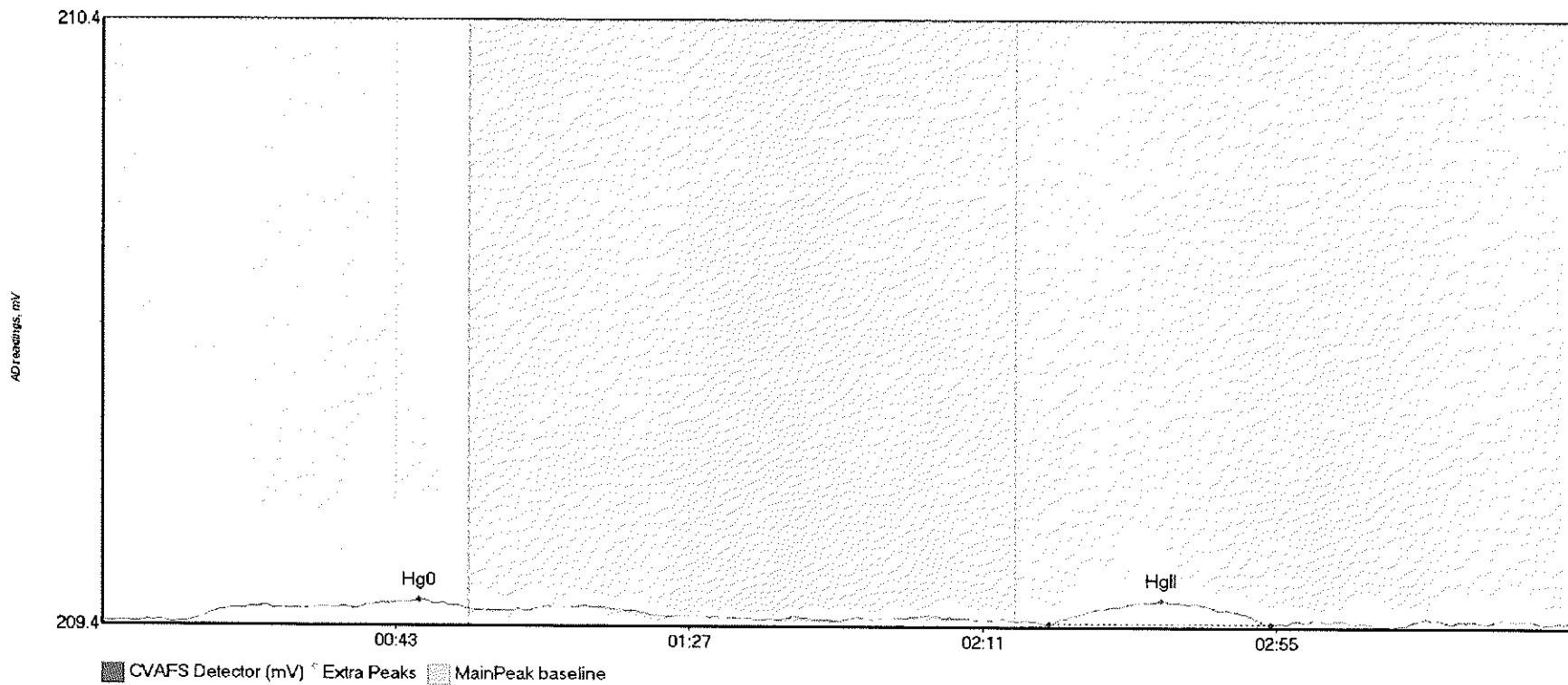


#15: \*F708293-BLK5



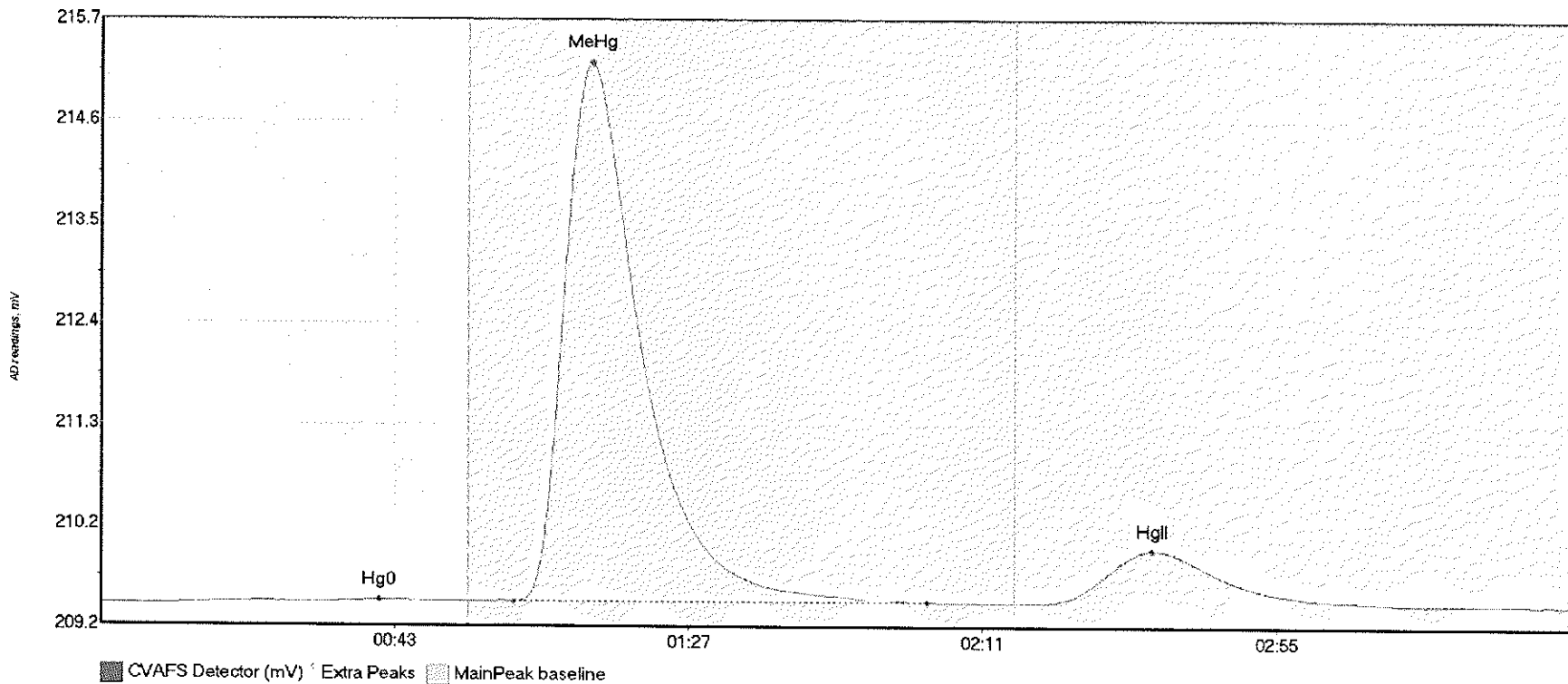
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F708293-BLK5 H	2.739	4.2	38.3	209.43	209.45	30.1	0.028	OK	209.4331	0.00	0.00	
*F708293-BLK5 H	5.331	146.2	170.9	209.44	209.44	158.1	0.039	OK	209.4331	0.00	0.00	017

#16: \*F708293-BLK6



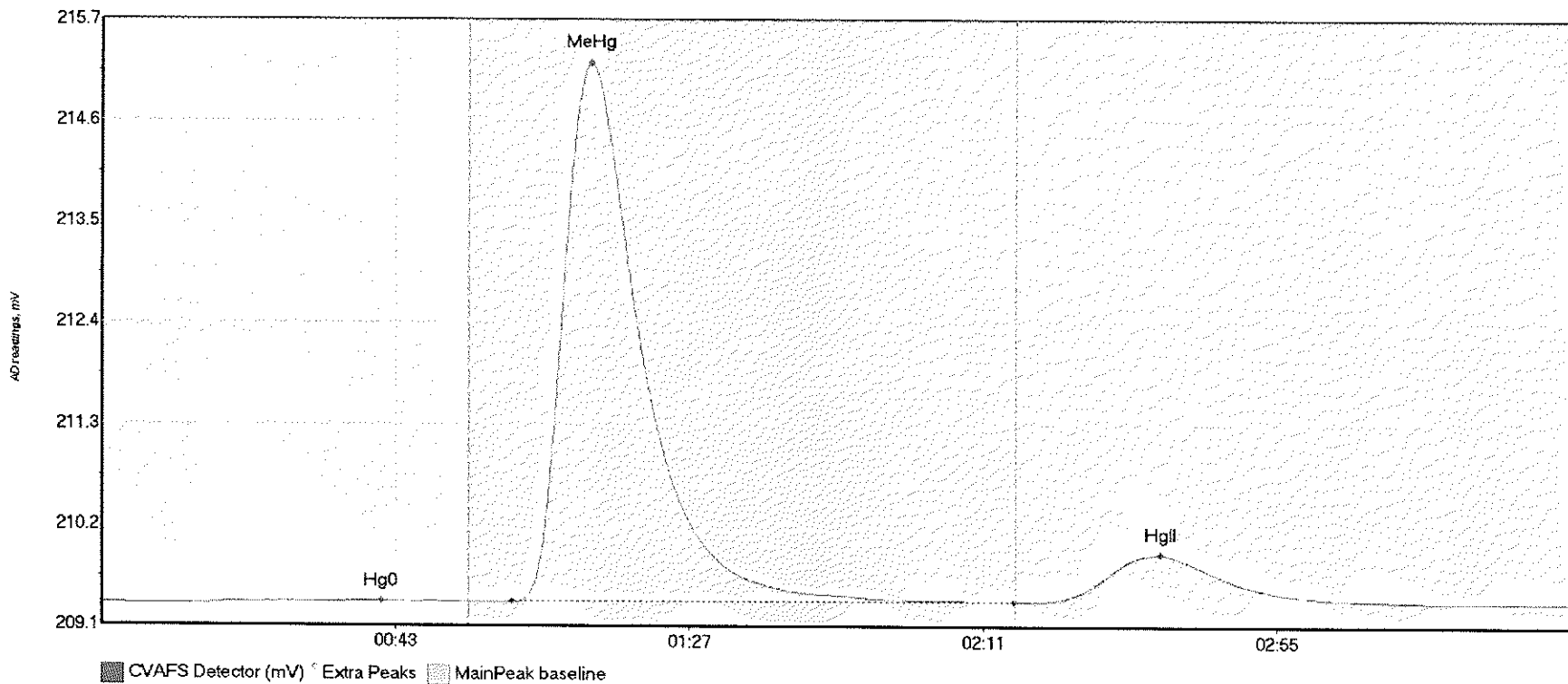
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
*F708293-BLK6 H	5.731	12.1	54.9	209.41	209.43	47.6	0.037	OK	209.4105	0.00	0.00	
*F708293-BLK6 H	7.896	141.9	175.2	209.41	209.41	158.8	0.039	OK	209.4105	0.00	0.00	017

#17: F708293-BS1



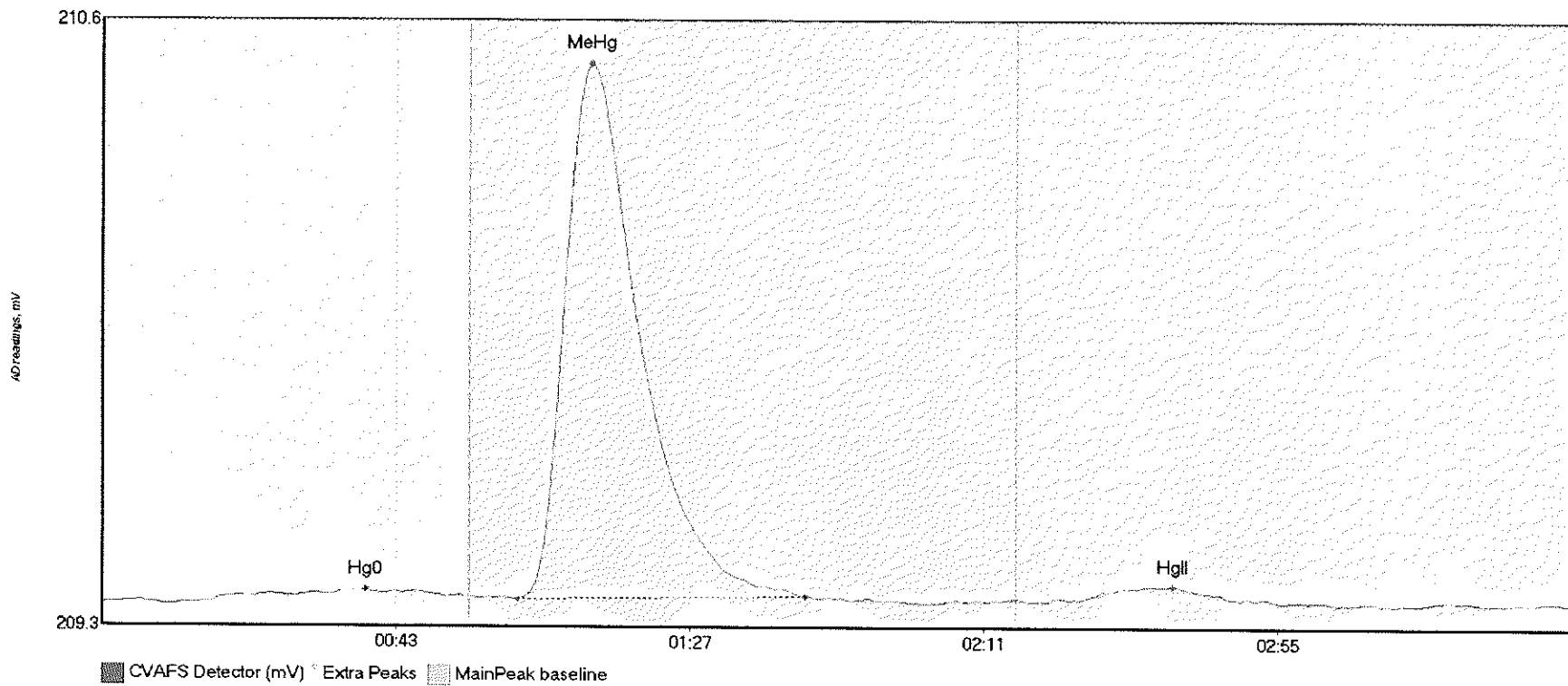
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BS1 Hg0	3.460	14.8	53.3	209.40	209.42	41.7	0.030	OK	209.3972	0.00	0.00	
F708293-BS1 MeH	774.259	61.7	123.8	209.42	209.42	73.4	5.776	OK	209.3972	0.00	0.00	
F708293-BS1 HgI	109.675	139.5	194.0	209.41	209.41	157.5	0.567	OK	209.3972	0.00	0.00	

#18: F708293-BSD1



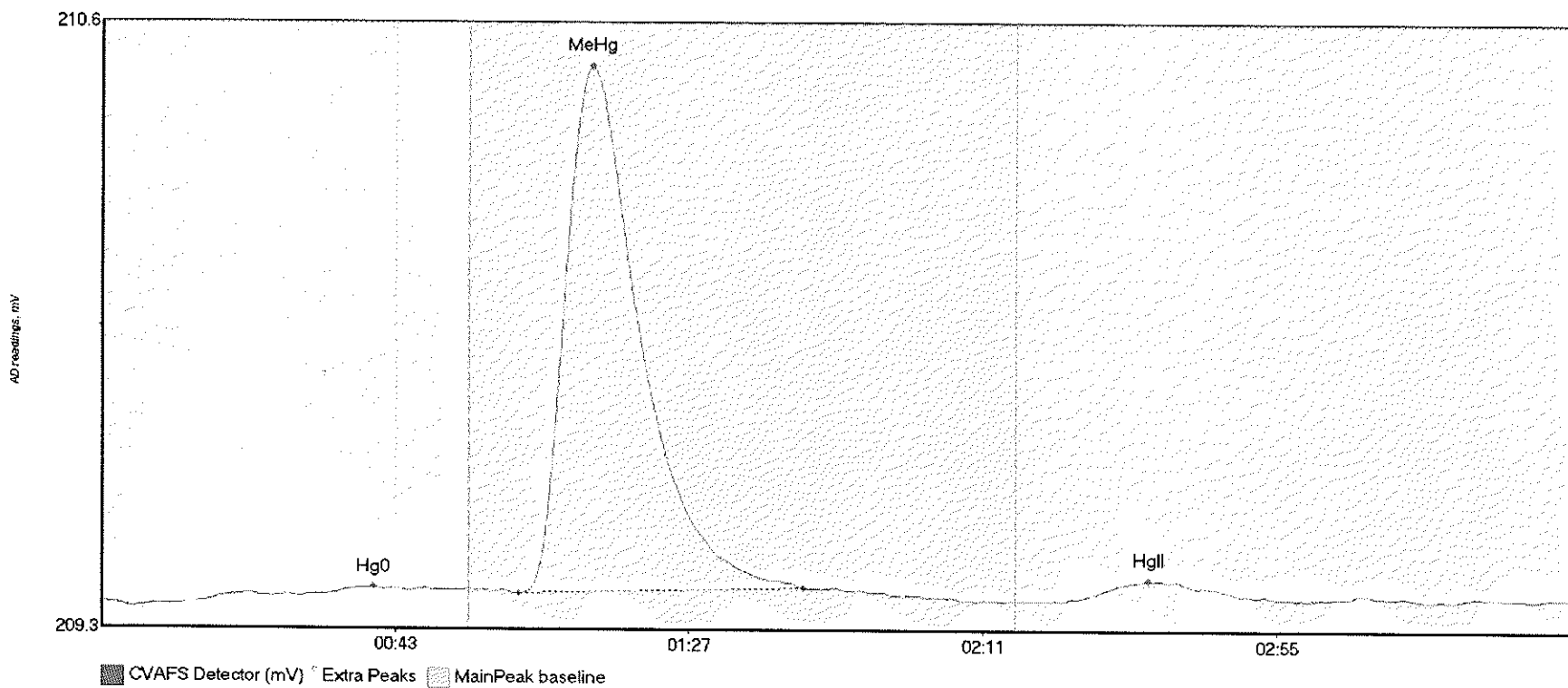
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BSD1 Hg	5.575	13.6	52.0	209.37	209.39	41.9	0.036	OK	209.3793	0.00	0.01	
F708293-BSD1 Me	785.514	61.4	136.6	209.39	209.40	73.3	5.798	OK	209.3793	0.00	0.01	
F708293-BSD1 Hg	99.129	139.9	193.8	209.40	209.40	158.6	0.510	OK	209.3793	0.00	0.01	

#19: 1708077-01



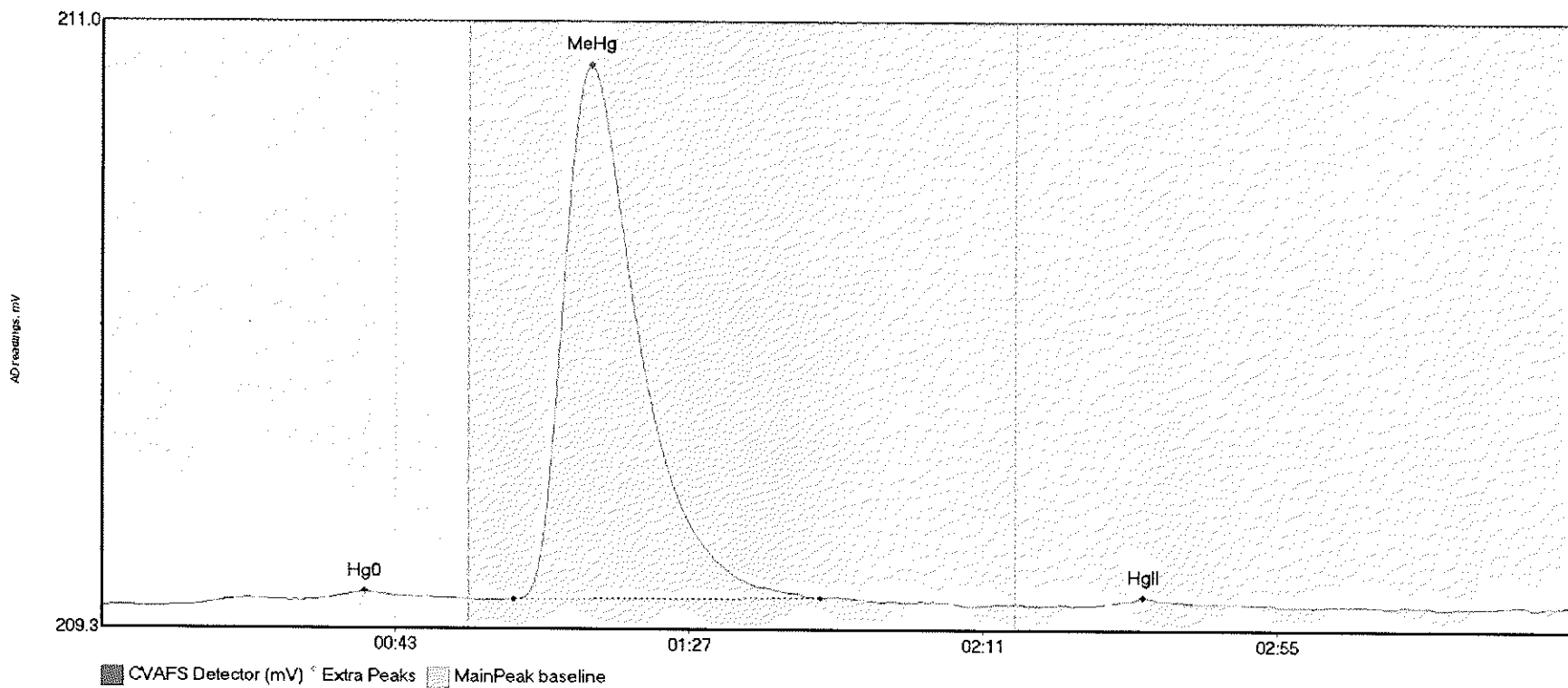
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-01 Hg0	4.325	16.1	55.0	209.37	209.38	39.4	0.025	CT	209.3644	0.00	0.00	
1708077-01 MeHg	146.576	62.1	105.3	209.37	209.38	73.2	1.129	OK	209.3644	0.00	0.00	
1708077-01 HgII	3.914	146.4	168.9	209.37	209.38	160.3	0.029	OK	209.3644	0.00	0.00	

#20: 1708077-02



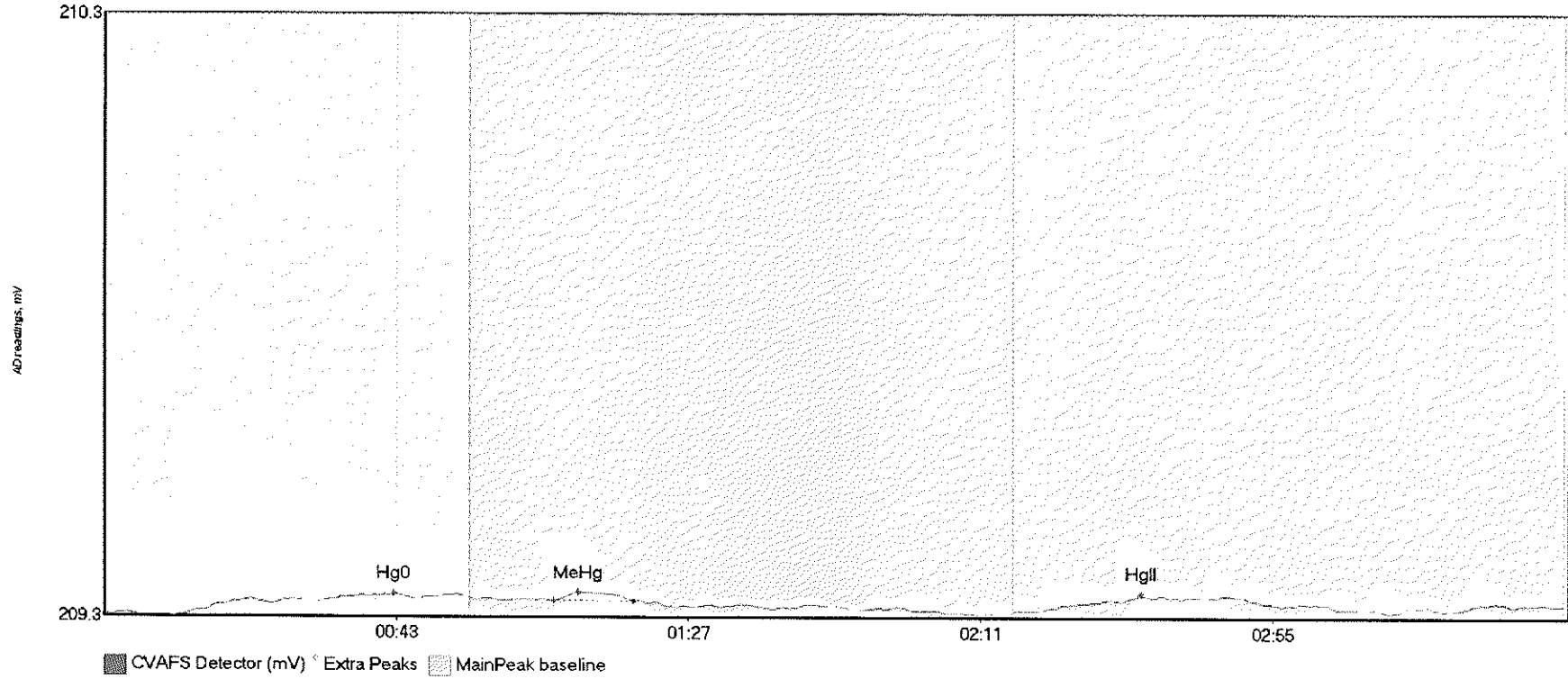
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-02 Hg0	1.756	16.1	46.0	209.35	209.37	40.7	0.028	OK	209.3453	0.00	0.01	
1708077-02 MeHg	145.314	62.5	105.0	209.37	209.38	73.4	1.121	OK	209.3453	0.00	0.01	
1708077-02 HgII	6.282	146.0	176.0	209.36	209.36	156.8	0.040	OK	209.3453	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	4.474	14.2	53.8	209.34	209.35	39.4	0.038	OK	209.3329	0.00	0.01	
SEQ-CCV1 MeHg	197.013	61.7	107.6	209.35	209.36	73.3	1.502	OK	209.3329	0.00	0.01	
SEQ-CCV1 HgII	1.131	150.6	164.3	209.34	209.35	156.0	0.018	OK	209.3329	0.00	0.01	

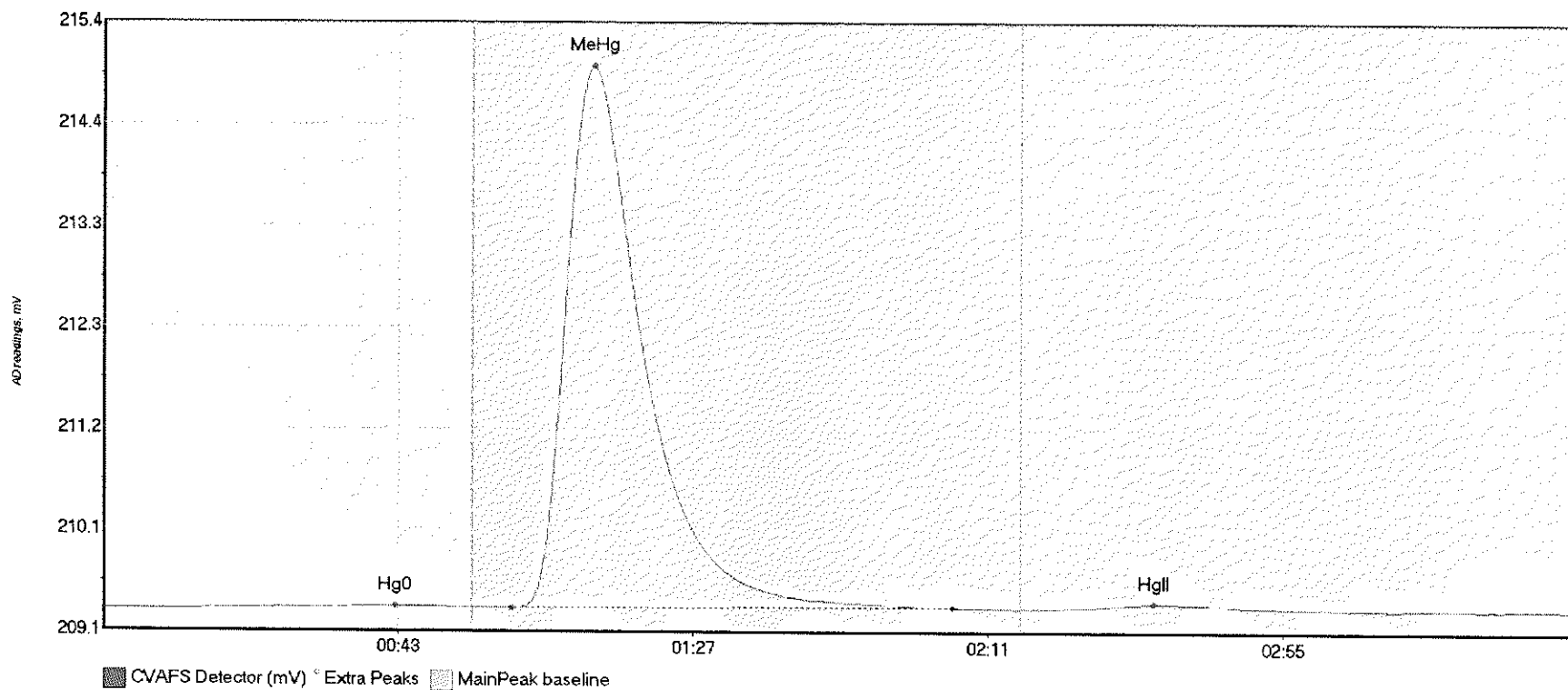
#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	3.430	11.9	46.9	209.32	209.34	43.6	0.034	OK	209.3175	0.00	0.02	
SEQ-CCB1 MeHg	1.101	67.7	79.7	209.34	209.34	71.5	0.014	OK	209.3175	0.00	0.02	
SEQ-CCB1 HgII	5.623	143.2	185.9	209.33	209.33	156.2	0.021	OK	209.3175	0.00	0.02	

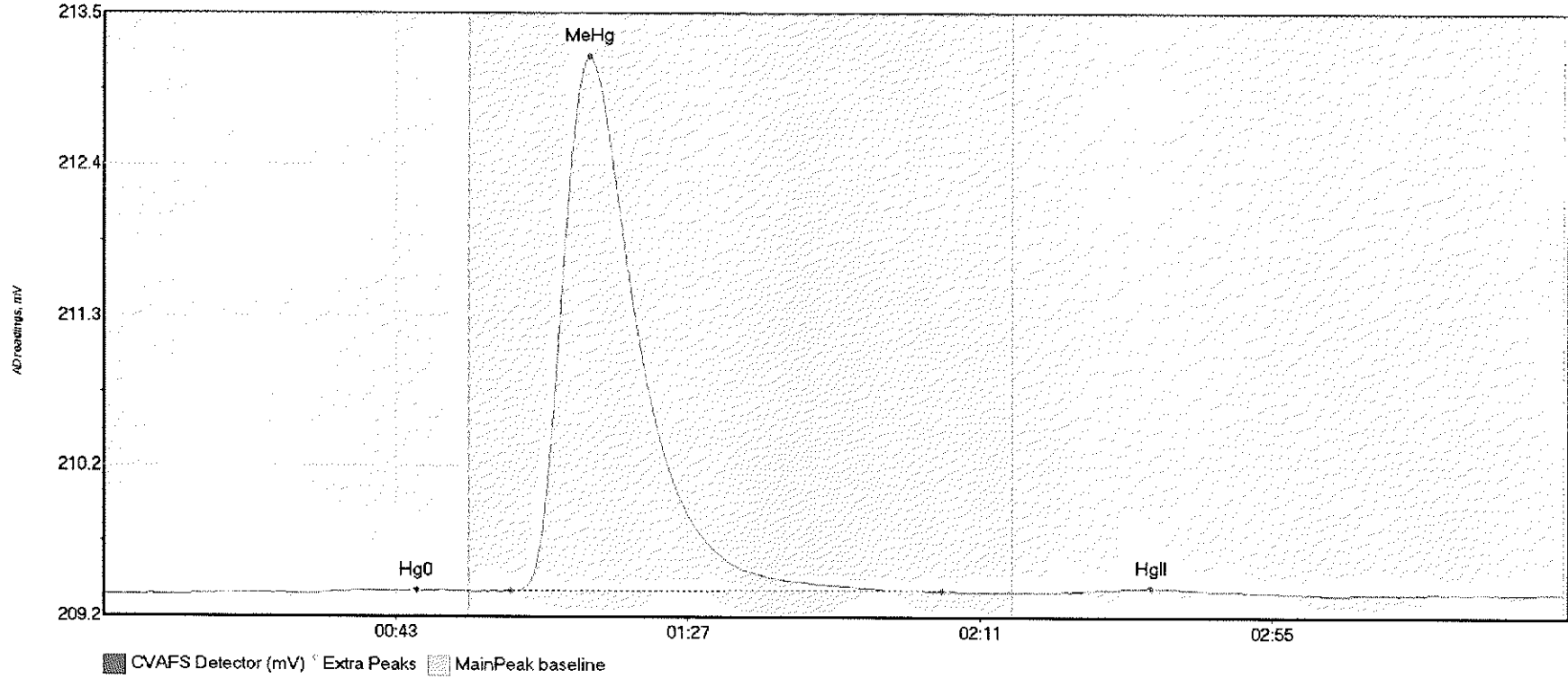


#23: 1708077-03



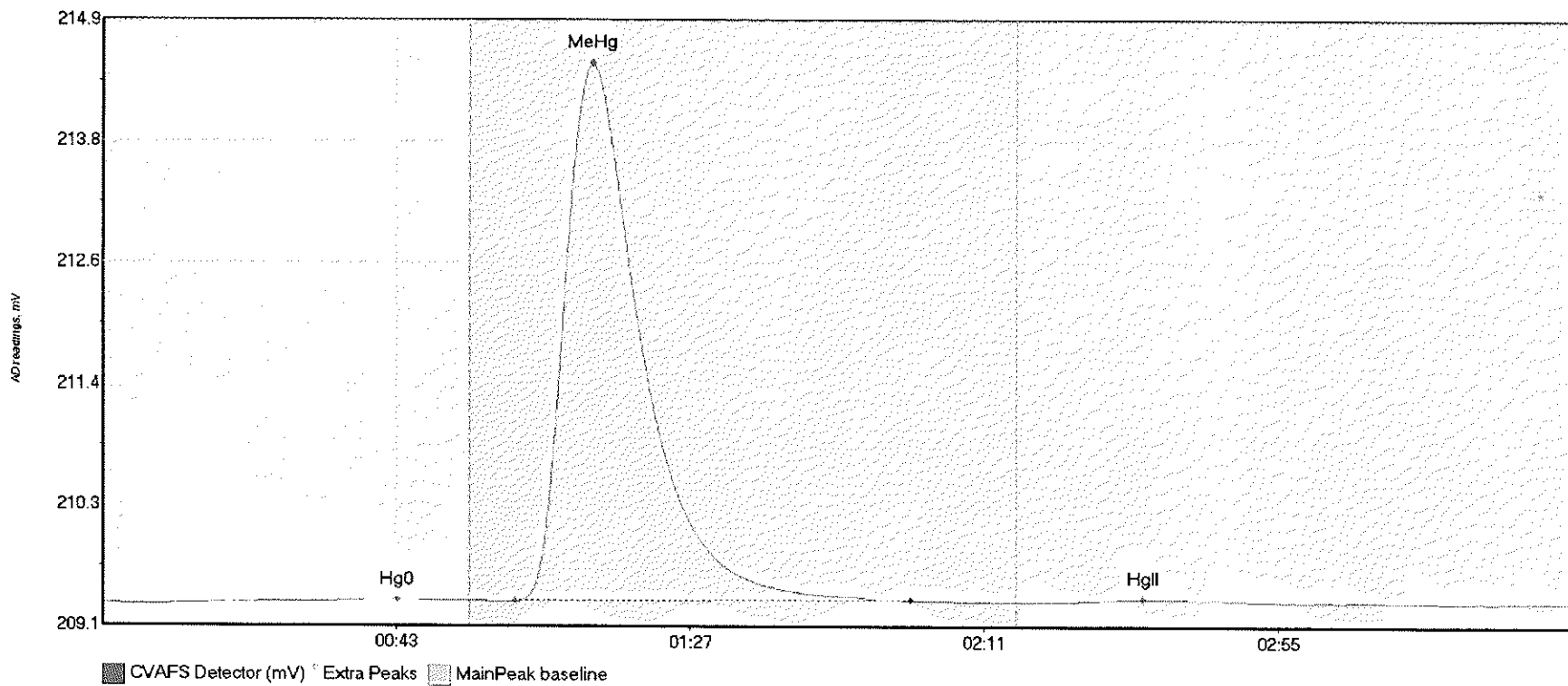
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-03 Hg0	3.932	13.7	54.4	209.32	209.34	43.6	0.032	OK	209.3228	0.00	0.00	
1708077-03 MeHg	756.371	60.8	126.8	209.34	209.35	73.1	5.634	OK	209.3228	0.00	0.00	
1708077-03 HgII	8.906	142.6	176.0	209.34	209.34	156.8	0.054	OK	209.3228	0.00	0.00	

#24: 1708077-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-04 Hg0	2.691	12.4	55.0	209.31	209.33	47.1	0.031	CT	209.3053	0.00	0.01	
1708077-04 MeHg	510.834	61.3	126.1	209.33	209.34	73.2	3.812	OK	209.3053	0.00	0.01	
1708077-04 HgII	4.565	145.5	172.5	209.33	209.33	157.8	0.030	OK	209.3053	0.00	0.01	

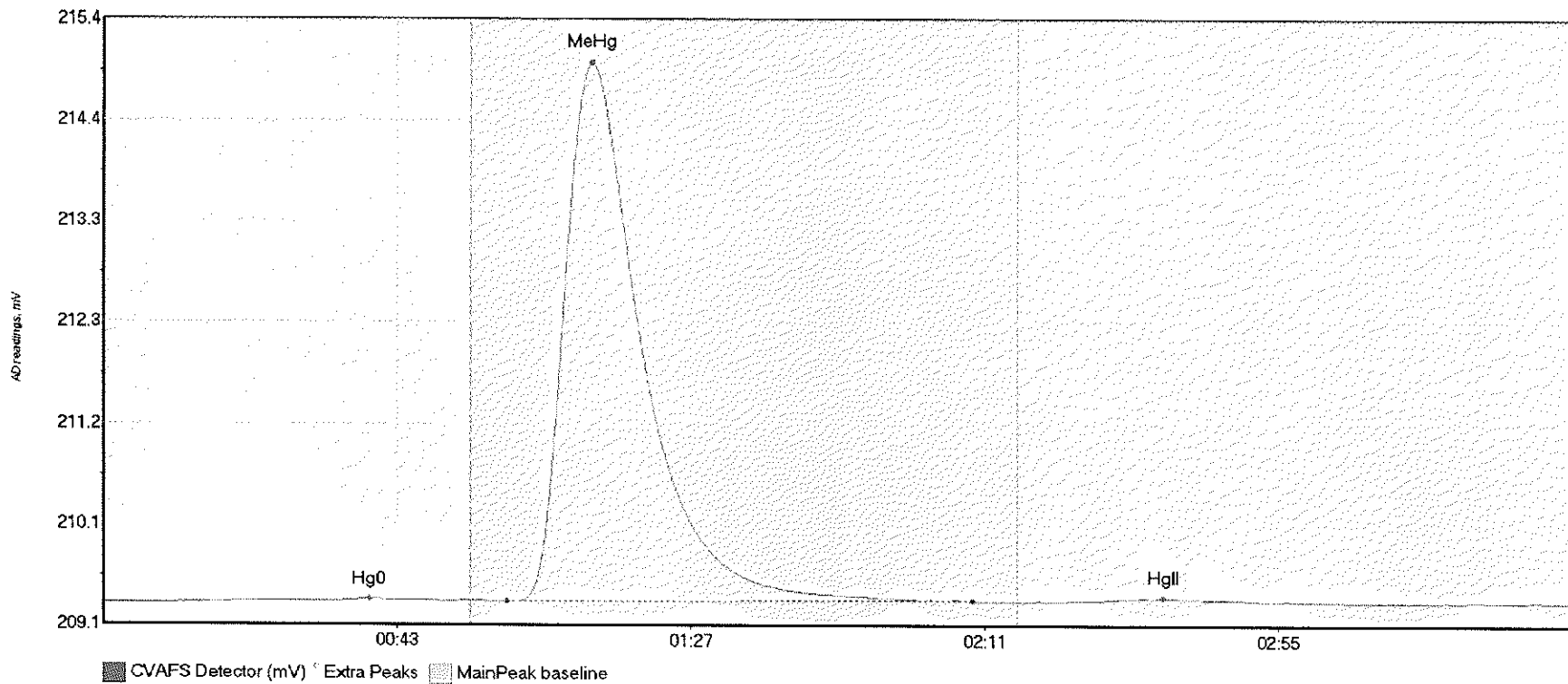
#25: 1708077-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-05 Hg0	3.501	14.9	54.2	209.32	209.34	44.1	0.034	OK	209.3132	0.00	0.01	
1708077-05 MeHg	692.396	61.7	121.0	209.33	209.34	73.3	5.183	OK	209.3132	0.00	0.01	
1708077-05 HgII	4.146	147.0	173.1	209.34	209.33	155.7	0.026	OK	209.3132	0.00	0.01	

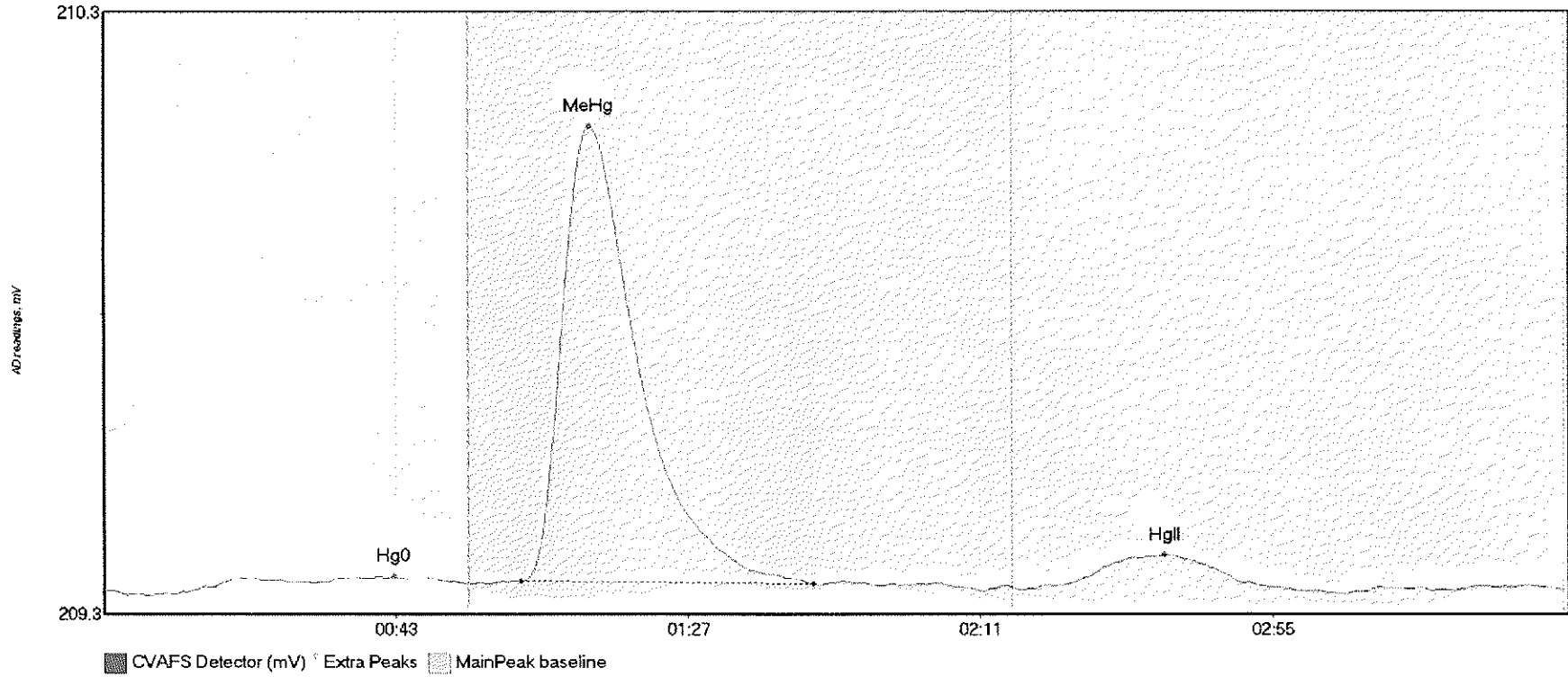
017

#26: 1708077-06



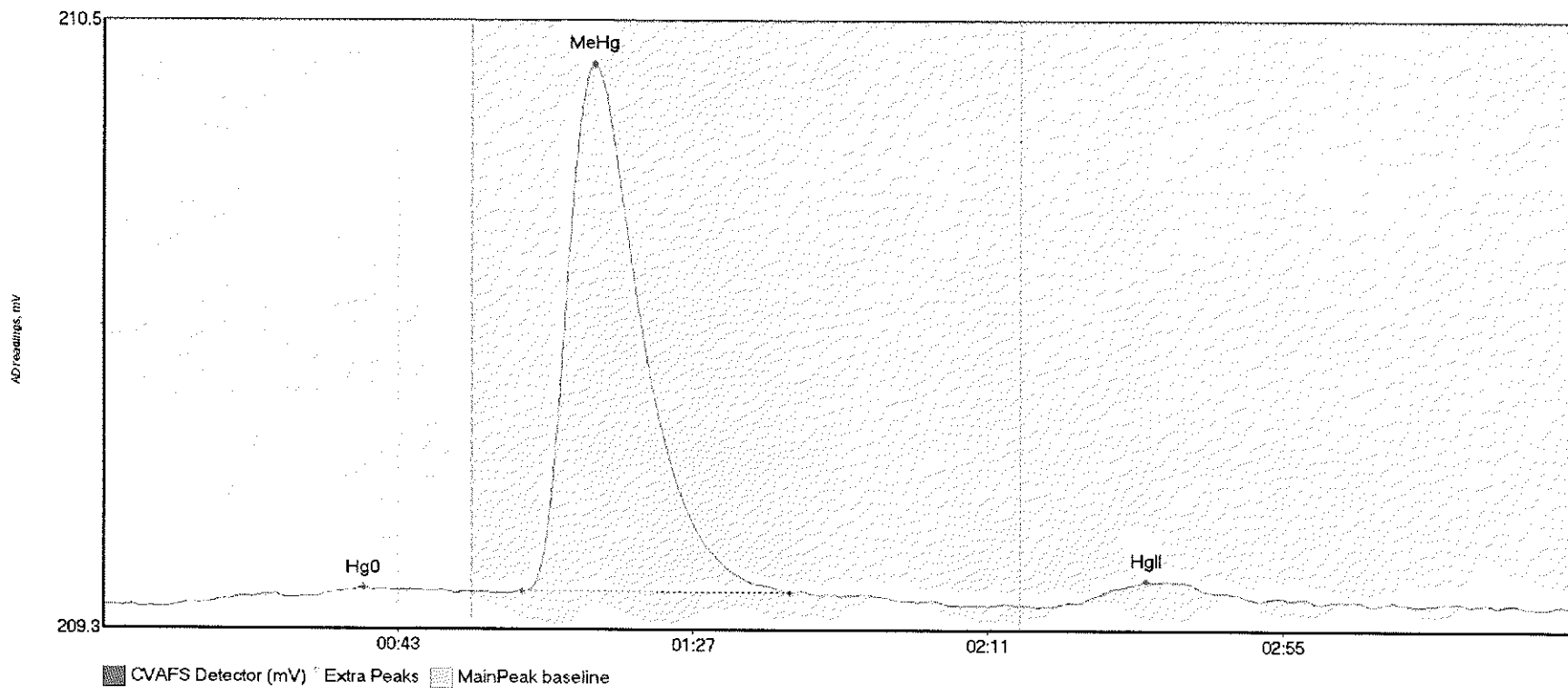
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-06 Hg0	3.950	14.7	52.0	209.31	209.33	39.9	0.035	OK	209.3093	0.00	0.01	
1708077-06 MeHg	764.424	60.5	130.2	209.32	209.33	73.2	5.663	OK	209.3093	0.00	0.01	
1708077-06 HgII	6.121	144.0	173.8	209.33	209.33	158.7	0.037	OK	209.3093	0.00	0.01	

#27: 1708077-07



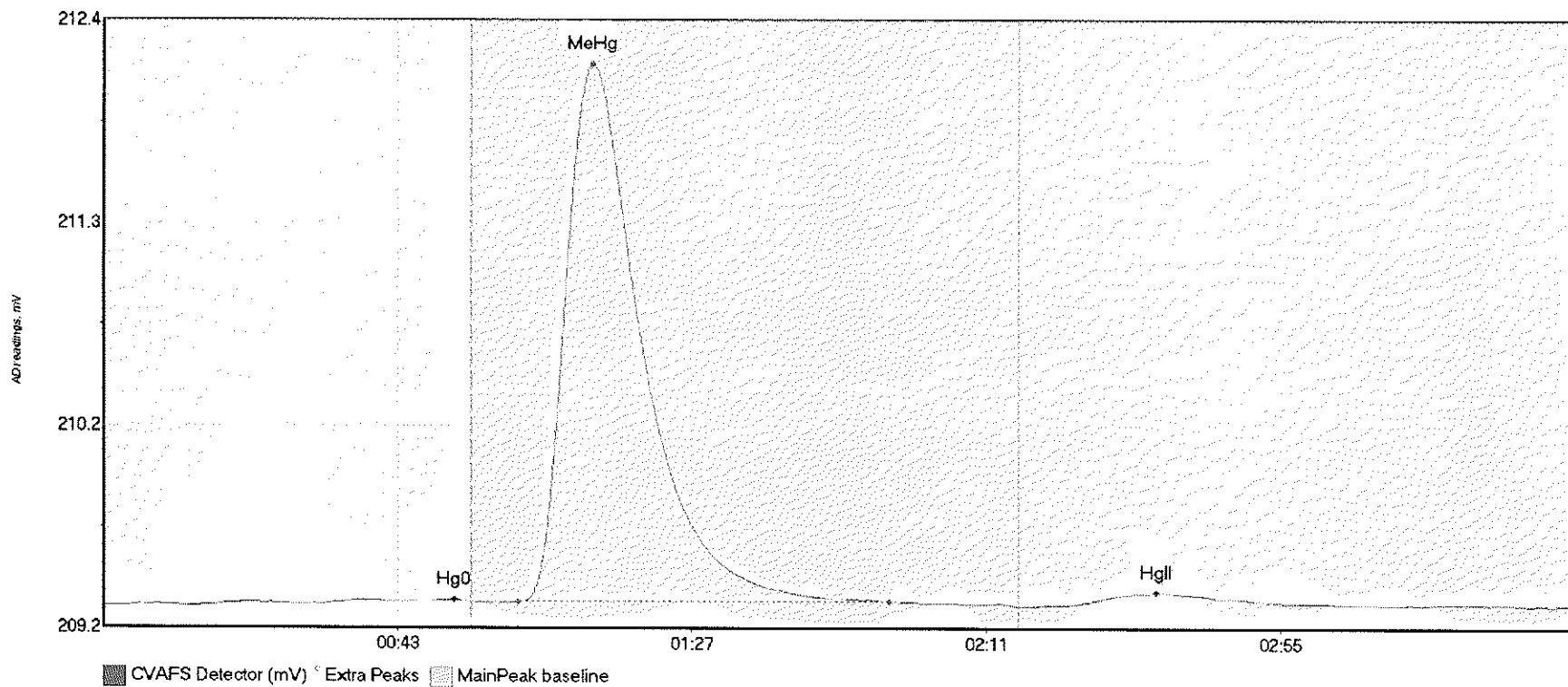
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-07 Hg0	4.126	13.9	54.4	209.31	209.32	43.7	0.020	OK	209.3099	0.00	0.00	
1708077-07 MeHg	100.121	62.8	106.9	209.32	209.32	73.2	0.755	OK	209.3099	0.00	0.00	
1708077-07 HgII	8.749	143.0	174.2	209.32	209.32	159.8	0.050	OK	209.3099	0.00	0.00	

#28: 1708077-08



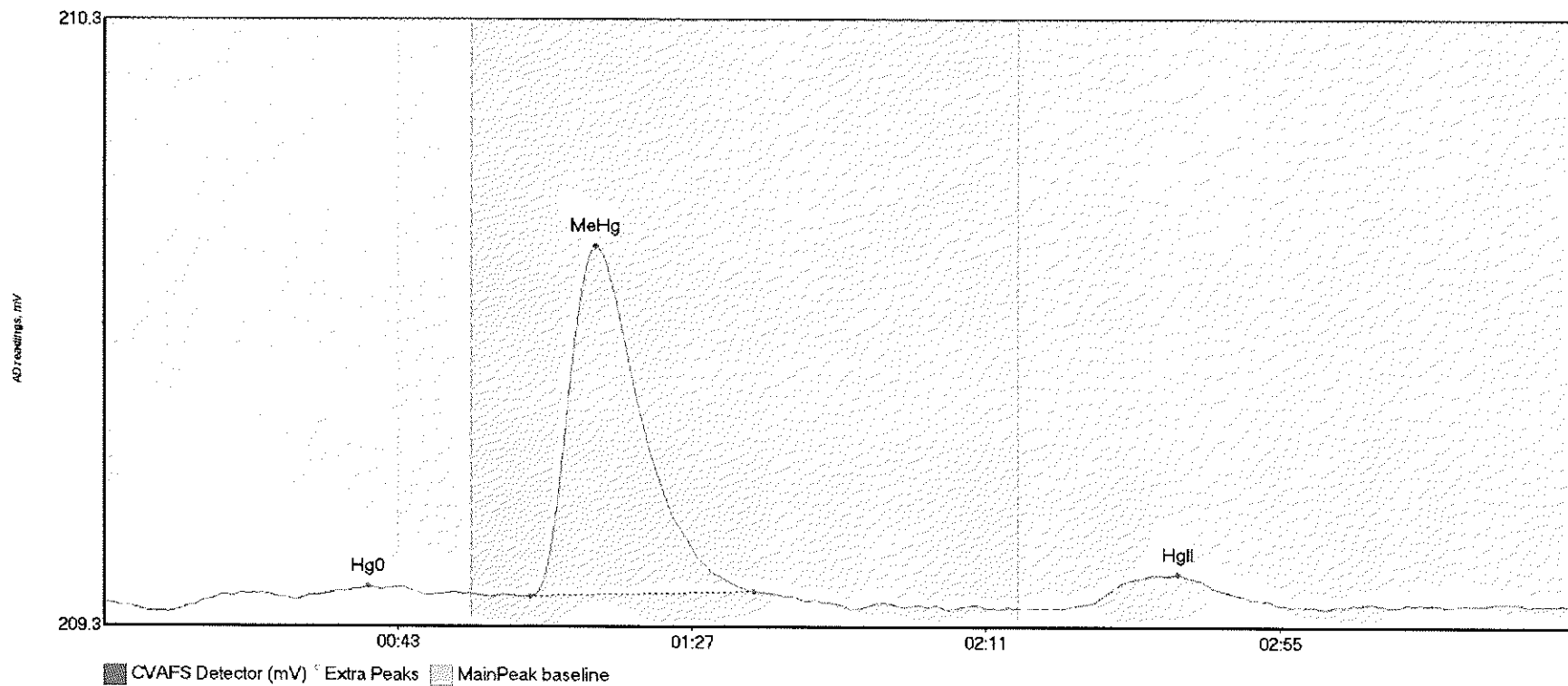
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708077-08 Hg0	3.005	15.2	52.5	209.31	209.33	38.9	0.031	OK	209.3025	0.00	0.00	
1708077-08 MeHg	134.866	62.5	102.4	209.33	209.33	73.3	1.046	OK	209.3025	0.00	0.00	
1708077-08 HgII	8.052	145.6	181.2	209.31	209.31	155.6	0.043	OK	209.3025	0.00	0.00	

#29: 1708078-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708078-01 Hg0	2.593	14.9	55.0	209.29	209.31	52.5	0.029	CT	209.2900	0.00	0.01	
1708078-01 MeHg	374.048	62.0	117.5	209.31	209.31	73.2	2.815	OK	209.2900	0.00	0.01	
1708078-01 HgII	14.536	143.4	192.0	209.29	209.29	157.5	0.070	OK	209.2900	0.00	0.01	

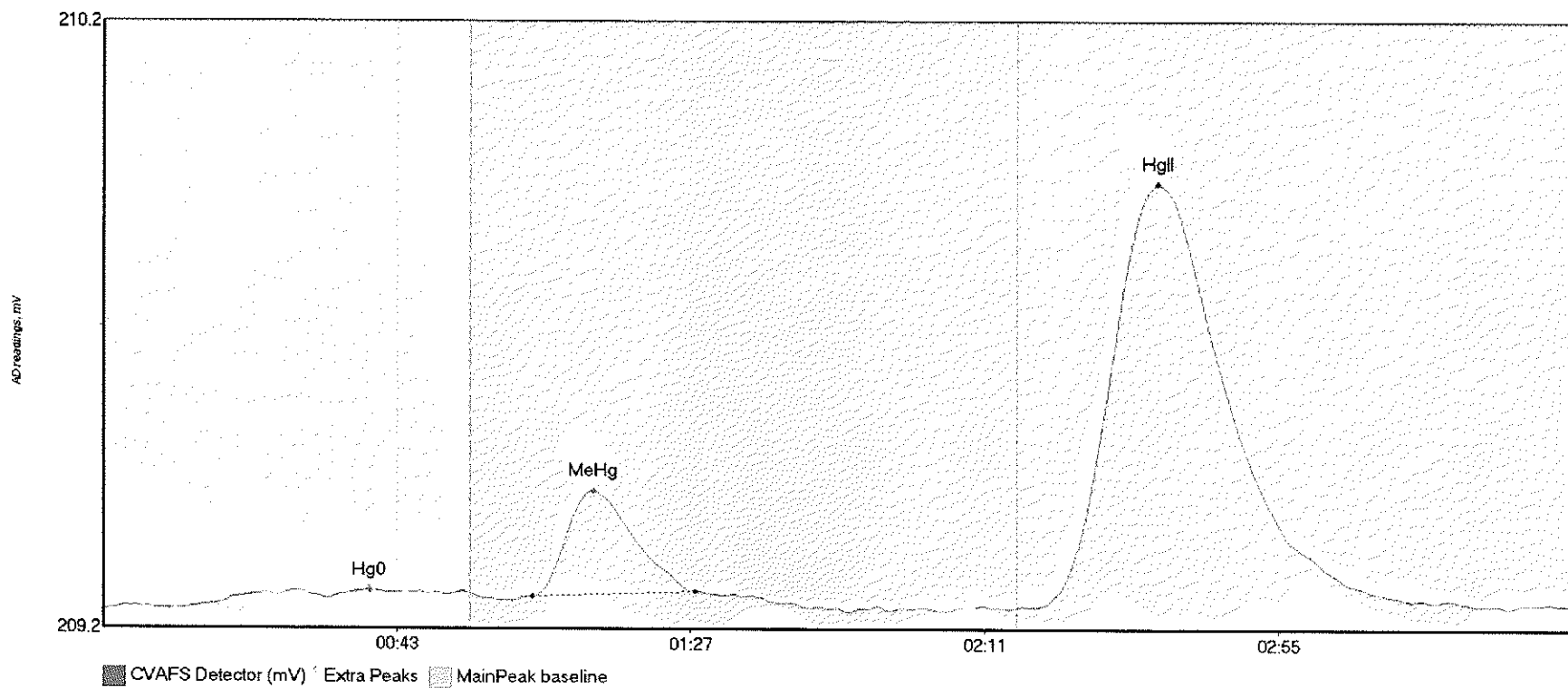
#30: 1708078-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708078-02 Hg0	4.150	13.0	48.6	209.29	209.30	39.6	0.032	OK	209.2906	0.00	0.00	
1708078-02 MeRg	71.558	63.7	97.3	209.30	209.31	73.6	0.578	OK	209.2906	0.00	0.00	
1708078-02 HgII	9.563	143.7	177.8	209.28	209.28	160.8	0.055	OK	209.2906	0.00	0.00	

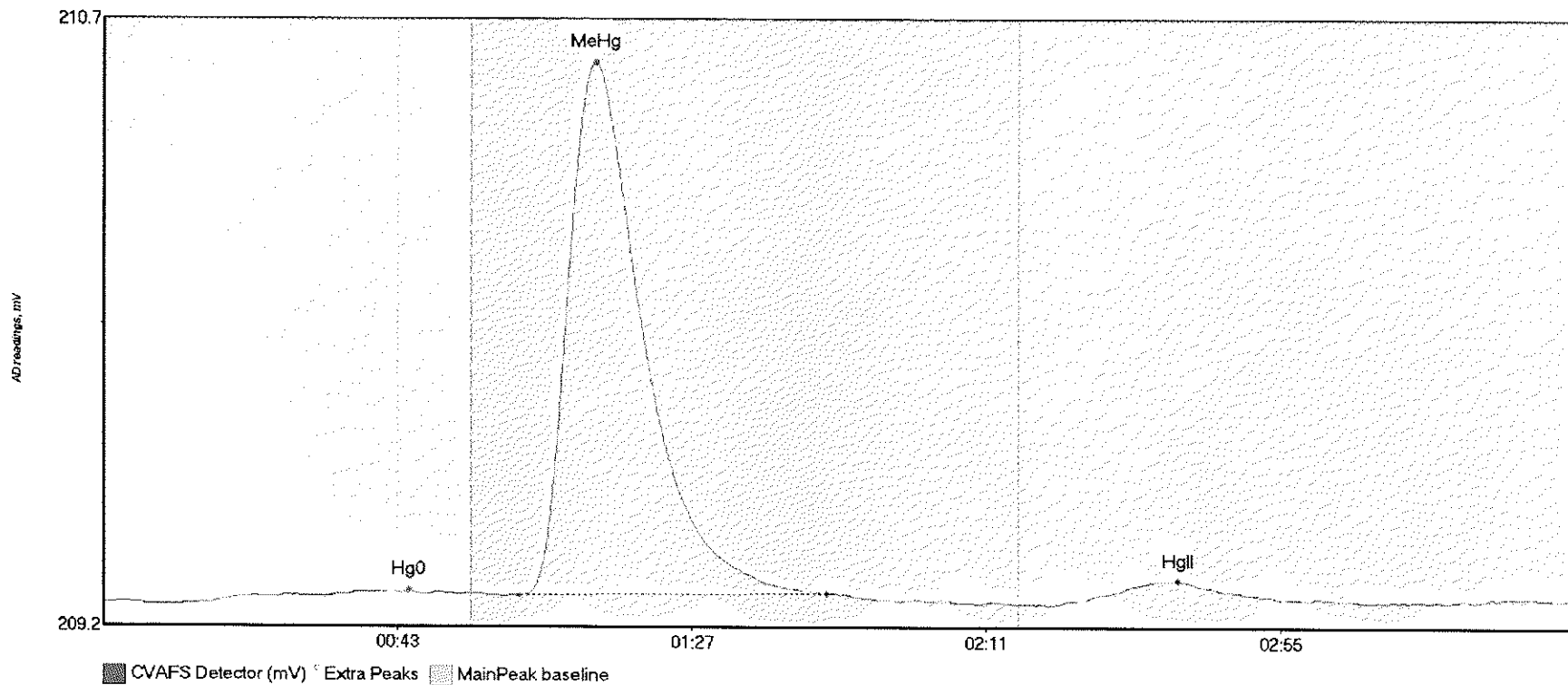


#31: 1708084-01



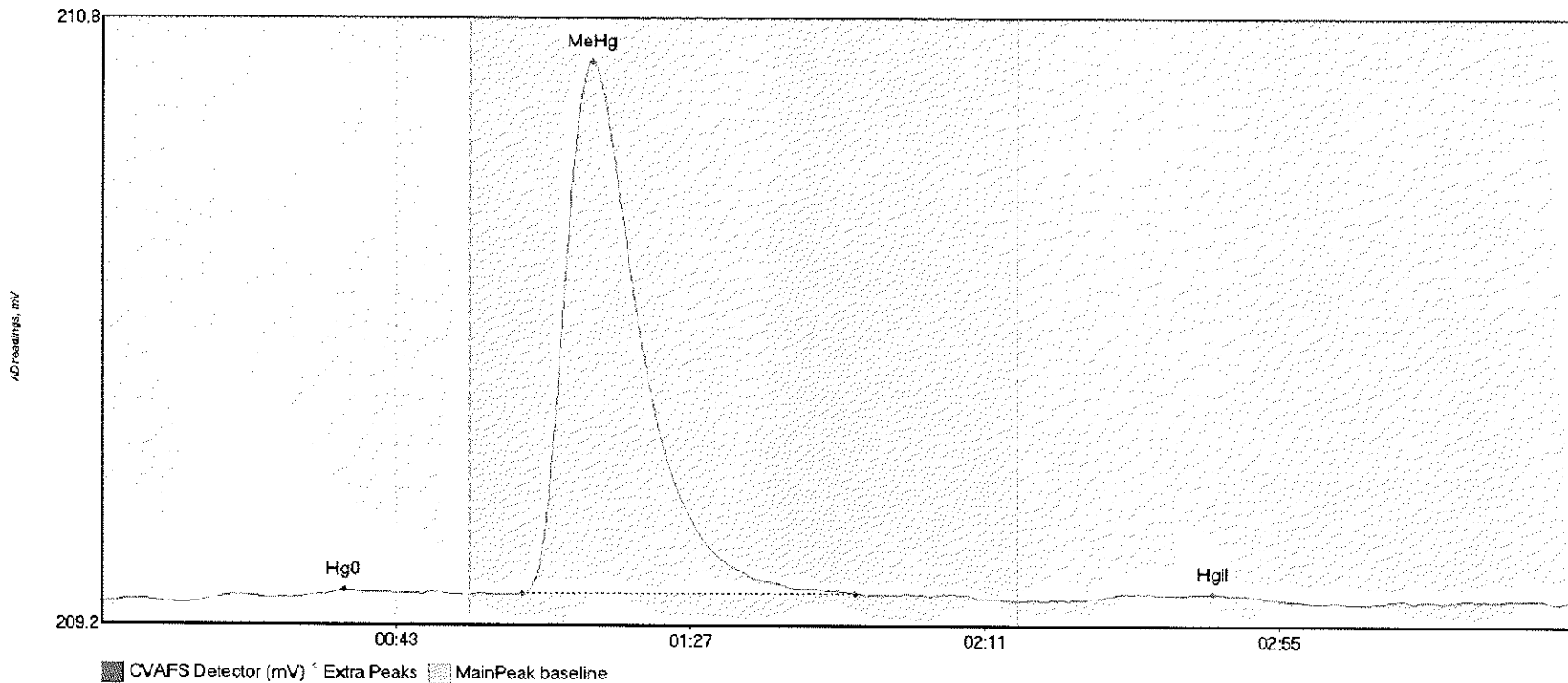
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1708084-01 Hg0	4.016	12.0	51.2	209.28	209.30	39.9	0.032	OK	209.2748	0.00	0.01	
1708084-01 MeHg	19.757	64.3	88.7	209.30	209.30	73.4	0.174	OK	209.2748	0.00	0.01	
1708084-01 HgII	139.647	139.8	205.5	209.28	209.28	157.9	0.698	OK	209.2748	0.00	0.01	

#32: F708293-DUP1



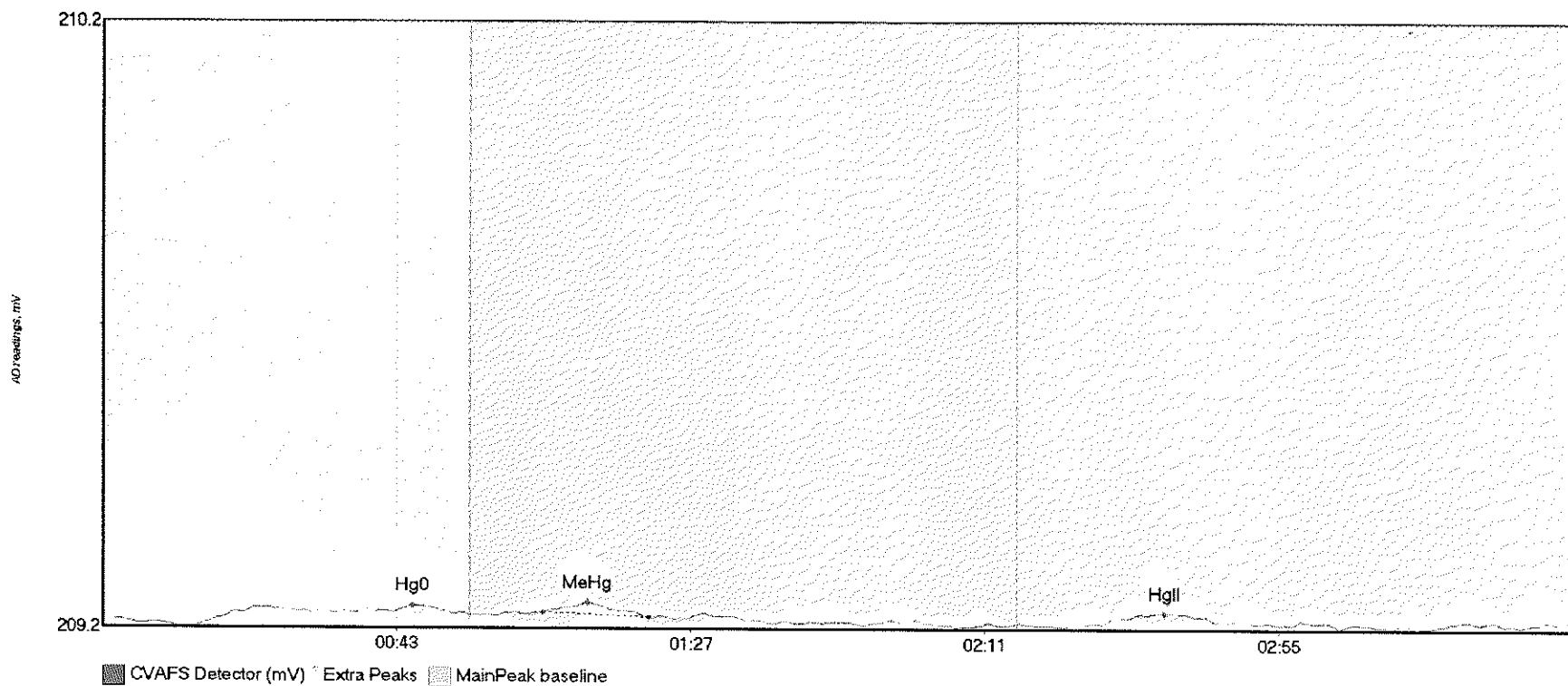
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
F708293-DUP1 Hg	2.813	15.9	48.2	209.27	209.29	45.7	0.029	OK	209.2694	0.00	0.01	
F708293-DUP1 Me	172.166	62.2	108.2	209.29	209.29	73.6	1.322	OK	209.2694	0.00	0.01	
F708293-DUP1 Hg	11.766	141.8	188.4	209.26	209.27	160.8	0.062	OK	209.2694	0.00	0.01	

#33: SEQ-CCV2



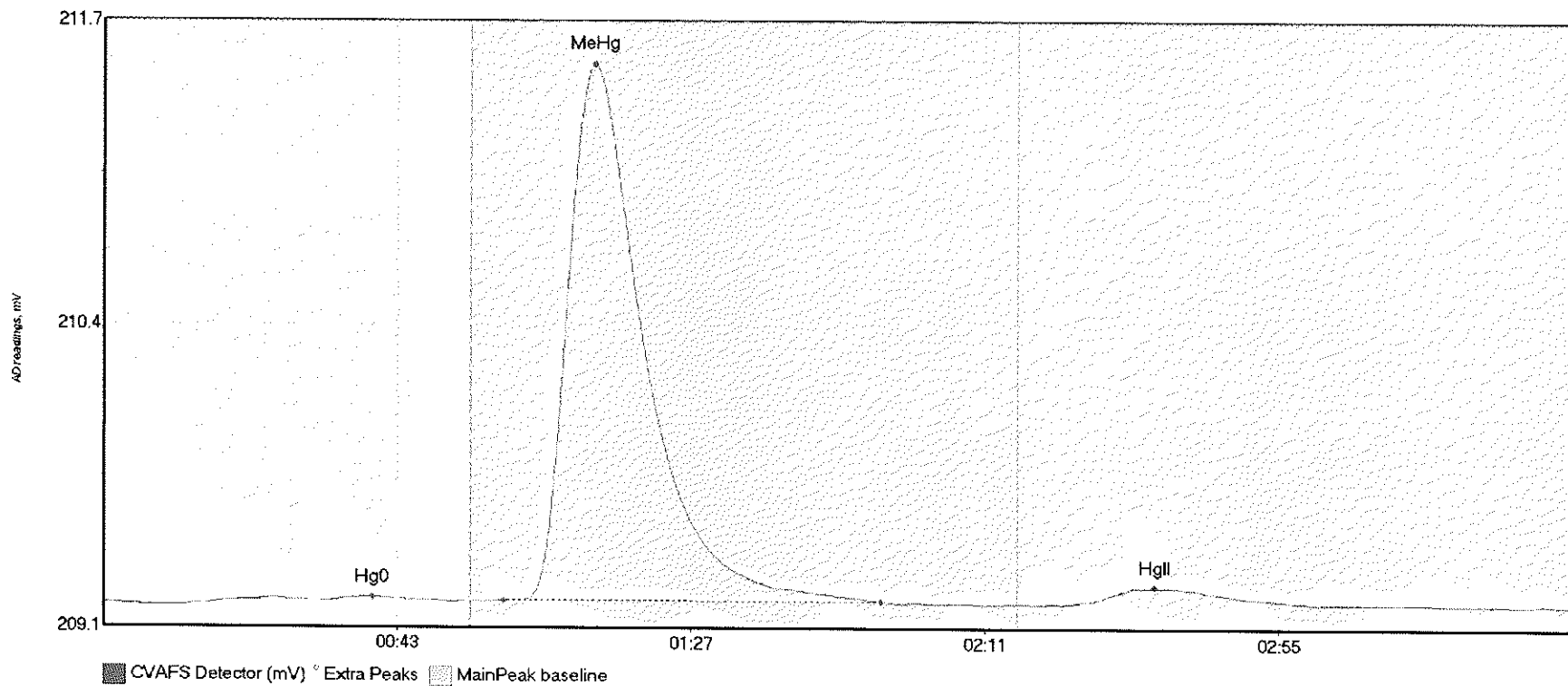
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	4.359	13.6	54.3	209.26	209.28	36.1	0.032	OK	209.2604	0.00	0.00	
SEQ-CCV2 MeHg	189.248	62.8	112.8	209.28	209.28	73.3	1.436	OK	209.2604	0.00	0.00	
SEQ-CCV2 HgII	3.515	146.2	175.9	209.27	209.27	166.2	0.019	OK	209.2604	0.00	0.00	

#34: SEQ-CCB2



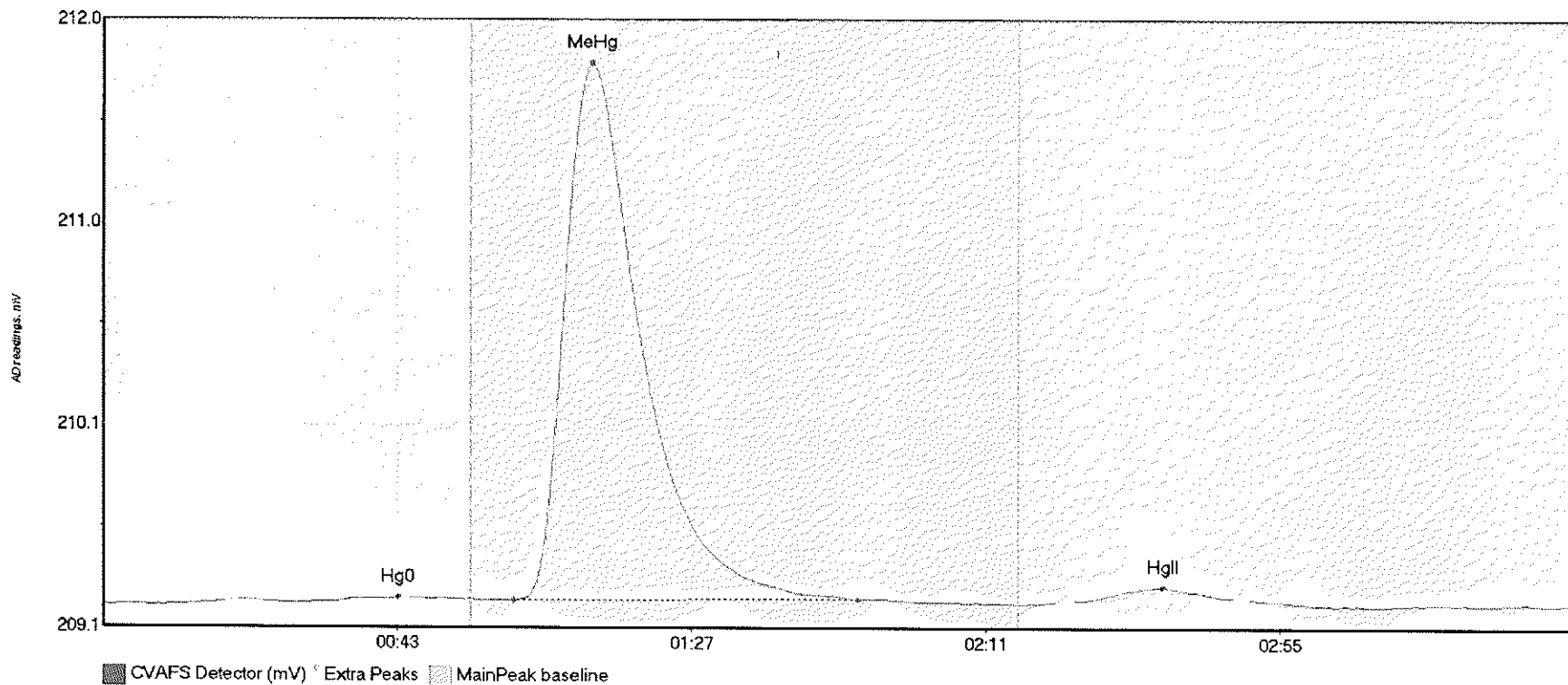
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	3.511	17.7	55.0	209.25	209.26	46.5	0.021	CT	209.2459	0.00	0.00	
SEQ-CCB2 MeHg	1.667	65.8	81.8	209.26	209.25	72.6	0.017	OK	209.2459	0.00	0.00	
SEQ-CCB2 HgII	1.893	149.6	166.9	209.24	209.25	158.9	0.019	OK	209.2459	0.00	0.00	

#35: F708293-MS1



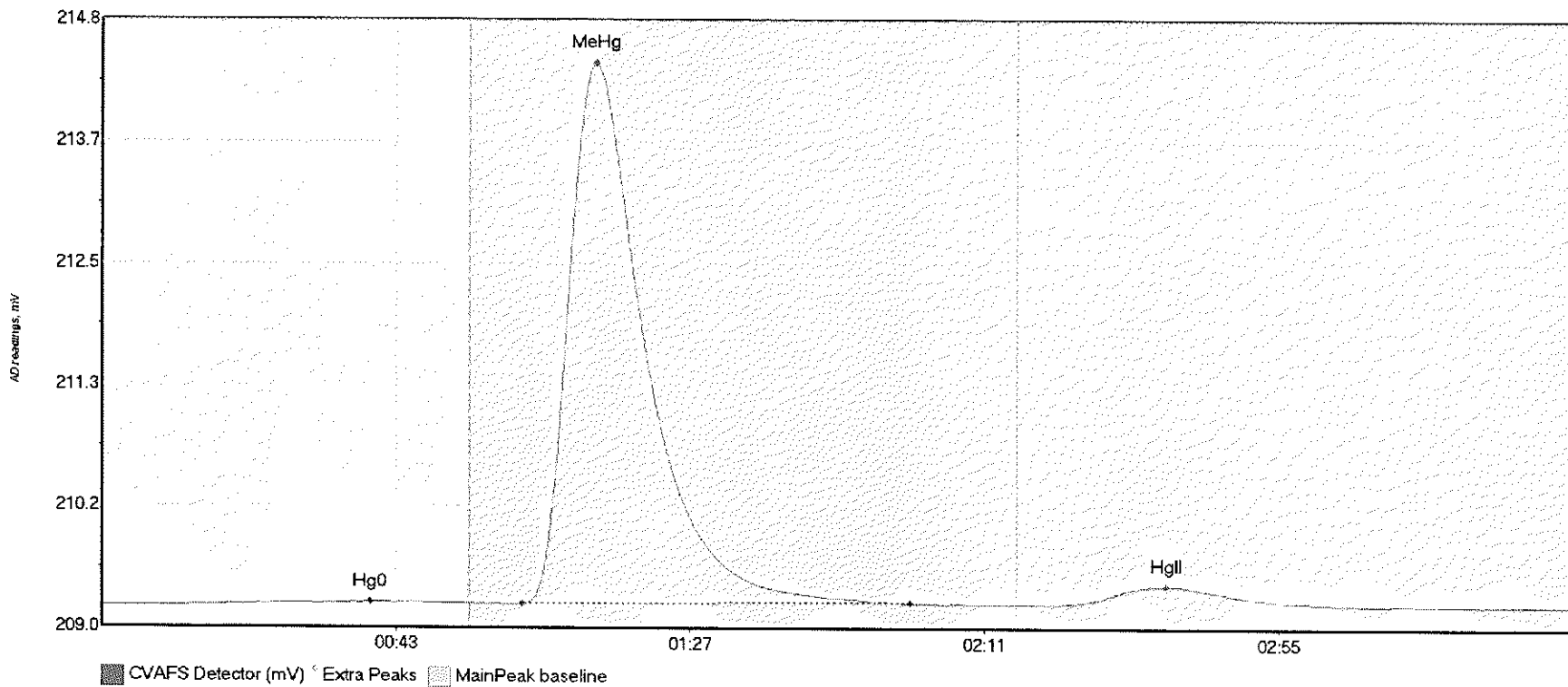
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	
F708293-MS1	Hg0	4.805	15.3	52.1	209.24	209.25	40.3	0.029	OK	209.2400	0.00	-0.01	
F708293-MS1	MeH	300.930	59.9	116.4	209.25	209.25	73.6	2.263	OK	209.2400	0.00	-0.01	
F708293-MS1	HgI	13.092	144.0	180.5	209.24	209.24	157.5	0.073	OK	209.2400	0.00	-0.01	

#36: F708293-MSD1



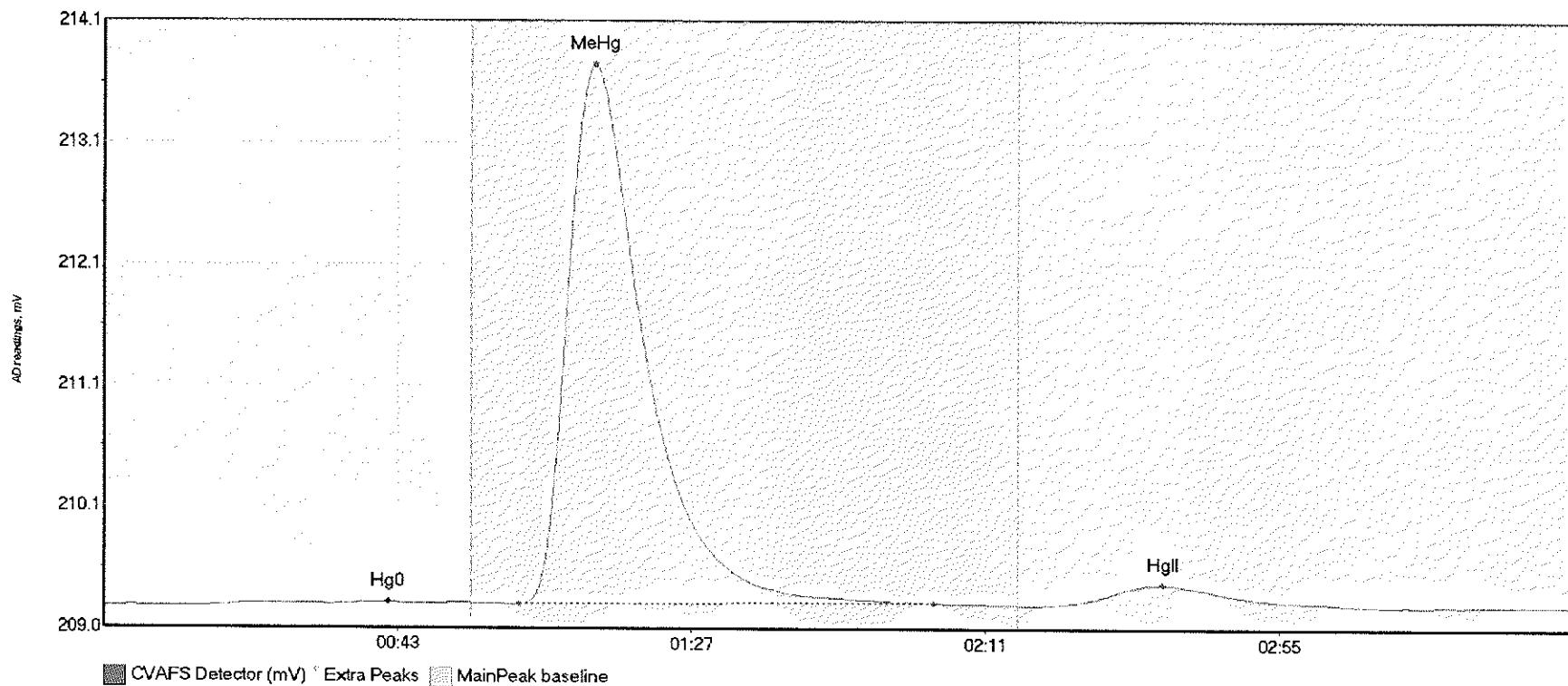
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-MSD1 Hg	2.936	12.1	54.1	209.23	209.25	44.2	0.032	OK	209.2224	0.00	0.01	
F708293-MSD1 Me	337.089	61.4	112.9	209.25	209.25	73.2	2.549	OK	209.2224	0.00	0.01	
F708293-MSD1 Hg	13.410	139.6	178.7	209.23	209.23	158.4	0.082	OK	209.2224	0.00	0.01	

#37: F708293-MS2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-MS2 Hg0	4.091	12.1	51.6	209.23	209.25	40.2	0.036	OK	209.2228	0.00	0.01	
F708293-MS2 MeH	688.795	62.8	120.9	209.25	209.25	73.9	5.178	OK	209.2228	0.00	0.01	
F708293-MS2 HgI	34.098	142.2	185.9	209.24	209.24	159.2	0.178	OK	209.2228	0.00	0.01	

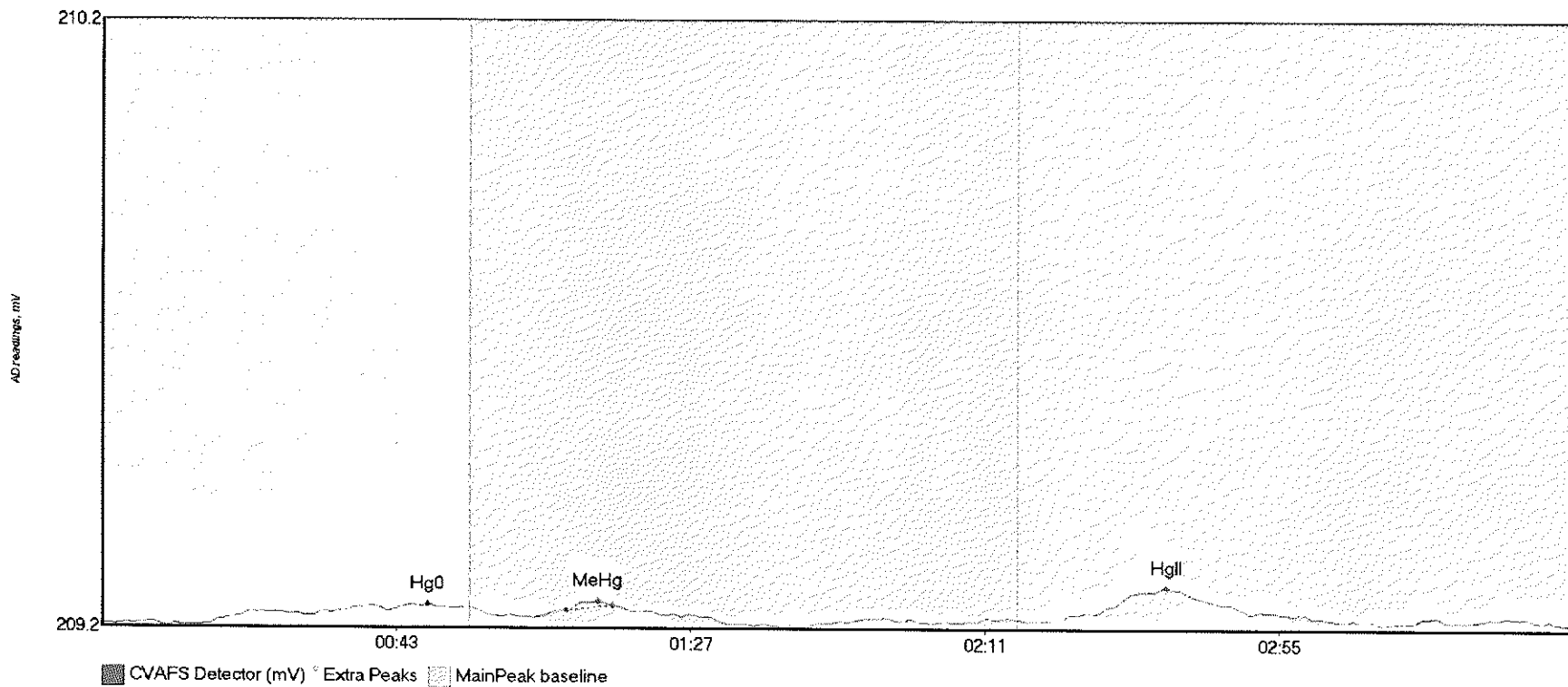
#38: F708293-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-MSD2 Hg	2.947	14.9	45.6	209.23	209.25	42.6	0.034	OK	209.2239	0.00	0.01	
F708293-MSD2 Me	599.497	62.1	124.3	209.25	209.26	73.6	4.494	OK	209.2239	0.00	0.01	
F708293-MSD2 Hg	35.948	139.5	188.6	209.24	209.24	158.6	0.180	OK	209.2239	0.00	0.01	

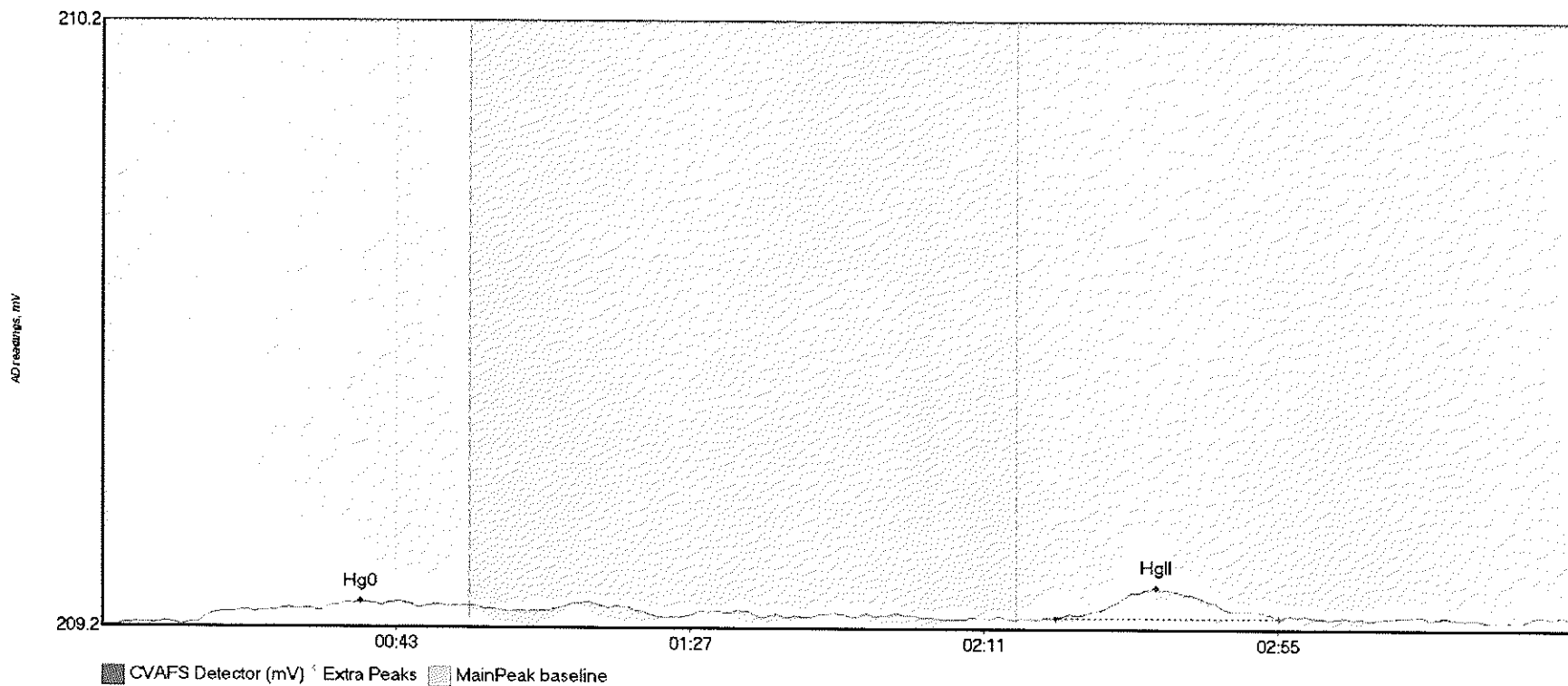


#39: F708268-BLK1



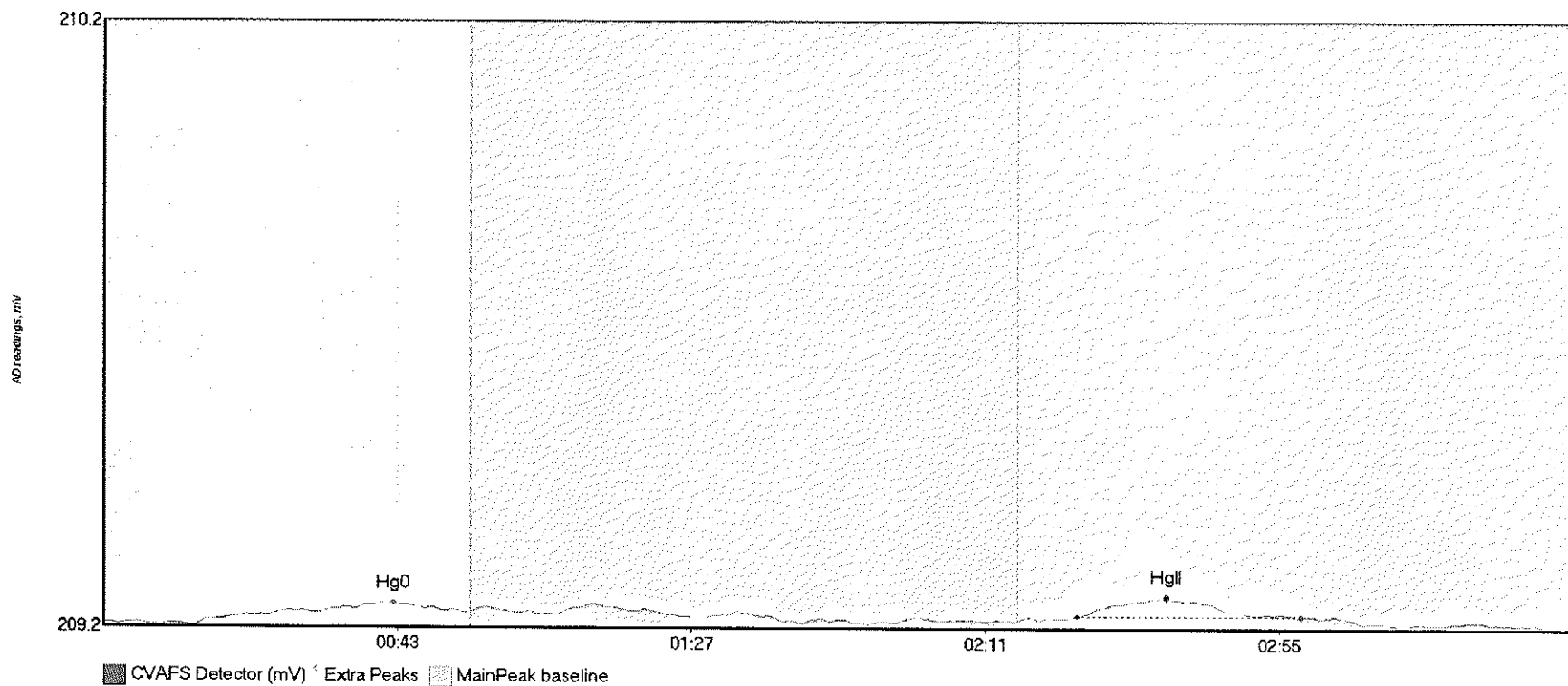
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BLK1 Hg	3.030	15.8	52.4	209.23	209.25	48.7	0.032	OK	209.2254	0.00	0.00	
F708268-BLK1 Me	0.440	69.5	76.3	209.25	209.26	74.1	0.015	OK	209.2254	0.00	0.00	
F708268-BLK1 Hg	9.332	142.8	181.2	209.23	209.24	159.2	0.057	OK	209.2254	0.00	0.00	

#40: F708268-BLK2



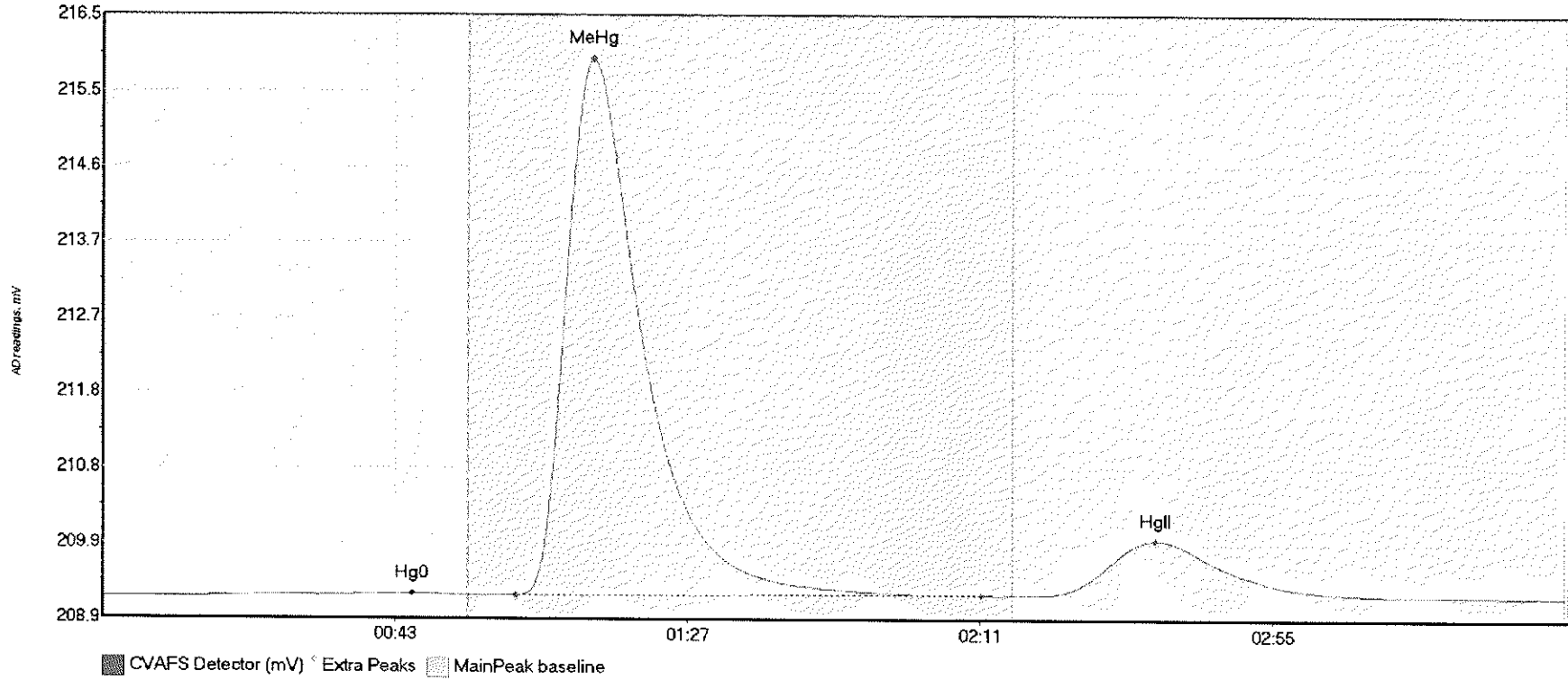
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BLK2 Hg	3.833	14.0	47.5	209.21	209.24	38.7	0.035	OK	209.2080	0.00	0.02	
F708268-BLK2 Hg	7.827	142.7	176.2	209.22	209.22	157.7	0.050	OK	209.2080	0.00	0.02	017

#41: F708268-BLK3



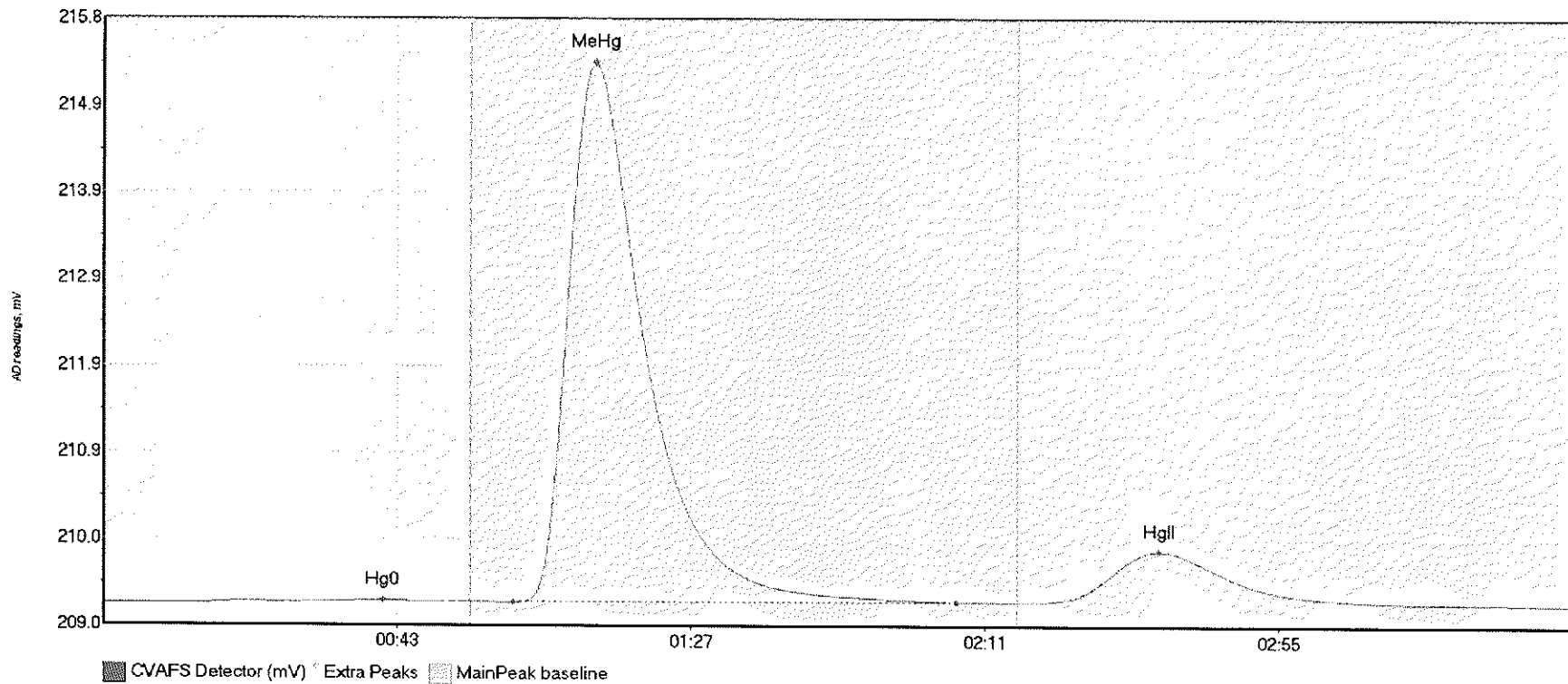
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BLK3 Hg	3.680	16.0	54.3	209.22	209.23	43.4	0.029	OK	209.2147	0.00	0.00	
F708268-BLK3 Hg	5.306	145.8	179.3	209.23	209.23	159.2	0.031	OK	209.2147	0.00	0.00	017

#42: F708268-BS1



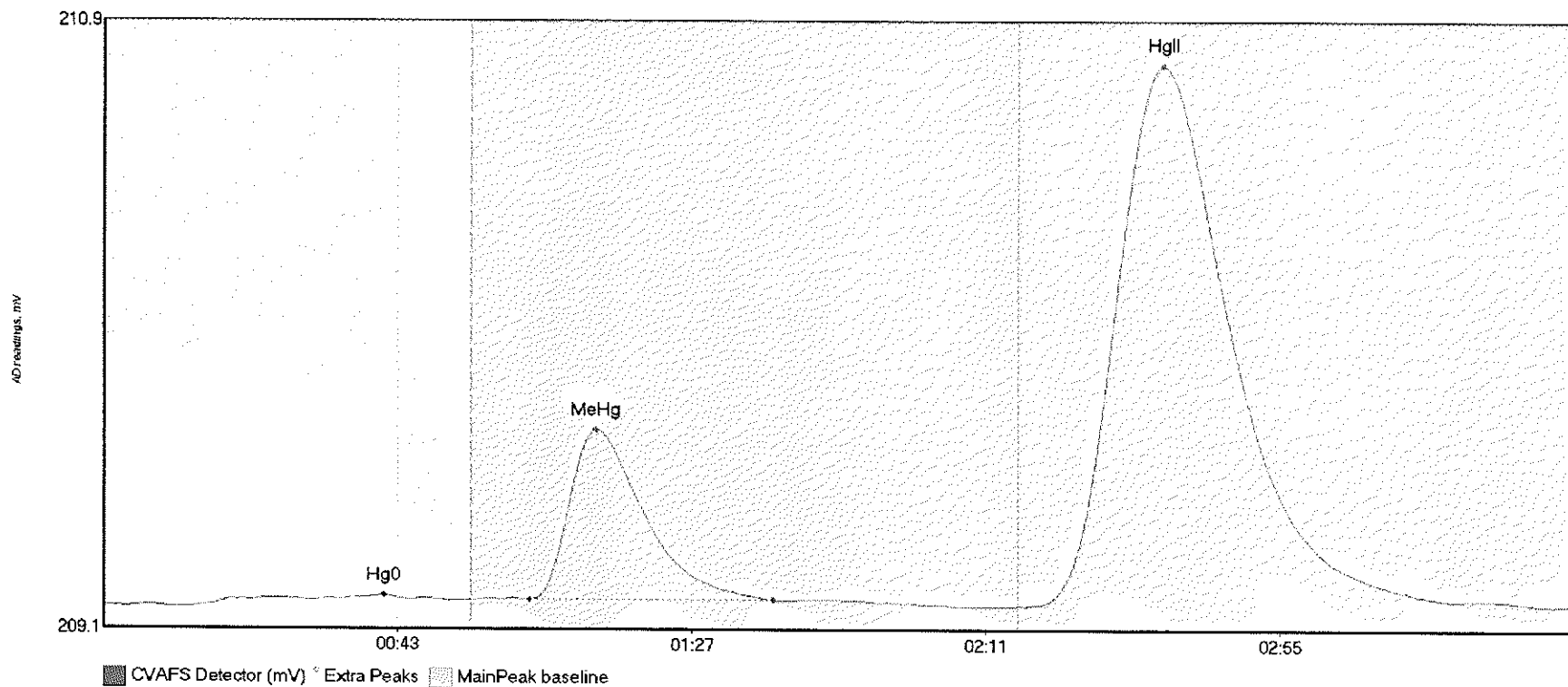
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BS1 Hg0	3.785	16.1	54.5	209.22	209.24	46.6	0.033	OK	209.2194	0.00	0.01	
F708268-BS1 MeH	900.362	62.2	132.1	209.24	209.25	73.7	6.716	OK	209.2194	0.00	0.01	
F708268-BS1 HgI	131.939	141.7	192.1	209.25	209.25	158.3	0.689	OK	209.2194	0.00	0.01	

#43: F708268-BSD1



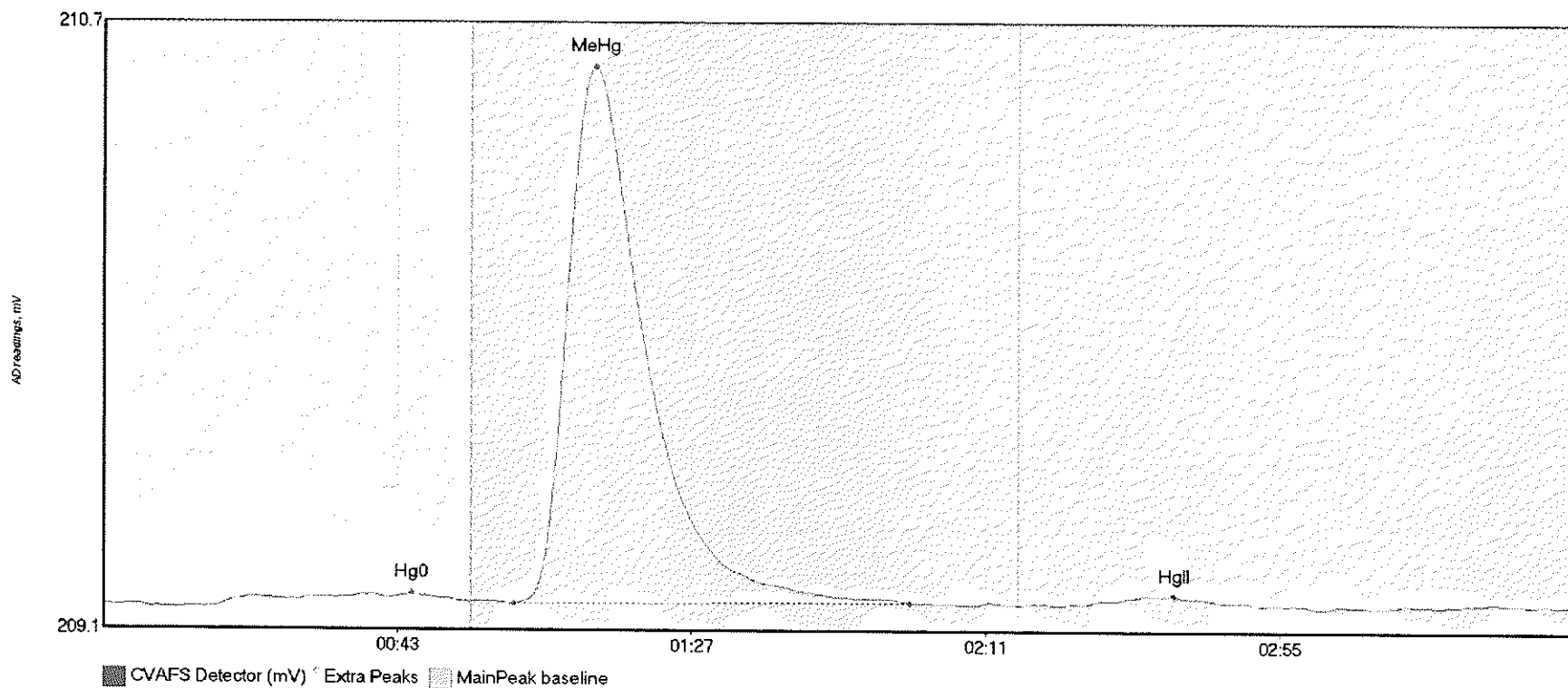
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BSD1 Hg	5.160	14.1	54.6	209.22	209.24	41.9	0.038	OK	209.2226	0.00	0.01	
F708268-BSD1 Me	816.453	61.3	127.8	209.24	209.25	73.7	6.108	OK	209.2226	0.00	0.01	
F708268-BSD1 Hg	110.638	139.8	190.1	209.25	209.25	158.1	0.583	OK	209.2226	0.00	0.01	

#44: F708268-DUP1



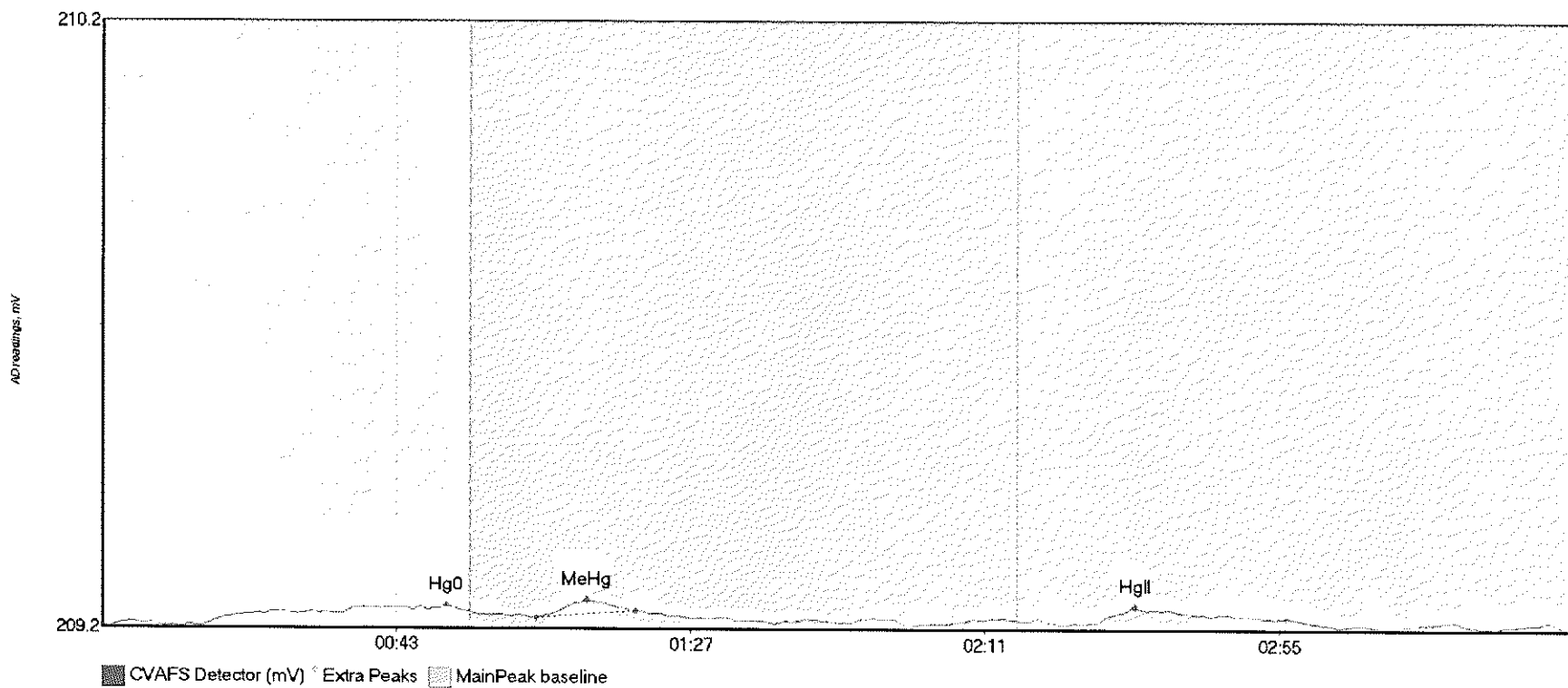
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-DUP1 Hg	4.089	15.4	51.8	209.22	209.23	42.0	0.027	OK	209.2175	0.00	0.00	
F708268-DUP1 Me	63.924	63.7	100.2	209.23	209.23	73.8	0.496	OK	209.2175	0.00	0.00	
F708268-DUP1 Hg	314.462	139.7	214.7	209.22	209.22	158.5	1.575	OK	209.2175	0.00	0.00	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	6.211	16.9	54.7	209.21	209.22	46.1	0.032	OK	209.2121	0.00	0.00	
SEQ-CCV3 MeHg	192.370	61.4	120.6	209.22	209.22	73.6	1.417	OK	209.2121	0.00	0.00	
SEQ-CCV3 HgII	3.729	146.6	173.2	209.22	209.22	160.2	0.025	OK	209.2121	0.00	0.00	

#46: SEQ-CCB3

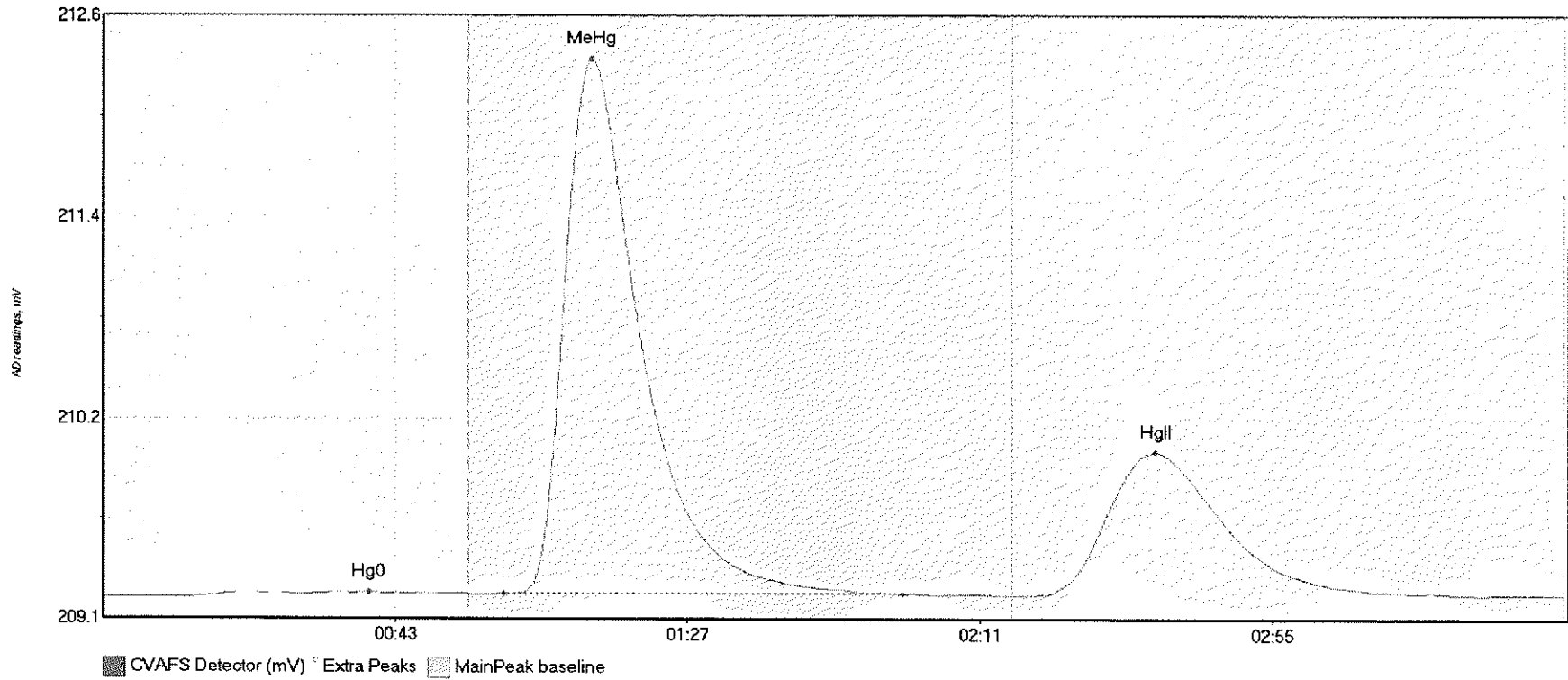


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	4.904	14.6	55.0	209.21	209.23	51.5	0.034	CT	209.2056	0.00	0.00	
SEQ-CCB3 MeHg	1.811	64.8	79.7	209.22	209.23	72.5	0.029	OK	209.2056	0.00	0.00	
SEQ-CCB3 HgII	2.888	148.8	173.7	209.21	209.22	154.4	0.026	OK	209.2056	0.00	0.00	

017

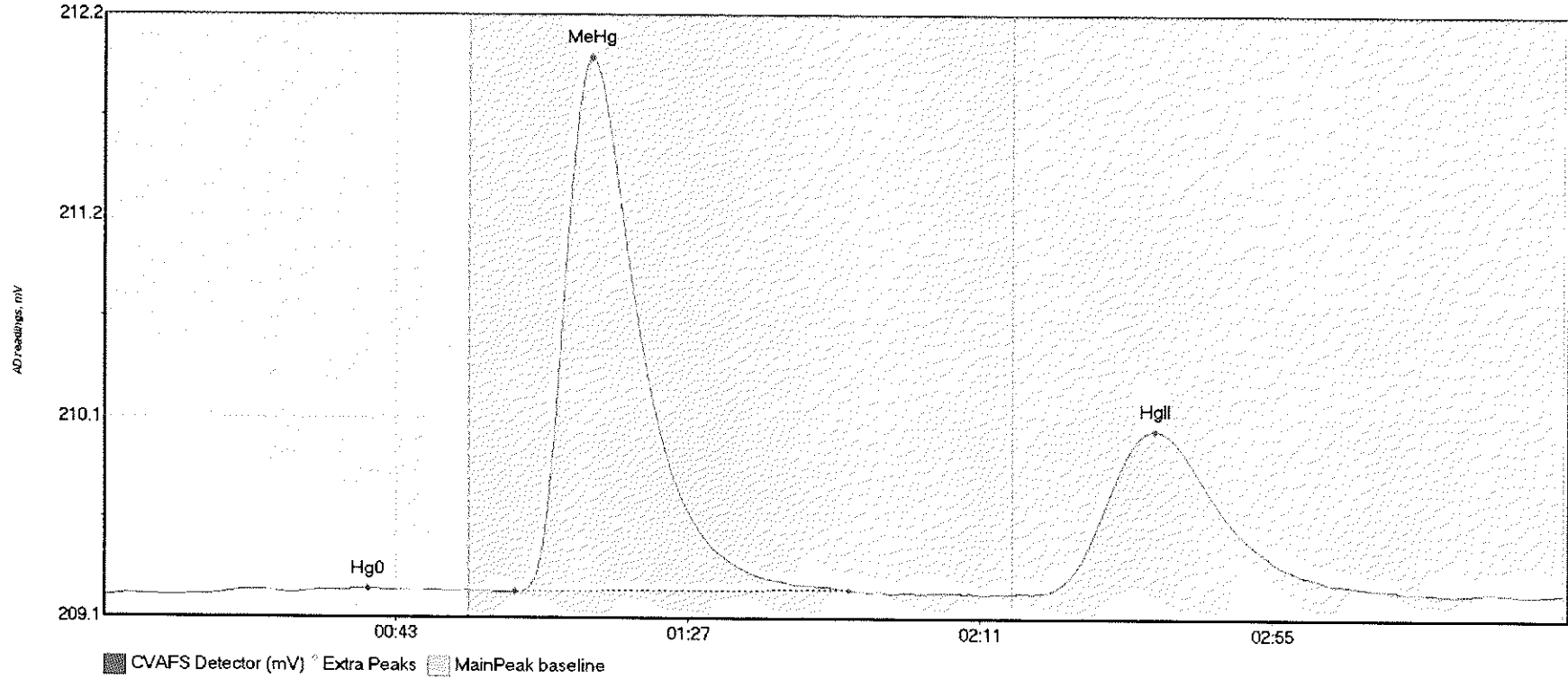


#47: F708268-MS1



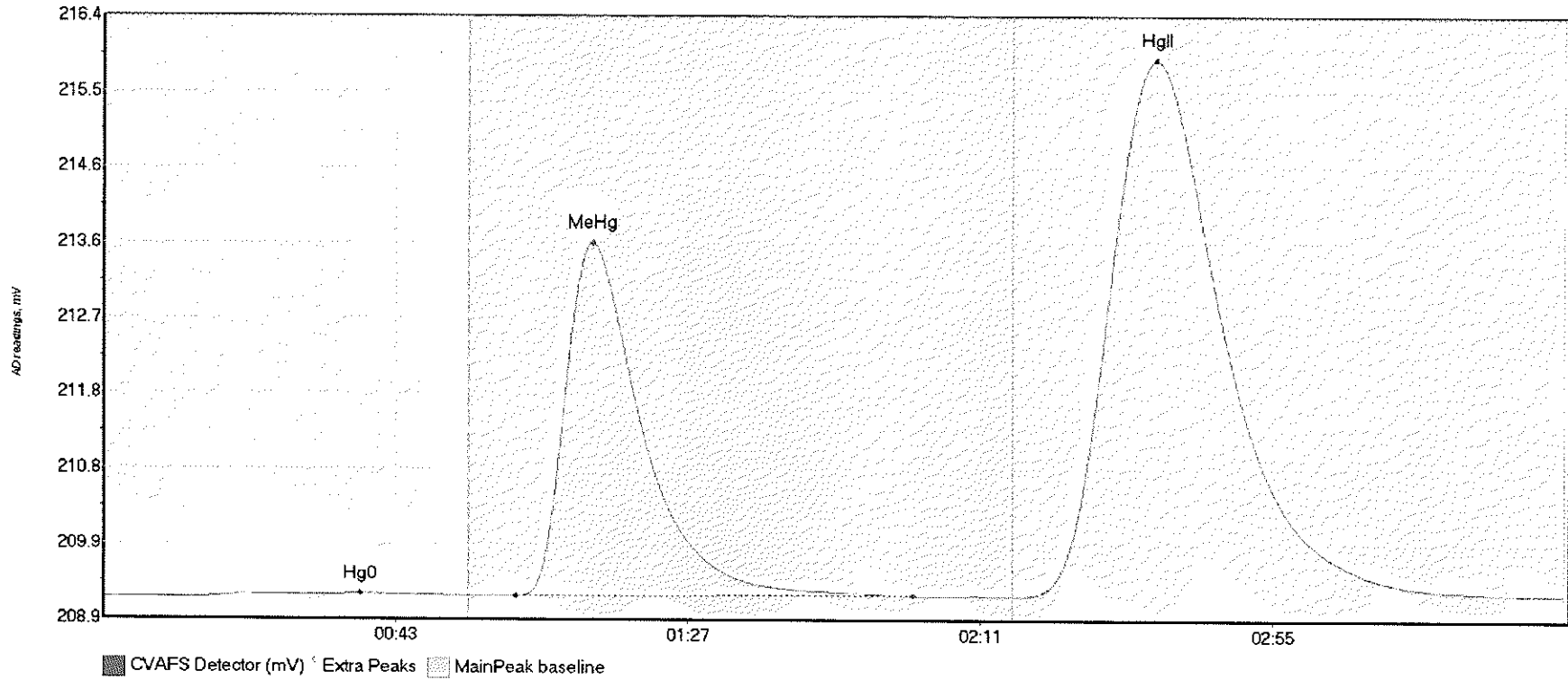
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-MS1 Hg0	4.982	12.9	55.0	209.21	209.23	40.0	0.028	CT	209.2051	0.00	0.02	
F708268-MS1 MeH	415.050	60.3	120.3	209.23	209.23	73.6	3.106	OK	209.2051	0.00	0.02	
F708268-MS1 HgI	166.914	139.5	206.1	209.22	209.22	158.4	0.833	OK	209.2051	0.00	0.02	

#48: F708268-MSD1



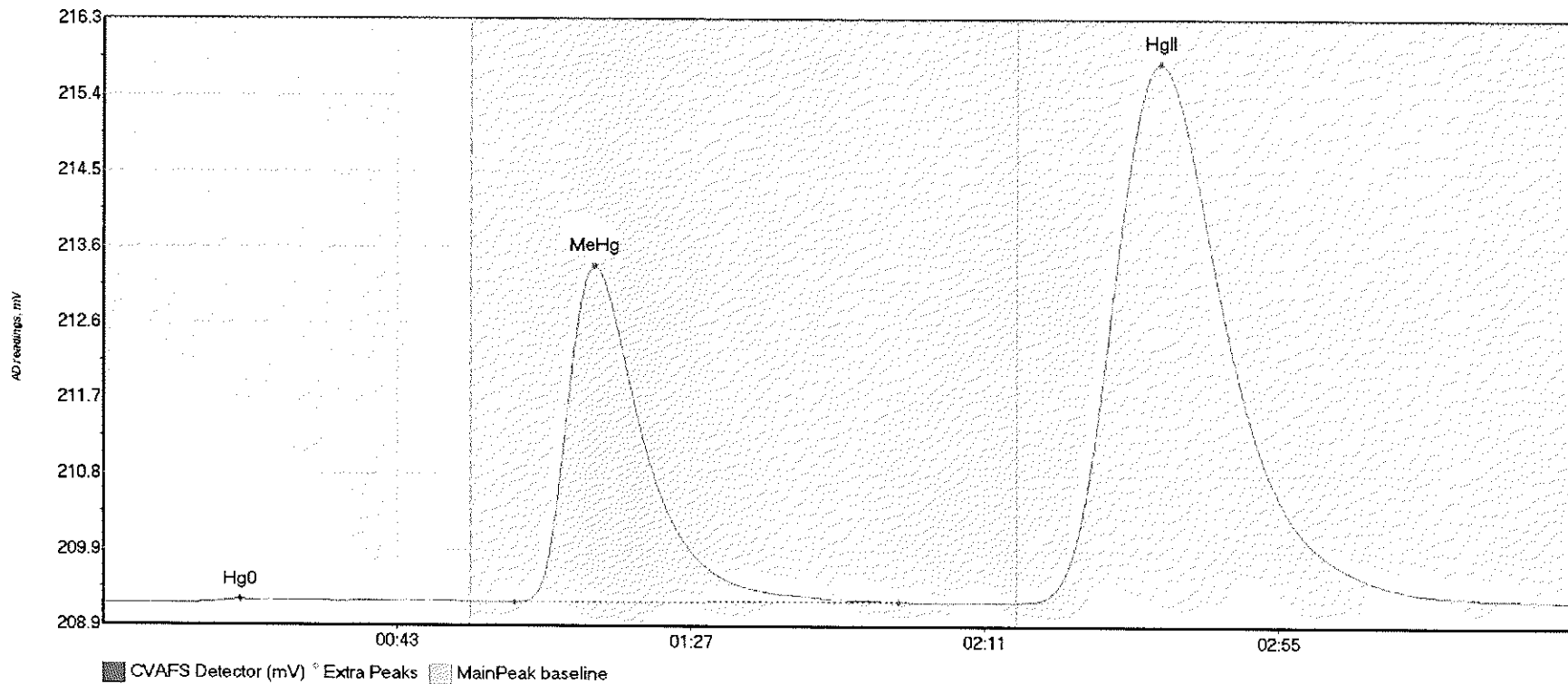
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-MSD1 Hg	4.467	15.0	53.2	209.21	209.23	39.9	0.032	OK	209.2094	0.00	0.02	
F708268-MSD1 Me	365.032	61.8	112.2	209.23	209.24	73.5	2.768	OK	209.2094	0.00	0.02	
F708268-MSD1 Hg	167.751	140.1	200.0	209.23	209.23	158.3	0.847	OK	209.2094	0.00	0.02	

#49: F708268-MS2



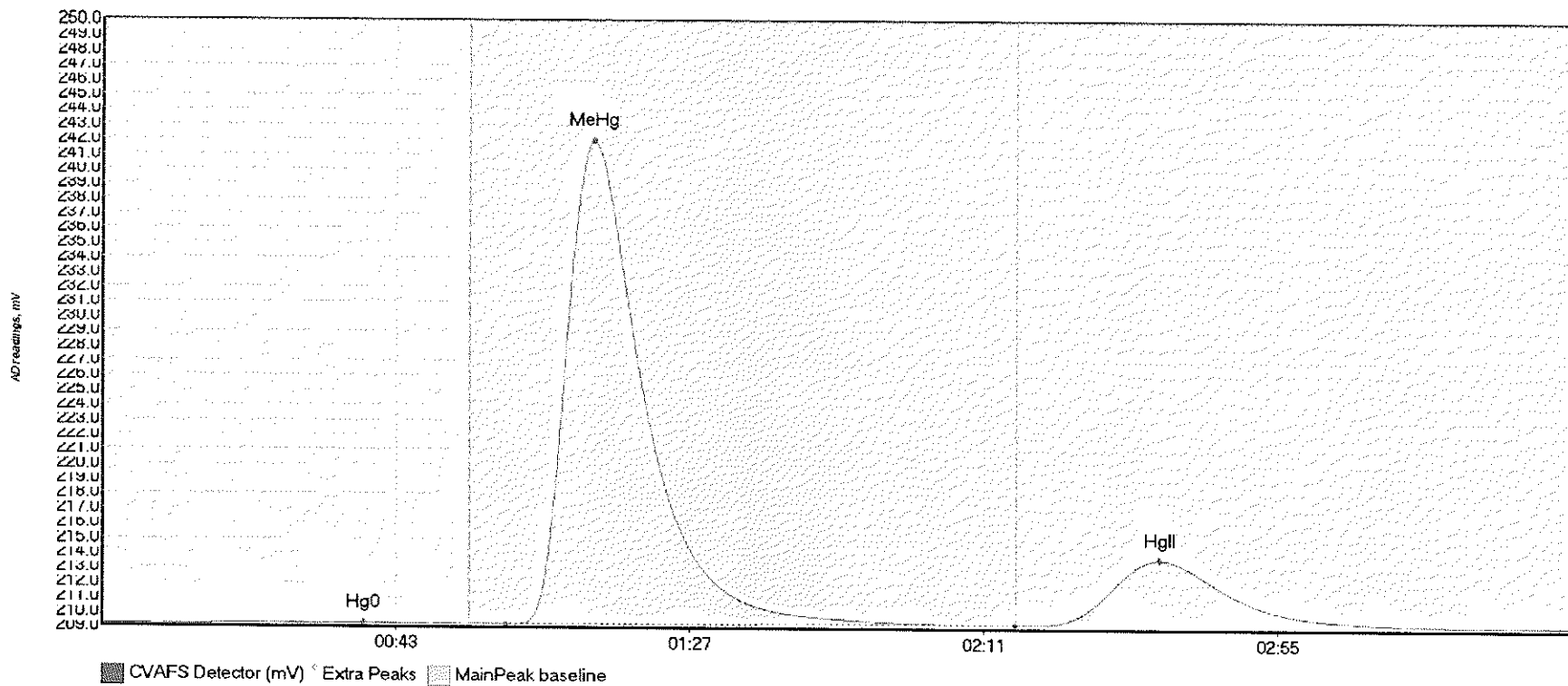
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-MS2 Hg0	8.462	14.8	55.0	209.21	209.23	38.7	0.046	CT	209.2144	0.00	0.04	
F708268-MS2 MeH	588.326	62.2	121.9	209.23	209.24	73.7	4.397	OK	209.2144	0.00	0.04	
F708268-MS2 HgI	1322.019	137.4	219.0	209.23	209.26	158.4	6.679	OK	209.2144	0.00	0.04	

#50: F708268-MSD2



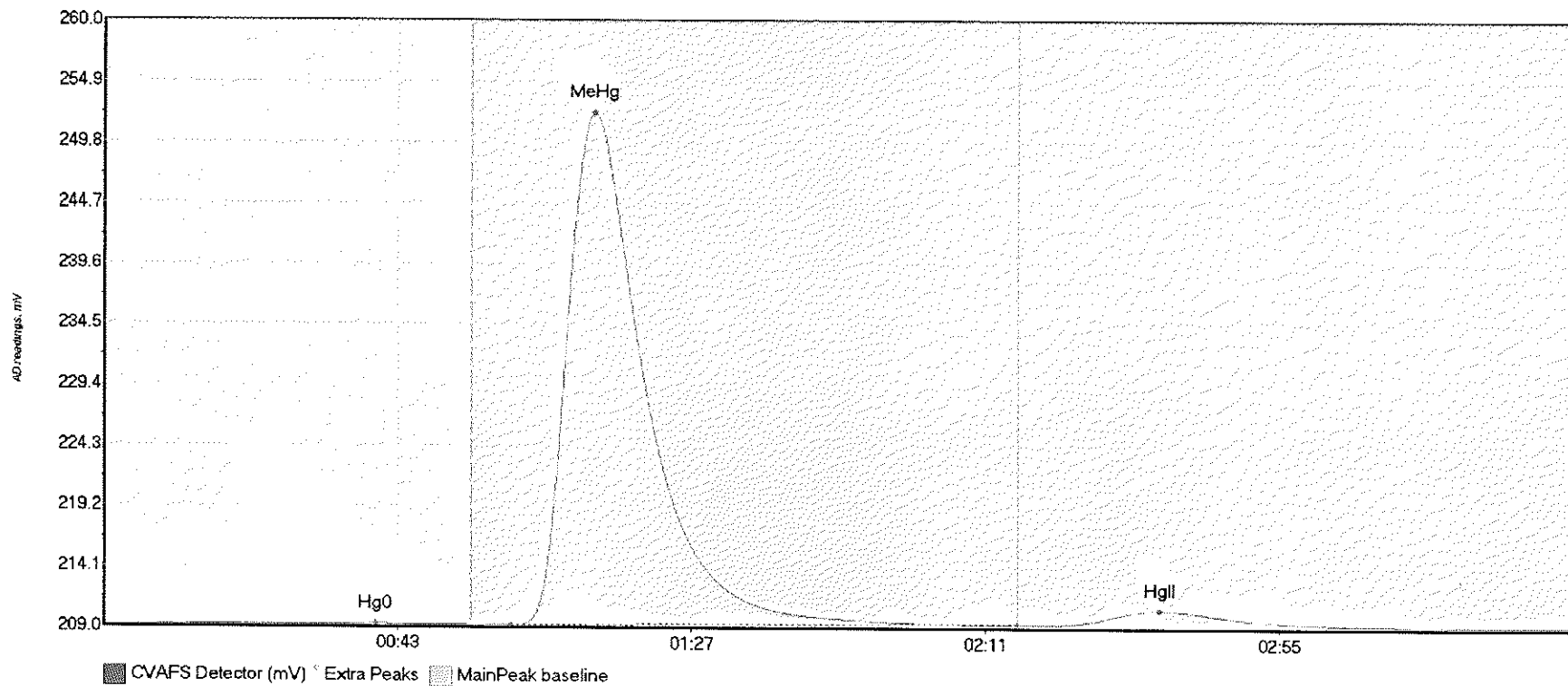
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-MSD2 Hg	4.211	12.2	36.4	209.21	209.24	20.6	0.043	OK	209.2146	0.00	0.05	
F708268-MSD2 Me	546.474	61.6	119.2	209.24	209.24	73.6	4.098	OK	209.2146	0.00	0.05	
F708268-MSD2 Hg	1305.799	137.6	219.4	209.24	209.26	158.2	6.573	OK	209.2146	0.00	0.05	

#51: 1707706-01



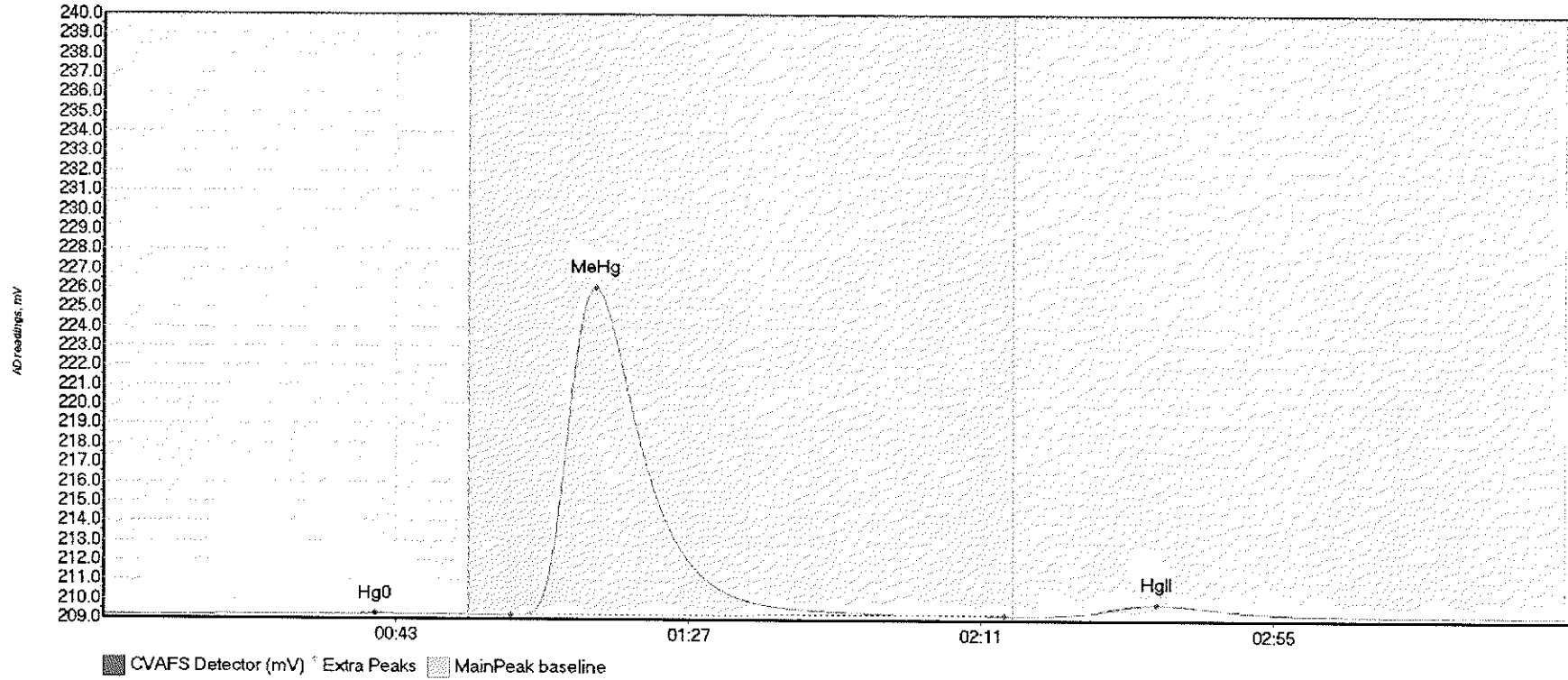
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1707706-01 Hg0	12.993	12.4	55.0	209.21	209.24	39.1	0.078	CT	209.2149	0.00	0.04	
1707706-01 MeHg	4400.357	60.4	136.8	209.24	209.31	73.6	32.647	CT	209.2149	0.00	0.04	
1707706-01 HgII	866.084	138.8	202.3	209.31	209.29	158.3	4.409	OK	209.2149	0.00	0.04	

#52: 1707706-02



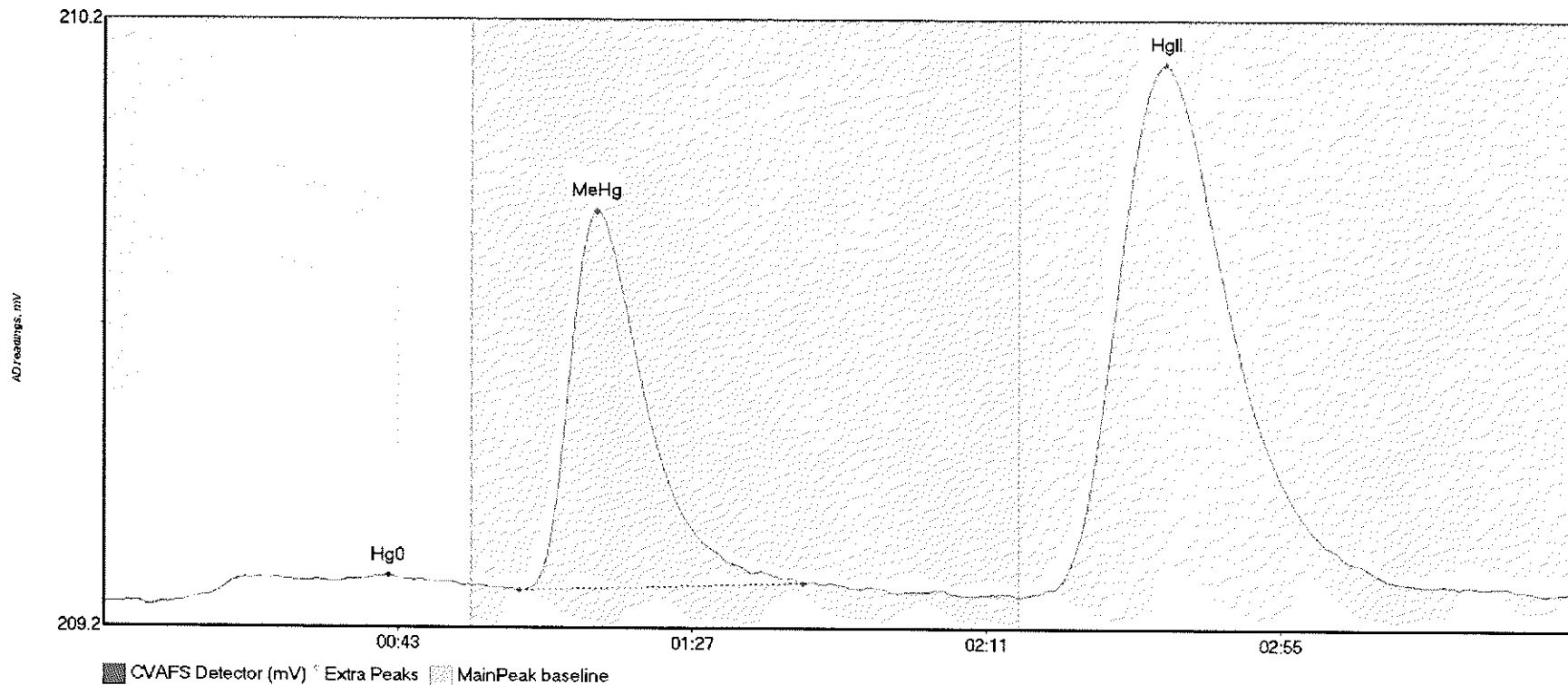
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707706-02 Hg0	11.400	13.9	55.0	209.20	209.24	40.7	0.083	CT	209.1997	0.00	0.05	
1707706-02 MeHg	5811.300	60.9	136.8	209.24	209.33	73.5	43.025	CT	209.1997	0.00	0.05	
1707706-02 HgII	248.354	139.8	197.6	209.32	209.26	158.1	1.253	OK	209.1997	0.00	0.05	

#53: 1707706-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707706-03 Hg0	9.103	15.2	55.0	209.21	209.23	40.9	0.064	CT	209.2062	0.00	0.03	
1707706-03 MeHg	2251.489	61.3	135.6	209.23	209.26	74.0	16.815	OK	209.2062	0.00	0.03	
1707706-03 HgII	109.257	140.6	188.5	209.26	209.26	158.5	0.586	OK	209.2062	0.00	0.03	

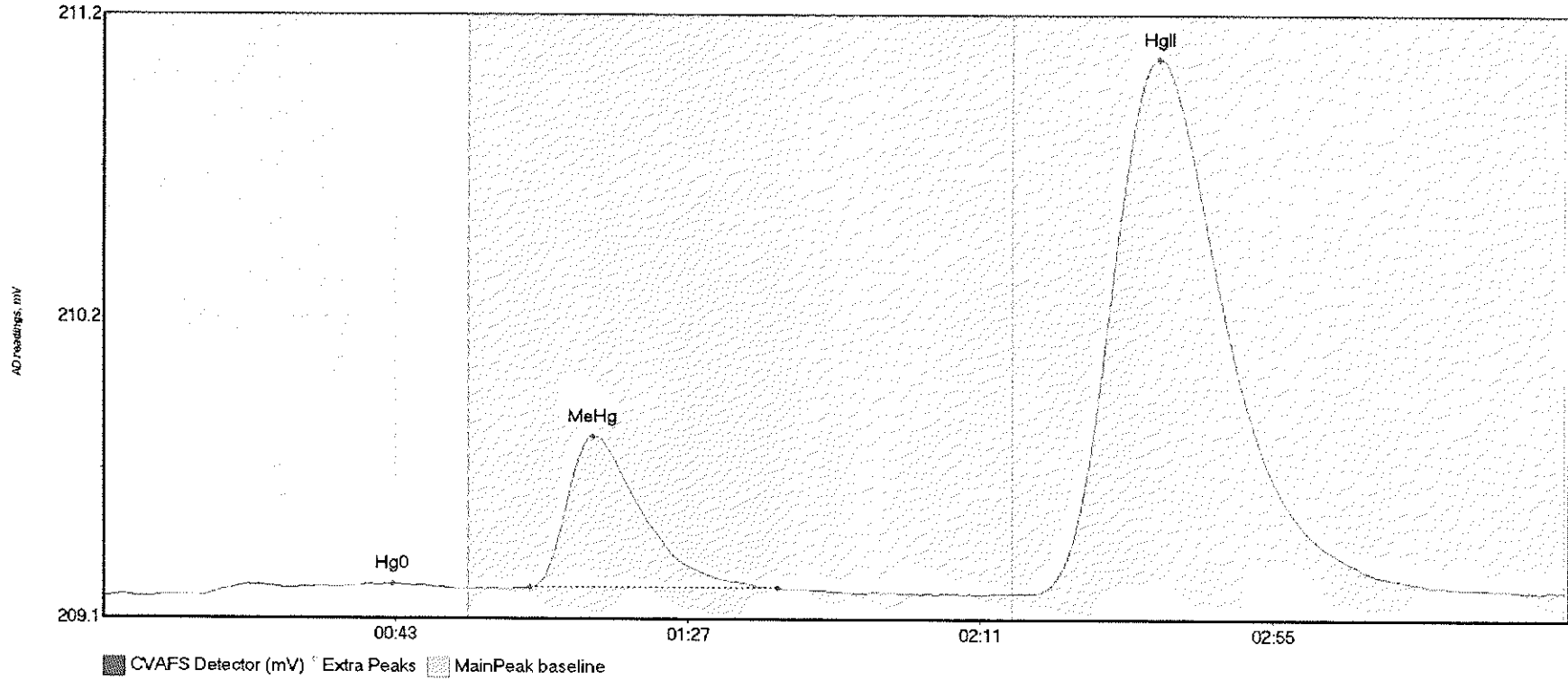
#54: 1707737-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707737-01 Hg0	7.963	11.4	53.8	209.20	209.23	42.6	0.043	OK	209.1974	0.00	0.02	
1707737-01 MeHg	83.497	62.2	104.6	209.22	209.23	73.8	0.638	OK	209.1974	0.00	0.02	
1707737-01 HgII	180.111	139.9	215.4	209.21	209.21	158.8	0.889	OK	209.1974	0.00	0.02	

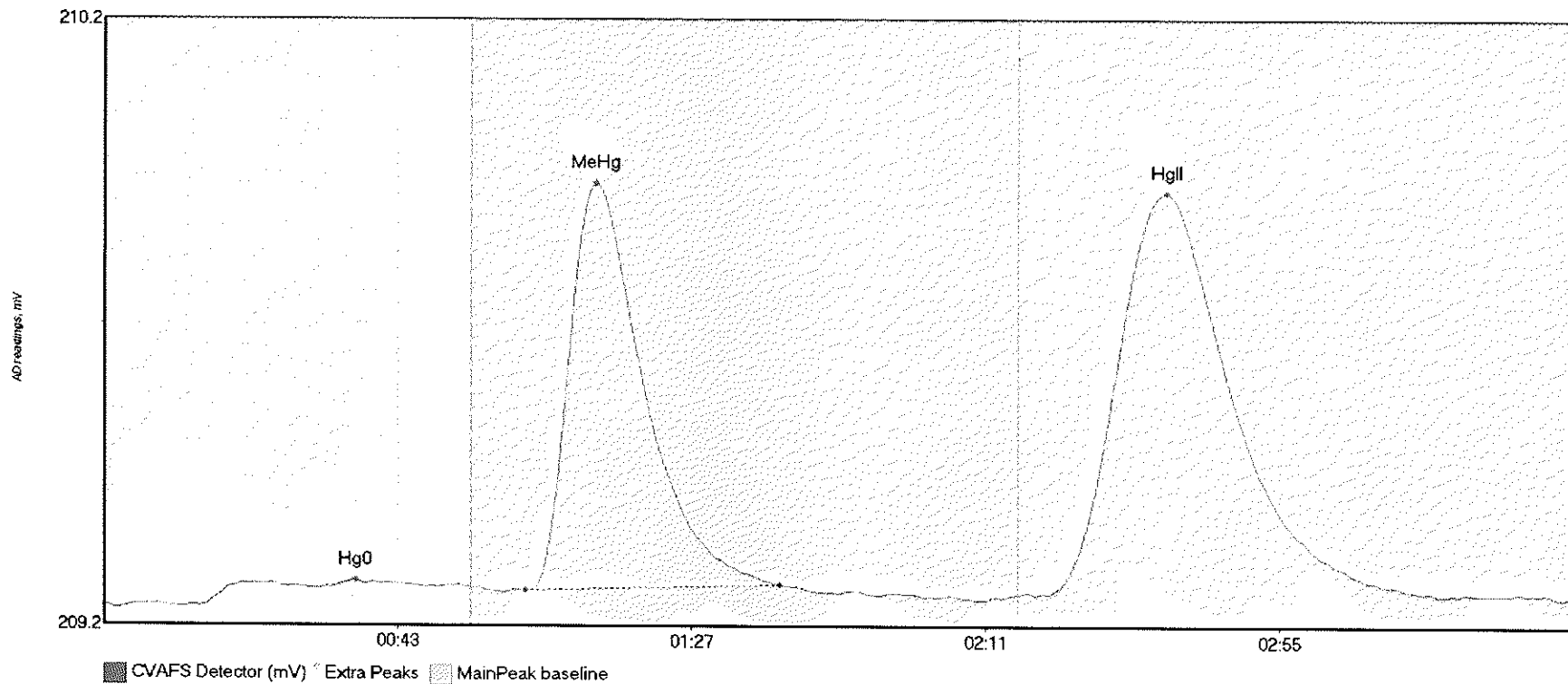


#55: 1707737-02



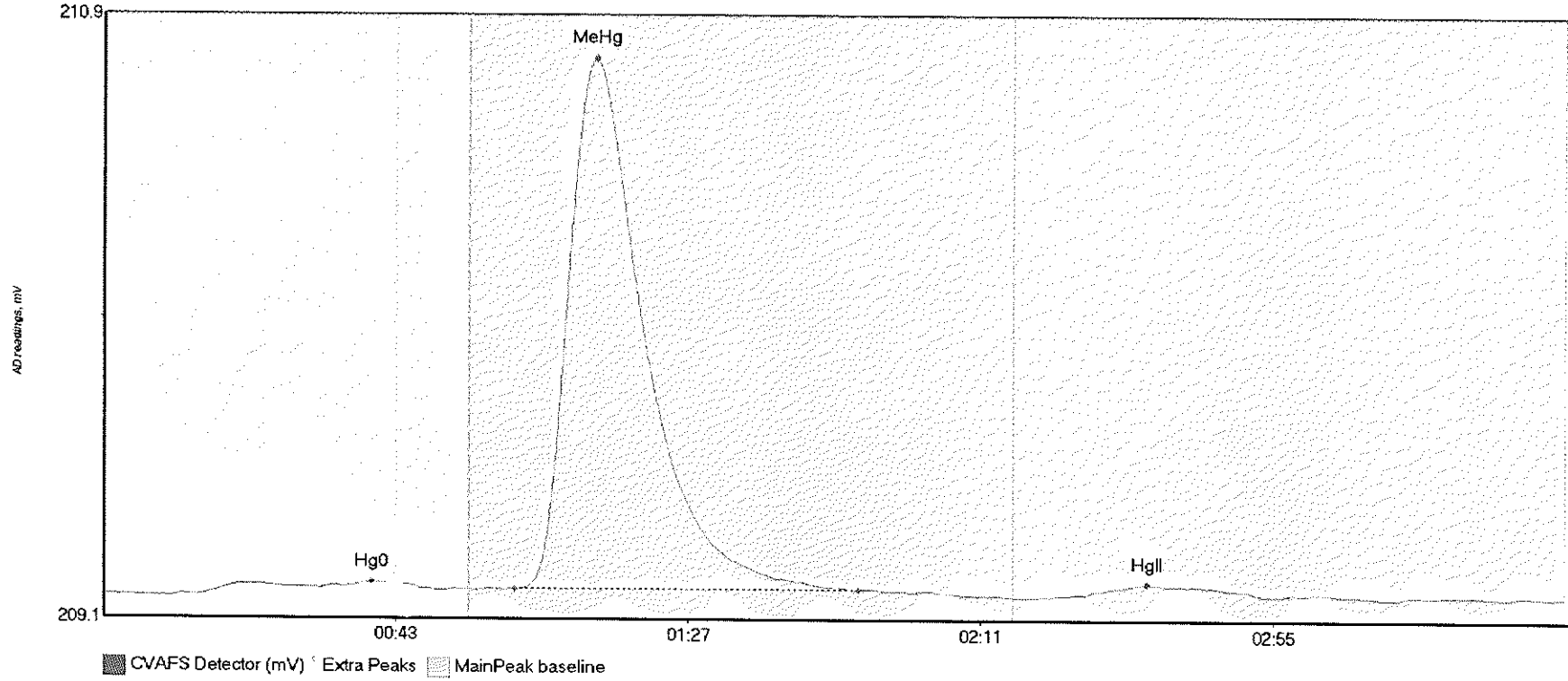
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707737-02 Hg0	7.741	14.8	53.9	209.20	209.23	43.6	0.042	OK	209.2018	0.00	0.02	
1707737-02 MeHg	68.472	64.3	101.5	209.23	209.23	73.8	0.532	OK	209.2018	0.00	0.02	
1707737-02 HgII	375.765	140.1	216.1	209.22	209.22	158.9	1.871	OK	209.2018	0.00	0.02	

#56: 1707737-03



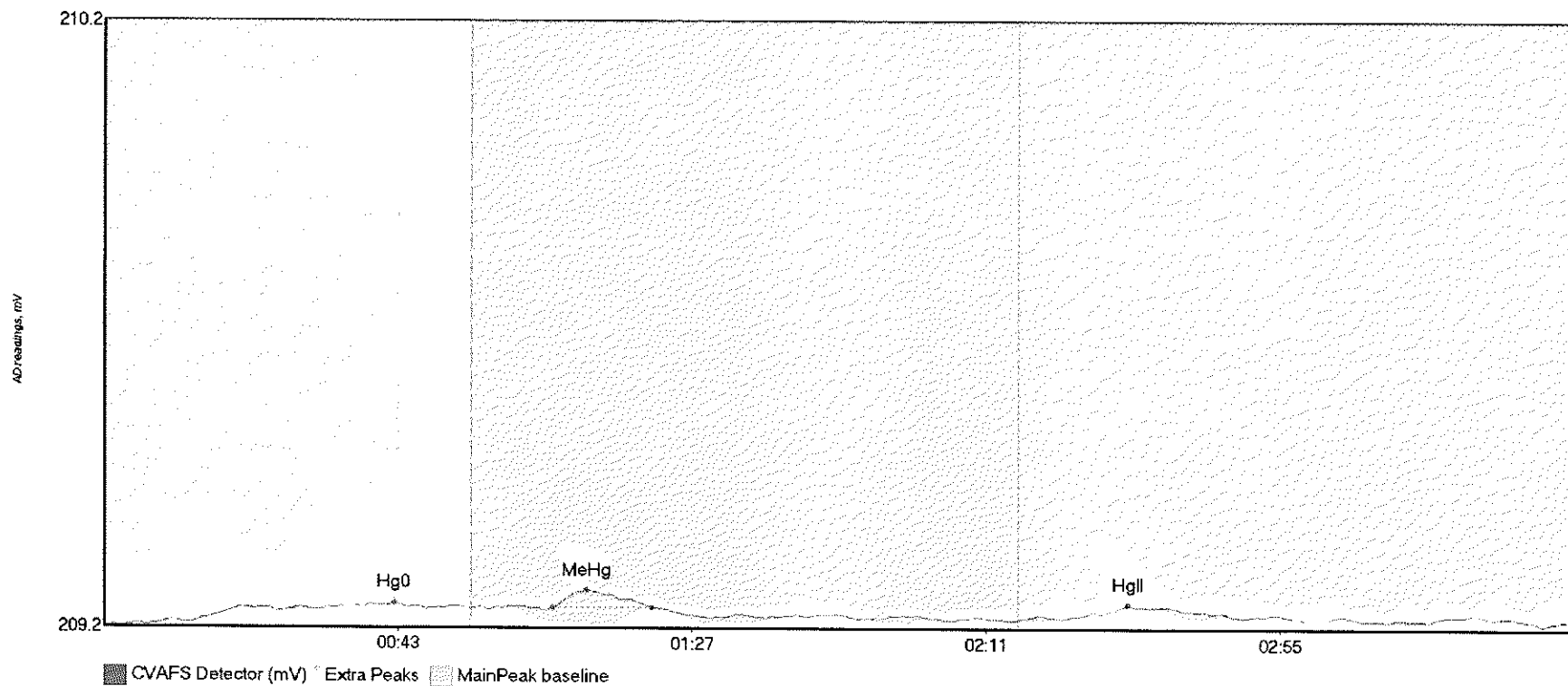
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707737-03 Hg0	6.141	14.4	50.0	209.21	209.24	37.7	0.043	OK	209.2112	0.00	0.02	
1707737-03 MeHg	86.673	63.2	101.2	209.24	209.25	73.8	0.672	OK	209.2112	0.00	0.02	
1707737-03 HgII	128.821	141.4	196.2	209.23	209.23	159.0	0.662	OK	209.2112	0.00	0.02	

#57: SEQ-CCV4



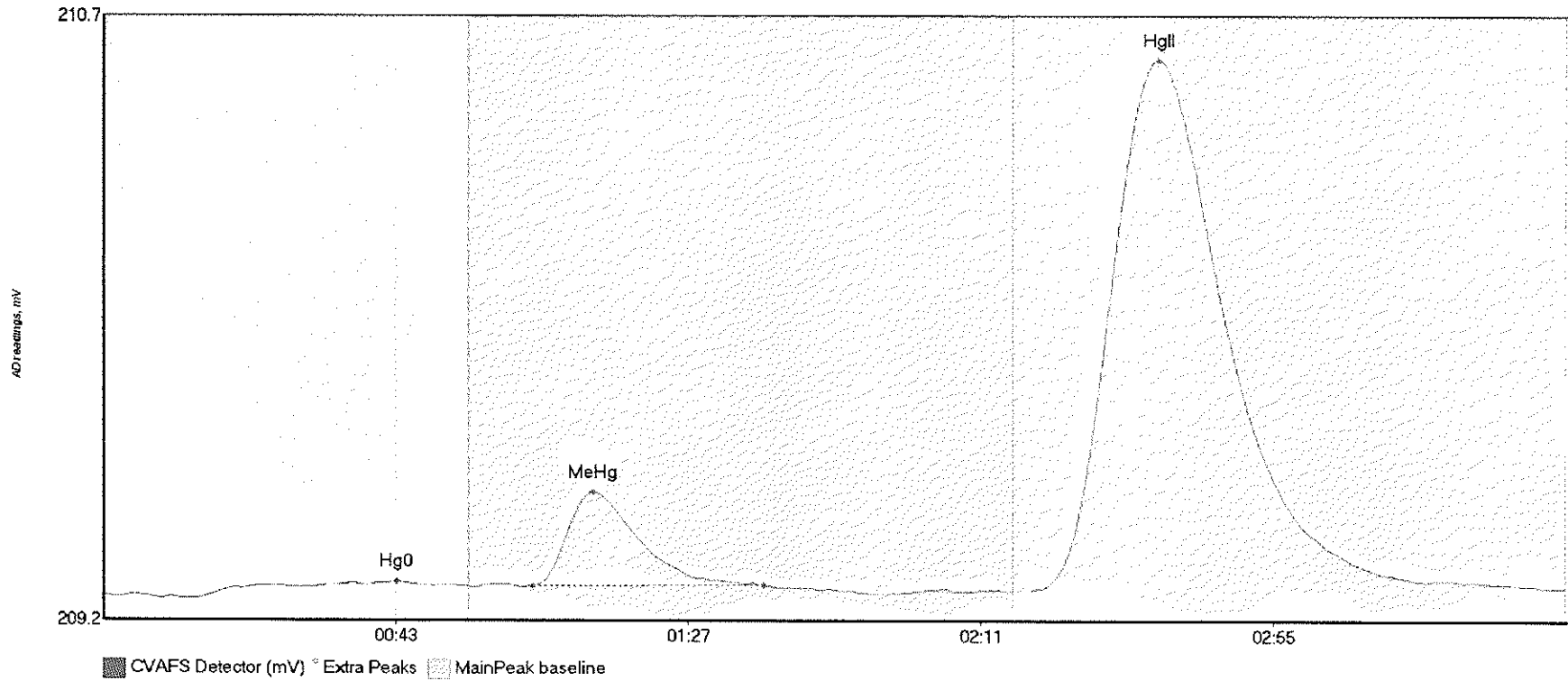
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	7.039	14.2	50.6	209.21	209.23	40.5	0.040	OK	209.2138	0.00	0.00	
SEQ-CCV4 MeHg	208.658	61.8	113.6	209.23	209.23	74.1	1.578	OK	209.2138	0.00	0.00	
SEQ-CCV4 HgII	6.815	142.2	175.1	209.21	209.22	157.1	0.038	OK	209.2138	0.00	0.00	

#58: SEQ-CCB4



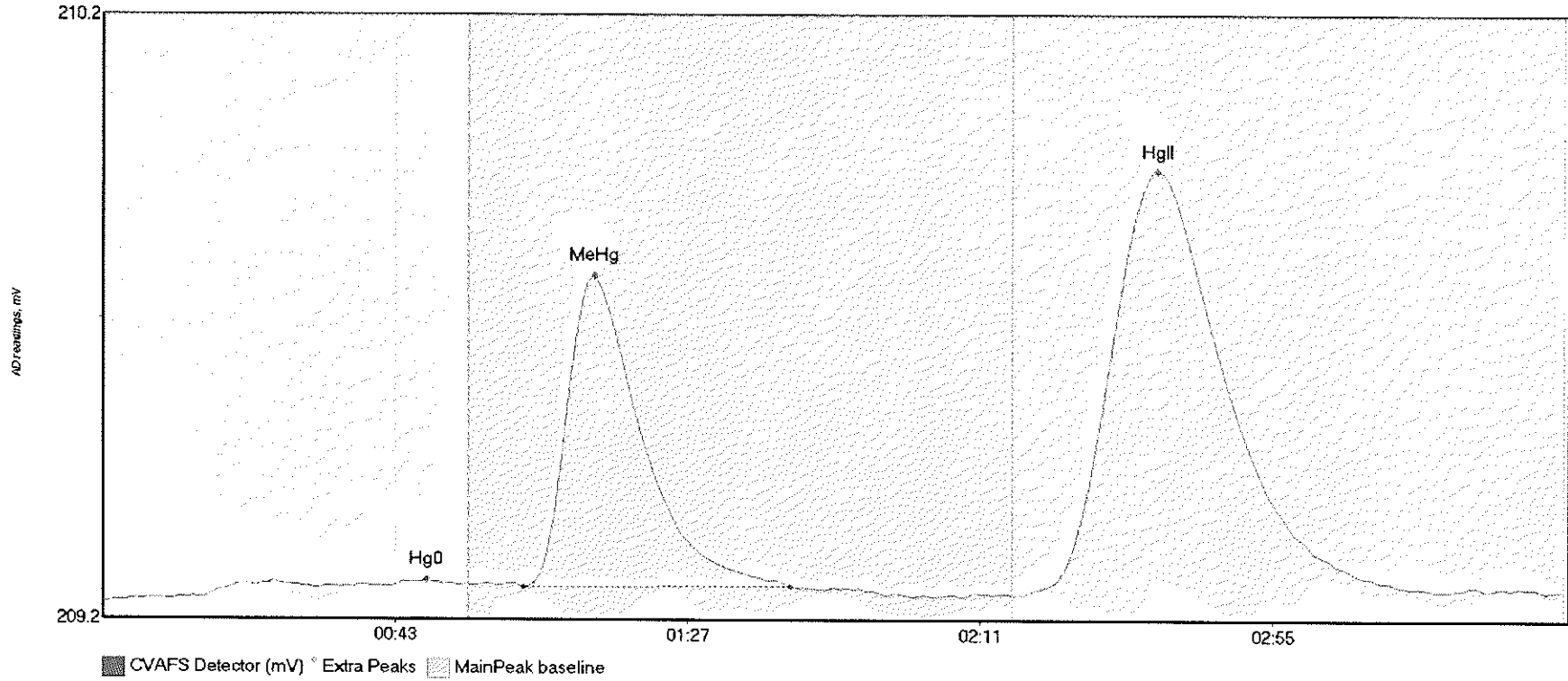
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.811	7.8	48.3	209.21	209.24	43.5	0.034	OK	209.2066	0.00	0.01	
SEQ-CCB4 MeHg	2.388	67.2	82.0	209.24	209.24	72.3	0.028	OK	209.2066	0.00	0.01	
SEQ-CCB4 HgII	2.490	145.4	169.5	209.22	209.22	153.3	0.019	OK	209.2066	0.00	0.01	

#59: 1707737-04



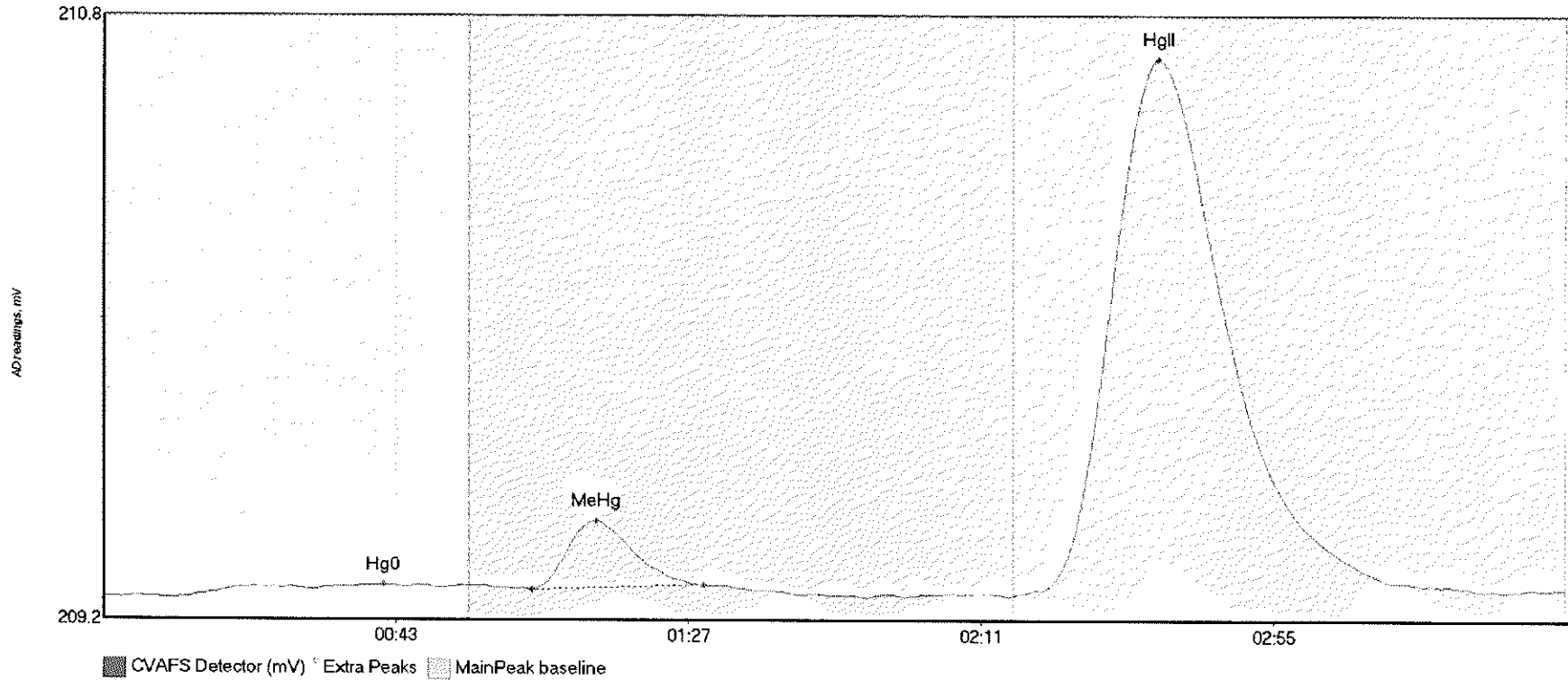
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707737-04 Hg0	6.542	13.8	55.0	209.21	209.24	44.1	0.043	CT	209.2177	0.00	0.02	
1707737-04 MeHg	29.592	64.6	99.3	209.24	209.24	73.8	0.242	OK	209.2177	0.00	0.02	
1707737-04 HgII	275.392	139.1	217.8	209.23	209.24	158.7	1.368	OK	209.2177	0.00	0.02	

#60: 1707737-11



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707737-11 Hg0	4.035	10.5	53.8	209.23	209.25	48.7	0.030	OK	209.2207	0.00	0.02	
1707737-11 MeHg	66.704	63.3	103.5	209.25	209.25	74.0	0.515	OK	209.2207	0.00	0.02	
1707737-11 HgII	141.557	137.7	217.2	209.23	209.24	158.6	0.705	OK	209.2207	0.00	0.02	

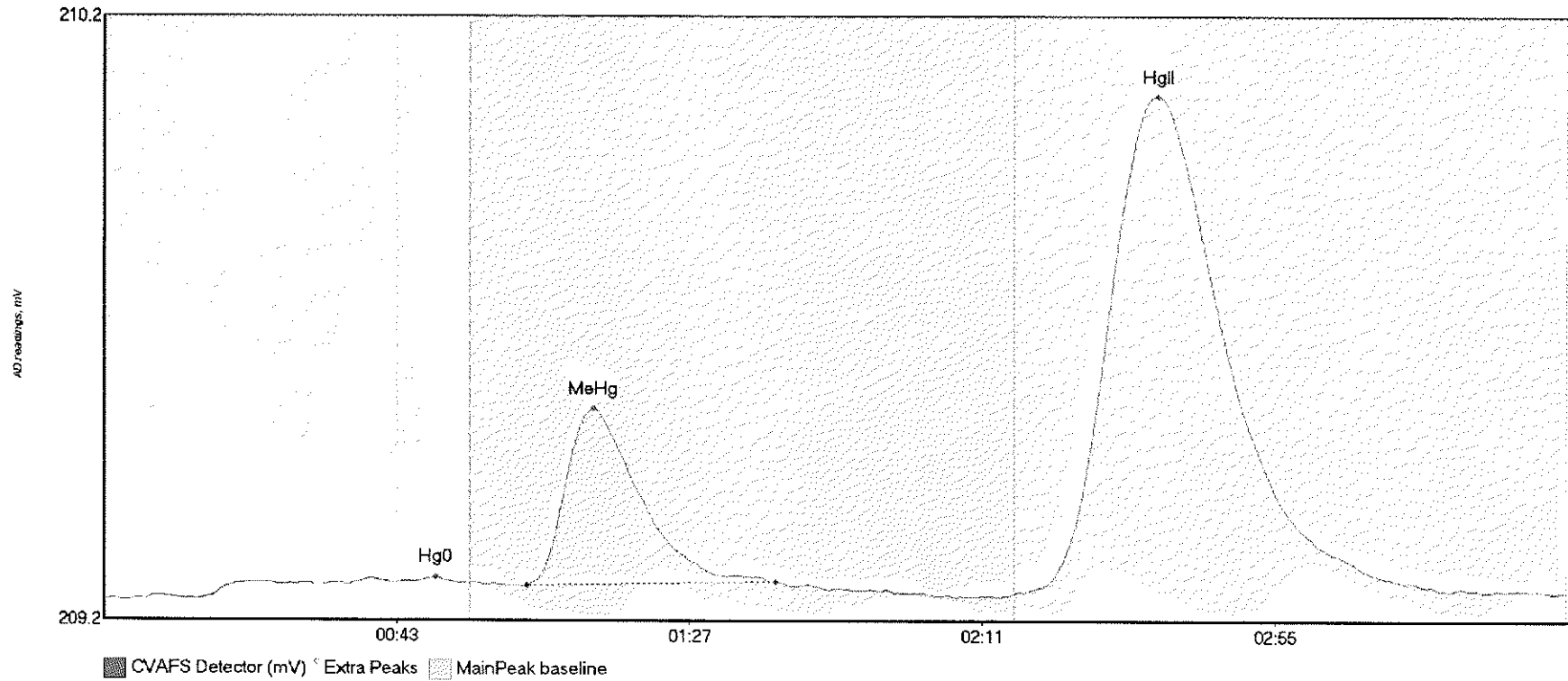
#61: 1707737-12



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707737-12 Hg0	4.466	12.5	50.6	209.24	209.26	42.1	0.032	OK	209.2358	0.00	0.02	
1707737-12 MeHg	20.359	64.4	90.3	209.26	209.27	74.1	0.183	OK	209.2358	0.00	0.02	
1707737-12 HgII	288.344	136.8	210.1	209.24	209.25	158.6	1.438	OK	209.2358	0.00	0.02	

317

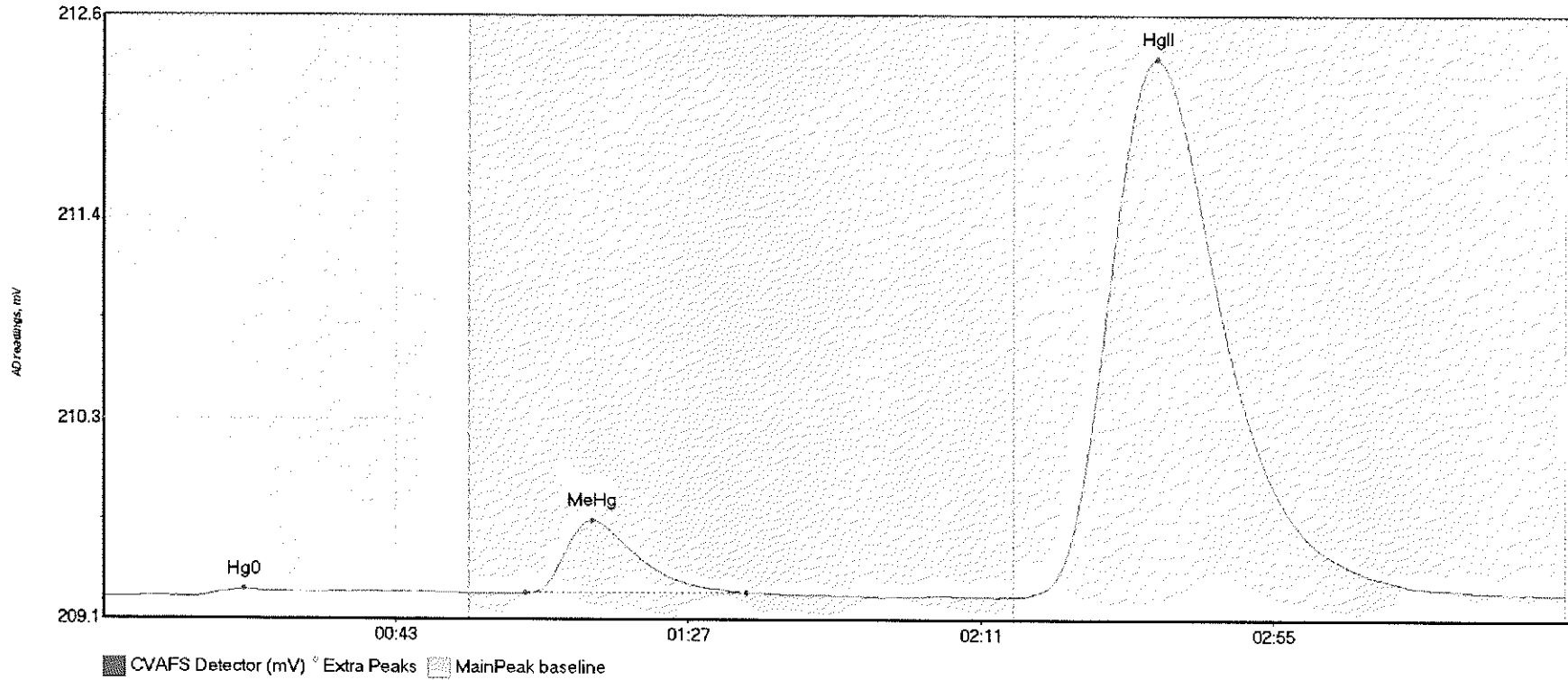
#62: 1707737-13



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707737-13 Hg0	4.957	13.8	53.5	209.24	209.27	49.8	0.037	OK	209.2419	0.00	0.01	
1707737-13 MeHg	37.389	63.6	101.0	209.27	209.27	73.6	0.294	OK	209.2419	0.00	0.01	
1707737-13 HgII	165.715	138.1	201.2	209.25	209.26	158.4	0.822	OK	209.2419	0.00	0.01	

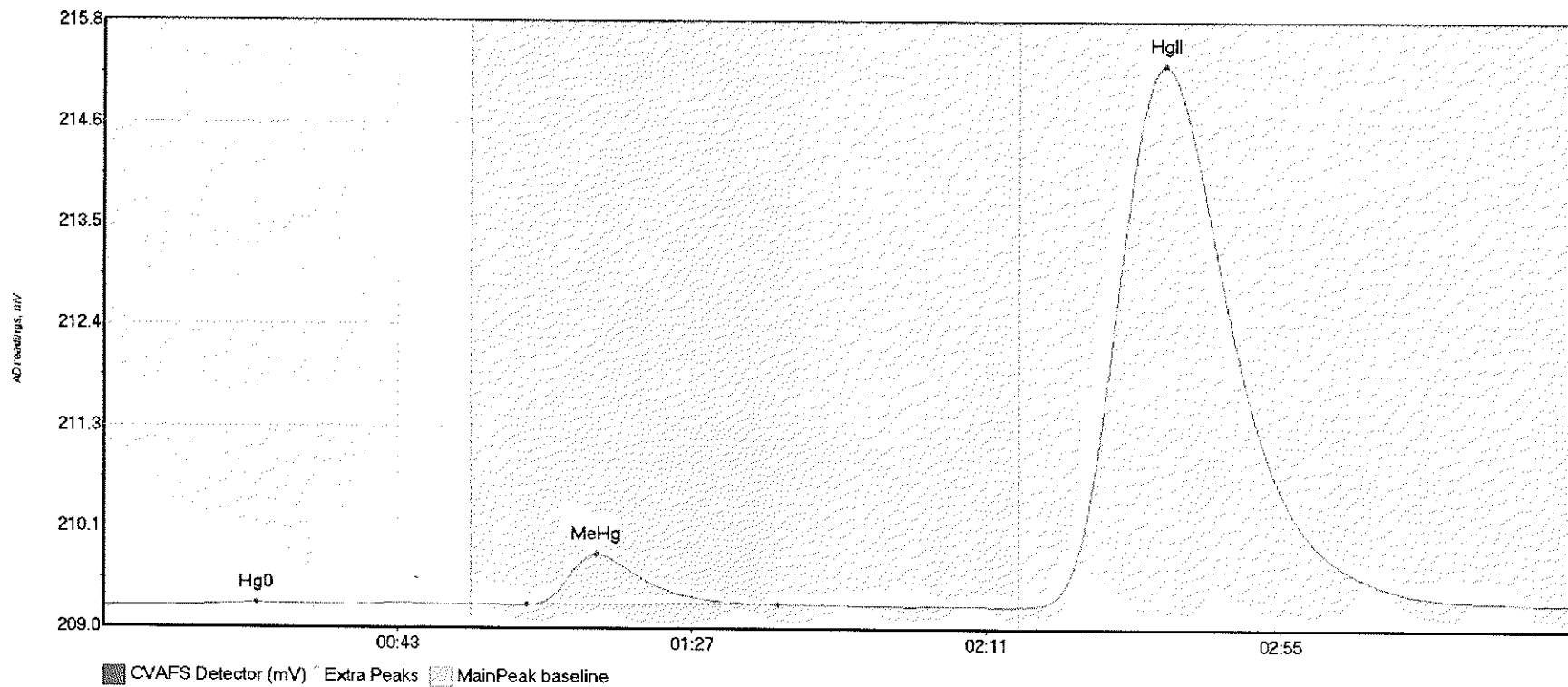


#63: 1707810-34



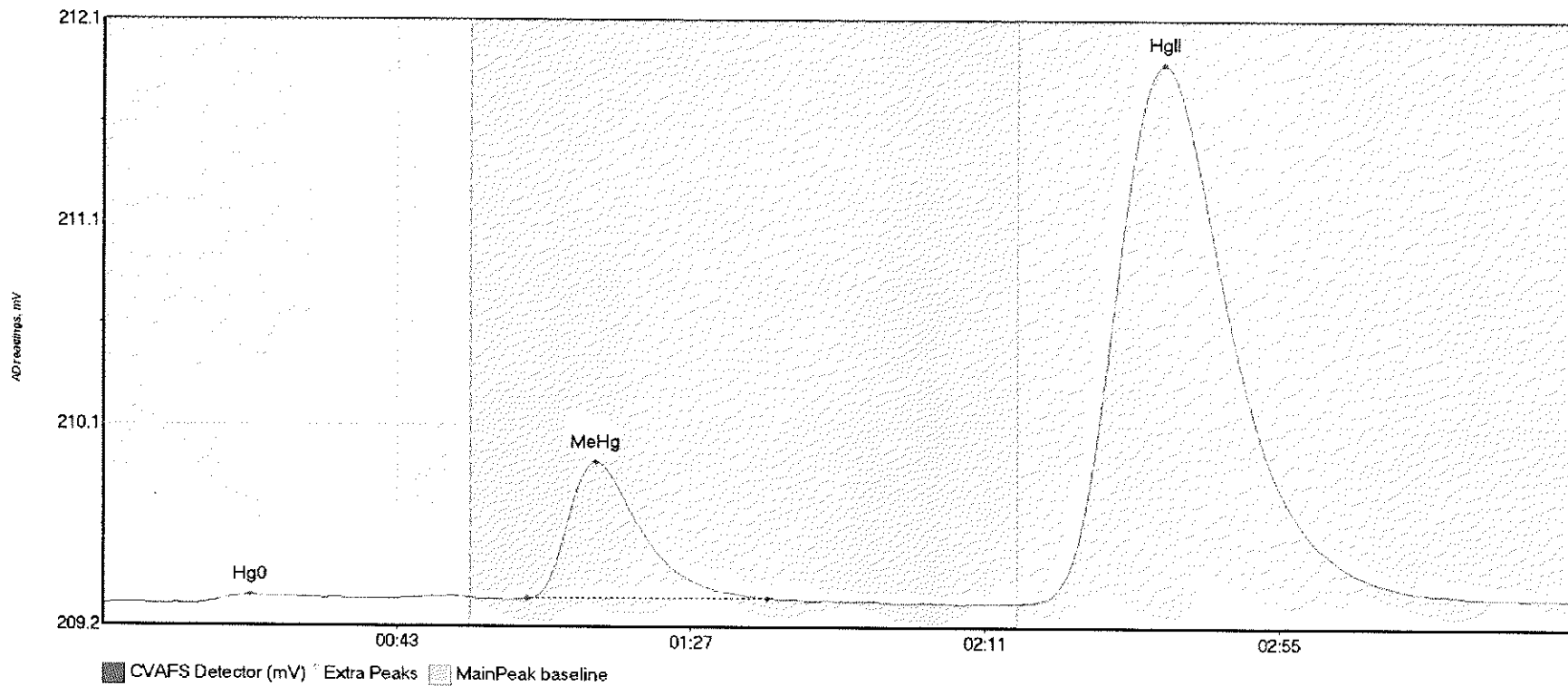
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-34 Hg0	7.414	13.2	55.0	209.25	209.27	21.1	0.043	CT	209.2494	0.00	0.02	
1707810-34 MeHg	51.962	63.5	96.7	209.27	209.28	73.6	0.418	OK	209.2494	0.00	0.02	
1707810-34 HgII	618.760	137.7	216.3	209.25	209.27	158.4	3.079	OK	209.2494	0.00	0.02	

#64: 1707810-35



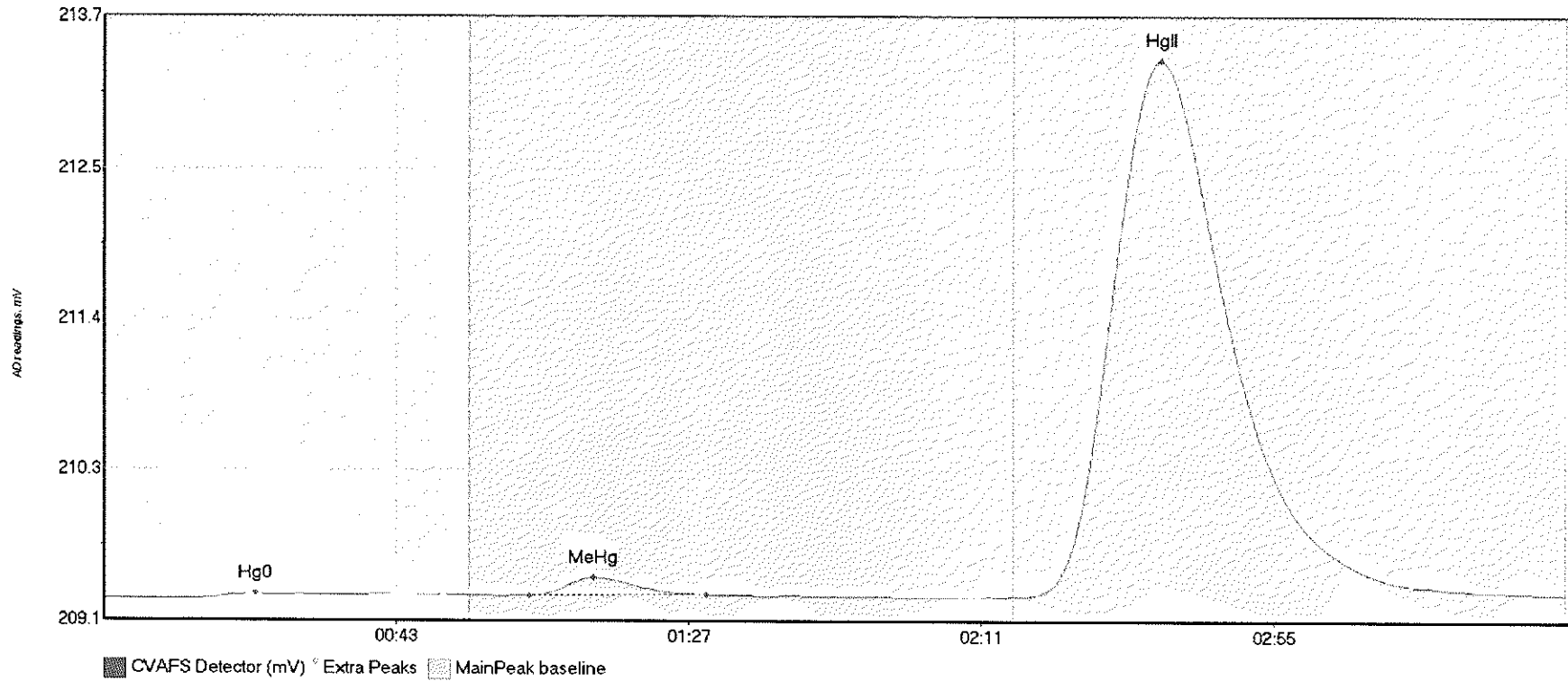
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-35 Hg0	2.316	14.6	35.0	209.27	209.28	22.8	0.025	OK	209.2608	0.00	0.04	
1707810-35 MeHg	71.398	63.3	100.9	209.28	209.29	73.8	0.562	OK	209.2608	0.00	0.04	
1707810-35 HgII	1201.700	137.7	217.7	209.27	209.30	158.7	6.005	OK	209.2608	0.00	0.04	

#65: 1707810-36



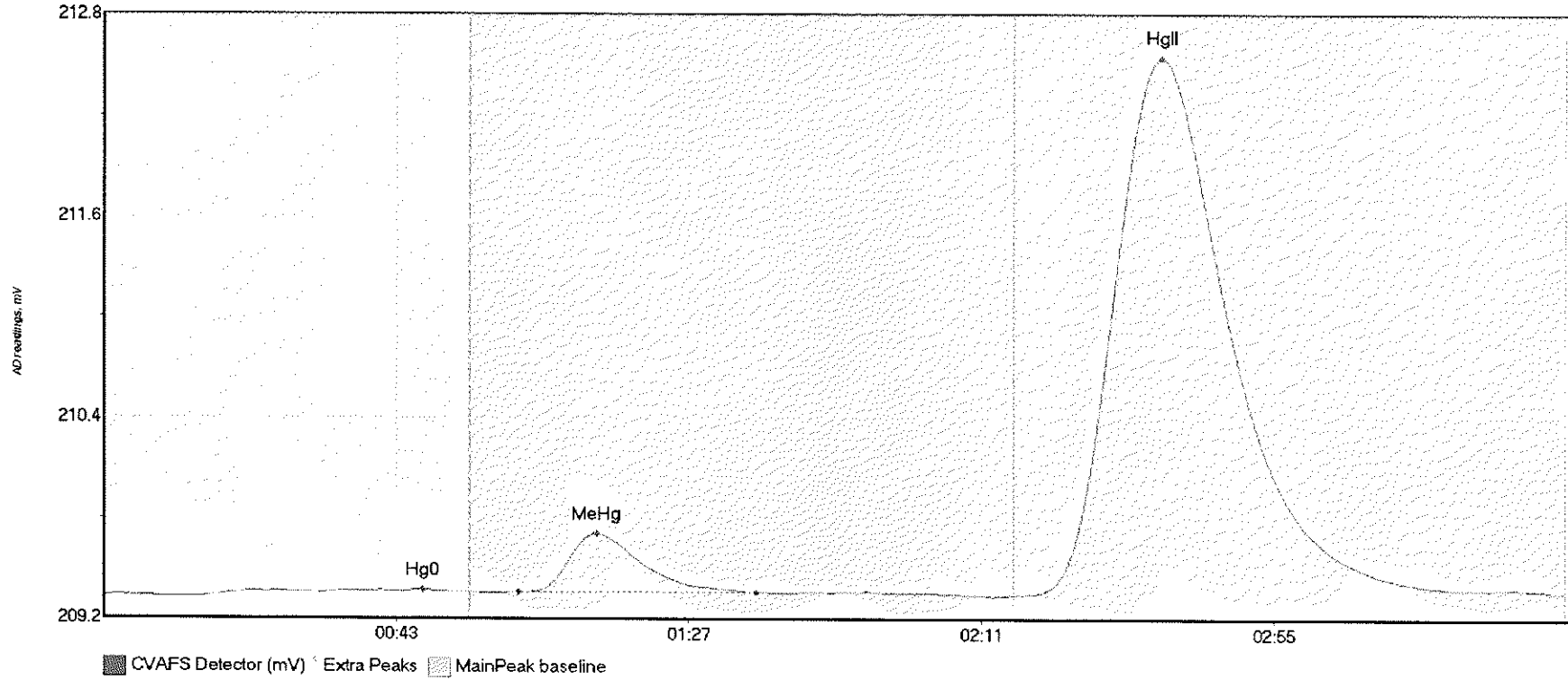
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-36 Hg0	3.850	14.2	37.9	209.27	209.29	22.0	0.039	OK	209.2681	0.00	0.03	
1707810-36 MeHg	84.057	63.4	99.4	209.30	209.30	73.7	0.663	OK	209.2681	0.00	0.03	
1707810-36 HgII	524.966	138.9	219.6	209.28	209.30	158.8	2.606	OK	209.2681	0.00	0.03	

#66: 1707810-37



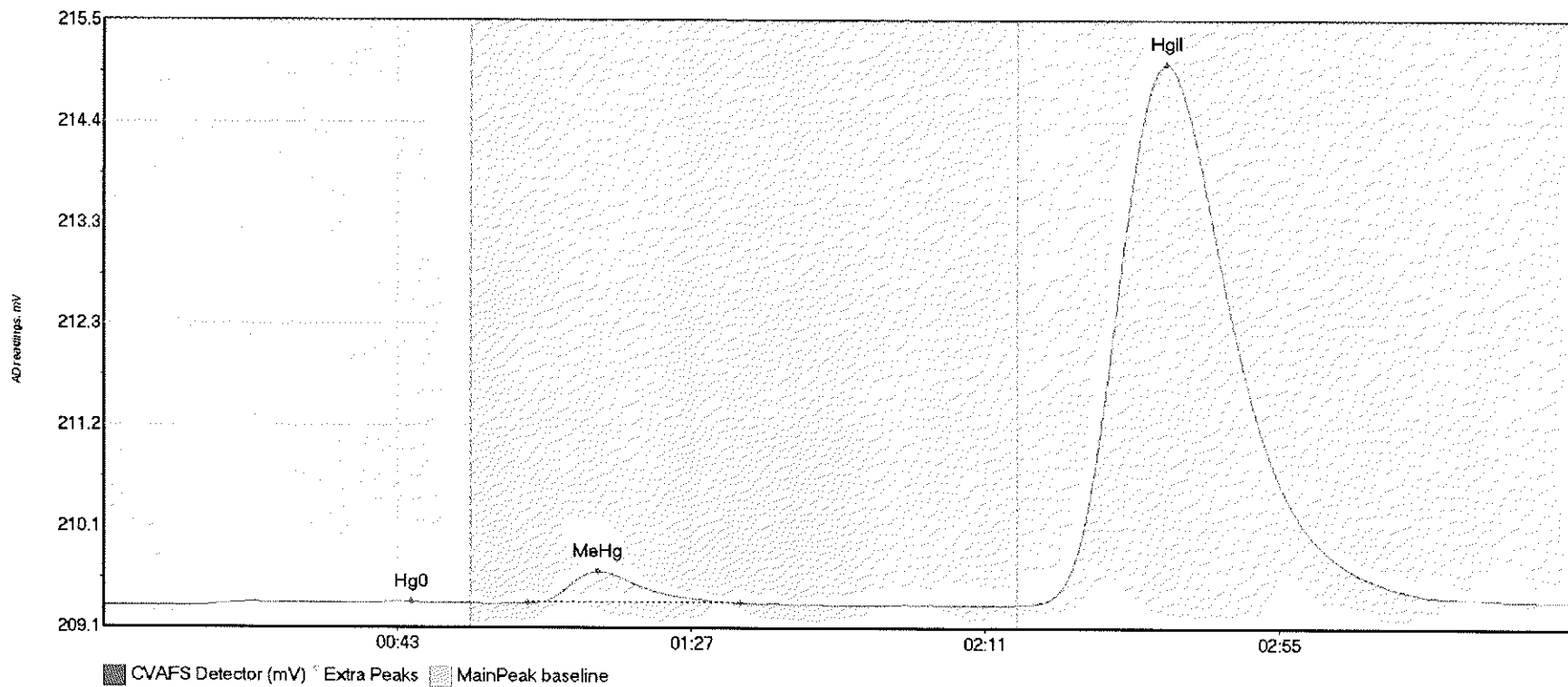
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1707810-37 Hg0	2.539	12.8	32.8	209.27	209.30	22.9	0.040	OK	209.2740	0.00	0.04	
1707810-37 MeHg	15.190	64.0	90.6	209.30	209.31	73.8	0.135	OK	209.2740	0.00	0.04	
1707810-37 HgII	825.523	138.5	219.8	209.29	209.31	159.0	4.072	CF	209.2740	0.00	0.04	

#67: 1707810-38



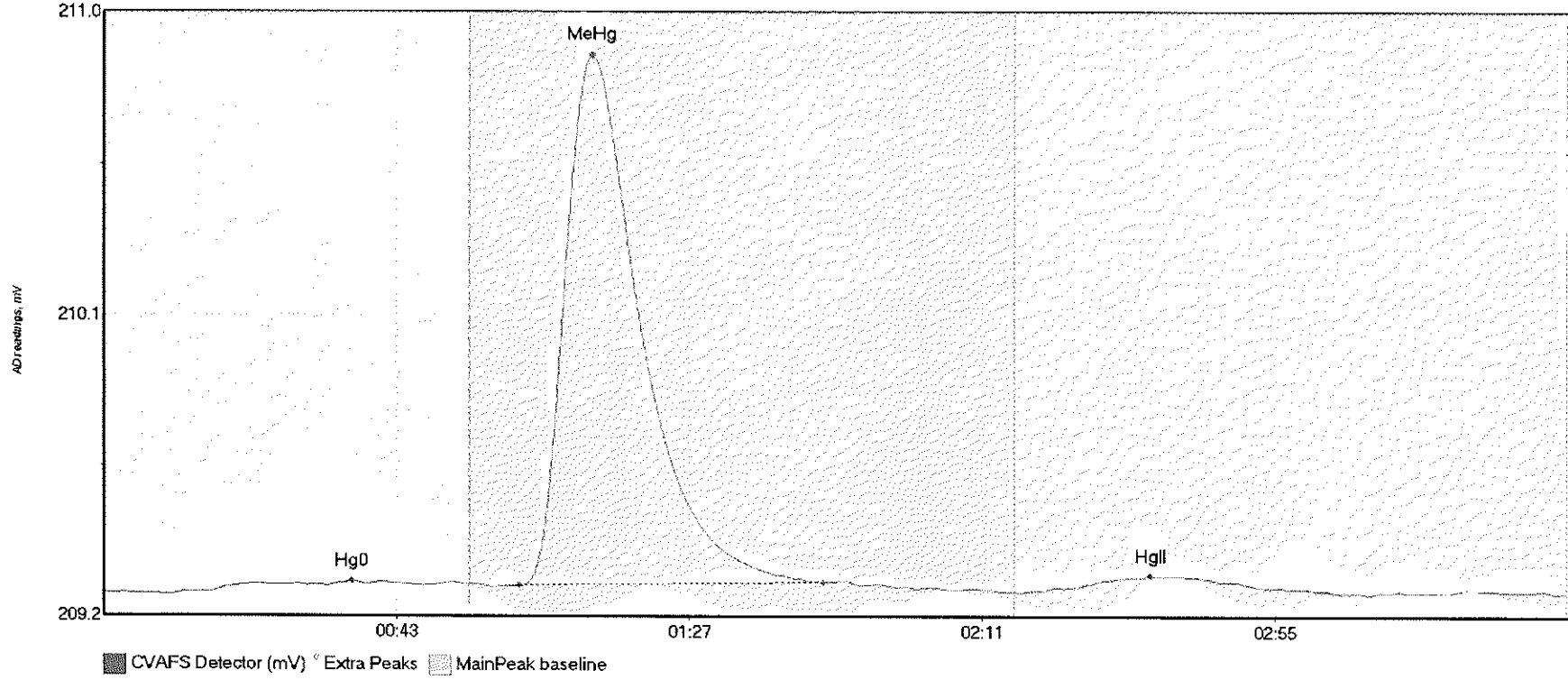
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-38 Hg0	6.386	14.5	54.4	209.29	209.31	48.0	0.040	OK	209.2903	0.00	0.02	
1707810-38 MeHg	44.488	62.3	98.2	209.31	209.31	74.2	0.354	OK	209.2903	0.00	0.02	
1707810-38 HgII	647.817	138.9	219.5	209.30	209.31	159.0	3.233	OK	209.2903	0.00	0.02	

#68: 1707810-39



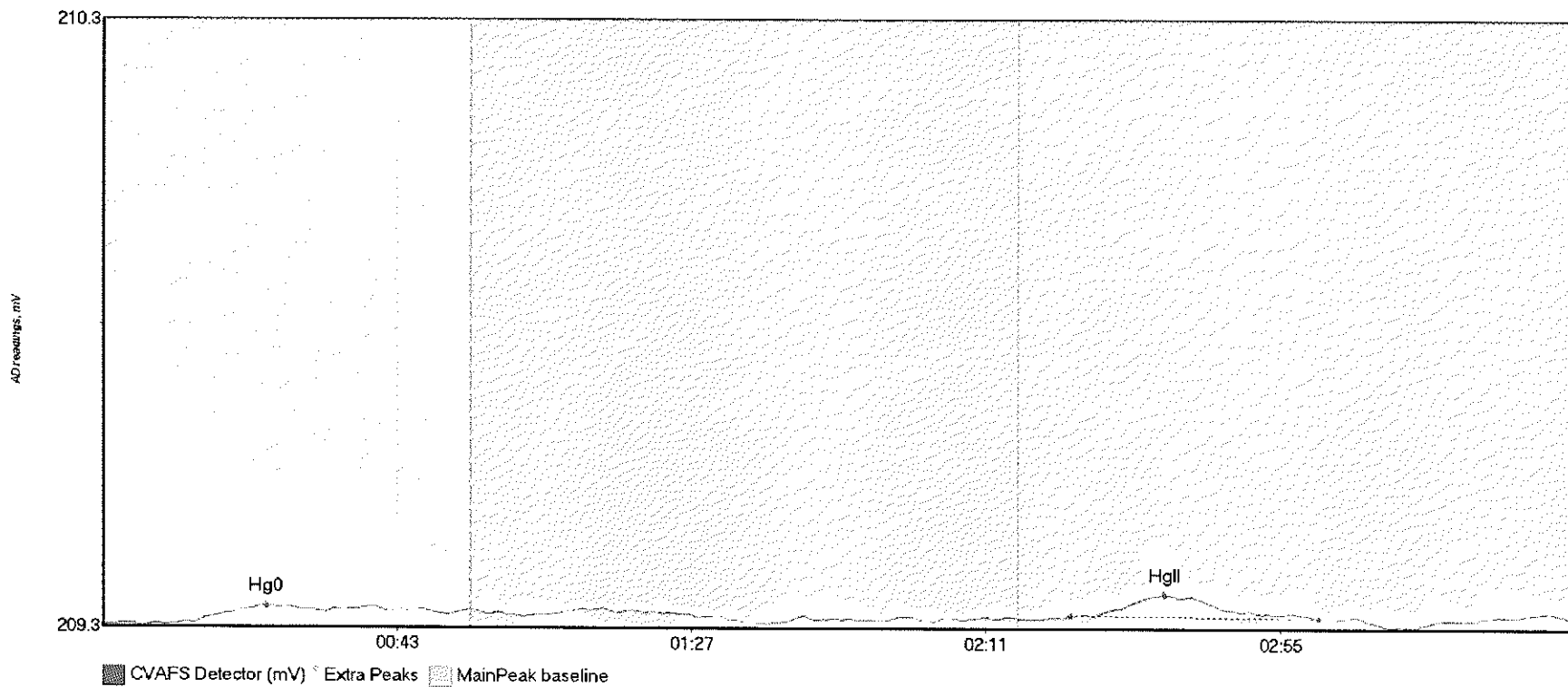
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-39 Hg0	6.642	14.2	54.8	209.30	209.32	46.1	0.040	OK	209.2955	0.00	0.05	
1707810-39 MeHg	41.097	63.5	95.3	209.33	209.33	74.0	0.331	OK	209.2955	0.00	0.05	
1707810-39 HgII	1157.361	137.5	218.8	209.31	209.35	159.0	5.711	OK	209.2955	0.00	0.05	

#69: SEQ-CCV5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	3.769	15.6	48.0	209.31	209.33	37.3	0.030	OK	209.3046	0.00	0.00	
SEQ-CCV5 MeHg	207.528	62.5	108.2	209.33	209.34	73.4	1.576	OK	209.3046	0.00	0.00	
SEQ-CCV5 HgII	10.130	139.9	183.5	209.31	209.31	157.3	0.045	OK	209.3046	0.00	0.00	

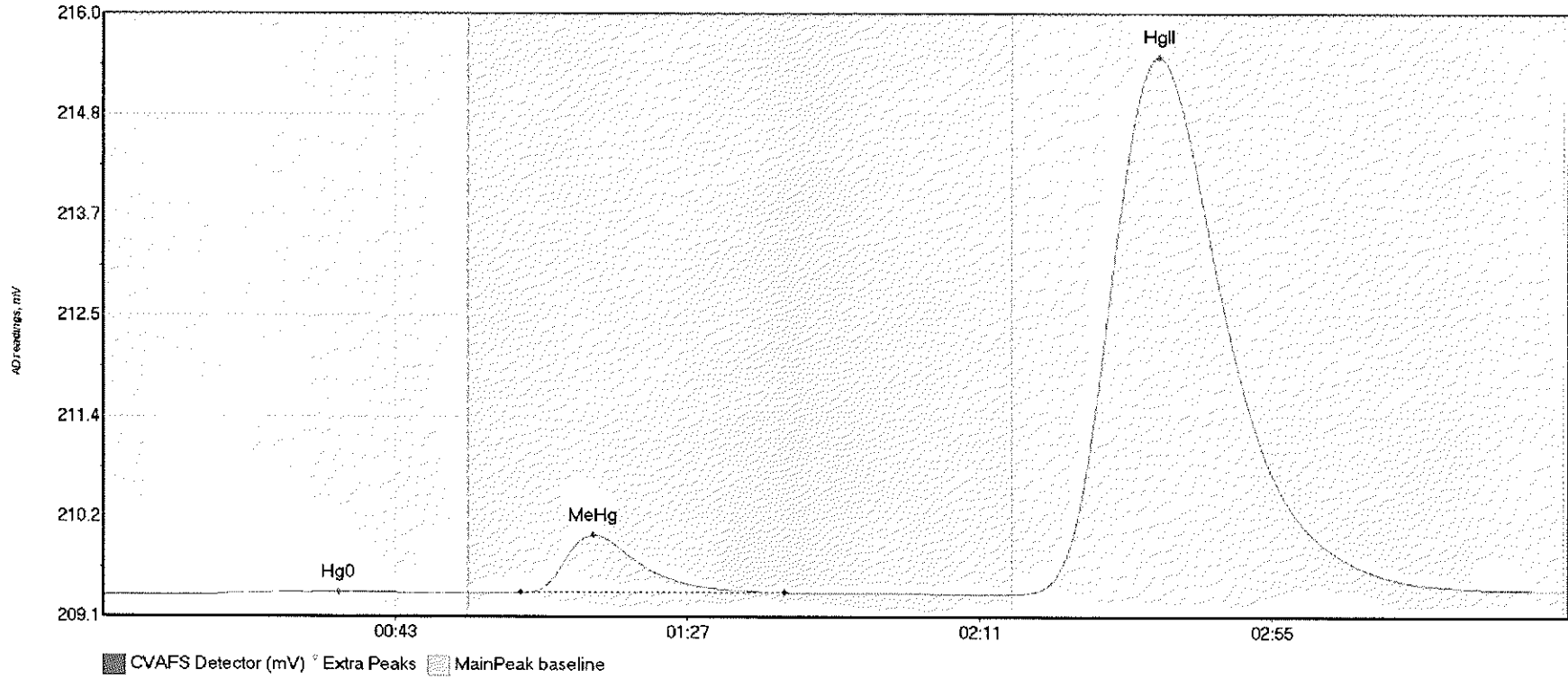
#70: SEQ-CCB5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.322	13.7	51.5	209.31	209.32	24.4	0.029	OK	209.3026	0.00	0.02	
SEQ-CCB5 HgII	5.742	144.7	181.7	209.32	209.32	158.8	0.035	OK	209.3026	0.00	0.02	017

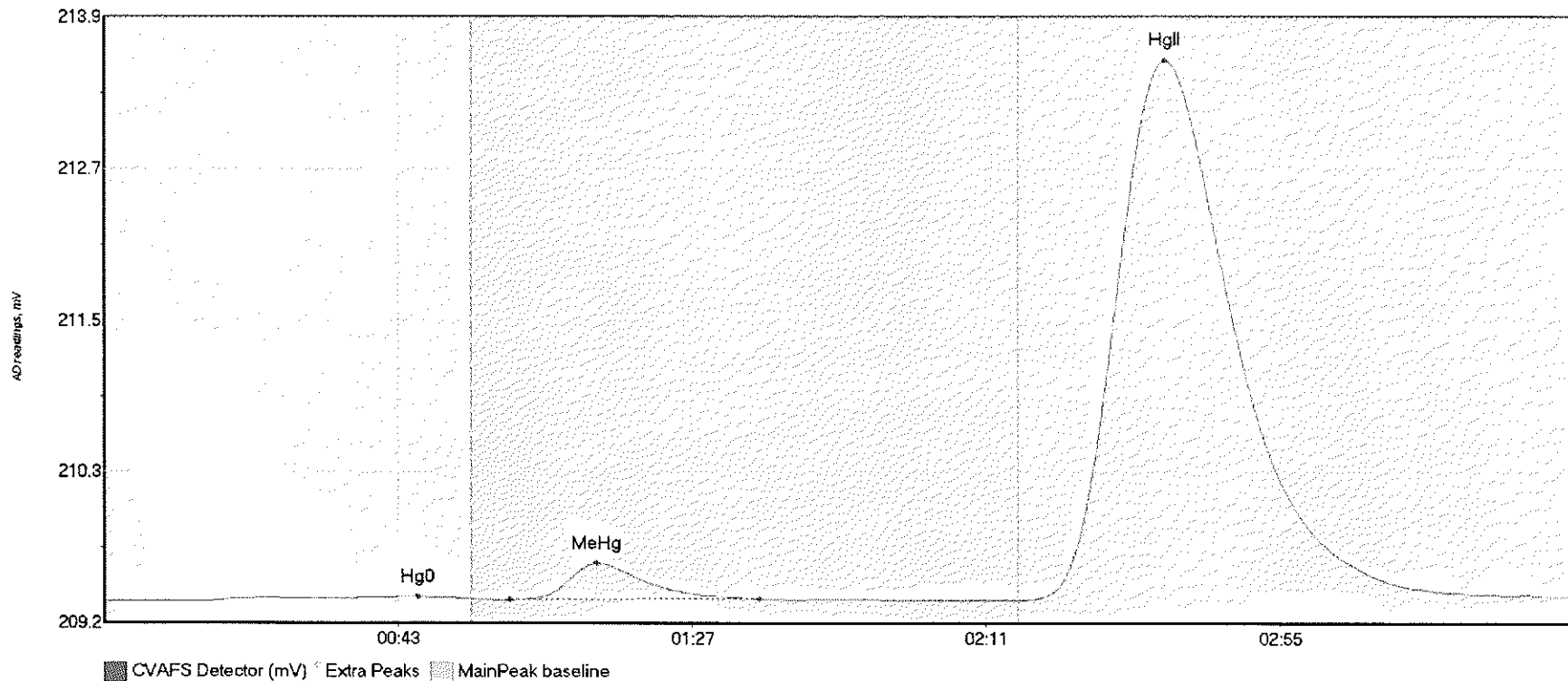


#71: 1707810-40



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-40 Hg0	4.943	15.5	45.7	209.31	209.33	35.4	0.036	OK	209.3089	0.00	0.05	
1707810-40 MeHg	86.954	62.8	102.6	209.34	209.34	73.9	0.664	OK	209.3089	0.00	0.05	
1707810-40 HgII	1247.430	137.1	219.7	209.33	209.36	159.0	6.142	OK	209.3089	0.00	0.05	

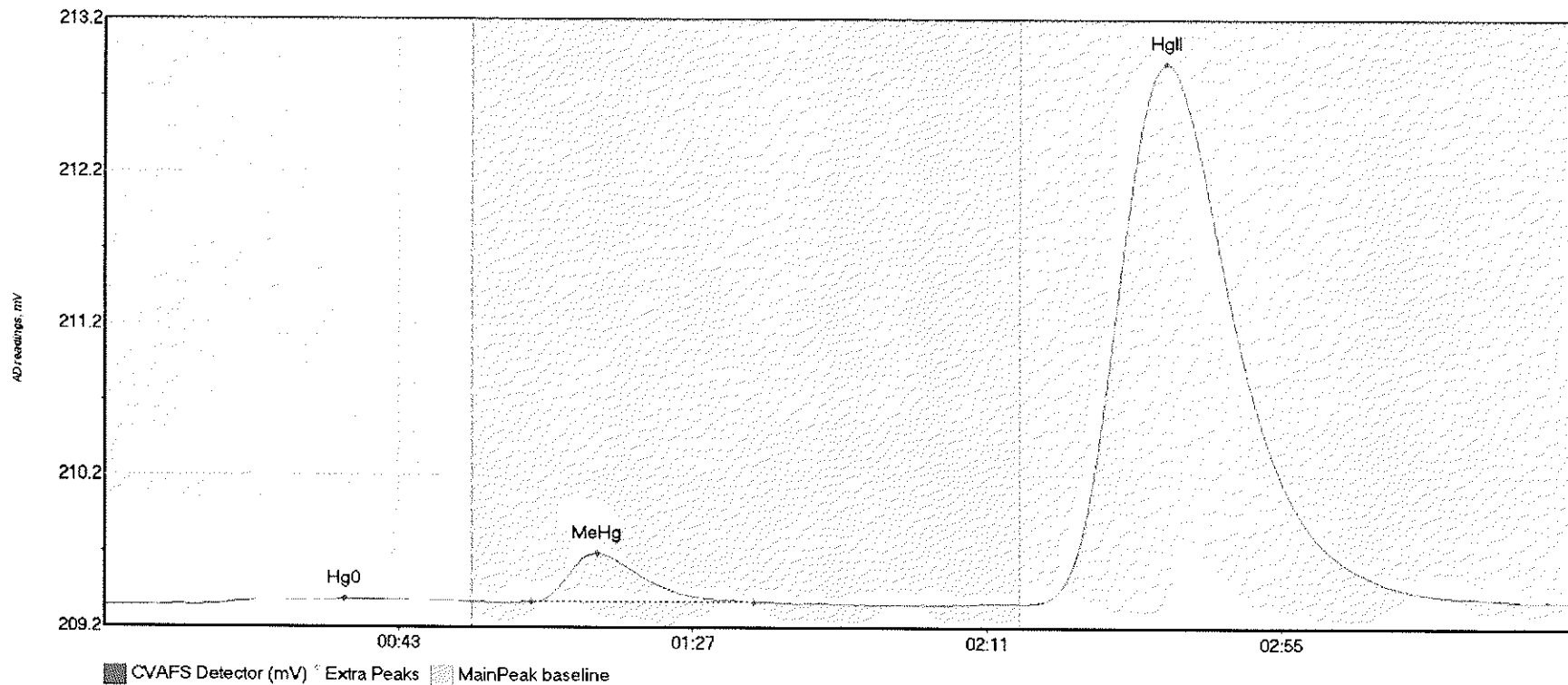
#72: 1707810-41



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-41 Hg0	5.963	15.6	55.0	209.34	209.36	47.0	0.035	CT	209.3336	0.00	0.04	
1707810-41 MeHg	37.090	60.7	98.0	209.35	209.35	73.7	0.285	OK	209.3336	0.00	0.04	
1707810-41 HgII	849.761	137.4	216.8	209.34	209.37	158.8	4.176	OK	209.3336	0.00	0.04	

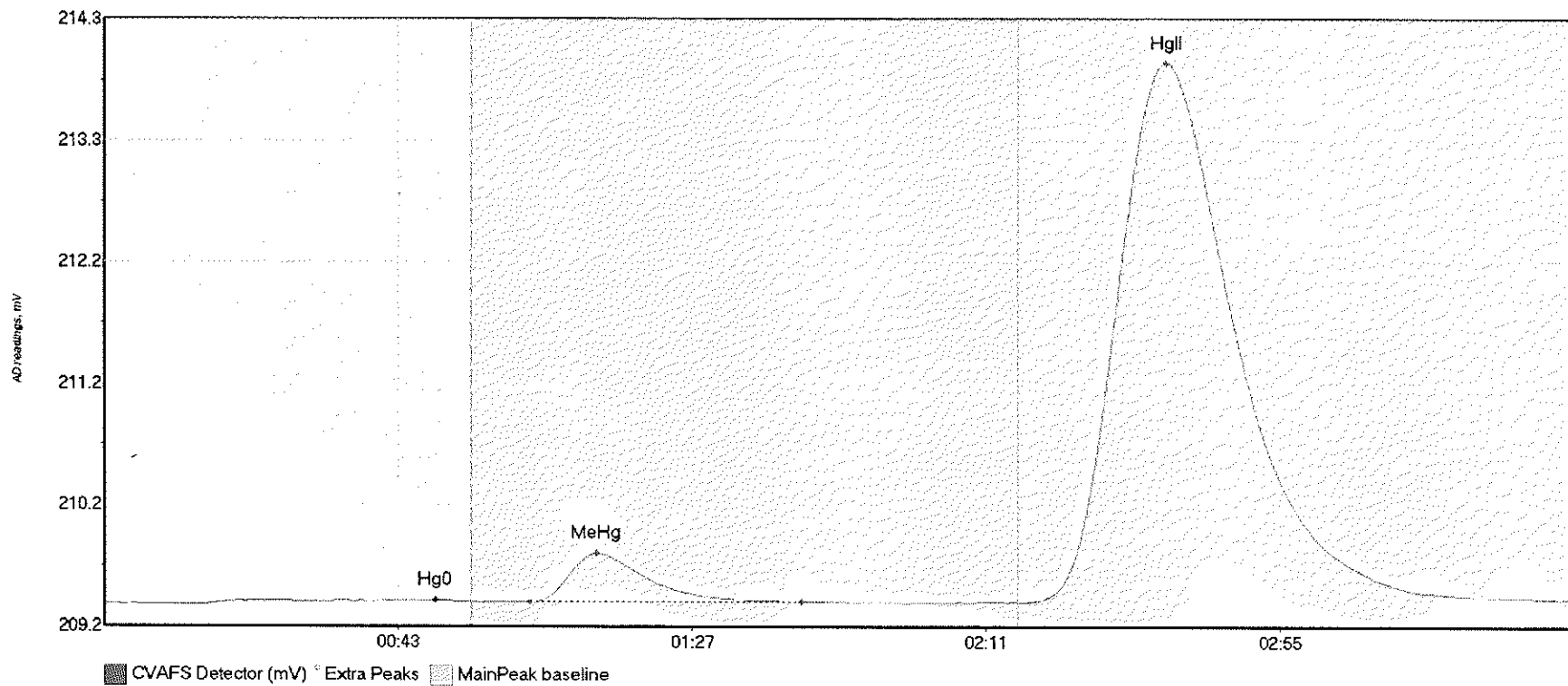
017

#73: 1707810-42



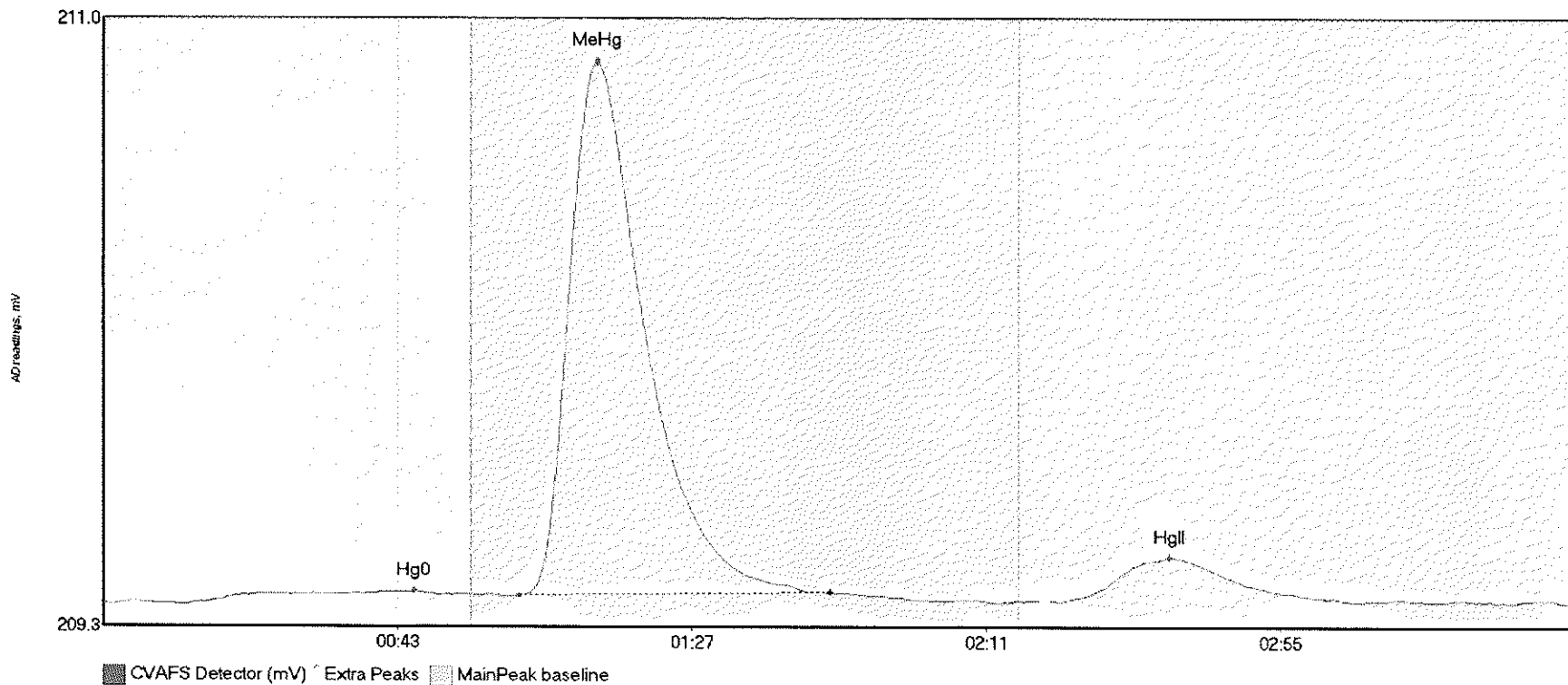
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-42 Hg0	6.687	13.9	55.0	209.34	209.37	35.9	0.039	CT	209.3414	0.00	0.03	
1707810-42 MeHg	40.785	63.8	97.2	209.37	209.37	73.8	0.320	OK	209.3414	0.00	0.03	
1707810-42 HgII	731.777	138.3	219.0	209.36	209.37	158.8	3.562	OK	209.3414	0.00	0.03	

#74: 1707810-43



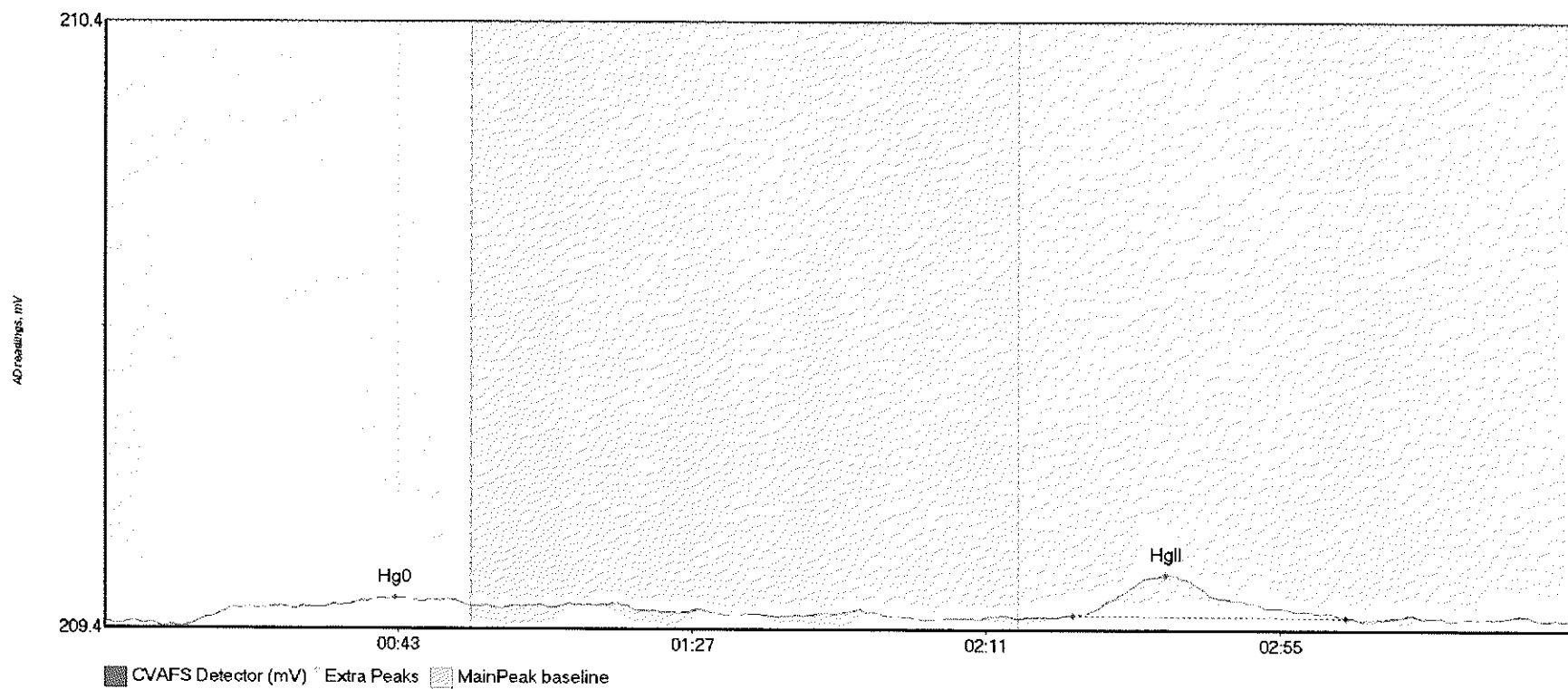
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707810-43 Hg0	6.037	14.8	53.8	209.35	209.37	49.6	0.035	OK	209.3513	0.00	0.04	
1707810-43 MeHg	53.410	63.7	104.5	209.37	209.37	73.8	0.405	OK	209.3513	0.00	0.04	
1707810-43 HgII	925.417	137.7	217.6	209.36	209.39	158.9	4.543	OK	209.3513	0.00	0.04	

#75: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	4.042	15.0	50.3	209.36	209.38	46.5	0.030	OK	209.3544	0.00	0.00	
SEQ-CCV6 MeHg	194.101	62.2	108.8	209.38	209.38	73.9	1.479	OK	209.3544	0.00	0.00	
SEQ-CCV6 HgII	23.702	143.0	187.0	209.36	209.36	159.4	0.124	OK	209.3544	0.00	0.00	

#76: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	7.415	11.7	54.9	209.35	209.39	43.6	0.048	OK	209.3617	0.00	0.00	
SEQ-CCB6 HgII	12.091	145.0	185.7	209.37	209.37	158.9	0.067	OK	209.3617	0.00	0.00	017



Frontier Global Sciences

# MHg27001-170810-1

## Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: August 10, 2017

Instrument #: Hg2700-1

LIMS Sequence #: 7H11011

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	23.51 units	470.29	23.51 units	470.29	105.8 %Rec
SEQ-CAL2	1	0.20 ng/L	81.07 units	405.35	81.07 units	405.35	91.2 %Rec
SEQ-CAL3	1	1.00 ng/L	444.82 units	444.82	444.82 units	444.82	100.1 %Rec
SEQ-CAL4	1	2.00 ng/L	860.29 units	430.14	860.29 units	430.14	96.8 %Rec
SEQ-CAL5	1	4.00 ng/L	1883.64 units	470.91	1883.64 units	470.91	106.0 %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**  
 444.30            +/- 27.85            6.3% RSD            444.30

### 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	0.626 ng/L	±0.708
BLK	2	3	0.669 ng/L	±1.158
BLK	3	3	2.269 ng/L	±1.159
BLK	4	3	0.000 ng/L	±0.000
BLK	5	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS:   a   8/12/17

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	DM2	CAL	SEQ-IBL1	1	8/10/17 9:01	24899-1.RAW	9:01:34	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	8/10/17 9:12	24900-1.RAW	9:12:04	23.51			23.5	0.053	0.053	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	8/10/17 9:22	24901-1.RAW	9:22:35	81.07			81.1	0.182	0.182	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	8/10/17 9:33	24902-1.RAW	9:33:06	444.82			444.8	1.001	1.001	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	8/10/17 9:43	24903-1.RAW	9:43:36	860.29			860.3	1.936	1.936	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	8/10/17 9:54	24904-1.RAW	9:54:07	1883.64			1883.6	4.240	4.240	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	8/10/17 10:04	24905-1.RAW	10:04:38	222.00			222.0	0.500	0.500	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	8/10/17 10:15	24906-1.RAW	10:15:08	1.74			1.7	0.004	0.004	ng/L	
Hg2700-1	DM2	BLK	F708268-BLK4	500	8/10/17 10:25	24907-1.RAW	10:25:39	1.24		1	1.2	0.003	1.394	ng/L	
Hg2700-1	DM2	BLK	F708268-BLK5	500	8/10/17 10:36	24908-1.RAW	10:36:10	0.00		1	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708268-BLK6	500	8/10/17 10:46	24909-1.RAW	10:46:41	0.43		1	0.4	0.001	0.485	ng/L	
Hg2700-1	DM2	SAM	1707706-01RE1	2500	8/10/17 10:57	24910-1.RAW	10:57:11	1317.15		1	1317.2	2.964	7410.707	ng/L	
Hg2700-1	DM2	SAM	1707706-02RE1	2500	8/10/17 11:07	24911-1.RAW	11:07:42	1305.53		1	1305.5	2.938	7345.277	ng/L	
Hg2700-1	DM2	SAM	1707706-03RE1	2500	8/10/17 11:18	24912-1.RAW	11:18:12	404.00		1	404.0	0.909	2272.609	ng/L	
Hg2700-1	DM2	SAM	1707737-01RE1	500	8/10/17 11:28	24913-1.RAW	11:28:43	64.79		1	64.8	0.145	72.282	ng/L	
Hg2700-1	DM2	BLK	F708293-BLK7	500	8/10/17 11:39	24914-1.RAW	11:39:14	1.78		2	1.8	0.004	2.006	ng/L	
Hg2700-1	DM2	BLK	F708293-BLK8	500	8/10/17 11:49	24915-1.RAW	11:49:44	0.00		2	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	BLK	F708293-BLK9	500	8/10/17 12:00	24916-1.RAW	12:00:15	0.00		2	0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	8/10/17 12:10	24917-1.RAW	12:10:46	207.43			207.4	0.467	0.467	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	8/10/17 12:21	24918-1.RAW	12:21:17	1.36			1.4	0.003	0.003	ng/L	
Hg2700-1	DM2	SAM	F708293-MS3	500	8/10/17 12:31	24919-1.RAW	12:31:47	1171.83		2	1171.8	2.636	1318.056	ng/L	
Hg2700-1	DM2	SAM	F708293-MSD3	500	8/10/17 12:42	24920-1.RAW	12:42:18	1125.28		2	1125.3	2.531	1265.676	ng/L	
Hg2700-1	DM2	BLK	F707568-BLK1	500	8/10/17 12:52	24921-1.RAW	12:52:49	3.20		3	3.2	0.007	3.605	ng/L	
Hg2700-1	DM2	BLK	F707568-BLK2	500	8/10/17 13:03	24922-1.RAW	13:03:19	1.36		3	1.4	0.003	1.529	ng/L	
Hg2700-1	DM2	BLK	F707568-BLK3	500	8/10/17 13:13	24923-1.RAW	13:13:50	1.49		3	1.5	0.003	1.673	ng/L	
Hg2700-1	DM2	SAM	F707568-BS1	1000	8/10/17 13:24	24924-1.RAW	13:24:21	842.72		3	842.7	1.894	1894.443	ng/L	
Hg2700-1	DM2	SAM	F707568-BSD1	1000	8/10/17 13:34	24925-1.RAW	13:34:51	839.03		3	839.0	1.886	1886.156	ng/L	
Hg2700-1	DM2	SAM	F707568-DUP1	500	8/10/17 13:45	24926-1.RAW	13:45:22	64.97		3	65.0	0.142	70.842	ng/L	
Hg2700-1	DM2	SAM	F707568-MS1	500	8/10/17 13:55	24927-1.RAW	13:55:53	485.03		3	485.0	1.087	543.559	ng/L	
Hg2700-1	DM2	SAM	F707568-MSD1	500	8/10/17 14:06	24928-1.RAW	14:06:23	469.64		3	469.6	1.052	526.247	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	8/10/17 14:16	24929-1.RAW	14:16:54	206.82			206.8	0.466	0.466	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	8/10/17 14:27	24930-1.RAW	14:27:25	1.62			1.6	0.004	0.004	ng/L	
Hg2700-1	DM2	SAM	F707568-MS2	500	8/10/17 14:37	24931-1.RAW	14:37:56	502.70		3	502.7	1.127	563.443	ng/L	
Hg2700-1	DM2	SAM	F707568-MSD2	500	8/10/17 14:48	24932-1.RAW	14:48:27	556.74		3	556.7	1.249	624.263	ng/L	
Hg2700-1	DM2	SAM	1707771-41	500	8/10/17 14:58	24933-1.RAW	14:58:58	34.09		3	34.1	0.072	36.093	ng/L	
Hg2700-1	DM2	SAM	1707771-42	500	8/10/17 15:09	24934-1.RAW	15:09:29	41.98		3	42.0	0.090	44.976	ng/L	
Hg2700-1	DM2	SAM	1707771-43	500	8/10/17 15:19	24935-1.RAW	15:19:59	26.84		3	26.8	0.056	27.934	ng/L	
Hg2700-1	DM2	SAM	1707771-44	500	8/10/17 15:30	24936-1.RAW	15:30:30	27.63		3	27.6	0.058	28.820	ng/L	
Hg2700-1	DM2	SAM	1707771-45	500	8/10/17 15:41	24937-1.RAW	15:41:01	26.23		3	26.2	0.055	27.254	ng/L	
Hg2700-1	DM2	SAM	1707771-46	500	8/10/17 15:51	24938-1.RAW	15:51:32	18.10		3	18.1	0.036	18.103	ng/L	
Hg2700-1	DM2	SAM	1707771-87	500	8/10/17 16:02	24939-1.RAW	16:02:02	42.11		3	42.1	0.090	45.117	ng/L	
Hg2700-1	DM2	SAM	1707771-88	500	8/10/17 16:12	24940-1.RAW	16:12:33	42.95		3	42.9	0.092	46.064	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	8/10/17 16:23	24941-1.RAW	16:23:04	192.00			192.0	0.432	0.432	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	8/10/17 16:33	24942-1.RAW	16:33:35	0.00			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	SAM	1707771-89	500	8/10/17 16:44	24943-1.RAW	16:44:05	48.10		3	48.1	0.104	51.865	ng/L	
Hg2700-1	DM2	SAM	1707771-90	500	8/10/17 16:54	24944-1.RAW	16:54:36	62.05		3	62.0	0.135	67.555	ng/L	



Instrument		Analyst		Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2700-1	DM2	SAM	1707771-AB	500	8/10/17 17:05	24945-1.RAW	17:05:07	69.84	3	69.8	0.153	76.322	ng/L				
Hg2700-1	DM2	SAM	1707771-AC	500	8/10/17 17:15	24946-1.RAW	17:15:38	44.08	3	44.1	0.095	47.341	ng/L				
Hg2700-1	DM2	SAM	1707771-AJ	500	8/10/17 17:26	24947-1.RAW	17:26:08	50.83	3	50.8	0.110	54.930	ng/L				
Hg2700-1	DM2	SAM	1707771-AK	500	8/10/17 17:36	24948-1.RAW	17:36:39	65.34	3	65.3	0.143	71.267	ng/L				
Hg2700-1	DM2	SAM	1707771-AL	500	8/10/17 17:47	24949-1.RAW	17:47:10	64.74	3	64.7	0.141	70.592	ng/L				
Hg2700-1	DM2	SAM	1707771-AM	500	8/10/17 17:57	24950-1.RAW	17:57:40	73.55	3	73.6	0.161	80.502	ng/L				
Hg2700-1	DM2	SAM	1707771-AN	500	8/10/17 18:08	24951-1.RAW	18:08:11	48.89	3	48.9	0.105	52.745	ng/L				
Hg2700-1	DM2	SAM	1707771-AO	500	8/10/17 18:18	24952-1.RAW	18:18:42	30.72	3	30.7	0.065	32.300	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCV4	1	8/10/17 18:29	24953-1.RAW	18:29:13	211.85		211.8	0.477	0.477	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCB4	1	8/10/17 18:39	24954-1.RAW	18:39:44	0.00		0.0	0.000	0.000	ng/L				
Hg2700-1	DM2	SAM	1707771-AR	500	8/10/17 18:50	24955-1.RAW	18:50:14	105.75	3	105.7	0.233	116.736	ng/L				
Hg2700-1	DM2	SAM	1707771-AS	500	8/10/17 19:00	24956-1.RAW	19:00:45	101.22	3	101.2	0.223	111.636	ng/L				
Hg2700-1	DM2	BLK	F707569-BLK1	500	8/10/17 19:11	24957-1.RAW	19:11:16	0.00	4	0.0	0.000	0.000	ng/L				
Hg2700-1	DM2	BLK	F707569-BLK2	500	8/10/17 19:21	24958-1.RAW	19:21:46	0.00	4	0.0	0.000	0.000	ng/L				
Hg2700-1	DM2	BLK	F707569-BLK3	500	8/10/17 19:32	24959-1.RAW	19:32:17	0.00	4	0.0	0.000	0.000	ng/L				
Hg2700-1	DM2	SAM	F707569-BS1	1000	8/10/17 19:42	24960-1.RAW	19:42:48	814.69	4	814.7	1.834	1833.639	ng/L				
Hg2700-1	DM2	SAM	F707569-BSD1	1000	8/10/17 19:53	24961-1.RAW	19:53:19	755.48	4	755.5	1.700	1700.364	ng/L				
Hg2700-1	DM2	SAM	F707569-DUP1	500	8/10/17 20:03	24962-1.RAW	20:03:49	26.43	4	26.4	0.059	29.746	ng/L				
Hg2700-1	DM2	SAM	F707569-MS1	500	8/10/17 20:14	24963-1.RAW	20:14:20	516.93	4	516.9	1.163	581.727	ng/L				
Hg2700-1	DM2	SAM	F707569-MSD1	500	8/10/17 20:24	24964-1.RAW	20:24:51	520.87	4	520.9	1.172	586.170	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCV5	1	8/10/17 20:35	24965-1.RAW	20:35:22	218.74		218.7	0.492	0.492	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCB5	1	8/10/17 20:45	24966-1.RAW	20:45:52	1.23		1.2	0.003	0.003	ng/L				
Hg2700-1	DM2	SAM	F707569-MS2	500	8/10/17 20:56	24967-1.RAW	20:56:23	572.86	4	572.9	1.289	644.677	ng/L				
Hg2700-1	DM2	SAM	F707569-MSD2	500	8/10/17 21:06	24968-1.RAW	21:06:54	464.91	4	464.9	1.046	523.187	ng/L				
Hg2700-1	DM2	SAM	1707771-AT	500	8/10/17 21:17	24969-1.RAW	21:17:25	134.60	4	134.6	0.303	151.473	ng/L				
Hg2700-1	DM2	SAM	1707771-AU	500	8/10/17 21:27	24970-1.RAW	21:27:55	29.28	4	29.3	0.066	32.948	ng/L				
Hg2700-1	DM2	SAM	1707771-AX	500	8/10/17 21:38	24971-1.RAW	21:38:26	30.91	4	30.9	0.070	34.787	ng/L				
Hg2700-1	DM2	SAM	1707771-AY	500	8/10/17 21:48	24972-1.RAW	21:48:57	12.57	4	12.6	0.028	14.142	ng/L				
Hg2700-1	DM2	SAM	1707771-BF	500	8/10/17 21:59	24973-1.RAW	21:59:28	57.96	4	58.0	0.130	65.225	ng/L				
Hg2700-1	DM2	SAM	1707771-BG	500	8/10/17 22:09	24974-1.RAW	22:09:58	8.94	4	8.9	0.020	10.063	ng/L				
Hg2700-1	DM2	SAM	1707771-BH	500	8/10/17 22:20	24975-1.RAW	22:20:29	52.23	4	52.2	0.118	58.775	ng/L				
Hg2700-1	DM2	SAM	1707771-BI	500	8/10/17 22:31	24976-1.RAW	22:31:00	60.45	4	60.4	0.136	68.026	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCV6	1	8/10/17 22:41	24977-1.RAW	22:41:30	217.18		217.2	0.489	0.489	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCB6	1	8/10/17 22:52	24978-1.RAW	22:52:01	0.00		0.0	0.000	0.000	ng/L				
Hg2700-1	DM2	SAM	1707771-BJ	500	8/10/17 23:02	24979-1.RAW	23:02:32	52.03	4	52.0	0.117	58.553	ng/L				
Hg2700-1	DM2	SAM	1707771-BK	500	8/10/17 23:13	24980-1.RAW	23:13:03	34.91	4	34.9	0.079	39.286	ng/L				
Hg2700-1	DM2	SAM	1707771-BN	500	8/10/17 23:23	24981-1.RAW	23:23:33	62.16	4	62.2	0.140	69.949	ng/L				
Hg2700-1	DM2	SAM	1707771-BO	500	8/10/17 23:34	24982-1.RAW	23:34:04	66.71	4	66.7	0.150	75.070	ng/L				
Hg2700-1	DM2	SAM	1707771-BP	500	8/10/17 23:44	24983-1.RAW	23:44:33	173.80	4	173.8	0.391	195.587	ng/L				
Hg2700-1	DM2	SAM	1707771-BQ	500	8/10/17 23:55	24984-1.RAW	23:55:04	76.59	4	76.6	0.172	86.195	ng/L				
Hg2700-1	DM2	SAM	1707771-BR	500	8/10/17 0:05	24985-1.RAW	0:05:34	63.49	4	63.5	0.143	71.446	ng/L				
Hg2700-1	DM2	SAM	1707771-BS	500	8/10/17 0:16	24986-1.RAW	0:16:05	65.76	4	65.8	0.148	74.005	ng/L				
Hg2700-1	DM2	SAM	1707771-BT	500	8/10/17 0:26	24987-1.RAW	0:26:36	44.04	4	44.0	0.099	49.556	ng/L				
Hg2700-1	DM2	SAM	1707771-BU	500	8/10/17 0:37	24988-1.RAW	0:37:06	66.90	4	66.9	0.151	75.292	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCV7	1	8/10/17 0:47	24989-1.RAW	0:47:37	211.68		211.7	0.476	0.476	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCB7	1	8/10/17 0:58	24990-1.RAW	0:58:08	0.00		0.0	0.000	0.000	ng/L				
Hg2700-1	DM2	SAM	1707771-BZ	500	8/10/17 1:08	24991-1.RAW	1:08:39	28.67	4	28.7	0.065	32.259	ng/L				
Hg2700-1	DM2	SAM	1707771-CA	500	8/10/17 1:19	24992-1.RAW	1:19:09	32.34	4	32.3	0.073	36.392	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCV8	1	8/10/17 1:29	24993-1.RAW	1:29:40	183.91		183.9	0.414	0.414	ng/L				
Hg2700-1	DM2	CAL	SEQ-CCB8	1	8/10/17 1:40	24994-1.RAW	1:40:11	0.74		0.7	0.002	0.002	ng/L				

\* Analyzed on 8/11/17  
DM

## ANALYSIS SEQUENCE

7H11011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7H11011-IBL1	QC	1			
7H11011-CAL1	QC	2	1704180		
7H11011-CAL2	QC	3	1704181		
7H11011-CAL3	QC	4	1704182		
7H11011-CAL4	QC	5	1704183		
7H11011-CAL5	QC	6	1704184		
7H11011-ICV1	QC	7	1703246		
7H11011-ICB1	QC	8			
F708268-BLK4	QC	9			
F708268-BLK5	QC	10			
F708268-BLK6	QC	11			
1707706-01RE1	MHg-CVAFS-T-KOH	12			Added 8/10/2017 by DM2
1707706-02RE1	MHg-CVAFS-T-KOH	13			Added 8/10/2017 by DM2
1707706-03RE1	MHg-CVAFS-T-KOH	14			Added 8/10/2017 by DM2
1707737-01RE1	MHg-CVAFS-S-KOH	15			Added 8/10/2017 by DM2
1707737-01RE1	MHg-CVAFS-T-KOH	16			Added 8/11/2017 by DM2
F708293-BLK7	QC	17			
F708293-BLK8	QC	18			
F708293-BLK9	QC	19			
7H11011-CCV1	QC	20	1703246		
7H11011-CCB1	QC	21			
F708293-MS3	QC	22			
F708293-MSD3	QC	23			
F707568-BLK1	QC	24			
F707568-BLK2	QC	25			
F707568-BLK3	QC	26			
F707568-BS1	QC	27			
F707568-BSD1	QC	28			
F707568-DUPI	QC	29			
F707568-MS1	QC	30			
F707568-MSD1	QC	31			
7H11011-CCV2	QC	32	1703246		
7H11011-CCB2	QC	33			
F707568-MS2	QC	34			
F707568-MSD2	QC	35			

Due Date: 8/21/2017

158 of 288

Page 1 of 3

## ANALYSIS SEQUENCE

7H11011

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 8/10/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1707771-41 ✓	MHg-CVAFS-S-KOH	36			
1707771-42 ✓	MHg-CVAFS-S-KOH	37			
1707771-43 ✓	MHg-CVAFS-S-KOH	38			
1707771-44 ✓	MHg-CVAFS-S-KOH	39			
1707771-45 ✓	MHg-CVAFS-S-KOH	40			
1707771-46 ✓	MHg-CVAFS-S-KOH	41			
1707771-87 ✓	MHg-CVAFS-S-KOH	42			
1707771-88 ✓	MHg-CVAFS-S-KOH	43			
7H11011-CCV3 ✓	QC	44	1703246 ✓		
7H11011-CCB3 ✓	QC	45			
1707771-89 ✓	MHg-CVAFS-S-KOH	46			
1707771-90 ✓	MHg-CVAFS-S-KOH	47			
1707771-AB ✓	MHg-CVAFS-S-KOH	48			
1707771-AC ✓	MHg-CVAFS-S-KOH	49			
1707771-AJ ✓	MHg-CVAFS-S-KOH	50			
1707771-AK ✓	MHg-CVAFS-S-KOH	51			
1707771-AL ✓	MHg-CVAFS-S-KOH	52			
1707771-AM ✓	MHg-CVAFS-S-KOH	53			
1707771-AN ✓	MHg-CVAFS-S-KOH	54			
1707771-AO ✓	MHg-CVAFS-S-KOH	55			
7H11011-CCV4 ✓	QC	56	1703246 ✓		
7H11011-CCB4 ✓	QC	57			
1707771-AR ✓	MHg-CVAFS-S-KOH	58			
1707771-AS ✓	MHg-CVAFS-S-KOH	59			
F707569-BLK1 ✓	QC	60			
F707569-BLK2 ✓	QC	61			
F707569-BLK3 ✓	QC	62			
F707569-BS1 ✓	QC	63			
F707569-BSD1 ✓	QC	64			
F707569-DUP1 ✓	QC	65			
F707569-MS1 ✓	QC	66			
F707569-MSD1 ✓	QC	67			
7H11011-CCV5 ✓	QC	68	1703246 ✓		
7H11011-CCB5 ✓	QC	69			
F707569-MS2 ✓	QC	70			

Due Date: 8/21/2017

159 of 288

Page 2 of 3

**ANALYSIS SEQUENCE**

**7H11011**

**Instrument: Hg2700-1**

**Calibration ID: UNASSIGNED**

**Analyzed: 8/10/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F707569-MSD2 .	QC	71			
1707771-AF .	MHg-CVAFS-S-KOH	72			
1707771-AU .	MHg-CVAFS-S-KOH	73			
1707771-AX .	MHg-CVAFS-S-KOH	74			
1707771-AY .	MHg-CVAFS-S-KOH	75			
1707771-BF .	MHg-CVAFS-S-KOH	76			
1707771-BG .	MHg-CVAFS-S-KOH	77			
1707771-BH .	MHg-CVAFS-S-KOH	78			
1707771-BI .	MHg-CVAFS-S-KOH	79			
7H11011-CCV6 .	QC	80	1703246 .		
7H11011-CCB6 .	QC	81			
1707771-BJ .	MHg-CVAFS-S-KOH	82			
1707771-BK .	MHg-CVAFS-S-KOH	83			
1707771-BN .	MHg-CVAFS-S-KOH	84			
1707771-BO .	MHg-CVAFS-S-KOH	85			
1707771-BP .	MHg-CVAFS-S-KOH	86			
1707771-BQ .	MHg-CVAFS-S-KOH	87			
1707771-BR .	MHg-CVAFS-S-KOH	88			
1707771-BS .	MHg-CVAFS-S-KOH	89			
1707771-BT .	MHg-CVAFS-S-KOH	90			
1707771-BU .	MHg-CVAFS-S-KOH	91			
7H11011-CCV7 .	QC	92	1703246 .		
7H11011-CCB7 .	QC	93			
1707771-BZ .	MHg-CVAFS-S-KOH	94			
1707771-CA .	MHg-CVAFS-S-KOH	95			
7H11011-CCV8 .	QC	96	1703246 .		
7H11011-CCB8 .	QC	97			

Dan Moxem      8/10/17  
 Samples Loaded By      Date

Dan Moxem      8/11/17  
 Data Processed By      Date

**PREPARATION BENCH SHEET**

F708268

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708268-BLK1	Blank	0.25	20					
F708268-BLK2	Blank	0.25	20					
F708268-BLK3	Blank	0.25	20					
F708268-BLK4	Blank	0.25	20					
F708268-BLK5	Blank	0.25	20					
F708268-BLK6	Blank	0.25	20					
F708268-BS1	DORM-4	0.1258	20	1703305	126			
F708268-BSD1	DORM-4 Dup	0.1253	20	1703305	125			
F708268-DUP1	Duplicate [1707737-01]	0.3026	20					
F708268-MS1	Matrix Spike [1707737-01]	0.2814	20	1605978	100			
F708268-MS2	Matrix Spike [1707810-35]	0.2876	20	1605978	100			
F708268-MSD1	Matrix Spike Dup [1707737-01]	0.3001	20	1605978	100			
F708268-MSD2	Matrix Spike Dup [1707810-35]	0.2919	20	1605978	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1605978	MHg New Primary 100 ng/mL spike
1703305	DORM-4

<u>Expiration:</u>
15-Oct-17 00:00
29-May-20 00:00
29-May-20 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1606119	Methanol, HPLC Grade	17-Oct-19 00:00
1704399	Ethylating Agent (For Methyl Mercury Analysis)	16-Jan-18 00:00
1704424	Boiling Chips for AFS prep	21-Jan-18 00:00
1704707	Acetate Buffer	29-Jan-18 00:00
1704725	25% KOH/Methanol	30-Jan-18 00:00

**PREPARATION BENCH SHEET**

F708268

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707706-01	MMSE-1_17HC005_071917_SPI_03_WB	0.2727	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-01RE1	MMSE-1_17HC005_071917_SPI_03_WB	0.2727	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2
1707706-02	MMSE-1_17HC005_071917_SPI_04_WB	0.1963	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-02RE1	MMSE-1_17HC005_071917_SPI_04_WB	0.1963	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2
1707706-03	MMSE-1_17HC005_071917_SPI_05_WB	0.0806	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-03RE1	MMSE-1_17HC005_071917_SPI_05_WB	0.0806	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2
1707737-01	MMSE-1_N2_072417_SED_00-01	0.292	20	-	-	-		
1707737-01RE1	MMSE-1_N2_072417_SED_00-01	0.292	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2
1707737-02	MMSE-1_N2_072417_SED_01-03	0.3008	20	-	-	-		
1707737-03	MMSW-C_S_072417_SED_00-01	0.299	20	-	-	-		
1707737-04	MMSW-C_S_072417_SED_01-03	0.2902	20	-	-	-		
1707737-11	MMSW-C_SW_072517_SED_00-01	0.3059	20	-	-	-		
1707737-12	MMSW-C_SW_072517_SED_01-03	0.2895	20	-	-	-	Original jar broken, created container E	
1707737-13	W-21-UM-West-A_072517_SED_00-01	0.3085	20	-	-	-		
1707810-34	W-17-Intertidal_072517_SED_00-01	0.304	20	-	-	-		
1707810-35	W-17-Intertidal_072517_SED_01-03	0.2998	20	-	-	-	BatchQC	Added for BatchQC in: F708268
1707810-36	W-21-High_072517_SED_00-01	0.2801	20	-	-	-		
1707810-37	W-21-High_072517_SED_01-03	0.2802	20	-	-	-		
1707810-38	W-21-Intertidal_072517_SED_00-01	0.3148	20	-	-	-		

Due Date: 8/21/2017

PREPARATION BENCH SHEET

F708268

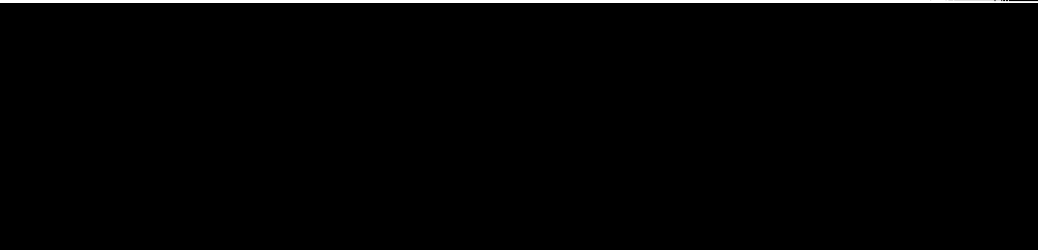
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

1707810-39	W-21-Intertidal_072517_SED_01-03	0.318	20	-	-	-		
1707810-40	W-21-Low_072517_SED_00-01	0.2868	20	-	-	-		
1707810-41	W-21-Low_072517_SED_01-03	0.3031	20	-	-	-		
1707810-42	W-21-Mid_072517_SED_00-01	0.2939	20	-	-	-		
1707810-43	W-21-Mid_072517_SED_01-03	0.3015	20	-	-	-		



PREPARATION BENCH SHEET

2700-1  
8/10/17 DM

F708268

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708268-BLK1	Blank	0.25	20					
F708268-BLK2	Blank	0.25	20					
F708268-BLK3	Blank	0.25	20					
F708268-BLK4	Blank	0.5	20					500x
F708268-BLK5	Blank	0.5	20					500x
F708268-BLK6	Blank	0.5	20					500x
F708268-BS1	DORM-4	0.1258	20	1703305	126			
F708268-BSD1	DORM-4 Dup	0.1253	20	1703305	125			
F708268-DUP1	Duplicate [1707737-01]	0.3026	20					
F708268-MS1	Matrix Spike [1707737-01]	0.2814	20	1605978	100			
F708268-MS2	Matrix Spike [1707810-35]	0.2876	20	1605978	100			
F708268-MSD1	Matrix Spike Dup [1707737-01]	0.3001	20	1605978	100			
F708268-MSD2	Matrix Spike Dup [1707810-35]	0.2919	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1606119  
1704399  
1704424  
1704707  
1704725

Description:  
Methanol, HPLC Grade  
Ethylating Agent (For Methyl Mercury Analysis)  
Boiling Chips for AFS prep  
Acetate Buffer  
25% KOH/Methanol

Expiration:  
17-Oct-19 00:00  
16-Jan-18 00:00  
21-Jan-18 00:00  
29-Jan-18 00:00  
30-Jan-18 00:00

Due Date: 8/21/2017



PREPARATION BENCH SHEET

2700-1  
8/10/17 DM

F708268

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707706-01	MMSE-1_17HC005_071917_SPI_03_WB	0.2727	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-01RE1	MMSE-1_17HC005_071917_SPI_03_WB	0.2727	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2 2500X
1707706-02	MMSE-1_17HC005_071917_SPI_04_WB	0.1963	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-02RE1	MMSE-1_17HC005_071917_SPI_04_WB	0.1963	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2 2500X
1707706-03	MMSE-1_17HC005_071917_SPI_05_WB	0.0806	20	-	-	-	Hold prep/analysis until Hg is complete	
1707706-03RE1	MMSE-1_17HC005_071917_SPI_05_WB	0.0806	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2 2500X
1707737-01	MMSE-1_N2_072417_SED_00-01	0.292	20	-	-	-		
1707737-01RE1	MMSE-1_N2_072417_SED_00-01	0.292	20	-	-	-	Added 8/10/2017 by DM2	Added 8/10/2017 by DM2 500X
1707737-02	MMSE-1_N2_072417_SED_01-03	0.3008	20	-	-	-		
1707737-03	MMSW-C_S_072417_SED_00-01	0.299	20	-	-	-		
1707737-04	MMSW-C_S_072417_SED_01-03	0.2902	20	-	-	-		
1707737-11	MMSW-C_SW_072517_SED_00-01	0.3059	20	-	-	-		
1707737-12	MMSW-C_SW_072517_SED_01-03	0.2895	20	-	-	-	Original jar broken, created container D	
1707737-13	W-21-UM-West-A_072517_SED_00-01	0.3085	20	-	-	-		
1707810-34	W-17-Intertidal_072517_SED_00-01	0.304	20	-	-	-		
1707810-35	W-17-Intertidal_072517_SED_01-03	0.2998	20	-	-	-	BatchQC	Added for BatchQC in: F708268
1707810-36	W-21-High_072517_SED_00-01	0.2801	20	-	-	-		
1707810-37	W-21-High_072517_SED_01-03	0.2802	20	-	-	-		
1707810-38	W-21-Intertidal_072517_SED_00-01	0.3148	20	-	-	-		

Due Date: 8/21/2017

**PREPARATION BENCH SHEET**

F708268

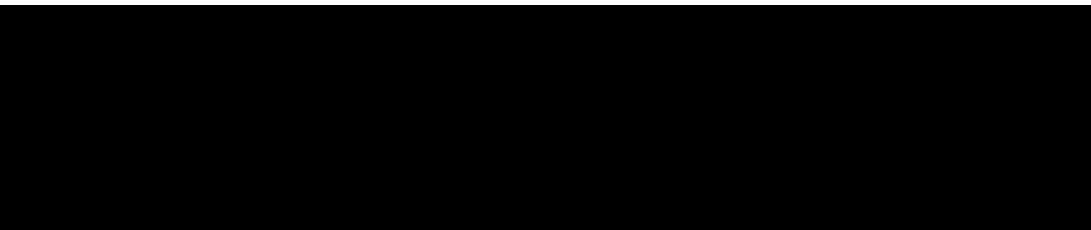
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/4/2017**

1707810-39	W-21-Intertidal_072517_SED_01-03	0.318	20	-	-	-		
1707810-40	W-21-Low_072517_SED_00-01	0.2868	20	-	-	-		
1707810-41	W-21-Low_072517_SED_01-03	0.3031	20	-	-	-		
1707810-42	W-21-Mid_072517_SED_00-01	0.2939	20	-	-	-		
1707810-43	W-21-Mid_072517_SED_01-03	0.3015	20	-	-	-		



**PREPARATION BENCH SHEET**

F707568

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/3/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F707568-BLK1	Blank	0.25	20					
F707568-BLK2	Blank	0.25	20					
F707568-BLK3	Blank	0.25	20					
F707568-BS1	DORM-4	0.1315	20	1703305	131			
F707568-BSD1	DORM-4 Dup	0.1332	20	1703305	133			
F707568-DUP1	Duplicate [1707771-90]	0.2872	20					
F707568-MS1	Matrix Spike [1707771-90]	0.3235	20	1605978	100			
F707568-MS2	Matrix Spike [1707771-AB]	0.2819	20	1605978	100			
F707568-MSD1	Matrix Spike Dup [1707771-90]	0.2939	20	1605978	100			
F707568-MSD2	Matrix Spike Dup [1707771-AB]	0.2793	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1606305  
1704399  
1704424  
1704707  
1704725

Description:  
Methanol, HPLC Grade  
Ethylating Agent (For Methyl Mercury Analysis)  
Boiling Chips for AFS prep  
Acetate Buffer  
25% KOH/Methanol

Expiration:  
28-Oct-19 00:00  
16-Jan-18 00:00  
21-Jan-18 00:00  
29-Jan-18 00:00  
30-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707568

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/3/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707771-41	W-MM-23_072417_SED_00-01_R3	0.2715	20	-	-	-		
1707771-42	W-MM-23_072417_SED_01-03	0.2728	20	-	-	-		
1707771-43	W-MM-24_072417_SED_00-01	0.2798	20	-	-	-		
1707771-44	W-MM-24_072417_SED_01-03_R1	0.2867	20	-	-	-		
1707771-45	W-MM-24_072417_SED_01-03_R2	0.2841	20	-	-	-		
1707771-46	W-MM-24_072417_SED_01-03_R3	0.2509	20	-	-	-		
1707771-87	OR-01-04_072517_SED_00-01_R1	0.2702	20	-	-	-		
1707771-88	OR-01-04_072517_SED_00-01_R2	0.2585	20	-	-	-		
1707771-89	OR-01-04_072517_SED_00-01_R3	0.2944	20	-	-	-		
1707771-90	OR-01-04_072517_SED_01-03	0.3246	20	QC	-	-	MS/MSD	
1707771-AB	W-102-INTA_072517_SED_00-01	0.2933	20	-	-	-		
1707771-AC	W-102-INTA_072517_SED_01-03	0.2747	20	-	-	-		
1707771-AJ	W-103-INTA_072517_SED_00-01	0.283	20	-	-	-		
1707771-AK	W-103-INTA_072517_SED_01-03_R1	0.292	20	-	-	-		
1707771-AL	W-103-INTA_072517_SED_01-03_R2	0.2869	20	-	-	-		
1707771-AM	W-103-INTA_072517_SED_01-03_R3	0.2747	20	-	-	-		
1707771-AN	W-104-INTA_072517_SED_00-01	0.2808	20	-	-	-		
1707771-AO	W-104-INTA_072517_SED_01-03	0.2559	20	-	-	-		
1707771-AR	W-14-A_072517_SED_00-01_R1	0.2907	20	-	-	-		

PREPARATION BENCH SHEET

F707568

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/3/2017

1707771-AS	W-14-A_072517_SED_00-01_R2	0.2561	20	-	-	-		
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PREPARATION BENCH SHEET

2700-1  
8/10/17 DM

F707568

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/3/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F707568-BLK1	Blank	0.25	20					500X
F707568-BLK2	Blank	0.25	20					500X
F707568-BLK3	Blank	0.25	20					500X
F707568-BS1	DORM-4	0.1315	20	1703305	131			1000X
F707568-BSD1	DORM-4 Dup	0.1332	20	1703305	133			1000X
F707568-DUP1	Duplicate [1707771-90]	0.2872	20					500X
F707568-MS1	Matrix Spike [1707771-90]	0.3235	20	1605978	100			500X
F707568-MS2	Matrix Spike [1707771-AB]	0.2819	20	1605978	100			500X
F707568-MSD1	Matrix Spike Dup [1707771-90]	0.2939	20	1605978	100			500X
F707568-MSD2	Matrix Spike Dup [1707771-AB]	0.2793	20	1605978	100			500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
29-May-20 00:00

Reagent ID(s):  
1606305  
1704424  
1704725

Description:  
Methanol, HPLC Grade  
Boiling Chips for AFS prep  
25% KOH/Methanol

Expiration:  
28-Oct-19 00:00  
21-Jan-18 00:00  
30-Jan-18 00:00

1704707  
1704309

PREPARATION BENCH SHEET

2700-1  
8/17/17 DM

F707568

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/3/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707771-41	W-MM-23_072417_SED_00-01_R3	0.2715	20	-	-	-		500X
1707771-42	W-MM-23_072417_SED_01-03	0.2728	20	-	-	-		500X
1707771-43	W-MM-24_072417_SED_00-01	0.2798	20	-	-	-		500X
1707771-44	W-MM-24_072417_SED_01-03_R1	0.2867	20	-	-	-		500X
1707771-45	W-MM-24_072417_SED_01-03_R2	0.2841	20	-	-	-		500X
1707771-46	W-MM-24_072417_SED_01-03_R3	0.2509	20	-	-	-		500X
1707771-87	OR-01-04_072517_SED_00-01_R1	0.2702	20	-	-	-		500X
1707771-88	OR-01-04_072517_SED_00-01_R2	0.2585	20	-	-	-		500X
1707771-89	OR-01-04_072517_SED_00-01_R3	0.2944	20	-	-	-		500X
1707771-90	OR-01-04_072517_SED_01-03	0.3246	20	QC	-	-	MS/MSD	500X
1707771-AB	W-102-INTA_072517_SED_00-01	0.2933	20	-	-	-		500X
1707771-AC	W-102-INTA_072517_SED_01-03	0.2747	20	-	-	-		500X
1707771-AJ	W-103-INTA_072517_SED_00-01	0.283	20	-	-	-		500X
1707771-AK	W-103-INTA_072517_SED_01-03_R1	0.292	20	-	-	-		500X
1707771-AL	W-103-INTA_072517_SED_01-03_R2	0.2869	20	-	-	-		500X
1707771-AM	W-103-INTA_072517_SED_01-03_R3	0.2747	20	-	-	-		500X
1707771-AN	W-104-INTA_072517_SED_00-01	0.2808	20	-	-	-		500X
1707771-AO	W-104-INTA_072517_SED_01-03	0.2559	20	-	-	-		500X
1707771-AR	W-14-A_072517_SED_00-01_R1	0.2907	20	-	-	-		500X

Due Date: 8/24/2017

PREPARATION BENCH SHEET

2700-1  
8/10/17 DM

F707568

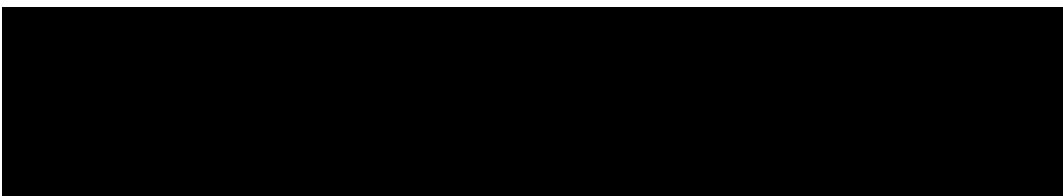
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/3/2017

1707771-AS	W-14-A_072517_SED_00-01_R2	0.2561	20	-	-	-		500X
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Technician: CWF, Dwyer Batch#: F707568 Date: 8/3/17

- 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/CH<sub>2</sub>Cl<sub>2</sub>: **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.#: 12698 Calibrated?  Yes  No

\*Time in: 10:05 Actual Temp. (raw): 79.0 °C w/ CF: 79.0 °C  
 Time out: 13:05 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: 1704725) Spike vol.: 100 µL (LIMS ID: 1704725)  
 Spike Witness: CWF 8/3/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NU09653 Calibration Date: 8/3/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01152 Calibration Date: 7/31/17  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1704725 25% KOH Dispenser #: N/A  
 Glass Vial # 00066804 Boiling Chip lot # 1704424 \*Hotblock Position: B2

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	F707568 - BLK1	0.2865	23	1707771 -AJ	0.2830	[BSI + BSD]
2	F707568 - BLK2	0.2717	24	1707771 -AK	0.2920	DORM-4
3	F707568 - BLK3	0.2901	25	1707771 -AL	0.2869	1703305
4	F707568 - BSI	0.1315	26	1707771 -AM	0.2747	<b>Comments</b>
5	F707568 - BSD1	0.1332	27	1707771 -AN	0.2808	DUP1 Source = 1707771
6	1707771 -41	0.2715	28	1707771 -AO	0.2559	-90
7	1707771 -42	0.2728	29	1707771 -AR	0.2907	MS1 Source = 1707771
8	1707771 -43	0.2798	30	1707771 -AS	0.2561	-90
9	1707771 -44	0.2867	31			MSD1 Source = 1707771
10	1707771 -45	0.2841	32			-90
11	1707771 -46	0.2509	33			MS2 Source = 1707771
12	1707771 -87	0.2702	34			-AB
13	1707771 -88	0.2565	35			MSD2 source = 1707771
14	1707771 -89	0.2944	36			-AB
15	1707771 -90	0.3246	37			F707568
16	F707568 -DUP1	0.2872	38			Final Volume
17	F707568 -MS1	0.3235	39			1606305
18	F707568 -MSD1	0.2939	40			LIMS ID.
19	1707771 -AB	0.2933	41			8/7/17 vlt
20	F707568 -MS2	0.2819	42			8/7/17 vlt
21	F707568 -MSD2	0.2793	43			Weight out
22	1707771 -AC	0.2747	44			sampled on 8/3/17

**PREPARATION BENCH SHEET**

F707569

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F707569-BLK1	Blank	0.5	20					
F707569-BLK2	Blank	0.5	20					
F707569-BLK3	Blank	0.5	20					
F707569-BS1	DORM-4	0.1257	20	1703305	126			
F707569-BSD1	DORM-4 Dup	0.1255	20	1703305	126			
F707569-DUP1	Duplicate [1707771-AU]	0.2769	20					
F707569-MS1	Matrix Spike [1707771-AU]	0.3036	20	1605978	100			
F707569-MS2	Matrix Spike [1707771-BK]	0.281	20	1605978	100			
F707569-MSD1	Matrix Spike Dup [1707771-AU]	0.2915	20	1605978	100			
F707569-MSD2	Matrix Spike Dup [1707771-BK]	0.2966	20	1605978	100			

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1606305  
1704399  
1704424  
1704707  
1704725

Description:  
Methanol, HPLC Grade  
Ethylating Agent (For Methyl Mercury Analysis)  
Boiling Chips for AFS prep  
Acetate Buffer  
25% KOH/Methanol

Expiration:  
28-Oct-19 00:00  
16-Jan-18 00:00  
21-Jan-18 00:00  
29-Jan-18 00:00  
30-Jan-18 00:00

**PREPARATION BENCH SHEET**

F707569

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707771-AT	W-14-A_072517_SED_00-01_R3	0.3034	20	-	-	-		
1707771-AU	W-14-A_072517_SED_01-03	0.3068	20	QC	-	-	MS/MSD	
1707771-AX	W-14-B_072517_SED_00-01	0.2996	20	-	-	-		
1707771-AY	W-14-B_072517_SED_01-03	0.2992	20	-	-	-		
1707771-BF	W-14-INTA_072517_SED_00-01	0.2816	20	-	-	-		
1707771-BG	W-14-INTA_072517_SED_01-03	0.2901	20	-	-	-		
1707771-BH	W-27-A_072517_SED_00-01_R1	0.2865	20	-	-	-		
1707771-BI	W-27-A_072517_SED_00-01_R2	0.2759	20	-	-	-		
1707771-BJ	W-27-A_072517_SED_00-01_R3	0.3034	20	-	-	-		
1707771-BK	W-27-A_072517_SED_01-03	0.3019	20	QC	-	-	MS/MSD	
1707771-BN	W-63-INT_072517_SED_00-01	0.282	20	-	-	-		
1707771-BO	W-63-INT_072517_SED_01-03	0.3067	20	-	-	-		
1707771-BP	W-MM-01_072517_SED_00-01	0.285	20	-	-	-		
1707771-BQ	W-MM-01_072517_SED_01-03_R1	0.317	20	-	-	-		
1707771-BR	W-MM-01_072517_SED_01-03_R2	0.2875	20	-	-	-		
1707771-BS	W-MM-01_072517_SED_01-03_R3	0.3081	20	-	-	-		
1707771-BT	W-MM-02_072517_SED_00-01	0.3147	20	-	-	-		
1707771-BU	W-MM-02_072517_SED_01-03	0.2859	20	-	-	-		
1707771-BZ	W-MM-07_072517_SED_00-01	0.2803	20	-	-	-		

Due Date: 8/24/2017

PREPARATION BENCH SHEET

F707569

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

1707771-CA	W-MM-07_072517_SED_01-03_R1	0.2859	20	-	-	-		
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PREPARATION BENCH SHEET

2700-1  
8/10/17 DM

F707569

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F707569-BLK1	Blank	0.5	20					500X
F707569-BLK2	Blank	0.5	20					500X
F707569-BLK3	Blank	0.5	20					500X
F707569-BS1	DORM-4	0.1257	20	1703305	126			1000X
F707569-BSD1	DORM-4 Dup	0.1255	20	1703305	126			1000X
F707569-DUP1	Duplicate [1707771-AU]	0.2769	20					500X
F707569-MS1	Matrix Spike [1707771-AU]	3036	20	1605978	100			500X
F707569-MS2	Matrix Spike [1707771-BK]	0.281	20	1605978	100			500X
F707569-MSD1	Matrix Spike Dup [1707771-AU]	0.2915	20	1605978	100			500X
F707569-MSD2	Matrix Spike Dup [1707771-BK]	0.2966	20	1605978	100			500X

Standard ID(s):  
1605978  
1703305

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00

Reagent ID(s):  
1606305  
1704424  
1704725

Description:  
Methanol, HPLC Grade  
Boiling Chips for AFS prep  
25% KOH/Methanol

Expiration:  
28-Oct-19 00:00  
21-Jan-18 00:00  
30-Jan-18 00:00

1704707  
1704399

PREPARATION BENCH SHEET

2700-1  
8/10/17 DM

F707569

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1707771-AT	W-14-A_072517_SED_00-01_R3	0.3034	20	-	-	-		500X
1707771-AU	W-14-A_072517_SED_01-03	0.3068	20	QC	-	-	MS/MSD	500X
1707771-AX	W-14-B_072517_SED_00-01	0.2996	20	-	-	-		500X
1707771-AY	W-14-B_072517_SED_01-03	0.2992	20	-	-	-		500X
1707771-BF	W-14-INTA_072517_SED_00-01	0.2816	20	-	-	-		500X
1707771-BG	W-14-INTA_072517_SED_01-03	0.2901	20	-	-	-		500X
1707771-BH	W-27-A_072517_SED_00-01_R1	0.2865	20	-	-	-		500X
1707771-BI	W-27-A_072517_SED_00-01_R2	0.2759	20	-	-	-		500X
1707771-BJ	W-27-A_072517_SED_00-01_R3	0.3034	20	-	-	-		500X
1707771-BK	W-27-A_072517_SED_01-03	0.3019	20	QC	-	-	MS/MSD	500X
1707771-BN	W-63-INT_072517_SED_00-01	0.282	20	-	-	-		500X
1707771-BO	W-63-INT_072517_SED_01-03	0.3067	20	-	-	-		500X
1707771-BP	W-MM-01_072517_SED_00-01	0.285	20	-	-	-		500X
1707771-BQ	W-MM-01_072517_SED_01-03_R1	0.317	20	-	-	-		500X
1707771-BR	W-MM-01_072517_SED_01-03_R2	0.2875	20	-	-	-		500X
1707771-BS	W-MM-01_072517_SED_01-03_R3	0.3081	20	-	-	-		500X
1707771-BT	W-MM-02_072517_SED_00-01	0.3147	20	-	-	-		500X
1707771-BU	W-MM-02_072517_SED_01-03	0.2859	20	-	-	-		500X
1707771-BZ	W-MM-07_072517_SED_00-01	0.2803	20	-	-	-		500X

Due Date: 8/24/2017

PREPARATION BENCH SHEET

2700-1  
8/10/17 om

F707569

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 8/4/2017

1707771-CA	W-MM-07_072517_SED_01-03_R1	0.2859	20	-	-	-	500X
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Technician: Duyen Batch#: F707569 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 14:20 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C  
 Time out: 17:20 Actual Temp. (raw): 78.0 °C w/ CF: 78.0 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1606305) Spike vol.: 100 µL (LIMS ID: 1605978)  
 Spike Witness: DM 8/4/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: NW09653 Calibration Date: 8-3-17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NW01152 Calibration Date: 7/13/17  
 70/30 LIMS ID: N/A Dispenser #: 02V48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1704725 25% KOH Dispenser #: N/A  
 Glass Vial # 00066804 Boiling Chip lot # 1704424 \*Hotblock Position: N15

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	F707569 RLK1	0.2620	23	1707771-BP	0.2850	BS1 BS01
2	F707569 RLK2	0.3100	24	1707771 BQ	0.3170	DOM-4
3	F707569 RLK3	0.2900	25	1707771 BR	0.2875	1703305
4	F707569 BS1	0.1257	26	1707771 BS	0.3081	Comments
5	F707569 BS01	0.1255	27	1707771 BT	0.3147	F707569
6	1707771-A7A	30.34	28	1707771 BW	0.2859	Source Dup MS1 MS01
7	1707771 AU	30.68	29	1707771 BZ	0.2803	1707771-AU
8	F707569-Dup1	0.2769	30	1707771 CA	0.2859	
9	F707569 MS1	0.3036	31			F707569
10	F707569 MS01	0.2915	32			MS2 MS02
11	1707771 AXA	0.2996	33			1707771-BK
12	1707771 AVA	0.2992	34			8/4/17 bu
13	1707771-BF	0.2816	35			1707771-BK
14	1707771 BG	0.2901	36			0.2875(g)
15	1707771 BH	0.2865	37			
16	1707771 BI	0.2759	38			
17	1707771 BJ	0.3034	39			
18	1707771 BK	0.3019	40			
19	F707569 MS2	0.2810	41			
20	F707569 MS02	0.2966	42			
21	1707771 BN	0.2820	43			
22	1707771 BO	0.3067	44			



**PREPARATION BENCH SHEET**

F708293

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708293-BLK1	Blank	0.25	20					
F708293-BLK2	Blank	0.25	20					
F708293-BLK3	Blank	0.25	20					
F708293-BLK4	Pre Blank	0.3441	20					
F708293-BLK5	Post Blank	0.3609	20					
F708293-BLK6	Filter Blank	0.3933	20					1708084-01
F708293-BLK7	Blank	0.25	20					
F708293-BLK8	Blank	0.25	20					
F708293-BLK9	Blank	0.25	20					
F708293-BS1	DORM-4	0.1253	20	1703305	125			
F708293-BSD1	DORM-4	0.1252	20	1703305	125			
F708293-DUP1	Duplicate [1708077-01]	0.2838	20					
F708293-MS1	Matrix Spike [1708077-01]	0.2858	20	1605978	100			
F708293-MS2	Matrix Spike [1708078-01]	0.2813	20	1605978	100			
F708293-MS3	AS [1708078-01]	0.001509	0.1	1704143	100			[Spk] 0.3018g->20mL; 40mL->40mL; Spiked 0.1mL
F708293-MSD1	Matrix Spike Dup [1708077-01]	0.305	20	1605978	100			
F708293-MSD2	Matrix Spike Dup [1708078-01]	0.3019	20	1605978	100			
F708293-MSD3	ASD [1708078-01]	0.001509	0.1	1704143	100			[Spk] 0.3018g->20mL; 40mL->40mL; Spiked 0.1mL

Standard ID(s):  
 1605978  
 1703305  
 1704143

Description:  
 MHg New Primary 100 ng/mL spike  
 DORM-4  
 MHg New Primary 1.0 ng/mL CAL

Expiration:  
 15-Oct-17 00:00  
 29-May-20 00:00  
 10-Oct-17 00:00

Reagent ID(s):  
 1606305  
 1700863  
 1704399  
 1704424  
 1704707

Description:  
 Methanol, HPLC Grade  
 25% KOH/Methanol  
 Ethylating Agent (For Methyl Mercury Analysis)  
 Boiling Chips for AFS prep  
 Acetate Buffer

Expiration:  
 28-Oct-19 00:00  
 09-Aug-17 00:00  
 16-Jan-18 00:00  
 21-Jan-18 00:00  
 29-Jan-18 00:00

**Due Date: 8/16/2017**

**PREPARATION BENCH SHEET**

F708293

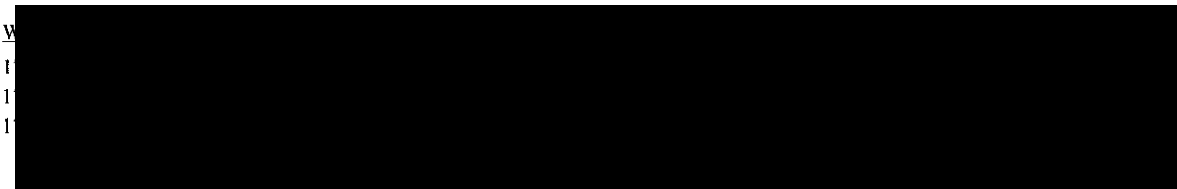
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708077-01	S-170703-01626 417382 Halibut Trident	0.2699	20	-	-	-		
1708077-02	S-170703-01627 417382 Halibut S.M Products	0.2877	20	-	-	-		
1708077-03	S-170703-01628 417382 Halibut S.M Products	0.3066	20	-	-	-		
1708077-04	S-170703-01629 417382 Halibut S.M Products	0.2877	20	-	-	-		
1708077-05	S-170703-01630 417382 Halibut S.M Products	0.2827	20	-	-	-		
1708077-06	S-170703-01632 417382 Halibut S.M Products	0.2859	20	-	-	-		
1708077-07	S-170717-00593 699794 Atlantic Cod Hofseth	0.2854	20	-	-	-		
1708077-08	S-170717-00594 699794 Atlantic Cod Hofseth	0.298	20	-	-	-		
1708078-01	S-170714-00934 43178 Cold Water Shrimp Pacific Seafood	0.3018	20	-	-	-		
1708078-02	S-170717-00925 40604 Seafood Medley OreCal	0.3062	20	-	-	-		
1708084-01	OL-2638-01	0.293	20	-	-	-	Preservation Blank Created Scan all dat	



PREPARATION BENCH SHEET

2700-1  
8/10/17 DM

F708293

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol 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
F708293-BLK1	Blank	0.25	20					
F708293-BLK2	Blank	0.25	20					
F708293-BLK3	Blank	0.25	20					
F708293-BLK4	Pre Blank	0.3441	20					
F708293-BLK5	Post Blank	0.3609	20					
F708293-BLK6	Filter Blank	0.3933	20					1708084-01
F708293-BLK7	Blank	0.25	20					500X
F708293-BLK8	Blank	0.25	20					500X
F708293-BLK9	Blank	0.25	20					500X
F708293-BS1	DORM-4	0.1253	20	1703305	125			
F708293-BSD1	DORM-4	0.1252	20	1703305	125			
F708293-DUP1	Duplicate [1708077-01]	0.2838	20					
F708293-MS1	Matrix Spike [1708077-01]	0.2858	20	1605978	100			
F708293-MS2	Matrix Spike [1708078-01]	0.2813	20	1605978	100			
F708293-MS3	AS [1708078-01]	0.3018	20	1704143	100			500X
F708293-MSD1	Matrix Spike Dup [1708077-01]	0.305	20	1605978	100			
F708293-MSD2	Matrix Spike Dup [1708078-01]	0.3019	20	1605978	100			
F708293-MSD3	ASD [1708078-01]	0.3018	20	1704143	100			500X

Standard ID(s):  
1605978  
1703305  
1704143

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4  
MHg New Primary 1.0 ng/mL CAL

Expiration:  
15-Oct-17 00:00  
29-May-20 00:00  
10-Oct-17 00:00

Reagent ID(s):  
1606305  
1700863  
1704399  
1704424  
1704707

Description:  
Methanol, HPLC Grade  
25% KOH/Methanol  
Ethylating Agent (For Methyl Mercury Analysis)  
Boiling Chips for AFS prep  
Acetate Buffer

Expiration:  
28-Oct-19 00:00  
09-Aug-17 00:00  
16-Jan-18 00:00  
21-Jan-18 00:00  
29-Jan-18 00:00

Due Date: 8/16/2017

**PREPARATION BENCH SHEET**

F708293

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion**

**Prepared: 8/4/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1708077-01	S-170703-01626 417382 Halibut Trident	0.2699	20	-	-	-		
1708077-02	S-170703-01627 417382 Halibut S.M Products	0.2877	20	-	-	-		
1708077-03	S-170703-01628 417382 Halibut S.M Products	0.3066	20	-	-	-		
1708077-04	S-170703-01629 417382 Halibut S.M Products	0.2877	20	-	-	-		
1708077-05	S-170703-01630 417382 Halibut S.M Products	0.2827	20	-	-	-		
1708077-06	S-170703-01632 417382 Halibut S.M Products	0.2859	20	-	-	-		
1708077-07	S-170717-00593 699794 Atlantic Cod Hofseth	0.2854	20	-	-	-		
1708077-08	S-170717-00594 699794 Atlantic Cod Hofseth	0.298	20	-	-	-		
1708078-01	S-170714-00934 43178 Cold Water Shrimp Pacific Seafood	0.3018	20	-	-	-		
1708078-02	S-170717-00925 40604 Seafood Medley OreCal	0.3062	20	-	-	-		
1708084-01	OL-2638-01	0.293	20	-	-	-	Preservation Blank Created Scan all dat	

# Failing Data Report - 7H11011

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 Mason  
Analyst Reviewed By

8/11/17  
Date

[Signature]  
Peer Reviewed By

8/12/17  
Date

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 7H11011
<b>Reviewer:</b> <u>R 8/12/17</u>	<b>Dataset ID #:</b> MMHG27001-170810-1
<b>Date:</b> 8-11-17	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F708293, F707569, F708268, F707568	<b>Client(s):</b> 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:	Reviewer Initials:		
	<u>DM</u>	<u>R 8/12/17</u>		
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	<input checked="" type="checkbox"/>
(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"/>
(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"/>
(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"/>
(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"/>
(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"/>
(i) Is the pH>3.0 for all distilled samples? _____	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> N/A	<input checked="" type="checkbox"/>
(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"/>
<b>QA/QC Data Checked</b>				
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"/>
Comments: _____				
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"/>
Comments: _____				
8. RSD CF (≤ 15%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: _____				

**Peer Review Check List for MHg for CV-GC-AFS (SOP2808) 2017 Rev 6 (02/22/17)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H11011
<b>Reviewer:</b>	0 <i>R. G. Jones</i>	<b>Dataset ID #:</b>	MMHG27001-170810-1
<b>Date:</b>	8/11/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708293, F707569, F708268, F707568	<b>Client(s):</b>	VARIOUS

	<b>Analyst Initials:</b>		<b>Reviewer Initials:</b>	
	<i>DM</i>		<i>R. G. Jones</i>	
9. ICV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input 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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	7H11011
<b>Reviewer:</b>	0 <i>m 8/12/17</i>	<b>Dataset ID #:</b>	MMHG27001-170810-1
<b>Date:</b>	8/11/2017	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F708293, F707569, F708268, F707568	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*m 8/12/17*

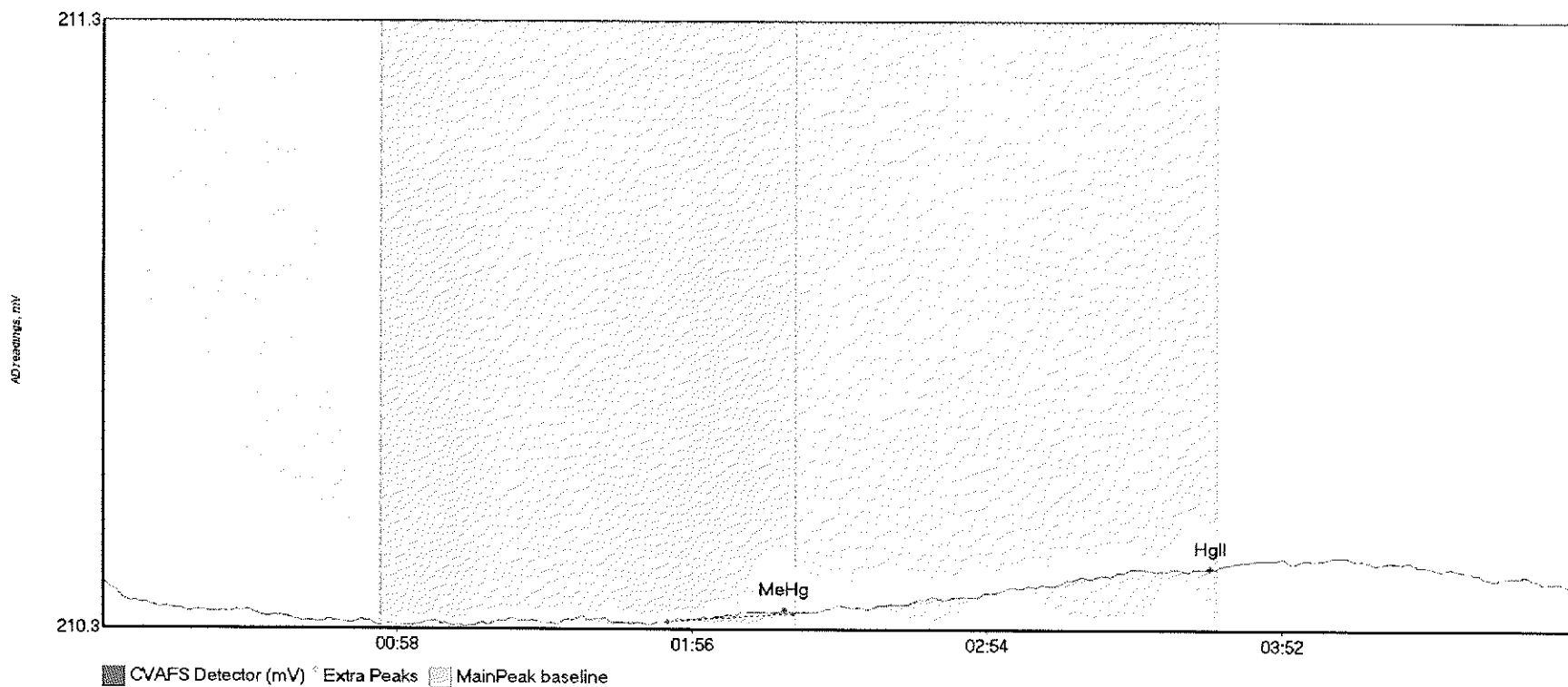
29. Are re-runs noted with reason?  YES  NO  N/A
- Comments: \_\_\_\_\_
30. For failing QC (CCV, CCB, PB, BS/BSD, CAL):  YES  NO  N/A
- Was a bubbler and trap test run before the analytical run continued?
- Comments: \_\_\_\_\_
31. Do re-run results compare to initial analysis (< 35% RPD)?  YES  NO  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: 4/24/2017 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



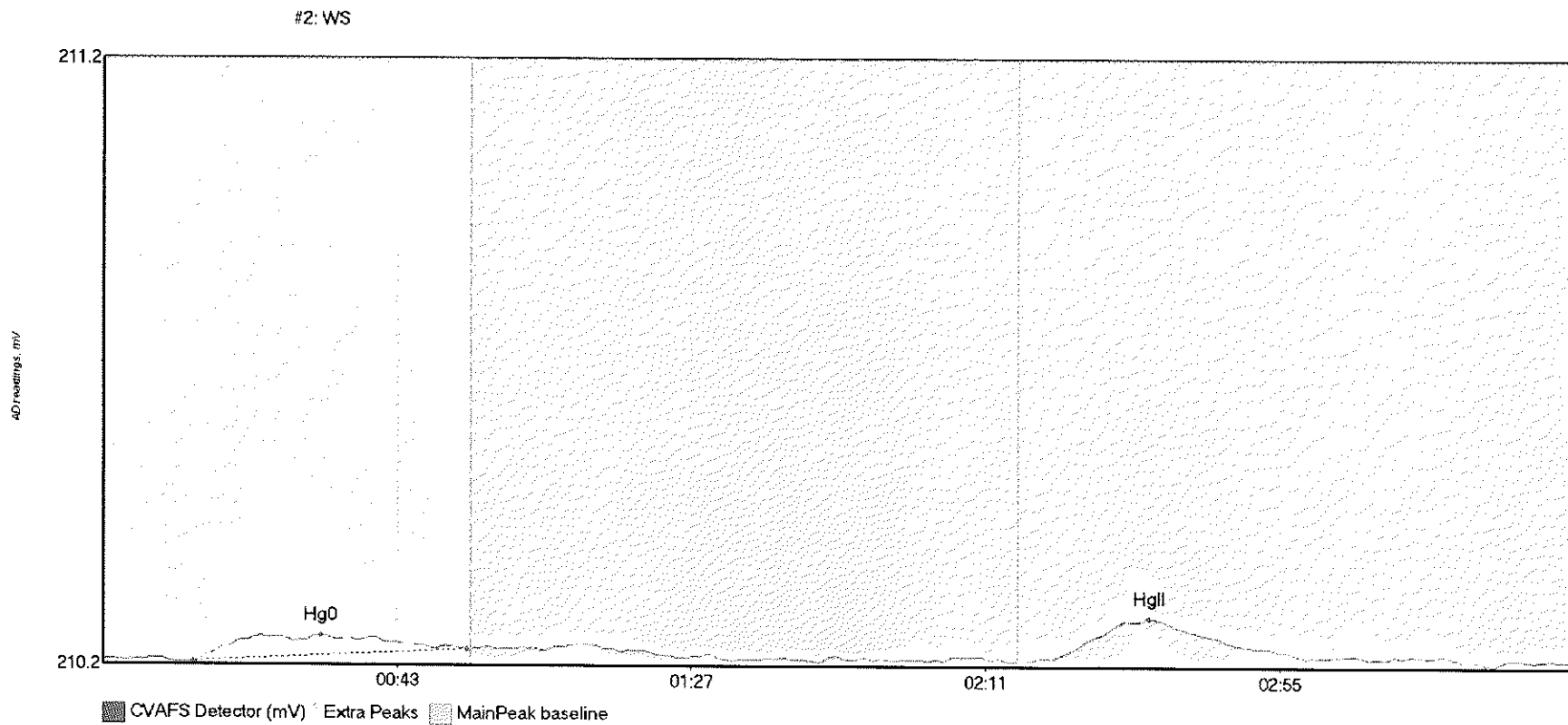
Sample/ID	Locobor	Rinse	Dilute	Blank	ConcHQ	ConcMeHg	ConcHQ2	ConcPrHq	ConcPrHq2	Rec%	QA	RawData	RunEng	PeakHQ	PeakMeHg	PeakHQ2	PeakPrHq	Control (est)	Flags	RunCount	
WIS	A1													8:40:32	0.00	1.00	2.51	0.00	cleanly	OK	1
SEQ-IBL1	A2													8:51:03	8.76	0.00	14.41	0.00	psample10	OK	1
SEQ-CAL1	A3													9:01:34	6.10	0.00	3.09	0.00	psample10	CT	1
SEQ-CAL2	A4													9:12:04	6.37	23.51	0.47	0.00	psample10	OK	1
SEQ-CAL3	A5													9:22:35	3.97	81.07	1.66	0.00	psample10	OK	1
SEQ-CAL4	A6													9:33:06	6.14	444.82	13.76	0.00	psample10	OK	1
SEQ-CAL5	A7													9:43:36	5.03	860.29	40.35	0.00	psample10	OK	1
SEQ-ICV1	A8													9:54:07	6.37	1883.64	102.18	0.00	psample10	CT	1
SEQ-ICB1	A9													10:04:38	1.38	222.00	18.17	0.00	psample10	OK	1
F708268-BLK4	A10													10:15:08	5.12	1.74	3.82	0.00	psample10	OK	1
F708268-BLK5	A11													10:25:39	3.18	1.24	6.54	0.00	psample10	OK	1
F708268-BLK6	A12													10:36:10	3.77	0.00	5.36	0.00	psample10	OK	1
1707706-Q1RE1	A13													10:46:41	4.13	0.43	5.69	0.00	psample10	OK	1
1707706-Q2RE1	A14													10:57:11	5.42	1317.15	170.76	0.00	psample10	CT	1
1707706-Q3RE1	A15													11:07:42	5.38	1305.53	60.30	0.00	psample10	OK	1
1707737-Q1RE1	A16													11:18:12	5.40	404.00	24.83	0.00	psample10	OK	1
F708293-BLK7	A17													11:28:43	3.13	64.79	195.78	0.00	psample10	CT	1
F708293-BLK8	A18													11:39:14	4.36	1.78	11.73	0.00	psample10	CT	1
F708293-BLK9	A19													11:49:44	3.31	0.00	10.16	0.00	psample10	OK	1
SEQ-CCV1	A20													12:00:15	3.48	0.00	4.65	0.00	psample10	OK	1
SEQ-CCB1	A21													12:10:46	5.40	207.43	2.19	0.00	psample10	OK	1
F708293-MS3	B1													12:21:17	3.11	1.36	1.20	0.00	psample10	CT	1
F708293-MSD3	B2													12:31:47	4.60	1171.83	50.86	0.00	psample10	OK	1
F707568-BLK1	B3													12:42:18	5.07	1125.28	48.26	0.00	psample10	OK	1
F707568-BLK2	B4													12:52:49	3.24	3.20	7.05	0.00	psample10	CT	1
F707568-BLK3	B5													13:03:19	3.27	1.36	3.38	0.00	psample10	OK	1
F707568-BS1	B6													13:13:50	4.78	1.49	8.25	0.00	psample10	OK	1
F707568-BSD1	B7													13:24:21	5.47	842.72	118.57	0.00	psample10	CT	1
F707568-DUP1	B8													13:34:51	6.50	839.03	138.27	0.00	psample10	OK	1
F707568-MS1	B9													13:45:22	1.91	64.97	1603.73	0.00	psample10	OK	1
F707568-MSD1	B10													13:55:53	6.62	485.03	1386.76	0.00	psample10	CT	1
SEQ-CCV2	B11													14:06:23	7.51	469.64	1056.16	0.00	psample10	CT	1
SEQ-CCB2	B12													14:16:54	2.89	206.82	10.38	0.00	psample10	OK	1
F707568-MS2	B13													14:27:25	6.23	1.62	4.32	0.00	psample10	OK	1
F707568-MSD2	B14													14:37:56	6.12	502.70	1545.96	0.00	psample10	OK	1
1707771-41	B15													14:48:27	9.24	556.74	1982.80	0.00	psample10	CT	1
1707771-42	B16													14:58:58	5.67	34.09	729.78	0.00	psample10	CT	1
1707771-43	B17													15:09:29	4.11	41.98	1039.98	0.00	psample10	OK	1
1707771-44	B18													15:19:59	7.22	26.84	878.26	0.00	psample10	OK	1
1707771-45	B19													15:30:30	4.76	27.63	831.98	0.00	psample10	OK	1
1707771-46	B20													15:41:01	2.73	26.23	874.04	0.00	psample10	CT	1
1707771-87	B21													15:51:32	6.23	18.10	570.99	0.00	psample10	CT	1
SEQ-CCV3	C2													16:02:02	8.49	42.11	780.53	0.00	psample10	CT	1
SEQ-CCB3	C3													16:12:33	6.25	42.95	935.24	0.00	psample10	OK	1
1707771-89	C4													16:23:04	2.80	192.00	7.95	0.00	psample10	OK	1
1707771-90	C5													16:44:05	4.52	0.00	7.34	0.00	psample10	OK	1
1707771-AB	C6													16:54:36	3.67	48.10	978.57	0.00	psample10	CT	1
1707771-AC	C7													17:05:07	8.34	62.05	1505.26	0.00	psample10	CT	1
1707771-AJ	C8													17:15:38	7.29	44.08	1195.01	0.00	psample10	CT	1
1707771-AK	C9													17:26:08	8.00	50.83	702.93	0.00	psample10	OK	1
1707771-AL	C10													17:36:39	8.49	65.34	1200.16	0.00	psample10	OK	1
1707771-AM	C11													17:47:10	4.59	64.74	1015.04	0.00	psample10	OK	1
1707771-AN	C12													17:57:40	8.58	73.55	1610.68	0.00	psample10	OK	1
1707771-AO	C13													18:08:11	6.57	48.89	528.38	0.00	psample10	CT	1
SEQ-CCV4	C14													18:18:42	6.84	30.72	634.31	0.00	psample10	OK	1
SEQ-CCB4	C15													18:29:13	4.57	211.85	7.37	0.00	psample10	OK	1
1707771-AR	C16													18:39:44	3.38	0.00	4.04	0.00	psample10	OK	1
1707771-AS	C17													18:50:14	5.31	105.75	728.55	0.00	psample10	CT	1
F707569-BLK1	C18													19:00:45	5.28	101.22	508.16	0.00	psample10	CT	1
F707569-BLK2	C19													19:11:16	3.91	0.00	12.60	0.00	psample10	OK	1
F707569-BLK3	C20													19:21:46	5.86	0.00	6.09	0.00	psample10	CT	1
F707569-BS1	C21													19:32:17	6.93	0.00	6.59	0.00	psample10	OK	1
F707569-BSD1	A1													19:42:48	4.44	814.69	105.17	0.00	psample10	OK	1
F707569-DUP1	A2													19:53:19	5.02	755.48	103.70	0.00	psample10	OK	1
F707569-MS1	A3													20:03:49	3.30	26.43	809.32	0.00	psample10	OK	1
F707569-MSD1	A4													20:14:20	4.90	516.93	1132.85	0.00	psample10	CT	1
SEQ-CCV5	A5													20:24:51	2.62	520.87	1171.47	0.00	psample10	OK	1
SEQ-CCB5	A6													20:35:22	5.29	218.74	13.12	0.00	psample10	CT	1
F707569-MS2	A7													20:45:52	5.77	1.23	8.46	0.00	psample10	CT	1
F707569-MSD2	A8													20:56:23	7.79	572.86	767.07	0.00	psample10	CT	1
1707771-AT	A9													21:06:54	7.31	464.91	888.36	0.00	psample10	CT	1
1707771-AU	A10													21:17:25	7.43	134.60	621.09	0.00	psample10	CT	1
														21:27:55	6.02	29.28	966.61	0.00	psample10	CT	1

1707771-AX	A11	500	24971-1.RAW	21:38:26	5.47	30.91 ✓	514.60	0.00	psample10	OK	1
1707771-AY	A12	500	24972-1.RAW	21:48:57	7.27	12.57 ✓	722.66	0.00	psample10	CT	1
1707771-BF	A13	500	24973-1.RAW	21:59:28	7.65	57.96 ✓	528.83	0.00	psample10	CT	1
1707771-BG	A14	500	24974-1.RAW	22:09:58	8.29	8.94 ✓	130.04	0.00	psample10	OK	1
1707771-BH	A15	500	24975-1.RAW	22:20:29	7.45	52.23 ✓	543.62	0.00	psample10	CT	1
1707771-BI	A16	500	24976-1.RAW	22:31:00	2.33	60.45 ✓	563.59	0.00	psample10	OK	1
SEQ-CCV6	A17	1	24977-1.RAW	22:41:30	4.77	217.18 ✓	6.74	0.00	psample10	OK	1
SEQ-CCB6	A18	1	24978-1.RAW	22:52:01	4.40	0.00 ✓	3.24	0.00	psample10	OK	1
1707771-BJ	A19	500	24979-1.RAW	23:02:32	4.46	52.03 ✓	479.27	0.00	psample10	CT	1
1707771-BK	A20	500	24980-1.RAW	23:13:03	3.92	34.91 ✓	739.76	0.00	psample10	CT	1
1707771-BN	A21	500	24981-1.RAW	23:23:33	7.02	62.16 ✓	1086.47	0.00	psample10	CT	1
1707771-BO	B1	500	24982-1.RAW	23:34:04	6.35	66.71 ✓	1171.67	0.00	psample10	CT	1
1707771-BP	B2	500	24983-1.RAW	23:44:33	7.45	173.80 ✓	531.36	0.00	psample10	CT	1
1707771-BQ	B3	500	24984-1.RAW	23:55:04	7.95	76.59 ✓	1290.35	0.00	psample10	OK	1
1707771-BR	B4	500	24985-1.RAW	0:05:34	6.41	63.49 ✓	1600.87	0.00	psample10	CT	1
1707771-BS	B5	500	24986-1.RAW	0:16:05	7.12	65.76 ✓	1805.72	0.00	psample10	CT	1
1707771-BT	B6	500	24987-1.RAW	0:26:36	6.60	44.04 ✓	374.09	0.00	psample10	OK	1
1707771-BU	B7	500	24988-1.RAW	0:37:06	5.31	66.90 ✓	327.31	0.00	psample10	OK	1
SEQ-CCV7	B8	1	24989-1.RAW	0:47:37	3.95	211.68 ✓	7.82	0.00	psample10	OK	1
SEQ-CCB7	B9	1	24990-1.RAW	0:58:08	2.39	0.00 ✓	9.38	0.00	psample10	OK	1
1707771-BZ	B10	500	24991-1.RAW	1:08:39	2.91	28.67 ✓	352.78	0.00	psample10	CT	1
1707771-CA	B11	500	24992-1.RAW	1:19:09	3.47	32.34 ✓	587.70	0.00	psample10	OK	1
SEQ-CCV8	B12	1	24993-1.RAW	1:29:40	1.37	183.91 ✓	6.98	0.00	psample10	OK	1
SEQ-CCB8	B13	1	24994-1.RAW	1:40:11	4.68	0.74 ✓	5.35	0.00	psample10	OK	1

#1: Clean

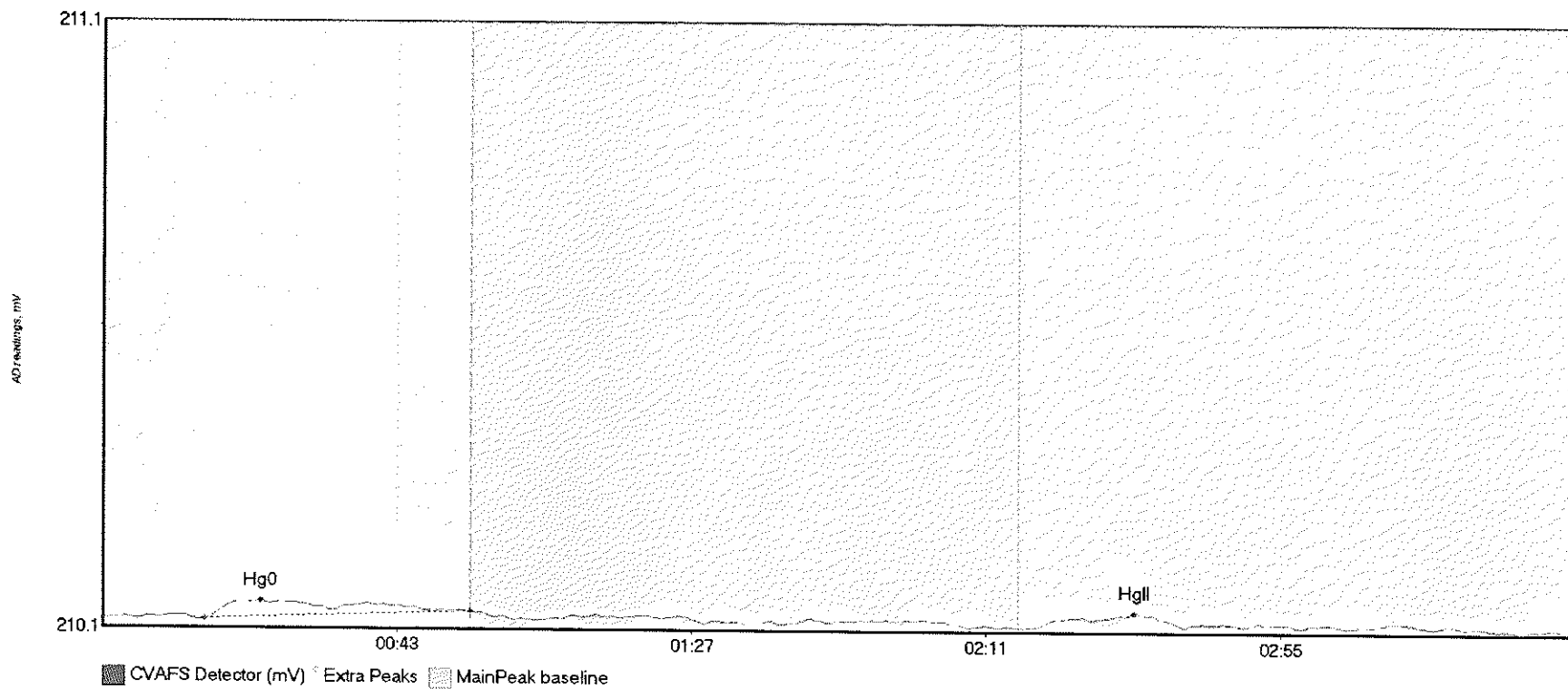


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean MeHg	1.004	111.5	136.4	210.27	210.29	134.7	0.020	OK	210.3376	0.00	0.00	
Clean HgII	2.507	142.9	219.4	210.30	210.36	218.6	0.068	OK	210.3376	0.00	0.00	317



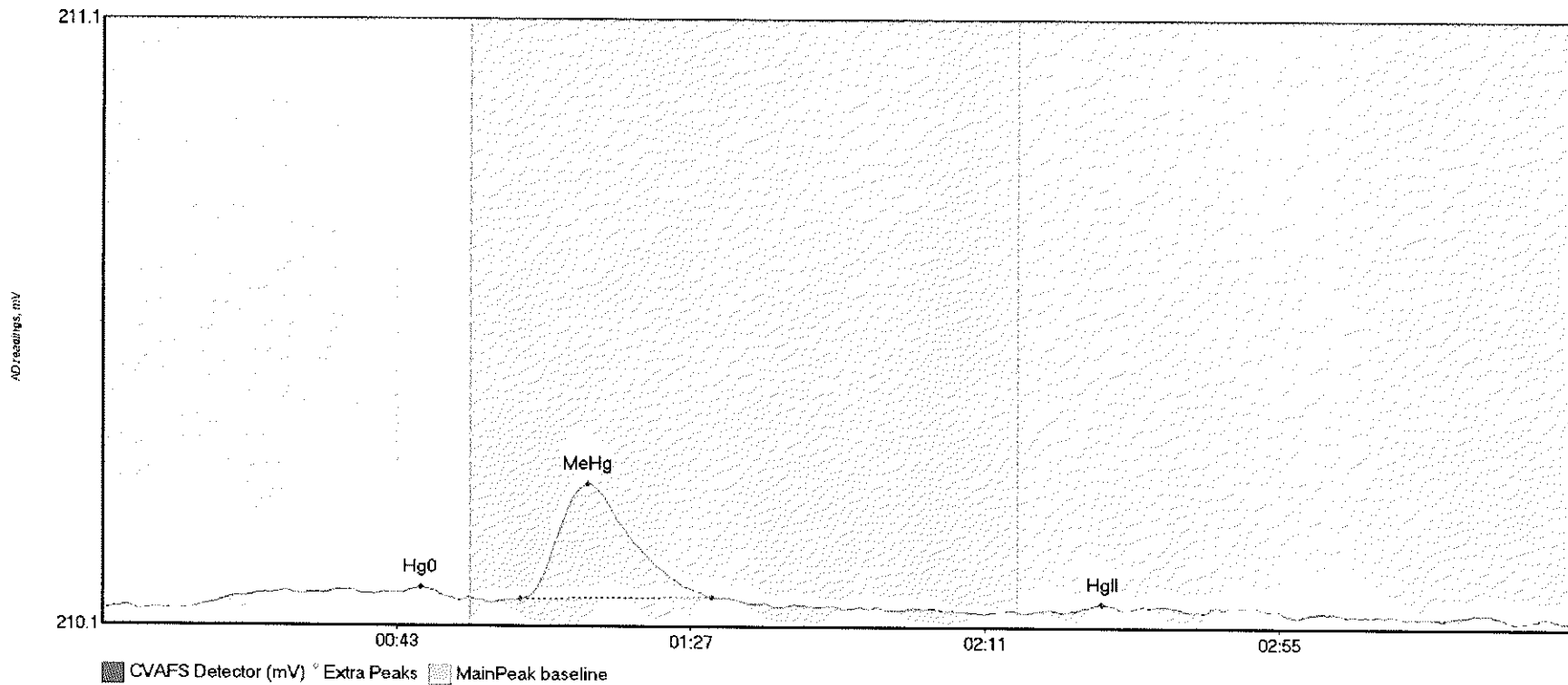
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	8.764	13.5	54.4	210.20	210.23	32.6	0.044	OK	210.2088	0.00	0.00	
WS HgII	14.413	138.4	189.3	210.21	210.21	156.5	0.072	OK	210.2088	0.00	0.00	017

#3: SEQ-IBL1



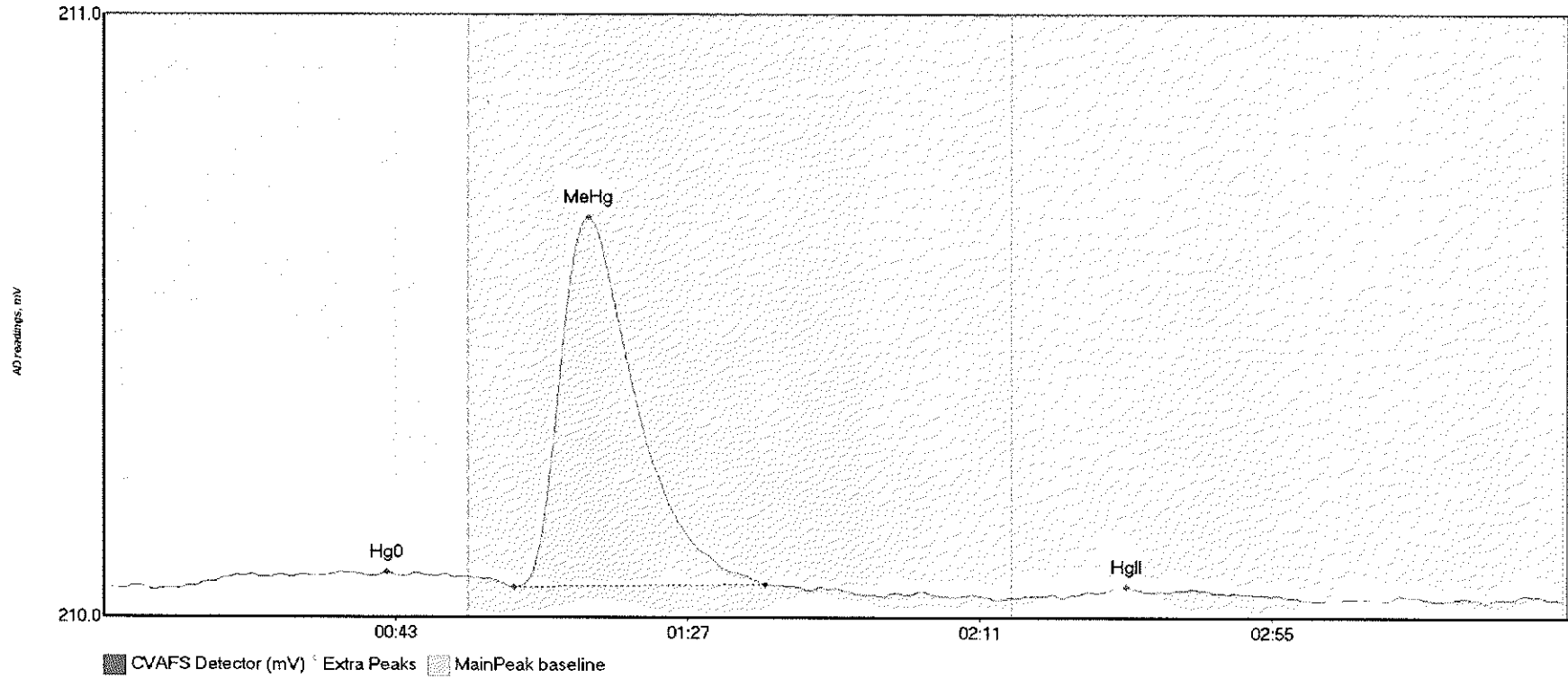
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	6.102	15.1	55.0	210.16	210.18	23.6	0.030	CT	210.1627	0.00	-0.01	
SEQ-IBL1 HgII	3.093	138.8	161.5	210.15	210.16	154.2	0.024	OK	210.1627	0.00	-0.01	017

#4: SEQ-CAL1



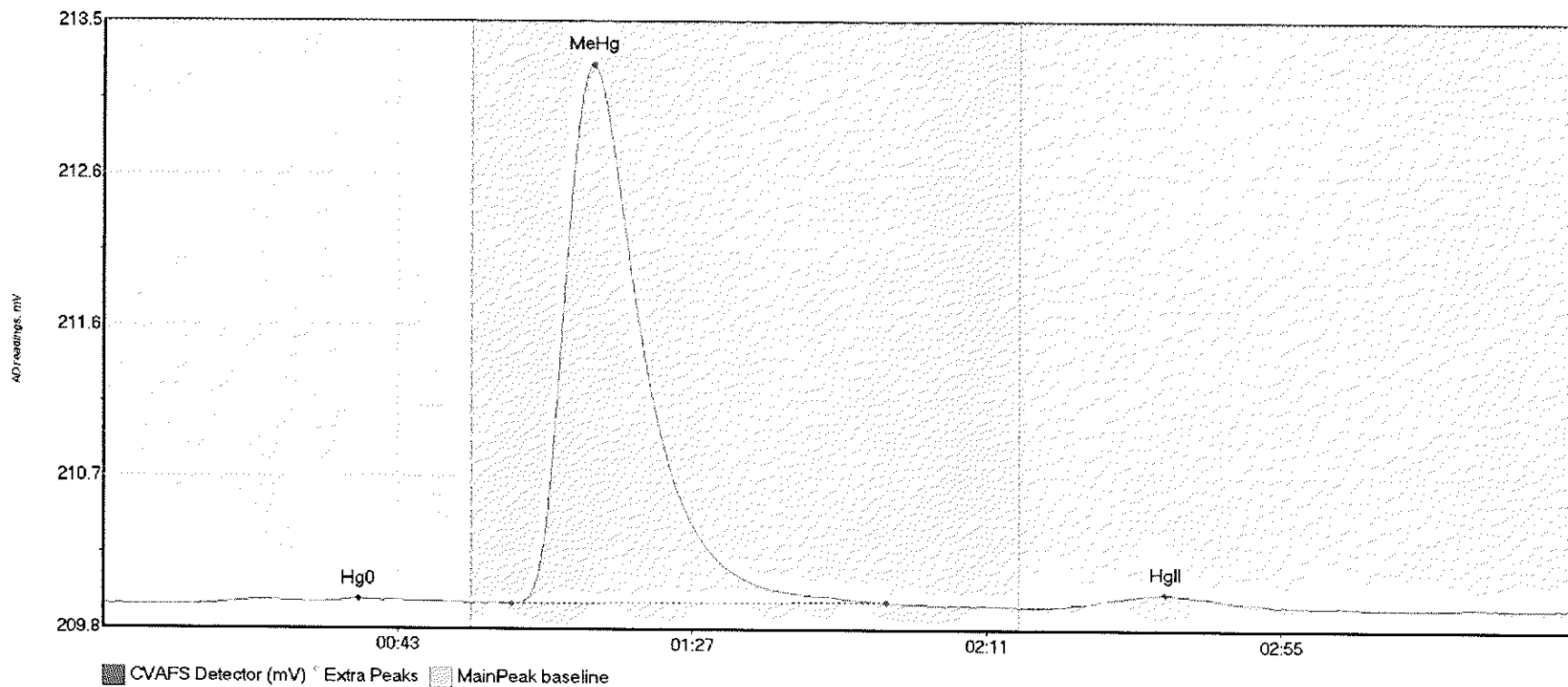
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	6.367	13.3	53.4	210.09	210.11	47.6	0.033	OK	210.0927	0.00	-0.02	
SEQ-CAL1 MeHg	23.515	62.4	91.1	210.11	210.11	72.6	0.191	OK	210.0927	0.00	-0.02	
SEQ-CAL1 HgII	0.471	145.4	152.9	210.09	210.09	149.6	0.011	OK	210.0927	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	3.966	13.7	53.0	210.02	210.04	42.7	0.024	OK	210.0211	0.00	-0.02	
SEQ-CAL2 MeHg	81.069	61.9	99.8	210.02	210.03	73.1	0.614	OK	210.0211	0.00	-0.02	
SEQ-CAL2 HgII	1.661	146.8	174.1	210.01	210.01	154.2	0.013	OK	210.0211	0.00	-0.02	

#6: SEQ-CAL3

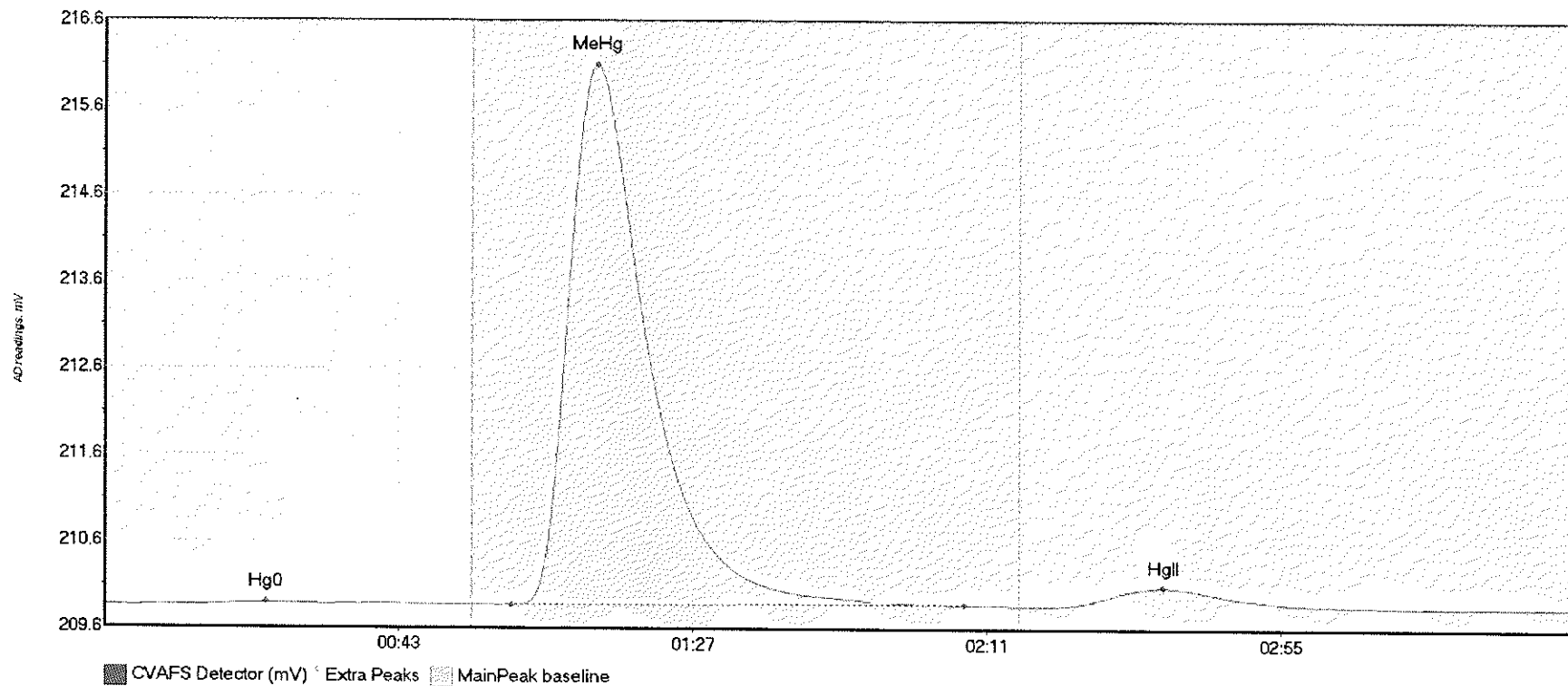


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	6.142	13.7	54.5	209.93	209.95	38.1	0.032	OK	209.9357	0.00	-0.01	
SEQ-CAL3 MeHg	444.823	61.0	117.0	209.94	209.95	73.1	3.277	OK	209.9357	0.00	-0.01	
SEQ-CAL3 HgII	13.760	143.3	181.5	209.93	209.93	158.8	0.077	OK	209.9357	0.00	-0.01	

017

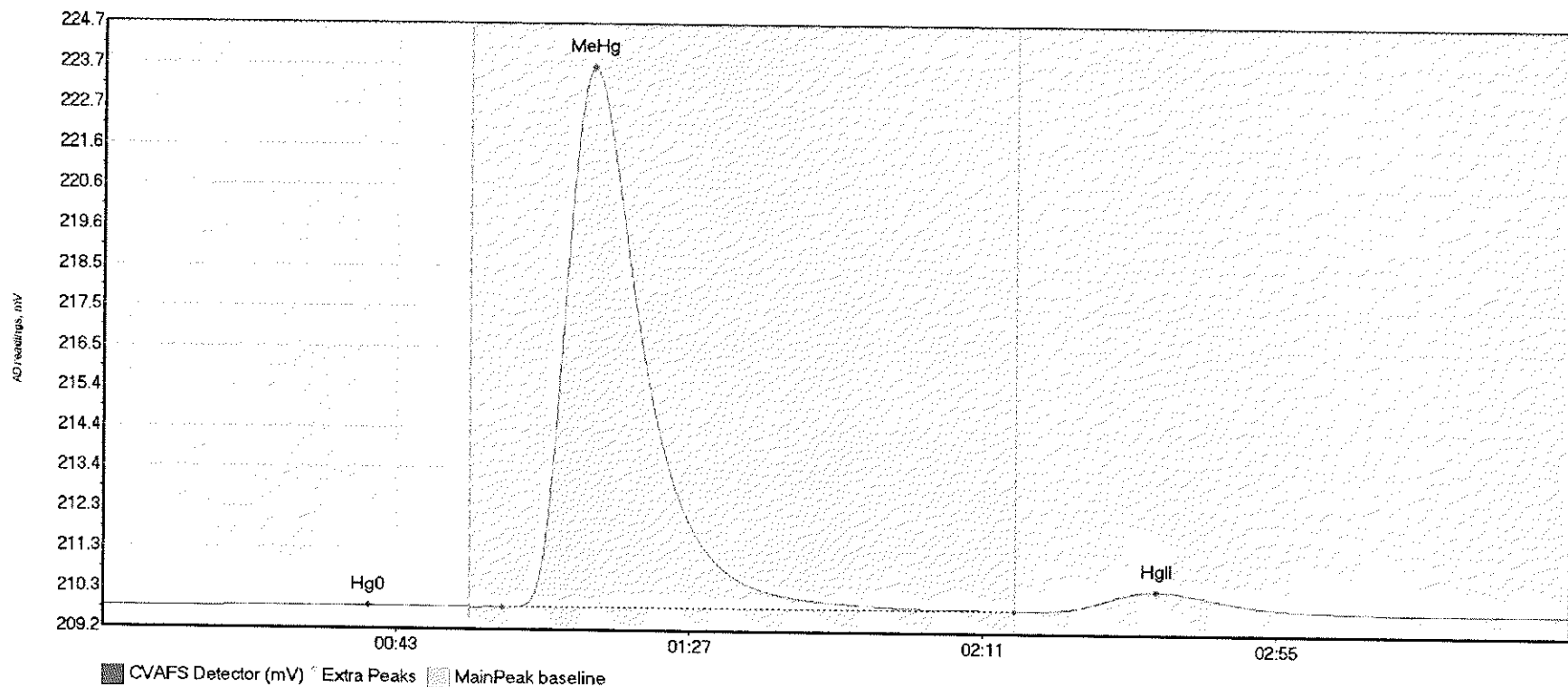


#7: SEQ-CAL4



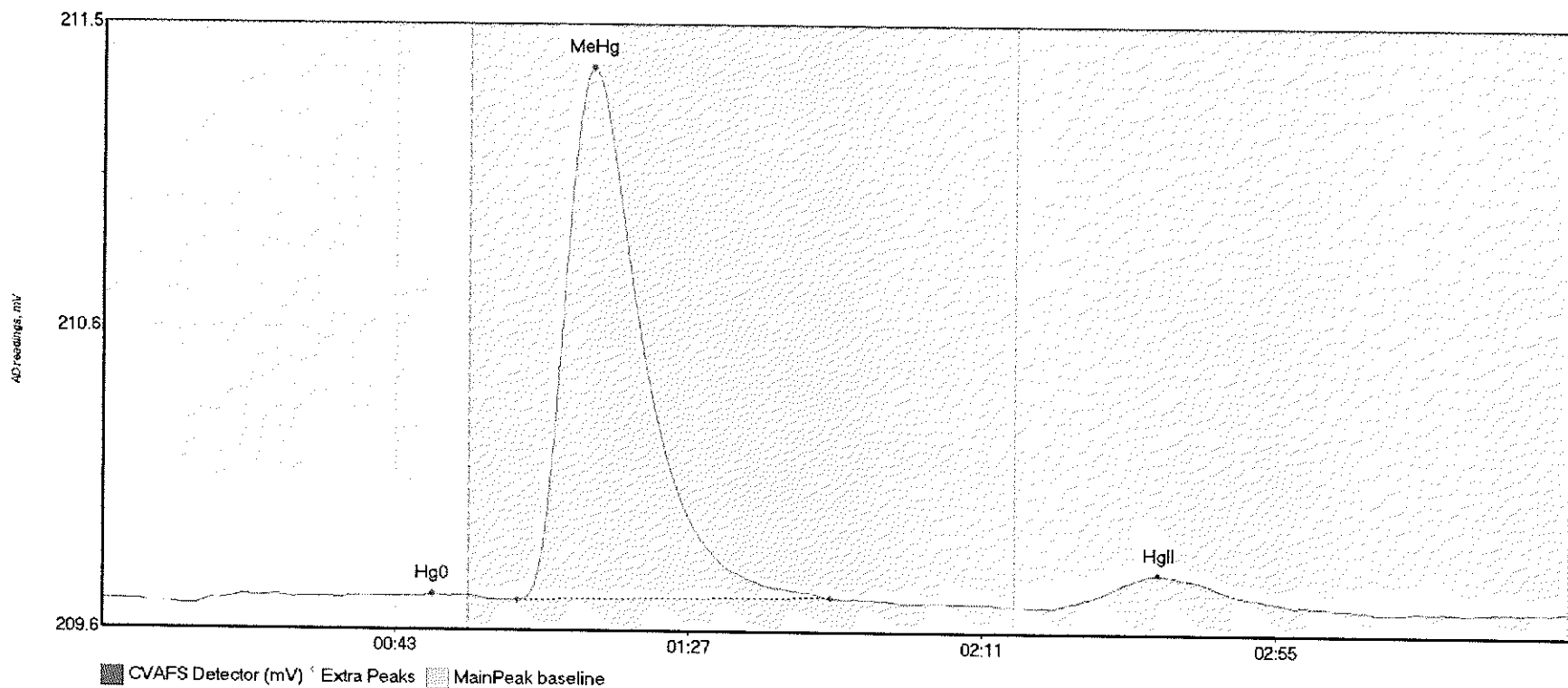
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	5.028	14.1	51.6	209.85	209.87	24.1	0.030	OK	209.8504	0.00	-0.01	
SEQ-CAL4 MeHg	860.290	60.8	128.6	209.86	209.87	73.6	6.264	OK	209.8504	0.00	-0.01	
SEQ-CAL4 HgII	40.348	141.3	185.1	209.86	209.86	158.5	0.218	OK	209.8504	0.00	-0.01	

#8: SEQ-CAL5



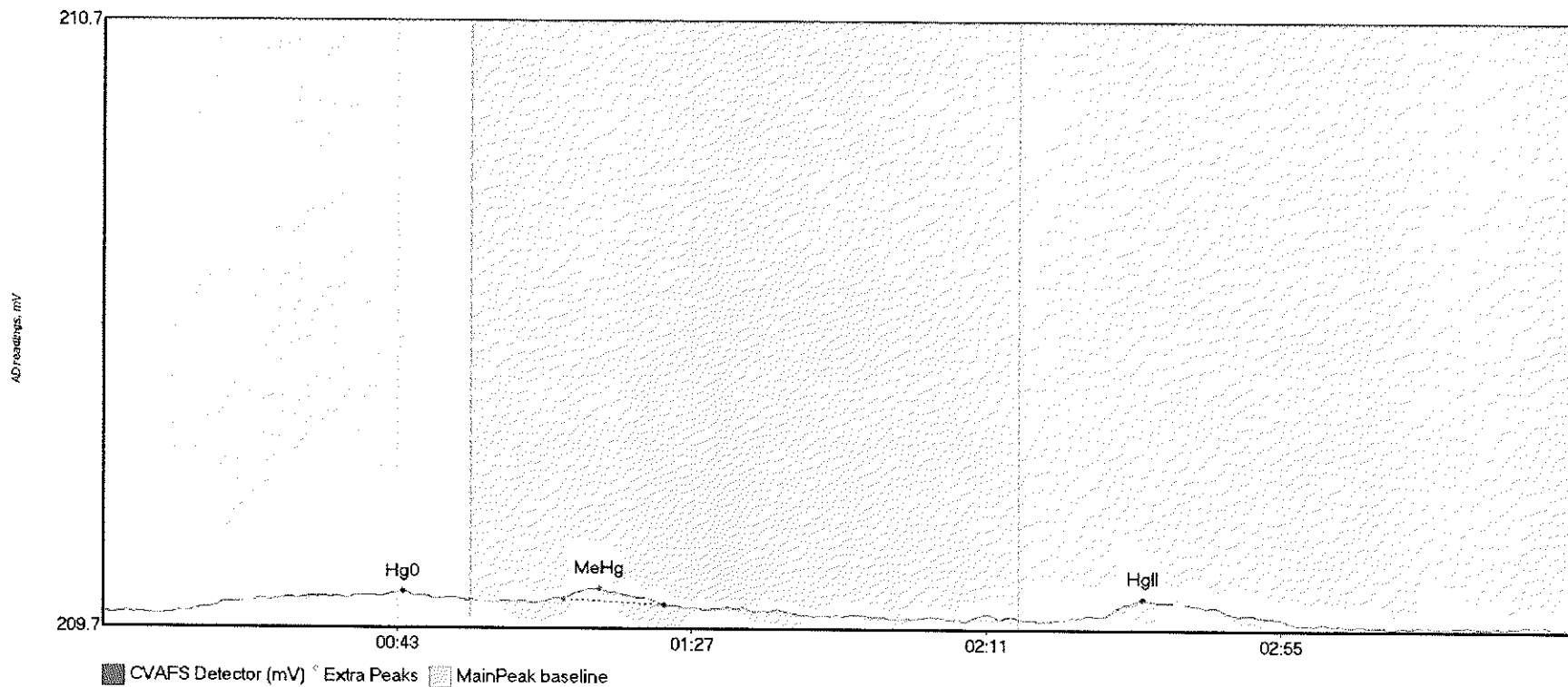
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	6.367	14.3	55.0	209.79	209.81	39.9	0.033	CT	209.7883	0.00	0.00	
SEQ-CAL5 MeHg	1883.640	59.9	136.8	209.81	209.82	73.5	13.815	CT	209.7883	0.00	0.00	
SEQ-CAL5 HgII	102.180	139.1	187.1	209.82	209.82	158.1	0.527	OK	209.7883	0.00	0.00	

#9: SEQ-ICV1



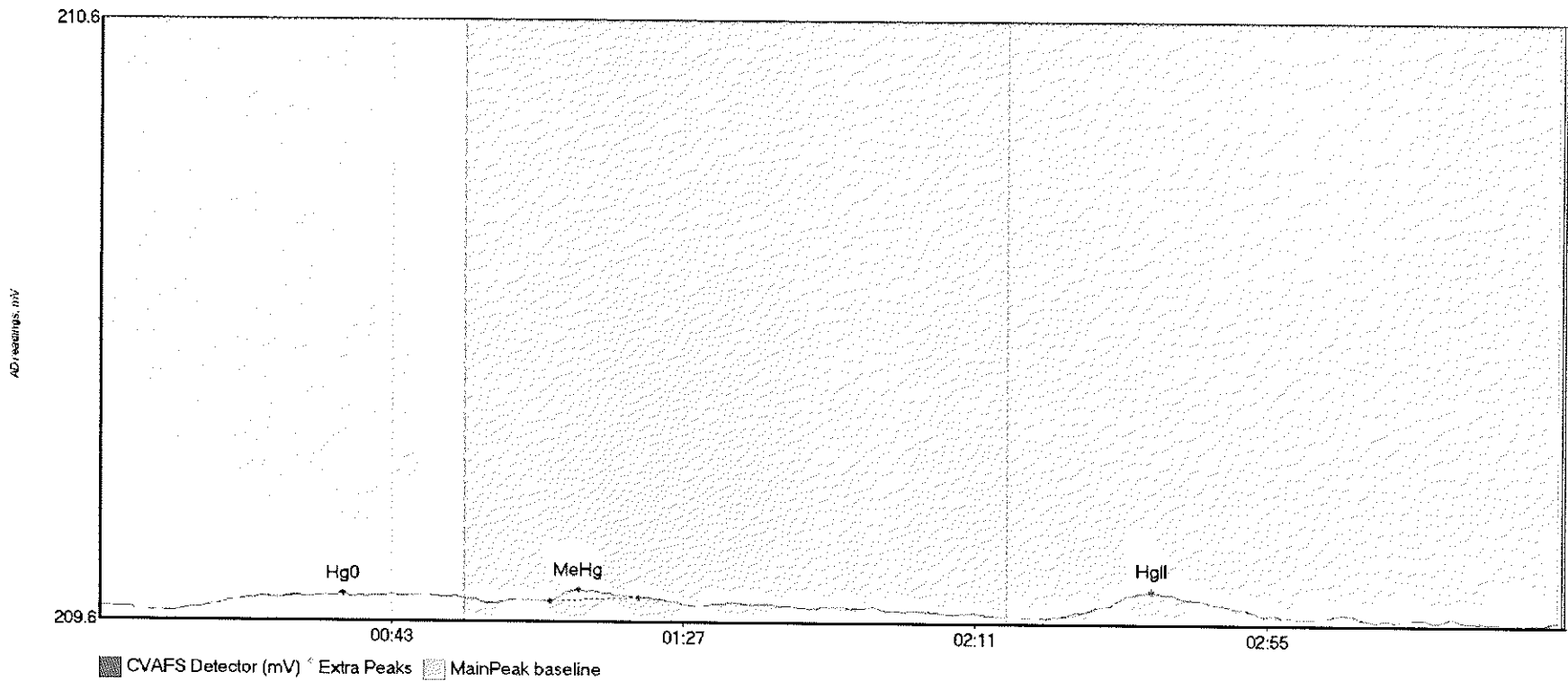
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	1.379	17.6	52.2	209.74	209.75	49.6	0.015	OK	209.7349	0.00	-0.01	
SEQ-ICV1 MeHg	222.002	62.3	109.2	209.74	209.75	73.5	1.658	OK	209.7349	0.00	-0.01	
SEQ-ICV1 HgII	18.170	142.1	178.6	209.72	209.73	158.5	0.105	OK	209.7349	0.00	-0.61	

#10: SEQ-ICB1



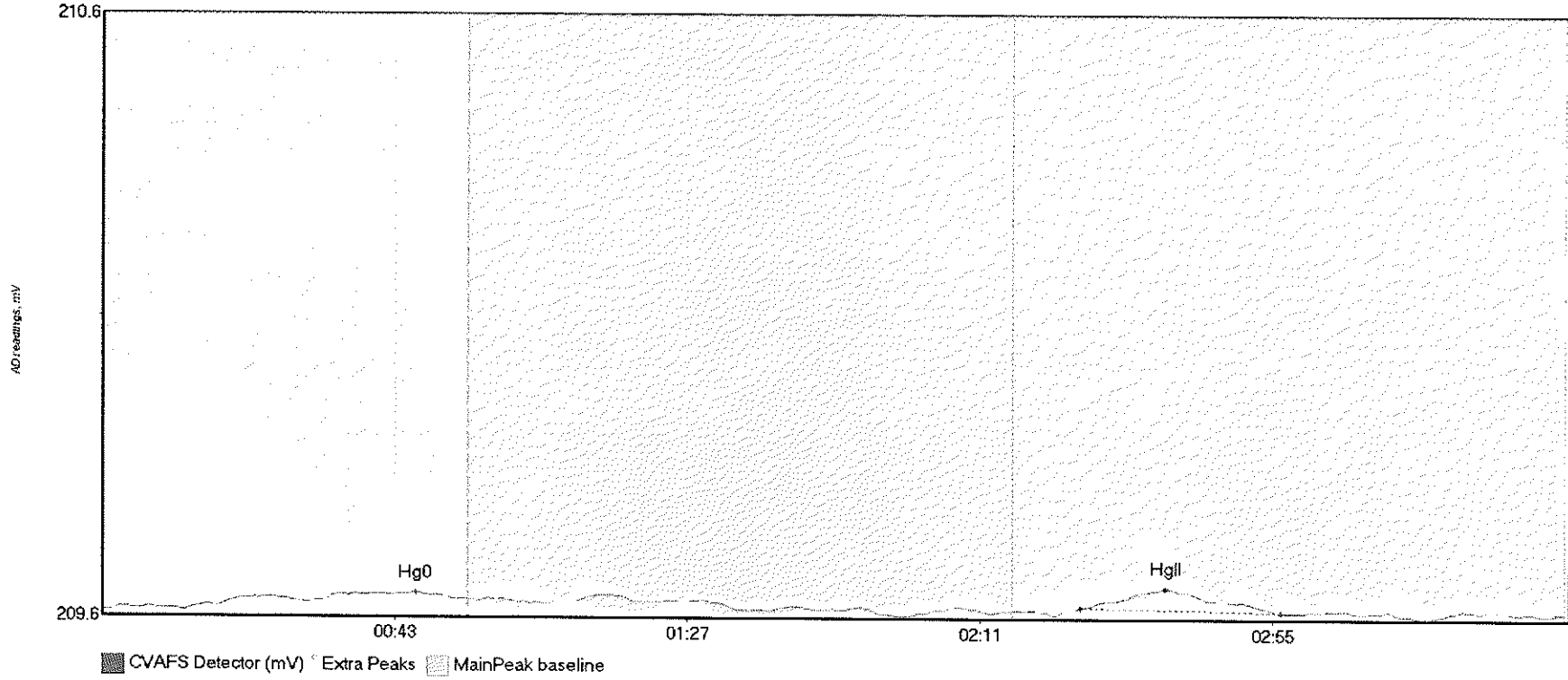
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	5.123	12.3	54.5	209.68	209.70	44.8	0.034	OK	209.6769	0.00	-0.02	
SEQ-ICB1 MeHg	1.740	68.9	83.9	209.70	209.69	74.3	0.017	OK	209.6769	0.00	-0.02	
SEQ-ICB1 HgII	3.816	149.0	173.3	209.67	209.67	155.5	0.029	OK	209.6769	0.00	-0.02	

#11: F708268-BLK4



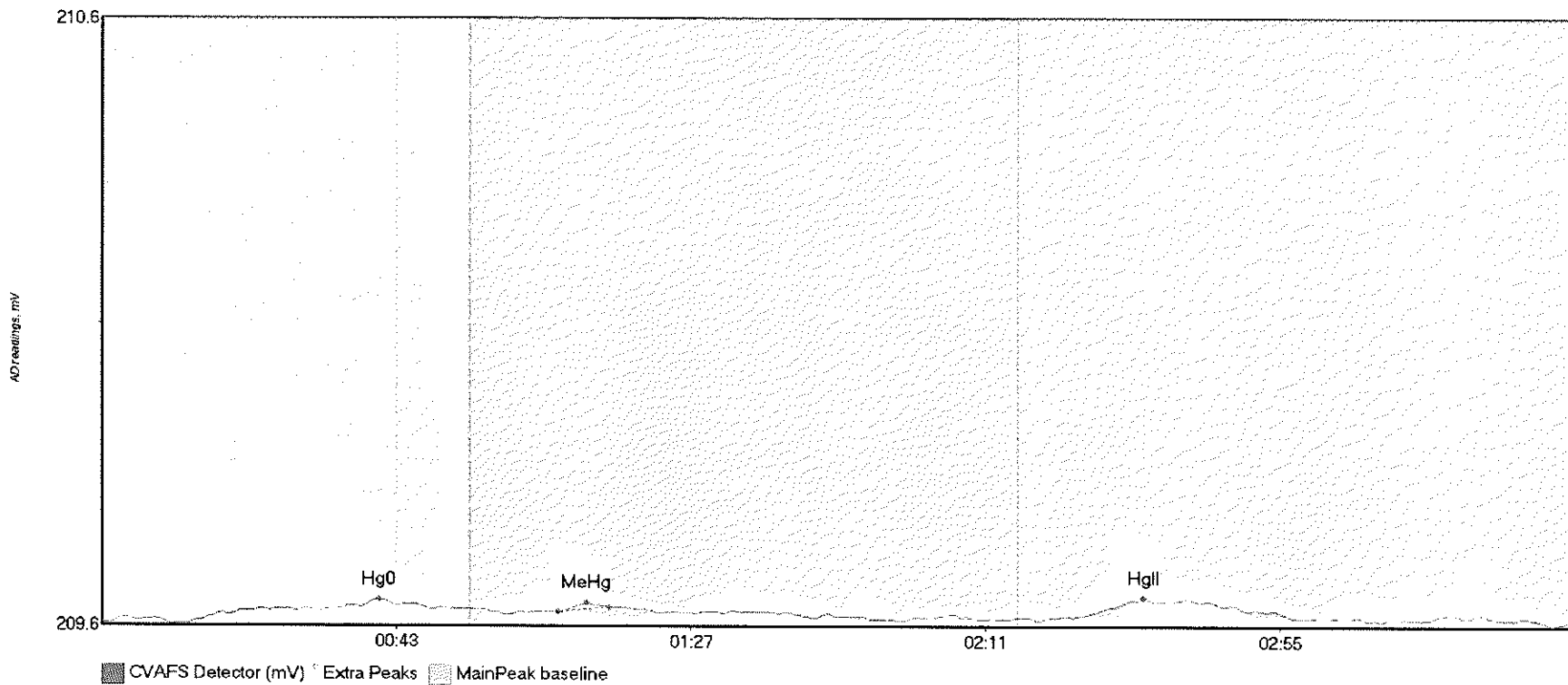
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BLK4 Hg	3.183	17.2	54.8	209.63	209.64	36.7	0.020	OK	209.6281	0.00	-0.02	
F708268-BLK4 Me	1.238	67.9	81.2	209.64	209.64	72.2	0.019	OK	209.6281	0.00	-0.02	
F708268-BLK4 Hg	6.544	144.8	175.4	209.62	209.62	158.6	0.041	OK	209.6281	0.00	-0.02	

#12: F708268-BLK5



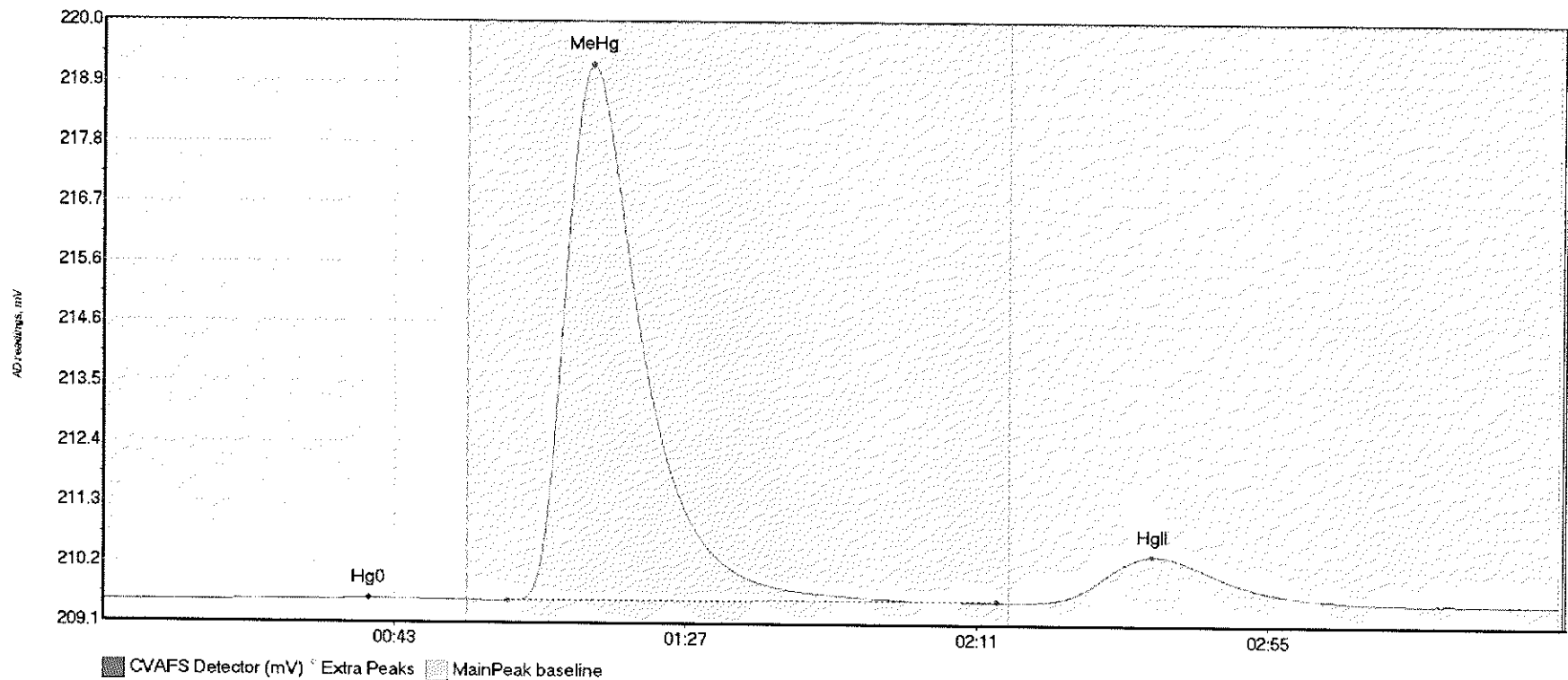
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BLK5 Hg	3.769	13.7	53.3	209.59	209.61	47.1	0.026	OK	209.5878	0.00	0.00	
F708268-BLK5 Hg	5.356	147.2	177.2	209.60	209.59	160.0	0.033	OK	209.5878	0.00	0.00	317

#13: F708268-BLK6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708268-BLK6 Hg	4.126	14.9	54.4	209.57	209.59	41.5	0.034	OK	209.5628	0.00	0.00	
F708268-BLK6 Me	0.431	68.1	75.8	209.58	209.59	72.4	0.016	OK	209.5628	0.00	0.00	
F708268-BLK6 Hg	5.686	146.5	178.6	209.58	209.57	155.6	0.028	OK	209.5628	0.00	0.00	

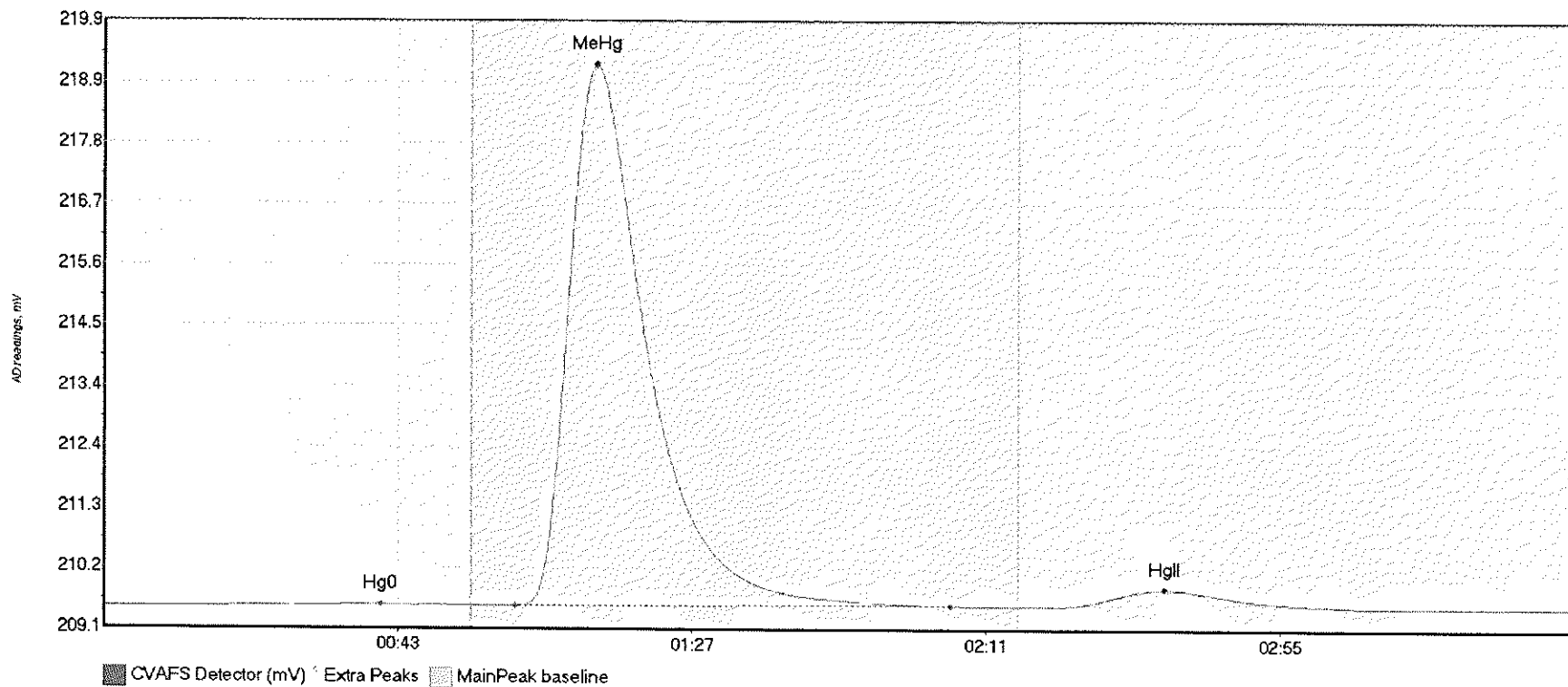
#14: 1707706-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707706-01RE1 H	5.421	13.1	55.0	209.54	209.55	40.1	0.040	CT	209.5314	0.00	0.01	
1707706-01RE1 M	1317.153	61.2	135.0	209.55	209.56	73.9	9.642	OK	209.5314	0.00	0.01	
1707706-01RE1 H	170.778	140.1	197.2	209.56	209.55	158.5	0.831	OK	209.5314	0.00	0.01	

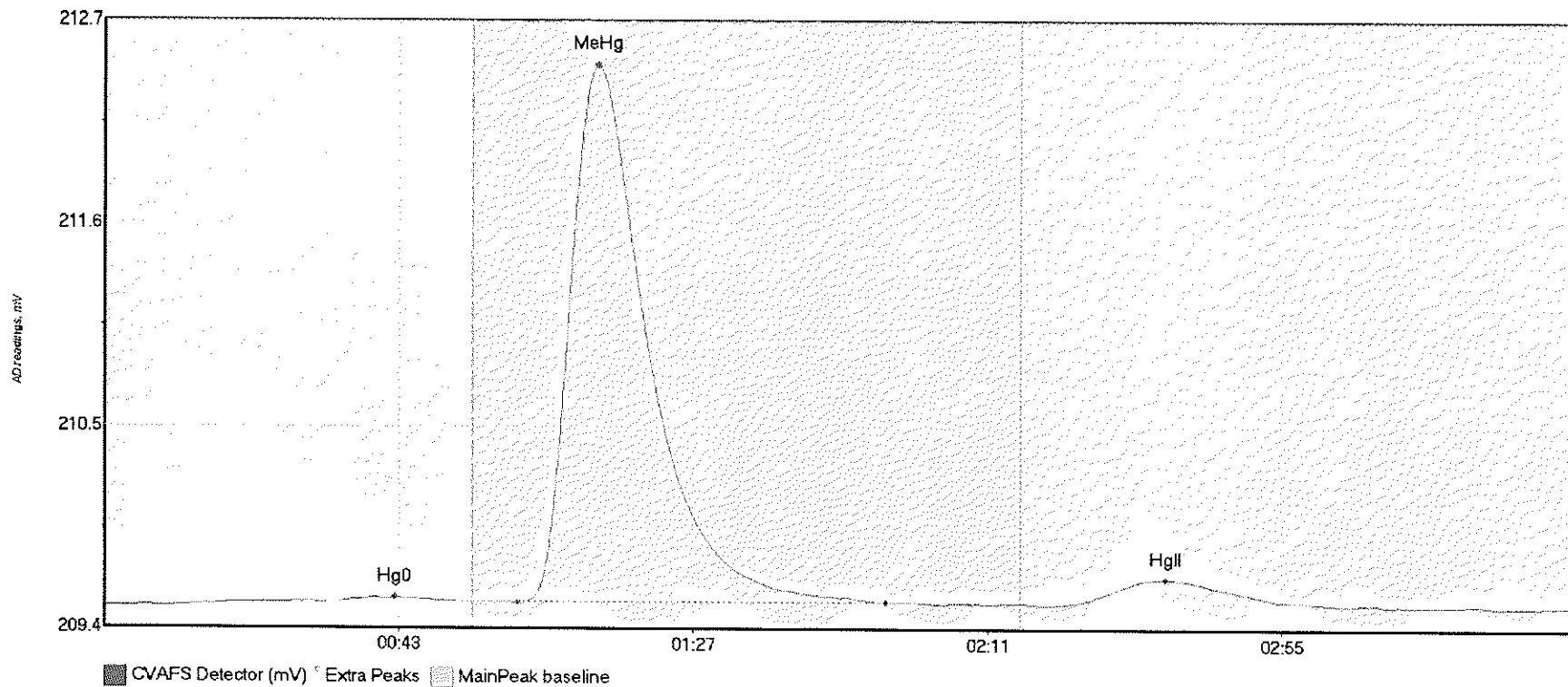


#15: 1707706-02RE1



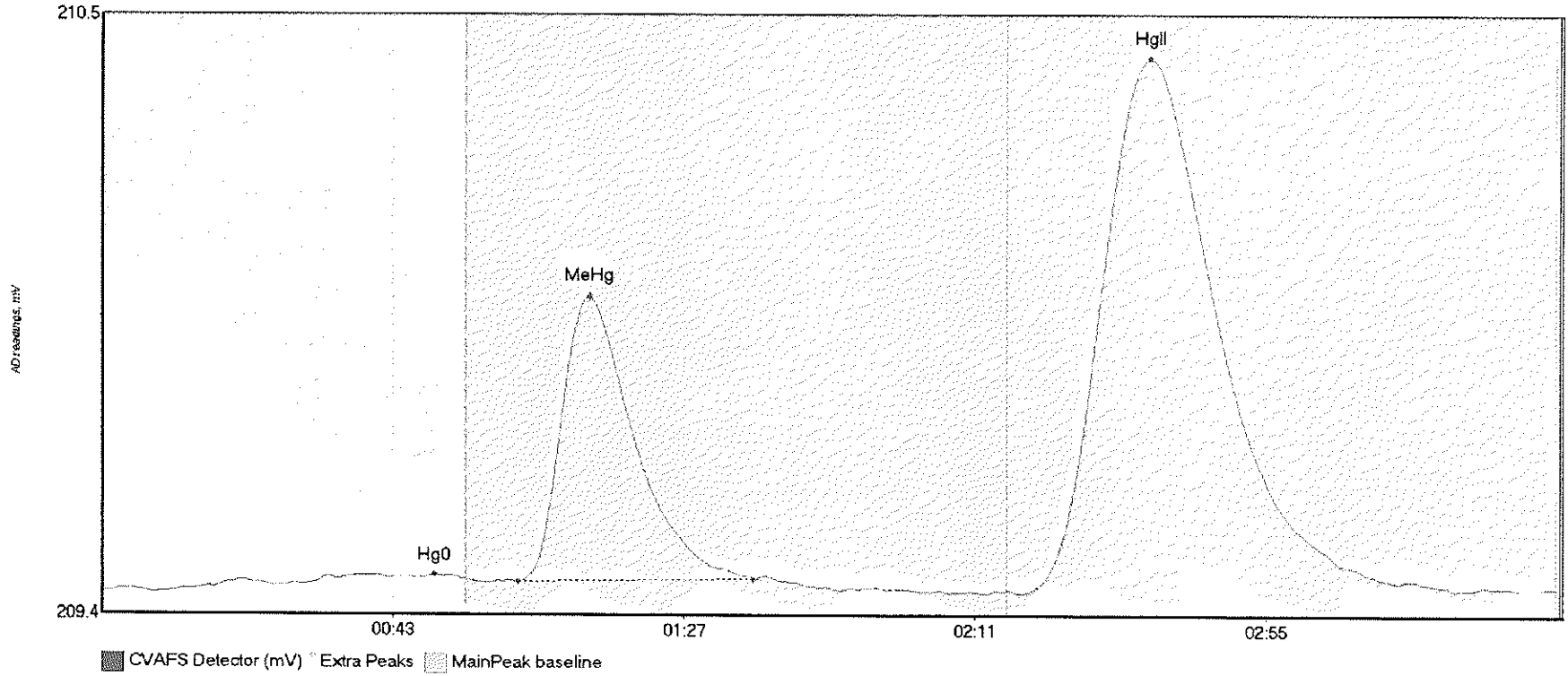
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707706-02RE1 H	5.379	15.5	53.0	209.51	209.54	41.4	0.043	OK	209.5099	0.00	0.01	
1707706-02RE1 M	1305.525	61.6	126.7	209.53	209.54	73.7	9.630	OK	209.5099	0.00	0.01	
1707706-02RE1 H	60.302	142.1	187.1	209.53	209.52	158.8	0.308	OK	209.5099	0.00	0.01	

#16: 1707706-03RE1



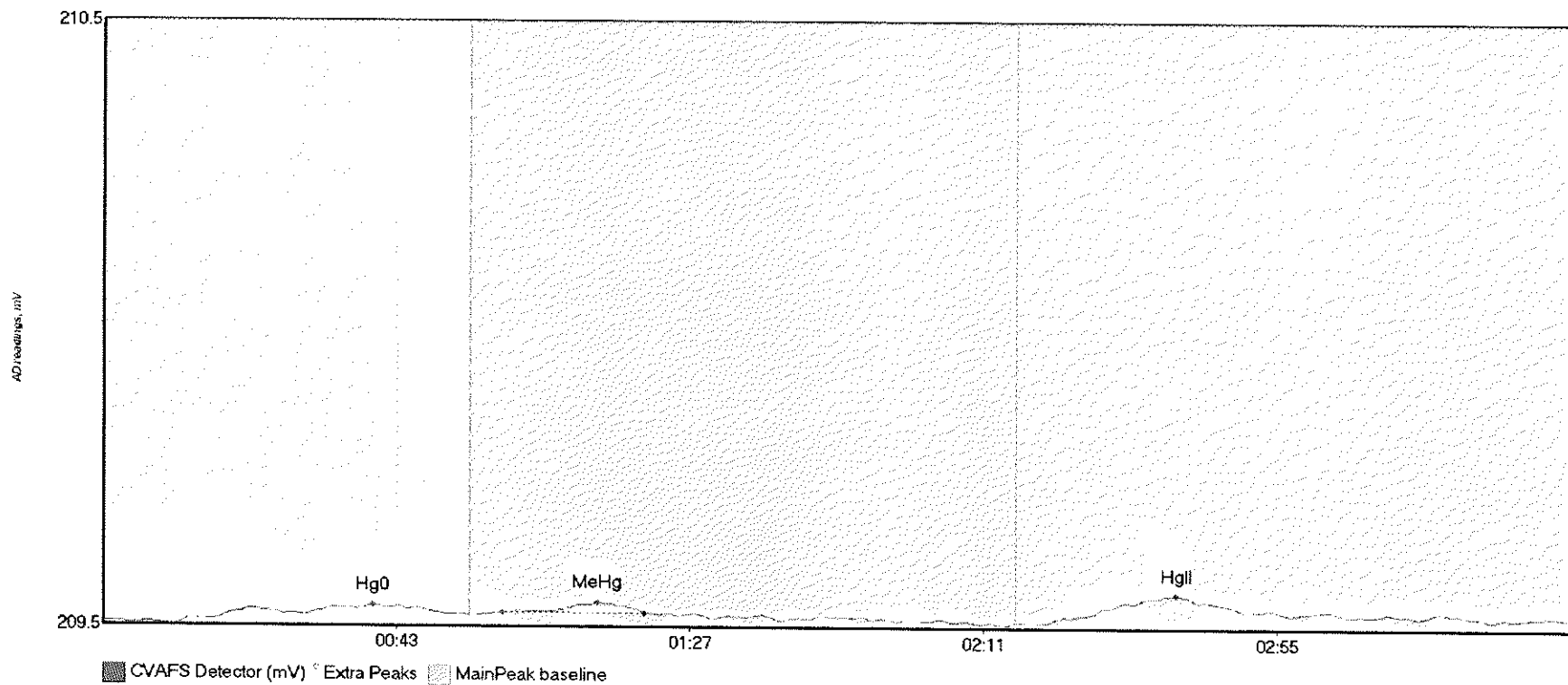
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707706-03RE1 H	5.401	12.1	53.9	209.49	209.51	43.4	0.042	OK	209.4824	0.00	0.00	
1707706-03RE1 M	404.003	61.7	116.8	209.50	209.51	73.8	2.993	OK	209.4824	0.00	0.00	
1707706-03RE1 H	24.830	143.4	181.0	209.50	209.50	158.6	0.140	OK	209.4824	0.00	0.00	

#17: 1707737-01RE1



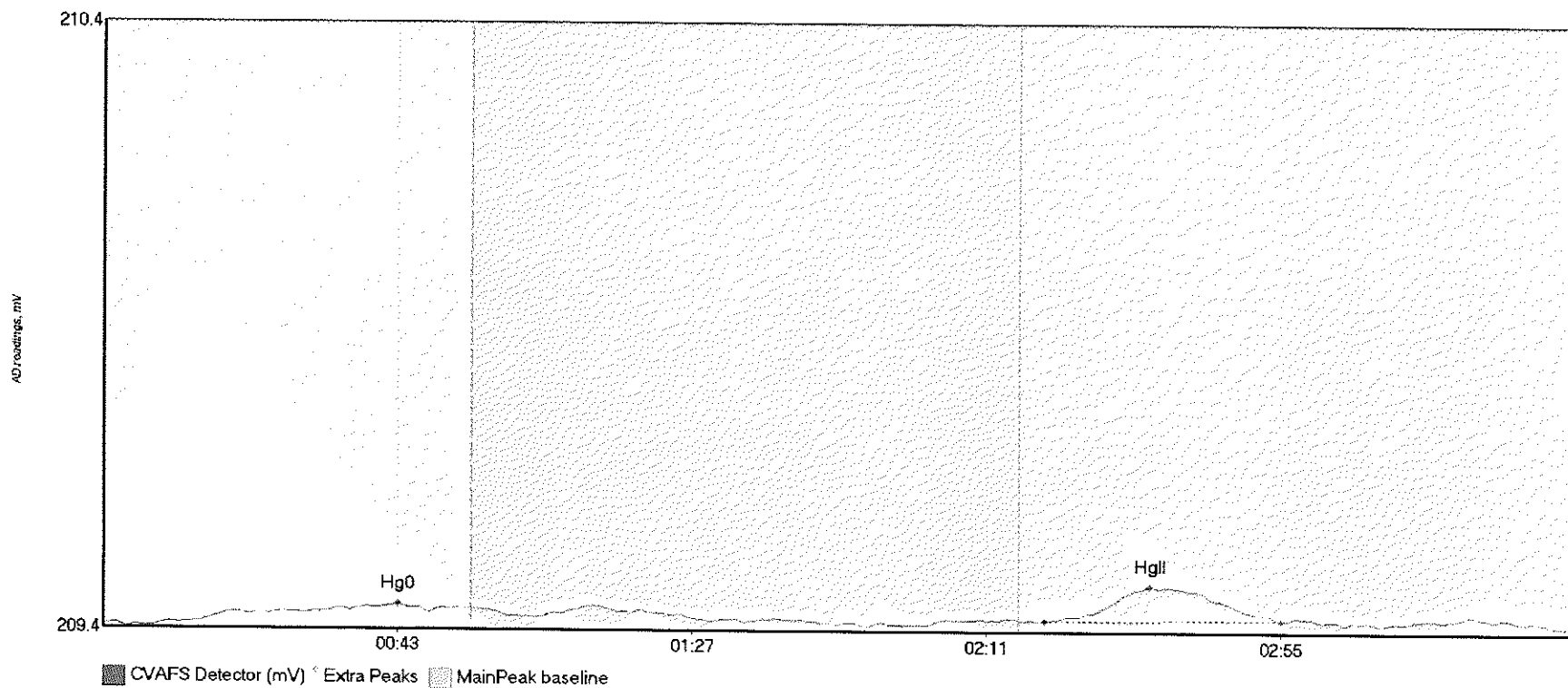
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1707737-01RE1 H	3.126	13.8	55.0	209.47	209.49	50.3	0.026	CT	209.4697	0.00	0.01	
1707737-01RE1 M	64.787	62.9	98.5	209.49	209.49	73.7	0.513	OK	209.4697	0.00	0.01	
1707737-01RE1 H	195.780	139.5	204.5	209.47	209.47	158.4	0.963	OK	209.4697	0.00	0.01	

#18: F708293-BLK7



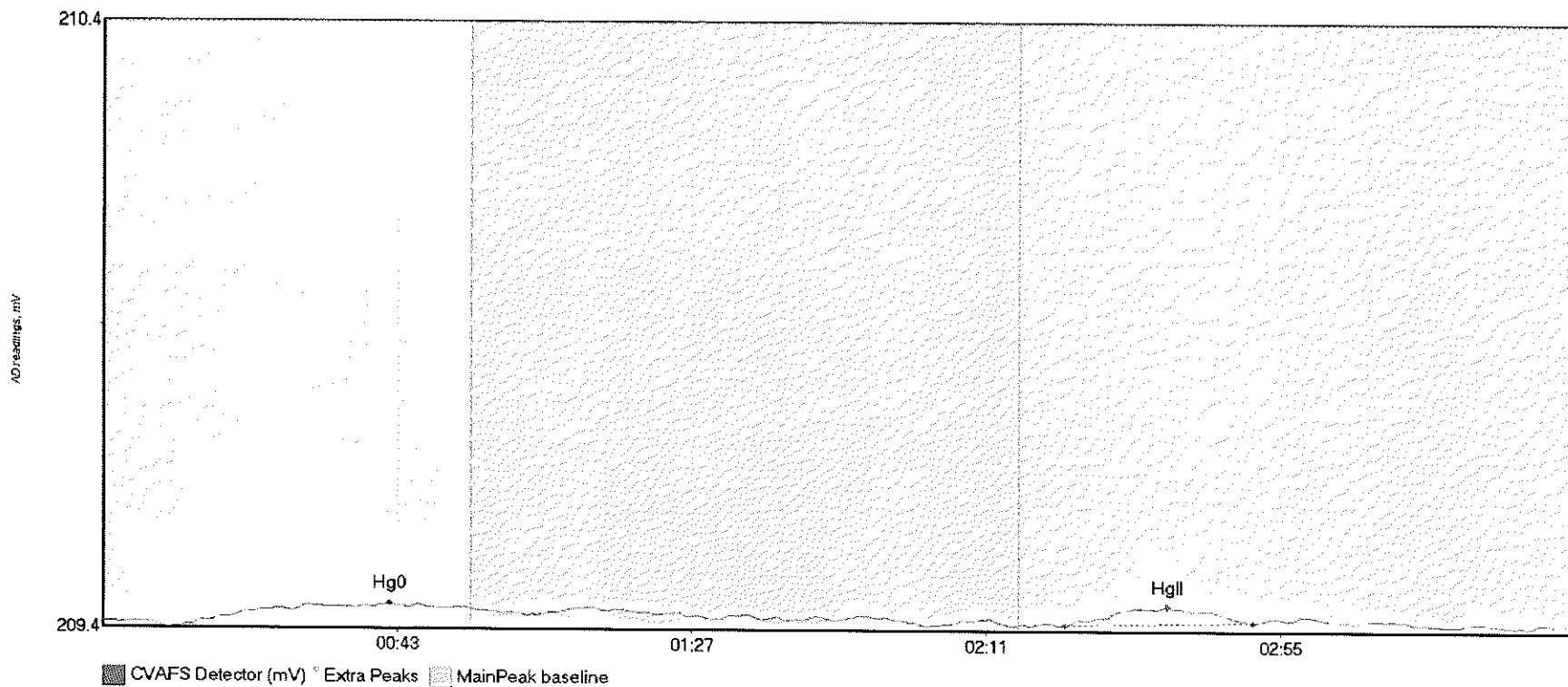
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BLK7 Hg	4.363	16.2	55.0	209.47	209.47	40.5	0.023	CT	209.4633	0.00	0.01	
F708293-BLK7 Me	1.783	59.9	81.2	209.48	209.48	74.2	0.018	OK	209.4633	0.00	0.01	
F708293-BLK7 Hg	11.735	141.3	207.7	209.47	209.47	160.9	0.046	OK	209.4633	0.00	0.01	

#19: F708293-BLK8



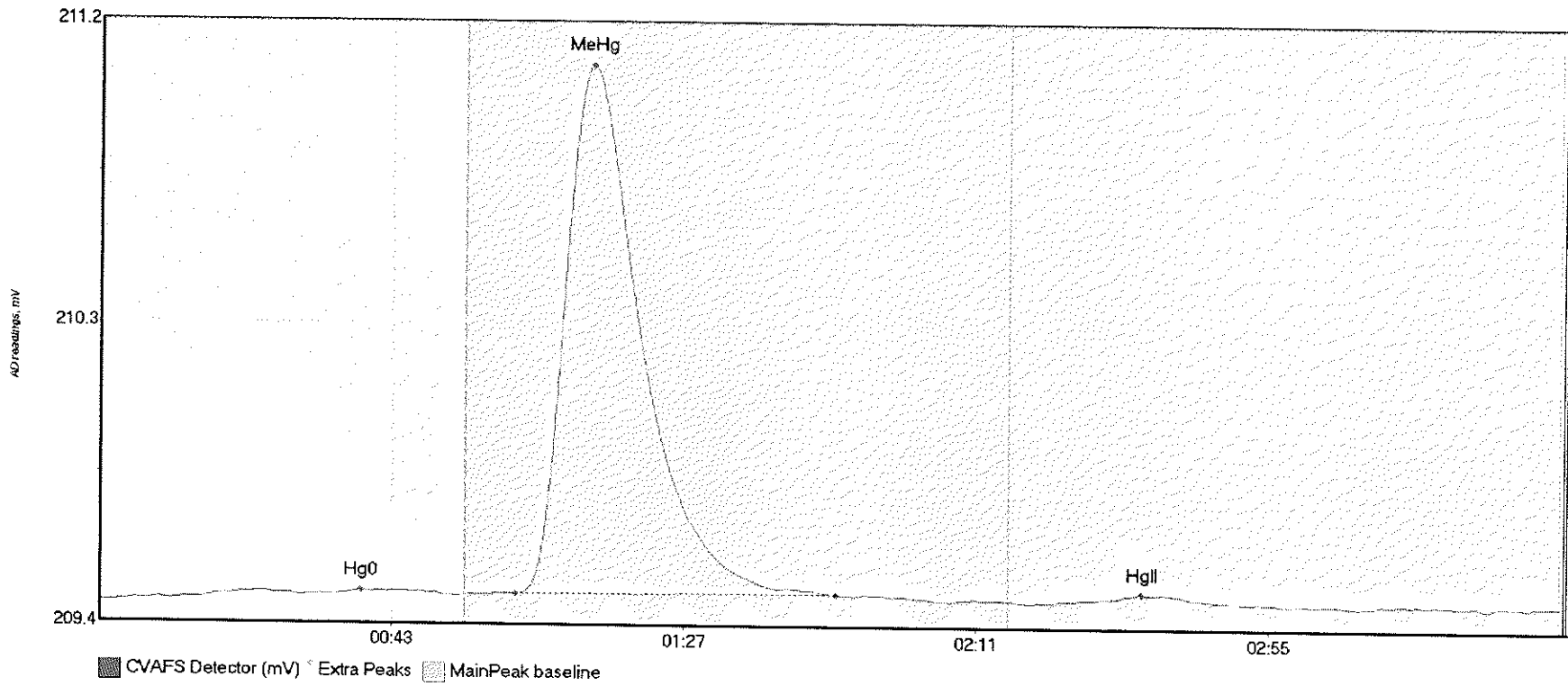
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BLK8 Hg	3.315	14.3	48.7	209.45	209.47	44.1	0.029	OK	209.4477	0.00	0.00	
F708293-BLK8 Hg	10.164	140.8	176.1	209.46	209.46	156.4	0.058	OK	209.4477	0.00	0.00	017

#20: F708293-BLK9



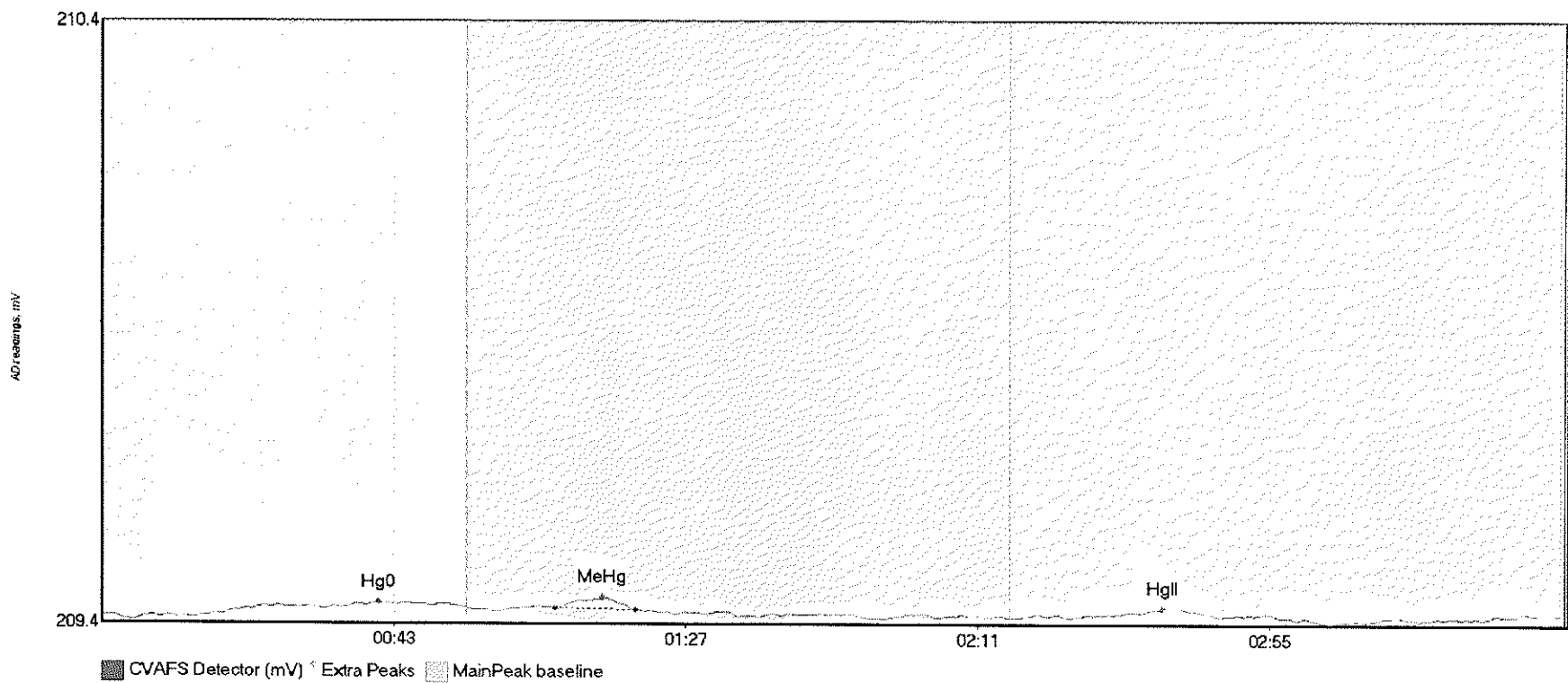
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-BLK9 Hg	3.485	15.7	51.4	209.45	209.47	42.8	0.029	OK	209.4507	0.00	0.00	
F708293-BLK9 Hg	4.652	143.8	171.9	209.45	209.45	159.0	0.033	OK	209.4507	0.00	0.00	317

#21: SEQ-CCV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	5.398	6.6	53.6	209.44	209.45	39.4	0.031	OK	209.4322	0.00	0.01	
SEQ-CCV1 MeHg	207.431	62.6	110.9	209.46	209.46	74.0	1.570	OK	209.4322	0.00	0.01	
SEQ-CCV1 HgII	2.193	149.6	168.4	209.45	209.45	157.0	0.019	OK	209.4322	0.00	0.01	117

#22: SEQ-CCB1

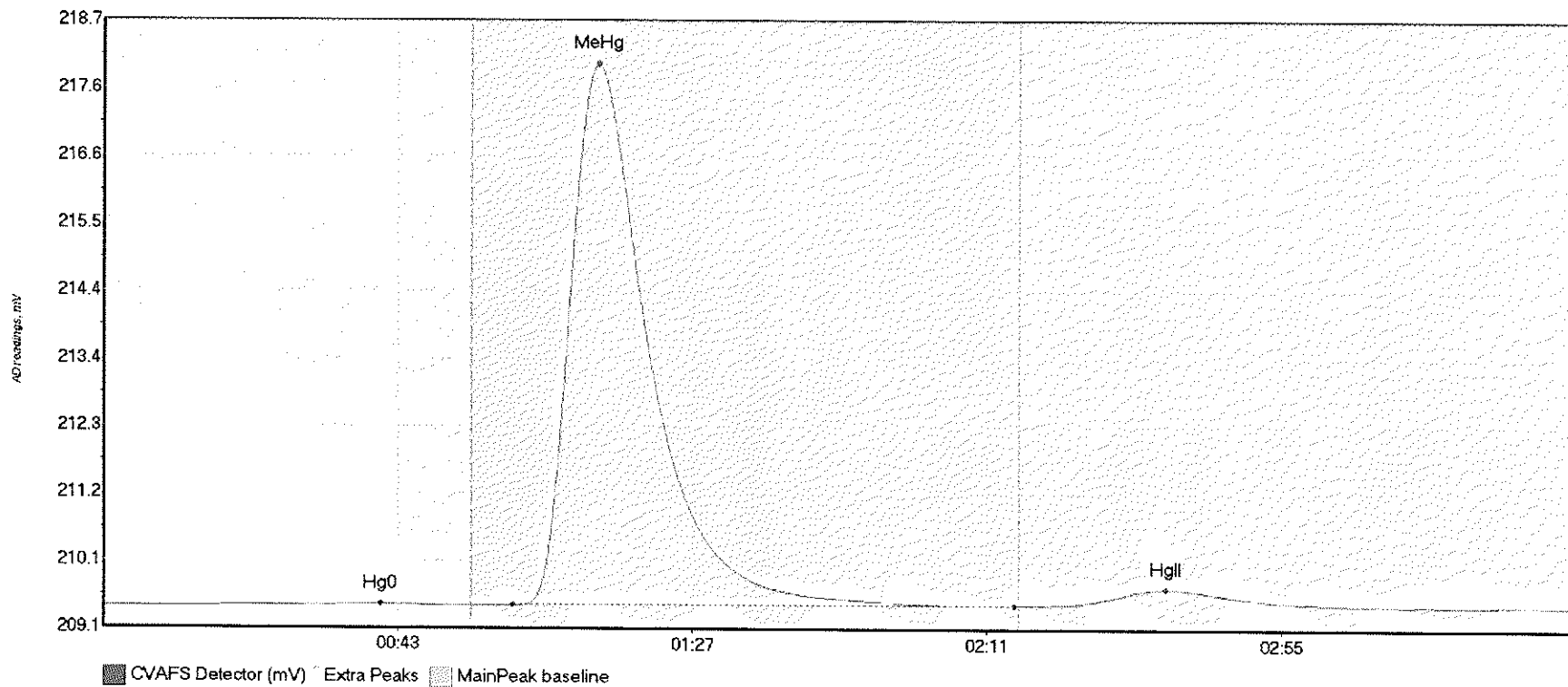


Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	3.111	18.2	55.0	209.43	209.44	41.7	0.020	CT	209.4325	0.00	0.00	
SEQ-CCB1 MeHg	1.359	68.3	80.5	209.44	209.44	75.5	0.017	OK	209.4325	0.00	0.00	
SEQ-CCB1 HgII	1.201	150.3	168.5	209.43	209.43	159.9	0.012	OK	209.4325	0.00	0.00	

J17

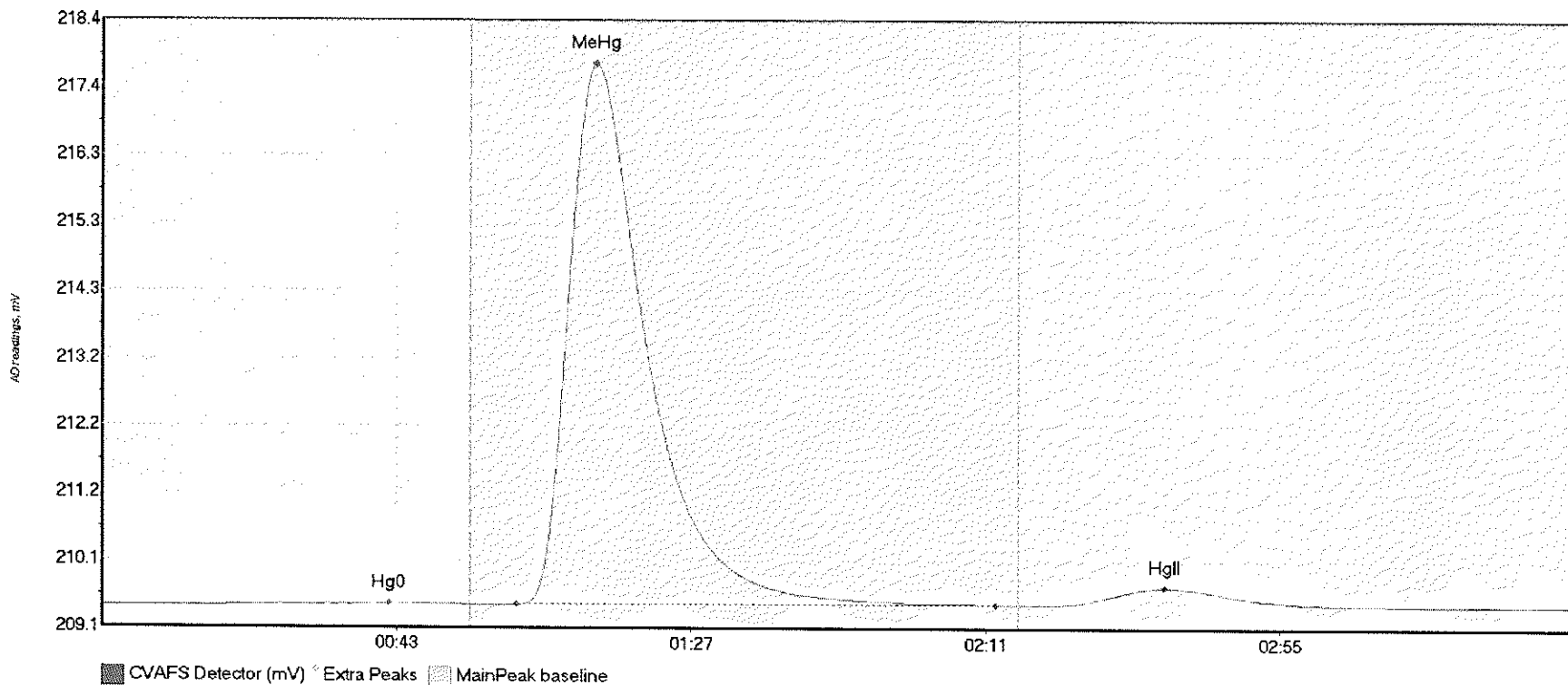


#23: F708293-MS3



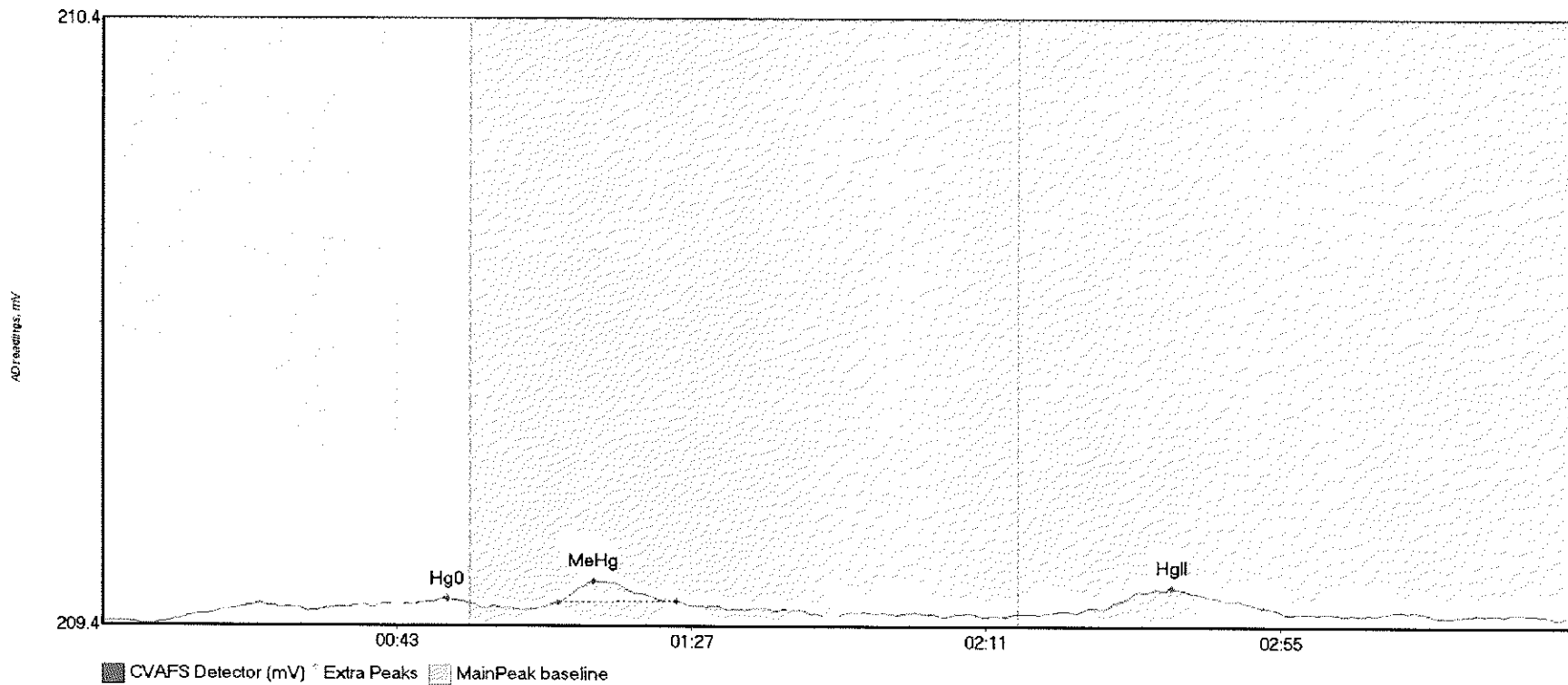
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-MS3	Hg0	15.4	53.5	209.43	209.44	41.4	0.032	OK	209.4235	0.00	0.02	
F708293-MS3	MeH	61.2	136.2	209.44	209.46	73.9	8.576	OK	209.4235	0.00	0.02	
F708293-MS3	HgI	138.7	187.4	209.46	209.46	158.7	0.266	OK	209.4235	0.00	0.02	

#24: F708293-MSD3



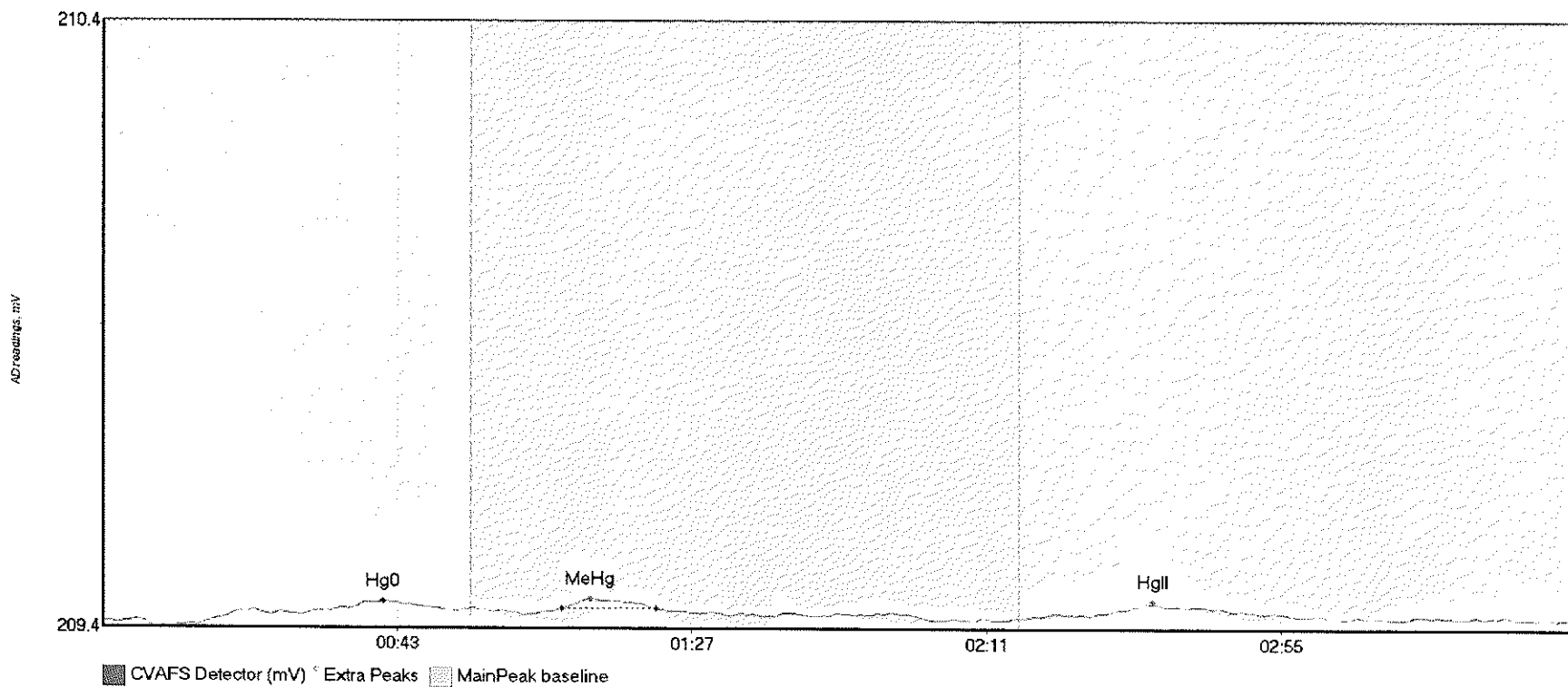
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F708293-MSD3 Hg	5.075	14.6	54.9	209.43	209.45	42.9	0.034	OK	209.4314	0.00	0.02	
F708293-MSD3 Me	1125.284	61.8	133.5	209.45	209.46	73.8	8.268	OK	209.4314	0.00	0.02	
F708293-MSD3 Hg	48.262	142.0	183.6	209.47	209.47	158.8	0.266	OK	209.4314	0.00	0.02	

#25: F707568-BLK1



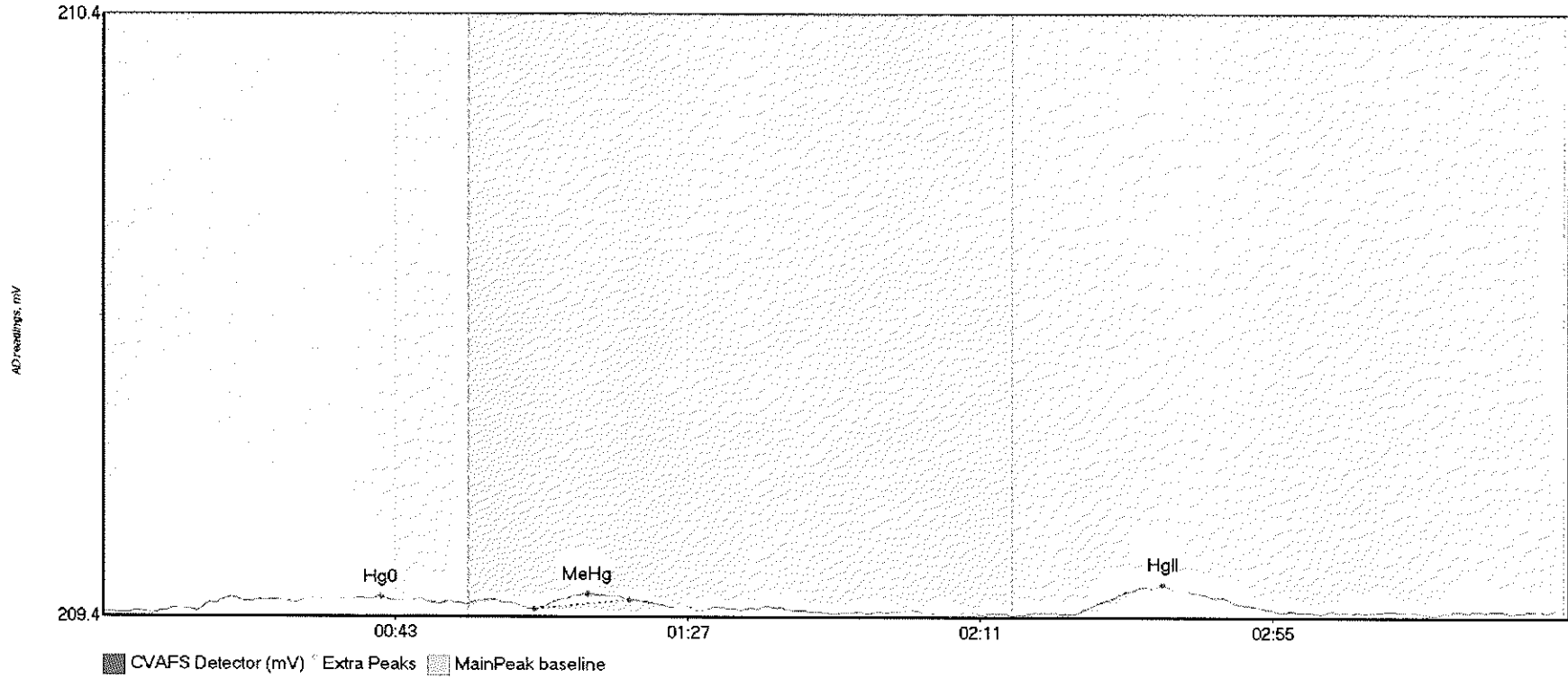
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707568-BLK1 Hg	3.245	11.4	55.0	209.43	209.45	51.6	0.034	CT	209.4212	0.00	0.01	
F707568-BLK1 Me	3.203	68.1	85.7	209.45	209.45	73.5	0.035	OK	209.4212	0.00	0.01	
F707568-BLK1 Hg	7.053	145.4	176.9	209.44	209.43	159.8	0.041	OK	209.4212	0.00	0.01	

#26: F707568-BLK2



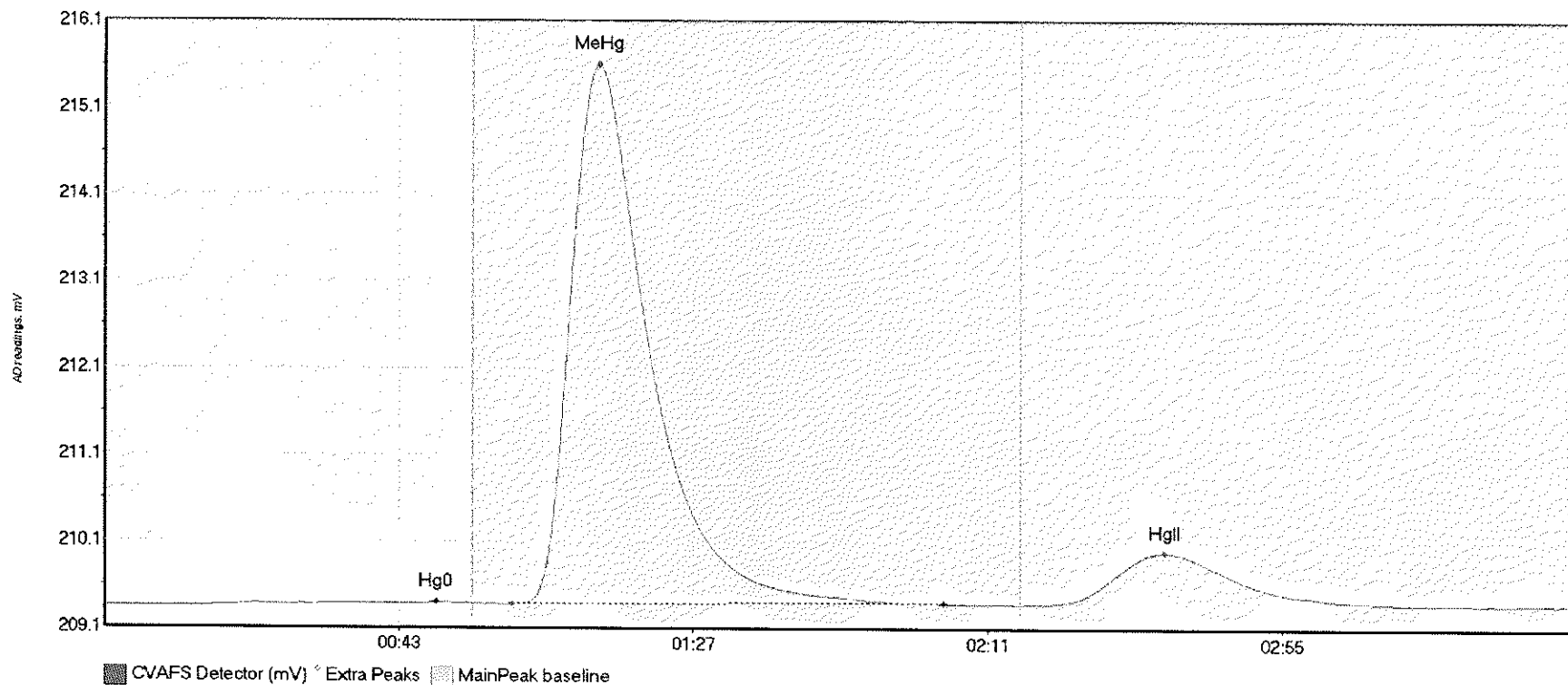
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707568-BLK2 Hg	3.270	17.0	52.9	209.43	209.44	41.9	0.029	OK	209.4239	0.00	0.01	
F707568-BLK2 Me	1.359	68.6	82.8	209.45	209.45	72.8	0.016	OK	209.4239	0.00	0.01	
F707568-BLK2 Hg	3.376	147.3	178.8	209.43	209.43	156.9	0.021	OK	209.4239	0.00	0.01	

#27: F707568-BLK3



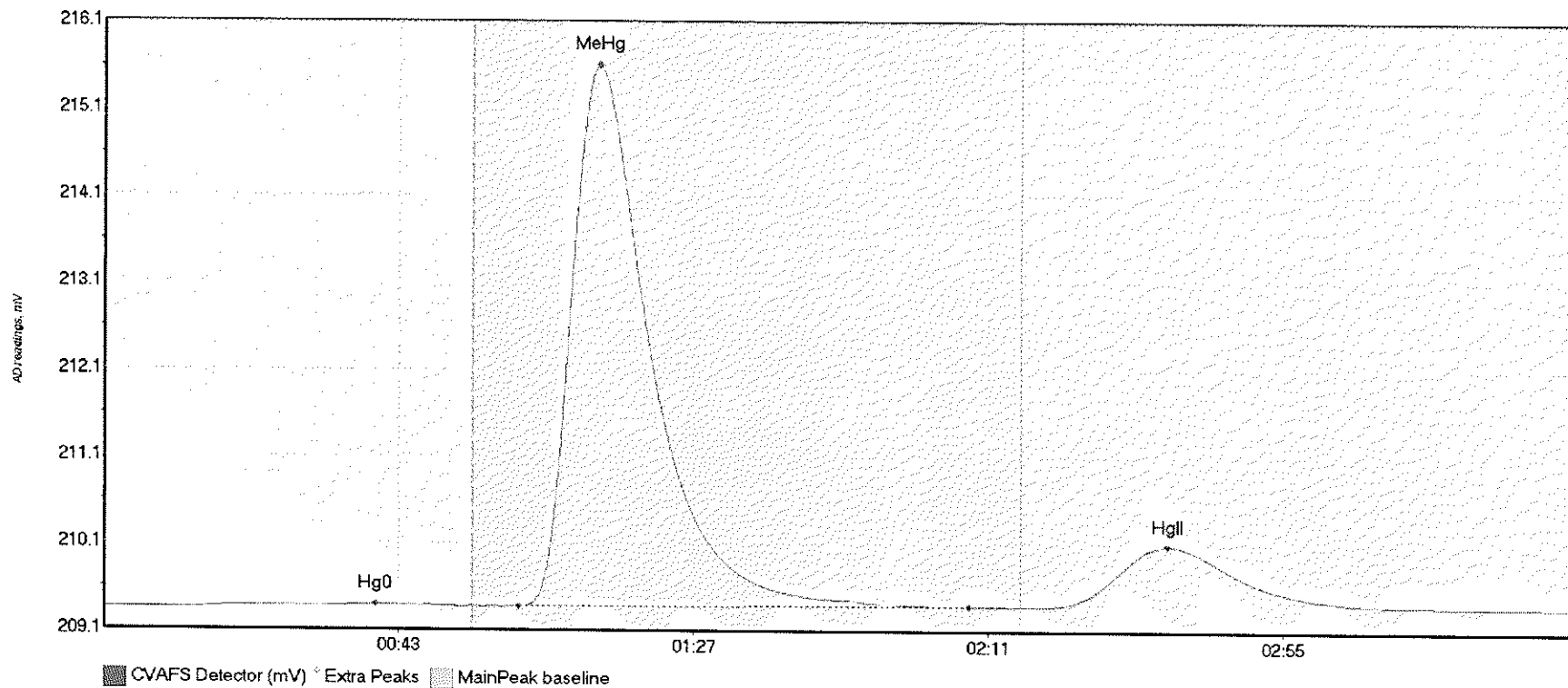
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707568-BLK3 Hg	4.785	14.1	54.7	209.42	209.43	41.8	0.024	OK	209.4145	0.00	0.00	
F707568-BLK3 Me	1.487	64.9	79.1	209.42	209.44	72.9	0.026	OK	209.4145	0.00	0.00	
F707568-BLK3 Hg	8.251	145.6	183.1	209.41	209.41	159.4	0.048	OK	209.4145	0.00	0.00	

#28: F707568-BS1



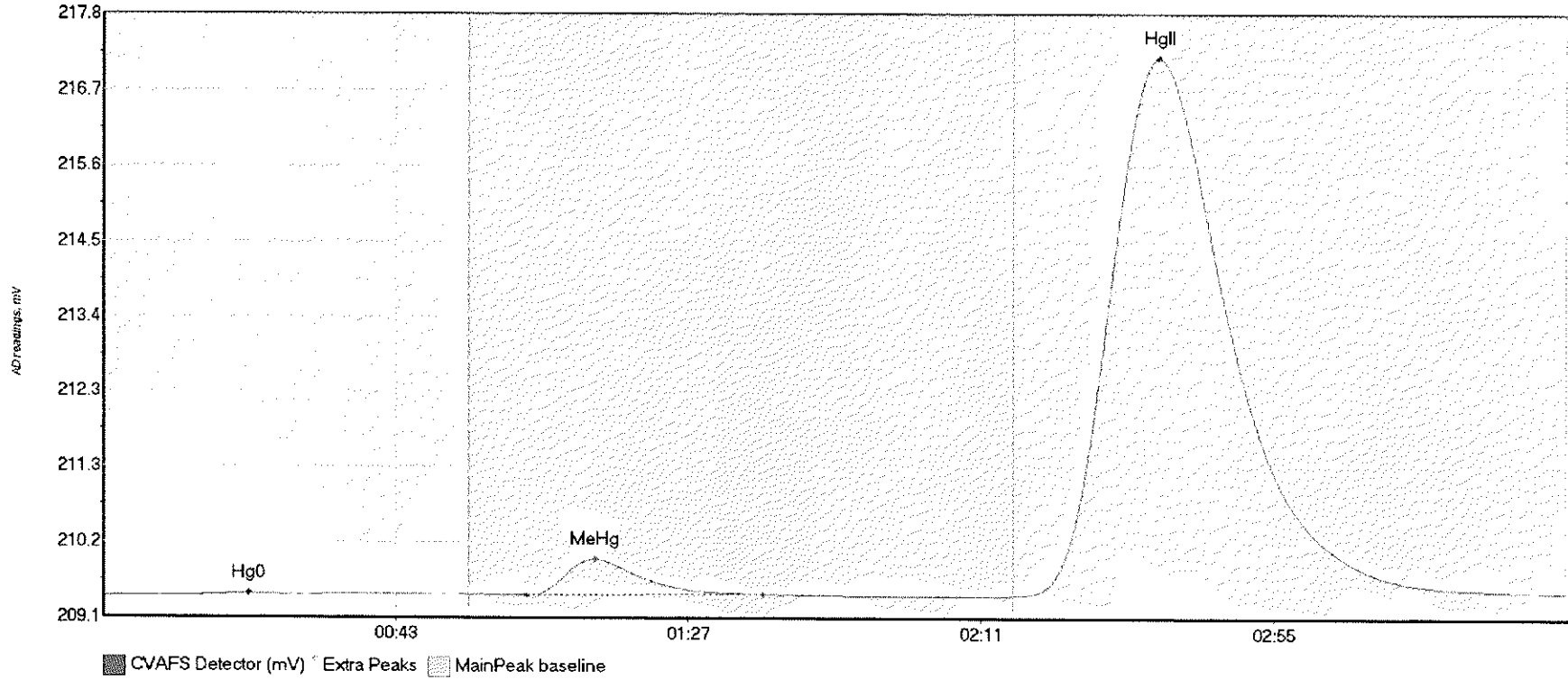
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	
F707568-BS1	Hg0	5.468	13.8	55.0	209.40	209.44	49.6	0.049	CT	209.4042	0.00	0.03	
F707568-BS1	MeH	842.717	60.8	125.4	209.43	209.44	73.9	6.207	OK	209.4042	0.00	0.03	
F707568-BS1	HgI	118.573	139.4	199.5	209.43	209.43	158.4	0.595	OK	209.4042	0.00	0.03	

#29: F707568-BSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707568-BSD1 Hg	6.496	13.6	53.3	209.40	209.42	40.6	0.038	OK	209.3982	0.00	0.03	
F707568-BSD1 Me	839.034	61.8	129.1	209.42	209.43	73.9	6.153	OK	209.3982	0.00	0.03	
F707568-BSD1 Hg	138.268	140.5	199.7	209.43	209.43	158.7	0.692	OK	209.3982	0.00	0.03	

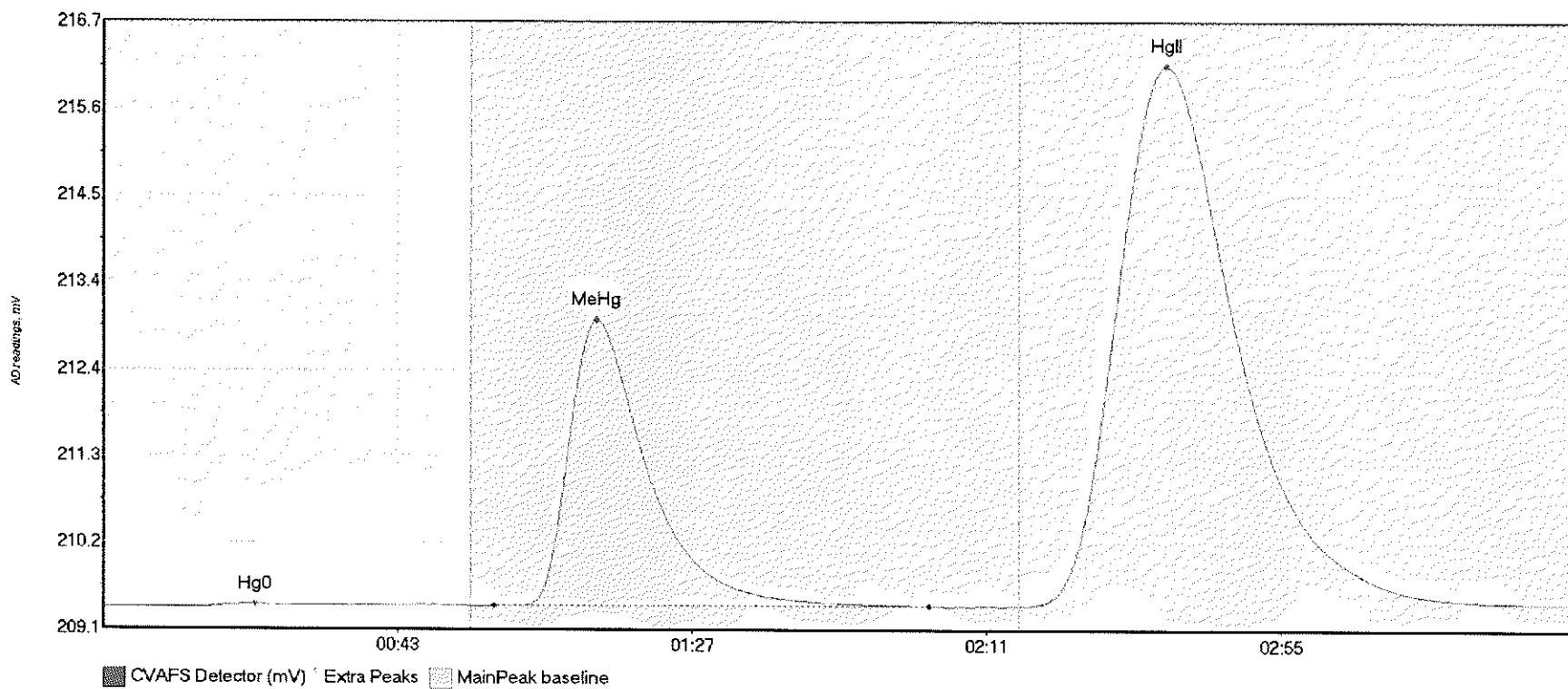
#30: F707568-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707568-DUP1 Hg	1.912	13.7	30.7	209.40	209.42	21.9	0.029	OK	209.4000	0.00	0.05	
F707568-DUP1 Me	64.967	63.7	99.2	209.41	209.43	74.0	0.511	OK	209.4000	0.00	0.05	
F707568-DUP1 Hg	1603.731	136.8	219.1	209.41	209.45	158.7	7.756	OK	209.4000	0.00	0.05	

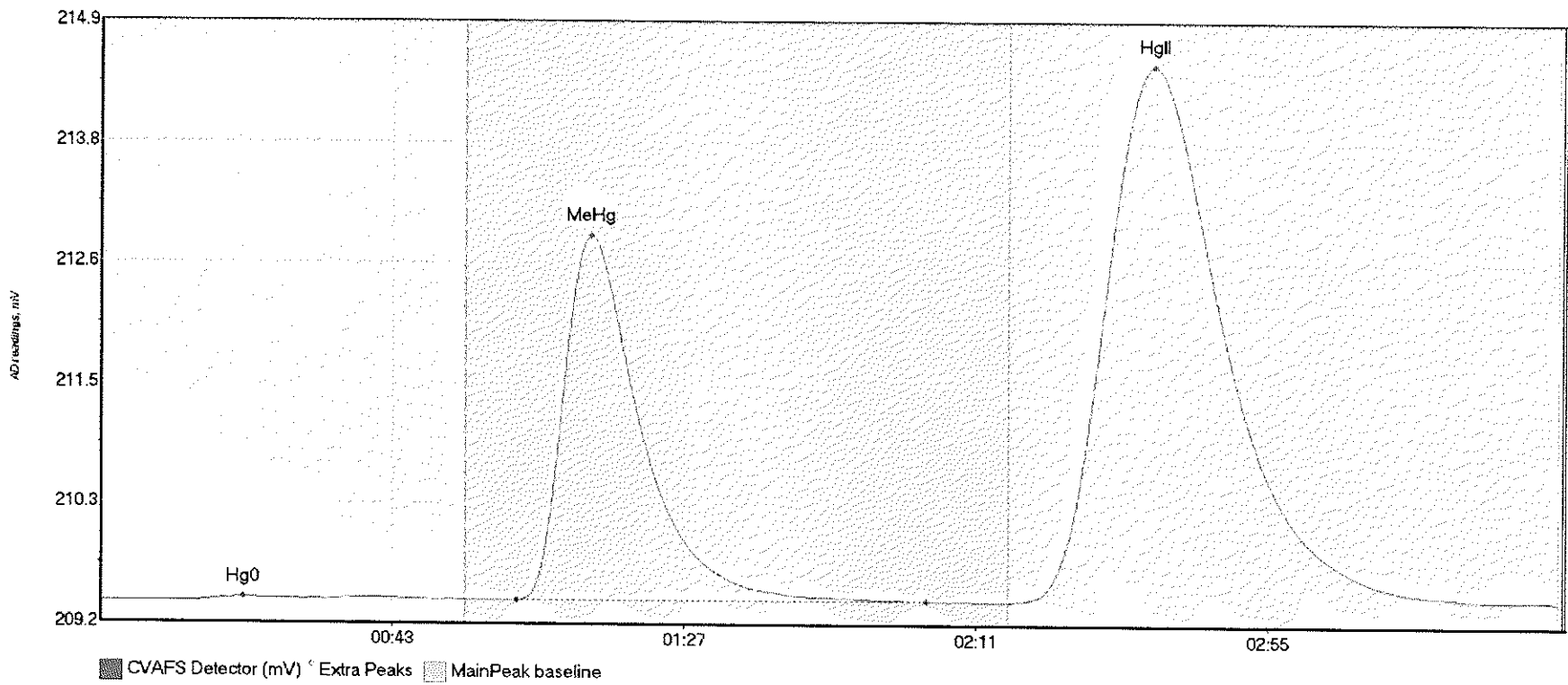


#31: F707568-MS1



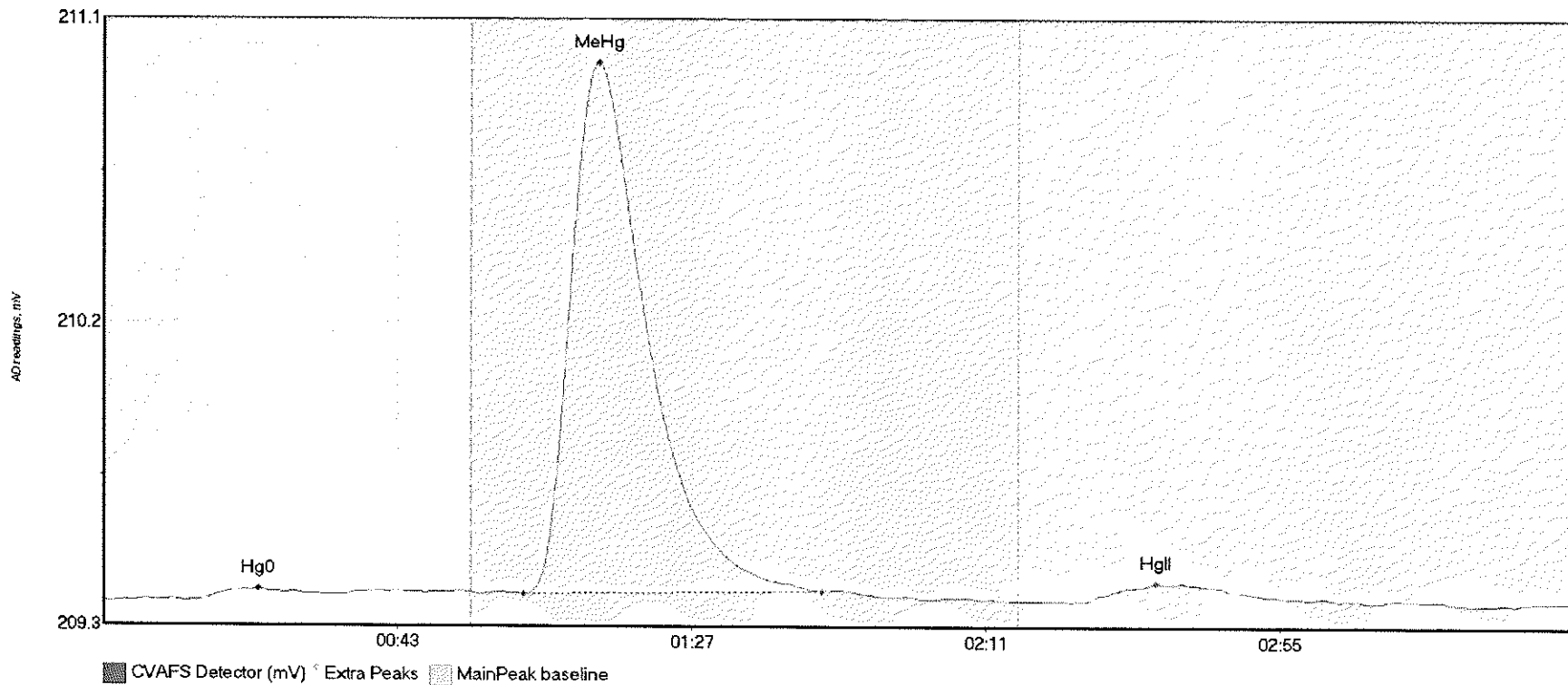
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	
F707568-MS1	Hg0	6.618	11.8	55.0	209.40	209.41	22.7	0.036	CT	209.3918	0.00	0.06	
F707568-MS1	MeH	485.027	58.4	123.4	209.41	209.42	73.8	3.565	OK	209.3918	0.00	0.06	
F707568-MS1	HgI	1386.762	136.8	219.8	209.42	209.45	158.7	6.738	CT	209.3918	0.00	0.06	

#32: F707568-MSD1



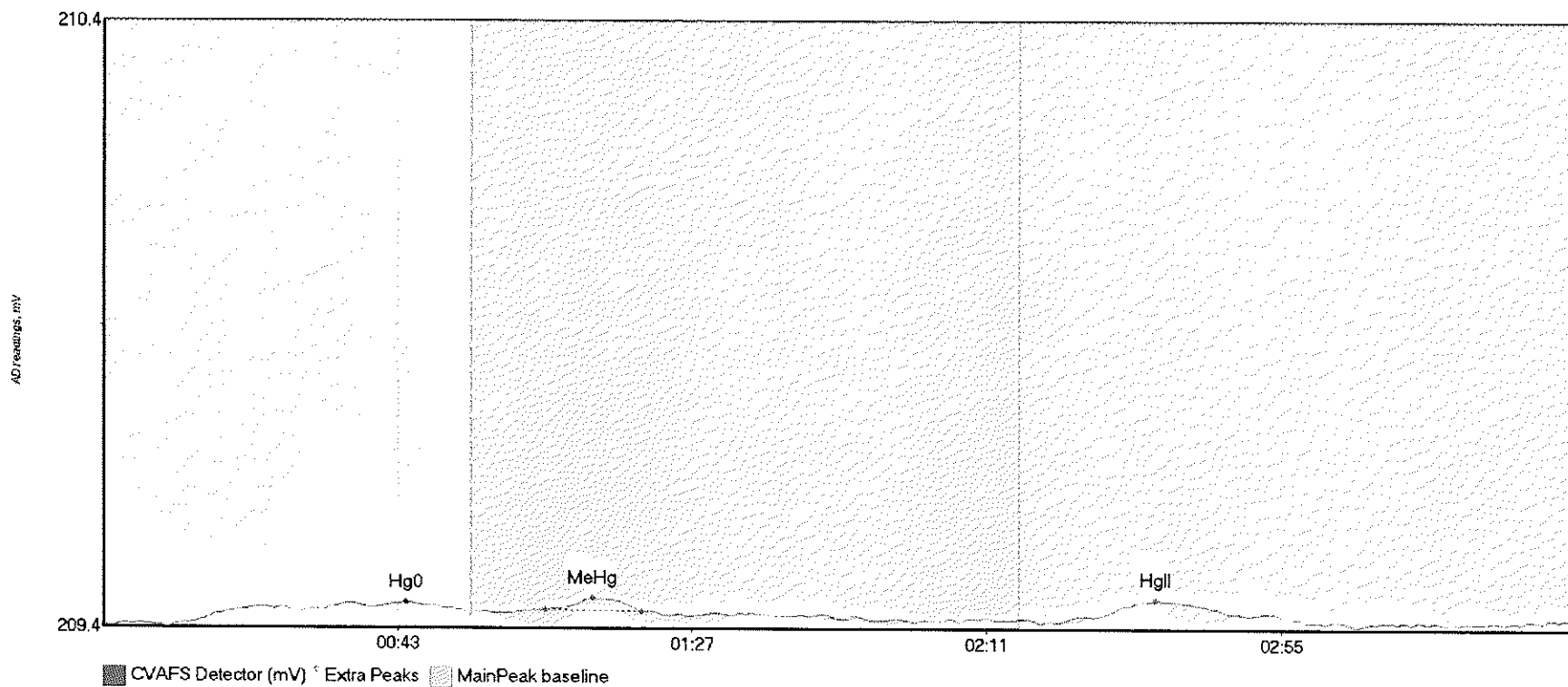
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707568-MSD1 Hg	7.507	12.6	55.0	209.39	209.41	21.6	0.040	CT	209.3870	0.00	0.04	
F707568-MSD1 Me	469.644	62.7	124.6	209.41	209.41	73.9	3.483	OK	209.3870	0.00	0.04	
F707568-MSD1 Hg	1056.163	136.8	219.5	209.40	209.42	158.8	5.120	OK	209.3870	0.00	0.04	

#33: SEQ-CCV2



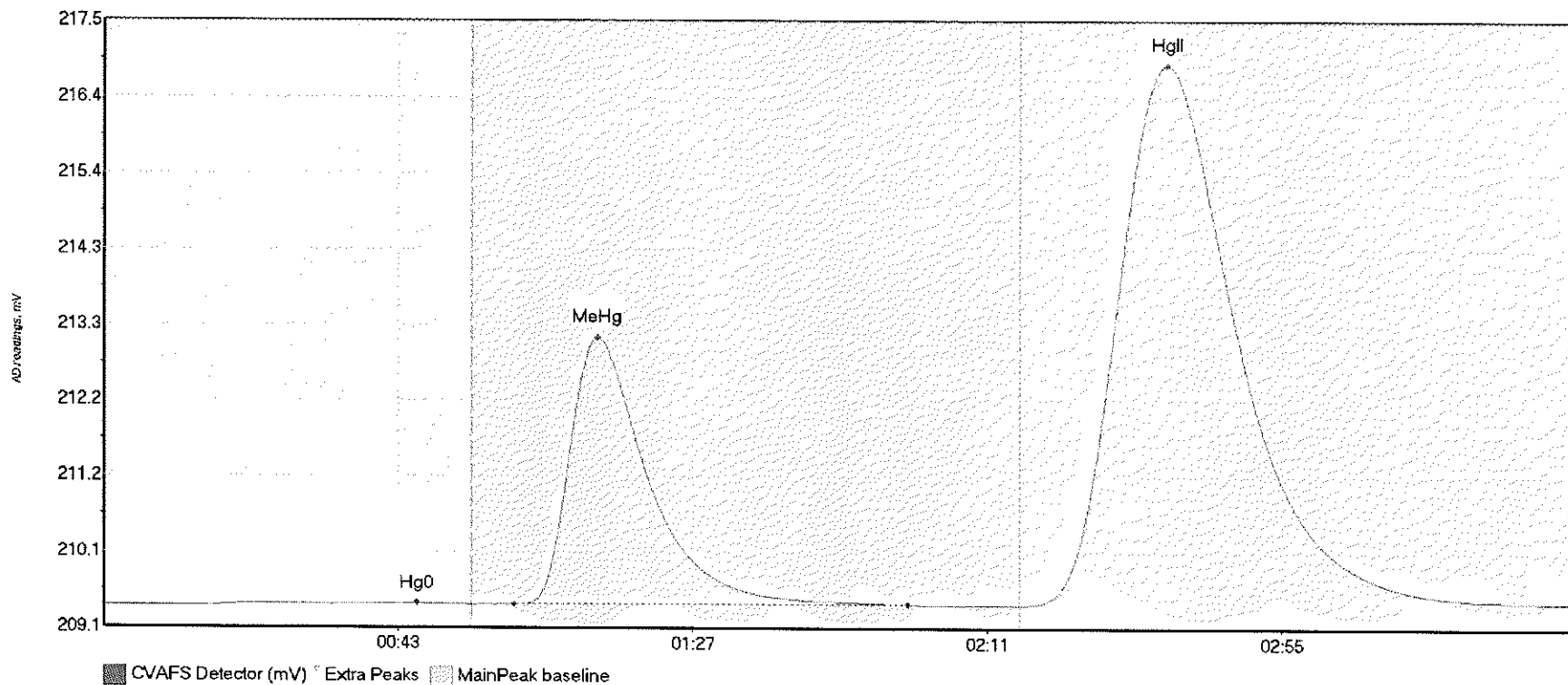
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	2.890	14.1	34.9	209.38	209.40	23.2	0.033	OK	209.3783	0.00	0.00	
SEQ-CCV2 MeHg	206.825	62.9	107.5	209.40	209.41	74.1	1.564	OK	209.3783	0.00	0.00	
SEQ-CCV2 HgII	10.381	146.6	185.1	209.38	209.38	157.4	0.055	OK	209.3783	0.00	0.00	

#34: SEQ-CCB2



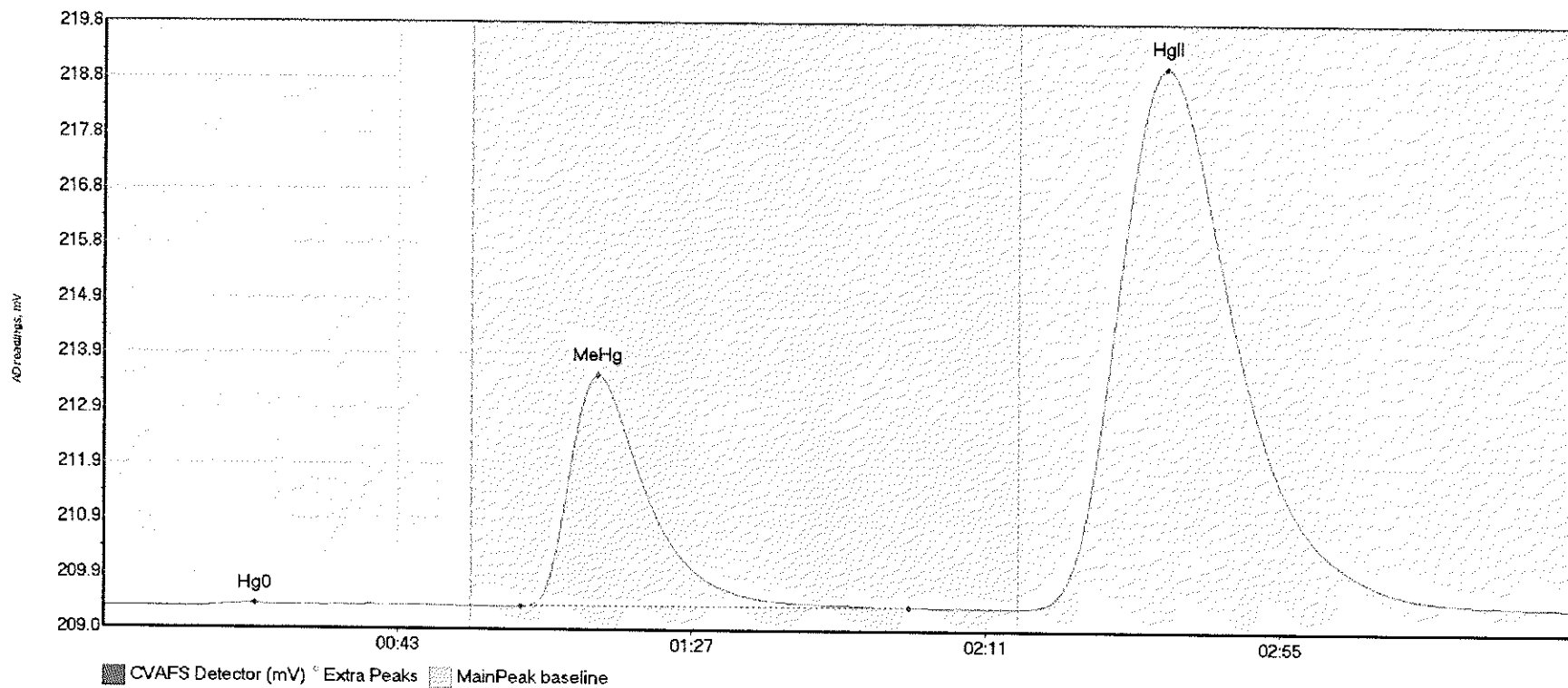
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	6.226	13.3	54.8	209.36	209.38	45.3	0.035	OK	209.3570	0.00	0.01	
SEQ-CCB2 MeHg	1.621	66.0	80.5	209.38	209.38	73.1	0.019	OK	209.3570	0.00	0.01	
SEQ-CCB2 HgII	4.321	148.0	176.7	209.37	209.37	157.2	0.028	OK	209.3570	0.00	0.01	

#35: F707568-MS2



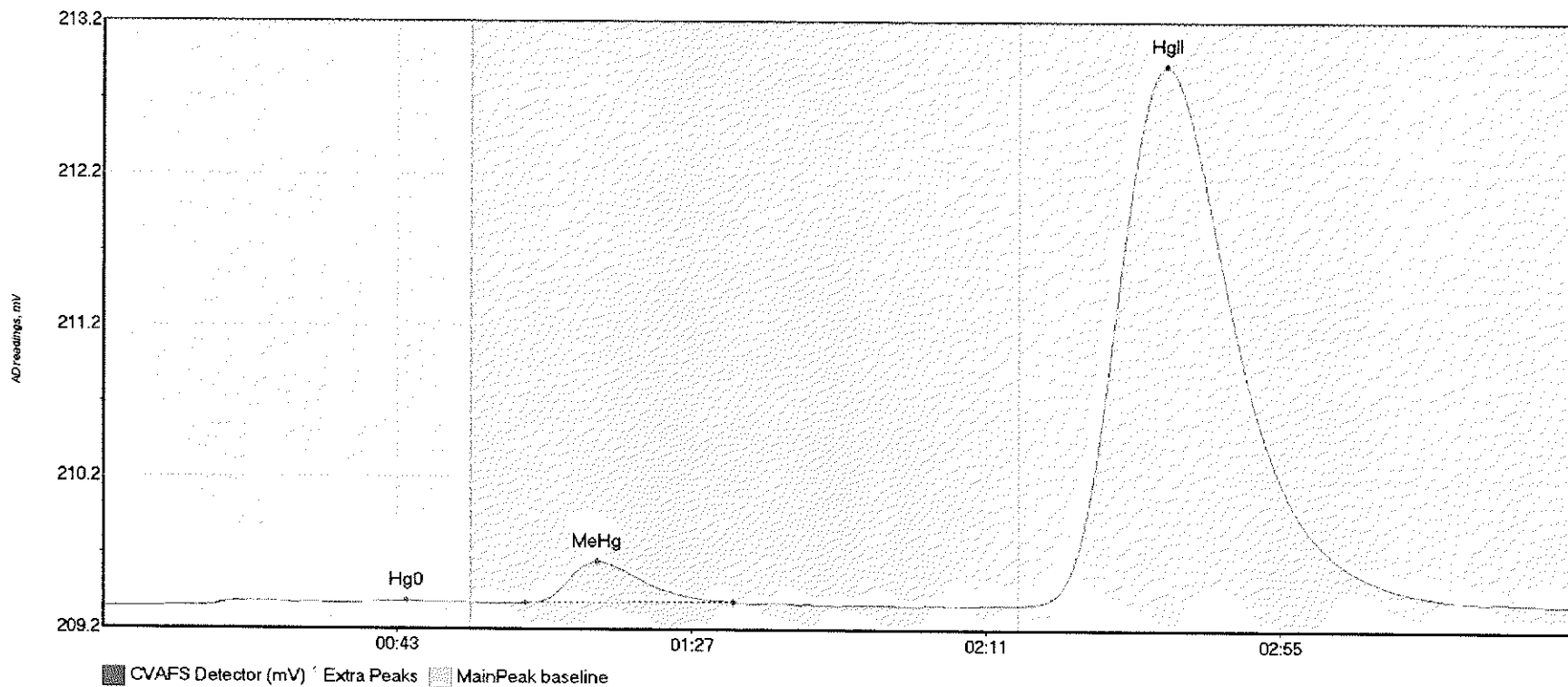
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	
F707568-MS2	Hg0	6.119	15.0	54.9	209.36	209.38	46.9	0.035	OK	209.3603	0.00	0.05	
F707568-MS2	MeH	502.696	61.3	120.1	209.38	209.39	73.8	3.711	OK	209.3603	0.00	0.05	
F707568-MS2	HgI	1545.963	137.1	219.0	209.38	209.41	158.7	7.521	OK	209.3603	0.00	0.05	

#36: F707568-MSD2



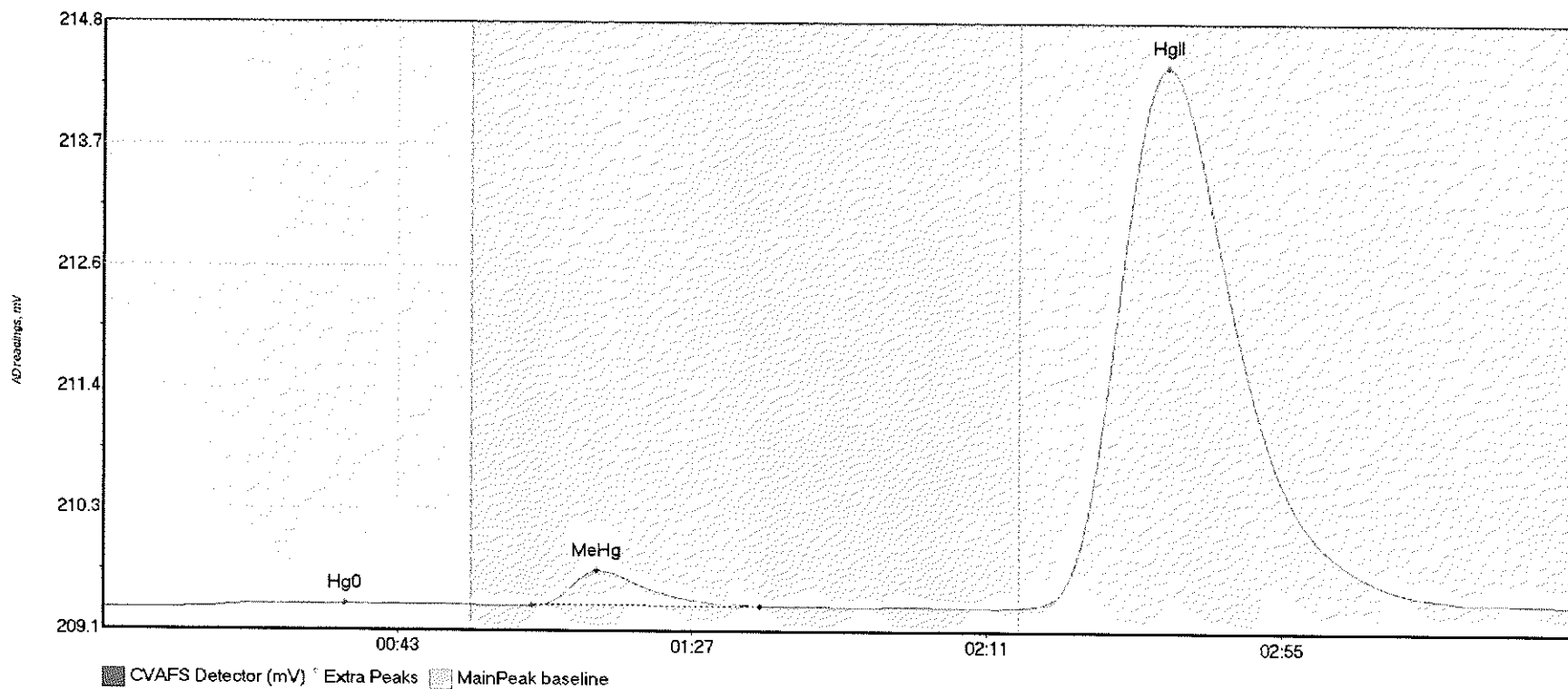
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F707568-MSD2 Hg	9.239	13.3	53.9	209.35	209.38	22.7	0.052	OK	209.3528	0.00	0.06	
F707568-MSD2 Me	556.741	62.5	120.6	209.38	209.38	73.9	4.117	OK	209.3528	0.00	0.06	
F707568-MSD2 Hg	1982.803	137.2	219.8	209.37	209.41	158.9	9.638	CT	209.3528	0.00	0.06	

#37: 1707771-41



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	ElDev	BlShift	Comment
1707771-41 Hg0	5.670	14.4	55.0	209.36	209.38	45.4	0.038	CP	209.3555	0.00	0.02	
1707771-41 MeHg	34.089	63.2	94.2	209.38	209.39	73.9	0.273	OK	209.3555	0.00	0.02	
1707771-41 HgII	729.782	136.8	218.5	209.37	209.38	158.9	3.553	OK	209.3555	0.00	0.02	

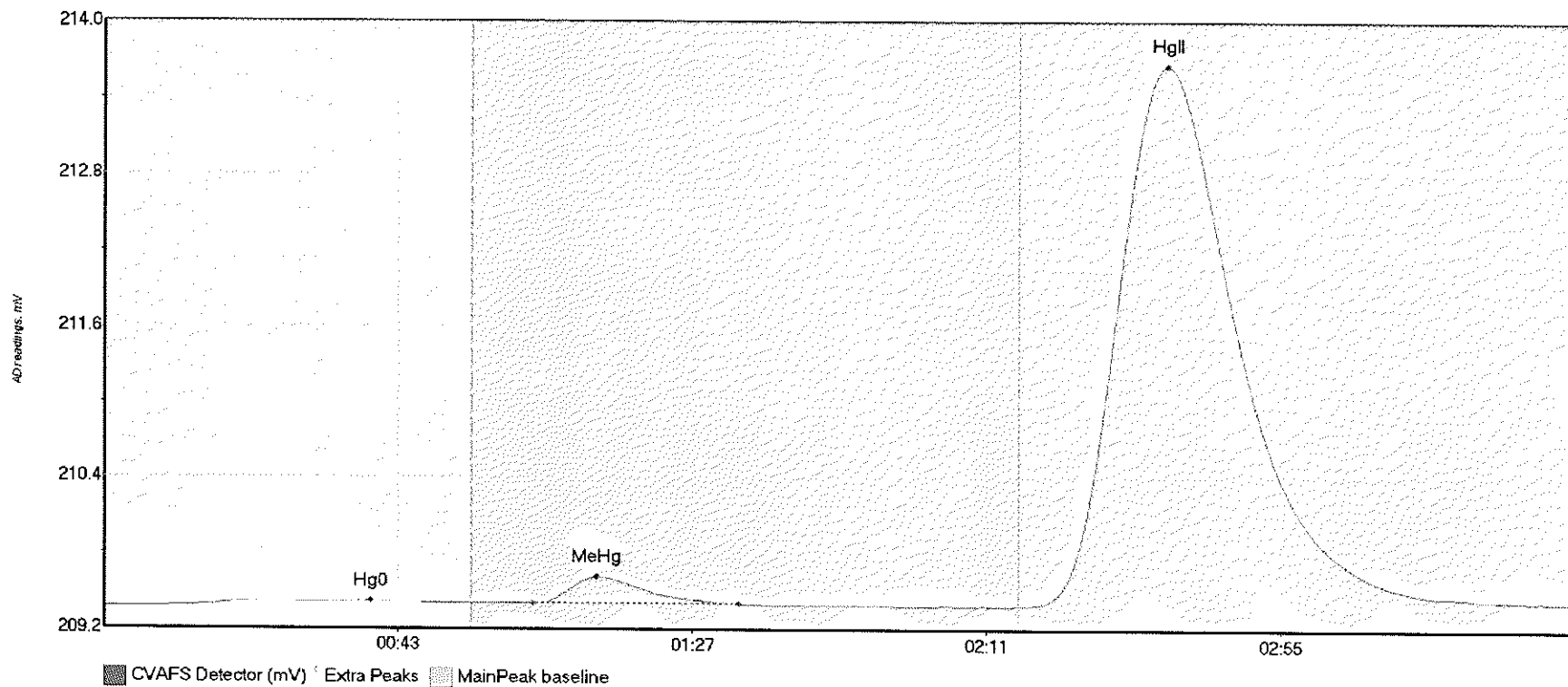
#38: 1707771-42



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-42 Hg0	4.114	9.0	41.9	209.34	209.38	36.2	0.045	OK	209.3420	0.00	0.05	
1707771-42 MeHg	41.982	64.0	98.2	209.37	209.37	73.8	0.325	OK	209.3420	0.00	0.05	
1707771-42 HgII	1039.977	137.3	218.4	209.36	209.40	158.9	5.058	OK	209.3420	0.00	0.05	

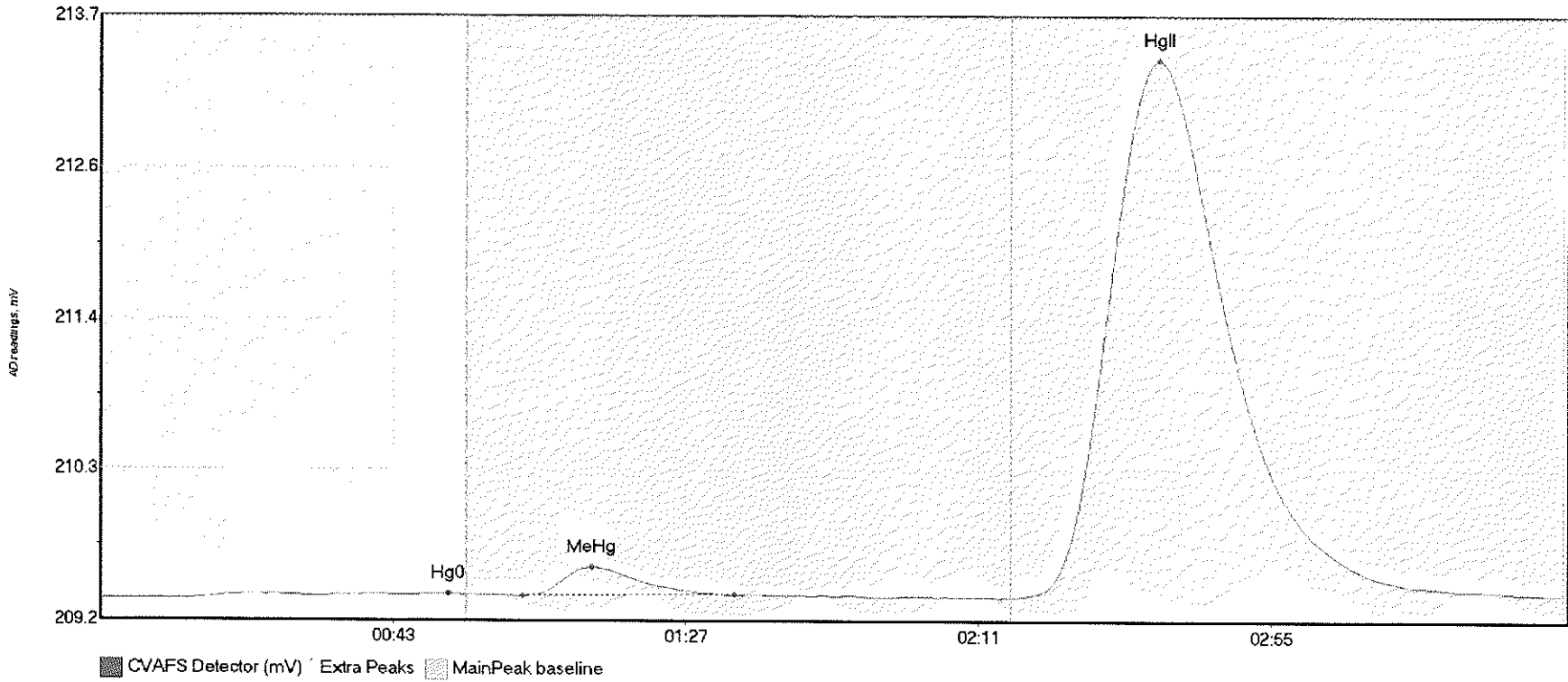


#39: 1707771-43



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-43 Hg0	7.222	8.6	50.1	209.34	209.37	40.0	0.043	OK	209.3404	0.00	0.04	
1707771-43 MeHg	26.839	64.2	94.9	209.37	209.37	73.8	0.210	OK	209.3404	0.00	0.04	
1707771-43 HgII	878.260	136.8	219.1	209.35	209.38	159.0	4.272	OK	209.3404	0.00	0.04	

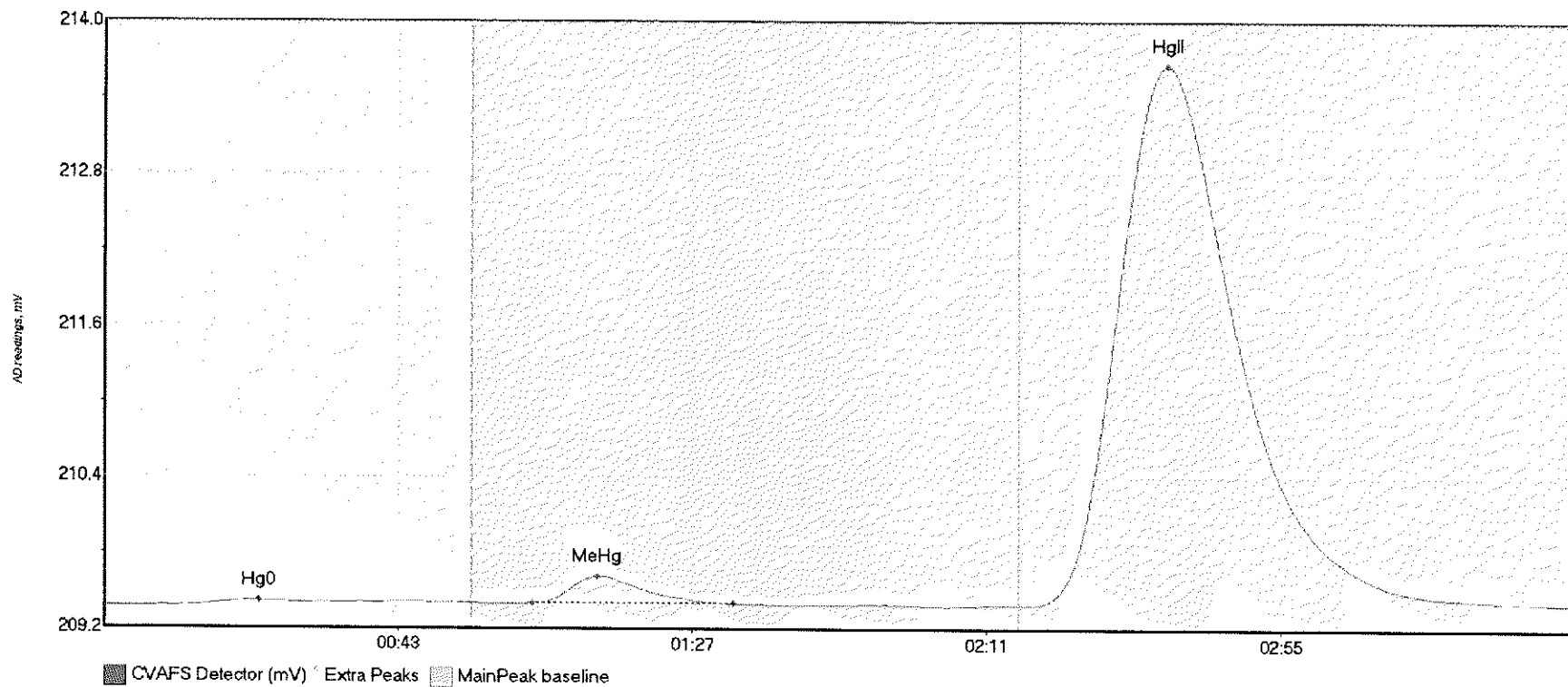
#40: 1707771-44



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-44 Hg0	4.762	13.6	54.4	209.34	209.37	52.3	0.037	OK	209.3317	0.00	0.04	
1707771-44 MeHg	27.626	63.5	95.3	209.36	209.36	73.9	0.215	OK	209.3317	0.00	0.04	
1707771-44 HgII	831.979	136.9	219.1	209.35	209.37	159.0	4.045	OK	209.3317	0.00	0.04	

017

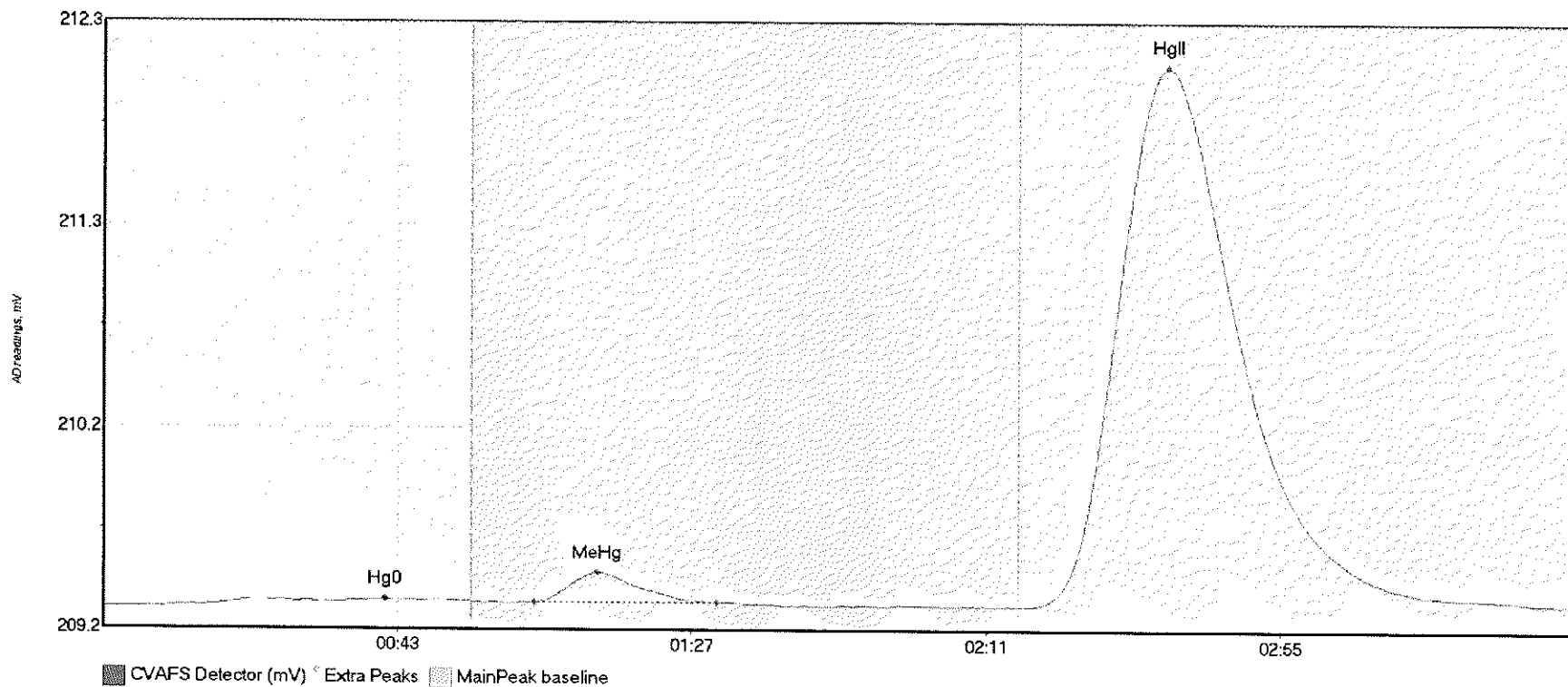
#41: 1707771-45



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-45 Hg0	2.733	10.5	30.3	209.33	209.36	23.1	0.042	OK	209.3312	0.00	0.03	
1707771-45 MeHg	26.234	64.0	94.1	209.36	209.36	73.8	0.211	OK	209.3312	0.00	0.03	
1707771-45 HgII	874.039	138.6	219.8	209.35	209.36	158.9	4.295	CT	209.3312	0.00	0.03	

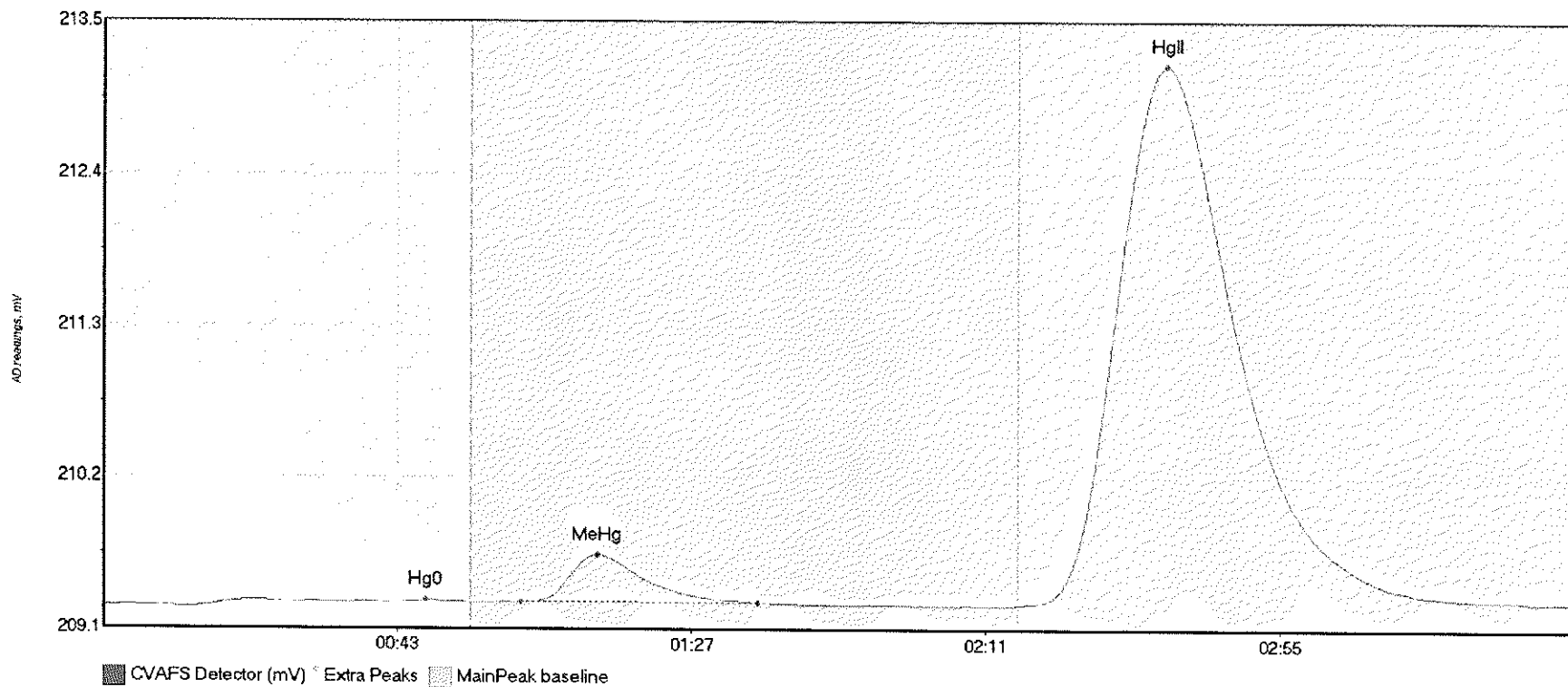
017

#42: 1707771-46



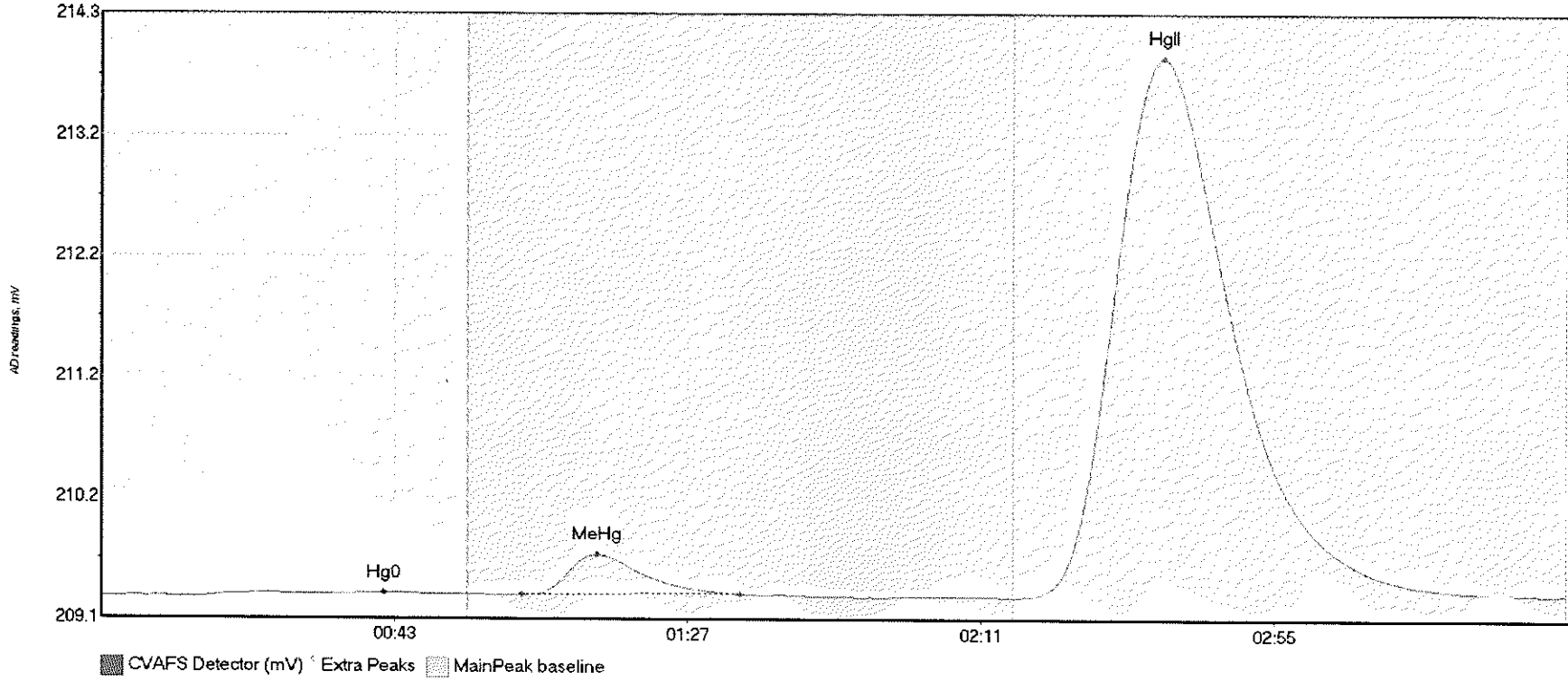
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-46 Hg0	6.229	8.4	55.0	209.32	209.35	42.1	0.042	CT	209.3156	0.00	0.02	
1707771-46 MeHg	18.103	64.4	91.8	209.34	209.34	73.9	0.154	OK	209.3156	0.00	0.02	
1707771-46 HgII	570.988	138.5	219.1	209.33	209.34	159.1	2.748	OK	209.3156	0.00	0.02	

#43: 1707771-87



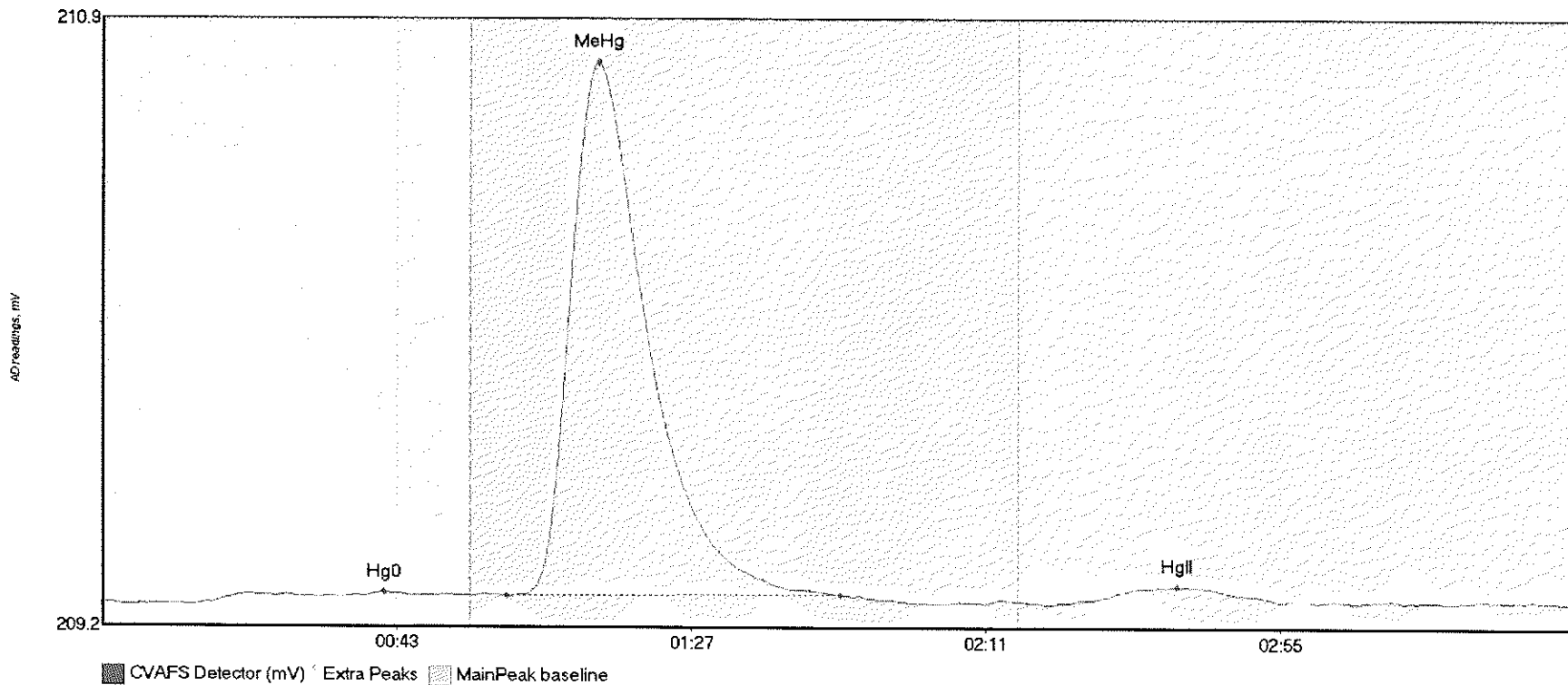
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-87 Hg0	8.493	12.5	54.7	209.30	209.34	48.3	0.050	OK	209.3167	0.00	0.03	
1707771-87 MeHg	42.107	62.4	97.9	209.34	209.34	73.9	0.334	OK	209.3167	0.00	0.03	
1707771-87 HgII	780.527	136.8	219.8	209.33	209.34	159.0	3.820	CT	209.3167	0.00	0.03	

#44: 1707771-88



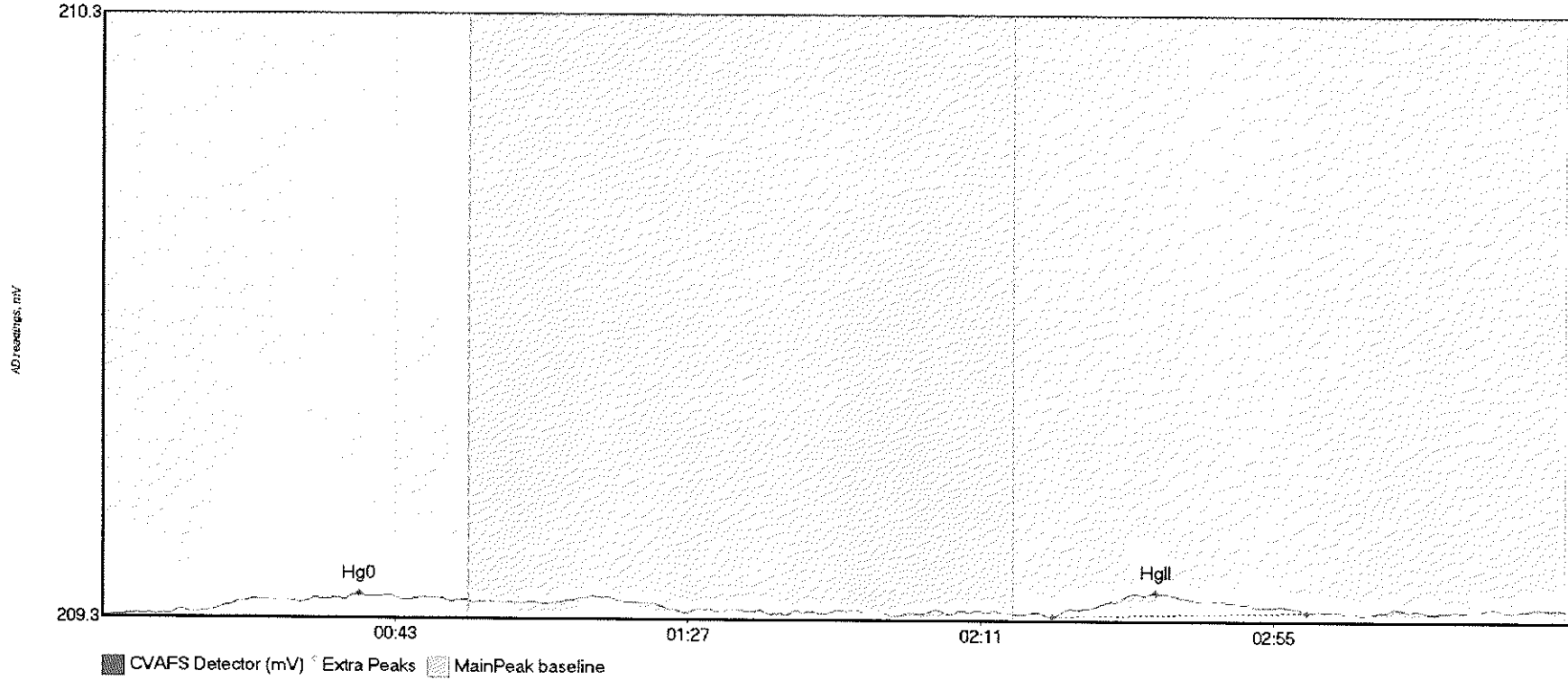
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-88 Hg0	6.249	14.2	53.7	209.31	209.33	42.5	0.037	OK	209.3111	0.00	0.03	
1707771-88 MeHg	42.949	63.1	95.9	209.33	209.34	74.5	0.341	OK	209.3111	0.00	0.03	
1707771-88 HgII	935.241	138.7	217.2	209.32	209.33	159.4	4.582	OK	209.3111	0.00	0.03	

#45: SEQ-CCV3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	2.796	16.4	47.2	209.31	209.32	42.1	0.029	OK	209.3048	0.00	0.00	
SEQ-CCV3 MeHg	191.995	60.5	110.3	209.32	209.33	74.1	1.439	OK	209.3048	0.00	0.00	
SEQ-CCV3 HgII	7.947	144.3	176.0	209.31	209.31	160.6	0.045	OK	209.3048	0.00	0.00	

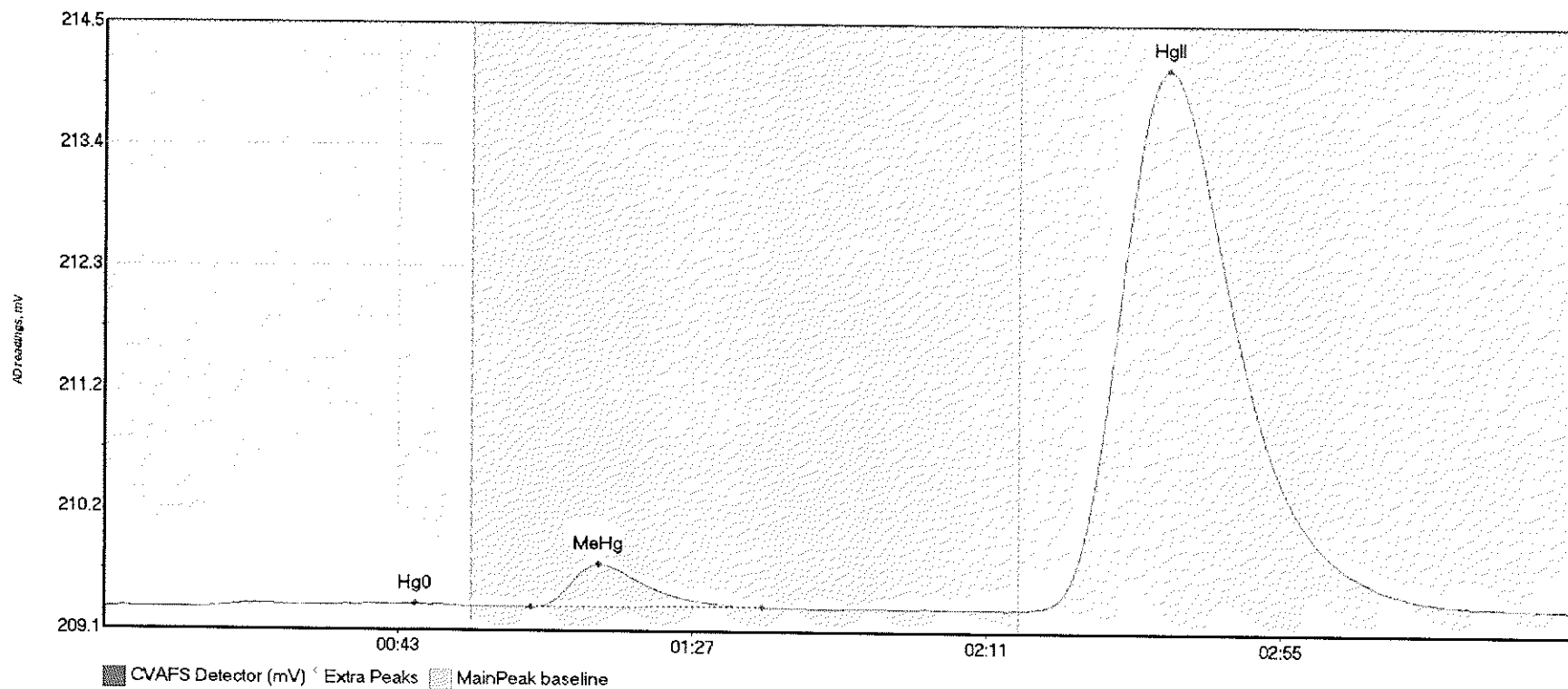
#46: SEQ-CCB3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	4.524	9.8	52.6	209.29	209.31	38.6	0.033	OK	209.2887	0.00	0.02	
SEQ-CCB3 HgII	7.336	142.7	181.0	209.29	209.30	158.3	0.040	OK	209.2887	0.00	0.02	017

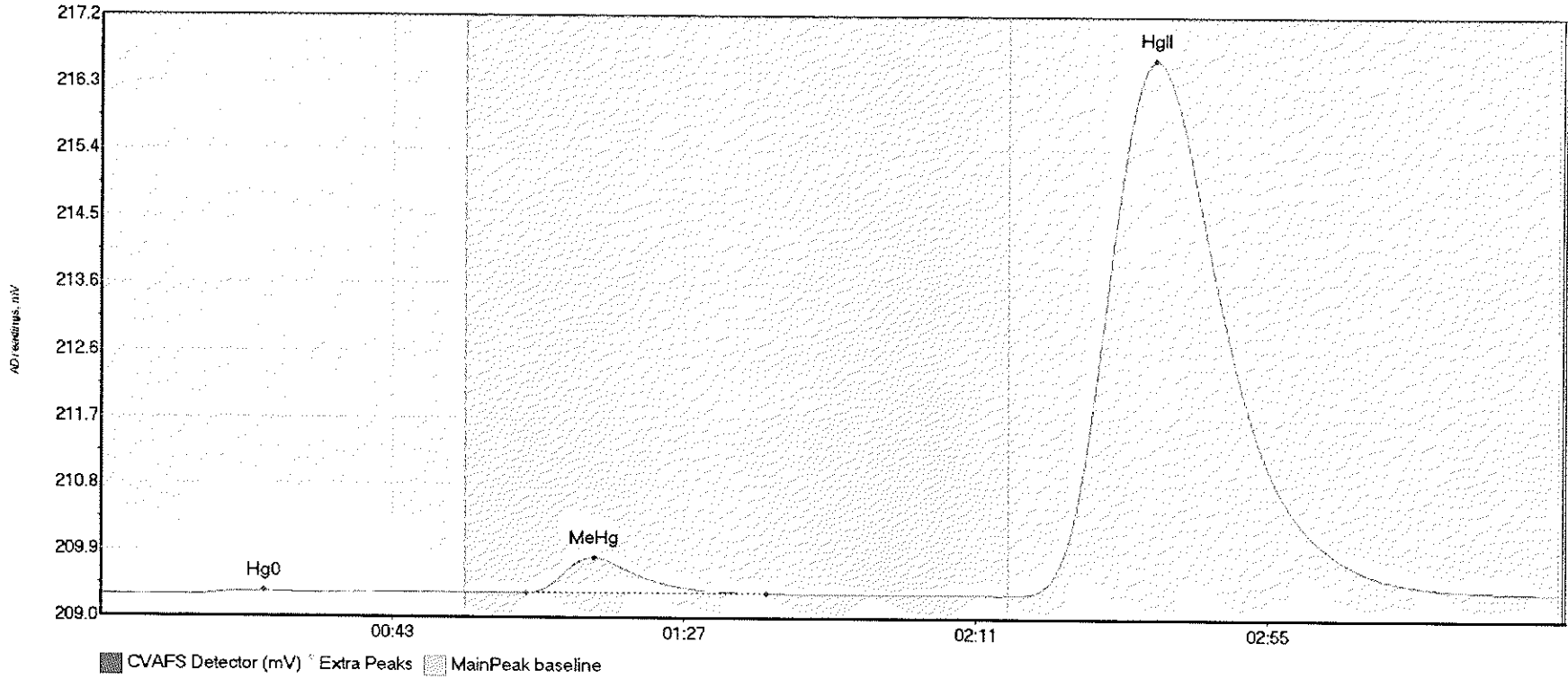


#47: 1707771-89



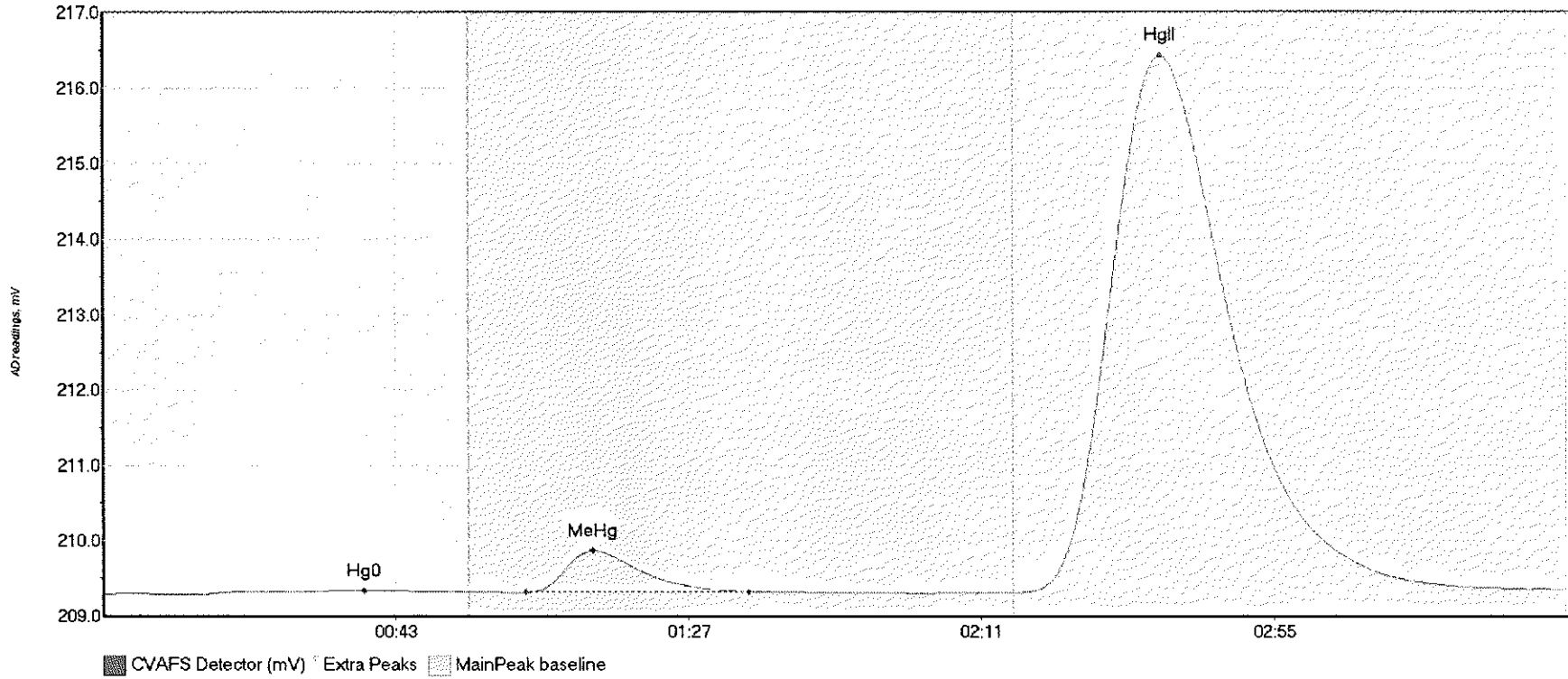
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-89 Hg0	7.613	14.7	55.0	209.30	209.31	46.6	0.036	CT	209.2972	0.00	0.02	
1707771-89 MeHg	48.104	63.9	98.5	209.31	209.32	74.0	0.377	OK	209.2972	0.00	0.02	
1707771-89 HgII	978.574	137.2	219.8	209.30	209.32	159.2	4.771	CT	209.2972	0.00	0.02	

#48: 1707771-90



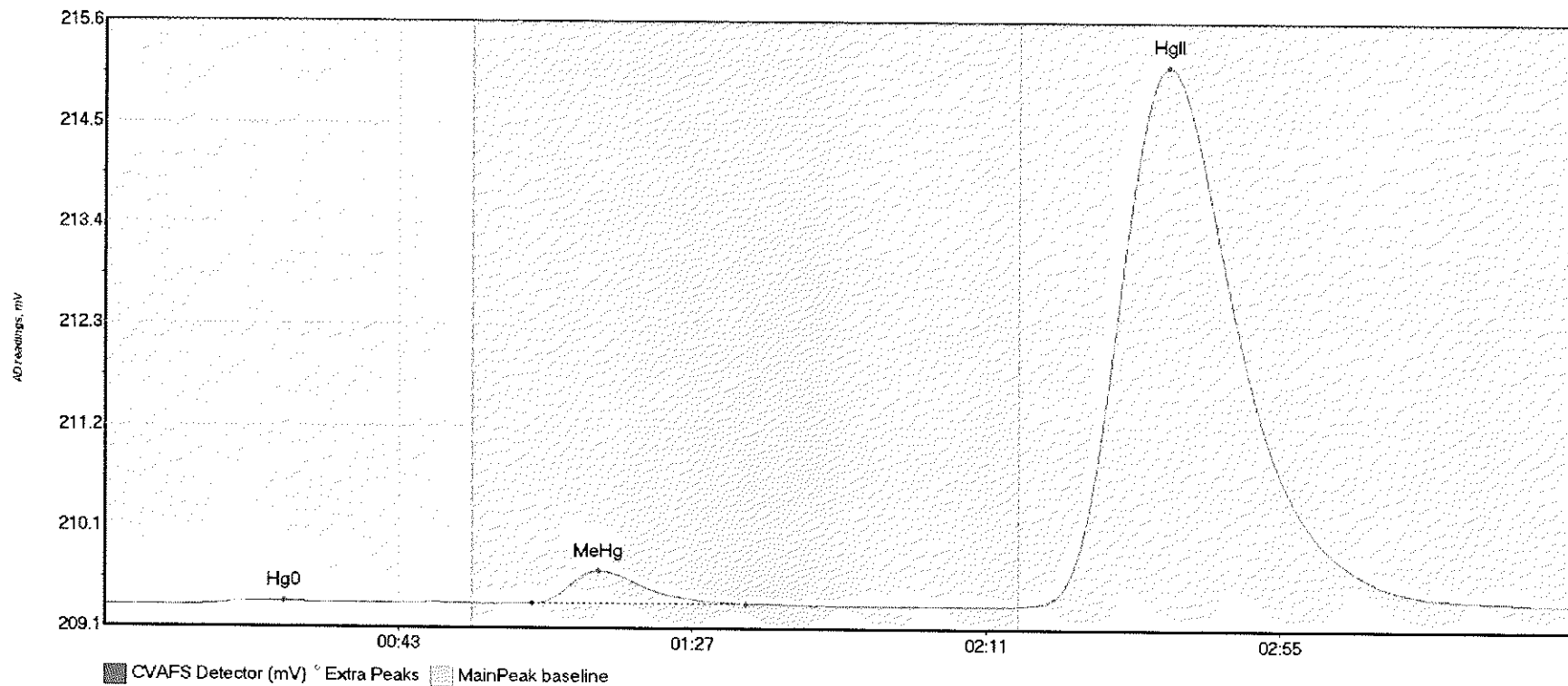
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-90 Hg0	3.666	14.9	32.2	209.30	209.32	24.7	0.045	OK	209.2944	0.00	0.06	
1707771-90 MeHg	62.046	64.2	100.4	209.33	209.33	74.4	0.479	OK	209.2944	0.00	0.06	
1707771-90 HgII	1505.263	137.8	219.8	209.32	209.36	159.1	7.292	CT	209.2944	0.00	0.06	

#49: 1707771-AB



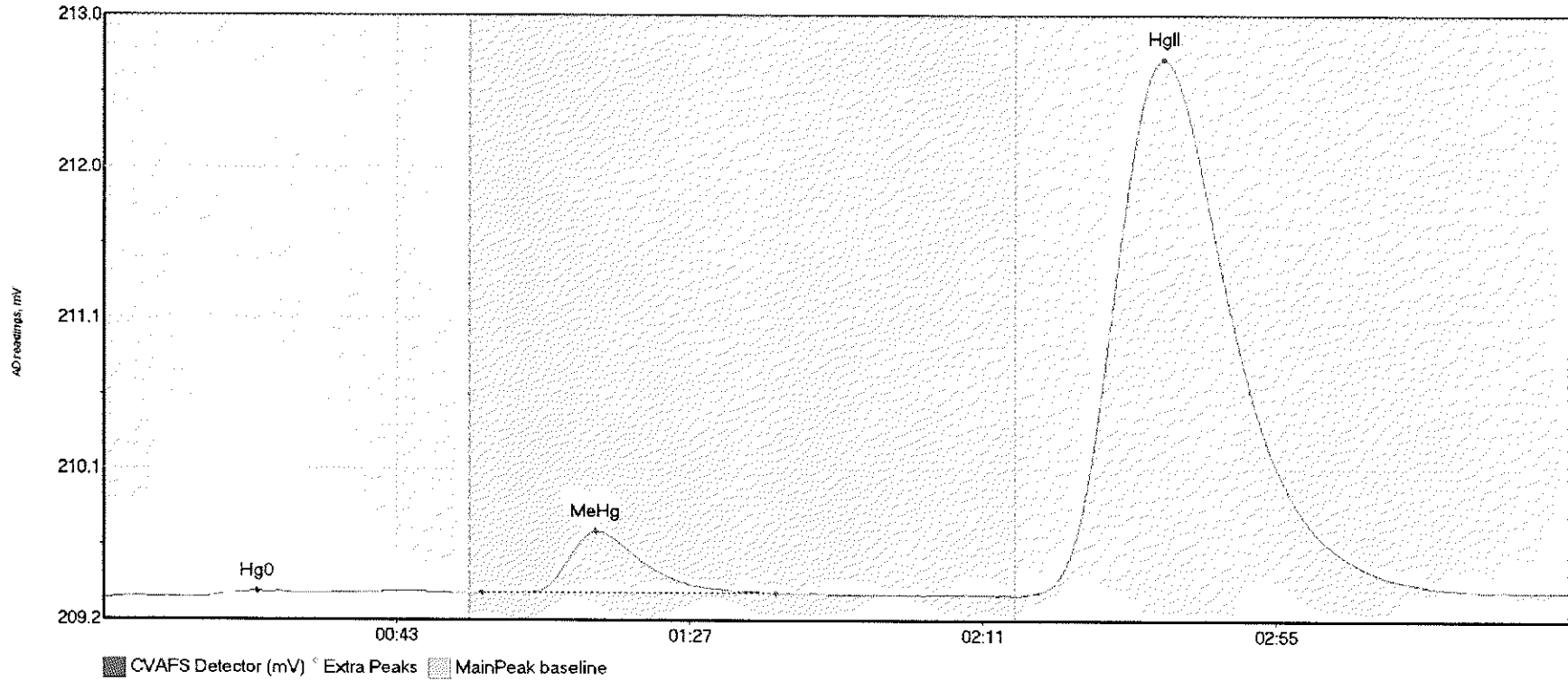
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AB Hg0	8.339	12.4	50.1	209.29	209.33	39.3	0.057	OK	209.3000	0.00	0.06	
1707771-AB MeHg	69.837	63.6	97.0	209.33	209.33	73.8	0.553	OK	209.3000	0.00	0.06	
1707771-AB HgII	1478.075	137.3	219.8	209.32	209.36	158.9	7.123	CT	209.3000	0.00	0.06	

#50: 1707771-AC



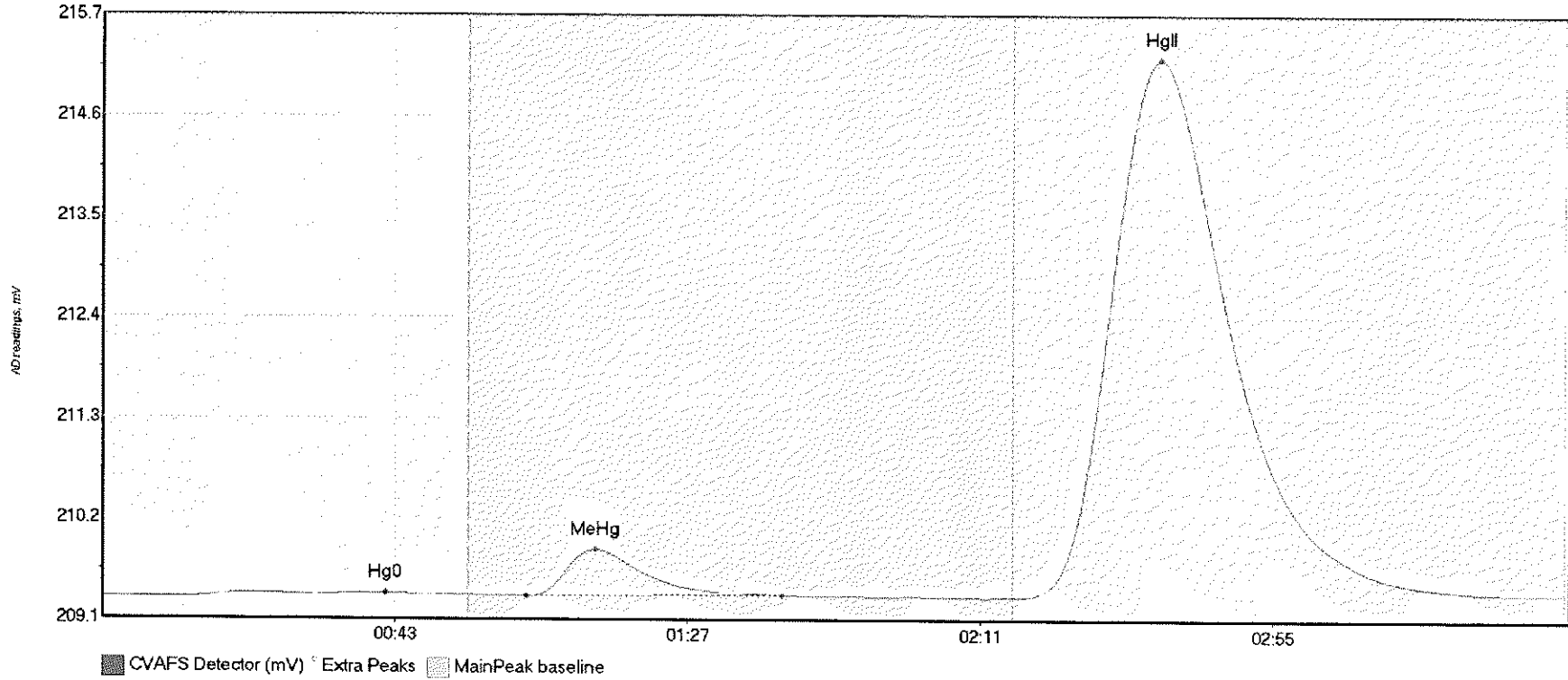
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AC Hg0	7.289	14.5	55.0	209.30	209.33	26.9	0.037	CT	209.3023	0.00	0.05	
1707771-AC MeHg	44.084	64.0	96.0	209.33	209.33	74.0	0.350	OK	209.3023	0.00	0.05	
1707771-AC HgII	1195.006	136.8	219.8	209.32	209.35	159.2	5.781	CT	209.3023	0.00	0.05	

#51: 1707771-AJ



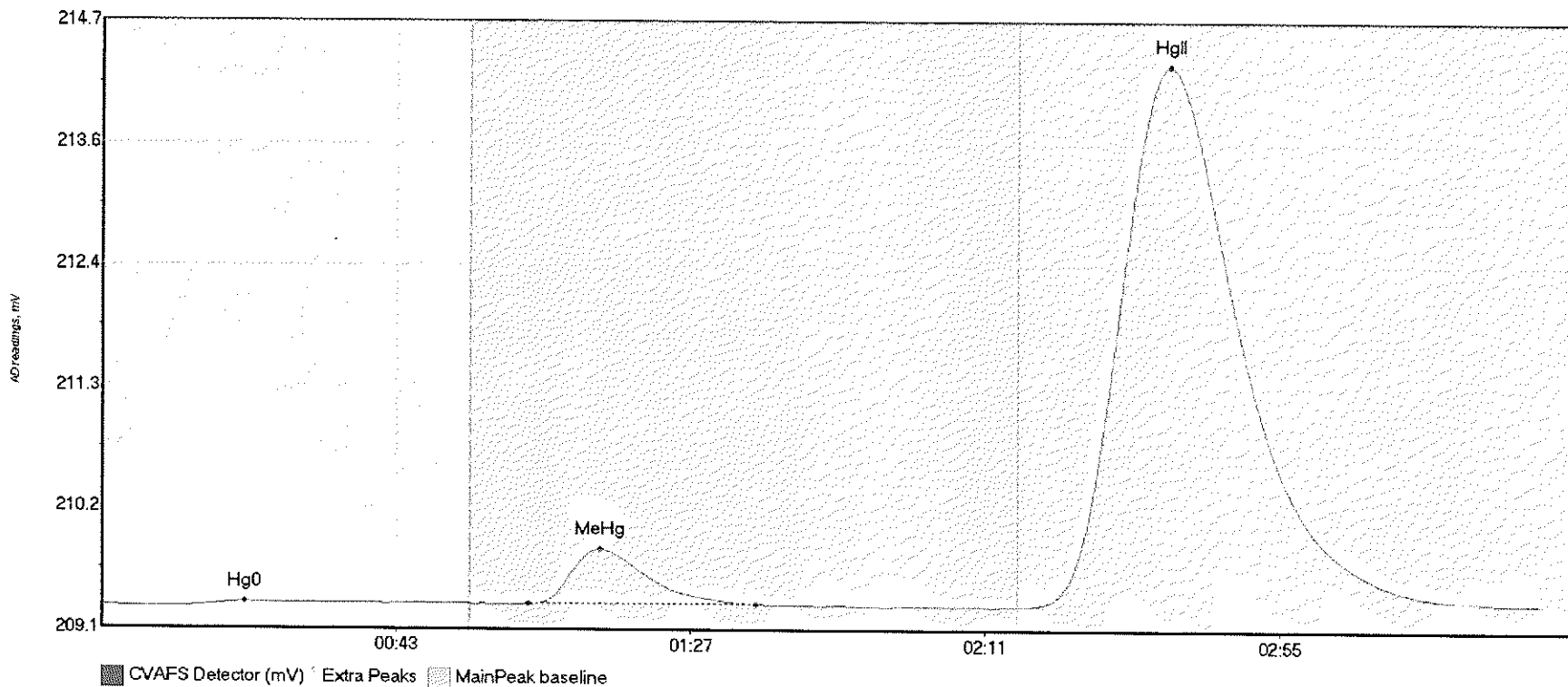
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AJ Hg0	7.999	0.0	54.8	209.30	209.33	23.2	0.045	NP	209.2972	0.00	0.04	
1707771-AJ MeHg	50.827	56.9	100.9	209.33	209.33	73.9	0.392	OK	209.2972	0.00	0.04	
1707771-AJ HgII	702.932	137.2	218.2	209.32	209.34	159.2	3.414	OK	209.2972	0.00	0.04	

#52: 1707771-AK



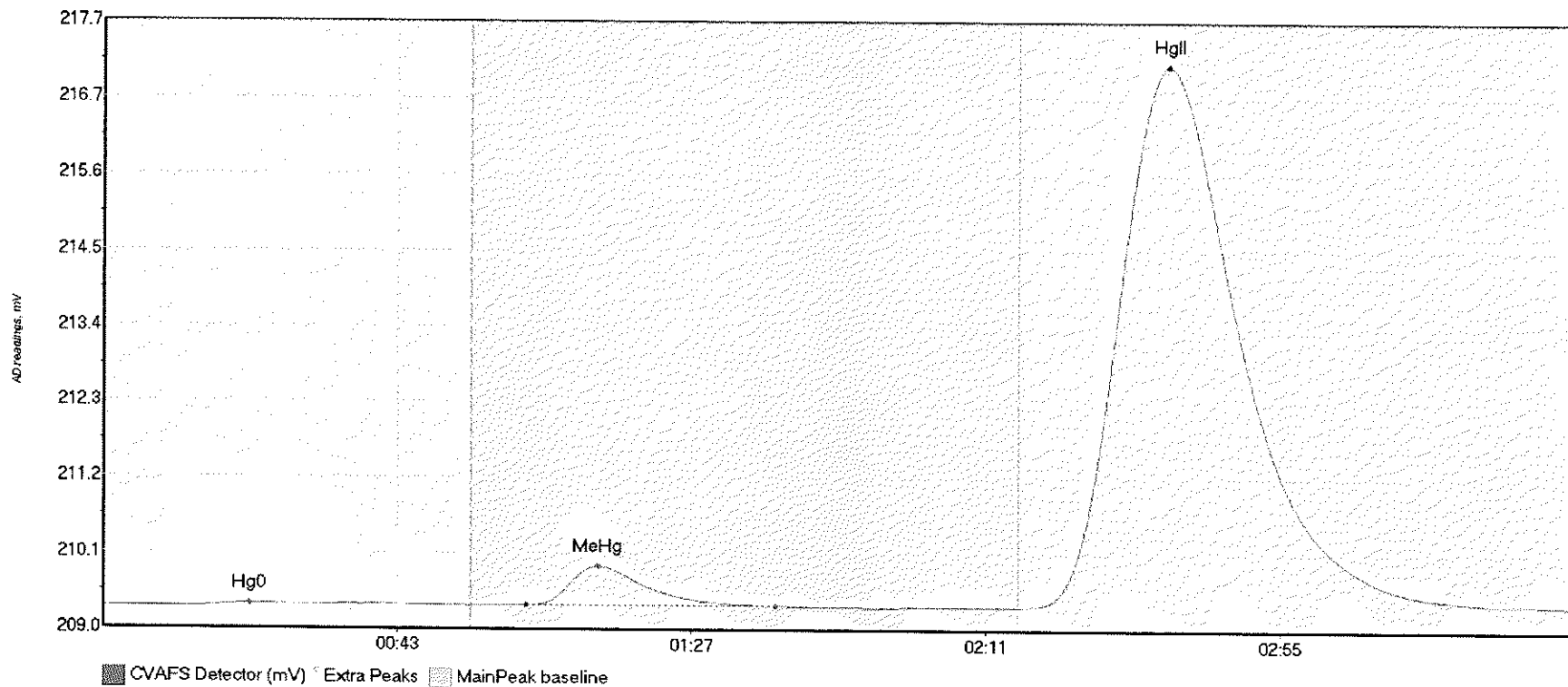
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AK Hg0	8.492	12.4	53.3	209.31	209.34	42.6	0.047	OK	209.3117	0.00	0.05	
1707771-AK MeHg	65.345	63.7	102.2	209.33	209.34	74.2	0.505	OK	209.3117	0.00	0.05	
1707771-AK HgII	1200.164	137.9	217.4	209.32	209.36	159.0	5.875	OK	209.3117	0.00	0.05	

#53: 1707771-AL



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AL Hg0	4.592	13.1	42.4	209.32	209.34	21.5	0.038	OK	209.3209	0.00	0.03	
1707771-AL MeHg	64.745	63.7	97.8	209.34	209.35	74.4	0.501	OK	209.3209	0.00	0.03	
1707771-AL HgII	1015.042	138.3	219.6	209.33	209.35	159.4	4.930	OK	209.3209	0.00	0.03	

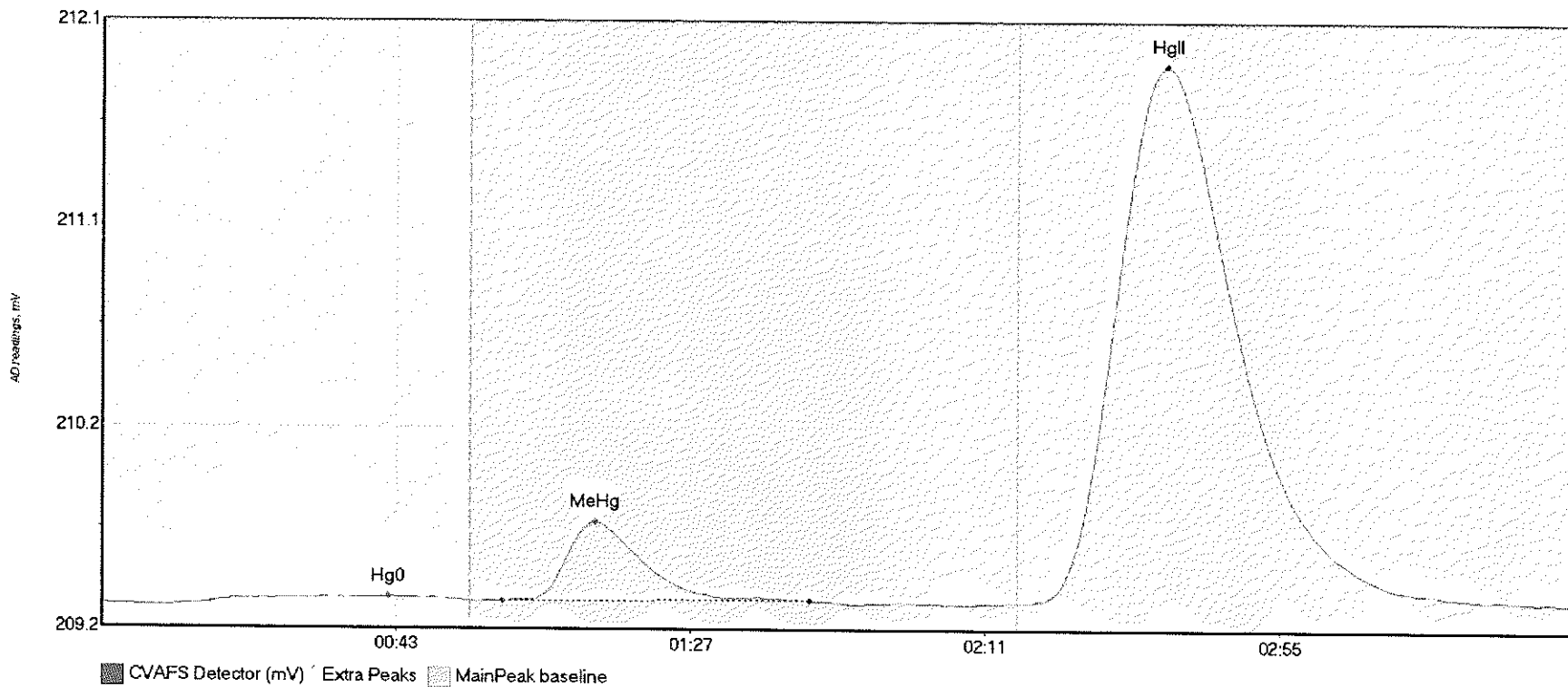
#54: 1707771-AM



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AM Hg0	8.580	12.9	54.8	209.32	209.35	21.9	0.043	OK	209.3210	0.00	0.05	
1707771-AM MeHg	73.551	63.3	100.6	209.35	209.35	74.0	0.570	OK	209.3210	0.00	0.05	
1707771-AM HgII	1610.685	138.2	219.6	209.35	209.37	159.3	7.779	OK	209.3210	0.00	0.05	



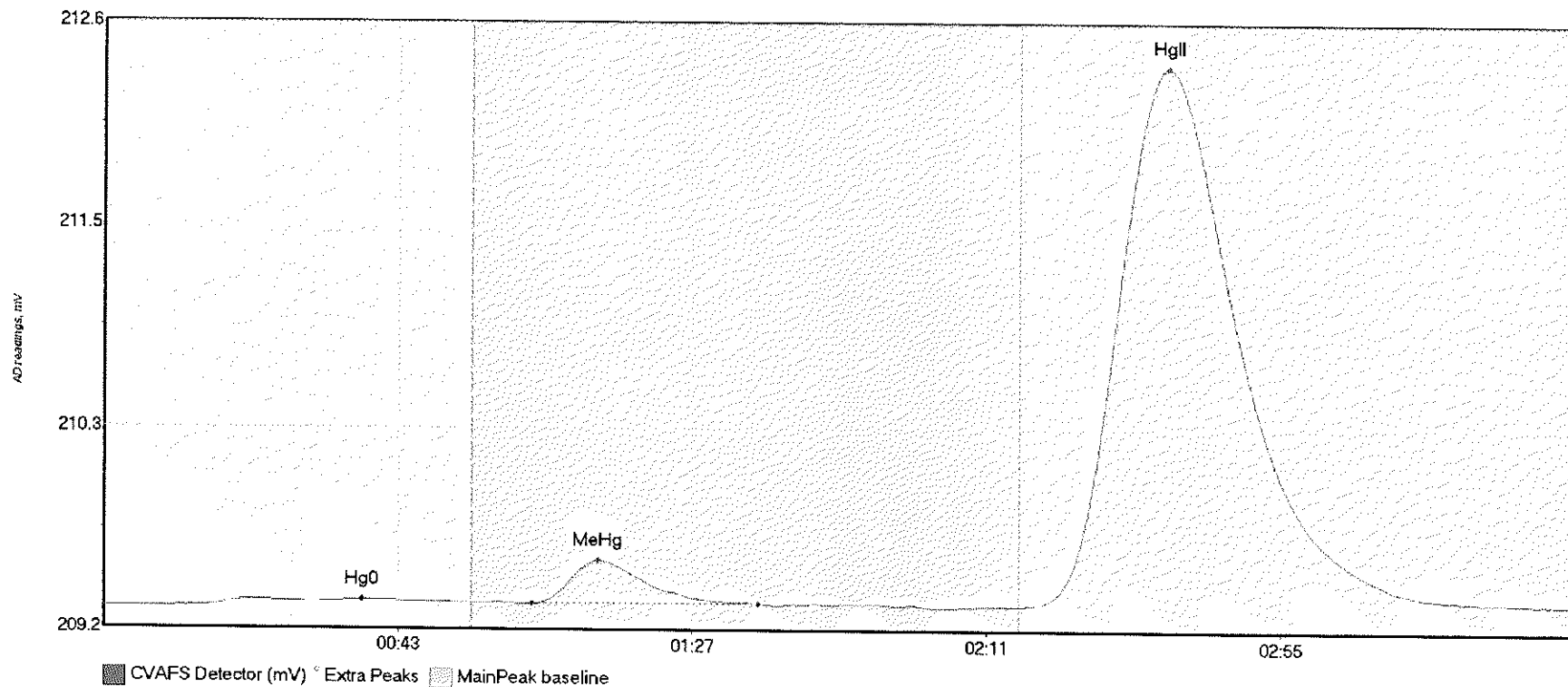
#55: 1707771-AN



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AN Hg0	6.569	15.0	55.0	209.33	209.35	42.9	0.033	CT	209.3286	0.00	0.02	
1707771-AN MeHg	48.885	59.9	105.7	209.34	209.35	73.7	0.376	OK	209.3286	0.00	0.02	
1707771-AN HgII	528.385	138.0	218.6	209.34	209.34	159.0	2.535	OK	209.3286	0.00	0.02	

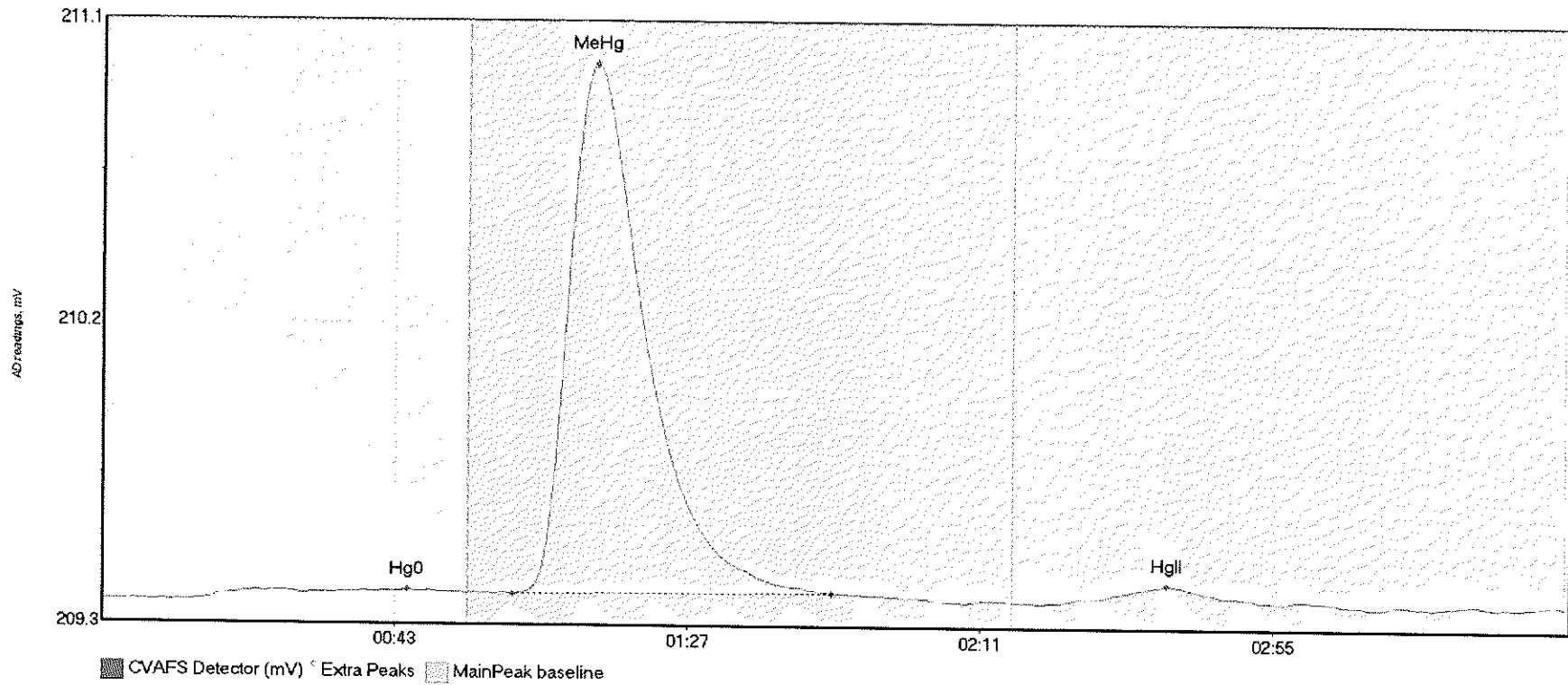
017

#56: 1707771-AO



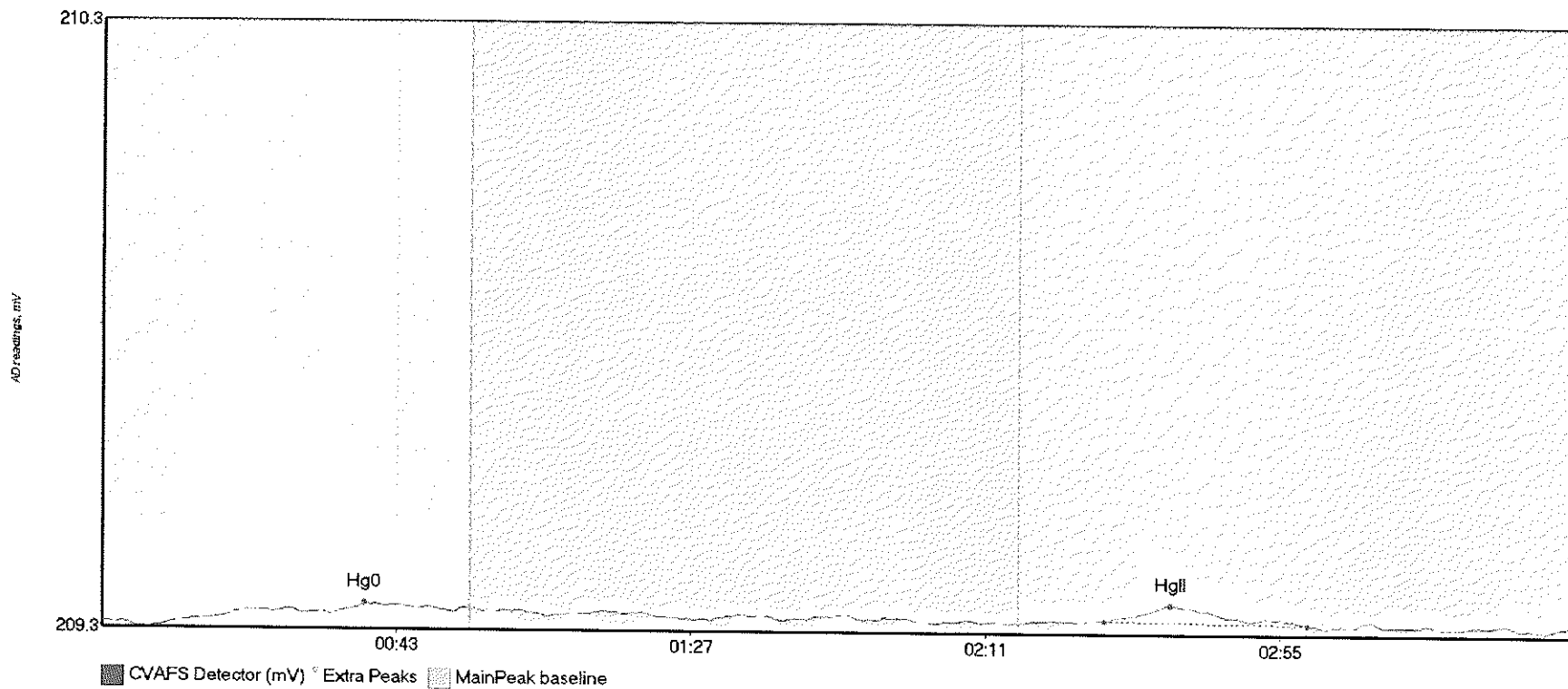
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AO Hg0	6.837	12.4	55.0	209.32	209.34	38.6	0.038	CT	209.3128	0.00	0.03	
1707771-AO MeHg	30.718	64.0	97.9	209.34	209.34	73.9	0.246	OK	209.3128	0.00	0.03	
1707771-AO HgII	634.313	137.1	219.8	209.33	209.34	159.0	3.058	CT	209.3128	0.00	0.03	117

#57: SEQ-CCV4



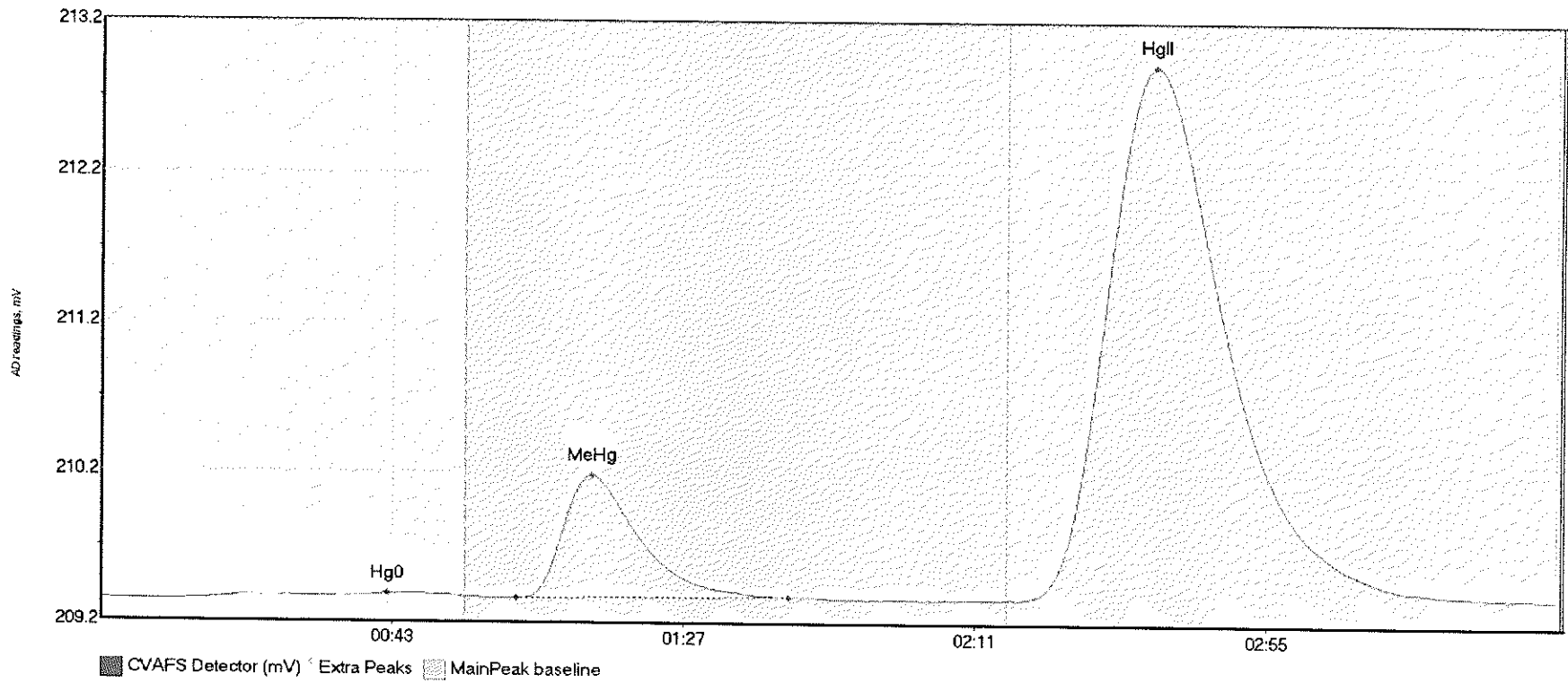
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	4.566	14.6	54.7	209.33	209.35	45.9	0.030	OK	209.3233	0.00	0.00	
SEQ-CCV4 MeHg	211.846	61.7	109.7	209.34	209.35	74.2	1.588	OK	209.3233	0.00	0.00	
SEQ-CCV4 HgII	7.374	143.4	174.8	209.33	209.33	160.0	0.055	OK	209.3233	0.00	0.00	

#58: SEQ-CCB4



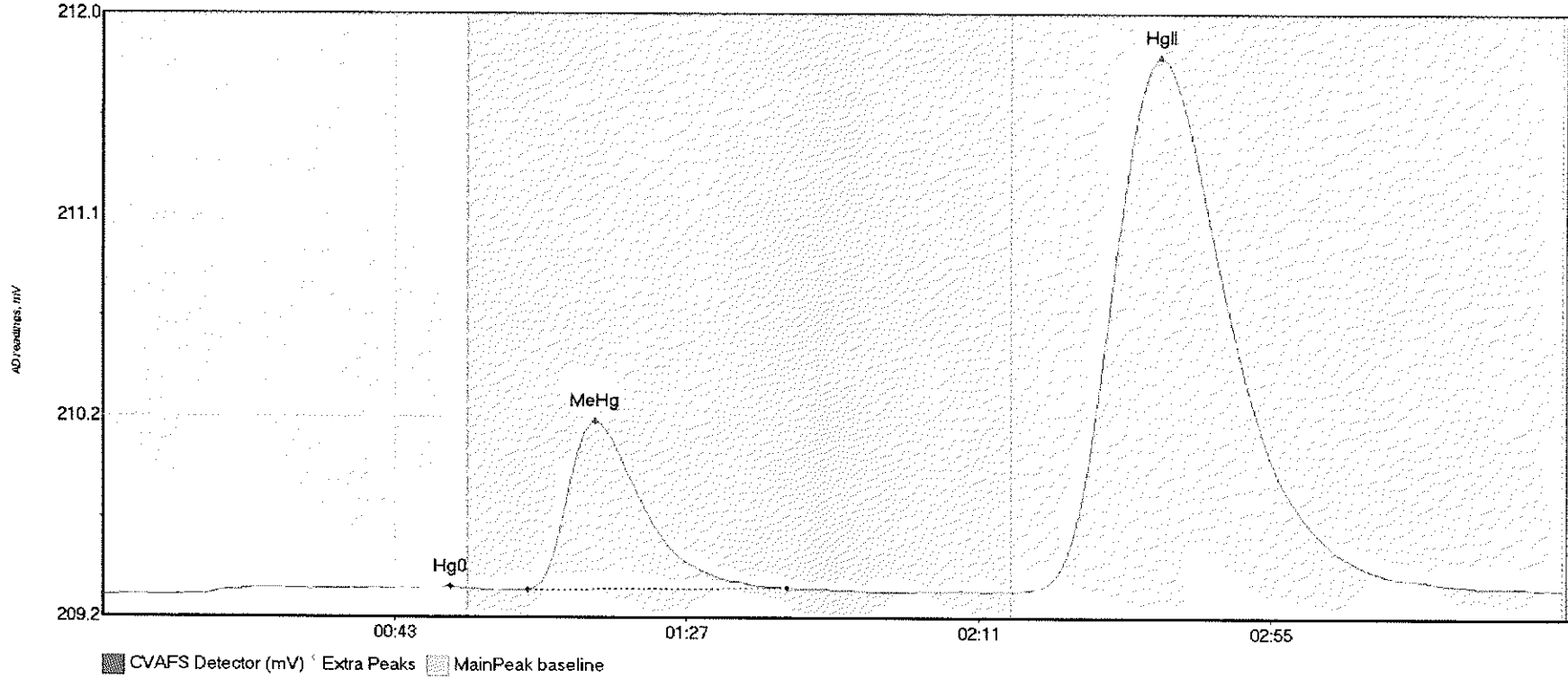
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	3.382	14.0	52.5	209.33	209.35	39.1	0.027	OK	209.3267	0.00	0.01	
SEQ-CCB4 HgII	4.038	149.7	180.1	209.34	209.33	159.6	0.026	OK	209.3267	0.00	0.01	317

#59: 1707771-AR



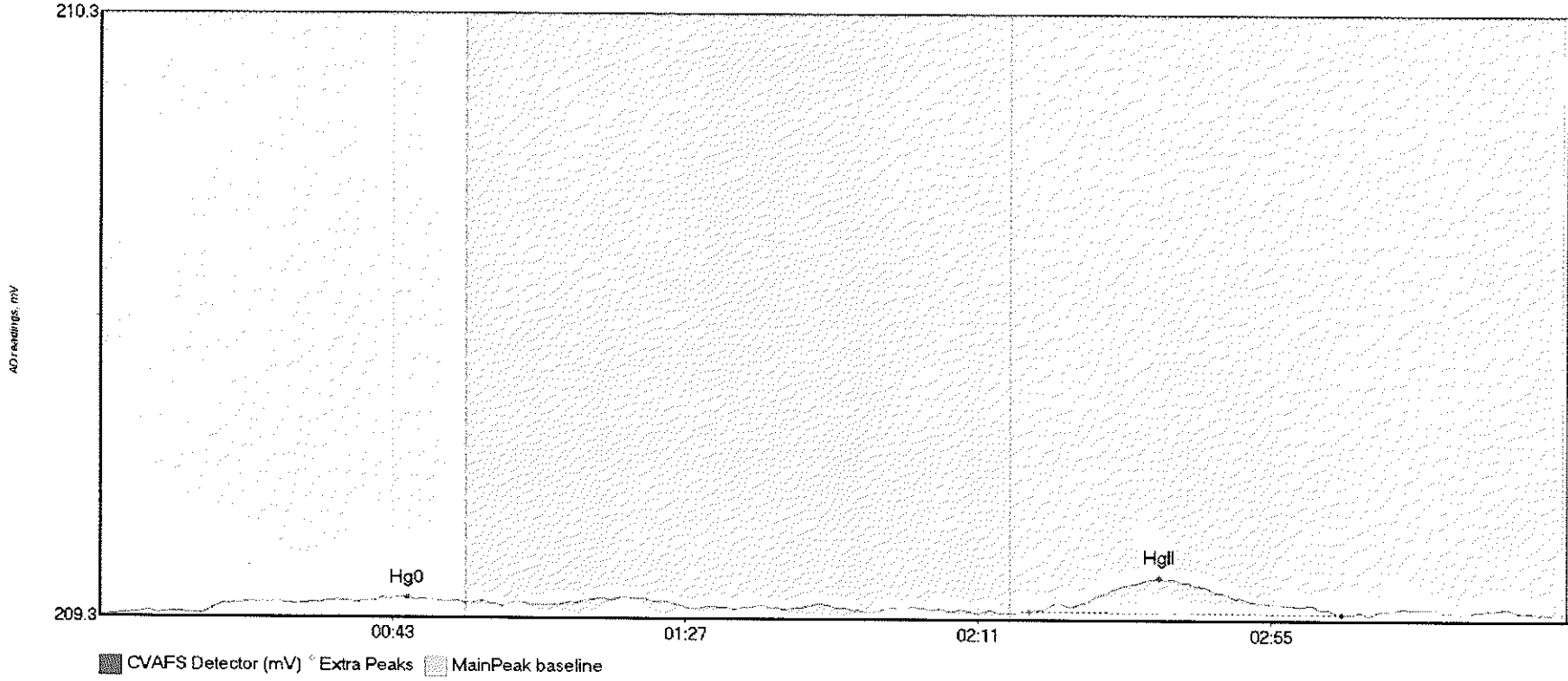
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AR Hg0	5.308	15.3	55.0	209.33	209.36	43.3	0.039	CF	209.3331	0.00	0.03	
1707771-AR MeHg	105.749	62.7	103.9	209.35	209.36	74.1	0.813	OK	209.3331	0.00	0.03	
1707771-AR HgII	728.549	138.8	219.8	209.35	209.36	159.1	3.533	CT	209.3331	0.00	0.03	

#60: 1707771-AS



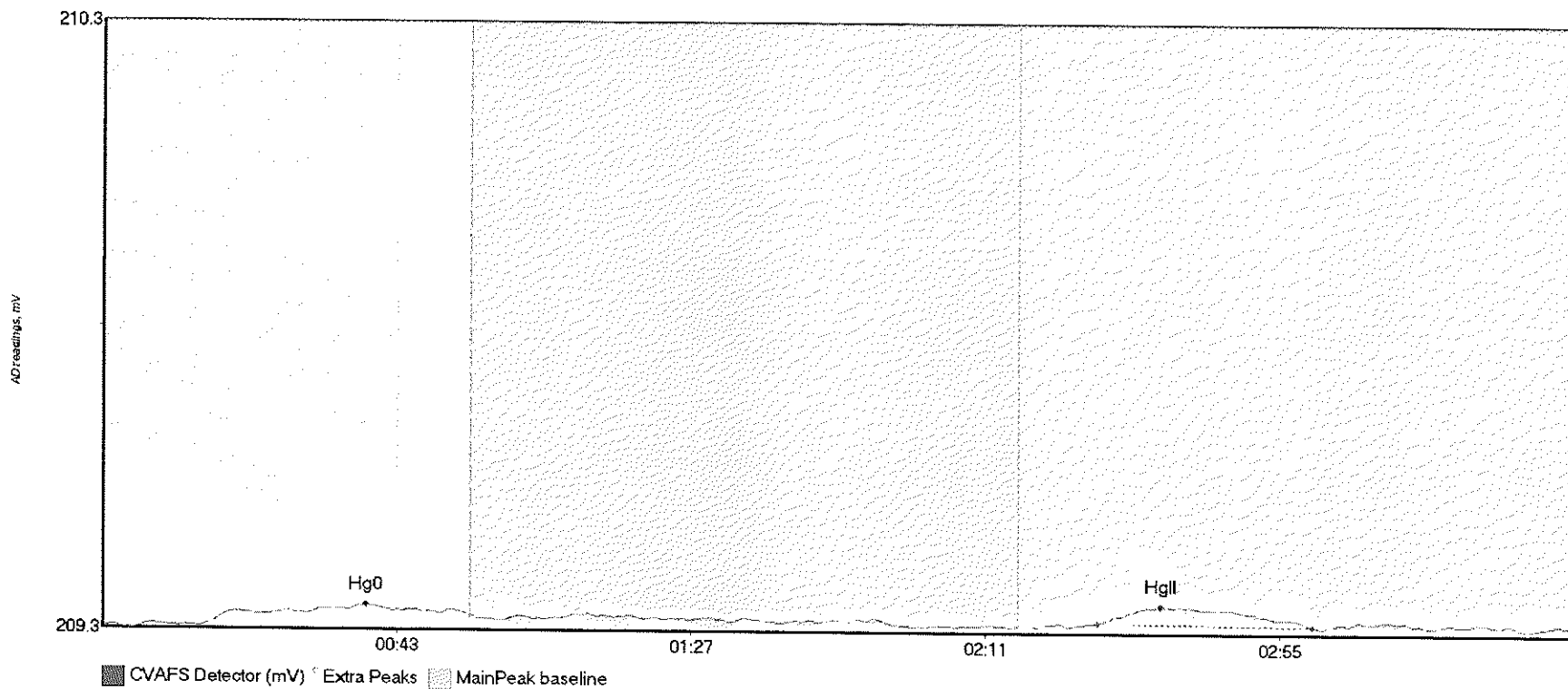
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AS Hg0	5.278	15.0	55.0	209.34	209.37	52.4	0.034	CT	209.3367	0.00	0.03	
1707771-AS MeHg	101.217	64.0	103.1	209.36	209.37	74.2	0.778	OK	209.3367	0.00	0.03	
1707771-AS HgII	508.162	138.8	219.6	209.36	209.37	159.4	2.464	OK	209.3367	0.00	0.03	

#61: F707569-BLK1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-BLK1 Hg	3.913	15.1	54.7	209.34	209.36	46.1	0.027	OK	209.3383	0.00	0.01	
F707569-BLK1 Hg	12.602	139.7	186.6	209.35	209.35	159.2	0.056	OK	209.3383	0.00	0.01	017

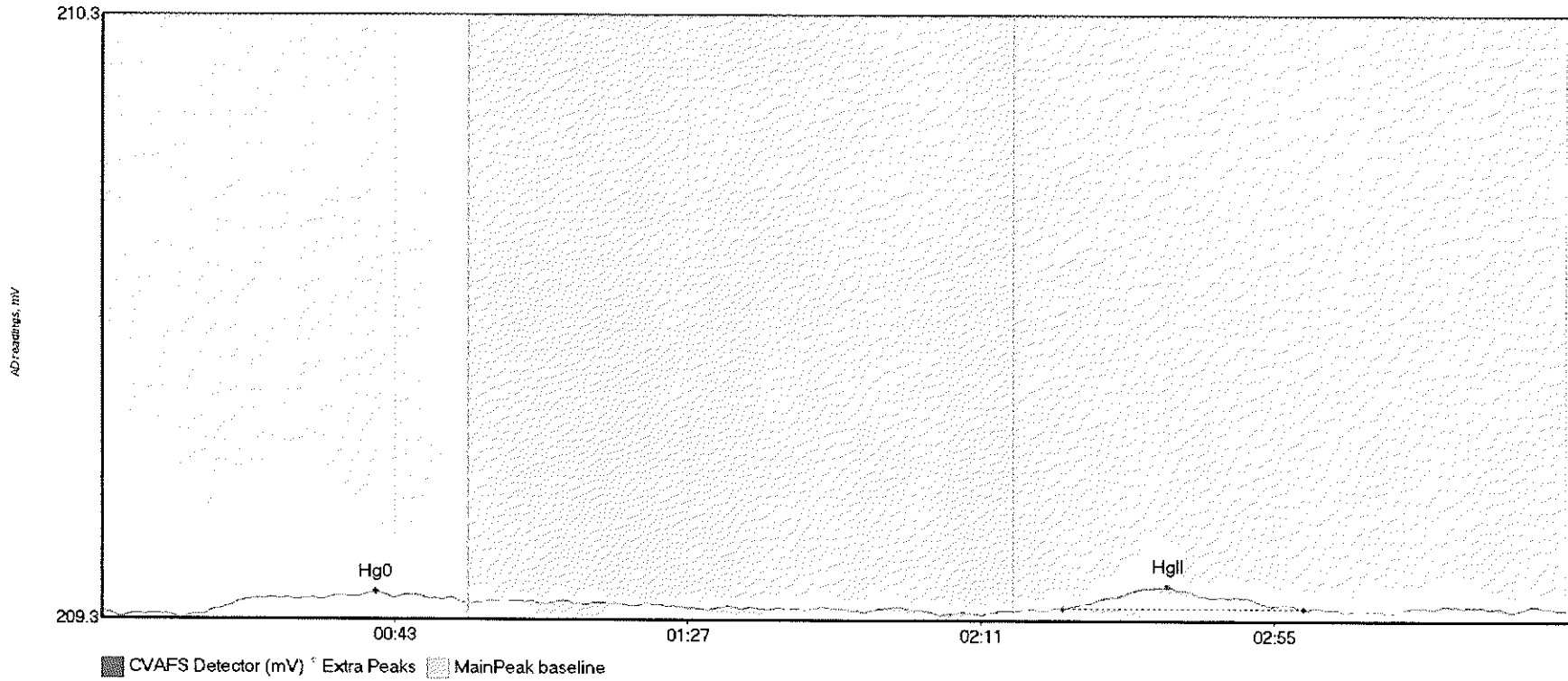
#62: F707569-BLK2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-BLK2 Hg	5.863	14.2	55.0	209.35	209.37	39.5	0.036	CT	209.3458	0.00	0.01	
F707569-BLK2 Hg	6.092	148.7	180.9	209.36	209.35	158.2	0.028	OK	209.3458	0.00	0.01	117

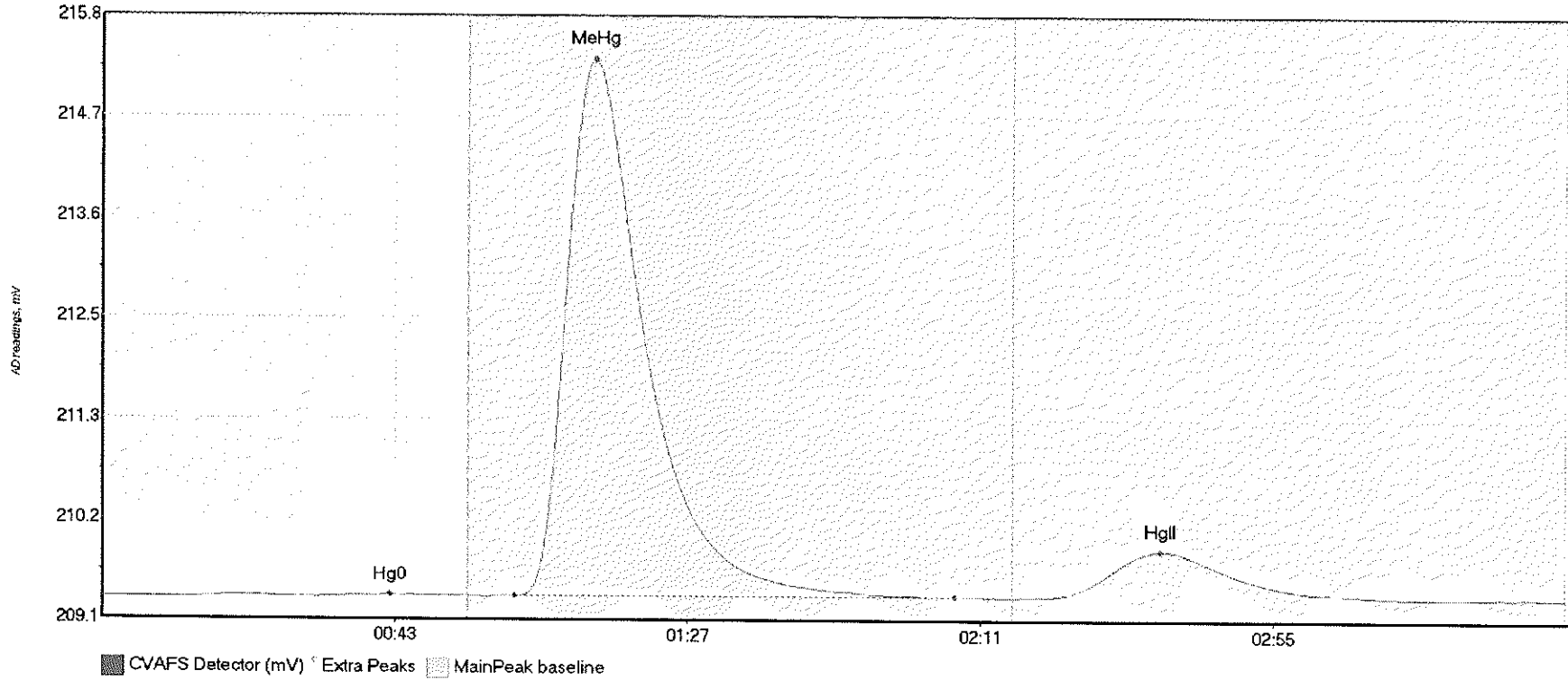


#63: F707569-BLK3



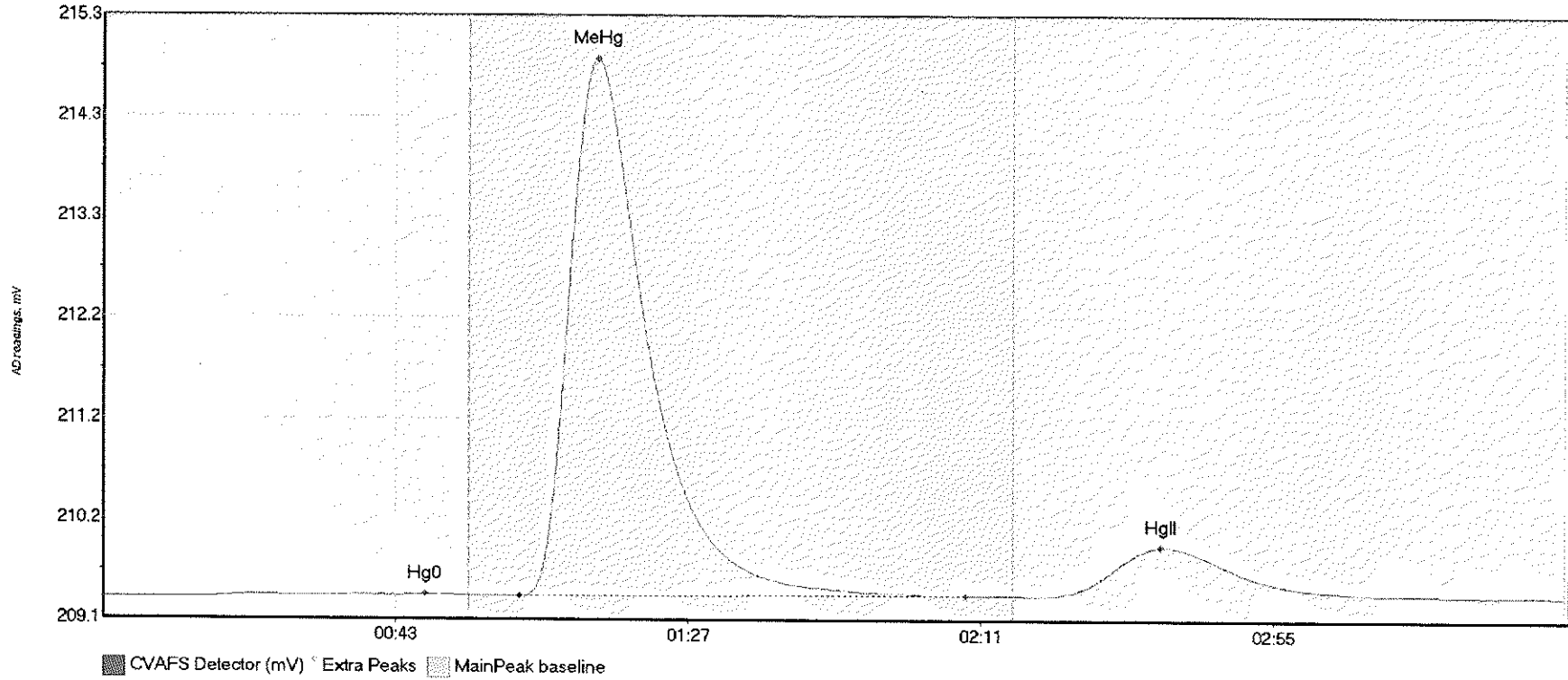
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-BLK3 Hg	6.934	15.0	54.7	209.35	209.37	41.1	0.038	OK	209.3587	0.00	0.01	
F707569-BLK3 Hg	6.589	144.3	180.4	209.37	209.37	160.1	0.037	OK	209.3587	0.00	0.01	117

#64: F707569-BS1



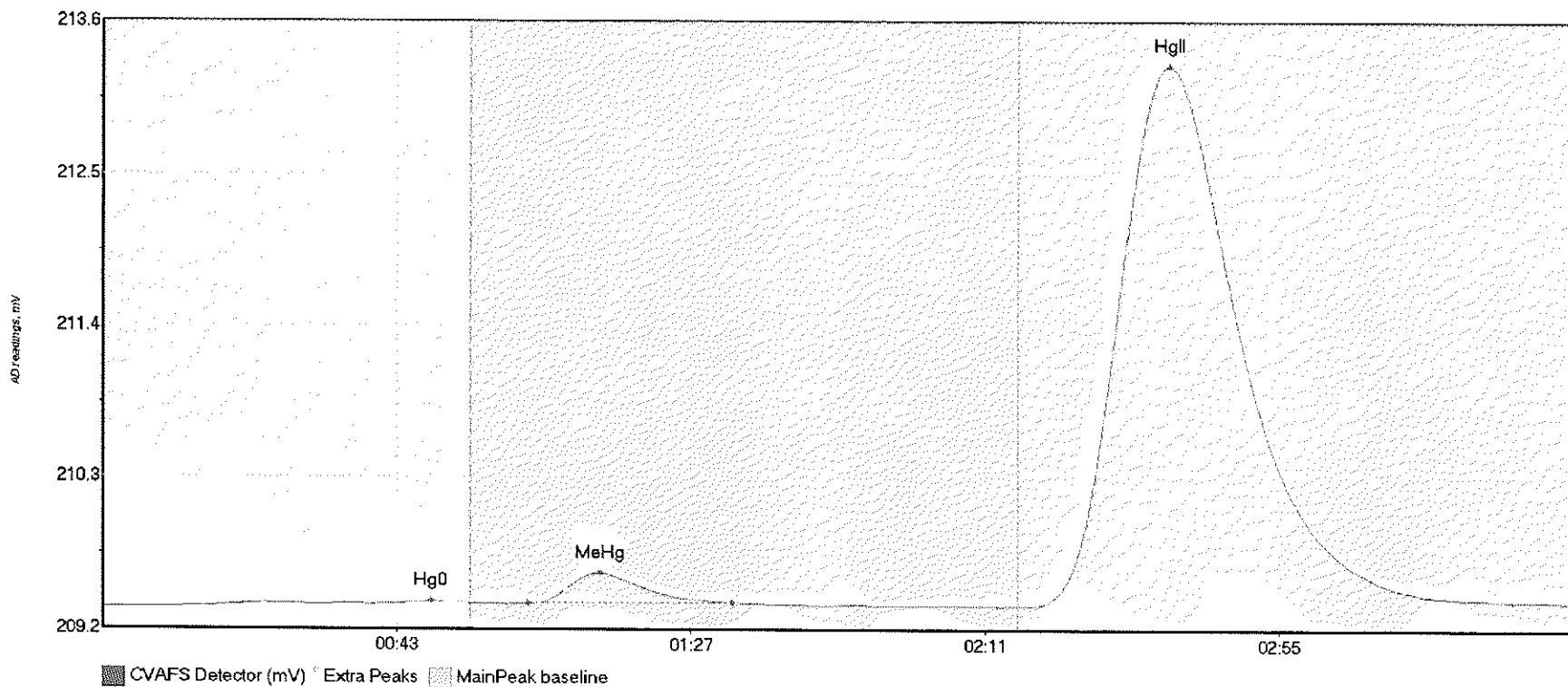
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-BS1 Hg0	4.437	12.8	54.2	209.36	209.38	43.3	0.034	OK	209.3628	0.00	0.01	
F707569-BS1 MeH	814.693	62.0	128.2	209.38	209.38	74.0	5.944	OK	209.3628	0.00	0.01	
F707569-BS1 HgI	105.174	136.8	195.0	209.38	209.38	159.1	0.520	OK	209.3628	0.00	0.01	

#65: F707569-BSD1



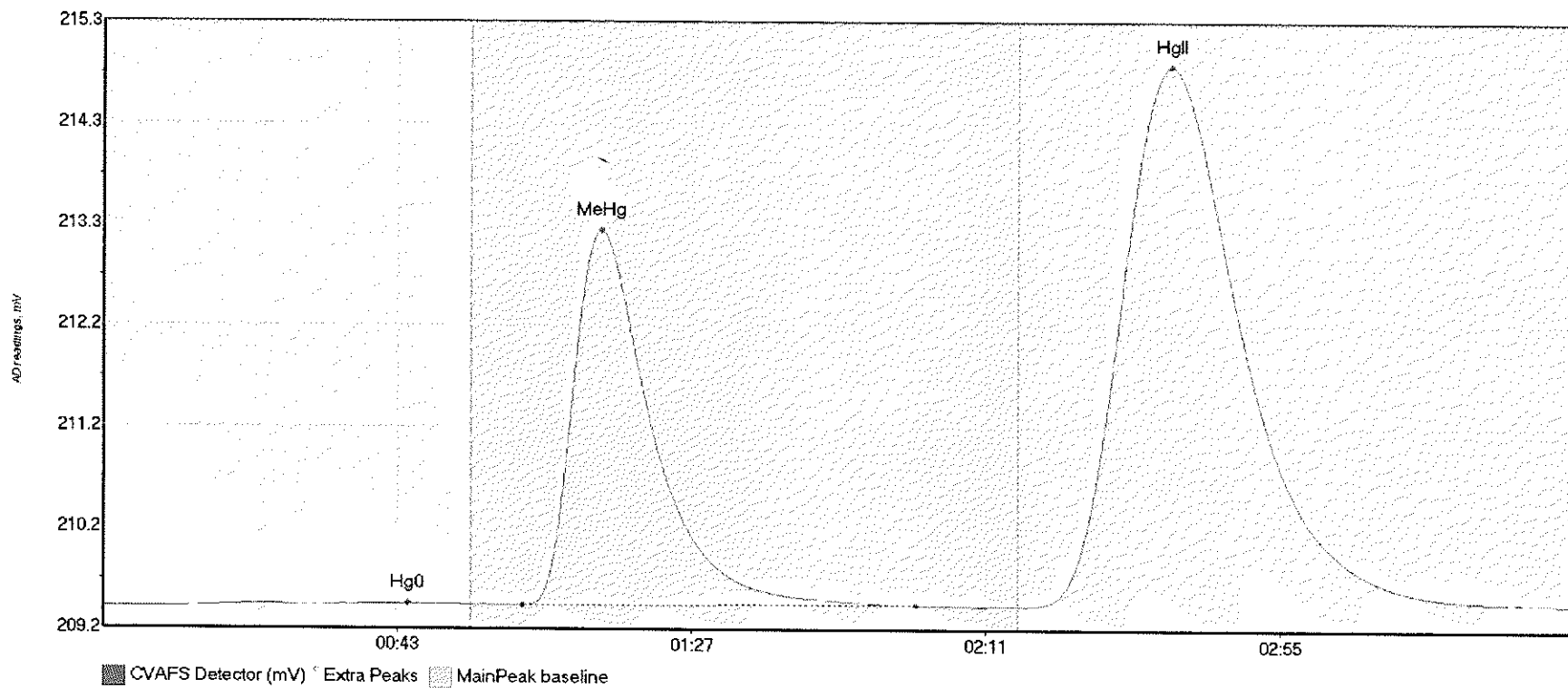
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-BSD1 Hg	5.016	15.4	54.5	209.37	209.39	48.4	0.031	OK	209.3632	0.00	0.03	
F707569-BSD1 Me	755.478	62.6	129.8	209.38	209.39	74.3	5.516	OK	209.3632	0.00	0.03	
F707569-BSD1 Hg	103.698	140.4	201.9	209.39	209.40	159.0	0.514	OK	209.3632	0.00	0.03	

#66: F707569-DUP1



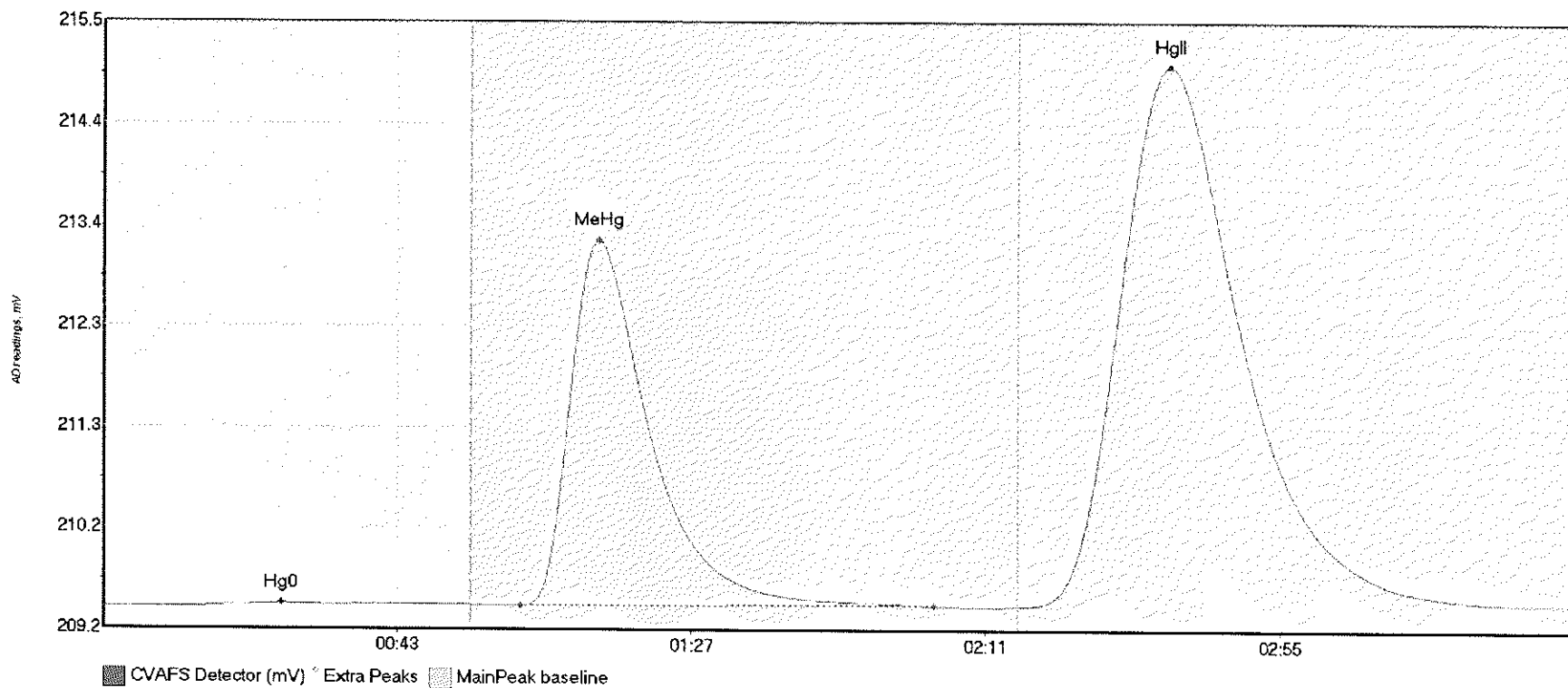
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-DUP1 Hg	3.304	13.6	54.9	209.37	209.40	49.2	0.036	OK	209.3689	0.00	0.04	
F707569-DUP1 Me	26.433	63.6	94.2	209.40	209.40	74.5	0.218	OK	209.3689	0.00	0.04	
F707569-DUP1 Hg	809.323	139.3	219.0	209.38	209.41	159.5	3.903	OK	209.3689	0.00	0.04	

#67: F707569-MS1



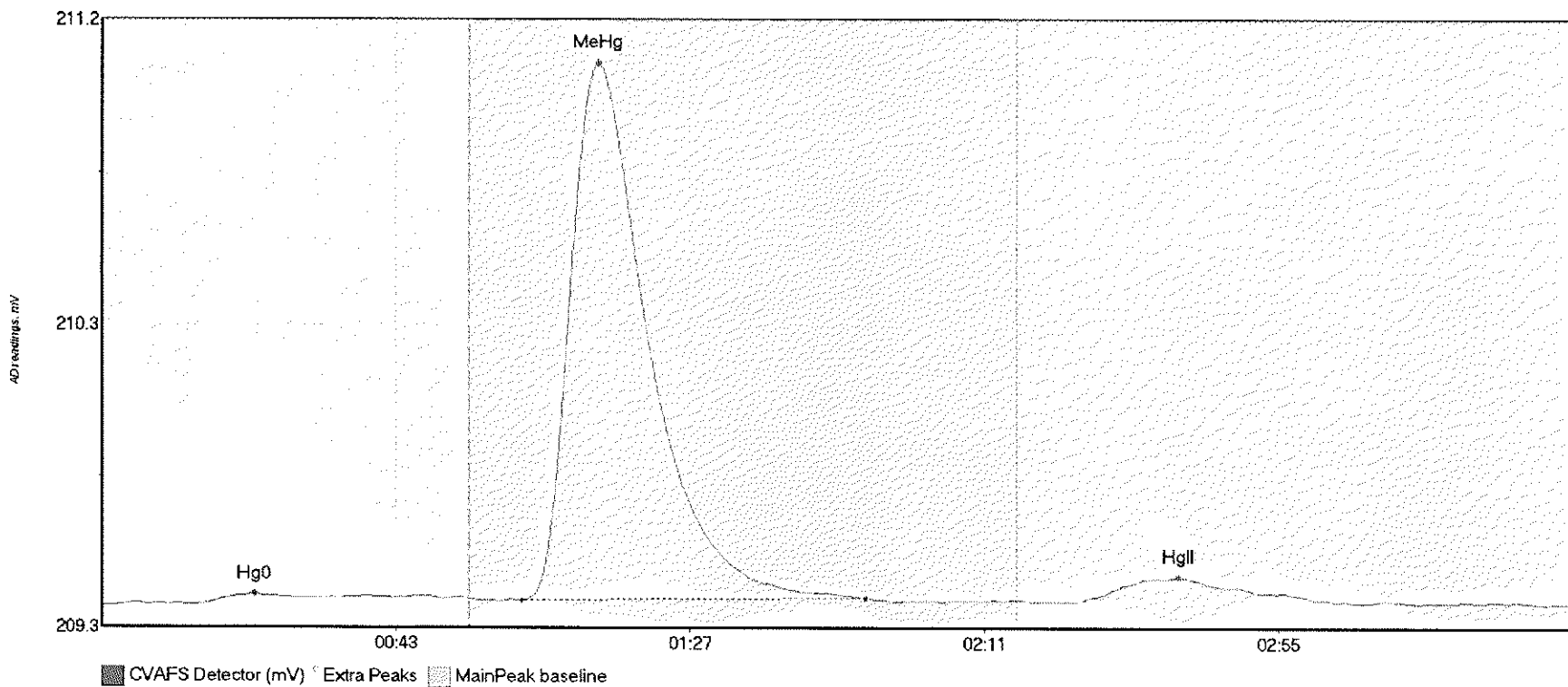
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-MS1 Hg0	4.898	12.0	55.0	209.38	209.40	45.6	0.032	CT	209.3764	0.00	0.04	
F707569-MS1 MeH	516.927	62.7	121.6	209.40	209.40	74.4	3.799	OK	209.3764	0.00	0.04	
F707569-MS1 HgI	1132.846	138.3	218.5	209.39	209.41	159.6	5.467	OK	209.3764	0.00	0.04	

#68: F707569-MSD1



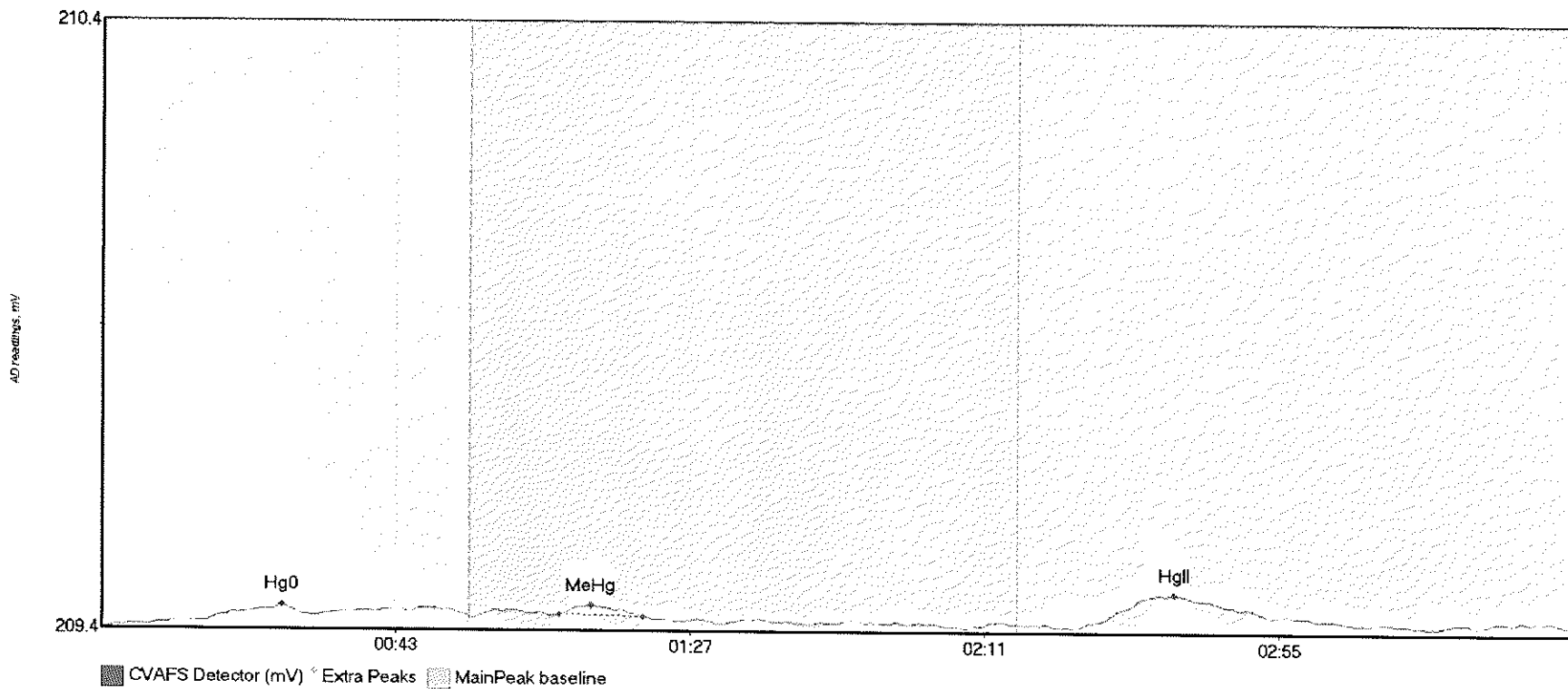
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-MSD1 Hg	2.618	14.2	34.1	209.40	209.41	26.7	0.035	OK	209.3919	0.00	0.05	
F707569-MSD1 Me	520.875	62.4	124.3	209.41	209.41	74.2	3.795	OK	209.3919	0.00	0.05	
F707569-MSD1 Hg	1171.472	137.4	219.2	209.41	209.44	159.4	5.601	OK	209.3919	0.00	0.05	

#69: SEQ-CCV5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV5 Hg0	5.288	13.1	55.0	209.41	209.42	22.8	0.032	CT	209.4026	0.00	0.01	
SEQ-CCV5 MeHg	218.745	62.9	114.3	209.42	209.43	74.3	1.615	OK	209.4026	0.00	0.01	
SEQ-CCV5 HgII	13.124	146.4	181.6	209.42	209.42	161.1	0.072	OK	209.4026	0.00	0.01	

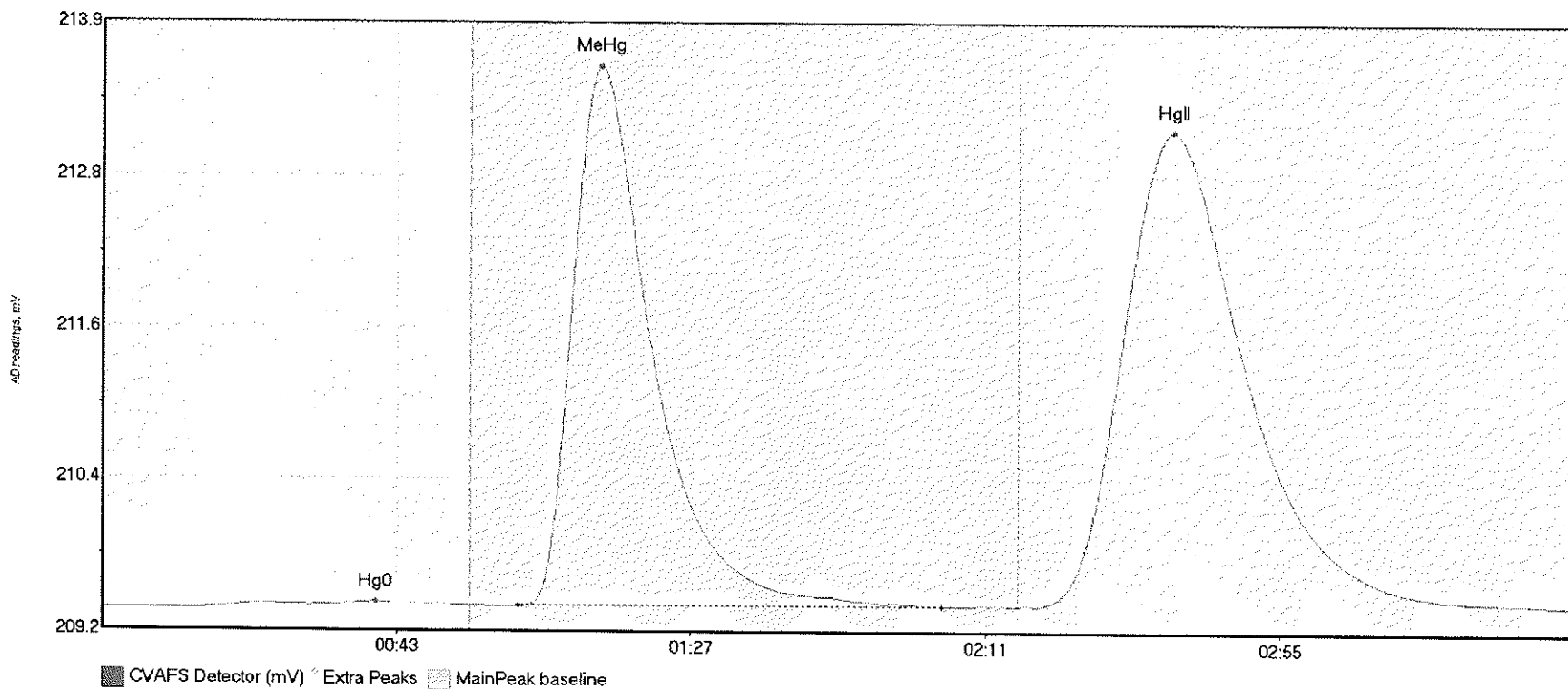
#70: SEQ-CCB5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB5 Hg0	5.772	6.9	55.0	209.40	209.42	27.0	0.032	CT	209.3968	0.00	0.01	
SEQ-CCB5 MeHg	1.226	68.5	80.9	209.42	209.42	73.2	0.016	OK	209.3968	0.00	0.01	
SEQ-CCB5 HgII	8.458	147.8	185.9	209.41	209.41	160.3	0.047	OK	209.3968	0.00	0.01	

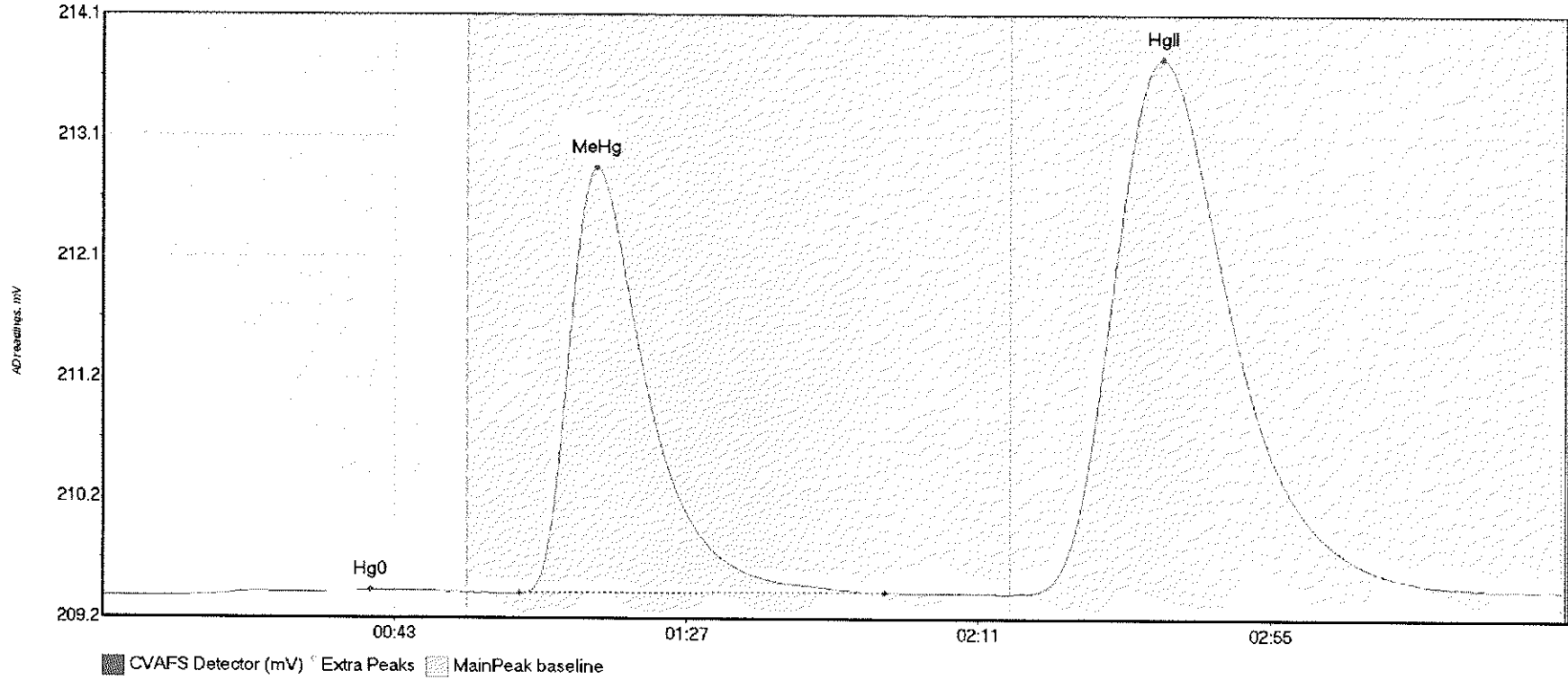


#71: F707569-MS2



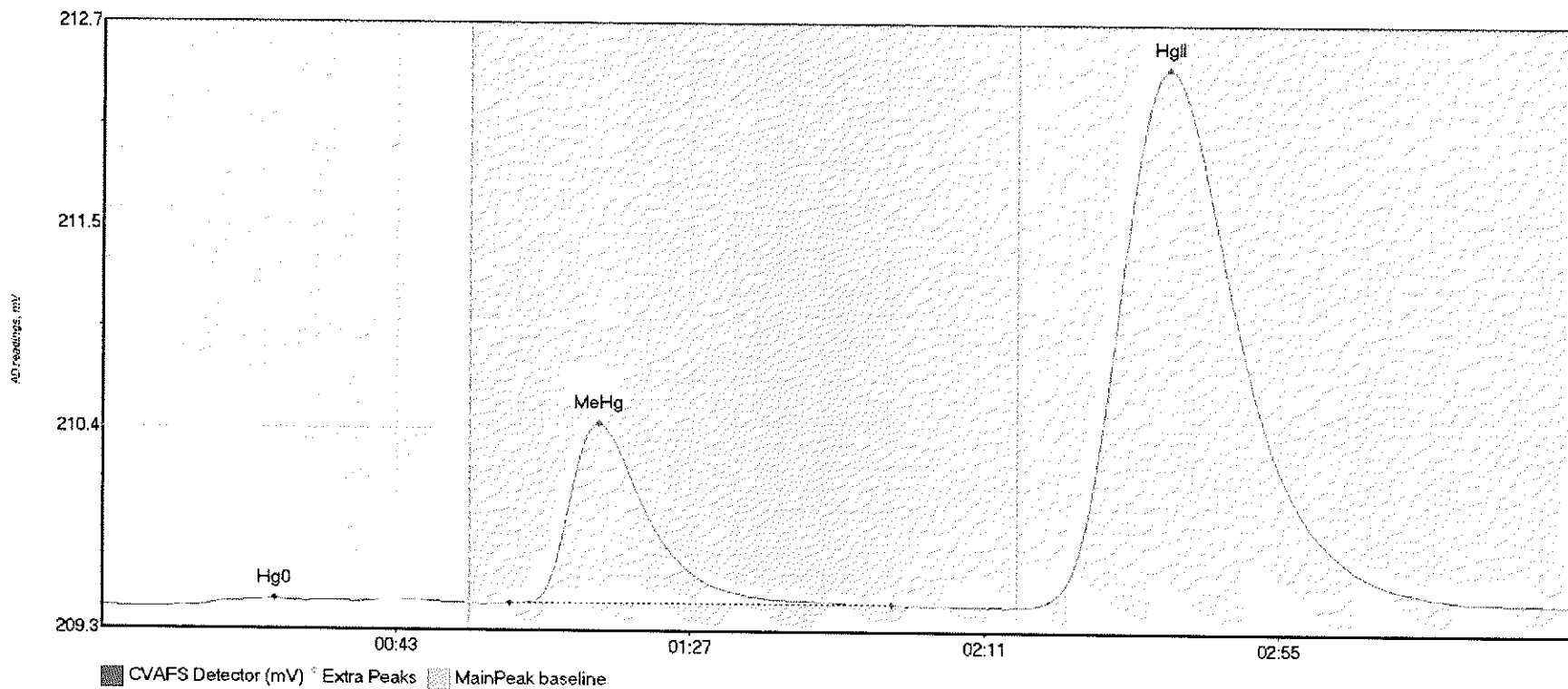
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	
F707569-MS2	Hg0	7.793	12.7	54.6	209.41	209.44	40.9	0.054	OK	209.4120	0.00	0.04	
F707569-MS2	MeH	572.865	62.2	125.4	209.44	209.44	74.5	4.157	OK	209.4120	0.00	0.04	
F707569-MS2	HgI	767.073	139.4	219.8	209.44	209.45	159.9	3.655	CT	209.4120	0.00	0.04	

#72: F707569-MSD2



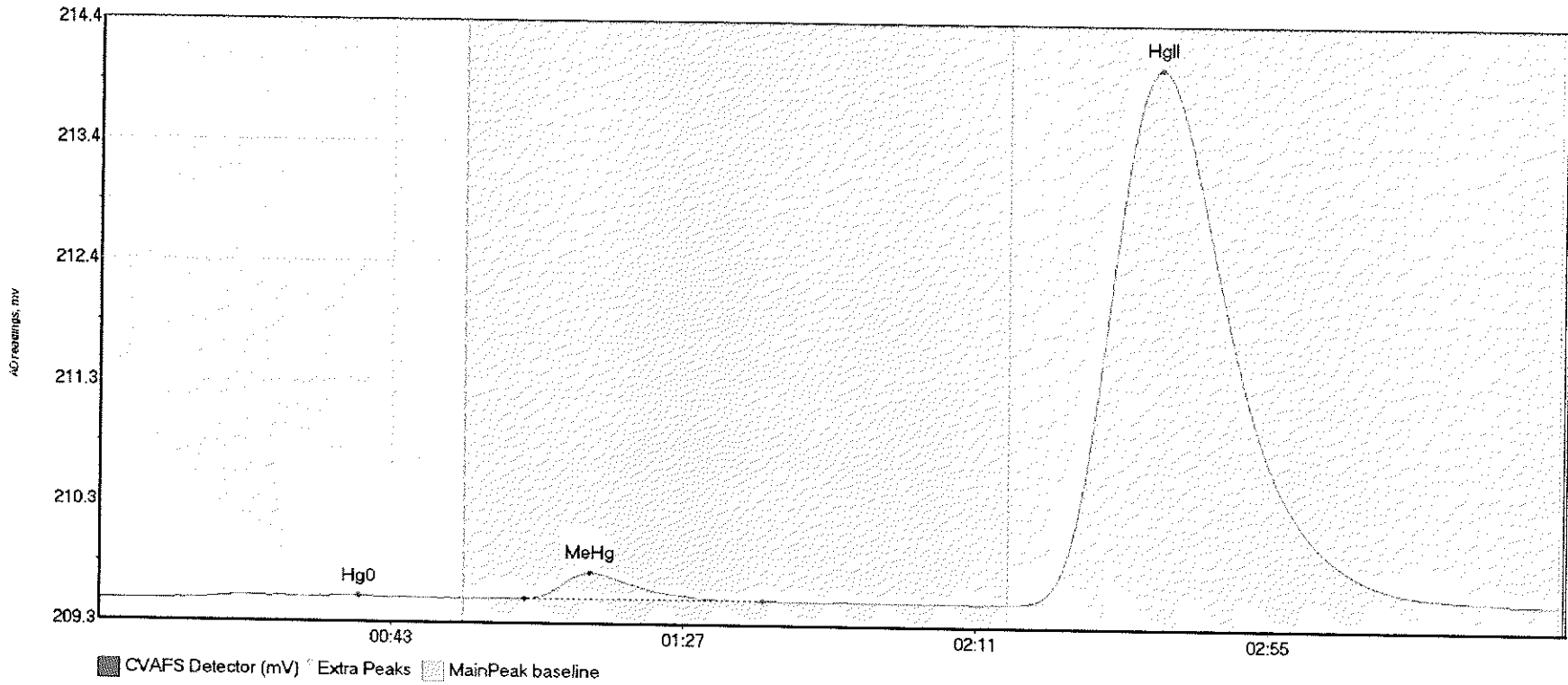
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F707569-MSD2 Hg	7.311	12.4	55.0	209.42	209.45	40.5	0.049	CT	209.4193	0.00	0.06	
F707569-MSD2 Me	464.908	62.9	117.9	209.44	209.45	74.5	3.403	OK	209.4193	0.00	0.06	
F707569-MSD2 Hg	888.357	138.7	215.9	209.45	209.48	159.7	4.273	OK	209.4193	0.00	0.06	

#73: 1707771-AT



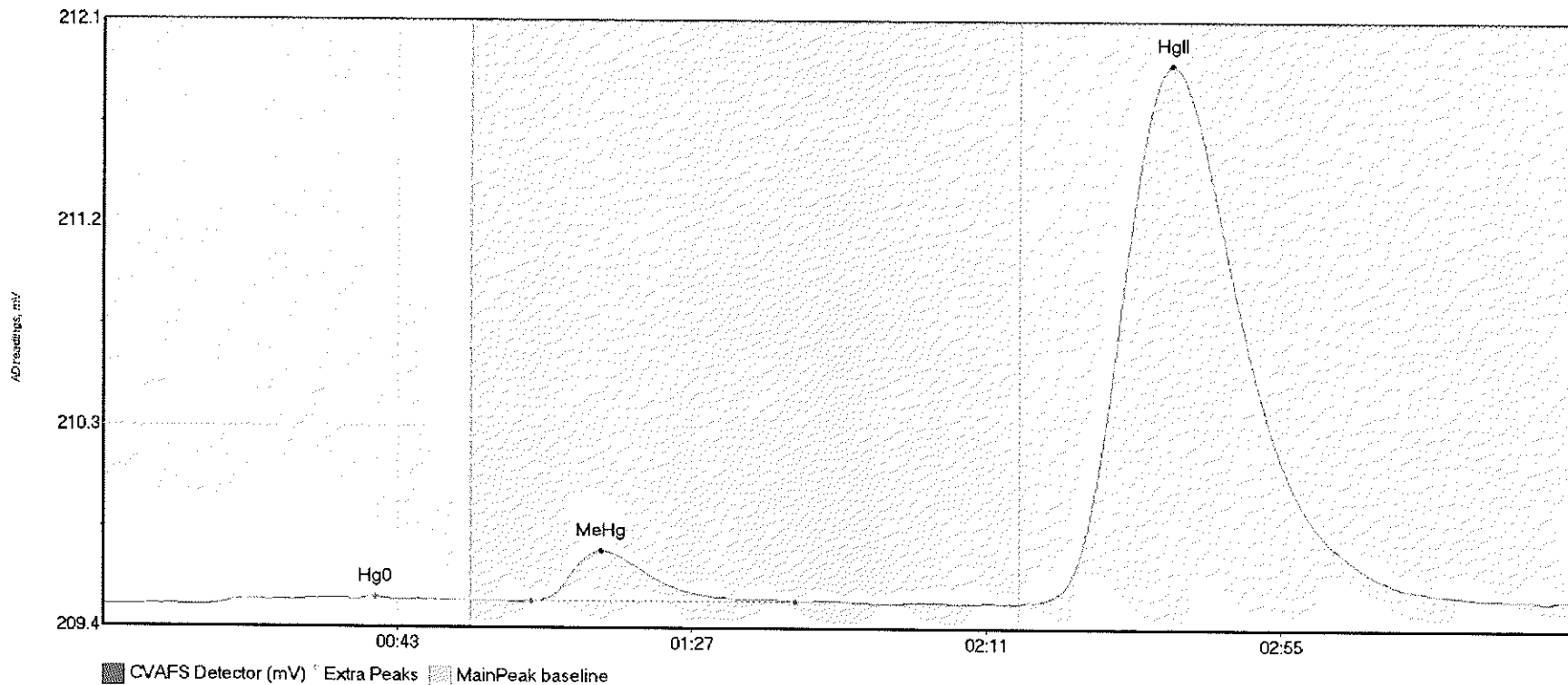
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AT Hg0	7.427	14.8	55.0	209.43	209.45	25.8	0.037	CT	209.4327	0.00	0.03	
1707771-AT MeHg	134.600	61.0	118.1	209.45	209.46	74.3	0.993	OK	209.4327	0.00	0.03	
1707771-AT HgII	621.087	138.0	219.8	209.44	209.46	159.4	2.969	CT	209.4327	0.00	0.03	

#74: 1707771-AU



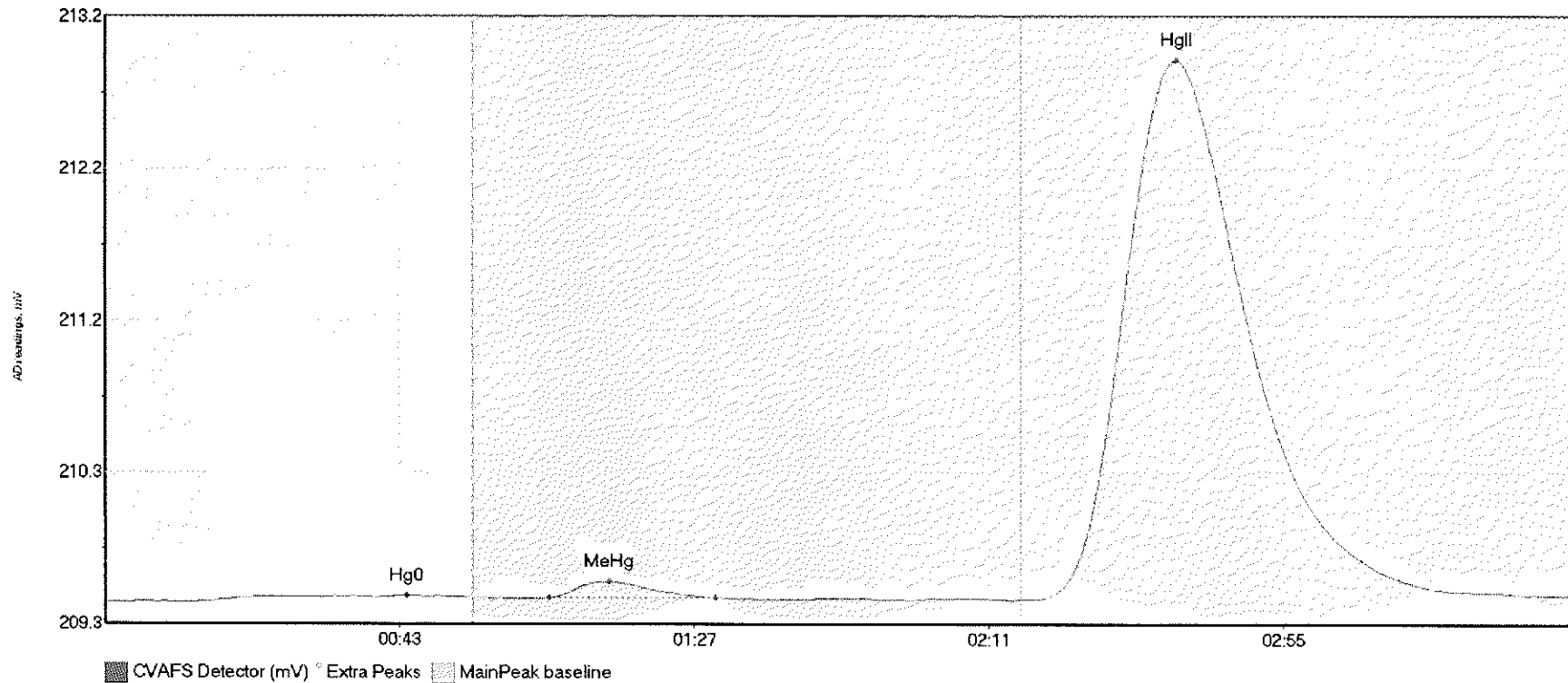
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AU Hg0	6.018	9.5	55.0	209.45	209.47	39.2	0.032	CT	209.4452	0.00	0.04	
1707771-AU MeHg	29.278	64.2	100.0	209.47	209.47	74.0	0.226	OK	209.4452	0.00	0.04	
1707771-AU HgII	966.606	137.7	219.8	209.47	209.49	159.6	4.578	CT	209.4452	0.00	0.04	

#75: 1707771-AX



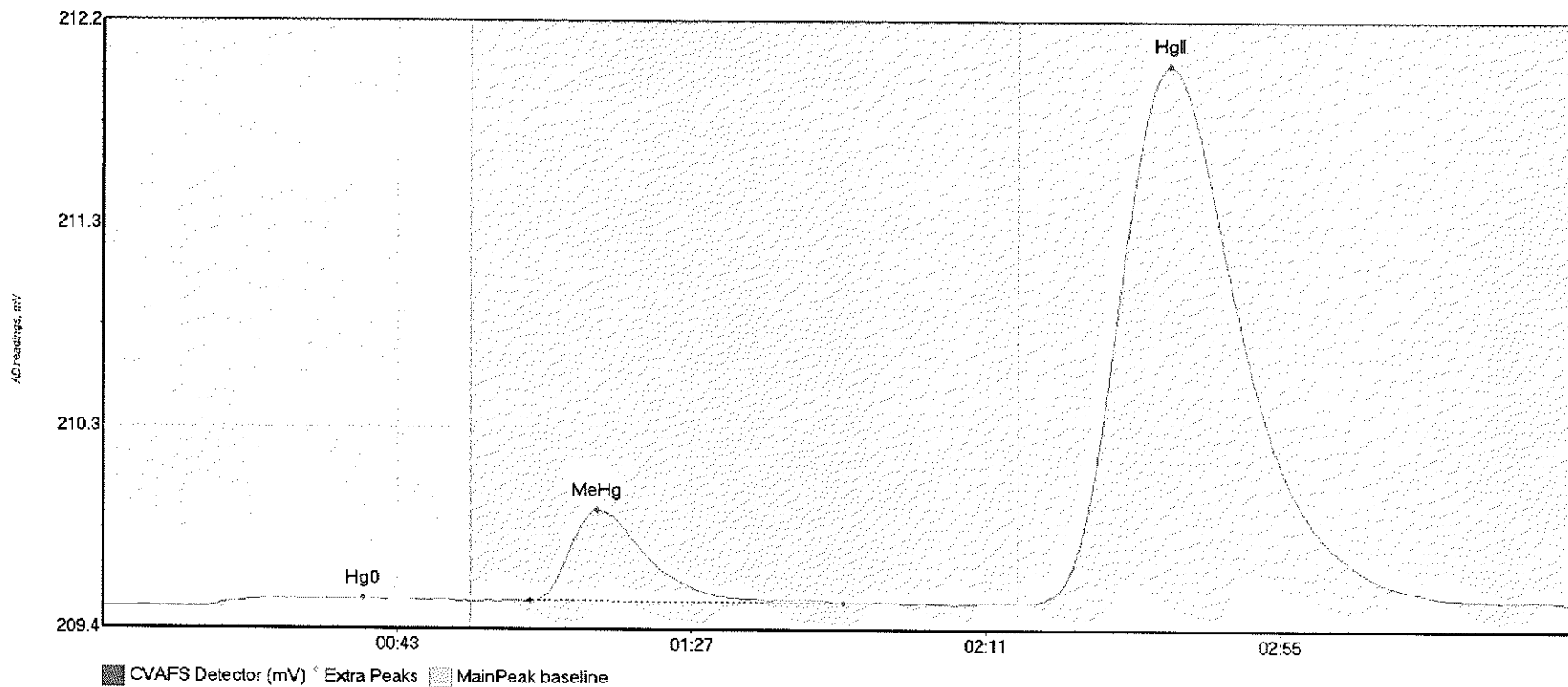
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AX Hg0	5.472	15.8	54.1	209.46	209.48	40.7	0.033	OK	209.4591	0.00	0.03	
1707771-AX MeHg	30.912	64.0	103.5	209.48	209.48	74.5	0.230	OK	209.4591	0.00	0.03	
1707771-AX HgII	514.599	138.9	215.6	209.48	209.48	159.6	2.453	OK	209.4591	0.00	0.03	

#76: 1707771-AY



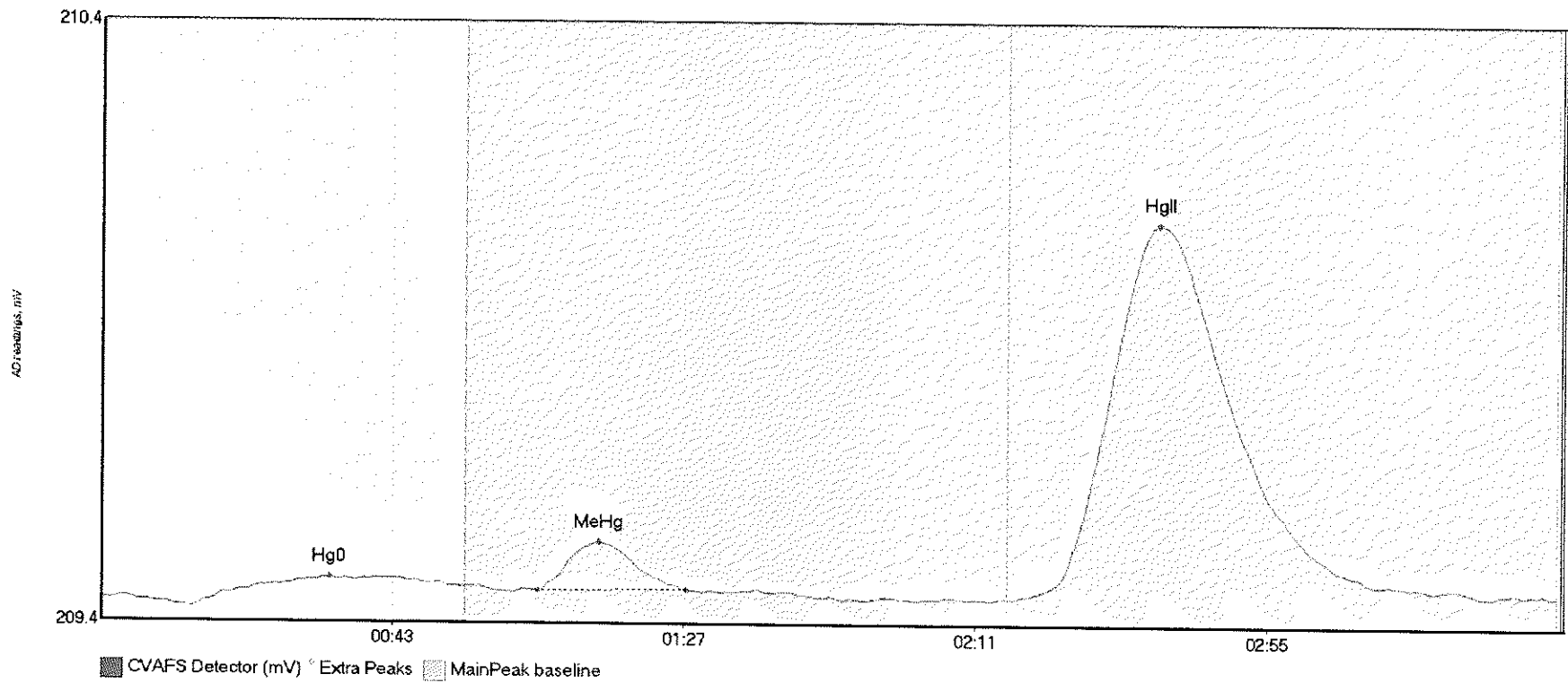
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-AY Hg0	7.271	13.1	55.0	209.46	209.49	45.2	0.042	CT	209.4608	0.00	0.05	
1707771-AY MeHg	12.567	66.3	91.2	209.49	209.49	75.3	0.103	OK	209.4608	0.00	0.05	
1707771-AY HgII	722.663	138.9	216.3	209.48	209.50	160.0	3.413	OK	209.4608	0.00	0.05	

#77: 1707771-BF



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BF Hg0	7.650	14.2	55.0	209.47	209.50	38.8	0.040	CT	209.4749	0.00	0.03	
1707771-BF MeHg	57.959	63.8	110.7	209.50	209.49	73.9	0.423	OK	209.4749	0.00	0.03	
1707771-BF HgII	528.828	138.8	219.8	209.50	209.50	159.5	2.504	CT	209.4749	0.00	0.03	

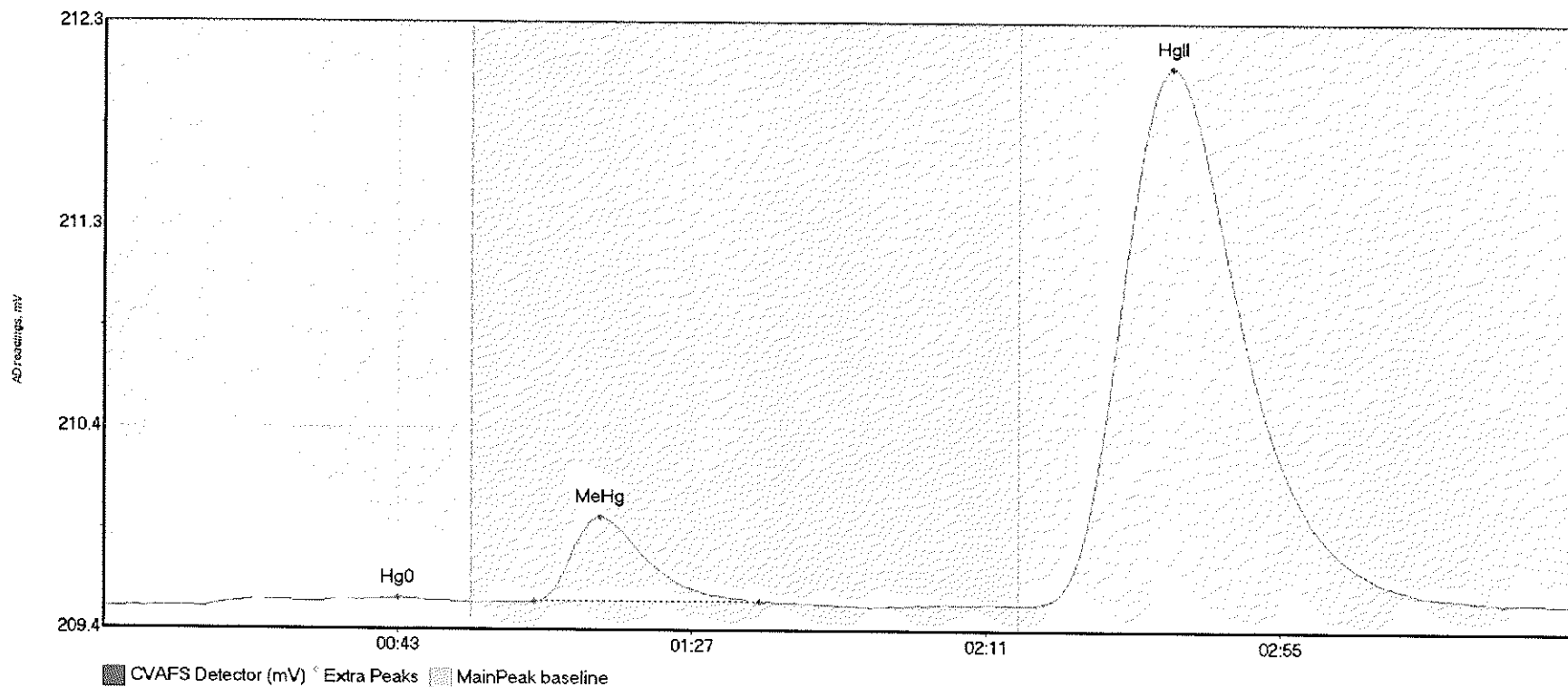
#78: 1707771-BG



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BG Hg0	8.291	13.6	54.4	209.47	209.51	34.5	0.049	OK	209.4851	0.00	0.01	
1707771-BG MeHg	8.942	65.9	88.3	209.50	209.50	75.2	0.080	OK	209.4851	0.00	0.01	
1707771-BG HgII	130.043	139.4	208.6	209.50	209.50	159.7	0.619	OK	209.4851	0.00	0.01	

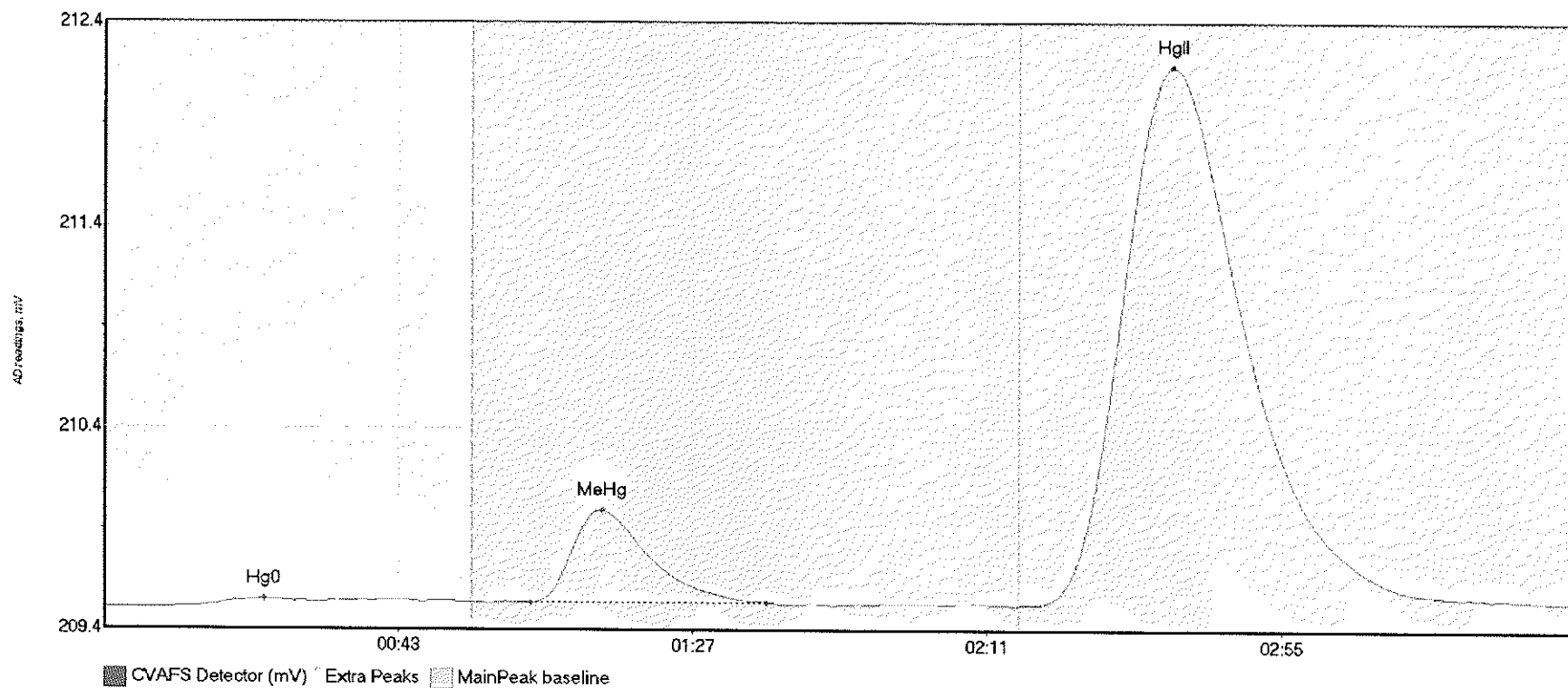


#79: 1707771-BH



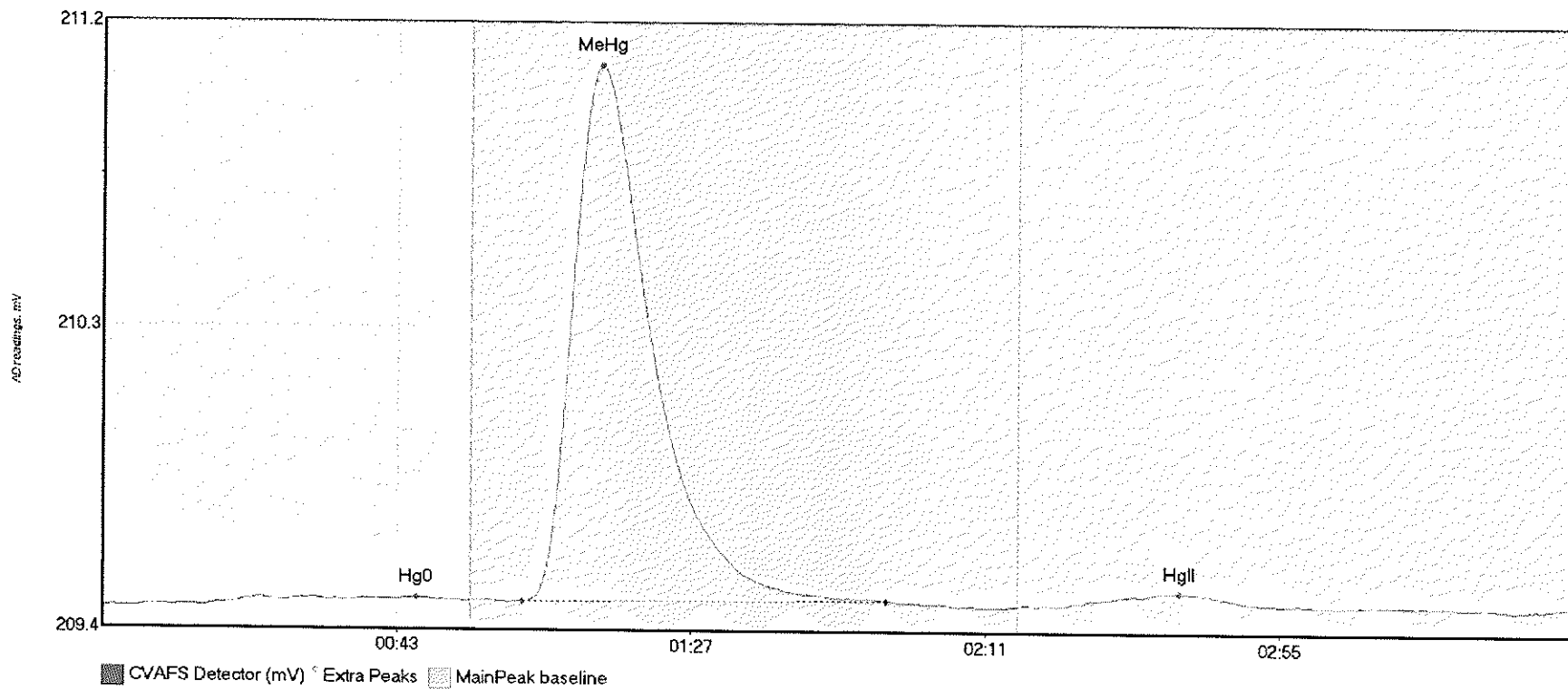
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BH Hg0	7.448	14.5	55.0	209.49	209.52	44.0	0.045	CT	209.4874	0.00	0.03	
1707771-BH MeHg	52.228	64.4	98.2	209.52	209.52	74.3	0.407	OK	209.4874	0.00	0.03	
1707771-BH HgII	543.622	138.9	219.8	209.51	209.51	159.8	2.578	CT	209.4874	0.00	0.03	

#80: 1707771-BI



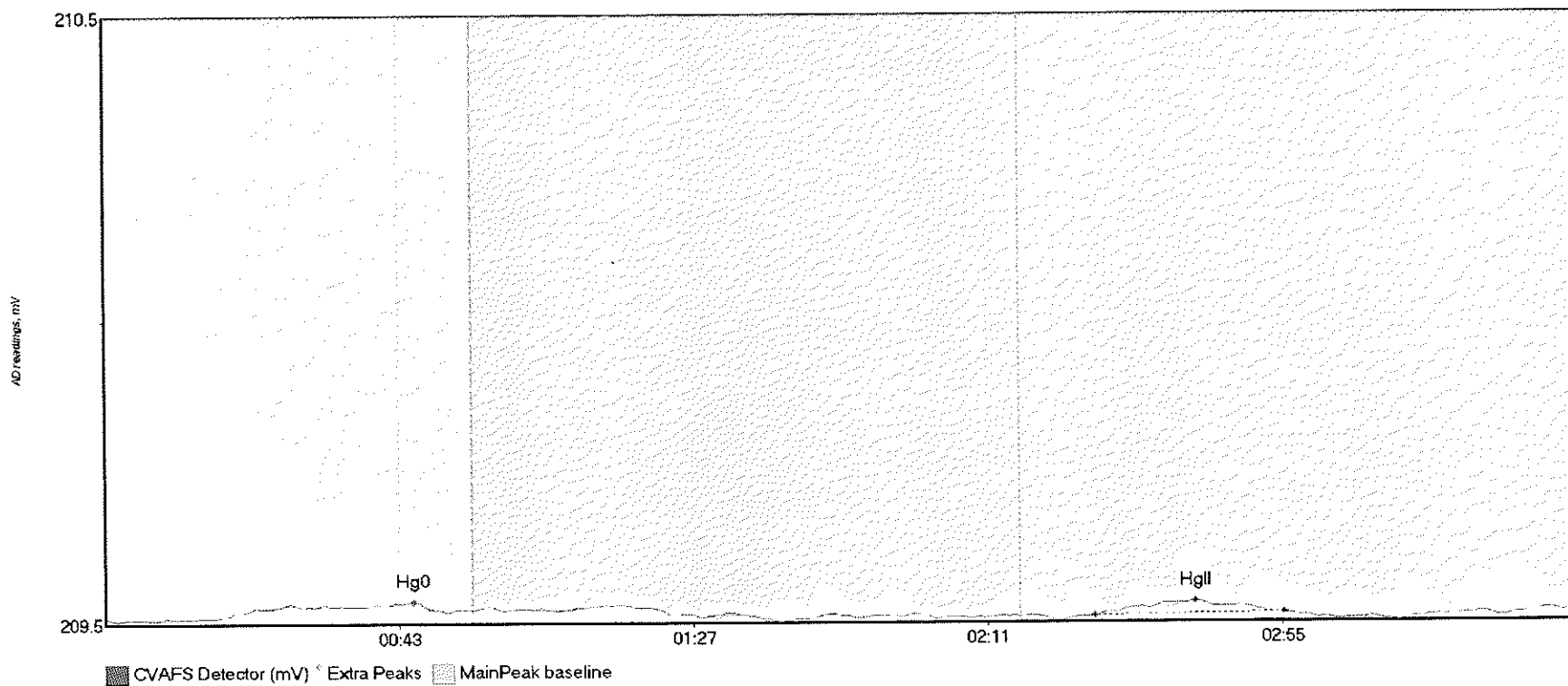
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BI Hg0	2.328	9.7	31.0	209.50	209.53	23.9	0.042	OK	209.4985	0.00	0.03	
1707771-BI MeHg	60.449	63.7	99.0	209.53	209.53	74.4	0.459	OK	209.4985	0.00	0.03	
1707771-BI HgII	563.590	139.1	219.6	209.52	209.53	159.8	2.680	OK	209.4985	0.00	0.03	

#81: SEQ-CCV6



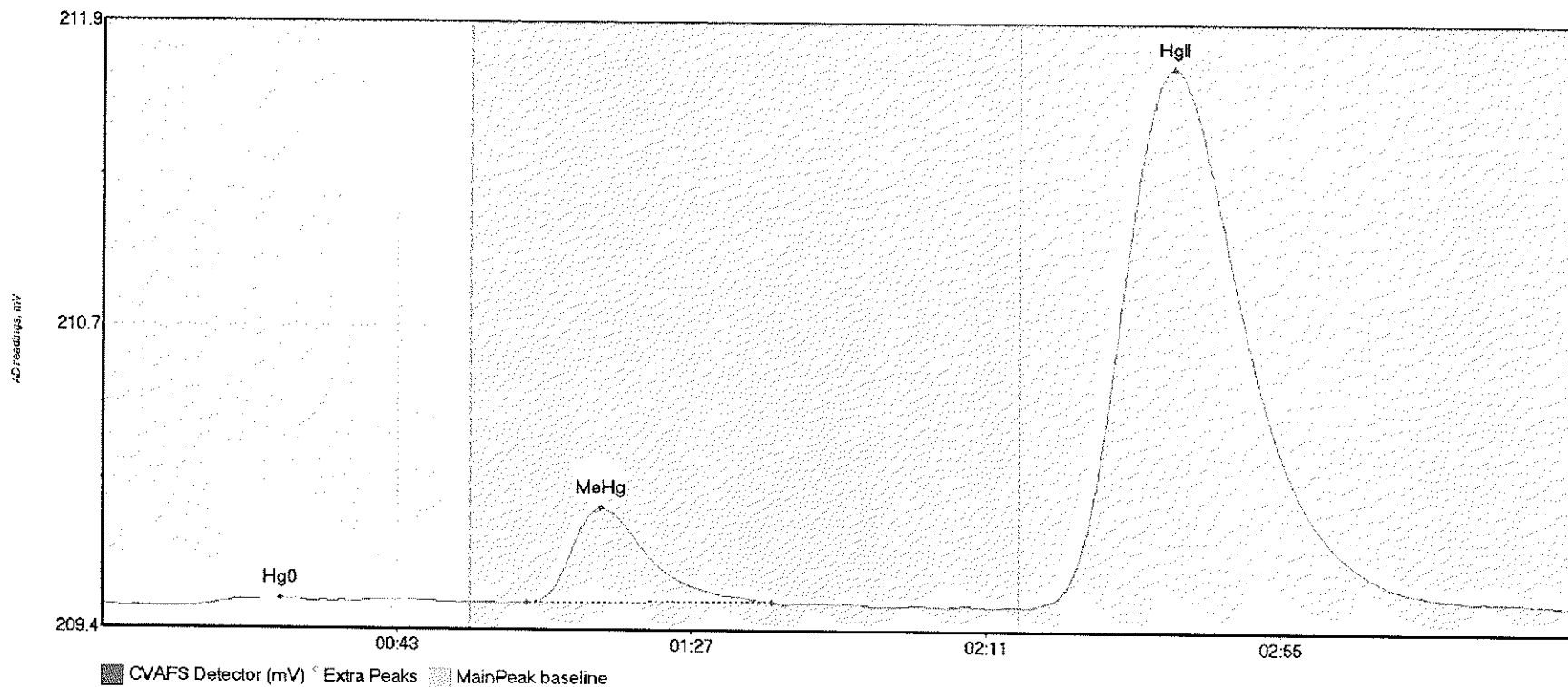
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	4.772	14.8	54.2	209.51	209.53	46.8	0.028	OK	209.5071	0.00	0.01	
SEQ-CCV6 MeHg	217.178	62.7	117.1	209.53	209.53	74.4	1.594	OK	209.5071	0.00	0.01	
SEQ-CCV6 HgII	6.736	143.2	173.6	209.52	209.53	161.0	0.042	OK	209.5071	0.00	0.01	

#82: SEQ-CCB6



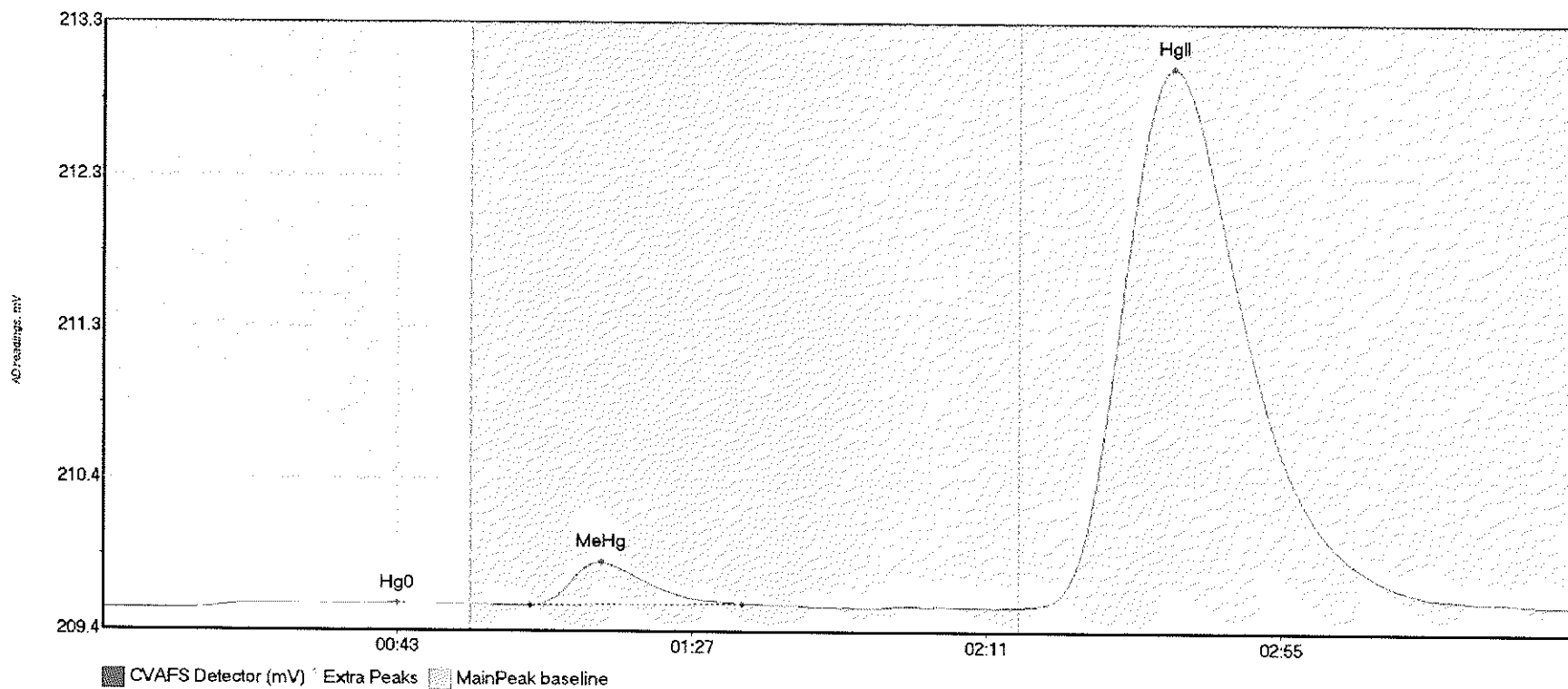
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	4.401	17.2	51.3	209.52	209.53	46.1	0.025	OK	209.5221	0.00	0.01	
SEQ-CCB6 HgII	3.239	148.1	176.2	209.52	209.53	163.1	0.023	OK	209.5221	0.00	0.01	017

#83: 1707771-BJ



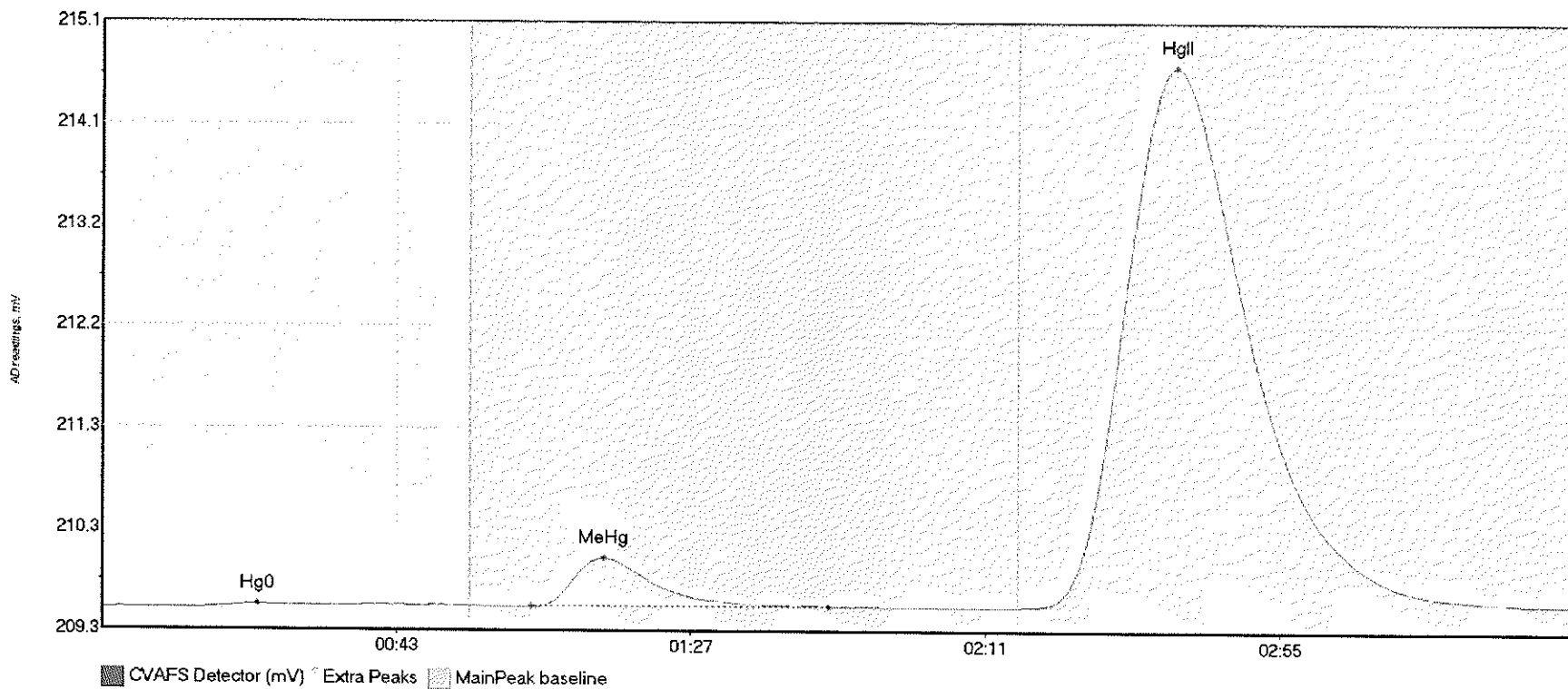
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BJ Hg0	4.463	16.0	53.2	209.53	209.54	26.6	0.024	OK	209.5262	0.00	0.01	
1707771-BJ MeHg	52.031	63.3	100.0	209.54	209.54	74.5	0.394	OK	209.5262	0.00	0.01	
1707771-BJ HgII	479.274	138.1	219.8	209.53	209.54	159.9	2.237	CT	209.5262	0.00	0.01	

#84: 1707771-BK



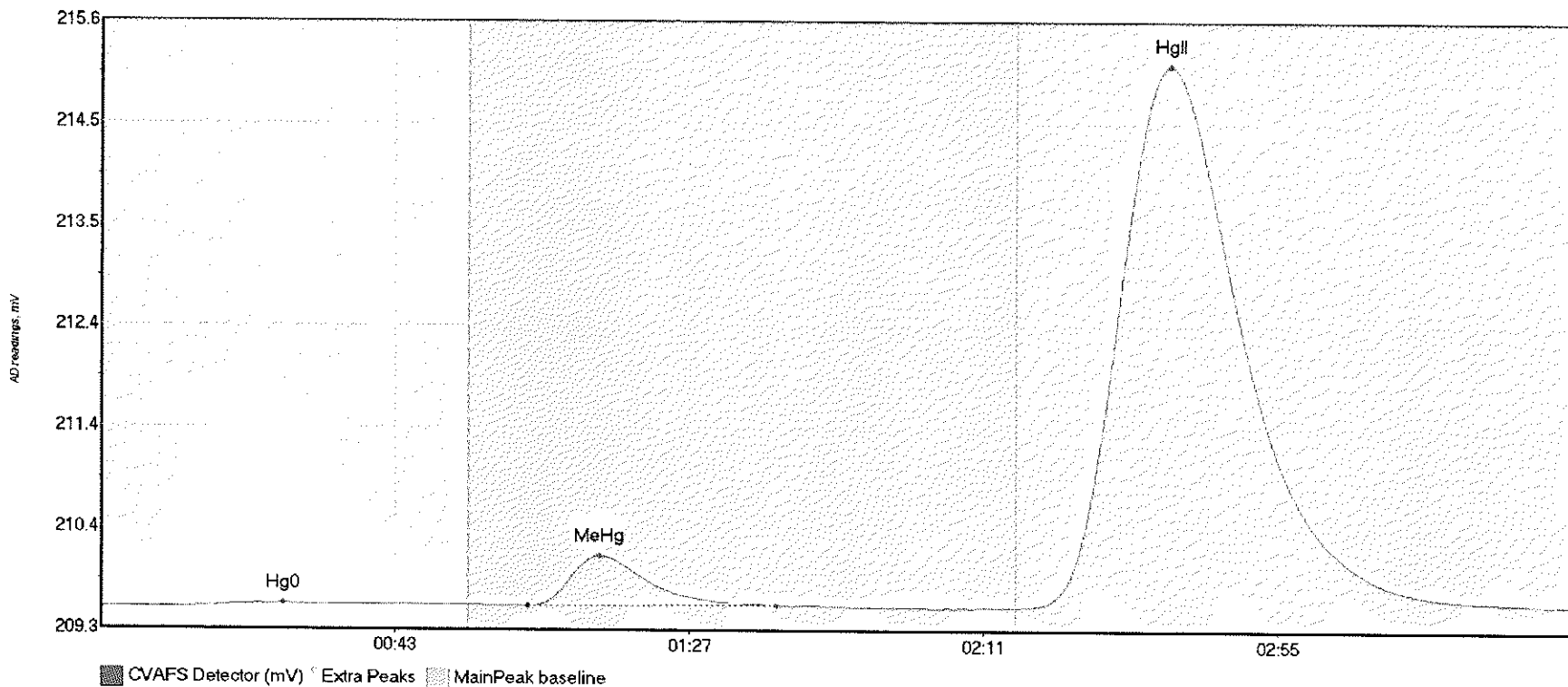
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BK Hg0	3.924	15.6	49.7	209.54	209.56	44.0	0.031	OK	209.5350	0.00	0.03	
1707771-BK MeHg	34.910	63.9	95.4	209.56	209.57	74.5	0.277	OK	209.5350	0.00	0.03	
1707771-BK HgII	739.756	137.8	219.8	209.55	209.57	159.9	3.457	CT	209.5350	0.00	0.03	

#85: 1707771-BN



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BN Hg0	7.025	12.5	54.8	209.54	209.57	23.3	0.040	OK	209.5423	0.00	0.05	
1707771-BN MeHg	62.158	64.2	108.6	209.56	209.57	75.0	0.457	OK	209.5423	0.00	0.05	
1707771-BN HgII	1086.473	138.6	219.8	209.57	209.60	160.4	5.103	CT	209.5423	0.00	0.05	

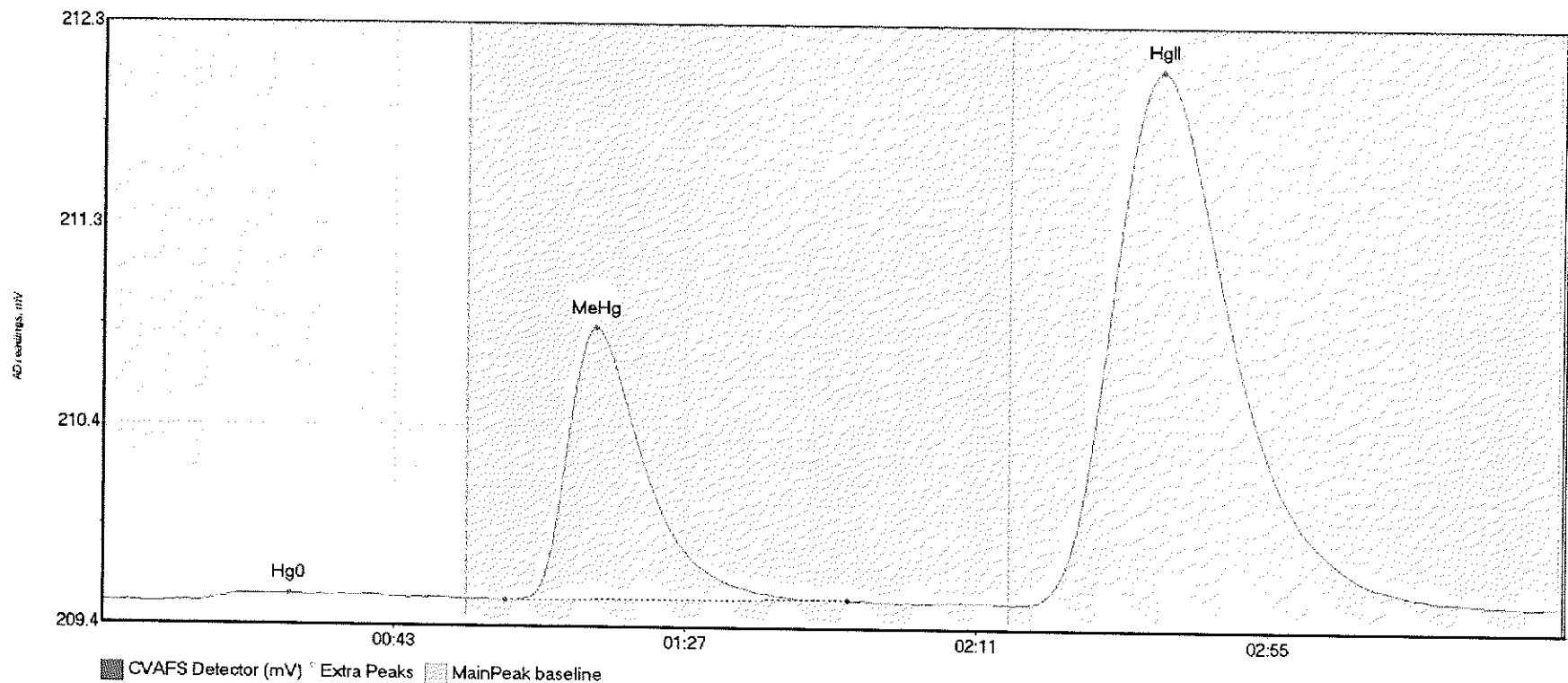
#86: 1707771-BO



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BO Hg0	6.354	12.2	52.6	209.54	209.57	27.3	0.040	OK	209.5423	0.00	0.04	
1707771-BO MeHg	66.708	63.9	101.0	209.56	209.57	74.6	0.512	OK	209.5423	0.00	0.04	
1707771-BO HgII	1171.672	138.5	219.8	209.56	209.58	159.9	5.557	CT	209.5423	0.00	0.04	

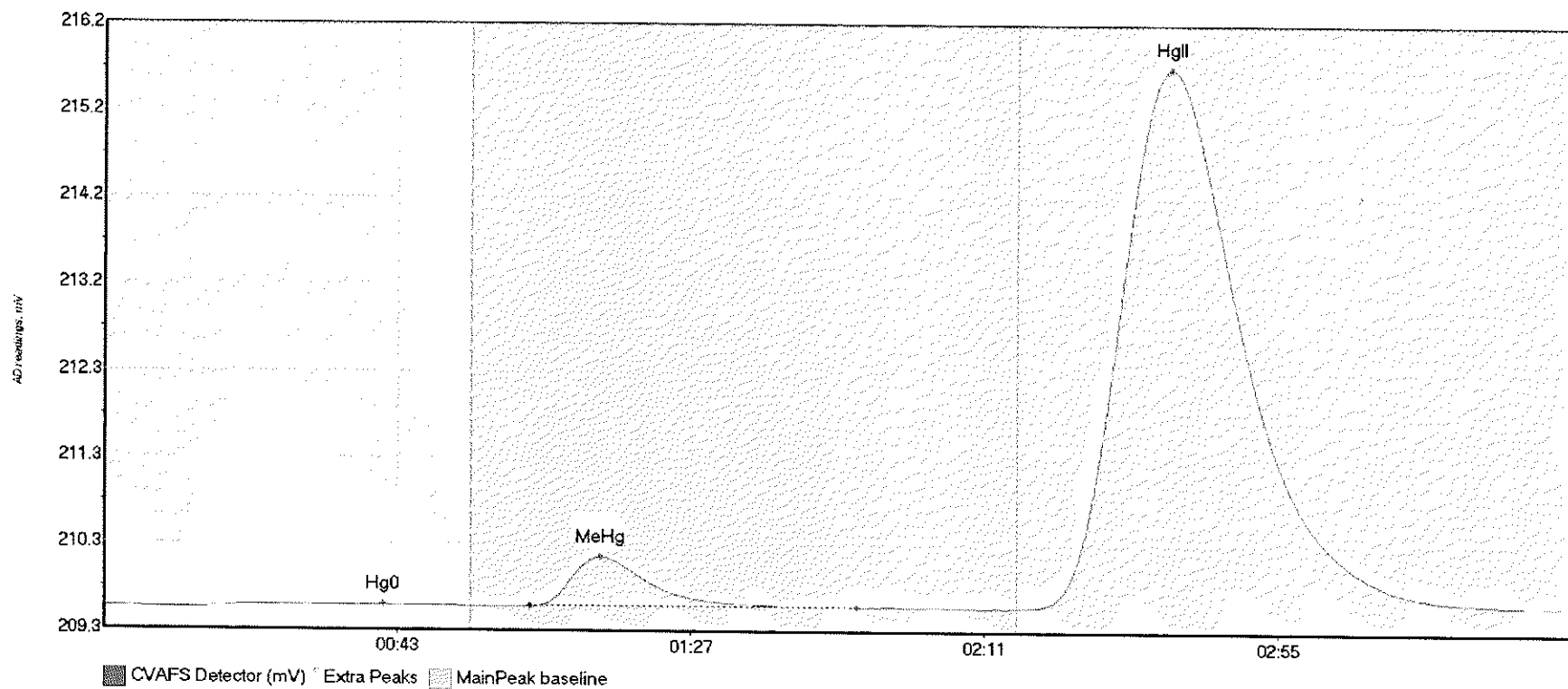


#87: 1707771-BP



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BP Hg0	7.454	14.3	55.0	209.54	209.56	28.1	0.039	CT	209.5351	0.00	0.02	
1707771-BP MeHg	173.800	60.9	112.6	209.55	209.56	74.5	1.291	OK	209.5351	0.00	0.02	
1707771-BP HgII	531.362	139.2	215.0	209.55	209.55	159.9	2.524	OK	209.5351	0.00	0.02	

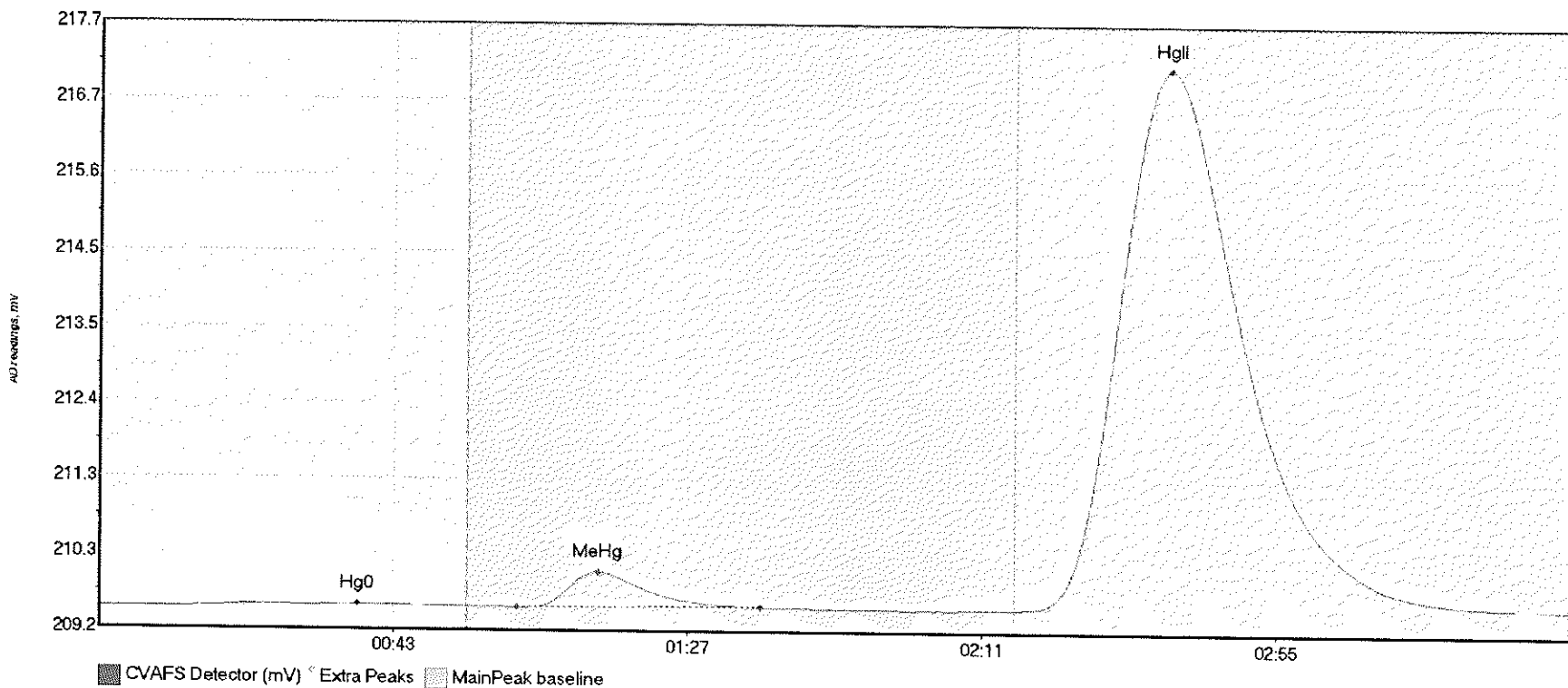
#88: 1707771-BQ



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BQ Hg0	7.947	14.5	54.1	209.53	209.55	41.9	0.039	OK	209.5417	0.00	0.04	
1707771-BQ MeHg	76.593	63.9	112.9	209.55	209.56	74.4	0.567	OK	209.5417	0.00	0.04	
1707771-BQ HgII	1290.349	137.9	215.0	209.55	209.58	159.8	6.169	OK	209.5417	0.00	0.04	

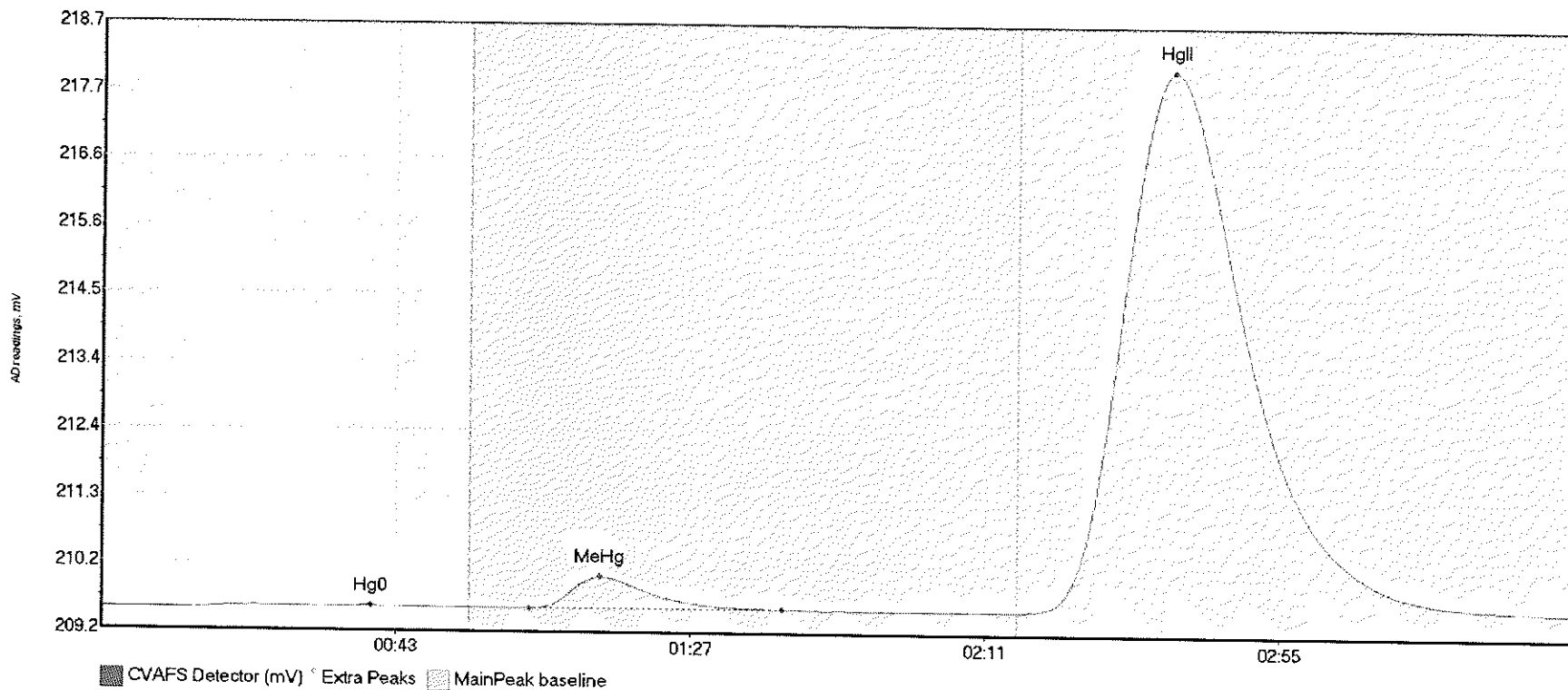
017

#89: 1707771-BR



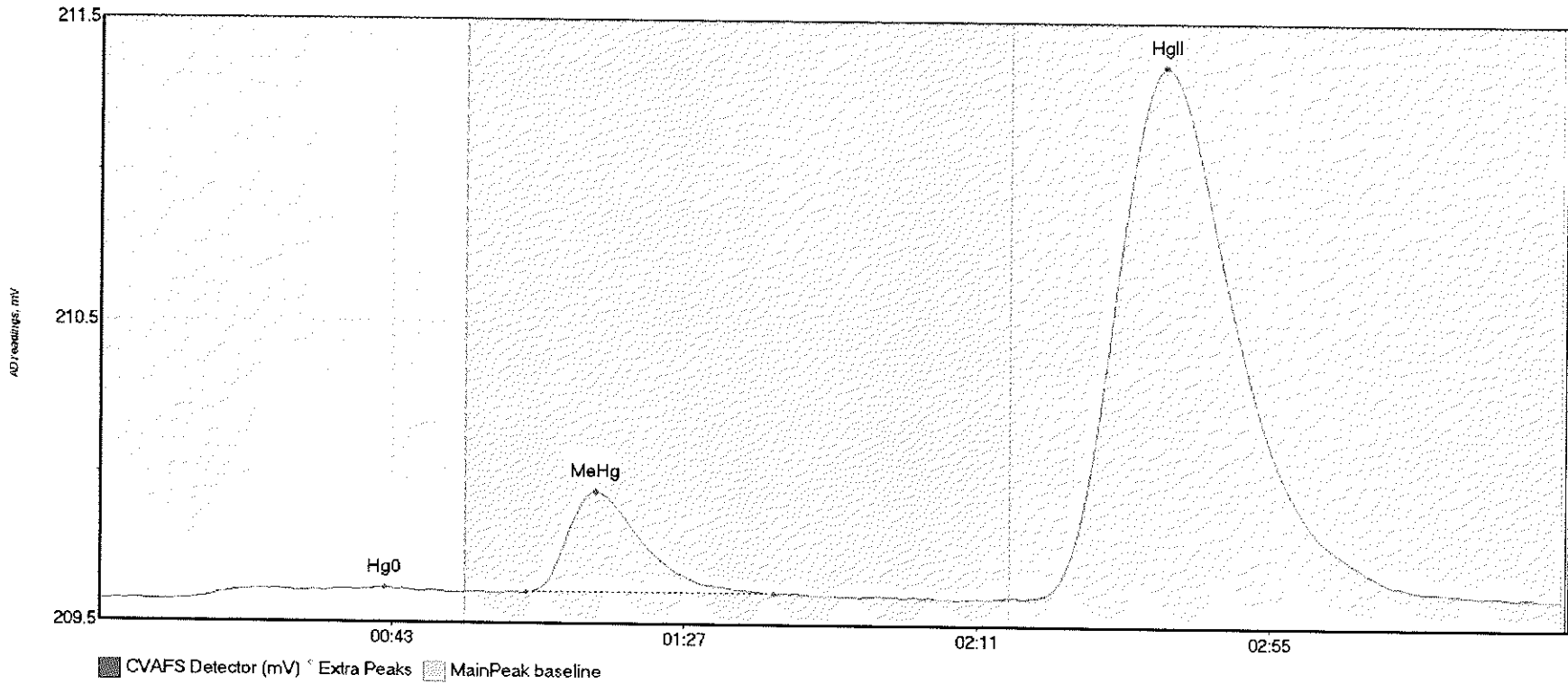
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BR Hg0	6.406	5.9	54.5	209.53	209.56	38.6	0.043	OK	209.5219	0.00	0.06	
1707771-BR MeHg	63.488	62.4	98.9	209.54	209.56	74.6	0.498	OK	209.5219	0.00	0.06	
1707771-BR HgII	1600.868	136.8	219.8	209.54	209.59	160.1	7.585	CT	209.5219	0.00	0.06	

#90: 1707771-BS



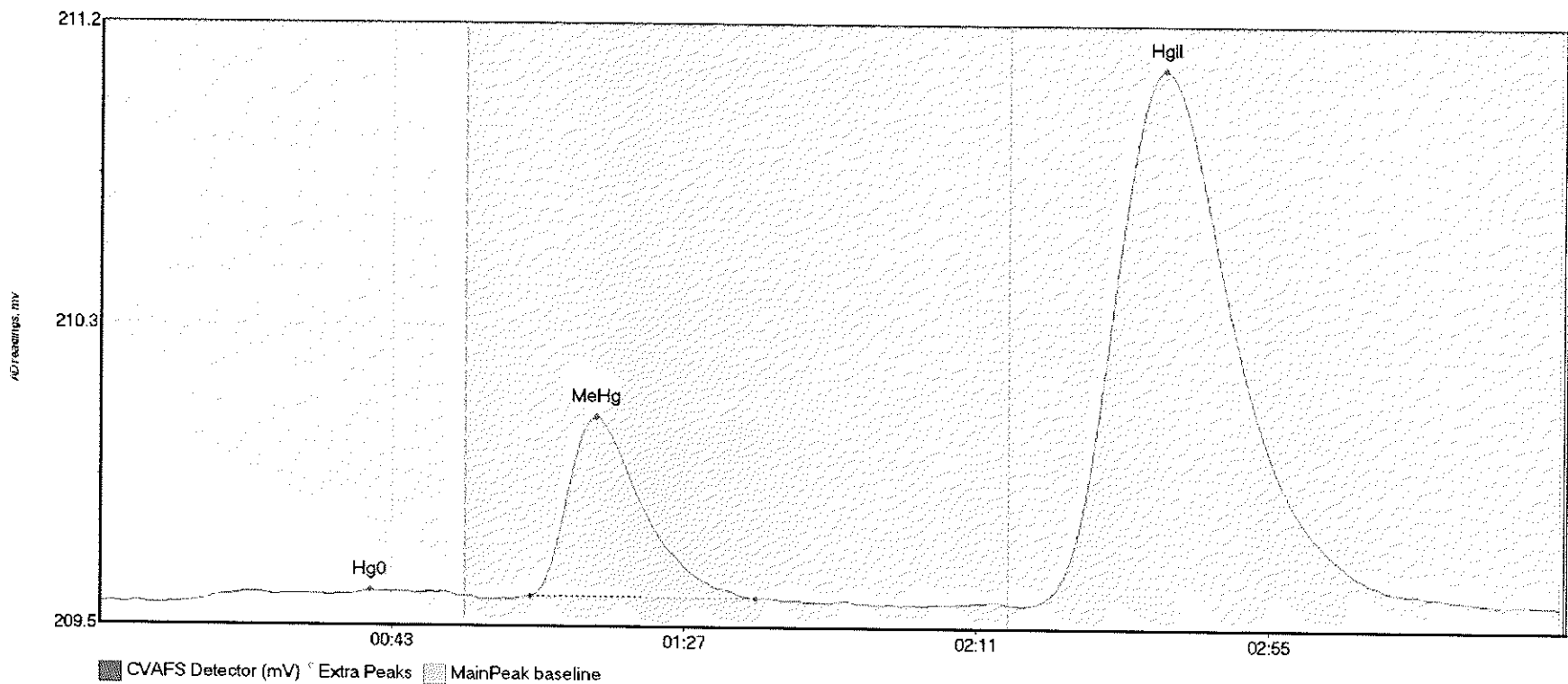
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BS Hg0	7.118	8.3	52.9	209.52	209.55	40.3	0.047	OK	209.5232	0.00	0.06	
1707771-BS MeHg	65.761	64.0	101.8	209.55	209.56	74.5	0.502	OK	209.5232	0.00	0.06	
1707771-BS HgII	1805.720	136.9	219.8	209.54	209.59	160.1	8.519	CT	209.5232	0.00	0.06	

#91: 1707771-BT



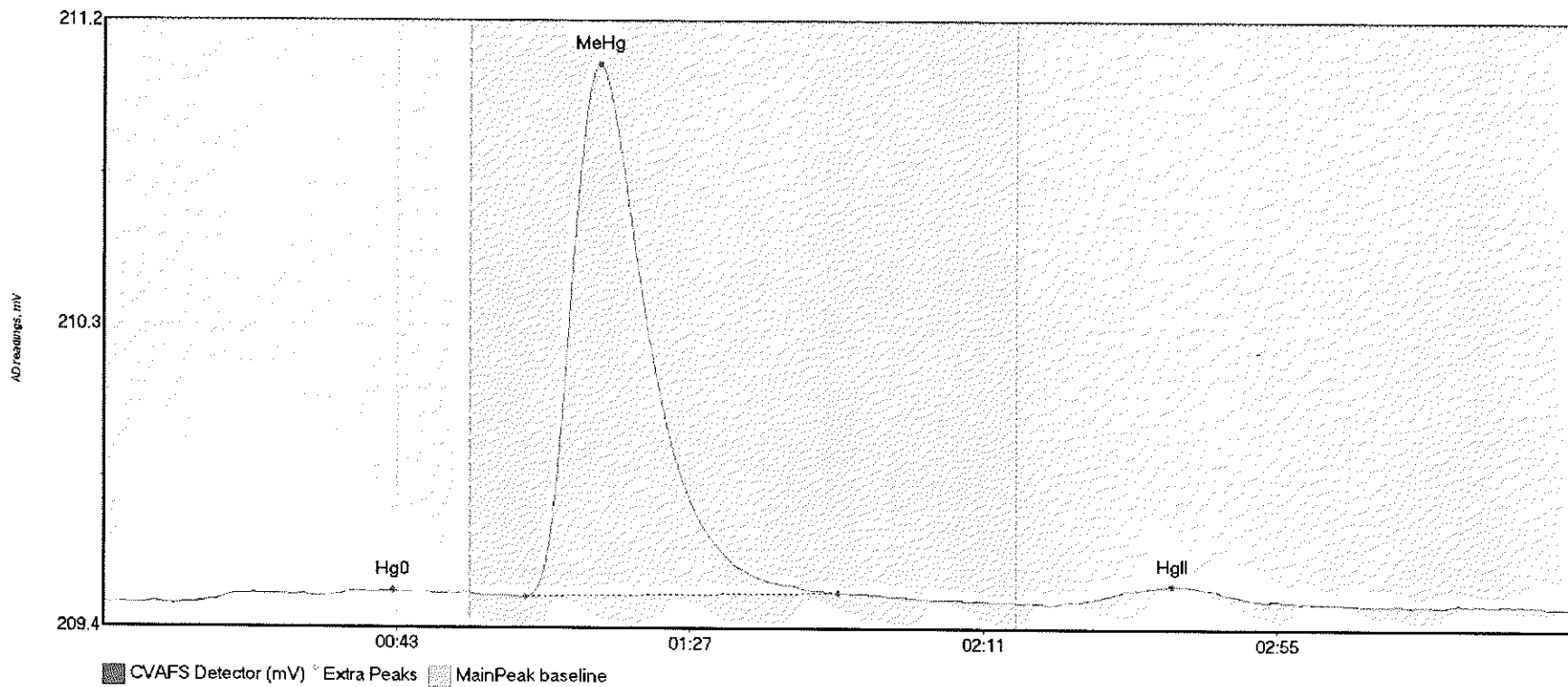
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1707771-BT Hg0	6.597	13.4	53.5	209.53	209.55	42.8	0.038	OK	209.5261	0.00	0.03	
1707771-BT MeHg	44.036	64.1	101.4	209.56	209.56	74.6	0.335	OK	209.5261	0.00	0.03	
1707771-BT HgII	374.085	140.8	218.0	209.55	209.55	160.1	1.765	OK	209.5261	0.00	0.03	017

#92: 1707771-BU



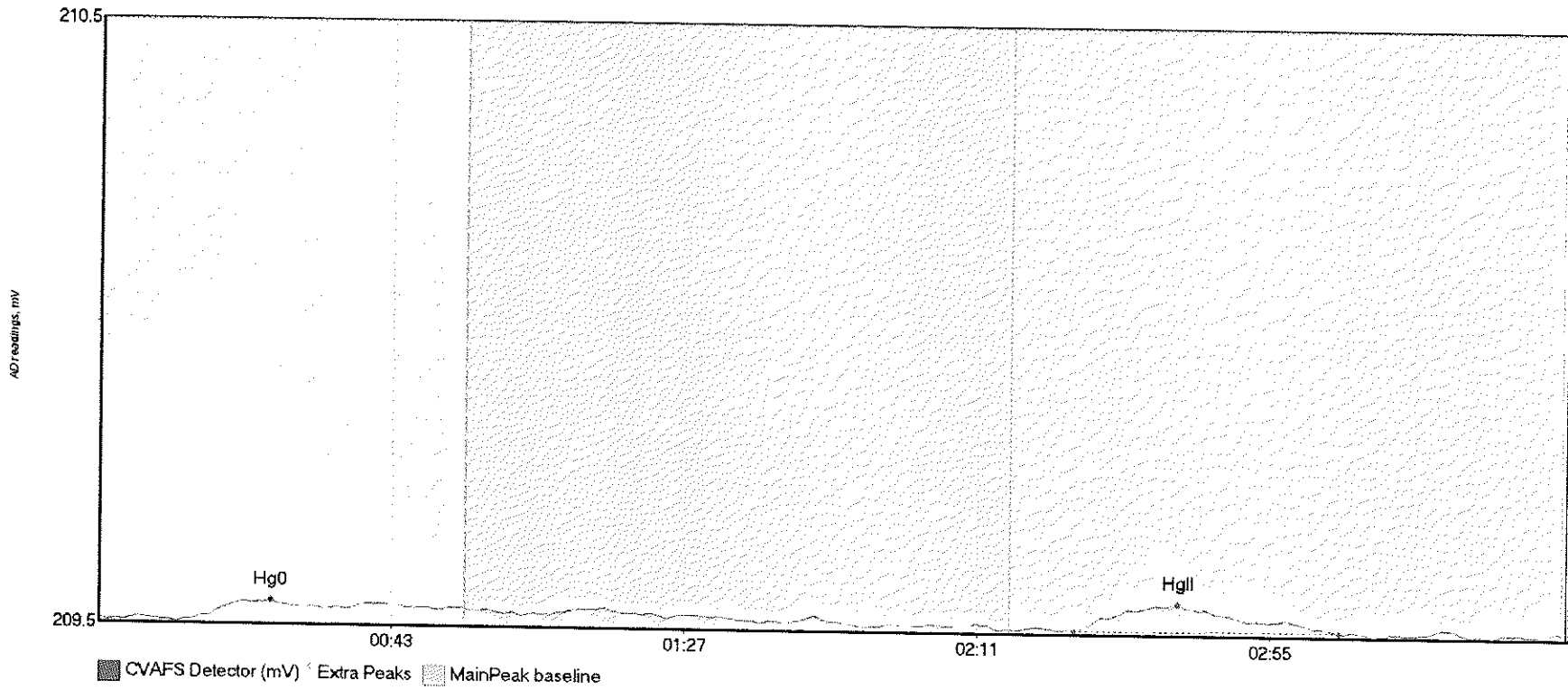
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-BU Hg0	5.315	14.0	54.5	209.53	209.55	40.7	0.031	OK	209.5285	0.00	0.01	
1707771-BU MeHg	66.905	64.8	98.7	209.55	209.55	74.8	0.518	OK	209.5285	0.00	0.01	
1707771-BU HgII	327.308	139.7	216.4	209.53	209.54	160.2	1.549	OK	209.5285	0.00	0.01	017

#93: SEQ-CCV7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV7 Hg0	3.955	13.1	50.8	209.51	209.54	43.4	0.036	OK	209.5101	0.00	-0.01	
SEQ-CCV7 MeHg	211.682	63.3	110.1	209.53	209.54	74.4	1.575	OK	209.5101	0.00	-0.01	
SEQ-CCV7 HgII	7.819	145.9	178.0	209.52	209.52	160.3	0.050	OK	209.5101	0.00	-0.01	

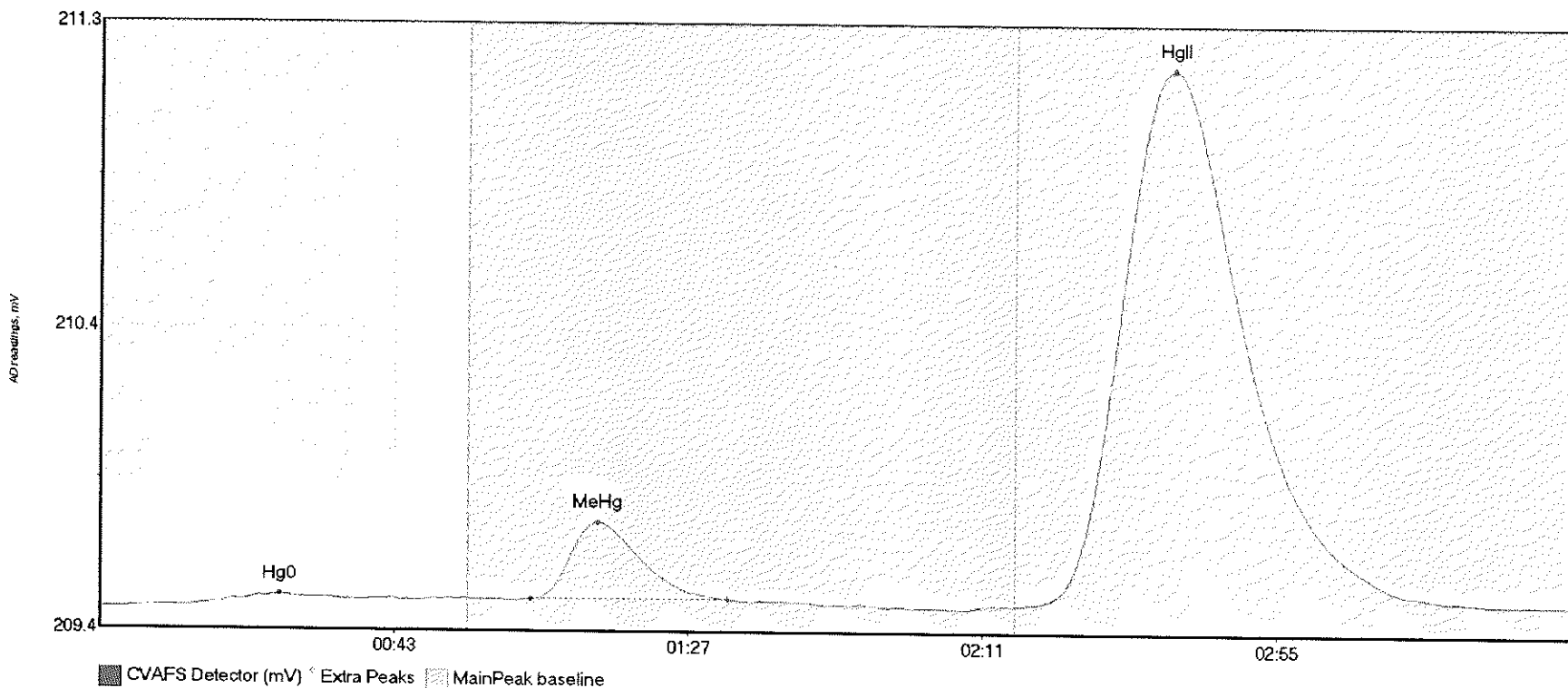
#94: SEQ-CCB7



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB7 Hg0	2.392	13.6	34.3	209.50	209.52	25.8	0.032	OK	209.5030	0.00	0.00	
SEQ-CCB7 HgII	9.380	146.6	186.3	209.50	209.50	162.2	0.045	OK	209.5030	0.00	0.00	017

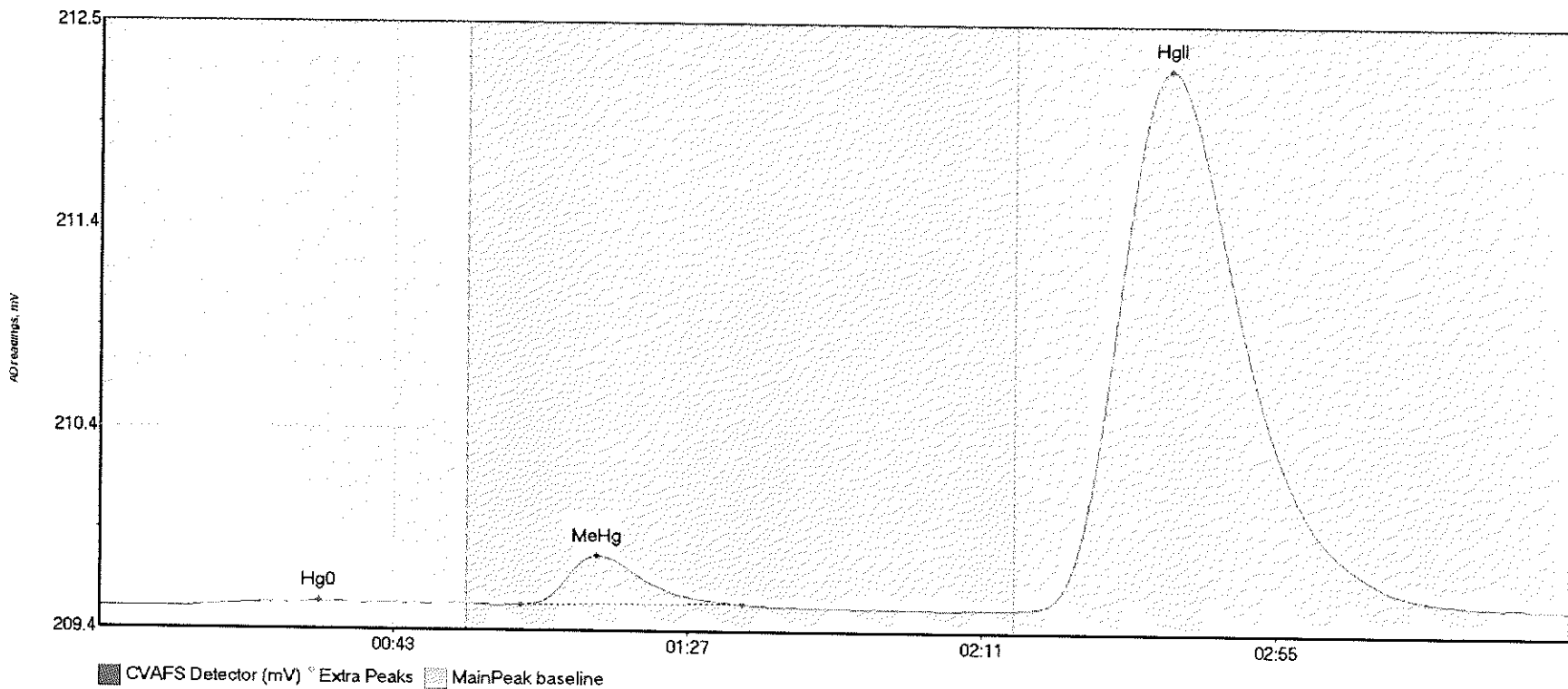


#95: 1707771-BZ



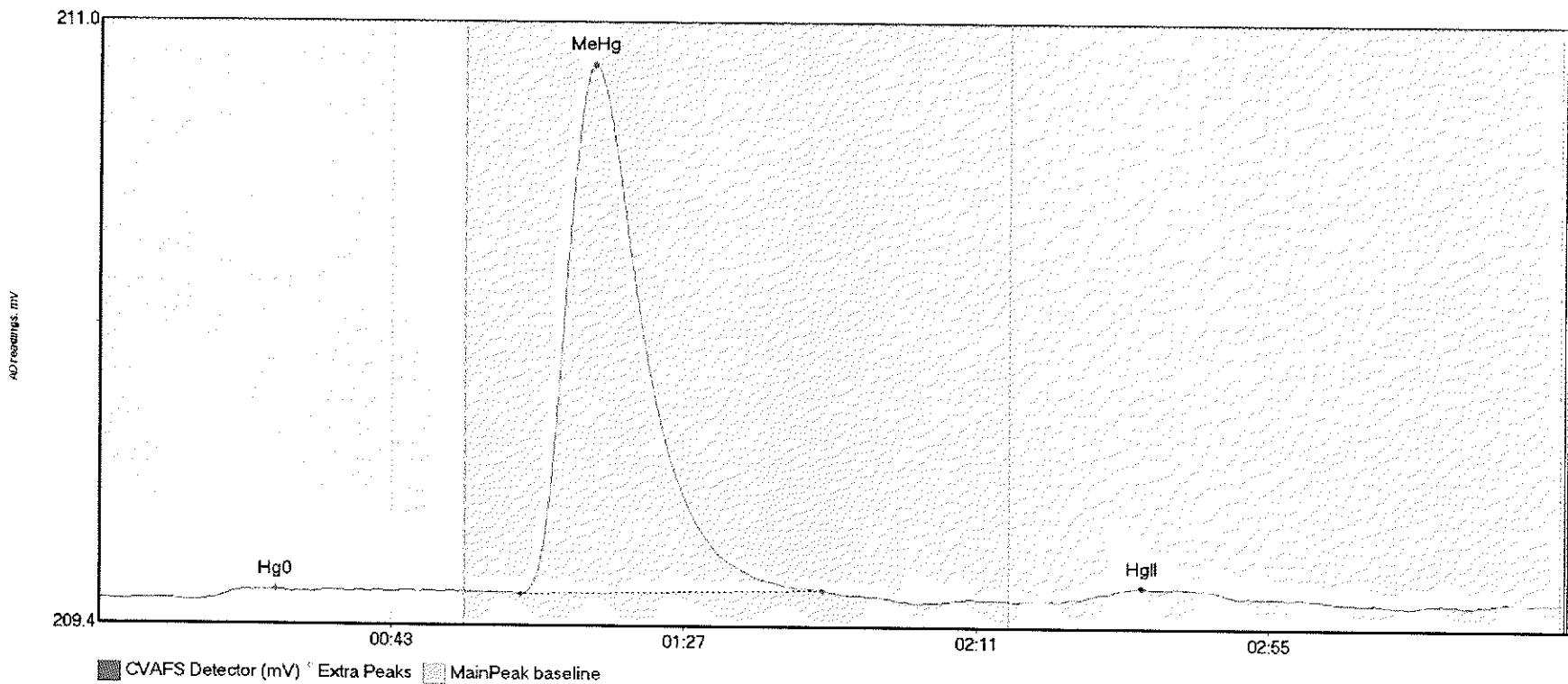
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
1707771-BZ Hg0	2.912	5.8	38.8	209.49	209.52	26.8	0.038	OK	209.4901	0.00	0.03	
1707771-BZ MeHg	28.665	64.5	93.9	209.52	209.52	74.5	0.241	OK	209.4901	0.00	0.03	
1707771-BZ HgII	352.784	139.5	219.8	209.51	209.52	160.4	1.672	CT	209.4901	0.00	0.03	

#96: 1707771-CA



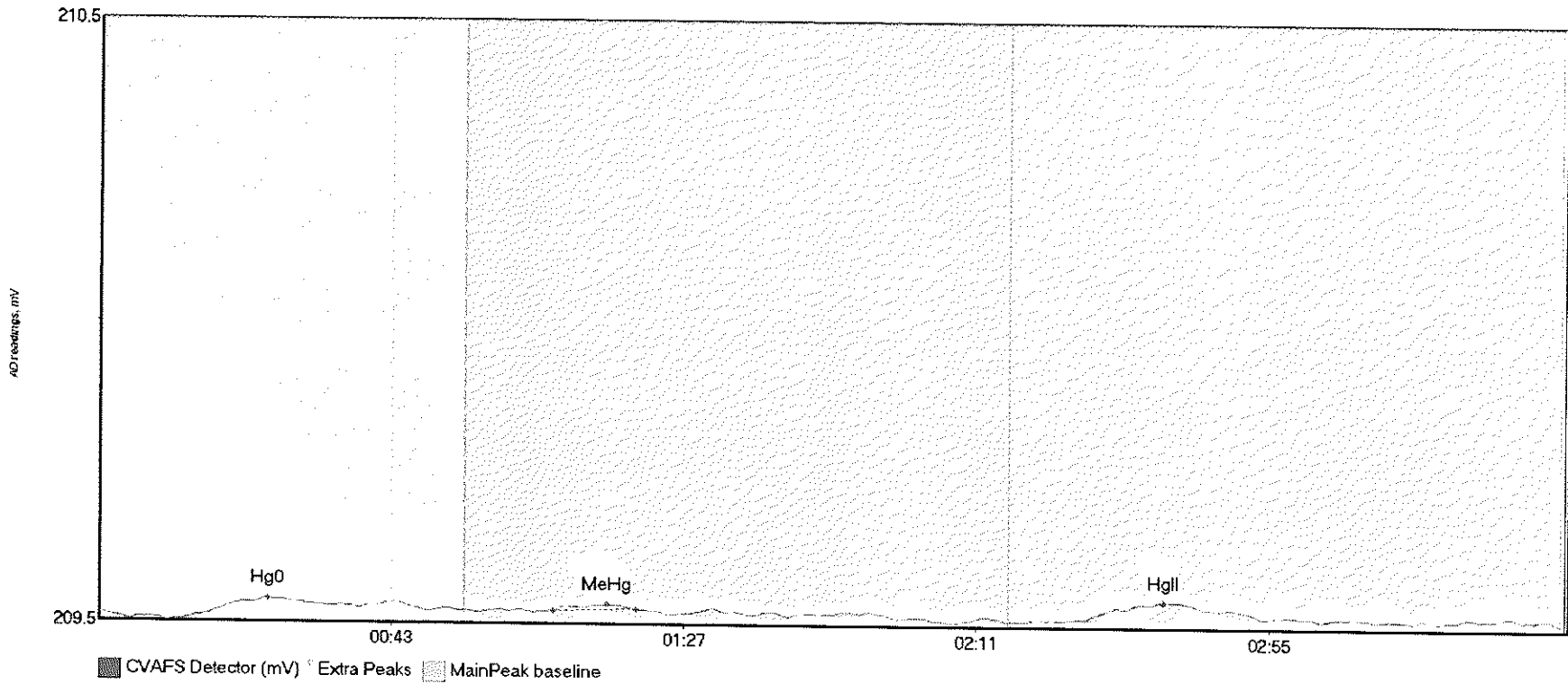
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1707771-CA Hg0	3.474	14.1	49.2	209.50	209.52	32.8	0.027	OK	209.4998	0.00	0.02	
1707771-CA MeHg	32.339	63.0	96.1	209.51	209.52	74.4	0.251	OK	209.4998	0.00	0.02	
1707771-CA HgII	587.702	138.5	219.7	209.51	209.52	160.1	2.727	OK	209.4998	0.00	0.02	

#97: SEQ-CCV8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCV8 Hg0	1.372	17.4	32.0	209.49	209.51	26.6	0.023	OK	209.4926	0.00	0.00	
SEQ-CCV8 MeHg	183.905	63.5	108.9	209.51	209.52	74.4	1.369	OK	209.4926	0.00	0.00	
SEQ-CCV8 HgII	6.980	144.4	183.5	209.49	209.50	156.9	0.037	OK	209.4926	0.00	0.00	

#98: SEQ-CCB8



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CCB8 Hg0	4.684	15.4	49.4	209.48	209.49	25.4	0.028	OK	209.4850	0.00	0.00	
SEQ-CCB8 MeHg	0.742	68.3	80.7	209.49	209.50	76.4	0.011	OK	209.4850	0.00	0.00	
SEQ-CCB8 HgII	5.350	148.2	183.3	209.48	209.48	160.1	0.030	OK	209.4850	0.00	0.00	017

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

8B00079

PO#

C012505850

February 15, 2018

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 8B00079

### Table of Contents

February 15, 2018

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	22
Notes and Definitions	26
Raw Data: 8B14010	27

**Total Pages – 65**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_18WT001_013018_ABD_01_BL	8B00079-01	Tissue	30-Jan-18 13:31	02-Feb-18 09:50
FRB-01_18WT001_013018_ABD_02_BL	8B00079-02	Tissue	30-Jan-18 13:47	02-Feb-18 09:50
FRB-01_18WT001_013018_ABD_03_BL	8B00079-03	Tissue	30-Jan-18 13:58	02-Feb-18 09:50
FRB-01_18WT001_013018_ABD_04_BL	8B00079-04	Tissue	30-Jan-18 14:16	02-Feb-18 09:50
FRB-01_18WT001_013018_ABD_05_BL	8B00079-05	Tissue	30-Jan-18 14:28	02-Feb-18 09:50
FRB-OCN_18WT001_013018_ABD_06_BL	8B00079-06	Tissue	30-Jan-18 14:45	02-Feb-18 09:50
FRB-OCN_18WT001_013018_ABD_07_BL	8B00079-07	Tissue	30-Jan-18 14:55	02-Feb-18 09:50
FRB-OCN_18WT001_013018_ABD_08_BL	8B00079-08	Tissue	30-Jan-18 15:05	02-Feb-18 09:50
FRB-OCN_18WT001_013018_ABD_09_BL	8B00079-09	Tissue	30-Jan-18 15:20	02-Feb-18 09:50
FRB-OCN_18WT001_013018_ABD_10_BL	8B00079-10	Tissue	30-Jan-18 15:25	02-Feb-18 09:50
FRB-OCN_18WT001_013018_ABD_11_BL	8B00079-11	Tissue	30-Jan-18 15:35	02-Feb-18 09:50
FRB-OCN_18WT001_013018_ABD_12_BL	8B00079-12	Tissue	30-Jan-18 15:45	02-Feb-18 09:50
FRB-01_18WT001_013118_ABD_13_BL	8B00079-13	Tissue	31-Jan-18 15:30	02-Feb-18 09:50
FRB-01_18WT001_013118_ABD_14_BL	8B00079-14	Tissue	31-Jan-18 15:40	02-Feb-18 09:50
FRB-01_18WT001_013118_ABD_15_BL	8B00079-15	Tissue	31-Jan-18 15:45	02-Feb-18 09:50
FRB-01_013118_BAIT_01_QC	8B00079-16	Tissue	31-Jan-18 18:00	02-Feb-18 09:50

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King**Reported:**  
15-Feb-18 10:59

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/2/2018 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at -62.5 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 batch F802192 and analyzed in Sequence 8B14010. Sample 8B00079-06 was used as the QC source in batch F802192.

## 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

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

definitions section of the report.

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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

### Sample Receipt Checklist

Client: AMBC Foster Wheeler

Date & Time Received: 2/2/18 9:50 Date Labeled: 2/2/18 Labeled By: LM

Project: \_\_\_\_\_

Received By: LM Label Verified By: B

# 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>170-104186</u> CF: <u>+0.1 °C</u> Date/time: <u>2/2/18 9:50</u> By: <u>LM</u>
Cooler 1: <u>-62.62 °C</u> w/ CF: <u>-62.52 °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>Y</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):

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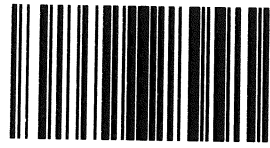
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**8B00079**



8800079



Frontier Global Sciences

# Environmental Analysis Request/Chain of Custody

Client: <b>AmeC Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101</b>				<b>Matrix</b>				<b>Analyses Requested</b>				<b>For Lab Use Only</b>											
Project Name#: <b>USDC Penobscot</b>				<input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Water <input type="checkbox"/> Blood <input type="checkbox"/> Other: <b>Corn</b>				<b>Preservation Codes</b>				SF #: _____											
Project Manager: <b>Rod Pendleton</b>				P.O. #: <b>C012505850</b>								SCR #: _____											
Sampler: <b>LSV/ KCB</b>				PWSID #: _____								<b>Preservation Codes</b> H = HCl      T = Thiou sulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other											
Phone #: _____				Quote #: _____																			
State where samples were collected: <b>ME</b>				For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																			
Sample Identification		Collection		Grab	Composite	Soil	Sediment	Tissue	Water	Other:	Other:	Total # of Containers	Hg 1631e/ Lipid 1991a Zipbag Freeze	Hg 1631e cap tubes (70uL) / Frozen	Hg 1631e zip bag / Frozen							Remarks	
Date	Time																						
1	FRB-01_18WT001_013018_ABD_01_BL	1/30/2018	13:31	X						X		1		X									4.0 Cap tubes
2	FRB-01_18WT001_013018_ABD_02_BL	1/30/2018	13:47	X						X		1		X									3.0 Cap tubes
3	FRB-01_18WT001_013018_ABD_03_BL	1/30/2018	13:58	X						X		1		X									5.0 Cap tubes
4	FRB-01_18WT001_013018_ABD_04_BL	1/30/2018	14:16	X						X		1		X									4.0 Cap tubes
5	FRB-01_18WT001_013018_ABD_05_BL	1/30/2018	14:28	X						X		1		X									4.0 Cap tubes
6	FRB-OCN_18WT001_013018_ABD_06_BL	1/30/2018	14:45	X						X		1		X									5 Cap tubes; Use volume for MS/MSD
7	FRB-OCN_18WT001_013018_ABD_07_BL	1/30/2018	14:55	X						X		1		X									4 Cap tubes
8	FRB-OCN_18WT001_013018_ABD_08_BL	1/30/2018	15:05	X						X		1		X									5 Cap tubes
9	FRB-OCN_18WT001_013018_ABD_09_BL	1/30/2018	15:20	X						X		1		X									4 Cap tubes
10	FRB-OCN_18WT001_013018_ABD_10_BL	1/30/2018	15:25	X						X		1		X									3.5 Cap tubes broken tubes
11	FRB-OCN_18WT001_013018_ABD_11_BL	1/30/2018	15:35	X						X		1		X									3.5 Cap tubes
12	FRB-OCN_18WT001_013018_ABD_12_BL	1/30/2018	15:45	X						X		1		X									2.5 Cap tubes
13	FRB-01_18WT001_013118_ABD_13_BL	1/31/2018	15:30	X						X		1		X									3 Cap tubes
14	FRB-01_18WT001_013118_ABD_14_BL	1/31/2018	15:40	X						X		1		X									3 Cap tubes
15	FRB-01_18WT001_013118_ABD_15_BL	1/31/2018	15:45	X						X		1		X									3 Cap tubes
16	FRB-01_013118_BAIT_01_QC	1/31/2018	1800	X							X	1		X									bait corn
17																							
18																							
19																							
20																							
Turnaround Time Requested (TAT) (please check):				Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: <b>Kendra Bavor</b>				Date: <b>21/2018</b>		Time: <b>1630</b>		Received by: <b>[Signature]</b>		Date: <b>2/2/18</b>		Time: <b>9:50</b>			
Notes: MS/MD volume noted in Remarks.								Relinquished by:				Date:		Time:		Received by: <b>Lars Mitter</b>		Date:		Time:			
FedEx # <b>810426642018</b>								Relinquished by:				Date:		Time:		Received by: <b>[Signature]</b>		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								Relinquished by:				Date:		Time:		Received by: <b>[Signature]</b>		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 checked="" type="checkbox"/> Other _____								Date:		Time:		Received by:		Date:		Time:			
																Temperature upon receipt <b>-62.52 °C</b>							

Seal: Yes



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013018\_ABD\_01\_BL**  
**8B00079-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EPA 1631B**

Mercury	56.5	0.917	8.18	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	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.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013018\_ABD\_02\_BL  
8B00079-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	55.8	0.669	5.97	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013018\_ABD\_03\_BL**  
**8B00079-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	63.9	2.29	20.4	ng/g	400	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013018\_ABD\_04\_BL  
8B00079-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	22.9	0.526	4.70	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013018\_ABD\_05\_BL**  
**8B00079-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	21.3	0.597	5.33	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	





AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-OCN\_18WT001\_013018\_ABD\_06\_BL**  
**8B00079-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	52.0	0.567	5.06	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-OCN\_18WT001\_013018\_ABD\_07\_BL**  
**8B00079-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	86.1	0.475	4.24	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-OCN\_18WT001\_013018\_ABD\_08\_BL**  
**8B00079-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	70.3	0.455	4.06	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-OCN\_18WT001\_013018\_ABD\_09\_BL**  
**8B00079-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	80.4	0.450	4.01	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-OCN\_18WT001\_013018\_ABD\_10\_BL**  
**8B00079-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	52.7	0.613	5.47	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-OCN\_18WT001\_013018\_ABD\_11\_BL**  
**8B00079-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	62.0	0.581	5.18	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-OCN\_18WT001\_013018\_ABD\_12\_BL**  
**8B00079-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	49.0	1.07	9.51	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013118\_ABD\_13\_BL**  
**8B00079-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	33.9	0.930	8.31	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013118\_ABD\_14\_BL  
8B00079-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	62.7	0.922	8.23	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

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Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_18WT001\_013118\_ABD\_15\_BL  
8B00079-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	54.6	0.676	6.03	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**FRB-01\_013118\_BAIT\_01\_QC**  
**8B00079-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	0.165	0.082	0.730	ng/g	20	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	J

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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.054 Project Manager: Denise King	Reported: 15-Feb-18 10:59
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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
<b>Batch 8B14010 - F802192</b>											
<b>Cal Standard (8B14010-CAL1)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	0.502	-		ng/L	0.50200		99.9				
<b>Cal Standard (8B14010-CAL2)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	1.017	-		ng/L	1.0040		101				
<b>Cal Standard (8B14010-CAL3)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	5.031	-		ng/L	5.0200		100				
<b>Cal Standard (8B14010-CAL4)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	19.63	-		ng/L	20.080		97.8				
<b>Cal Standard (8B14010-CAL5)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	39.66	-		ng/L	40.160		98.7				
<b>Calibration Blank (8B14010-CCB1)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	0.026	-		ng/L							
<b>Calibration Blank (8B14010-CCB2)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	0.144	-		ng/L							
<b>Calibration Blank (8B14010-CCB3)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	0.033	-		ng/L							
<b>Calibration Blank (8B14010-CCB4)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	0.107	-		ng/L							
<b>Calibration Blank (8B14010-CCB5)</b> Prepared & Analyzed: 13-Feb-18											
Mercury	0.073	-		ng/L							

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

Reported:  
15-Feb-18 10:59

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 8B14010 - F802192

<b>Calibration Blank (8B14010-CCB6)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.179	-		ng/L							
<b>Calibration Blank (8B14010-CCB7)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.118	-		ng/L							
<b>Calibration Blank (8B14010-CCB8)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.164	-		ng/L							
<b>Calibration Check (8B14010-CCV1)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.210	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (8B14010-CCV2)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.269	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (8B14010-CCV3)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.085	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (8B14010-CCV4)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.272	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (8B14010-CCV5)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.309	-		ng/L	5.0000		106	77-123			
<b>Calibration Check (8B14010-CCV6)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.450	-		ng/L	5.0000		109	77-123			
<b>Calibration Check (8B14010-CCV7)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.298	-		ng/L	5.0000		106	77-123			

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AMEC Foster Wheeler 271 Mill Road Chelmsford MA, 01824	Project: 2017 Penobscot Biota Project Number: 3616166052.04A.054 Project Manager: Denise King	Reported: 15-Feb-18 10:59
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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 8B14010 - F802192

Calibration Check (8B14010-CCV8) Prepared & Analyzed: 13-Feb-18

Mercury	5.443	-		ng/L	5.0000		109	77-123			
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Instrument Blank (8B14010-IBL1) Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (8B14010-IBL2) Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (8B14010-IBL3) Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (8B14010-ICV1) Prepared & Analyzed: 13-Feb-18

Mercury	5.323	-		ng/L	5.0000		106	79-121			
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Batch F802192 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F802192-BLK1) Prepared: 07-Feb-18 Analyzed: 13-Feb-18

Mercury	0.122	0.090	0.800	ng/g							J
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Blank (F802192-BLK2) Prepared: 07-Feb-18 Analyzed: 13-Feb-18

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F802192-BLK3) Prepared: 07-Feb-18 Analyzed: 13-Feb-18

Mercury	ND	0.090	0.800	ng/g							U
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Blank (F802192-BLK4) Prepared: 07-Feb-18 Analyzed: 13-Feb-18

Mercury	ND	0.087	0.775	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.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**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 F802192 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F802192-BLK5)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	ND	0.082	0.730	ng/g							F-03, U
<b>LCS (F802192-BS1)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	7.631	0.090	0.800	ng/g	8.0160		95.2	75-125			
<b>LCS (F802192-BS2)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	354.3	3.52	31.4	ng/g	382.50		92.6	75-125			
<b>LCS Dup (F802192-BSD1)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	7.807	0.090	0.800	ng/g	8.0160		97.4	75-125	2.29	24	
<b>Duplicate (F802192-DUP1)</b>					<b>Source: 8B00080-04</b>		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	236.2	1.46	13.0	ng/g		237.9			0.702	24	
<b>Matrix Spike (F802192-MS1)</b>					<b>Source: 8B00079-06</b>		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	1768	7.79	69.6	ng/g	1739.1	52.02	98.7	71-125			
<b>Matrix Spike (F802192-MS2)</b>					<b>Source: 8B00080-01</b>		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	1856	5.84	52.2	ng/g	1303.8	459.2	107	71-125			
<b>Matrix Spike Dup (F802192-MSD1)</b>					<b>Source: 8B00079-06</b>		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	2103	9.16	81.8	ng/g	2045.0	52.02	100	71-125	1.64	24	
<b>Matrix Spike Dup (F802192-MSD2)</b>					<b>Source: 8B00080-01</b>		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	1874	6.06	54.1	ng/g	1353.2	459.2	105	71-125	2.43	24	

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271 Mill Road  
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Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 10:59

**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.
- 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: February 13, 2018

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 8B14009, 8B14010

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	132.65 units	265.30	117.61 units	235.23	100.3 %Rec
SEQ-CAL2	1	1.00 ng/L	253.53 units	253.53	238.50 units	238.50	101.7 %Rec
SEQ-CAL3	1	5.00 ng/L	1194.43 units	238.89	1179.39 units	235.88	100.6 %Rec
SEQ-CAL4	1	20.00 ng/L	4617.58 units	230.88	4602.54 units	230.13	98.2 %Rec
SEQ-CAL5	1	40.00 ng/L	9311.46 units	232.79	9296.43 units	232.41	99.1 %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**  
 234.43            +/- 3.24            1.4% RSD            244.28

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	15.03 units	±4.75	0.06 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	5.345 ng/L	±2.015
BLK	2	3	9.944 ng/L	±4.459
BLK	3	3	1.068 ng/L	±0.440
BLK	4	3	2.809 ng/L	±1.108
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: AL 2/14/18

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	2/13/2018 8:35:20	96553-1.RAW	8:35:20 AM	20.44			5.4	0.023	0.023	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	2/13/2018 8:39:28	96554-1.RAW	8:39:28 AM	13.15			-1.9	-0.008	-0.008	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	2/13/2018 8:43:37	96555-1.RAW	8:43:37 AM	11.52			-3.5	-0.015	-0.015	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	2/13/2018 8:47:45	96556-1.RAW	8:47:45 AM	132.65			117.6	0.502	0.502	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	2/13/2018 8:51:54	96557-1.RAW	8:51:54 AM	253.53			238.5	1.017	1.017	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	2/13/2018 8:56:02	96558-1.RAW	8:56:02 AM	1194.43			1179.4	5.031	5.031	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	2/13/2018 9:00:11	96559-1.RAW	9:00:11 AM	4617.58			4602.5	19.633	19.633	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	2/13/2018 9:04:20	96560-1.RAW	9:04:20 AM	9311.46			9296.4	39.656	39.656	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	2/13/2018 9:08:28	96561-1.RAW	9:08:28 AM	1262.90			1247.9	5.323	5.323	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 9:20:21	96562-1.RAW	9:20:21 AM	44.05		X	29.0	0.124	0.000	ng/L	
Hg2600-2	BC	BLK	F802235-BLK1	100	2/13/2018 9:24:29	96563-1.RAW	9:24:29 AM	32.90	1		17.9	0.076	7.619	ng/L	
Hg2600-2	BC	BLK	F802235-BLK2	100	2/13/2018 9:28:38	96564-1.RAW	9:28:38 AM	25.91	1		10.9	0.046	4.638	ng/L	
Hg2600-2	BC	BLK	F802235-BLK3	100	2/13/2018 9:32:46	96565-1.RAW	9:32:46 AM	23.89	1		8.9	0.038	3.779	ng/L	
Hg2600-2	BC	SAM	F802235-BS1	400	2/13/2018 9:36:55	96566-1.RAW	9:36:55 AM	1122.62	1		1107.6	4.711	1884.501	ng/L	
Hg2600-2	BC	SAM	F802235-BSD1	400	2/13/2018 9:41:03	96567-1.RAW	9:41:03 AM	1113.61	1		1098.6	4.673	1869.126	ng/L	
Hg2600-2	BC	SAM	8B00313-01	2500	2/13/2018 9:45:12	96568-1.RAW	9:45:12 AM	547.56	1		532.5	2.269	5673.587	ng/L	
Hg2600-2	BC	SAM	8B00313-02	2500	2/13/2018 9:49:20	96569-1.RAW	9:49:20 AM	438.13	1		423.1	1.803	4506.631	ng/L	
Hg2600-2	BC	SAM	8B00314-01	2500	2/13/2018 9:53:28	96570-1.RAW	9:53:28 AM	694.52	1		679.5	2.896	7240.860	ng/L	
Hg2600-2	BC	SAM	8B00314-02	2500	2/13/2018 9:57:37	96571-1.RAW	9:57:37 AM	532.13	1		517.1	2.204	5509.058	ng/L	
Hg2600-2	BC	SAM	8B00313-01_B	100	2/13/2018 10:01:45	96572-1.RAW	10:01:45 AM	37.41	1		22.4	0.042	4.201	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	2/13/2018 10:05:54	96573-1.RAW	10:05:54 AM	1236.34			1221.3	5.210	5.210	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	2/13/2018 10:10:02	96574-1.RAW	10:10:02 AM	21.22			6.2	0.026	0.026	ng/L	
Hg2600-2	BC	SAM	8B00313-02_B	100	2/13/2018 10:14:11	96575-1.RAW	10:14:11 AM	28.81	1		13.8	0.005	0.531	ng/L	
Hg2600-2	BC	SAM	8B00314-01_B	100	2/13/2018 10:18:19	96576-1.RAW	10:18:19 AM	63.41	1		48.4	0.153	15.291	ng/L	
Hg2600-2	BC	SAM	8B00314-02_B	100	2/13/2018 10:22:27	96577-1.RAW	10:22:27 AM	77.57	1		62.5	0.213	21.332	ng/L	
Hg2600-2	BC	SAM	8B00313-01_C	2500	2/13/2018 10:26:36	96578-1.RAW	10:26:36 AM	2453.26	1		2438.2	10.399	25996.463	ng/L	
Hg2600-2	BC	SAM	8B00313-02_C	2500	2/13/2018 10:30:44	96579-1.RAW	10:30:44 AM	2520.47	1		2505.4	10.685	26713.187	ng/L	
Hg2600-2	BC	SAM	8B00314-01_C	2500	2/13/2018 10:34:53	96580-1.RAW	10:34:53 AM	1026.09	1		1011.1	4.311	10776.791	ng/L	
Hg2600-2	BC	SAM	8B00314-02_C	2500	2/13/2018 10:39:01	96581-1.RAW	10:39:01 AM	2713.49	1		2698.5	11.509	28771.610	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 10:59:44	96582-1.RAW	10:59:44 AM	71.68		X	56.6	0.242	0.000	ng/L	
Hg2600-2	BC	SAM	8B00314-01_CRE1	2500	2/13/2018 11:03:54	96583-1.RAW	11:03:54 AM	1044.74	1		1029.7	4.390	10975.645	ng/L	
Hg2600-2	BC	SAM	F802235-DUP1	2500	2/13/2018 11:08:03	96584-1.RAW	11:08:03 AM	479.69	1		464.7	1.980	4949.893	ng/L	
Hg2600-2	BC	SAM	F802235-MS1	2500	2/13/2018 11:12:12	96585-1.RAW	11:12:12 AM	1652.85	1		1637.8	6.984	17460.728	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	2/13/2018 11:16:20	96586-1.RAW	11:16:20 AM	1250.23			1235.2	5.269	5.269	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	2/13/2018 11:20:29	96587-1.RAW	11:20:29 AM	48.75			33.7	0.144	0.144	ng/L	
Hg2600-2	BC	SAM	F802235-MSD1	2500	2/13/2018 11:24:37	96588-1.RAW	11:24:37 AM	1635.45	1		1620.4	6.910	17275.088	ng/L	
Hg2600-2	BC	BLK	F802225-BLK4	100	2/13/2018 11:28:45	96589-1.RAW	11:28:45 AM	50.38	2		35.3	0.151	15.078	ng/L	
Hg2600-2	BC	BLK	F802225-BLK5	100	2/13/2018 11:32:54	96590-1.RAW	11:32:54 AM	33.12	2		18.1	0.077	7.713	ng/L	
Hg2600-2	BC	BLK	F802225-BLK6	100	2/13/2018 11:37:02	96591-1.RAW	11:37:02 AM	31.54	2		16.5	0.070	7.041	ng/L	
Hg2600-2	BC	SAM	8B00272-23_BRE1	100	2/13/2018 11:41:11	96592-1.RAW	11:41:11 AM	379.92	2		364.9	1.457	145.704	ng/L	
Hg2600-2	BC	BLK	F802192-BLK1	20	2/13/2018 11:45:19	96593-1.RAW	11:45:19 AM	32.87	3		17.8	0.076	1.522	ng/L	
Hg2600-2	BC	BLK	F802192-BLK2	20	2/13/2018 11:49:28	96594-1.RAW	11:49:28 AM	27.22	3		12.2	0.052	1.040	ng/L	
Hg2600-2	BC	BLK	F802192-BLK3	20	2/13/2018 11:53:36	96595-1.RAW	11:53:36 AM	22.57	3		7.5	0.032	0.643	ng/L	
Hg2600-2	BC	SAM	*F802192-BLK4	20	2/13/2018 11:57:45	96596-1.RAW	11:57:45 AM	26.43	3		11.4	-0.005	-0.096	ng/L	
Hg2600-2	BC	SAM	*F802192-BLK5	20	2/13/2018 12:01:53	96597-1.RAW	12:01:53 PM	14.68	3		-0.4	-0.055	-1.098	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	2/13/2018 12:06:01	96598-1.RAW	12:06:01 PM	1207.15			1192.1	5.085	5.085	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	2/13/2018 12:10:10	96599-1.RAW	12:10:10 PM	22.77			7.7	0.033	0.033	ng/L	
Hg2600-2	BC	SAM	F802192-BS1	20	2/13/2018 12:14:18	96600-1.RAW	12:14:18 PM	1145.56	3		1130.5	4.769	95.382	ng/L	
Hg2600-2	BC	SAM	F802192-BSD1	20	2/13/2018 12:18:27	96601-1.RAW	12:18:27 PM	1171.43	3		1156.4	4.879	97.589	ng/L	
Hg2600-2	BC	SAM	F802192-BS2	400	2/13/2018 12:22:35	96602-1.RAW	12:22:35 PM	1337.28	3		1322.2	5.638	2255.045	ng/L	
Hg2600-2	BC	SAM	8B00079-01	400	2/13/2018 12:26:43	96603-1.RAW	12:26:43 PM	234.11	3		219.1	0.932	372.732	ng/L	
Hg2600-2	BC	SAM	8B00079-02	400	2/13/2018 12:30:52	96604-1.RAW	12:30:52 PM	292.73	3		277.7	1.182	472.764	ng/L	
Hg2600-2	BC	SAM	8B00079-03	400	2/13/2018 12:35:00	96605-1.RAW	12:35:00 PM	382.44	3		367.4	1.565	625.820	ng/L	
Hg2600-2	BC	SAM	8B00079-04	100	2/13/2018 12:39:09	96606-1.RAW	12:39:09 PM	589.08	3		574.0	2.438	243.803	ng/L	
Hg2600-2	BC	SAM	8B00079-05	100	2/13/2018 12:43:17	96607-1.RAW	12:43:17 PM	486.47	3		471.4	2.000	200.031	ng/L	
Hg2600-2	BC	SAM	8B00079-06	100	2/13/2018 12:47:26	96608-1.RAW	12:47:26 PM	1222.44	3		1207.4	5.140	513.975	ng/L	
Hg2600-2	BC	SAM	8B00079-07	100	2/13/2018 12:51:34	96609-1.RAW	12:51:34 PM	2396.95	3		2381.9	10.150	1014.982	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	2/13/2018 12:55:42	96610-1.RAW	12:55:42 PM	1250.97			1235.9	5.272	5.272	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4 ✓	1	2/13/2018 12:59:51	96611-1.RAW	12:59:51 PM	40.21			25.2	0.107	0.107	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 13:07:24	96612-1.RAW	1:07:24 PM	32.73		X	17.7	0.075	0.000	ng/L	
Hg2600-2	BC	SAM	8B00079-08 ✓	100	2/13/2018 13:11:32	96613-1.RAW	1:11:32 PM	2045.95		3	2030.9	8.653	865.259	ng/L	
Hg2600-2	BC	SAM	8B00079-09 ✓	100	2/13/2018 13:15:40	96614-1.RAW	1:15:40 PM	2366.51		3	2351.5	10.020	1001.999	ng/L	
Hg2600-2	BC	SAM	8B00079-10 ✓	100	2/13/2018 13:19:49	96615-1.RAW	1:19:49 PM	1147.34		3	1132.3	4.819	481.937	ng/L	
Hg2600-2	BC	SAM	8B00079-11 ✓	100	2/13/2018 13:23:58	96616-1.RAW	1:23:58 PM	1418.48		3	1403.4	5.976	597.599	ng/L	
Hg2600-2	BC	SAM	8B00079-12 ✓	100	2/13/2018 13:28:07	96617-1.RAW	1:28:07 PM	621.35		3	606.3	2.576	257.569	ng/L	
Hg2600-2	BC	SAM	8B00079-13 ✓	100	2/13/2018 13:32:15	96618-1.RAW	1:32:15 PM	496.33		3	481.3	2.042	204.238	ng/L	
Hg2600-2	BC	SAM	8B00079-14 ✓	100	2/13/2018 13:36:24	96619-1.RAW	1:36:24 PM	910.85		3	895.8	3.811	381.058	ng/L	
Hg2600-2	BC	SAM	8B00079-15 ✓	100	2/13/2018 13:40:32	96620-1.RAW	1:40:32 PM	1079.464496		3	1064.4	4.530	452.985	ng/L	
Hg2600-2	BC	SAM	8B00079-16 ✓	100	2/13/2018 13:44:41	96621-1.RAW	1:44:41 PM	21.09		3	6.1	0.015	1.514	ng/L	
Hg2600-2	BC	SAM	8B00080-01 ✓	100	2/13/2018 13:48:49	96622-1.RAW	1:48:49 PM	4189.35		3	4174.3	17.796	1779.566	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5 ✓	1	2/13/2018 13:52:58	96623-1.RAW	1:52:58 PM	1259.65			1244.6	5.309	5.309	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5 ✓	1	2/13/2018 13:57:07	96624-1.RAW	1:57:07 PM	32.16			17.1	0.073	0.073	ng/L	
Hg2600-2	BC	SAM	8B00080-02 ✓	100	2/13/2018 14:01:17	96625-1.RAW	2:01:17 PM	3616.76		3	3601.7	15.353	1535.317	ng/L	
Hg2600-2	BC	SAM	8B00080-03 ✓	100	2/13/2018 14:05:25	96626-1.RAW	2:05:25 PM	8773.25		3	8758.2	37.349	3734.916	ng/L	
Hg2600-2	BC	SAM	8B00080-04 ✓	100	2/13/2018 14:09:33	96627-1.RAW	2:09:33 PM	3382.84		3	3367.8	14.355	1435.534	ng/L	
Hg2600-2	BC	SAM	8B00079-01RE1 ✓	100	2/13/2018 14:13:57	96628-1.RAW	2:13:57 PM	827.50		3	812.5	3.455	345.505	ng/L	
Hg2600-2	BC	SAM	8B00079-02RE1 ✓	100	2/13/2018 14:18:05	96629-1.RAW	2:18:05 PM	1111.71		3	1096.7	4.667	466.739	ng/L	
Hg2600-2	BC	SAM	8B00079-16RE1 ✓	20	2/13/2018 14:22:13	96630-1.RAW	2:22:13 PM	53.98		3	38.9	0.113	2.255	ng/L	
Hg2600-2	BC	SAM	F802192-DUP1 ✓	100	2/13/2018 14:26:22	96631-1.RAW	2:26:22 PM	2141.09		3	2126.1	9.058	905.842	ng/L	
Hg2600-2	BC	SAM	F802192-MS1 ✓	400	2/13/2018 14:30:30	96632-1.RAW	2:30:30 PM	2995.05		3	2980.0	12.709	5083.662	ng/L	
Hg2600-2	BC	SAM	F802192-MSD1 ✓	400	2/13/2018 14:34:39	96633-1.RAW	2:34:39 PM	3029.76		3	3014.7	12.857	5142.884	ng/L	
Hg2600-2	BC	SAM	F802192-MS2 ✓	400	2/13/2018 14:38:47	96634-1.RAW	2:38:47 PM	4186.21		3	4171.2	17.790	7116.103	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6 ✓	1	2/13/2018 14:42:55	96635-1.RAW	2:42:55 PM	1292.68			1277.6	5.450	5.450	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6 ✓	1	2/13/2018 14:47:04	96636-1.RAW	2:47:04 PM	56.92			41.9	0.179	0.179	ng/L	
Hg2600-2	BC	SAM	F802192-MSD2 ✓	400	2/13/2018 14:51:12	96637-1.RAW	2:51:12 PM	4073.09		3	4058.1	17.308	6923.096	ng/L	
Hg2600-2	BC	BLK	F802195-BLK1 ✓	20	2/13/2018 14:55:21	96638-1.RAW	2:55:21 PM	61.62		4	46.6	0.199	3.975	ng/L	
Hg2600-2	BC	BLK	F802195-BLK2 ✓	20	2/13/2018 14:59:29	96639-1.RAW	2:59:29 PM	46.46		4	31.4	0.134	2.681	ng/L	
Hg2600-2	BC	BLK	F802195-BLK3 ✓	20	2/13/2018 15:03:39	96640-1.RAW	3:03:39 PM	35.79		4	20.8	0.089	1.770	ng/L	
Hg2600-2	BC	SAM	F802195-BS1 ✓	20	2/13/2018 15:07:47	96641-1.RAW	3:07:47 PM	1212.49		4	1197.5	4.968	99.350	ng/L	
Hg2600-2	BC	SAM	F802195-BSD1 ✓	20	2/13/2018 15:11:55	96642-1.RAW	3:11:55 PM	1222.69		4	1207.7	5.011	100.221	ng/L	
Hg2600-2	BC	SAM	F802195-BS2 ✓	400	2/13/2018 15:16:04	96643-1.RAW	3:16:04 PM	1390.09		4	1375.1	5.859	2343.416	ng/L	
Hg2600-2	BC	SAM	8B00082-09 ✓	100	2/13/2018 15:20:12	96644-1.RAW	3:20:12 PM	3082.91		4	3067.9	13.059	1305.853	ng/L	
Hg2600-2	BC	SAM	8B00082-10 ✓	100	2/13/2018 15:24:21	96645-1.RAW	3:24:21 PM	1387.59		4	1372.6	5.827	582.682	ng/L	
Hg2600-2	BC	SAM	8B00082-11 ✓	100	2/13/2018 15:28:29	96646-1.RAW	3:28:29 PM	1774.45		4	1759.4	7.477	747.701	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7 ✓	1	2/13/2018 15:32:37	96647-1.RAW	3:32:37 PM	1257.03			1242.0	5.298	5.298	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7 ✓	1	2/13/2018 15:36:46	96648-1.RAW	3:36:46 PM	42.61			27.6	0.118	0.118	ng/L	
Hg2600-2	BC	SAM	8B00082-12 ✓	100	2/13/2018 15:40:54	96649-1.RAW	3:40:54 PM	3131.84		4	3116.8	13.267	1326.722	ng/L	
Hg2600-2	BC	SAM	8B00082-13 ✓	100	2/13/2018 15:45:03	96650-1.RAW	3:45:03 PM	2169.91		4	2154.9	9.164	916.393	ng/L	
Hg2600-2	BC	SAM	8B00082-14 ✓	100	2/13/2018 15:49:11	96651-1.RAW	3:49:11 PM	2564.65		4	2549.6	10.848	1084.780	ng/L	
Hg2600-2	BC	SAM	8B00082-15 ✓	100	2/13/2018 15:53:20	96652-1.RAW	3:53:20 PM	2898.17		4	2883.1	12.270	1227.046	ng/L	
Hg2600-2	BC	SAM	F802195-DUP1 ✓	100	2/13/2018 15:57:28	96653-1.RAW	3:57:28 PM	821.13		4	806.1	3.410	341.046	ng/L	
Hg2600-2	BC	SAM	F802195-MS1 ✓	400	2/13/2018 16:01:36	96654-1.RAW	4:01:36 PM	3355.60		4	3340.6	14.243	5697.123	ng/L	
Hg2600-2	BC	SAM	F802195-MS2 ✓	400	2/13/2018 16:05:45	96655-1.RAW	4:05:45 PM	3469.04		4	3454.0	14.727	5890.683	ng/L	
Hg2600-2	BC	SAM	F802195-DUP2 ✓	100	2/13/2018 16:09:53	96656-1.RAW	4:09:53 PM	1335.41		4	1320.4	5.604	560.423	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8 ✓	1	2/13/2018 16:14:02	96657-1.RAW	4:14:02 PM	1291.12			1276.1	5.443	5.443	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8 ✓	1	2/13/2018 16:18:10	96658-1.RAW	4:18:10 PM	53.52			38.5	0.164	0.164	ng/L	
Hg2600-2	BC	SAM	BrCl-1 1800785 ✓	1	2/13/2018 16:22:19	96659-1.RAW	4:22:19 PM	20.76		X	5.7	0.024	0.024	ng/L	
Hg2600-2	BC	SAM	BrCl-2 1800785 ✓	1	2/13/2018 16:26:27	96660-1.RAW	4:26:27 PM	18.79		X	3.8	0.016	0.016	ng/L	
Hg2600-2	BC	SAM	BrCl-3 1800785 ✓	1	2/13/2018 16:30:36	96661-1.RAW	4:30:36 PM	15.48		X	0.4	0.002	0.002	ng/L	
Hg2600-2	BC	SAM	BrCl-4 1800785 ✓	1	2/13/2018 16:34:45	96662-1.RAW	4:34:45 PM	14.82		X	-0.2	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9 ✓	1	2/13/2018 16:38:53	96663-1.RAW	4:38:53 PM	1283.88			1268.8	5.413	5.413	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9 ✓	1	2/13/2018 16:43:02	96664-1.RAW	4:43:02 PM	21.83			6.8	0.029	0.029	ng/L	

TotalMercury EPA1631  
 Operat BC  
 BlankS 15.035  
 Calib Eqn: Conc = (Area-15.03  
 Run Date: 2/13/2018  
 Blank SD: 4.748261828  
 Worksh THg260( CalibFa 234.43  
 Status: QC Warnings:13/QC  
 Run Time: 14:09:47  
 Blank RSD%: 31.58178666  
 Method ##### R: 1 R<sup>2</sup>: 1  
 CF SD: 3.235892952  
 Descrip THg26002-180213-1  
 CF RSD%: 1.380331473

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	1.77					96548-1.RAW	8:15:54	415.97	Clean	OK	1
clean				0.00	0.00					96549-1.RAW	8:18:45	0.92	Clean	OK	1
ws				15.03	0.00					96550-1.RAW	8:22:54	13.45	Sample	OK	1
ws				15.03	0.00					96551-1.RAW	8:27:02	11.85	Sample	OK	1
ws				15.03	0.00					96552-1.RAW	8:31:11	12.78	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					96553-1.RAW	8:35:20	20.44	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					96554-1.RAW	8:39:28	13.15	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					96555-1.RAW	8:43:37	11.52	Sample	OK	1
SEQ-CAL1	A4		1	15.03	0.50			100.34		96556-1.RAW	8:47:45	132.65	Sample	OK	1
SEQ-CAL2	A5		1	15.03	1.02			101.74		96557-1.RAW	8:51:54	253.53	Sample	OK	1
SEQ-CAL3	A6		1	15.03	5.03			100.62		96558-1.RAW	8:56:02	1194.43	Sample	OK	1
SEQ-CAL4	A7		1	15.03	19.63			98.17		96559-1.RAW	9:00:11	4617.58	Sample	OK	1
SEQ-CAL5	A8		1	15.03	39.66			99.14		96560-1.RAW	9:04:20	9311.46	Sample	OK	1
SEQ-ICV1	A9		1	15.03	5.32			106.46		96561-1.RAW	9:08:28	1262.90	Sample	OK	1
ws				15.03	0.12					96562-1.RAW	9:20:21	44.05	Sample	OK	1
F802235-BLK1	A10		100	15.03	7.62					96563-1.RAW	9:24:29	32.90	Sample	OK	1
F802235-BLK2	A11		100	15.03	4.64					96564-1.RAW	9:28:38	25.91	Sample	OK	1
F802235-BLK3	A12		100	15.03	3.78					96565-1.RAW	9:32:46	23.89	Sample	OK	1
F802235-BS1	A13		400	15.03	1889.85					96566-1.RAW	9:36:55	1122.62		OK	1
F802235-BSD1	A14		400	15.03	1874.47					96567-1.RAW	9:41:03	1113.61	Sample	OK	1
8B00313-01	A15		2500	15.03	5678.93					96568-1.RAW	9:45:12	547.56	Sample	OK	1
8B00313-02	A16		2500	15.03	4511.98					96569-1.RAW	9:49:20	438.13	Sample	OK	1
8B00314-01	A17		2500	15.03	7246.21					96570-1.RAW	9:53:28	694.52	Sample	OK	1
8B00314-02	A18		2500	15.03	5514.40					96571-1.RAW	9:57:37	532.13	Sample	OK	1
8B00313-01_B	A19		100	15.03	9.55					96572-1.RAW	10:01:45	37.41	Sample	OK	1
SEQ-CCV1	A20		1	15.03	5.21			104.19		96573-1.RAW	10:05:54	1236.34	Sample	OK	1
SEQ-CCB1	A21		1	15.03	0.03			0.00		96574-1.RAW	10:10:02	21.22	Sample	OK	1
8B00313-02_B	B1		100	15.03	5.88					96575-1.RAW	10:14:11	28.81	Sample	OK	1
8B00314-01_B	B2		100	15.03	20.64					96576-1.RAW	10:18:19	63.41	Sample	OK	1
8B00314-02_B	B3		100	15.03	26.68					96577-1.RAW	10:22:27	77.57	Sample	OK	1
8B00313-01_C	B4		2500	15.03	26001.81					96578-1.RAW	10:26:36	2453.26	Sample	OK	1
8B00313-02_C	B5		2500	15.03	26718.53					96579-1.RAW	10:30:44	2520.47	Sample	OK	1
8B00314-01_C	B6		2500	15.03	10782.14					96580-1.RAW	10:34:53	1026.09	Sample	OK	1
8B00314-02_C	B7		2500	15.03	28776.96					96581-1.RAW	10:39:01	2713.49	Sample	OK	1
ws				15.03	0.24					96582-1.RAW	10:59:44	71.68	Sample	OK	1
8B00314-01_CRI	B8		2500	15.03	10980.99					96583-1.RAW	11:03:54	1044.74	Sample	OK	1
F802235-DUP1	B9		2500	15.03	4955.24					96584-1.RAW	11:08:03	479.69	Sample	OK	1
F802235-MS1	B10		2500	15.03	17466.07			352.41		96585-1.RAW	11:12:12	1652.85	Sample	OK	1
SEQ-CCV2	B11		1	15.03	5.27			105.38		96586-1.RAW	11:16:20	1250.23	Sample	OK	1
SEQ-CCB2	B12		1	15.03	0.14			0.00		96587-1.RAW	11:20:29	48.75	Sample	OK	1
F802235-MSD1	B13		2500	15.03	17280.43					96588-1.RAW	11:24:37	1635.45	Sample	OK	1
F802225-BLK4	B14		100	15.03	15.08					96589-1.RAW	11:28:45	50.38	Sample	OK	1
F802225-BLK5	B15		100	15.03	7.71					96590-1.RAW	11:32:54	33.12	Sample	OK	1

F802225-BLK6	B16	100	15.03	7.04		96591-1.RAW	11:37:02	31.54	Sample	OK	1
8B00272-23_BRF	B17	100	15.03	155.65		96592-1.RAW	11:41:11	379.92	Sample	OK	1
F802192-BLK1	B18	20	15.03	1.52		96593-1.RAW	11:45:19	32.87	Sample	OK	1
F802192-BLK2	B19	20	15.03	1.04		96594-1.RAW	11:49:28	27.22	Sample	OK	1
F802192-BLK3	B20	20	15.03	0.64		96595-1.RAW	11:53:36	22.57	Sample	OK	1
*F802192-BLK4	B21	20	15.03	0.97		96596-1.RAW	11:57:45	26.43	Sample	OK	1
*F802192-BLK5	C1	20	15.03	0.00		96597-1.RAW	12:01:53	14.68	Sample	OK	1
SEQ-CCV3	C2	1	15.03	5.09	101.70	96598-1.RAW	12:06:01	1207.15	Sample	OK	1
SEQ-CCB3	C3	1	15.03	0.03	0.00	96599-1.RAW	12:10:10	22.77	Sample	OK	1
F802192-BS1	C4	20	15.03	96.45		96600-1.RAW	12:14:18	1145.56	Sample	OK	1
F802192-BSD1	C5	20	15.03	98.66		96601-1.RAW	12:18:27	1171.43	Sample	OK	1
F802192-BS2	C6	400	15.03	2256.11		96602-1.RAW	12:22:35	1337.28	Sample	OK	1
8B00079-01	C7	400	15.03	373.80		96603-1.RAW	12:26:43	234.11	Sample	OK	1
8B00079-02	C8	400	15.03	473.83		96604-1.RAW	12:30:52	292.73	Sample	OK	1
8B00079-03	C9	400	15.03	626.89		96605-1.RAW	12:35:00	382.44	Sample	OK	1
8B00079-04	C10	100	15.03	244.87		96606-1.RAW	12:39:09	589.08	Sample	OK	1
8B00079-05	C11	100	15.03	201.10		96607-1.RAW	12:43:17	486.47	Sample	OK	1
8B00079-06	C12	100	15.03	515.04		96608-1.RAW	12:47:26	1222.44	Sample	OK	1
8B00079-07	C13	100	15.03	1016.05		96609-1.RAW	12:51:34	2396.95	Sample	OK	1
SEQ-CCV4	C14	1	15.03	5.27	105.44	96610-1.RAW	12:55:42	1250.97	Sample	OK	1
SEQ-CCB4	C15	1	15.03	0.11	0.00	96611-1.RAW	12:59:51	40.21	Sample	OK	1
ws			15.03	0.08		96612-1.RAW	13:07:24	32.73	Sample	OK	1
8B00079-08	C16	100	15.03	866.33		96613-1.RAW	13:11:32	2045.95	Sample	OK	1
8B00079-09	C17	100	15.03	1003.07		96614-1.RAW	13:15:40	2366.51	Sample	OK	1
8B00079-10	C18	100	15.03	483.01		96615-1.RAW	13:19:49	1147.34	Sample	OK	1
8B00079-11	C19	100	15.03	598.67		96616-1.RAW	13:23:58	1418.48	Sample	OK	1
8B00079-12	C20	100	15.03	258.64		96617-1.RAW	13:28:07	621.35	Sample	OK	1
8B00079-13	C21	100	15.03	205.31		96618-1.RAW	13:32:15	496.33	Sample	OK	1
8B00079-14	A1	100	15.03	382.13		96619-1.RAW	13:36:24	910.85	Sample	OK	1
8B00079-15	A2	100	15.03	454.05		96620-1.RAW	13:40:32	1079.46	Sample	OK	1
8B00079-16	A3	100	15.03	2.58		96621-1.RAW	13:44:41	21.09	Sample	OK	1
8B00080-01	A4	100	15.03	1780.63		96622-1.RAW	13:48:49	4189.35	Sample	OK	1
SEQ-CCV5	A5	1	15.03	5.31	106.18	96623-1.RAW	13:52:58	1259.65	Sample	OK	1
SEQ-CCB5	A6	1	15.03	0.07	0.00	96624-1.RAW	13:57:07	32.16	Sample	OK	1
8B00080-02	A7	100	15.03	1536.39		96625-1.RAW	14:01:17	3616.76	Sample	OK	1
8B00080-03	A8	100	15.03	3735.98		96626-1.RAW	14:05:25	8773.25	Sample	OK	1
8B00080-04	A9	100	15.03	1436.60		96627-1.RAW	14:09:33	3382.84	Sample	OK	1
8B00079-01RE1	A10	100	15.03	346.57		96628-1.RAW	14:13:57	827.50	Sample	OK	1
8B00079-02RE1	A11	100	15.03	467.81		96629-1.RAW	14:18:05	1111.71	Sample	OK	1
8B00079-16RE1	A12	20	15.03	3.32		96630-1.RAW	14:22:13	53.98	Sample	OK	1
F802192-DUP1	A13	100	15.03	906.91		96631-1.RAW	14:26:22	2141.09	Sample	OK	1
F802192-MS1	A14	400	15.03	5084.73	560.05	96632-1.RAW	14:30:30	2995.05	Sample	OK	1
F802192-MSD1	A15	400	15.03	5143.95		96633-1.RAW	14:34:39	3029.76	Sample	OK	1
F802192-MS2	A16	400	15.03	7117.17	138.31	96634-1.RAW	14:38:47	4186.21	Sample	OK	1
SEQ-CCV6	A17	1	15.03	5.45	109.00	96635-1.RAW	14:42:55	1292.68	Sample	OK	1
SEQ-CCB6	A18	1	15.03	0.18	0.00	96636-1.RAW	14:47:04	56.92	Sample	OK	1
F802192-MSD2	A19	400	15.03	6924.16		96637-1.RAW	14:51:12	4073.09	Sample	OK	1
F802195-BLK1	A20	20	15.03	3.97		96638-1.RAW	14:55:21	61.62	Sample	OK	1

F802195-BLK2	A21	20	15.03	2.68		96639-1.RAW	14:59:29	46.46	Sample	OK	1
F802195-BLK3	B1	20	15.03	1.77		96640-1.RAW	15:03:39	35.79	Sample	OK	1
F802195-BS1	B2	20	15.03	102.16		96641-1.RAW	15:07:47	1212.49	Sample	OK	1
F802195-BSD1	B3	20	15.03	103.03		96642-1.RAW	15:11:55	1222.69	Sample	OK	1
F802195-BS2	B4	400	15.03	2346.22		96643-1.RAW	15:16:04	1390.09	Sample	OK	1
8B00082-09	B5	100	15.03	1308.66		96644-1.RAW	15:20:12	3082.91	Sample	OK	1
8B00082-10	B6	100	15.03	585.49		96645-1.RAW	15:24:21	1387.59	Sample	OK	1
8B00082-11	B7	100	15.03	750.51		96646-1.RAW	15:28:29	1774.45	Sample	OK	1
SEQ-CCV7	B8	1	15.03	5.30	105.96	96647-1.RAW	15:32:37	1257.03	Sample	OK	1
SEQ-CCB7	B9	1	15.03	0.12	0.00	96648-1.RAW	15:36:46	42.61	Sample	OK	1
8B00082-12	B10	100	15.03	1329.53		96649-1.RAW	15:40:54	3131.84	Sample	OK	1
8B00082-13	B11	100	15.03	919.20		96650-1.RAW	15:45:03	2169.91	Sample	OK	1
8B00082-14	B12	100	15.03	1087.59		96651-1.RAW	15:49:11	2564.65	Sample	OK	1
8B00082-15	B13	100	15.03	1229.85		96652-1.RAW	15:53:20	2898.17	Sample	OK	1
F802195-DUP1	B14	100	15.03	343.85		96653-1.RAW	15:57:28	821.13	Sample	OK	1
F802195-MS1	B15	400	15.03	5699.93	1652.85	96654-1.RAW	16:01:36	3355.60	Sample	OK	1
F802195-MS2	B16	400	15.03	5893.49	103.36	96655-1.RAW	16:05:45	3469.04	Sample	OK	1
F802195-DUP2	C1	100	15.03	563.23		96656-1.RAW	16:09:53	1335.41	Sample	OK	1
SEQ-CCV8	B17	1	15.03	5.44	108.87	96657-1.RAW	16:14:02	1291.12		OK	1
SEQ-CCB8	B18	1	15.03	0.16	0.00	96658-1.RAW	16:18:10	53.52	Sample	OK	1
BrCl-1 1800785	C2	1	15.03	0.02		96659-1.RAW	16:22:19	20.76	Sample	OK	1
BrCl-2 1800785	C3	1	15.03	0.02		96660-1.RAW	16:26:27	18.79	Sample	OK	1
BrCl-3 1800785	C4	1	15.03	0.00		96661-1.RAW	16:30:36	15.48	Sample	OK	1
BrCl-4 1800785	C5	1	15.03	0.00		96662-1.RAW	16:34:45	14.82	Sample	OK	1
SEQ-CCV9	C6	1	15.03	5.41	108.25	96663-1.RAW	16:38:53	1283.88	Sample	OK	1
SEQ-CCB9	C7	1	15.03	0.03	0.00	96664-1.RAW	16:43:02	21.83	Sample	OK	1

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14009

PEER-REVIEWED



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *a* 2/14/18 Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14009-IBL1 ✓	QC	1			
8B14009-IBL2 ✓	QC	2			
8B14009-IBL3 ✓	QC	3			
8B14009-CAL1 ✓	QC	4	1800804 ✓		
8B14009-CAL2 ✓	QC	5	1800805 ✓		
8B14009-CAL3 ✓	QC	6	1800806 ✓		
8B14009-CAL4 ✓	QC	7	1800807 ✓		
8B14009-CAL5 ✓	QC	8	1800808 ✓		
8B14009-ICV1 ✓	QC	9	1707379 ✓		
F802235-BLK1 ✓	QC	10			
F802235-BLK2 ✓	QC	11			
F802235-BLK3 ✓	QC	12			
F802235-BS1 ✓	QC	13			
F802235-BSD1 ✓	QC	14			
8B00313-01 ✓	Hg_FSTM_TRAP_A	15			AFS - Take photos of trap if heavy particulate present and send to PM
8B00313-02 ✓	Hg_FSTM_TRAP_A	16			AFS - Take photos of trap if heavy particulate present and send to PM
8B00314-01 ✓	Hg_FSTM_TRAP_A	17			AFS - Take photos of trap if heavy particulate present and send to PM
8B00314-02 ✓	Hg_FSTM_TRAP_A	18			AFS - Take photos of trap if heavy particulate present and send to PM
8B14009-CCV1 ✓	QC	19	1707379 ✓		
8B14009-CCB1 ✓	QC	20			
F802235-DUP1 ✓	QC	21			
F802235-MS1 ✓	QC	22			
8B14009-CCV2 ✓	QC	23	1707379 ✓		
8B14009-CCB2 ✓	QC	24			
F802235-MSD1 ✓	QC	25			
F802225-BLK4 ✓	QC	26			
F802225-BLK5 ✓	QC	27			
F802225-BLK6 ✓	QC	28			
8B14009-CCV3 ✓	QC	29	1707379 ✓		
8B14009-CCB3 ✓	QC	30			

*Becis* 2/14/18  
 Samples Loaded By \_\_\_\_\_ Date

*Becis* 2/14/18  
 Data Processed By \_\_\_\_\_ Date

Due Date: 2/14/2018

**Failing Data Report - 8B14009**

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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*[Signature]* 2/14/18  
Analyst Reviewed By Date

*[Signature]* 2/14/18  
Peer Reviewed By Date



**PREPARATION BENCH SHEET**

F802235

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/12/2018**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802235-BLK1	Blank	1	100					
F802235-BLK2	Blank	1	100					
F802235-BLK3	Blank	1	100					
F802235-BS1	LCS	1	100	1705554	200			
F802235-BSD1	LCS Dup	1	100	1705554	200			
F802235-DUP1	Duplicate [8B00313-02] ✓	1	100					
F802235-MS1	Matrix Spike [8B00313-02] ✓	0.0002	0.02	1800714	25 ✓			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓
F802235-MSD1	Matrix Spike Dup [8B00313-02] ✓	0.0002	0.02	1800714	25			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800041	FSTM Lot 180103A	02-Jul-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802235

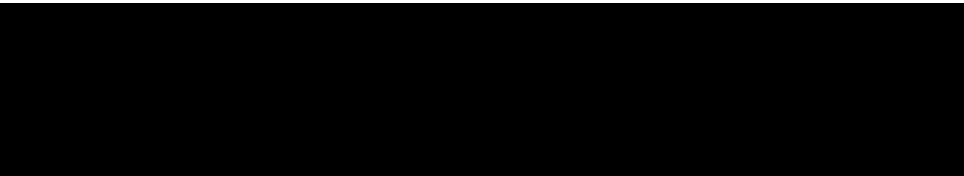
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/12/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00313-01	EFGS09673 4 Trap A 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1520.308 AFS - Take I	
8B00313-02	EFGS09701 4 Trap B 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1128.673 AFS - Take I	
8B00314-01	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 AFS - Take pl	
8B00314-01RE1	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 Added 2/14/2	Added 2/14/2018 by BC
8B00314-02	EFGS09754 31/32 Trap B 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 512.367 AFS - Take pl	



PREPARATION BENCH SHEET

BC 2/13/18  
2600-2

F802235

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/12/2018

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802235-BLK1	Blank	1	100					100X
F802235-BLK2	Blank	1	100					700X
F802235-BLK3	Blank	1	100					100X
F802235-BS1	LCS	1	100	1705554	200			400X
F802235-BSD1	LCS Dup	1	100	1705554	200			400X
F802235-MS1	Matrix Spike - 8B00313-02	1	100	1800714	25			2500X
F802235-MSD1	Matrix Spike Dup 8B00313-02	1	100	1800714	25			2500X

DUP 8B00313-02

2500X

<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> 1800041 1800748 1800770	<u>Description:</u> FSTM Lot 180103A 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 02-Jul-18 00:00 07-Aug-18 00:00 18-Jun-18 00:00
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1706821  
1707390  
1707389  
1800680

PREPARATION BENCH SHEET

BC 2/13/18

2600-2

F802235

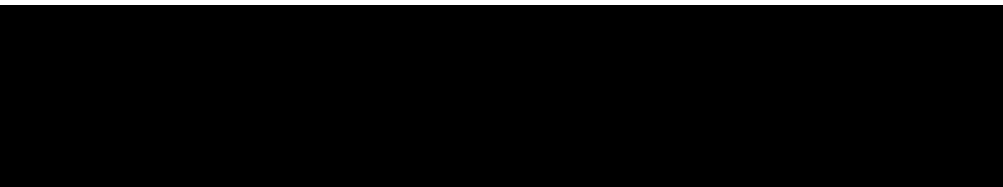
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/12/2018

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	<u>A</u> Sample Comments	<u>B</u> Analysis Comments	<u>C</u>
8B00313-01	EFGS09673 4 Trap A 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1520.308 AFS - Take 1 2500x	<del>100x</del> <del>1000</del>	2500x
8B00313-02	EFGS09701 4 Trap B 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1128.673 AFS - Take 1 2500x	100x	2500x
8B00314-01	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 AFS - Take pl 2500x	100x	2500x → 2500x
8B00314-02	EFGS09754 31/32 Trap B 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 512.367 AFS - Take pl 2500x	100x	2500x



Trap Digestions

F802235  
2/12/18  
Batch ID: F802235

Name: WF

Date: 2/12/18

Batch ID: F802235

Work Order(s): 8B00313, 8B00314 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: 4:15, start temp (°C): 56.0 (raw) 55.8 (w/ CF)

end time: 6:15, end temp (°C): 64.0 (raw) 63.8 (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)
F802235 - BLU1	100
F802235 - BLU2	100
F802235 - BLU3	100
F802235 - B51	100
F802235 - B5D1	100
8B00313 - 01A	100
8B00313 - 01B	100
8B00313 - 01C	100
8B00313 - 02A	100
8B00313 - 02B	100
8B00313 - 02C	100
8B00314 - 01A	100
8B00314 - 01B	100
8B00314 - 01C	100
8B00314 - 02A	100
8B00314 - 02B	100
8B00314 - 02C	100
<u>WF</u> <u>2/12/18</u>	

Spike ID: 1705554

Spike Amount (µL): 200

Spike Witness: cm 2/12/18

BrCl ID: 1800770

70/30: 1800748

Other: N/A

Thermometer: 13698

Dispensers: 02K27494

04N73497

Other 15406623

Pipette ID: 0407852

Cal. Date: 2/8/18 2/9/18 WF  
2/12/18

Vials and Jars lot# 00069860

Trap Material Lot#: 180041

Loader Mass Verified:  Yes  No

Comments:

8B00314: Both trap have particulate in front of A-bed and have moisture. All cbeds spiked @ 2700µg.

8B00313: All cbeds spiked @ 2700µg.

WF  
2/12/18

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802225-BLK1	Blank	1	40					
F802225-BLK2	Blank	1	40					
F802225-BLK3	Blank	1	40					
F802225-BLK4	Blank	1	40					
F802225-BLK5	Blank	1	40					
F802225-BLK6	Blank	1	40					
F802225-BS1	LCS	1	40	1705554	200			
F802225-BSD1	LCS Dup	1	40	1705554	200			
F802225-DUP1	Duplicate [8B00272-18]	1	40					
F802225-MS1	Matrix Spike [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MS2	Matrix Spike [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD1	Matrix Spike Dup [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD2	Matrix Spike Dup [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705501	FSTM Lot 170912A	11-Mar-18 00:00
1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
1707390	THg Washstation (0.5% BrCl)	
1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00272-16	HGS0118-6-16	1	40	-	-	-		
8B00272-17	HGS0118-6-17	1	40	-	-	-		
8B00272-18	HGS0118-6-18	1	40	-	-	-		
8B00272-19	HGS0118-7-1	1	40	-	-	-		
8B00272-20	HGS0118-7-2	1	40	-	-	-		
8B00272-21	HGS0118-7-3	1	40	-	-	-		
8B00272-22	HGS0118-7-4	1	40	-	-	-		
8B00272-23	HGS0118-7-5	1	40	-	-	-		
8B00272-23RE1	HGS0118-7-5	1	40	-	-	-	Added 2/13/2018 by BC	RR due to High B bed BC 2/13/18
8B00272-24	HGS0118-7-6	1	40	-	-	-		
8B00272-25	HGS0118-7-7	1	40	-	-	-		
8B00272-26	HGS0118-7-8	1	40	-	-	-		
8B00272-27	HGS0118-7-9	1	40	-	-	-		
8B00272-28	HGS0118-7-10	1	40	-	-	-		
8B00272-29	HGS0118-7-11	1	40	-	-	-		
8B00272-30	HGS0118-7-12	1	40	-	-	-		

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

**Due Date: 2/15/2018**



PREPARATION BENCH SHEET

BL 2/13/18  
2600-2

F802225

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/9/2018

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802225-BLK1	Blank	1	40					
F802225-BLK2	Blank	1	40					
F802225-BLK3	Blank	1	40					
F802225-BLK4	Blank	1	40					100X
F802225-BLK5	Blank	1	40					100X
F802225-BLK6	Blank	1	40					100X
F802225-BS1	LCS	1	40	1705554	200			
F802225-BSD1	LCS Dup	1	40	1705554	200			
F802225-DUP1	Duplicate [8B00272-18]	1	40					
F802225-MS1	Matrix Spike [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MS2	Matrix Spike [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD1	Matrix Spike Dup [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD2	Matrix Spike Dup [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

Standard ID(s):  
1705554  
1800714

Description:  
THg 1,000ng/mL Secondary Spiking Standard  
THg 10ng/mL Calibration Standard

Expiration:  
18-Mar-18 00:00  
07-May-18 00:00

Reagent ID(s):	Description:	Expiration:
1705501	FSTM Lot 170912A	11-Mar-18 00:00
1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
1707390	THg Washstation (0.5% BrCl)	
1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800770	5% BrCl	18-Jun-18 00:00

Due Date: 2/15/2018

PREPARATION BENCH SHEET

F802225

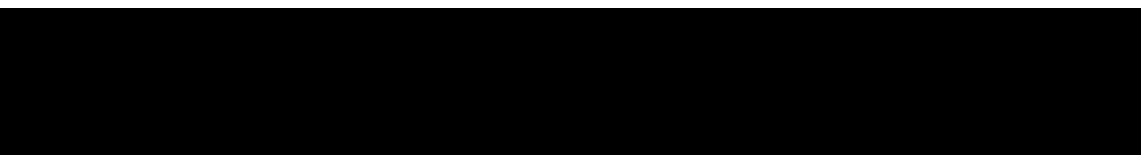
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/9/2018

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	<sup>B</sup> Analysis Comments
8B00272-16	HGS0118-6-16	1	40	-	-	-		
8B00272-17	HGS0118-6-17	1	40	-	-	-		
8B00272-18	HGS0118-6-18	1	40	-	-	-		
8B00272-19	HGS0118-7-1	1	40	-	-	-		
8B00272-20	HGS0118-7-2	1	40	-	-	-		
8B00272-21	HGS0118-7-3	1	40	-	-	-		
8B00272-22	HGS0118-7-4	1	40	-	-	-		
8B00272-23	HGS0118-7-5	1	40	-	-	-		
8B00272-23RE1	HGS0118-7-5	1	40	-	-	-	Added 2/13/2018 by BC	RR due to High B bed BC 2/13/18 100x
8B00272-24	HGS0118-7-6	1	40	-	-	-		
8B00272-25	HGS0118-7-7	1	40	-	-	-		
8B00272-26	HGS0118-7-8	1	40	-	-	-		
8B00272-27	HGS0118-7-9	1	40	-	-	-		
8B00272-28	HGS0118-7-10	1	40	-	-	-		
8B00272-29	HGS0118-7-11	1	40	-	-	-		
8B00272-30	HGS0118-7-12	1	40	-	-	-		



**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

**Due Date: 2/15/2018**

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14010

PEER-REVIEWED

Instrument: Hg2600-2 ✓



Calibration ID: UNASSIGNED

INITIALS: *pr* *2/13/18* Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14010-IBL1 ✓	QC	1			
8B14010-IBL2 ✓	QC	2			
8B14010-IBL3 ✓	QC	3			
8B14010-CAL1 ✓	QC	4	1800804	✓	
8B14010-CAL2 ✓	QC	5	1800805	✓	
8B14010-CAL3 ✓	QC	6	1800806	✓	
8B14010-CAL4 ✓	QC	7	1800807	✓	
8B14010-CAL5 ✓	QC	8	1800808	✓	
8B14010-ICV1 ✓	QC	9	1707379	✓	
8B14010-CCV1 ✓	QC	10	1707379	✓	
8B14010-CCB1 ✓	QC	11			
8B14010-CCV2 ✓	QC	12	1707379	✓	
8B14010-CCB2 ✓	QC	13			
F802192-BLK1 ✓	QC	14			
F802192-BLK2 ✓	QC	15			
F802192-BLK3 ✓	QC	16			
F802192-BLK4 ✓	QC	17			
F802192-BLK5 ✓	QC	18			
8B14010-CCV3 ✓	QC	19	1707379	✓	
8B14010-CCB3 ✓	QC	20			
F802192-BS1 ✓	QC	21			
F802192-BSD1 ✓	QC	22			
F802192-BS2 ✓	QC	23			
8B00079-01 ✓	Hg-CVAFS-T-7030	24			
8B00079-02 ✓	Hg-CVAFS-T-7030	25			
8B00079-03 ✓	Hg-CVAFS-T-7030	26			
8B00079-04 ✓	Hg-CVAFS-T-7030	27			
8B00079-05 ✓	Hg-CVAFS-T-7030	28			
8B00079-06 ✓	Hg-CVAFS-T-7030	29			
8B00079-07 ✓	Hg-CVAFS-T-7030	30			
8B14010-CCV4 ✓	QC	31	1707379	✓	
8B14010-CCB4 ✓	QC	32			
8B00079-08 ✓	Hg-CVAFS-T-7030	33			
8B00079-09 ✓	Hg-CVAFS-T-7030	34			
8B00079-10 ✓	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00079-11 ✓	Hg-CVAFS-T-7030	36			
8B00079-12 ✓	Hg-CVAFS-T-7030	37			
8B00079-13 ✓	Hg-CVAFS-T-7030	38			
8B00079-14 ✓	Hg-CVAFS-T-7030	39			
8B00079-15 ✓	Hg-CVAFS-T-7030	40			
8B00079-16 ✓	Hg-CVAFS-T-7030	41			
8B00080-01 ✓	Hg-CVAFS-T-7030	42			
8B14010-CCV5 ✓	QC	43	1707379	✓	
8B14010-CCB5 ✓	QC	44			
8B00080-02 ✓	Hg-CVAFS-T-7030	45			
8B00080-03 ✓	Hg-CVAFS-T-7030	46			
8B00080-04 ✓	Hg-CVAFS-T-7030	47			
8B00079-01RE1 ✓	Hg-CVAFS-T-7030	48			Added 2/14/2018 by BC
8B00079-02RE1 ✓	Hg-CVAFS-T-7030	49			Added 2/14/2018 by BC
8B00079-16RE1 ✓	Hg-CVAFS-T-7030	50			Added 2/14/2018 by BC
F802192-DUP1 ✓	QC	51			
F802192-MS1 ✓	QC	52			
F802192-MSD1 ✓	QC	53			
F802192-MS2 ✓	QC	54			
8B14010-CCV6 ✓	QC	55	1707379	✓	
8B14010-CCB6 ✓	QC	56			
F802192-MSD2 ✓	QC	57			
F802195-BLK1 ✓	QC	58			
F802195-BLK2 ✓	QC	59			
F802195-BLK3 ✓	QC	60			
F802195-BS1 ✓	QC	61			
F802195-BSD1 ✓	QC	62			
F802195-BS2 ✓	QC	63			
8B00082-09 ✓	Hg-CVAFS-T-7030	64			
8B00082-10 ✓	Hg-CVAFS-T-7030	65			
8B00082-11 ✓	Hg-CVAFS-T-7030	66			
8B14010-CCV7 ✓	QC	67	1707379	✓	
8B14010-CCB7 ✓	QC	68			
8B00082-12 ✓	Hg-CVAFS-T-7030	69			
8B00082-13 ✓	Hg-CVAFS-T-7030	70			

Due Date: 3/2/2018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00082-14 ✓	Hg-CVAFS-T-7030	71			
8B00082-15 ✓	Hg-CVAFS-T-7030	72			
F802195-DUP1 ✓	QC	73			
F802195-MS1 ✓	QC	74			
F802195-MS2 ✓	QC	75			
F802195-DUP2 ✓	QC	76			
8B14010-CCV8 ✓	QC	77	1707379		
8B14010-CCB8 ✓	QC	78			

B. King 2/14/18  
Samples Loaded By Date

B. King 2/14/18  
Data Processed By Date

Failing Data Report - 8B14010

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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BCS 2/14/18  
Analyst Reviewed By Date

PLW 2/14/18  
Peer Reviewed By Date

**PREPARATION BENCH SHEET**

F802192

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/7/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802192-BLK1	Blank	0.25	20					
F802192-BLK2	Blank	0.25	20					
F802192-BLK3	Blank	0.25	20					
F802192-BLK4	Pre Homogen Blank for 8B00079-16	0.258	20					
F802192-BLK5	Post Homogen Blank for 8B00079-16	0.2741	20					
F802192-BS1	LCS	0.25	20	1800233	20			
F802192-BS2	DORM4	0.1273	20	1703305	127 127.3			
F802192-BSD1	LCS Dup	0.25	20	1800233	20	R 2/14/18		
F802192-DUP1	Duplicate [8B00080-04]	0.0767	20					
F802192-MS1	Matrix Spike [8B00079-06]	0.0575	20	1705554	100			
F802192-MS2	Matrix Spike [8B00080-01]	0.0767	20	1705554	100			
F802192-MSD1	Matrix Spike Dup [8B00079-06]	0.0489	20	1705554	100			
F802192-MSD2	Matrix Spike Dup [8B00080-01]	0.0739	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>
1703305	DORM-4	29-May-20 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707390	THg Washstation (0.5% BrCl)	
			1800500	Boiling Chips for AFS prep	24-Jul-18 00:00
			1800678	70/30 Digestion Acid	04-Aug-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800707	5% BrCl	18-Jun-18 00:00



**PREPARATION BENCH SHEET**

F802192

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/7/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00079-01	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-		
8B00079-01RE1	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00079-02	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-		
8B00079-02RE1	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00079-03	FRB-01_18WT001_013018_ABD_03_BL	0.196	20	-	-	-		
8B00079-04	FRB-01_18WT001_013018_ABD_04_BL	0.2128	20	-	-	-		
8B00079-05	FRB-01_18WT001_013018_ABD_05_BL	0.1877	20	-	-	-		
8B00079-06	FRB-OCN_18WT001_013018_ABD_06_BL	0.1976	20	QC	-	-	MS/MSD	
8B00079-07	FRB-OCN_18WT001_013018_ABD_07_BL	0.2359	20	-	-	-		
8B00079-08	FRB-OCN_18WT001_013018_ABD_08_BL	0.2463	20	-	-	-		
8B00079-09	FRB-OCN_18WT001_013018_ABD_09_BL	0.2491	20	-	-	-		
8B00079-10	FRB-OCN_18WT001_013018_ABD_10_BL	0.1828	20	-	-	-		
8B00079-11	FRB-OCN_18WT001_013018_ABD_11_BL	0.1929	20	-	-	-		
8B00079-12	FRB-OCN_18WT001_013018_ABD_12_BL	0.1051	20	-	-	-		
8B00079-13	FRB-01_18WT001_013118_ABD_13_BL	0.1204	20	-	-	-		
8B00079-14	FRB-01_18WT001_013118_ABD_14_BL	0.1215	20	-	-	-		
8B00079-15	FRB-01_18WT001_013118_ABD_15_BL	0.1658	20	-	-	-		
8B00079-16	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-		
8B00079-16RE1	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC

Due Date: 3/2/2018

PREPARATION BENCH SHEET

F802192

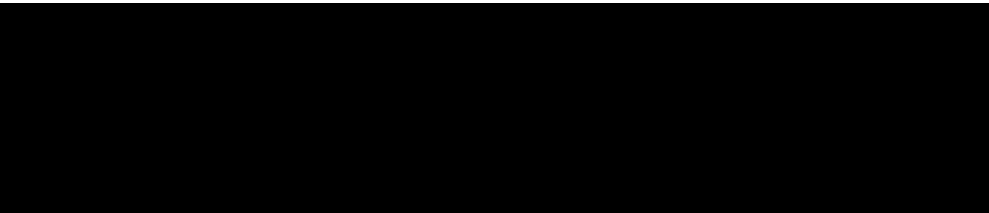
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

8B00080-01	MMBKD-01_18WT001_012918_ABD_01_BL	0.0775	20	QC	-	-	MS/MSD	
8B00080-02	MMBKD-01_18WT001_013018_ABD_02_BL	0.1292	20	-	-	-		
8B00080-03	MMBKD-01_18WT001_013018_ABD_03_BL	0.1751	20	-	-	-		
8B00080-04	MMBKD-01_18WT001_013018_ABD_04_BL	0.1207	20	-	-	-		



PREPARATION BENCH SHEET

9c 2/13/18  
2600-2

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802192-BLK1	Blank	0.25	20					20X ✓
F802192-BLK2	Blank	0.25	20					20X ✓
F802192-BLK3	Blank	0.25	20					20X ✓
F802192-BLK4	Pre Homogen Blank for 8B00079-16	0.258	20					20X ✓
F802192-BLK5	Post Homogen Blank for 8B00079-16	0.2741	20					20X ✓
F802192-BS1	LCS	0.25	20	1800233	20			20X ✓
F802192-BS2	DORM4	0.1273	20	1703305	127			400X ✓
F802192-BSD1	LCS Dup	0.25	20	1800233	20			20X ✓
F802192-DUP1	Duplicate [8B00080-04]	0.0767	20					100X ✓
F802192-MS1	Matrix Spike [8B00079-06]	0.0575	20	1705554	100			400X ✓
F802192-MS2	Matrix Spike [8B00080-01]	0.0767	20	1705554	100			400X ✓
F802192-MSD1	Matrix Spike Dup [8B00079-06]	0.0489	20	1705554	100			400X ✓
F802192-MSD2	Matrix Spike Dup [8B00080-01]	0.0739	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>
1703305	DORM-4	29-May-20 00:00	1800500	Boiling Chips for AFS prep	24-Jul-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800678	70/30 Digestion Acid	04-Aug-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1800707	5% BrCl	18-Jun-18 00:00

1706821  
1707390  
1707389  
1800680

Due Date: 3/2/2018

BC 2/13/18  
2600-2

PREPARATION BENCH SHEET

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00079-01	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-	400x → 100x	
8B00079-02	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-	400x → 100x	
8B00079-03	FRB-01_18WT001_013018_ABD_03_BL	0.196	20	-	-	-	400x ✓	
8B00079-04	FRB-01_18WT001_013018_ABD_04_BL	0.2128	20	-	-	-	100x ✓	
8B00079-05	FRB-01_18WT001_013018_ABD_05_BL	0.1877	20	-	-	-	100x ✓	
8B00079-06	FRB-OCN_18WT001_013018_ABD_06_BL	0.1976	20	QC	-	-	MS/MSD 100x ✓	
8B00079-07	FRB-OCN_18WT001_013018_ABD_07_BL	0.2359	20	-	-	-	100x ✓	
8B00079-08	FRB-OCN_18WT001_013018_ABD_08_BL	0.2463	20	-	-	-	100x ✓	
8B00079-09	FRB-OCN_18WT001_013018_ABD_09_BL	0.2491	20	-	-	-	100x ✓	
8B00079-10	FRB-OCN_18WT001_013018_ABD_10_BL	0.1828	20	-	-	-	100x ✓	
8B00079-11	FRB-OCN_18WT001_013018_ABD_11_BL	0.1929	20	-	-	-	100x ✓	
8B00079-12	FRB-OCN_18WT001_013018_ABD_12_BL	0.1051	20	-	-	-	100x ✓	
8B00079-13	FRB-01_18WT001_013118_ABD_13_BL	0.1204	20	-	-	-	100x ✓	
8B00079-14	FRB-01_18WT001_013118_ABD_14_BL	0.1215	20	-	-	-	100x ✓	
8B00079-15	FRB-01_18WT001_013118_ABD_15_BL	0.1658	20	-	-	-	100x ✓	
8B00079-16	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-	100x → 20x ✓	
8B00080-01	MMBKD-01_18WT001_012918_ABD_01_BL	0.0775	20	QC	-	-	MS/MSD 100x ✓	
8B00080-02	MMBKD-01_18WT001_013018_ABD_02_BL	0.1292	20	-	-	-	100x ✓	
8B00080-03	MMBKD-01_18WT001_013018_ABD_03_BL	0.1751	20	-	-	-	100x ✓	

Due Date: 3/2/2018

PREPARATION BENCH SHEET

BC 2/13/18  
2600-2

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

8B00080-04	MMBKD-01_18WT001_013018_ABD_04_BL	0.1207	20	-	-	-	100X	
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Technician: AMB, Oregon Batch#: F802192 Date: 2-7-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 14575 Calibrated?  Yes  No

\*Time in: 1645 Actual Temp. (raw): 77.0 °C w/ CF: 76.8 °C

Time out: 1845 Actual Temp. (raw): 79.0 °C w/ CF: 78.8 °C

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

Final vol.: 20 mL (LIMS ID: 1800707) Spike vol.: 20 (BS/BSD) µL (LIMS ID: 1800233)  
 Spike Witness: DM 2/7/18 (initial and date)

HCl LIMS ID: N/A  
 HNO<sub>3</sub> LIMS ID: N/A  
 70/30 LIMS ID: 1800678  
 Other Acid LIMS ID: N/A  
 Glass Vial # 00068124 Boiling Chip lot # 1800500

Pipette SN#: MU11619 Calibration Date: 2/7/18  
 Pipette SN#: N/A Calibration Date: N/A  
 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Dispenser #: 15406623  Yes

\*Hotblock Position: 05 M5  
AMB 2-7-18

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	F802192-BLK1	0.2505	23	8B00079-13	0.1204	BS2 = DORMA
2	F802192-BLK2	0.2628	24	8B00079-14	0.1215	LIMS: 1703305
3	F802192-BLK3	0.2791	25	8B00079-15	0.1658	
4	F802192-BS1	0.2667	26	8B00079-16	0.2740	<sup>2</sup> Comments
5	F802192-BSD1	0.2695	27	8B00080-01	0.775	<sup>2</sup> AMB 2-7-18 DUPI, MSI, MSD1:
6	F802192-BS2	0.1273	28	F802192-MS2	0.767g	Source =
7	F802192-BLK4	0.2580	29	F802192-MSD2	0.0739	8B00079-06
8	F802192-BLK5	0.2741	30	8B00080-02	0.1292	MS2, MSD2
9	8B00079-01	0.1222	31	8B00080-03	0.1751	Source =
10	8B00079-02	0.1674	32	8B00080-04	0.1207	8B00080-01
11	8B00079-03	0.1960	33	F802192-DUPI	0.0767	BLK4/BLK5:
12	8B00079-04	0.2128	34			Pre + Post
13	8B00079-05	0.1877	35			homogen.
14	8B00079-06	0.1976	36			blanks for
15	F802192-MS1	0.0575	37			8B00079-16.
16	F802192-MSD1	0.0489	38			DUPI source:
17	8B00079-07	0.2359	39			8B00080-04
18	8B00079-08	0.2463	40			
19	8B00079-09	0.2491	41			All MS/MSD's
20	8B00079-10	0.1828	42			spiked w/
21	8B00079-11	0.1929	43			100ml of 1000µg/ml
22	8B00079-12	0.1051	44			1705554.

\*\* 8B00080-01 = 0.0775g  
 AMB 2/7/18  
 \*MS2 = 0.0767g  
 AMB 2/7/18

**PREPARATION BENCH SHEET**

F802195

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802195-BLK1	Blank	0.25	20					
F802195-BLK2	Blank	0.25	20					
F802195-BLK3	Blank	0.25	20					
F802195-BS1	Blank Spike	0.25	20	1800768	20			
F802195-BS2	DORM4	0.1255	20	1703305	125.5			
F802195-BSD1	Blank Spike	0.25	20	1800768	20			
F802195-DUP1	Duplicate [8B00082-10]	0.0538	20					
F802195-DUP2	AD [8B00082-10] ✓	0.0976 ✓	20					
F802195-MS1	Matrix Spike [8B00082-14]	0.0604	20	1705554	100			
F802195-MS2	Matrix Spike [8B00082-15]	0.0531	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800768	THg 100ng/mL Primary Spiking Standard	09-May-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802195

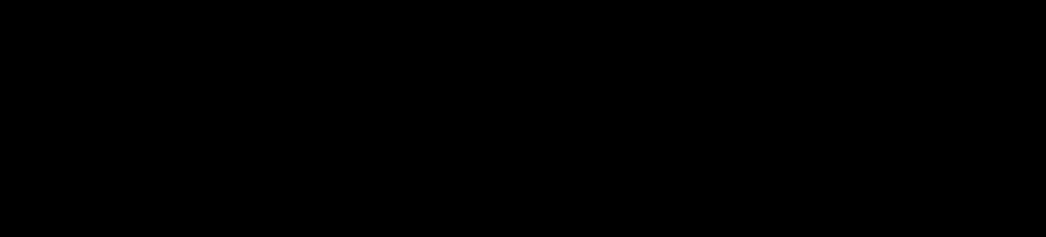
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00082-09	ES-13_18WT001_013018_ABD_09_BL	0.1582	20	-	-	-		
8B00082-10	ES-13_18WT001_013018_ABD_10_BL	0.0976	20	-	-	-		
8B00082-11	ES-13_18WT001_013018_ABD_11_BL	0.1378	20	-	-	-		
8B00082-12	ES-13_18WT001_013018_ABD_12_BL	0.1538	20	-	-	-		
8B00082-13	ES_13_18WT001_013118_ABD_13_BL	0.1627	20	-	-	-		
8B00082-14	ES-13_18WT001_013118_ABD_14_BL	0.1053	20	-	-	-		
8B00082-15	ES-13_18WT001_013118_ABD_15_BL	0.0535	20	-	-	-		





**PREPARATION BENCH SHEET**

F802195

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802195-BLK1	Blank	0.25	20					20x -
F802195-BLK2	Blank	0.25	20					20x -
F802195-BLK3	Blank	0.25	20					20x -
F802195-BS1	Blank Spike	0.25	20	1800768	20			20x -
F802195-BS2	DORM4	0.1255	20	1703305	1255			400x -
F802195-BSD1	Blank Spike	0.25	20	1800768	20			20x -
F802195-DUP1	Duplicate [8B00082-10]	0.0538	20					100x -
F802195-MS1	Matrix Spike [8B00082-14]	0.0604	20	1705554	100			400x -
F802195-MS2	Matrix Spike [8B00082-15]	0.0531	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800768	THg 100ng/mL Primary Spiking Standard	09-May-18 00:00	1800770	5% BrCl	18-Jun-18 00:00

DUP2 - 8B00082-10  
100x  
AD

1706821  
1707390  
1707389  
1800680

**PREPARATION BENCH SHEET**

F802195

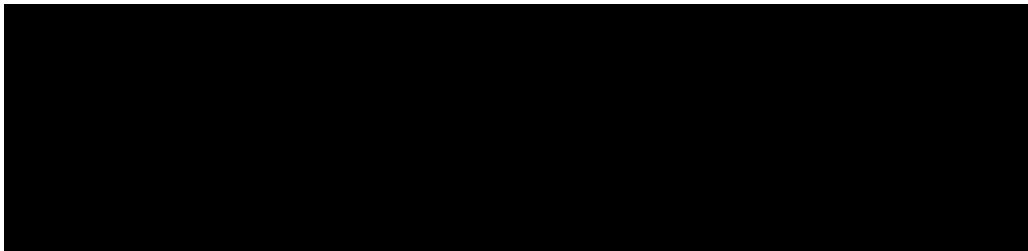
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00082-09	ES-13_18WT001_013018_ABD_09_BL	0.1582	20	-	-	-	100X ✓	
8B00082-10	ES-13_18WT001_013018_ABD_10_BL	0.0976	20	-	-	-	100X ✓	
8B00082-11	ES-13_18WT001_013018_ABD_11_BL	0.1378	20	-	-	-	100X ✓	
8B00082-12	ES-13_18WT001_013018_ABD_12_BL	0.1538	20	-	-	-	100X ✓	
8B00082-13	ES_13_18WT001_013118_ABD_13_BL	0.1627	20	-	-	-	100X ✓	
8B00082-14	ES-13_18WT001_013118_ABD_14_BL	0.1053	20	-	-	-	100X ✓	
8B00082-15	ES-13_18WT001_013118_ABD_15_BL	0.0535	20	-	-	-	100X ✓	



Technician: Duyen Batch#: F802195 Date: 2-9-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 14545 Calibrated?  Yes  No  
 \*Time in: 10:00 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 Time out: 12:00 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1800770) Spike vol.: 20 µL (LIMS ID: 1800768)  
 Spike Witness: cm 2/9/18 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 2-9-18  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A 2/11/18 Calibration Date: N/A  
 70/30 LIMS ID: 1800748 Dispenser #: 02K275494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068407 Boiling Chip lot # 1706716 \*Hotblock Position: G-4

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	F802195 BK1	0.2876	23			BS2 = DDM-4	
2	F802195 BK2	0.2880	24			01703205	
3	F802195 BK3	0.2533	25			3 2/11/18	
4	F802195 BS1	0.2790	26				<b>Comments</b>
5	F802195 BS01	0.2879	27				F802195
6	F802195 BS2	0.1255	28			2-09-18	no
7	8B00082-09	0.1582	29			no	8B00082-10
8	8B00082-10A	0.0976	30				F802195 2/9/18
9	F802195-MD	0.0538	31				MS1, MS2 2/9/18
10	8B00082-11A	0.1378	32				8B00082-14
11	8B00082-12A	0.1538	33				2/9/18
12	8B00082-13A	0.1627	34				F802195-MS2
13	8B00082-14A	0.1053	35				8B00082-15
14	F802195-MS1	0.0604	36				2/9/18
15	8B00082-15A	0.0535	37				ALL MS2, MS1
16	F802195-MS2	0.0531	38				Spike w 100ul
17			39				1000µl
18			40				1765554
19		2/09/18	41				Acid 70:30
20		no	42				Digestion Acid
21			43				on 2/12/18
22			44				8B00082-14

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

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> <u>R 2/14/18</u>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	

● 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

- |   |   |  |                                     |                                     |
|---|---|--|-------------------------------------|-------------------------------------|
| 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?<br>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<br>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?<br>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 checked="" 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> 0 <i>A 2/14/18</i>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	0

Analyst Initials BC                      Reviewer Initials R

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> 0 <i>R 2/14/18</i>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	0

**Analyst Initials** BC **Reviewer Initials** 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 checked="" type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: <u>8B00317-01</u>  |  |  |   |
| 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: _____ 1/3/2018 _____ 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: _____ 12/22/2017 _____ LOD within last 3 months?                              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 12/22/2017 _____ 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.**

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

Analyst:	BC	Sequence(s) #:	8B14009, 8B14010
Reviewer:	0 <i>R 2/14/18</i>	Dataset ID(s):	THg26002-180213-1
Date:	2/14/2018	WO (s) #:	Various
Batch #(s):	F802225, F802235, F802192, F802195		0

*DC*

40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES

Reviewed 02/19/2018  
Elizabeth Penta  
Wood. PLC

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

8B00080

PO#

C012505850

February 15, 2018



# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 8B00080

### Table of Contents

February 15, 2018

<b>Section</b>	<b>Page Number</b>
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	21
Notes and Definitions	29
Raw Data: 8B14010	30
Raw Data: 8B14017	69

**Total Pages – 103**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

Reported:  
15-Feb-18 11:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMBKD-01_18WT001_012918_ABD_01_BL	8B00080-01	Tissue	29-Jan-18 15:30	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_02_BL	8B00080-02	Tissue	30-Jan-18 18:15	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_03_BL	8B00080-03	Tissue	30-Jan-18 18:30	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_04_BL	8B00080-04	Tissue	30-Jan-18 18:40	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_05_BL	8B00080-05	Tissue	30-Jan-18 18:48	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_06_BL	8B00080-06	Tissue	30-Jan-18 18:55	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_07_BL	8B00080-07	Tissue	30-Jan-18 19:00	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_08_BL	8B00080-08	Tissue	30-Jan-18 19:10	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_09_BL	8B00080-09	Tissue	30-Jan-18 19:15	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_10_BL	8B00080-10	Tissue	30-Jan-18 19:25	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_11_BL	8B00080-11	Tissue	30-Jan-18 19:30	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_12_BL	8B00080-12	Tissue	30-Jan-18 19:35	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_13_BL	8B00080-13	Tissue	30-Jan-18 19:45	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_14_BL	8B00080-14	Tissue	30-Jan-18 19:55	02-Feb-18 09:50
MMBKD-01_18WT001_013018_ABD_15_BL	8B00080-15	Tissue	30-Jan-18 20:05	02-Feb-18 09:50

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/2/2018 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at -62.5 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; F802192 and F802193. These were analyzed in two sequences; 8B14010 and 8B14017. Sample 8B00080-01 was used as the QC source in batch F802192.

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.

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Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

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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: AMBC Foster Wheeler

Date & Time Received: 2/2/18 9:50 Date Labeled: 2/2/18 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:	Y	
Custody Seals are present and intact:	Y	
Custody seals signed:	Y	

TID: <u>170-104186</u> CF: <u>+0.1 °C</u> Date/time: <u>2/2/18 9:50</u> By: <u>LM</u>
Cooler 1: <u>-62.62°C</u> w/ CF: <u>-62.52°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:	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):

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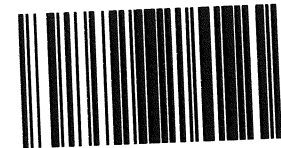
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8B00080



8 B00080

**Environmental Analysis Request/Chain of Custody**



Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101			<b>Matrix</b>			<b>Analyses Requested</b>					<b>For Lab Use Only</b>																
Project Name#: USDC Penobscot			PN #3616166052.04A.054			<b>Preservation Codes</b>					SF #: _____																
Project Manager: Rod Pendleton			P.O. #C012505850								SCR #: _____																
Sampler: LSV/ KCB			PWSID #:								Preservation Codes H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other																
Phone #:			Quote #:																								
State where samples were collected: ME			For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																								
<b>Sample Identification</b>			<b>Collection</b>		<b>Grab</b>	<b>Composite</b>	<b>Soil</b>	<b>Sediment</b>	<b>Tissue</b>	<b>Potable</b>	<b>Water</b>	<b>Ground</b>	<b>NPDES</b>	<b>Surface</b>	<b>Other:</b>	<b>Blood</b>	<b>Total # of Containers</b>						<b>Remarks</b>				
<b>Date</b>	<b>Time</b>	<b>X</b>	<b>X</b>	<b>X</b>														<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
1	MMBKD-01_18WT001_012918_AGD_01_BL	1/29/2018	1530	X							X													5	Cap Tubes. Use volume for MS/MSD		
2	MMBKD-01_18WT001_013018_ABD_02_BL	1/30/2018	18:15	X							X														4	Cap tubes	
3	MMBKD-01_18WT001_013018_ABD_03_BL	1/30/2018	18:30	X							X														4	Cap tubes	
4	MMBKD-01_18WT001_013018_ABD_04_BL	1/30/2018	18:40	X							X														4	Cap tubes	
5	MMBKD-01_18WT001_013018_ABD_05_BL	1/30/2018	18:48	X							X														3	Cap tubes	
6	MMBKD-01_18WT001_013018_ABD_06_BL	1/30/2018	18:55	X							X														4	Cap tubes	
7	MMBKD-01_18WT001_013018_ABD_07_BL	1/30/2018	19:00	X							X														2.5	Cap tubes	
8	MMBKD-01_18WT001_013018_ABD_08_BL	1/30/2018	19:10	X							X														3	Cap tubes	
9	MMBKD-01_18WT001_013018_ABD_09_BL	1/30/2018	19:15	X							X														5	Cap tubes	
10	MMBKD-01_18WT001_013018_ABD_10_BL	1/30/2018	19:25	X							X														4	Cap tubes	
11	MMBKD-01_18WT001_013018_ABD_11_BL	1/30/2018	19:30	X							X														3	Cap tubes	
12	MMBKD-01_18WT001_013018_ABD_12_BL	1/30/2018	19:35	X							X														3.3	Cap tubes	
13	MMBKD-01_18WT001_013018_ABD_13_BL	1/30/2018	19:45	X							X														3.5	Cap tubes	
14	MMBKD-01_18WT001_013018_ABD_14_BL	1/30/2018	19:55	X							X														4	Cap tubes	
15	MMBKD-01_18WT001_013018_ABD_15_BL	1/30/2018	20:05	X							X														4	Cap tubes	
16																											
17																											
18																											
19																											
20																											
<b>Turnaround Time Requested (TAT)</b> (please check):			Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>			Relinquished by: Kendra Bavor		Date: 2/1/2018		Time: 1630		Received by: <i>[Signature]</i>		Date: 2/2/18		Time: 9:50											
<b>Notes:</b> MS/MD volume noted in Remarks.						Relinquished by:		Date:		Time:		Received by: <i>Lars Mithel</i>		Date:		Time:											
FedEx # 810426642018			# of Coolers 1			Relinquished by:		Date:		Time:		Received by: <i>LBPCS</i>		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			Relinquished by:		Date:		Time:		Received by:		Date:		Time:											
<b>Data Package Options</b> (please check if required)			High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>			Relinquished by Commercial Carrier:					Temperature upon receipt <i>62.52</i> °C																
<b>EDD Required?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			If yes, format: _____			UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other <input type="checkbox"/>																					

Seal: 705



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_012918\_ABD\_01\_BL**  
**8B00080-01**

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

**Sample Preparation: EPA 1631B**

Mercury	459	1.45	12.9	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	
---------	-----	------	------	------	-----	---------	-----------	---------	-----------	-----------	--

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_02\_BL**  
**8B00080-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	238	0.867	7.74	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_03\_BL**  
**8B00080-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	427	0.640	5.71	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_04\_BL**  
**8B00080-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	238	0.928	8.29	ng/g	100	F802192	07-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_05\_BL**  
**8B00080-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	386	1.03	9.22	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_06\_BL**  
**8B00080-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	359	1.23	11.0	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_07\_BL**  
**8B00080-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	295	0.918	8.20	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	

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271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_08\_BL**  
**8B00080-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	187	1.47	13.1	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_09\_BL**  
**8B00080-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	324	0.748	6.68	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**MMBKD-01\_18WT001\_013018\_ABD\_10\_BL**  
**8B00080-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	309	0.773	6.90	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	

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Amy Goodall, Project Manager





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15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_11\_BL**  
**8B00080-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	227	0.709	6.33	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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15-Feb-18 11:05

**MMBKD-01\_18WT001\_013018\_ABD\_12\_BL**  
**8B00080-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	245	1.70	15.2	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**MMBKD-01\_18WT001\_013018\_ABD\_13\_BL**  
**8B00080-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	209	0.825	7.36	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	

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Amy Goodall, Project Manager



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Project Manager: Denise King

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**MMBKD-01\_18WT001\_013018\_ABD\_14\_BL**  
**8B00080-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	206	1.01	9.01	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**MMBKD-01\_18WT001\_013018\_ABD\_15\_BL**  
**8B00080-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	275	1.10	9.85	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	

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15-Feb-18 11:05

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8B14010 - F802192</b>											
<b>Cal Standard (8B14010-CAL1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.502	-		ng/L	0.50200		99.9				
<b>Cal Standard (8B14010-CAL2)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	1.017	-		ng/L	1.0040		101				
<b>Cal Standard (8B14010-CAL3)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.031	-		ng/L	5.0200		100				
<b>Cal Standard (8B14010-CAL4)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	19.63	-		ng/L	20.080		97.8				
<b>Cal Standard (8B14010-CAL5)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	39.66	-		ng/L	40.160		98.7				
<b>Calibration Blank (8B14010-CCB1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.026	-		ng/L							
<b>Calibration Blank (8B14010-CCB2)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.144	-		ng/L							
<b>Calibration Blank (8B14010-CCB3)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.033	-		ng/L							
<b>Calibration Blank (8B14010-CCB4)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.107	-		ng/L							
<b>Calibration Blank (8B14010-CCB5)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.073	-		ng/L							

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15-Feb-18 11:05

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 8B14010 - F802192

<b>Calibration Blank (8B14010-CCB6)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.179	-		ng/L							
<b>Calibration Blank (8B14010-CCB7)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.118	-		ng/L							
<b>Calibration Blank (8B14010-CCB8)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.164	-		ng/L							
<b>Calibration Check (8B14010-CCV1)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.210	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (8B14010-CCV2)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.269	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (8B14010-CCV3)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.085	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (8B14010-CCV4)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.272	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (8B14010-CCV5)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.309	-		ng/L	5.0000		106	77-123			
<b>Calibration Check (8B14010-CCV6)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.450	-		ng/L	5.0000		109	77-123			
<b>Calibration Check (8B14010-CCV7)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.298	-		ng/L	5.0000		106	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 8B14010 - F802192**

**Calibration Check (8B14010-CCV8)** Prepared & Analyzed: 13-Feb-18

Mercury	5.443	-		ng/L	5.0000		109	77-123			
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**Instrument Blank (8B14010-IBL1)** Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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**Instrument Blank (8B14010-IBL2)** Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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**Instrument Blank (8B14010-IBL3)** Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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**Initial Cal Check (8B14010-ICV1)** Prepared & Analyzed: 13-Feb-18

Mercury	5.323	-		ng/L	5.0000		106	79-121			
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**Batch 8B14017 - F802193**

**Cal Standard (8B14017-CAL1)** Prepared & Analyzed: 13-Feb-18

Mercury	0.495	-		ng/L	0.50200		98.6				
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**Cal Standard (8B14017-CAL2)** Prepared & Analyzed: 13-Feb-18

Mercury	0.994	-		ng/L	1.0040		99.0				
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**Cal Standard (8B14017-CAL3)** Prepared & Analyzed: 13-Feb-18

Mercury	5.077	-		ng/L	5.0200		101				
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**Cal Standard (8B14017-CAL4)** Prepared & Analyzed: 13-Feb-18

Mercury	19.98	-		ng/L	20.080		99.5				
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Project Manager: Denise King

Reported:  
15-Feb-18 11:05

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8B14017 - F802193</b>											
<b>Cal Standard (8B14017-CAL5)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	40.10	-		ng/L	40.160		99.8				
<b>Calibration Blank (8B14017-CCB1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.172	-		ng/L							
<b>Calibration Blank (8B14017-CCB2)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.170	-		ng/L							
<b>Calibration Blank (8B14017-CCB3)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.167	-		ng/L							
<b>Calibration Blank (8B14017-CCB4)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.111	-		ng/L							
<b>Calibration Blank (8B14017-CCB5)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.036	-		ng/L							
<b>Calibration Blank (8B14017-CCB6)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.154	-		ng/L							
<b>Calibration Blank (8B14017-CCB7)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.107	-		ng/L							
<b>Calibration Check (8B14017-CCV1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.645	-		ng/L	5.0000		113	77-123			
<b>Calibration Check (8B14017-CCV2)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.312	-		ng/L	5.0000		106	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 8B14017 - F802193

<b>Calibration Check (8B14017-CCV3)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.377	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (8B14017-CCV4)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.282	-		ng/L	5.0000		106	77-123			
<b>Calibration Check (8B14017-CCV5)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.514	-		ng/L	5.0000		110	77-123			
<b>Calibration Check (8B14017-CCV6)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.607	-		ng/L	5.0000		112	77-123			
<b>Calibration Check (8B14017-CCV7)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.530	-		ng/L	5.0000		111	77-123			
<b>Instrument Blank (8B14017-IBL1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (8B14017-IBL2)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (8B14017-IBL3)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (8B14017-ICV1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.194	-		ng/L	5.0000		104	79-121			

Batch F802192 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F802192-BLK1)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	0.122	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
<b>Batch F802192 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F802192-BLK2)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F802192-BLK3)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F802192-BLK4)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	ND	0.087	0.775	ng/g							F-03, U
<b>Blank (F802192-BLK5)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	ND	0.082	0.730	ng/g							F-03, U
<b>LCS (F802192-BS1)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	7.631	0.090	0.800	ng/g	8.0160		95.2	75-125			
<b>LCS (F802192-BS2)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	354.3	3.52	31.4	ng/g	382.50		92.6	75-125			
<b>LCS Dup (F802192-BSD1)</b>					Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	7.807	0.090	0.800	ng/g	8.0160		97.4	75-125	2.29	24	
<b>Duplicate (F802192-DUP1)</b>					Source: 8B00080-04		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	236.2	1.46	13.0	ng/g		237.9			0.702	24	
<b>Matrix Spike (F802192-MS1)</b>					Source: 8B00079-06		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	1768	7.79	69.6	ng/g	1739.1	52.02	98.7	71-125			
<b>Matrix Spike (F802192-MS2)</b>					Source: 8B00080-01		Prepared: 07-Feb-18 Analyzed: 13-Feb-18				
Mercury	1856	5.84	52.2	ng/g	1303.8	459.2	107	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 F802192 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike Dup (F802192-MSD1)</b>		<b>Source: 8B00079-06</b>			Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	2103	9.16	81.8	ng/g	2045.0	52.02	100	71-125	1.64	24	
<b>Matrix Spike Dup (F802192-MSD2)</b>		<b>Source: 8B00080-01</b>			Prepared: 07-Feb-18 Analyzed: 13-Feb-18						
Mercury	1874	6.06	54.1	ng/g	1353.2	459.2	105	71-125	2.43	24	

**Batch F802193 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F802193-BLK1)</b>					Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	0.331	0.090	0.800	ng/g							J
<b>Blank (F802193-BLK2)</b>					Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	0.186	0.090	0.800	ng/g							J
<b>Blank (F802193-BLK3)</b>					Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	0.140	0.090	0.800	ng/g							J
<b>LCS (F802193-BS1)</b>					Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	7.975	0.090	0.800	ng/g	8.0160		99.5	75-125			
<b>LCS (F802193-BS2)</b>					Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	351.8	3.56	31.8	ng/g	382.50		92.0	75-125			
<b>LCS Dup (F802193-BSD1)</b>					Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	7.887	0.090	0.800	ng/g	8.0160		98.4	75-125	1.11	24	
<b>Duplicate (F802193-DUP1)</b>		<b>Source: 8B00082-02</b>			Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	360.3	2.75	24.6	ng/g		295.8			19.7	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 F802193 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Matrix Spike (F802193-MS1)</b>		<b>Source: 8B00082-03</b>			Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	2891	11.9	106	ng/g	2659.6	97.08	105	71-125			
<b>Matrix Spike (F802193-MS2)</b>		<b>Source: 8B00082-07</b>			Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	1892	7.71	68.8	ng/g	1721.2	80.28	105	71-125			
<b>Matrix Spike Dup (F802193-MSD1)</b>		<b>Source: 8B00082-03</b>			Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	2104	8.22	73.4	ng/g	1834.9	97.08	109	71-125	4.05	24	
<b>Matrix Spike Dup (F802193-MSD2)</b>		<b>Source: 8B00082-07</b>			Prepared: 09-Feb-18 Analyzed: 13-Feb-18						
Mercury	1861	7.59	67.8	ng/g	1694.9	80.28	105	71-125	0.234	24	



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:05

### 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.
- 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: February 13, 2018

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 8B14009, 8B14010

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	132.65 units	265.30	117.61 units	235.23	100.3 %Rec
SEQ-CAL2	1	1.00 ng/L	253.53 units	253.53	238.50 units	238.50	101.7 %Rec
SEQ-CAL3	1	5.00 ng/L	1194.43 units	238.89	1179.39 units	235.88	100.6 %Rec
SEQ-CAL4	1	20.00 ng/L	4617.58 units	230.88	4602.54 units	230.13	98.2 %Rec
SEQ-CAL5	1	40.00 ng/L	9311.46 units	232.79	9296.43 units	232.41	99.1 %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**  
 234.43            +/- 3.24            1.4% RSD            244.28

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	15.03 units	±4.75	0.06 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	5.345 ng/L	±2.015
BLK	2	3	9.944 ng/L	±4.459
BLK	3	3	1.068 ng/L	±0.440
BLK	4	3	2.809 ng/L	±1.108
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: AL 2/14/18

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	2/13/2018 8:35:20	96553-1.RAW	8:35:20 AM	20.44			5.4	0.023	0.023	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	2/13/2018 8:39:28	96554-1.RAW	8:39:28 AM	13.15			-1.9	-0.008	-0.008	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	2/13/2018 8:43:37	96555-1.RAW	8:43:37 AM	11.52			-3.5	-0.015	-0.015	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	2/13/2018 8:47:45	96556-1.RAW	8:47:45 AM	132.65			117.6	0.502	0.502	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	2/13/2018 8:51:54	96557-1.RAW	8:51:54 AM	253.53			238.5	1.017	1.017	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	2/13/2018 8:56:02	96558-1.RAW	8:56:02 AM	1194.43			1179.4	5.031	5.031	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	2/13/2018 9:00:11	96559-1.RAW	9:00:11 AM	4617.58			4602.5	19.633	19.633	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	2/13/2018 9:04:20	96560-1.RAW	9:04:20 AM	9311.46			9296.4	39.656	39.656	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	2/13/2018 9:08:28	96561-1.RAW	9:08:28 AM	1262.90			1247.9	5.323	5.323	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 9:20:21	96562-1.RAW	9:20:21 AM	44.05		X	29.0	0.124	0.000	ng/L	
Hg2600-2	BC	BLK	F802235-BLK1	100	2/13/2018 9:24:29	96563-1.RAW	9:24:29 AM	32.90	1		17.9	0.076	7.619	ng/L	
Hg2600-2	BC	BLK	F802235-BLK2	100	2/13/2018 9:28:38	96564-1.RAW	9:28:38 AM	25.91	1		10.9	0.046	4.638	ng/L	
Hg2600-2	BC	BLK	F802235-BLK3	100	2/13/2018 9:32:46	96565-1.RAW	9:32:46 AM	23.89	1		8.9	0.038	3.779	ng/L	
Hg2600-2	BC	SAM	F802235-BS1	400	2/13/2018 9:36:55	96566-1.RAW	9:36:55 AM	1122.62	1		1107.6	4.711	1884.501	ng/L	
Hg2600-2	BC	SAM	F802235-BSD1	400	2/13/2018 9:41:03	96567-1.RAW	9:41:03 AM	1113.61	1		1098.6	4.673	1869.126	ng/L	
Hg2600-2	BC	SAM	8B00313-01	2500	2/13/2018 9:45:12	96568-1.RAW	9:45:12 AM	547.56	1		532.5	2.269	5673.587	ng/L	
Hg2600-2	BC	SAM	8B00313-02	2500	2/13/2018 9:49:20	96569-1.RAW	9:49:20 AM	438.13	1		423.1	1.803	4506.631	ng/L	
Hg2600-2	BC	SAM	8B00314-01	2500	2/13/2018 9:53:28	96570-1.RAW	9:53:28 AM	694.52	1		679.5	2.896	7240.860	ng/L	
Hg2600-2	BC	SAM	8B00314-02	2500	2/13/2018 9:57:37	96571-1.RAW	9:57:37 AM	532.13	1		517.1	2.204	5509.058	ng/L	
Hg2600-2	BC	SAM	8B00313-01_B	100	2/13/2018 10:01:45	96572-1.RAW	10:01:45 AM	37.41	1		22.4	0.042	4.201	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	2/13/2018 10:05:54	96573-1.RAW	10:05:54 AM	1236.34			1221.3	5.210	5.210	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	2/13/2018 10:10:02	96574-1.RAW	10:10:02 AM	21.22			6.2	0.026	0.026	ng/L	
Hg2600-2	BC	SAM	8B00313-02_B	100	2/13/2018 10:14:11	96575-1.RAW	10:14:11 AM	28.81	1		13.8	0.005	0.531	ng/L	
Hg2600-2	BC	SAM	8B00314-01_B	100	2/13/2018 10:18:19	96576-1.RAW	10:18:19 AM	63.41	1		48.4	0.153	15.291	ng/L	
Hg2600-2	BC	SAM	8B00314-02_B	100	2/13/2018 10:22:27	96577-1.RAW	10:22:27 AM	77.57	1		62.5	0.213	21.332	ng/L	
Hg2600-2	BC	SAM	8B00313-01_C	2500	2/13/2018 10:26:36	96578-1.RAW	10:26:36 AM	2453.26	1		2438.2	10.399	25996.463	ng/L	
Hg2600-2	BC	SAM	8B00313-02_C	2500	2/13/2018 10:30:44	96579-1.RAW	10:30:44 AM	2520.47	1		2505.4	10.685	26713.187	ng/L	
Hg2600-2	BC	SAM	8B00314-01_C	2500	2/13/2018 10:34:53	96580-1.RAW	10:34:53 AM	1026.09	1		1011.1	4.311	10776.791	ng/L	
Hg2600-2	BC	SAM	8B00314-02_C	2500	2/13/2018 10:39:01	96581-1.RAW	10:39:01 AM	2713.49	1		2698.5	11.509	28771.610	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 10:59:44	96582-1.RAW	10:59:44 AM	71.68		X	56.6	0.242	0.000	ng/L	
Hg2600-2	BC	SAM	8B00314-01_CRE1	2500	2/13/2018 11:03:54	96583-1.RAW	11:03:54 AM	1044.74	1		1029.7	4.390	10975.645	ng/L	
Hg2600-2	BC	SAM	F802235-DUP1	2500	2/13/2018 11:08:03	96584-1.RAW	11:08:03 AM	479.69	1		464.7	1.980	4949.893	ng/L	
Hg2600-2	BC	SAM	F802235-MS1	2500	2/13/2018 11:12:12	96585-1.RAW	11:12:12 AM	1652.85	1		1637.8	6.984	17460.728	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	2/13/2018 11:16:20	96586-1.RAW	11:16:20 AM	1250.23			1235.2	5.269	5.269	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	2/13/2018 11:20:29	96587-1.RAW	11:20:29 AM	48.75			33.7	0.144	0.144	ng/L	
Hg2600-2	BC	SAM	F802235-MSD1	2500	2/13/2018 11:24:37	96588-1.RAW	11:24:37 AM	1635.45	1		1620.4	6.910	17275.088	ng/L	
Hg2600-2	BC	BLK	F802225-BLK4	100	2/13/2018 11:28:45	96589-1.RAW	11:28:45 AM	50.38	2		35.3	0.151	15.078	ng/L	
Hg2600-2	BC	BLK	F802225-BLK5	100	2/13/2018 11:32:54	96590-1.RAW	11:32:54 AM	33.12	2		18.1	0.077	7.713	ng/L	
Hg2600-2	BC	BLK	F802225-BLK6	100	2/13/2018 11:37:02	96591-1.RAW	11:37:02 AM	31.54	2		16.5	0.070	7.041	ng/L	
Hg2600-2	BC	SAM	8B00272-23 BRE1	100	2/13/2018 11:41:11	96592-1.RAW	11:41:11 AM	379.92	2		364.9	1.457	145.704	ng/L	
Hg2600-2	BC	BLK	F802192-BLK1	20	2/13/2018 11:45:19	96593-1.RAW	11:45:19 AM	32.87	3		17.8	0.076	1.522	ng/L	
Hg2600-2	BC	BLK	F802192-BLK2	20	2/13/2018 11:49:28	96594-1.RAW	11:49:28 AM	27.22	3		12.2	0.052	1.040	ng/L	
Hg2600-2	BC	BLK	F802192-BLK3	20	2/13/2018 11:53:36	96595-1.RAW	11:53:36 AM	22.57	3		7.5	0.032	0.643	ng/L	
Hg2600-2	BC	SAM	*F802192-BLK4	20	2/13/2018 11:57:45	96596-1.RAW	11:57:45 AM	26.43	3		11.4	-0.005	-0.096	ng/L	
Hg2600-2	BC	SAM	*F802192-BLK5	20	2/13/2018 12:01:53	96597-1.RAW	12:01:53 PM	14.68	3		-0.4	-0.055	-1.098	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	2/13/2018 12:06:01	96598-1.RAW	12:06:01 PM	1207.15			1192.1	5.085	5.085	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	2/13/2018 12:10:10	96599-1.RAW	12:10:10 PM	22.77			7.7	0.033	0.033	ng/L	
Hg2600-2	BC	SAM	F802192-BS1	20	2/13/2018 12:14:18	96600-1.RAW	12:14:18 PM	1145.56	3		1130.5	4.769	95.382	ng/L	
Hg2600-2	BC	SAM	F802192-BSD1	20	2/13/2018 12:18:27	96601-1.RAW	12:18:27 PM	1171.43	3		1156.4	4.879	97.589	ng/L	
Hg2600-2	BC	SAM	F802192-BS2	400	2/13/2018 12:22:35	96602-1.RAW	12:22:35 PM	1337.28	3		1322.2	5.638	2255.045	ng/L	
Hg2600-2	BC	SAM	8B00079-01	400	2/13/2018 12:26:43	96603-1.RAW	12:26:43 PM	234.11	3		219.1	0.932	372.732	ng/L	
Hg2600-2	BC	SAM	8B00079-02	400	2/13/2018 12:30:52	96604-1.RAW	12:30:52 PM	292.73	3		277.7	1.182	472.764	ng/L	
Hg2600-2	BC	SAM	8B00079-03	400	2/13/2018 12:35:00	96605-1.RAW	12:35:00 PM	382.44	3		367.4	1.565	625.820	ng/L	
Hg2600-2	BC	SAM	8B00079-04	100	2/13/2018 12:39:09	96606-1.RAW	12:39:09 PM	589.08	3		574.0	2.438	243.803	ng/L	
Hg2600-2	BC	SAM	8B00079-05	100	2/13/2018 12:43:17	96607-1.RAW	12:43:17 PM	486.47	3		471.4	2.000	200.031	ng/L	
Hg2600-2	BC	SAM	8B00079-06	100	2/13/2018 12:47:26	96608-1.RAW	12:47:26 PM	1222.44	3		1207.4	5.140	513.975	ng/L	
Hg2600-2	BC	SAM	8B00079-07	100	2/13/2018 12:51:34	96609-1.RAW	12:51:34 PM	2396.95	3		2381.9	10.150	1014.982	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	BC	CAL	SEQ-CCV4 ✓	1	2/13/2018 12:55:42	96610-1.RAW	12:55:42 PM	1250.97			1235.9	5.272	5.272	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4 ✓	1	2/13/2018 12:59:51	96611-1.RAW	12:59:51 PM	40.21			25.2	0.107	0.107	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 13:07:24	96612-1.RAW	1:07:24 PM	32.73		X	17.7	0.075	0.000	ng/L	
Hg2600-2	BC	SAM	8B00079-08 ✓	100	2/13/2018 13:11:32	96613-1.RAW	1:11:32 PM	2045.95		3	2030.9	8.653	865.259	ng/L	
Hg2600-2	BC	SAM	8B00079-09 ✓	100	2/13/2018 13:15:40	96614-1.RAW	1:15:40 PM	2366.51		3	2351.5	10.020	1001.999	ng/L	
Hg2600-2	BC	SAM	8B00079-10 ✓	100	2/13/2018 13:19:49	96615-1.RAW	1:19:49 PM	1147.34		3	1132.3	4.819	481.937	ng/L	
Hg2600-2	BC	SAM	8B00079-11 ✓	100	2/13/2018 13:23:58	96616-1.RAW	1:23:58 PM	1418.48		3	1403.4	5.976	597.599	ng/L	
Hg2600-2	BC	SAM	8B00079-12 ✓	100	2/13/2018 13:28:07	96617-1.RAW	1:28:07 PM	621.35		3	606.3	2.576	257.569	ng/L	
Hg2600-2	BC	SAM	8B00079-13 ✓	100	2/13/2018 13:32:15	96618-1.RAW	1:32:15 PM	496.33		3	481.3	2.042	204.238	ng/L	
Hg2600-2	BC	SAM	8B00079-14 ✓	100	2/13/2018 13:36:24	96619-1.RAW	1:36:24 PM	910.85		3	895.8	3.811	381.058	ng/L	
Hg2600-2	BC	SAM	8B00079-15 ✓	100	2/13/2018 13:40:32	96620-1.RAW	1:40:32 PM	1079.464496		3	1064.4	4.530	452.985	ng/L	
Hg2600-2	BC	SAM	8B00079-16 ✓	100	2/13/2018 13:44:41	96621-1.RAW	1:44:41 PM	21.09		3	6.1	0.015	1.514	ng/L	
Hg2600-2	BC	SAM	8B00080-01 ✓	100	2/13/2018 13:48:49	96622-1.RAW	1:48:49 PM	4189.35		3	4174.3	17.796	1779.566	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5 ✓	1	2/13/2018 13:52:58	96623-1.RAW	1:52:58 PM	1259.65			1244.6	5.309	5.309	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5 ✓	1	2/13/2018 13:57:07	96624-1.RAW	1:57:07 PM	32.16			17.1	0.073	0.073	ng/L	
Hg2600-2	BC	SAM	8B00080-02 ✓	100	2/13/2018 14:01:17	96625-1.RAW	2:01:17 PM	3616.76		3	3601.7	15.353	1535.317	ng/L	
Hg2600-2	BC	SAM	8B00080-03 ✓	100	2/13/2018 14:05:25	96626-1.RAW	2:05:25 PM	8773.25		3	8758.2	37.349	3734.916	ng/L	
Hg2600-2	BC	SAM	8B00080-04 ✓	100	2/13/2018 14:09:33	96627-1.RAW	2:09:33 PM	3382.84		3	3367.8	14.355	1435.534	ng/L	
Hg2600-2	BC	SAM	8B00079-01RE1 ✓	100	2/13/2018 14:13:57	96628-1.RAW	2:13:57 PM	827.50		3	812.5	3.455	345.505	ng/L	
Hg2600-2	BC	SAM	8B00079-02RE1 ✓	100	2/13/2018 14:18:05	96629-1.RAW	2:18:05 PM	1111.71		3	1096.7	4.667	466.739	ng/L	
Hg2600-2	BC	SAM	8B00079-16RE1 ✓	20	2/13/2018 14:22:13	96630-1.RAW	2:22:13 PM	53.98		3	38.9	0.113	2.255	ng/L	
Hg2600-2	BC	SAM	F802192-DUP1 ✓	100	2/13/2018 14:26:22	96631-1.RAW	2:26:22 PM	2141.09		3	2126.1	9.058	905.842	ng/L	
Hg2600-2	BC	SAM	F802192-MS1 ✓	400	2/13/2018 14:30:30	96632-1.RAW	2:30:30 PM	2995.05		3	2980.0	12.709	5083.662	ng/L	
Hg2600-2	BC	SAM	F802192-MSD1 ✓	400	2/13/2018 14:34:39	96633-1.RAW	2:34:39 PM	3029.76		3	3014.7	12.857	5142.884	ng/L	
Hg2600-2	BC	SAM	F802192-MS2 ✓	400	2/13/2018 14:38:47	96634-1.RAW	2:38:47 PM	4186.21		3	4171.2	17.790	7116.103	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6 ✓	1	2/13/2018 14:42:55	96635-1.RAW	2:42:55 PM	1292.68			1277.6	5.450	5.450	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6 ✓	1	2/13/2018 14:47:04	96636-1.RAW	2:47:04 PM	56.92			41.9	0.179	0.179	ng/L	
Hg2600-2	BC	SAM	F802192-MSD2 ✓	400	2/13/2018 14:51:12	96637-1.RAW	2:51:12 PM	4073.09		3	4058.1	17.308	6923.096	ng/L	
Hg2600-2	BC	BLK	F802195-BLK1 ✓	20	2/13/2018 14:55:21	96638-1.RAW	2:55:21 PM	61.62		4	46.6	0.199	3.975	ng/L	
Hg2600-2	BC	BLK	F802195-BLK2 ✓	20	2/13/2018 14:59:29	96639-1.RAW	2:59:29 PM	46.46		4	31.4	0.134	2.681	ng/L	
Hg2600-2	BC	BLK	F802195-BLK3 ✓	20	2/13/2018 15:03:39	96640-1.RAW	3:03:39 PM	35.79		4	20.8	0.089	1.770	ng/L	
Hg2600-2	BC	SAM	F802195-BS1 ✓	20	2/13/2018 15:07:47	96641-1.RAW	3:07:47 PM	1212.49		4	1197.5	4.968	99.350	ng/L	
Hg2600-2	BC	SAM	F802195-BSD1 ✓	20	2/13/2018 15:11:55	96642-1.RAW	3:11:55 PM	1222.69		4	1207.7	5.011	100.221	ng/L	
Hg2600-2	BC	SAM	F802195-BS2 ✓	400	2/13/2018 15:16:04	96643-1.RAW	3:16:04 PM	1390.09		4	1375.1	5.859	2343.416	ng/L	
Hg2600-2	BC	SAM	8B00082-09 ✓	100	2/13/2018 15:20:12	96644-1.RAW	3:20:12 PM	3082.91		4	3067.9	13.059	1305.853	ng/L	
Hg2600-2	BC	SAM	8B00082-10 ✓	100	2/13/2018 15:24:21	96645-1.RAW	3:24:21 PM	1387.59		4	1372.6	5.827	582.682	ng/L	
Hg2600-2	BC	SAM	8B00082-11 ✓	100	2/13/2018 15:28:29	96646-1.RAW	3:28:29 PM	1774.45		4	1759.4	7.477	747.701	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7 ✓	1	2/13/2018 15:32:37	96647-1.RAW	3:32:37 PM	1257.03			1242.0	5.298	5.298	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7 ✓	1	2/13/2018 15:36:46	96648-1.RAW	3:36:46 PM	42.61			27.6	0.118	0.118	ng/L	
Hg2600-2	BC	SAM	8B00082-12 ✓	100	2/13/2018 15:40:54	96649-1.RAW	3:40:54 PM	3131.84		4	3116.8	13.267	1326.722	ng/L	
Hg2600-2	BC	SAM	8B00082-13 ✓	100	2/13/2018 15:45:03	96650-1.RAW	3:45:03 PM	2169.91		4	2154.9	9.164	916.393	ng/L	
Hg2600-2	BC	SAM	8B00082-14 ✓	100	2/13/2018 15:49:11	96651-1.RAW	3:49:11 PM	2564.65		4	2549.6	10.848	1084.780	ng/L	
Hg2600-2	BC	SAM	8B00082-15 ✓	100	2/13/2018 15:53:20	96652-1.RAW	3:53:20 PM	2898.17		4	2883.1	12.270	1227.046	ng/L	
Hg2600-2	BC	SAM	F802195-DUP1 ✓	100	2/13/2018 15:57:28	96653-1.RAW	3:57:28 PM	821.13		4	806.1	3.410	341.046	ng/L	
Hg2600-2	BC	SAM	F802195-MS1 ✓	400	2/13/2018 16:01:36	96654-1.RAW	4:01:36 PM	3355.60		4	3340.6	14.243	5697.123	ng/L	
Hg2600-2	BC	SAM	F802195-MS2 ✓	400	2/13/2018 16:05:45	96655-1.RAW	4:05:45 PM	3469.04		4	3454.0	14.727	5890.683	ng/L	
Hg2600-2	BC	SAM	F802195-DUP2 ✓	100	2/13/2018 16:09:53	96656-1.RAW	4:09:53 PM	1335.41		4	1320.4	5.604	560.423	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8 ✓	1	2/13/2018 16:14:02	96657-1.RAW	4:14:02 PM	1291.12			1276.1	5.443	5.443	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8 ✓	1	2/13/2018 16:18:10	96658-1.RAW	4:18:10 PM	53.52			38.5	0.164	0.164	ng/L	
Hg2600-2	BC	SAM	BrCl-1 1800785 ✓	1	2/13/2018 16:22:19	96659-1.RAW	4:22:19 PM	20.76		X	5.7	0.024	0.024	ng/L	
Hg2600-2	BC	SAM	BrCl-2 1800785 ✓	1	2/13/2018 16:26:27	96660-1.RAW	4:26:27 PM	18.79		X	3.8	0.016	0.016	ng/L	
Hg2600-2	BC	SAM	BrCl-3 1800785 ✓	1	2/13/2018 16:30:36	96661-1.RAW	4:30:36 PM	15.48		X	0.4	0.002	0.002	ng/L	
Hg2600-2	BC	SAM	BrCl-4 1800785 ✓	1	2/13/2018 16:34:45	96662-1.RAW	4:34:45 PM	14.82		X	-0.2	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9 ✓	1	2/13/2018 16:38:53	96663-1.RAW	4:38:53 PM	1283.88			1268.8	5.413	5.413	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9 ✓	1	2/13/2018 16:43:02	96664-1.RAW	4:43:02 PM	21.83			6.8	0.029	0.029	ng/L	

TotalMercury EPA1631 Operat BC BlankSi 15.035 Calib Eqn: Conc = (Area-15.03 Run Date: 2/13/2018 Blank SD: 4.748261828  
 Worksh THg260( CalibFa 234.43 Status: QC Warnings:13/QC Run Time: 14:09:47 Blank RSD%: 31.58178666  
 Method ##### R: 1 R2: 1 CF SD: 3.235892952  
 Descrip THg26002-180213-1 CF RSD%: 1.380331473

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	1.77					96548-1.RAW	8:15:54	415.97	Clean	OK	1
clean				0.00	0.00					96549-1.RAW	8:18:45	0.92	Clean	OK	1
ws				15.03	0.00					96550-1.RAW	8:22:54	13.45	Sample	OK	1
ws				15.03	0.00					96551-1.RAW	8:27:02	11.85	Sample	OK	1
ws				15.03	0.00					96552-1.RAW	8:31:11	12.78	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					96553-1.RAW	8:35:20	20.44	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					96554-1.RAW	8:39:28	13.15	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					96555-1.RAW	8:43:37	11.52	Sample	OK	1
SEQ-CAL1	A4		1	15.03	0.50			100.34		96556-1.RAW	8:47:45	132.65	Sample	OK	1
SEQ-CAL2	A5		1	15.03	1.02			101.74		96557-1.RAW	8:51:54	253.53	Sample	OK	1
SEQ-CAL3	A6		1	15.03	5.03			100.62		96558-1.RAW	8:56:02	1194.43	Sample	OK	1
SEQ-CAL4	A7		1	15.03	19.63			98.17		96559-1.RAW	9:00:11	4617.58	Sample	OK	1
SEQ-CAL5	A8		1	15.03	39.66			99.14		96560-1.RAW	9:04:20	9311.46	Sample	OK	1
SEQ-ICV1	A9		1	15.03	5.32			106.46		96561-1.RAW	9:08:28	1262.90	Sample	OK	1
ws				15.03	0.12					96562-1.RAW	9:20:21	44.05	Sample	OK	1
F802235-BLK1	A10		100	15.03	7.62					96563-1.RAW	9:24:29	32.90	Sample	OK	1
F802235-BLK2	A11		100	15.03	4.64					96564-1.RAW	9:28:38	25.91	Sample	OK	1
F802235-BLK3	A12		100	15.03	3.78					96565-1.RAW	9:32:46	23.89	Sample	OK	1
F802235-BS1	A13		400	15.03	1889.85					96566-1.RAW	9:36:55	1122.62		OK	1
F802235-BSD1	A14		400	15.03	1874.47					96567-1.RAW	9:41:03	1113.61	Sample	OK	1
8B00313-01	A15		2500	15.03	5678.93					96568-1.RAW	9:45:12	547.56	Sample	OK	1
8B00313-02	A16		2500	15.03	4511.98					96569-1.RAW	9:49:20	438.13	Sample	OK	1
8B00314-01	A17		2500	15.03	7246.21					96570-1.RAW	9:53:28	694.52	Sample	OK	1
8B00314-02	A18		2500	15.03	5514.40					96571-1.RAW	9:57:37	532.13	Sample	OK	1
8B00313-01_B	A19		100	15.03	9.55					96572-1.RAW	10:01:45	37.41	Sample	OK	1
SEQ-CCV1	A20		1	15.03	5.21			104.19		96573-1.RAW	10:05:54	1236.34	Sample	OK	1
SEQ-CCB1	A21		1	15.03	0.03			0.00		96574-1.RAW	10:10:02	21.22	Sample	OK	1
8B00313-02_B	B1		100	15.03	5.88					96575-1.RAW	10:14:11	28.81	Sample	OK	1
8B00314-01_B	B2		100	15.03	20.64					96576-1.RAW	10:18:19	63.41	Sample	OK	1
8B00314-02_B	B3		100	15.03	26.68					96577-1.RAW	10:22:27	77.57	Sample	OK	1
8B00313-01_C	B4		2500	15.03	26001.81					96578-1.RAW	10:26:36	2453.26	Sample	OK	1
8B00313-02_C	B5		2500	15.03	26718.53					96579-1.RAW	10:30:44	2520.47	Sample	OK	1
8B00314-01_C	B6		2500	15.03	10782.14					96580-1.RAW	10:34:53	1026.09	Sample	OK	1
8B00314-02_C	B7		2500	15.03	28776.96					96581-1.RAW	10:39:01	2713.49	Sample	OK	1
ws				15.03	0.24					96582-1.RAW	10:59:44	71.68	Sample	OK	1
8B00314-01_CRI	B8		2500	15.03	10980.99					96583-1.RAW	11:03:54	1044.74	Sample	OK	1
F802235-DUP1	B9		2500	15.03	4955.24					96584-1.RAW	11:08:03	479.69	Sample	OK	1
F802235-MS1	B10		2500	15.03	17466.07			352.41		96585-1.RAW	11:12:12	1652.85	Sample	OK	1
SEQ-CCV2	B11		1	15.03	5.27			105.38		96586-1.RAW	11:16:20	1250.23	Sample	OK	1
SEQ-CCB2	B12		1	15.03	0.14			0.00		96587-1.RAW	11:20:29	48.75	Sample	OK	1
F802235-MSD1	B13		2500	15.03	17280.43					96588-1.RAW	11:24:37	1635.45	Sample	OK	1
F802225-BLK4	B14		100	15.03	15.08					96589-1.RAW	11:28:45	50.38	Sample	OK	1
F802225-BLK5	B15		100	15.03	7.71					96590-1.RAW	11:32:54	33.12	Sample	OK	1

F802225-BLK6	B16	100	15.03	7.04		96591-1.RAW	11:37:02	31.54	Sample	OK	1
8B00272-23_BR1	B17	100	15.03	155.65		96592-1.RAW	11:41:11	379.92	Sample	OK	1
F802192-BLK1	B18	20	15.03	1.52		96593-1.RAW	11:45:19	32.87	Sample	OK	1
F802192-BLK2	B19	20	15.03	1.04		96594-1.RAW	11:49:28	27.22	Sample	OK	1
F802192-BLK3	B20	20	15.03	0.64		96595-1.RAW	11:53:36	22.57	Sample	OK	1
*F802192-BLK4	B21	20	15.03	0.97		96596-1.RAW	11:57:45	26.43	Sample	OK	1
*F802192-BLK5	C1	20	15.03	0.00		96597-1.RAW	12:01:53	14.68	Sample	OK	1
SEQ-CCV3	C2	1	15.03	5.09	101.70	96598-1.RAW	12:06:01	1207.15	Sample	OK	1
SEQ-CCB3	C3	1	15.03	0.03	0.00	96599-1.RAW	12:10:10	22.77	Sample	OK	1
F802192-BS1	C4	20	15.03	96.45		96600-1.RAW	12:14:18	1145.56	Sample	OK	1
F802192-BSD1	C5	20	15.03	98.66		96601-1.RAW	12:18:27	1171.43	Sample	OK	1
F802192-BS2	C6	400	15.03	2256.11		96602-1.RAW	12:22:35	1337.28	Sample	OK	1
8B00079-01	C7	400	15.03	373.80		96603-1.RAW	12:26:43	234.11	Sample	OK	1
8B00079-02	C8	400	15.03	473.83		96604-1.RAW	12:30:52	292.73	Sample	OK	1
8B00079-03	C9	400	15.03	626.89		96605-1.RAW	12:35:00	382.44	Sample	OK	1
8B00079-04	C10	100	15.03	244.87		96606-1.RAW	12:39:09	589.08	Sample	OK	1
8B00079-05	C11	100	15.03	201.10		96607-1.RAW	12:43:17	486.47	Sample	OK	1
8B00079-06	C12	100	15.03	515.04		96608-1.RAW	12:47:26	1222.44	Sample	OK	1
8B00079-07	C13	100	15.03	1016.05		96609-1.RAW	12:51:34	2396.95	Sample	OK	1
SEQ-CCV4	C14	1	15.03	5.27	105.44	96610-1.RAW	12:55:42	1250.97	Sample	OK	1
SEQ-CCB4	C15	1	15.03	0.11	0.00	96611-1.RAW	12:59:51	40.21	Sample	OK	1
ws			15.03	0.08		96612-1.RAW	13:07:24	32.73	Sample	OK	1
8B00079-08	C16	100	15.03	866.33		96613-1.RAW	13:11:32	2045.95	Sample	OK	1
8B00079-09	C17	100	15.03	1003.07		96614-1.RAW	13:15:40	2366.51	Sample	OK	1
8B00079-10	C18	100	15.03	483.01		96615-1.RAW	13:19:49	1147.34	Sample	OK	1
8B00079-11	C19	100	15.03	598.67		96616-1.RAW	13:23:58	1418.48	Sample	OK	1
8B00079-12	C20	100	15.03	258.64		96617-1.RAW	13:28:07	621.35	Sample	OK	1
8B00079-13	C21	100	15.03	205.31		96618-1.RAW	13:32:15	496.33	Sample	OK	1
8B00079-14	A1	100	15.03	382.13		96619-1.RAW	13:36:24	910.85	Sample	OK	1
8B00079-15	A2	100	15.03	454.05		96620-1.RAW	13:40:32	1079.46	Sample	OK	1
8B00079-16	A3	100	15.03	2.58		96621-1.RAW	13:44:41	21.09	Sample	OK	1
8B00080-01	A4	100	15.03	1780.63		96622-1.RAW	13:48:49	4189.35	Sample	OK	1
SEQ-CCV5	A5	1	15.03	5.31	106.18	96623-1.RAW	13:52:58	1259.65	Sample	OK	1
SEQ-CCB5	A6	1	15.03	0.07	0.00	96624-1.RAW	13:57:07	32.16	Sample	OK	1
8B00080-02	A7	100	15.03	1536.39		96625-1.RAW	14:01:17	3616.76	Sample	OK	1
8B00080-03	A8	100	15.03	3735.98		96626-1.RAW	14:05:25	8773.25	Sample	OK	1
8B00080-04	A9	100	15.03	1436.60		96627-1.RAW	14:09:33	3382.84	Sample	OK	1
8B00079-01RE1	A10	100	15.03	346.57		96628-1.RAW	14:13:57	827.50	Sample	OK	1
8B00079-02RE1	A11	100	15.03	467.81		96629-1.RAW	14:18:05	1111.71	Sample	OK	1
8B00079-16RE1	A12	20	15.03	3.32		96630-1.RAW	14:22:13	53.98	Sample	OK	1
F802192-DUP1	A13	100	15.03	906.91		96631-1.RAW	14:26:22	2141.09	Sample	OK	1
F802192-MS1	A14	400	15.03	5084.73	560.05	96632-1.RAW	14:30:30	2995.05	Sample	OK	1
F802192-MSD1	A15	400	15.03	5143.95		96633-1.RAW	14:34:39	3029.76	Sample	OK	1
F802192-MS2	A16	400	15.03	7117.17	138.31	96634-1.RAW	14:38:47	4186.21	Sample	OK	1
SEQ-CCV6	A17	1	15.03	5.45	109.00	96635-1.RAW	14:42:55	1292.68	Sample	OK	1
SEQ-CCB6	A18	1	15.03	0.18	0.00	96636-1.RAW	14:47:04	56.92	Sample	OK	1
F802192-MSD2	A19	400	15.03	6924.16		96637-1.RAW	14:51:12	4073.09	Sample	OK	1
F802195-BLK1	A20	20	15.03	3.97		96638-1.RAW	14:55:21	61.62	Sample	OK	1

F802195-BLK2	A21	20	15.03	2.68		96639-1.RAW	14:59:29	46.46	Sample	OK	1
F802195-BLK3	B1	20	15.03	1.77		96640-1.RAW	15:03:39	35.79	Sample	OK	1
F802195-BS1	B2	20	15.03	102.16		96641-1.RAW	15:07:47	1212.49	Sample	OK	1
F802195-BSD1	B3	20	15.03	103.03		96642-1.RAW	15:11:55	1222.69	Sample	OK	1
F802195-BS2	B4	400	15.03	2346.22		96643-1.RAW	15:16:04	1390.09	Sample	OK	1
8B00082-09	B5	100	15.03	1308.66		96644-1.RAW	15:20:12	3082.91	Sample	OK	1
8B00082-10	B6	100	15.03	585.49		96645-1.RAW	15:24:21	1387.59	Sample	OK	1
8B00082-11	B7	100	15.03	750.51		96646-1.RAW	15:28:29	1774.45	Sample	OK	1
SEQ-CCV7	B8	1	15.03	5.30	105.96	96647-1.RAW	15:32:37	1257.03	Sample	OK	1
SEQ-CCB7	B9	1	15.03	0.12	0.00	96648-1.RAW	15:36:46	42.61	Sample	OK	1
8B00082-12	B10	100	15.03	1329.53		96649-1.RAW	15:40:54	3131.84	Sample	OK	1
8B00082-13	B11	100	15.03	919.20		96650-1.RAW	15:45:03	2169.91	Sample	OK	1
8B00082-14	B12	100	15.03	1087.59		96651-1.RAW	15:49:11	2564.65	Sample	OK	1
8B00082-15	B13	100	15.03	1229.85		96652-1.RAW	15:53:20	2898.17	Sample	OK	1
F802195-DUP1	B14	100	15.03	343.85		96653-1.RAW	15:57:28	821.13	Sample	OK	1
F802195-MS1	B15	400	15.03	5699.93	1652.85	96654-1.RAW	16:01:36	3355.60	Sample	OK	1
F802195-MS2	B16	400	15.03	5893.49	103.36	96655-1.RAW	16:05:45	3469.04	Sample	OK	1
F802195-DUP2	C1	100	15.03	563.23		96656-1.RAW	16:09:53	1335.41	Sample	OK	1
SEQ-CCV8	B17	1	15.03	5.44	108.87	96657-1.RAW	16:14:02	1291.12		OK	1
SEQ-CCB8	B18	1	15.03	0.16	0.00	96658-1.RAW	16:18:10	53.52	Sample	OK	1
BrCl-1 1800785	C2	1	15.03	0.02		96659-1.RAW	16:22:19	20.76	Sample	OK	1
BrCl-2 1800785	C3	1	15.03	0.02		96660-1.RAW	16:26:27	18.79	Sample	OK	1
BrCl-3 1800785	C4	1	15.03	0.00		96661-1.RAW	16:30:36	15.48	Sample	OK	1
BrCl-4 1800785	C5	1	15.03	0.00		96662-1.RAW	16:34:45	14.82	Sample	OK	1
SEQ-CCV9	C6	1	15.03	5.41	108.25	96663-1.RAW	16:38:53	1283.88	Sample	OK	1
SEQ-CCB9	C7	1	15.03	0.03	0.00	96664-1.RAW	16:43:02	21.83	Sample	OK	1

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14009

PEER-REVIEWED



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *a* 2/14/18  
Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14009-IBL1 ✓	QC	1			
8B14009-IBL2 ✓	QC	2			
8B14009-IBL3 ✓	QC	3			
8B14009-CAL1 ✓	QC	4	1800804 ✓		
8B14009-CAL2 ✓	QC	5	1800805 ✓		
8B14009-CAL3 ✓	QC	6	1800806 ✓		
8B14009-CAL4 ✓	QC	7	1800807 ✓		
8B14009-CAL5 ✓	QC	8	1800808 ✓		
8B14009-ICV1 ✓	QC	9	1707379 ✓		
F802235-BLK1 ✓	QC	10			
F802235-BLK2 ✓	QC	11			
F802235-BLK3 ✓	QC	12			
F802235-BS1 ✓	QC	13			
F802235-BSD1 ✓	QC	14			
8B00313-01 ✓	Hg_FSTM_TRAP_A	15			AFS - Take photos of trap if heavy particulate present and send to PM
8B00313-02 ✓	Hg_FSTM_TRAP_A	16			AFS - Take photos of trap if heavy particulate present and send to PM
8B00314-01 ✓	Hg_FSTM_TRAP_A	17			AFS - Take photos of trap if heavy particulate present and send to PM
8B00314-02 ✓	Hg_FSTM_TRAP_A	18			AFS - Take photos of trap if heavy particulate present and send to PM
8B14009-CCV1 ✓	QC	19	1707379 ✓		
8B14009-CCB1 ✓	QC	20			
F802235-DUP1 ✓	QC	21			
F802235-MS1 ✓	QC	22			
8B14009-CCV2 ✓	QC	23	1707379 ✓		
8B14009-CCB2 ✓	QC	24			
F802235-MSD1 ✓	QC	25			
F802225-BLK4 ✓	QC	26			
F802225-BLK5 ✓	QC	27			
F802225-BLK6 ✓	QC	28			
8B14009-CCV3 ✓	QC	29	1707379 ✓		
8B14009-CCB3 ✓	QC	30			

*Becis* 2/14/18  
 Samples Loaded By \_\_\_\_\_ Date

*Becis* 2/14/18  
 Data Processed By \_\_\_\_\_ Date

Due Date: 2/14/2018



**PREPARATION BENCH SHEET**

F802235

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/12/2018**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802235-BLK1	Blank	1	100					
F802235-BLK2	Blank	1	100					
F802235-BLK3	Blank	1	100					
F802235-BS1	LCS	1	100	1705554	200			
F802235-BSD1	LCS Dup	1	100	1705554	200			
F802235-DUP1	Duplicate [8B00313-02] ✓	1	100					
F802235-MS1	Matrix Spike [8B00313-02] ✓	0.0002	0.02	1800714	25 ✓			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓
F802235-MSD1	Matrix Spike Dup [8B00313-02] ✓	0.0002	0.02	1800714	25			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800041	FSTM Lot 180103A	02-Jul-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802235

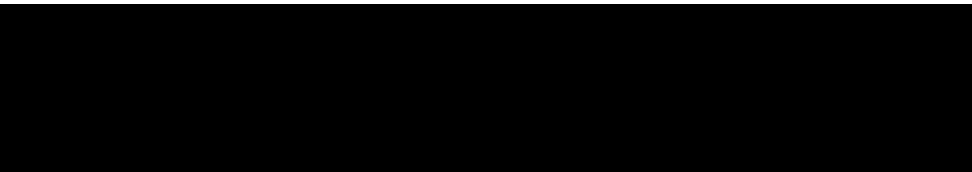
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/12/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00313-01	EFGS09673 4 Trap A 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1520.308 AFS - Take I	
8B00313-02	EFGS09701 4 Trap B 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1128.673 AFS - Take I	
8B00314-01	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 AFS - Take pl	
8B00314-01RE1	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 Added 2/14/2	Added 2/14/2018 by BC
8B00314-02	EFGS09754 31/32 Trap B 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 512.367 AFS - Take pl	





PREPARATION BENCH SHEET

BC 2/13/18  
2600-2

F802235

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/12/2018

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802235-BLK1	Blank	1	100					100X
F802235-BLK2	Blank	1	100					700X
F802235-BLK3	Blank	1	100					100X
F802235-BS1	LCS	1	100	1705554	200			400X
F802235-BSD1	LCS Dup	1	100	1705554	200			400X
F802235-MS1	Matrix Spike - 8B00313-02	1	100	1800714	25			2500X
F802235-MSD1	Matrix Spike Dup 8B00313-02	1	100	1800714	25			2500X

DUP 8B00313-02

2500X

<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> 1800041 1800748 1800770	<u>Description:</u> FSTM Lot 180103A 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 02-Jul-18 00:00 07-Aug-18 00:00 18-Jun-18 00:00
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1706821  
1707390  
1707389  
1800680

PREPARATION BENCH SHEET

BC 2/13/18

2600-2

F802235

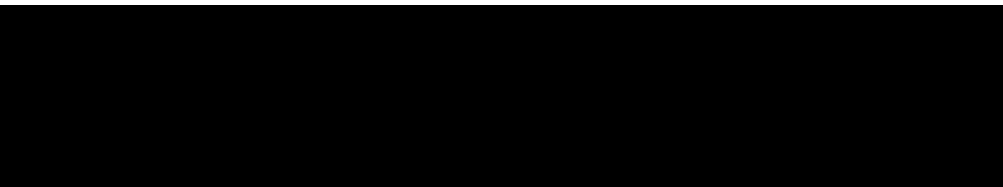
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/12/2018

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	<u>A</u> Sample Comments	<u>B</u> Analysis Comments	<u>C</u>
8B00313-01	EFGS09673 4 Trap A 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1520.308 AFS - Take pl 2500x	<del>100x</del> <del>1000</del>	2500x
8B00313-02	EFGS09701 4 Trap B 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1128.673 AFS - Take pl 2500x	100x	2500x
8B00314-01	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 AFS - Take pl 2500x	100x	2500x → 2500x
8B00314-02	EFGS09754 31/32 Trap B 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 512.367 AFS - Take pl 2500x	100x	2500x



Name: WF

Trap Digestions

Date: 2/12/18

Batch ID: F802235  
2/12/18

Work Order(s): 8B00313, 8B00314

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: 4:15, start temp (°C): 56.0 (raw) 55.8 (w/ CF)

end time: 6:15, end temp (°C): 64.0 (raw) 63.8 (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)
F802235 - BLU1	100
F802235 - BLU2	100
F802235 - BLU3	100
F802235 - BST	100
F802235 - BSD1	100
8B00313 - 01A	100
8B00313 - 01B	100
8B00313 - 01C	100
8B00313 - 02A	100
8B00313 - 02B	100
8B00313 - 02C	100
8B00314 - 01A	100
8B00314 - 01B	100
8B00314 - 01C	100
8B00314 - 02A	100
8B00314 - 02B	100
8B00314 - 02C	100

Spike ID: 1705554

Spike Amount (µL): 200

Spike Witness: cm 2/12/18

BrCl ID: 1800770

70/30: 1800748

Other: N/A

Thermometer: 13698

Dispensers: 02K27494

04N73497

Other 15406623

Pipette ID: 0407852

Cal. Date: 2/12/18 2/19/18 WF 2/12/18

Vials and Jars lot# 00069860

Trap Material Lot#: 180041

Loader Mass Verified:  Yes  No

Comments:

8B00314: Both trap have particulate in front of A-bed and have moisture. All cbeds spiked @ 2700µg.

8B00313: All cbeds spiked @ 2700µg.

WF 2/12/18

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802225-BLK1	Blank	1	40					
F802225-BLK2	Blank	1	40					
F802225-BLK3	Blank	1	40					
F802225-BLK4	Blank	1	40					
F802225-BLK5	Blank	1	40					
F802225-BLK6	Blank	1	40					
F802225-BS1	LCS	1	40	1705554	200			
F802225-BSD1	LCS Dup	1	40	1705554	200			
F802225-DUP1	Duplicate [8B00272-18]	1	40					
F802225-MS1	Matrix Spike [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MS2	Matrix Spike [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD1	Matrix Spike Dup [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD2	Matrix Spike Dup [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705501	FSTM Lot 170912A	11-Mar-18 00:00
1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
1707390	THg Washstation (0.5% BrCl)	
1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00272-16	HGS0118-6-16	1	40	-	-	-		
8B00272-17	HGS0118-6-17	1	40	-	-	-		
8B00272-18	HGS0118-6-18	1	40	-	-	-		
8B00272-19	HGS0118-7-1	1	40	-	-	-		
8B00272-20	HGS0118-7-2	1	40	-	-	-		
8B00272-21	HGS0118-7-3	1	40	-	-	-		
8B00272-22	HGS0118-7-4	1	40	-	-	-		
8B00272-23	HGS0118-7-5	1	40	-	-	-		
8B00272-23RE1	HGS0118-7-5	1	40	-	-	-	Added 2/13/2018 by BC	RR due to High B bed BC 2/13/18
8B00272-24	HGS0118-7-6	1	40	-	-	-		
8B00272-25	HGS0118-7-7	1	40	-	-	-		
8B00272-26	HGS0118-7-8	1	40	-	-	-		
8B00272-27	HGS0118-7-9	1	40	-	-	-		
8B00272-28	HGS0118-7-10	1	40	-	-	-		
8B00272-29	HGS0118-7-11	1	40	-	-	-		
8B00272-30	HGS0118-7-12	1	40	-	-	-		

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

**Due Date: 2/15/2018**

PREPARATION BENCH SHEET

BL 2/13/18  
2600-2

F802225

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/9/2018

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802225-BLK1	Blank	1	40					
F802225-BLK2	Blank	1	40					
F802225-BLK3	Blank	1	40					
F802225-BLK4	Blank	1	40					100X
F802225-BLK5	Blank	1	40					100X
F802225-BLK6	Blank	1	40					100X
F802225-BS1	LCS	1	40	1705554	200			
F802225-BSD1	LCS Dup	1	40	1705554	200			
F802225-DUP1	Duplicate [8B00272-18]	1	40					
F802225-MS1	Matrix Spike [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MS2	Matrix Spike [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD1	Matrix Spike Dup [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD2	Matrix Spike Dup [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

Standard ID(s):  
1705554  
1800714

Description:  
THg 1,000ng/mL Secondary Spiking Standard  
THg 10ng/mL Calibration Standard

Expiration:  
18-Mar-18 00:00  
07-May-18 00:00

Reagent ID(s):  
1705501  
1706821  
1707389  
1707390  
1800680  
1800748  
1800770

Description:  
FSTM Lot 170912A  
25% Hydroxylamine-HCl working solution  
THg Dilute 1% BrCl  
THg Washstation (0.5% BrCl)  
3% SnCl2 THg reductant  
70/30 Digestion Acid  
5% BrCl

Expiration:  
11-Mar-18 00:00  
19-May-18 00:00  
29-Apr-18 00:00  
18-Jul-18 00:00  
07-Aug-18 00:00  
18-Jun-18 00:00

Due Date: 2/15/2018

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	<u>B</u> Analysis Comments
8B00272-16	HGS0118-6-16	1	40	-	-	-		
8B00272-17	HGS0118-6-17	1	40	-	-	-		
8B00272-18	HGS0118-6-18	1	40	-	-	-		
8B00272-19	HGS0118-7-1	1	40	-	-	-		
8B00272-20	HGS0118-7-2	1	40	-	-	-		
8B00272-21	HGS0118-7-3	1	40	-	-	-		
8B00272-22	HGS0118-7-4	1	40	-	-	-		
8B00272-23	HGS0118-7-5	1	40	-	-	-		
8B00272-23RE1	HGS0118-7-5	1	40	-	-	-	Added 2/13/2018 by BC	RR due to High B bed BC 2/13/18 100x
8B00272-24	HGS0118-7-6	1	40	-	-	-		
8B00272-25	HGS0118-7-7	1	40	-	-	-		
8B00272-26	HGS0118-7-8	1	40	-	-	-		
8B00272-27	HGS0118-7-9	1	40	-	-	-		
8B00272-28	HGS0118-7-10	1	40	-	-	-		
8B00272-29	HGS0118-7-11	1	40	-	-	-		
8B00272-30	HGS0118-7-12	1	40	-	-	-		





**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

**Due Date: 2/15/2018**

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14010

PEER-REVIEWED

Instrument: Hg2600-2 ✓



Calibration ID: UNASSIGNED

INITIALS: *pr* *2/13/18* Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14010-IBL1 ✓	QC	1			
8B14010-IBL2 ✓	QC	2			
8B14010-IBL3 ✓	QC	3			
8B14010-CAL1 ✓	QC	4	1800804	✓	
8B14010-CAL2 ✓	QC	5	1800805	✓	
8B14010-CAL3 ✓	QC	6	1800806	✓	
8B14010-CAL4 ✓	QC	7	1800807	✓	
8B14010-CAL5 ✓	QC	8	1800808	✓	
8B14010-ICV1 ✓	QC	9	1707379	✓	
8B14010-CCV1 ✓	QC	10	1707379	✓	
8B14010-CCB1 ✓	QC	11			
8B14010-CCV2 ✓	QC	12	1707379	✓	
8B14010-CCB2 ✓	QC	13			
F802192-BLK1 ✓	QC	14			
F802192-BLK2 ✓	QC	15			
F802192-BLK3 ✓	QC	16			
F802192-BLK4 ✓	QC	17			
F802192-BLK5 ✓	QC	18			
8B14010-CCV3 ✓	QC	19	1707379	✓	
8B14010-CCB3 ✓	QC	20			
F802192-BS1 ✓	QC	21			
F802192-BSD1 ✓	QC	22			
F802192-BS2 ✓	QC	23			
8B00079-01 ✓	Hg-CVAFS-T-7030	24			
8B00079-02 ✓	Hg-CVAFS-T-7030	25			
8B00079-03 ✓	Hg-CVAFS-T-7030	26			
8B00079-04 ✓	Hg-CVAFS-T-7030	27			
8B00079-05 ✓	Hg-CVAFS-T-7030	28			
8B00079-06 ✓	Hg-CVAFS-T-7030	29			
8B00079-07 ✓	Hg-CVAFS-T-7030	30			
8B14010-CCV4 ✓	QC	31	1707379	✓	
8B14010-CCB4 ✓	QC	32			
8B00079-08 ✓	Hg-CVAFS-T-7030	33			
8B00079-09 ✓	Hg-CVAFS-T-7030	34			
8B00079-10 ✓	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00079-11 ✓	Hg-CVAFS-T-7030	36			
8B00079-12 ✓	Hg-CVAFS-T-7030	37			
8B00079-13 ✓	Hg-CVAFS-T-7030	38			
8B00079-14 ✓	Hg-CVAFS-T-7030	39			
8B00079-15 ✓	Hg-CVAFS-T-7030	40			
8B00079-16 ✓	Hg-CVAFS-T-7030	41			
8B00080-01 ✓	Hg-CVAFS-T-7030	42			
8B14010-CCV5 ✓	QC	43	1707379 ✓		
8B14010-CCB5 ✓	QC	44			
8B00080-02 ✓	Hg-CVAFS-T-7030	45			
8B00080-03 ✓	Hg-CVAFS-T-7030	46			
8B00080-04 ✓	Hg-CVAFS-T-7030	47			
8B00079-01RE1 ✓	Hg-CVAFS-T-7030	48			Added 2/14/2018 by BC
8B00079-02RE1 ✓	Hg-CVAFS-T-7030	49			Added 2/14/2018 by BC
8B00079-16RE1 ✓	Hg-CVAFS-T-7030	50			Added 2/14/2018 by BC
F802192-DUP1 ✓	QC	51			
F802192-MS1 ✓	QC	52			
F802192-MSD1 ✓	QC	53			
F802192-MS2 ✓	QC	54			
8B14010-CCV6 ✓	QC	55	1707379 ✓		
8B14010-CCB6 ✓	QC	56			
F802192-MSD2 ✓	QC	57			
F802195-BLK1 ✓	QC	58			
F802195-BLK2 ✓	QC	59			
F802195-BLK3 ✓	QC	60			
F802195-BS1 ✓	QC	61			
F802195-BSD1 ✓	QC	62			
F802195-BS2 ✓	QC	63			
8B00082-09 ✓	Hg-CVAFS-T-7030	64			
8B00082-10 ✓	Hg-CVAFS-T-7030	65			
8B00082-11 ✓	Hg-CVAFS-T-7030	66			
8B14010-CCV7 ✓	QC	67	1707379 ✓		
8B14010-CCB7 ✓	QC	68			
8B00082-12 ✓	Hg-CVAFS-T-7030	69			
8B00082-13 ✓	Hg-CVAFS-T-7030	70			

Due Date: 3/2/2018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018



Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00082-14 ✓	Hg-CVAFS-T-7030	71			
8B00082-15 ✓	Hg-CVAFS-T-7030	72			
F802195-DUP1 ✓	QC	73			
F802195-MS1 ✓	QC	74			
F802195-MS2 ✓	QC	75			
F802195-DUP2 ✓	QC	76			
8B14010-CCV8 ✓	QC	77	1707379		
8B14010-CCB8 ✓	QC	78			

B. King 2/14/18  
Samples Loaded By Date

B. King 2/14/18  
Data Processed By Date

**Failing Data Report - 8B14010**

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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 Analyst Reviewed By \_\_\_\_\_ Date \_\_\_\_\_


  
 Peer Reviewed By \_\_\_\_\_ Date \_\_\_\_\_

**PREPARATION BENCH SHEET**

F802192

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/7/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802192-BLK1	Blank	0.25	20					
F802192-BLK2	Blank	0.25	20					
F802192-BLK3	Blank	0.25	20					
F802192-BLK4	Pre Homogen Blank for 8B00079-16	0.258	20					
F802192-BLK5	Post Homogen Blank for 8B00079-16	0.2741	20					
F802192-BS1	LCS	0.25	20	1800233	20			
F802192-BS2	DORM4	0.1273	20	1703305	127 127.3			
F802192-BSD1	LCS Dup	0.25	20	1800233	20	R 2/14/18		
F802192-DUP1	Duplicate [8B00080-04]	0.0767	20					
F802192-MS1	Matrix Spike [8B00079-06]	0.0575	20	1705554	100			
F802192-MS2	Matrix Spike [8B00080-01]	0.0767	20	1705554	100			
F802192-MSD1	Matrix Spike Dup [8B00079-06]	0.0489	20	1705554	100			
F802192-MSD2	Matrix Spike Dup [8B00080-01]	0.0739	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>
1703305	DORM-4	29-May-20 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707390	THg Washstation (0.5% BrCl)	
			1800500	Boiling Chips for AFS prep	24-Jul-18 00:00
			1800678	70/30 Digestion Acid	04-Aug-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800707	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802192

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/7/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00079-01	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-		
8B00079-01RE1	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00079-02	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-		
8B00079-02RE1	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00079-03	FRB-01_18WT001_013018_ABD_03_BL	0.196	20	-	-	-		
8B00079-04	FRB-01_18WT001_013018_ABD_04_BL	0.2128	20	-	-	-		
8B00079-05	FRB-01_18WT001_013018_ABD_05_BL	0.1877	20	-	-	-		
8B00079-06	FRB-OCN_18WT001_013018_ABD_06_BL	0.1976	20	QC	-	-	MS/MSD	
8B00079-07	FRB-OCN_18WT001_013018_ABD_07_BL	0.2359	20	-	-	-		
8B00079-08	FRB-OCN_18WT001_013018_ABD_08_BL	0.2463	20	-	-	-		
8B00079-09	FRB-OCN_18WT001_013018_ABD_09_BL	0.2491	20	-	-	-		
8B00079-10	FRB-OCN_18WT001_013018_ABD_10_BL	0.1828	20	-	-	-		
8B00079-11	FRB-OCN_18WT001_013018_ABD_11_BL	0.1929	20	-	-	-		
8B00079-12	FRB-OCN_18WT001_013018_ABD_12_BL	0.1051	20	-	-	-		
8B00079-13	FRB-01_18WT001_013118_ABD_13_BL	0.1204	20	-	-	-		
8B00079-14	FRB-01_18WT001_013118_ABD_14_BL	0.1215	20	-	-	-		
8B00079-15	FRB-01_18WT001_013118_ABD_15_BL	0.1658	20	-	-	-		
8B00079-16	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-		
8B00079-16RE1	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC

Due Date: 3/2/2018

PREPARATION BENCH SHEET

F802192

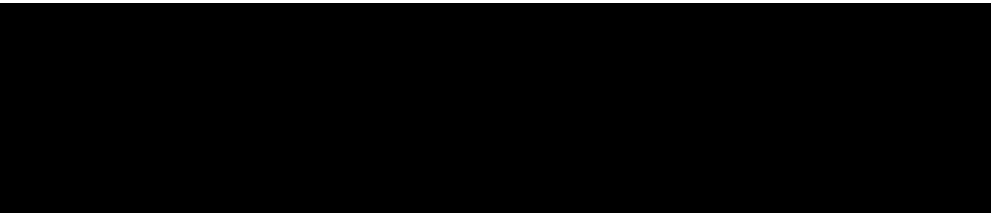
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

8B00080-01	MMBKD-01_18WT001_012918_ABD_01_BL	0.0775	20	QC	-	-	MS/MSD	
8B00080-02	MMBKD-01_18WT001_013018_ABD_02_BL	0.1292	20	-	-	-		
8B00080-03	MMBKD-01_18WT001_013018_ABD_03_BL	0.1751	20	-	-	-		
8B00080-04	MMBKD-01_18WT001_013018_ABD_04_BL	0.1207	20	-	-	-		





PREPARATION BENCH SHEET

9c 2/13/18  
2600-2

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802192-BLK1	Blank	0.25	20					20X ✓
F802192-BLK2	Blank	0.25	20					20X ✓
F802192-BLK3	Blank	0.25	20					20X ✓
F802192-BLK4	Pre Homogen Blank for 8B00079-16	0.258	20					20X ✓
F802192-BLK5	Post Homogen Blank for 8B00079-16	0.2741	20					20X ✓
F802192-BS1	LCS	0.25	20	1800233	20			20X ✓
F802192-BS2	DORM4	0.1273	20	1703305	127			400X ✓
F802192-BSD1	LCS Dup	0.25	20	1800233	20			20X ✓
F802192-DUP1	Duplicate [8B00080-04]	0.0767	20					100X ✓
F802192-MS1	Matrix Spike [8B00079-06]	0.0575	20	1705554	100			400X ✓
F802192-MS2	Matrix Spike [8B00080-01]	0.0767	20	1705554	100			400X ✓
F802192-MSD1	Matrix Spike Dup [8B00079-06]	0.0489	20	1705554	100			400X ✓
F802192-MSD2	Matrix Spike Dup [8B00080-01]	0.0739	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>
1703305	DORM-4	29-May-20 00:00	1800500	Boiling Chips for AFS prep	24-Jul-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800678	70/30 Digestion Acid	04-Aug-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1800707	5% BrCl	18-Jun-18 00:00

1706821  
1707390  
1707389  
1800680

Due Date: 3/2/2018

BC 2/13/18  
2600-2

PREPARATION BENCH SHEET

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00079-01	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-	400x → 100x	
8B00079-02	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-	400x → 100x	
8B00079-03	FRB-01_18WT001_013018_ABD_03_BL	0.196	20	-	-	-	400x ✓	
8B00079-04	FRB-01_18WT001_013018_ABD_04_BL	0.2128	20	-	-	-	100x ✓	
8B00079-05	FRB-01_18WT001_013018_ABD_05_BL	0.1877	20	-	-	-	100x ✓	
8B00079-06	FRB-OCN_18WT001_013018_ABD_06_BL	0.1976	20	QC	-	-	MS/MSD 100x ✓	
8B00079-07	FRB-OCN_18WT001_013018_ABD_07_BL	0.2359	20	-	-	-	100x ✓	
8B00079-08	FRB-OCN_18WT001_013018_ABD_08_BL	0.2463	20	-	-	-	100x ✓	
8B00079-09	FRB-OCN_18WT001_013018_ABD_09_BL	0.2491	20	-	-	-	100x ✓	
8B00079-10	FRB-OCN_18WT001_013018_ABD_10_BL	0.1828	20	-	-	-	100x ✓	
8B00079-11	FRB-OCN_18WT001_013018_ABD_11_BL	0.1929	20	-	-	-	100x ✓	
8B00079-12	FRB-OCN_18WT001_013018_ABD_12_BL	0.1051	20	-	-	-	100x ✓	
8B00079-13	FRB-01_18WT001_013118_ABD_13_BL	0.1204	20	-	-	-	100x ✓	
8B00079-14	FRB-01_18WT001_013118_ABD_14_BL	0.1215	20	-	-	-	100x ✓	
8B00079-15	FRB-01_18WT001_013118_ABD_15_BL	0.1658	20	-	-	-	100x ✓	
8B00079-16	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-	100x → 20x ✓	
8B00080-01	MMBKD-01_18WT001_012918_ABD_01_BL	0.0775	20	QC	-	-	MS/MSD 100x ✓	
8B00080-02	MMBKD-01_18WT001_013018_ABD_02_BL	0.1292	20	-	-	-	100x ✓	
8B00080-03	MMBKD-01_18WT001_013018_ABD_03_BL	0.1751	20	-	-	-	100x ✓	

Due Date: 3/2/2018

PREPARATION BENCH SHEET

BC 2/13/18  
2600-2

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

8B00080-04	MMBKD-01_18WT001_013018_ABD_04_BL	0.1207	20	-	-	-	100X	
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Technician: AMB, Oregon Batch#: F802192 Date: 2-7-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 14575 Calibrated?  Yes  No  
 \*Time in: 1645 Actual Temp. (raw): 77.0 °C w/ CF: 76.8 °C  
 Time out: 1845 Actual Temp. (raw): 79.0 °C w/ CF: 78.8 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1800707) Spike vol.: 20 (BS/BSD) µL (LIMS ID: 1800233)  
 Spike Witness: DM 2/7/18 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 2/7/18  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1800678 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068124 Boiling Chip lot # 1800500 \*Hotblock Position: DS MS  
AMB 2-7-18

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	F802192-BLK1	0.2505	23	8B00079-13	0.1204	BS2 = DORMA
2	F802192-BLK2	0.2628	24	8B00079-14	0.1215	LIMS: 1703305
3	F802192-BLK3	0.2791	25	8B00079-15	0.1658	
4	F802192-BS1	0.2667	26	8B00079-16	0.2740	Comments
5	F802192-BSD1	0.2695	27	8B00080-01	0.775	DUP1, MS1, MSD1
6	F802192-BS2	0.1273	28	F802192-MS2	0.767g	Source =
7	F802192-BLK4	0.2580	29	F802192-MSD2	0.0739	8B00079-06
8	F802192-BLK5	0.2741	30	8B00080-02	0.1292	MS2, MSD2
9	8B00079-01	0.1222	31	8B00080-03	0.1751	Source =
10	8B00079-02	0.1674	32	8B00080-04	0.1207	8B00080-01
11	8B00079-03	0.1960	33	F802192-DUP1	0.0767	BLK4/BLK5:
12	8B00079-04	0.2128	34			Pre + Post
13	8B00079-05	0.1877	35			homogen.
14	8B00079-06	0.1976	36			blanks for
15	F802192-MS1	0.0575	37			8B00079-16.
16	F802192-MSD1	0.0489	38			DUP1 source:
17	8B00079-07	0.2359	39			8B00080-04
18	8B00079-08	0.2463	40			
19	8B00079-09	0.2491	41			All MS/MSD's
20	8B00079-10	0.1828	42			spiked w/
21	8B00079-11	0.1929	43			100ml of 1000ug/ml
22	8B00079-12	0.1051	44			1705554.

**PREPARATION BENCH SHEET**

F802195

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802195-BLK1	Blank	0.25	20					
F802195-BLK2	Blank	0.25	20					
F802195-BLK3	Blank	0.25	20					
F802195-BS1	Blank Spike	0.25	20	1800768	20			
F802195-BS2	DORM4	0.1255	20	1703305	125.5			
F802195-BSD1	Blank Spike	0.25	20	1800768	20			
F802195-DUP1	Duplicate [8B00082-10]	0.0538	20					
F802195-DUP2	AD [8B00082-10] ✓	0.0976 ✓	20					
F802195-MS1	Matrix Spike [8B00082-14]	0.0604	20	1705554	100			
F802195-MS2	Matrix Spike [8B00082-15]	0.0531	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800768	THg 100ng/mL Primary Spiking Standard	09-May-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802195

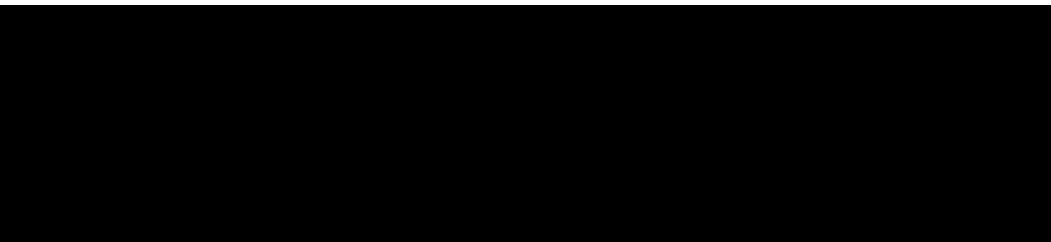
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00082-09	ES-13_18WT001_013018_ABD_09_BL	0.1582	20	-	-	-		
8B00082-10	ES-13_18WT001_013018_ABD_10_BL	0.0976	20	-	-	-		
8B00082-11	ES-13_18WT001_013018_ABD_11_BL	0.1378	20	-	-	-		
8B00082-12	ES-13_18WT001_013018_ABD_12_BL	0.1538	20	-	-	-		
8B00082-13	ES_13_18WT001_013118_ABD_13_BL	0.1627	20	-	-	-		
8B00082-14	ES-13_18WT001_013118_ABD_14_BL	0.1053	20	-	-	-		
8B00082-15	ES-13_18WT001_013118_ABD_15_BL	0.0535	20	-	-	-		



**PREPARATION BENCH SHEET**

F802195

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802195-BLK1	Blank	0.25	20					20x -
F802195-BLK2	Blank	0.25	20					20x -
F802195-BLK3	Blank	0.25	20					20x -
F802195-BS1	Blank Spike	0.25	20	1800768	20			20x -
F802195-BS2	DORM4	0.1255	20	1703305	1255			400x -
F802195-BSD1	Blank Spike	0.25	20	1800768	20			20x -
F802195-DUP1	Duplicate [8B00082-10]	0.0538	20					100x -
F802195-MS1	Matrix Spike [8B00082-14]	0.0604	20	1705554	100			400x -
F802195-MS2	Matrix Spike [8B00082-15]	0.0531	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800768	THg 100ng/mL Primary Spiking Standard	09-May-18 00:00	1800770	5% BrCl	18-Jun-18 00:00

DUP2 - 8B00082-10  
100x  
AD

1706821  
1707390  
1707389  
1800680

**PREPARATION BENCH SHEET**

F802195

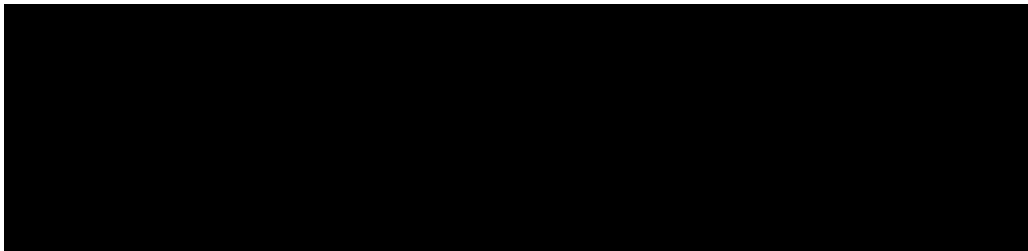
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00082-09	ES-13_18WT001_013018_ABD_09_BL	0.1582	20	-	-	-	100X ✓	
8B00082-10	ES-13_18WT001_013018_ABD_10_BL	0.0976	20	-	-	-	100X ✓	
8B00082-11	ES-13_18WT001_013018_ABD_11_BL	0.1378	20	-	-	-	100X ✓	
8B00082-12	ES-13_18WT001_013018_ABD_12_BL	0.1538	20	-	-	-	100X ✓	
8B00082-13	ES_13_18WT001_013118_ABD_13_BL	0.1627	20	-	-	-	100X ✓	
8B00082-14	ES-13_18WT001_013118_ABD_14_BL	0.1053	20	-	-	-	100X ✓	
8B00082-15	ES-13_18WT001_013118_ABD_15_BL	0.0535	20	-	-	-	100X ✓	





Technician: Duyen Batch#: F802195 Date: 2-9-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 10:00 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 Time out: 12:00 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1800770) Spike vol.: 20 µL (LIMS ID: 1800768)  
 Spike Witness: cm 2/9/18 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 2-9-18  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A 2/11/18 Calibration Date: N/A  
 70/30 LIMS ID: 1800748 Dispenser #: 02K275494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068407 Boiling Chip lot # 1706716 \*Hotblock Position: G-4

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	F802195 Bk1	0.2876	23	/		B52 = DDM-4
2	F802195 Bk2	0.2880	24			01703205
3	F802195 Bk3	0.2533	25			3 2/11/18
4	F802195 B51	0.2790	26			
5	F802195 B501	0.2879	27			
6	F802195 B52	0.1255	28			2-09-18
7	8B00082-09	0.1582	29			no
8	8B00082-10A	0.0976	30			
9	F802195-MD	0.0538	31			
10	8B00082-11A	0.1378	32			
11	8B00082-12A	0.1538	33			
12	8B00082-13A	0.1627	34			
13	8B00082-14A	0.1053	35			
14	F802195-M51	0.0604	36			
15	8B00082-15A	0.0535	37			
16	F802195-M52	0.0531	38			
17			39			
18			40			
19		2/09/18	41			
20		no	42			
21			43			
22			44			

Comments  
 F802195  
 MD  
 8B00082-10  
 F802195 2/9/18  
 M51, M501  
 8B00082-14  
 2/9/18  
 F802195-M52  
 8B00082-15  
 2/9/18  
 ALL M52, M51  
 Spike w 100ul  
 1000µg/ml  
 1705554  
 Acid 70:30  
 Digestion Acid  
 on 2/12/18  
 8B00082-14  
 Not enough mass.  
 For QC used M51



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

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> 0 <i>A 2/14/18</i>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	0

Analyst Initials BC                      Reviewer Initials R

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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   |  |  |   |                                     |
| (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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> 0 <i>R 2/14/18</i>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	0

**Analyst Initials** BC **Reviewer Initials** 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 checked="" type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: <u>8B00317-01</u>  |  |  |   |
| 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: _____ 1/3/2018 _____ 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: _____ 12/22/2017 _____ LOD within last 3 months?                              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 12/22/2017 _____ 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

### THg26003-180213-1

**Analysis Datasheet for Total Mercury**

Date of Analysis: February 13, 2018

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 8B14016, 8B14017

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	79.13 units	158.25	70.19 units	140.39	98.9 %Rec
SEQ-CAL2	1	1.00 ng/L	149.90 units	149.90	140.97 units	140.97	99.4 %Rec
SEQ-CAL3	1	5.00 ng/L	729.26 units	145.85	720.33 units	144.07	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2844.42 units	142.22	2835.49 units	141.77	99.9 %Rec
SEQ-CAL5	1	40.00 ng/L	5697.85 units	142.45	5688.92 units	142.22	100.2 %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**  
 141.89            +/- 1.41            1.0% RSD            147.73

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.93 units	±3.06	0.06 ng/L	±0.02

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.285 ng/L	±2.393
BLK	2	3	2.737 ng/L	±1.241
BLK	3	3	1.528 ng/L	±0.720
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 2/14/18

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	2/13/2018 8:34:32	86566-1.RAW	8:34:32 AM	12.25			3.3	0.023	0.023	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	2/13/2018 8:38:41	86567-1.RAW	8:38:41 AM	6.23			-2.7	-0.019	-0.019	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	2/13/2018 8:42:49	86568-1.RAW	8:42:49 AM	8.31			-0.6	-0.004	-0.004	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	2/13/2018 8:46:57	86569-1.RAW	8:46:57 AM	79.13			70.2	0.495	0.495	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	2/13/2018 8:51:06	86570-1.RAW	8:51:06 AM	149.90			141.0	0.994	0.994	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	2/13/2018 8:55:14	86571-1.RAW	8:55:14 AM	729.26			720.3	5.077	5.077	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	2/13/2018 8:59:23	86572-1.RAW	8:59:23 AM	2844.42			2835.5	19.984	19.984	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	2/13/2018 9:03:31	86573-1.RAW	9:03:31 AM	5697.85			5688.9	40.095	40.095	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	2/13/2018 9:07:40	86574-1.RAW	9:07:40 AM	745.91			737.0	5.194	5.194	ng/L	
Hg2600-3	BC	SAM	ws		2/13/2018 9:25:07	86575-1.RAW	9:25:07 AM	19.40		X	10.5	0.074	0.000	ng/L	
Hg2600-3	BC	BLK	F801415-BLK1	20	2/13/2018 9:29:16	86576-1.RAW	9:29:16 AM	37.64		1	28.7	0.202	4.047	ng/L	
Hg2600-3	BC	BLK	F801415-BLK2	20	2/13/2018 9:33:24	86577-1.RAW	9:33:24 AM	8.75		1	-0.2	-0.001	-0.025	ng/L	
Hg2600-3	BC	BLK	F801415-BLK3	20	2/13/2018 9:37:33	86578-1.RAW	9:37:33 AM	7.74		1	-1.2	-0.008	-0.167	ng/L	
Hg2600-3	BC	SAM	F801415-BS1	20	2/13/2018 9:41:41	86579-1.RAW	9:41:41 AM	742.72		1	733.8	5.107	102.150	ng/L	
Hg2600-3	BC	SAM	F801415-BS1	20	2/13/2018 9:45:50	86580-1.RAW	9:45:50 AM	762.83		1	753.9	5.249	104.984	ng/L	
Hg2600-3	BC	SAM	8A00624-01	250	2/13/2018 9:49:58	86581-1.RAW	9:49:58 AM	1731.21		1	1722.3	12.133	3033.337	ng/L	
Hg2600-3	BC	SAM	8A00624-02	250	2/13/2018 9:54:07	86582-1.RAW	9:54:07 AM	3333.07		1	3324.1	23.423	5855.802	ng/L	
Hg2600-3	BC	SAM	8A00624-03	250	2/13/2018 9:58:15	86583-1.RAW	9:58:15 AM	6940.19		1	6931.3	48.846	12211.479	ng/L	
Hg2600-3	BC	SAM	8A00624-04	250	2/13/2018 10:02:23	86584-1.RAW	10:02:23 AM	9979.54		1	9970.6	70.267	17566.777	ng/L	
Hg2600-3	BC	SAM	8A00624-05	250	2/13/2018 10:06:32	86585-1.RAW	10:06:32 AM	12183.88		1	12175.0	85.803	21450.794	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	2/13/2018 10:10:40	86586-1.RAW	10:10:40 AM	809.90			801.0	5.645	5.645	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	2/13/2018 10:14:49	86587-1.RAW	10:14:49 AM	33.39			24.5	0.172	0.172	ng/L	
Hg2600-3	BC	SAM	8A00624-06	250	2/13/2018 10:18:57	86588-1.RAW	10:18:57 AM	12989.81		1	12980.9	91.483	22870.822	ng/L	
Hg2600-3	BC	SAM	8A00624-07	250	2/13/2018 10:23:06	86589-1.RAW	10:23:06 AM	11731.05		1	11722.1	82.612	20652.917	ng/L	
Hg2600-3	BC	SAM	8A00624-08	250	2/13/2018 10:27:14	86590-1.RAW	10:27:14 AM	967.33		1	958.4	6.750	1687.407	ng/L	
Hg2600-3	BC	SAM	8A00624-09	250	2/13/2018 10:31:22	86591-1.RAW	10:31:22 AM	982.13		1	973.2	6.854	1713.471	ng/L	
Hg2600-3	BC	SAM	8A00624-10	250	2/13/2018 10:35:31	86592-1.RAW	10:35:31 AM	916.20		1	907.3	6.389	1597.317	ng/L	
Hg2600-3	BC	SAM	8A00624-11	250	2/13/2018 10:39:39	86593-1.RAW	10:39:39 AM	1307.83		1	1298.9	9.149	2287.350	ng/L	
Hg2600-3	BC	SAM	8A00624-12	250	2/13/2018 10:43:48	86594-1.RAW	10:43:48 AM	1380.27		1	1371.3	9.660	2414.987	ng/L	
Hg2600-3	BC	SAM	8A00624-13	250	2/13/2018 10:47:56	86595-1.RAW	10:47:56 AM	1947.68		1	1938.8	13.659	3414.765	ng/L	
Hg2600-3	BC	SAM	8A00624-14	250	2/13/2018 10:52:05	86596-1.RAW	10:52:05 AM	2371.30		1	2362.4	16.645	4161.174	ng/L	
Hg2600-3	BC	SAM	8A00624-15	250	2/13/2018 10:56:13	86597-1.RAW	10:56:13 AM	1711.02		1	1702.1	11.991	2997.766	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	2/13/2018 11:00:22	86598-1.RAW	11:00:22 AM	762.66			753.7	5.312	5.312	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	2/13/2018 11:04:30	86599-1.RAW	11:04:30 AM	32.99			24.1	0.170	0.170	ng/L	
Hg2600-3	BC	SAM	ws		2/13/2018 11:13:14	86600-1.RAW	11:13:14 AM	33.49		X	24.6	0.173	0.000	ng/L	
Hg2600-3	BC	SAM	8A00624-16	250	2/13/2018 11:17:23	86601-1.RAW	11:17:23 AM	2541.63		1	2532.7	17.845	4461.298	ng/L	
Hg2600-3	BC	SAM	8A00624-17	250	2/13/2018 11:21:31	86602-1.RAW	11:21:31 AM	1972.89		1	1964.0	13.837	3459.175	ng/L	
Hg2600-3	BC	SAM	8A00624-18	250	2/13/2018 11:25:40	86603-1.RAW	11:25:40 AM	1744.75		1	1735.8	12.229	3057.199	ng/L	
Hg2600-3	BC	SAM	8A00624-19	250	2/13/2018 11:29:48	86604-1.RAW	11:29:48 AM	6963.87		1	6954.9	49.013	12253.211	ng/L	
Hg2600-3	BC	SAM	8A00624-20	250	2/13/2018 11:33:57	86605-1.RAW	11:33:57 AM	7195.56		1	7186.6	50.646	12661.439	ng/L	
Hg2600-3	BC	SAM	8A00624-03RE1	1000	2/13/2018 11:38:05	86606-1.RAW	11:38:05 AM	1856.02		1	1847.1	13.017	13016.901	ng/L	
Hg2600-3	BC	SAM	8A00624-04RE1	1000	2/13/2018 11:42:14	86607-1.RAW	11:42:14 AM	2570.06		1	2561.1	18.049	18049.363	ng/L	
Hg2600-3	BC	SAM	8A00624-05RE1	1000	2/13/2018 11:46:22	86608-1.RAW	11:46:22 AM	3062.45		1	3053.5	21.520	21519.733	ng/L	
Hg2600-3	BC	SAM	8A00624-06RE1	1000	2/13/2018 11:50:30	86609-1.RAW	11:50:30 AM	3373.28		1	3364.3	23.710	23710.432	ng/L	
Hg2600-3	BC	SAM	8A00624-07RE1	1000	2/13/2018 11:54:39	86610-1.RAW	11:54:39 AM	3024.18		1	3015.2	21.250	21249.987	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	2/13/2018 11:58:47	86611-1.RAW	11:58:47 AM	771.84			762.9	5.377	5.377	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	2/13/2018 12:02:56	86612-1.RAW	12:02:56 PM	32.62			23.7	0.167	0.167	ng/L	
Hg2600-3	BC	SAM	8A00624-08RE1	250	2/13/2018 12:07:04	86613-1.RAW	12:07:04 PM	915.28		1	906.4	6.383	1595.692	ng/L	
Hg2600-3	BC	SAM	F801415-DUP1	250	2/13/2018 12:11:13	86614-1.RAW	12:11:13 PM	1460.60		1	1451.7	10.226	2556.540	ng/L	
Hg2600-3	BC	SAM	F801415-MS1	400	2/13/2018 12:15:21	86615-1.RAW	12:15:21 PM	2825.09		1	2816.2	19.845	7937.957	ng/L	
Hg2600-3	BC	SAM	F801415-MSD1	400	2/13/2018 12:19:30	86616-1.RAW	12:19:30 PM	2741.92		1	2733.0	19.259	7703.482	ng/L	
Hg2600-3	BC	SAM	F801415-MS2	400	2/13/2018 12:23:38	86617-1.RAW	12:23:38 PM	4057.94		1	4049.0	28.534	11413.572	ng/L	
Hg2600-3	BC	SAM	F801415-MSD2	400	2/13/2018 12:27:46	86618-1.RAW	12:27:46 PM	4225.49		1	4216.6	29.715	11885.926	ng/L	
Hg2600-3	BC	BLK	F802193-BLK1	20	2/13/2018 12:31:55	86619-1.RAW	12:31:55 PM	38.24		2	29.3	0.207	4.132	ng/L	
Hg2600-3	BC	BLK	F802193-BLK2	20	2/13/2018 12:36:03	86620-1.RAW	12:36:03 PM	25.41		2	16.5	0.116	2.323	ng/L	
Hg2600-3	BC	BLK	F802193-BLK3	20	2/13/2018 12:40:12	86621-1.RAW	12:40:12 PM	21.38		2	12.5	0.088	1.755	ng/L	
Hg2600-3	BC	SAM	F802193-BS1	20	2/13/2018 12:44:20	86622-1.RAW	12:44:20 PM	735.54		2	726.6	4.984	99.686	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-CCV4 ✓	1	2/13/2018 12:48:29	86623-1.RAW	12:48:29 PM	758.41 ✓			749.5	5.282	5.282	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4 ✓	1	2/13/2018 12:52:37	86624-1.RAW	12:52:37 PM	24.74 ✓			15.8	0.111	0.111	ng/L	
Hg2600-3	BC	SAM	F802193-BSD1 ✓	20	2/13/2018 12:56:46	86625-1.RAW	12:56:46 PM	727.73 ✓	2		718.8	4.929	98.584	ng/L	
Hg2600-3	BC	SAM	F802193-BS2 ✓	400	2/13/2018 13:00:54	86626-1.RAW	1:00:54 PM	795.36 ✓	2		786.4	5.536	2214.348	ng/L	
Hg2600-3	BC	SAM	ws		2/13/2018 13:11:17	86627-1.RAW	1:11:17 PM	30.46 ✓		X	21.5	0.152	0.000	ng/L	
Hg2600-3	BC	SAM	8B00080-05 ✓	100	2/13/2018 13:15:25	86628-1.RAW	1:15:25 PM	2981.50 ✓	2		2972.6	20.923	2092.315	ng/L	
Hg2600-3	BC	SAM	8B00080-06 ✓	100	2/13/2018 13:19:34	86629-1.RAW	1:19:34 PM	2322.48 ✓	2		2313.5	16.278	1627.837	ng/L	
Hg2600-3	BC	SAM	8B00080-07 ✓	100	2/13/2018 13:23:42	86630-1.RAW	1:23:42 PM	2567.00 ✓	2		2558.1	18.002	1800.176	ng/L	
Hg2600-3	BC	SAM	8B00080-08 ✓	100	2/13/2018 13:27:51	86631-1.RAW	1:27:51 PM	1025.70 ✓	2		1016.8	7.139	713.879	ng/L	
Hg2600-3	BC	SAM	8B00080-09 ✓	100	2/13/2018 13:31:59	86632-1.RAW	1:31:59 PM	3458.03 ✓	2		3449.1	24.282	2428.165	ng/L	
Hg2600-3	BC	SAM	8B00080-10 ✓	100	2/13/2018 13:36:08	86633-1.RAW	1:36:08 PM	3193.252687 ✓	2		3184.3	22.416	2241.554	ng/L	
Hg2600-3	BC	SAM	8B00080-11 ✓	100	2/13/2018 13:40:16	86634-1.RAW	1:40:16 PM	2554.53 ✓	2		2545.6	17.914	1791.385	ng/L	
Hg2600-3	BC	SAM	8B00080-12 ✓	100	2/13/2018 13:44:25	86635-1.RAW	1:44:25 PM	1160.15 ✓	2		1151.2	8.086	808.634	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5 ✓	1	2/13/2018 13:48:33	86636-1.RAW	1:48:33 PM	791.30 ✓			782.4	5.514	5.514	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5 ✓	1	2/13/2018 13:52:41	86637-1.RAW	1:52:41 PM	14.11 ✓			5.2	0.036	0.036	ng/L	
Hg2600-3	BC	SAM	8B00080-13 ✓	100	2/13/2018 13:56:50	86638-1.RAW	1:56:50 PM	2025.51 ✓	2		2016.6	14.185	1418.537	ng/L	
Hg2600-3	BC	SAM	8B00080-14 ✓	100	2/13/2018 14:00:58	86639-1.RAW	2:00:58 PM	1633.49 ✓	2		1624.6	11.422	1142.240	ng/L	
Hg2600-3	BC	SAM	8B00080-15 ✓	100	2/13/2018 14:05:07	86640-1.RAW	2:05:07 PM	1990.71 ✓	2		1981.8	13.940	1394.006	ng/L	
Hg2600-3	BC	SAM	8B00082-01 ✓	100	2/13/2018 14:09:15	86641-1.RAW	2:09:15 PM	1573.11 ✓	2		1564.2	10.997	1099.688	ng/L	
Hg2600-3	BC	SAM	8B00082-02 ✓	100	2/13/2018 14:13:24	86642-1.RAW	2:13:24 PM	1504.87 ✓	2		1495.9	10.516	1051.593	ng/L	
Hg2600-3	BC	SAM	8B00082-03 ✓	100	2/13/2018 14:17:32	86643-1.RAW	2:17:32 PM	842.00 ✓	2		833.1	5.844	584.408	ng/L	
Hg2600-3	BC	SAM	8B00082-04 ✓	100	2/13/2018 14:21:41	86644-1.RAW	2:21:41 PM	2731.52 ✓	2		2722.6	19.161	1916.130	ng/L	
Hg2600-3	BC	SAM	8B00082-05 ✓	100	2/13/2018 14:25:49	86645-1.RAW	2:25:49 PM	626.89 ✓	2		618.0	4.328	432.797	ng/L	
Hg2600-3	BC	SAM	8B00082-06 ✓	100	2/13/2018 14:29:57	86646-1.RAW	2:29:57 PM	2463.03 ✓	2		2454.1	17.269	1726.901	ng/L	
Hg2600-3	BC	SAM	8B00082-07 ✓	100	2/13/2018 14:34:06	86647-1.RAW	2:34:06 PM	674.06 ✓	2		665.1	4.660	466.040	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6 ✓	1	2/13/2018 14:38:14	86648-1.RAW	2:38:14 PM	804.41 ✓			795.5	5.607	5.607	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6 ✓	1	2/13/2018 14:42:23	86649-1.RAW	2:42:23 PM	30.80 ✓			21.9	0.154	0.154	ng/L	
Hg2600-3	BC	SAM	8B00082-08 ✓	100	2/13/2018 14:46:31	86650-1.RAW	2:46:31 PM	2040.54 ✓	2		2031.6	14.291	1429.130	ng/L	
Hg2600-3	BC	SAM	F802193-DUP1 ✓	100	2/13/2018 14:50:40	86651-1.RAW	2:50:40 PM	1053.11 ✓	2		1044.2	7.332	733.197	ng/L	
Hg2600-3	BC	SAM	F802193-MS1 ✓	400	2/13/2018 14:54:48	86652-1.RAW	2:54:48 PM	1937.72 ✓	2		1928.8	13.587	5434.866	ng/L	
Hg2600-3	BC	SAM	F802193-MSD1 ✓	400	2/13/2018 14:58:57	86653-1.RAW	2:58:57 PM	2043.85 ✓	2		2034.9	14.335	5734.060	ng/L	
Hg2600-3	BC	SAM	F802193-MS2 ✓	400	2/13/2018 15:03:05	86654-1.RAW	3:03:05 PM	1959.96 ✓	2		1951.0	13.744	5497.546	ng/L	
Hg2600-3	BC	SAM	F802193-MSD2 ✓	400	2/13/2018 15:07:13	86655-1.RAW	3:07:13 PM	1956.87 ✓	2		1947.9	13.722	5488.834	ng/L	
Hg2600-3	BC	BLK	F802223-BLK1 ✓	20	2/13/2018 15:11:22	86656-1.RAW	3:11:22 PM	25.55 ✓	3		16.6	0.117	2.342	ng/L	
Hg2600-3	BC	BLK	F802223-BLK2 ✓	20	2/13/2018 15:15:30	86657-1.RAW	3:15:30 PM	15.84 ✓	3		6.9	0.049	0.974	ng/L	
Hg2600-3	BC	BLK	F802223-BLK3 ✓	20	2/13/2018 15:19:39	86658-1.RAW	3:19:39 PM	17.93 ✓	3		9.0	0.063	1.268	ng/L	
Hg2600-3	BC	SAM	F802223-BS1 ✓	20	2/13/2018 15:23:47	86659-1.RAW	3:23:47 PM	752.24 ✓	3		743.3	5.162	103.248	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7 ✓	1	2/13/2018 15:27:56	86660-1.RAW	3:27:56 PM	793.54 ✓			784.6	5.530	5.530	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7 ✓	1	2/13/2018 15:32:04	86661-1.RAW	3:32:04 PM	24.12 ✓			15.2	0.107	0.107	ng/L	
Hg2600-3	BC	SAM	F802223-BSD1 ✓	20	2/13/2018 15:36:13	86662-1.RAW	3:36:13 PM	758.36 ✓	3		749.4	5.206	104.111	ng/L	
Hg2600-3	BC	SAM	8A00935-01 ✓	2500	2/13/2018 15:40:21	86663-1.RAW	3:40:21 PM	2380.91 ✓	3		2372.0	16.717	41792.354	ng/L	
Hg2600-3	BC	SAM	8B00078-01 ✓	100	2/13/2018 15:44:29	86664-1.RAW	3:44:29 PM	63.52 ✓	3		54.6	0.369	36.944	ng/L	
Hg2600-3	BC	SAM	8B00222-01 ✓	100	2/13/2018 15:48:38	86665-1.RAW	3:48:38 PM	12396.16 ✓	3		12387.2	87.289	8728.914	ng/L	
Hg2600-3	BC	SAM	WS		2/13/2018 15:53:10	86667-1.RAW	3:53:10 PM	44.48 ✓		X	35.5	0.251	0.000	ng/L	
Hg2600-3	BC	SAM	8B00078-01RE1 ✓	20	2/13/2018 15:57:18	86666-2.RAW	3:57:18 PM	232.80 ✓	3		223.9	1.501	30.028	ng/L	
Hg2600-3	BC	SAM	8B00222-01RE1 ✓	400	2/13/2018 16:01:26	86668-1.RAW	4:01:26 PM	3124.96 ✓	3		3116.0	21.958	8783.114	ng/L	
Hg2600-3	BC	SAM	F802223-DUP1 ✓	400	2/13/2018 16:05:34	86669-1.RAW	4:05:34 PM	1351.00 ✓	3		1342.1	9.455	3781.996	ng/L	
Hg2600-3	BC	SAM	F802223-MS1 ✓	400	2/13/2018 16:09:42	86670-1.RAW	4:09:42 PM	1396.57 ✓	3		1387.6	9.776	3910.465	ng/L	
Hg2600-3	BC	SAM	F802223-MSD1 ✓	400	2/13/2018 16:13:50	86671-1.RAW	4:13:50 PM	3219.74 ✓	3		3210.8	22.626	9050.299	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8 ✓	1	2/13/2018 16:17:59	86672-1.RAW	4:17:59 PM	815.52 ✓			806.6	5.685	5.685	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8 ✓	1	2/13/2018 16:22:07	86673-1.RAW	4:22:07 PM	33.98 ✓			25.0	0.177	0.177	ng/L	
Hg2600-3	BC	SAM	F802223-DUP2 ✓	400	2/13/2018 16:26:15	86674-1.RAW	4:26:15 PM	3053.63 ✓	3		3044.7	21.455	8582.011	ng/L	
Hg2600-3	BC	SAM	F802223-MS2 ✓	2500	2/13/2018 16:30:24	86675-1.RAW	4:30:24 PM	2040.59 ✓	3		2031.7	14.318	35795.944	ng/L	
Hg2600-3	BC	SAM	F802223-MSD2 ✓	2500	2/13/2018 16:34:32	86676-1.RAW	4:34:32 PM	2055.84 ✓	3		2046.9	14.426	36064.694	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9 ✓	1	2/13/2018 16:38:41	86677-1.RAW	4:38:41 PM	795.82 ✓			786.9	5.546	5.546	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9 ✓	1	2/13/2018 16:42:49	86678-1.RAW	4:42:49 PM	25.00 ✓			16.1	0.113	0.113	ng/L	
Hg2600-3	BC	SAM	F802223-MS3 ✓	2500	2/13/2018 16:46:58	86679-1.RAW	4:46:58 PM	2034.60 ✓	3		2025.7	14.276	35690.457	ng/L	
Hg2600-3	BC	SAM	F802223-MSD3 ✓	2500	2/13/2018 16:51:06	86680-1.RAW	4:51:06 PM	2052.52 ✓	3		2043.6	14.402	36006.172	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA ✓	1	2/13/2018 16:55:14	86681-1.RAW	4:55:14 PM	803.71 ✓			794.8	5.602	5.602	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA ✓	1	2/13/2018 16:59:23	86682-1.RAW	4:59:23 PM	26.82 ✓			17.9	0.126	0.126	ng/L	



TotalMercury  
EPA1631

Operat BC  
Workst THg260  
Method #####  
Descr THg26003-180213-1

BlankS 8.9306  
CalibFa 141.89  
R: 1  
R<sup>2</sup>:

Calib Eqn:  
Status:  
1

Conc = (Area-8.9306  
QC Warnings:5/QC F  
1

Run Date: 2/13/2018  
Run Time: 15:49:01

Blank SD: 3.056897031  
Blank RSD%: 34.22959221  
CF SD: 1.409999107  
CF RSD%: 0.993758686

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MW%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
clean				0.00	1.48					86561-1.RAW	8:15:07	210.13	Clean	OK	1
ws				8.93	0.03					86562-1.RAW	8:17:58	0.00	Clean	NP	1
WS				8.93	0.00					86563-1.RAW	8:22:07	13.33	Sample	OK	1
WS				8.93	0.00					86564-1.RAW	8:26:15	6.69	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					86565-1.RAW	8:30:24	7.58	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					86566-1.RAW	8:34:32	12.25	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.06					86567-1.RAW	8:38:41	6.23	Sample	OK	1
SEQ-CAL1	A4		1	8.93	0.49			98.95		86568-1.RAW	8:42:49	8.31	Sample	OK	1
SEQ-CAL2	A5		1	8.93	0.99			99.36		86569-1.RAW	8:46:57	79.13	Sample	OK	1
SEQ-CAL3	A6		1	8.93	5.08			101.54		86570-1.RAW	8:51:06	149.90	Sample	OK	1
SEQ-CAL4	A7		1	8.93	19.98			99.92		86571-1.RAW	8:55:14	729.26	Sample	OK	1
SEQ-CAL5	A8		1	8.93	40.10			100.24		86572-1.RAW	8:59:23	2844.42	Sample	OK	1
SEQ-ICV1	A9		1	8.93	5.19			103.88		86573-1.RAW	9:03:31	5697.85	Sample	FB	1
ws				8.93	0.07					86574-1.RAW	9:07:40	745.91	Sample	OK	1
F801415-BLK1	A10		20	8.93	4.05					86575-1.RAW	9:25:07	19.40	Sample	OK	1
F801415-BLK2	A11		20	8.93	0.00					86576-1.RAW	9:29:16	37.64	Sample	OK	1
F801415-BLK3	A12		20	8.93	0.00					86577-1.RAW	9:33:24	8.75	Sample	OK	1
F801415-BS1	A13		20	8.93	103.43					86578-1.RAW	9:37:33	7.74	Sample	OK	1
F801415-BSD1	A14		20	8.93	106.27					86579-1.RAW	9:41:41	742.72	Sample	OK	1
8A00624-01	A15		250	8.93	3034.62					86580-1.RAW	9:45:50	762.83	Sample	OK	1
8A00624-02	A16		250	8.93	5857.09					86581-1.RAW	9:49:58	1731.21	Sample	OK	1
8A00624-03	A17		250	8.93	12212.76					86582-1.RAW	9:54:07	3333.07	Sample	OK	1
8A00624-04	A18		250	8.93	17568.06					86583-1.RAW	9:58:15	6940.19	Sample	FB	1
8A00624-05	A19		250	8.93	21452.08					86584-1.RAW	10:02:23	9979.54	Sample	FB	1
SEQ-CCV1	A20		1	8.93	5.65			112.90		86585-1.RAW	10:06:32	12183.88	Sample	FB	1
SEQ-CCB1	A21		1	8.93	0.17			0.00		86586-1.RAW	10:10:40	809.90	Sample	OK	1
8A00624-06	B1		250	8.93	22872.11					86587-1.RAW	10:14:49	33.39	Sample	OK	1
8A00624-07	B2		250	8.93	20654.20					86588-1.RAW	10:18:57	12989.81	Sample	FB	1
8A00624-08	B3		250	8.93	1688.69					86589-1.RAW	10:23:06	11731.05	Sample	FB	1
8A00624-09	B4		250	8.93	1714.76					86590-1.RAW	10:27:14	967.33	Sample	OK	1
8A00624-10	B5		250	8.93	1598.60					86591-1.RAW	10:31:22	982.13	Sample	OK	1
8A00624-11	B6		250	8.93	2288.63					86592-1.RAW	10:35:31	916.20	Sample	OK	1
8A00624-12	B7		250	8.93	2416.27					86593-1.RAW	10:39:39	1307.83	Sample	OK	1
8A00624-13	B8		250	8.93	3416.05					86594-1.RAW	10:43:48	1380.27	Sample	OK	1
8A00624-14	B9		250	8.93	4162.46					86595-1.RAW	10:47:56	1947.88	Sample	OK	1
8A00624-15	B10		250	8.93	2999.05					86596-1.RAW	10:52:05	2371.30	Sample	OK	1
SEQ-CCV2	B11		1	8.93	5.31			106.25		86597-1.RAW	10:56:13	1711.02	Sample	OK	1
SEQ-CCB2	B12		1	8.93	0.17			0.00		86598-1.RAW	11:00:22	762.66	Sample	OK	1
ws				8.93	0.17					86599-1.RAW	11:04:30	32.99	Sample	OK	1
8A00624-16	B13		250	8.93	4462.58					86600-1.RAW	11:13:14	33.49	Sample	OK	1
8A00624-17	B14		250	8.93	3460.46					86601-1.RAW	11:17:23	2541.63	Sample	OK	1
8A00624-18	B15		250	8.93	3058.48					86602-1.RAW	11:21:31	1972.89	Sample	FB	1
8A00624-19	B16		250	8.93	12254.50					86603-1.RAW	11:25:40	1744.75	Sample	OK	1
8A00624-20	B17		250	8.93	12662.72					86604-1.RAW	11:29:48	6963.87	Sample	FB	1
8A00624-03RE1	B18		1000	8.93	13018.19					86605-1.RAW	11:33:57	7195.56	Sample	FB	1
8A00624-04RE1	B19		1000	8.93	18050.65					86606-1.RAW	11:38:05	1856.02	Sample	OK	1
8A00624-05RE1	B20		1000	8.93	21521.02					86607-1.RAW	11:42:14	2570.06	Sample	OK	1
8A00624-06RE1	B21		1000	8.93	23711.72					86608-1.RAW	11:46:22	3062.45	Sample	FB	1
8A00624-07RE1	C1		1000	8.93	21251.27					86609-1.RAW	11:50:30	3373.28	Sample	FB	1
SEQ-CCV3	C2		1	8.93	5.38			107.54		86610-1.RAW	11:54:39	3024.18	Sample	OK	1
SEQ-CCB3	C3		1	8.93	0.17			0.00		86611-1.RAW	11:58:47	771.84	Sample	OK	1
8A00624-08RE1	C4		250	8.93	1596.98					86612-1.RAW	12:02:56	32.62	Sample	OK	1
F801415-DUP1	C5		250	8.93	2557.82					86613-1.RAW	12:07:04	915.28	Sample	OK	1
F801415-MS1	C6		400	8.93	7939.24			310.27		86614-1.RAW	12:11:13	1460.60	Sample	OK	1
F801415-MSD1	C7		400	8.93	7704.77					86615-1.RAW	12:15:21	2825.09	Sample	OK	1
F801415-MS2	C8		400	8.93	11414.86			148.11		86616-1.RAW	12:19:30	2741.92	Sample	OK	1
F801415-MSD2	C9		400	8.93	11887.21					86617-1.RAW	12:23:38	4057.94	Sample	FB	1
F802193-BLK1	C10		20	8.93	4.13					86618-1.RAW	12:27:46	4225.49	Sample	OK	1
F802193-BLK2	C11		20	8.93	2.32					86619-1.RAW	12:31:55	38.24	Sample	OK	1
F802193-BLK3	C12		20	8.93	1.76					86620-1.RAW	12:36:03	25.41	Sample	OK	1
F802193-BS1	C13		20	8.93	102.42					86621-1.RAW	12:40:12	21.38	Sample	OK	1
										86622-1.RAW	12:44:20	735.54	Sample	OK	1

SEQ-CCV4	C14	1	8.93	5.28	105.65	86623-1.RAW	12:48:29	758.41	Sample	OK	1
SEQ-CCB4	C15	1	8.93	0.11	0.00	86624-1.RAW	12:52:37	24.74	Sample	OK	1
F802193-BSD1	C16	20	8.93	101.32		86625-1.RAW	12:56:46	727.73	Sample	OK	1
F802193-BS2	C17	400	8.93	2217.08		86626-1.RAW	13:00:54	795.36	Sample	OK	1
ws			8.93	0.15		86627-1.RAW	13:11:17	30.46	Sample	OK	1
8B00080-05	C18	100	8.93	2095.05		86628-1.RAW	13:15:25	2981.50	Sample	OK	1
8B00080-06	C19	100	8.93	1630.57		86629-1.RAW	13:19:34	2322.48	Sample	FB	1
8B00080-07	C20	100	8.93	1802.91		86630-1.RAW	13:23:42	2567.00	Sample	OK	1
8B00080-08	C21	100	8.93	716.62		86631-1.RAW	13:27:51	1025.70	Sample	OK	1
8B00080-09	A1	100	8.93	2430.90		86632-1.RAW	13:31:59	3458.03	Sample	FB	1
8B00080-10	A2	100	8.93	2244.29		86633-1.RAW	13:36:08	3193.25	Sample	OK	1
8B00080-11	A3	100	8.93	1794.12		86634-1.RAW	13:40:16	2554.53	Sample	OK	1
8B00080-12	A4	100	8.93	811.37		86635-1.RAW	13:44:25	1160.15	Sample	OK	1
SEQ-CCV5	A5	1	8.93	5.51	110.28	86636-1.RAW	13:48:33	791.30	Sample	OK	1
SEQ-CCB5	A6	1	8.93	0.04	0.00	86637-1.RAW	13:52:41	14.11	Sample	OK	1
8B00080-13	A7	100	8.93	1421.27		86638-1.RAW	13:56:50	2025.51	Sample	OK	1
8B00080-14	A8	100	8.93	1144.98		86639-1.RAW	14:00:58	1633.49	Sample	OK	1
8B00080-15	A9	100	8.93	1396.74		86640-1.RAW	14:05:07	1990.71	Sample	OK	1
8B00082-01	A10	100	8.93	1102.42		86641-1.RAW	14:09:15	1573.11	Sample	OK	1
8B00082-02	A11	100	8.93	1054.33		86642-1.RAW	14:13:24	1504.87	Sample	OK	1
8B00082-03	A12	100	8.93	587.14		86643-1.RAW	14:17:32	842.00	Sample	OK	1
8B00082-04	A13	100	8.93	1918.87		86644-1.RAW	14:21:41	2731.52	Sample	OK	1
8B00082-05	A14	100	8.93	435.53		86645-1.RAW	14:25:49	626.89	Sample	OK	1
8B00082-06	A15	100	8.93	1729.64		86646-1.RAW	14:29:57	2463.03	Sample	OK	1
8B00082-07	A16	100	8.93	468.78		86647-1.RAW	14:34:06	674.06	Sample	OK	1
SEQ-CCV6	A17	1	8.93	5.61	112.13	86648-1.RAW	14:38:14	804.41	Sample	OK	1
SEQ-CCB6	A18	1	8.93	0.15	0.00	86649-1.RAW	14:42:23	30.80	Sample	OK	1
8B00082-08	A19	100	8.93	1431.87		86650-1.RAW	14:46:31	2040.54	Sample	OK	1
F802193-DUP1	A20	100	8.93	735.93		86651-1.RAW	14:50:40	1053.11	Sample	OK	1
F802193-MS1	A21	400	8.93	5437.60	737.87	86652-1.RAW	14:54:48	1937.72	Sample	OK	1
F802193-MSD1	B1	400	8.93	5736.80		86653-1.RAW	14:58:57	2043.85	Sample	OK	1
F802193-MS2	B2	400	8.93	5500.28	95.84	86654-1.RAW	15:03:05	1959.96	Sample	FB	1
F802193-MSD2	B3	400	8.93	5491.57		86655-1.RAW	15:07:13	1956.87	Sample	OK	1
F802223-BLK1	B4	20	8.93	2.34		86656-1.RAW	15:11:22	25.55	Sample	OK	1
F802223-BLK2	B5	20	8.93	0.97		86657-1.RAW	15:15:30	15.84	Sample	OK	1
F802223-BLK3	B6	20	8.93	1.27		86658-1.RAW	15:19:39	17.93	Sample	OK	1
F802223-BS1	B7	20	8.93	104.78		86659-1.RAW	15:23:47	752.24	Sample	OK	1
SEQ-CCV7	B8	1	8.93	5.53	110.60	86660-1.RAW	15:27:56	793.54	Sample	OK	1
SEQ-CCB7	B9	1	8.93	0.11	0.00	86661-1.RAW	15:32:04	24.12	Sample	OK	1
F802223-BSD1	B10	20	8.93	105.64		86662-1.RAW	15:36:13	758.36	Sample	OK	1
8A00935-01	B11	2500	8.93	41793.88		86663-1.RAW	15:40:21	2380.91	Sample	FB	1
8B00078-01	B12	100	8.93	38.47		86664-1.RAW	15:44:29	63.52	Sample	OK	1
8B00222-01	B13	100	8.93	8730.44		86665-1.RAW	15:48:38	12396.16	Sample	FB	1
WS			8.93	0.25		86667-1.RAW	15:53:10	44.48	Sample	OK	1
8B00078-01RE1	B14	20	8.93	31.56		86666-2.RAW	15:57:18	232.80	Sample	OK	1
8B00222-01RE1	B15	400	8.93	8784.64		86668-1.RAW	16:01:26	3124.96	Sample	OK	1
F802223-DUP1	B16	400	8.93	3783.52		86669-1.RAW	16:05:34	1351.00	Sample	OK	1
F802223-MS1	B17	400	8.93	3911.99	103.37	86670-1.RAW	16:09:42	1396.57	Sample	OK	1
F802223-MSD1	B18	400	8.93	9051.83		86671-1.RAW	16:13:50	3219.74	Sample	OK	1
SEQ-CCV8	B19	1	8.93	5.68	113.70	86672-1.RAW	16:17:59	815.52	Sample	OK	1
SEQ-CCB8	B20	1	8.93	0.18	0.00	86673-1.RAW	16:22:07	33.98	Sample	OK	1
F802223-DUP2	C1	400	8.93	8583.54		86674-1.RAW	16:26:15	3053.63	Sample	FB	1
F802223-MS2	C2	2500	8.93	35797.47	416.95	86675-1.RAW	16:30:24	2040.59	Sample	OK	1
F802223-MSD2	C3	2500	8.93	36066.22		86676-1.RAW	16:34:32	2055.84	Sample	OK	1
SEQ-CCV9	C4	1	8.93	5.55	110.92	86677-1.RAW	16:38:41	795.82	Sample	OK	1
SEQ-CCB9	C5	1	8.93	0.11	0.00	86678-1.RAW	16:42:49	25.00	Sample	OK	1
F802223-MS3	C6	2500	8.93	35691.98	#####	86679-1.RAW	16:46:58	2034.60	Sample	OK	1
F802223-MSD3	C7	2500	8.93	36007.70		86680-1.RAW	16:51:06	2052.52	Sample	OK	1
SEQ-CCVA	C8	1	8.93	5.60		86681-1.RAW	16:55:14	803.71	Sample	OK	1
SEQ-CCBA	C9	1	8.93	0.13		86682-1.RAW	16:59:23	26.82	Sample	OK	1

8B14016

PEER-REVIEWED



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: R 2/4/18

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14016-IBL1 ✓	QC	1			
8B14016-IBL2 ✓	QC	2			
8B14016-IBL3 ✓	QC	3			
8B14016-CAL1 ✓	QC	4	1800804		
8B14016-CAL2 ✓	QC	5	1800805		
8B14016-CAL3 ✓	QC	6	1800806		
8B14016-CAL4 ✓	QC	7	1800807		
8B14016-CAL5 ✓	QC	8	1800808		
8B14016-ICV1 ✓	QC	9	1707379		
F801415-BLK1 ✓	QC	10			
F801415-BLK2 ✓	QC	11			
F801415-BLK3 ✓	QC	12			
F801415-BS1 ✓	QC	13			
F801415-BSD1 ✓	QC	14			
8A00624-01 ✓	Hg-CVAFS-S-AR	15			
8A00624-02 ✓	Hg-CVAFS-S-AR	16			
8A00624-03 ✓	Hg-CVAFS-S-AR	17			
8A00624-04 ✓	Hg-CVAFS-S-AR	18			
8A00624-05 ✓	Hg-CVAFS-S-AR	19			
8B14016-CCV1 ✓	QC	20	1707379		
8B14016-CCB1 ✓	QC	21			
8A00624-06 ✓	Hg-CVAFS-S-AR	22			
8A00624-07 ✓	Hg-CVAFS-S-AR	23			
8A00624-08 ✓	Hg-CVAFS-S-AR	24			
8A00624-09 ✓	Hg-CVAFS-S-AR	25			
8A00624-10 ✓	Hg-CVAFS-S-AR	26			
8A00624-11 ✓	Hg-CVAFS-S-AR	27			
8A00624-12 ✓	Hg-CVAFS-S-AR	28			
8A00624-13 ✓	Hg-CVAFS-S-AR	29			
8A00624-14 ✓	Hg-CVAFS-S-AR	30			
8A00624-15 ✓	Hg-CVAFS-S-AR	31			
8B14016-CCV2 ✓	QC	32	1707379		
8B14016-CCB2 ✓	QC	33			
8A00624-16 ✓	Hg-CVAFS-S-AR	34			
8A00624-17 ✓	Hg-CVAFS-S-AR	35			

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8A00624-18 ✓	Hg-CVAFS-S-AR	36			
8A00624-19 ✓	Hg-CVAFS-S-AR	37			
8A00624-20 ✓	Hg-CVAFS-S-AR	38			
8A00624-03RE1 ✓	Hg-CVAFS-S-AR	39			Added 2/14/2018 by BC
8A00624-04RE1 ✓	Hg-CVAFS-S-AR	40			Added 2/14/2018 by BC
8A00624-05RE1 ✓	Hg-CVAFS-S-AR	41			Added 2/14/2018 by BC
8A00624-06RE1 ✓	Hg-CVAFS-S-AR	42			Added 2/14/2018 by BC
8A00624-07RE1 ✓	Hg-CVAFS-S-AR	43			Added 2/14/2018 by BC
8B14016-CCV3 ✓	QC	44	1707379	✓	
8B14016-CCB3 ✓	QC	45			
8A00624-08RE1 ✓	Hg-CVAFS-S-AR	46			Added 2/14/2018 by BC
F801415-DUP1 ✓	QC	47			
F801415-MS1 ✓	QC	48			
F801415-MSD1 ✓	QC	49			
F801415-MS2 ✓	QC	50			
F801415-MSD2 ✓	QC	51			
8B14016-CCV4 ✓	QC	52	1707379	✓	
8B14016-CCB4 ✓	QC	53			
8B14016-CCV5 ✓	QC	54	1707379	✓	
8B14016-CCB5 ✓	QC	55			
8B14016-CCV6 ✓	QC	56	1707379	✓	
8B14016-CCB6 ✓	QC	57			
F802223-BLK1 ✓	QC	58			
F802223-BLK2 ✓	QC	59			
F802223-BLK3 ✓	QC	60			
F802223-BS1 ✓	QC	61			
8B14016-CCV7 ✓	QC	62	1707379	✓	
8B14016-CCB7 ✓	QC	63			
F802223-BSD1 ✓	QC	64			
8A00935-01 ✓	Hg-CVAFS-S-AR	65			
8B00078-01 ✓	Hg-CVAFS-S-AR	66			
8B00222-01 ✓	Hg-CVAFS-S-AR	67			
8B00078-01RE1 ✓	Hg-CVAFS-S-AR	68			Added 2/14/2018 by BC
8B00222-01RE1 ✓	Hg-CVAFS-S-AR	69			Added 2/14/2018 by BC
F802223-DUP1 ✓	QC	70			

Due Date: 2/26/2018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F802223-MS1 ✓	QC	71			
F802223-MSD1 ✓	QC	72			
8B14016-CCV8 ✓	QC	73	1707379	✓	
8B14016-CCB8 ✓	QC	74			
F802223-DUP2 ✓	QC	75			
F802223-MS2 ✓	QC	76			
F802223-MSD2 ✓	QC	77			
8B14016-CCV9 ✓	QC	78	1707379	✓	
8B14016-CCB9 ✓	QC	79			
F802223-MS3 ✓	QC	80			
F802223-MSD3 ✓	QC	81		✓	
8B14016-CCVA ✓	QC	82	1707379		
8B14016-CCBA ✓	QC	83			

Becis 2/14/18  
Samples Loaded By Date

Becis 2/14/18  
Data Processed By Date

**Failing Data Report - 8B14016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
8A00624-03	Hg-CVAFS-S-AR	2380	30.5				ng/g						FAIL-OVER	PASS	E -
8A00624-04	Hg-CVAFS-S-AR	3380	30.1				ng/g						FAIL-OVER	PASS	E -
8A00624-05	Hg-CVAFS-S-AR	3870	28.2				ng/g						FAIL-OVER	PASS	E -
8A00624-06	Hg-CVAFS-S-AR	4380	29.9				ng/g						FAIL-OVER	PASS	E -
8A00624-07	Hg-CVAFS-S-AR	3750	28.4				ng/g						FAIL-OVER	PASS	E -
8A00624-19	Hg-CVAFS-S-AR	2640	33.7				ng/g						FAIL-OVER	PASS	E -
8A00624-20	Hg-CVAFS-S-AR	3070	37.9				ng/g						FAIL-OVER	PASS	E -
8B00222-01	Hg-CVAFS-S-AR	868	6.21				ng/g						FAIL-OVER	PASS	E -
F802223-DUP1	Hg-CVAFS-S-AR	357.9	23.7	873.4	873.4		ng/g				83.7	24.00	PASS-OVER	FAIL-DUP	Redigest -
F802223-MS1	Hg-CVAFS-S-AR	358.6	22.9		873.4	458.53	ng/g	-112	71.00	125.00			PASS-OVER	FAIL-MS	Redigest
F802223-MSD1	Hg-CVAFS-S-AR	860.3	23.8	358.6	873.4	475.30	ng/g	-2.75	71.00	125.00	-190	24.00	PASS-OVER	FAIL-MSD (Rec.)	Redigest

Beck 2/14/18  
 Analyst Reviewed By Date

PLU 2/14/18  
 Peer Reviewed By Date

**PREPARATION BENCH SHEET**

F801415

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/6/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F801415-BLK1	Blank	0.5	40					
F801415-BLK2	Blank	0.5	40					
F801415-BLK3	Blank	0.5	40					
F801415-BS1	LCS	0.5	40	1800233	40			
F801415-BSD1	LCS Dup	0.5	40	1800233	40			
F801415-DUP1	Duplicate [8A00624-01]	0.51	40					
F801415-MS1	Matrix Spike [8A00624-01]	0.553	40	1705554	200			
F801415-MS2	Matrix Spike [8A00624-02]	0.527	40	1705554	200			
F801415-MSD1	Matrix Spike Dup [8A00624-01]	0.542	40	1705554	200			
F801415-MSD2	Matrix Spike Dup [8A00624-02]	0.546	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>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707258	Omnitrace Hydrochloric Acid	13-Dec-20 00:00
			1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1707441	Boiling Chips for AFS prep	21-Dec-18 00:00
			1800211	Fisher Nitric Acid, Tracemetal Grade	04-Aug-19 00:00
			1800612	5% BrCl	18-Jun-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800707	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F801415

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/6/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00624-01	OCE-11-9	0.536	40	-	-	-		
8A00624-02	OCE-11-10	0.506	40	-	-	-		
8A00624-03	OCE-11-11	0.566	40	-	-	-		
8A00624-03RE1	OCE-11-11	0.566	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-04	OCE-11-12	0.562	40	-	-	-		
8A00624-04RE1	OCE-11-12	0.562	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-05	OCE-11-13	0.548	40	-	-	-		
8A00624-05RE1	OCE-11-13	0.548	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-06	OCE-11-14	0.517	40	-	-	-		
8A00624-06RE1	OCE-11-14	0.517	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-07	OCE-11-15	0.531	40	-	-	-		
8A00624-07RE1	OCE-11-15	0.531	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-08	OCE-13-1	0.566	40	-	-	-		
8A00624-08RE1	OCE-13-1	0.566	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-09	OCE-13-2	0.524	40	-	-	-		
8A00624-10	OCE-13-3	0.521	40	-	-	-		
8A00624-11	OCE-13-4	0.528	40	-	-	-		
8A00624-12	OCE-13-5	0.523	40	-	-	-		
8A00624-13	OCE-13-6	0.54	40	-	-	-		

Due Date: 2/28/2018



PREPARATION BENCH SHEET

F801415

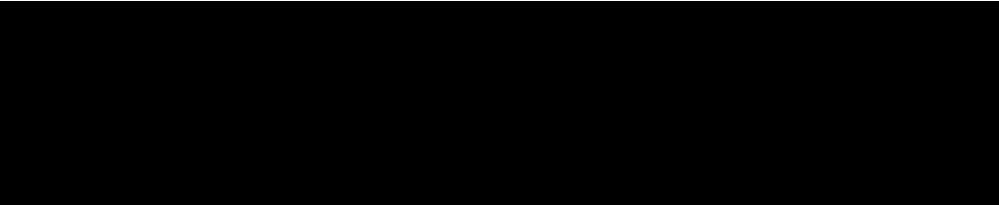
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

8A00624-14	OCE-13-7	0.536	40	-	-	-		
8A00624-15	OCE-13-8	0.539	40	-	-	-		
8A00624-16	OCE-13-9	0.544	40	-	-	-		
8A00624-17	OCE-13-10	0.522	40	-	-	-		
8A00624-18	OCE-13-11	0.547	40	-	-	-		
8A00624-19	OCE-13-12	0.56	40	-	-	-		
8A00624-20	OCE-13-13	0.507	40	-	-	-		



PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F801415

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F801415-BLK1	Blank	0.5	40					20x
F801415-BLK2	Blank	0.5	40					20x
F801415-BLK3	Blank	0.5	40					20x
F801415-BS1	LCS	0.5	40	1800233	40			20x
F801415-BSD1	LCS Dup	0.5	40	1800233	40			20x
F801415-DUP1	Duplicate [8A00624-01]	0.51	40					250x
F801415-MS1	Matrix Spike [8A00624-01]	0.553	40	1705554	200			400x
F801415-MS2	Matrix Spike [8A00624-02]	0.527	40	1705554	200			400x
F801415-MSD1	Matrix Spike Dup [8A00624-01]	0.542	40	1705554	200			400x
F801415-MSD2	Matrix Spike Dup [8A00624-02]	0.546	40	1705554	200			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1707258	Omnitrace Hydrochloric Acid	13-Dec-20 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707441	Boiling Chips for AFS prep	21-Dec-18 00:00
			1800211	Fisher Nitric Acid, Tracemetal Grade	04-Aug-19 00:00
			1800612	5% BrCl	18-Jun-18 00:00
			1800707		

1706821  
1707390  
1707389  
1800780

PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F801415

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00624-01	OCE-11-9	0.536	40	-	-	-	250x	
8A00624-02	OCE-11-10	0.506	40	-	-	-	250x	
8A00624-03	OCE-11-11	0.566	40	-	-	-	250x → 1000x	
8A00624-04	OCE-11-12	0.562	40	-	-	-	250x → 1000x	
8A00624-05	OCE-11-13	0.548	40	-	-	-	250x → 1000x	
8A00624-06	OCE-11-14	0.517	40	-	-	-	250x → 1000x	
8A00624-07	OCE-11-15	0.531	40	-	-	-	250x → 1000x	
8A00624-08	OCE-13-1	0.566	40	-	-	-	250x → 250x	
8A00624-09	OCE-13-2	0.524	40	-	-	-	250x	
8A00624-10	OCE-13-3	0.521	40	-	-	-	250x	
8A00624-11	OCE-13-4	0.528	40	-	-	-	250x	
8A00624-12	OCE-13-5	0.523	40	-	-	-	250x	
8A00624-13	OCE-13-6	0.54	40	-	-	-	250x	
8A00624-14	OCE-13-7	0.536	40	-	-	-	250x	
8A00624-15	OCE-13-8	0.539	40	-	-	-	250x	
8A00624-16	OCE-13-9	0.544	40	-	-	-	250x	
8A00624-17	OCE-13-10	0.522	40	-	-	-	250x	
8A00624-18	OCE-13-11	0.547	40	-	-	-	250x	
8A00624-19	OCE-13-12	0.56	40	-	-	-	250x	

Due Date: 2/28/2018

PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F801415

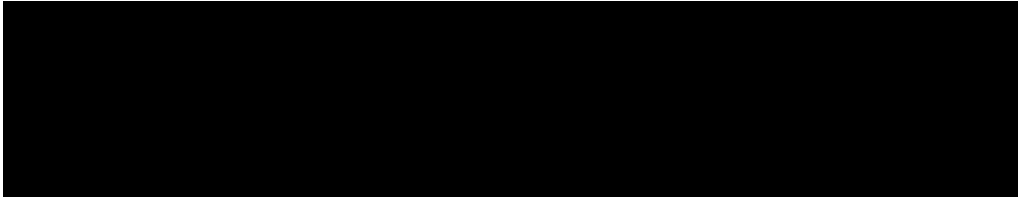
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

8A00624-20	OCE-13-13	0.507	40	-	-	-	250X	
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Technician: WF Batch#: F801415 Date: 2/6/18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 \*Time in: 18:00 Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: 18:00 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: 18006(2, 18006)) Spike vol.: 200 µL (LIMS ID: 1705554)  
 Spike Witness: AMB 2/6/18 (initial and date)

HCl LIMS ID: 1707298 Pipette SN#: MUMBA Calibration Date: 2/4/18  
 HNO<sub>3</sub> LIMS ID: 180024 Pipette SN#: MU00610 Calibration Date: 2/12/18  
 70/30 LIMS ID: \_\_\_\_\_ Dispenser #: 09N45351 Calibrated?  Yes  No  
 Other Acid LIMS ID: \_\_\_\_\_ Dispenser #: 19406623  
 Glass Vial # 00064 Boiling Chip lot # 1707441 \*Hotblock Position: 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	F801415 - BLU1	0.518	23	8A00624 - 13	0.540	/
2	F801415 - BLU2	0.594	24	8A00624 - 14	0.536	/
3	F801415 - BLU3	0.529	25	8A00624 - 15	0.539	/
4	F801415 - BLU1	0.529	26	8A00624 - 16	0.544	/
5	F801415 - BSD1	0.520	27	8A00624 - 17	0.522	/
6	8A00624 - 01	0.536	28	8A00624 - 18	0.547	/
7	F801415 - DUPI	0.510	29	8A00624 - 19	0.560	/
8	F801415 - MS1	0.553	30	8A00624 - 20	0.507	/
9	F801415 - MSD1	0.542	31			/
10	F801415 8A00624 - 02	0.506	32			/
11	F801415 - MS2	0.527	33			/
12	F801415 - MSD2	0.546	34			/
13	8A00624 - 03	0.566	35			/
14	8A00624 - 04	0.562	36			/
15	8A00624 - 05	0.548	37			/
16	8A00624 - 06	0.517	38			/
17	8A00624 - 07	0.531	39			/
18	8A00624 - 08	0.566	40			/
19	8A00624 - 09	0.524	41			/
20	8A00624 - 10	0.521	42			/
21	8A00624 - 11	0.528	43			/
22	8A00624 - 12	0.523	44			/

Comments  
 DUPI/MS1/MSD1  
 source 2 8A00624-01  
 MS2/MSD2  
 source 2 8A00624-02  
 BS/BSD  
 Spiked of 40 µL  
 of 180233  
 WF 2/6/18

**PREPARATION BENCH SHEET**

F802223

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802223-BLK1	Blank	0.5	40					
F802223-BLK2	Blank	0.5	40					
F802223-BLK3	Blank	0.5	40					
F802223-BS1	Blank Spike	0.5	40	1800233	40			
F802223-BSD1	Blank Spike	0.5	40	1800233	40			
F802223-DUP1	Duplicate [8B00222-01RE1]	0.5659	40					
F802223-DUP2	Duplicate [8B00222-01RE1]	0.5385	40					
F802223-MS1	Matrix Spike [8B00222-01RE1]	0.5839	40	1705554	200			
F802223-MS2	Matrix Spike [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL
F802223-MS3	Matrix Spike [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL
F802223-MSD1	Matrix Spike Dup [8B00222-01RE1]	0.5633	40	1705554	200			
F802223-MSD2	Matrix Spike Dup [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL
F802223-MSD3	Matrix Spike Dup [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00	1707258	Omnitrace Hydrochloric Acid	13-Dec-20 00:00
			1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800211	Fisher Nitric Acid, Tracemetal Grade	04-Aug-19 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

Due Date: 2/26/2018

**PREPARATION BENCH SHEET**

F802223

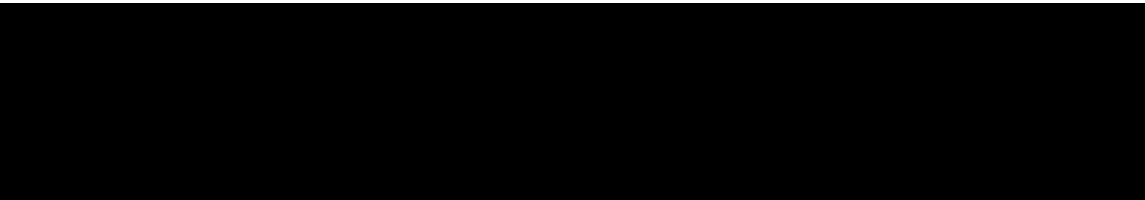
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00935-01	Metals (PT-MET-SOIL) Lot # 7071-04	0.5229	40	-	-	-		
8B00078-01	LS-450-02012018	0.536	40	-	-	-		
8B00078-01RE1	LS-450-02012018	0.536	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00222-01	TOC-750-02052018	0.5385	40	-	-	-		
8B00222-01RE1	TOC-750-02052018	0.5385	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC



PREPARATION BENCH SHEET

2100-3  
 BL 2/14/18

F802223

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/9/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802223-BLK1	Blank	0.5	40					20X
F802223-BLK2	Blank	0.5	40					20X
F802223-BLK3	Blank	0.5	40					20X
F802223-BS1	Blank Spike	0.5	40	1800233	40			20X
F802223-BSD1	Blank Spike	0.5	40	1800233	40			20X
F802223-DUP1	Duplicate [8B00222-01] RE1	0.5659	40					400X
F802223-MS1	Matrix Spike [8B00222-01] RE1	0.5839	40	1705554	200			400X
F802223-MSD1	Matrix Spike Dup [8B00222-01] RE1	0.5633	40	1705554	200			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707258	Omnitrace Hydrochloric Acid	13-Dec-20 00:00
			1800211	Fisher Nitric Acid, Tracemetal Grade	04-Aug-19 00:00
			1800770	5% BrCl	18-Jun-18 00:00

MS2, MSD2 - AS, ASD

250X 8B00222-01RE1

50µl 1800714

DUP2. AD

400X 8B00222-01RE1

MS3, MSD3 2-run of MS2, MSD2

1706821

1707390

1707384

1800680

Due Date: 2/26/2018



PREPARATION BENCH SHEET

2600-3  
BC 2/14/18

F802223

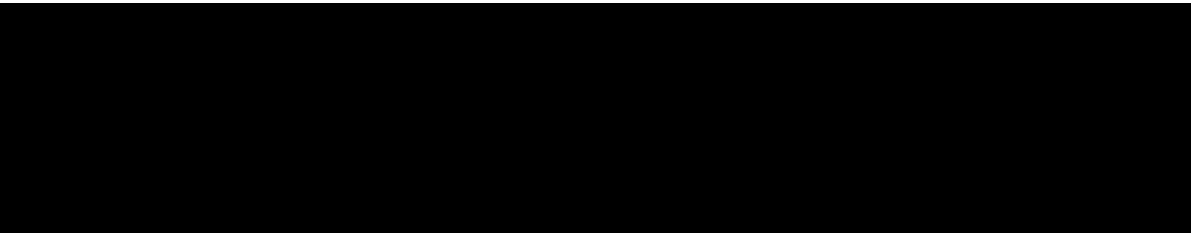
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/9/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00935-01	Metals (PT-MET-SOIL) Lot # 7071-04	0.5229	40	-	-	-	2500x	
8B00078-01	LS-450-02012018	0.536	40	-	-	-	100x → 20x	
8B00222-01	TOC-750-02052018	0.5385	40	-	-	-	100x → 20x 400x	



Technician: Dwyer Batch#: F80223 Date: 2-9-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 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: 1800770) Spike vol.: 200 µL (LIMS ID: 1705554)  
 Spike Witness: Cue 2/9/18 (initial and date)

HCl LIMS ID: 1707258 Pipette SN#: 0667852 Calibration Date: 2-9-18  
 HNO<sub>3</sub> LIMS ID: 1800211 Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 09N52463  Yes 15406623  Yes  
 Glass Vial # 00068952 Boiling Chip lot # 1801800500 \*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"/> NA
1	F802223 BK1	0.5214	23			
2	F802223 BK2	0.5162	24			
3	F802223 BK3	0.5036	25			
4	F802223 BS1	0.5111	26			
5	F802223 BS01	0.5003	27		2-9-18	F802223
6	8A00935-01A	0.5229	28		12/8	MD, MS1, MS01
7	8B00078-01A	0.5360	29			8B00222-01
8	8B00222-01A	0.5385	30			
9	F802223-MD	0.5659	31			F802223
10	F802223-MS1	0.5839	32			BS1, BS01
11	F802223 MS01	0.5633	33			= 40ul spike
12			34			of 100 ug/L
13			35			1800223
14			36			2-9-18 5/8
15		DH 2-9-18	37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14017

PEER-REVIEWED

Instrument: Hg2600-3



Calibration ID: UNASSIGNED

INITIALS:

R 2/14/18

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14017-IBL1 ✓	QC	1			
8B14017-IBL2 ✓	QC	2			
8B14017-IBL3 ✓	QC	3			
8B14017-CAL1 ✓	QC	4	1800804 ✓		
8B14017-CAL2 ✓	QC	5	1800805 ✓		
8B14017-CAL3 ✓	QC	6	1800806 ✓		
8B14017-CAL4 ✓	QC	7	1800807 ✓		
8B14017-CAL5 ✓	QC	8	1800808 ✓		
8B14017-ICV1 ✓	QC	9	1707379 ✓		
8B14017-CCV1 ✓	QC	10	1707379 ✓		
8B14017-CCB1 ✓	QC	11			
8B14017-CCV2 ✓	QC	12	1707379 ✓		
8B14017-CCB2 ✓	QC	13			
8B14017-CCV3 ✓	QC	14	1707379 ✓		
8B14017-CCB3 ✓	QC	15			
F802193-BLK1 ✓	QC	16			
F802193-BLK2 ✓	QC	17			
F802193-BLK3 ✓	QC	18			
F802193-BS1 ✓	QC	19			
8B14017-CCV4 ✓	QC	20	1707379 ✓		
8B14017-CCB4 ✓	QC	21			
F802193-BSD1 ✓	QC	22			
F802193-BS2 ✓	QC	23			
8B00080-05 ✓	Hg-CVAFS-T-7030	24			
8B00080-06 ✓	Hg-CVAFS-T-7030	25			
8B00080-07 ✓	Hg-CVAFS-T-7030	26			
8B00080-08 ✓	Hg-CVAFS-T-7030	27			
8B00080-09 ✓	Hg-CVAFS-T-7030	28			
8B00080-10 ✓	Hg-CVAFS-T-7030	29			
8B00080-11 ✓	Hg-CVAFS-T-7030	30			
8B00080-12 ✓	Hg-CVAFS-T-7030	31			
8B14017-CCV5 ✓	QC	32	1707379 ✓		
8B14017-CCB5 ✓	QC	33			
8B00080-13 ✓	Hg-CVAFS-T-7030	34			
8B00080-14 ✓	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2018

90 of 103

Page 1 of 2

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018


Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00080-15 ✓	Hg-CVAFS-T-7030	36			
8B00082-01 ✓	Hg-CVAFS-T-7030	37			
8B00082-02 ✓	Hg-CVAFS-T-7030	38			
8B00082-03 ✓	Hg-CVAFS-T-7030	39			
8B00082-04 ✓	Hg-CVAFS-T-7030	40			
8B00082-05 ✓	Hg-CVAFS-T-7030	41			
8B00082-06 ✓	Hg-CVAFS-T-7030	42			
8B00082-07 ✓	Hg-CVAFS-T-7030	43			
8B14017-CCV6 ✓	QC	44	1707379 ✓		
8B14017-CCB6 ✓	QC	45			
8B00082-08 ✓	Hg-CVAFS-T-7030	46			
F802193-DUP1 ✓	QC	47			
F802193-MS1 ✓	QC	48			
F802193-MSD1 ✓	QC	49			
F802193-MS2 ✓	QC	50			
F802193-MSD2 ✓	QC	51			
8B14017-CCV7 ✓	QC	52	1707379 ✓		
8B14017-CCB7 ✓	QC	53			


Becis 2/14/18  
Samples Loaded By Date

Becis 2/14/18  
Data Processed By Date

# Failing Data Report - 8B14017

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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2/14/10  
 Analyst Reviewed By Date


2/14/10  
 Peer Reviewed By Date

**PREPARATION BENCH SHEET**

F802193

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802193-BLK1	Blank	0.25	20					
F802193-BLK2	Blank	0.25	20					
F802193-BLK3	Blank	0.25	20					
F802193-BS1	LCS	0.25	20	1800233	20			
F802193-BS2	DORM4	0.1259	20	1703305	125.9			
F802193-BSD1	LCS Dup	0.25	20	1800233	20			
F802193-DUP1	Duplicate [8B00082-02]	0.0407	20					
F802193-MS1	Matrix Spike [8B00082-03]	0.0376	20	1705554	100			
F802193-MS2	Matrix Spike [8B00082-07]	0.0581	20	1705554	100			
F802193-MSD1	Matrix Spike Dup [8B00082-03]	0.0545	20	1705554	100			
F802193-MSD2	Matrix Spike Dup [8B00082-07]	0.059	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802193

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00080-05	MMBKD-01_18WT001_013018_ABD_05_BL	0.1085	20	-	-	-		
8B00080-06	MMBKD-01_18WT001_013018_ABD_06_BL	0.0907	20	-	-	-		
8B00080-07	MMBKD-01_18WT001_013018_ABD_07_BL	0.122	20	-	-	-		
8B00080-08	MMBKD-01_18WT001_013018_ABD_08_BL	0.0763	20	-	-	-		
8B00080-09	MMBKD-01_18WT001_013018_ABD_09_BL	0.1497	20	-	-	-		
8B00080-10	MMBKD-01_18WT001_013018_ABD_10_BL	0.1449	20	-	-	-		
8B00080-11	MMBKD-01_18WT001_013018_ABD_11_BL	0.158	20	-	-	-		
8B00080-12	MMBKD-01_18WT001_013018_ABD_12_BL	0.066	20	-	-	-		
8B00080-13	MMBKD-01_18WT001_013018_ABD_13_BL	0.1358	20	-	-	-		
8B00080-14	MMBKD-01_18WT001_013018_ABD_14_BL	0.111	20	-	-	-		
8B00080-15	MMBKD-01_18WT001_013018_ABD_15_BL	0.1015	20	-	-	-		
8B00082-01	ES-13_18WT001_012918_ABD_01_BL	0.1101	20	-	-	-		
8B00082-02	ES-13_18WT001_012918_ABD_02_BL	0.0711	20	-	-	-		
8B00082-03	ES-13_18WT001_012918_ABD_03_BL	0.1204	20	QC	-	-	MS/MSD	
8B00082-04	ES-13_18WT001_012918_ABD_04_BL	0.1589	20	-	-	-		
8B00082-05	ES-13_18WT001_012918_ABD_05_BL	0.1712	20	-	-	-		
8B00082-06	ES-13_18WT001_012918_ABD_06_BL	0.1508	20	-	-	-		
8B00082-07	ES-13_18WT001_012918_ABD_07_BL	0.1161	20	-	-	-		
8B00082-08	ES-13_18WT001_013018_ABD_08_BL	0.1794	20	-	-	-		

**PREPARATION BENCH SHEET**

F802193

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

**Due Date: 3/2/2018**



PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F802193

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/9/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802193-BLK1	Blank	0.25	20					20X
F802193-BLK2	Blank	0.25	20					20X
F802193-BLK3	Blank	0.25	20					20X
F802193-BS1	LCS	0.25	20	1800233	20			20X
F802193-BS2	DORM4	0.1259	20	1703305	125.9			400X
F802193-BSD1	LCS Dup	0.25	20	1800233	20			20X
F802193-DUP1	Duplicate [8B00082-02]	0.0407	20					100X
F802193-MS1	Matrix Spike [8B00082-03]	0.0376	20	1705554	100			400X
F802193-MS2	Matrix Spike [8B00082-07]	0.0581	20	1705554	100			400X
F802193-MSD1	Matrix Spike Dup [8B00082-03]	0.0545	20	1705554	100			400X
F802193-MSD2	Matrix Spike Dup [8B00082-07]	0.059	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1800770	5% BrCl	18-Jun-18 00:00

1706821  
1707390  
1707389  
1800680

Due Date: 3/2/2018

PREPARATION BENCH SHEET

F802193

Eurofins Frontier Global Sciences, Inc.

26000-3  
BL 2/13/18

Matrix: Tissue

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

Prepared: 2/9/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00080-05	MMBKD-01_18WT001_013018_ABD_05_BL	0.1085	20	-	-	-	100x -	
8B00080-06	MMBKD-01_18WT001_013018_ABD_06_BL	0.0907	20	-	-	-	100x -	
8B00080-07	MMBKD-01_18WT001_013018_ABD_07_BL	0.122	20	-	-	-	100x -	
8B00080-08	MMBKD-01_18WT001_013018_ABD_08_BL	0.0763	20	-	-	-	100x -	
8B00080-09	MMBKD-01_18WT001_013018_ABD_09_BL	0.1497	20	-	-	-	100x -	
8B00080-10	MMBKD-01_18WT001_013018_ABD_10_BL	0.1449	20	-	-	-	100x -	
8B00080-11	MMBKD-01_18WT001_013018_ABD_11_BL	0.158	20	-	-	-	100x -	
8B00080-12	MMBKD-01_18WT001_013018_ABD_12_BL	0.066	20	-	-	-	100x -	
8B00080-13	MMBKD-01_18WT001_013018_ABD_13_BL	0.1358	20	-	-	-	100x -	
8B00080-14	MMBKD-01_18WT001_013018_ABD_14_BL	0.111	20	-	-	-	100x -	
8B00080-15	MMBKD-01_18WT001_013018_ABD_15_BL	0.1015	20	-	-	-	100x -	
8B00082-01	ES-13_18WT001_012918_ABD_01_BL	0.1101	20	-	-	-	100x -	
8B00082-02	ES-13_18WT001_012918_ABD_02_BL	0.0711	20	-	-	-	100x -	
8B00082-03	ES-13_18WT001_012918_ABD_03_BL	0.1204	20	QC	-	-	MS/MSD 100x -	
8B00082-04	ES-13_18WT001_012918_ABD_04_BL	0.1589	20	-	-	-	100x -	
8B00082-05	ES-13_18WT001_012918_ABD_05_BL	0.1712	20	-	-	-	100x -	
8B00082-06	ES-13_18WT001_012918_ABD_06_BL	0.1508	20	-	-	-	100x -	
8B00082-07	ES-13_18WT001_012918_ABD_07_BL	0.1161	20	-	-	-	100x -	
8B00082-08	ES-13_18WT001_013018_ABD_08_BL	0.1794	20	-	-	-	100x -	

PREPARATION BENCH SHEET

F802193

Eurofins Frontier Global Sciences, Inc.

2600-3  
BC 2/13/18

Matrix: Tissue

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

Prepared: 2/9/2018



Technician: Duyen Batch#: F802193 Date: 2/9/18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 12:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 Time out: 14:40 Actual Temp. (raw): 78.0 °C w/ CF: 78.8 °C

\*Time in can't begin before target temperature is reached  
 Final vol.: 20 mL (LIMS ID: 1800770) Spike vol.: 20 µL (LIMS ID: 1800233)  
 Spike Witness: PL 2/9/18 (initial and date)

HCl LIMS ID: WNA Pipette SN#: 0U07852 Calibration Date: 2-9-18  
 HNO<sub>3</sub> LIMS ID: WNA Pipette SN#: WNA Calibration Date: WNA  
 70/30 LIMS ID: 1800748 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: WNA Dispenser #: 15406623 IV yes  
 Glass Vial # 00068124 Boiling Chip lot # 1706716 \*Hotblock Position: J, 3

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	F802193 BK1	0.2532	23	PB00082-04	0.1589	BS2=DORM-4
2	F802193 BK2	0.2511	24	PB00082-05	0.1712	1703305
3	F802193 BK3	0.2873	25	PB00082-06	0.1508	
4	F802193 BS1	0.2643	26	PB00082-07	0.1161	Comments
5	F802193 BS01	0.2855	27	PB00082-08	0.1794	F802193
6	F802193 BS2	0.1259	28	F802193-MD	0.0407	MS1 MS01
7	PB00080-05A	0.1085	29	F802193-MS2	0.0581	PB00082-03
8	PB00080-06A	0.0907	30	F802193-MS02	0.0590	F802193
9	PB00080-07A	0.1220	31			MD
10	PB00080-08A	0.0763	32			PB00082-02
11	PB00080-09A	0.0487	33			F802193
12	PB00080-10A	0.1449	34			MS2 MS02
13	PB00080-11A	0.1580	35			PB00082-07
14	PB00080-12A	0.0660	36			ALL MS1/MS0
15	PB00080-13A	0.1358	37			Spike w 100ul
16	PB00080-14A	0.1110	38			1000ng/mL
17	PB00080-15A	0.1015	39			1705554
18	PB00082-01A	0.1101	40			PB00080-09
19	PB00082-02A	0.0711	41			= 0.1497(g)
20	PB00082-03A	0.1204	42			PB00082-06
21	F802193-MS1	0.0376	43			= 0.1508(g)
22	F802193 MS01	0.0545	44			PB00082-MS2



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

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	8B14016, 8B14017
<b>Reviewer:</b>	0 <i>A 2/14/18</i>	<b>Dataset ID(s):</b>	THg26003-180213-1
<b>Date:</b>	2/14/2018	<b>WO (s) #:</b>	Various
<b>Batch #(s):</b>	F801415, F802193, F802223		0

Analyst Initials BC                      Reviewer Initials A

- 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: Batch F802223 will be redigested due to possible sample switch, Samples 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14016, 8B14017
<b>Reviewer:</b> 0 <i>R 2/14/18</i>	<b>Dataset ID(s):</b> THg26003-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F801415, F802193, F802223	0

**Analyst Initials** BC      **Reviewer Initials** 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 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 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 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 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 type="checkbox"/>            |
| <b>Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs</b>   |  |                               |   |
| 36. Date of analyst IDOC/CDOC: _____ 1/3/2018 _____ 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: _____ 12/21/2017 _____ LOD within last 3 months?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| 39. Date of LOQ: _____ 12/21/2017 _____ 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:

8B00082

PO#

C012505850

February 15, 2018

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 8B00082

### Table of Contents

February 15, 2018

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	6
Quality Control Results	21
Notes and Definitions	28
Raw Data: 8B14010	29
Raw Data: 8B14017	68

**Total Pages – 102**



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:07

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_18WT001_012918_ABD_01_BL	8B00082-01	Tissue	29-Jan-18 11:33	02-Feb-18 09:50
ES-13_18WT001_012918_ABD_02_BL	8B00082-02	Tissue	29-Jan-18 11:35	02-Feb-18 09:50
ES-13_18WT001_012918_ABD_03_BL	8B00082-03	Tissue	29-Jan-18 11:58	02-Feb-18 09:50
ES-13_18WT001_012918_ABD_04_BL	8B00082-04	Tissue	29-Jan-18 12:15	02-Feb-18 09:50
ES-13_18WT001_012918_ABD_05_BL	8B00082-05	Tissue	29-Jan-18 12:25	02-Feb-18 09:50
ES-13_18WT001_012918_ABD_06_BL	8B00082-06	Tissue	29-Jan-18 12:40	02-Feb-18 09:50
ES-13_18WT001_012918_ABD_07_BL	8B00082-07	Tissue	29-Jan-18 12:51	02-Feb-18 09:50
ES-13_18WT001_013018_ABD_08_BL	8B00082-08	Tissue	30-Jan-18 17:20	02-Feb-18 09:50
ES-13_18WT001_013018_ABD_09_BL	8B00082-09	Tissue	30-Jan-18 17:30	02-Feb-18 09:50
ES-13_18WT001_013018_ABD_10_BL	8B00082-10	Tissue	30-Jan-18 17:35	02-Feb-18 09:50
ES-13_18WT001_013018_ABD_11_BL	8B00082-11	Tissue	30-Jan-18 17:45	02-Feb-18 09:50
ES-13_18WT001_013018_ABD_12_BL	8B00082-12	Tissue	30-Jan-18 17:55	02-Feb-18 09:50
ES_13_18WT001_013118_ABD_13_BL	8B00082-13	Tissue	31-Jan-18 13:35	02-Feb-18 09:50
ES-13_18WT001_013118_ABD_14_BL	8B00082-14	Tissue	31-Jan-18 13:41	02-Feb-18 09:50
ES-13_18WT001_013118_ABD_15_BL	8B00082-15	Tissue	31-Jan-18 13:55	02-Feb-18 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: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:07

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/2/2018 9:50:00 AM . The samples were received intact, on-ice within a sealed cooler at -65.5 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; F802193 and F802195. These were analyzed in two sequences; 8B14010 and 8B14017. Samples 8B00082-03 and 8B00082-07 were used as the QC source in batch F802193. Sample 8B00082-10 was used as the QC source in batch F802195. Samples 8B00082-14 and 8B00082-15 were also used as the QC source in batch F802195, but due to the limited volume of the source samples, only a Matrix Spike (MS) was performed for these samples. The client was notified and approved of this.

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.

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:07

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: AMBC Foster Wheeler

Date & Time Received: 2/2/18 9:50 Date Labeled: 2/2/18 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>170404186</u>	CF: <u>+0.1</u> °C	Date/time: <u>2/2/18 9:50</u>	By: <u>LM</u>
Cooler 1: <u>-62.62</u> °C	w/ CF: <u>-62.52</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>Y</u>	
Preservation type:	<u>Y</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>Y</u>	

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

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8B00082



8800082

Environmental Analysis Request/Chain of Custody



Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101				<b>Matrix</b>				<b>Analyses Requested</b>				<b>For Lab Use Only</b>				
Project Name/#: USDC Penobscot				PN #: 3616166052.04A.054				<input type="checkbox"/> Tissue				SF #: _____				
Project Manager: Rod Pendleton				P.O. #: C012505850				<input type="checkbox"/> Ground				SCR #: _____				
Sampler: LSV/KCB				PWSID #:				<input type="checkbox"/> Surface				Preservation Codes H = HCl      T = Thiourea N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> P = H <sub>3</sub> PO <sub>4</sub> O = Other				
Phone #:				Quote #:				<input type="checkbox"/> NPDES								
State where samples were collected: ME				For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				<input type="checkbox"/> Soil				Total # of Containers Hg 1631e/ Lipid 1991a Zipbag Freeze Hg 1631e cap tubes (70µL) / Frozen				
								<input type="checkbox"/> Potable Water								
								<input type="checkbox"/> Other: Blood				Remarks				
								<input type="checkbox"/> Composite								
<b>Sample Identification</b>				<b>Collection</b>		<b>Grab</b>	<b>Composite</b>									
		<b>Date</b>	<b>Time</b>													
1	ES-13_18WT001_012918_ABD_01_BL	1/29/2018	1133	X				X	1		X				3	cap tubes (2 full)
2	ES-13_18WT001_012918_ABD_02_BL	1/29/2018	1135	X				X	1		X				4	cap tubes
3	ES-13_18WT001_012918_ABD_03_BL	1/29/2018	1158	X				X	1		X				5	cap tubes Extra volume for MS/MD
4	ES-13_18WT001_012918_ABD_04_BL	1/29/2018	1215	X				X	1		X				3.5	cap tubes
5	ES-13_18WT001_012918_ABD_05_BL	1/29/2018	1225	X				X	1		X				3	cap tubes
6	ES-13_18WT001_012918_ABD_06_BL	1/29/2018	1240	X				X	1		X				3	cap tubes
7	ES-13_18WT001_012918_ABD_07_BL	1/29/2018	1251	X				X	1		X				5	cap tubes
8	ES-13_18WT001_013018_ABD_08_BL	1/30/2018	1720	X				X	1		X				4	cap tubes
9	ES-13_18WT001_013018_ABD_09_BL	1/30/2018	1730	X				X	1		X				3	cap tubes
10	ES-13_18WT001_013018_ABD_10_BL	1/30/2018	1735	X				X	1		X				3	cap tubes
11	ES-13_18WT001_013018_ABD_11_BL	1/30/2018	1745	X				X	1		X				5	cap tubes
12	ES-13_18WT001_013018_ABD_12_BL	1/30/2018	1755	X				X	1		X				3.5	cap tubes
13	ES-13_18WT001_013118_ABD_13_BL	1/31/2018	1335	X				X	1		X				3	cap tubes
14	ES-13_18WT001_013118_ABD_14_BL	1/31/2018	1341	X				X	1		X				3.5	cap tubes
15	ES-13_18WT001_013118_ABD_15_BL	1/31/2018	1355	X				X	1		X				4	cap tubes
16																
17																
18																
19																
20																
Turnaround Time Requested (TAT) (please check): Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> (Rush TAT is subject to laboratory approval and surcharges.)				Relinquished by: Kendra Bavor		Date: 2/1/2018		Time: 1630		Received by: <i>[Signature]</i>		Date: 2/1/18		Time: 9:50		
Notes: MS/MD volume noted in Remarks.				Relinquished by:		Date:		Time:		Received by: Lars Mittet		Date:		Time:		
FedEx # 810426642018 # of Coolers 1 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				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:		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 checked="" type="checkbox"/> Other _____				Temperature upon receipt 62.52°C								

Soil: Yes



AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_012918\_ABD\_01\_BL**  
**8B00082-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: EPA 1631B**

Mercury	200	1.02	9.08	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	
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Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_012918\_ABD\_02\_BL**  
**8B00082-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	296	1.58	14.1	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_012918\_ABD\_03\_BL  
8B00082-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	97.1	0.930	8.31	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_012918\_ABD\_04\_BL  
8B00082-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	241	0.705	6.29	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_012918\_ABD\_05\_BL  
8B00082-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	50.6	0.654	5.84	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_012918\_ABD\_06\_BL**  
**8B00082-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	229	0.743	6.63	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	

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Project Number: 3616166052.04A.054  
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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_012918\_ABD\_07\_BL  
8B00082-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	80.3	0.965	8.61	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_013018\_ABD\_08\_BL  
8B00082-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	159	0.624	5.57	ng/g	100	F802193	09-Feb-18	8B14017	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_013018\_ABD\_09\_BL  
8B00082-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	165	0.708	6.32	ng/g	100	F802195	09-Feb-18	8B14010	13-Feb-18	EPA 1631B	





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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_013018\_ABD\_10\_BL**  
**8B00082-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	119	1.15	10.2	ng/g	100	F802195	09-Feb-18	8B14010	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_013018\_ABD\_11\_BL**  
**8B00082-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	109	0.813	7.26	ng/g	100	F802195	09-Feb-18	8B14010	13-Feb-18	EPA 1631B	



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**Reported:**  
15-Feb-18 11:07

**ES-13\_18WT001\_013018\_ABD\_12\_BL**  
**8B00082-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	173	0.728	6.50	ng/g	100	F802195	09-Feb-18	8B14010	13-Feb-18	EPA 1631B	



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**Reported:**  
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**ES\_13\_18WT001\_013118\_ABD\_13\_BL**  
**8B00082-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	113	0.688	6.15	ng/g	100	F802195	09-Feb-18	8B14010	13-Feb-18	EPA 1631B	



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**ES-13\_18WT001\_013118\_ABD\_14\_BL  
8B00082-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	206	1.06	9.50	ng/g	100	F802195	09-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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**Reported:**  
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**ES-13\_18WT001\_013118\_ABD\_15\_BL  
8B00082-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631B</b>											
Mercury	459	2.09	18.7	ng/g	100	F802195	09-Feb-18	8B14010	13-Feb-18	EPA 1631B	

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Project Number: 3616166052.04A.054  
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Reported:  
15-Feb-18 11:07

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8B14010 - F802192</b>											
<b>Cal Standard (8B14010-CAL1)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	0.502	-		ng/L	0.50200		99.9				
<b>Cal Standard (8B14010-CAL2)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	1.017	-		ng/L	1.0040		101				
<b>Cal Standard (8B14010-CAL3)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	5.031	-		ng/L	5.0200		100				
<b>Cal Standard (8B14010-CAL4)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	19.63	-		ng/L	20.080		97.8				
<b>Cal Standard (8B14010-CAL5)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	39.66	-		ng/L	40.160		98.7				
<b>Calibration Blank (8B14010-CCB1)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	0.026	-		ng/L							
<b>Calibration Blank (8B14010-CCB2)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	0.144	-		ng/L							
<b>Calibration Blank (8B14010-CCB3)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	0.033	-		ng/L							
<b>Calibration Blank (8B14010-CCB4)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	0.107	-		ng/L							
<b>Calibration Blank (8B14010-CCB5)</b>						Prepared & Analyzed: 13-Feb-18					
Mercury	0.073	-		ng/L							

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Project Manager: Denise King

Reported:  
15-Feb-18 11:07

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 8B14010 - F802192

<b>Calibration Blank (8B14010-CCB6)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.179	-		ng/L							
<b>Calibration Blank (8B14010-CCB7)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.118	-		ng/L							
<b>Calibration Blank (8B14010-CCB8)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	0.164	-		ng/L							
<b>Calibration Check (8B14010-CCV1)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.210	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (8B14010-CCV2)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.269	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (8B14010-CCV3)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.085	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (8B14010-CCV4)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.272	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (8B14010-CCV5)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.309	-		ng/L	5.0000		106	77-123			
<b>Calibration Check (8B14010-CCV6)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.450	-		ng/L	5.0000		109	77-123			
<b>Calibration Check (8B14010-CCV7)</b>											
Prepared & Analyzed: 13-Feb-18											
Mercury	5.298	-		ng/L	5.0000		106	77-123			

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Reported:  
15-Feb-18 11:07

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 8B14010 - F802192

Calibration Check (8B14010-CCV8)

Prepared & Analyzed: 13-Feb-18

Mercury	5.443	-		ng/L	5.0000		109	77-123			
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Instrument Blank (8B14010-IBL1)

Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (8B14010-IBL2)

Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (8B14010-IBL3)

Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (8B14010-ICV1)

Prepared & Analyzed: 13-Feb-18

Mercury	5.323	-		ng/L	5.0000		106	79-121			
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Batch 8B14017 - F802193

Cal Standard (8B14017-CAL1)

Prepared & Analyzed: 13-Feb-18

Mercury	0.495	-		ng/L	0.50200		98.6				
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Cal Standard (8B14017-CAL2)

Prepared & Analyzed: 13-Feb-18

Mercury	0.994	-		ng/L	1.0040		99.0				
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Cal Standard (8B14017-CAL3)

Prepared & Analyzed: 13-Feb-18

Mercury	5.077	-		ng/L	5.0200		101				
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Cal Standard (8B14017-CAL4)

Prepared & Analyzed: 13-Feb-18

Mercury	19.98	-		ng/L	20.080		99.5				
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Project Manager: Denise King

Reported:  
15-Feb-18 11:07

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 8B14017 - F802193

<b>Cal Standard (8B14017-CAL5)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	40.10	-		ng/L	40.160		99.8				
<b>Calibration Blank (8B14017-CCB1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.172	-		ng/L							
<b>Calibration Blank (8B14017-CCB2)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.170	-		ng/L							
<b>Calibration Blank (8B14017-CCB3)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.167	-		ng/L							
<b>Calibration Blank (8B14017-CCB4)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.111	-		ng/L							
<b>Calibration Blank (8B14017-CCB5)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.036	-		ng/L							
<b>Calibration Blank (8B14017-CCB6)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.154	-		ng/L							
<b>Calibration Blank (8B14017-CCB7)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	0.107	-		ng/L							
<b>Calibration Check (8B14017-CCV1)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.645	-		ng/L	5.0000		113	77-123			
<b>Calibration Check (8B14017-CCV2)</b>					Prepared & Analyzed: 13-Feb-18						
Mercury	5.312	-		ng/L	5.0000		106	77-123			

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Reported:  
15-Feb-18 11:07

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 8B14017 - F802193

Calibration Check (8B14017-CCV3) Prepared & Analyzed: 13-Feb-18

Mercury	5.377	-		ng/L	5.0000		108	77-123			
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Calibration Check (8B14017-CCV4) Prepared & Analyzed: 13-Feb-18

Mercury	5.282	-		ng/L	5.0000		106	77-123			
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Calibration Check (8B14017-CCV5) Prepared & Analyzed: 13-Feb-18

Mercury	5.514	-		ng/L	5.0000		110	77-123			
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Calibration Check (8B14017-CCV6) Prepared & Analyzed: 13-Feb-18

Mercury	5.607	-		ng/L	5.0000		112	77-123			
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Calibration Check (8B14017-CCV7) Prepared & Analyzed: 13-Feb-18

Mercury	5.530	-		ng/L	5.0000		111	77-123			
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Instrument Blank (8B14017-IBL1) Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (8B14017-IBL2) Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (8B14017-IBL3) Prepared & Analyzed: 13-Feb-18

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (8B14017-ICV1) Prepared & Analyzed: 13-Feb-18

Mercury	5.194	-		ng/L	5.0000		104	79-121			
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Batch F802193 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F802193-BLK1) Prepared: 09-Feb-18 Analyzed: 13-Feb-18

Mercury	0.331	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
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Batch F802193 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F802193-BLK2)</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18									
Mercury	0.186	0.090	0.800	ng/g							J
<b>Blank (F802193-BLK3)</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18									
Mercury	0.140	0.090	0.800	ng/g							J
<b>LCS (F802193-BS1)</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18									
Mercury	7.975	0.090	0.800	ng/g	8.0160		99.5	75-125			
<b>LCS (F802193-BS2)</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18									
Mercury	351.8	3.56	31.8	ng/g	382.50		92.0	75-125			
<b>LCS Dup (F802193-BSD1)</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18									
Mercury	7.887	0.090	0.800	ng/g	8.0160		98.4	75-125	1.11	24	
<b>Duplicate (F802193-DUP1)</b>		<b>Source: 8B00082-02</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18							
Mercury	360.3	2.75	24.6	ng/g		295.8			19.7	24	
<b>Matrix Spike (F802193-MS1)</b>		<b>Source: 8B00082-03</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18							
Mercury	2891	11.9	106	ng/g	2659.6	97.08	105	71-125			
<b>Matrix Spike (F802193-MS2)</b>		<b>Source: 8B00082-07</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18							
Mercury	1892	7.71	68.8	ng/g	1721.2	80.28	105	71-125			
<b>Matrix Spike Dup (F802193-MSD1)</b>		<b>Source: 8B00082-03</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18							
Mercury	2104	8.22	73.4	ng/g	1834.9	97.08	109	71-125	4.05	24	
<b>Matrix Spike Dup (F802193-MSD2)</b>		<b>Source: 8B00082-07</b>		Prepared: 09-Feb-18 Analyzed: 13-Feb-18							
Mercury	1861	7.59	67.8	ng/g	1694.9	80.28	105	71-125	0.234	24	

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

Reported:  
15-Feb-18 11:07

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F802195 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F802195-BLK1)</b> Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	0.318	0.090	0.800	ng/g							J
<b>Blank (F802195-BLK2)</b> Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	0.214	0.090	0.800	ng/g							J
<b>Blank (F802195-BLK3)</b> Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	0.142	0.090	0.800	ng/g							J
<b>LCS (F802195-BS1)</b> Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	7.948	0.090	0.800	ng/g	8.0320		99.0	75-125			
<b>LCS (F802195-BS2)</b> Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	373.5	3.57	31.9	ng/g	382.50		97.6	75-125			
<b>LCS Dup (F802195-BSD1)</b> Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	8.018	0.090	0.800	ng/g	8.0320		99.8	75-125	0.872	24	
<b>Duplicate (F802195-DUP1)</b> Source: 8B00082-10 Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	126.8	2.08	18.6	ng/g		119.4			6.00	24	
<b>Duplicate (F802195-DUP2)</b> Source: 8B00082-10 Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	114.8	1.15	10.2	ng/g		119.4			3.89	24	AD
<b>Matrix Spike (F802195-MS1)</b> Source: 8B00082-14 Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	1886	7.42	66.2	ng/g	1655.6	206.0	101	71-125			
<b>Matrix Spike (F802195-MS2)</b> Source: 8B00082-15 Prepared: 09-Feb-18 Analyzed: 13-Feb-18											
Mercury	2219	8.44	75.3	ng/g	1883.2	458.7	93.5	71-125			

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AMEC Foster Wheeler  
271 Mill Road  
Chelmsford MA, 01824

Project: 2017 Penobscot Biota  
Project Number: 3616166052.04A.054  
Project Manager: Denise King

**Reported:**  
15-Feb-18 11:07

**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.
- 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



Analysis Datasheet for Total Mercury

Date of Analysis: February 13, 2018

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 8B14009, 8B14010

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	132.65 units	265.30	117.61 units	235.23	100.3 %Rec
SEQ-CAL2	1	1.00 ng/L	253.53 units	253.53	238.50 units	238.50	101.7 %Rec
SEQ-CAL3	1	5.00 ng/L	1194.43 units	238.89	1179.39 units	235.88	100.6 %Rec
SEQ-CAL4	1	20.00 ng/L	4617.58 units	230.88	4602.54 units	230.13	98.2 %Rec
SEQ-CAL5	1	40.00 ng/L	9311.46 units	232.79	9296.43 units	232.41	99.1 %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**  
 234.43            +/- 3.24            1.4% RSD            244.28

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	15.03 units	±4.75	0.06 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	5.345 ng/L	±2.015
BLK	2	3	9.944 ng/L	±4.459
BLK	3	3	1.068 ng/L	±0.440
BLK	4	3	2.809 ng/L	±1.108
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
PEER-REVIEWED

INITIALS: AL 2/14/18

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	2/13/2018 8:35:20	96553-1.RAW	8:35:20 AM	20.44			5.4	0.023	0.023	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	2/13/2018 8:39:28	96554-1.RAW	8:39:28 AM	13.15			-1.9	-0.008	-0.008	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	2/13/2018 8:43:37	96555-1.RAW	8:43:37 AM	11.52			-3.5	-0.015	-0.015	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	2/13/2018 8:47:45	96556-1.RAW	8:47:45 AM	132.65			117.6	0.502	0.502	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	2/13/2018 8:51:54	96557-1.RAW	8:51:54 AM	253.53			238.5	1.017	1.017	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	2/13/2018 8:56:02	96558-1.RAW	8:56:02 AM	1194.43			1179.4	5.031	5.031	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	2/13/2018 9:00:11	96559-1.RAW	9:00:11 AM	4617.58			4602.5	19.633	19.633	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	2/13/2018 9:04:20	96560-1.RAW	9:04:20 AM	9311.46			9296.4	39.656	39.656	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	2/13/2018 9:08:28	96561-1.RAW	9:08:28 AM	1262.90			1247.9	5.323	5.323	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 9:20:21	96562-1.RAW	9:20:21 AM	44.05		X	29.0	0.124	0.000	ng/L	
Hg2600-2	BC	BLK	F802235-BLK1	100	2/13/2018 9:24:29	96563-1.RAW	9:24:29 AM	32.90	1		17.9	0.076	7.619	ng/L	
Hg2600-2	BC	BLK	F802235-BLK2	100	2/13/2018 9:28:38	96564-1.RAW	9:28:38 AM	25.91	1		10.9	0.046	4.638	ng/L	
Hg2600-2	BC	BLK	F802235-BLK3	100	2/13/2018 9:32:46	96565-1.RAW	9:32:46 AM	23.89	1		8.9	0.038	3.779	ng/L	
Hg2600-2	BC	SAM	F802235-BS1	400	2/13/2018 9:36:55	96566-1.RAW	9:36:55 AM	1122.62	1		1107.6	4.711	1884.501	ng/L	
Hg2600-2	BC	SAM	F802235-BSD1	400	2/13/2018 9:41:03	96567-1.RAW	9:41:03 AM	1113.61	1		1098.6	4.673	1869.126	ng/L	
Hg2600-2	BC	SAM	8B00313-01	2500	2/13/2018 9:45:12	96568-1.RAW	9:45:12 AM	547.56	1		532.5	2.269	5673.587	ng/L	
Hg2600-2	BC	SAM	8B00313-02	2500	2/13/2018 9:49:20	96569-1.RAW	9:49:20 AM	438.13	1		423.1	1.803	4506.631	ng/L	
Hg2600-2	BC	SAM	8B00314-01	2500	2/13/2018 9:53:28	96570-1.RAW	9:53:28 AM	694.52	1		679.5	2.896	7240.860	ng/L	
Hg2600-2	BC	SAM	8B00314-02	2500	2/13/2018 9:57:37	96571-1.RAW	9:57:37 AM	532.13	1		517.1	2.204	5509.058	ng/L	
Hg2600-2	BC	SAM	8B00313-01_B	100	2/13/2018 10:01:45	96572-1.RAW	10:01:45 AM	37.41	1		22.4	0.042	4.201	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	2/13/2018 10:05:54	96573-1.RAW	10:05:54 AM	1236.34			1221.3	5.210	5.210	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	2/13/2018 10:10:02	96574-1.RAW	10:10:02 AM	21.22			6.2	0.026	0.026	ng/L	
Hg2600-2	BC	SAM	8B00313-02_B	100	2/13/2018 10:14:11	96575-1.RAW	10:14:11 AM	28.81	1		13.8	0.005	0.531	ng/L	
Hg2600-2	BC	SAM	8B00314-01_B	100	2/13/2018 10:18:19	96576-1.RAW	10:18:19 AM	63.41	1		48.4	0.153	15.291	ng/L	
Hg2600-2	BC	SAM	8B00314-02_B	100	2/13/2018 10:22:27	96577-1.RAW	10:22:27 AM	77.57	1		62.5	0.213	21.332	ng/L	
Hg2600-2	BC	SAM	8B00313-01_C	2500	2/13/2018 10:26:36	96578-1.RAW	10:26:36 AM	2453.26	1		2438.2	10.399	25996.463	ng/L	
Hg2600-2	BC	SAM	8B00313-02_C	2500	2/13/2018 10:30:44	96579-1.RAW	10:30:44 AM	2520.47	1		2505.4	10.685	26713.187	ng/L	
Hg2600-2	BC	SAM	8B00314-01_C	2500	2/13/2018 10:34:53	96580-1.RAW	10:34:53 AM	1026.09	1		1011.1	4.311	10776.791	ng/L	
Hg2600-2	BC	SAM	8B00314-02_C	2500	2/13/2018 10:39:01	96581-1.RAW	10:39:01 AM	2713.49	1		2698.5	11.509	28771.610	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 10:59:44	96582-1.RAW	10:59:44 AM	71.68		X	56.6	0.242	0.000	ng/L	
Hg2600-2	BC	SAM	8B00314-01_CRE1	2500	2/13/2018 11:03:54	96583-1.RAW	11:03:54 AM	1044.74	1		1029.7	4.390	10975.645	ng/L	
Hg2600-2	BC	SAM	F802235-DUP1	2500	2/13/2018 11:08:03	96584-1.RAW	11:08:03 AM	479.69	1		464.7	1.980	4949.893	ng/L	
Hg2600-2	BC	SAM	F802235-MS1	2500	2/13/2018 11:12:12	96585-1.RAW	11:12:12 AM	1652.85	1		1637.8	6.984	17460.728	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	2/13/2018 11:16:20	96586-1.RAW	11:16:20 AM	1250.23			1235.2	5.269	5.269	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	2/13/2018 11:20:29	96587-1.RAW	11:20:29 AM	48.75			33.7	0.144	0.144	ng/L	
Hg2600-2	BC	SAM	F802235-MSD1	2500	2/13/2018 11:24:37	96588-1.RAW	11:24:37 AM	1635.45	1		1620.4	6.910	17275.088	ng/L	
Hg2600-2	BC	BLK	F802225-BLK4	100	2/13/2018 11:28:45	96589-1.RAW	11:28:45 AM	50.38	2		35.3	0.151	15.078	ng/L	
Hg2600-2	BC	BLK	F802225-BLK5	100	2/13/2018 11:32:54	96590-1.RAW	11:32:54 AM	33.12	2		18.1	0.077	7.713	ng/L	
Hg2600-2	BC	BLK	F802225-BLK6	100	2/13/2018 11:37:02	96591-1.RAW	11:37:02 AM	31.54	2		16.5	0.070	7.041	ng/L	
Hg2600-2	BC	SAM	8B00272-23 BRE1	100	2/13/2018 11:41:11	96592-1.RAW	11:41:11 AM	379.92	2		364.9	1.457	145.704	ng/L	
Hg2600-2	BC	BLK	F802192-BLK1	20	2/13/2018 11:45:19	96593-1.RAW	11:45:19 AM	32.87	3		17.8	0.076	1.522	ng/L	
Hg2600-2	BC	BLK	F802192-BLK2	20	2/13/2018 11:49:28	96594-1.RAW	11:49:28 AM	27.22	3		12.2	0.052	1.040	ng/L	
Hg2600-2	BC	BLK	F802192-BLK3	20	2/13/2018 11:53:36	96595-1.RAW	11:53:36 AM	22.57	3		7.5	0.032	0.643	ng/L	
Hg2600-2	BC	SAM	*F802192-BLK4	20	2/13/2018 11:57:45	96596-1.RAW	11:57:45 AM	26.43	3		11.4	-0.005	-0.096	ng/L	
Hg2600-2	BC	SAM	*F802192-BLK5	20	2/13/2018 12:01:53	96597-1.RAW	12:01:53 PM	14.68	3		-0.4	-0.055	-1.098	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	2/13/2018 12:06:01	96598-1.RAW	12:06:01 PM	1207.15			1192.1	5.085	5.085	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	2/13/2018 12:10:10	96599-1.RAW	12:10:10 PM	22.77			7.7	0.033	0.033	ng/L	
Hg2600-2	BC	SAM	F802192-BS1	20	2/13/2018 12:14:18	96600-1.RAW	12:14:18 PM	1145.56	3		1130.5	4.769	95.382	ng/L	
Hg2600-2	BC	SAM	F802192-BSD1	20	2/13/2018 12:18:27	96601-1.RAW	12:18:27 PM	1171.43	3		1156.4	4.879	97.589	ng/L	
Hg2600-2	BC	SAM	F802192-BS2	400	2/13/2018 12:22:35	96602-1.RAW	12:22:35 PM	1337.28	3		1322.2	5.638	2255.045	ng/L	
Hg2600-2	BC	SAM	8B00079-01	400	2/13/2018 12:26:43	96603-1.RAW	12:26:43 PM	234.11	3		219.1	0.932	372.732	ng/L	
Hg2600-2	BC	SAM	8B00079-02	400	2/13/2018 12:30:52	96604-1.RAW	12:30:52 PM	292.73	3		277.7	1.182	472.764	ng/L	
Hg2600-2	BC	SAM	8B00079-03	400	2/13/2018 12:35:00	96605-1.RAW	12:35:00 PM	382.44	3		367.4	1.565	625.820	ng/L	
Hg2600-2	BC	SAM	8B00079-04	100	2/13/2018 12:39:09	96606-1.RAW	12:39:09 PM	589.08	3		574.0	2.438	243.803	ng/L	
Hg2600-2	BC	SAM	8B00079-05	100	2/13/2018 12:43:17	96607-1.RAW	12:43:17 PM	486.47	3		471.4	2.000	200.031	ng/L	
Hg2600-2	BC	SAM	8B00079-06	100	2/13/2018 12:47:26	96608-1.RAW	12:47:26 PM	1222.44	3		1207.4	5.140	513.975	ng/L	
Hg2600-2	BC	SAM	8B00079-07	100	2/13/2018 12:51:34	96609-1.RAW	12:51:34 PM	2396.95	3		2381.9	10.150	1014.982	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	BC	CAL	SEQ-CCV4 ✓	1	2/13/2018 12:55:42	96610-1.RAW	12:55:42 PM	1250.97			1235.9	5.272	5.272	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4 ✓	1	2/13/2018 12:59:51	96611-1.RAW	12:59:51 PM	40.21			25.2	0.107	0.107	ng/L	
Hg2600-2	BC	SAM	ws		2/13/2018 13:07:24	96612-1.RAW	1:07:24 PM	32.73		X	17.7	0.075	0.000	ng/L	
Hg2600-2	BC	SAM	8B00079-08 ✓	100	2/13/2018 13:11:32	96613-1.RAW	1:11:32 PM	2045.95		3	2030.9	8.653	865.259	ng/L	
Hg2600-2	BC	SAM	8B00079-09 ✓	100	2/13/2018 13:15:40	96614-1.RAW	1:15:40 PM	2366.51		3	2351.5	10.020	1001.999	ng/L	
Hg2600-2	BC	SAM	8B00079-10 ✓	100	2/13/2018 13:19:49	96615-1.RAW	1:19:49 PM	1147.34		3	1132.3	4.819	481.937	ng/L	
Hg2600-2	BC	SAM	8B00079-11 ✓	100	2/13/2018 13:23:58	96616-1.RAW	1:23:58 PM	1418.48		3	1403.4	5.976	597.599	ng/L	
Hg2600-2	BC	SAM	8B00079-12 ✓	100	2/13/2018 13:28:07	96617-1.RAW	1:28:07 PM	621.35		3	606.3	2.576	257.569	ng/L	
Hg2600-2	BC	SAM	8B00079-13 ✓	100	2/13/2018 13:32:15	96618-1.RAW	1:32:15 PM	496.33		3	481.3	2.042	204.238	ng/L	
Hg2600-2	BC	SAM	8B00079-14 ✓	100	2/13/2018 13:36:24	96619-1.RAW	1:36:24 PM	910.85		3	895.8	3.811	381.058	ng/L	
Hg2600-2	BC	SAM	8B00079-15 ✓	100	2/13/2018 13:40:32	96620-1.RAW	1:40:32 PM	1079.464496		3	1064.4	4.530	452.985	ng/L	
Hg2600-2	BC	SAM	8B00079-16 ✓	100	2/13/2018 13:44:41	96621-1.RAW	1:44:41 PM	21.09		3	6.1	0.015	1.514	ng/L	
Hg2600-2	BC	SAM	8B00080-01 ✓	100	2/13/2018 13:48:49	96622-1.RAW	1:48:49 PM	4189.35		3	4174.3	17.796	1779.566	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5 ✓	1	2/13/2018 13:52:58	96623-1.RAW	1:52:58 PM	1259.65			1244.6	5.309	5.309	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5 ✓	1	2/13/2018 13:57:07	96624-1.RAW	1:57:07 PM	32.16			17.1	0.073	0.073	ng/L	
Hg2600-2	BC	SAM	8B00080-02 ✓	100	2/13/2018 14:01:17	96625-1.RAW	2:01:17 PM	3616.76		3	3601.7	15.353	1535.317	ng/L	
Hg2600-2	BC	SAM	8B00080-03 ✓	100	2/13/2018 14:05:25	96626-1.RAW	2:05:25 PM	8773.25		3	8758.2	37.349	3734.916	ng/L	
Hg2600-2	BC	SAM	8B00080-04 ✓	100	2/13/2018 14:09:33	96627-1.RAW	2:09:33 PM	3382.84		3	3367.8	14.355	1435.534	ng/L	
Hg2600-2	BC	SAM	8B00079-01RE1 ✓	100	2/13/2018 14:13:57	96628-1.RAW	2:13:57 PM	827.50		3	812.5	3.455	345.505	ng/L	
Hg2600-2	BC	SAM	8B00079-02RE1 ✓	100	2/13/2018 14:18:05	96629-1.RAW	2:18:05 PM	1111.71		3	1096.7	4.667	466.739	ng/L	
Hg2600-2	BC	SAM	8B00079-16RE1 ✓	20	2/13/2018 14:22:13	96630-1.RAW	2:22:13 PM	53.98		3	38.9	0.113	2.255	ng/L	
Hg2600-2	BC	SAM	F802192-DUP1 ✓	100	2/13/2018 14:26:22	96631-1.RAW	2:26:22 PM	2141.09		3	2126.1	9.058	905.842	ng/L	
Hg2600-2	BC	SAM	F802192-MS1 ✓	400	2/13/2018 14:30:30	96632-1.RAW	2:30:30 PM	2995.05		3	2980.0	12.709	5083.662	ng/L	
Hg2600-2	BC	SAM	F802192-MSD1 ✓	400	2/13/2018 14:34:39	96633-1.RAW	2:34:39 PM	3029.76		3	3014.7	12.857	5142.884	ng/L	
Hg2600-2	BC	SAM	F802192-MS2 ✓	400	2/13/2018 14:38:47	96634-1.RAW	2:38:47 PM	4186.21		3	4171.2	17.790	7116.103	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6 ✓	1	2/13/2018 14:42:55	96635-1.RAW	2:42:55 PM	1292.68			1277.6	5.450	5.450	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6 ✓	1	2/13/2018 14:47:04	96636-1.RAW	2:47:04 PM	56.92			41.9	0.179	0.179	ng/L	
Hg2600-2	BC	SAM	F802192-MSD2 ✓	400	2/13/2018 14:51:12	96637-1.RAW	2:51:12 PM	4073.09		3	4058.1	17.308	6923.096	ng/L	
Hg2600-2	BC	BLK	F802195-BLK1 ✓	20	2/13/2018 14:55:21	96638-1.RAW	2:55:21 PM	61.62		4	46.6	0.199	3.975	ng/L	
Hg2600-2	BC	BLK	F802195-BLK2 ✓	20	2/13/2018 14:59:29	96639-1.RAW	2:59:29 PM	46.46		4	31.4	0.134	2.681	ng/L	
Hg2600-2	BC	BLK	F802195-BLK3 ✓	20	2/13/2018 15:03:39	96640-1.RAW	3:03:39 PM	35.79		4	20.8	0.089	1.770	ng/L	
Hg2600-2	BC	SAM	F802195-BS1 ✓	20	2/13/2018 15:07:47	96641-1.RAW	3:07:47 PM	1212.49		4	1197.5	4.968	99.350	ng/L	
Hg2600-2	BC	SAM	F802195-BSD1 ✓	20	2/13/2018 15:11:55	96642-1.RAW	3:11:55 PM	1222.69		4	1207.7	5.011	100.221	ng/L	
Hg2600-2	BC	SAM	F802195-BS2 ✓	400	2/13/2018 15:16:04	96643-1.RAW	3:16:04 PM	1390.09		4	1375.1	5.859	2343.416	ng/L	
Hg2600-2	BC	SAM	8B00082-09 ✓	100	2/13/2018 15:20:12	96644-1.RAW	3:20:12 PM	3082.91		4	3067.9	13.059	1305.853	ng/L	
Hg2600-2	BC	SAM	8B00082-10 ✓	100	2/13/2018 15:24:21	96645-1.RAW	3:24:21 PM	1387.59		4	1372.6	5.827	582.682	ng/L	
Hg2600-2	BC	SAM	8B00082-11 ✓	100	2/13/2018 15:28:29	96646-1.RAW	3:28:29 PM	1774.45		4	1759.4	7.477	747.701	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7 ✓	1	2/13/2018 15:32:37	96647-1.RAW	3:32:37 PM	1257.03			1242.0	5.298	5.298	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7 ✓	1	2/13/2018 15:36:46	96648-1.RAW	3:36:46 PM	42.61			27.6	0.118	0.118	ng/L	
Hg2600-2	BC	SAM	8B00082-12 ✓	100	2/13/2018 15:40:54	96649-1.RAW	3:40:54 PM	3131.84		4	3116.8	13.267	1326.722	ng/L	
Hg2600-2	BC	SAM	8B00082-13 ✓	100	2/13/2018 15:45:03	96650-1.RAW	3:45:03 PM	2169.91		4	2154.9	9.164	916.393	ng/L	
Hg2600-2	BC	SAM	8B00082-14 ✓	100	2/13/2018 15:49:11	96651-1.RAW	3:49:11 PM	2564.65		4	2549.6	10.848	1084.780	ng/L	
Hg2600-2	BC	SAM	8B00082-15 ✓	100	2/13/2018 15:53:20	96652-1.RAW	3:53:20 PM	2898.17		4	2883.1	12.270	1227.046	ng/L	
Hg2600-2	BC	SAM	F802195-DUP1 ✓	100	2/13/2018 15:57:28	96653-1.RAW	3:57:28 PM	821.13		4	806.1	3.410	341.046	ng/L	
Hg2600-2	BC	SAM	F802195-MS1 ✓	400	2/13/2018 16:01:36	96654-1.RAW	4:01:36 PM	3355.60		4	3340.6	14.243	5697.123	ng/L	
Hg2600-2	BC	SAM	F802195-MS2 ✓	400	2/13/2018 16:05:45	96655-1.RAW	4:05:45 PM	3469.04		4	3454.0	14.727	5890.683	ng/L	
Hg2600-2	BC	SAM	F802195-DUP2 ✓	100	2/13/2018 16:09:53	96656-1.RAW	4:09:53 PM	1335.41		4	1320.4	5.604	560.423	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV8 ✓	1	2/13/2018 16:14:02	96657-1.RAW	4:14:02 PM	1291.12			1276.1	5.443	5.443	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB8 ✓	1	2/13/2018 16:18:10	96658-1.RAW	4:18:10 PM	53.52			38.5	0.164	0.164	ng/L	
Hg2600-2	BC	SAM	BrCl-1 1800785 ✓	1	2/13/2018 16:22:19	96659-1.RAW	4:22:19 PM	20.76		X	5.7	0.024	0.024	ng/L	
Hg2600-2	BC	SAM	BrCl-2 1800785 ✓	1	2/13/2018 16:26:27	96660-1.RAW	4:26:27 PM	18.79		X	3.8	0.016	0.016	ng/L	
Hg2600-2	BC	SAM	BrCl-3 1800785 ✓	1	2/13/2018 16:30:36	96661-1.RAW	4:30:36 PM	15.48		X	0.4	0.002	0.002	ng/L	
Hg2600-2	BC	SAM	BrCl-4 1800785 ✓	1	2/13/2018 16:34:45	96662-1.RAW	4:34:45 PM	14.82		X	-0.2	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV9 ✓	1	2/13/2018 16:38:53	96663-1.RAW	4:38:53 PM	1283.88			1268.8	5.413	5.413	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB9 ✓	1	2/13/2018 16:43:02	96664-1.RAW	4:43:02 PM	21.83			6.8	0.029	0.029	ng/L	

TotalMercury EPA1631  
 Operat BC  
 BlankS 15.035  
 Calib Eqn: Conc = (Area-15.03  
 Run Date: 2/13/2018  
 Blank SD: 4.748261828  
 Worksh THg260( CalibFa 234.43  
 Status: QC Warnings:13/QC  
 Run Time: 14:09:47  
 Blank RSD%: 31.58178666  
 Method ##### R: 1 R2: 1  
 CF SD: 3.235892952  
 Descr THg26002-180213-1  
 CF RSD%: 1.380331473

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	1.77					96548-1.RAW	8:15:54	415.97	Clean	OK	1
clean				0.00	0.00					96549-1.RAW	8:18:45	0.92	Clean	OK	1
ws				15.03	0.00					96550-1.RAW	8:22:54	13.45	Sample	OK	1
ws				15.03	0.00					96551-1.RAW	8:27:02	11.85	Sample	OK	1
ws				15.03	0.00					96552-1.RAW	8:31:11	12.78	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					96553-1.RAW	8:35:20	20.44	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					96554-1.RAW	8:39:28	13.15	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					96555-1.RAW	8:43:37	11.52	Sample	OK	1
SEQ-CAL1	A4		1	15.03	0.50			100.34		96556-1.RAW	8:47:45	132.65	Sample	OK	1
SEQ-CAL2	A5		1	15.03	1.02			101.74		96557-1.RAW	8:51:54	253.53	Sample	OK	1
SEQ-CAL3	A6		1	15.03	5.03			100.62		96558-1.RAW	8:56:02	1194.43	Sample	OK	1
SEQ-CAL4	A7		1	15.03	19.63			98.17		96559-1.RAW	9:00:11	4617.58	Sample	OK	1
SEQ-CAL5	A8		1	15.03	39.66			99.14		96560-1.RAW	9:04:20	9311.46	Sample	OK	1
SEQ-ICV1	A9		1	15.03	5.32			106.46		96561-1.RAW	9:08:28	1262.90	Sample	OK	1
ws				15.03	0.12					96562-1.RAW	9:20:21	44.05	Sample	OK	1
F802235-BLK1	A10		100	15.03	7.62					96563-1.RAW	9:24:29	32.90	Sample	OK	1
F802235-BLK2	A11		100	15.03	4.64					96564-1.RAW	9:28:38	25.91	Sample	OK	1
F802235-BLK3	A12		100	15.03	3.78					96565-1.RAW	9:32:46	23.89	Sample	OK	1
F802235-BS1	A13		400	15.03	1889.85					96566-1.RAW	9:36:55	1122.62		OK	1
F802235-BSD1	A14		400	15.03	1874.47					96567-1.RAW	9:41:03	1113.61	Sample	OK	1
8B00313-01	A15		2500	15.03	5678.93					96568-1.RAW	9:45:12	547.56	Sample	OK	1
8B00313-02	A16		2500	15.03	4511.98					96569-1.RAW	9:49:20	438.13	Sample	OK	1
8B00314-01	A17		2500	15.03	7246.21					96570-1.RAW	9:53:28	694.52	Sample	OK	1
8B00314-02	A18		2500	15.03	5514.40					96571-1.RAW	9:57:37	532.13	Sample	OK	1
8B00313-01_B	A19		100	15.03	9.55					96572-1.RAW	10:01:45	37.41	Sample	OK	1
SEQ-CCV1	A20		1	15.03	5.21			104.19		96573-1.RAW	10:05:54	1236.34	Sample	OK	1
SEQ-CCB1	A21		1	15.03	0.03			0.00		96574-1.RAW	10:10:02	21.22	Sample	OK	1
8B00313-02_B	B1		100	15.03	5.88					96575-1.RAW	10:14:11	28.81	Sample	OK	1
8B00314-01_B	B2		100	15.03	20.64					96576-1.RAW	10:18:19	63.41	Sample	OK	1
8B00314-02_B	B3		100	15.03	26.68					96577-1.RAW	10:22:27	77.57	Sample	OK	1
8B00313-01_C	B4		2500	15.03	26001.81					96578-1.RAW	10:26:36	2453.26	Sample	OK	1
8B00313-02_C	B5		2500	15.03	26718.53					96579-1.RAW	10:30:44	2520.47	Sample	OK	1
8B00314-01_C	B6		2500	15.03	10782.14					96580-1.RAW	10:34:53	1026.09	Sample	OK	1
8B00314-02_C	B7		2500	15.03	28776.96					96581-1.RAW	10:39:01	2713.49	Sample	OK	1
ws				15.03	0.24					96582-1.RAW	10:59:44	71.68	Sample	OK	1
8B00314-01_CRI	B8		2500	15.03	10980.99					96583-1.RAW	11:03:54	1044.74	Sample	OK	1
F802235-DUP1	B9		2500	15.03	4955.24					96584-1.RAW	11:08:03	479.69	Sample	OK	1
F802235-MS1	B10		2500	15.03	17466.07			352.41		96585-1.RAW	11:12:12	1652.85	Sample	OK	1
SEQ-CCV2	B11		1	15.03	5.27			105.38		96586-1.RAW	11:16:20	1250.23	Sample	OK	1
SEQ-CCB2	B12		1	15.03	0.14			0.00		96587-1.RAW	11:20:29	48.75	Sample	OK	1
F802235-MSD1	B13		2500	15.03	17280.43					96588-1.RAW	11:24:37	1635.45	Sample	OK	1
F802225-BLK4	B14		100	15.03	15.08					96589-1.RAW	11:28:45	50.38	Sample	OK	1
F802225-BLK5	B15		100	15.03	7.71					96590-1.RAW	11:32:54	33.12	Sample	OK	1

F802225-BLK6	B16	100	15.03	7.04		96591-1.RAW	11:37:02	31.54	Sample	OK	1
8B00272-23_BR1	B17	100	15.03	155.65		96592-1.RAW	11:41:11	379.92	Sample	OK	1
F802192-BLK1	B18	20	15.03	1.52		96593-1.RAW	11:45:19	32.87	Sample	OK	1
F802192-BLK2	B19	20	15.03	1.04		96594-1.RAW	11:49:28	27.22	Sample	OK	1
F802192-BLK3	B20	20	15.03	0.64		96595-1.RAW	11:53:36	22.57	Sample	OK	1
*F802192-BLK4	B21	20	15.03	0.97		96596-1.RAW	11:57:45	26.43	Sample	OK	1
*F802192-BLK5	C1	20	15.03	0.00		96597-1.RAW	12:01:53	14.68	Sample	OK	1
SEQ-CCV3	C2	1	15.03	5.09	101.70	96598-1.RAW	12:06:01	1207.15	Sample	OK	1
SEQ-CCB3	C3	1	15.03	0.03	0.00	96599-1.RAW	12:10:10	22.77	Sample	OK	1
F802192-BS1	C4	20	15.03	96.45		96600-1.RAW	12:14:18	1145.56	Sample	OK	1
F802192-BSD1	C5	20	15.03	98.66		96601-1.RAW	12:18:27	1171.43	Sample	OK	1
F802192-BS2	C6	400	15.03	2256.11		96602-1.RAW	12:22:35	1337.28	Sample	OK	1
8B00079-01	C7	400	15.03	373.80		96603-1.RAW	12:26:43	234.11	Sample	OK	1
8B00079-02	C8	400	15.03	473.83		96604-1.RAW	12:30:52	292.73	Sample	OK	1
8B00079-03	C9	400	15.03	626.89		96605-1.RAW	12:35:00	382.44	Sample	OK	1
8B00079-04	C10	100	15.03	244.87		96606-1.RAW	12:39:09	589.08	Sample	OK	1
8B00079-05	C11	100	15.03	201.10		96607-1.RAW	12:43:17	486.47	Sample	OK	1
8B00079-06	C12	100	15.03	515.04		96608-1.RAW	12:47:26	1222.44	Sample	OK	1
8B00079-07	C13	100	15.03	1016.05		96609-1.RAW	12:51:34	2396.95	Sample	OK	1
SEQ-CCV4	C14	1	15.03	5.27	105.44	96610-1.RAW	12:55:42	1250.97	Sample	OK	1
SEQ-CCB4	C15	1	15.03	0.11	0.00	96611-1.RAW	12:59:51	40.21	Sample	OK	1
ws			15.03	0.08		96612-1.RAW	13:07:24	32.73	Sample	OK	1
8B00079-08	C16	100	15.03	866.33		96613-1.RAW	13:11:32	2045.95	Sample	OK	1
8B00079-09	C17	100	15.03	1003.07		96614-1.RAW	13:15:40	2366.51	Sample	OK	1
8B00079-10	C18	100	15.03	483.01		96615-1.RAW	13:19:49	1147.34	Sample	OK	1
8B00079-11	C19	100	15.03	598.67		96616-1.RAW	13:23:58	1418.48	Sample	OK	1
8B00079-12	C20	100	15.03	258.64		96617-1.RAW	13:28:07	621.35	Sample	OK	1
8B00079-13	C21	100	15.03	205.31		96618-1.RAW	13:32:15	496.33	Sample	OK	1
8B00079-14	A1	100	15.03	382.13		96619-1.RAW	13:36:24	910.85	Sample	OK	1
8B00079-15	A2	100	15.03	454.05		96620-1.RAW	13:40:32	1079.46	Sample	OK	1
8B00079-16	A3	100	15.03	2.58		96621-1.RAW	13:44:41	21.09	Sample	OK	1
8B00080-01	A4	100	15.03	1780.63		96622-1.RAW	13:48:49	4189.35	Sample	OK	1
SEQ-CCV5	A5	1	15.03	5.31	106.18	96623-1.RAW	13:52:58	1259.65	Sample	OK	1
SEQ-CCB5	A6	1	15.03	0.07	0.00	96624-1.RAW	13:57:07	32.16	Sample	OK	1
8B00080-02	A7	100	15.03	1536.39		96625-1.RAW	14:01:17	3616.76	Sample	OK	1
8B00080-03	A8	100	15.03	3735.98		96626-1.RAW	14:05:25	8773.25	Sample	OK	1
8B00080-04	A9	100	15.03	1436.60		96627-1.RAW	14:09:33	3382.84	Sample	OK	1
8B00079-01RE1	A10	100	15.03	346.57		96628-1.RAW	14:13:57	827.50	Sample	OK	1
8B00079-02RE1	A11	100	15.03	467.81		96629-1.RAW	14:18:05	1111.71	Sample	OK	1
8B00079-16RE1	A12	20	15.03	3.32		96630-1.RAW	14:22:13	53.98	Sample	OK	1
F802192-DUP1	A13	100	15.03	906.91		96631-1.RAW	14:26:22	2141.09	Sample	OK	1
F802192-MS1	A14	400	15.03	5084.73	560.05	96632-1.RAW	14:30:30	2995.05	Sample	OK	1
F802192-MSD1	A15	400	15.03	5143.95		96633-1.RAW	14:34:39	3029.76	Sample	OK	1
F802192-MS2	A16	400	15.03	7117.17	138.31	96634-1.RAW	14:38:47	4186.21	Sample	OK	1
SEQ-CCV6	A17	1	15.03	5.45	109.00	96635-1.RAW	14:42:55	1292.68	Sample	OK	1
SEQ-CCB6	A18	1	15.03	0.18	0.00	96636-1.RAW	14:47:04	56.92	Sample	OK	1
F802192-MSD2	A19	400	15.03	6924.16		96637-1.RAW	14:51:12	4073.09	Sample	OK	1
F802195-BLK1	A20	20	15.03	3.97		96638-1.RAW	14:55:21	61.62	Sample	OK	1

F802195-BLK2	A21	20	15.03	2.68		96639-1.RAW	14:59:29	46.46	Sample	OK	1
F802195-BLK3	B1	20	15.03	1.77		96640-1.RAW	15:03:39	35.79	Sample	OK	1
F802195-BS1	B2	20	15.03	102.16		96641-1.RAW	15:07:47	1212.49	Sample	OK	1
F802195-BSD1	B3	20	15.03	103.03		96642-1.RAW	15:11:55	1222.69	Sample	OK	1
F802195-BS2	B4	400	15.03	2346.22		96643-1.RAW	15:16:04	1390.09	Sample	OK	1
8B00082-09	B5	100	15.03	1308.66		96644-1.RAW	15:20:12	3082.91	Sample	OK	1
8B00082-10	B6	100	15.03	585.49		96645-1.RAW	15:24:21	1387.59	Sample	OK	1
8B00082-11	B7	100	15.03	750.51		96646-1.RAW	15:28:29	1774.45	Sample	OK	1
SEQ-CCV7	B8	1	15.03	5.30	105.96	96647-1.RAW	15:32:37	1257.03	Sample	OK	1
SEQ-CCB7	B9	1	15.03	0.12	0.00	96648-1.RAW	15:36:46	42.61	Sample	OK	1
8B00082-12	B10	100	15.03	1329.53		96649-1.RAW	15:40:54	3131.84	Sample	OK	1
8B00082-13	B11	100	15.03	919.20		96650-1.RAW	15:45:03	2169.91	Sample	OK	1
8B00082-14	B12	100	15.03	1087.59		96651-1.RAW	15:49:11	2564.65	Sample	OK	1
8B00082-15	B13	100	15.03	1229.85		96652-1.RAW	15:53:20	2898.17	Sample	OK	1
F802195-DUP1	B14	100	15.03	343.85		96653-1.RAW	15:57:28	821.13	Sample	OK	1
F802195-MS1	B15	400	15.03	5699.93	1652.85	96654-1.RAW	16:01:36	3355.60	Sample	OK	1
F802195-MS2	B16	400	15.03	5893.49	103.36	96655-1.RAW	16:05:45	3469.04	Sample	OK	1
F802195-DUP2	C1	100	15.03	563.23		96656-1.RAW	16:09:53	1335.41	Sample	OK	1
SEQ-CCV8	B17	1	15.03	5.44	108.87	96657-1.RAW	16:14:02	1291.12		OK	1
SEQ-CCB8	B18	1	15.03	0.16	0.00	96658-1.RAW	16:18:10	53.52	Sample	OK	1
BrCl-1 1800785	C2	1	15.03	0.02		96659-1.RAW	16:22:19	20.76	Sample	OK	1
BrCl-2 1800785	C3	1	15.03	0.02		96660-1.RAW	16:26:27	18.79	Sample	OK	1
BrCl-3 1800785	C4	1	15.03	0.00		96661-1.RAW	16:30:36	15.48	Sample	OK	1
BrCl-4 1800785	C5	1	15.03	0.00		96662-1.RAW	16:34:45	14.82	Sample	OK	1
SEQ-CCV9	C6	1	15.03	5.41	108.25	96663-1.RAW	16:38:53	1283.88	Sample	OK	1
SEQ-CCB9	C7	1	15.03	0.03	0.00	96664-1.RAW	16:43:02	21.83	Sample	OK	1

ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14009

PEER-REVIEWED



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

INITIALS: *a* 2/14/18 Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14009-IBL1 ✓	QC	1			
8B14009-IBL2 ✓	QC	2			
8B14009-IBL3 ✓	QC	3			
8B14009-CAL1 ✓	QC	4	1800804 ✓		
8B14009-CAL2 ✓	QC	5	1800805 ✓		
8B14009-CAL3 ✓	QC	6	1800806 ✓		
8B14009-CAL4 ✓	QC	7	1800807 ✓		
8B14009-CAL5 ✓	QC	8	1800808 ✓		
8B14009-ICV1 ✓	QC	9	1707379 ✓		
F802235-BLK1 ✓	QC	10			
F802235-BLK2 ✓	QC	11			
F802235-BLK3 ✓	QC	12			
F802235-BS1 ✓	QC	13			
F802235-BSD1 ✓	QC	14			
8B00313-01 ✓	Hg_FSTM_TRAP_A	15			AFS - Take photos of trap if heavy particulate present and send to PM
8B00313-02 ✓	Hg_FSTM_TRAP_A	16			AFS - Take photos of trap if heavy particulate present and send to PM
8B00314-01 ✓	Hg_FSTM_TRAP_A	17			AFS - Take photos of trap if heavy particulate present and send to PM
8B00314-02 ✓	Hg_FSTM_TRAP_A	18			AFS - Take photos of trap if heavy particulate present and send to PM
8B14009-CCV1 ✓	QC	19	1707379 ✓		
8B14009-CCB1 ✓	QC	20			
F802235-DUP1 ✓	QC	21			
F802235-MS1 ✓	QC	22			
8B14009-CCV2 ✓	QC	23	1707379 ✓		
8B14009-CCB2 ✓	QC	24			
F802235-MSD1 ✓	QC	25			
F802225-BLK4 ✓	QC	26			
F802225-BLK5 ✓	QC	27			
F802225-BLK6 ✓	QC	28			
8B14009-CCV3 ✓	QC	29	1707379 ✓		
8B14009-CCB3 ✓	QC	30			

*Becis* 2/14/18  
 Samples Loaded By \_\_\_\_\_ Date

*Becis* 2/14/18  
 Data Processed By \_\_\_\_\_ Date



**PREPARATION BENCH SHEET**

F802235

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/12/2018**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802235-BLK1	Blank	1	100					
F802235-BLK2	Blank	1	100					
F802235-BLK3	Blank	1	100					
F802235-BS1	LCS	1	100	1705554	200			
F802235-BSD1	LCS Dup	1	100	1705554	200			
F802235-DUP1	Duplicate [8B00313-02] ✓	1	100					
F802235-MS1	Matrix Spike [8B00313-02] ✓	0.0002	0.02	1800714	25 ✓			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓
F802235-MSD1	Matrix Spike Dup [8B00313-02] ✓	0.0002	0.02	1800714	25			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL ✓

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800041	FSTM Lot 180103A	02-Jul-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802235

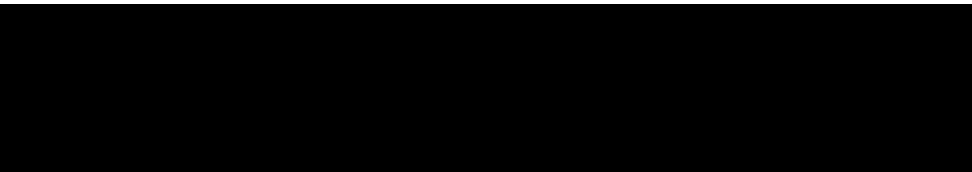
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/12/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00313-01	EFGS09673 4 Trap A 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1520.308 AFS - Take I	
8B00313-02	EFGS09701 4 Trap B 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1128.673 AFS - Take I	
8B00314-01	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 AFS - Take pl	
8B00314-01RE1	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 Added 2/14/2	Added 2/14/2018 by BC
8B00314-02	EFGS09754 31/32 Trap B 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 512.367 AFS - Take pl	





PREPARATION BENCH SHEET

BC 2/13/18  
2600-2

F802235

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/12/2018

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802235-BLK1	Blank	1	100					100X
F802235-BLK2	Blank	1	100					700X
F802235-BLK3	Blank	1	100					100X
F802235-BS1	LCS	1	100	1705554	200			400X
F802235-BSD1	LCS Dup	1	100	1705554	200			400X
F802235-MS1	Matrix Spike - 8B00313-02	1	100	1800714	25			2500X
F802235-MSD1	Matrix Spike Dup 8B00313-02	1	100	1800714	25			2500X

DUP 8B00313-02

2500X

Standard ID(s): 1705554  
Description: THg 1,000ng/mL Secondary Spiking Standard  
Expiration: 18-Mar-18 00:00

Reagent ID(s): 1800041, 1800748, 1800770  
Description: FSTM Lot 180103A, 70/30 Digestion Acid, 5% BrCl  
Expiration: 02-Jul-18 00:00, 07-Aug-18 00:00, 18-Jun-18 00:00

1706821  
1707390  
1707389  
1800680

PREPARATION BENCH SHEET

BC 2/13/18

2600-2

F802235

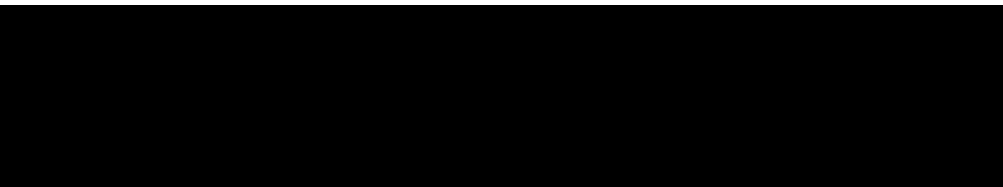
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/12/2018

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	<u>A</u> Sample Comments	<u>B</u> Analysis Comments	<u>C</u>
8B00313-01	EFGS09673 4 Trap A 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1520.308 AFS - Take 1 2500x	100x <del>1000</del>	2500x
8B00313-02	EFGS09701 4 Trap B 1/28/18-1/31/18	1	100	-	-	-	Sample Volume: 1128.673 AFS - Take 1 2500x	100x	2500x
8B00314-01	EFGS09721 31/32 Trap A 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 592.864 AFS - Take pl 2500x	100x	2500x → 2500x
8B00314-02	EFGS09754 31/32 Trap B 1/30/18-2/1/18	1	100	-	-	-	Sample Volume: 512.367 AFS - Take pl 2500x	100x	2500x



Name: WF

Trap Digestions

Date: 2/12/18

Batch ID: F802235  
2/12/18

Work Order(s): 8B00313, 8B00314

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: 4:15, start temp (°C): 56.0 (raw) 55.8 (w/ CF)

end time: 6:15, end temp (°C): 64.0 (raw) 63.8 (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)
F802235 - BLU1	100
F802235 - BLU2	100
F802235 - BLU3	100
F802235 - BST	100
F802235 - BSD1	100
8B00313 - 01A	100
8B00313 - 01B	100
8B00313 - 01C	100
8B00313 - 02A	100
8B00313 - 02B	100
8B00313 - 02C	100
8B00314 - 01A	100
8B00314 - 01B	100
8B00314 - 01C	100
8B00314 - 02A	100
8B00314 - 02B	100
8B00314 - 02C	100

Spike ID: 1705554  
Spike Amount (µL): 200  
Spike Witness: cm 2/18

BrCl ID: 1800870  
70/30: 1800748  
Other: N/A

Thermometer: 13698  
Dispensers: 02K27494   
04N73497   
Other: 15406623

Pipette ID: 0407852  
Cal. Date: 2/18 2/19/18 WF  
2/12/18

Vials and Jars lot# 00069860  
Trap Material Lot#: 180041  
Loader Mass Verified:  Yes  No

Comments:  
8B00314: Both trap have particulate in front of A-bed and have moisture. All cbeds spiked @ 2700µg.  
8B00313: All cbed spiked @ 2700µg.  
WF 2/12/18

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802225-BLK1	Blank	1	40					
F802225-BLK2	Blank	1	40					
F802225-BLK3	Blank	1	40					
F802225-BLK4	Blank	1	40					
F802225-BLK5	Blank	1	40					
F802225-BLK6	Blank	1	40					
F802225-BS1	LCS	1	40	1705554	200			
F802225-BSD1	LCS Dup	1	40	1705554	200			
F802225-DUP1	Duplicate [8B00272-18]	1	40					
F802225-MS1	Matrix Spike [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MS2	Matrix Spike [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD1	Matrix Spike Dup [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD2	Matrix Spike Dup [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705501	FSTM Lot 170912A	11-Mar-18 00:00
1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
1707390	THg Washstation (0.5% BrCl)	
1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00272-16	HGS0118-6-16	1	40	-	-	-		
8B00272-17	HGS0118-6-17	1	40	-	-	-		
8B00272-18	HGS0118-6-18	1	40	-	-	-		
8B00272-19	HGS0118-7-1	1	40	-	-	-		
8B00272-20	HGS0118-7-2	1	40	-	-	-		
8B00272-21	HGS0118-7-3	1	40	-	-	-		
8B00272-22	HGS0118-7-4	1	40	-	-	-		
8B00272-23	HGS0118-7-5	1	40	-	-	-		
8B00272-23RE1	HGS0118-7-5	1	40	-	-	-	Added 2/13/2018 by BC	RR due to High B bed BC 2/13/18
8B00272-24	HGS0118-7-6	1	40	-	-	-		
8B00272-25	HGS0118-7-7	1	40	-	-	-		
8B00272-26	HGS0118-7-8	1	40	-	-	-		
8B00272-27	HGS0118-7-9	1	40	-	-	-		
8B00272-28	HGS0118-7-10	1	40	-	-	-		
8B00272-29	HGS0118-7-11	1	40	-	-	-		
8B00272-30	HGS0118-7-12	1	40	-	-	-		

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

PREPARATION BENCH SHEET

BL 2/13/18  
2600-2

F802225

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/9/2018

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802225-BLK1	Blank	1	40					
F802225-BLK2	Blank	1	40					
F802225-BLK3	Blank	1	40					
F802225-BLK4	Blank	1	40					100X
F802225-BLK5	Blank	1	40					100X
F802225-BLK6	Blank	1	40					100X
F802225-BS1	LCS	1	40	1705554	200			
F802225-BSD1	LCS Dup	1	40	1705554	200			
F802225-DUP1	Duplicate [8B00272-18]	1	40					
F802225-MS1	Matrix Spike [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MS2	Matrix Spike [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD1	Matrix Spike Dup [8B00272-18]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL
F802225-MSD2	Matrix Spike Dup [8B00272-23]	0.0125	0.5	1800714	25			[Spk] 1Trap->40mL; 20mL->20mL; Spiked 0.5mL

Standard ID(s):  
1705554  
1800714

Description:  
THg 1,000ng/mL Secondary Spiking Standard  
THg 10ng/mL Calibration Standard

Expiration:  
18-Mar-18 00:00  
07-May-18 00:00

Reagent ID(s):  
1705501  
1706821  
1707389  
1707390  
1800680  
1800748  
1800770

Description:  
FSTM Lot 170912A  
25% Hydroxylamine-HCl working solution  
THg Dilute 1% BrCl  
THg Washstation (0.5% BrCl)  
3% SnCl2 THg reductant  
70/30 Digestion Acid  
5% BrCl

Expiration:  
11-Mar-18 00:00  
19-May-18 00:00  
29-Apr-18 00:00  
18-Jul-18 00:00  
07-Aug-18 00:00  
18-Jun-18 00:00

Due Date: 2/15/2018

**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	<u>B</u> Analysis Comments
8B00272-16	HGS0118-6-16	1	40	-	-	-		
8B00272-17	HGS0118-6-17	1	40	-	-	-		
8B00272-18	HGS0118-6-18	1	40	-	-	-		
8B00272-19	HGS0118-7-1	1	40	-	-	-		
8B00272-20	HGS0118-7-2	1	40	-	-	-		
8B00272-21	HGS0118-7-3	1	40	-	-	-		
8B00272-22	HGS0118-7-4	1	40	-	-	-		
8B00272-23	HGS0118-7-5	1	40	-	-	-		
8B00272-23RE1	HGS0118-7-5	1	40	-	-	-	Added 2/13/2018 by BC	RR due to High B bed BC 2/13/18 100x
8B00272-24	HGS0118-7-6	1	40	-	-	-		
8B00272-25	HGS0118-7-7	1	40	-	-	-		
8B00272-26	HGS0118-7-8	1	40	-	-	-		
8B00272-27	HGS0118-7-9	1	40	-	-	-		
8B00272-28	HGS0118-7-10	1	40	-	-	-		
8B00272-29	HGS0118-7-11	1	40	-	-	-		
8B00272-30	HGS0118-7-12	1	40	-	-	-		





**PREPARATION BENCH SHEET**

F802225

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/9/2018**

**Due Date: 2/15/2018**

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14010

PEER-REVIEWED

Instrument: Hg2600-2 ✓



Calibration ID: UNASSIGNED

INITIALS: *pr* *2/13/18* Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14010-IBL1 ✓	QC	1			
8B14010-IBL2 ✓	QC	2			
8B14010-IBL3 ✓	QC	3			
8B14010-CAL1 ✓	QC	4	1800804	✓	
8B14010-CAL2 ✓	QC	5	1800805	✓	
8B14010-CAL3 ✓	QC	6	1800806	✓	
8B14010-CAL4 ✓	QC	7	1800807	✓	
8B14010-CAL5 ✓	QC	8	1800808	✓	
8B14010-ICV1 ✓	QC	9	1707379	✓	
8B14010-CCV1 ✓	QC	10	1707379	✓	
8B14010-CCB1 ✓	QC	11			
8B14010-CCV2 ✓	QC	12	1707379	✓	
8B14010-CCB2 ✓	QC	13			
F802192-BLK1 ✓	QC	14			
F802192-BLK2 ✓	QC	15			
F802192-BLK3 ✓	QC	16			
F802192-BLK4 ✓	QC	17			
F802192-BLK5 ✓	QC	18			
8B14010-CCV3 ✓	QC	19	1707379	✓	
8B14010-CCB3 ✓	QC	20			
F802192-BS1 ✓	QC	21			
F802192-BSD1 ✓	QC	22			
F802192-BS2 ✓	QC	23			
8B00079-01 ✓	Hg-CVAFS-T-7030	24			
8B00079-02 ✓	Hg-CVAFS-T-7030	25			
8B00079-03 ✓	Hg-CVAFS-T-7030	26			
8B00079-04 ✓	Hg-CVAFS-T-7030	27			
8B00079-05 ✓	Hg-CVAFS-T-7030	28			
8B00079-06 ✓	Hg-CVAFS-T-7030	29			
8B00079-07 ✓	Hg-CVAFS-T-7030	30			
8B14010-CCV4 ✓	QC	31	1707379	✓	
8B14010-CCB4 ✓	QC	32			
8B00079-08 ✓	Hg-CVAFS-T-7030	33			
8B00079-09 ✓	Hg-CVAFS-T-7030	34			
8B00079-10 ✓	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2018

48 of 102

Page 1 of 3

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00079-11 ✓	Hg-CVAFS-T-7030	36			
8B00079-12 ✓	Hg-CVAFS-T-7030	37			
8B00079-13 ✓	Hg-CVAFS-T-7030	38			
8B00079-14 ✓	Hg-CVAFS-T-7030	39			
8B00079-15 ✓	Hg-CVAFS-T-7030	40			
8B00079-16 ✓	Hg-CVAFS-T-7030	41			
8B00080-01 ✓	Hg-CVAFS-T-7030	42			
8B14010-CCV5 ✓	QC	43	1707379	✓	
8B14010-CCB5 ✓	QC	44			
8B00080-02 ✓	Hg-CVAFS-T-7030	45			
8B00080-03 ✓	Hg-CVAFS-T-7030	46			
8B00080-04 ✓	Hg-CVAFS-T-7030	47			
8B00079-01RE1 ✓	Hg-CVAFS-T-7030	48			Added 2/14/2018 by BC
8B00079-02RE1 ✓	Hg-CVAFS-T-7030	49			Added 2/14/2018 by BC
8B00079-16RE1 ✓	Hg-CVAFS-T-7030	50			Added 2/14/2018 by BC
F802192-DUP1 ✓	QC	51			
F802192-MS1 ✓	QC	52			
F802192-MSD1 ✓	QC	53			
F802192-MS2 ✓	QC	54			
8B14010-CCV6 ✓	QC	55	1707379	✓	
8B14010-CCB6 ✓	QC	56			
F802192-MSD2 ✓	QC	57			
F802195-BLK1 ✓	QC	58			
F802195-BLK2 ✓	QC	59			
F802195-BLK3 ✓	QC	60			
F802195-BS1 ✓	QC	61			
F802195-BSD1 ✓	QC	62			
F802195-BS2 ✓	QC	63			
8B00082-09 ✓	Hg-CVAFS-T-7030	64			
8B00082-10 ✓	Hg-CVAFS-T-7030	65			
8B00082-11 ✓	Hg-CVAFS-T-7030	66			
8B14010-CCV7 ✓	QC	67	1707379	✓	
8B14010-CCB7 ✓	QC	68			
8B00082-12 ✓	Hg-CVAFS-T-7030	69			
8B00082-13 ✓	Hg-CVAFS-T-7030	70			

Due Date: 3/2/2018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00082-14 ✓	Hg-CVAFS-T-7030	71			
8B00082-15 ✓	Hg-CVAFS-T-7030	72			
F802195-DUP1 ✓	QC	73			
F802195-MS1 ✓	QC	74			
F802195-MS2 ✓	QC	75			
F802195-DUP2 ✓	QC	76			
8B14010-CCV8 ✓	QC	77	1707379		
8B14010-CCB8 ✓	QC	78			

B. King 2/14/18  
Samples Loaded By Date

B. King 2/14/18  
Data Processed By Date

**Failing Data Report - 8B14010**

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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BCS      2/14/18  
Analyst Reviewed By      Date

PAW      2/14/18  
Peer Reviewed By      Date

**PREPARATION BENCH SHEET**

F802192

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/7/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802192-BLK1	Blank	0.25	20					
F802192-BLK2	Blank	0.25	20					
F802192-BLK3	Blank	0.25	20					
F802192-BLK4	Pre Homogen Blank for 8B00079-16	0.258	20					
F802192-BLK5	Post Homogen Blank for 8B00079-16	0.2741	20					
F802192-BS1	LCS	0.25	20	1800233	20			
F802192-BS2	DORM4	0.1273	20	1703305	127 127.3			
F802192-BSD1	LCS Dup	0.25	20	1800233	20	R 2/14/18		
F802192-DUP1	Duplicate [8B00080-04]	0.0767	20					
F802192-MS1	Matrix Spike [8B00079-06]	0.0575	20	1705554	100			
F802192-MS2	Matrix Spike [8B00080-01]	0.0767	20	1705554	100			
F802192-MSD1	Matrix Spike Dup [8B00079-06]	0.0489	20	1705554	100			
F802192-MSD2	Matrix Spike Dup [8B00080-01]	0.0739	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>
1703305	DORM-4	29-May-20 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707390	THg Washstation (0.5% BrCl)	
			1800500	Boiling Chips for AFS prep	24-Jul-18 00:00
			1800678	70/30 Digestion Acid	04-Aug-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800707	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802192

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/7/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00079-01	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-		
8B00079-01RE1	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00079-02	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-		
8B00079-02RE1	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00079-03	FRB-01_18WT001_013018_ABD_03_BL	0.196	20	-	-	-		
8B00079-04	FRB-01_18WT001_013018_ABD_04_BL	0.2128	20	-	-	-		
8B00079-05	FRB-01_18WT001_013018_ABD_05_BL	0.1877	20	-	-	-		
8B00079-06	FRB-OCN_18WT001_013018_ABD_06_BL	0.1976	20	QC	-	-	MS/MSD	
8B00079-07	FRB-OCN_18WT001_013018_ABD_07_BL	0.2359	20	-	-	-		
8B00079-08	FRB-OCN_18WT001_013018_ABD_08_BL	0.2463	20	-	-	-		
8B00079-09	FRB-OCN_18WT001_013018_ABD_09_BL	0.2491	20	-	-	-		
8B00079-10	FRB-OCN_18WT001_013018_ABD_10_BL	0.1828	20	-	-	-		
8B00079-11	FRB-OCN_18WT001_013018_ABD_11_BL	0.1929	20	-	-	-		
8B00079-12	FRB-OCN_18WT001_013018_ABD_12_BL	0.1051	20	-	-	-		
8B00079-13	FRB-01_18WT001_013118_ABD_13_BL	0.1204	20	-	-	-		
8B00079-14	FRB-01_18WT001_013118_ABD_14_BL	0.1215	20	-	-	-		
8B00079-15	FRB-01_18WT001_013118_ABD_15_BL	0.1658	20	-	-	-		
8B00079-16	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-		
8B00079-16RE1	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC

Due Date: 3/2/2018

PREPARATION BENCH SHEET

F802192

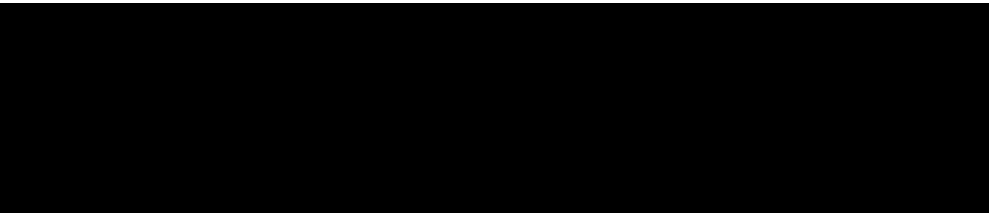
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

8B00080-01	MMBKD-01_18WT001_012918_ABD_01_BL	0.0775	20	QC	-	-	MS/MSD	
8B00080-02	MMBKD-01_18WT001_013018_ABD_02_BL	0.1292	20	-	-	-		
8B00080-03	MMBKD-01_18WT001_013018_ABD_03_BL	0.1751	20	-	-	-		
8B00080-04	MMBKD-01_18WT001_013018_ABD_04_BL	0.1207	20	-	-	-		





PREPARATION BENCH SHEET

SC 2/13/18  
2600-2

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802192-BLK1	Blank	0.25	20					20X ✓
F802192-BLK2	Blank	0.25	20					20X ✓
F802192-BLK3	Blank	0.25	20					20X ✓
F802192-BLK4	Pre Homogen Blank for 8B00079-16	0.258	20					20X ✓
F802192-BLK5	Post Homogen Blank for 8B00079-16	0.2741	20					20X ✓
F802192-BS1	LCS	0.25	20	1800233	20			20X ✓
F802192-BS2	DORM4	0.1273	20	1703305	127			400X ✓
F802192-BSD1	LCS Dup	0.25	20	1800233	20			20X ✓
F802192-DUP1	Duplicate [8B00080-04]	0.0767	20					100X ✓
F802192-MS1	Matrix Spike [8B00079-06]	0.0575	20	1705554	100			400X ✓
F802192-MS2	Matrix Spike [8B00080-01]	0.0767	20	1705554	100			400X ✓
F802192-MSD1	Matrix Spike Dup [8B00079-06]	0.0489	20	1705554	100			400X ✓
F802192-MSD2	Matrix Spike Dup [8B00080-01]	0.0739	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>
1703305	DORM-4	29-May-20 00:00	1800500	Boiling Chips for AFS prep	24-Jul-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800678	70/30 Digestion Acid	04-Aug-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1800707	5% BrCl	18-Jun-18 00:00

1706821  
1707390  
1707389  
1800680

Due Date: 3/2/2018

BC 2/13/18  
2600-2

PREPARATION BENCH SHEET

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00079-01	FRB-01_18WT001_013018_ABD_01_BL	0.1222	20	-	-	-	400x → 100x	
8B00079-02	FRB-01_18WT001_013018_ABD_02_BL	0.1674	20	-	-	-	400x → 100x	
8B00079-03	FRB-01_18WT001_013018_ABD_03_BL	0.196	20	-	-	-	400x ✓	
8B00079-04	FRB-01_18WT001_013018_ABD_04_BL	0.2128	20	-	-	-	100x ✓	
8B00079-05	FRB-01_18WT001_013018_ABD_05_BL	0.1877	20	-	-	-	100x ✓	
8B00079-06	FRB-OCN_18WT001_013018_ABD_06_BL	0.1976	20	QC	-	-	MS/MSD 100x ✓	
8B00079-07	FRB-OCN_18WT001_013018_ABD_07_BL	0.2359	20	-	-	-	100x ✓	
8B00079-08	FRB-OCN_18WT001_013018_ABD_08_BL	0.2463	20	-	-	-	100x ✓	
8B00079-09	FRB-OCN_18WT001_013018_ABD_09_BL	0.2491	20	-	-	-	100x ✓	
8B00079-10	FRB-OCN_18WT001_013018_ABD_10_BL	0.1828	20	-	-	-	100x ✓	
8B00079-11	FRB-OCN_18WT001_013018_ABD_11_BL	0.1929	20	-	-	-	100x ✓	
8B00079-12	FRB-OCN_18WT001_013018_ABD_12_BL	0.1051	20	-	-	-	100x ✓	
8B00079-13	FRB-01_18WT001_013118_ABD_13_BL	0.1204	20	-	-	-	100x ✓	
8B00079-14	FRB-01_18WT001_013118_ABD_14_BL	0.1215	20	-	-	-	100x ✓	
8B00079-15	FRB-01_18WT001_013118_ABD_15_BL	0.1658	20	-	-	-	100x ✓	
8B00079-16	FRB-01_013118_BAIT_01_QC	0.274	20	-	-	-	100x → 20x ✓	
8B00080-01	MMBKD-01_18WT001_012918_ABD_01_BL	0.0775	20	QC	-	-	MS/MSD 100x ✓	
8B00080-02	MMBKD-01_18WT001_013018_ABD_02_BL	0.1292	20	-	-	-	100x ✓	
8B00080-03	MMBKD-01_18WT001_013018_ABD_03_BL	0.1751	20	-	-	-	100x ✓	

Due Date: 3/2/2018

PREPARATION BENCH SHEET

BC 2/13/18  
2600-2

F802192

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/7/2018

8B00080-04	MMBKD-01_18WT001_013018_ABD_04_BL	0.1207	20	-	-	-	100X	
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Technician: AMB, Oregon Batch#: F802192 Date: 2-7-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 14575 Calibrated?  Yes  No

\*Time in: 1645 Actual Temp. (raw): 77.0 °C w/ CF: 76.8 °C

Time out: 1845 Actual Temp. (raw): 79.0 °C w/ CF: 78.8 °C

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

Final vol.: 20 mL (LIMS ID: 1800707) Spike vol.: 20 (BS/BSD) µL (LIMS ID: 1800233)  
 Spike Witness: DM 2/7/18 (initial and date)

HCl LIMS ID: N/A  
 HNO<sub>3</sub> LIMS ID: N/A  
 70/30 LIMS ID: 1800678  
 Other Acid LIMS ID: N/A  
 Glass Vial # 00068124 Boiling Chip lot # 1800500

Pipette SN#: MU11619 Calibration Date: 2/7/18  
 Pipette SN#: N/A Calibration Date: N/A  
 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Dispenser #: 15406623  Yes

\*Hotblock Position: 05 M5  
AMB 2-7-18

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	F802192-BLK1	0.2505	23	8B00079-13	0.1204	BS2 = DORMA
2	F802192-BLK2	0.2628	24	8B00079-14	0.1215	LIMS: 1703305
3	F802192-BLK3	0.2791	25	8B00079-15	0.1658	
4	F802192-BS1	0.2667	26	8B00079-16	0.2740	Comments
5	F802192-BSD1	0.2695	27	8B00080-01	0.775	DUP1, MSI, MSD1
6	F802192-BS2	0.1273	28	F802192-MS2	0.767g	Source =
7	F802192-BLK4	0.2580	29	F802192-MSD2	0.0739	8B00079-06
8	F802192-BLK5	0.2741	30	8B00080-02	0.1292	MS2, MSD2
9	8B00079-01	0.1222	31	8B00080-03	0.1751	Source =
10	8B00079-02	0.1674	32	8B00080-04	0.1207	8B00080-01
11	8B00079-03	0.1960	33	F802192-DUP1	0.0767	BLK4/BLK5:
12	8B00079-04	0.2128	34			Pre + Post
13	8B00079-05	0.1877	35			homogen.
14	8B00079-06	0.1976	36			blanks for
15	F802192-MS1	0.0575	37			8B00079-16.
16	F802192-MSD1	0.0489	38			DUP1 source:
17	8B00079-07	0.2359	39			8B00080-04
18	8B00079-08	0.2463	40			
19	8B00079-09	0.2491	41			All MS/MSD's
20	8B00079-10	0.1828	42			spiked w/
21	8B00079-11	0.1929	43			100ml of 1000µg/ml
22	8B00079-12	0.1051	44			1705554.

\*\* 8B00080-01 = 0.0775g  
 AMB 2/7/18  
 \*MS2 = 0.0767g  
 AMB 2/7/18

**PREPARATION BENCH SHEET**

F802195

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802195-BLK1	Blank	0.25	20					
F802195-BLK2	Blank	0.25	20					
F802195-BLK3	Blank	0.25	20					
F802195-BS1	Blank Spike	0.25	20	1800768	20			
F802195-BS2	DORM4	0.1255	20	1703305	125.5			
F802195-BSD1	Blank Spike	0.25	20	1800768	20			
F802195-DUP1	Duplicate [8B00082-10]	0.0538	20					
F802195-DUP2	AD [8B00082-10] ✓	0.0976 ✓	20					
F802195-MS1	Matrix Spike [8B00082-14]	0.0604	20	1705554	100			
F802195-MS2	Matrix Spike [8B00082-15]	0.0531	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800768	THg 100ng/mL Primary Spiking Standard	09-May-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802195

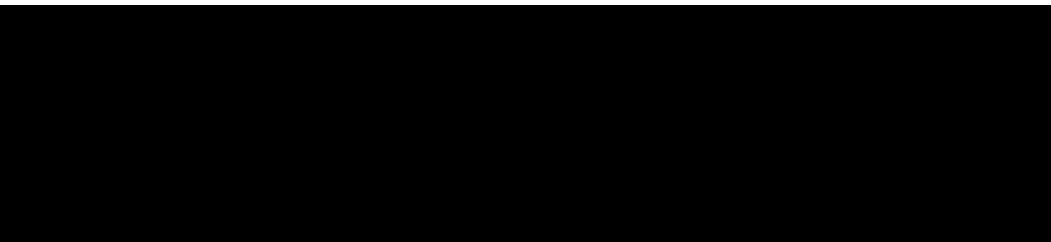
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00082-09	ES-13_18WT001_013018_ABD_09_BL	0.1582	20	-	-	-		
8B00082-10	ES-13_18WT001_013018_ABD_10_BL	0.0976	20	-	-	-		
8B00082-11	ES-13_18WT001_013018_ABD_11_BL	0.1378	20	-	-	-		
8B00082-12	ES-13_18WT001_013018_ABD_12_BL	0.1538	20	-	-	-		
8B00082-13	ES_13_18WT001_013118_ABD_13_BL	0.1627	20	-	-	-		
8B00082-14	ES-13_18WT001_013118_ABD_14_BL	0.1053	20	-	-	-		
8B00082-15	ES-13_18WT001_013118_ABD_15_BL	0.0535	20	-	-	-		



**PREPARATION BENCH SHEET**

F802195

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802195-BLK1	Blank	0.25	20					20x -
F802195-BLK2	Blank	0.25	20					20x -
F802195-BLK3	Blank	0.25	20					20x -
F802195-BS1	Blank Spike	0.25	20	1800768	20			20x -
F802195-BS2	DORM4	0.1255	20	1703305	1255			400x -
F802195-BSD1	Blank Spike	0.25	20	1800768	20			20x -
F802195-DUP1	Duplicate [8B00082-10]	0.0538	20					100x -
F802195-MS1	Matrix Spike [8B00082-14]	0.0604	20	1705554	100			400x -
F802195-MS2	Matrix Spike [8B00082-15]	0.0531	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800768	THg 100ng/mL Primary Spiking Standard	09-May-18 00:00	1800770	5% BrCl	18-Jun-18 00:00

DUP2 - 8B00082-10  
100x  
AD

1706821  
1707390  
1707389  
1800680

**PREPARATION BENCH SHEET**

F802195

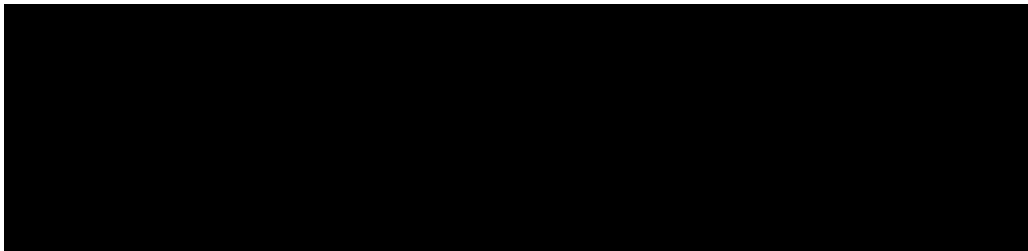
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00082-09	ES-13_18WT001_013018_ABD_09_BL	0.1582	20	-	-	-	100X ✓	
8B00082-10	ES-13_18WT001_013018_ABD_10_BL	0.0976	20	-	-	-	100X ✓	
8B00082-11	ES-13_18WT001_013018_ABD_11_BL	0.1378	20	-	-	-	100X ✓	
8B00082-12	ES-13_18WT001_013018_ABD_12_BL	0.1538	20	-	-	-	100X ✓	
8B00082-13	ES_13_18WT001_013118_ABD_13_BL	0.1627	20	-	-	-	100X ✓	
8B00082-14	ES-13_18WT001_013118_ABD_14_BL	0.1053	20	-	-	-	100X ✓	
8B00082-15	ES-13_18WT001_013118_ABD_15_BL	0.0535	20	-	-	-	100X ✓	





Technician: Duyen Batch#: F802195 Date: 2-9-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 10:00 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 Time out: 12:00 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 \*Time in can't begin before target temperature is reached

Final vol.: 20 mL (LIMS ID: 1800770) Spike vol.: 20 µL (LIMS ID: 1800768)  
 Spike Witness: cm 2/9/18 (initial and date)

HCl LIMS ID: N/A Pipette SN#: 0007852 Calibration Date: 2-9-18  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A 2/11/18 Calibration Date: N/A  
 70/30 LIMS ID: 1800748 Dispenser #: 02K275494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  
 Glass Vial # 00068407 Boiling Chip lot # 1706716 \*Hotblock Position: G-4

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	F802195 Bk1	0.2876	23			B52 = D0AM-4	
2	F802195 Bk2	0.2880	24			01703205	
3	F802195 Bk3	0.2533	25			3 2/11/18	
4	F802195 B51	0.2790	26				<b>Comments</b>
5	F802195 B501	0.2879	27				F802195
6	F802195 B52	0.1255	28			2-09-18	no
7	8B00082-09	0.1582	29			no	8B00082-10
8	8B00082-10A	0.0976	30				F802195 2/9/18
9	F802195-MD	0.0538	31				MS1, MS2 2/9/18
10	8B00082-11A	0.1378	32				8B00082-14
11	8B00082-12A	0.1538	33				2/9/18
12	8B00082-13A	0.1627	34				F802195-MS2
13	8B00082-14A	0.1053	35				8B00082-15
14	F802195-MS1	0.0604	36				2/9/18
15	8B00082-15A	0.0535	37				ALL MS2, MS1
16	F802195-MS2	0.0531	38				Spike w 100ul
17			39				1000µl/m
18			40				1765554
19		2/09/18	41				Acid 70:30
20		no	42				Digestion Acid
21			43				on 2/12/18
22			44				8B00082-14

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

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> <u>R 2/14/18</u>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	

• 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

- |   |   |  |  |
|---|---|--|--|
| 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?<br>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<br>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?<br>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 checked="" 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> 0 <i>A 2/14/18</i>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	0

Analyst Initials BC                      Reviewer Initials R

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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"/> |
| <b>QA/QC Data Checked</b>  |  |  |   |                                     |
| 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14009, 8B14010
<b>Reviewer:</b> 0 <i>R 2/14/18</i>	<b>Dataset ID(s):</b> THg26002-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F802225, F802235, F802192, F802195	0

**Analyst Initials** BC **Reviewer Initials** 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 checked="" type="checkbox"/> NO | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| Comments: <u>8B00317-01</u>  |  |  |   |
| 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"/> |
| <b>Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs</b>   |  |  |   |
| 36. Date of analyst IDOC/CDOC: _____ 1/3/2018 _____ 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: _____ 12/22/2017 _____ LOD within last 3 months?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/>   |
| 39. Date of LOQ: _____ 12/22/2017 _____ 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

THg26003-180213-1

Analysis Datasheet for Total Mercury

Date of Analysis: February 13, 2018

Analyst: BC

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 8B14016, 8B14017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	79.13 units	158.25	70.19 units	140.39	98.9 %Rec
SEQ-CAL2	1	1.00 ng/L	149.90 units	149.90	140.97 units	140.97	99.4 %Rec
SEQ-CAL3	1	5.00 ng/L	729.26 units	145.85	720.33 units	144.07	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2844.42 units	142.22	2835.49 units	141.77	99.9 %Rec
SEQ-CAL5	1	40.00 ng/L	5697.85 units	142.45	5688.92 units	142.22	100.2 %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**  
 141.89            +/- 1.41            1.0% RSD            147.73

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	8.93 units	±3.06	0.06 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.285 ng/L	±2.393
BLK	2	3	2.737 ng/L	±1.241
BLK	3	3	1.528 ng/L	±0.720
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 2/14/18

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	2/13/2018 8:34:32	86566-1.RAW	8:34:32 AM	12.25			3.3	0.023	0.023	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL2	1	2/13/2018 8:38:41	86567-1.RAW	8:38:41 AM	6.23			-2.7	-0.019	-0.019	ng/L	
Hg2600-3	BC	CAL	SEQ-IBL3	1	2/13/2018 8:42:49	86568-1.RAW	8:42:49 AM	8.31			-0.6	-0.004	-0.004	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL1	1	2/13/2018 8:46:57	86569-1.RAW	8:46:57 AM	79.13			70.2	0.495	0.495	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL2	1	2/13/2018 8:51:06	86570-1.RAW	8:51:06 AM	149.90			141.0	0.994	0.994	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL3	1	2/13/2018 8:55:14	86571-1.RAW	8:55:14 AM	729.26			720.3	5.077	5.077	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL4	1	2/13/2018 8:59:23	86572-1.RAW	8:59:23 AM	2844.42			2835.5	19.984	19.984	ng/L	
Hg2600-3	BC	CAL	SEQ-CAL5	1	2/13/2018 9:03:31	86573-1.RAW	9:03:31 AM	5697.85			5688.9	40.095	40.095	ng/L	
Hg2600-3	BC	CAL	SEQ-ICV1	1	2/13/2018 9:07:40	86574-1.RAW	9:07:40 AM	745.91			737.0	5.194	5.194	ng/L	
Hg2600-3	BC	SAM	ws		2/13/2018 9:25:07	86575-1.RAW	9:25:07 AM	19.40		X	10.5	0.074	0.000	ng/L	
Hg2600-3	BC	BLK	F801415-BLK1	20	2/13/2018 9:29:16	86576-1.RAW	9:29:16 AM	37.64		1	28.7	0.202	4.047	ng/L	
Hg2600-3	BC	BLK	F801415-BLK2	20	2/13/2018 9:33:24	86577-1.RAW	9:33:24 AM	8.75		1	-0.2	-0.001	-0.025	ng/L	
Hg2600-3	BC	BLK	F801415-BLK3	20	2/13/2018 9:37:33	86578-1.RAW	9:37:33 AM	7.74		1	-1.2	-0.008	-0.167	ng/L	
Hg2600-3	BC	SAM	F801415-BS1	20	2/13/2018 9:41:41	86579-1.RAW	9:41:41 AM	742.72		1	733.8	5.107	102.150	ng/L	
Hg2600-3	BC	SAM	F801415-BS1	20	2/13/2018 9:45:50	86580-1.RAW	9:45:50 AM	762.83		1	753.9	5.249	104.984	ng/L	
Hg2600-3	BC	SAM	8A00624-01	250	2/13/2018 9:49:58	86581-1.RAW	9:49:58 AM	1731.21		1	1722.3	12.133	3033.337	ng/L	
Hg2600-3	BC	SAM	8A00624-02	250	2/13/2018 9:54:07	86582-1.RAW	9:54:07 AM	3333.07		1	3324.1	23.423	5855.802	ng/L	
Hg2600-3	BC	SAM	8A00624-03	250	2/13/2018 9:58:15	86583-1.RAW	9:58:15 AM	6940.19		1	6931.3	48.846	12211.479	ng/L	
Hg2600-3	BC	SAM	8A00624-04	250	2/13/2018 10:02:23	86584-1.RAW	10:02:23 AM	9979.54		1	9970.6	70.267	17566.777	ng/L	
Hg2600-3	BC	SAM	8A00624-05	250	2/13/2018 10:06:32	86585-1.RAW	10:06:32 AM	12183.88		1	12175.0	85.803	21450.794	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV1	1	2/13/2018 10:10:40	86586-1.RAW	10:10:40 AM	809.90			801.0	5.645	5.645	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB1	1	2/13/2018 10:14:49	86587-1.RAW	10:14:49 AM	33.39			24.5	0.172	0.172	ng/L	
Hg2600-3	BC	SAM	8A00624-06	250	2/13/2018 10:18:57	86588-1.RAW	10:18:57 AM	12989.81		1	12980.9	91.483	22870.822	ng/L	
Hg2600-3	BC	SAM	8A00624-07	250	2/13/2018 10:23:06	86589-1.RAW	10:23:06 AM	11731.05		1	11722.1	82.612	20652.917	ng/L	
Hg2600-3	BC	SAM	8A00624-08	250	2/13/2018 10:27:14	86590-1.RAW	10:27:14 AM	967.33		1	958.4	6.750	1687.407	ng/L	
Hg2600-3	BC	SAM	8A00624-09	250	2/13/2018 10:31:22	86591-1.RAW	10:31:22 AM	982.13		1	973.2	6.854	1713.471	ng/L	
Hg2600-3	BC	SAM	8A00624-10	250	2/13/2018 10:35:31	86592-1.RAW	10:35:31 AM	916.20		1	907.3	6.389	1597.317	ng/L	
Hg2600-3	BC	SAM	8A00624-11	250	2/13/2018 10:39:39	86593-1.RAW	10:39:39 AM	1307.83		1	1298.9	9.149	2287.350	ng/L	
Hg2600-3	BC	SAM	8A00624-12	250	2/13/2018 10:43:48	86594-1.RAW	10:43:48 AM	1380.27		1	1371.3	9.660	2414.987	ng/L	
Hg2600-3	BC	SAM	8A00624-13	250	2/13/2018 10:47:56	86595-1.RAW	10:47:56 AM	1947.68		1	1938.8	13.659	3414.765	ng/L	
Hg2600-3	BC	SAM	8A00624-14	250	2/13/2018 10:52:05	86596-1.RAW	10:52:05 AM	2371.30		1	2362.4	16.645	4161.174	ng/L	
Hg2600-3	BC	SAM	8A00624-15	250	2/13/2018 10:56:13	86597-1.RAW	10:56:13 AM	1711.02		1	1702.1	11.991	2997.766	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV2	1	2/13/2018 11:00:22	86598-1.RAW	11:00:22 AM	762.66			753.7	5.312	5.312	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB2	1	2/13/2018 11:04:30	86599-1.RAW	11:04:30 AM	32.99			24.1	0.170	0.170	ng/L	
Hg2600-3	BC	SAM	ws		2/13/2018 11:13:14	86600-1.RAW	11:13:14 AM	33.49		X	24.6	0.173	0.000	ng/L	
Hg2600-3	BC	SAM	8A00624-16	250	2/13/2018 11:17:23	86601-1.RAW	11:17:23 AM	2541.63		1	2532.7	17.845	4461.298	ng/L	
Hg2600-3	BC	SAM	8A00624-17	250	2/13/2018 11:21:31	86602-1.RAW	11:21:31 AM	1972.89		1	1964.0	13.837	3459.175	ng/L	
Hg2600-3	BC	SAM	8A00624-18	250	2/13/2018 11:25:40	86603-1.RAW	11:25:40 AM	1744.75		1	1735.8	12.229	3057.199	ng/L	
Hg2600-3	BC	SAM	8A00624-19	250	2/13/2018 11:29:48	86604-1.RAW	11:29:48 AM	6963.87		1	6954.9	49.013	12253.211	ng/L	
Hg2600-3	BC	SAM	8A00624-20	250	2/13/2018 11:33:57	86605-1.RAW	11:33:57 AM	7195.56		1	7186.6	50.646	12661.439	ng/L	
Hg2600-3	BC	SAM	8A00624-03RE1	1000	2/13/2018 11:38:05	86606-1.RAW	11:38:05 AM	1856.02		1	1847.1	13.017	13016.901	ng/L	
Hg2600-3	BC	SAM	8A00624-04RE1	1000	2/13/2018 11:42:14	86607-1.RAW	11:42:14 AM	2570.06		1	2561.1	18.049	18049.363	ng/L	
Hg2600-3	BC	SAM	8A00624-05RE1	1000	2/13/2018 11:46:22	86608-1.RAW	11:46:22 AM	3062.45		1	3053.5	21.520	21519.733	ng/L	
Hg2600-3	BC	SAM	8A00624-06RE1	1000	2/13/2018 11:50:30	86609-1.RAW	11:50:30 AM	3373.28		1	3364.3	23.710	23710.432	ng/L	
Hg2600-3	BC	SAM	8A00624-07RE1	1000	2/13/2018 11:54:39	86610-1.RAW	11:54:39 AM	3024.18		1	3015.2	21.250	21249.987	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV3	1	2/13/2018 11:58:47	86611-1.RAW	11:58:47 AM	771.84			762.9	5.377	5.377	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB3	1	2/13/2018 12:02:56	86612-1.RAW	12:02:56 PM	32.62			23.7	0.167	0.167	ng/L	
Hg2600-3	BC	SAM	8A00624-08RE1	250	2/13/2018 12:07:04	86613-1.RAW	12:07:04 PM	915.28		1	906.4	6.383	1595.692	ng/L	
Hg2600-3	BC	SAM	F801415-DUP1	250	2/13/2018 12:11:13	86614-1.RAW	12:11:13 PM	1460.60		1	1451.7	10.226	2556.540	ng/L	
Hg2600-3	BC	SAM	F801415-MS1	400	2/13/2018 12:15:21	86615-1.RAW	12:15:21 PM	2825.09		1	2816.2	19.845	7937.957	ng/L	
Hg2600-3	BC	SAM	F801415-MSD1	400	2/13/2018 12:19:30	86616-1.RAW	12:19:30 PM	2741.92		1	2733.0	19.259	7703.482	ng/L	
Hg2600-3	BC	SAM	F801415-MS2	400	2/13/2018 12:23:38	86617-1.RAW	12:23:38 PM	4057.94		1	4049.0	28.534	11413.572	ng/L	
Hg2600-3	BC	SAM	F801415-MSD2	400	2/13/2018 12:27:46	86618-1.RAW	12:27:46 PM	4225.49		1	4216.6	29.715	11885.926	ng/L	
Hg2600-3	BC	BLK	F802193-BLK1	20	2/13/2018 12:31:55	86619-1.RAW	12:31:55 PM	38.24		2	29.3	0.207	4.132	ng/L	
Hg2600-3	BC	BLK	F802193-BLK2	20	2/13/2018 12:36:03	86620-1.RAW	12:36:03 PM	25.41		2	16.5	0.116	2.323	ng/L	
Hg2600-3	BC	BLK	F802193-BLK3	20	2/13/2018 12:40:12	86621-1.RAW	12:40:12 PM	21.38		2	12.5	0.088	1.755	ng/L	
Hg2600-3	BC	SAM	F802193-BS1	20	2/13/2018 12:44:20	86622-1.RAW	12:44:20 PM	735.54		2	726.6	4.984	99.686	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-CCV4 ✓	1	2/13/2018 12:48:29	86623-1.RAW	12:48:29 PM	758.41 ✓			749.5	5.282	5.282	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB4 ✓	1	2/13/2018 12:52:37	86624-1.RAW	12:52:37 PM	24.74 ✓			15.8	0.111	0.111	ng/L	
Hg2600-3	BC	SAM	F802193-BSD1 ✓	20	2/13/2018 12:56:46	86625-1.RAW	12:56:46 PM	727.73 ✓	2		718.8	4.929	98.584	ng/L	
Hg2600-3	BC	SAM	F802193-BS2 ✓	400	2/13/2018 13:00:54	86626-1.RAW	1:00:54 PM	795.36 ✓	2		786.4	5.536	2214.348	ng/L	
Hg2600-3	BC	SAM	ws		2/13/2018 13:11:17	86627-1.RAW	1:11:17 PM	30.46 ✓		X	21.5	0.152	0.000	ng/L	
Hg2600-3	BC	SAM	8B00080-05 ✓	100	2/13/2018 13:15:25	86628-1.RAW	1:15:25 PM	2981.50 ✓	2		2972.6	20.923	2092.315	ng/L	
Hg2600-3	BC	SAM	8B00080-06 ✓	100	2/13/2018 13:19:34	86629-1.RAW	1:19:34 PM	2322.48 ✓	2		2313.5	16.278	1627.837	ng/L	
Hg2600-3	BC	SAM	8B00080-07 ✓	100	2/13/2018 13:23:42	86630-1.RAW	1:23:42 PM	2567.00 ✓	2		2558.1	18.002	1800.176	ng/L	
Hg2600-3	BC	SAM	8B00080-08 ✓	100	2/13/2018 13:27:51	86631-1.RAW	1:27:51 PM	1025.70 ✓	2		1016.8	7.139	713.879	ng/L	
Hg2600-3	BC	SAM	8B00080-09 ✓	100	2/13/2018 13:31:59	86632-1.RAW	1:31:59 PM	3458.03 ✓	2		3449.1	24.282	2428.165	ng/L	
Hg2600-3	BC	SAM	8B00080-10 ✓	100	2/13/2018 13:36:08	86633-1.RAW	1:36:08 PM	3193.252687 ✓	2		3184.3	22.416	2241.554	ng/L	
Hg2600-3	BC	SAM	8B00080-11 ✓	100	2/13/2018 13:40:16	86634-1.RAW	1:40:16 PM	2554.53 ✓	2		2545.6	17.914	1791.385	ng/L	
Hg2600-3	BC	SAM	8B00080-12 ✓	100	2/13/2018 13:44:25	86635-1.RAW	1:44:25 PM	1160.15 ✓	2		1151.2	8.086	808.634	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV5 ✓	1	2/13/2018 13:48:33	86636-1.RAW	1:48:33 PM	791.30 ✓			782.4	5.514	5.514	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB5 ✓	1	2/13/2018 13:52:41	86637-1.RAW	1:52:41 PM	14.11 ✓			5.2	0.036	0.036	ng/L	
Hg2600-3	BC	SAM	8B00080-13 ✓	100	2/13/2018 13:56:50	86638-1.RAW	1:56:50 PM	2025.51 ✓	2		2016.6	14.185	1418.537	ng/L	
Hg2600-3	BC	SAM	8B00080-14 ✓	100	2/13/2018 14:00:58	86639-1.RAW	2:00:58 PM	1633.49 ✓	2		1624.6	11.422	1142.240	ng/L	
Hg2600-3	BC	SAM	8B00080-15 ✓	100	2/13/2018 14:05:07	86640-1.RAW	2:05:07 PM	1990.71 ✓	2		1981.8	13.940	1394.006	ng/L	
Hg2600-3	BC	SAM	8B00082-01 ✓	100	2/13/2018 14:09:15	86641-1.RAW	2:09:15 PM	1573.11 ✓	2		1564.2	10.997	1099.688	ng/L	
Hg2600-3	BC	SAM	8B00082-02 ✓	100	2/13/2018 14:13:24	86642-1.RAW	2:13:24 PM	1504.87 ✓	2		1495.9	10.516	1051.593	ng/L	
Hg2600-3	BC	SAM	8B00082-03 ✓	100	2/13/2018 14:17:32	86643-1.RAW	2:17:32 PM	842.00 ✓	2		833.1	5.844	584.408	ng/L	
Hg2600-3	BC	SAM	8B00082-04 ✓	100	2/13/2018 14:21:41	86644-1.RAW	2:21:41 PM	2731.52 ✓	2		2722.6	19.161	1916.130	ng/L	
Hg2600-3	BC	SAM	8B00082-05 ✓	100	2/13/2018 14:25:49	86645-1.RAW	2:25:49 PM	626.89 ✓	2		618.0	4.328	432.797	ng/L	
Hg2600-3	BC	SAM	8B00082-06 ✓	100	2/13/2018 14:29:57	86646-1.RAW	2:29:57 PM	2463.03 ✓	2		2454.1	17.269	1726.901	ng/L	
Hg2600-3	BC	SAM	8B00082-07 ✓	100	2/13/2018 14:34:06	86647-1.RAW	2:34:06 PM	674.06 ✓	2		665.1	4.660	466.040	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV6 ✓	1	2/13/2018 14:38:14	86648-1.RAW	2:38:14 PM	804.41 ✓			795.5	5.607	5.607	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB6 ✓	1	2/13/2018 14:42:23	86649-1.RAW	2:42:23 PM	30.80 ✓			21.9	0.154	0.154	ng/L	
Hg2600-3	BC	SAM	8B00082-08 ✓	100	2/13/2018 14:46:31	86650-1.RAW	2:46:31 PM	2040.54 ✓	2		2031.6	14.291	1429.130	ng/L	
Hg2600-3	BC	SAM	F802193-DUP1 ✓	100	2/13/2018 14:50:40	86651-1.RAW	2:50:40 PM	1053.11 ✓	2		1044.2	7.332	733.197	ng/L	
Hg2600-3	BC	SAM	F802193-MS1 ✓	400	2/13/2018 14:54:48	86652-1.RAW	2:54:48 PM	1937.72 ✓	2		1928.8	13.587	5434.866	ng/L	
Hg2600-3	BC	SAM	F802193-MSD1 ✓	400	2/13/2018 14:58:57	86653-1.RAW	2:58:57 PM	2043.85 ✓	2		2034.9	14.335	5734.060	ng/L	
Hg2600-3	BC	SAM	F802193-MS2 ✓	400	2/13/2018 15:03:05	86654-1.RAW	3:03:05 PM	1959.96 ✓	2		1951.0	13.744	5497.546	ng/L	
Hg2600-3	BC	SAM	F802193-MSD2 ✓	400	2/13/2018 15:07:13	86655-1.RAW	3:07:13 PM	1956.87 ✓	2		1947.9	13.722	5488.834	ng/L	
Hg2600-3	BC	BLK	F802223-BLK1 ✓	20	2/13/2018 15:11:22	86656-1.RAW	3:11:22 PM	25.55 ✓	3		16.6	0.117	2.342	ng/L	
Hg2600-3	BC	BLK	F802223-BLK2 ✓	20	2/13/2018 15:15:30	86657-1.RAW	3:15:30 PM	15.84 ✓	3		6.9	0.049	0.974	ng/L	
Hg2600-3	BC	BLK	F802223-BLK3 ✓	20	2/13/2018 15:19:39	86658-1.RAW	3:19:39 PM	17.93 ✓	3		9.0	0.063	1.268	ng/L	
Hg2600-3	BC	SAM	F802223-BS1 ✓	20	2/13/2018 15:23:47	86659-1.RAW	3:23:47 PM	752.24 ✓	3		743.3	5.162	103.248	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV7 ✓	1	2/13/2018 15:27:56	86660-1.RAW	3:27:56 PM	793.54 ✓			784.6	5.530	5.530	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB7 ✓	1	2/13/2018 15:32:04	86661-1.RAW	3:32:04 PM	24.12 ✓			15.2	0.107	0.107	ng/L	
Hg2600-3	BC	SAM	F802223-BSD1 ✓	20	2/13/2018 15:36:13	86662-1.RAW	3:36:13 PM	758.36 ✓	3		749.4	5.206	104.111	ng/L	
Hg2600-3	BC	SAM	8A00935-01 ✓	2500	2/13/2018 15:40:21	86663-1.RAW	3:40:21 PM	2380.91 ✓	3		2372.0	16.717	41792.354	ng/L	
Hg2600-3	BC	SAM	8B00078-01 ✓	100	2/13/2018 15:44:29	86664-1.RAW	3:44:29 PM	63.52 ✓	3		54.6	0.369	36.944	ng/L	
Hg2600-3	BC	SAM	8B00222-01 ✓	100	2/13/2018 15:48:38	86665-1.RAW	3:48:38 PM	12396.16 ✓	3		12387.2	87.289	8728.914	ng/L	
Hg2600-3	BC	SAM	WS		2/13/2018 15:53:10	86667-1.RAW	3:53:10 PM	44.48 ✓		X	35.5	0.251	0.000	ng/L	
Hg2600-3	BC	SAM	8B00078-01RE1 ✓	20	2/13/2018 15:57:18	86666-2.RAW	3:57:18 PM	232.80 ✓	3		223.9	1.501	30.028	ng/L	
Hg2600-3	BC	SAM	8B00222-01RE1 ✓	400	2/13/2018 16:01:26	86668-1.RAW	4:01:26 PM	3124.96 ✓	3		3116.0	21.958	8783.114	ng/L	
Hg2600-3	BC	SAM	F802223-DUP1 ✓	400	2/13/2018 16:05:34	86669-1.RAW	4:05:34 PM	1351.00 ✓	3		1342.1	9.455	3781.996	ng/L	
Hg2600-3	BC	SAM	F802223-MS1 ✓	400	2/13/2018 16:09:42	86670-1.RAW	4:09:42 PM	1396.57 ✓	3		1387.6	9.776	3910.465	ng/L	
Hg2600-3	BC	SAM	F802223-MSD1 ✓	400	2/13/2018 16:13:50	86671-1.RAW	4:13:50 PM	3219.74 ✓	3		3210.8	22.626	9050.299	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV8 ✓	1	2/13/2018 16:17:59	86672-1.RAW	4:17:59 PM	815.52 ✓			806.6	5.685	5.685	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB8 ✓	1	2/13/2018 16:22:07	86673-1.RAW	4:22:07 PM	33.98 ✓			25.0	0.177	0.177	ng/L	
Hg2600-3	BC	SAM	F802223-DUP2 ✓	400	2/13/2018 16:26:15	86674-1.RAW	4:26:15 PM	3053.63 ✓	3		3044.7	21.455	8582.011	ng/L	
Hg2600-3	BC	SAM	F802223-MS2 ✓	2500	2/13/2018 16:30:24	86675-1.RAW	4:30:24 PM	2040.59 ✓	3		2031.7	14.318	35795.944	ng/L	
Hg2600-3	BC	SAM	F802223-MSD2 ✓	2500	2/13/2018 16:34:32	86676-1.RAW	4:34:32 PM	2055.84 ✓	3		2046.9	14.426	36064.694	ng/L	
Hg2600-3	BC	CAL	SEQ-CCV9 ✓	1	2/13/2018 16:38:41	86677-1.RAW	4:38:41 PM	795.82 ✓			786.9	5.546	5.546	ng/L	
Hg2600-3	BC	CAL	SEQ-CCB9 ✓	1	2/13/2018 16:42:49	86678-1.RAW	4:42:49 PM	25.00 ✓			16.1	0.113	0.113	ng/L	
Hg2600-3	BC	SAM	F802223-MS3 ✓	2500	2/13/2018 16:46:58	86679-1.RAW	4:46:58 PM	2034.60 ✓	3		2025.7	14.276	35690.457	ng/L	
Hg2600-3	BC	SAM	F802223-MSD3 ✓	2500	2/13/2018 16:51:06	86680-1.RAW	4:51:06 PM	2052.52 ✓	3		2043.6	14.402	36006.172	ng/L	
Hg2600-3	BC	CAL	SEQ-CCVA ✓	1	2/13/2018 16:55:14	86681-1.RAW	4:55:14 PM	803.71 ✓			794.8	5.602	5.602	ng/L	
Hg2600-3	BC	CAL	SEQ-CCBA ✓	1	2/13/2018 16:59:23	86682-1.RAW	4:59:23 PM	26.82 ✓			17.9	0.126	0.126	ng/L	



TotalMercury  
EPA1631

Operat BC  
Workst THg260  
Method #####  
Descr THg26003-180213-1

BlankS 8.9306  
CalibFa 141.89  
R: 1  
R<sup>2</sup>:

Calib Eqn:  
Status:  
1

Conc = (Area-8.9306  
QC Warnings:5/QC F

Run Date: 2/13/2018  
Run Time: 15:49:01

Blank SD: 3.056897031  
Blank RSD%: 34.22959221  
CF SD: 1.409999107  
CF RSD%: 0.993758686

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ctf)	Flags	RunCount
clean					0.00	1.48				86561-1.RAW	8:15:07	210.13	Clean	OK	1
ws					8.93	0.03				86562-1.RAW	8:17:58	0.00	Clean	NP	1
WS					8.93	0.00				86563-1.RAW	8:22:07	13.33	Sample	OK	1
WS					8.93	0.00				86564-1.RAW	8:26:15	6.69	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.09					86565-1.RAW	8:30:24	7.58	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					86566-1.RAW	8:34:32	12.25	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.06					86567-1.RAW	8:38:41	6.23	Sample	OK	1
SEQ-CAL1	A4		1	8.93	0.49			98.95		86568-1.RAW	8:42:49	8.31	Sample	OK	1
SEQ-CAL2	A5		1	8.93	0.99			99.36		86569-1.RAW	8:46:57	79.13	Sample	OK	1
SEQ-CAL3	A6		1	8.93	5.08			101.54		86570-1.RAW	8:51:06	149.90	Sample	OK	1
SEQ-CAL4	A7		1	8.93	19.98			99.92		86571-1.RAW	8:55:14	729.26	Sample	OK	1
SEQ-CAL5	A8		1	8.93	40.10			100.24		86572-1.RAW	8:59:23	2844.42	Sample	OK	1
SEQ-ICV1	A9		1	8.93	5.19			103.88		86573-1.RAW	9:03:31	5697.85	Sample	FB	1
ws					8.93	0.07				86574-1.RAW	9:07:40	745.91	Sample	OK	1
F801415-BLK1	A10		20	8.93	4.05					86575-1.RAW	9:25:07	19.40	Sample	OK	1
F801415-BLK2	A11		20	8.93	0.00					86576-1.RAW	9:29:16	37.64	Sample	OK	1
F801415-BLK3	A12		20	8.93	0.00					86577-1.RAW	9:33:24	8.75	Sample	OK	1
F801415-BS1	A13		20	8.93	103.43					86578-1.RAW	9:37:33	7.74	Sample	OK	1
F801415-BSD1	A14		20	8.93	106.27					86579-1.RAW	9:41:41	742.72	Sample	OK	1
8A00624-01	A15		250	8.93	3034.62					86580-1.RAW	9:45:50	762.83	Sample	OK	1
8A00624-02	A16		250	8.93	5857.09					86581-1.RAW	9:49:58	1731.21	Sample	OK	1
8A00624-03	A17		250	8.93	12212.76					86582-1.RAW	9:54:07	3333.07	Sample	OK	1
8A00624-04	A18		250	8.93	17568.06					86583-1.RAW	9:58:15	6940.19	Sample	FB	1
8A00624-05	A19		250	8.93	21452.08					86584-1.RAW	10:02:23	9979.54	Sample	FB	1
SEQ-CCV1	A20		1	8.93	5.65			112.90		86585-1.RAW	10:06:32	12183.88	Sample	FB	1
SEQ-CCB1	A21		1	8.93	0.17			0.00		86586-1.RAW	10:10:40	809.90	Sample	OK	1
8A00624-06	B1		250	8.93	22872.11					86587-1.RAW	10:14:49	33.39	Sample	OK	1
8A00624-07	B2		250	8.93	20654.20					86588-1.RAW	10:18:57	12989.81	Sample	FB	1
8A00624-08	B3		250	8.93	1688.69					86589-1.RAW	10:23:06	11731.05	Sample	FB	1
8A00624-09	B4		250	8.93	1714.76					86590-1.RAW	10:27:14	967.33	Sample	OK	1
8A00624-10	B5		250	8.93	1598.60					86591-1.RAW	10:31:22	982.13	Sample	OK	1
8A00624-11	B6		250	8.93	2288.63					86592-1.RAW	10:35:31	916.20	Sample	OK	1
8A00624-12	B7		250	8.93	2416.27					86593-1.RAW	10:39:39	1307.83	Sample	OK	1
8A00624-13	B8		250	8.93	3416.05					86594-1.RAW	10:43:48	1380.27	Sample	OK	1
8A00624-14	B9		250	8.93	4162.46					86595-1.RAW	10:47:56	1947.88	Sample	OK	1
8A00624-15	B10		250	8.93	2999.05					86596-1.RAW	10:52:05	2371.30	Sample	OK	1
SEQ-CCV2	B11		1	8.93	5.31			106.25		86597-1.RAW	10:56:13	1711.02	Sample	OK	1
SEQ-CCB2	B12		1	8.93	0.17			0.00		86598-1.RAW	11:00:22	762.66	Sample	OK	1
ws					8.93	0.17				86599-1.RAW	11:04:30	32.99	Sample	OK	1
8A00624-16	B13		250	8.93	4462.58					86600-1.RAW	11:13:14	33.49	Sample	OK	1
8A00624-17	B14		250	8.93	3460.46					86601-1.RAW	11:17:23	2541.63	Sample	OK	1
8A00624-18	B15		250	8.93	3058.48					86602-1.RAW	11:21:31	1972.89	Sample	FB	1
8A00624-19	B16		250	8.93	12254.50					86603-1.RAW	11:25:40	1744.75	Sample	OK	1
8A00624-20	B17		250	8.93	12662.72					86604-1.RAW	11:29:48	6963.87	Sample	FB	1
8A00624-03RE1	B18		1000	8.93	13018.19					86605-1.RAW	11:33:57	7195.56	Sample	FB	1
8A00624-04RE1	B19		1000	8.93	18050.65					86606-1.RAW	11:38:05	1856.02	Sample	OK	1
8A00624-05RE1	B20		1000	8.93	21521.02					86607-1.RAW	11:42:14	2570.06	Sample	OK	1
8A00624-06RE1	B21		1000	8.93	23711.72					86608-1.RAW	11:46:22	3062.45	Sample	FB	1
8A00624-07RE1	C1		1000	8.93	21251.27					86609-1.RAW	11:50:30	3373.28	Sample	FB	1
SEQ-CCV3	C2		1	8.93	5.38			107.54		86610-1.RAW	11:54:39	3024.18	Sample	OK	1
SEQ-CCB3	C3		1	8.93	0.17			0.00		86611-1.RAW	11:58:47	771.84	Sample	OK	1
8A00624-08RE1	C4		250	8.93	1596.98					86612-1.RAW	12:02:56	32.62	Sample	OK	1
F801415-DUP1	C5		250	8.93	2557.82					86613-1.RAW	12:07:04	915.28	Sample	OK	1
F801415-MS1	C6		400	8.93	7939.24			310.27		86614-1.RAW	12:11:13	1460.60	Sample	OK	1
F801415-MSD1	C7		400	8.93	7704.77					86615-1.RAW	12:15:21	2825.09	Sample	OK	1
F801415-MS2	C8		400	8.93	11414.86			148.11		86616-1.RAW	12:19:30	2741.92	Sample	OK	1
F801415-MSD2	C9		400	8.93	11887.21					86617-1.RAW	12:23:38	4057.94	Sample	FB	1
F802193-BLK1	C10		20	8.93	4.13					86618-1.RAW	12:27:46	4225.49	Sample	OK	1
F802193-BLK2	C11		20	8.93	2.32					86619-1.RAW	12:31:55	38.24	Sample	OK	1
F802193-BLK3	C12		20	8.93	1.76					86620-1.RAW	12:36:03	25.41	Sample	OK	1
F802193-BS1	C13		20	8.93	102.42					86621-1.RAW	12:40:12	21.38	Sample	OK	1
										86622-1.RAW	12:44:20	735.54	Sample	OK	1

SEQ-CCV4	C14	1	8.93	5.28	105.65	86623-1.RAW	12:48:29	758.41	Sample	OK	1
SEQ-CCB4	C15	1	8.93	0.11	0.00	86624-1.RAW	12:52:37	24.74	Sample	OK	1
F802193-BSD1	C16	20	8.93	101.32		86625-1.RAW	12:56:46	727.73	Sample	OK	1
F802193-BS2	C17	400	8.93	2217.08		86626-1.RAW	13:00:54	795.36	Sample	OK	1
ws			8.93	0.15		86627-1.RAW	13:11:17	30.46	Sample	OK	1
8B00080-05	C18	100	8.93	2095.05		86628-1.RAW	13:15:25	2981.50	Sample	OK	1
8B00080-06	C19	100	8.93	1630.57		86629-1.RAW	13:19:34	2322.48	Sample	FB	1
8B00080-07	C20	100	8.93	1802.91		86630-1.RAW	13:23:42	2567.00	Sample	OK	1
8B00080-08	C21	100	8.93	716.62		86631-1.RAW	13:27:51	1025.70	Sample	OK	1
8B00080-09	A1	100	8.93	2430.90		86632-1.RAW	13:31:59	3458.03	Sample	FB	1
8B00080-10	A2	100	8.93	2244.29		86633-1.RAW	13:36:08	3193.25	Sample	OK	1
8B00080-11	A3	100	8.93	1794.12		86634-1.RAW	13:40:16	2554.53	Sample	OK	1
8B00080-12	A4	100	8.93	811.37		86635-1.RAW	13:44:25	1160.15	Sample	OK	1
SEQ-CCV5	A5	1	8.93	5.51	110.28	86636-1.RAW	13:48:33	791.30	Sample	OK	1
SEQ-CCB5	A6	1	8.93	0.04	0.00	86637-1.RAW	13:52:41	14.11	Sample	OK	1
8B00080-13	A7	100	8.93	1421.27		86638-1.RAW	13:56:50	2025.51	Sample	OK	1
8B00080-14	A8	100	8.93	1144.98		86639-1.RAW	14:00:58	1633.49	Sample	OK	1
8B00080-15	A9	100	8.93	1396.74		86640-1.RAW	14:05:07	1990.71	Sample	OK	1
8B00082-01	A10	100	8.93	1102.42		86641-1.RAW	14:09:15	1573.11	Sample	OK	1
8B00082-02	A11	100	8.93	1054.33		86642-1.RAW	14:13:24	1504.87	Sample	OK	1
8B00082-03	A12	100	8.93	587.14		86643-1.RAW	14:17:32	842.00	Sample	OK	1
8B00082-04	A13	100	8.93	1918.87		86644-1.RAW	14:21:41	2731.52	Sample	OK	1
8B00082-05	A14	100	8.93	435.53		86645-1.RAW	14:25:49	626.89	Sample	OK	1
8B00082-06	A15	100	8.93	1729.64		86646-1.RAW	14:29:57	2463.03	Sample	OK	1
8B00082-07	A16	100	8.93	468.78		86647-1.RAW	14:34:06	674.06	Sample	OK	1
SEQ-CCV6	A17	1	8.93	5.61	112.13	86648-1.RAW	14:38:14	804.41	Sample	OK	1
SEQ-CCB6	A18	1	8.93	0.15	0.00	86649-1.RAW	14:42:23	30.80	Sample	OK	1
8B00082-08	A19	100	8.93	1431.87		86650-1.RAW	14:46:31	2040.54	Sample	OK	1
F802193-DUP1	A20	100	8.93	735.93		86651-1.RAW	14:50:40	1053.11	Sample	OK	1
F802193-MS1	A21	400	8.93	5437.60	737.87	86652-1.RAW	14:54:48	1937.72	Sample	OK	1
F802193-MSD1	B1	400	8.93	5736.80		86653-1.RAW	14:58:57	2043.85	Sample	OK	1
F802193-MS2	B2	400	8.93	5500.28	95.84	86654-1.RAW	15:03:05	1959.96	Sample	FB	1
F802193-MSD2	B3	400	8.93	5491.57		86655-1.RAW	15:07:13	1956.87	Sample	OK	1
F802223-BLK1	B4	20	8.93	2.34		86656-1.RAW	15:11:22	25.55	Sample	OK	1
F802223-BLK2	B5	20	8.93	0.97		86657-1.RAW	15:15:30	15.84	Sample	OK	1
F802223-BLK3	B6	20	8.93	1.27		86658-1.RAW	15:19:39	17.93	Sample	OK	1
F802223-BS1	B7	20	8.93	104.78		86659-1.RAW	15:23:47	752.24	Sample	OK	1
SEQ-CCV7	B8	1	8.93	5.53	110.60	86660-1.RAW	15:27:56	793.54	Sample	OK	1
SEQ-CCB7	B9	1	8.93	0.11	0.00	86661-1.RAW	15:32:04	24.12	Sample	OK	1
F802223-BSD1	B10	20	8.93	105.64		86662-1.RAW	15:36:13	758.36	Sample	OK	1
8A00935-01	B11	2500	8.93	41793.88		86663-1.RAW	15:40:21	2380.91	Sample	FB	1
8B00078-01	B12	100	8.93	38.47		86664-1.RAW	15:44:29	63.52	Sample	OK	1
8B00222-01	B13	100	8.93	8730.44		86665-1.RAW	15:48:38	12396.16	Sample	FB	1
WS			8.93	0.25		86667-1.RAW	15:53:10	44.48	Sample	OK	1
8B00078-01RE1	B14	20	8.93	31.56		86666-2.RAW	15:57:18	232.80	Sample	OK	1
8B00222-01RE1	B15	400	8.93	8784.64		86668-1.RAW	16:01:26	3124.96	Sample	OK	1
F802223-DUP1	B16	400	8.93	3783.52		86669-1.RAW	16:05:34	1351.00	Sample	OK	1
F802223-MS1	B17	400	8.93	3911.99	103.37	86670-1.RAW	16:09:42	1396.57	Sample	OK	1
F802223-MSD1	B18	400	8.93	9051.83		86671-1.RAW	16:13:50	3219.74	Sample	OK	1
SEQ-CCV8	B19	1	8.93	5.68	113.70	86672-1.RAW	16:17:59	815.52	Sample	OK	1
SEQ-CCB8	B20	1	8.93	0.18	0.00	86673-1.RAW	16:22:07	33.98	Sample	OK	1
F802223-DUP2	C1	400	8.93	8583.54		86674-1.RAW	16:26:15	3053.63	Sample	FB	1
F802223-MS2	C2	2500	8.93	35797.47	416.95	86675-1.RAW	16:30:24	2040.59	Sample	OK	1
F802223-MSD2	C3	2500	8.93	36066.22		86676-1.RAW	16:34:32	2055.84	Sample	OK	1
SEQ-CCV9	C4	1	8.93	5.55	110.92	86677-1.RAW	16:38:41	795.82	Sample	OK	1
SEQ-CCB9	C5	1	8.93	0.11	0.00	86678-1.RAW	16:42:49	25.00	Sample	OK	1
F802223-MS3	C6	2500	8.93	35691.98	#####	86679-1.RAW	16:46:58	2034.60	Sample	OK	1
F802223-MSD3	C7	2500	8.93	36007.70		86680-1.RAW	16:51:06	2052.52	Sample	OK	1
SEQ-CCVA	C8	1	8.93	5.60		86681-1.RAW	16:55:14	803.71	Sample	OK	1
SEQ-CCBA	C9	1	8.93	0.13		86682-1.RAW	16:59:23	26.82	Sample	OK	1

8B14016

PEER-REVIEWED



Instrument: Hg2600-3

Calibration ID: UNASSIGNED

INITIALS: R 2/4/18

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14016-IBL1 ✓	QC	1			
8B14016-IBL2 ✓	QC	2			
8B14016-IBL3 ✓	QC	3			
8B14016-CAL1 ✓	QC	4	1800804		
8B14016-CAL2 ✓	QC	5	1800805		
8B14016-CAL3 ✓	QC	6	1800806		
8B14016-CAL4 ✓	QC	7	1800807		
8B14016-CAL5 ✓	QC	8	1800808		
8B14016-ICV1 ✓	QC	9	1707379		
F801415-BLK1 ✓	QC	10			
F801415-BLK2 ✓	QC	11			
F801415-BLK3 ✓	QC	12			
F801415-BS1 ✓	QC	13			
F801415-BSD1 ✓	QC	14			
8A00624-01 ✓	Hg-CVAFS-S-AR	15			
8A00624-02 ✓	Hg-CVAFS-S-AR	16			
8A00624-03 ✓	Hg-CVAFS-S-AR	17			
8A00624-04 ✓	Hg-CVAFS-S-AR	18			
8A00624-05 ✓	Hg-CVAFS-S-AR	19			
8B14016-CCV1 ✓	QC	20	1707379		
8B14016-CCB1 ✓	QC	21			
8A00624-06 ✓	Hg-CVAFS-S-AR	22			
8A00624-07 ✓	Hg-CVAFS-S-AR	23			
8A00624-08 ✓	Hg-CVAFS-S-AR	24			
8A00624-09 ✓	Hg-CVAFS-S-AR	25			
8A00624-10 ✓	Hg-CVAFS-S-AR	26			
8A00624-11 ✓	Hg-CVAFS-S-AR	27			
8A00624-12 ✓	Hg-CVAFS-S-AR	28			
8A00624-13 ✓	Hg-CVAFS-S-AR	29			
8A00624-14 ✓	Hg-CVAFS-S-AR	30			
8A00624-15 ✓	Hg-CVAFS-S-AR	31			
8B14016-CCV2 ✓	QC	32	1707379		
8B14016-CCB2 ✓	QC	33			
8A00624-16 ✓	Hg-CVAFS-S-AR	34			
8A00624-17 ✓	Hg-CVAFS-S-AR	35			

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8A00624-18 ✓	Hg-CVAFS-S-AR	36			
8A00624-19 ✓	Hg-CVAFS-S-AR	37			
8A00624-20 ✓	Hg-CVAFS-S-AR	38			
8A00624-03RE1 ✓	Hg-CVAFS-S-AR	39			Added 2/14/2018 by BC
8A00624-04RE1 ✓	Hg-CVAFS-S-AR	40			Added 2/14/2018 by BC
8A00624-05RE1 ✓	Hg-CVAFS-S-AR	41			Added 2/14/2018 by BC
8A00624-06RE1 ✓	Hg-CVAFS-S-AR	42			Added 2/14/2018 by BC
8A00624-07RE1 ✓	Hg-CVAFS-S-AR	43			Added 2/14/2018 by BC
8B14016-CCV3 ✓	QC	44	1707379	✓	
8B14016-CCB3 ✓	QC	45			
8A00624-08RE1 ✓	Hg-CVAFS-S-AR	46			Added 2/14/2018 by BC
F801415-DUP1 ✓	QC	47			
F801415-MS1 ✓	QC	48			
F801415-MSD1 ✓	QC	49			
F801415-MS2 ✓	QC	50			
F801415-MSD2 ✓	QC	51			
8B14016-CCV4 ✓	QC	52	1707379	✓	
8B14016-CCB4 ✓	QC	53			
8B14016-CCV5 ✓	QC	54	1707379	✓	
8B14016-CCB5 ✓	QC	55			
8B14016-CCV6 ✓	QC	56	1707379	✓	
8B14016-CCB6 ✓	QC	57			
F802223-BLK1 ✓	QC	58			
F802223-BLK2 ✓	QC	59			
F802223-BLK3 ✓	QC	60			
F802223-BS1 ✓	QC	61			
8B14016-CCV7 ✓	QC	62	1707379	✓	
8B14016-CCB7 ✓	QC	63			
F802223-BSD1 ✓	QC	64			
8A00935-01 ✓	Hg-CVAFS-S-AR	65			
8B00078-01 ✓	Hg-CVAFS-S-AR	66			
8B00222-01 ✓	Hg-CVAFS-S-AR	67			
8B00078-01RE1 ✓	Hg-CVAFS-S-AR	68			Added 2/14/2018 by BC
8B00222-01RE1 ✓	Hg-CVAFS-S-AR	69			Added 2/14/2018 by BC
F802223-DUP1 ✓	QC	70			

Due Date: 2/26/2018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F802223-MS1 ✓	QC	71			
F802223-MSD1 ✓	QC	72			
8B14016-CCV8 ✓	QC	73	1707379	✓	
8B14016-CCB8 ✓	QC	74			
F802223-DUP2 ✓	QC	75			
F802223-MS2 ✓	QC	76			
F802223-MSD2 ✓	QC	77			
8B14016-CCV9 ✓	QC	78	1707379	✓	
8B14016-CCB9 ✓	QC	79			
F802223-MS3 ✓	QC	80			
F802223-MSD3 ✓	QC	81		✓	
8B14016-CCVA ✓	QC	82	1707379		
8B14016-CCBA ✓	QC	83			

Becis 2/14/18  
Samples Loaded By Date

Becis 2/14/18  
Data Processed By Date



**PREPARATION BENCH SHEET**

F801415

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/6/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F801415-BLK1	Blank	0.5	40					
F801415-BLK2	Blank	0.5	40					
F801415-BLK3	Blank	0.5	40					
F801415-BS1	LCS	0.5	40	1800233	40			
F801415-BSD1	LCS Dup	0.5	40	1800233	40			
F801415-DUP1	Duplicate [8A00624-01]	0.51	40					
F801415-MS1	Matrix Spike [8A00624-01]	0.553	40	1705554	200			
F801415-MS2	Matrix Spike [8A00624-02]	0.527	40	1705554	200			
F801415-MSD1	Matrix Spike Dup [8A00624-01]	0.542	40	1705554	200			
F801415-MSD2	Matrix Spike Dup [8A00624-02]	0.546	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>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707258	Omnitrace Hydrochloric Acid	13-Dec-20 00:00
			1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1707441	Boiling Chips for AFS prep	21-Dec-18 00:00
			1800211	Fisher Nitric Acid, Tracemetal Grade	04-Aug-19 00:00
			1800612	5% BrCl	18-Jun-18 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800707	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F801415

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/6/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00624-01	OCE-11-9	0.536	40	-	-	-		
8A00624-02	OCE-11-10	0.506	40	-	-	-		
8A00624-03	OCE-11-11	0.566	40	-	-	-		
8A00624-03RE1	OCE-11-11	0.566	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-04	OCE-11-12	0.562	40	-	-	-		
8A00624-04RE1	OCE-11-12	0.562	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-05	OCE-11-13	0.548	40	-	-	-		
8A00624-05RE1	OCE-11-13	0.548	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-06	OCE-11-14	0.517	40	-	-	-		
8A00624-06RE1	OCE-11-14	0.517	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-07	OCE-11-15	0.531	40	-	-	-		
8A00624-07RE1	OCE-11-15	0.531	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-08	OCE-13-1	0.566	40	-	-	-		
8A00624-08RE1	OCE-13-1	0.566	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8A00624-09	OCE-13-2	0.524	40	-	-	-		
8A00624-10	OCE-13-3	0.521	40	-	-	-		
8A00624-11	OCE-13-4	0.528	40	-	-	-		
8A00624-12	OCE-13-5	0.523	40	-	-	-		
8A00624-13	OCE-13-6	0.54	40	-	-	-		

Due Date: 2/28/2018



PREPARATION BENCH SHEET

F801415

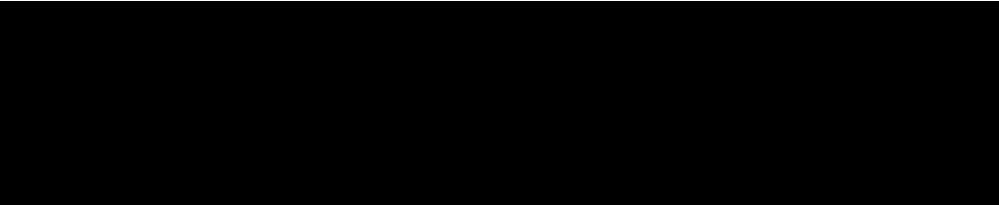
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

8A00624-14	OCE-13-7	0.536	40	-	-	-		
8A00624-15	OCE-13-8	0.539	40	-	-	-		
8A00624-16	OCE-13-9	0.544	40	-	-	-		
8A00624-17	OCE-13-10	0.522	40	-	-	-		
8A00624-18	OCE-13-11	0.547	40	-	-	-		
8A00624-19	OCE-13-12	0.56	40	-	-	-		
8A00624-20	OCE-13-13	0.507	40	-	-	-		



PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F801415

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F801415-BLK1	Blank	0.5	40					20x
F801415-BLK2	Blank	0.5	40					20x
F801415-BLK3	Blank	0.5	40					20x
F801415-BS1	LCS	0.5	40	1800233	40			20x
F801415-BSD1	LCS Dup	0.5	40	1800233	40			20x
F801415-DUP1	Duplicate [8A00624-01]	0.51	40					250x
F801415-MS1	Matrix Spike [8A00624-01]	0.553	40	1705554	200			400x
F801415-MS2	Matrix Spike [8A00624-02]	0.527	40	1705554	200			400x
F801415-MSD1	Matrix Spike Dup [8A00624-01]	0.542	40	1705554	200			400x
F801415-MSD2	Matrix Spike Dup [8A00624-02]	0.546	40	1705554	200			400x

Standard ID(s):  
1705554  
1800233

Description:  
THg 1,000ng/mL Secondary Spiking Standard  
THg 100ng/mL Primary Spiking Standard

Expiration:  
18-Mar-18 00:00  
11-Feb-18 00:00

Reagent ID(s):  
1707258  
1707441  
1800211  
1800612  
1800707

Description:  
Omnitrace Hydrochloric Acid  
Boiling Chips for AFS prep  
Fisher Nitric Acid, Tracemetal Grade  
5% BrCl

Expiration:  
13-Dec-20 00:00  
21-Dec-18 00:00  
04-Aug-19 00:00  
18-Jun-18 00:00

1706821  
1707390  
1707389  
1800780

PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F801415

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00624-01	OCE-11-9	0.536	40	-	-	-	250x	
8A00624-02	OCE-11-10	0.506	40	-	-	-	250x	
8A00624-03	OCE-11-11	0.566	40	-	-	-	250x → 1000x	
8A00624-04	OCE-11-12	0.562	40	-	-	-	250x → 1000x	
8A00624-05	OCE-11-13	0.548	40	-	-	-	250x → 1000x	
8A00624-06	OCE-11-14	0.517	40	-	-	-	250x → 1000x	
8A00624-07	OCE-11-15	0.531	40	-	-	-	250x → 1000x	
8A00624-08	OCE-13-1	0.566	40	-	-	-	250x → 250x	
8A00624-09	OCE-13-2	0.524	40	-	-	-	250x	
8A00624-10	OCE-13-3	0.521	40	-	-	-	250x	
8A00624-11	OCE-13-4	0.528	40	-	-	-	250x	
8A00624-12	OCE-13-5	0.523	40	-	-	-	250x	
8A00624-13	OCE-13-6	0.54	40	-	-	-	250x	
8A00624-14	OCE-13-7	0.536	40	-	-	-	250x	
8A00624-15	OCE-13-8	0.539	40	-	-	-	250x	
8A00624-16	OCE-13-9	0.544	40	-	-	-	250x	
8A00624-17	OCE-13-10	0.522	40	-	-	-	250x	
8A00624-18	OCE-13-11	0.547	40	-	-	-	250x	
8A00624-19	OCE-13-12	0.56	40	-	-	-	250x	

Due Date: 2/28/2018

PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F801415

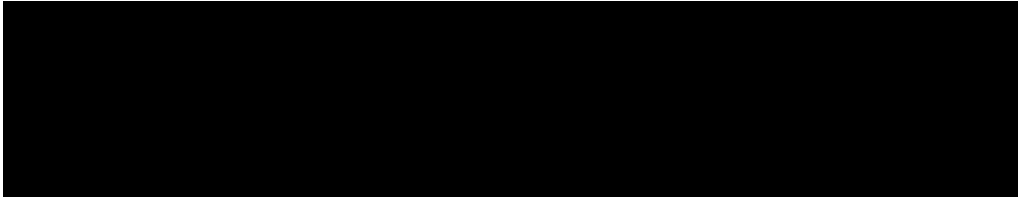
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/6/2018

8A00624-20	OCE-13-13	0.507	40	-	-	-	250X	
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Technician: WF Batch#: F801415 Date: 2/6/18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 \*Time in: 18:00 Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: 18:00 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: 18006(2, 18006)) Spike vol.: 200 µL (LIMS ID: 1705554)  
 Spike Witness: AMB 2/6/18 (initial and date)

HCl LIMS ID: 1707298 Pipette SN#: MUMBA Calibration Date: 2/4/18  
 HNO<sub>3</sub> LIMS ID: 180024 Pipette SN#: MU00610 Calibration Date: 2/4/18  
 70/30 LIMS ID: \_\_\_\_\_ Dispenser #: 09N45351 Calibrated?  Yes  No  
 Other Acid LIMS ID: \_\_\_\_\_ Dispenser #: 1940623  
 Glass Vial # 00064 Boiling Chip lot # 1707441 \*Hotblock Position: 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	F801415 - BLU1	0.518	23	8A00624 - 13	0.540	/
2	F801415 - BLU2	0.594	24	8A00624 - 14	0.536	/
3	F801415 - BLU3	0.529	25	8A00624 - 15	0.539	/
4	F801415 - BLU1	0.529	26	8A00624 - 16	0.544	/
5	F801415 - BSD1	0.520	27	8A00624 - 17	0.522	/
6	8A00624 - 01	0.536	28	8A00624 - 18	0.547	/
7	F801415 - DUPI	0.510	29	8A00624 - 19	0.560	/
8	F801415 - MS1	0.553	30	8A00624 - 20	0.507	/
9	F801415 - MSD1	0.542	31			/
10	F801415 8A00624 - 02	0.506	32			/
11	F801415 - MS2	0.527	33			/
12	F801415 - MSD2	0.546	34			/
13	8A00624 - 03	0.566	35			/
14	8A00624 - 04	0.562	36			/
15	8A00624 - 05	0.548	37			/
16	8A00624 - 06	0.517	38			/
17	8A00624 - 07	0.531	39			/
18	8A00624 - 08	0.566	40			/
19	8A00624 - 09	0.524	41			/
20	8A00624 - 10	0.521	42			/
21	8A00624 - 11	0.528	43			/
22	8A00624 - 12	0.523	44			/

Comments  
 DUPI/MS1/MSD1  
 source 2 8A00624-01  
 MS2/MSD2  
 source 2 8A00624-02  
 BS/BSD  
 Spiked of 40 µL  
 of 180233  
 WF 2/6/18

**PREPARATION BENCH SHEET**

F802223

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802223-BLK1	Blank	0.5	40					
F802223-BLK2	Blank	0.5	40					
F802223-BLK3	Blank	0.5	40					
F802223-BS1	Blank Spike	0.5	40	1800233	40			
F802223-BSD1	Blank Spike	0.5	40	1800233	40			
F802223-DUP1	Duplicate [8B00222-01RE1]	0.5659	40					
F802223-DUP2	Duplicate [8B00222-01RE1]	0.5385	40					
F802223-MS1	Matrix Spike [8B00222-01RE1]	0.5839	40	1705554	200			
F802223-MS2	Matrix Spike [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL
F802223-MS3	Matrix Spike [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL
F802223-MSD1	Matrix Spike Dup [8B00222-01RE1]	0.5633	40	1705554	200			
F802223-MSD2	Matrix Spike Dup [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL
F802223-MSD3	Matrix Spike Dup [8B00222-01RE1]	0.00026925	0.02	1800714	50			[Spk] 0.5385g->40mL; 40mL->40mL; Spiked 0.02mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800714	THg 10ng/mL Calibration Standard	07-May-18 00:00	1707258	Omnitrace Hydrochloric Acid	13-Dec-20 00:00
			1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800211	Fisher Nitric Acid, Tracemetal Grade	04-Aug-19 00:00
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

**PREPARATION BENCH SHEET**

F802223

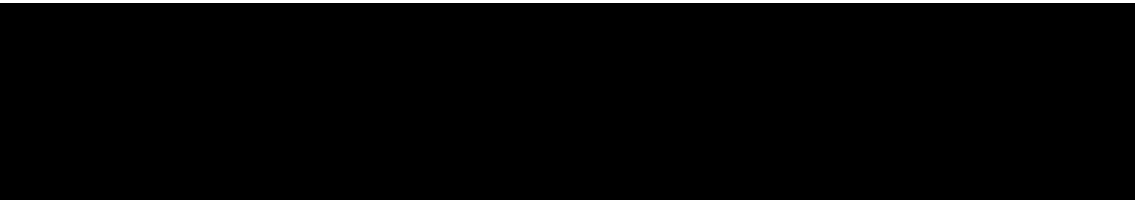
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00935-01	Metals (PT-MET-SOIL) Lot # 7071-04	0.5229	40	-	-	-		
8B00078-01	LS-450-02012018	0.536	40	-	-	-		
8B00078-01RE1	LS-450-02012018	0.536	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC
8B00222-01	TOC-750-02052018	0.5385	40	-	-	-		
8B00222-01RE1	TOC-750-02052018	0.5385	40	-	-	-	Added 2/14/2018 by BC	Added 2/14/2018 by BC



PREPARATION BENCH SHEET

2100-3  
 BL 2/14/18

F802223

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/9/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802223-BLK1	Blank	0.5	40					20X
F802223-BLK2	Blank	0.5	40					20X
F802223-BLK3	Blank	0.5	40					20X
F802223-BS1	Blank Spike	0.5	40	1800233	40			20X
F802223-BSD1	Blank Spike	0.5	40	1800233	40			20X
F802223-DUP1	Duplicate [8B00222-01] RE1	0.5659	40					400X
F802223-MS1	Matrix Spike [8B00222-01] RE1	0.5839	40	1705554	200			400X
F802223-MSD1	Matrix Spike Dup [8B00222-01] RE1	0.5633	40	1705554	200			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707258	Omnitrace Hydrochloric Acid	13-Dec-20 00:00
			1800211	Fisher Nitric Acid, Tracemetal Grade	04-Aug-19 00:00
			1800770	5% BrCl	18-Jun-18 00:00

MS2, MSD2 - AS, ASD

250X 8B00222-01RE1

5041 1800714

DUP2. AD

400X 8B00222-01RE1

MS3, MSD3 2-run of MS2, MSD2

1706821

1707390

1707384

1800680

Due Date: 2/26/2018



PREPARATION BENCH SHEET

2600-3  
BC 2/14/18

F802223

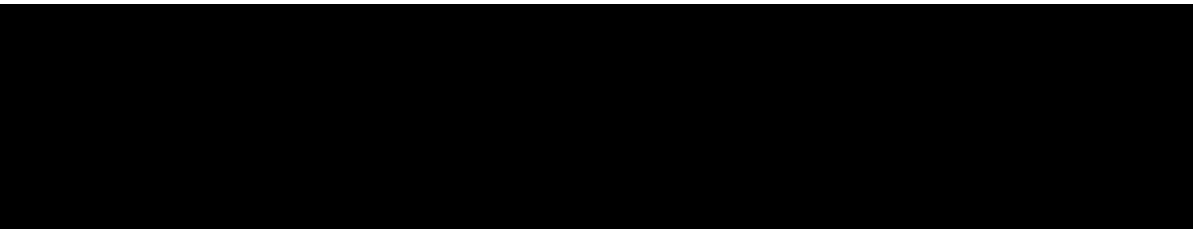
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 2/9/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8A00935-01	Metals (PT-MET-SOIL) Lot # 7071-04	0.5229	40	-	-	-	2500x	
8B00078-01	LS-450-02012018	0.536	40	-	-	-	100x → 20x	
8B00222-01	TOC-750-02052018	0.5385	40	-	-	-	100x → 20x 400x	



Technician: Dwyer Batch#: F802223 Date: 2-9-18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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.#: 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: 1800770) Spike vol.: 200 µL (LIMS ID: 1705554)  
 Spike Witness: Cue 2/9/18 (initial and date)

HCl LIMS ID: 1707258 Pipette SN#: 0667852 Calibration Date: 2-9-18  
 HNO<sub>3</sub> LIMS ID: 1800211 Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: N/A Dispenser #: 09N45351 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 09N52463  Yes 15406623  Yes  
 Glass Vial # 00068952 Boiling Chip lot # 1801800500 \*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"/> NA
1	F802223 BK1	0.5214	23			
2	F802223 BK2	0.5162	24			
3	F802223 BK3	0.5036	25			
4	F802223 BS1	0.5111	26			
5	F802223 BS01	0.5003	27		2-9-18	F802223
6	8A00935-01A	0.5229	28		12/8	MD, MS1, MS01
7	8B00078-01A	0.5360	29			8B00222-01
8	8B00222-01A	0.5385	30			
9	F802223-MD	0.5659	31			F802223
10	F802223-MS1	0.5839	32			BS1, BS01
11	F802223 MS01	0.5633	33			= 40ul spike
12			34			of 100 ug/L
13			35			1800223
14			36			2-9-18 5/8
15		DH 2-9-18	37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

## ANALYSIS SEQUENCE

QUALITY ASSURANCE

8B14017

PEER-REVIEWED

Instrument: Hg2600-3



Calibration ID: UNASSIGNED

INITIALS:

R 2/14/18

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B14017-IBL1 ✓	QC	1			
8B14017-IBL2 ✓	QC	2			
8B14017-IBL3 ✓	QC	3			
8B14017-CAL1 ✓	QC	4	1800804 ✓		
8B14017-CAL2 ✓	QC	5	1800805 ✓		
8B14017-CAL3 ✓	QC	6	1800806 ✓		
8B14017-CAL4 ✓	QC	7	1800807 ✓		
8B14017-CAL5 ✓	QC	8	1800808 ✓		
8B14017-ICV1 ✓	QC	9	1707379 ✓		
8B14017-CCV1 ✓	QC	10	1707379 ✓		
8B14017-CCB1 ✓	QC	11			
8B14017-CCV2 ✓	QC	12	1707379 ✓		
8B14017-CCB2 ✓	QC	13			
8B14017-CCV3 ✓	QC	14	1707379 ✓		
8B14017-CCB3 ✓	QC	15			
F802193-BLK1 ✓	QC	16			
F802193-BLK2 ✓	QC	17			
F802193-BLK3 ✓	QC	18			
F802193-BS1 ✓	QC	19			
8B14017-CCV4 ✓	QC	20	1707379 ✓		
8B14017-CCB4 ✓	QC	21			
F802193-BSD1 ✓	QC	22			
F802193-BS2 ✓	QC	23			
8B00080-05 ✓	Hg-CVAFS-T-7030	24			
8B00080-06 ✓	Hg-CVAFS-T-7030	25			
8B00080-07 ✓	Hg-CVAFS-T-7030	26			
8B00080-08 ✓	Hg-CVAFS-T-7030	27			
8B00080-09 ✓	Hg-CVAFS-T-7030	28			
8B00080-10 ✓	Hg-CVAFS-T-7030	29			
8B00080-11 ✓	Hg-CVAFS-T-7030	30			
8B00080-12 ✓	Hg-CVAFS-T-7030	31			
8B14017-CCV5 ✓	QC	32	1707379 ✓		
8B14017-CCB5 ✓	QC	33			
8B00080-13 ✓	Hg-CVAFS-T-7030	34			
8B00080-14 ✓	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2018

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
8B00080-15 ✓	Hg-CVAFS-T-7030	36			
8B00082-01 ✓	Hg-CVAFS-T-7030	37			
8B00082-02 ✓	Hg-CVAFS-T-7030	38			
8B00082-03 ✓	Hg-CVAFS-T-7030	39			
8B00082-04 ✓	Hg-CVAFS-T-7030	40			
8B00082-05 ✓	Hg-CVAFS-T-7030	41			
8B00082-06 ✓	Hg-CVAFS-T-7030	42			
8B00082-07 ✓	Hg-CVAFS-T-7030	43			
8B14017-CCV6 ✓	QC	44	1707379 ✓		
8B14017-CCB6 ✓	QC	45			
8B00082-08 ✓	Hg-CVAFS-T-7030	46			
F802193-DUP1 ✓	QC	47			
F802193-MS1 ✓	QC	48			
F802193-MSD1 ✓	QC	49			
F802193-MS2 ✓	QC	50			
F802193-MSD2 ✓	QC	51			
8B14017-CCV7 ✓	QC	52	1707379 ✓		
8B14017-CCB7 ✓	QC	53			

Beckis 2/14/18  
Samples Loaded By Date

Beckis 2/14/18  
Data Processed By Date

# Failing Data Report - 8B14017

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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Analyst Reviewed By          Date 2/14/18

Peer Reviewed By          Date 2/14/18

**PREPARATION BENCH SHEET**

F802193

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802193-BLK1	Blank	0.25	20					
F802193-BLK2	Blank	0.25	20					
F802193-BLK3	Blank	0.25	20					
F802193-BS1	LCS	0.25	20	1800233	20			
F802193-BS2	DORM4	0.1259	20	1703305	125.9			
F802193-BSD1	LCS Dup	0.25	20	1800233	20			
F802193-DUP1	Duplicate [8B00082-02]	0.0407	20					
F802193-MS1	Matrix Spike [8B00082-03]	0.0376	20	1705554	100			
F802193-MS2	Matrix Spike [8B00082-07]	0.0581	20	1705554	100			
F802193-MSD1	Matrix Spike Dup [8B00082-03]	0.0545	20	1705554	100			
F802193-MSD2	Matrix Spike Dup [8B00082-07]	0.059	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1706821	25% Hydroxylamine-HCl working solution	19-May-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1707389	THg Dilute 1% BrCl	29-Apr-18 00:00
			1707390	THg Washstation (0.5% BrCl)	
			1800680	3% SnCl2 THg reductant	18-Jul-18 00:00
			1800748	70/30 Digestion Acid	07-Aug-18 00:00
			1800770	5% BrCl	18-Jun-18 00:00

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**Prepared: 2/9/2018**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00080-05	MMBKD-01_18WT001_013018_ABD_05_BL	0.1085	20	-	-	-		
8B00080-06	MMBKD-01_18WT001_013018_ABD_06_BL	0.0907	20	-	-	-		
8B00080-07	MMBKD-01_18WT001_013018_ABD_07_BL	0.122	20	-	-	-		
8B00080-08	MMBKD-01_18WT001_013018_ABD_08_BL	0.0763	20	-	-	-		
8B00080-09	MMBKD-01_18WT001_013018_ABD_09_BL	0.1497	20	-	-	-		
8B00080-10	MMBKD-01_18WT001_013018_ABD_10_BL	0.1449	20	-	-	-		
8B00080-11	MMBKD-01_18WT001_013018_ABD_11_BL	0.158	20	-	-	-		
8B00080-12	MMBKD-01_18WT001_013018_ABD_12_BL	0.066	20	-	-	-		
8B00080-13	MMBKD-01_18WT001_013018_ABD_13_BL	0.1358	20	-	-	-		
8B00080-14	MMBKD-01_18WT001_013018_ABD_14_BL	0.111	20	-	-	-		
8B00080-15	MMBKD-01_18WT001_013018_ABD_15_BL	0.1015	20	-	-	-		
8B00082-01	ES-13_18WT001_012918_ABD_01_BL	0.1101	20	-	-	-		
8B00082-02	ES-13_18WT001_012918_ABD_02_BL	0.0711	20	-	-	-		
8B00082-03	ES-13_18WT001_012918_ABD_03_BL	0.1204	20	QC	-	-	MS/MSD	
8B00082-04	ES-13_18WT001_012918_ABD_04_BL	0.1589	20	-	-	-		
8B00082-05	ES-13_18WT001_012918_ABD_05_BL	0.1712	20	-	-	-		
8B00082-06	ES-13_18WT001_012918_ABD_06_BL	0.1508	20	-	-	-		
8B00082-07	ES-13_18WT001_012918_ABD_07_BL	0.1161	20	-	-	-		
8B00082-08	ES-13_18WT001_013018_ABD_08_BL	0.1794	20	-	-	-		

**PREPARATION BENCH SHEET**

F802193

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/9/2018**

**Due Date: 3/2/2018**



PREPARATION BENCH SHEET

2600-3  
BC 2/13/18

F802193

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/9/2018

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F802193-BLK1	Blank	0.25	20					20X
F802193-BLK2	Blank	0.25	20					20X
F802193-BLK3	Blank	0.25	20					20X
F802193-BS1	LCS	0.25	20	1800233	20			20X
F802193-BS2	DORM4	0.1259	20	1703305	125.9			400X
F802193-BSD1	LCS Dup	0.25	20	1800233	20			20X
F802193-DUP1	Duplicate [8B00082-02]	0.0407	20					100X
F802193-MS1	Matrix Spike [8B00082-03]	0.0376	20	1705554	100			400X
F802193-MS2	Matrix Spike [8B00082-07]	0.0581	20	1705554	100			400X
F802193-MSD1	Matrix Spike Dup [8B00082-03]	0.0545	20	1705554	100			400X
F802193-MSD2	Matrix Spike Dup [8B00082-07]	0.059	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>
1703305	DORM-4	29-May-20 00:00	1706716	Boiling Chips for AFS prep	13-May-18 00:00
1705554	THg 1,000ng/mL Secondary Spiking Standard	18-Mar-18 00:00	1800748	70/30 Digestion Acid	07-Aug-18 00:00
1800233	THg 100ng/mL Primary Spiking Standard	11-Feb-18 00:00	1800770	5% BrCl	18-Jun-18 00:00

1706821  
1707390  
1707389  
1800680

PREPARATION BENCH SHEET

F802193

Eurofins Frontier Global Sciences, Inc.

26000-3  
BL 2/13/18

Matrix: Tissue

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

Prepared: 2/9/2018

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
8B00080-05	MMBKD-01_18WT001_013018_ABD_05_BL	0.1085	20	-	-	-	100x -	
8B00080-06	MMBKD-01_18WT001_013018_ABD_06_BL	0.0907	20	-	-	-	100x -	
8B00080-07	MMBKD-01_18WT001_013018_ABD_07_BL	0.122	20	-	-	-	100x -	
8B00080-08	MMBKD-01_18WT001_013018_ABD_08_BL	0.0763	20	-	-	-	100x -	
8B00080-09	MMBKD-01_18WT001_013018_ABD_09_BL	0.1497	20	-	-	-	100x -	
8B00080-10	MMBKD-01_18WT001_013018_ABD_10_BL	0.1449	20	-	-	-	100x -	
8B00080-11	MMBKD-01_18WT001_013018_ABD_11_BL	0.158	20	-	-	-	100x -	
8B00080-12	MMBKD-01_18WT001_013018_ABD_12_BL	0.066	20	-	-	-	100x -	
8B00080-13	MMBKD-01_18WT001_013018_ABD_13_BL	0.1358	20	-	-	-	100x -	
8B00080-14	MMBKD-01_18WT001_013018_ABD_14_BL	0.111	20	-	-	-	100x -	
8B00080-15	MMBKD-01_18WT001_013018_ABD_15_BL	0.1015	20	-	-	-	100x -	
8B00082-01	ES-13_18WT001_012918_ABD_01_BL	0.1101	20	-	-	-	100x -	
8B00082-02	ES-13_18WT001_012918_ABD_02_BL	0.0711	20	-	-	-	100x -	
8B00082-03	ES-13_18WT001_012918_ABD_03_BL	0.1204	20	QC	-	-	MS/MSD 100x -	
8B00082-04	ES-13_18WT001_012918_ABD_04_BL	0.1589	20	-	-	-	100x -	
8B00082-05	ES-13_18WT001_012918_ABD_05_BL	0.1712	20	-	-	-	100x -	
8B00082-06	ES-13_18WT001_012918_ABD_06_BL	0.1508	20	-	-	-	100x -	
8B00082-07	ES-13_18WT001_012918_ABD_07_BL	0.1161	20	-	-	-	100x -	
8B00082-08	ES-13_18WT001_013018_ABD_08_BL	0.1794	20	-	-	-	100x -	

PREPARATION BENCH SHEET

F802193

Eurofins Frontier Global Sciences, Inc.

2600-3  
BC 2/13/18

Matrix: Tissue

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

Prepared: 2/9/2018



Technician: Duyen Batch#: F802193 Date: 2/9/18

- 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/CH<sub>2</sub>Cl<sub>2</sub>: 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: 12:40 Actual Temp. (raw): 75.0 °C w/ CF: 75.8 °C  
 Time out: 14:40 Actual Temp. (raw): 78.0 °C w/ CF: 78.8 °C

\*Time in can't begin before target temperature is reached  
 Final vol.: 20 mL (LIMS ID: 1800770) Spike vol.: 20 µL (LIMS ID: 1800233)  
 Spike Witness: PL 2/9/18 (initial and date)

HCl LIMS ID: WNA Pipette SN#: 0U07852 Calibration Date: 2-9-18  
 HNO<sub>3</sub> LIMS ID: WNA Pipette SN#: WNA Calibration Date: WNA  
 70/30 LIMS ID: 1800748 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: WNA Dispenser #: 15406623 IV yes  
 Glass Vial # 00068124 Boiling Chip lot # 1706716 \*Hotblock Position: J, 3

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	F802193 BK1	0.2532	23	PB00082-04	0.1589	BS2=DORM-4
2	F802193 BK2	0.2511	24	PB00082-05	0.1712	1703305
3	F802193 BK3	0.2873	25	PB00082-06	0.1508	
4	F802193 BS1	0.2643	26	PB00082-07	0.1161	Comments
5	F802193 BS01	0.2855	27	PB00082-08	0.1794	F802193
6	F802193 BS2	0.1259	28	F802193-MD	0.0407	MS1 MS01
7	PB00080-05A	0.1085	29	F802193-MS2	0.0581	PB00082-03
8	PB00080-06A	0.0907	30	F802193-MS02	0.0590	F802193
9	PB00080-07A	0.1220	31			MD
10	PB00080-08A	0.0763	32			PB00082-02
11	PB00080-09A	0.0487	33			F802193
12	PB00080-10A	0.1449	34			MS2 MS02
13	PB00080-11A	0.1580	35			PB00082-07
14	PB00080-12A	0.0660	36			ALL MS1/MS0
15	PB00080-13A	0.1358	37			Spike w 100ul
16	PB00080-14A	0.1110	38			1000ng/mL
17	PB00080-15A	0.1015	39			1705554
18	PB00082-01A	0.1101	40			PB00080-09
19	PB00082-02A	0.0711	41			= 0.1497(g)
20	PB00082-03A	0.1204	42			PB00082-06
21	F802193-MS1	0.0376	43			= 0.1508(g)
22	F802193 MS01	0.0545	44			PB00082-MS2



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

<b>Analyst:</b>	BC	<b>Sequence(s) #:</b>	8B14016, 8B14017
<b>Reviewer:</b>	0 <i>A 2/14/18</i>	<b>Dataset ID(s):</b>	THg26003-180213-1
<b>Date:</b>	2/14/2018	<b>WO (s) #:</b>	Various
<b>Batch #(s):</b>	F801415, F802193, F802223		0

**Analyst Initials** BC                      **Reviewer Initials** A

- 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: Batch F802223 will be redigested due to possible sample switch, Samples 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)**

<b>Analyst:</b> BC	<b>Sequence(s) #:</b> 8B14016, 8B14017
<b>Reviewer:</b> 0 <i>R 2/14/18</i>	<b>Dataset ID(s):</b> THg26003-180213-1
<b>Date:</b> 2/14/2018	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F801415, F802193, F802223	0

**Analyst Initials** BC **Reviewer Initials** 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 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 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 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 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 type="checkbox"/>            |
| <b>Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs</b>   |  |                               |   |
| 36. Date of analyst IDOC/CDOC: _____ 1/3/2018 _____ 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: _____ 12/21/2017 _____ LOD within last 3 months?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| 39. Date of LOQ: _____ 12/21/2017 _____ 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.**

