



Frontier Global Sciences

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14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-03_092716_BLM_WB_01	1610144-01	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_02	1610144-02	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_03	1610144-03	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_04	1610144-04	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_05	1610144-05	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_06	1610144-06	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_07	1610144-07	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_08	1610144-08	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_09	1610144-09	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_10	1610144-10	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_11	1610144-11	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_12	1610144-12	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_13	1610144-13	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_14	1610144-14	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_15	1610144-15	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_16	1610144-16	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_17	1610144-17	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_18	1610144-18	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_19	1610144-19	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-03_092716_BLM_WB_20	1610144-20	Tissue	27-Sep-16 13:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_01	1610144-21	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_02	1610144-22	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_03	1610144-23	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_04	1610144-24	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_05	1610144-25	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_06	1610144-26	Tissue	30-Sep-16 16:00	05-Oct-16 15:08

Eurofins Frontier Global Sciences, Inc.

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14-Jan-17 12:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_093016_BLM_WB_07	1610144-27	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_08	1610144-28	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_09	1610144-29	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_10	1610144-30	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_11	1610144-31	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_12	1610144-32	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_13	1610144-33	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_14	1610144-34	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_15	1610144-35	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_16	1610144-36	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_17	1610144-37	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_18	1610144-38	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_19	1610144-39	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-13_093016_BLM_WB_20	1610144-40	Tissue	30-Sep-16 16:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_01	1610144-41	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_02	1610144-42	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_03	1610144-43	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_04	1610144-44	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_05	1610144-45	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_06	1610144-46	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_07	1610144-47	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_08	1610144-48	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_09	1610144-49	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_10	1610144-50	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_11	1610144-51	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_12	1610144-52	Tissue	27-Sep-16 15:00	05-Oct-16 15:08

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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-15_092716_BLM_WB_13	1610144-53	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_14	1610144-54	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_15	1610144-55	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_16	1610144-56	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_17	1610144-57	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_18	1610144-58	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_19	1610144-59	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-15_092716_BLM_WB_20	1610144-60	Tissue	27-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_01	1610144-61	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_02	1610144-62	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_03	1610144-63	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_04	1610144-64	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_05	1610144-65	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_06	1610144-66	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_07	1610144-67	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_08	1610144-68	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_09	1610144-69	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_10	1610144-70	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_11	1610144-71	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_12	1610144-72	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_13	1610144-73	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_14	1610144-74	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_15	1610144-75	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_16	1610144-76	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_17	1610144-77	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_18	1610144-78	Tissue	26-Sep-16 15:00	05-Oct-16 15:08

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Amy Goodall, Project Manager



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Project Number: 3616166052  
Project Manager: Denise King

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**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-FP_092616_BLM_WB_19	1610144-79	Tissue	26-Sep-16 15:00	05-Oct-16 15:08
ES-FP_092616_BLM_WB_20	1610144-80	Tissue	26-Sep-16 15:00	05-Oct-16 15:08

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Amy Goodall, Project Manager

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Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
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14-Jan-17 12:41

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/20/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

The narrative was also updated to include a narrative about the client requested MS/MSD QC sources.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 3:08:00 PM. The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

## ANALYTICAL AND QUALITY CONTROL ISSUES

Client requested that samples 1610144-01, 1610144-21, 1610144-41, and 1610144-61 be used as the QC source for the MS/MSD. Samples were prepped in five batches. In batch F610465, samples 1610144-01 and 1610144-09 were used as the source QC for the MS/MSD. In batch F610466, samples 1610144-21 and 1610144-31 were used as the source QC for the MS/MSD. In batch F610467, samples 1610144-41 and 1610144-51 were used as the source QC for the MS/MSD. In batch F610468, samples 1610144-61 and 1610144-71 were used as the source QC for the MS/MSD. No samples from this work order were used as the source QC in the final batch, F610469.

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

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14-Jan-17 12:41

accuracy. All liquid spikes, CRMs and/or QCS samples fell within the established acceptance criteria with the exception of any items narrated above or flagged and described in the notes and definitions section of the report.

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

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

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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1610144

Client: AMC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 6/7/16 Labeled By: BSW

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

Received By: LSM

Label Verified By: CSJ

# of Coolers Received: 3 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>-5.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LSM</u>
Cooler 1: <u>-46 °C</u>	w/ CF: <u>-46.1 °C</u>	Cooler 4: <u>°C</u>	w/ CF: <u>°C</u>
Cooler 2: <u>-47 °C</u>	w/ CF: <u>-47.1 °C</u>	Cooler 5: <u>°C</u>	w/ CF: <u>°C</u>
Cooler 3: <u>-47 °C</u>	w/ CF: <u>-47.1 °C</u>	Cooler 6: <u>°C</u>	w/ CF: <u>°C</u>

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

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

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

1: 8756 4740 9231 2: 7842 6248 7980 3: 7842 6248 7991



1610144

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
441	9/26/2016	11:30	OB-05_092516_TOM_WB_14		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
442	9/25/2016	11:30	OB-05_092516_TOM_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
443	9/25/2016	11:00	OB-05_092516_TOM_WB_16		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
444	9/25/2016	10:00	OB-05_092516_TOM_WB_17		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
445	9/26/2016	10:05	OB-05_092616_TOM_WB_18		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
448	9/25/2016	9:05	OB-05_092516_TOM_WB_MS_		1						
				MS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
449	9/25/2016	9:05	OB-05_092516_TOM_WB_MD_		1						
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
472	9/27/2016	13:00	ES-03_092716_BLM_WB_01		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
473	9/27/2016	13:00	ES-03_092716_BLM_WB_02		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
474	9/27/2016	13:00	ES-03_092716_BLM_WB_03		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
475	9/27/2016	13:00	ES-03_092716_BLM_WB_04		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

WB-06  
#433

use for MS/MSD

10  
10

Homogenize w/ MS/MSD volume

Tuesday, October 04, 2016

Page 7 of 30

DYK  
10/6/16

Yes Seal  
-46.1°C, -47.1°C, -47.1°C

Fed EX 8756 4740 9231

Low Nut test  
LTPES  
10/5/16 9:30

1610144

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media</i>	<i>Method</i>	<i>Fraction</i>
476	9/27/2016	13:00	ES-03_092716_BLM_WB_05		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
477	9/27/2016	13:00	ES-03_092716_BLM_WB_06		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
478	9/27/2016	13:00	ES-03_092716_BLM_WB_07		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
479	9/27/2016	13:00	ES-03_092716_BLM_WB_08		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
480	9/27/2016	13:00	ES-03_092716_BLM_WB_09		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
481	9/27/2016	13:00	ES-03_092716_BLM_WB_10		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
482	9/27/2016	13:00	ES-03_092716_BLM_WB_11		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
483	9/27/2016	13:00	ES-03_092716_BLM_WB_12		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
484	9/27/2016	13:00	ES-03_092716_BLM_WB_13		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
485	9/27/2016	13:00	ES-03_092716_BLM_WB_14		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
486	9/27/2016	13:00	ES-03_092716_BLM_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 8 of 30

1610144

Stamp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
487	9/27/2016	13:00	ES-03_092716_BLM_WB_16	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
488	9/27/2016	13:00	ES-03_092716_BLM_WB_17	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
489	9/27/2016	13:00	ES-03_092716_BLM_WB_18	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
490	9/27/2016	13:00	ES-03_092716_BLM_WB_19	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
491	9/27/2016	13:00	ES-03_092716_BLM_WB_20	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
WB-01 472	492	9/27/2016	ES-03_092716_BLM_WB_MS__	MS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	493	9/27/2016	ES-03_092716_BLM_WB_MD__	MSD	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	494	9/30/2016	ES-13_093016_BLM_WB_01	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
			Use for MS/MSD							
495	9/30/2016	16:00	ES-13_093016_BLM_WB_02	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
496	9/30/2016	16:00	ES-13_093016_BLM_WB_03	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
497	9/30/2016	16:00	ES-13_093016_BLM_WB_04	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Homogenize w/ MS/MSD volume

Tuesday, October 04, 2016

Page 9 of 30

DMK  
10/6/16

1610144

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media</i>	<i>Method</i>	<i>Fraction</i>
498	9/30/2016	16:00	ES-13_093016_BLM_WB_05		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
499	9/30/2016	16:00	ES-13_093016_BLM_WB_06		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
500	9/30/2016	16:00	ES-13_093016_BLM_WB_07		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
501	9/30/2016	16:00	ES-13_093016_BLM_WB_08		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
502	9/30/2016	16:00	ES-13_093016_BLM_WB_09		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
503	9/30/2016	16:00	ES-13_093016_BLM_WB_10		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
504	9/30/2016	16:00	ES-13_093016_BLM_WB_11		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
505	9/30/2016	16:00	ES-13_093016_BLM_WB_12		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
506	9/30/2016	16:00	ES-13_093016_BLM_WB_13		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
507	9/30/2016	16:00	ES-13_093016_BLM_WB_14		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
508	9/30/2016	16:00	ES-13_093016_BLM_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 10 of 30

1610144

Sam #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
509	9/30/2016	16:00	ES-13_093016_BLM_VWB_16		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
510	9/30/2016	16:00	ES-13_093016_BLM_VWB_17		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
511	9/30/2016	16:00	ES-13_093016_BLM_VWB_18		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
512	9/30/2016	16:00	ES-13_093016_BLM_VWB_19		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
513	9/30/2016	16:00	ES-13_093016_BLM_VWB_20		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
WB-01 494	514	9/30/2016	16:00	ES-13_093016_BLM_VWB_MS__		1				
				MS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	515	9/27/2016	16:00	ES-13_092716_BLM_VWB_MD__		1				
				MSD		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	516	9/27/2016	15:00	ES-15_092716_BLM_VWB_01		1				
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	517	9/27/2016	15:00	ES-15_092716_BLM_VWB_02		1				
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	518	9/27/2016	15:00	ES-15_092716_BLM_VWB_03		1				
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	519	9/27/2016	15:00	ES-15_092716_BLM_VWB_04		1				
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 11 of 30

Homogenize  
w/ MS/MSD  
volume

D4K  
10/6/16

1610144

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media</i>	<i>Method</i>	<i>Fraction</i>
520	9/28/2016	15:00	ES-15_092716_BLM_WB_05		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
521	9/27/2016	15:00	ES-15_092716_BLM_WB_06		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
522	9/27/2016	15:00	ES-15_092716_BLM_WB_07		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
523	9/27/2016	15:00	ES-15_092716_BLM_WB_08		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
524	9/27/2016	15:00	ES-15_092716_BLM_WB_09		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
525	9/27/2016	15:00	ES-15_092716_BLM_WB_10		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
526	9/27/2016	15:00	ES-15_092716_BLM_WB_11		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
527	9/27/2016	15:00	ES-15_092716_BLM_WB_12		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
528	9/27/2016	15:00	ES-15_092716_BLM_WB_13		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
529	9/27/2016	15:00	ES-15_092716_BLM_WB_14		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
530	9/27/2016	15:00	ES-15_092716_BLM_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 12 of 30

1610144

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
531	9/27/2016	15:00	ES-15_092716_BLM_WB_16		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
532	9/27/2016	15:00	ES-15_092716_BLM_WB_17		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
533	9/27/2016	15:00	ES-15_092716_BLM_WB_18		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
534	9/27/2016	15:00	ES-15_092716_BLM_WB_19		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
535	9/27/2016	15:00	ES-15_092716_BLM_WB_20		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
				MS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
536	9/27/2016	15:00	ES-15_092716_BLM_WB_MS__		1						
				MS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
537	9/27/2016	15:00	ES-15_092716_BLM_WB_MD__		1						
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
538	9/26/2016	15:00	ES-FP_092616_BLM_WB_01		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
539	9/26/2016	15:00	ES-FP_092616_BLM_WB_02		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
540	9/26/2016	15:00	ES-FP_092616_BLM_WB_03		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
541	9/26/2016	15:00	ES-FP_092616_BLM_WB_04		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

WB\_01  
S14

[

Use for MS/MSD

Homogenize w/ MS/MSD volume

Tuesday, October 04, 2016

Page 13 of 30

DMK  
10/6/16

1610144

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media Method</i>	<i>Fraction</i>
542	9/26/2016	15:00	ES-FP_092616_BLM_WB_05		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
543	9/26/2016	15:00	ES-FP_092616_BLM_WB_06		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
544	9/26/2016	15:00	ES-FP_092616_BLM_WB_07		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
545	9/26/2016	15:00	ES-FP_092616_BLM_WB_08		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
546	9/26/2016	15:00	ES-FP_092616_BLM_WB_09		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
547	9/26/2016	15:00	ES-FP_092616_BLM_WB_10		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
548	9/26/2016	15:00	ES-FP_092616_BLM_WB_11		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
549	9/26/2016	15:00	ES-FP_092616_BLM_WB_12		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
550	9/26/2016	15:00	ES-FP_092616_BLM_WB_13		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
551	9/26/2016	15:00	ES-FP_092616_BLM_WB_14		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
552	9/26/2016	15:00	ES-FP_092616_BLM_WB_15		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 14 of 30



1610144

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
553	9/26/2016	15:00	ES-FP_092616_BLM_WB_16		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
554	9/26/2016	15:00	ES-FP_092616_BLM_WB_17		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
555	9/26/2016	15:00	ES-FP_092616_BLM_WB_18		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
556	9/26/2016	15:00	ES-FP_092616_BLM_WB_19		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
557	9/26/2016	15:00	ES-FP_092616_BLM_WB_20		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
558	9/26/2016	15:00	ES-FP_092616_BLM_WB_MS__		1						
				MS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
559	9/26/2016	15:00	ES-FP_092616_BLM_WB_MD__		1						
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
692	10/3/2016	10:35	BO-04_100316_MUM_WB_01		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
693	10/3/2016	10:35	BO-04_100316_MUM_WB_02		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
694	10/3/2016	10:35	BO-04_100316_MUM_WB_03		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
695	10/3/2016	10:35	BO-04_100316_MUM_WB_04		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

WB 01  
#538

use for MS/MSD

Homogenize w/ MS/MSD volume

Tuesday, October 04, 2016


Page 15 of 30

DMK  
10/6/16

1610144

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
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QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished:  IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16.00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FED EX TRACKING: 8756 47 40 923 1

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_01**  
**1610144-01**

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	80.4	2.20	19.6	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	
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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_02**  
**1610144-02**

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	57.8	2.19	19.5	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_03**  
**1610144-03**

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	60.4	2.11	18.9	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_04**  
**1610144-04**

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	77.7	2.13	19.1	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_05**  
**1610144-05**

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	81.9	2.16	19.3	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_06**  
**1610144-06**

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	118	2.19	19.6	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_07**  
**1610144-07**

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	71.4	2.23	19.9	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_08**  
**1610144-08**

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	69.0	2.20	19.6	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_09**  
**1610144-09**

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	107	2.08	18.5	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	<b>Reported:</b> 14-Jan-17 12:41
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**ES-03\_092716\_BLM\_WB\_10**  
**1610144-10**

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	71.0	2.24	20.0	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_11**  
**1610144-11**

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	61.1	2.18	19.5	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_12**  
**1610144-12**

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	77.3	2.22	19.8	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_13**  
**1610144-13**

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	81.4	2.18	19.4	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_14**  
**1610144-14**

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	51.0	2.23	19.9	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_15**  
**1610144-15**

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	116	2.10	18.7	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_16**  
**1610144-16**

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	138	2.24	20.0	ng/g	500	F610465	28-Oct-16	6K02012	01-Nov-16	EPA 1631B	

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AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_17**  
**1610144-17**

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	76.0	2.13	19.0	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_18**  
**1610144-18**

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	88.9	2.01	18.0	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_19**  
**1610144-19**

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	87.5	1.96	17.5	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-03\_092716\_BLM\_WB\_20**  
**1610144-20**

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	68.6	2.08	18.6	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_01**  
**1610144-21**

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	63.0	2.15	19.2	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_02**  
**1610144-22**

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	53.9	2.05	18.3	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_03**  
**1610144-23**

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	106	1.95	17.4	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_04**  
**1610144-24**

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	48.9	1.93	17.2	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_05**  
**1610144-25**

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	76.9	2.04	18.2	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_06**  
**1610144-26**

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	70.8	1.88	16.8	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_07**  
**1610144-27**

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	48.4	1.93	17.2	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_08**  
**1610144-28**

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	54.8	2.03	18.1	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_09**  
**1610144-29**

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	73.5	2.11	18.9	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_10**  
**1610144-30**

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	63.5	1.96	17.5	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_11**  
**1610144-31**

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	59.2	2.01	18.0	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_12**  
**1610144-32**

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	66.4	2.05	18.3	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_13**  
**1610144-33**

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	59.6	2.01	17.9	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_14**  
**1610144-34**

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	58.5	2.03	18.2	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_15**  
**1610144-35**

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	69.0	2.14	19.1	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_16**  
**1610144-36**

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	48.9	2.02	18.0	ng/g	500	F610466	31-Oct-16	6K01017	01-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_17**  
**1610144-37**

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	56.5	1.99	17.7	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_18**  
**1610144-38**

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	56.7	2.08	18.6	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_19**  
**1610144-39**

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	75.2	2.08	18.6	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-13\_093016\_BLM\_WB\_20**  
**1610144-40**

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	62.1	2.13	19.0	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_01**  
**1610144-41**

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	1.91	17.0	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_02**  
**1610144-42**

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	77.0	1.97	17.6	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_03**  
**1610144-43**

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	55.3	2.13	19.0	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_04**  
**1610144-44**

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	55.5	2.17	19.4	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_05**  
**1610144-45**

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	65.6	2.08	18.5	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_06**  
**1610144-46**

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	65.0	2.01	18.0	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_07**  
**1610144-47**

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	96.0	2.16	19.3	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_08**  
**1610144-48**

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	67.4	2.01	17.9	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_09**  
**1610144-49**

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	58.2	1.95	17.4	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_10**  
**1610144-50**

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	68.0	2.04	18.2	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_11**  
**1610144-51**

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	48.1	2.01	17.9	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_12**  
**1610144-52**

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	55.4	1.88	16.8	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_13**  
**1610144-53**

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	2.01	18.0	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_14**  
**1610144-54**

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	64.8	1.90	17.0	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_15**  
**1610144-55**

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	45.6	2.02	18.0	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_16**  
**1610144-56**

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	49.7	1.81	16.2	ng/g	500	F610467	01-Nov-16	6K03020	03-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_17**  
**1610144-57**

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	2.12	18.9	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_18**  
**1610144-58**

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	62.7	2.07	18.5	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_19**  
**1610144-59**

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	64.1	1.97	17.6	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-15\_092716\_BLM\_WB\_20**  
**1610144-60**

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	51.1	1.89	16.9	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_01**  
**1610144-61**

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	55.4	1.95	17.4	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_02**  
**1610144-62**

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	86.0	2.08	18.5	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_03**  
**1610144-63**

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	48.5	1.98	17.7	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_04**  
**1610144-64**

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	62.4	1.89	16.9	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_05**  
**1610144-65**

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	40.0	2.07	18.5	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_06**  
**1610144-66**

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	55.8	1.84	16.4	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_07**  
**1610144-67**

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	45.2	2.06	18.4	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_08**  
**1610144-68**

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	80.4	1.94	17.4	ng/g	500	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_09**  
**1610144-69**

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	111	0.380	3.39	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_10**  
**1610144-70**

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	74.1	0.418	3.74	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_11**  
**1610144-71**

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	79.3	0.406	3.62	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	<b>Reported:</b> 14-Jan-17 12:41
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**ES-FP\_092616\_BLM\_WB\_12**  
**1610144-72**

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	73.4	0.376	3.35	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_13**  
**1610144-73**

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	41.3	0.409	3.65	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_14**  
**1610144-74**

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	0.393	3.51	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_15**  
**1610144-75**

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	45.4	0.372	3.32	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_16**  
**1610144-76**

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	59.1	0.380	3.39	ng/g	100	F610468	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_17**  
**1610144-77**

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	63.7	0.424	3.79	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_18**  
**1610144-78**

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	64.3	0.390	3.48	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_19**  
**1610144-79**

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	55.7	0.389	3.47	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

**ES-FP\_092616\_BLM\_WB\_20**  
**1610144-80**

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	58.6	0.394	3.52	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K01017 - F610466</b>											
<b>Cal Standard (6K01017-CAL1)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.496	-		ng/L	0.50100		99.1				
<b>Cal Standard (6K01017-CAL2)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	1.020	-		ng/L	1.0020		102				
<b>Cal Standard (6K01017-CAL3)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.970	-		ng/L	5.0100		99.2				
<b>Cal Standard (6K01017-CAL4)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	20.11	-		ng/L	20.040		100				
<b>Cal Standard (6K01017-CAL5)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	39.50	-		ng/L	40.080		98.5				
<b>Calibration Blank (6K01017-CCB1)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.060	-		ng/L							
<b>Calibration Blank (6K01017-CCB2)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.097	-		ng/L							
<b>Calibration Blank (6K01017-CCB3)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.058	-		ng/L							
<b>Calibration Blank (6K01017-CCB4)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.051	-		ng/L							
<b>Calibration Blank (6K01017-CCB5)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.086	-		ng/L							

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K01017 - F610466</b>											
<b>Calibration Blank (6K01017-CCB6)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	0.048	-		ng/L							
<b>Calibration Blank (6K01017-CCB7)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	0.033	-		ng/L							
<b>Calibration Blank (6K01017-CCB8)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	0.080	-		ng/L							
<b>Calibration Check (6K01017-CCV1)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			
<b>Calibration Check (6K01017-CCV2)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	5.013	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (6K01017-CCV3)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	4.803	-		ng/L	5.0000		96.1	77-123			
<b>Calibration Check (6K01017-CCV4)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	4.712	-		ng/L	5.0000		94.2	77-123			
<b>Calibration Check (6K01017-CCV5)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	4.649	-		ng/L	5.0000		93.0	77-123			
<b>Calibration Check (6K01017-CCV6)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	4.903	-		ng/L	5.0000		98.1	77-123			
<b>Calibration Check (6K01017-CCV7)</b>											
Prepared & Analyzed: 01-Nov-16											
Mercury	4.598	-		ng/L	5.0000		92.0	77-123			

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

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 6K01017 - F610466

Calibration Check (6K01017-CCV8) Prepared & Analyzed: 01-Nov-16

Mercury	4.780	-		ng/L	5.0000		95.6	77-123			
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Instrument Blank (6K01017-IBL1) Prepared & Analyzed: 01-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K01017-IBL2) Prepared & Analyzed: 01-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K01017-IBL3) Prepared & Analyzed: 01-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (6K01017-ICV1) Prepared & Analyzed: 01-Nov-16

Mercury	4.954	-		ng/L	5.0000		99.1	77-123			
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Batch 6K02012 - F610464

Cal Standard (6K02012-CAL1) Prepared & Analyzed: 01-Nov-16

Mercury	0.499	-		ng/L	0.50100		99.5				
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Cal Standard (6K02012-CAL2) Prepared & Analyzed: 01-Nov-16

Mercury	1.013	-		ng/L	1.0020		101				
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Cal Standard (6K02012-CAL3) Prepared & Analyzed: 01-Nov-16

Mercury	4.896	-		ng/L	5.0100		97.7				
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Cal Standard (6K02012-CAL4) Prepared & Analyzed: 01-Nov-16

Mercury	20.19	-		ng/L	20.040		101				
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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

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 6K02012 - F610464

<b>Cal Standard (6K02012-CAL5)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	40.03	-		ng/L	40.080		99.9				
<b>Calibration Blank (6K02012-CCB1)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.085	-		ng/L							
<b>Calibration Blank (6K02012-CCB2)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.091	-		ng/L							
<b>Calibration Blank (6K02012-CCB3)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.155	-		ng/L							
<b>Calibration Blank (6K02012-CCB4)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.092	-		ng/L							
<b>Calibration Blank (6K02012-CCB5)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.081	-		ng/L							
<b>Calibration Blank (6K02012-CCB6)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.131	-		ng/L							
<b>Calibration Blank (6K02012-CCB7)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.253	-		ng/L							
<b>Calibration Blank (6K02012-CCB8)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.080	-		ng/L							
<b>Calibration Blank (6K02012-CCB9)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	0.251	-		ng/L							

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K02012 - F610464</b>											
<b>Calibration Check (6K02012-CCV1)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.804	-		ng/L	5.0000		96.1	77-123			
<b>Calibration Check (6K02012-CCV2)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.628	-		ng/L	5.0000		92.6	77-123			
<b>Calibration Check (6K02012-CCV3)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.796	-		ng/L	5.0000		95.9	77-123			
<b>Calibration Check (6K02012-CCV4)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.725	-		ng/L	5.0000		94.5	77-123			
<b>Calibration Check (6K02012-CCV5)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.480	-		ng/L	5.0000		89.6	77-123			
<b>Calibration Check (6K02012-CCV6)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.933	-		ng/L	5.0000		98.7	77-123			
<b>Calibration Check (6K02012-CCV7)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	5.036	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (6K02012-CCV8)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	4.725	-		ng/L	5.0000		94.5	77-123			
<b>Calibration Check (6K02012-CCV9)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	5.019	-		ng/L	5.0000		100	77-123			
<b>Instrument Blank (6K02012-IBL1)</b>					Prepared & Analyzed: 01-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U

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Reported:  
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6K02012 - F610464

Instrument Blank (6K02012-IBL2)												Prepared & Analyzed: 01-Nov-16	
Mercury	ND	0.004	0.040	ng/L								U	
Instrument Blank (6K02012-IBL3)												Prepared & Analyzed: 01-Nov-16	
Mercury	ND	0.004	0.040	ng/L								U	
Initial Cal Check (6K02012-ICV1)												Prepared & Analyzed: 01-Nov-16	
Mercury	5.160	-		ng/L	5.0000		103	77-123					

Batch 6K03020 - F610467

Cal Standard (6K03020-CAL1)												Prepared & Analyzed: 03-Nov-16	
Mercury	0.495	-		ng/L	0.50100		98.7						
Cal Standard (6K03020-CAL2)												Prepared & Analyzed: 03-Nov-16	
Mercury	1.026	-		ng/L	1.0020		102						
Cal Standard (6K03020-CAL3)												Prepared & Analyzed: 03-Nov-16	
Mercury	5.131	-		ng/L	5.0100		102						
Cal Standard (6K03020-CAL4)												Prepared & Analyzed: 03-Nov-16	
Mercury	19.04	-		ng/L	20.040		95.0						
Cal Standard (6K03020-CAL5)												Prepared & Analyzed: 03-Nov-16	
Mercury	40.27	-		ng/L	40.080		100						
Calibration Blank (6K03020-CCB1)												Prepared & Analyzed: 03-Nov-16	
Mercury	0.062	-		ng/L									

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

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 6K03020 - F610467

<b>Calibration Blank (6K03020-CCB2)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	0.059	-		ng/L								
<b>Calibration Blank (6K03020-CCB3)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	0.090	-		ng/L								
<b>Calibration Blank (6K03020-CCB4)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	0.107	-		ng/L								
<b>Calibration Check (6K03020-CCV1)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	4.828	-		ng/L	5.0000		96.6	77-123				
<b>Calibration Check (6K03020-CCV2)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	4.791	-		ng/L	5.0000		95.8	77-123				
<b>Calibration Check (6K03020-CCV3)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	4.729	-		ng/L	5.0000		94.6	77-123				
<b>Calibration Check (6K03020-CCV4)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	4.746	-		ng/L	5.0000		94.9	77-123				
<b>Instrument Blank (6K03020-IBL1)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K03020-IBL2)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K03020-IBL3)</b>												Prepared & Analyzed: 03-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

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 6K03020 - F610467

Initial Cal Check (6K03020-ICV1)

Prepared & Analyzed: 03-Nov-16

Mercury	5.023	-		ng/L	5.0000		100	77-123			
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Batch 6K07013 - F610469

Cal Standard (6K07013-CAL1)

Prepared & Analyzed: 07-Nov-16

Mercury	0.506	-		ng/L	0.50100		101				
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Cal Standard (6K07013-CAL2)

Prepared & Analyzed: 07-Nov-16

Mercury	1.019	-		ng/L	1.0020		102				
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Cal Standard (6K07013-CAL3)

Prepared & Analyzed: 07-Nov-16

Mercury	5.077	-		ng/L	5.0100		101				
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Cal Standard (6K07013-CAL4)

Prepared & Analyzed: 07-Nov-16

Mercury	19.55	-		ng/L	20.040		97.6				
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Cal Standard (6K07013-CAL5)

Prepared & Analyzed: 07-Nov-16

Mercury	39.01	-		ng/L	40.080		97.3				
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Calibration Blank (6K07013-CCB1)

Prepared & Analyzed: 07-Nov-16

Mercury	0.038	-		ng/L							
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Calibration Blank (6K07013-CCB2)

Prepared & Analyzed: 07-Nov-16

Mercury	0.053	-		ng/L							
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Calibration Blank (6K07013-CCB3)

Prepared & Analyzed: 07-Nov-16

Mercury	0.063	-		ng/L							
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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:41

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K07013 - F610469</b>											
<b>Calibration Blank (6K07013-CCB4)</b>											
Mercury	0.034	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB5)</b>											
Mercury	0.040	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB6)</b>											
Mercury	0.082	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB7)</b>											
Mercury	0.073	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB8)</b>											
Mercury	0.112	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB9)</b>											
Mercury	0.093	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCBA)</b>											
Mercury	0.112	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV1)</b>											
Mercury	4.980	-		ng/L	5.0000		99.6	77-123			Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV2)</b>											
Mercury	4.668	-		ng/L	5.0000		93.4	77-123			Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV3)</b>											
Mercury	4.727	-		ng/L	5.0000		94.5	77-123			Prepared & Analyzed: 07-Nov-16

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Project Number: 3616166052  
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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 6K07013 - F610469

<b>Calibration Check (6K07013-CCV4)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.617	-		ng/L	5.0000		92.3	77-123			
<b>Calibration Check (6K07013-CCV5)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.790	-		ng/L	5.0000		95.8	77-123			
<b>Calibration Check (6K07013-CCV6)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.741	-		ng/L	5.0000		94.8	77-123			
<b>Calibration Check (6K07013-CCV7)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.857	-		ng/L	5.0000		97.1	77-123			
<b>Calibration Check (6K07013-CCV8)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.916	-		ng/L	5.0000		98.3	77-123			
<b>Calibration Check (6K07013-CCV9)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.887	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (6K07013-CCVA)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.679	-		ng/L	5.0000		93.6	77-123			
<b>Instrument Blank (6K07013-IBL1)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K07013-IBL2)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K07013-IBL3)</b>					Prepared & Analyzed: 07-Nov-16						
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
<b>Batch 6K07013 - F610469</b>											
<b>Initial Cal Check (6K07013-ICV1)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	4.716	-		ng/L	5.0000		94.3	77-123			
<b>Batch F610465 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610465-BLK1)</b>					Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	0.578	0.090	0.800	ng/g							J
<b>Blank (F610465-BLK2)</b>					Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	0.287	0.090	0.800	ng/g							J
<b>Blank (F610465-BLK3)</b>					Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	0.181	0.090	0.800	ng/g							J
<b>LCS (F610465-BS1)</b>					Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	7.592	0.090	0.800	ng/g	8.0160		94.7	75-125			
<b>LCS (F610465-BS2)</b>					Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	325.5	4.46	39.8	ng/g	382.50		85.1	75-125			
<b>LCS Dup (F610465-BSD1)</b>					Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	7.803	0.090	0.800	ng/g	8.0160		97.3	75-125	2.73	24	
<b>Duplicate (F610465-DUP1)</b>					Source: 1610144-09 Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	124.2	2.15	19.2	ng/g		106.6			15.3	24	
<b>Matrix Spike (F610465-MS1)</b>					Source: 1610144-01 Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	386.3	2.09	18.7	ng/g	373.55	80.43	81.9	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
<b>Batch F610465 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Matrix Spike (F610465-MS2)</b>		<b>Source: 1610144-09</b>			Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	461.3	2.14	19.1	ng/g	382.56	106.6	92.7	71-125			
<b>Matrix Spike Dup (F610465-MSD1)</b>		<b>Source: 1610144-01</b>			Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	437.1	2.21	19.7	ng/g	393.86	80.43	90.6	71-125	10.1	24	
<b>Matrix Spike Dup (F610465-MSD2)</b>		<b>Source: 1610144-09</b>			Prepared: 28-Oct-16 Analyzed: 01-Nov-16						
Mercury	510.9	2.22	19.8	ng/g	396.35	106.6	102	71-125	9.54	24	
<b>Batch F610466 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610466-BLK1)</b>					Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	0.430	0.090	0.800	ng/g							J
<b>Blank (F610466-BLK2)</b>					Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	0.174	0.090	0.800	ng/g							J
<b>Blank (F610466-BLK3)</b>					Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	0.115	0.090	0.800	ng/g							J
<b>LCS (F610466-BS1)</b>					Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	8.008	0.090	0.800	ng/g	8.0160		99.9	75-125			
<b>LCS (F610466-BS2)</b>					Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	306.7	4.46	39.8	ng/g	383.72		79.9	75-125			
<b>LCS Dup (F610466-BSD1)</b>					Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	3.990	0.045	0.400	ng/g	4.0080		99.6	75-125	0.343	24	

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AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:41
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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
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**Batch F610466 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Duplicate (F610466-DUP1)</b>		<b>Source: 1610144-18</b>			Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	80.92	2.06	18.4	ng/g		88.94			9.44	24	
<b>Matrix Spike (F610466-MS1)</b>		<b>Source: 1610144-21</b>			Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	384.9	2.08	18.6	ng/g	371.75	63.02	86.6	71-125			
<b>Matrix Spike (F610466-MS2)</b>		<b>Source: 1610144-31</b>			Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	401.5	2.07	18.5	ng/g	370.37	59.24	92.4	71-125			
<b>Matrix Spike Dup (F610466-MSD1)</b>		<b>Source: 1610144-21</b>			Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	396.9	2.06	18.4	ng/g	368.60	63.02	90.6	71-125	4.50	24	
<b>Matrix Spike Dup (F610466-MSD2)</b>		<b>Source: 1610144-31</b>			Prepared: 31-Oct-16 Analyzed: 01-Nov-16						
Mercury	407.0	2.04	18.2	ng/g	364.56	59.24	95.4	71-125	3.17	24	

**Batch F610467 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610467-BLK2)</b>					Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	0.148	0.090	0.800	ng/g							J
<b>Blank (F610467-BLK3)</b>					Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	0.142	0.090	0.800	ng/g							J
<b>Blank (F610467-BLK4)</b>					Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	0.171	0.090	0.800	ng/g							J
<b>LCS (F610467-BS1)</b>					Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	8.388	0.090	0.800	ng/g	8.0160		105	75-125			

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Amy Goodall, Project Manager

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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 F610467 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS (F610467-BS2)</b>					Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	360.5	4.43	39.6	ng/g	381.59		94.5	75-125			
<b>LCS Dup (F610467-BSD1)</b>					Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	8.353	0.090	0.800	ng/g	8.0160		104	75-125	0.422	24	
<b>Duplicate (F610467-DUP1)</b>					Source: 1610144-37 Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	57.40	1.96	17.5	ng/g		56.53			1.52	24	
<b>Matrix Spike (F610467-MS1)</b>					Source: 1610144-41 Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	392.9	2.13	19.0	ng/g	379.51	46.87	91.2	71-125			
<b>Matrix Spike (F610467-MS2)</b>					Source: 1610144-51 Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	456.0	2.13	19.0	ng/g	379.94	48.09	107	71-125			
<b>Matrix Spike Dup (F610467-MSD1)</b>					Source: 1610144-41 Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	399.0	2.03	18.1	ng/g	362.84	46.87	97.1	71-125	6.25	24	
<b>Matrix Spike Dup (F610467-MSD2)</b>					Source: 1610144-51 Prepared: 01-Nov-16 Analyzed: 03-Nov-16						
Mercury	409.1	1.95	17.4	ng/g	348.07	48.09	104	71-125	3.44	24	

**Batch F610468 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610468-BLK1)</b>					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	0.152	0.090	0.800	ng/g							J
<b>Blank (F610468-BLK2)</b>					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	0.110	0.090	0.800	ng/g							J

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
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 F610468 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610468-BLK3)</b>					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	0.105	0.090	0.800	ng/g							J
<b>LCS (F610468-BS1)</b>					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	8.116	0.090	0.800	ng/g	8.0160		101	75-125			
<b>LCS (F610468-BS2)</b>					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	323.1	4.44	39.6	ng/g	381.89		84.6	75-125			
<b>LCS Dup (F610468-BSD1)</b>					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	8.163	0.090	0.800	ng/g	8.0160		102	75-125	0.572	24	
<b>Duplicate (F610468-DUP2)</b>					Source: 1610144-61 Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	58.06	1.95	17.4	ng/g		55.43			4.62	24	AD
<b>Matrix Spike (F610468-MS1)</b>					Source: 1610144-61 Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	369.1	2.02	18.0	ng/g	360.62	55.43	87.0	71-125			
<b>Matrix Spike (F610468-MS2)</b>					Source: 1610144-70 Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	367.1	1.90	17.0	ng/g	340.14	74.05	86.2	71-125			
<b>Matrix Spike Dup (F610468-MSD1)</b>					Source: 1610144-61 Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	380.3	2.06	18.4	ng/g	367.11	55.43	88.5	71-125	1.72	24	
<b>Matrix Spike Dup (F610468-MSD2)</b>					Source: 1610144-70 Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	402.5	1.95	17.4	ng/g	347.95	74.05	94.4	71-125	9.11	24	

**Batch F610469 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610469-BLK1)</b>					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	0.167	0.090	0.800	ng/g							J

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Project Number: 3616166052  
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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 F610469 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610469-BLK2)</b> Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	0.119	0.090	0.800	ng/g							J
<b>Blank (F610469-BLK3)</b> Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	ND	0.090	0.800	ng/g							U
<b>LCS (F610469-BS1)</b> Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	7.921	0.090	0.800	ng/g	8.0160		98.8	75-125			
<b>LCS (F610469-BS2)</b> Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	325.4	4.44	39.7	ng/g	382.50		85.1	75-125			
<b>LCS Dup (F610469-BSD1)</b> Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	7.994	0.090	0.800	ng/g	8.0160		99.7	75-125	0.913	24	
<b>Duplicate (F610469-DUP1)</b> Source: 1610145-01 Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	211.9	0.421	3.76	ng/g		234.1			9.96	24	
<b>Matrix Spike (F610469-MS1)</b> Source: 1610145-01 Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	491.3	1.97	17.6	ng/g	351.49	234.1	73.2	71-125			
<b>Matrix Spike (F610469-MS2)</b> Source: 1610145-16 Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	399.7	2.02	18.1	ng/g	361.40	61.74	93.5	71-125			
<b>Matrix Spike Dup (F610469-MSD1)</b> Source: 1610145-01 Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	518.1	1.90	17.0	ng/g	339.67	234.1	83.6	71-125	13.3	24	
<b>Matrix Spike Dup (F610469-MSD2)</b> Source: 1610145-16 Prepared: 03-Nov-16 Analyzed: 07-Nov-16											
Mercury	402.4	2.03	18.1	ng/g	362.84	61.74	93.9	71-125	0.380	24	

Eurofins Frontier Global Sciences, Inc.



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

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:41

### 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.
- J The result is an estimated concentration.
- 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

THg26003-161101-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 01, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K01017, 6K01016, 6K01018

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	58.73 units	117.45	56.40 units	112.80	99.3 %Rec
SEQ-CAL2	1	1.00 ng/L	118.24 units	118.24	115.91 units	115.91	102.0 %Rec
SEQ-CAL3	1	5.00 ng/L	566.94 units	113.39	564.61 units	112.92	99.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2286.43 units	114.32	2284.10 units	114.21	100.5 %Rec
SEQ-CAL5	1	40.00 ng/L	4489.42 units	112.24	4487.09 units	112.18	98.7 %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**  
 113.60            +/- 1.48            1.3% RSD            115.13

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-1BL	3	2.33 units	±2.08	0.02 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	4.083 ng/L	±3.989
BLK	2	3	2.994 ng/L	±2.095
BLK	3	3	2.822 ng/L	±0.816
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 11/2/16

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		11/1/2016 6:54:59	54602-1.RAW	6:54:59 AM	4.01			1.7	0.015	0.015	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2		11/1/2016 6:59:08	54603-1.RAW	6:59:08 AM	0.00			-2.3	-0.020	-0.020	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3		11/1/2016 7:03:16	54604-1.RAW	7:03:16 AM	2.97			0.6	0.006	0.006	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1		11/1/2016 7:07:24	54605-1.RAW	7:07:24 AM	58.73			56.4	0.496	0.496	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2		11/1/2016 7:11:33	54606-1.RAW	7:11:33 AM	118.24			115.9	1.020	1.020	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3		11/1/2016 7:15:41	54607-1.RAW	7:15:41 AM	566.94			564.6	4.970	4.970	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4		11/1/2016 7:19:50	54608-1.RAW	7:19:50 AM	2286.43			2284.1	20.106	20.106	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5		11/1/2016 7:23:58	54609-1.RAW	7:23:58 AM	4489.42			4487.1	39.498	39.498	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1		11/1/2016 7:28:07	54610-1.RAW	7:28:07 AM	565.06			562.7	4.954	4.954	ng/L	
Hg2600-3	DM2	BLK	F610260-BLK1	20	11/1/2016 7:45:24	54611-1.RAW	7:45:24 AM	51.66	1		49.3	0.434	8.685	ng/L	
Hg2600-3	DM2	BLK	F610260-BLK2	20	11/1/2016 7:49:32	54612-1.RAW	7:49:32 AM	11.46	1		9.1	0.080	1.608	ng/L	
Hg2600-3	DM2	BLK	F610260-BLK3	20	11/1/2016 7:53:41	54613-1.RAW	7:53:41 AM	13.44	1		11.1	0.098	1.957	ng/L	
Hg2600-3	DM2	SAM	F610260-BS1	20	11/1/2016 7:57:49	54614-1.RAW	7:57:49 AM	1756.89	1		1754.6	15.241	304.810	ng/L	
Hg2600-3	DM2	SAM	F610140-01	250000	11/1/2016 8:01:58	54615-1.RAW	8:01:58 AM	1787.45	1		1785.1	15.509	310.190	ng/L	
Hg2600-3	DM2	SAM	1610140-02	250000	11/1/2016 8:06:06	54616-1.RAW	8:06:06 AM	1774.86	1		1772.5	15.603	3900711.971	ng/L	
Hg2600-3	DM2	SAM	1610140-03	250000	11/1/2016 8:10:15	54617-1.RAW	8:10:15 AM	1814.14	1		1811.8	15.949	3987148.550	ng/L	
Hg2600-3	DM2	SAM	1610140-04	250000	11/1/2016 8:14:23	54618-1.RAW	8:14:23 AM	1861.59	1		1859.3	16.366	4091575.249	ng/L	
Hg2600-3	DM2	SAM	1610140-05	250000	11/1/2016 8:18:31	54619-1.RAW	8:18:31 AM	78.87	1		76.5	0.674	168441.864	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1		11/1/2016 8:22:40	54620-1.RAW	8:22:40 AM	115.95	1		113.6	1.000	250041.718	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1		11/1/2016 8:26:48	54621-1.RAW	8:26:48 AM	560.63			558.3	4.914	4.914	ng/L	
Hg2600-3	DM2	SAM	1610140-04RE1	10000	11/1/2016 8:30:57	54622-1.RAW	8:30:57 AM	9.20			6.9	0.060	0.060	ng/L	
Hg2600-3	DM2	SAM	1610140-05RE1	10000	11/1/2016 8:35:05	54623-1.RAW	8:35:05 AM	1519.39	1		1517.1	13.354	133536.689	ng/L	
Hg2600-3	DM2	SAM	1610140-06	10000	11/1/2016 8:39:14	54624-1.RAW	8:39:14 AM	2542.42	1		2540.1	22.359	223588.811	ng/L	
Hg2600-3	DM2	SAM	1610140-07	10000	11/1/2016 8:43:22	54625-1.RAW	8:43:22 AM	478.31	1		476.0	4.189	41894.920	ng/L	
Hg2600-3	DM2	SAM	1610140-08	250000	11/1/2016 8:47:31	54626-1.RAW	8:47:31 AM	1600.42	1		1598.1	14.067	3516826.097	ng/L	
Hg2600-3	DM2	SAM	1610140-09	250000	11/1/2016 8:51:39	54627-1.RAW	8:51:39 AM	1515.98	1		1513.7	13.324	3331013.647	ng/L	
Hg2600-3	DM2	SAM	F610260-DUP1	10000	11/1/2016 8:55:47	54628-1.RAW	8:55:47 AM	1534.41	1		1532.1	13.486	3371554.011	ng/L	
Hg2600-3	DM2	SAM	F610260-MS1	10000	11/1/2016 8:59:56	54629-1.RAW	8:59:56 AM	467.11	1		464.8	4.091	40908.697	ng/L	
Hg2600-3	DM2	SAM	F610260-MSD1	10000	11/1/2016 9:04:04	54630-1.RAW	9:04:04 AM	2780.97	1		2778.6	24.459	244587.837	ng/L	
Hg2600-3	DM2	BLK	F610466-BLK1	20	11/1/2016 9:08:13	54631-1.RAW	9:08:13 AM	2788.51	1		2786.2	24.525	245251.388	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2		11/1/2016 9:12:21	54632-1.RAW	9:12:21 AM	32.86	2		30.5	0.269	5.376	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2		11/1/2016 9:16:30	54633-1.RAW	9:16:30 AM	571.84			569.5	5.013	5.013	ng/L	
Hg2600-3	DM2	BLK	F610466-BLK2	20	11/1/2016 9:20:38	54634-1.RAW	9:20:38 AM	13.30			11.0	0.097	0.097	ng/L	
Hg2600-3	DM2	BLK	F610466-BLK3	20	11/1/2016 9:24:47	54635-1.RAW	9:24:47 AM	14.67	2		12.3	0.109	2.173	ng/L	
Hg2600-3	DM2	SAM	F610466-BS1	20	11/1/2016 9:28:55	54636-1.RAW	9:28:55 AM	10.47	2		8.1	0.072	1.434	ng/L	
Hg2600-3	DM2	SAM	F610466-BSD1	20	11/1/2016 9:33:03	54637-1.RAW	9:33:03 AM	587.89	2		585.6	5.005	100.094	ng/L	
Hg2600-3	DM2	SAM	F610466-BS2	500	11/1/2016 9:37:12	54638-1.RAW	9:37:12 AM	585.94	2		583.6	4.988	99.751	ng/L	
Hg2600-3	DM2	SAM	1610144-17	500	11/1/2016 9:41:20	54639-1.RAW	9:41:20 AM	440.67	2		438.3	3.853	1926.264	ng/L	
Hg2600-3	DM2	SAM	1610144-18	500	11/1/2016 9:45:29	54640-1.RAW	9:45:29 AM	230.48	2		228.2	2.002	1001.174	ng/L	
Hg2600-3	DM2	SAM	1610144-19	500	11/1/2016 9:49:37	54641-1.RAW	9:49:37 AM	284.09	2		281.8	2.474	1237.136	ng/L	
Hg2600-3	DM2	SAM	1610144-20	500	11/1/2016 9:53:46	54642-1.RAW	9:53:46 AM	286.99	2		284.7	2.500	1249.888	ng/L	
Hg2600-3	DM2	SAM	1610144-21	500	11/1/2016 9:57:54	54643-1.RAW	9:57:54 AM	212.30	2		210.0	1.842	921.180	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3		11/1/2016 10:02:03	54644-1.RAW	10:02:03 AM	189.80	2		187.5	1.644	822.146	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3		11/1/2016 10:06:11	54645-1.RAW	10:06:11 AM	547.98			545.7	4.803	4.803	ng/L	
Hg2600-3	DM2	SAM	1610144-22	500	11/1/2016 10:10:19	54646-1.RAW	10:10:19 AM	8.97			6.6	0.058	0.058	ng/L	
Hg2600-3	DM2	SAM	1610144-23	500	11/1/2016 10:14:28	54647-1.RAW	10:14:28 AM	170.37	2		168.0	1.473	736.616	ng/L	
Hg2600-3	DM2	SAM	1610144-24	500	11/1/2016 10:18:36	54648-1.RAW	10:18:36 AM	349.17	2		346.8	3.047	1523.549	ng/L	
Hg2600-3	DM2	SAM	1610144-25	500	11/1/2016 10:22:45	54649-1.RAW	10:22:45 AM	164.47	2		162.1	1.421	710.637	ng/L	
Hg2600-3	DM2	SAM	1610144-26	500	11/1/2016 10:26:53	54650-1.RAW	10:26:53 AM	242.53	2		240.2	2.108	1054.192	ng/L	
Hg2600-3	DM2	SAM	1610144-27	500	11/1/2016 10:31:02	54651-1.RAW	10:31:02 AM	242.36	2		240.0	2.107	1053.451	ng/L	
Hg2600-3	DM2	SAM	1610144-28	500	11/1/2016 10:35:10	54652-1.RAW	10:35:10 AM	162.79	2		160.5	1.407	703.257	ng/L	
Hg2600-3	DM2	SAM	1610144-29	500	11/1/2016 10:39:19	54653-1.RAW	10:39:19 AM	175.14	2		172.8	1.515	757.595	ng/L	
Hg2600-3	DM2	SAM	1610144-30	500	11/1/2016 10:43:27	54654-1.RAW	10:43:27 AM	224.24	2		221.9	1.947	973.712	ng/L	
Hg2600-3	DM2	SAM	1610144-31	500	11/1/2016 10:47:35	54655-1.RAW	10:47:35 AM	209.73	2		207.4	1.820	909.862	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4		11/1/2016 10:51:44	54656-1.RAW	10:51:44 AM	190.11	2		187.8	1.647	823.491	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4		11/1/2016 10:55:52	54657-1.RAW	10:55:52 AM	537.61			535.3	4.712	4.712	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/1/2016 11:00:01	54658-1.RAW	11:00:01 AM	8.10			5.8	0.051	0.051	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	1610144-32	500	11/1/2016 11:04:09	54659-1.RAW	11:04:09 AM	208.81	2		206.5	1.812	905.784	ng/L	
Hg2600-3	DM2	SAM	1610144-33	500	11/1/2016 11:08:18	54660-1.RAW	11:08:18 AM	192.02	2		189.7	1.664	831.893	ng/L	
Hg2600-3	DM2	SAM	1610144-34	500	11/1/2016 11:12:26	54661-1.RAW	11:12:26 AM	186.07	2		183.7	1.611	805.699	ng/L	
Hg2600-3	DM2	SAM	1610144-35	500	11/1/2016 11:16:35	54662-1.RAW	11:16:35 AM	208.67	2		206.3	1.810	905.189	ng/L	
Hg2600-3	DM2	SAM	1610144-36	500	11/1/2016 11:20:43	54663-1.RAW	11:20:43 AM	157.41	2		155.1	1.359	679.595	ng/L	
Hg2600-3	DM2	SAM	F610466-DUP1	500	11/1/2016 11:24:51	54684-1.RAW	11:24:51 AM	252.42	2		250.1	2.195	1097.732	ng/L	
Hg2600-3	DM2	SAM	F610466-MS1	500	11/1/2016 11:29:00	54685-1.RAW	11:29:00 AM	1179.24	2		1176.9	10.354	5176.952	ng/L	
Hg2600-3	DM2	SAM	F610466-MSD1	500	11/1/2016 11:33:08	54666-1.RAW	11:33:08 AM	1226.22	2		1223.9	10.767	5383.725	ng/L	
Hg2600-3	DM2	SAM	F610466-MS2	500	11/1/2016 11:37:17	54667-1.RAW	11:37:17 AM	1234.67	2		1232.3	10.842	5420.900	ng/L	
Hg2600-3	DM2	SAM	F610466-MSD2	500	11/1/2016 11:41:25	54668-1.RAW	11:41:25 AM	1271.39	2		1269.1	11.165	5582.520	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/1/2016 11:45:34	54669-1.RAW	11:45:34 AM	530.4463107			528.1	4.649	4.649	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/1/2016 11:49:42	54670-1.RAW	11:49:42 AM	12.13			9.8	0.086	0.086	ng/L	
Hg2600-3	DM2	BLK	F610530-BLK1	50	11/1/2016 11:53:51	54671-1.RAW	11:53:51 AM	10.79	3		8.5	0.074	3.724	ng/L	
Hg2600-3	DM2	BLK	F610530-BLK2	50	11/1/2016 11:57:59	54672-1.RAW	11:57:59 AM	8.25	3		5.9	0.052	2.608	ng/L	
Hg2600-3	DM2	BLK	F610530-BLK3	50	11/1/2016 12:02:07	54673-1.RAW	12:02:07 PM	7.18	3		4.9	0.043	2.135	ng/L	
Hg2600-3	DM2	SAM	F610530-BS1	500	11/1/2016 12:06:16	54674-1.RAW	12:06:16 PM	1106.19	3		1103.9	9.711	4855.572	ng/L	
Hg2600-3	DM2	SAM	F610530-BSD1	500	11/1/2016 12:10:24	54675-1.RAW	12:10:24 PM	1132.84	3		1130.5	9.946	4972.875	ng/L	
Hg2600-3	DM2	SAM	1610302-01RE1	2500	11/1/2016 12:14:33	54676-1.RAW	12:14:33 PM	12.43	3		10.1	0.088	219.612	ng/L	
Hg2600-3	DM2	SAM	1610302-02RE1	2500	11/1/2016 12:18:41	54677-1.RAW	12:18:41 PM	9.51	3		7.2	0.062	155.385	ng/L	
Hg2600-3	DM2	SAM	1610302-03RE1	2500	11/1/2016 12:22:49	54678-1.RAW	12:22:49 PM	8.73	3		6.4	0.055	138.003	ng/L	
Hg2600-3	DM2	SAM	1610302-04RE1	2500	11/1/2016 12:26:57	54679-1.RAW	12:26:57 PM	5.77	3		3.4	0.029	72.963	ng/L	
Hg2600-3	DM2	SAM	1610302-05RE1	2500	11/1/2016 12:31:05	54680-1.RAW	12:31:05 PM	8.65	3		6.3	0.055	136.250	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/1/2016 12:35:13	54681-1.RAW	12:35:13 PM	559.37			557.0	4.903	4.903	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/1/2016 12:39:21	54682-1.RAW	12:39:21 PM	7.77			5.4	0.048	0.048	ng/L	
Hg2600-3	DM2	SAM	1610302-06RE1	50	11/1/2016 12:43:30	54683-1.RAW	12:43:30 PM	37.04	3		34.7	0.249	12.456	ng/L	
Hg2600-3	DM2	SAM	1610745-01	50	11/1/2016 12:47:38	54684-1.RAW	12:47:38 PM	77.69	3		75.4	0.607	30.350	ng/L	
Hg2600-3	DM2	SAM	1610755-01RE1	50	11/1/2016 12:51:47	54685-1.RAW	12:51:47 PM	5.87	3		3.5	-0.025	-1.264	ng/L	
Hg2600-3	DM2	SAM	1610755-02RE1	50	11/1/2016 12:55:55	54686-1.RAW	12:55:55 PM	9.81	3		7.5	0.009	0.473	ng/L	
Hg2600-3	DM2	SAM	1610302-01RE2	50	11/1/2016 13:00:03	54687-1.RAW	1:00:03 PM	61.60	3		59.3	0.465	23.264	ng/L	
Hg2600-3	DM2	SAM	1610302-02RE2	50	11/1/2016 13:04:12	54688-1.RAW	1:04:12 PM	54.61	3		52.3	0.404	20.189	ng/L	
Hg2600-3	DM2	SAM	1610302-03RE2	50	11/1/2016 13:08:20	54689-1.RAW	1:08:20 PM	27.10	3		24.8	0.162	8.081	ng/L	
Hg2600-3	DM2	SAM	1610302-04RE2	50	11/1/2016 13:12:29	54690-1.RAW	1:12:29 PM	29.21	3		26.9	0.180	9.011	ng/L	
Hg2600-3	DM2	SAM	1610302-05RE2	50	11/1/2016 13:16:37	54691-1.RAW	1:16:37 PM	14.96	3		12.6	0.055	2.738	ng/L	
Hg2600-3	DM2	SAM	F610530-DUP1	50	11/1/2016 13:20:46	54692-1.RAW	1:20:46 PM	48.18	3		45.9	0.347	17.358	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/1/2016 13:24:54	54693-1.RAW	1:24:54 PM	524.62			522.3	4.598	4.598	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/1/2016 13:29:02	54694-1.RAW	1:29:02 PM	6.05			3.7	0.033	0.033	ng/L	
Hg2600-3	DM2	SAM	F610530-MS1	500	11/1/2016 13:33:11	54695-1.RAW	1:33:11 PM	1347.93	3		1345.6	11.839	5919.563	ng/L	
Hg2600-3	DM2	SAM	F610530-MSD1	500	11/1/2016 13:37:19	54696-1.RAW	1:37:19 PM	1554.01	3		1551.7	13.653	6826.588	ng/L	
Hg2600-3	DM2	SAM	F610530-MS2	50	11/1/2016 13:50:09	54697-1.RAW	1:50:09 PM	2722.05	3		2719.7	23.884	1194.203	ng/L	
Hg2600-3	DM2	SAM	F610530-MSD2	50	11/1/2016 13:54:17	54698-1.RAW	1:54:17 PM	2720.00	3		2717.7	23.866	1193.300	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/1/2016 13:58:26	54699-1.RAW	1:58:26 PM	545.33			543.0	4.780	4.780	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/1/2016 14:02:34	54700-1.RAW	2:02:34 PM	11.41			9.1	0.080	0.080	ng/L	
Hg2600-3	DM2	SAM	SnCl2	1	11/1/2016 14:06:43	54701-1.RAW	2:06:43 PM	8.50	X		6.2	0.054	0.054	ng/L	
Hg2600-3	DM2	SAM	WS		11/1/2016 14:10:51	54702-1.RAW	2:10:51 PM	7.42	X		5.1	0.045	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/1/2016 14:14:59	54703-1.RAW	2:14:59 PM	5.60	X		3.3	0.029	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/1/2016 14:19:08	54704-1.RAW	2:19:08 PM	4.02	X		1.7	0.015	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/1/2016 14:23:16	54705-1.RAW	2:23:16 PM	6.86	X		4.5	0.040	0.000	ng/L	

TotalMercury  
EPA1631

Operat DM BlankS: 2.3258 Calib Eqn:  
Worksh THg260( CalibFa 113.6 Status:  
Method #### R: 1 R<sup>2</sup>:  
Descrip THg26003-161101-1

Conc = (Area-2.325 Run Date: 11/1/2016 Blank SD: 2.080184641  
QC Warnings:4/QC E Run Time: 13:46:00 Blank RSD%: 89.44104828  
0.9999 CF SD: 1.484893931  
CF RSD%: 1.307086272

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (cif)	Flags	RunCount
Clean				0.00	5.70					54597-1.RAW	6:35:34	647.10	Clean	OK	1
Clean										54598-1.RAW	6:38:25	0.00	Clean	NP	1
ws				2.33	0.01					54599-1.RAW	6:42:34	3.12	Sample	OK	1
ws				2.33	0.00					54600-1.RAW	6:46:42	2.43	Sample	OK	1
ws										54601-1.RAW	6:50:51	0.00	Sample	NP	1
SEQ-IBL1	A1		1	0.00	0.04					54602-1.RAW	6:54:59	4.01	Sample	OK	1
SEQ-IBL2	A2		1							54603-1.RAW	6:59:08	0.00	Sample	NP	1
SEQ-IBL3	A3		1	0.00	0.03					54604-1.RAW	7:03:16	2.97	Sample	OK	1
SEQ-CAL1	A4		1	2.33	0.50			99.29		54605-1.RAW	7:07:24	58.73	Sample	OK	1
SEQ-CAL2	A5		1	2.33	1.02			102.03		54606-1.RAW	7:11:33	118.24	Sample	OK	1
SEQ-CAL3	A6		1	2.33	4.97			99.40		54607-1.RAW	7:15:41	566.94	Sample	OK	1
SEQ-CAL4	A7		1	2.33	20.11			100.53		54608-1.RAW	7:19:50	2286.43	Sample	OK	1
SEQ-CAL5	A8		1	2.33	39.50			98.74		54609-1.RAW	7:23:58	4489.42	Sample	OK	1
SEQ-ICV1	A9		1	2.33	4.95			99.07		54610-1.RAW	7:28:07	565.06	Sample	OK	1
F610260-BLK1	A10		20	2.33	8.68					54611-1.RAW	7:45:24	51.66	Sample	OK	1
F610260-BLK2	A11		20	2.33	1.61					54612-1.RAW	7:49:32	11.46	Sample	OK	1
F610260-BLK3	A12		20	2.33	1.96					54613-1.RAW	7:53:41	13.44	Sample	OK	1
F610260-BS1	B1		20	2.33	308.89					54614-1.RAW	7:57:49	1756.89	Sample	OK	1
F610260-BSD1	B2		20	2.33	314.27					54615-1.RAW	8:01:58	1787.45	Sample	OK	1
1610140-01	B3		250000	2.33	3900716.05					54616-1.RAW	8:06:06	1774.86	Sample	OK	1
1610140-02	B4		250000	2.33	3987152.63					54617-1.RAW	8:10:15	1814.14	Sample	OK	1
1610140-03	B5		250000	2.33	4091579.33					54618-1.RAW	8:14:23	1861.59	Sample	OK	1
1610140-04	B6		250000	2.33	168445.95					54619-1.RAW	8:18:31	78.87	Sample	OK	1
1610140-05	B7		250000	2.33	250045.80					54620-1.RAW	8:22:40	115.95	Sample	OK	1
SEQ-CCV1	B8		1	2.33	4.91			98.29		54621-1.RAW	8:26:48	560.63	Sample	OK	1
SEQ-CCB1	B9		1	2.33	0.06			0.00		54622-1.RAW	8:30:57	9.20	Sample	OK	1
1610140-04RE1	B10		10000	2.33	133540.77					54623-1.RAW	8:35:05	1519.39	Sample	OK	1
1610140-05RE1	B11		10000	2.33	223592.89					54624-1.RAW	8:39:14	2542.42	Sample	OK	1
1610140-06	B12		10000	2.33	41899.00					54625-1.RAW	8:43:22	478.31	Sample	OK	1
1610140-07	C1		250000	2.33	3516830.18					54626-1.RAW	8:47:31	1600.42	Sample	OK	1
1610140-08	C2		250000	2.33	3331017.73					54627-1.RAW	8:51:39	1515.98	Sample	OK	1
1610140-09	C3		250000	2.33	3371558.09					54628-1.RAW	8:55:47	1534.41	Sample	OK	1
F610260-DUP1	C4		10000	2.33	40912.78					54629-1.RAW	8:59:56	467.11	Sample	OK	1
F610260-MS1	C5		10000	2.33	244591.92			597.82		54630-1.RAW	9:04:04	2780.97	Sample	OK	1
F610260-MSD1	C6		10000	2.33	245255.47					54631-1.RAW	9:08:13	2788.51	Sample	OK	1
F610466-BLK1	C7		20	2.33	5.38					54632-1.RAW	9:12:21	32.86	Sample	OK	1
SEQ-CCV2	C8		1	2.33	5.01			100.26		54633-1.RAW	9:16:30	571.84	Sample	OK	1
SEQ-CCB2	C9		1	2.33	0.10			0.00		54634-1.RAW	9:20:38	13.30	Sample	OK	1
F610466-BLK2	C10		20	2.33	2.17					54635-1.RAW	9:24:47	14.67	Sample	OK	1
F610466-BLK3	C11		20	2.33	1.43					54636-1.RAW	9:28:55	10.47	Sample	OK	1
F610466-BS1	C12		20	2.33	103.09					54637-1.RAW	9:33:03	587.89	Sample	OK	1
F610466-BSD1	D1		20	2.33	102.75					54638-1.RAW	9:37:12	585.94	Sample	OK	1
F610466-BS2	D2		500	2.33	1929.26					54639-1.RAW	9:41:20	440.67	Sample	OK	1
1610144-17	D3		500	2.33	1004.17					54640-1.RAW	9:45:29	230.48	Sample	OK	1

1610144-18	D4	500	2.33	1240.13		54641-1.RAW	9:49:37	284.09	Sample	OK	1
1610144-19	D5	500	2.33	1252.88		54642-1.RAW	9:53:46	286.99	Sample	OK	1
1610144-20	D6	500	2.33	924.17		54643-1.RAW	9:57:54	212.30	Sample	OK	1
1610144-21	D7	500	2.33	825.14		54644-1.RAW	10:02:03	189.80	Sample	OK	1
SEQ-CCV3	D8	1	2.33	4.80	96.06	54645-1.RAW	10:06:11	547.98	Sample	OK	1
SEQ-CCB3	D9	1	2.33	0.06	0.00	54646-1.RAW	10:10:19	8.97	Sample	OK	1
1610144-22	D10	500	2.33	739.61		54647-1.RAW	10:14:28	170.37	Sample	OK	1
1610144-23	D11	500	2.33	1526.54		54648-1.RAW	10:18:36	349.17	Sample	OK	1
1610144-24	D12	500	2.33	713.63		54649-1.RAW	10:22:45	164.47	Sample	OK	1
1610144-25	A1	500	2.33	1057.19		54650-1.RAW	10:26:53	242.53	Sample	OK	1
1610144-26	A2	500	2.33	1056.45		54651-1.RAW	10:31:02	242.36	Sample	OK	1
1610144-27	A3	500	2.33	706.25		54652-1.RAW	10:35:10	162.79	Sample	OK	1
1610144-28	A4	500	2.33	760.59		54653-1.RAW	10:39:19	175.14	Sample	OK	1
1610144-29	A5	500	2.33	976.71		54654-1.RAW	10:43:27	224.24	Sample	OK	1
1610144-30	A6	500	2.33	912.86		54655-1.RAW	10:47:35	209.73	Sample	OK	1
1610144-31	A7	500	2.33	826.49		54656-1.RAW	10:51:44	190.11	Sample	OK	1
SEQ-CCV4	A8	1	2.33	4.71	94.24	54657-1.RAW	10:55:52	537.61	Sample	OK	1
SEQ-CCB4	A9	1	2.33	0.05	0.00	54658-1.RAW	11:00:01	8.10	Sample	OK	1
1610144-32	A10	500	2.33	908.78		54659-1.RAW	11:04:09	208.81	Sample	OK	1
1610144-33	A11	500	2.33	834.89		54660-1.RAW	11:08:18	192.02	Sample	OK	1
1610144-34	A12	500	2.33	808.69		54661-1.RAW	11:12:26	186.07	Sample	OK	1
1610144-35	B1	500	2.33	908.18		54662-1.RAW	11:16:35	208.67	Sample	OK	1
1610144-36	B2	500	2.33	682.59		54663-1.RAW	11:20:43	157.41	Sample	OK	1
F610466-DUP1	B3	500	2.33	1100.73		54664-1.RAW	11:24:51	252.42	Sample	OK	1
F610466-MS1	B4	500	2.33	5179.95	470.17	54665-1.RAW	11:29:00	1179.24	Sample	OK	1
F610466-MSD1	B5	500	2.33	5386.72		54666-1.RAW	11:33:08	1226.22	Sample	OK	1
F610466-MS2	B6	500	2.33	5423.89	100.65	54667-1.RAW	11:37:17	1234.67	Sample	OK	1
F610466-MSD2	B7	500	2.33	5585.51		54668-1.RAW	11:41:25	1271.39	Sample	OK	1
SEQ-CCV5	B8	1	2.33	4.65	92.98	54669-1.RAW	11:45:34	530.45	Sample	OK	1
SEQ-CCB5	B9	1	2.33	0.09	0.00	54670-1.RAW	11:49:42	12.13	Sample	OK	1
F610530-BLK1	B10	50	2.33	3.72		54671-1.RAW	11:53:51	10.79	Sample	OK	1
F610530-BLK2	B11	50	2.33	2.61		54672-1.RAW	11:57:59	8.25	Sample	OK	1
F610530-BLK3	B12	50	2.33	2.13		54673-1.RAW	12:02:07	7.18	Sample	OK	1
F610530-BS1	C1	500	2.33	4858.39		54674-1.RAW	12:06:16	1106.19	Sample	OK	1
F610530-BSD1	C2	500	2.33	4975.70		54675-1.RAW	12:10:24	1132.84	Sample	OK	1
1610302-01RE1	C3	2500	2.33	222.43		54676-1.RAW	12:14:33	12.43	Sample	OK	1
1610302-02RE1	C4	2500	2.33	158.21		54677-1.RAW	12:18:41	9.51	Sample	OK	1
1610302-03RE1	C5	2500	2.33	140.82		54678-1.RAW	12:22:49	8.73	Sample	OK	1
1610302-04RE1	C6	2500	2.33	75.79		54679-1.RAW	12:26:57	5.77	Sample	OK	1
1610302-05RE1	C7	2500	2.33	139.07		54680-1.RAW	12:31:05	8.65	Sample	OK	1
SEQ-CCV6	C8	1	2.33	4.90	98.07	54681-1.RAW	12:35:13	559.37	Sample	OK	1
SEQ-CCB6	C9	1	2.33	0.05	0.00	54682-1.RAW	12:39:21	7.77	Sample	OK	1
1610302-06RE1	C10	50	2.33	15.28		54683-1.RAW	12:43:30	37.04	Sample	OK	1
1610745-01	C11	50	2.33	33.17		54684-1.RAW	12:47:38	77.69	Sample	OK	1
1610755-01RE1	C12	50	2.33	1.56		54685-1.RAW	12:51:47	5.87	Sample	OK	1
1610755-02RE1	D1	50	2.33	3.29		54686-1.RAW	12:55:55	9.81	Sample	OK	1
1610302-01RE2	D2	50	2.33	26.09		54687-1.RAW	13:00:03	61.60	Sample	OK	1
1610302-02RE2	D3	50	2.33	23.01		54688-1.RAW	13:04:12	54.61	Sample	OK	1
1610302-03RE2	D4	50	2.33	10.90		54689-1.RAW	13:08:20	27.10	Sample	OK	1



1610302-04RE2	D5	50	2.33	11.83		54690-1.RAW	13:12:29	29.21	Sample	OK	1
1610302-05RE2	D6	50	2.33	5.56		54691-1.RAW	13:16:37	14.96	Sample	OK	1
F610530-DUP1	D7	50	2.33	20.18		54692-1.RAW	13:20:46	48.18	Sample	OK	1
SEQ-CCV7	D8	1	2.33	4.60	91.95	54693-1.RAW	13:24:54	524.62	Sample	OK	1
SEQ-CCB7	D9	1	2.33	0.03	0.00	54694-1.RAW	13:29:02	6.05	Sample	OK	1
F610530-MS1	D10	500	2.33	5922.39	573423.12	54695-1.RAW	13:33:11	1347.93	Sample	OK	1
F610530-MSD1	D11	500	2.33	6829.41		54696-1.RAW	13:37:19	1554.01	Sample	OK	1
F610530-MS2	A1	50	2.33	1197.03	17.52	54697-1.RAW	13:50:09	2722.05	Sample	OK	1
F610530-MSD2	A2	50	2.33	1196.12		54698-1.RAW	13:54:17	2720.00	Sample	OK	1
SEQ-CCV8	A3	1	2.33	4.78	95.60	54699-1.RAW	13:58:26	545.33	Sample	OK	1
SEQ-CCB8	A4	1	2.33	0.08	0.00	54700-1.RAW	14:02:34	11.41	Sample	OK	1
SnCl2	D12	1	2.33	0.05		54701-1.RAW	14:06:43	8.50	Sample	OK	1
WS			2.33	0.04		54702-1.RAW	14:10:51	7.42	Sample	OK	1
WS			2.33	0.03		54703-1.RAW	14:14:59	5.60	Sample	OK	1
WS			2.33	0.01		54704-1.RAW	14:19:08	4.02	Sample	OK	1
WS			2.33	0.04		54705-1.RAW	14:23:16	6.86	Sample	OK	1

## ANALYSIS SEQUENCE

6K01017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K01017-IBL1	QC	1			
6K01017-IBL2	QC	2			
6K01017-IBL3	QC	3			
6K01017-CAL1	QC	4	1605412		
6K01017-CAL2	QC	5	1605413		
6K01017-CAL3	QC	6	1605414		
6K01017-CAL4	QC	7	1605415		
6K01017-CAL5	QC	8	1605416		
6K01017-ICV1	QC	9	1605791		
6K01017-CCV1	QC	10	1605791		
6K01017-CCB1	QC	11			
F610466-BLK1	QC	12			
6K01017-CCV2	QC	13	1605791		
6K01017-CCB2	QC	14			
F610466-BLK2	QC	15			
F610466-BLK3	QC	16			
F610466-BS1	QC	17			
F610466-BSD1	QC	18			
F610466-BS2	QC	19			
1610144-17	Hg-CVAFS-T-7030	20			
1610144-18	Hg-CVAFS-T-7030	21			
1610144-19	Hg-CVAFS-T-7030	22			
1610144-20	Hg-CVAFS-T-7030	23			
1610144-21	Hg-CVAFS-T-7030	24			
6K01017-CCV3	QC	25	1605791		
6K01017-CCB3	QC	26			
1610144-22	Hg-CVAFS-T-7030	27			
1610144-23	Hg-CVAFS-T-7030	28			
1610144-24	Hg-CVAFS-T-7030	29			
1610144-25	Hg-CVAFS-T-7030	30			
1610144-26	Hg-CVAFS-T-7030	31			
1610144-27	Hg-CVAFS-T-7030	32			
1610144-28	Hg-CVAFS-T-7030	33			
1610144-29	Hg-CVAFS-T-7030	34			
1610144-30	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

Page 122 of 311

Page 1 of 2

# ANALYSIS SEQUENCE

6K01017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610144-31	Hg-CVAFS-T-7030	36			
6K01017-CCV4	QC	37	1605791		
6K01017-CCB4	QC	38			
1610144-32	Hg-CVAFS-T-7030	39			
1610144-33	Hg-CVAFS-T-7030	40			
1610144-34	Hg-CVAFS-T-7030	41			
1610144-35	Hg-CVAFS-T-7030	42			
1610144-36	Hg-CVAFS-T-7030	43			
F610466-DUP1	QC	44			
F610466-MS1	QC	45			
F610466-MSD1	QC	46			
F610466-MS2	QC	47			
F610466-MSD2	QC	48			
6K01017-CCV5	QC	49	1605791		
6K01017-CCB5	QC	50			
6K01017-CCV6	QC	51	1605791		
6K01017-CCB6	QC	52			
6K01017-CCV7	QC	53	1605791		
6K01017-CCB7	QC	54			
6K01017-CCV8	QC	55	1605791		
6K01017-CCB8	QC	56			

Don Moran      11/1/16  
 Samples Loaded By      Date

Don Moran      11/1/16  
 Data Processed By      Date

**Failing Data Report - 6K01017**

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. Mason  
Analyst Reviewed By

11/1/16  
Date

Ryan M. H.  
Peer Reviewed By

11/2/16  
Date

## ANALYSIS SEQUENCE

6K01018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K01018-IBL1	QC	1			
6K01018-IBL2	QC	2			
6K01018-IBL3	QC	3			
6K01018-CAL1	QC	4	1605412		
6K01018-CAL2	QC	5	1605413		
6K01018-CAL3	QC	6	1605414		
6K01018-CAL4	QC	7	1605415		
6K01018-CAL5	QC	8	1605416		
6K01018-ICV1	QC	9	1605791		
F610260-BLK1	QC	10			
F610260-BLK2	QC	11			
F610260-BLK3	QC	12			
F610260-BS1	QC	13			
F610260-BSD1	QC	14			
1610140-01	Hg-CVAFS-S-SSE-F3	15			
1610140-02	Hg-CVAFS-S-SSE-F3	16			
1610140-03	Hg-CVAFS-S-SSE-F3	17			
1610140-04	Hg-CVAFS-S-SSE-F3	18			
1610140-05	Hg-CVAFS-S-SSE-F3	19			
6K01018-CCV1	QC	20	1605791		
6K01018-CCB1	QC	21			
1610140-04RE1	Hg-CVAFS-S-SSE-F3	22			Added 11/1/2016 by DM2
1610140-05RE1	Hg-CVAFS-S-SSE-F3	23			Added 11/1/2016 by DM2
1610140-06	Hg-CVAFS-S-SSE-F3	24			
1610140-07	Hg-CVAFS-S-SSE-F3	25			
1610140-08	Hg-CVAFS-S-SSE-F3	26			
1610140-09	Hg-CVAFS-S-SSE-F3	27			
F610260-DUP1	QC	28			
F610260-MS1	QC	29			
F610260-MSD1	QC	30			
6K01018-CCV2	QC	31	1605791		
6K01018-CCB2	QC	32			
6K01018-CCV3	QC	33	1605791		
6K01018-CCB3	QC	34			
6K01018-CCV4	QC	35	1605791		

Due Date: 11/2/2016

Page 125 of 311

Page 1 of 2

ANALYSIS SEQUENCE

6K01018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K01018-CCB4	QC	36			
6K01018-CCV5	QC	37	1605791		
6K01018-CCB5	QC	38			
6K01018-CCV6	QC	39	1605791		
6K01018-CCB6	QC	40			
6K01018-CCV7	QC	41	1605791		
6K01018-CCB7	QC	42			
6K01018-CCV8	QC	43	1605791		
6K01018-CCB8	QC	44			

Don Moran 11/1/16  
Samples Loaded By Date

Don Moran 11/1/16  
Data Processed By Date



# ANALYSIS SEQUENCE

**6K01016**

**Instrument: Hg2600-3**
**Calibration ID: UNASSIGNED**
**Analyzed: 11/1/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K01016-IBL1	QC	1			
6K01016-IBL2	QC	2			
6K01016-IBL3	QC	3			
6K01016-CAL1	QC	4	1605412		
6K01016-CAL2	QC	5	1605413		
6K01016-CAL3	QC	6	1605414		
6K01016-CAL4	QC	7	1605415		
6K01016-CAL5	QC	8	1605416		
6K01016-ICV1	QC	9	1605791		
6K01016-CCV1	QC	10	1605791		
6K01016-CCB1	QC	11			
6K01016-CCV2	QC	12	1605791		
6K01016-CCB2	QC	13			
6K01016-CCV3	QC	14	1605791		
6K01016-CCB3	QC	15			
6K01016-CCV4	QC	16	1605791		
6K01016-CCB4	QC	17			
6K01016-CCV5	QC	18	1605791		
6K01016-CCB5	QC	19			
F610530-BLK1	QC	20			
F610530-BLK2	QC	21			
F610530-BLK3	QC	22			
F610530-BS1	QC	23			
F610530-BSD1	QC	24			
1610302-01RE1	Hg-CVAFS-S-Bomb	25			Added 10/27/2016 by BC
1610302-02RE1	Hg-CVAFS-S-Bomb	26			Added 10/27/2016 by BC
1610302-03RE1	Hg-CVAFS-S-Bomb	27			Added 10/27/2016 by BC
1610302-04RE1	Hg-CVAFS-S-Bomb	28			Added 10/27/2016 by BC
1610302-05RE1	Hg-CVAFS-S-Bomb	29			Added 10/27/2016 by BC
6K01016-CCV6	QC	30	1605791		
6K01016-CCB6	QC	31			
1610302-06RE1	Hg-CVAFS-S-Bomb	32			Added 10/27/2016 by BC
1610745-01	Hg-CVAFS-S-Bomb	33			
1610755-01RE1	Hg-CVAFS-S-Bomb	34			Added 10/28/2016 by BC
1610755-02RE1	Hg-CVAFS-S-Bomb	35			Added 10/28/2016 by BC

**Due Date: 11/1/2016**



**ANALYSIS SEQUENCE**

**6K01016**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/1/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610302-01RE2	Hg-CVAFS-S-Bomb	36			Added 11/1/2016 by DM2
1610302-02RE2	Hg-CVAFS-S-Bomb	37			Added 11/1/2016 by DM2
1610302-03RE2	Hg-CVAFS-S-Bomb	38			Added 11/1/2016 by DM2
1610302-04RE2	Hg-CVAFS-S-Bomb	39			Added 11/1/2016 by DM2
1610302-05RE2	Hg-CVAFS-S-Bomb	40			Added 11/1/2016 by DM2
F610530-DUP1	QC	41			
6K01016-CCV7	QC	42	1605791		
6K01016-CCB7	QC	43			
F610530-MS1	QC	44			
F610530-MSD1	QC	45			
F610530-MS2	QC	46			
F610530-MSD2	QC	47			
6K01016-CCV8	QC	48	1605791		
6K01016-CCB8	QC	49			

Don M. [Signature]      11/1/16  
 Samples Loaded By                      Date

Don M. [Signature]      11/1/16  
 Data Processed By                      Date

**Failing Data Report - 6K01016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610530-MSD1	Hg-CVAFS-S-Bomb	425.2	15.6	376.2	1.4	311.43	ng/g	136	71.00	125.00	14.3	24.00	PASS-OVER	FAIL-MSD (Rec.)	QM-07

Don Motem                      11/1/16  
 Analyst Reviewed By                      Date

Ryan McL                      11/2/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F610260

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3**

**Prepared: 10/5/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610260-BLK1	Blank	0.4	125					
F610260-BLK2	Blank	0.4	125					
F610260-BLK3	Blank	0.4	125					
F610260-BS1	LCS	0.008	2.5	1604715	100			
F610260-BSD1	LCS Dup	0.008	2.5	1604715	100			
F610260-DUP1	Duplicate [1610140-06]	0.405	125					
F610260-MS1	Matrix Spike [1610140-06]	0.0000162	0.005	1605272	100			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 0.005mL
F610260-MSD1	Matrix Spike Dup [1610140-06]	0.0000162	0.005	1605272	100			[Spk] 0.405g->125mL; 125mL->125mL; Spiked 0.005mL

<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	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605262	1N KOH for SSE	08-Mar-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Wasbstation (0.5% BrCl)	03-Dec-16 00:00
			1605683	1N KOH for SSE	28-Mar-17 00:00
			1605821		04-Apr-17 00:00
			1606187	3% SnCl2 THg reductant	15-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610260

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3**

**Prepared: 10/5/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610140-01	Hg0	0.43	125	-	-	-	Sample was spilled at the beginning of	
1610140-02	Hg0	0.438	125	-	-	-		
1610140-03	Hg0	0.441	125	-	-	-		
1610140-04	HgS	0.41	125	-	-	-		
1610140-04RE1	HgS	0.41	125	-	-	-	Added 11/1/2016 by DM2	Added 11/1/2016 by DM2
1610140-05	HgS	0.439	125	-	-	-		
1610140-05RE1	HgS	0.439	125	-	-	-	Added 11/1/2016 by DM2	Added 11/1/2016 by DM2
1610140-06	HgS	0.405	125	-	-	-		
1610140-07	Hg2Cl2	0.469	125	-	-	-		
1610140-08	Hg2Cl2	0.455	125	-	-	-		
1610140-09	Hg2Cl2	0.464	125	-	-	-		



**PREPARATION BENCH SHEET**

F610466

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/31/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610466-BLK1	Blank	0.25	20					
F610466-BLK2	Blank	0.25	20					
F610466-BLK3	Blank	0.25	20					
F610466-BS1	Blank Spike	0.25	20	1605270	20			
F610466-BS2	DORM-4	0.1256	20	1605470	126			
F610466-BSD1	Blank Spike Dup	0.5	20	1605270	20			
F610466-DUP1	Duplicate [1610144-18]	0.2713	20					
F610466-MS1	Matrix Spike [1610144-21]	0.269	20	1605712	100			
F610466-MS2	Matrix Spike [1610144-31]	0.27	20	1605712	100			
F610466-MSD1	Matrix Spike Dup [1610144-21]	0.2713	20	1605712	100			
F610466-MSD2	Matrix Spike Dup [1610144-31]	0.2743	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606187	3% SnCl2 THg reductant	15-Apr-17 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00

**PREPARATION BENCH SHEET**

F610466

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/31/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-17	ES-03_092716_BLM_WB_17	0.2634	20	-	-	-		
1610144-18	ES-03_092716_BLM_WB_18	0.2782	20	-	-	-		
1610144-19	ES-03_092716_BLM_WB_19	0.2856	20	-	-	-		
1610144-20	ES-03_092716_BLM_WB_20	0.2686	20	-	-	-		
1610144-21	ES-13_093016_BLM_WB_01	0.2609	20	QC	-	-	MS/MSD	
1610144-22	ES-13_093016_BLM_WB_02	0.2733	20	-	-	-		
1610144-23	ES-13_093016_BLM_WB_03	0.2875	20	-	-	-		
1610144-24	ES-13_093016_BLM_WB_04	0.2904	20	-	-	-		
1610144-25	ES-13_093016_BLM_WB_05	0.274	20	-	-	-		
1610144-26	ES-13_093016_BLM_WB_06	0.2975	20	-	-	-		
1610144-27	ES-13_093016_BLM_WB_07	0.2908	20	-	-	-		
1610144-28	ES-13_093016_BLM_WB_08	0.2764	20	-	-	-		
1610144-29	ES-13_093016_BLM_WB_09	0.265	20	-	-	-		
1610144-30	ES-13_093016_BLM_WB_10	0.2864	20	-	-	-		
1610144-31	ES-13_093016_BLM_WB_11	0.278	20	-	-	-		
1610144-32	ES-13_093016_BLM_WB_12	0.2728	20	-	-	-		
1610144-33	ES-13_093016_BLM_WB_13	0.2793	20	-	-	-		
1610144-34	ES-13_093016_BLM_WB_14	0.2754	20	-	-	-		
1610144-35	ES-13_093016_BLM_WB_15	0.2622	20	-	-	-		

Page 134 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

F610466

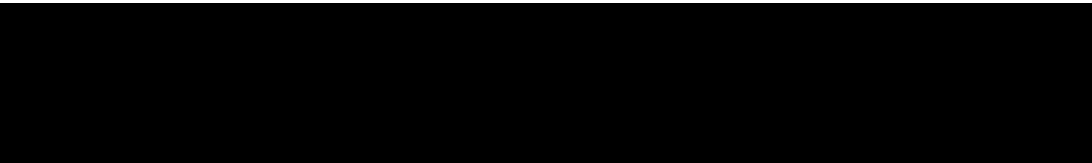
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/31/2016

1610144-36	ES-13_093016_BLM_WB_16	0.2778	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610530

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion**

**Prepared: 10/31/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610530-BLK1	Blank	0.6	40					
F610530-BLK2	Blank	0.6	40					
F610530-BLK3	Blank	0.6	40					
F610530-BS1	Blank Spike	0.6	40	1605712	200			
F610530-BSD1	Blank Spike Dup	0.6	40	1605712	200			
F610530-DUP1	Duplicate [1610302-01RE2]	0.6263	40					
F610530-MS1	Matrix Spike [1610302-01RE2]	0.6294	40	1605712	200			
F610530-MS2	Matrix Spike [1610302-01RE2]	0.0165875	1	1605272	125			[Spk] 0.6635g->40ml; 40ml->40ml; Spiked 1ml
F610530-MSD1	Matrix Spike Dup [1610302-01RE2]	0.6422	40	1605712	200			
F610530-MSD2	Matrix Spike Dup [1610302-01RE2]	0.0165875	1	1605272	125			[Spk] 0.6635g->40ml; 40ml->40ml; Spiked 1ml

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605815	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606187	3% SnCl2 THg reductant	15-Apr-17 00:00



**PREPARATION BENCH SHEET**

F610530

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion**

**Prepared: 10/31/2016**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610302-01RE1	S-00013 RCI-10177215	0.6635	40	-	-	-	Added 10/27/2016 by BC	
1610302-01RE2	S-00013 RCI-10177215	0.6635	40	-	-	-	Added 11/1/2016 by DM2	Added 11/1/2016 by DM2
1610302-02RE1	S-00014 RCI-10177215	0.6667	40	-	-	-	Added 10/27/2016 by BC	
1610302-02RE2	S-00014 RCI-10177215	0.6667	40	-	-	-	Added 11/1/2016 by DM2	Added 11/1/2016 by DM2
1610302-03RE1	S-00009 RCI-10075894	0.6272	40	-	-	-	Added 10/27/2016 by BC	
1610302-03RE2	S-00009 RCI-10075894	0.6272	40	-	-	-	Added 11/1/2016 by DM2	Added 11/1/2016 by DM2
1610302-04RE1	S-00010 RCI-10075894	0.6628	40	-	-	-	Added 10/27/2016 by BC	
1610302-04RE2	S-00010 RCI-10075894	0.6628	40	-	-	-	Added 11/1/2016 by DM2	Added 11/1/2016 by DM2
1610302-05RE1	S-00005 RCI-13273032	0.6421	40	-	-	-	Added 10/27/2016 by BC	
1610302-05RE2	S-00005 RCI-13273032	0.6421	40	-	-	-	Added 11/1/2016 by DM2	Added 11/1/2016 by DM2
1610302-06RE1	S-00006 RCI-13273032	0.6259	40	-	-	-	Added 10/27/2016 by BC	
1610745-01	GP ULTRA 25	0.6468	40	-	-	-		
1610755-01RE1	740-2016-00015583	0.6255	40	-	See COC	-	Added 10/28/2016 by BC	
1610755-02RE1	740-2016-00015584	0.6311	40	-	See COC	-	Added 10/28/2016 by BC	

PREPARATION BENCH SHEET

26003

11/1/16 DM

F610530

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/31/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610530-BLK1	Blank	0.6	40					SOX
F610530-BLK2	Blank	0.6	40					SOX
F610530-BLK3	Blank	0.6	40					SOX
F610530-BS1	Blank Spike	0.6	40	1605712	200			SOX
F610530-BSD1	Blank Spike Dup	0.6	40	1605712	200			SOX
F610530-DUP1	Duplicate [1610302-01 <del>REL</del> ] RE2	0.6263	40					SOX
F610530-MS1	Matrix Spike [1610302-01 <del>REL</del> ] RE2	0.6294	40	1605712	200			SOX
F610530-MSD1	Matrix Spike Dup [1610302-01 <del>REL</del> ] RE2	0.6422	40	1605712	200			SOX

Standard ID(s): 1605712  
 Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 03-Apr-17 00:00

Reagent ID(s): 1603399, 1605815  
 Description: Boiling Chips for AFS prep, Fisher Nitric Acid, Tracemetal Grade

Expiration: 01-Jun-17 00:00, 24-Mar-18 00:00

RE2, MS02 - AS, ASD

Source 1610302-01 RE2

125ul 1605272

1602941

1605635

1605636

1606187

PREPARATION BENCH SHEET

2650-3  
11/1/16 DM

F610530

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 10/31/2016

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610302-01RE1	S-00013 RCI-10177215	0.6635	40	-	-	-	Added 10/27/2016 by BC	250X → 50X
1610302-02RE1	S-00014 RCI-10177215	0.6667	40	-	-	-	Added 10/27/2016 by BC	250X → 50X
1610302-03RE1	S-00009 RCI-10075894	0.6272	40	-	-	-	Added 10/27/2016 by BC	250X → 50X
1610302-04RE1	S-00010 RCI-10075894	0.6628	40	-	-	-	Added 10/27/2016 by BC	250X → 50X
1610302-05RE1	S-00005 RCI-13273032	0.6421	40	-	-	-	Added 10/27/2016 by BC	250X → 50X
1610302-06RE1	S-00006 RCI-13273032	0.6259	40	-	-	-	Added 10/27/2016 by BC	50X
1610745-01	GP ULTRA 25	0.6468	40	-	-	-		50X
1610755-01RE1	740-2016-00015583	0.6255	40	-	See COC	-	Added 10/28/2016 by BC	50X
1610755-02RE1	740-2016-00015584	0.6311	40	-	See COC	-	Added 10/28/2016 by BC	50X



# Oven Bomb Digestions

#	Sample/ Batch ID	Bomb #	Sample (g)	Notes
13	1610302-03RR1	N24	0.6272	
14	1610302-04RR1	N309	0.6628	
15	1610302-05RR1	143	0.6421	
16	1610302-06RR1	N42	0.6259	
17	1610745-01	D52	0.6468	
18	1610755-01RR1	N212	0.6255	
19	1610755-02RR1	N332	0.6311	
20				
21				
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25				
26				10-31-16 DM
27				
28				
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46				

Reviewed 11/1/16 DM

Additional Comments:

# Oven Bomb Digestions

Lab Tech(s): Dwyer Spiked By: JK TM Batch #: N/A Hg Batch #: F610530  
 Balance #: 19 Oven SN: 2 Therm. SN: 12040514272  
 Temp. (°C): 158.3 (w/o CF) 157.7 (w/ CF) Date In: 10/31/16 Time In: 11:30  
 Date Out: 11-01-16 Time Out: 5:55:55 Final Vol. (mL): 40

Spike Name	Volume (µL)	LIMS #	Combined LIMS #
<u>THy1000g/L</u>	<u>200</u>	<u>1605712</u>	
<u>10/31/16</u> <u>JK</u>			

7/10-31-16  
JK

Pipette / Dispenser	Cal Date
<u>MA11619</u>	<u>10-30-16</u>
<u>09W45357</u>	<u>8-15-16</u>
<u>10-31-16</u> <u>JK</u>	

**EFGS-111 130±5°C 12 hours**  
(below applies to entire batch)

4 mL split removed and 5% BrCl added? Y

LIMS #: \_\_\_\_\_

Added 25 mL of HF/HNO<sub>3</sub> solution? Y

LIMS #: \_\_\_\_\_

Added 3 mL conc. HCl? Y

LIMS #: \_\_\_\_\_

Boil Down	Step 1	25 mL conc. HNO <sub>3</sub> added?	Y <input type="checkbox"/>
	Step 2	25 mL conc. HNO <sub>3</sub> added?	Y <input type="checkbox"/>
	Step 3	5 mL conc. HNO <sub>3</sub> added?	Y <input type="checkbox"/>

**EFGS-084 130±5°C 18 hours**  
(below applies to entire batch)

Added 10 mL conc. HCl? Y

LIMS #: \_\_\_\_\_

Added 7 mL conc. HNO<sub>3</sub>? Y

LIMS #: \_\_\_\_\_

**EFGS-141 160±5°C 18 hours**  
(below applies to entire batch)

Added 7.5 mL conc. HNO<sub>3</sub>? Y

LIMS #: 1605815

#	Sample/ Batch ID	Bomb #	Sample (g)	Notes
1	<u>F610530 Blank1</u>	<u>D521</u>	<u>0.5882</u>	<u>1603399</u>
2	<u>F610530 Blank2</u>	<u>N186</u>	<u>0.6103</u>	
3	<u>F610530 Blank3</u>	<u>N209</u>	<u>0.6254</u>	
4	<u>F610530 BS1</u>	<u>N83</u>	<u>0.6180</u>	
5	<u>F610530 BS01</u>	<u>N230</u>	<u>0.6072</u>	
6	<u>F610530 Dup1</u>	<u>TH009</u>	<u>0.6263</u>	<u>1610302-01</u>
7	<u>F610530 MS1</u>	<u>N139</u>	<u>0.6294</u>	<u>1610302-01</u>
8	<u>F610530 MS01</u>	<u>N294</u>	<u>0.6422</u>	<u>1610302-01</u>
9	<u>F610530 MS2</u>	<u>N263</u>		<u>10-31-16 JK</u>
10	<u>F610530 MS02</u>	<u>N25</u>		<u>10/31/16 JK</u>
11	<u>1610302-01/Rec1</u>	<u>N298</u>	<u>0.6635</u>	<u>N263</u>
12	<u>1610302-02/Rec2</u>	<u>N169</u>	<u>0.6667</u>	

Reviewed 11/1/16 JK

Additional Comments:  
Centrifuge Tube #1252617-0026

PREPARATION BENCH SHEET

2600-3  
11/1/16 DM

F610466

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/31/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610466-BLK1	Blank	0.25	20					20X
F610466-BLK2	Blank	0.25	20					20X
F610466-BLK3	Blank	0.25	20					20X
F610466-BS1	Blank Spike	0.25	20	1605270	20			20X
F610466-BS2	DORM-4	0.1256	20	1605470	126			500X
F610466-BSD1	Blank Spike Dup	0.5	20	1605270	20			20X
F610466-DUP1	Duplicate [1610144-18]	0.2713	20					500X
F610466-MS1	Matrix Spike [1610144-21]	0.269	20	1605712	100			500X
F610466-MS2	Matrix Spike [1610144-31]	0.27	20	1605712	100			500X
F610466-MSD1	Matrix Spike Dup [1610144-21]	0.2713	20	1605712	100			500X
F610466-MSD2	Matrix Spike Dup [1610144-31]	0.2743	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606257	5% BrCl	26-Mar-17 00:00

1605635  
1605636  
1602941  
1606187

PREPARATION BENCH SHEET

F610466

Eurofins Frontier Global Sciences, Inc.

200.9

11/1/16 DM

Matrix: Tissue

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

Prepared: 10/31/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-17	ES-03_092716_BLM_WB_17	0.2634	20	-	-	-		500X
1610144-18	ES-03_092716_BLM_WB_18	0.2782	20	-	-	-		500X
1610144-19	ES-03_092716_BLM_WB_19	0.2856	20	-	-	-		500X
1610144-20	ES-03_092716_BLM_WB_20	0.2686	20	-	-	-		500X
1610144-21	ES-13_093016_BLM_WB_01	0.2609	20	QC	-	-	MS/MSD	500X
1610144-22	ES-13_093016_BLM_WB_02	0.2733	20	-	-	-		500X
1610144-23	ES-13_093016_BLM_WB_03	0.2875	20	-	-	-		500X
1610144-24	ES-13_093016_BLM_WB_04	0.2904	20	-	-	-		500X
1610144-25	ES-13_093016_BLM_WB_05	0.274	20	-	-	-		500X
1610144-26	ES-13_093016_BLM_WB_06	0.2975	20	-	-	-		500X
1610144-27	ES-13_093016_BLM_WB_07	0.2908	20	-	-	-		500X
1610144-28	ES-13_093016_BLM_WB_08	0.2764	20	-	-	-		500X
1610144-29	ES-13_093016_BLM_WB_09	0.265	20	-	-	-		500X
1610144-30	ES-13_093016_BLM_WB_10	0.2864	20	-	-	-		500X
1610144-31	ES-13_093016_BLM_WB_11	0.278	20	-	-	-		500X
1610144-32	ES-13_093016_BLM_WB_12	0.2728	20	-	-	-		500X
1610144-33	ES-13_093016_BLM_WB_13	0.2793	20	-	-	-		500X
1610144-34	ES-13_093016_BLM_WB_14	0.2754	20	-	-	-		500X
1610144-35	ES-13_093016_BLM_WB_15	0.2622	20	-	-	-		500X

Page 143 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

26003

F610466

11/1/16 DM

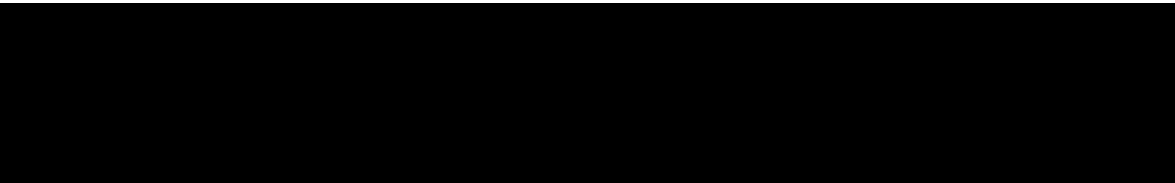
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/31/2016

1610144-36	ES-13_093016_BLM_WB_16	0.2778	20	-	-	-	500x
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Technician: Duyen Batch#: F610466 Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 13:55 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 15:55 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C

Final vol.: 20 mL (LIMS ID: 1606257) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: Dm 10/31/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11667 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 04N23492 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 02K27494  Yes  
 Glass Vial # 020065550 Boiling Chip lot # 1603399 \*Hotblock Position: K, 3

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	F610466 Blank1	0.2540	23	1610144-28	0.2764	DORM-4
2	F610466 Blank2	0.2710	24	1610144-29	0.2650	BS2
3	F610466 Blank3	0.2583	25	1610144-30	0.2864	1605470
4	F610466 BS1	0.2619	26	1610144-31	0.2780	Comments
5	F610466 BS01	0.2498	27	1610144-32	0.2728	
6	F610466 BS2	0.1256	28	1610144-33	0.2797	S=100µg/LC =20/605270
7	F610466 Dup1	0.2713	29	1610144-34	0.2754	Dup1 source
8	F610466 MS1	0.2690	30	1610144-35	0.2622	1610144-18
9	F610466 MS01	0.2713	31	1610144-26	0.2778	MS1 MS01
10	F610466 MS2	0.2700	32			1610144-21
11	F610466 MS02	0.2743	33			
12	1610144-17	0.2634	34			MS2 MS02
13	1610144-18	0.2782	35			1610144-31
14	1610144-19	0.2856	36			10/31/16 out
15	1610144-20	0.2686	37			
16	1610144-21	0.2609	38			
17	1610144-22	0.2737	39			
18	1610144-23	0.2875	40			
19	1610144-24	0.2904	41			
20	1610144-25	0.2740	42			
21	1610144-26	0.2975	43			
22	1610144-27	0.2908	44			

PREPARATION BENCH SHEET

2600-3

11/1/16 DM

F610260

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 10/5/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610260-BLK1	Blank	0.4	125					20X
F610260-BLK2	Blank	0.4	125					20X
F610260-BLK3	Blank	0.4	125					20X
F610260-BS1	LCS 0.008	<del>0.4</del>	2.5 125	1604715	100			20X
F610260-BSD1	LCS Dup 0.008	<del>0.4</del>	2.5 125	1604715	100			20X
F610260-MS1	Matrix Spike 1610140-06	0.4	125	1605272	100			10,000X
F610260-MSD1	Matrix Spike Dup 1610140-06	0.4	125	1605272	100			10,000X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605262	1N KOH for SSE	08-Mar-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605683	1N KOH for SSE	28-Mar-17 00:00
			1605821		04-Apr-17 00:00

DUP1 - SOURCE 1610140-06  
10,000X

1605635  
1602941  
1605636  
1606187

PREPARATION BENCH SHEET

2000.3

11/11/16 DM

F610260

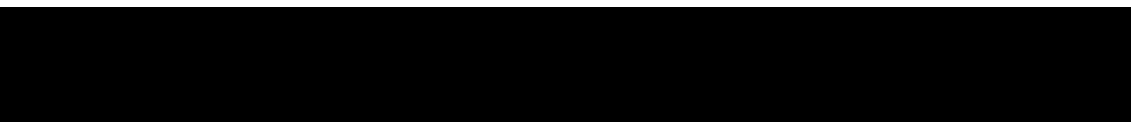
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-3

Prepared: 10/5/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610140-01	Hg0	0.43	125	No	High QA 250,000X
1610140-02	Hg0	0.438	125		High QA 250,000X
1610140-03	Hg0	0.441	125		High QA 250,000X
1610140-04	HgS	0.41	125		High QA 250,000X → 10,000X
1610140-05	HgS	0.439	125	No	High QA 250,000X → 10,000X
1610140-06	HgS	0.405	125	No	High QA 10,000X
1610140-07	Hg2Cl2	0.469	125	No	High QA 250,000X
1610140-08	Hg2Cl2	0.455	125	No	High QA 250,000X
1610140-09	Hg2Cl2	0.464	125	No	High QA 250,000X



Technician: AMB Batch#: F610260 Date: 10/5/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: SSE F3

Vial Type:  Glass  Teflon

Balance#: 10 Calibrated?  Yes  No Therm.#: \_\_\_\_\_ Calibrated?  Yes  No

Time in: \_\_\_\_\_ Actual Temp. (raw): \_\_\_\_\_ °C w/ CF: \_\_\_\_\_ °C

Time out: \_\_\_\_\_ Actual Temp. (raw): \_\_\_\_\_ °C w/ CF: \_\_\_\_\_ °C

Final vol.: 125 mL (LIMS ID: \_\_\_\_\_) Spike vol.: \_\_\_\_\_ µL (LIMS ID: \_\_\_\_\_)

Spike Witness: \_\_\_\_\_ (initial and date)

MOMA 10/15/16  
 10/16/16  
 10/16/16  
 10/16/16  
 10/16/16  
 10/16/16

F3 KOH  
 HCL LIMS ID: 1605262/1605683/1605821  
 F3 BrCl  
 HNO<sub>3</sub> LIMS ID: 1605634  
 F4 12N HNO<sub>3</sub>  
 70/30 LIMS ID: 1605682

Pipette SN#: NU01049 Calibration Date: 10/4/16

Pipette SN#: \_\_\_\_\_ Calibration Date: \_\_\_\_\_

Dispenser #: \_\_\_\_\_ Calibrated?  Yes  No

Other Acid LIMS ID: \_\_\_\_\_ Dispenser #: \_\_\_\_\_

Glass Vial # N/A Teflon Vials Boiling Chip lot # NT-1603399 \*Hotblock Position: N/A  
AMB 10/5/16

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	F610260-BLK1		23			1605056: Hg2Cl2
2	F610260-BLK2		24			1605057: Hg0
3	F610260-BLK3		25			1605058: HgS
4	1610140-01	0.430	26			Comments 1610140-1 to 3 is CRM Hg0
5	1610140-02	0.438	27			
6	1610140-03	0.441	28			
7	1610140-04	0.410	29			1610140-4 to 6 is CRM HgS
8	1610140-05	0.439	30			
9	1610140-06	0.465	31			1610140-7 to 9 is CRM Hg2Cl2
10	1610140-07	0.469	32			
11	1610140-08	0.455	33			
12	1610140-09	0.464	34			BLK 1 to BLK 3 shared with F610227
13			35			
14			36			FH batch# F610280 FS batch# F610281
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

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

<b>Analyst:</b> DON MORAN	<b>Sequence(s) #:</b> 6K01017, 6K01018, 6K01016
<b>Reviewer:</b> <u>[Signature]</u>	<b>Dataset ID(s):</b> THG26003-161101-1
<b>Date:</b> 11/1/2016	<b>WO (s) #:</b> 1610140, 1610144, 1610302, 1610745, 1610755
<b>Batch #(s):</b> F610260, F610466, F610530	

• Select the correct preparation method.

Analyte	Prep Method	FSTM Trap	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2985	FSTM Trap 70:30 Digest	Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia	Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO <sub>3</sub> /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"/> Hg <sup>0</sup>	NA	NA	Water
<input type="checkbox"/> Inorg Hg	NA	NA	Water

**Analyst Initials:** DM

**Reviewer Initials:** [Signature]

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 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? <span style="float:right">WO#(s)/Client(s): _____</span>                                | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS)  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples?               | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	6K01017, 6K01018, 6K01016
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-161101-1
Date:	11/1/2016	WO (s) #:	1610140, 1610144, 1610302, 1610745, 1610755
Batch #(s):	F610260, F610466, F610530		0

Analyst Initials DM

Reviewer Initials DM

- 5b. Has the B/C section data been uploaded?  YES  NO  N/A
- QA/QC Data Checked**
6. RSD CF ( $\leq 15\%$ )  PASS  FAIL
- Comments: \_\_\_\_\_
7. The calibration curve included a minimum of 5 Standards  YES  NO
- Comments: \_\_\_\_\_
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)  PASS  FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%)  PASS  FAIL
- Comments: \_\_\_\_\_
10. Do all calibration points pass acceptance criteria?  YES  NO
- Comments: \_\_\_\_\_
11. Are qualifiers consistent with the data review flowcharts?  YES  NO  N/A
- Comments: \_\_\_\_\_
12. Explain any items on the failed data report from Element
- Comments: F610530-MSD1 FAILED. HIGH RECOVERY
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 BrCI Blank analyzed for each preservation level?  YES  NO  N/A
- (d) Are Preparation Blanks summarized on QC page?  YES  NO
14. Filtration Blank Prepared (if yes, use FB qualifier)  YES  NO
- (a) Filtration Blank prep date same as associated samples' prep date  YES  NO  N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI  YES  NO  N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?  PASS  FAIL
- Comments: \_\_\_\_\_
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?  PASS  FAIL
- Comments: \_\_\_\_\_
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

Analyst: <u>DON MORAN</u>	Sequence(s) #: <u>6K01017, 6K01018, 6K01016</u>
Reviewer: <u>0</u>	Dataset ID(s): <u>THG26003-161101-1</u>
Date: <u>11/1/2016</u>	WO (s) #: <u>1610140, 1610144, 1610302, 1610745, 1610755</u>
Batch #(s): <u>F610260, F610466, F610530</u>	<u>0</u>

Analyst Initials DM

Reviewer Initials AM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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 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 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  |
| 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\IDOCs**
- |   |                |                                  |   |                             |                                     |
|---|----------------|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____                | 12/16/2015     | 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: _____                              | 7/7/16, 7/8/16 | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 7/7/16, 7/8/16 | 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) #:	6K01017, 6K01018, 6K01016
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-161101-1
Date:	11/1/2016	WO (s) #:	1610140, 1610144, 1610302, 1610745, 1610755
Batch #(s):	F610260, F610466, F610530		0

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


Additional Page (s)?  YES



Analysis Datasheet for Total Mercury

Date of Analysis: November 01, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K02012, 6K02011

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	133.54 units	267.07	119.43 units	238.86	99.7 %Rec
SEQ-CAL2	1	1.00 ng/L	256.78 units	256.78	242.67 units	242.67	101.3 %Rec
SEQ-CAL3	1	5.00 ng/L	1186.46 units	237.29	1172.35 units	234.47	97.9 %Rec
SEQ-CAL4	1	20.00 ng/L	4848.61 units	242.43	4834.51 units	241.73	100.9 %Rec
SEQ-CAL5	1	40.00 ng/L	9599.28 units	239.98	9585.18 units	239.63	100.1 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF** 239.47   
 **Corr. St Dev RF** +/- 3.19   
 **Corr. RSD CF** 1.3% RSD   
 **Uncorr. Mean RF** 248.71

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	14.11 units	±1.51	0.06 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	2.072 ng/L	±0.363
BLK	2	3	4.359 ng/L	±2.573
BLK	3	3	15.116 ng/L	±4.863
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 11/2/16

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	11/1/2016 6:53:49	65059-1.RAW	6:53:49 AM	13.52			-0.6	-0.002	-0.002	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/1/2016 6:57:58	65060-1.RAW	6:57:58 AM	15.83			1.7	0.007	0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/1/2016 7:02:06	65061-1.RAW	7:02:06 AM	12.97			-1.1	-0.005	-0.005	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/1/2016 7:06:15	65062-1.RAW	7:06:15 AM	133.54			119.4	0.499	0.499	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/1/2016 7:10:23	65063-1.RAW	7:10:23 AM	256.78			242.7	1.013	1.013	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/1/2016 7:14:31	65064-1.RAW	7:14:31 AM	1186.46			1172.4	4.896	4.896	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/1/2016 7:18:40	65065-1.RAW	7:18:40 AM	4848.61			4834.5	20.188	20.188	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/1/2016 7:22:48	65066-1.RAW	7:22:48 AM	9599.28			9585.2	40.026	40.026	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/1/2016 7:26:57	65067-1.RAW	7:26:57 AM	1249.82			1235.7	5.160	5.160	ng/L	
Hg2600-2	DM2	SAM	F610464-BLK1	20	11/1/2016 7:48:35	65068-1.RAW	7:48:35 AM	210.45	1 X		196.3	0.820	16.398	ng/L	
Hg2600-2	DM2	BLK	F610464-BLK2	20	11/1/2016 7:52:44	65069-1.RAW	7:52:44 AM	34.43	1		20.3	0.085	1.697	ng/L	
Hg2600-2	DM2	BLK	F610464-BLK3	20	11/1/2016 7:56:52	65070-1.RAW	7:56:52 AM	39.22	1		25.1	0.105	2.097	ng/L	
Hg2600-2	DM2	SAM	F610464-BS1	20	11/1/2016 8:01:00	65071-1.RAW	8:01:00 AM	1228.47	1		1214.4	4.967	99.349	ng/L	
Hg2600-2	DM2	SAM	F610464-BSD1	20	11/1/2016 8:05:09	65072-1.RAW	8:05:09 AM	1267.82	1		1253.7	5.132	102.634	ng/L	
Hg2600-2	DM2	SAM	F610464-BS2	500	11/1/2016 8:09:17	65073-1.RAW	8:09:17 AM	1039.46	1		1025.4	4.278	2138.800	ng/L	
Hg2600-2	DM2	SAM	1610141-21	500	11/1/2016 8:13:26	65074-1.RAW	8:13:26 AM	1136.12	1		1122.0	4.681	2340.609	ng/L	
Hg2600-2	DM2	SAM	1610141-32	500	11/1/2016 8:17:34	65075-1.RAW	8:17:34 AM	1792.04	1		1777.9	7.420	3710.130	ng/L	
Hg2600-2	DM2	SAM	1610141-33	500	11/1/2016 8:21:43	65076-1.RAW	8:21:43 AM	1259.40	1		1245.3	5.196	2598.009	ng/L	
Hg2600-2	DM2	SAM	1610141-34	500	11/1/2016 8:25:51	65077-1.RAW	8:25:51 AM	1063.26	1		1049.2	4.377	2188.491	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/1/2016 8:29:59	65078-1.RAW	8:29:59 AM	1164.58			1150.5	4.804	4.804	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/1/2016 8:34:08	65079-1.RAW	8:34:08 AM	34.58			20.5	0.085	0.085	ng/L	
Hg2600-2	DM2	SAM	1610141-35	500	11/1/2016 8:38:16	65080-1.RAW	8:38:16 AM	1388.56	1		1374.4	5.735	2867.687	ng/L	
Hg2600-2	DM2	SAM	1610141-36	500	11/1/2016 8:42:25	65081-1.RAW	8:42:25 AM	1601.43	1		1587.3	6.624	3312.158	ng/L	
Hg2600-2	DM2	SAM	1610141-37	500	11/1/2016 8:46:33	65082-1.RAW	8:46:33 AM	1092.66	1		1078.6	4.500	2249.874	ng/L	
Hg2600-2	DM2	SAM	1610141-38	500	11/1/2016 8:50:41	65083-1.RAW	8:50:41 AM	738.84	1		724.7	3.022	1511.123	ng/L	
Hg2600-2	DM2	SAM	1610141-39	500	11/1/2016 8:54:50	65084-1.RAW	8:54:50 AM	528.04	1		513.9	2.142	1070.981	ng/L	
Hg2600-2	DM2	SAM	1610141-40	500	11/1/2016 8:58:58	65085-1.RAW	8:58:58 AM	954.43	1		940.3	3.923	1961.260	ng/L	
Hg2600-2	DM2	SAM	1610141-41	500	11/1/2016 9:03:07	65086-1.RAW	9:03:07 AM	803.22	1		789.1	3.291	1645.544	ng/L	
Hg2600-2	DM2	SAM	1610141-42	500	11/1/2016 9:07:15	65087-1.RAW	9:07:15 AM	984.48	1		970.4	4.048	2024.013	ng/L	
Hg2600-2	DM2	SAM	1610141-43	500	11/1/2016 9:11:24	65088-1.RAW	9:11:24 AM	1364.49	1		1350.4	5.635	2817.433	ng/L	
Hg2600-2	DM2	SAM	1610141-44	500	11/1/2016 9:15:32	65089-1.RAW	9:15:32 AM	942.57	1		928.5	3.873	1936.496	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/1/2016 9:19:40	65090-1.RAW	9:19:40 AM	1122.29			1108.2	4.628	4.628	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/1/2016 9:23:49	65091-1.RAW	9:23:49 AM	35.82			21.7	0.091	0.091	ng/L	
Hg2600-2	DM2	BLK	F610464-BLK4	20	11/1/2016 9:27:57	65092-1.RAW	9:27:57 AM	43.11	1		29.0	0.121	2.422	ng/L	
Hg2600-2	DM2	SAM	1610141-45	500	11/1/2016 9:32:06	65093-1.RAW	9:32:06 AM	1709.12	1		1695.0	7.074	3537.002	ng/L	
Hg2600-2	DM2	SAM	1610141-46	500	11/1/2016 9:36:14	65094-1.RAW	9:36:14 AM	889.13	1		875.0	3.650	1824.918	ng/L	
Hg2600-2	DM2	SAM	1610141-47	500	11/1/2016 9:40:22	65095-1.RAW	9:40:22 AM	822.05	1		807.9	3.370	1684.859	ng/L	
Hg2600-2	DM2	SAM	1610141-48	500	11/1/2016 9:44:31	65096-1.RAW	9:44:31 AM	1662.96	1		1648.9	6.881	3440.631	ng/L	
Hg2600-2	DM2	SAM	1610141-49	500	11/1/2016 9:48:39	65097-1.RAW	9:48:39 AM	759.56	1		745.4	3.109	1554.375	ng/L	
Hg2600-2	DM2	SAM	1610141-50	500	11/1/2016 9:52:48	65098-1.RAW	9:52:48 AM	1409.04	1		1394.9	5.821	2910.454	ng/L	
Hg2600-2	DM2	SAM	F610464-DUP1	500	11/1/2016 9:56:56	65099-1.RAW	9:56:56 AM	1073.33	1		1059.2	4.419	2209.520	ng/L	
Hg2600-2	DM2	SAM	F610464-MS1	500	11/1/2016 10:01:05	65100-1.RAW	10:01:05 AM	3083.80	1		3069.7	12.815	6407.256	ng/L	
Hg2600-2	DM2	SAM	F610464-MSD1	500	11/1/2016 10:05:13	65101-1.RAW	10:05:13 AM	3277.24	1		3263.1	13.622	6811.137	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/1/2016 10:09:21	65102-1.RAW	10:09:21 AM	1162.73			1148.6	4.797	4.797	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/1/2016 10:13:30	65103-1.RAW	10:13:30 AM	51.30			37.2	0.155	0.155	ng/L	
Hg2600-2	DM2	SAM	F610464-MS2	500	11/1/2016 10:17:38	65104-1.RAW	10:17:38 AM	3147.02	1		3132.9	13.078	6539.242	ng/L	
Hg2600-2	DM2	SAM	F610464-MSD2	500	11/1/2016 10:21:47	65105-1.RAW	10:21:47 AM	3319.31	1		3305.2	13.798	6898.980	ng/L	
Hg2600-2	DM2	BLK	F610465-BLK1	20	11/1/2016 10:25:55	65106-1.RAW	10:25:55 AM	100.66	2		86.5	0.361	7.228	ng/L	
Hg2600-2	DM2	BLK	F610465-BLK2	20	11/1/2016 10:30:03	65107-1.RAW	10:30:03 AM	57.11	2		43.0	0.180	3.592	ng/L	
Hg2600-2	DM2	BLK	F610465-BLK3	20	11/1/2016 10:34:12	65108-1.RAW	10:34:12 AM	41.13	2		27.0	0.113	2.257	ng/L	
Hg2600-2	DM2	SAM	F610465-BS1	20	11/1/2016 10:38:20	65109-1.RAW	10:38:20 AM	1202.63	2		1188.5	4.745	94.904	ng/L	
Hg2600-2	DM2	SAM	F610465-BSD1	20	11/1/2016 10:42:29	65110-1.RAW	10:42:29 AM	1234.13	2		1220.0	4.877	97.534	ng/L	
Hg2600-2	DM2	SAM	F610465-BS2	500	11/1/2016 10:46:37	65111-1.RAW	10:46:37 AM	995.85	2		981.7	4.091	2045.461	ng/L	
Hg2600-2	DM2	SAM	1610141-51	500	11/1/2016 10:50:46	65112-1.RAW	10:50:46 AM	1362.02	2		1347.9	5.620	2809.995	ng/L	
Hg2600-2	DM2	SAM	1610141-52	500	11/1/2016 10:54:54	65113-1.RAW	10:54:54 AM	955.17	2		941.1	3.921	1960.521	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/1/2016 10:59:02	65114-1.RAW	10:59:02 AM	1145.53			1131.4	4.725	4.725	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/1/2016 11:03:11	65115-1.RAW	11:03:11 AM	36.18			22.1	0.092	0.092	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	1610141-53	500	11/1/2016 11:07:19	65116-1.RAW	11:07:19 AM	1743.87	2		1729.8	7.215	3607.266	ng/L	
Hg2600-2	DM2	SAM	1610141-54	500	11/1/2016 11:11:28	65117-1.RAW	11:11:28 AM	994.14	2		980.0	4.084	2041.884	ng/L	
Hg2600-2	DM2	SAM	1610144-01	500	11/1/2016 11:15:36	65118-1.RAW	11:15:36 AM	507.18	2		493.1	2.050	1025.143	ng/L	
Hg2600-2	DM2	SAM	1610144-02	500	11/1/2016 11:19:45	65119-1.RAW	11:19:45 AM	370.78	2		356.7	1.481	740.346	ng/L	
Hg2600-2	DM2	SAM	1610144-03	500	11/1/2016 11:23:53	65120-1.RAW	11:23:53 AM	399.41	2		385.3	1.600	800.132	ng/L	
Hg2600-2	DM2	SAM	1610144-04	500	11/1/2016 11:28:01	65121-1.RAW	11:28:01 AM	504.36	2		490.2	2.038	1019.248	ng/L	
Hg2600-2	DM2	SAM	1610144-05	500	11/1/2016 11:32:10	65122-1.RAW	11:32:10 AM	524.09	2		510.0	2.121	1060.442	ng/L	
Hg2600-2	DM2	SAM	1610144-06	500	11/1/2016 11:36:18	65123-1.RAW	11:36:18 AM	737.04	2		722.9	3.010	1505.079	ng/L	
Hg2600-2	DM2	SAM	1610144-07	500	11/1/2016 11:40:28	65124-1.RAW	11:40:28 AM	446.29	2		432.2	1.796	898.007	ng/L	
Hg2600-2	DM2	SAM	1610144-08	500	11/1/2016 11:44:36	65125-1.RAW	11:44:36 AM	436.51	2		422.4	1.755	877.582	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/1/2016 11:48:44	65126-1.RAW	11:48:44 AM	1086.938862			1072.8	4.480	4.480	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/1/2016 11:52:53	65127-1.RAW	11:52:53 AM	33.48			19.4	0.081	0.081	ng/L	
Hg2600-2	DM2	SAM	1610144-09	500	11/1/2016 11:57:01	65128-1.RAW	11:57:01 AM	704.92	2		690.8	2.876	1438.018	ng/L	
Hg2600-2	DM2	SAM	1610144-10	500	11/1/2016 12:01:10	65129-1.RAW	12:01:10 PM	441.62	2		427.5	1.777	888.258	ng/L	
Hg2600-2	DM2	SAM	1610144-11	500	11/1/2016 12:05:18	65130-1.RAW	12:05:18 PM	391.97	2		377.9	1.569	784.584	ng/L	
Hg2600-2	DM2	SAM	1610144-12	500	11/1/2016 12:09:27	65131-1.RAW	12:09:27 PM	483.71	2		469.6	1.952	976.131	ng/L	
Hg2600-2	DM2	SAM	1610144-13	500	11/1/2016 12:13:35	65132-1.RAW	12:13:35 PM	517.51	2		503.4	2.093	1046.722	ng/L	
Hg2600-2	DM2	SAM	1610144-14	500	11/1/2016 12:17:43	65133-1.RAW	12:17:43 PM	322.92	2		308.8	1.281	640.431	ng/L	
Hg2600-2	DM2	SAM	1610144-15	500	11/1/2016 12:21:52	65134-1.RAW	12:21:52 PM	756.14	2		742.0	3.090	1544.954	ng/L	
Hg2600-2	DM2	SAM	1610144-16	500	11/1/2016 12:26:01	65135-1.RAW	12:26:01 PM	844.09	2		830.0	3.457	1728.583	ng/L	
Hg2600-2	DM2	SAM	F610465-DUP1	500	11/1/2016 12:30:10	65136-1.RAW	12:30:10 PM	792.71	2		778.6	3.243	1621.304	ng/L	
Hg2600-2	DM2	SAM	F610465-MS1	500	11/1/2016 12:34:18	65137-1.RAW	12:34:18 PM	2492.87	2		2478.8	10.342	5171.142	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/1/2016 12:38:27	65138-1.RAW	12:38:27 PM	1195.48			1181.4	4.933	4.933	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/1/2016 12:42:35	65139-1.RAW	12:42:35 PM	45.40			31.3	0.131	0.131	ng/L	
Hg2600-2	DM2	SAM	F610465-MSD1	500	11/1/2016 12:46:44	65140-1.RAW	12:46:44 PM	2674.04	2		2659.9	11.099	5549.404	ng/L	
Hg2600-2	DM2	SAM	F610465-MSD2	500	11/1/2016 12:50:52	65141-1.RAW	12:50:52 PM	2903.58	2		2889.5	12.057	6028.664	ng/L	
Hg2600-2	DM2	BLK	F610532-BLK1	100	11/1/2016 12:55:00	65142-1.RAW	12:55:00 PM	3102.80	2		3088.7	12.889	6444.641	ng/L	
Hg2600-2	DM2	BLK	F610532-BLK2	100	11/1/2016 12:59:09	65143-1.RAW	12:59:09 PM	63.62	3		49.5	0.207	20.677	ng/L	
Hg2600-2	DM2	BLK	F610532-BLK3	100	11/1/2016 13:03:17	65144-1.RAW	1:03:17 PM	45.26	3		31.1	0.130	13.007	ng/L	
Hg2600-2	DM2	SAM	F610532-BS1	500	11/1/2016 13:07:26	65145-1.RAW	1:07:26 PM	42.04	3		27.9	0.117	11.663	ng/L	
Hg2600-2	DM2	SAM	F610532-BS1	500	11/1/2016 13:11:34	65146-1.RAW	1:11:34 PM	833.11	3		819.0	3.390	1694.912	ng/L	
Hg2600-2	DM2	SAM	F610532-BSD1	500	11/1/2016 13:15:43	65147-1.RAW	1:15:43 PM	828.52	3		814.4	3.371	1685.318	ng/L	
Hg2600-2	DM2	SAM	1610813-01	2500	11/1/2016 13:19:51	65148-1.RAW	1:19:51 PM	6782.83	3		6768.7	28.259	70648.158	ng/L	
Hg2600-2	DM2	SAM	1610813-02	2500	11/1/2016 13:23:59	65149-1.RAW	1:23:59 PM	8793.56	3		8779.5	36.656	91639.570	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/1/2016 13:28:08	65150-1.RAW	1:28:08 PM	1220.17			1206.1	5.036	5.036	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/1/2016 13:32:16	65151-1.RAW	1:32:16 PM	74.71			60.6	0.253	0.253	ng/L	
Hg2600-2	DM2	SAM	1610900-01	2500	11/1/2016 13:36:25	65152-1.RAW	1:36:25 PM	2209.71	3		2195.6	9.163	22906.282	ng/L	
Hg2600-2	DM2	SAM	1610900-02	2500	11/1/2016 13:40:33	65153-1.RAW	1:40:33 PM	2228.98	3		2214.9	9.243	23107.396	ng/L	
Hg2600-2	DM2	SAM	1610900-03	2500	11/1/2016 13:44:42	65154-1.RAW	1:44:42 PM	3673.76	3		3659.7	15.276	38190.519	ng/L	
Hg2600-2	DM2	SAM	1610900-04	2500	11/1/2016 13:48:50	65155-1.RAW	1:48:50 PM	3508.29	3		3494.2	14.585	36462.986	ng/L	
Hg2600-2	DM2	SAM	1610813-01B	100	11/1/2016 13:52:58	65156-1.RAW	1:52:58 PM	109.27	3		95.2	0.246	24.623	ng/L	
Hg2600-2	DM2	SAM	1610813-02B	100	11/1/2016 13:57:07	65157-1.RAW	1:57:07 PM	79.31	3		65.2	0.121	12.111	ng/L	
Hg2600-2	DM2	SAM	1610900-01B	100	11/1/2016 14:01:15	65158-1.RAW	2:01:15 PM	99.32	3		85.2	0.205	20.470	ng/L	
Hg2600-2	DM2	SAM	1610900-02B	100	11/1/2016 14:05:24	65159-1.RAW	2:05:24 PM	68.47	3		54.4	0.076	7.585	ng/L	
Hg2600-2	DM2	SAM	1610900-03B	100	11/1/2016 14:09:32	65160-1.RAW	2:09:32 PM	88.46	3		74.4	0.159	15.935	ng/L	
Hg2600-2	DM2	SAM	1610900-04B	100	11/1/2016 14:13:40	65161-1.RAW	2:13:40 PM	80.64	3		66.5	0.127	12.666	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/1/2016 14:17:49	65162-1.RAW	2:17:49 PM	1145.70			1131.6	4.725	4.725	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/1/2016 14:21:57	65163-1.RAW	2:21:57 PM	33.38			19.3	0.080	0.080	ng/L	
Hg2600-2	DM2	SAM	1610813-01C	2500	11/1/2016 14:26:06	65164-1.RAW	2:26:06 PM	6486.97	3		6472.9	27.024	67559.449	ng/L	
Hg2600-2	DM2	SAM	1610813-02C	2500	11/1/2016 14:30:14	65165-1.RAW	2:30:14 PM	6558.56	3		6544.5	27.323	68306.891	ng/L	
Hg2600-2	DM2	SAM	1610900-01C	2500	11/1/2016 14:34:23	65166-1.RAW	2:34:23 PM	7876.41	3		7862.3	32.826	82064.814	ng/L	
Hg2600-2	DM2	SAM	1610900-02C	2500	11/1/2016 14:38:31	65167-1.RAW	2:38:31 PM	7802.49	3		7788.4	32.517	81293.043	ng/L	
Hg2600-2	DM2	SAM	1610900-03C	20000	11/1/2016 14:42:39	65168-1.RAW	2:42:39 PM	1516.49	3		1508.4	6.273	125460.037	ng/L	
Hg2600-2	DM2	SAM	1610900-04C	20000	11/1/2016 14:46:48	65169-1.RAW	2:46:48 PM	1476.79	3		1462.7	6.107	122144.078	ng/L	
Hg2600-2	DM2	SAM	F610532-DUP1	2500	11/1/2016 14:50:56	65170-1.RAW	2:50:56 PM	2200.37	3		2186.3	9.123	22808.739	ng/L	
Hg2600-2	DM2	SAM	F610532-MS1	2500	11/1/2016 14:55:05	65171-1.RAW	2:55:05 PM	7065.82	3		7051.7	29.441	73602.510	ng/L	
Hg2600-2	DM2	SAM	F610532-MSD1	2500	11/1/2016 14:59:13	65172-1.RAW	2:59:13 PM	7267.76	3		7253.7	30.284	75710.700	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/1/2016 15:03:21	65173-1.RAW	3:03:21 PM	1216.02			1201.9	5.019	5.019	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/1/2016 15:07:30	65174-1.RAW	3:07:30 PM	74.27			60.2	0.251	0.251	ng/L	

TotalMercury  
EPA1631

Operat DM BlankS 14.108 Calib Eqn:  
Worksh THg2600 CalibFa 239.47 Status:  
Method #### R: 1 R<sup>2</sup>:  
Descrip THg26002-161101-1

Conc = (Area-14.10 Run Date: 11/1/2016 Blank SD: 1.513383262  
QC Warnings:6/QC E Run Time: 7:44:26 Blank RSD%: 10.72743116  
1 CF SD: 3.191208635  
CF RSD%: 1.332607629

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	4.35					65054-1.RAW	6:34:23	1041.52	Clean	OK	1
clean				0.00	0.01					65055-1.RAW	6:37:15	2.19	Clean	OK	1
ws				14.11	0.00					65056-1.RAW	6:41:24	15.19	Sample	OK	1
ws				14.11	0.00					65057-1.RAW	6:45:33	11.19	Sample	OK	1
ws				14.11	0.00					65058-1.RAW	6:49:41	7.37	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.06					65059-1.RAW	6:53:49	13.52	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					65060-1.RAW	6:57:58	15.83	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					65061-1.RAW	7:02:06	12.97	Sample	OK	1
SEQ-CAL1	A4		1	14.11	0.50			99.74		65062-1.RAW	7:06:15	133.54	Sample	OK	1
SEQ-CAL2	A5		1	14.11	1.01			101.34		65063-1.RAW	7:10:23	256.78	Sample	OK	1
SEQ-CAL3	A6		1	14.11	4.90			97.91		65064-1.RAW	7:14:31	1186.46	Sample	OK	1
SEQ-CAL4	A7		1	14.11	20.19			100.94		65065-1.RAW	7:18:40	4848.61	Sample	OK	1
SEQ-CAL5	A8		1	14.11	40.03			100.07		65066-1.RAW	7:22:48	9599.28	Sample	OK	1
SEQ-ICV1	A9		1	14.11	5.16			103.20		65067-1.RAW	7:26:57	1249.82	Sample	OK	1
*F610464-BLK1	A10		20	14.11	16.40					65068-1.RAW	7:48:35	210.45	Sample	OK	1
F610464-BLK2	A11		20	14.11	1.70					65069-1.RAW	7:52:44	34.43	Sample	OK	1
F610464-BLK3	A12		20	14.11	2.10					65070-1.RAW	7:56:52	39.22	Sample	OK	1
F610464-BS1	A13		20	14.11	101.42					65071-1.RAW	8:01:00	1228.47	Sample	OK	1
F610464-BSD1	A14		20	14.11	104.71					65072-1.RAW	8:05:09	1267.82	Sample	OK	1
F610464-BS2	A15		500	14.11	2140.87					65073-1.RAW	8:09:17	1039.46	Sample	OK	1
1610141-21	A16		500	14.11	2342.68					65074-1.RAW	8:13:26	1136.12	Sample	OK	1
1610141-32	A17		500	14.11	3712.20					65075-1.RAW	8:17:34	1792.04	Sample	OK	1
1610141-33	A18		500	14.11	2600.08					65076-1.RAW	8:21:43	1259.40	Sample	OK	1
1610141-34	A19		500	14.11	2190.56					65077-1.RAW	8:25:51	1063.26	Sample	OK	1
SEQ-CCV1	A20		1	14.11	4.80			96.08		65078-1.RAW	8:29:59	1164.58	Sample	OK	1
SEQ-CCB1	A21		1	14.11	0.09			0.00		65079-1.RAW	8:34:08	34.58	Sample	OK	1
1610141-35	B1		500	14.11	2869.76					65080-1.RAW	8:38:16	1388.56	Sample	OK	1
1610141-36	B2		500	14.11	3314.23					65081-1.RAW	8:42:25	1601.43	Sample	OK	1
1610141-37	B3		500	14.11	2251.95					65082-1.RAW	8:46:33	1092.66	Sample	OK	1
1610141-38	B4		500	14.11	1513.19					65083-1.RAW	8:50:41	738.84	Sample	OK	1
1610141-39	B5		500	14.11	1073.05					65084-1.RAW	8:54:50	528.04	Sample	OK	1
1610141-40	B6		500	14.11	1963.33					65085-1.RAW	8:58:58	954.43	Sample	OK	1
1610141-41	B7		500	14.11	1647.62					65086-1.RAW	9:03:07	803.22	Sample	OK	1
1610141-42	B8		500	14.11	2026.08					65087-1.RAW	9:07:15	984.48	Sample	OK	1
1610141-43	B9		500	14.11	2819.51					65088-1.RAW	9:11:24	1364.49	Sample	OK	1
1610141-44	B10		500	14.11	1938.57					65089-1.RAW	9:15:32	942.57	Sample	OK	1
SEQ-CCV2	B11		1	14.11	4.63			92.55		65090-1.RAW	9:19:40	1122.29	Sample	OK	1
SEQ-CCB2	B12		1	14.11	0.09			0.00		65091-1.RAW	9:23:49	35.82	Sample	OK	1
F610464-BLK4	B13		500	14.11	60.55					65092-1.RAW	9:27:57	43.11	Sample	OK	1
1610141-45	B14		500	14.11	3539.07					65093-1.RAW	9:32:06	1709.12	Sample	OK	1
1610141-46	B15		500	14.11	1826.99					65094-1.RAW	9:36:14	889.13	Sample	OK	1
1610141-47	B16		500	14.11	1686.93					65095-1.RAW	9:40:22	822.05	Sample	OK	1
1610141-48	B17		500	14.11	3442.70					65096-1.RAW	9:44:31	1662.96	Sample	OK	1
1610141-49	B18		500	14.11	1556.45					65097-1.RAW	9:48:39	759.56	Sample	OK	1

*11/2/16*  
*20*

1610141-50	B19	500	14.11	2912.53		65098-1.RAW	9:52:48	1409.04	Sample	OK	1
F610464-DUP1	B20	500	14.11	2211.59		65099-1.RAW	9:56:56	1073.33	Sample	OK	1
F610464-MS1	B21	500	14.11	6409.33	289.68	65100-1.RAW	10:01:05	3083.80	Sample	OK	1
F610464-MSD1	C1	500	14.11	6813.21		65101-1.RAW	10:05:13	3277.24	Sample	OK	1
SEQ-CCV3	C2	1	14.11	4.80	95.93	65102-1.RAW	10:09:21	1162.73	Sample	OK	1
SEQ-CCB3	C3	1	14.11	0.16	0.00	65103-1.RAW	10:13:30	51.30	Sample	OK	1
F610464-MS2	C4	500	14.11	6541.31	303499.17	65104-1.RAW	10:17:38	3147.02	Sample	OK	1
F610464-MSD2	C5	500	14.11	6901.05		65105-1.RAW	10:21:47	3319.31	Sample	OK	1
F610465-BLK1	C6	20	14.11	7.23		65106-1.RAW	10:25:55	100.66	Sample	OK	1
F610465-BLK2	C7	20	14.11	3.59		65107-1.RAW	10:30:03	57.11	Sample	OK	1
F610465-BLK3	C8	20	14.11	2.26		65108-1.RAW	10:34:12	41.13	Sample	OK	1
F610465-BS1	C9	20	14.11	99.26		65109-1.RAW	10:38:20	1202.63	Sample	OK	1
F610465-BSD1	C10	20	14.11	101.89		65110-1.RAW	10:42:29	1234.13	Sample	OK	1
F610465-BS2	C11	500	14.11	2049.82		65111-1.RAW	10:46:37	995.85	Sample	OK	1
1610141-51	C12	500	14.11	2814.35		65112-1.RAW	10:50:46	1362.02	Sample	OK	1
1610141-52	C13	500	14.11	1964.88		65113-1.RAW	10:54:54	955.17	Sample	OK	1
SEQ-CCV4	C14	1	14.11	4.72	94.49	65114-1.RAW	10:59:02	1145.53	Sample	OK	1
SEQ-CCB4	C15	1	14.11	0.09	0.00	65115-1.RAW	11:03:11	36.18	Sample	OK	1
1610141-53	C16	500	14.11	3611.63		65116-1.RAW	11:07:19	1743.87	Sample	OK	1
1610141-54	C17	500	14.11	2046.24		65117-1.RAW	11:11:28	994.14	Sample	OK	1
1610144-01	C18	500	14.11	1029.50		65118-1.RAW	11:15:36	507.18	Sample	OK	1
1610144-02	C19	500	14.11	744.71		65119-1.RAW	11:19:45	370.78	Sample	OK	1
1610144-03	C20	500	14.11	804.49		65120-1.RAW	11:23:53	399.41	Sample	OK	1
1610144-04	C21	500	14.11	1023.61		65121-1.RAW	11:28:01	504.36	Sample	OK	1
1610144-05	A1	500	14.11	1064.80		65122-1.RAW	11:32:10	524.09	Sample	OK	1
1610144-06	A2	500	14.11	1509.44		65123-1.RAW	11:36:18	737.04	Sample	OK	1
1610144-07	A3	500	14.11	902.37		65124-1.RAW	11:40:28	446.29	Sample	OK	1
1610144-08	A4	500	14.11	881.94		65125-1.RAW	11:44:36	436.51	Sample	OK	1
SEQ-CCV5	A5	1	14.11	4.48	89.60	65126-1.RAW	11:48:44	1086.94	Sample	OK	1
SEQ-CCB5	A6	1	14.11	0.08	0.00	65127-1.RAW	11:52:53	33.48	Sample	OK	1
1610144-09	A7	500	14.11	1442.38		65128-1.RAW	11:57:01	704.92	Sample	OK	1
1610144-10	A8	500	14.11	892.62		65129-1.RAW	12:01:10	441.62	Sample	OK	1
1610144-11	A9	500	14.11	788.94		65130-1.RAW	12:05:18	391.97	Sample	OK	1
1610144-12	A10	500	14.11	980.49		65131-1.RAW	12:09:27	483.71	Sample	OK	1
1610144-13	A11	500	14.11	1051.08		65132-1.RAW	12:13:35	517.51	Sample	OK	1
1610144-14	A12	500	14.11	644.79		65133-1.RAW	12:17:43	322.92	Sample	OK	1
1610144-15	A13	500	14.11	1549.31		65134-1.RAW	12:21:52	756.14	Sample	OK	1
1610144-16	A14	500	14.11	1732.94		65135-1.RAW	12:26:01	844.09	Sample	OK	1
F610465-DUP1	A15	500	14.11	1625.66		65136-1.RAW	12:30:10	792.71	Sample	OK	1
F610465-MS1	A16	500	14.11	5175.50	318.17	65137-1.RAW	12:34:18	2492.87	Sample	OK	1
SEQ-CCV6	A17	1	14.11	4.93	98.67	65138-1.RAW	12:38:27	1195.48	Sample	OK	1
SEQ-CCB6	A18	1	14.11	0.13	0.00	65139-1.RAW	12:42:35	45.40	Sample	OK	1
F610465-MSD1	A19	500	14.11	5553.76		65140-1.RAW	12:46:44	2674.04	Sample	OK	1
F610465-MS2	A20	500	14.11	6033.02	108.59	65141-1.RAW	12:50:52	2903.58	Sample	OK	1
F610465-MSD2	A21	500	14.11	6449.00		65142-1.RAW	12:55:00	3102.80	Sample	OK	1
F610532-BLK1	B1	100	14.11	20.68		65143-1.RAW	12:59:09	63.62	Sample	OK	1
F610532-BLK2	B2	100	14.11	13.01		65144-1.RAW	13:03:17	45.26	Sample	OK	1
F610532-BLK3	B3	100	14.11	11.66		65145-1.RAW	13:07:26	42.04	Sample	OK	1
F610532-BS1	B4	500	14.11	1710.03		65146-1.RAW	13:11:34	833.11	Sample	OK	1

F610532-BSD1	B5	500	14.11	1700.43		65147-1.RAW	13:15:43	828.52	Sample	OK	1
1610813-01	B6	2500	14.11	70663.27		65148-1.RAW	13:19:51	6782.83	Sample	OK	1
1610813-02	B7	2500	14.11	91654.69		65149-1.RAW	13:23:59	8793.56	Sample	OK	1
SEQ-CCV7	B8	1	14.11	5.04	100.73	65150-1.RAW	13:28:08	1220.17	Sample	OK	1
SEQ-CCB7	B9	1	14.11	0.25	0.00	65151-1.RAW	13:32:16	74.71	Sample	OK	1
1610900-01	B10	2500	14.11	22921.40		65152-1.RAW	13:36:25	2209.71	Sample	OK	1
1610900-02	B11	2500	14.11	23122.51		65153-1.RAW	13:40:33	2228.98	Sample	OK	1
1610900-03	B12	2500	14.11	38205.63		65154-1.RAW	13:44:42	3673.76	Sample	OK	1
1610900-04	B13	2500	14.11	36478.10		65155-1.RAW	13:48:50	3508.29	Sample	OK	1
1610813-01B	B14	100	14.11	39.74		65156-1.RAW	13:52:58	109.27	Sample	OK	1
1610813-02B	B15	100	14.11	27.23		65157-1.RAW	13:57:07	79.31	Sample	OK	1
1610900-01B	B16	100	14.11	35.59		65158-1.RAW	14:01:15	99.32	Sample	OK	1
1610900-02B	B17	100	14.11	22.70		65159-1.RAW	14:05:24	68.47	Sample	OK	1
1610900-03B	B18	100	14.11	31.05		65160-1.RAW	14:09:32	88.46	Sample	OK	1
1610900-04B	B19	100	14.11	27.78		65161-1.RAW	14:13:40	80.64	Sample	OK	1
SEQ-CCV8	B20	1	14.11	4.73	94.51	65162-1.RAW	14:17:49	1145.70	Sample	OK	1
SEQ-CCB8	B21	1	14.11	0.08	0.00	65163-1.RAW	14:21:57	33.38	Sample	OK	1
1610813-01C	C1	2500	14.11	67574.56		65164-1.RAW	14:26:06	6486.97	Sample	OK	1
1610813-02C	C2	2500	14.11	68322.01		65165-1.RAW	14:30:14	6558.56	Sample	OK	1
1610900-01C	C3	2500	14.11	82079.93		65166-1.RAW	14:34:23	7876.41	Sample	OK	1
1610900-02C	C4	2500	14.11	81308.16		65167-1.RAW	14:38:31	7802.49	Sample	OK	1
1610900-03C	C5	20000	14.11	125475.15		65168-1.RAW	14:42:39	1516.49	Sample	OK	1
1610900-04C	C6	20000	14.11	122159.19		65169-1.RAW	14:46:48	1476.79	Sample	OK	1
F610532-DUP1	C7	2500	14.11	22823.85		65170-1.RAW	14:50:56	2200.37	Sample	OK	1
F610532-MS1	C8	2500	14.11	73617.63	#####	65171-1.RAW	14:55:05	7065.82	Sample	OK	1
F610532-MSD1	C9	2500	14.11	75725.82		65172-1.RAW	14:59:13	7267.76	Sample	OK	1
SEQ-CCV9	C10	1	14.11	5.02	100.38	65173-1.RAW	15:03:21	1216.02	Sample	OK	1
SEQ-CCB9	C11	1	14.11	0.25	0.00	65174-1.RAW	15:07:30	74.27	Sample	OK	1

## ANALYSIS SEQUENCE

6K02012

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K02012-IBL1	QC	1			
6K02012-IBL2	QC	2			
6K02012-IBL3	QC	3			
6K02012-CAL1	QC	4	1605412		
6K02012-CAL2	QC	5	1605413		
6K02012-CAL3	QC	6	1605414		
6K02012-CAL4	QC	7	1605415		
6K02012-CAL5	QC	8	1605416		
6K02012-ICV1	QC	9	1605791		
F610464-BLK1	QC	10			
F610464-BLK2	QC	11			
F610464-BLK3	QC	12			
F610464-BS1	QC	13			
F610464-BSD1	QC	14			
F610464-BS2	QC	15			
1610141-21	Hg-CVAFS-T-7030	16			
1610141-32	Hg-CVAFS-T-7030	17			
1610141-33	Hg-CVAFS-T-7030	18			
1610141-34	Hg-CVAFS-T-7030	19			
6K02012-CCV1	QC	20	1605791		
6K02012-CCB1	QC	21			
1610141-35	Hg-CVAFS-T-7030	22			
1610141-36	Hg-CVAFS-T-7030	23			
1610141-37	Hg-CVAFS-T-7030	24			
1610141-38	Hg-CVAFS-T-7030	25			
1610141-39	Hg-CVAFS-T-7030	26			
1610141-40	Hg-CVAFS-T-7030	27			
1610141-41	Hg-CVAFS-T-7030	28			
1610141-42	Hg-CVAFS-T-7030	29			
1610141-43	Hg-CVAFS-T-7030	30			
1610141-44	Hg-CVAFS-T-7030	31			
6K02012-CCV2	QC	32	1605791		
6K02012-CCB2	QC	33			
F610464-BLK4	QC	34			
1610141-45	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

Page 159 of 311

Page 1 of 3

## ANALYSIS SEQUENCE

6K02012

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610141-46	Hg-CVAFS-T-7030	36			
1610141-47	Hg-CVAFS-T-7030	37			
1610141-48	Hg-CVAFS-T-7030	38			
1610141-49	Hg-CVAFS-T-7030	39			
1610141-50	Hg-CVAFS-T-7030	40			
F610464-DUP1	QC	41			
F610464-MS1	QC	42			
F610464-MSD1	QC	43			
6K02012-CCV3	QC	44	1605791		
6K02012-CCB3	QC	45			
F610464-MS2	QC	46			
F610464-MSD2	QC	47			
F610465-BLK1	QC	48			
F610465-BLK2	QC	49			
F610465-BLK3	QC	50			
F610465-BS1	QC	51			
F610465-BSD1	QC	52			
F610465-BS2	QC	53			
1610141-51	Hg-CVAFS-T-7030	54			
1610141-52	Hg-CVAFS-T-7030	55			
6K02012-CCV4	QC	56	1605791		
6K02012-CCB4	QC	57			
1610141-53	Hg-CVAFS-T-7030	58			
1610141-54	Hg-CVAFS-T-7030	59			
1610144-01	Hg-CVAFS-T-7030	60			
1610144-02	Hg-CVAFS-T-7030	61			
1610144-03	Hg-CVAFS-T-7030	62			
1610144-04	Hg-CVAFS-T-7030	63			
1610144-05	Hg-CVAFS-T-7030	64			
1610144-06	Hg-CVAFS-T-7030	65			
1610144-07	Hg-CVAFS-T-7030	66			
1610144-08	Hg-CVAFS-T-7030	67			
6K02012-CCV5	QC	68	1605791		
6K02012-CCB5	QC	69			
1610144-09	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 160 of 311

Page 2 of 3



## ANALYSIS SEQUENCE

**6K02012**

**Instrument: Hg2600-2**
**Calibration ID: UNASSIGNED**
**Analyzed: 11/1/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610144-10	Hg-CVAFS-T-7030	71			
1610144-11	Hg-CVAFS-T-7030	72			
1610144-12	Hg-CVAFS-T-7030	73			
1610144-13	Hg-CVAFS-T-7030	74			
1610144-14	Hg-CVAFS-T-7030	75			
1610144-15	Hg-CVAFS-T-7030	76			
1610144-16	Hg-CVAFS-T-7030	77			
F610465-DUP1	QC	78			
F610465-MS1	QC	79			
6K02012-CCV6	QC	80	1605791		
6K02012-CCB6	QC	81			
F610465-MSD1	QC	82			
F610465-MS2	QC	83			
F610465-MSD2	QC	84			
6K02012-CCV7	QC	85	1605791		
6K02012-CCB7	QC	86			
6K02012-CCV8	QC	87	1605791		
6K02012-CCB8	QC	88			
6K02012-CCV9	QC	89	1605791		
6K02012-CCB9	QC	90			

Don Mosen      11/1/16  
 Samples Loaded By      Date

Don Mosen      11/2/16  
 Data Processed By      Date

**Failing Data Report - 6K02012**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610464-BLK1	Hg-CVAFS-T-7030	1.312	0.800				ng/g						PASS-OVER	FAIL-BLK	Re-Analyze

Don Mastern                      11/2/16  
 Analyst Reviewed By                      Date

Phy NR                      11/2/16  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K02011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K02011-IBL1	QC	1			
6K02011-IBL2	QC	2			
6K02011-IBL3	QC	3			
6K02011-CAL1	QC	4	1605412		
6K02011-CAL2	QC	5	1605413		
6K02011-CAL3	QC	6	1605414		
6K02011-CAL4	QC	7	1605415		
6K02011-CAL5	QC	8	1605416		
6K02011-ICV1	QC	9	1605791		
6K02011-CCV1	QC	10	1605791		
6K02011-CCB1	QC	11			
6K02011-CCV2	QC	12	1605791		
6K02011-CCB2	QC	13			
6K02011-CCV3	QC	14	1605791		
6K02011-CCB3	QC	15			
6K02011-CCV4	QC	16	1605791		
6K02011-CCB4	QC	17			
6K02011-CCV5	QC	18	1605791		
6K02011-CCB5	QC	19			
6K02011-CCV6	QC	20	1605791		
6K02011-CCB6	QC	21			
F610532-BLK1	QC	22			
F610532-BLK2	QC	23			
F610532-BLK3	QC	24			
F610532-BS1	QC	25			
F610532-BSD1	QC	26			
1610813-01	Hg_FSTM_TRAP_A	27			
1610813-02	Hg_FSTM_TRAP_A	28			
6K02011-CCV7	QC	29	1605791		
6K02011-CCB7	QC	30			
1610900-01	Hg_FSTM_TRAP_A	31			
1610900-02	Hg_FSTM_TRAP_A	32			
1610900-03	Hg_FSTM_TRAP_A	33			
1610900-04	Hg_FSTM_TRAP_A	34			
6K02011-CCV8	QC	35	1605791		

Due Date: 11/2/2016

Page 163 of 311

Page 1 of 2

# ANALYSIS SEQUENCE

6K02011

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K02011-CCB8	QC	36			
F610532-DUP1	QC	37			
F610532-MS1	QC	38			
F610532-MSD1	QC	39			
6K02011-CCV9	QC	40	1605791		
6K02011-CCB9	QC	41			

Don Mason 11/1/16  
Samples Loaded By Date

Don Mason 11/2/16  
Data Processed By Date

**Failing Data Report - 6K02011**

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 Moran      11/2/16  
Analyst Reviewed By      Date

[Signature]      11/2/16  
Peer Reviewed By      Date

**PREPARATION BENCH SHEET**

F610465

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/28/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610465-BLK1	Blank	0.25	20					
F610465-BLK2	Blank	0.25	20					
F610465-BLK3	Blank	0.25	20					
F610465-BS1	LCS	0.25	20	1605270	20			
F610465-BS2	LCS	0.1257	20	1605470	125.7			
F610465-BSD1	LCS Dup	0.25	20	1605270	20			
F610465-DUP1	Duplicate [1610144-09]	0.261	20					
F610465-MS1	Matrix Spike [1610144-01]	0.2677	20	1605712	100			
F610465-MS2	Matrix Spike [1610144-09]	0.2614	20	1605712	100			
F610465-MSD1	Matrix Spike Dup [1610144-01]	0.2539	20	1605712	100			
F610465-MSD2	Matrix Spike Dup [1610144-09]	0.2523	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606187	3% SnCl2 THg reductant	15-Apr-17 00:00
			1606220	70/30 Digestion Acid	22-Apr-17 00:00
			1606221		
			1606257	5% BrCl	26-Mar-17 00:00

**PREPARATION BENCH SHEET**

F610465

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/28/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610141-51	OB-05_092516_TOM_WB_15	0.264	20	-	-	-		
1610141-52	OB-05_092516_TOM_WB_16	0.2638	20	-	-	-		
1610141-53	OB-05_092516_TOM_WB_17	0.262	20	-	-	-		
1610141-54	OB-05_092516_TOM_WB_18	0.2543	20	-	-	-		
1610144-01	ES-03_092716_BLM_WB_01	0.2549	20	QC	-	-	MS/MSD	
1610144-02	ES-03_092716_BLM_WB_02	0.256	20	-	-	-		
1610144-03	ES-03_092716_BLM_WB_03	0.2651	20	-	-	-		
1610144-04	ES-03_092716_BLM_WB_04	0.2624	20	-	-	-		
1610144-05	ES-03_092716_BLM_WB_05	0.2591	20	-	-	-		
1610144-06	ES-03_092716_BLM_WB_06	0.2552	20	-	-	-		
1610144-07	ES-03_092716_BLM_WB_07	0.2515	20	-	-	-		
1610144-08	ES-03_092716_BLM_WB_08	0.2545	20	-	-	-		
1610144-09	ES-03_092716_BLM_WB_09	0.2698	20	-	-	-		
1610144-10	ES-03_092716_BLM_WB_10	0.2501	20	-	-	-		
1610144-11	ES-03_092716_BLM_WB_11	0.2569	20	-	-	-		
1610144-12	ES-03_092716_BLM_WB_12	0.2524	20	-	-	-		
1610144-13	ES-03_092716_BLM_WB_13	0.2571	20	-	-	-		
1610144-14	ES-03_092716_BLM_WB_14	0.2512	20	-	-	-		
1610144-15	ES-03_092716_BLM_WB_15	0.2672	20	-	-	-		

Page 167 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

F610465

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/28/2016

1610144-16	ES-03_092716_BLM_WB_16	0.25	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610532

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 10/31/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610532-BLK1	Blank	1	100					
F610532-BLK2	Blank	1	100					
F610532-BLK3	Blank	1	100					
F610532-BS1	LCS	1	100	1605712	200			
F610532-BSD1	LCS Dup	1	100	1605712	200			
F610532-DUP1	Duplicate [1610900-01]	1	100					
F610532-MS1	Matrix Spike [1610900-01]	0.0002	0.02	1605272	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.02mL
F610532-MSD1	Matrix Spike Dup [1610900-01]	0.0002	0.02	1605272	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>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606187	3% SnCl2 THg reductant	15-Apr-17 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00

PREPARATION BENCH SHEET

F610532

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/31/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610813-01	EFGS03909 CO4 Stack Trap A	1	100	-	-	-		
1610813-02	EFGS03931 CO4 Stack Trap B	1	100	-	-	-		
1610900-01	EFGS06507 Kiln 1 / Trap A	1	100	-	-	-		
1610900-02	EFGS06265 Kiln 1 / Trap B	1	100	-	-	-		
1610900-03	EFGS06919 Kiln 2 / Trap A	1	100	-	-	-		
1610900-04	EFGS06751 Kiln 2 / Trap B	1	100	-	-	-		



**PREPARATION BENCH SHEET**

F610464

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/31/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F610464-BLK1	Blank	0.25	20					
F610464-BLK2	Blank	0.25	20					
F610464-BLK3	Blank	0.25	20					
F610464-BLK4	Blank	0.25	20					
F610464-BS1	Blank Spike	0.25	20	1605270	20			
F610464-BS2	DORM-4	0.1253	20	1605470	125			
F610464-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610464-DUP1	Duplicate [1610141-21]	0.2795	20					
F610464-MS1	Matrix Spike [1610141-21]	0.2702	20	1605712	100			
F610464-MS2	Matrix Spike [1610141-42]	0.2718	20	1605712	100			
F610464-MSD1	Matrix Spike Dup [1610141-21]	0.2625	20	1605712	100			
F610464-MSD2	Matrix Spike Dup [1610141-42]	0.2725	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606187	3% SnCl <sub>2</sub> THg reductant	15-Apr-17 00:00
			1606220	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00

**PREPARATION BENCH SHEET**

F610464

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/31/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610141-21	OB-01_092416_TOM_WB_04	0.2747	20	QC	-	-	MS/MSD	
1610141-32	OB-01_092416_TOM_WB_15	0.269	20	-	-	-		
1610141-33	OB-01_092416_TOM_WB_16	0.2759	20	-	-	-		
1610141-34	OB-01_092416_TOM_WB_17	0.2826	20	-	-	-		
1610141-35	OB-01_092416_TOM_WB_18	0.2711	20	-	-	-		
1610141-36	OB-01_092416_TOM_WB_19	0.2702	20	-	-	-		
1610141-37	OB-05_092516_TOM_WB_01	0.2847	20	-	-	-		
1610141-38	OB-05_092516_TOM_WB_02	0.2889	20	-	-	-		
1610141-39	OB-05_092516_TOM_WB_03	0.2659	20	-	-	-		
1610141-40	OB-05_092516_TOM_WB_04	0.2768	20	-	-	-		
1610141-41	OB-05_092516_TOM_WB_05	0.3008	20	-	-	-		
1610141-42	OB-05_092516_TOM_WB_06	0.2636	20	QC	-	-	MS/MSD	
1610141-43	OB-05_092516_TOM_WB_07	0.2911	20	-	-	-		
1610141-44	OB-05_092516_TOM_WB_08	0.2651	20	-	-	-		
1610141-45	OB-05_092516_TOM_WB_09	0.2873	20	-	-	-		
1610141-46	OB-05_092516_TOM_WB_10	0.2709	20	-	-	-		
1610141-47	OB-05_092516_TOM_WB_11	0.2885	20	-	-	-		
1610141-48	OB-05_092516_TOM_WB_12	0.2715	20	-	-	-		
1610141-49	OB-05_092516_TOM_WB_13	0.2963	20	-	-	-		

Page 172 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

F610464

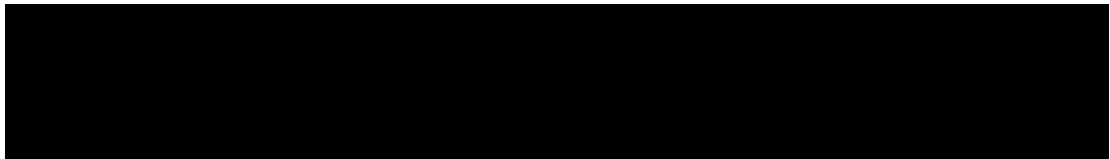
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/31/2016

1610141-50	OB-05_092516_TOM_WB_14	0.2894	20	-	-	-		
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PREPARATION BENCH SHEET

2600-2  
11/1/16 DM

F610532

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/31/2016

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610532-BLK1	Blank	1	100					100X
F610532-BLK2	Blank	1	100					100X
F610532-BLK3	Blank	1	100					100X
F610532-BS1	LCS	1	100	1605712	200			500X
F610532-BSD1	LCS Dup	1	100	1605712	200			500X
F610532-DUP1	Duplicate 1610900-01	1	100					2500X
F610532-MS1	Matrix Spike 1610900-01	1	100	1605272	100			2500X
F610532-MSD1	Matrix Spike Dup 1610900-01	1	100	1605272	100			2500X

Standard ID(s): 1605712  
Description: THg 1.000ng/mL Secondary Spiking Standard  
Expiration: 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606257  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration: 22-Apr-17 00:00, 26-Mar-17 00:00

1602941  
1605630  
1605635  
1606187

PREPARATION BENCH SHEET

2600-2

11/1/16 DM

F610532

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 10/31/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	A Sample Comments	B Analysis Comments	C
1610813-01	EFGS03909 CO4 Stack Trap A	1	100	No 2500X	100X	2500X
1610813-02	EFGS03931 CO4 Stack Trap B	1	100	No 2500X	100X	2500X
1610900-01	EFGS06507 Kiln 1 / Trap A	1	100	No 2500X	100X	2500X
1610900-02	EFGS06265 Kiln 1 / Trap B	1	100	No 2500X	100X	2500X
1610900-03	EFGS06919 Kiln 2 / Trap A	1	100	No 2500X	100X	2000X
1610900-04	EFGS06751 Kiln 2 / Trap B	1	100	No 2500X	100X	2000X



Name: MPM

Trap Digestions

Date: 10/31/16

Batch ID: F610532

Work Order(s): 1610813, 1610900

Analysis:  Total Hg  Other

Sample Matrix:  FSTM  KCl  PHg Plug  Other

Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)

start time: 1500, start temp (°C): 53 (raw) 52.8 (w/ CF)

end time: 1703, end temp (°C): 55 (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)
F610532-BIK1	100
F610532-BIK2	100
F610532-BIK3	100
F610532-BS1	100
F610532-BSD1	100
1610813-01A	100
1610813-01B	100
1610813-01C	100
1610813-02A	100
1610813-02B	100
1610813-02C	100
1610900-01A	100
1610900-01B	100
1610900-01C	100
1610900-02A	100
1610900-02B	100
1610900-02C	100
1610900-03A	100
1610900-03B	100
1610900-03C	100
1610900-04A	100
1610900-04B	100
1610900-04C	100

Spike ID: 1405712

Spike Amount (µL): 200

Spike Witness: WN 10/31/16

BrCl ID: 1606257 ~~1606~~ <sup>MPM</sup> 11/1/16

70/30: 1606221

Other: \_\_\_\_\_

Thermometer: 14545

Dispensers: 02K27494

04N73497

Other \_\_\_\_\_

Pipette ID: MV11607

Cal. Date: 10/30/16

Vials and Jars lot# 00065774

Trap Material Lot#: 1604755

Loader Mass Verified:  Yes  No

Comments:

1610813-01, 02 'C' bed spiked at 7,500ng MPM 10/31/16

1610900-01, 02 'C' bed spiked at 9,000ng

1610900-03, 04 'C' bed spiked at 13,000ng MPM 10/31/16

MPM 10/31/16



PREPARATION BENCH SHEET

2600-2  
11/1/16 JON

F610464

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/31/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610464-BLK1	Blank	0.25	20					20X
F610464-BLK2	Blank	0.25	20					20X
F610464-BLK3	Blank	0.25	20					20X
F610464-BS1	Blank Spike	0.25	20	1605270	20			20X
F610464-BS2	DORM-4	0.1253	20	1605470	125			500X
F610464-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610464-DUP1	Duplicate [1610141-21]	0.2795	20					500X
F610464-MS1	Matrix Spike [1610141-21]	0.2702	20	1605712	100			500X
F610464-MS2	Matrix Spike [1610141-42]	0.2718	20	1605712	100			500X
F610464-MSD1	Matrix Spike Dup [1610141-21]	0.2625	20	1605712	100			500X
F610464-MSD2	Matrix Spike Dup [1610141-42]	0.2725	20	1605712	100			500X

Standard ID(s):  
1605270  
1605470  
1605712

Description:  
THg 100ng/mL Primary Spiking Standard  
DORM-4  
THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
10-Dec-16 00:00  
19-Mar-17 00:00  
03-Apr-17 00:00

Reagent ID(s):  
1603399  
1606220  
1606257

Description:  
Boiling Chips for AFS prep  
70/30 Digestion Acid  
5% BrCl

Expiration:  
01-Jun-17 00:00  
22-Apr-17 00:00  
26-Mar-17 00:00

BLK 4 re-run of BLK1

1602941  
1605636  
1605635  
1606187

PREPARATION BENCH SHEET

2600.2  
11/1/16 DM

F610464

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/31/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610141-21	OB-01_092416_TOM_WB_04	0.2747	20	QC	-	-	MS/MSD	500X
1610141-32	OB-01_092416_TOM_WB_15	0.269	20	-	-	-		500X
1610141-33	OB-01_092416_TOM_WB_16	0.2759	20	-	-	-		500X
1610141-34	OB-01_092416_TOM_WB_17	0.2826	20	-	-	-		500X
1610141-35	OB-01_092416_TOM_WB_18	0.2711	20	-	-	-		500X
1610141-36	OB-01_092416_TOM_WB_19	0.2702	20	-	-	-		500X
1610141-37	OB-05_092516_TOM_WB_01	0.2847	20	-	-	-		500X
1610141-38	OB-05_092516_TOM_WB_02	0.2889	20	-	-	-		500X
1610141-39	OB-05_092516_TOM_WB_03	0.2659	20	-	-	-		500X
1610141-40	OB-05_092516_TOM_WB_04	0.2768	20	-	-	-		500X
1610141-41	OB-05_092516_TOM_WB_05	0.3008	20	-	-	-		500X
1610141-42	OB-05_092516_TOM_WB_06	0.2636	20	QC	-	-	MS/MSD	500X
1610141-43	OB-05_092516_TOM_WB_07	0.2911	20	-	-	-		500X
1610141-44	OB-05_092516_TOM_WB_08	0.2651	20	-	-	-		500X
1610141-45	OB-05_092516_TOM_WB_09	0.2873	20	-	-	-		500X
1610141-46	OB-05_092516_TOM_WB_10	0.2709	20	-	-	-		500X
1610141-47	OB-05_092516_TOM_WB_11	0.2885	20	-	-	-		500X
1610141-48	OB-05_092516_TOM_WB_12	0.2715	20	-	-	-		500X
1610141-49	OB-05_092516_TOM_WB_13	0.2963	20	-	-	-		500X

Page 178 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

2003.2

11/1/16 DM

F610464

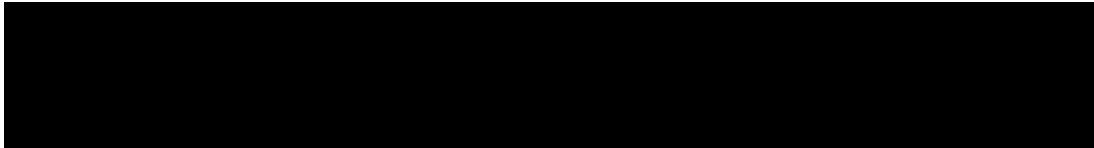
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/31/2016

1610141-50	OB-05_092516_TOM_WB_14	0.2894	20	-	-	-	SOAX
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Technician: Duyen Batch#: F610464 Date: 10/28/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 9:00 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C

Time out: 11:00 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C

Final vol.: 20 mL (LIMS ID: 1606257) Spike vol.: 100 µL (LIMS ID: 1605712)

Spike Witness: Bc 10/28/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 10/24/16

HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1606220 Dispenser #: 04N23497 Calibrated?  Yes  No

Other Acid LIMS ID: N/A Dispenser #: 02K27494  Yes

Glass Vial # 00063642 Boiling Chip lot # 1603399 \*Hotblock Position: B.3

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	F610464 Blank1	0.2789	23	1610141-42 E	0.2636	BS2
2	F610464 Blank2	0.2619	24	1610141-43 C	0.2911	DUPM-4
3	F610464 Blank3	0.2760	25	1610141-44 C	0.2651	1605470
4	F610464 BS1	0.26993	26	1610141-45 C	0.2873	<b>Comments</b>
5	F610464 BS01	0.2512	27	1610141-46 C	0.2709	BS1, BS01
6	F610464 BS2	0.1253	28	1610141-47 C	0.2885	= 100µL 220µL 16105270
7	F610464 Dup1	0.2795	29	1610141-48 C	0.2715	Dup1 source 1610141-21
8	F610464 MS1	0.2702	30	1610141-49 C	0.2963	MS1, MS01
9	F610464 MS01	0.2625	31	1610141-50 C	0.2894	1610141-21
10	F610464 MS2	0.2718	32			
11	F610464 MS02	0.2725	33			MS2, MS02
12	1610141-21 E	0.2747	34			1610141-42
13	1610141-32 C	0.2690	35			1610141-21
14	1610141-33 C	0.2759	36			= 0.2747g.
15	1610141-34 C	0.2826	37			10/28/16 DW
16	1610141-35 C	0.2711	38			
17	1610141-36 C	0.2702	39			
18	1610141-37 C	0.2847	40			
19	1610141-38 C	0.2889	41			
20	1610141-39 C	0.2659	42			
21	1610141-40 C	0.2768	43			
22	1610141-41 C	0.3008	44			

PREPARATION BENCH SHEET

26.00.2

F610465

11/1/16 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/28/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610465-BLK1	Blank	0.25	20					20X
F610465-BLK2	Blank	0.25	20					20X
F610465-BLK3	Blank	0.25	20					20X
F610465-BS1	LCS	0.25	20	1605270	20			20X
F610465-BS2	LCS	0.1257	20	1605470	125.7			500X
F610465-BSD1	LCS Dup	0.25	20	1605270	20			20X
F610465-DUP1	Duplicate [1610144-09]	0.261	20					500X
F610465-MS1	Matrix Spike [1610144-01]	0.2677	20	1605712	100			500X
F610465-MS2	Matrix Spike [1610144-09]	0.2614	20	1605712	100			500X
F610465-MSD1	Matrix Spike Dup [1610144-01]	0.2539	20	1605712	100			500X
F610465-MSD2	Matrix Spike Dup [1610144-09]	0.2523	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606220	70/30 Digestion Acid	22-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606221		
			1606257	5% BrCl	26-Mar-17 00:00

1602941  
1605036  
1605035  
1606157

PREPARATION BENCH SHEET

2600.2

F610465

11/1/16 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 10/28/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610141-51	OB-05_092516_TOM_WB_15	0.264	20	No	500x
1610141-52	OB-05_092516_TOM_WB_16	0.2638	20	No	500x
1610141-53	OB-05_092516_TOM_WB_17	0.262	20	No	500x
1610141-54	OB-05_092516_TOM_WB_18	0.2543	20	No	500x
1610144-01	ES-03_092716_BLM_WB_01	0.2549	20	No	500x
1610144-02	ES-03_092716_BLM_WB_02	0.256	20	No	500x
1610144-03	ES-03_092716_BLM_WB_03	0.2651	20	No	500x
1610144-04	ES-03_092716_BLM_WB_04	0.2624	20	No	500x
1610144-05	ES-03_092716_BLM_WB_05	0.2591	20	No	500x
1610144-06	ES-03_092716_BLM_WB_06	0.2552	20	No	500x
1610144-07	ES-03_092716_BLM_WB_07	0.2515	20	No	500x
1610144-08	ES-03_092716_BLM_WB_08	0.2545	20	No	500x
1610144-09	ES-03_092716_BLM_WB_09	0.2698	20	No	500x
1610144-10	ES-03_092716_BLM_WB_10	0.2501	20	No	500x
1610144-11	ES-03_092716_BLM_WB_11	0.2569	20	No	500x
1610144-12	ES-03_092716_BLM_WB_12	0.2524	20	No	500x
1610144-13	ES-03_092716_BLM_WB_13	0.2571	20	No	500x
1610144-14	ES-03_092716_BLM_WB_14	0.2512	20	No	500x
1610144-15	ES-03_092716_BLM_WB_15	0.2672	20	No	500x
1610144-16	ES-03_092716_BLM_WB_16	0.25	20	No	500x

**PREPARATION BENCH SHEET**

**F610465**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/28/2016**

Technician: MPM Batch#: F610465 Date: 10/28/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 1535 Actual Temp. (raw): 81 °C w/ CF: 80.7 °C

Time out: 1737 Actual Temp. (raw): 85 °C w/ CF: 84.7 °C

Final vol.: 20 mL (LIMS ID: 1606257) Spike vol.: 100 µL (LIMS ID: 1605712)

Spike Witness: A 10/28/16 (initial and date)

HCl LIMS ID: N/A  
 HNO<sub>3</sub> LIMS ID: N/A  
 70/30 LIMS ID: 1606220/1606221  
 Other Acid LIMS ID: N/A  
 Centrifuge Tube lot # 00063642

Pipette SN#: MU11607 Calibration Date: 10/24/16  
 Pipette SN#: N/A Calibration Date: N/A  
 Dispenser #: 04N73497 Calibrated?  Yes  No  
 Other Reagent/LIMS IDs: 02K27494  
 Boiling Chip lot # 1603399 \*Hotblock Position: E2

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	F610465-BIK1	0.2667	23	F610465-MS2(1610144-09)	0.2614	DORM-4 BS2 1605470
2	F610465-BIK2	0.2676	24	F610465-MSD2(1610144-09)	0.2523	
3	F610465-BIK3	0.2684	25	1610144-10	0.2501	<b>Comments</b> BSI/BSD1 20ML of 100ng/ml 1605270 MPM 10/28/16
4	F610465-BS1	0.2664	26	1610144-11	0.2569	
5	F610465-BSD1	0.2523	27	1610144-12	0.2524	
6	F610465-BSD2	0.1257	28	1610144-13	0.2571	
7	1610141-51	0.2640	29	1610144-14	0.2512	
8	1610141-52	0.2638	30	1610144-15	0.2672	
9	1610141-53	0.2620	31	1610144-16	0.2500	
10	1610141-54	0.2543	32			
11	1610144-01	0.2549	33			
12	F610465-MS1(1610144-01)	0.2677	34			
13	F610465-MSD(1610144-01)	0.2539	35			
14	1610144-02	0.2560	36			
15	1610144-03	0.2651	37			
16	1610144-04	0.2624	38			
17	1610144-05	0.2591	39			
18	1610144-06	0.2552	40			
19	1610144-07	0.2515	41			
20	1610144-08	0.2545	42			
21	1610144-09	0.2698	43			
22	F610465-DUPI(1610144-09)	0.2610	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>6K02012, 6K02011</u>
Reviewer: <u>[Signature]</u>	Dataset ID(s): <u>THG26002-161102-1</u>
Date: <u>11/2/2016</u>	WO (s) #: <u>1610141, 1610144, 1610813, 1610900</u>
Batch #(s): <u>F610465, F610532, F610464</u>	

• Select the correct preparation method.

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

Analyst Initials: [Signature]

Reviewer Initials: [Signature]

1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?)  YES  NO
2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data  YES  NO 
  - (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?  YES  NO 

Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1
  - (b) Check 5% of transcription from Instrument print-out and Excel file  YES  NO 

Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel
  - (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries).  YES  NO  N/A
  - (d) Check and compare masses (review prep benchsheet)  YES  NO  N/A
  - (e) Check & compare initial & final volumes  YES  NO  N/A
  - (f) Do aliquots and dilutions written on benchsheet match those in Excel?  YES  NO  N/A 

50 ml / aliquot = Excel dilution value

*BLLY was updated  
R 11/2/16*
  - (g) Is the sequence #, analyst, date, and instrument # on the QC page?  YES  NO  N/A
  - (h) Is the analysis status correct? (analyzed/initial review/reviewed)  YES  NO  N/A
  - (i) Original prep bench sheet added to data package?  YES  NO  N/A
  - (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)  YES  NO  N/A
3. High QA? WO#(s)/Client(s): \_\_\_\_\_  YES  NO
4. Client specific QC? (if Yes, refer to Project Notes/LIMS)  YES  NO 
  - (a) Have the QC requirements been met for all WO#s?  YES  NO
  - (b) Prep blanks corrections/assigned properly  YES  NO
- 5a. 20 or fewer samples in batch?  YES  NO 
  - (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples?  YES  NO
  - (ii) 1 CCV and 1 CCB every 10 analytical runs?  YES  NO

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

Analyst: <u>DON MORAN</u>	Sequence(s) #: <u>6K02012, 6K02011</u>
Reviewer: <u>0</u>	Dataset ID(s): <u>THG26002-161102-1</u>
Date: <u>11/2/2016</u>	WO (s) #: <u>1610141, 1610144, 1610813, 1610900</u>
Batch #(s): <u>F610465, F610532, F610464</u>	<u>0</u>

Analyst Initials DM

Reviewer Initials W

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 ( $\leq 15\%$ )  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 7. The calibration curve included a minimum of 5 Standards   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 10. Do all calibration points pass acceptance criteria?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 11. Are qualifiers consistent with the data review flowcharts?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input type="checkbox"/>            |
| Comments: <u>F610464-BLK1 FAILED. RE-ANALYZED AND PASSED</u>   |  |  |   |                                     |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:                                 |  |  |   |                                     |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	6K02012, 6K02011
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26002-161102-1
Date:	11/2/2016	WO (s) #:	1610141, 1610144, 1610813, 1610900
Batch #(s):	F610465, F610532, F610464		0

Analyst Initials DM

Reviewer Initials DM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input 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 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  |
| 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: _____                | 12/16/2015      | IDOC/CDOC within last 12 months? | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 37. Date of analyst's SOP reading for method: _____ | 5/20/2016       | Current SOP revision read?       | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 38. Date of LOD: _____                              | 6/27/16, 7/8/16 | LOD within last 3 months?        | <input type="checkbox"/> YES <input type="checkbox"/> NO |
| 39. Date of LOQ: _____                              | 6/27/16, 7/8/16 | LOQ within last 3 months?        | <input type="checkbox"/> YES <input type="checkbox"/> NO |

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





Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: November 03, 2016

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K03020, 6K03021, 6K03022

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	129.92 units	259.84	113.69 units	227.39	98.9 %Rec
SEQ-CAL2	1	1.00 ng/L	252.02 units	252.02	235.79 units	235.79	102.6 %Rec
SEQ-CAL3	1	5.00 ng/L	1195.60 units	239.12	1179.37 units	235.87	102.6 %Rec
SEQ-CAL4	1	20.00 ng/L	4393.51 units	219.68	4377.28 units	218.86	95.2 %Rec
SEQ-CAL5	1	40.00 ng/L	9273.23 units	231.83	9257.00 units	231.43	100.7 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF: 229.87  
 Corr. St Dev RF: +/- 7.09  
 Corr. RSD CF: 3.1% RSD  
 Uncorr. Mean RF: 240.50

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	16.23 units	±1.47	0.07 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.919 ng/L	±0.193
BLK	2	3	14.494 ng/L	±5.979
BLK	3	1	5.843 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: A 11/11/16

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	11/3/2016 8:36:05	65330-1.RAW	8:36:05 AM	15.94			-0.3	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	11/3/2016 8:40:13	65331-1.RAW	8:40:13 AM	14.92			-1.3	-0.006	-0.006	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	11/3/2016 8:44:21	65332-1.RAW	8:44:21 AM	17.82			1.6	0.007	0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	11/3/2016 8:48:30	65333-1.RAW	8:48:30 AM	129.92			113.7	0.495	0.495	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	11/3/2016 8:52:38	65334-1.RAW	8:52:38 AM	252.02			235.8	1.026	1.026	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	11/3/2016 8:56:47	65335-1.RAW	8:56:47 AM	1195.60			1179.4	5.131	5.131	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	11/3/2016 9:00:55	65336-1.RAW	9:00:55 AM	4393.51			4377.3	19.043	19.043	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	11/3/2016 9:05:04	65337-1.RAW	9:05:04 AM	9273.23			9257.0	40.271	40.271	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	11/3/2016 9:09:12	65338-1.RAW	9:09:12 AM	1170.79			1154.6	5.023	5.023	ng/L	
Hg2600-2	BC	SAM	*F610467-BLK1	20	11/3/2016 9:22:08	65339-1.RAW	9:22:08 AM	154.05	1		137.8	0.504	10.072	ng/L	
Hg2600-2	BC	BLK	F610467-BLK2	20	11/3/2016 9:26:17	65340-1.RAW	9:26:17 AM	37.51	1		21.3	0.093	1.852	ng/L	
Hg2600-2	BC	BLK	F610467-BLK3	20	11/3/2016 9:30:25	65341-1.RAW	9:30:25 AM	36.56	1		20.3	0.088	1.769	ng/L	
Hg2600-2	BC	SAM	F610467-BS1	20	11/3/2016 9:34:34	65342-1.RAW	9:34:34 AM	1243.43	1		1227.2	5.243	104.855	ng/L	
Hg2600-2	BC	SAM	F610467-BSD1	20	11/3/2016 9:38:42	65343-1.RAW	9:38:42 AM	1238.36	1		1222.1	5.221	104.414	ng/L	
Hg2600-2	BC	SAM	F610467-BS2	500	11/3/2016 9:42:51	65344-1.RAW	9:42:51 AM	1083.85	1		1047.6	4.554	2276.823	ng/L	
Hg2600-2	BC	SAM	1610144-37	500	11/3/2016 9:46:59	65345-1.RAW	9:46:59 AM	383.56	1		367.3	1.594	797.087	ng/L	
Hg2600-2	BC	SAM	1610144-38	500	11/3/2016 9:51:07	65346-1.RAW	9:51:07 AM	367.94	1		351.7	1.526	763.111	ng/L	
Hg2600-2	BC	SAM	1610144-39	500	11/3/2016 9:55:15	65347-1.RAW	9:55:15 AM	482.23	1		466.0	2.023	1011.710	ng/L	
Hg2600-2	BC	SAM	1610144-40	500	11/3/2016 9:59:23	65348-1.RAW	9:59:23 AM	392.38	1		376.2	1.633	816.272	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	11/3/2016 10:03:31	65349-1.RAW	10:03:31 AM	1126.13			1109.9	4.828	4.828	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	11/3/2016 10:07:39	65350-1.RAW	10:07:39 AM	30.37			14.1	0.062	0.062	ng/L	
Hg2600-2	BC	BLK	F610467-BLK4	20	11/3/2016 10:11:48	65351-1.RAW	10:11:48 AM	40.79	1		24.6	0.107	2.137	ng/L	
Hg2600-2	BC	SAM	1610144-41	500	11/3/2016 10:15:56	65352-1.RAW	10:15:56 AM	333.34	1		317.1	1.376	687.851	ng/L	
Hg2600-2	BC	SAM	1610144-42	500	11/3/2016 10:20:05	65353-1.RAW	10:20:05 AM	518.81	1		502.6	2.183	1091.277	ng/L	
Hg2600-2	BC	SAM	1610144-43	500	11/3/2016 10:24:13	65354-1.RAW	10:24:13 AM	352.11	1		335.9	1.457	728.679	ng/L	
Hg2600-2	BC	SAM	1610144-44	500	11/3/2016 10:28:21	65355-1.RAW	10:28:21 AM	346.60	1		330.4	1.433	716.694	ng/L	
Hg2600-2	BC	SAM	1610144-45	500	11/3/2016 10:32:30	65356-1.RAW	10:32:30 AM	423.72	1		407.5	1.769	884.441	ng/L	
Hg2600-2	BC	SAM	1610144-46	500	11/3/2016 10:36:38	65357-1.RAW	10:36:38 AM	432.50	1		416.3	1.807	903.539	ng/L	
Hg2600-2	BC	SAM	1610144-47	500	11/3/2016 10:40:47	65358-1.RAW	10:40:47 AM	589.79	1		573.6	2.491	1245.669	ng/L	
Hg2600-2	BC	SAM	1610144-48	500	11/3/2016 10:44:55	65359-1.RAW	10:44:55 AM	449.98	1		433.8	1.883	941.561	ng/L	
Hg2600-2	BC	SAM	1610144-49	500	11/3/2016 10:49:04	65360-1.RAW	10:49:04 AM	402.16	1		385.9	1.675	837.545	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	11/3/2016 10:53:12	65361-1.RAW	10:53:12 AM	1117.56			1101.3	4.791	4.791	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	11/3/2016 10:57:20	65362-1.RAW	10:57:20 AM	29.81			13.6	0.059	0.059	ng/L	
Hg2600-2	BC	SAM	1610144-50	500	11/3/2016 11:01:29	65363-1.RAW	11:01:29 AM	446.46	1		430.2	1.868	933.904	ng/L	
Hg2600-2	BC	SAM	1610144-51	500	11/3/2016 11:05:37	65364-1.RAW	11:05:37 AM	325.19	1		309.0	1.340	670.123	ng/L	
Hg2600-2	BC	SAM	1610144-52	500	11/3/2016 11:09:46	65365-1.RAW	11:09:46 AM	396.16	1		379.9	1.649	824.494	ng/L	
Hg2600-2	BC	SAM	1610144-53	500	11/3/2016 11:13:54	65366-1.RAW	11:13:54 AM	304.23	1		288.0	1.249	624.532	ng/L	
Hg2600-2	BC	SAM	1610144-54	500	11/3/2016 11:18:02	65367-1.RAW	11:18:02 AM	455.34	1		439.1	1.906	953.220	ng/L	
Hg2600-2	BC	SAM	1610144-55	500	11/3/2016 11:22:12	65368-1.RAW	11:22:12 AM	308.08	1		291.9	1.266	632.907	ng/L	
Hg2600-2	BC	SAM	1610144-56	500	11/3/2016 11:26:20	65369-1.RAW	11:26:20 AM	369.70	1		353.5	1.534	766.940	ng/L	
Hg2600-2	BC	SAM	F610467-DUP1	500	11/3/2016 11:30:29	65370-1.RAW	11:30:29 AM	394.60	1		378.4	1.642	821.101	ng/L	
Hg2600-2	BC	SAM	F610467-MS1	500	11/3/2016 11:34:37	65371-1.RAW	11:34:37 AM	2396.90	1		2380.7	10.353	5176.412	ng/L	
Hg2600-2	BC	SAM	F610467-MSD1	500	11/3/2016 11:38:46	65372-1.RAW	11:38:46 AM	2545.08	1		2528.9	10.997	5498.726	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	11/3/2016 11:42:54	65373-1.RAW	11:42:54 AM	1103.32			1087.1	4.729	4.729	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	11/3/2016 11:47:02	65374-1.RAW	11:47:02 AM	37.02			20.8	0.090	0.090	ng/L	
Hg2600-2	BC	SAM	F610467-MS2	500	11/3/2016 11:51:11	65375-1.RAW	11:51:11 AM	2775.93	1		2759.7	12.002	6000.860	ng/L	
Hg2600-2	BC	SAM	F610467-MSD2	500	11/3/2016 11:55:19	65376-1.RAW	11:55:19 AM	2719.09	1		2702.9	11.754	5877.225	ng/L	
Hg2600-2	BC	BLK	F610424-BLK1	100	11/3/2016 11:59:28	65377-1.RAW	11:59:28 AM	64.58	2		48.4	0.210	21.035	ng/L	
Hg2600-2	BC	BLK	F610424-BLK2	100	11/3/2016 12:03:36	65378-1.RAW	12:03:36 PM	46.42	2		30.2	0.131	13.135	ng/L	
Hg2600-2	BC	BLK	F610424-BLK3	100	11/3/2016 12:07:45	65379-1.RAW	12:07:45 PM	37.63	2		21.4	0.093	9.311	ng/L	
Hg2600-2	BC	SAM	*F610424-BLK4	100	11/3/2016 12:11:53	65380-1.RAW	12:11:53 PM	38.24	2		22.0	-0.049	-4.917	ng/L	
Hg2600-2	BC	SAM	F610424-BS1	500	11/3/2016 12:16:01	65381-1.RAW	12:16:01 PM	2168.21	2		2150.0	9.324	4662.051	ng/L	
Hg2600-2	BC	SAM	F610424-BSD1	500	11/3/2016 12:20:10	65382-1.RAW	12:20:10 PM	2195.89	2		2179.7	9.453	4726.610	ng/L	
Hg2600-2	BC	SAM	1609620-01	2500	11/3/2016 12:24:18	65383-1.RAW	12:24:18 PM	64.76	2		48.5	0.205	513.344	ng/L	
Hg2600-2	BC	SAM	1609620-01RE1	100	11/3/2016 12:31:34	65384-1.RAW	12:31:34 PM	420.89	2		404.7	1.615	161.547	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	11/3/2016 12:35:43	65385-1.RAW	12:35:43 PM	1107.16			1090.9	4.746	4.746	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	11/3/2016 12:39:51	65386-1.RAW	12:39:51 PM	40.93			24.7	0.107	0.107	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	1609620-02	100	11/3/2016 12:43:59	65387-1.RAW	12:43:59 PM	1308.47	2		1292.2	5.477	547.672	ng/L	
Hg2600-2	BC	SAM	1609620-03	100	11/3/2016 12:48:08	65388-1.RAW	12:48:08 PM	425.87	2		409.6	1.637	163.714	ng/L	
Hg2600-2	BC	SAM	F610424-MS1	100	11/3/2016 12:52:16	65389-1.RAW	12:52:16 PM	1585.53	2		1569.3	6.682	668.202	ng/L	
Hg2600-2	BC	SAM	F610424-MSD1	100	11/3/2016 12:56:25	65390-1.RAW	12:56:25 PM	1536.77	2		1520.5	6.470	646.989	ng/L	
Hg2600-2	BC	SAM	F610424-DUP1	100	11/3/2016 13:00:33	65391-1.RAW	1:00:33 PM	582.66	2		566.4	2.319	231.922	ng/L	
Hg2600-2	BC	BLK	F611220-BLK1	50	11/3/2016 13:04:42	65392-1.RAW	1:04:42 PM	43.09	3		26.9	0.117	5.843	ng/L	
Hg2600-2	BC	SAM	F611220-BS1	500	11/3/2016 13:08:50	65393-1.RAW	1:08:50 PM	1261.62	3		1245.4	5.406	2703.079	ng/L	
Hg2600-2	BC	SAM	F611220-BSD1	500	11/3/2016 13:12:58	65394-1.RAW	1:12:58 PM	1038.12	3		1021.9	4.434	2216.932	ng/L	
Hg2600-2	BC	SAM	1611018-01	50	11/3/2016 13:17:07	65395-1.RAW	1:17:07 PM	39.78	3		23.6	-0.014	-0.720	ng/L	
Hg2600-2	BC	SAM	1611018-02	50	11/3/2016 13:21:15	65396-1.RAW	1:21:15 PM	32.34	3		16.1	-0.047	-2.338	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	11/3/2016 13:25:25	65397-1.RAW	1:25:25 PM	1143.15			1126.9	4.902	4.902	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	11/3/2016 13:29:33	65398-1.RAW	1:29:33 PM	34.88			18.7	0.081	0.081	ng/L	
Hg2600-2	BC	SAM	F611220-BS2	500	11/3/2016 13:33:41	65399-1.RAW	1:33:41 PM	1292.03	3		1275.8	5.538	2769.226	ng/L	
Hg2600-2	BC	SAM	F611220-BSD2	500	11/3/2016 13:37:50	65400-1.RAW	1:37:50 PM	1091.32	3		1075.1	4.665	2332.650	ng/L	
Hg2600-2	BC	SAM	F611220-DUPI	50	11/3/2016 13:41:58	65401-1.RAW	1:41:58 PM	42.70	3		26.5	-0.002	-0.085	ng/L	
Hg2600-2	BC	SAM	F611220-MS1	500	11/3/2016 13:46:07	65402-1.RAW	1:46:07 PM	1291.20	3		1275.0	5.535	2767.420	ng/L	
Hg2600-2	BC	SAM	F611220-MSD1	500	11/3/2016 13:50:15	65403-1.RAW	1:50:15 PM	1109.07	3		1092.8	4.743	2371.259	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	11/3/2016 13:56:43	65404-1.RAW	1:56:43 PM	1144.81			1128.6	4.910	4.910	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	11/3/2016 14:00:51	65405-1.RAW	2:00:51 PM	37.79			21.6	0.094	0.094	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	11/3/2016 8:36:05	65330-1.RAW	8:36:05 AM	15.94			-0.3	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	11/3/2016 8:40:13	65331-1.RAW	8:40:13 AM	14.92			-1.3	-0.006	-0.006	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	11/3/2016 8:44:21	65332-1.RAW	8:44:21 AM	17.82			1.6	0.007	0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	11/3/2016 8:48:30	65333-1.RAW	8:48:30 AM	129.92			113.7	0.495	0.495	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	11/3/2016 8:52:38	65334-1.RAW	8:52:38 AM	252.02			235.8	1.026	1.026	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	11/3/2016 8:56:47	65335-1.RAW	8:56:47 AM	1195.60			1179.4	5.131	5.131	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	11/3/2016 9:00:55	65336-1.RAW	9:00:55 AM	4393.51			4377.3	19.043	19.043	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	11/3/2016 9:05:04	65337-1.RAW	9:05:04 AM	9273.23			9257.0	40.271	40.271	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	11/3/2016 9:09:12	65338-1.RAW	9:09:12 AM	1170.79			1154.6	5.023	5.023	ng/L	
Hg2600-2	BC	SAM	*F610467-BLK1	20	11/3/2016 9:22:08	65339-1.RAW	9:22:08 AM	154.05	1		137.8	0.504	10.072	ng/L	
Hg2600-2	BC	BLK	F610467-BLK2	20	11/3/2016 9:26:17	65340-1.RAW	9:26:17 AM	37.51	1		21.3	0.093	1.852	ng/L	
Hg2600-2	BC	BLK	F610467-BLK3	20	11/3/2016 9:30:25	65341-1.RAW	9:30:25 AM	36.56	1		20.3	0.088	1.769	ng/L	
Hg2600-2	BC	SAM	F610467-BS1	20	11/3/2016 9:34:34	65342-1.RAW	9:34:34 AM	1243.43	1		1227.2	5.243	104.855	ng/L	
Hg2600-2	BC	SAM	F610467-BSD1	20	11/3/2016 9:38:42	65343-1.RAW	9:38:42 AM	1238.36	1		1222.1	5.221	104.414	ng/L	
Hg2600-2	BC	SAM	F610467-BS2	500	11/3/2016 9:42:51	65344-1.RAW	9:42:51 AM	1063.85	1		1047.6	4.554	2276.823	ng/L	
Hg2600-2	BC	SAM	1610144-37	500	11/3/2016 9:46:59	65345-1.RAW	9:46:59 AM	383.56	1		367.3	1.594	797.087	ng/L	
Hg2600-2	BC	SAM	1610144-38	500	11/3/2016 9:51:07	65346-1.RAW	9:51:07 AM	367.94	1		351.7	1.526	763.111	ng/L	
Hg2600-2	BC	SAM	1610144-39	500	11/3/2016 9:55:15	65347-1.RAW	9:55:15 AM	482.23	1		466.0	2.023	1011.710	ng/L	
Hg2600-2	BC	SAM	1610144-40	500	11/3/2016 9:59:23	65348-1.RAW	9:59:23 AM	392.38	1		376.2	1.633	816.272	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	11/3/2016 10:03:31	65349-1.RAW	10:03:31 AM	1126.13			1109.9	4.828	4.828	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	11/3/2016 10:07:39	65350-1.RAW	10:07:39 AM	30.37			14.1	0.062	0.062	ng/L	
Hg2600-2	BC	BLK	F610467-BLK4	20	11/3/2016 10:11:48	65351-1.RAW	10:11:48 AM	40.79	1		24.6	0.107	2.137	ng/L	
Hg2600-2	BC	SAM	1610144-41	500	11/3/2016 10:15:56	65352-1.RAW	10:15:56 AM	333.34	1		317.1	1.376	687.851	ng/L	
Hg2600-2	BC	SAM	1610144-42	500	11/3/2016 10:20:05	65353-1.RAW	10:20:05 AM	518.81	1		502.6	2.183	1091.277	ng/L	
Hg2600-2	BC	SAM	1610144-43	500	11/3/2016 10:24:13	65354-1.RAW	10:24:13 AM	352.11	1		335.9	1.457	728.679	ng/L	
Hg2600-2	BC	SAM	1610144-44	500	11/3/2016 10:28:21	65355-1.RAW	10:28:21 AM	346.60	1		330.4	1.433	716.694	ng/L	
Hg2600-2	BC	SAM	1610144-45	500	11/3/2016 10:32:30	65356-1.RAW	10:32:30 AM	423.72	1		407.5	1.769	884.441	ng/L	
Hg2600-2	BC	SAM	1610144-46	500	11/3/2016 10:36:38	65357-1.RAW	10:36:38 AM	432.50	1		416.3	1.807	903.539	ng/L	
Hg2600-2	BC	SAM	1610144-47	500	11/3/2016 10:40:47	65358-1.RAW	10:40:47 AM	589.78	1		573.6	2.491	1245.669	ng/L	
Hg2600-2	BC	SAM	1610144-48	500	11/3/2016 10:44:55	65359-1.RAW	10:44:55 AM	1119.98	1		433.8	1.883	941.561	ng/L	
Hg2600-2	BC	SAM	1610144-49	500	11/3/2016 10:49:04	65360-1.RAW	10:49:04 AM	402.16	1		385.9	1.675	837.545	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	11/3/2016 10:53:12	65361-1.RAW	10:53:12 AM	1117.56			1101.3	4.791	4.791	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	11/3/2016 10:57:20	65362-1.RAW	10:57:20 AM	29.81			13.6	0.059	0.059	ng/L	
Hg2600-2	BC	SAM	1610144-50	500	11/3/2016 11:01:29	65363-1.RAW	11:01:29 AM	446.46	1		430.2	1.868	933.904	ng/L	
Hg2600-2	BC	SAM	1610144-51	500	11/3/2016 11:05:37	65364-1.RAW	11:05:37 AM	325.19	1		309.0	1.340	670.123	ng/L	
Hg2600-2	BC	SAM	1610144-52	500	11/3/2016 11:09:46	65365-1.RAW	11:09:46 AM	396.16	1		379.9	1.649	824.494	ng/L	
Hg2600-2	BC	SAM	1610144-53	500	11/3/2016 11:13:54	65366-1.RAW	11:13:54 AM	304.23	1		288.0	1.249	624.532	ng/L	
Hg2600-2	BC	SAM	1610144-54	500	11/3/2016 11:18:02	65367-1.RAW	11:18:02 AM	455.34	1		439.1	1.906	953.220	ng/L	
Hg2600-2	BC	SAM	1610144-55	500	11/3/2016 11:22:12	65368-1.RAW	11:22:12 AM	308.08	1		291.9	1.266	632.907	ng/L	
Hg2600-2	BC	SAM	1610144-56	500	11/3/2016 11:26:20	65369-1.RAW	11:26:20 AM	369.70	1		353.5	1.534	766.940	ng/L	
Hg2600-2	BC	SAM	F610467-DUP1	500	11/3/2016 11:30:29	65370-1.RAW	11:30:29 AM	394.60	1		378.4	1.642	821.101	ng/L	
Hg2600-2	BC	SAM	F610467-MS1	500	11/3/2016 11:34:37	65371-1.RAW	11:34:37 AM	2396.90	1		2380.7	10.353	5176.412	ng/L	
Hg2600-2	BC	SAM	F610467-MSD1	500	11/3/2016 11:38:46	65372-1.RAW	11:38:46 AM	2545.08	1		2528.9	10.997	5498.726	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	11/3/2016 11:42:54	65373-1.RAW	11:42:54 AM	1103.32			1087.1	4.729	4.729	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	11/3/2016 11:47:02	65374-1.RAW	11:47:02 AM	37.02			20.8	0.090	0.090	ng/L	
Hg2600-2	BC	SAM	F610467-MS2	500	11/3/2016 11:51:11	65375-1.RAW	11:51:11 AM	2775.93	1		2759.7	12.002	6000.860	ng/L	
Hg2600-2	BC	SAM	F610467-MSD2	500	11/3/2016 11:55:19	65376-1.RAW	11:55:19 AM	2719.09	1		2702.9	11.754	5877.225	ng/L	
Hg2600-2	BC	BLK	F610424-BLK1	100	11/3/2016 11:59:28	65377-1.RAW	11:59:28 AM	64.58	2		48.4	0.210	21.035	ng/L	
Hg2600-2	BC	BLK	F610424-BLK2	100	11/3/2016 12:03:36	65378-1.RAW	12:03:36 PM	46.42	2		30.2	0.131	13.135	ng/L	
Hg2600-2	BC	BLK	F610424-BLK3	100	11/3/2016 12:07:45	65379-1.RAW	12:07:45 PM	37.63	2		21.4	0.093	9.311	ng/L	
Hg2600-2	BC	BLK	F610424-BLK4	100	11/3/2016 12:11:53	65380-1.RAW	12:11:53 PM	38.24	2		22.0	0.096	9.576	ng/L	
Hg2600-2	BC	SAM	F610424-BS1	500	11/3/2016 12:16:01	65381-1.RAW	12:16:01 PM	2166.21	2		2150.0	9.327	4663.280	ng/L	
Hg2600-2	BC	SAM	F610424-BSD1	500	11/3/2016 12:20:10	65382-1.RAW	12:20:10 PM	2195.89	2		2179.7	9.456	4727.839	ng/L	
Hg2600-2	BC	SAM	1609620-01	2500	11/3/2016 12:24:18	65383-1.RAW	12:24:18 PM	64.76	2		48.5	0.206	514.573	ng/L	
Hg2600-2	BC	SAM	1609620-01RE1	100	11/3/2016 12:31:34	65384-1.RAW	12:31:34 PM	420.89	2		404.7	1.628	162.777	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	11/3/2016 12:35:43	65385-1.RAW	12:35:43 PM	1107.16			1090.9	4.746	4.746	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	11/3/2016 12:39:51	65386-1.RAW	12:39:51 PM	40.93			24.7	0.107	0.107	ng/L	



Sample				Dilution	Analyzed	FileID	RunEnd	Uncorrected	Batch	No PB	RESP	InitialResult	FinalResult	InitialUnits	Comments
Instrument	Analyst	Type	LabNumber					Response	ID	Correction?					
Hg2600-2	BC	SAM	1609620-02	100	11/3/2016 12:43:59	65387-1.RAW	12:43:59 PM	1308.47	2		1292.2	5.489	548.901	ng/L	
Hg2600-2	BC	SAM	1609620-03	100	11/3/2016 12:48:08	65388-1.RAW	12:48:08 PM	425.87	2		409.6	1.649	164.943	ng/L	
Hg2600-2	BC	SAM	F610424-MS1	100	11/3/2016 12:52:16	65389-1.RAW	12:52:16 PM	1585.53	2		1569.3	6.694	669.431	ng/L	
Hg2600-2	BC	SAM	F610424-MSD1	100	11/3/2016 12:56:25	65390-1.RAW	12:56:25 PM	1536.77	2		1520.5	6.482	648.219	ng/L	
Hg2600-2	BC	SAM	F610424-DUP1	100	11/3/2016 13:00:33	65391-1.RAW	1:00:33 PM	582.66	2		566.4	2.332	233.151	ng/L	
Hg2600-2	BC	BLK	F611220-BLK1	50	11/3/2016 13:04:42	65392-1.RAW	1:04:42 PM	43.09	3		26.9	0.117	5.843	ng/L	
Hg2600-2	BC	SAM	F611220-BS1	500	11/3/2016 13:08:50	65393-1.RAW	1:08:50 PM	1261.62	3		1245.4	5.406	2703.079	ng/L	
Hg2600-2	BC	SAM	F611220-BSD1	500	11/3/2016 13:12:58	65394-1.RAW	1:12:58 PM	1038.12	3		1021.9	4.434	2216.932	ng/L	
Hg2600-2	BC	SAM	1611018-01	50	11/3/2016 13:17:07	65395-1.RAW	1:17:07 PM	39.78	3		23.6	-0.014	-0.720	ng/L	
Hg2600-2	BC	SAM	1611018-02	50	11/3/2016 13:21:15	65396-1.RAW	1:21:15 PM	32.34	3		16.1	-0.047	-2.338	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	11/3/2016 13:25:25	65397-1.RAW	1:25:25 PM	1143.15			1126.9	4.902	4.902	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	11/3/2016 13:29:33	65398-1.RAW	1:29:33 PM	34.88			18.7	0.081	0.081	ng/L	
Hg2600-2	BC	SAM	F611220-BS2	500	11/3/2016 13:33:41	65399-1.RAW	1:33:41 PM	1292.03	3		1275.8	5.538	2769.226	ng/L	
Hg2600-2	BC	SAM	F611220-BSD2	500	11/3/2016 13:37:50	65400-1.RAW	1:37:50 PM	1091.32	3		1075.1	4.665	2332.650	ng/L	
Hg2600-2	BC	SAM	F611220-DUP1	50	11/3/2016 13:41:58	65401-1.RAW	1:41:58 PM	42.70	3		26.5	-0.002	-0.085	ng/L	
Hg2600-2	BC	SAM	F611220-MS1	500	11/3/2016 13:46:07	65402-1.RAW	1:46:07 PM	1291.20	3		1275.0	5.535	2767.420	ng/L	
Hg2600-2	BC	SAM	F611220-MSD1	500	11/3/2016 13:50:15	65403-1.RAW	1:50:15 PM	1109.07	3		1092.8	4.743	2371.259	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	11/3/2016 13:56:43	65404-1.RAW	1:56:43 PM	1144.81			1128.6	4.910	4.910	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	11/3/2016 14:00:51	65405-1.RAW	2:00:51 PM	37.79			21.6	0.094	0.094	ng/L	

BC 11-10-16

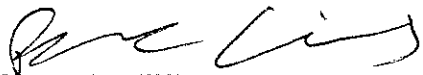
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 Works THg260 CalibFa 229.87  
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 Run Time: 13:52:33  
 Blank RSD%: 9.082446988  
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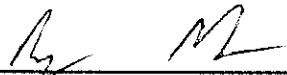
Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean			0.00	4.92					65325-1.RAW	8:16:38	1130.06	Clean	OK	1
CLEAN			0.00	0.04					65326-1.RAW	8:19:30	8.33	Clean	OK	1
WS			16.22	0.00					65327-1.RAW	8:23:38	16.80	Sample	OK	1
WS			16.22	0.00					65328-1.RAW	8:27:48	15.26	Sample	OK	1
WS			16.22	0.00					65329-1.RAW	8:31:56	15.37	Sample	OK	1
SEQ-IBL1	A1		0.00	0.07					65330-1.RAW	8:36:05	15.94	Sample	OK	1
SEQ-IBL2	A2		0.00	0.06					65331-1.RAW	8:40:13	14.92	Sample	OK	1
SEQ-IBL3	A3		0.00	0.08					65332-1.RAW	8:44:21	17.82	Sample	OK	1
SEQ-CAL1	A4		16.22	0.49			98.92		65333-1.RAW	8:48:30	129.92	Sample	OK	1
SEQ-CAL2	A5		16.22	1.03			102.58		65334-1.RAW	8:52:38	252.02	Sample	OK	1
SEQ-CAL3	A6		16.22	5.13			102.61		65335-1.RAW	8:56:47	1195.60	Sample	OK	1
SEQ-CAL4	A7		16.22	19.04			95.21		65336-1.RAW	9:00:55	4393.51	Sample	OK	1
SEQ-CAL5	A8		16.22	40.27			100.68		65337-1.RAW	9:05:04	9273.23	Sample	OK	1
SEQ-ICV1	A9		16.22	5.02			100.45		65338-1.RAW	9:09:12	1170.79	Sample	OK	1
*F610467-BLK1	A10	20	16.22	11.99					65339-1.RAW	9:22:08	154.05	Sample	OK	1
F610467-BLK2	A11	20	16.22	1.85					65340-1.RAW	9:26:17	37.51	Sample	OK	1
F610467-BLK3	A12	20	16.22	1.77					65341-1.RAW	9:30:25	36.56	Sample	OK	1
F610467-BS1	A13	20	16.22	106.77					65342-1.RAW	9:34:34	1243.43	Sample	OK	1
F610467-BSD1	A14	20	16.22	106.33					65343-1.RAW	9:38:42	1238.36	Sample	OK	1
F610467-BS2	A15	500	16.22	2278.73					65344-1.RAW	9:42:51	1063.85	Sample	OK	1
1610144-37	A16	500	16.22	799.01					65345-1.RAW	9:46:59	383.56	Sample	OK	1
1610144-38	A17	500	16.22	765.03					65346-1.RAW	9:51:07	367.94	Sample	OK	1
1610144-39	A18	500	16.22	1013.63					65347-1.RAW	9:55:15	482.23	Sample	OK	1
1610144-40	A19	500	16.22	818.19					65348-1.RAW	9:59:23	392.38	Sample	OK	1
SEQ-CCV1	A20	1	16.22	4.83			96.57		65349-1.RAW	10:03:31	1126.13	Sample	OK	1
SEQ-CCB1	A21	1	16.22	0.06			0.00		65350-1.RAW	10:07:39	30.37	Sample	OK	1
F610467-BLK4	B1	20	16.22	2.14					65351-1.RAW	10:11:48	40.79	Sample	OK	1
1610144-41	B2	500	16.22	689.77					65352-1.RAW	10:15:56	333.34	Sample	OK	1
1610144-42	B3	500	16.22	1093.20					65353-1.RAW	10:20:05	518.81	Sample	OK	1
1610144-43	B4	500	16.22	730.60					65354-1.RAW	10:24:13	352.11	Sample	OK	1
1610144-44	B5	500	16.22	718.61					65355-1.RAW	10:28:21	346.60	Sample	OK	1
1610144-45	B6	500	16.22	886.35					65356-1.RAW	10:32:30	423.72	Sample	OK	1
1610144-46	B7	500	16.22	905.45					65357-1.RAW	10:36:38	432.50	Sample	OK	1
1610144-47	B8	500	16.22	1247.58					65358-1.RAW	10:40:47	589.79	Sample	OK	1
1610144-48	B9	500	16.22	943.47					65359-1.RAW	10:44:55	449.98	Sample	OK	1
1610144-49	B10	500	16.22	839.46					65360-1.RAW	10:49:04	402.16	Sample	OK	1
SEQ-CCV2	B11	1	16.22	4.79			95.82		65361-1.RAW	10:53:12	1117.56	Sample	OK	1
SEQ-CCB2	B12	1	16.22	0.06			0.00		65362-1.RAW	10:57:20	29.81	Sample	OK	1
1610144-50	B13	500	16.22	935.83					65363-1.RAW	11:01:29	446.46	Sample	OK	1
1610144-51	B14	500	16.22	672.03					65364-1.RAW	11:05:37	325.19	Sample	OK	1
1610144-52	B15	500	16.22	826.41					65365-1.RAW	11:09:46	396.16	Sample	OK	1
1610144-53	B16	500	16.22	626.46					65366-1.RAW	11:13:54	304.23	Sample	OK	1
1610144-54	B17	500	16.22	955.13					65367-1.RAW	11:18:02	455.34	Sample	OK	1

1610144-55	B18	500	16.22	634.84		65368-1.RAW	11:22:12	308.08	Sample	OK	1
1610144-56	B19	500	16.22	768.85		65369-1.RAW	11:26:20	369.70	Sample	OK	1
F610467-DUP1	B20	500	16.22	823.03		65370-1.RAW	11:30:29	394.60	Sample	OK	1
F610467-MS1	B21	500	16.22	5178.30	628.41	65371-1.RAW	11:34:37	2396.90	Sample	OK	1
F610467-MSD1	C1	500	16.22	5500.61		65372-1.RAW	11:38:46	2545.08	Sample	OK	1
SEQ-CCV3	C2	1	16.22	4.73	94.58	65373-1.RAW	11:42:54	1103.32	Sample	OK	1
SEQ-CCB3	C3	1	16.22	0.09	0.00	65374-1.RAW	11:47:02	37.02	Sample	OK	1
F610467-MS2	C4	500	16.22	6002.73	287149.42	65375-1.RAW	11:51:11	2775.93	Sample	OK	1
F610467-MSD2	C5	500	16.22	5879.10		65376-1.RAW	11:55:19	2719.09	Sample	OK	1
F610424-BLK1	C6	100	16.22	21.04		65377-1.RAW	11:59:28	64.58	Sample	OK	1
F610424-BLK2	C7	100	16.22	13.14		65378-1.RAW	12:03:36	46.42	Sample	OK	1
F610424-BLK3	C8	100	16.22	9.31		65379-1.RAW	12:07:45	37.63	Sample	OK	1
F610424-BLK4	C9	100	16.22	9.58		65380-1.RAW	12:11:53	38.24	Sample	OK	1
F610424-BS1	C10	500	16.22	4676.51		65381-1.RAW	12:16:01	2166.21	Sample	OK	1
F610424-BSD1	C11	500	16.22	4741.06		65382-1.RAW	12:20:10	2195.89	Sample	OK	1
1609620-01	C12	2500	16.22	527.88		65383-1.RAW	12:24:18	64.76	Sample	OK	1
1609620-01RE1	C13	100	16.22	176.04		65384-1.RAW	12:31:34	420.89	Sample	OK	1
SEQ-CCV4	C14	1	16.22	4.75	94.92	65385-1.RAW	12:35:43	1107.16	Sample	OK	1
SEQ-CCB4	C15	1	16.22	0.11	0.00	65386-1.RAW	12:39:51	40.93	Sample	OK	1
1609620-02	C16	100	16.22	562.16		65387-1.RAW	12:43:59	1308.47	Sample	OK	1
1609620-03	C17	100	16.22	178.21		65388-1.RAW	12:48:08	425.87	Sample	OK	1
F610424-MS1	C18	100	16.22	682.69	380.95	65389-1.RAW	12:52:16	1585.53	Sample	OK	1
F610424-MSD1	C19	100	16.22	661.48		65390-1.RAW	12:56:25	1536.77	Sample	OK	1
F610424-DUP1	C20	100	16.22	246.41		65391-1.RAW	13:00:33	582.66	Sample	OK	1
F611220-BLK1	C21	50	16.22	5.84		65392-1.RAW	13:04:42	43.09	Sample	OK	1
F611220-BS1	A1	500	16.22	2708.91		65393-1.RAW	13:08:50	1261.62	Sample	OK	1
F611220-BSD1	A2	500	16.22	2222.77		65394-1.RAW	13:12:58	1038.12	Sample	OK	1
1611018-01	A3	50	16.22	5.12		65395-1.RAW	13:17:07	39.78	Sample	OK	1
1611018-02	A4	50	16.22	3.51		65396-1.RAW	13:21:15	32.34	Sample	OK	1
SEQ-CCV5	A5	1	16.22	4.90	98.05	65397-1.RAW	13:25:25	1143.15	Sample	OK	1
SEQ-CCB5	A6	1	16.22	0.08	0.00	65398-1.RAW	13:29:33	34.88	Sample	OK	1
F611220-BS2	A7	500	16.22	2775.04		65399-1.RAW	13:33:41	1292.03	Sample	OK	1
F611220-BSD2	A8	500	16.22	2338.48		65400-1.RAW	13:37:50	1091.32	Sample	OK	1
F611220-DUP1	A9	50	16.22	5.76		65401-1.RAW	13:41:58	42.70	Sample	OK	1
F611220-MS1	A10	500	16.22	2773.24	41037.91	65402-1.RAW	13:46:07	1291.20	Sample	OK	1
F611220-MSD1	A11	500	16.22	2377.10		65403-1.RAW	13:50:15	1109.07	Sample	OK	1
SEQ-CCV6	A12	1	16.22	4.91	98.19	65404-1.RAW	13:56:43	1144.81	Sample	OK	1
SEQ-CCB6	A13	1	16.22	0.09	0.00	65405-1.RAW	14:00:51	37.79	Sample	OK	1

# Failing Data Report - 6K03020

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610467-BLK1	Hg-CVAFS-T-7030	0.806	0.800				ng/g						PASS-OVER	FAIL-BLK	FE RUN


  
\_\_\_\_\_  
Analyst Reviewed By                      11/3/16  
Date

  
\_\_\_\_\_  
Peer Reviewed By                      11/9/16  
Date

**Failing Data Report - 6K03022**

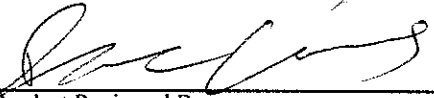
Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610424-DUPI	Hg-CVAFS-S-SSE-F0	4.44	0.95	3.22	3.22		ng/g				31.9	25.00	PASS-OVER	FAIL-DUP	QR-07

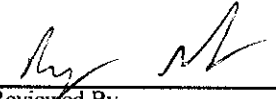
  
 Analyst Reviewed By \_\_\_\_\_  
 Date 11/3/16

  
 Peer Reviewed By \_\_\_\_\_  
 Date 11/16/16

**Failing Data Report - 6K03021**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F611220-BSDI	Hg-CVAFS-S-Bomb	221.7	25.0	270.3		300.00	ng/g	73.9	75.00	125.00	19.8	24.00	PASS-OVER	FAIL-BSD (Rec.)	serun

  
 Analyst Reviewed By \_\_\_\_\_ Date 11/3/16

  
 Peer Reviewed By \_\_\_\_\_ Date 11/8/16

## ANALYSIS SEQUENCE

6K03020



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/3/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K03020-IBL1	QC	1			
6K03020-IBL2	QC	2			
6K03020-IBL3	QC	3			
6K03020-CAL1	QC	4	1605412		
6K03020-CAL2	QC	5	1605413		
6K03020-CAL3	QC	6	1605414		
6K03020-CAL4	QC	7	1605415		
6K03020-CAL5	QC	8	1605416		
6K03020-ICV1	QC	9	1605791		
F610467-BLK1	QC	10			
F610467-BLK2	QC	11			
F610467-BLK3	QC	12			
F610467-BS1	QC	13			
F610467-BSD1	QC	14			
F610467-BS2	QC	15			
1610144-37	Hg-CVAFS-T-7030	16			
1610144-38	Hg-CVAFS-T-7030	17			
1610144-39	Hg-CVAFS-T-7030	18			
1610144-40	Hg-CVAFS-T-7030	19			
6K03020-CCV1	QC	20	1605791		
6K03020-CCB1	QC	21			
F610467-BLK4	QC	22			
1610144-41	Hg-CVAFS-T-7030	23			
1610144-42	Hg-CVAFS-T-7030	24			
1610144-43	Hg-CVAFS-T-7030	25			
1610144-44	Hg-CVAFS-T-7030	26			
1610144-45	Hg-CVAFS-T-7030	27			
1610144-46	Hg-CVAFS-T-7030	28			
1610144-47	Hg-CVAFS-T-7030	29			
1610144-48	Hg-CVAFS-T-7030	30			
1610144-49	Hg-CVAFS-T-7030	31			
6K03020-CCV2	QC	32	1605791		
6K03020-CCB2	QC	33			
1610144-50	Hg-CVAFS-T-7030	34			
1610144-51	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016





## ANALYSIS SEQUENCE

6K03021



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/3/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K03021-IBL1	QC	1			
6K03021-IBL2	QC	2			
6K03021-IBL3	QC	3			
6K03021-CAL1	QC	4	1605412		
6K03021-CAL2	QC	5	1605413		
6K03021-CAL3	QC	6	1605414		
6K03021-CAL4	QC	7	1605415		
6K03021-CAL5	QC	8	1605416		
6K03021-ICV1	QC	9	1605791		
6K03021-CCV4	QC	10	1605791		
6K03021-CCB4	QC	11			
F611220-BLK1	QC	12			
F611220-BS1	QC	13			
F611220-BSD1	QC	14			
1611018-01	Hg-CVAFS-S-Bomb	15			QG00L-1
1611018-02	Hg-CVAFS-S-Bomb	16			QG00L-1
6K03021-CCV5	QC	17	1605791		
6K03021-CCB5	QC	18			
F611220-BS2	QC	19			
F611220-BSD2	QC	20			
F611220-DUP1	QC	21			
F611220-MS1	QC	22			
F611220-MSD1	QC	23			
6K03021-CCV6	QC	24	1605791		
6K03021-CCB6	QC	25			

*[Signature]* 11/3/16  
 Samples Loaded By Date

*[Signature]* 11/3/16  
 Data Processed By Date

Due Date: 11/8/2016

## ANALYSIS SEQUENCE

6K03022



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/3/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K03022-IBL1	QC	1			
6K03022-IBL2	QC	2			
6K03022-IBL3	QC	3			
6K03022-CAL1	QC	4	1605412		
6K03022-CAL2	QC	5	1605413		
6K03022-CAL3	QC	6	1605414		
6K03022-CAL4	QC	7	1605415		
6K03022-CAL5	QC	8	1605416		
6K03022-ICV1	QC	9	1605791		
6K03022-CCV3	QC	10	1605791		
6K03022-CCB3	QC	11			
F610424-BLK1	QC	12			
F610424-BLK2	QC	13			
F610424-BLK3	QC	14			
F610424-BLK4	QC	15			
F610424-BS1	QC	16			
F610424-BSD1	QC	17			
1609620-01	Hg-CVAFS-S-SSE-F0	18			
1609620-01RE1	Hg-CVAFS-S-SSE-F0	19			Added 11/3/2016 by BC
6K03022-CCV4	QC	20	1605791		
6K03022-CCB4	QC	21			
1609620-02	Hg-CVAFS-S-SSE-F0	22			
1609620-03	Hg-CVAFS-S-SSE-F0	23			
F610424-MS1	QC	24			
F610424-MSD1	QC	25			
F610424-DUP1	QC	26			
6K03022-CCV5	QC	27	1605791		
6K03022-CCB5	QC	28			

*[Signature]* 11/3/16  
 Samples Loaded By Date

*[Signature]* 11/3/16  
 Data Processed By Date

Due Date: 10/21/2016

**PREPARATION BENCH SHEET**

F611220

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion**

**Prepared: 11/1/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611220-BLK1	Blank	0.5	50					
F611220-BS1	LCS	0.5	50	1606402	50			
F611220-BS2	LCS	0.4	50	1606402	50			
F611220-BSD1	LCS Dup	0.5	50	1606402	50			
F611220-BSD2	LCS Dup	0.4	50	1606402	50			
F611220-DUP1	Duplicate [1611018-01]	0.5877	50					
F611220-MS1	Matrix Spike [1611018-01]	0.6928	50	1606402	50			
F611220-MSD1	Matrix Spike Dup [1611018-01]	0.5339	50	1606402	50			

Standard ID(s): 1606402  
Description: EFGS-PREPSPIKE1/2, plus Hg

Expiration: 10-Apr-17 00:00

Reagent ID(s):

1602941  
 1605635  
 1605636  
 1605815  
 1606187  
 1606370

Description:

25% Hydroxylamine-HCl working solution  
 THg Dilute 1% BrCl  
 THg Washstation (0.5% BrCl)  
 Fisher Nitric Acid, Tracemetal Grade  
 3% SnCl2 THg reductant

Expiration:

03-Dec-16 00:00  
 09-Feb-17 00:00  
 03-Dec-16 00:00  
 24-Mar-18 00:00  
 15-Apr-17 00:00  
 20-Apr-17 00:00

**PREPARATION BENCH SHEET**

**F611220**

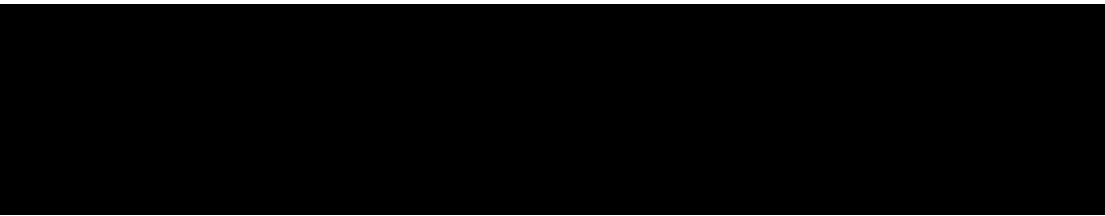
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion**

**Prepared: 11/1/2016**

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611018-01	740-2016-00015890	0.7401	50	-	See COC	-	MSM QG00L-1	
1611018-02	740-2016-00015891	0.5914	50	-	See COC	-	MSM QG00L-1	



**PREPARATION BENCH SHEET**

F610467

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/1/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610467-BLK1	Blank	0.25	20					
F610467-BLK2	Blank	0.25	20					
F610467-BLK3	Blank	0.25	20					
F610467-BLK4	Blank	0.25	20					Added 11/3/2016 by BC
F610467-BS1	Blank Spike	0.25	20	1605270	20			
F610467-BS2	DORM-4	0.1263	20	1605470	126			
F610467-BSD1	Blank Spike	0.25	20	1605270	20			
F610467-DUP1	Duplicate [1610144-37]	0.2861	20					
F610467-MS1	Matrix Spike [1610144-41]	0.2635	20	1605712	100			
F610467-MS2	Matrix Spike [1610144-51]	0.2632	20	1605712	100			
F610467-MSD1	Matrix Spike Dup [1610144-41]	0.2756	20	1605712	100			
F610467-MSD2	Matrix Spike Dup [1610144-51]	0.2873	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606187	3% SnCl2 THg reductant	15-Apr-17 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610467

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/1/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-37	ES-13_093016_BLM_WB_17	0.282	20	-	-	-		
1610144-38	ES-13_093016_BLM_WB_18	0.2693	20	-	-	-		
1610144-39	ES-13_093016_BLM_WB_19	0.269	20	-	-	-		
1610144-40	ES-13_093016_BLM_WB_20	0.2631	20	-	-	-		
1610144-41	ES-15_092716_BLM_WB_01	0.2935	20	QC	-	-	MS/MSD	
1610144-42	ES-15_092716_BLM_WB_02	0.2836	20	-	-	-		
1610144-43	ES-15_092716_BLM_WB_03	0.2633	20	-	-	-		
1610144-44	ES-15_092716_BLM_WB_04	0.2581	20	-	-	-		
1610144-45	ES-15_092716_BLM_WB_05	0.2697	20	-	-	-		
1610144-46	ES-15_092716_BLM_WB_06	0.278	20	-	-	-		
1610144-47	ES-15_092716_BLM_WB_07	0.2594	20	-	-	-		
1610144-48	ES-15_092716_BLM_WB_08	0.2792	20	-	-	-		
1610144-49	ES-15_092716_BLM_WB_09	0.2877	20	-	-	-		
1610144-50	ES-15_092716_BLM_WB_10	0.2747	20	-	-	-		
1610144-51	ES-15_092716_BLM_WB_11	0.2787	20	-	-	-		
1610144-52	ES-15_092716_BLM_WB_12	0.2976	20	-	-	-		
1610144-53	ES-15_092716_BLM_WB_13	0.2785	20	-	-	-		
1610144-54	ES-15_092716_BLM_WB_14	0.294	20	-	-	-		
1610144-55	ES-15_092716_BLM_WB_15	0.2777	20	-	-	-		

Page 206 of 311

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610467

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/1/2016**

1610144-56	ES-15_092716_BLM_WB_16	0.3087	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610424

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-0**

**Prepared: 10/20/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610424-BLK1	Blank	2	40					
F610424-BLK2	Blank	2	40					
F610424-BLK3	Blank	2	40					
F610424-BLK4	Blank	2	40					
F610424-BS1	LCS	2	40	1605712	200			
F610424-BSD1	LCS Dup	2	40	1605712	200			
F610424-DUP1	Duplicate [1609620-03]	2.445	40					
F610424-MS1	Matrix Spike [1609620-01RE1]	0.0270375	0.5	1605272	25			[Spk] 2.163g->40mL; 40mL->40mL; Spiked 0.5mL
F610424-MSD1	Matrix Spike Dup [1609620-01RE1]	0.0270375	0.5	1605272	25			[Spk] 2.163g->40mL; 40mL->40mL; 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>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606187	3% SnCl2 THg reductant	15-Apr-17 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00



PREPARATION BENCH SHEET

F610424

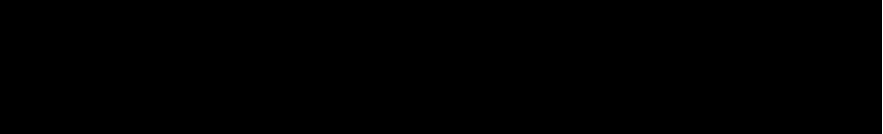
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-0

Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	2.163	40	-	-	-		
1609620-01RE1	Sand-Na25-1-bottom	2.163	40	-	-	-	Added 11/3/2016 by BC	Added 11/3/2016 by BC
1609620-02	Sand-Na25-2-bottom	2.086	40	-	-	-		
1609620-03	Sand-Na25-3-bottom	2.386	40	-	-	-		



2600-82

BC 11/3/16

PREPARATION BENCH SHEET

F610467

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/1/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610467-BLK1	Blank	0.25	20					20x
F610467-BLK2	Blank	0.25	20					20x
F610467-BLK3	Blank	0.25	20					20x
F610467-BS1	Blank Spike	0.25	20	1605270	20			20x
F610467-BS2	DORM-4	0.1263	20	1605470	126			500x
F610467-BSD1	Blank Spike	0.25	20	1605270	20			20x
F610467-DUP1	Duplicate [1610144-37]	0.2861	20					500x
F610467-MS1	Matrix Spike [1610144-41]	0.2635	20	1605712	100			500x
F610467-MS2	Matrix Spike [1610144-51]	0.2632	20	1605712	100			500x
F610467-MSD1	Matrix Spike Dup [1610144-41]	0.2756	20	1605712	100			500x
F610467-MSD2	Matrix Spike Dup [1610144-51]	0.2873	20	1605712	100			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606257	5% BrCl	26-Mar-17 00:00

BLK2 rerun of BLK1 20x

1606187  
1606370  
1605636  
1605635  
1602941

2600-2

BC/11/3/16

## PREPARATION BENCH SHEET

F610467

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/1/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-37	ES-13_093016_BLM_WB_17	0.282	20	-	-	-	500x	
1610144-38	ES-13_093016_BLM_WB_18	0.2693	20	-	-	-	500x	
1610144-39	ES-13_093016_BLM_WB_19	0.269	20	-	-	-	500x	
1610144-40	ES-13_093016_BLM_WB_20	0.2631	20	-	-	-	500x	
1610144-41	ES-15_092716_BLM_WB_01	0.2935	20	QC	-	-	MS/MSD 500x	
1610144-42	ES-15_092716_BLM_WB_02	0.2836	20	-	-	-	500x	
1610144-43	ES-15_092716_BLM_WB_03	0.2633	20	-	-	-	500x	
1610144-44	ES-15_092716_BLM_WB_04	0.2581	20	-	-	-	500x	
1610144-45	ES-15_092716_BLM_WB_05	0.2697	20	-	-	-	500x	
1610144-46	ES-15_092716_BLM_WB_06	0.278	20	-	-	-	500x	
1610144-47	ES-15_092716_BLM_WB_07	0.2594	20	-	-	-	500x	
1610144-48	ES-15_092716_BLM_WB_08	0.2792	20	-	-	-	500x	
1610144-49	ES-15_092716_BLM_WB_09	0.2877	20	-	-	-	500x	
1610144-50	ES-15_092716_BLM_WB_10	0.2747	20	-	-	-	500x	
1610144-51	ES-15_092716_BLM_WB_11	0.2787	20	-	-	-	500x	
1610144-52	ES-15_092716_BLM_WB_12	0.2976	20	-	-	-	500x	
1610144-53	ES-15_092716_BLM_WB_13	0.2785	20	-	-	-	500x	
1610144-54	ES-15_092716_BLM_WB_14	0.294	20	-	-	-	500x	
1610144-55	ES-15_092716_BLM_WB_15	0.2777	20	-	-	-	500x	

Page 211 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

2600-2  
Bc 11/3/16

F610467

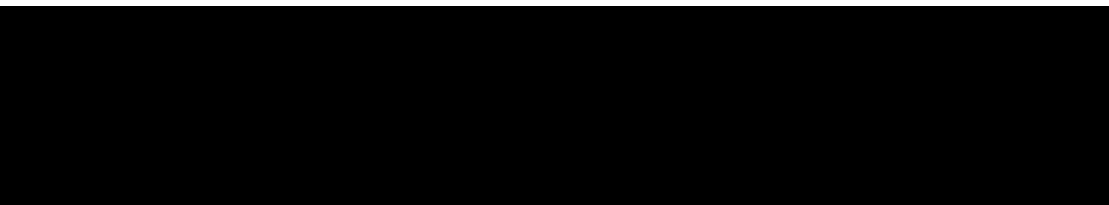
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/1/2016

1610144-56	ES-15_092716_BLM_WB_16	0.3087	20	-	-	-	500X	
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Technician: Duyen

Batch#: F610467

Date: 11/1/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_

Vial Type:  Glass  Teflon

Balance#: 19 Calibrated?  Yes  No <sup>11/1/16</sup> Therm.#: 13698 Calibrated?  Yes  No

Time in: 15:45 Actual Temp. (raw): 75.0 °C w/ CF: 74.5 °C

Time out: 1752 Actual Temp. (raw): 83 °C w/ CF: 82.5 °C

Final vol.: 20 mL (LIMS ID: 1606257) Spike vol.: 100 µL (LIMS ID: 1605712)  
Spike Witness: DM 11/1/16 (initial and date)

HCl LIMS ID: N/A  
 HNO<sub>3</sub> LIMS ID: N/A  
 70/30 LIMS ID: 1606221  
 Other Acid LIMS ID: N/A  
 Glass Vial # 00065550

Pipette SN#: MW11607 Calibration Date: 10-30-16  
 Pipette SN#: N/A Calibration Date: N/A  
 Dispenser #: 04W27497 Calibrated?  Yes  No  
 Dispenser #: 02K27494  Yes  No  
 Boiling Chip lot # 1603399 \*Hotblock Position: I5

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	F610467 Blank1	0.2645	23	1610144-48	0.2792	BS2 DORM-4 1605470
2	F610467 Blank2	0.2703	24	1610144-49	0.2877	
3	F610467 Blank3	0.2618	25	1610144-50	0.2747	
4	F610467 BS1	0.2920	26	1610144-51	0.2787	Comments
5	F610467 BS01	0.2905	27	1610144-52	0.2976	
6	F610467 BS2	0.263	28	1610144-53	0.2785	BS1, BS01 100µL 20µL 1605270
7	F610467 dup1	0.2861	29	1610144-54	0.2909	
8	F610467 MS1	0.2635	30	1610144-55	0.2777	dup1 source 1610144-37
9	F610467 MS01	0.2756	31	1610144-56	0.3087	
10	F610467 MS2	0.2632	32			MS1 MS01 1610144-41
11	F610467 MS02	0.2873	33			
12	1610144-37	0.2820	34			MS2 MS02 1610144-51
13	1610144-38	0.2693	35			
14	1610144-39	0.2690	36			11/2/16 04
15	1610144-40	0.2631	37			
16	1610144-41	0.2935	38			
17	1610144-42	0.2836	39			
18	1610144-43	0.2637	40			
19	1610144-44	0.2581	41			
20	1610144-45	0.2697	42			
21	1610144-46	0.2780	43			
22	1610144-47	0.2594	44			

Verified By: A 11/2/16

PREPARATION BENCH SHEET

2600-2  
BSC 11/3/16

F611220

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 11/1/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611220-BLK1	Blank	0.5	50					50X
F611220-BS1	LCS	0.5	50	1606402	50			500X
F611220-BSD1	LCS Dup	0.5	50	1606402	50			500X
F611220-DUP1	Duplicate [1611018-01]	0.5877	50					50X
F611220-MS1	Matrix Spike [1611018-01]	0.6928	50	1606402	50			500X
F611220-MSD1	Matrix Spike Dup [1611018-01]	0.5339	50	1606402	50			500X

Standard ID(s): 1606402  
Description: EFGS-PREP SPIKE 1/2, plus Hg

Expiration: 10-Apr-17 00:00

Reagent ID(s): 1605815  
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration: 24-Mar-18 00:00

BS 2 rerun of BS 1 500X  
BS D 2 rerun of BSD 1 500X

1606187  
1606370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-2  
BL 11/3/16

F611220

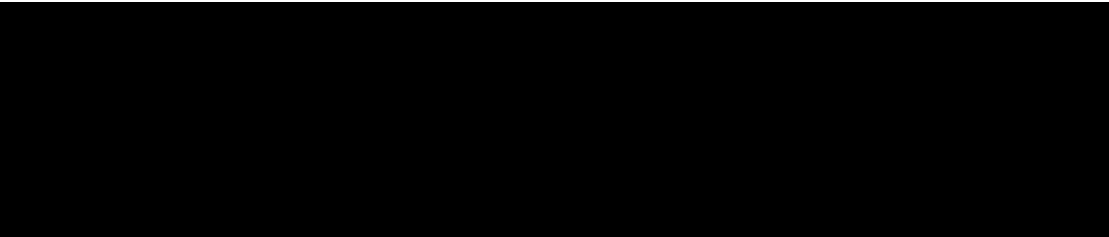
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion

Prepared: 11/1/2016

Lab Number	Sample ID	Initial (g)	Final (ml)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611018-01	740-2016-00015890	0.7401	50	-	See COC	-	MSM QG00L-1 50X	
1611018-02	740-2016-00015891	0.5914	50	-	See COC	-	MSM QG00L-1 50X	



# Sample Preparation Review Checklist

Revision: 3  
Effective: Dec. 5, 2013

Technician/Date: LEL  
Upload/Date: LEL

11-1-16  
11-2-16

Samples to lab: 1738  
Reviewer/Date: \_\_\_\_\_

Batch #: F611220

- 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>LEL</u>	<u>7-22-16</u>	<u>470.1607743</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 via CVAFS

- |   |  |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
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| <p>1. Is any SOP/DOC expiring within one week of Submission Date?<br/><b>Data cannot be reported without a current IDOC/CDOC.</b></p> <p>2. Check prep method<br/>(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</p> <p>3. Compare sample ID with benchsheet</p> <p>4. Verify time of submission? (if not met please explain in the comments)<br/>(a) Oven bomb - digestion start time before 14:00?<br/>(b) Microwave - submitted to the lab before 16:00?</p> <p>5. Check for transcription errors from benchsheet<br/>(a) Check and compare initial and final volumes<br/>(b) Check and compare mass<br/>(c) Has the number of pills been documented (benchsheet and LIMS)?<br/>(d) Benchsheet prep date MUST match actual prep date</p> <p>6. Samples per Batch? <b>Check QC Requirements</b><br/>(a) PBs per batch? <input type="checkbox"/> ≤ 20 <input checked="" type="checkbox"/> ≤ 10<br/>(b) BS, BS/BSD or CRM in batch? <input type="checkbox"/> 3 PBs <input checked="" type="checkbox"/> 2 PB <input type="checkbox"/> 1 PB<br/>(c) MS/MSD in batch? <input type="checkbox"/> BS <input checked="" type="checkbox"/> BS/BSD <input type="checkbox"/> CRM<br/>(d) MD in batch? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A<br/>(e) Client specific WO #'s: _____ <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A<br/>(f) Are there any client specific requests and/or alterations? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A<br/>Document: _____</p> <p>(g) Correct LIMS spike ID included for BS, BS/BSD and/or MS/MSD? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A<br/>(h) Correct 'source' designated for MD/MS/MSD? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A<br/>(i) For EFGS-filtered samples, was a filtration blank included? <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A</p> <p>7. Are the samples appropriately spiked?<br/>(a) Is the spike and amount used appropriate and entered into LIMS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A<br/>(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<br/>(c) Spikes added: <input checked="" type="checkbox"/> YES <input type="checkbox"/> N/A</p> | <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">Reviewer Initials</td> <td style="text-align: center;">Tertiary Review</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/> NO <input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input 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| Reviewer Initials   | Tertiary Review  |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
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| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input type="checkbox"/>   |                   |                 |   |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |                          |
| <input type="checkbox"/>  | <input 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: 1606402

Spike Name	LIMS ID	µL	Spike Name	LIMS ID	µL
Pre spike 1	1601923	50			
Pre spike 2	1601922	50			
T Hg	1606401	50			



**PREPARATION BENCH SHEET**

F611220

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Trace Metals - EFGS-141 Nitric Acid Bomb Digestion**

**Prepared: 11/1/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (ml)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611220-BLK1	Blank	0.5	50					
F611220-BS1	LCS	0.5	50	1606402	50			
F611220-BSD1	LCS Dup	0.5	50	1606402	50			
F611220-DUP1	Duplicate [1611018-01]	0.5877	50					
F611220-MS1	Matrix Spike [1611018-01]	0.6928	50	1606402	50			
F611220-MSD1	Matrix Spike Dup [1611018-01]	0.5339	50	1606402	50			

Standard ID(s): 1606402  
Description: EFGS-PREP SPIKE1/2, plus Hg

Expiration:  
 10-Apr-17 00:00

Reagent ID(s): 1605815  
Description: Fisher Nitric Acid, Tracemetal Grade

Expiration:  
 24-Mar-18 00:00

# Ceutral Digestions

Batch ~~(M)~~ / Hg (circle one): F611215

Boiling Chip Lot # 0919120

Batch continued on next page?  Yes  No

1° Tech.: LEL 2° Tech.: N/A Date/Time In: 11-1-16 11738

Date/Time Out: 11-2-16 1138

Spiked By: ew Spike Witness (SW): PL 11/1/16

Final Vol. (mL)/Initials/Date: 50 / LEL 11-2-16

Balance ID/Cal.? (Y/N): Y / 2011-1-16

Digestion:  Oven ID: OVN-07  Other ID: N/A

Vial Type:  50 mL Centrifuge Tube  Teflon

Analysis:  ICP-MS  CV-AFS  
 LC-ICP-MS  Other: \_\_\_\_\_

Thermometer ID: 120405136 Initial Temp. (°C): 160 / 161.1 / 160.5  
target raw corrected

Final Temp. (°C): 160 / 163.8 / 163.0  
target raw corrected

#	Bomb ID		Sample/Batch ID	Bottle ID	Sample Amount ( <input checked="" type="checkbox"/> g <input type="checkbox"/> mL)	Matrix (specify)	ID Check	Notes/Comments
	Lid	Bottom						
1	N/A	N444	F611215 - BIK1	N/A	0.9345	Boiling Chips (BC)	/	F611220 - BIK1
2	N/A	X022	F611215 - BIK2	N/A	0.5958	BC	/	
3	N/A	TH016	F611215 - BSI	N/A	0.5595	BC	/	F611220 - BSI
4	N/A	N373	F611215 - B501	N/A	0.6006	BC	/	F611220 - B501
5	N/A	N367	<del>1611003-02</del>	A	0.7401	Powder (P)	/	1611018-01 shared in F611220
6	N453	N354	1611003-02 Dupl	A	0.5877	P	/	1611018-01 Dupl shared in F611220
7	N/A	N353	1611003-02 MS1	A	0.6920	P	/	1611018-01 MS1 shared in F611220
8	N/A	X166	<del>1611003-02 MS1</del>	A	0.5339	P	/	1611018-01 MS1 shared in F611220
9	N/A	X176	1611019-01	A	1.1197	ICAP	/	

Initials: BS

	Spike Name	SW	Volume (µL)	LIMS ID	Pipette ID	Cal. Date
A	Prep Spike 1	<input checked="" type="checkbox"/>	50	1601923	S12669	10/28/16
B	Prep Spike 2	<input checked="" type="checkbox"/>	50	1601922		
C	Tbgs	<input checked="" type="checkbox"/>	50	1606401		
D		<input type="checkbox"/>				
E		<input type="checkbox"/>				

Preparation Method SOP: EFGS-191		
Reagent	Volume (mL)	LIMS ID
HNO <sub>3</sub>	7.5	1605815

Combined Spike ID: A-C = 1606902 ; Batches: F611215/217  
 Combined Spike ID: \_\_\_\_\_ ; Batches: LEL 11-2-16

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	N/A	TH040	1611019-01 MSD2	A	1.1019			
11	<del>N/A</del>	N389	1611019-01 MSD2	A	1.1019	1 cap	/	
12	N/A	TH025	1610982-02	A	1.3588	1 cap	/	Lid: N432 1.0993g
13	TH03	N429	1610982-02	A	1.3547	1 cap	/	Double Acid, (DA)
14	N387	TH010	1610893-01	A	0.5588	1 cap	/	Backup, DA
15	N/A	TH005	1610000-01	A	1.1431	1 cap	/	
16	X170	X138	1610876-02	A	1.0999	Liquid (L)	/	1610876-01
17	439	X043	1610884-05	A	0.9999	L	/	
18	N/A	N352	1610888-01	A	1.1188	1 cap	/	
19	N/A	N467	1610889-01	A	1.0191	Paste	/	1g min weight
20	N/A	X164	1610898-01	A	0.6157	Powder (P)	/	1g min weight
21	TH021	X112	1610999-01	A	0.5679	Plant Material (PM)	/	
22	X123	N370	1610999-02	A	0.5605	1 cap	/	
23	N/A	TH046	1611003-01	A	0.6328	1 cap	/	
24	N/A	X174	1611003-02	A	0.6197	2 cap	/	
25			1611003-03			2 cap	/	
26	X148	N447	1611003-04	A	0.8809	1 cap	/	11-1-16 LEL needs to sit
27	X122	X072	1611008-01	A	0.5520	L	/	
28	TH022	X092	1611013-01	A	0.9148	Oil (O)	/	
29	N/A	X181	1611618-02	A	0.5914	P	/	
30	TH011	N391	1611020-01	A	1.2856	1 cap	/	shared in F611220
31								
32								
33								
34								

LEL 11-2-16

Density by EFGS-019 Required?  Yes  No Initials: BB

A: Sample ID / Flask ID	B: Volume (mL)	C: Flask mass (g)	D: Flask + sample (g)	Density = [(D-C)/B]
/				Density (g/mL)
/				
/				
/				

LEL 11-2-16

PREPARATION BENCH SHEET

2660-2  
BC 11/3/16

F610424

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-0

Prepared: 10/20/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610424-BLK1	Blank	2	40					100X
F610424-BLK2	Blank	2	40					100X
F610424-BLK3	Blank	2	40					100X
F610424-BLK4	Blank	2	40					100X
F610424-BS1	LCS	2	40	1605712	200			500X
F610424-BSD1	LCS Dup	2	40	1605712	200			500X
F610424-DUP1	Duplicate [1609620-03]	2.445	40					100X
F610424-MS1	Matrix Spike 1609620-01 RE1	2	40	1605272	25			100X
F610424-MSD1	Matrix Spike Dup 1609620-01 RE1	2	40	1605272	25			100X

<u>Standard ID(s):</u> 1605712	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 03-Apr-17 00:00	<u>Reagent ID(s):</u> 1606221 1606257	<u>Description:</u> 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 22-Apr-17 00:00 26-Mar-17 00:00
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1606187  
1606370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-2  
BCL 11/3/16

F610424

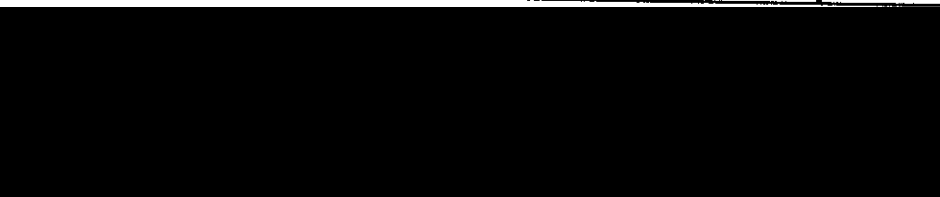
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-0

Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	2.163	40	No 250x → 100x	
1609620-02	Sand-Na25-2-bottom	2.086	40	No 100x	
1609620-03	Sand-Na25-3-bottom	2.386	40	No 100x	





Technician: MPM Batch#: F610424 Date: 10/20/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CVAFS-S-SSE-FO

Vial Type:  Glass  Teflon

Balance#: MPM 10/25/16 96 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

Final vol.: 40 mL (LIMS ID: N/A) Spike vol.: N/A µL (LIMS ID: N/A)  
 Spike Witness: N/A (initial and date)

HCl LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: N/A Dispenser #: N/A Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: N/A  
 Glass Vial # 00065315 Boiling Chip lot # N/A \*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	1609620-01	2.163	23			
2	1609620-02	2.086	24			
3	1609620-03	2.386	25			
4	F610424-DUP1(1609620-03)	2.445	26			
5	F610424-BIK 4	N/A	27			
6			28			Vials 1-5 purged 10/25/16 1040-1340 MPM 10/25/16
7			29			
8			30			BIK is empty glass via 10/25/16 MPM
9			31			Trap lot is #6766 10/25/16 MPM
10			32			
11			33			1609620-02 jar was broken. After sampling transferred sample to new jar 10/25/16 MPM
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

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

Analyst: <u>BC</u>	Sequence(s) #: <u>6K03020, 6K03021, 6K03022</u>
Reviewer: <u>[Signature]</u>	Dataset ID(s): <u>THg26002-161103-1</u>
Date: <u>11/3/2016</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F610467, F610424, F611220</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 Aque 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: BC      Reviewer Initials: [Signature]

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?)             | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| 2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1   |   |  |                                     |
| (b) Check 5% of transcription from Instrument print-out and Excel file                              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel       |   |  |                                     |
| (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries).              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (d) Check and compare masses (review prep benchsheet)   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (e) Check & compare initial & final volumes   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?                           | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| 50 ml / aliquot = Excel dilution value  |   |  |                                     |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page?                              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed)                              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)               | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| 3. High QA?      WO#(s)/Client(s): _____  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS)  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned property   | <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> 6K03020, 6K03021, 6K03022
<b>Reviewer:</b> 0 <i>[Signature]</i>	<b>Dataset ID(s):</b> THg26002-161103-1
<b>Date:</b> 11/3/2016	<b>WO (s) #:</b> Various
<b>Batch #(s):</b> F610467, F610424, F611220	0

Analyst Initials BC

Reviewer Initials A

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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>Blk failed, BSD failed, DUP failed and an AD will be analyzed</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 type="checkbox"/>            |
| (a) if not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:                                 |  |  |   |                                     |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst: BC	Sequence(s) #: 6K03020, 6K03021, 6K03022
Reviewer: 0 <i>[Signature]</i>	Dataset ID(s): THg26002-161103-1
Date: 11/3/2016	WO (s) #: Various
Batch #(s): F610467, F610424, F611220	0

Analyst Initials BC                      Reviewer Initials [Signature]

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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 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 type="checkbox"/>            |
- Files located at: \\Cuprum\gen\_admin\Quality Assurance\Training Master\DOCs**
- |  |   |                             |                                     |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 12/17/2015 _____ 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: _____ 5/24/2016 _____ Current SOP revision read? | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/8/16</u> _____ LOD within last 3 months?                                 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/8/16</u> _____ LOQ within last 3 months?                                 | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input type="checkbox"/>            |

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





Frontier Global Sciences

THg26003-161107-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 07, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K07013

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	61.22 units	122.44	58.22 units	116.44	101.3 %Rec
SEQ-CAL2	1	1.00 ng/L	120.14 units	120.14	117.14 units	117.14	101.9 %Rec
SEQ-CAL3	1	5.00 ng/L	586.62 units	117.32	583.62 units	116.72	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2250.41 units	112.52	2247.41 units	112.37	97.7 %Rec
SEQ-CAL5	1	40.00 ng/L	4487.45 units	112.19	4484.45 units	112.11	97.5 %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>				
114.96	+/- 2.50	2.2% RSD	116.92				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.00 units	±1.25	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.164 ng/L	±0.397
BLK	2	3	1.527 ng/L	±0.320
BLK	3	3	1.499 ng/L	±0.580
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:        11/7/16

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	11/7/2016 7:29:11	55014-1.RAW	7:29:11 AM	3.84			0.8	0.007	0.007	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/7/2016 7:33:19	55015-1.RAW	7:33:19 AM	3.59			0.6	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/7/2016 7:37:28	55016-1.RAW	7:37:28 AM	1.56			-1.4	-0.013	-0.013	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/7/2016 7:41:36	55017-1.RAW	7:41:36 AM	61.22			58.2	0.506	0.506	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/7/2016 7:45:45	55018-1.RAW	7:45:45 AM	120.14			117.1	1.019	1.019	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/7/2016 7:49:53	55019-1.RAW	7:49:53 AM	586.62			583.6	5.077	5.077	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/7/2016 7:54:01	55020-1.RAW	7:54:01 AM	2250.41			2247.4	19.550	19.550	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/7/2016 7:58:10	55021-1.RAW	7:58:10 AM	4487.45			4484.5	39.009	39.009	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	11/7/2016 8:02:18	55022-1.RAW	8:02:18 AM	545.13			542.1	4.716	4.716	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK1	20	11/7/2016 8:06:27	55023-1.RAW	8:06:27 AM	12.32	1		9.3	0.081	1.622	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK2	20	11/7/2016 8:10:35	55024-1.RAW	8:10:35 AM	8.25	1		5.3	0.046	0.914	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK3	20	11/7/2016 8:14:43	55025-1.RAW	8:14:43 AM	8.49	1		5.5	0.048	0.955	ng/L	
Hg2600-3	DM2	SAM	F610491-BS1	20	11/7/2016 8:18:52	55026-1.RAW	8:18:52 AM	585.05	1		582.1	5.005	100.099	ng/L	
Hg2600-3	DM2	SAM	F610491-BSD1	20	11/7/2016 8:23:00	55027-1.RAW	8:23:00 AM	572.53	1		569.5	4.896	97.920	ng/L	
Hg2600-3	DM2	SAM	F610491-BS2	500	11/7/2016 8:27:09	55028-1.RAW	8:27:09 AM	464.98	1		462.0	4.016	2008.154	ng/L	
Hg2600-3	DM2	SAM	1610232-02	500	11/7/2016 8:31:17	55029-1.RAW	8:31:17 AM	293.66	1		290.7	2.526	1263.033	ng/L	
Hg2600-3	DM2	SAM	1610232-08	500	11/7/2016 8:35:26	55030-1.RAW	8:35:26 AM	111.76	1		108.8	0.944	471.875	ng/L	
Hg2600-3	DM2	SAM	1610232-09	500	11/7/2016 8:39:34	55031-1.RAW	8:39:34 AM	344.87	1		341.9	2.972	1485.757	ng/L	
Hg2600-3	DM2	SAM	1610232-10	500	11/7/2016 8:43:42	55032-1.RAW	8:43:42 AM	242.00	1		239.0	2.077	1038.351	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/7/2016 8:47:51	55033-1.RAW	8:47:51 AM	575.46			572.5	4.980	4.980	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/7/2016 8:51:59	55034-1.RAW	8:51:59 AM	7.33			4.3	0.038	0.038	ng/L	
Hg2600-3	DM2	SAM	1610232-08RE1	100	11/7/2016 8:56:08	55035-1.RAW	8:56:08 AM	534.21	1		531.2	4.609	460.924	ng/L	
Hg2600-3	DM2	SAM	1610232-11	100	11/7/2016 9:00:16	55036-1.RAW	9:00:16 AM	535.68	1		532.7	4.622	462.208	ng/L	
Hg2600-3	DM2	SAM	1610232-12	100	11/7/2016 9:04:24	55037-1.RAW	9:04:24 AM	1137.07	1		1134.1	9.853	985.337	ng/L	
Hg2600-3	DM2	SAM	1610232-13	100	11/7/2016 9:08:33	55038-1.RAW	9:08:33 AM	898.57	1		895.6	7.779	777.874	ng/L	
Hg2600-3	DM2	SAM	1610232-14	100	11/7/2016 9:12:41	55039-1.RAW	9:12:41 AM	942.94	1		939.9	8.165	816.473	ng/L	
Hg2600-3	DM2	SAM	1610232-15	100	11/7/2016 9:16:50	55040-1.RAW	9:16:50 AM	489.47	1		486.5	4.220	422.005	ng/L	
Hg2600-3	DM2	SAM	1610232-16	100	11/7/2016 9:20:58	55041-1.RAW	9:20:58 AM	1058.50	1		1055.5	9.170	916.995	ng/L	
Hg2600-3	DM2	SAM	1610232-17	100	11/7/2016 9:25:06	55042-1.RAW	9:25:06 AM	995.14	1		992.1	8.619	861.875	ng/L	
Hg2600-3	DM2	SAM	1610232-18	100	11/7/2016 9:29:15	55043-1.RAW	9:29:15 AM	694.03	1		691.0	5.999	599.947	ng/L	
Hg2600-3	DM2	SAM	1610232-19	100	11/7/2016 9:33:23	55044-1.RAW	9:33:23 AM	438.31	1		435.3	3.775	377.505	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/7/2016 9:37:32	55045-1.RAW	9:37:32 AM	539.58			536.6	4.668	4.668	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/7/2016 9:41:40	55046-1.RAW	9:41:40 AM	9.13			6.1	0.053	0.053	ng/L	
Hg2600-3	DM2	SAM	1610232-20	100	11/7/2016 9:45:49	55047-1.RAW	9:45:49 AM	568.04	1		565.0	4.904	490.351	ng/L	
Hg2600-3	DM2	SAM	1610232-21	100	11/7/2016 9:49:57	55048-1.RAW	9:49:57 AM	623.92	1		620.9	5.390	538.963	ng/L	
Hg2600-3	DM2	SAM	1610232-22	100	11/7/2016 9:54:05	55049-1.RAW	9:54:05 AM	690.63	1		687.6	5.970	596.995	ng/L	
Hg2600-3	DM2	SAM	1610232-23	100	11/7/2016 9:58:14	55050-1.RAW	9:58:14 AM	940.63	1		937.6	8.145	814.461	ng/L	
Hg2600-3	DM2	SAM	1610232-24	100	11/7/2016 10:02:22	55051-1.RAW	10:02:22 AM	912.88	1		909.9	7.903	790.325	ng/L	
Hg2600-3	DM2	SAM	1610232-25	100	11/7/2016 10:06:31	55052-1.RAW	10:06:31 AM	845.88	1		842.9	7.320	732.037	ng/L	
Hg2600-3	DM2	SAM	1610232-26	100	11/7/2016 10:10:39	55053-1.RAW	10:10:39 AM	1303.75	1		1300.8	11.303	1130.333	ng/L	
Hg2600-3	DM2	SAM	F610491-DUP1	500	11/7/2016 10:14:48	55054-1.RAW	10:14:48 AM	368.81	1		365.8	3.180	1589.912	ng/L	
Hg2600-3	DM2	SAM	F610491-MS1	500	11/7/2016 10:18:56	55055-1.RAW	10:18:56 AM	1361.21	1		1358.2	11.812	5906.216	ng/L	
Hg2600-3	DM2	SAM	F610491-MSD1	500	11/7/2016 10:23:04	55056-1.RAW	10:23:04 AM	1427.17	1		1424.2	12.386	6193.088	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/7/2016 10:27:13	55057-1.RAW	10:27:13 AM	546.38			543.4	4.727	4.727	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/7/2016 10:31:21	55058-1.RAW	10:31:21 AM	10.27			7.3	0.063	0.063	ng/L	
Hg2600-3	DM2	SAM	F610491-MS2	500	11/7/2016 10:35:30	55059-1.RAW	10:35:30 AM	1191.23	1		1188.2	10.334	5166.909	ng/L	
Hg2600-3	DM2	SAM	F610491-MSD2	500	11/7/2016 10:39:38	55060-1.RAW	10:39:38 AM	1245.09	1		1242.1	10.802	5401.154	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK1	20	11/7/2016 10:43:46	55061-1.RAW	10:43:46 AM	13.90	2		10.9	0.095	1.896	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK2	20	11/7/2016 10:47:55	55062-1.RAW	10:47:55 AM	10.87	2		7.9	0.068	1.369	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK3	20	11/7/2016 10:52:03	55063-1.RAW	10:52:03 AM	10.57	2		7.6	0.066	1.317	ng/L	
Hg2600-3	DM2	SAM	F610468-BS1	20	11/7/2016 10:56:12	55064-1.RAW	10:56:12 AM	594.92	2		591.9	5.073	101.452	ng/L	
Hg2600-3	DM2	SAM	F610468-BSD1	20	11/7/2016 11:00:20	55065-1.RAW	11:00:20 AM	598.26	2		595.3	5.102	102.034	ng/L	
Hg2600-3	DM2	SAM	F610468-BS2	500	11/7/2016 11:04:29	55066-1.RAW	11:04:29 AM	472.16	2		469.2	4.078	2039.018	ng/L	
Hg2600-3	DM2	SAM	1610144-57	500	11/7/2016 11:08:37	55067-1.RAW	11:08:37 AM	154.51	2		151.5	1.315	657.462	ng/L	
Hg2600-3	DM2	SAM	1610144-58	500	11/7/2016 11:12:45	55068-1.RAW	11:12:45 AM	198.76	2		195.8	1.700	849.932	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/7/2016 11:16:54	55069-1.RAW	11:16:54 AM	533.82			530.8	4.617	4.617	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/7/2016 11:21:02	55070-1.RAW	11:21:02 AM	6.93			3.9	0.034	0.034	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	1610144-59	500	11/7/2016 11:25:11	55071-1.RAW	11:25:11 AM	212.39	2		209.4	1.818	909.178	ng/L	
Hg2600-3	DM2	SAM	1610144-60	500	11/7/2016 11:29:19	55072-1.RAW	11:29:19 AM	177.64	2		174.6	1.516	758.078	ng/L	
Hg2600-3	DM2	SAM	1610144-61	500	11/7/2016 11:33:27	55073-1.RAW	11:33:27 AM	186.24	2		183.2	1.591	795.475	ng/L	
Hg2600-3	DM2	SAM	1610144-62	500	11/7/2016 11:37:36	55074-1.RAW	11:37:36 AM	270.23	2		267.2	2.322	1160.783	ng/L	
Hg2600-3	DM2	SAM	1610144-63	500	11/7/2016 11:41:44	55075-1.RAW	11:41:44 AM	160.99	2		158.0	1.371	685.660	ng/L	
Hg2600-3	DM2	SAM	1610144-64	500	11/7/2016 11:45:53	55076-1.RAW	11:45:53 AM	215.68	2		212.7	1.847	923.498	ng/L	
Hg2600-3	DM2	SAM	1610144-65	500	11/7/2016 11:50:01	55077-1.RAW	11:50:01 AM	127.38	2		124.4	1.079	539.472	ng/L	
Hg2600-3	DM2	SAM	1610144-66	500	11/7/2016 11:54:10	55078-1.RAW	11:54:10 AM	198.79	2		195.8	1.700	850.041	ng/L	
Hg2600-3	DM2	SAM	1610144-67	500	11/7/2016 11:58:18	55079-1.RAW	11:58:18 AM	144.55	2		141.5	1.228	614.127	ng/L	
Hg2600-3	DM2	SAM	1610144-68	500	11/7/2016 12:02:26	55080-1.RAW	12:02:26 PM	269.59	2		266.6	2.316	1157.984	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/7/2016 12:06:35	55081-1.RAW	12:06:35 PM	553.6736327			550.7	4.790	4.790	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/7/2016 12:10:43	55082-1.RAW	12:10:43 PM	7.57			4.6	0.040	0.040	ng/L	
Hg2600-3	DM2	SAM	1610144-69	100	11/7/2016 12:15:36	55083-1.RAW	12:15:36 PM	1893.38	2		1890.4	16.429	1642.869	ng/L	
Hg2600-3	DM2	SAM	1610144-70	100	11/7/2016 12:19:44	55084-1.RAW	12:19:44 PM	1144.23	2		1141.2	9.912	991.203	ng/L	
Hg2600-3	DM2	SAM	1610144-71	100	11/7/2016 12:23:53	55085-1.RAW	12:23:53 PM	1262.90	2		1259.9	10.944	1094.434	ng/L	
Hg2600-3	DM2	SAM	1610144-72	100	11/7/2016 12:28:01	55086-1.RAW	12:28:01 PM	1262.96	2		1260.0	10.945	1094.486	ng/L	
Hg2600-3	DM2	SAM	1610144-73	100	11/7/2016 12:32:10	55087-1.RAW	12:32:10 PM	655.93	2		652.9	5.664	566.444	ng/L	
Hg2600-3	DM2	SAM	1610144-74	100	11/7/2016 12:36:18	55088-1.RAW	12:36:18 PM	856.77	2		853.8	7.412	741.150	ng/L	
Hg2600-3	DM2	SAM	1610144-75	100	11/7/2016 12:40:26	55089-1.RAW	12:40:26 PM	790.65	2		787.6	6.836	683.630	ng/L	
Hg2600-3	DM2	SAM	1610144-76	100	11/7/2016 12:44:35	55090-1.RAW	12:44:35 PM	1005.73	2		1002.7	8.707	870.725	ng/L	
Hg2600-3	DM2	SAM	F610468-DUP1	500	11/7/2016 12:48:43	55091-1.RAW	12:48:43 PM	132.62	2		129.6	1.125	562.251	ng/L	
Hg2600-3	DM2	SAM	F610468-MS1	500	11/7/2016 12:52:52	55092-1.RAW	12:52:52 PM	1180.10	2		1177.1	10.236	5118.118	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/7/2016 12:57:00	55093-1.RAW	12:57:00 PM	547.99			545.0	4.741	4.741	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/7/2016 13:01:09	55094-1.RAW	1:01:09 PM	12.44			9.4	0.082	0.082	ng/L	
Hg2600-3	DM2	SAM	F610468-MSD1	500	11/7/2016 13:05:18	55095-1.RAW	1:05:18 PM	1194.29	2		1191.3	10.360	5179.877	ng/L	
Hg2600-3	DM2	SAM	F610468-MS2	500	11/7/2016 13:09:26	55096-1.RAW	1:09:26 PM	1244.20	2		1241.2	10.794	5396.945	ng/L	
Hg2600-3	DM2	SAM	F610468-MSD2	500	11/7/2016 13:13:35	55097-1.RAW	1:13:35 PM	1333.17	2		1330.2	11.568	5783.918	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK1	20	11/7/2016 13:17:43	55098-1.RAW	1:17:43 PM	14.97	3		12.0	0.104	2.082	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK2	20	11/7/2016 13:21:52	55099-1.RAW	1:21:52 PM	11.58	3		8.6	0.075	1.493	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK3	20	11/7/2016 13:26:00	55100-1.RAW	1:26:00 PM	8.30	3		5.3	0.046	0.923	ng/L	
Hg2600-3	DM2	SAM	F610469-BS1	20	11/7/2016 13:30:09	55101-1.RAW	1:30:09 PM	580.77	3		577.8	4.951	99.018	ng/L	
Hg2600-3	DM2	SAM	F610469-BSD1	20	11/7/2016 13:34:17	55102-1.RAW	1:34:17 PM	585.99	3		583.0	4.996	99.926	ng/L	
Hg2600-3	DM2	SAM	F610469-BS2	500	11/7/2016 13:38:26	55103-1.RAW	1:38:26 PM	474.69	3		471.7	4.100	2050.090	ng/L	
Hg2600-3	DM2	SAM	1610144-77	100	11/7/2016 13:42:34	55104-1.RAW	1:42:34 PM	972.37	3		969.4	8.417	841.734	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/7/2016 13:46:42	55105-1.RAW	1:46:42 PM	561.30			558.3	4.857	4.857	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/7/2016 13:50:51	55106-1.RAW	1:50:51 PM	11.35			8.4	0.073	0.073	ng/L	
Hg2600-3	DM2	SAM	F610468-DUP2	500	11/7/2016 13:54:59	55107-1.RAW	1:54:59 PM	194.90	2		191.9	1.666	833.124	ng/L	
Hg2600-3	DM2	SAM	1610144-78	100	11/7/2016 13:59:08	55108-1.RAW	1:59:08 PM	1066.97	3		1064.0	9.240	924.028	ng/L	
Hg2600-3	DM2	SAM	1610144-79	100	11/7/2016 14:03:16	55109-1.RAW	2:03:16 PM	926.75	3		923.8	8.021	802.051	ng/L	
Hg2600-3	DM2	SAM	1610144-80	100	11/7/2016 14:07:24	55110-1.RAW	2:07:24 PM	963.09	3		960.1	8.337	833.665	ng/L	
Hg2600-3	DM2	SAM	1610145-01	100	11/7/2016 14:11:33	55111-1.RAW	2:11:33 PM	3821.74	3		3818.7	33.203	3320.338	ng/L	
Hg2600-3	DM2	SAM	1610145-02	100	11/7/2016 14:15:41	55112-1.RAW	2:15:41 PM	958.47	3		955.5	8.296	829.644	ng/L	
Hg2600-3	DM2	SAM	1610145-03	100	11/7/2016 14:19:50	55113-1.RAW	2:19:50 PM	2219.11	3		2216.1	19.262	1926.245	ng/L	
Hg2600-3	DM2	SAM	1610145-04	100	11/7/2016 14:23:58	55114-1.RAW	2:23:58 PM	1071.68	3		1068.7	9.281	928.120	ng/L	
Hg2600-3	DM2	SAM	1610145-05	100	11/7/2016 14:28:07	55115-1.RAW	2:28:07 PM	3319.30	3		3316.3	28.833	2883.274	ng/L	
Hg2600-3	DM2	SAM	1610145-06	100	11/7/2016 14:32:15	55116-1.RAW	2:32:15 PM	1243.18	3		1240.2	10.773	1077.304	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/7/2016 14:36:23	55117-1.RAW	2:36:23 PM	568.09			565.1	4.916	4.916	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/7/2016 14:40:32	55118-1.RAW	2:40:32 PM	15.83			12.8	0.112	0.112	ng/L	
Hg2600-3	DM2	SAM	1610145-07	100	11/7/2016 14:44:40	55119-1.RAW	2:44:40 PM	1253.39	3		1250.4	10.862	1086.185	ng/L	
Hg2600-3	DM2	SAM	1610145-08	100	11/7/2016 14:48:49	55120-1.RAW	2:48:49 PM	1247.30	3		1244.3	10.809	1080.885	ng/L	
Hg2600-3	DM2	SAM	1610145-09	100	11/7/2016 14:52:57	55121-1.RAW	2:52:57 PM	996.11	3		993.1	8.624	862.387	ng/L	
Hg2600-3	DM2	SAM	1610145-10	100	11/7/2016 14:57:05	55122-1.RAW	2:57:05 PM	863.12	3		860.1	7.467	746.704	ng/L	
Hg2600-3	DM2	SAM	1610145-11	100	11/7/2016 15:01:14	55123-1.RAW	3:01:14 PM	1491.09	3		1488.1	12.930	1292.957	ng/L	
Hg2600-3	DM2	SAM	1610145-12	100	11/7/2016 15:05:22	55124-1.RAW	3:05:22 PM	3060.48	3		3057.5	26.581	2658.134	ng/L	
Hg2600-3	DM2	SAM	1610145-13	100	11/7/2016 15:09:31	55125-1.RAW	3:09:31 PM	901.49	3		898.5	7.801	780.080	ng/L	
Hg2600-3	DM2	SAM	1610145-14	100	11/7/2016 15:13:39	55126-1.RAW	3:13:39 PM	1089.47	3		1086.5	9.436	943.599	ng/L	
Hg2600-3	DM2	SAM	1610145-15	100	11/7/2016 15:17:47	55127-1.RAW	3:17:47 PM	1032.64	3		1029.6	8.942	894.161	ng/L	
Hg2600-3	DM2	SAM	1610145-16	100	11/7/2016 15:21:56	55128-1.RAW	3:21:56 PM	1124.35	3		1121.4	9.739	973.939	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/7/2016 15:26:04	55129-1.RAW	3:26:04 PM	564.75			561.8	4.887	4.887	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/7/2016 15:30:13	55130-1.RAW	3:30:13 PM	13.71			10.7	0.093	0.093	ng/L	
Hg2600-3	DM2	SAM	F610469-DUP1	100	11/7/2016 15:34:21	55131-1.RAW	3:34:21 PM	3242.77	3		3239.8	28.167	2816.704	ng/L	
Hg2600-3	DM2	SAM	F610469-MS1	500	11/7/2016 15:38:30	55132-1.RAW	3:38:30 PM	1610.20	3		1607.2	13.978	6988.854	ng/L	
Hg2600-3	DM2	SAM	F610469-MSD1	500	11/7/2016 15:42:38	55133-1.RAW	3:42:38 PM	1756.93	3		1753.9	15.254	7627.018	ng/L	
Hg2600-3	DM2	SAM	F610469-MS2	500	11/7/2016 15:46:46	55134-1.RAW	3:46:46 PM	1274.90	3		1271.9	11.061	5530.489	ng/L	
Hg2600-3	DM2	SAM	F610469-MSD2	500	11/7/2016 15:50:55	55135-1.RAW	3:50:55 PM	1278.22	3		1275.2	11.090	5544.912	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	CAL	SEQ-CCVA	1	11/7/2016 15:55:03	55136-1.RAW	3:55:03 PM	540.91			537.9	4.679	4.679	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/7/2016 15:59:12	55137-1.RAW	3:59:12 PM	15.88			12.9	0.112	0.112	ng/L	

TotalMercury EPA1631  
 Operat DM  
 BlankS: 2.998  
 Calib Eqn: Conc = (Area-2.998  
 Run Date: 11/7/2016  
 Blank SD: 1.250544527  
 Worksh: THg2600  
 CalibFa: 114.96  
 Status: QC Warnings:5/QC E  
 Run Time: 12:11:27  
 Blank RSD%: 41.71268438  
 Method #### R: 1  
 R<sup>2</sup>: 1  
 Descrpt THg26003-161107-1  
 CF SD: 2.495301951  
 CF RSD%: 2.17060445

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	9.86					55009-1.RAW	7:09:46	1132.94	Clean	OK	1
Clean										55010-1.RAW	7:12:37	0.00	Clean	NP	1
ws				3.00	0.03					55011-1.RAW	7:16:46	6.31	Sample	OK	1
ws				3.00	0.02					55012-1.RAW	7:20:54	5.43	Sample	OK	1
ws				3.00	0.02					55013-1.RAW	7:25:02	5.28	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.03					55014-1.RAW	7:29:11	3.84	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.03					55015-1.RAW	7:33:19	3.59	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.01					55016-1.RAW	7:37:28	1.56	Sample	OK	1
SEQ-CAL1	A4		1	3.00	0.51		101.29			55017-1.RAW	7:41:36	61.22	Sample	OK	1
SEQ-CAL2	A5		1	3.00	1.02		101.90			55018-1.RAW	7:45:45	120.14	Sample	OK	1
SEQ-CAL3	A6		1	3.00	5.08		101.54			55019-1.RAW	7:49:53	586.62	Sample	OK	1
SEQ-CAL4	A7		1	3.00	19.55		97.75			55020-1.RAW	7:54:01	2250.41	Sample	OK	1
SEQ-CAL5	A8		1	3.00	39.01		97.52			55021-1.RAW	7:58:10	4487.45	Sample	OK	1
SEQ-ICV1	A9		1	3.00	4.72		94.32			55022-1.RAW	8:02:18	545.13	Sample	OK	1
F610491-BLK1	A10		20	3.00	1.62					55023-1.RAW	8:06:27	12.32	Sample	OK	1
F610491-BLK2	A11		20	3.00	0.91					55024-1.RAW	8:10:35	8.25	Sample	OK	1
F610491-BLK3	A12		20	3.00	0.95					55025-1.RAW	8:14:43	8.49	Sample	OK	1
F610491-BS1	B1		20	3.00	101.26					55026-1.RAW	8:18:52	585.05	Sample	OK	1
F610491-BSD1	B2		20	3.00	99.08					55027-1.RAW	8:23:00	572.53	Sample	OK	1
F610491-BS2	B3		500	3.00	2009.32					55028-1.RAW	8:27:09	464.98	Sample	OK	1
1610232-02	B4		500	3.00	1264.20					55029-1.RAW	8:31:17	293.66	Sample	OK	1
1610232-08	B5		500	3.00	473.04					55030-1.RAW	8:35:26	111.76	Sample	OK	1
1610232-09	B6		500	3.00	1486.92					55031-1.RAW	8:39:34	344.87	Sample	OK	1
1610232-10	B7		500	3.00	1039.51					55032-1.RAW	8:43:42	242.00	Sample	OK	1
SEQ-CCV1	B8		1	3.00	4.98		99.60			55033-1.RAW	8:47:51	575.48	Sample	OK	1
SEQ-CCB1	B9		1	3.00	0.04		0.00			55034-1.RAW	8:51:59	7.33	Sample	OK	1
1610232-08RE1	B10		100	3.00	462.09					55035-1.RAW	8:56:08	534.21	Sample	OK	1
1610232-11	B11		100	3.00	463.37					55036-1.RAW	9:00:16	535.68	Sample	OK	1
1610232-12	B12		100	3.00	986.50					55037-1.RAW	9:04:24	1137.07	Sample	OK	1
1610232-13	C1		100	3.00	779.04					55038-1.RAW	9:08:33	898.57	Sample	OK	1
1610232-14	C2		100	3.00	817.64					55039-1.RAW	9:12:41	942.94	Sample	OK	1
1610232-15	C3		100	3.00	423.17					55040-1.RAW	9:16:50	489.47	Sample	OK	1
1610232-16	C4		100	3.00	918.16					55041-1.RAW	9:20:58	1058.50	Sample	OK	1
1610232-17	C5		100	3.00	863.04					55042-1.RAW	9:25:06	995.14	Sample	OK	1
1610232-18	C6		100	3.00	601.11					55043-1.RAW	9:29:15	694.03	Sample	OK	1
1610232-19	C7		100	3.00	378.67					55044-1.RAW	9:33:23	438.31	Sample	OK	1
SEQ-CCV2	C8		1	3.00	4.67		93.35			55045-1.RAW	9:37:32	539.58	Sample	OK	1
SEQ-CCB2	C9		1	3.00	0.05		0.00			55046-1.RAW	9:41:40	9.13	Sample	OK	1
1610232-20	C10		100	3.00	491.51					55047-1.RAW	9:45:49	568.04	Sample	OK	1
1610232-21	C11		100	3.00	540.13					55048-1.RAW	9:49:57	623.92	Sample	OK	1
1610232-22	C12		100	3.00	598.16					55049-1.RAW	9:54:05	690.63	Sample	OK	1
1610232-23	D1		100	3.00	815.62					55050-1.RAW	9:58:14	940.63	Sample	OK	1
1610232-24	D2		100	3.00	791.49					55051-1.RAW	10:02:22	912.88	Sample	OK	1



1610232-25	D3	100	3.00	733.20		55052-1.RAW	10:06:31	845.88	Sample	OK	1
1610232-26	D4	100	3.00	1131.50		55053-1.RAW	10:10:39	1303.75	Sample	OK	1
F610491-DUP1	D5	500	3.00	1591.08		55054-1.RAW	10:14:48	368.81	Sample	OK	1
F610491-MS1	D6	500	3.00	5907.38	371.05	55055-1.RAW	10:18:56	1361.21	Sample	OK	1
F610491-MSD1	D7	500	3.00	6194.25		55056-1.RAW	10:23:04	1427.17	Sample	OK	1
SEQ-CCV3	D8	1	3.00	4.73	94.53	55057-1.RAW	10:27:13	546.38	Sample	OK	1
SEQ-CCB3	D9	1	3.00	0.06	0.00	55058-1.RAW	10:31:21	10.27	Sample	OK	1
F610491-MS2	D10	500	3.00	5168.07	250485.70	55059-1.RAW	10:35:30	1191.23	Sample	OK	1
F610491-MSD2	D11	500	3.00	5402.32		55060-1.RAW	10:39:38	1245.09	Sample	OK	1
F610468-BLK1	D12	20	3.00	1.90		55061-1.RAW	10:43:46	13.90	Sample	OK	1
F610468-BLK2	A1	20	3.00	1.37		55062-1.RAW	10:47:55	10.87	Sample	OK	1
F610468-BLK3	A2	20	3.00	1.32		55063-1.RAW	10:52:03	10.57	Sample	OK	1
F610468-BS1	A3	20	3.00	102.98		55064-1.RAW	10:56:12	594.92	Sample	OK	1
F610468-BSD1	A4	20	3.00	103.56		55065-1.RAW	11:00:20	598.26	Sample	OK	1
F610468-BS2	A5	500	3.00	2040.54		55066-1.RAW	11:04:29	472.16	Sample	OK	1
1610144-57	A6	500	3.00	658.99		55067-1.RAW	11:08:37	154.51	Sample	OK	1
1610144-58	A7	500	3.00	851.46		55068-1.RAW	11:12:45	198.76	Sample	OK	1
SEQ-CCV4	A8	1	3.00	4.62	92.35	55069-1.RAW	11:16:54	533.82	Sample	OK	1
SEQ-CCB4	A9	1	3.00	0.03	0.00	55070-1.RAW	11:21:02	6.93	Sample	OK	1
1610144-59	A10	500	3.00	910.71		55071-1.RAW	11:25:11	212.39	Sample	OK	1
1610144-60	A11	500	3.00	759.61		55072-1.RAW	11:29:19	177.64	Sample	OK	1
1610144-61	A12	500	3.00	797.00		55073-1.RAW	11:33:27	186.24	Sample	OK	1
1610144-62	B1	500	3.00	1162.31		55074-1.RAW	11:37:36	270.23	Sample	OK	1
1610144-63	B2	500	3.00	687.19		55075-1.RAW	11:41:44	160.99	Sample	OK	1
1610144-64	B3	500	3.00	925.02		55076-1.RAW	11:45:53	215.68	Sample	OK	1
1610144-65	B4	500	3.00	541.00		55077-1.RAW	11:50:01	127.38	Sample	OK	1
1610144-66	B5	500	3.00	851.57		55078-1.RAW	11:54:10	198.79	Sample	OK	1
1610144-67	B6	500	3.00	615.65		55079-1.RAW	11:58:18	144.55	Sample	OK	1
1610144-68	B7	500	3.00	1159.51		55080-1.RAW	12:02:26	269.59	Sample	OK	1
SEQ-CCV5	B8	1	3.00	4.79	95.80	55081-1.RAW	12:06:35	553.67	Sample	OK	1
SEQ-CCB5	B9	1	3.00	0.04	0.00	55082-1.RAW	12:10:43	7.57	Sample	OK	1
1610144-69	B10	100	3.00	1644.40		55083-1.RAW	12:15:36	1893.38	Sample	OK	1
1610144-70	B11	100	3.00	992.73		55084-1.RAW	12:19:44	1144.23	Sample	OK	1
1610144-71	B12	100	3.00	1095.96		55085-1.RAW	12:23:53	1262.90	Sample	OK	1
1610144-72	C1	100	3.00	1096.01		55086-1.RAW	12:28:01	1262.96	Sample	OK	1
1610144-73	C2	100	3.00	567.97		55087-1.RAW	12:32:10	655.93	Sample	OK	1
1610144-74	C3	100	3.00	742.68		55088-1.RAW	12:36:18	856.77	Sample	OK	1
1610144-75	C4	100	3.00	685.16		55089-1.RAW	12:40:26	790.65	Sample	OK	1
1610144-76	C5	100	3.00	872.25		55090-1.RAW	12:44:35	1005.73	Sample	OK	1
F610468-DUP1	C6	500	3.00	563.78		55091-1.RAW	12:48:43	132.62	Sample	OK	1
F610468-MS1	C7	500	3.00	5119.64	906.49	55092-1.RAW	12:52:52	1180.10	Sample	OK	1
SEQ-CCV6	C8	1	3.00	4.74	94.81	55093-1.RAW	12:57:00	547.99	Sample	OK	1
SEQ-CCB6	C9	1	3.00	0.08	0.00	55094-1.RAW	13:01:09	12.44	Sample	OK	1
F610468-MSD1	C10	500	3.00	5181.40		55095-1.RAW	13:05:18	1194.29	Sample	OK	1
F610468-MS2	C11	500	3.00	5398.47	104.15	55096-1.RAW	13:09:26	1244.20	Sample	OK	1
F610468-MSD2	C12	500	3.00	5785.45		55097-1.RAW	13:13:35	1333.17	Sample	OK	1
F610469-BLK1	D1	20	3.00	2.08		55098-1.RAW	13:17:43	14.97	Sample	OK	1
F610469-BLK2	D2	20	3.00	1.49		55099-1.RAW	13:21:52	11.58	Sample	OK	1

F610469-BLK3	D3	20	3.00	0.92		55100-1.RAW	13:26:00	8.30	Sample	OK	1
F610469-BS1	D4	20	3.00	100.52		55101-1.RAW	13:30:09	580.77	Sample	OK	1
F610469-BSD1	D5	20	3.00	101.43		55102-1.RAW	13:34:17	585.99	Sample	OK	1
F610469-BS2	D6	500	3.00	2051.59		55103-1.RAW	13:38:26	474.69	Sample	OK	1
1610144-77	D7	100	3.00	843.23		55104-1.RAW	13:42:34	972.37	Sample	OK	1
SEQ-CCV7	D8	1	3.00	4.86	97.13	55105-1.RAW	13:46:42	561.30	Sample	OK	1
SEQ-CCB7	D9	1	3.00	0.07	0.00	55106-1.RAW	13:50:51	11.35	Sample	OK	1
F610468-DUP2	D10	500	3.00	834.65		55107-1.RAW	13:54:59	194.90	Sample	OK	1
1610144-78	D11	100	3.00	925.53		55108-1.RAW	13:59:08	1066.97	Sample	OK	1
1610144-79	D12	100	3.00	803.55		55109-1.RAW	14:03:16	926.75	Sample	OK	1
1610144-80	A1	100	3.00	835.16		55110-1.RAW	14:07:24	963.09	Sample	OK	1
1610145-01	A2	100	3.00	3321.84		55111-1.RAW	14:11:33	3821.74	Sample	OK	1
1610145-02	A3	100	3.00	831.14		55112-1.RAW	14:15:41	958.47	Sample	OK	1
1610145-03	A4	100	3.00	1927.74		55113-1.RAW	14:19:50	2219.11	Sample	OK	1
1610145-04	A5	100	3.00	929.62		55114-1.RAW	14:23:58	1071.68	Sample	OK	1
1610145-05	A6	100	3.00	2884.77		55115-1.RAW	14:28:07	3319.30	Sample	OK	1
1610145-06	A7	100	3.00	1078.80		55116-1.RAW	14:32:15	1243.18	Sample	OK	1
SEQ-CCV8	A8	1	3.00	4.92	98.31	55117-1.RAW	14:36:23	568.09	Sample	OK	1
SEQ-CCB8	A9	1	3.00	0.11	0.00	55118-1.RAW	14:40:32	15.83	Sample	OK	1
1610145-07	A10	100	3.00	1087.68		55119-1.RAW	14:44:40	1253.39	Sample	OK	1
1610145-08	A11	100	3.00	1082.38		55120-1.RAW	14:48:49	1247.30	Sample	OK	1
1610145-09	A12	100	3.00	863.89		55121-1.RAW	14:52:57	996.11	Sample	OK	1
1610145-10	B1	100	3.00	748.20		55122-1.RAW	14:57:05	863.12	Sample	OK	1
1610145-11	B2	100	3.00	1294.46		55123-1.RAW	15:01:14	1491.09	Sample	OK	1
1610145-12	B3	100	3.00	2659.63		55124-1.RAW	15:05:22	3060.48	Sample	OK	1
1610145-13	B4	100	3.00	781.58		55125-1.RAW	15:09:31	901.49	Sample	OK	1
1610145-14	B5	100	3.00	945.10		55126-1.RAW	15:13:39	1089.47	Sample	OK	1
1610145-15	B6	100	3.00	895.66		55127-1.RAW	15:17:47	1032.64	Sample	OK	1
1610145-16	B7	100	3.00	975.44		55128-1.RAW	15:21:56	1124.35	Sample	OK	1
SEQ-CCV9	B8	1	3.00	4.89	97.73	55129-1.RAW	15:26:04	564.75	Sample	OK	1
SEQ-CCB9	B9	1	3.00	0.09	0.00	55130-1.RAW	15:30:13	13.71	Sample	OK	1
F610469-DUP1	B10	100	3.00	2818.20		55131-1.RAW	15:34:21	3242.77	Sample	OK	1
F610469-MS1	B11	500	3.00	6990.35	247.95	55132-1.RAW	15:38:30	1610.20	Sample	OK	1
F610469-MSD1	B12	500	3.00	7628.52		55133-1.RAW	15:42:38	1756.93	Sample	OK	1
F610469-MS2	C1	500	3.00	5531.99	276599.41	55134-1.RAW	15:46:46	1274.90	Sample	OK	1
F610469-MSD2	C2	500	3.00	5546.41		55135-1.RAW	15:50:55	1278.22	Sample	OK	1
SEQ-CCVA	C3	1	3.00	4.68		55136-1.RAW	15:55:03	540.91	Sample	OK	1
SEQ-CCBA	C4	1	3.00	0.11		55137-1.RAW	15:59:12	15.88	Sample	OK	1

**ANALYSIS SEQUENCE**

**6K07013**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/7/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K07013-IBL1	QC	1			
6K07013-IBL2	QC	2			
6K07013-IBL3	QC	3			
6K07013-CAL1	QC	4	1605412		
6K07013-CAL2	QC	5	1605413		
6K07013-CAL3	QC	6	1605414		
6K07013-CAL4	QC	7	1605415		
6K07013-CAL5	QC	8	1605416		
6K07013-ICV1	QC	9	1605791		
F610491-BLK1	QC	10			
F610491-BLK2	QC	11			
F610491-BLK3	QC	12			
F610491-BS1	QC	13			
F610491-BSD1	QC	14			
F610491-BS2	QC	15			
1610232-02	Hg-CVAFS-T-7030	16			
1610232-08	Hg-CVAFS-T-7030	17			
1610232-09	Hg-CVAFS-T-7030	18			
1610232-10	Hg-CVAFS-T-7030	19			
6K07013-CCV1	QC	20	1605791		
6K07013-CCB1	QC	21			
1610232-08RE1	Hg-CVAFS-T-7030	22			Added 11/7/2016 by DM2
1610232-11	Hg-CVAFS-T-7030	23			
1610232-12	Hg-CVAFS-T-7030	24			
1610232-13	Hg-CVAFS-T-7030	25			
1610232-14	Hg-CVAFS-T-7030	26			
1610232-15	Hg-CVAFS-T-7030	27			
1610232-16	Hg-CVAFS-T-7030	28			
1610232-17	Hg-CVAFS-T-7030	29			
1610232-18	Hg-CVAFS-T-7030	30			
1610232-19	Hg-CVAFS-T-7030	31			
6K07013-CCV2	QC	32	1605791		
6K07013-CCB2	QC	33			
1610232-20	Hg-CVAFS-T-7030	34			
1610232-21	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K07013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/7/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610232-22	Hg-CVAFS-T-7030	36			
1610232-23	Hg-CVAFS-T-7030	37			
1610232-24	Hg-CVAFS-T-7030	38			
1610232-25	Hg-CVAFS-T-7030	39			
1610232-26	Hg-CVAFS-T-7030	40			
F610491-DUP1	QC	41			
F610491-MS1	QC	42			
F610491-MSD1	QC	43			
6K07013-CCV3	QC	44	1605791		
6K07013-CCB3	QC	45			
F610491-MS2	QC	46			
F610491-MSD2	QC	47			
F610468-BLK1	QC	48			
F610468-BLK2	QC	49			
F610468-BLK3	QC	50			
F610468-BS1	QC	51			
F610468-BSD1	QC	52			
F610468-BS2	QC	53			
1610144-57	Hg-CVAFS-T-7030	54			
1610144-58	Hg-CVAFS-T-7030	55			
6K07013-CCV4	QC	56	1605791		
6K07013-CCB4	QC	57			
1610144-59	Hg-CVAFS-T-7030	58			
1610144-60	Hg-CVAFS-T-7030	59			
1610144-61	Hg-CVAFS-T-7030	60			
1610144-62	Hg-CVAFS-T-7030	61			
1610144-63	Hg-CVAFS-T-7030	62			
1610144-64	Hg-CVAFS-T-7030	63			
1610144-65	Hg-CVAFS-T-7030	64			
1610144-66	Hg-CVAFS-T-7030	65			
1610144-67	Hg-CVAFS-T-7030	66			
1610144-68	Hg-CVAFS-T-7030	67			
6K07013-CCV5	QC	68	1605791		
6K07013-CCB5	QC	69			
1610144-69	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 236 of 311

Page 2 of 4

## ANALYSIS SEQUENCE

6K07013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/7/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610144-70	Hg-CVAFS-T-7030	71			
1610144-71	Hg-CVAFS-T-7030	72			
1610144-72	Hg-CVAFS-T-7030	73			
1610144-73	Hg-CVAFS-T-7030	74			
1610144-74	Hg-CVAFS-T-7030	75			
1610144-75	Hg-CVAFS-T-7030	76			
1610144-76	Hg-CVAFS-T-7030	77			
F610468-DUP1	QC	78			
F610468-MS1	QC	79			
6K07013-CCV6	QC	80	1605791		
6K07013-CCB6	QC	81			
F610468-MSD1	QC	82			
F610468-MS2	QC	83			
F610468-MSD2	QC	84			
F610469-BLK1	QC	85			
F610469-BLK2	QC	86			
F610469-BLK3	QC	87			
F610469-BS1	QC	88			
F610469-BSD1	QC	89			
F610469-BS2	QC	90			
1610144-77	Hg-CVAFS-T-7030	91			
6K07013-CCV7	QC	92	1605791		
6K07013-CCB7	QC	93			
F610468-DUP2	QC	94			
1610144-78	Hg-CVAFS-T-7030	95			
1610144-79	Hg-CVAFS-T-7030	96			
1610144-80	Hg-CVAFS-T-7030	97			
1610145-01	Hg-CVAFS-T-7030	98			
1610145-02	Hg-CVAFS-T-7030	99			
1610145-03	Hg-CVAFS-T-7030	100			
1610145-04	Hg-CVAFS-T-7030	101			
1610145-05	Hg-CVAFS-T-7030	102			
1610145-06	Hg-CVAFS-T-7030	103			
6K07013-CCV8	QC	104	1605791		
6K07013-CCB8	QC	105			

Due Date: 11/2/2016

Page 237 of 311

Page 3 of 4

**ANALYSIS SEQUENCE**

**6K07013**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/7/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610145-07	Hg-CVAFS-T-7030	106			
1610145-08	Hg-CVAFS-T-7030	107			
1610145-09	Hg-CVAFS-T-7030	108			
1610145-10	Hg-CVAFS-T-7030	109			
1610145-11	Hg-CVAFS-T-7030	110			
1610145-12	Hg-CVAFS-T-7030	111			
1610145-13	Hg-CVAFS-T-7030	112			
1610145-14	Hg-CVAFS-T-7030	113			
1610145-15	Hg-CVAFS-T-7030	114			
1610145-16	Hg-CVAFS-T-7030	115			
6K07013-CCV9	QC	116	1605791		
6K07013-CCB9	QC	117			
F610469-DUP1	QC	118			
F610469-MS1	QC	119			
F610469-MSD1	QC	120			
F610469-MS2	QC	121			
F610469-MSD2	QC	122			
6K07013-CCVA	QC	123	1605791		
6K07013-CCBA	QC	124			

Don Moore      11/7/16  
 Samples Loaded By      Date

Don Moore      11/7/16  
 Data Processed By      Date

**Failing Data Report - 6K07013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610468-DUP1	Hg-CVAFS-T-7030	42.04	18.7	55.43	55.43		ng/g				27.5	24.00	PASS-OVER	FAIL-DUP	QR-07

Don M. Green                      11/7/16  
 Analyst Reviewed By                      Date

[Signature]                      11/9/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F610469

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610469-BLK1	Blank	0.25	20					
F610469-BLK2	Blank	0.25	20					
F610469-BLK3	Blank	0.25	20					
F610469-BS1	Blank Spike	0.25	20	1605270	20			
F610469-BS2	DORM-4	0.126	20	1605470	126			
F610469-BSD1	Blank Spike	0.25	20	1605270	20			
F610469-DUP1	Duplicate [1610145-01]	0.2659	20					
F610469-MS1	Matrix Spike [1610145-01]	0.2845	20	1605712	100			
F610469-MS2	Matrix Spike [1610145-16]	0.2767	20	1605712	100			
F610469-MSD1	Matrix Spike Dup [1610145-01]	0.2944	20	1605712	100			
F610469-MSD2	Matrix Spike Dup [1610145-16]	0.2756	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1.000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606385	5% BrCl	19-Apr-17 00:00



**PREPARATION BENCH SHEET**

F610469

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-77	ES-FP_092616_BLM_WB_17	0.2642	20	-	-	-		
1610144-78	ES-FP_092616_BLM_WB_18	0.2875	20	-	-	-		
1610144-79	ES-FP_092616_BLM_WB_19	0.288	20	-	-	-		
1610144-80	ES-FP_092616_BLM_WB_20	0.2843	20	-	-	-		
1610145-01	BO-04_100316_MUM_WB_01	0.2837	20	QC	-	-	MS/MSD	
1610145-02	BO-04_100316_MUM_WB_02	0.2877	20	-	-	-		
1610145-03	BO-04_100316_MUM_WB_03	0.2641	20	-	-	-		
1610145-04	BO-04_100316_MUM_WB_04	0.2758	20	-	-	-		
1610145-05	BO-04_100316_MUM_WB_05	0.27	20	-	-	-		
1610145-06	BO-04_100316_MUM_WB_06	0.2834	20	-	-	-		
1610145-07	BO-04_100316_MUM_WB_07	0.2857	20	-	-	-		
1610145-08	BO-04_100316_MUM_WB_08	0.2881	20	-	-	-		
1610145-09	BO-04_100316_MUM_WB_09	0.2845	20	-	-	-		
1610145-10	BO-04_100316_MUM_WB_10	0.2849	20	-	-	-		
1610145-11	BO-04_100316_MUM_WB_11	0.2743	20	-	-	-		
1610145-12	BO-04_100316_MUM_WB_12	0.2657	20	-	-	-		
1610145-13	BO-04_100316_MUM_WB_13	0.2837	20	-	-	-		
1610145-14	BO-04_100316_MUM_WB_14	0.283	20	-	-	-		
1610145-15	BO-04_100316_MUM_WB_15	0.3078	20	-	-	-		

Page 241 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

F610469

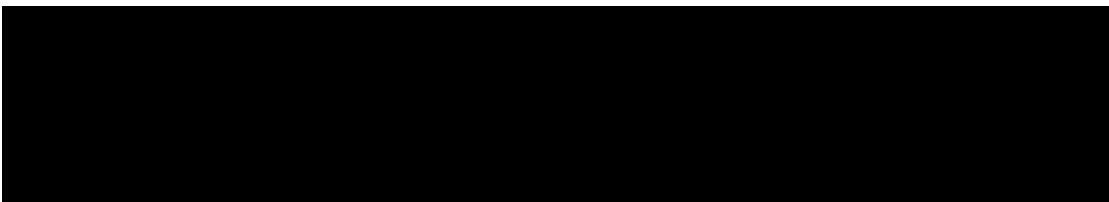
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610145-16	BO-04_100316_MUM_WB_16	0.3155	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610491

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/2/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610491-BLK1	Blank	0.25	20					
F610491-BLK2	Blank	0.25	20					
F610491-BLK3	Blank	0.25	20					
F610491-BS1	Blank Spike	0.25	20	1605270	20			
F610491-BS2	DORM-4	0.126	20	1605470	126			
F610491-BSD1	Blank Spike dup	0.25	20	1605270	20			
F610491-DUP1	Duplicate [1610232-02]	0.2918	20					
F610491-MS1	Matrix Spike [1610232-02]	0.2931	20	1605712	100			
F610491-MS2	Matrix Spike [1610232-22]	0.2721	20	1605712	100			
F610491-MSD1	Matrix Spike Dup [1610232-02]	0.2763	20	1605712	100			
F610491-MSD2	Matrix Spike Dup [1610232-22]	0.2894	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610491

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/2/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-02	ES-FP_092716_RAS_WB_01	0.2698	20	QC	-	-	MS/MSD	
1610232-08	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-		
1610232-08RE1	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-	Added 11/7/2016 by DM2	Added 11/7/2016 by DM2
1610232-09	ES-FP_092716_RAS_WB_08	0.2745	20	-	-	-		
1610232-10	ES-FP_092716_RAS_WB_09	0.2648	20	-	-	-		
1610232-11	ES-FP_092716_RAS_WB_10	0.2612	20	-	-	-		
1610232-12	ES-FP_092716_RAS_WB_11	0.266	20	-	-	-		
1610232-13	ES-FP_092716_RAS_WB_12	0.2844	20	-	-	-		
1610232-14	ES-FP_092716_RAS_WB_13	0.2917	20	-	-	-		
1610232-15	ES-FP_092716_RAS_WB_14	0.2684	20	-	-	-		
1610232-16	ES-FP_092716_RAS_WB_15	0.2865	20	-	-	-		
1610232-17	ES-FP_092716_RAS_WB_16	0.2839	20	-	-	-		
1610232-18	ES-FP_092716_RAS_WB_17	0.2703	20	-	-	-		
1610232-19	ES-FP_092716_RAS_WB_18	0.2788	20	-	-	-		
1610232-20	ES-FP_092716_RAS_WB_19	0.2934	20	-	-	-		
1610232-21	ES-FP_092716_RAS_WB_20	0.271	20	-	-	-		
1610232-22	OB-01_092116_RAS_WB_01	0.2682	20	-	-	-		
1610232-23	OB-01_092116_RAS_WB_02	0.2967	20	-	-	-		
1610232-24	OB-01_092116_RAS_WB_03	0.2843	20	-	-	-		

Page 244 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

1610232-25	OB-01_092116_RAS_WB_04	0.3082	20	-	-	-	
1610232-26	OB-01_092116_RAS_WB_05	0.2745	20	QC	-	-	MS/MSD



**PREPARATION BENCH SHEET**

F610468

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610468-BLK1	Blank	0.25	20					
F610468-BLK2	Blank	0.25	20					
F610468-BLK3	Blank	0.25	20					
F610468-BS1	Blank Spike	0.25	20	1605270	20			
F610468-BS2	DORM-4	0.1262	20	1605470	126			
F610468-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610468-DUP1	Duplicate [1610144-61]	0.2675	20					
F610468-DUP2	Duplicate [1610144-61]	0.287	20					
F610468-MS1	Matrix Spike [1610144-61]	0.2773	20	1605712	100			
F610468-MS2	Matrix Spike [1610144-70]	0.294	20	1605712	100			
F610468-MSD1	Matrix Spike Dup [1610144-61]	0.2724	20	1605712	100			
F610468-MSD2	Matrix Spike Dup [1610144-70]	0.2874	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606370	3% SnCl <sub>2</sub> THg reductant	20-Apr-17 00:00
			1606385	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610468

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-57	ES-15_092716_BLM_WB_17	0.2642	20	-	-	-		
1610144-58	ES-15_092716_BLM_WB_18	0.271	20	-	-	-		
1610144-59	ES-15_092716_BLM_WB_19	0.2837	20	-	-	-		
1610144-60	ES-15_092716_BLM_WB_20	0.2965	20	-	-	-		
1610144-61	ES-FP_092616_BLM_WB_01	0.287	20	QC	-	-	MS/MSD	
1610144-62	ES-FP_092616_BLM_WB_02	0.2698	20	-	-	-		
1610144-63	ES-FP_092616_BLM_WB_03	0.2826	20	-	-	-		
1610144-64	ES-FP_092616_BLM_WB_04	0.2959	20	-	-	-		
1610144-65	ES-FP_092616_BLM_WB_05	0.27	20	-	-	-		
1610144-66	ES-FP_092616_BLM_WB_06	0.3049	20	-	-	-		
1610144-67	ES-FP_092616_BLM_WB_07	0.2719	20	-	-	-		
1610144-68	ES-FP_092616_BLM_WB_08	0.2881	20	-	-	-		
1610144-69	ES-FP_092616_BLM_WB_09	0.2948	20	-	-	-		
1610144-70	ES-FP_092616_BLM_WB_10	0.2677	20	-	-	-		
1610144-71	ES-FP_092616_BLM_WB_11	0.2759	20	-	-	-		
1610144-72	ES-FP_092616_BLM_WB_12	0.2982	20	-	-	-		
1610144-73	ES-FP_092616_BLM_WB_13	0.2741	20	-	-	-		
1610144-74	ES-FP_092616_BLM_WB_14	0.2852	20	-	-	-		
1610144-75	ES-FP_092616_BLM_WB_15	0.3013	20	-	-	-		

Page 247 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

F610468

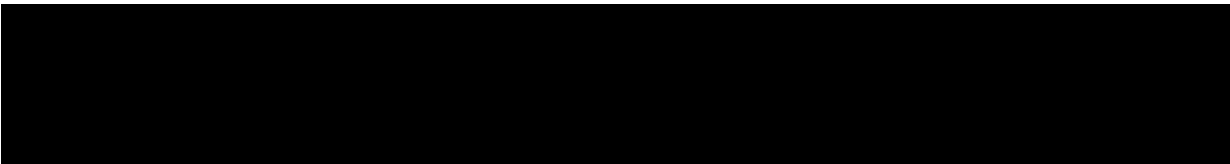
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610144-76	ES-FP_092616_BLM_WB_16	0.2947	20	-	-	-		
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PREPARATION BENCH SHEET

200.3

11/7/16 DM

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610491-BLK1	Blank	0.25	20					20X
F610491-BLK2	Blank	0.25	20					20X
F610491-BLK3	Blank	0.25	20					20X
F610491-BS1	Blank Spike	0.25	20	1605270	20			20X
F610491-BS2	DORM-4	0.126	20	1605470	126			500X
F610491-BSD1	Blank Spike dup	0.25	20	1605270	20			20X
F610491-DUP1	Duplicate [1610232-02]	0.2918	20					500X
F610491-MS1	Matrix Spike [1610232-02]	0.2931	20	1605712	100			500X
F610491-MS2	Matrix Spike [1610232-22]	0.2721	20	1605712	100			500X
F610491-MSD1	Matrix Spike Dup [1610232-02]	0.2763	20	1605712	100			500X
F610491-MSD2	Matrix Spike Dup [1610232-22]	0.2894	20	1605712	100			500X

Standard ID(s):  
 1605270  
 1605470  
 1605712

Description:  
 THg 100ng/mL Primary Spiking Standard  
 DORM-4  
 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s):  
 1603399  
 1606221  
 1606257

Description:  
 Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 26-Mar-17 00:00

1606370  
 1609636  
 1605635  
 1602941

PREPARATION BENCH SHEET

200-3

11/7/16 DM

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-02	ES-FP_092716_RAS_WB_01	0.2698	20	QC	-	-	MS/MSD	500x
1610232-08	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-		500x → 100x
1610232-09	ES-FP_092716_RAS_WB_08	0.2745	20	-	-	-		500x
1610232-10	ES-FP_092716_RAS_WB_09	0.2648	20	-	-	-		500x
1610232-11	ES-FP_092716_RAS_WB_10	0.2612	20	-	-	-		100x
1610232-12	ES-FP_092716_RAS_WB_11	0.266	20	-	-	-		100x
1610232-13	ES-FP_092716_RAS_WB_12	0.2844	20	-	-	-		100x
1610232-14	ES-FP_092716_RAS_WB_13	0.2917	20	-	-	-		100x
1610232-15	ES-FP_092716_RAS_WB_14	0.2684	20	-	-	-		100x
1610232-16	ES-FP_092716_RAS_WB_15	0.2865	20	-	-	-		100x
1610232-17	ES-FP_092716_RAS_WB_16	0.2839	20	-	-	-		100x
1610232-18	ES-FP_092716_RAS_WB_17	0.2703	20	-	-	-		100x
1610232-19	ES-FP_092716_RAS_WB_18	0.2788	20	-	-	-		100x
1610232-20	ES-FP_092716_RAS_WB_19	0.2934	20	-	-	-		100x
1610232-21	ES-FP_092716_RAS_WB_20	0.271	20	-	-	-		100x
1610232-22	OB-01_092116_RAS_WB_01	0.2682	20	-	-	-		100x
1610232-23	OB-01_092116_RAS_WB_02	0.2967	20	-	-	-		100x
1610232-24	OB-01_092116_RAS_WB_03	0.2843	20	-	-	-		100x
1610232-25	OB-01_092116_RAS_WB_04	0.3082	20	-	-	-		100x

Page 250 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

F610491

Eurofins Frontier Global Sciences, Inc.

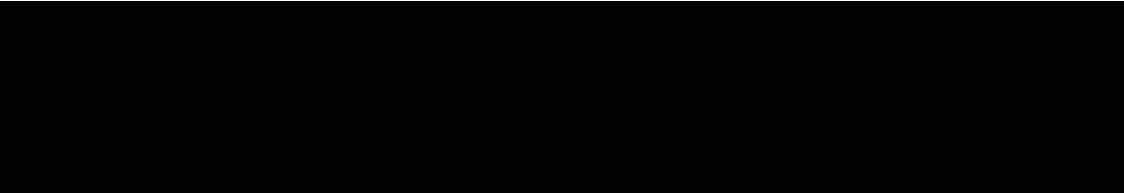
2600.3  
11/7/16 DM

Matrix: Tissue

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

Prepared: 11/2/2016

1610232-26	OB-01_092116_RAS_WB_05	0.2745	20	QC	-	-	MS/MSD	100%
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Technician: Duyen Batch#: F610491 Date: 11/1/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 15:45 Actual Temp. (raw): 75.0 °C w/ CF: 74.5 °C  
 Time out: 17:52 Actual Temp. (raw): 83 °C w/ CF: 82.5 °C

Final vol.: 20 mL (LIMS ID: 1606257) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: om 11/1/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 10-30-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 04N23499 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 02K27494  Yes  No  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: I5

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	F610491 Blank1	0.2920	23	1610232-18	0.2703	B52
2	F610491 Blank2	0.2752	24	1610232-19	0.2788	Dura-4 1605470
3	F610491 Blank3	0.2755	25	1610232-20	0.2934	
4	F610491 B51	0.2496	26	1610232-21	0.2710	<b>Comments</b>
5	F610491 B5D1	0.2692	27	1610232-22	0.2682	B51 B5D1
6	F610491 B52	0.1260	28	1610232-23	0.2967	=100µg Hg = 20µL
7	F610491 Dupl	0.2918	29	1610232-24	0.2843	1605270
8	F610491 MS1	0.2931	30	1610232-25	0.3682	Dupl MS1 MS1
9	F610491 MS01	0.2763	31	1610232-26	0.2745	source 1610232-02
10	F610491 MS2	0.2721	32			MS2 MS02
11	<del>F610491 MS02</del>	<del>0.2894</del>	33	<del>1610232-26</del>		1610232-22
12	1610232-02	0.2698	34			
13	1610232-08	0.2546	35			F610491-MS02
14	1610232-09	0.2745	36			11/2/16 MS
15	1610232-10	0.2648	37			*Vials 32
16	1610232-11	0.2612	38			1610232-26
17	1610232-12	0.2660	39			
18	1610232-13	0.2844	40			
19	1610232-14	0.2917	41			
20	1610232-15	0.2684	42			
21	1610232-16	0.2865	43			
22	1610232-17	0.2839	44			

Verified By: R 11/2/16

2600.3  
11/7/16 DM

PREPARATION BENCH SHEET

F610468

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610468-BLK1	Blank	0.25	20					20X
F610468-BLK2	Blank	0.25	20					20X
F610468-BLK3	Blank	0.25	20					20X
F610468-BS1	Blank Spike	0.25	20	1605270	20			20X
F610468-BS2	DORM-4	0.1262	20	1605470	126			500X
F610468-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610468-DUP1	Duplicate [1610144-61]	0.2675	20					500X
F610468-MS1	Matrix Spike [1610144-61]	0.2773	20	1605712	100			500X
F610468-MS2	Matrix Spike [1610144-70]	0.294	20	1605712	100			500X
F610468-MSD1	Matrix Spike Dup [1610144-61]	0.2724	20	1605712	100			500X
F610468-MSD2	Matrix Spike Dup [1610144-70]	0.2874	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606304	70/30 Digestion Acid	26-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606385	5% BrCl	19-Apr-17 00:00

DUP2 - AD 500X  
Source 1610144-61

1606370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-3  
11/7/16 DM

F610468

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-57	ES-15_092716_BLM_WB_17	0.2642	20	-	-	-		500X
1610144-58	ES-15_092716_BLM_WB_18	0.271	20	-	-	-		500X
1610144-59	ES-15_092716_BLM_WB_19	0.2837	20	-	-	-		500X
1610144-60	ES-15_092716_BLM_WB_20	0.2965	20	-	-	-		500X
1610144-61	ES-FP_092616_BLM_WB_01	0.287	20	QC	-	-	MS/MSD	500X
1610144-62	ES-FP_092616_BLM_WB_02	0.2698	20	-	-	-		500X
1610144-63	ES-FP_092616_BLM_WB_03	0.2826	20	-	-	-		500X
1610144-64	ES-FP_092616_BLM_WB_04	0.2959	20	-	-	-		500X
1610144-65	ES-FP_092616_BLM_WB_05	0.27	20	-	-	-		500X
1610144-66	ES-FP_092616_BLM_WB_06	0.3049	20	-	-	-		500X
1610144-67	ES-FP_092616_BLM_WB_07	0.2719	20	-	-	-		500X
1610144-68	ES-FP_092616_BLM_WB_08	0.2881	20	-	-	-		500X
1610144-69	ES-FP_092616_BLM_WB_09	0.2948	20	-	-	-		100X
1610144-70	ES-FP_092616_BLM_WB_10	0.2677	20	-	-	-		100X
1610144-71	ES-FP_092616_BLM_WB_11	0.2759	20	-	-	-		100X
1610144-72	ES-FP_092616_BLM_WB_12	0.2982	20	-	-	-		100X
1610144-73	ES-FP_092616_BLM_WB_13	0.2741	20	-	-	-		100X
1610144-74	ES-FP_092616_BLM_WB_14	0.2852	20	-	-	-		100X
1610144-75	ES-FP_092616_BLM_WB_15	0.3013	20	-	-	-		100X

Page 254 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

2600.3

11/7/16 DM

F610468

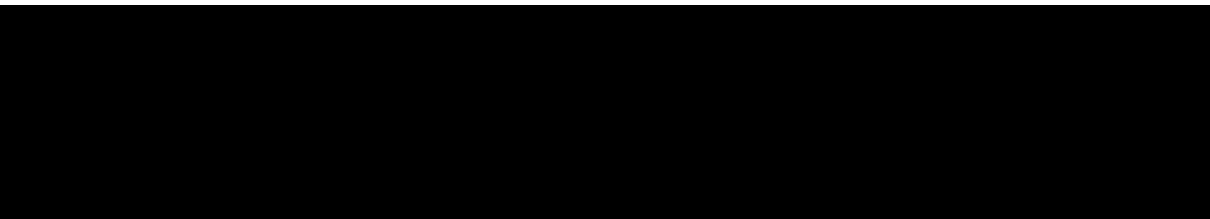
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610144-76	ES-FP_092616_BLM_WB_16	0.2947	20	-	-	-	100X
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Technician: Duyen Batch#: F610468 Date: 11/03/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 13:20 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 15:20 Actual Temp. (raw): 80.0 °C w/ CF: 79.5 °C

Final vol.: 20 mL (LIMS ID: 1606385) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: BC 11/3/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M651 11/3/16 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 02K27499 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  No  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: F15

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	F610468 Blank1	0.2646	23	1610144-68	0.2881	B52 20044
2	F610468 Blank2	0.2783	24	1610144-69	0.2948	1605470
3	F610468 Blank3	0.2528	25	1610144-70	0.2677	
4	F610468 B51	0.2674	26	1610144-71	0.2759	
5	F610468 B501	0.2493	27	1610144-72	0.2982	B51 B501
6	F610468 B52	0.1262	28	1610144-73	0.2741	= 100µg/L
7	F610468 Dup1	0.2675	29	1610144-74	0.2852	= 20µg
8	F610468 MS1	0.2773	30	1610144-75	0.3013	1605270
9	F610468 MS01	0.2724	31	1610144-76	0.2947	Dup 1. MS1 MS01
10	F610468 MS2	0.2940	32			source
11	F610468 MS02	0.2874	33			1610144-61
12	1610144-57	0.2642	34			MS2 MS02
13	1610144-58	0.2710	35			1610144-70
14	1610144-59	0.2837	36			1610144-59
15	1610144-60	0.2965	37			= 0.2837 g
16	1610144-61	0.2870	38			11/03/16
17	1610144-62	0.2698	39			748
18	1610144-63	0.2826	40			
19	1610144-64	0.2959	41			
20	1610144-65	0.2700	42			
21	1610144-66	0.3049	43			
22	1610144-67	0.2719	44			



PREPARATION BENCH SHEET

2600.3  
11/2/16 DM

F610469

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610469-BLK1	Blank	0.25	20					20x
F610469-BLK2	Blank	0.25	20					20x
F610469-BLK3	Blank	0.25	20					20x
F610469-BS1	Blank Spike	0.25	20	1605270	20			20x
F610469-BS2	DORM-4	0.126	20	1605470	126			500x
F610469-BSD1	Blank Spike	0.25	20	1605270	20			20x
F610469-DUP1	Duplicate [1610145-01]	0.2659	20					100x
F610469-MS1	Matrix Spike [1610145-01]	0.2845	20	1605712	100			500x
F610469-MS2	Matrix Spike [1610145-16]	0.2767	20	1605712	100			500x
F610469-MSD1	Matrix Spike Dup [1610145-01]	0.2944	20	1605712	100			500x
F610469-MSD2	Matrix Spike Dup [1610145-16]	0.2756	20	1605712	100			500x

Standard ID(s):  
1605270 THg 100ng/mL Primary Spiking Standard  
1605470 DORM-4  
1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
10-Dec-16 00:00  
19-Mar-17 00:00  
03-Apr-17 00:00

Reagent ID(s):  
1603399 Boiling Chips for AFS prep  
1606304 70/30 Digestion Acid  
1606385 5% BrCl

Expiration:  
01-Jun-17 00:00  
26-Apr-17 00:00  
19-Apr-17 00:00

1602370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-3  
11/7/16 DM

F610469

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-77	ES-FP_092616_BLM_WB_17	0.2642	20	-	-	-		100X
1610144-78	ES-FP_092616_BLM_WB_18	0.2875	20	-	-	-		100X
1610144-79	ES-FP_092616_BLM_WB_19	0.288	20	-	-	-		100X
1610144-80	ES-FP_092616_BLM_WB_20	0.2843	20	-	-	-		100X
1610145-01	BO-04_100316_MUM_WB_01	0.2837	20	QC	-	-	MS/MSD	100X
1610145-02	BO-04_100316_MUM_WB_02	0.2877	20	-	-	-		100X
1610145-03	BO-04_100316_MUM_WB_03	0.2641	20	-	-	-		100X
1610145-04	BO-04_100316_MUM_WB_04	0.2758	20	-	-	-		100X
1610145-05	BO-04_100316_MUM_WB_05	0.27	20	-	-	-		100X
1610145-06	BO-04_100316_MUM_WB_06	0.2834	20	-	-	-		100X
1610145-07	BO-04_100316_MUM_WB_07	0.2857	20	-	-	-		100X
1610145-08	BO-04_100316_MUM_WB_08	0.2881	20	-	-	-		100X
1610145-09	BO-04_100316_MUM_WB_09	0.2845	20	-	-	-		100X
1610145-10	BO-04_100316_MUM_WB_10	0.2849	20	-	-	-		100X
1610145-11	BO-04_100316_MUM_WB_11	0.2743	20	-	-	-		100X
1610145-12	BO-04_100316_MUM_WB_12	0.2657	20	-	-	-		100X
1610145-13	BO-04_100316_MUM_WB_13	0.2837	20	-	-	-		100X
1610145-14	BO-04_100316_MUM_WB_14	0.283	20	-	-	-		100X
1610145-15	BO-04_100316_MUM_WB_15	0.3078	20	-	-	-		100X

Page 258 of 311

Date: 11/2/2016

PREPARATION BENCH SHEET

200.3  
11/7/16 DJM

F610469

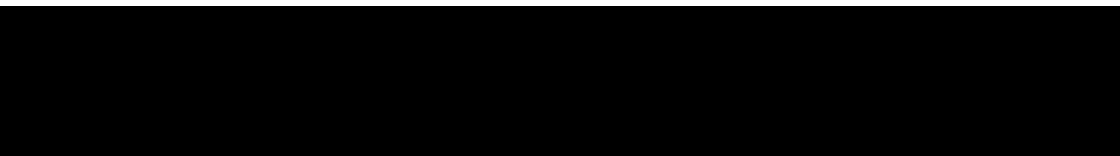
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610145-16	BO-04_100316_MUM_WB_16	0.3155	20	-	-	-	100%
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- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
  - EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
  - EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
  - EFGS-066 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: 13:20 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 15:20 Actual Temp. (raw): 80.0 °C w/ CF: 79.5 °C

Final vol.: 20 mL (LIMS ID: 1606385) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: QC 11-3-16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MW11667 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 021527494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159 Yes  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: F, 5

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	F610469 Blank1	0.2663	23	1610145-08	0.2881	BS2 DORM4
2	F610469 Blank2	0.2718	24	1610145-09	0.2845	1605470
3	F610469 Blank3	0.2786	25	1610145-10	0.2849	
4	F610469 BS1	0.2499	26	1610145-11	0.2743	Comments
5	F610469 BS01	0.2934	27	1610145-12	0.2657	BS1 BS01
6	F610469 BS2	0.2260	28	1610145-13	0.2837	= 100 µg/L
7	F610469 Dup1	0.3087	29	1610145-14	0.2830	= 20 µg/L
8	F610469 MS1	0.2845	30	1610145-15	0.3078	1605770
9	F610469 MS01	0.2949	31	1610145-16	0.3155	Dup1 MS1 MS01
10	F610469 MS2	0.2767	32			source
11	F610469 MS02	0.2756	33			1610145-01
12	1610144-77	0.2642	34			MS2 MS02
13	1610144-78	0.2875	35			1610145-16
14	1610144-79	0.2880	36			Dup1
15	1610144-80	0.2843	37			1610145-01
16	1610145-01	0.2837	38			= 0.2659 g
17	1610145-02	0.2877	39			11/3/16 04
18	1610145-03	0.2641	40			
19	1610145-04	0.2758	41			
20	1610145-05	0.2700	42			
21	1610145-06	0.2834	43			
22	1610145-07	0.2857	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>6K07013</u>
Reviewer: <u>DM</u>	Dataset ID(s): <u>THG26003-161107-1</u>
Date: <u>11/7/2016</u>	WO (s) #: <u>1610144, 1610145, 1610232</u>
Batch #(s): <u>F610469, F610491, F610468</u>	<u>0</u>

Analyst Initials DM                      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 ( $\leq 15\%$ )  | <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 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>F610468-DUP1 FAILED. RE-ANALYZED AND PASSED</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 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 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 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 type="checkbox"/>            |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	6K07013
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-161107-1
Date:	11/7/2016	WO (s) #:	1610144, 1610145, 1610232
Batch #(s):	F610469, F610491, F610468		0

Analyst Initials DM

Reviewer Initials DM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input 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>12/16/15</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>5/20/16</u> | Current SOP revision read?       | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/7/16</u>                               | LOD within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/7/16</u>                               | LOQ within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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

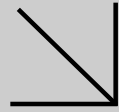






Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-2445**

*The difference is service*



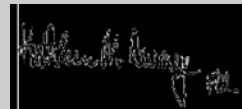
AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610144

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/19/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610144  
Work Order Number: 16-11-2445

1	16-11-2445 Level IV Case Narrative. . . . .	3
2	Work Order Narrative. . . . .	7
3	Sample Summary. . . . .	8
4	Client Sample Data. . . . .	10
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	10
5	Quality Control Sample Data. . . . .	12
	5.1 Sample Duplicate. . . . .	12
6	Glossary of Terms and Qualifiers. . . . .	13
7	Chain-of-Custody/Sample Receipt Form. . . . .	14
8	16-11-2445 Level IV Data Package. . . . .	31

## Case Narrative

Client Project Name: 1610145  
Work Order Number: 16-11-2444

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 80 tissue samples on November 29, 2016. A total of 85 containers were received in good condition at a temperature of 1.9°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
ES-03_092716_BLM_WB_01	16-11-2445-1	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_02	16-11-2445-2	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_03	16-11-2445-3	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_04	16-11-2445-4	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_05	16-11-2445-5	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_06	16-11-2445-6	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_07	16-11-2445-7	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_08	16-11-2445-8	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_09	16-11-2445-9	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_10	16-11-2445-10	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_11	16-11-2445-11	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_12	16-11-2445-12	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_13	16-11-2445-13	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_14	16-11-2445-14	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_15	16-11-2445-15	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_16	16-11-2445-16	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_17	16-11-2445-17	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_18	16-11-2445-18	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_19	16-11-2445-19	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-03_092716_BLM_WB_20	16-11-2445-20	9/27/2016 1:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_01	16-11-2445-21	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_02	16-11-2445-22	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_03	16-11-2445-23	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_04	16-11-2445-24	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_05	16-11-2445-25	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_06	16-11-2445-26	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_07	16-11-2445-27	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_08	16-11-2445-28	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_09	16-11-2445-29	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM

## Case Narrative

Client Project Name: 1610145  
Work Order Number: 16-11-2444

ES-13_093016_BLM_WB_10	16-11-2445-30	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_11	16-11-2445-31	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_12	16-11-2445-32	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_13	16-11-2445-33	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_14	16-11-2445-34	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_15	16-11-2445-35	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_16	16-11-2445-36	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_17	16-11-2445-37	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_18	16-11-2445-38	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_19	16-11-2445-39	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-13_093016_BLM_WB_20	16-11-2445-40	9/30/2016 4:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_01	16-11-2445-41	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_02	16-11-2445-42	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_03	16-11-2445-43	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_04	16-11-2445-44	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_05	16-11-2445-45	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_06	16-11-2445-46	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_07	16-11-2445-47	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_08	16-11-2445-48	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_09	16-11-2445-49	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_10	16-11-2445-50	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_11	16-11-2445-51	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_12	16-11-2445-52	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_13	16-11-2445-53	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_14	16-11-2445-54	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_15	16-11-2445-55	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_16	16-11-2445-56	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_17	16-11-2445-57	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_18	16-11-2445-58	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_19	16-11-2445-59	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-15_092716_BLM_WB_20	16-11-2445-60	9/27/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_01	16-11-2445-61	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_02	16-11-2445-62	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_03	16-11-2445-63	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM

## Case Narrative

Client Project Name: 1610145  
Work Order Number: 16-11-2444

ES-FP_092616_BLM_WB_04	16-11-2445-64	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_05	16-11-2445-65	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_06	16-11-2445-66	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_07	16-11-2445-67	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_08	16-11-2445-68	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_09	16-11-2445-69	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_10	16-11-2445-70	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_11	16-11-2445-71	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_12	16-11-2445-72	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_13	16-11-2445-73	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_14	16-11-2445-74	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_15	16-11-2445-75	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_16	16-11-2445-76	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_17	16-11-2445-77	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_18	16-11-2445-78	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_19	16-11-2445-79	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM
ES-FP_092616_BLM_WB_20	16-11-2445-80	9/26/2016 3:00:00 PM	11/29/2016 12:30:00 PM

### **DATA SUMMARY:**

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

Sample -1 was not received and results could not be reported. Not enough sample mass was received for samples -11 through -80 to perform the requested analysis; therefore, analytical testing was performed on samples -2 through -10 only.

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

## Case Narrative

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Client Project Name: 1610145  
Work Order Number: 16-11-2444

### % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):

Samples -2 through -10 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/06/16 in batch # 161206B17 / 161206D17.

### Sample and QC:

A sample from another work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/29/16. They were assigned to Work Order 16-11-2445.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2445
11720 North Creek Parkway North, Suite 4	Project Name:	1610144
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/29/16 12:30
	Number of Containers:	85

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
ES-03_092716_BLM_WB_01	16-11-2445-1	09/27/16 13:00	0	Tissue
ES-03_092716_BLM_WB_02	16-11-2445-2	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_03	16-11-2445-3	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_04	16-11-2445-4	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_05	16-11-2445-5	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_06	16-11-2445-6	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_07	16-11-2445-7	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_08	16-11-2445-8	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_09	16-11-2445-9	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_10	16-11-2445-10	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_11	16-11-2445-11	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_12	16-11-2445-12	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_13	16-11-2445-13	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_14	16-11-2445-14	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_15	16-11-2445-15	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_16	16-11-2445-16	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_17	16-11-2445-17	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_18	16-11-2445-18	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_19	16-11-2445-19	09/27/16 13:00	1	Tissue
ES-03_092716_BLM_WB_20	16-11-2445-20	09/27/16 13:00	1	Tissue
ES-13_093016_BLM_WB_01	16-11-2445-21	09/30/16 16:00	3	Tissue
ES-13_093016_BLM_WB_02	16-11-2445-22	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_03	16-11-2445-23	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_04	16-11-2445-24	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_05	16-11-2445-25	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_06	16-11-2445-26	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_07	16-11-2445-27	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_08	16-11-2445-28	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_09	16-11-2445-29	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_10	16-11-2445-30	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_11	16-11-2445-31	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_12	16-11-2445-32	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_13	16-11-2445-33	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_14	16-11-2445-34	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_15	16-11-2445-35	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_16	16-11-2445-36	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_17	16-11-2445-37	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_18	16-11-2445-38	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_19	16-11-2445-39	09/30/16 16:00	1	Tissue
ES-13_093016_BLM_WB_20	16-11-2445-40	09/30/16 16:00	1	Tissue
ES-15_092716_BLM_WB_01	16-11-2445-41	09/27/16 15:00	3	Tissue
ES-15_092716_BLM_WB_02	16-11-2445-42	09/27/16 15:00	1	Tissue



## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2445
11720 North Creek Parkway North, Suite 4	Project Name:	1610144
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/29/16 12:30
	Number of Containers:	85

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
ES-15_092716_BLM_WB_03	16-11-2445-43	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_04	16-11-2445-44	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_05	16-11-2445-45	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_06	16-11-2445-46	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_07	16-11-2445-47	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_08	16-11-2445-48	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_09	16-11-2445-49	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_10	16-11-2445-50	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_11	16-11-2445-51	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_12	16-11-2445-52	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_13	16-11-2445-53	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_14	16-11-2445-54	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_15	16-11-2445-55	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_16	16-11-2445-56	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_17	16-11-2445-57	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_18	16-11-2445-58	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_19	16-11-2445-59	09/27/16 15:00	1	Tissue
ES-15_092716_BLM_WB_20	16-11-2445-60	09/27/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_01	16-11-2445-61	09/26/16 15:00	3	Tissue
ES-FP_092616_BLM_WB_02	16-11-2445-62	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_03	16-11-2445-63	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_04	16-11-2445-64	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_05	16-11-2445-65	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_06	16-11-2445-66	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_07	16-11-2445-67	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_08	16-11-2445-68	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_09	16-11-2445-69	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_10	16-11-2445-70	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_11	16-11-2445-71	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_12	16-11-2445-72	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_13	16-11-2445-73	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_14	16-11-2445-74	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_15	16-11-2445-75	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_16	16-11-2445-76	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_17	16-11-2445-77	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_18	16-11-2445-78	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_19	16-11-2445-79	09/26/16 15:00	1	Tissue
ES-FP_092616_BLM_WB_20	16-11-2445-80	09/26/16 15:00	1	Tissue


  
Return to Contents

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2445  
 Preparation: N/A  
 Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
 Units: %

Project: 1610144

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-03_092716_BLM_WB_02	16-11-2445-2-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.4	0.10		1.00		
ES-03_092716_BLM_WB_03	16-11-2445-3-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.5	0.10		1.00		
ES-03_092716_BLM_WB_04	16-11-2445-4-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.3	0.10		1.00		
ES-03_092716_BLM_WB_05	16-11-2445-5-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.1	0.10		1.00		
ES-03_092716_BLM_WB_06	16-11-2445-6-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.5	0.10		1.00		
ES-03_092716_BLM_WB_07	16-11-2445-7-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.7	0.10		1.00		
ES-03_092716_BLM_WB_08	16-11-2445-8-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.64	0.10		1.00		
ES-03_092716_BLM_WB_09	16-11-2445-9-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/29/16  
Work Order: 16-11-2445  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1610144

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-03_092716_BLM_WB_10	16-11-2445-10-A	09/27/16 13:00	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
% Lipids	1.6	0.10	1.00	

Method Blank	099-14-104-151	N/A	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
--------------	----------------	-----	--------	-----	----------	-------------------	-----------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
% Lipids	ND	0.10	1.00	



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2445  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610144

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-11-2443-1	Sample	Tissue	N/A	12/06/16 00:00	12/06/16 00:00	161206D17
16-11-2443-1	Sample Duplicate	Tissue	N/A	12/06/16 00:00	12/06/16 00:00	161206D17

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	7.330	7.040	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-2445

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDS or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.  
**1610144**

**16-11-2445**

**SENDING LABORATORY:**  
Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

**RECEIVING LABORATORY:**  
Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

**Analysis** Due: 02-Nov-16 19:00

**Comments**

1 **Sample ID: 472 ES-03\_092716\_BLM\_WB\_01**

ERGS Lab ID: 1610144-01

Sampled: 27-Sep-16 13:00

**Misc. Subcontract 1**  
*Containers Supplied:*  
50\_60 ml PP Jar (B)

Lipids Analysis

2 **Sample ID: 473 ES-03\_092716\_BLM\_WB\_02**

ERGS Lab ID: 1610144-02

Sampled: 27-Sep-16 13:00

**Misc. Subcontract 1**  
*Containers Supplied:*  
50\_60 ml PP Jar (B)

Lipids Analysis

3 **Sample ID: 474 ES-03\_092716\_BLM\_WB\_03**

ERGS Lab ID: 1610144-03

Sampled: 27-Sep-16 13:00

**Misc. Subcontract 1**  
*Containers Supplied:*  
50\_60 ml PP Jar (B)

Lipids Analysis



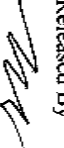

4 **Sample ID: 475 ES-03\_092716\_BLM\_WB\_04**

ERGS Lab ID: 1610144-04

Sampled: 27-Sep-16 13:00

**Misc. Subcontract 1**  
*Containers Supplied:*  
50\_60 ml PP Jar (B)

Lipids Analysis

Released By		Date	11/28/16	Received By		Date	11/29/16 1330
Released By		Date	11/28/16	Received By		Date	11/29/16 1330

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

5 Sample ID: 476 ES-03\_092716\_BLM\_WB\_05      EFGS Lab ID: 1610144-05      Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

6 Sample ID: 477 ES-03\_092716\_BLM\_WB\_06      EFGS Lab ID: 1610144-06      Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

7 Sample ID: 478 ES-03\_092716\_BLM\_WB\_07      EFGS Lab ID: 1610144-07      Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

8 Sample ID: 479 ES-03\_092716\_BLM\_WB\_08      EFGS Lab ID: 1610144-08      Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

9 Sample ID: 480 ES-03\_092716\_BLM\_WB\_09      EFGS Lab ID: 1610144-09      Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

10 Sample ID: 481 ES-03\_092716\_BLM\_WB\_10      EFGS Lab ID: 1610144-10      Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By: 

Date: 11/28/16

Received By:



Date:

11/29/16 12:30

Released By:

Date:

Received By:

Date:

Eurofins Frontier Global Sciences, Inc.

1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

11 Sample ID: 482 ES-03\_092716\_BLM\_WB\_11

EFCS Lab ID: 1610144-11

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

12 Sample ID: 483 ES-03\_092716\_BLM\_WB\_12

EFCS Lab ID: 1610144-12

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

13 Sample ID: 484 ES-03\_092716\_BLM\_WB\_13

EFCS Lab ID: 1610144-13

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

14 Sample ID: 485 ES-03\_092716\_BLM\_WB\_14

EFCS Lab ID: 1610144-14

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

15 Sample ID: 486 ES-03\_092716\_BLM\_WB\_15

EFCS Lab ID: 1610144-15

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

16 Sample ID: 487 ES-03\_092716\_BLM\_WB\_16

EFCS Lab ID: 1610144-16

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

*[Signature]*

Released By                      Date 11/28/16

Received By                     

Date 11/29/16 1230

Released By                     

Date 11/28/16

Received By                     

Date 11/29/16 1230



SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis Due: 02-Nov-16 19:00

Comments

2445

17 Sample ID: 488 ES-03\_092716\_BLM\_WB\_17

EFGS Lab ID: 1610144-17

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

18 Sample ID: 489 ES-03\_092716\_BLM\_WB\_18

EFGS Lab ID: 1610144-18

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

19 Sample ID: 490 ES-03\_092716\_BLM\_WB\_19

EFGS Lab ID: 1610144-19

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

20 Sample ID: 491 ES-03\_092716\_BLM\_WB\_20

EFGS Lab ID: 1610144-20

Sampled: 27-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

21 Sample ID: 494 ES-13\_093016\_BLM\_WB\_01

EFGS Lab ID: 1610144-21

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

22 Sample ID: 495 ES-13\_093016\_BLM\_WB\_02

EFGS Lab ID: 1610144-22

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By 


Date 11/28/16

Received By

Date

Released By 

Date 11/28/16

Received By 

Date 11/29/16 1:30

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

23 Sample ID: 496 ES-13\_093016\_BLM\_WB\_03

EFCS Lab ID: 1610144-23

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

24 Sample ID: 497 ES-13\_093016\_BLM\_WB\_04

EFCS Lab ID: 1610144-24

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

25 Sample ID: 498 ES-13\_093016\_BLM\_WB\_05

EFCS Lab ID: 1610144-25

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

26 Sample ID: 499 ES-13\_093016\_BLM\_WB\_06

EFCS Lab ID: 1610144-26

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

27 Sample ID: 500 ES-13\_093016\_BLM\_WB\_07

EFCS Lab ID: 1610144-27

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

28 Sample ID: 501 ES-13\_093016\_BLM\_WB\_08

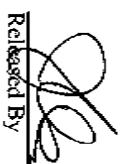
EFCS Lab ID: 1610144-28

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

Released By 

Date 11/28/16

Received By



Date

11/29/16 12:30

Released By

Received By

Date

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

29 Sample ID: 502 ES-13\_093016\_BLM\_WB\_09

EFGS Lab ID: 1610144-29

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

30 Sample ID: 503 ES-13\_093016\_BLM\_WB\_10

EFGS Lab ID: 1610144-30

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

31 Sample ID: 504 ES-13\_093016\_BLM\_WB\_11

EFGS Lab ID: 1610144-31

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

32 Sample ID: 505 ES-13\_093016\_BLM\_WB\_12

EFGS Lab ID: 1610144-32

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

33 Sample ID: 506 ES-13\_093016\_BLM\_WB\_13

EFGS Lab ID: 1610144-33

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

34 Sample ID: 507 ES-13\_093016\_BLM\_WB\_14

EFGS Lab ID: 1610144-34

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

35 Sample ID: 508 ES-13\_093016\_BLM\_WB\_15

EFGS Lab ID: 1610144-35

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

36 Sample ID: 509 ES-13\_093016\_BLM\_WB\_16

EFGS Lab ID: 1610144-36

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

37 Sample ID: 510 ES-13\_093016\_BLM\_WB\_17

EFGS Lab ID: 1610144-37

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

38 Sample ID: 511 ES-13\_093016\_BLM\_WB\_18

EFGS Lab ID: 1610144-38

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

39 Sample ID: 512 ES-13\_093016\_BLM\_WB\_19

EFGS Lab ID: 1610144-39

Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

40 Sample ID: 513 ES-13\_093016\_BLM\_WB\_20

EFGS Lab ID: 1610144-40


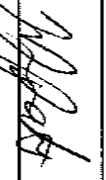

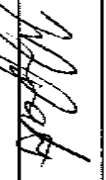
Sampled: 30-Sep-16 16:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

Released By		Date	11/28/16	Received By		Date	11/29/16 12:30
Released By		Date	11/28/16	Received By		Date	11/29/16 12:30

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis Due: 02-Nov-16 19:00

Comments

21445

41 Sample ID: 516 ES-15\_092716\_BLM\_WB\_01

EFGS Lab ID: 1610144-41

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

42 Sample ID: 517 ES-15\_092716\_BLM\_WB\_02

EFGS Lab ID: 1610144-42

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

43 Sample ID: 518 ES-15\_092716\_BLM\_WB\_03

EFGS Lab ID: 1610144-43

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

44 Sample ID: 519 ES-15\_092716\_BLM\_WB\_04

EFGS Lab ID: 1610144-44

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

45 Sample ID: 520 ES-15\_092716\_BLM\_WB\_05

EFGS Lab ID: 1610144-45

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

46 Sample ID: 521 ES-15\_092716\_BLM\_WB\_06

EFGS Lab ID: 1610144-46


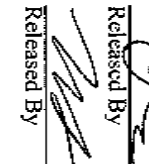
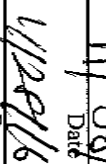
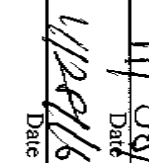
Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

<p>Released By: </p>	<p>Received By: </p>
<p>Date: 11/28/16</p>	<p>Date: 11/29/16 1230</p>
<p>Released By: </p>	<p>Received By: </p>
<p>Date: 11/29/16</p>	<p>Date: 11/29/16 1230</p>

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

47 Sample ID: 522 ES-15\_092716\_BLM\_WB\_07

EFGS Lab ID: 1610144-47

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

48 Sample ID: 523 ES-15\_092716\_BLM\_WB\_08

EFGS Lab ID: 1610144-48

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

49 Sample ID: 524 ES-15\_092716\_BLM\_WB\_09

EFGS Lab ID: 1610144-49

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

50 Sample ID: 525 ES-15\_092716\_BLM\_WB\_10

EFGS Lab ID: 1610144-50

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

51 Sample ID: 526 ES-15\_092716\_BLM\_WB\_11

EFGS Lab ID: 1610144-51

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

52 Sample ID: 527 ES-15\_092716\_BLM\_WB\_12

EFGS Lab ID: 1610144-52

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1


Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By:  Date: 11/28/16

Received By:  Date: 11/29/16

Received By:  Date: 11/29/16 1230

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

53 Sample ID: 528 ES-15\_092716\_BLM\_WB\_13

EFGS Lab ID: 1610144-53

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

54 Sample ID: 529 ES-15\_092716\_BLM\_WB\_14

EFGS Lab ID: 1610144-54

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

55 Sample ID: 530 ES-15\_092716\_BLM\_WB\_15

EFGS Lab ID: 1610144-55

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

56 Sample ID: 531 ES-15\_092716\_BLM\_WB\_16

EFGS Lab ID: 1610144-56

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

57 Sample ID: 532 ES-15\_092716\_BLM\_WB\_17

EFGS Lab ID: 1610144-57

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

58 Sample ID: 533 ES-15\_092716\_BLM\_WB\_18

EFGS Lab ID: 1610144-58


Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By 

Date 11/28/16

Received By



Date

11/29/16 1230

Released By

Date

Received By

Date

Eurofins Frontier Global Sciences, Inc.

1610144

Analysis

Due: 02-Nov-16 19:00

Comments

3445

54 Sample ID: 534 ES-15\_092716\_BLM\_WB\_19

EFGS Lab ID: 1610144-59

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

60 Sample ID: 535 ES-15\_092716\_BLM\_WB\_20

EFGS Lab ID: 1610144-60

Sampled: 27-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

61 Sample ID: 538 ES-FP\_092616\_BLM\_WB\_01

EFGS Lab ID: 1610144-61

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

62 Sample ID: 539 ES-FP\_092616\_BLM\_WB\_02

EFGS Lab ID: 1610144-62

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

63 Sample ID: 540 ES-FP\_092616\_BLM\_WB\_03

EFGS Lab ID: 1610144-63

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

64 Sample ID: 541 ES-FP\_092616\_BLM\_WB\_04

EFGS Lab ID: 1610144-64

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

Released By

Date

Received By

Date



SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

65 Sample ID: 542 ES-FP\_092616\_BLM\_WB\_05

EFCS Lab ID: 1610144-65

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

66 Sample ID: 543 ES-FP\_092616\_BLM\_WB\_06

EFCS Lab ID: 1610144-66

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

67 Sample ID: 544 ES-FP\_092616\_BLM\_WB\_07

EFCS Lab ID: 1610144-67

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

68 Sample ID: 545 ES-FP\_092616\_BLM\_WB\_08

EFCS Lab ID: 1610144-68

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

69 Sample ID: 546 ES-FP\_092616\_BLM\_WB\_09

EFCS Lab ID: 1610144-69

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

70 Sample ID: 547 ES-FP\_092616\_BLM\_WB\_10

EFCS Lab ID: 1610144-70

Sampled: 26-Sep-16 15:00


Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

  
11/28/16

Date

Received By

  
11/28/16

Date

Date

Received By

  
11/29/16 1230

Date

Received By

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610144

Analysis

Due: 02-Nov-16 19:00

Comments

2445

71 Sample ID: 548 ES-FP\_092616\_BLM\_WB\_11

EFGS Lab ID: 1610144-71

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

72 Sample ID: 549 ES-FP\_092616\_BLM\_WB\_12

EFGS Lab ID: 1610144-72

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

73 Sample ID: 550 ES-FP\_092616\_BLM\_WB\_13

EFGS Lab ID: 1610144-73

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

74 Sample ID: 551 ES-FP\_092616\_BLM\_WB\_14

EFGS Lab ID: 1610144-74

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

75 Sample ID: 552 ES-FP\_092616\_BLM\_WB\_15

EFGS Lab ID: 1610144-75

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

76 Sample ID: 553 ES-FP\_092616\_BLM\_WB\_16

EFGS Lab ID: 1610144-76

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

**SUBCONTRACT ORDER**  
**Eurofins Frontier Global Sciences, Inc.**  
**1610144**

Analysis Due: 02-Nov-16 19:00

Comments

2445

77 Sample ID: 554 ES-FP\_092616\_BLM\_WB\_17

EFGS Lab ID: 1610144-77

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

78 Sample ID: 555 ES-FP\_092616\_BLM\_WB\_18

EFGS Lab ID: 1610144-78

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

79 Sample ID: 556 ES-FP\_092616\_BLM\_WB\_19

EFGS Lab ID: 1610144-79

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

80 Sample ID: 557 ES-FP\_092616\_BLM\_WB\_20

EFGS Lab ID: 1610144-80

Sampled: 26-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

*[Signature]* 11/28/16

11/28/16

*[Signature]* 11/29/16 1230

2445

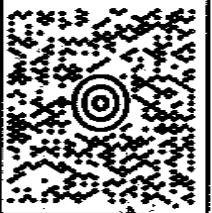
FRONT DECK  
(425) 686-1985  
FRONTIER GLOBAL SCIENCES  
17720 N GREEN PKWY N  
BOTHELL WA 98011-8244

33 LBS

1 OF 1

DWT: 24.13.14

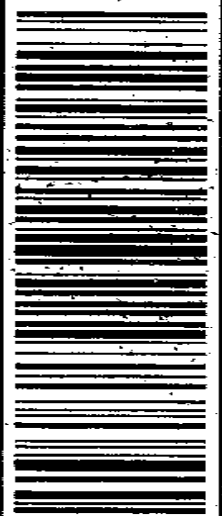
SHIP TO:  
SAMPLE RECEIVING  
(714) 895-5494  
EUROFINS CALSCIENCE, INC.  
7440 LINGOLN WAY  
GARDEN GROVE CA 92841-1427



CA 927 9-09



UPS NEXT DAY AIR 1  
TRACKING #: 1Z 86W 060 01 8108 7572



BILLING: P/P

Dept No.: OVERHEAD  
REF 2:Subcontract

WS 19.0.10 Zabira ZP 460 78.0A 07/2018

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**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: EFAS

DATE: 11 / 29 / 2016

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 1.9 °C (w/ CF): 1.9 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: LS

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: LS  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1053

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen     
 Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals     
 Container(s) for certain analysis free of headspace .....  Yes  No  N/A  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)  
 Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBP  125PB  
 125PBzma  250AGB  250CCGB  250CCGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve ( )  Encores® ( )  TerraCores® ( )  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (Tissue):  Y  N  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 659

\*[21], (-41), (-61) Received 3 containers

**SAMPLE ANOMALY REPORT**

DATE: 11 / 29 / 2016

**SAMPLES, CONTAINERS, AND LABELS:**

- Sample(s) NOT RECEIVED but listed on COC
- Sample(s) received but NOT LISTED on COC
- Holding time expired (list client or ECI sample ID and analysis)
- Insufficient sample amount for requested analysis (list analysis)
- Improper container(s) used (list analysis)
- Improper preservative used (list analysis)
- No preservative noted on COC or label (list analysis and notify lab)
- Sample container(s) not labeled
- Client sample label(s) illegible (list container type and analysis)
- Client sample label(s) do not match COC (comment)
- Project information
- Client sample ID
- Sampling date and/or time
- Number of container(s)
- Requested analysis
- Sample container(s) compromised (comment)
- Broken
- Water present in sample container
- Air sample container(s) compromised (comment)
- Flat
- Very low in volume
- Leaking (not transferred; duplicate bag submitted)
- Leaking (transferred into ECI Tedlar™ bags\*)
- Leaking (transferred into client's Tedlar™ bags\*)

\* Transferred at client's request

**Comments**

*FD sample not received.*

**MISCELLANEOUS: (Describe)**

**Comments**

**HEADSPACE:**

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

**Comments:**

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.

Reported by: 1053  
 Reviewed by: 619

# QUALITY CONTROL CHECKLIST

WORK ORDER NUMBER: 16-11-2445

METHOD: Lipids Section Reviewed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____ Date: ___/___/___
PREPARATION CONDITIONS	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Sample Aliquots Used	✓			
Correct Reagents Used	✓			
Correct Final Prep Volumes	✓			
Correct Preparation Procedure	✓			

ANALYST				Section Reviewed by: 1) <u>BSA</u> Date: <u>12/13/16</u> 2) _____ Date: ___/___/___ 3) _____ Date: ___/___/___			
INSTRUMENT CONDITIONS	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/	/	/	/	/	/	
Valid Initial Calibration Curve	/	/	/	/	/	/	
Valid Cont. Calibration Std.	/	/	/	/	/	/	
Other Calibration Criteria Met	/	/	/	/	/	/	
SAMPLE ANALYSIS	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/	/	/	/	/	/	
Instr. Signals within Quant. Range	/	/	/	/	/	/	
Reporting Limits Met	/	/	/	/	/	/	
REPORTING	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/	/	/	/	/	/	
Correct Batch #'s Reported	/	/	/	/	/	/	
Dilutions Reported	/	/	/	/	/	/	
Interferences Reported	/	/	/	/	/	/	
Out of Control Forms Completed	/	/	/	/	/	/	

GROUP LEADER				Section Reviewed by: <u>LYZ</u> Date: <u>12/13/16</u>			
PROJECT REQUIREMENTS	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Analyses by CEL Standard Methods	↓						
Normal CEL RLs	↓						
Normal CEL QC	↓						
Normal CEL Deliverables	↓						
QUALITY CONTROL	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Acceptable Method Blanks (MB)	✓						
Acceptable Field Blanks (FB, EB, TB)						✓	
Acceptable Matrix Spikes (MS/MSD)						✓	
Acceptable Lab Ctrl. Samples (LCS)						✓	
Other Required QC Performed						✓	
Out of Controls Addressed/Documented						✓	
REPORTING	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Date Prepared	↓						
Correct Date Analyzed	↓						
Correct Units	↓						
Analyst Review Performed (Init./Date)	↓						
Out of Control Forms Acceptable	↓						
RESULTS CHECK	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Does the Data Make Sense	✓						

GENERAL COMMENTS: \_\_\_\_\_

Page 295 of 311

Page 31 of 47

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2445  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 2 CLIENT SAMPLE NUMBER: 473 ES-03\_092716\_BLM\_WB\_02

LC/MSB BATCH: 161206B17 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D17 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
2.37	1.00	2.37	0.10	7c

% Lipids





RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2445  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
DT ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 3 CLIENT SAMPLE NUMBER: 474 ES-03\_092716\_BLM\_WB\_03

LCS/MB BATCH: 161206B17 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D17 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.50	1.00	1.50	0.10	7c

% Lipids

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2445  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 4 CLIENT SAMPLE NUMBER: 475 ES-03\_092716\_BLM\_WB\_04

LCS/MB BATCH: 161206B17 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161206D17 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND ON COL CONC DF CONC RL QUAL

% Lipids 2.26 1.00 2.26 0.10 7c



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2445  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 5** **CLIENT SAMPLE NUMBER:** 476 ES-03\_092716\_BLM\_WB\_05

**LC/MS/MS BATCH:** 161206B17 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D17 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	2.08	1.00	2.08	0.10	7c



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2445  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 6 CLIENT SAMPLE NUMBER: 477 ES-03\_092716\_BLM\_WB\_06

LCS/MB BATCH: 161206B17 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D17 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.47	1.00	1.47	0.10	7c

% Lipids



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2445  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 7 CLIENT SAMPLE NUMBER: 478 ES-03\_092716\_BLM\_WB\_07

LCS/MB BATCH: 161206B17 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D17 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

ON COL CONC

DF

CONC

RL

QUAL

% Lipids

2.66

1.00

2.66

0.10

7c



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2445  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 8 CLIENT SAMPLE NUMBER: 479 ES-03\_092716\_BLM\_WB\_08

LCS/MB BATCH: 161206B17 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D17 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PE: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.640	1.00	0.640	0.10	7c

% Lipids



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2445  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 9** **CLIENT SAMPLE NUMBER:** 480 ES-03\_092716\_BLM\_WB\_09

**LCS/MB BATCH:** 161206B17 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D17 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.38	1.00	1.38	0.10	7c



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2445  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 10**      **CLIENT SAMPLE NUMBER:** 481 ES-03\_092716\_BLM\_WB\_10

**LCS/MB BATCH:** 161206B17      **SAMPLE VOLUME / WEIGHT:** 20.00 g  
**MS/MSD BATCH:** 161206D17      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PE:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**  
1.58      1.00      1.58      0.10      7c





METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**MB SAMPLE ID:** 099-14-104-151  
**MB BATCH ID:** 161206B17  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

DATA FILE:

**CLIENT WORK ORDER: 16-11-2445**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
2	473 ES-03_092716_BLM_WB_02		2016-12-06 00:00	
3	474 ES-03_092716_BLM_WB_03		2016-12-06 00:00	
4	475 ES-03_092716_BLM_WB_04		2016-12-06 00:00	
5	476 ES-03_092716_BLM_WB_05		2016-12-06 00:00	
6	477 ES-03_092716_BLM_WB_06		2016-12-06 00:00	
7	478 ES-03_092716_BLM_WB_07		2016-12-06 00:00	
8	479 ES-03_092716_BLM_WB_08		2016-12-06 00:00	
9	480 ES-03_092716_BLM_WB_09		2016-12-06 00:00	
10	481 ES-03_092716_BLM_WB_10		2016-12-06 00:00	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161206B17  
MS/MSD BATCH: %  
UNITS: %  
SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
ADJUSTMENT RATIO TO PE: 1.00

COMMENT:  
COMPOUND  
ON COL CONC DF CONC RL QUAL  
% Lipids 0.0200 1.00 ND 0.10



## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-11-2443-1  
**DUP BATCH:** 161206D17  
**INSTRUMENTS:**  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
SAMPLE: 2016-12-06 00:00  
DUP SAMPLE: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED:  
SAMPLE: 2016-12-06 00:00  
DUP SAMPLE: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	7.330	7.040	4	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  Lipids

8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: 20 Filter ID#: 507-41-04 ASE ID#: / Soxtherm ID#: 1-8 Orbit Shaker ID#: / Sonicator ID#: /

Ext. Start Date/Time: 12/06/16 9:00 Ext. End Date/Time: 12/06/16 11:30

Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

Surrogate Std ID# & Volume Added (mL): Drying Agent(s) ID#: 507-22-03

Spike Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-44-06 Exchange Solvent (D Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161206E17 Sample W (g) / V (mL)

Cell ID#:	Initial	Final	Clean Up Performed	Comments
MB	1.00	1	<input type="checkbox"/>	
LCS			<input type="checkbox"/>	
LCSD			<input type="checkbox"/>	
MS			<input type="checkbox"/>	
MSD Dup	16-11-2443-1A	1.02	<input type="checkbox"/>	
	16-11-2442-1A	0.52	<input type="checkbox"/>	
	-2A	0.13	<input type="checkbox"/>	
	-3A	0.30	<input type="checkbox"/>	
	-4A	0.42	<input type="checkbox"/>	
	16-11-2443-1A	1.02	<input type="checkbox"/>	
	-2A	1.02	<input type="checkbox"/>	
	-3A	1.00	<input type="checkbox"/>	
	-4A	1.00	<input type="checkbox"/>	
	-5A	1.02	<input type="checkbox"/>	
	-6A	1.02	<input type="checkbox"/>	
	-7A	1.01	<input type="checkbox"/>	
	16-11-2445-2A	1.14	<input type="checkbox"/>	
	-3A	0.82	<input type="checkbox"/>	
	-4A	1.18	<input type="checkbox"/>	
	-5A	1.14	<input type="checkbox"/>	
	-6A	1.88	<input type="checkbox"/>	
	-7A	1.49	<input type="checkbox"/>	
	-8A	1.70	<input type="checkbox"/>	
	-9A	1.08	<input type="checkbox"/>	
	-10A	1.73	<input type="checkbox"/>	

Peer Reviewed by: 6824

Peer Reviewed Date: 12/06/16

Revision Date: 10/20/16

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/08/16 Initials: GS

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	100	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	
	500	499.98	498.00 - 502.00	<input checked="" type="radio"/> Y	
62	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	0.9996	0.99900 - 1.00100	<input checked="" type="radio"/> Y	
	100	99.9977	99.90000 - 100.10000	<input checked="" type="radio"/> Y	
26	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	
	500	499.99	498.00 - 502.00	<input checked="" type="radio"/> Y	
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	
66	0.002	0.0018	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9996	0.99900 - 1.00100	<input checked="" type="radio"/> Y	
	100	99.9987	99.90000 - 100.10000	<input checked="" type="radio"/> Y	
53	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	
20	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	Extractions
	500	499.98	498.00 - 502.00	<input checked="" type="radio"/> Y	
	1000	1000.0	998.0 - 1002.0	<input checked="" type="radio"/> Y	
57	100	100.0	98.0 - 102.0	<input checked="" type="radio"/> Y	Extractions
	1000	1000.0	998.0 - 1002.0	<input checked="" type="radio"/> Y	
	2000	2000.0	1998.0 - 2002.0	<input checked="" type="radio"/> Y	
52	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	
	100	99.9946	99.9000 - 100.1000	<input checked="" type="radio"/> Y	
14	0.002	0.0018	0.0018 - 0.0022	<input checked="" type="radio"/> Y	BOD Room
	1	1.0001	0.9990 - 1.0010	<input checked="" type="radio"/> Y	
	100	99.9946	99.9000 - 100.1000	<input checked="" type="radio"/> Y	
63	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	BOD Room
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	
64	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	10.01	9.8 - 10.2	<input checked="" type="radio"/> Y	
34	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	
	0.002	0.00203	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.99963	0.9990 - 1.0010	<input checked="" type="radio"/> Y	
30	100	99.99472	99.9000 - 100.1000	<input checked="" type="radio"/> Y	
	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
30	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y	
	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y	



Lipid Content Raw Data Calculator

12/6/2016

	ID # A	Tissue Sampls (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
			M1	V1	V2	M2		
0-1	MB 161206B17	1.00	1	1	1.8623	1.8625	0.0002	0.02%
1	16-11-2442-1	0.22	1	1	1.9024	1.9064	0.0040	1.82%
2	16-11-2442-2	0.13	1	1	1.9185	1.9228	0.0043	3.31%
3	16-11-2442-3	0.30	1	1	1.9038	1.9139	0.0101	3.37%
4	16-11-2442-4	0.42	1	1	1.8941	1.9123	0.0182	4.33%
5	16-11-2443-1	1.02	1	1	1.9010	1.9758	0.0748	7.33%
6	16-11-2443-2	1.02	1	1	1.9041	1.9277	0.0236	2.31%
7	16-11-2443-3	1.00	1	1	1.8979	1.9270	0.0291	2.91%
8	16-11-2443-4	1.00	1	1	1.8948	2.0644	0.1696	16.96%
9	16-11-2443-5	1.02	1	1	1.9010	1.9133	0.0123	1.21%
10	16-11-2443-6	1.02	1	1	1.9041	1.9202	0.0161	1.58%
11	16-11-2443-7	1.01	1	1	1.8897	1.9075	0.0178	1.76%
12	16-11-2445-2	1.14	1	1	1.8868	1.9138	0.0270	2.37%
13	16-11-2445-3	0.82	1	1	1.9092	1.9215	0.0123	1.50%
14	16-11-2445-4	1.18	1	1	1.9021	1.9288	0.0267	2.26%
15	16-11-2445-5	1.14	1	1	1.8903	1.9140	0.0237	2.08%
16	16-11-2445-6	1.88	1	1	1.9088	1.9365	0.0277	1.47%
17	16-11-2445-7	1.49	1	1	1.8922	1.9318	0.0396	2.66%
18	16-11-2445-8	1.70	1	1	1.9115	1.9223	0.0108	0.64%
19	16-11-2445-9	1.08	1	1	1.9123	1.9272	0.0149	1.38%
20	16-11-2445-10	1.73	1	1	1.8902	1.9176	0.0274	1.58%
Dup-1	D 16-11-2443-1	1.02	1	1	1.8863	1.9581	0.0718	7.04%
L-3	LCS-161206L17	0.12	1	1	1.8869	1.9998	0.1129	94.1%

Samples ID#	Lipid Content (%)	RPD
16-11-2443-1	7.33%	-4%
161206D17		
Dup 16-11-2443-1	7.04%	



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	4) Sand 507-19-19	1) Filter 507-41-04	
2) C <sub>6</sub> H <sub>14</sub> -			
3) Na <sub>2</sub> SO <sub>4</sub> -			

MATRIX	BATCH NUMBER	COMMENTS		
Tissue	MB: 161206 B17			
	Sample Duplicate: 161206 D17			
CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2443-1A	7.33	4	0-10	
Duplicate 16-11-2443-1A	7.04			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/06/16	MB	1.00	34	1	1	1.8623	1.8625	0.0002	0.02	684	
	16-11-2442-1A	0.22				1.9024	1.9064	0.0040	1.82		
	-2	0.13				1.9185	1.9228	0.0043	3.31		
	-3	0.30				1.9038	1.9139	0.0101	3.37		
	-4 A	0.42				1.8941	1.9123	0.0182	4.33		
	16-11-2443-1A	1.02				1.9010	1.9758	0.0748	7.33		
	-2	1.02				1.9041	1.9277	0.0236	2.31		
	-3	1.00				1.8979	1.9270	0.0291	2.91		
	-4	1.00				1.8948	2.0644	0.1696	16.96		
	-5	1.02				1.9010	1.9133	0.0123	1.21		
	-6	1.02				1.9041	1.9202	0.0161	1.58		
	-7 A	1.01				1.8897	1.9075	0.0178	1.76		
	16-11-2445-2A	1.14				1.8868	1.9138	0.0270	2.37		
	-3	0.82				1.9092	1.9215	0.0123	1.50		
	-4	1.18				1.9021	1.9288	0.0267	2.26		
	-5	1.14				1.8903	1.9140	0.0237	2.08		
	-6	1.88				1.9088	1.9365	0.0277	1.47		
	-7	1.49				1.8922	1.9318	0.0396	2.66		
	-8	1.70				1.9115	1.9223	0.0108	0.64		
	-9	1.08				1.9123	1.9272	0.0149	1.38		
	-10 A	1.73				1.8902	1.9176	0.0274	1.58		
	Duplicate 16-11-2443-1A	1.02				1.8863	1.9581	0.0718	7.04		

Page 311 of 311

Page 47 of 47



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall  
Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BO-04_100316_MUM_WB_01	1610145-01	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_02	1610145-02	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_03	1610145-03	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_04	1610145-04	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_05	1610145-05	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_06	1610145-06	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_07	1610145-07	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_08	1610145-08	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_09	1610145-09	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_10	1610145-10	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_11	1610145-11	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_12	1610145-12	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_13	1610145-13	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_14	1610145-14	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_15	1610145-15	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_16	1610145-16	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_17	1610145-17	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_18	1610145-18	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_19	1610145-19	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
BO-04_100316_MUM_WB_20	1610145-20	Tissue	03-Oct-16 10:35	05-Oct-16 09:30
MMMC-01_092316_MUM_WB_01	1610145-21	Tissue	23-Sep-16 11:30	05-Oct-16 09:30
MMMC-01_092316_MUM_WB_02	1610145-22	Tissue	23-Sep-16 11:30	05-Oct-16 09:30
MMMC-01_092316_MUM_WB_03	1610145-23	Tissue	23-Sep-16 15:49	05-Oct-16 09:30
MMMC-01_092316_MUM_WB_04	1610145-24	Tissue	23-Sep-16 16:00	05-Oct-16 09:30
OB-01_092516_MUM_WB_01	1610145-25	Tissue	25-Sep-16 13:00	05-Oct-16 09:30
OB-05_092516_MUM_WB_01	1610145-26	Tissue	25-Sep-16 11:30	05-Oct-16 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  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-05_092516_MUM_WB_02	1610145-27	Tissue	25-Sep-16 11:30	05-Oct-16 09:30
OB-05_092516_MUM_WB_03	1610145-28	Tissue	25-Sep-16 11:30	05-Oct-16 09:30
OB-05_092516_MUM_WB_04	1610145-29	Tissue	25-Sep-16 11:30	05-Oct-16 09:30
OB-05_092516_MUM_WB_05	1610145-30	Tissue	25-Sep-16 11:30	05-Oct-16 09:30
OB-05_092516_MUM_WB_06	1610145-31	Tissue	25-Sep-16 11:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_07	1610145-32	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_08	1610145-33	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_09	1610145-34	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_10	1610145-35	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_11	1610145-36	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_12	1610145-37	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_13	1610145-38	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_14	1610145-39	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_15	1610145-40	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_16	1610145-41	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_17	1610145-42	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_18	1610145-43	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_19	1610145-44	Tissue	03-Oct-16 09:30	05-Oct-16 09:30
OB-05_100316_MUM_WB_20	1610145-45	Tissue	03-Oct-16 09:30	05-Oct-16 09:30

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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.

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:45

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/20/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -46.1 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 1631B.

## ANALYTICAL AND QUALITY CONTROL ISSUES

Samples were prepped in 3 batches; F610469, F610470, and F610471. The following samples were used as the source for the batch QC. For F610469, samples 1610145-01 and 1610145-16 were used as the QC source. For F610470, samples 1610145-21 and 1610145-30 were used as the QC source. For F610471, sample 1610145-45 was used as the QC source.

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

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

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike

---

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

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: 1610145

Client: AMEC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/5/16 Labeled By: RF

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

Received By: LMM

Label Verified By: CSF

# of Coolers Received: 3

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>-6.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LMM</u>
Cooler 1: <u>-46 °C</u>	w/CF: <u>-46.1 °C</u>	Cooler 4: °C	w/CF: °C
Cooler 2: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	Cooler 5: °C	w/CF: °C
Cooler 3: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	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):

1: 8756 4740 9231 2: 7842 6248 7980 3: 7842 6248 7991

1610145

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
553	9/26/2016	15:00	ES-FP_092616_BLM_WB_16	FS	1	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
554	9/26/2016	15:00	ES-FP_092616_BLM_WB_17	FS	1	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
555	9/26/2016	15:00	ES-FP_092616_BLM_WB_18	FS	1	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
556	9/26/2016	15:00	ES-FP_092616_BLM_WB_19	FS	1	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
557	9/26/2016	15:00	ES-FP_092616_BLM_WB_20	FS	1	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
WB 01 #538	558	9/26/2016	ES-FP_092616_BLM_WB_MS_	MS	1	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
	559	9/26/2016	ES-FP_092616_BLM_WB_MD_	MSD	1	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
	692	10/3/2016	10:35	BO-04_100316_MUM_WB_01	FS	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
			use for MS/MSD								
	693	10/3/2016	10:35	BO-04_100316_MUM_WB_02	FS	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
	694	10/3/2016	10:35	BO-04_100316_MUM_WB_03	FS	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
	695	10/3/2016	10:35	BO-04_100316_MUM_WB_04	FS	1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

Homogenize w/ MS/MSD volume

Tuesday, October 04, 2016

Page 15 of 30

DMK  
10/6/16

See 1  
-46.1°C, -47.1°C, -47.1°C  
Fol 8756 4740 9231

Las M Hef  
EFES  
10/5/16 9:30

1610145

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media Method</i>	<i>Fraction</i>
696	10/3/2016	10:35	BO-04_100316_MUM_WB_05		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
697	10/3/2016	10:35	BO-04_100316_MUM_WB_06		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
698	10/3/2016	10:35	BO-04_100316_MUM_WB_07		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
699	10/3/2016	10:35	BO-04_100316_MUM_WB_08		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
700	10/3/2016	10:35	BO-04_100316_MUM_WB_09		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
701	10/3/2016	10:35	BO-04_100316_MUM_WB_10		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
702	10/3/2016	10:35	BO-04_100316_MUM_WB_11		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
703	10/3/2016	10:35	BO-04_100316_MUM_WB_12		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
704	10/3/2016	10:35	BO-04_100316_MUM_WB_13		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
705	10/3/2016	10:35	BO-04_100316_MUM_WB_14		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
706	10/3/2016	10:35	BO-04_100316_MUM_WB_15		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 16 of 30

1610145

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
707	10/3/2016	10:35	BO-04_100316_MUM_WB_16		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
708	10/3/2016	10:35	BO-04_100316_MUM_WB_17		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
709	10/3/2016	10:35	BO-04_100316_MUM_WB_18		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
710	10/3/2016	10:35	BO-04_100316_MUM_WB_19		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
711	10/3/2016	10:35	BO-04_100316_MUM_WB_20		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
WB-01 #692	712	10/3/2016	10:35	BO-04_100316_MUM_WB_MS__		1				
				MS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
	713	10/3/2016	10:35	BO-04_100316_MUM_WB_MD__		1				
				MSD		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
714	9/23/2016	11:30	MMMC-01_092316_MUM_WB_01		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
715	9/23/2016	11:30	MMMC-01_092316_MUM_WB_02		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
716	9/23/2016	15:49	MMMC-01_092316_MUM_WB_03		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
717	9/23/2016	16:00	MMMC-01_092316_MUM_WB_04		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 17 of 30

DMK  
10/6/16



1610145

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media Method</i>	<i>Fraction</i>
736	9/25/2016	13:00	OB-01_092516_MUM_WB_01		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
758	9/25/2016	11:30	OB-05_092516_MUM_WB_01		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
759	9/25/2016	11:30	OB-05_092516_MUM_WB_02		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
760	9/25/2016	11:30	OB-05_092516_MUM_WB_03		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
761	9/25/2016	11:30	OB-05_092516_MUM_WB_04		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
762	9/25/2016	11:30	OB-05_092516_MUM_WB_05		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
763	9/25/2016	11:30	OB-05_092516_MUM_WB_06		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
764	10/3/2016	9:30	OB-05_100316_MUM_WB_07		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
765	10/3/2016	9:30	OB-05_100316_MUM_WB_08		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
766	10/3/2016	9:30	OB-05_100316_MUM_WB_09		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
767	10/3/2016	9:30	OB-05_100316_MUM_WB_10		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 18 of 30

1610145

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
768	10/3/2016	9:30	OB-05_100316_MUM_WB_11		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
769	10/3/2016	9:30	OB-05_100316_MUM_WB_12		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
770	10/3/2016	9:30	OB-05_100316_MUM_WB_13		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
771	10/3/2016	9:30	OB-05_100316_MUM_WB_14		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
772	10/3/2016	9:30	OB-05_100316_MUM_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
773	10/3/2016	9:30	OB-05_100316_MUM_WB_16		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
774	10/3/2016	9:30	OB-05_100316_MUM_WB_17		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
775	10/3/2016	9:30	OB-05_100316_MUM_WB_18		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
776	10/3/2016	9:30	OB-05_100316_MUM_WB_19		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
777	10/3/2016	9:30	OB-05_100316_MUM_WB_20		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
778	10/3/2016	9:30	OB-05_100316_MUM_WB_MS_		1						
				MS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

use for MS/MSD

WB-20  
777

Homogenize w/ MS/MSD

Tuesday, October 04, 2016

Page 19 of 30

D4K  
10/6/16

1610145

QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
MSD	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
ES	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
MS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
MS/MSD	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

WB-20  
#777

Need  
5 samples  
run plus  
an MS/MSD

use for MS/MSD

ES

MS/MSD

use for MS/MSD

Homogenize  
w/ MS/MSD  
volume if  
present

Tuesday, October 04, 2016

Page 20 of 30

DMK  
10/6/10

1610145

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
--------	-------------	-------------	-----------------	---------	-----------	----------	--------------------------	--------------	--------------	----------

QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: J. Desjarlais IANDESJARLAIS Date: 10 / 04 / 16 Time: 16:00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FOOD EX TRACKING: 8756 47 40 9231

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_01**  
**1610145-01**

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

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

Mercury	234	0.395	3.52	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	
---------	-----	-------	------	------	-----	---------	-----------	---------	-----------	-----------	--



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_02**  
**1610145-02**

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	57.7	0.389	3.48	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_03**  
**1610145-03**

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	146	0.424	3.79	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_04**  
**1610145-04**

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	67.3	0.406	3.63	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_05**  
**1610145-05**

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	214	0.415	3.70	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_06**  
**1610145-06**

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	76.0	0.395	3.53	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_07**  
**1610145-07**

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	76.0	0.392	3.50	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_08**  
**1610145-08**

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	75.0	0.389	3.47	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_09**  
**1610145-09**

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	60.6	0.394	3.51	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	<b>Reported:</b> 14-Jan-17 12:45
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**BO-04\_100316\_MUM\_WB\_10**  
**1610145-10**

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	52.4	0.393	3.51	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_11**  
**1610145-11**

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	94.3	0.408	3.65	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_12**  
**1610145-12**

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	200	0.422	3.76	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_13**  
**1610145-13**

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	55.0	0.395	3.52	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_14**  
**1610145-14**

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	66.7	0.396	3.53	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_15**  
**1610145-15**

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	58.1	0.364	3.25	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	



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14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_16**  
**1610145-16**

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	61.7	0.355	3.17	ng/g	100	F610469	03-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_17**  
**1610145-17**

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	108	1.89	16.8	ng/g	500	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_18**  
**1610145-18**

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	85.9	2.10	18.8	ng/g	500	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**BO-04\_100316\_MUM\_WB\_19**  
**1610145-19**

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	59.3	2.04	18.2	ng/g	500	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
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**BO-04\_100316\_MUM\_WB\_20**  
**1610145-20**

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	63.9	1.89	16.9	ng/g	500	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**MMMC-01\_092316\_MUM\_WB\_01**  
**1610145-21**

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	177	0.376	3.36	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**MMMC-01\_092316\_MUM\_WB\_02**  
**1610145-22**

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	249	0.378	3.38	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**MMMC-01\_092316\_MUM\_WB\_03**  
**1610145-23**

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	140	0.401	3.58	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**MMMC-01\_092316\_MUM\_WB\_04**  
**1610145-24**

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	121	0.414	3.69	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-01\_092516\_MUM\_WB\_01**  
**1610145-25**

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	134	0.376	3.36	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_092516\_MUM\_WB\_01**  
**1610145-26**

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	111	0.363	3.24	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_092516\_MUM\_WB\_02**  
**1610145-27**

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	125	0.392	3.50	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_092516\_MUM\_WB\_03**  
**1610145-28**

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	113	0.391	3.49	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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**OB-05\_092516\_MUM\_WB\_04**  
**1610145-29**

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	82.1	0.389	3.47	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

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**OB-05\_092516\_MUM\_WB\_05**  
**1610145-30**

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	96.1	0.395	3.53	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_092516\_MUM\_WB\_06**  
**1610145-31**

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	114	0.436	3.89	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_07**  
**1610145-32**

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	106	0.390	3.48	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_08**  
**1610145-33**

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	0.407	3.64	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_09**  
**1610145-34**

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	83.4	0.378	3.38	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_10**  
**1610145-35**

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	0.365	3.26	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_11**  
**1610145-36**

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	88.2	0.413	3.69	ng/g	100	F610470	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_12**  
**1610145-37**

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	69.4	0.408	3.64	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_13**  
**1610145-38**

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	98.5	0.432	3.86	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_14**  
**1610145-39**

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	71.3	0.424	3.79	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_15**  
**1610145-40**

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	48.9	0.403	3.60	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_16**  
**1610145-41**

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	89.9	0.413	3.69	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_17**  
**1610145-42**

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	71.6	0.422	3.77	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_18**  
**1610145-43**

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	66.2	0.394	3.52	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_19**  
**1610145-44**

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	95.8	0.427	3.81	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

**OB-05\_100316\_MUM\_WB\_20**  
**1610145-45**

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	87.6	0.423	3.77	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K07013 - F610469</b>											
<b>Cal Standard (6K07013-CAL1)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	0.506	-		ng/L	0.50100		101				
<b>Cal Standard (6K07013-CAL2)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	1.019	-		ng/L	1.0020		102				
<b>Cal Standard (6K07013-CAL3)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	5.077	-		ng/L	5.0100		101				
<b>Cal Standard (6K07013-CAL4)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	19.55	-		ng/L	20.040		97.6				
<b>Cal Standard (6K07013-CAL5)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	39.01	-		ng/L	40.080		97.3				
<b>Calibration Blank (6K07013-CCB1)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	0.038	-		ng/L							
<b>Calibration Blank (6K07013-CCB2)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	0.053	-		ng/L							
<b>Calibration Blank (6K07013-CCB3)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	0.063	-		ng/L							
<b>Calibration Blank (6K07013-CCB4)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	0.034	-		ng/L							
<b>Calibration Blank (6K07013-CCB5)</b>					Prepared & Analyzed: 07-Nov-16						
Mercury	0.040	-		ng/L							

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K07013 - F610469</b>											
<b>Calibration Blank (6K07013-CCB6)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.082	-		ng/L							
<b>Calibration Blank (6K07013-CCB7)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.073	-		ng/L							
<b>Calibration Blank (6K07013-CCB8)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.112	-		ng/L							
<b>Calibration Blank (6K07013-CCB9)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.093	-		ng/L							
<b>Calibration Blank (6K07013-CCBA)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.112	-		ng/L							
<b>Calibration Check (6K07013-CCV1)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	4.980	-		ng/L	5.0000		99.6	77-123			
<b>Calibration Check (6K07013-CCV2)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	4.668	-		ng/L	5.0000		93.4	77-123			
<b>Calibration Check (6K07013-CCV3)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	4.727	-		ng/L	5.0000		94.5	77-123			
<b>Calibration Check (6K07013-CCV4)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	4.617	-		ng/L	5.0000		92.3	77-123			
<b>Calibration Check (6K07013-CCV5)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	4.790	-		ng/L	5.0000		95.8	77-123			

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

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 6K07013 - F610469

Calibration Check (6K07013-CCV6) Prepared & Analyzed: 07-Nov-16

Mercury	4.741	-		ng/L	5.0000		94.8	77-123			
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Calibration Check (6K07013-CCV7) Prepared & Analyzed: 07-Nov-16

Mercury	4.857	-		ng/L	5.0000		97.1	77-123			
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Calibration Check (6K07013-CCV8) Prepared & Analyzed: 07-Nov-16

Mercury	4.916	-		ng/L	5.0000		98.3	77-123			
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Calibration Check (6K07013-CCV9) Prepared & Analyzed: 07-Nov-16

Mercury	4.887	-		ng/L	5.0000		97.7	77-123			
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Calibration Check (6K07013-CCVA) Prepared & Analyzed: 07-Nov-16

Mercury	4.679	-		ng/L	5.0000		93.6	77-123			
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Instrument Blank (6K07013-IBL1) Prepared & Analyzed: 07-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K07013-IBL2) Prepared & Analyzed: 07-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K07013-IBL3) Prepared & Analyzed: 07-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (6K07013-ICV1) Prepared & Analyzed: 07-Nov-16

Mercury	4.716	-		ng/L	5.0000		94.3	77-123			
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Batch 6K09002 - F610470

Cal Standard (6K09002-CAL1) Prepared: 08-Nov-16 Analyzed: 09-Nov-16

Mercury	0.495	-		ng/L	0.50100		98.8				
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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

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 6K09002 - F610470

<b>Cal Standard (6K09002-CAL2)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	1.008	-		ng/L	1.0020		101				
<b>Cal Standard (6K09002-CAL3)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	5.075	-		ng/L	5.0100		101				
<b>Cal Standard (6K09002-CAL4)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	19.99	-		ng/L	20.040		99.8				
<b>Cal Standard (6K09002-CAL5)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	39.48	-		ng/L	40.080		98.5				
<b>Calibration Blank (6K09002-CCB1)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	0.080	-		ng/L							
<b>Calibration Blank (6K09002-CCB2)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	0.210	-		ng/L							
<b>Calibration Blank (6K09002-CCB3)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	0.228	-		ng/L							
<b>Calibration Blank (6K09002-CCB4)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	0.167	-		ng/L							
<b>Calibration Blank (6K09002-CCB5)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	0.127	-		ng/L							
<b>Calibration Blank (6K09002-CCB6)</b>						Prepared: 08-Nov-16 Analyzed: 09-Nov-16					
Mercury	0.345	-		ng/L							

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Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K09002 - F610470</b>											
<b>Calibration Blank (6K09002-CCB7)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.182	-		ng/L							
<b>Calibration Check (6K09002-CCV1)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.539	-		ng/L	5.0000		90.8	77-123			
<b>Calibration Check (6K09002-CCV2)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.826	-		ng/L	5.0000		96.5	77-123			
<b>Calibration Check (6K09002-CCV3)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	5.008	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (6K09002-CCV4)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.958	-		ng/L	5.0000		99.2	77-123			
<b>Calibration Check (6K09002-CCV5)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.753	-		ng/L	5.0000		95.1	77-123			
<b>Calibration Check (6K09002-CCV6)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.887	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (6K09002-CCV7)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.577	-		ng/L	5.0000		91.5	77-123			
<b>Instrument Blank (6K09002-IBL1)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K09002-IBL2)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	ND	0.004	0.040	ng/L							U

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K09002 - F610470</b>											
<b>Instrument Blank (6K09002-IBL3)</b>											
					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K09002-ICV1)</b>											
					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	4.765	-		ng/L	5.0000		95.3	77-123			
<b>Batch F610469 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610469-BLK1)</b>											
					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	0.167	0.090	0.800	ng/g							J
<b>Blank (F610469-BLK2)</b>											
					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	0.119	0.090	0.800	ng/g							J
<b>Blank (F610469-BLK3)</b>											
					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	ND	0.090	0.800	ng/g							U
<b>LCS (F610469-BS1)</b>											
					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	7.921	0.090	0.800	ng/g	8.0160		98.8	75-125			
<b>LCS (F610469-BS2)</b>											
					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	325.4	4.44	39.7	ng/g	382.50		85.1	75-125			
<b>LCS Dup (F610469-BSD1)</b>											
					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	7.994	0.090	0.800	ng/g	8.0160		99.7	75-125	0.913	24	
<b>Duplicate (F610469-DUP1)</b>											
					Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	211.9	0.421	3.76	ng/g		234.1			9.96	24	

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Amy Goodall, Project Manager

AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:45
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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 F610469 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike (F610469-MS1)</b>		<b>Source: 1610145-01</b>			Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	491.3	1.97	17.6	ng/g	351.49	234.1	73.2	71-125			
<b>Matrix Spike (F610469-MS2)</b>		<b>Source: 1610145-16</b>			Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	399.7	2.02	18.1	ng/g	361.40	61.74	93.5	71-125			
<b>Matrix Spike Dup (F610469-MSD1)</b>		<b>Source: 1610145-01</b>			Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	518.1	1.90	17.0	ng/g	339.67	234.1	83.6	71-125	13.3	24	
<b>Matrix Spike Dup (F610469-MSD2)</b>		<b>Source: 1610145-16</b>			Prepared: 03-Nov-16 Analyzed: 07-Nov-16						
Mercury	402.4	2.03	18.1	ng/g	362.84	61.74	93.9	71-125	0.380	24	

**Batch F610470 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610470-BLK1)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.557	0.090	0.800	ng/g							J
<b>Blank (F610470-BLK2)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.265	0.090	0.800	ng/g							J
<b>Blank (F610470-BLK3)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.184	0.090	0.800	ng/g							J
<b>LCS (F610470-BS1)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	8.171	0.090	0.800	ng/g	8.0160		102	75-125			
<b>LCS (F610470-BS2)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	338.3	4.46	39.8	ng/g	383.41		88.2	75-125			

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

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 F610470 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>LCS Dup (F610470-BSD1)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	7.819	0.090	0.800	ng/g	8.0160		97.5	75-125	4.41	24	
<b>Duplicate (F610470-DUP1)</b>					Source: 1610145-21 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	219.7	0.408	3.65	ng/g		177.5			21.3	24	
<b>Matrix Spike (F610470-MS1)</b>					Source: 1610145-21 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	583.9	2.11	18.8	ng/g	376.65	177.5	108	71-125			
<b>Matrix Spike (F610470-MS2)</b>					Source: 1610145-30 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	424.0	2.01	18.0	ng/g	359.20	96.13	91.3	71-125			
<b>Matrix Spike Dup (F610470-MSD1)</b>					Source: 1610145-21 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	567.2	1.95	17.4	ng/g	348.55	177.5	112	71-125	3.55	24	
<b>Matrix Spike Dup (F610470-MSD2)</b>					Source: 1610145-30 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	455.3	2.05	18.3	ng/g	366.43	96.13	98.0	71-125	7.11	24	

Batch F610471 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F610471-BLK1)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.430	0.090	0.800	ng/g							J
<b>Blank (F610471-BLK2)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.256	0.090	0.800	ng/g							J
<b>Blank (F610471-BLK3)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.217	0.090	0.800	ng/g							J

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:45

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610471 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>LCS (F610471-BS1)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	7.644	0.090	0.800	ng/g	8.0160		95.4	75-125			
<b>LCS (F610471-BS2)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	331.9	4.47	39.9	ng/g	381.58		87.0	75-125			
<b>LCS Dup (F610471-BSD1)</b>					Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	7.858	0.090	0.800	ng/g	8.0160		98.0	75-125	2.76	24	
<b>Duplicate (F610471-DUP1)</b>					Source: 1610145-44 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	108.6	0.442	3.95	ng/g		95.80			12.5	24	
<b>Matrix Spike (F610471-MS1)</b>					Source: 1610145-45 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	495.7	2.18	19.5	ng/g	389.86	87.60	105	71-125			
<b>Matrix Spike (F610471-MS2)</b>					Source: 1610231-01 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	328.0	1.72	15.3	ng/g	306.65	20.78	100	71-125			
<b>Matrix Spike Dup (F610471-MSD1)</b>					Source: 1610145-45 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	481.5	2.17	19.4	ng/g	387.60	87.60	102	71-125	2.95	24	
<b>Matrix Spike Dup (F610471-MSD2)</b>					Source: 1610231-01 Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	303.6	1.71	15.3	ng/g	305.44	20.78	92.6	71-125	7.87	24	

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:45

### 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.
- 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

THg26003-161107-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 07, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K07013

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	61.22 units	122.44	58.22 units	116.44	101.3 %Rec
SEQ-CAL2	1	1.00 ng/L	120.14 units	120.14	117.14 units	117.14	101.9 %Rec
SEQ-CAL3	1	5.00 ng/L	586.62 units	117.32	583.62 units	116.72	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2250.41 units	112.52	2247.41 units	112.37	97.7 %Rec
SEQ-CAL5	1	40.00 ng/L	4487.45 units	112.19	4484.45 units	112.11	97.5 %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>				
114.96	+/- 2.50	2.2% RSD	116.92				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.00 units	±1.25	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.164 ng/L	±0.397
BLK	2	3	1.527 ng/L	±0.320
BLK	3	3	1.499 ng/L	±0.580
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:        11/7/16

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	11/7/2016 7:29:11	55014-1.RAW	7:29:11 AM	3.84			0.8	0.007	0.007	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/7/2016 7:33:19	55015-1.RAW	7:33:19 AM	3.59			0.6	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/7/2016 7:37:28	55016-1.RAW	7:37:28 AM	1.56			-1.4	-0.013	-0.013	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/7/2016 7:41:36	55017-1.RAW	7:41:36 AM	61.22			58.2	0.506	0.506	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/7/2016 7:45:45	55018-1.RAW	7:45:45 AM	120.14			117.1	1.019	1.019	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/7/2016 7:49:53	55019-1.RAW	7:49:53 AM	586.62			583.6	5.077	5.077	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/7/2016 7:54:01	55020-1.RAW	7:54:01 AM	2250.41			2247.4	19.550	19.550	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/7/2016 7:58:10	55021-1.RAW	7:58:10 AM	4487.45			4484.5	39.009	39.009	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	11/7/2016 8:02:18	55022-1.RAW	8:02:18 AM	545.13			542.1	4.716	4.716	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK1	20	11/7/2016 8:06:27	55023-1.RAW	8:06:27 AM	12.32	1		9.3	0.081	1.622	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK2	20	11/7/2016 8:10:35	55024-1.RAW	8:10:35 AM	8.25	1		5.3	0.046	0.914	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK3	20	11/7/2016 8:14:43	55025-1.RAW	8:14:43 AM	8.49	1		5.5	0.048	0.955	ng/L	
Hg2600-3	DM2	SAM	F610491-BS1	20	11/7/2016 8:18:52	55026-1.RAW	8:18:52 AM	585.05	1		582.1	5.005	100.099	ng/L	
Hg2600-3	DM2	SAM	F610491-BSD1	20	11/7/2016 8:23:00	55027-1.RAW	8:23:00 AM	572.53	1		569.5	4.896	97.920	ng/L	
Hg2600-3	DM2	SAM	F610491-BS2	500	11/7/2016 8:27:09	55028-1.RAW	8:27:09 AM	464.98	1		462.0	4.016	2008.154	ng/L	
Hg2600-3	DM2	SAM	1610232-02	500	11/7/2016 8:31:17	55029-1.RAW	8:31:17 AM	293.66	1		290.7	2.526	1263.033	ng/L	
Hg2600-3	DM2	SAM	1610232-08	500	11/7/2016 8:35:26	55030-1.RAW	8:35:26 AM	111.76	1		108.8	0.944	471.875	ng/L	
Hg2600-3	DM2	SAM	1610232-09	500	11/7/2016 8:39:34	55031-1.RAW	8:39:34 AM	344.87	1		341.9	2.972	1485.757	ng/L	
Hg2600-3	DM2	SAM	1610232-10	500	11/7/2016 8:43:42	55032-1.RAW	8:43:42 AM	242.00	1		239.0	2.077	1038.351	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/7/2016 8:47:51	55033-1.RAW	8:47:51 AM	575.46			572.5	4.980	4.980	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/7/2016 8:51:59	55034-1.RAW	8:51:59 AM	7.33			4.3	0.038	0.038	ng/L	
Hg2600-3	DM2	SAM	1610232-08RE1	100	11/7/2016 8:56:08	55035-1.RAW	8:56:08 AM	534.21	1		531.2	4.609	460.924	ng/L	
Hg2600-3	DM2	SAM	1610232-11	100	11/7/2016 9:00:16	55036-1.RAW	9:00:16 AM	535.68	1		532.7	4.622	462.208	ng/L	
Hg2600-3	DM2	SAM	1610232-12	100	11/7/2016 9:04:24	55037-1.RAW	9:04:24 AM	1137.07	1		1134.1	9.853	985.337	ng/L	
Hg2600-3	DM2	SAM	1610232-13	100	11/7/2016 9:08:33	55038-1.RAW	9:08:33 AM	898.57	1		895.6	7.779	777.874	ng/L	
Hg2600-3	DM2	SAM	1610232-14	100	11/7/2016 9:12:41	55039-1.RAW	9:12:41 AM	942.94	1		939.9	8.165	816.473	ng/L	
Hg2600-3	DM2	SAM	1610232-15	100	11/7/2016 9:16:50	55040-1.RAW	9:16:50 AM	489.47	1		486.5	4.220	422.005	ng/L	
Hg2600-3	DM2	SAM	1610232-16	100	11/7/2016 9:20:58	55041-1.RAW	9:20:58 AM	1058.50	1		1055.5	9.170	916.995	ng/L	
Hg2600-3	DM2	SAM	1610232-17	100	11/7/2016 9:25:06	55042-1.RAW	9:25:06 AM	995.14	1		992.1	8.619	861.875	ng/L	
Hg2600-3	DM2	SAM	1610232-18	100	11/7/2016 9:29:15	55043-1.RAW	9:29:15 AM	694.03	1		691.0	5.999	599.947	ng/L	
Hg2600-3	DM2	SAM	1610232-19	100	11/7/2016 9:33:23	55044-1.RAW	9:33:23 AM	438.31	1		435.3	3.775	377.505	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/7/2016 9:37:32	55045-1.RAW	9:37:32 AM	539.58			536.6	4.668	4.668	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/7/2016 9:41:40	55046-1.RAW	9:41:40 AM	9.13			6.1	0.053	0.053	ng/L	
Hg2600-3	DM2	SAM	1610232-20	100	11/7/2016 9:45:49	55047-1.RAW	9:45:49 AM	568.04	1		565.0	4.904	490.351	ng/L	
Hg2600-3	DM2	SAM	1610232-21	100	11/7/2016 9:49:57	55048-1.RAW	9:49:57 AM	623.92	1		620.9	5.390	538.963	ng/L	
Hg2600-3	DM2	SAM	1610232-22	100	11/7/2016 9:54:05	55049-1.RAW	9:54:05 AM	690.63	1		687.6	5.970	596.995	ng/L	
Hg2600-3	DM2	SAM	1610232-23	100	11/7/2016 9:58:14	55050-1.RAW	9:58:14 AM	940.63	1		937.6	8.145	814.461	ng/L	
Hg2600-3	DM2	SAM	1610232-24	100	11/7/2016 10:02:22	55051-1.RAW	10:02:22 AM	912.88	1		909.9	7.903	790.325	ng/L	
Hg2600-3	DM2	SAM	1610232-25	100	11/7/2016 10:06:31	55052-1.RAW	10:06:31 AM	845.88	1		842.9	7.320	732.037	ng/L	
Hg2600-3	DM2	SAM	1610232-26	100	11/7/2016 10:10:39	55053-1.RAW	10:10:39 AM	1303.75	1		1300.8	11.303	1130.333	ng/L	
Hg2600-3	DM2	SAM	F610491-DUP1	500	11/7/2016 10:14:48	55054-1.RAW	10:14:48 AM	368.81	1		365.8	3.180	1589.912	ng/L	
Hg2600-3	DM2	SAM	F610491-MS1	500	11/7/2016 10:18:56	55055-1.RAW	10:18:56 AM	1361.21	1		1358.2	11.812	5906.216	ng/L	
Hg2600-3	DM2	SAM	F610491-MSD1	500	11/7/2016 10:23:04	55056-1.RAW	10:23:04 AM	1427.17	1		1424.2	12.386	6193.088	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/7/2016 10:27:13	55057-1.RAW	10:27:13 AM	546.38			543.4	4.727	4.727	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/7/2016 10:31:21	55058-1.RAW	10:31:21 AM	10.27			7.3	0.063	0.063	ng/L	
Hg2600-3	DM2	SAM	F610491-MS2	500	11/7/2016 10:35:30	55059-1.RAW	10:35:30 AM	1191.23	1		1188.2	10.334	5166.909	ng/L	
Hg2600-3	DM2	SAM	F610491-MSD2	500	11/7/2016 10:39:38	55060-1.RAW	10:39:38 AM	1245.09	1		1242.1	10.802	5401.154	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK1	20	11/7/2016 10:43:46	55061-1.RAW	10:43:46 AM	13.90	2		10.9	0.095	1.896	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK2	20	11/7/2016 10:47:55	55062-1.RAW	10:47:55 AM	10.87	2		7.9	0.068	1.369	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK3	20	11/7/2016 10:52:03	55063-1.RAW	10:52:03 AM	10.57	2		7.6	0.066	1.317	ng/L	
Hg2600-3	DM2	SAM	F610468-BS1	20	11/7/2016 10:56:12	55064-1.RAW	10:56:12 AM	594.92	2		591.9	5.073	101.452	ng/L	
Hg2600-3	DM2	SAM	F610468-BSD1	20	11/7/2016 11:00:20	55065-1.RAW	11:00:20 AM	598.26	2		595.3	5.102	102.034	ng/L	
Hg2600-3	DM2	SAM	F610468-BS2	500	11/7/2016 11:04:29	55066-1.RAW	11:04:29 AM	472.16	2		469.2	4.078	2039.018	ng/L	
Hg2600-3	DM2	SAM	1610144-57	500	11/7/2016 11:08:37	55067-1.RAW	11:08:37 AM	154.51	2		151.5	1.315	657.462	ng/L	
Hg2600-3	DM2	SAM	1610144-58	500	11/7/2016 11:12:45	55068-1.RAW	11:12:45 AM	198.76	2		195.8	1.700	849.932	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/7/2016 11:16:54	55069-1.RAW	11:16:54 AM	533.82			530.8	4.617	4.617	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/7/2016 11:21:02	55070-1.RAW	11:21:02 AM	6.93			3.9	0.034	0.034	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	1610144-59	500	11/7/2016 11:25:11	55071-1.RAW	11:25:11 AM	212.39	2		209.4	1.818	909.178	ng/L	
Hg2600-3	DM2	SAM	1610144-60	500	11/7/2016 11:29:19	55072-1.RAW	11:29:19 AM	177.64	2		174.6	1.516	758.078	ng/L	
Hg2600-3	DM2	SAM	1610144-61	500	11/7/2016 11:33:27	55073-1.RAW	11:33:27 AM	186.24	2		183.2	1.591	795.475	ng/L	
Hg2600-3	DM2	SAM	1610144-62	500	11/7/2016 11:37:36	55074-1.RAW	11:37:36 AM	270.23	2		267.2	2.322	1160.783	ng/L	
Hg2600-3	DM2	SAM	1610144-63	500	11/7/2016 11:41:44	55075-1.RAW	11:41:44 AM	160.99	2		158.0	1.371	685.660	ng/L	
Hg2600-3	DM2	SAM	1610144-64	500	11/7/2016 11:45:53	55076-1.RAW	11:45:53 AM	215.88	2		212.7	1.847	923.498	ng/L	
Hg2600-3	DM2	SAM	1610144-65	500	11/7/2016 11:50:01	55077-1.RAW	11:50:01 AM	127.38	2		124.4	1.079	539.472	ng/L	
Hg2600-3	DM2	SAM	1610144-66	500	11/7/2016 11:54:10	55078-1.RAW	11:54:10 AM	198.79	2		195.8	1.700	850.041	ng/L	
Hg2600-3	DM2	SAM	1610144-67	500	11/7/2016 11:58:18	55079-1.RAW	11:58:18 AM	144.55	2		141.5	1.228	614.127	ng/L	
Hg2600-3	DM2	SAM	1610144-68	500	11/7/2016 12:02:26	55080-1.RAW	12:02:26 PM	269.59	2		266.6	2.316	1157.984	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/7/2016 12:06:35	55081-1.RAW	12:06:35 PM	553.6736327			550.7	4.790	4.790	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/7/2016 12:10:43	55082-1.RAW	12:10:43 PM	7.57			4.6	0.040	0.040	ng/L	
Hg2600-3	DM2	SAM	1610144-69	100	11/7/2016 12:15:36	55083-1.RAW	12:15:36 PM	1893.38	2		1890.4	16.429	1642.869	ng/L	
Hg2600-3	DM2	SAM	1610144-70	100	11/7/2016 12:19:44	55084-1.RAW	12:19:44 PM	1144.23	2		1141.2	9.912	991.203	ng/L	
Hg2600-3	DM2	SAM	1610144-71	100	11/7/2016 12:23:53	55085-1.RAW	12:23:53 PM	1262.90	2		1259.9	10.944	1094.434	ng/L	
Hg2600-3	DM2	SAM	1610144-72	100	11/7/2016 12:28:01	55086-1.RAW	12:28:01 PM	1262.96	2		1260.0	10.945	1094.486	ng/L	
Hg2600-3	DM2	SAM	1610144-73	100	11/7/2016 12:32:10	55087-1.RAW	12:32:10 PM	655.93	2		652.9	5.664	566.444	ng/L	
Hg2600-3	DM2	SAM	1610144-74	100	11/7/2016 12:36:18	55088-1.RAW	12:36:18 PM	856.77	2		853.8	7.412	741.150	ng/L	
Hg2600-3	DM2	SAM	1610144-75	100	11/7/2016 12:40:26	55089-1.RAW	12:40:26 PM	790.65	2		787.6	6.836	683.630	ng/L	
Hg2600-3	DM2	SAM	1610144-76	100	11/7/2016 12:44:35	55090-1.RAW	12:44:35 PM	1005.73	2		1002.7	8.707	870.725	ng/L	
Hg2600-3	DM2	SAM	F610468-DUP1	500	11/7/2016 12:48:43	55091-1.RAW	12:48:43 PM	132.62	2		129.6	1.125	562.251	ng/L	
Hg2600-3	DM2	SAM	F610468-MS1	500	11/7/2016 12:52:52	55092-1.RAW	12:52:52 PM	1180.10	2		1177.1	10.236	5118.118	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/7/2016 12:57:00	55093-1.RAW	12:57:00 PM	547.99			545.0	4.741	4.741	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/7/2016 13:01:09	55094-1.RAW	1:01:09 PM	12.44			9.4	0.082	0.082	ng/L	
Hg2600-3	DM2	SAM	F610468-MSD1	500	11/7/2016 13:05:18	55095-1.RAW	1:05:18 PM	1194.29	2		1191.3	10.360	5179.877	ng/L	
Hg2600-3	DM2	SAM	F610468-MS2	500	11/7/2016 13:09:26	55096-1.RAW	1:09:26 PM	1244.20	2		1241.2	10.794	5396.945	ng/L	
Hg2600-3	DM2	SAM	F610468-MSD2	500	11/7/2016 13:13:35	55097-1.RAW	1:13:35 PM	1333.17	2		1330.2	11.568	5783.918	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK1	20	11/7/2016 13:17:43	55098-1.RAW	1:17:43 PM	14.97	3		12.0	0.104	2.082	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK2	20	11/7/2016 13:21:52	55099-1.RAW	1:21:52 PM	11.58	3		8.6	0.075	1.493	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK3	20	11/7/2016 13:26:00	55100-1.RAW	1:26:00 PM	8.30	3		5.3	0.046	0.923	ng/L	
Hg2600-3	DM2	SAM	F610469-BS1	20	11/7/2016 13:30:09	55101-1.RAW	1:30:09 PM	580.77	3		577.8	4.951	99.018	ng/L	
Hg2600-3	DM2	SAM	F610469-BSD1	20	11/7/2016 13:34:17	55102-1.RAW	1:34:17 PM	585.99	3		583.0	4.996	99.926	ng/L	
Hg2600-3	DM2	SAM	F610469-BS2	500	11/7/2016 13:38:26	55103-1.RAW	1:38:26 PM	474.69	3		471.7	4.100	2050.090	ng/L	
Hg2600-3	DM2	SAM	1610144-77	100	11/7/2016 13:42:34	55104-1.RAW	1:42:34 PM	972.37	3		969.4	8.417	841.734	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/7/2016 13:46:42	55105-1.RAW	1:46:42 PM	561.30			558.3	4.857	4.857	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/7/2016 13:50:51	55106-1.RAW	1:50:51 PM	11.35			8.4	0.073	0.073	ng/L	
Hg2600-3	DM2	SAM	F610468-DUP2	500	11/7/2016 13:54:59	55107-1.RAW	1:54:59 PM	194.90	2		191.9	1.666	833.124	ng/L	
Hg2600-3	DM2	SAM	1610144-78	100	11/7/2016 13:59:08	55108-1.RAW	1:59:08 PM	1066.97	3		1064.0	9.240	924.028	ng/L	
Hg2600-3	DM2	SAM	1610144-79	100	11/7/2016 14:03:16	55109-1.RAW	2:03:16 PM	926.75	3		923.8	8.021	802.051	ng/L	
Hg2600-3	DM2	SAM	1610144-80	100	11/7/2016 14:07:24	55110-1.RAW	2:07:24 PM	963.09	3		960.1	8.337	833.665	ng/L	
Hg2600-3	DM2	SAM	1610145-01	100	11/7/2016 14:11:33	55111-1.RAW	2:11:33 PM	3821.74	3		3818.7	33.203	3320.338	ng/L	
Hg2600-3	DM2	SAM	1610145-02	100	11/7/2016 14:15:41	55112-1.RAW	2:15:41 PM	958.47	3		955.5	8.296	829.644	ng/L	
Hg2600-3	DM2	SAM	1610145-03	100	11/7/2016 14:19:50	55113-1.RAW	2:19:50 PM	2219.11	3		2216.1	19.262	1926.245	ng/L	
Hg2600-3	DM2	SAM	1610145-04	100	11/7/2016 14:23:58	55114-1.RAW	2:23:58 PM	1071.68	3		1068.7	9.281	928.120	ng/L	
Hg2600-3	DM2	SAM	1610145-05	100	11/7/2016 14:28:07	55115-1.RAW	2:28:07 PM	3319.30	3		3316.3	28.833	2883.274	ng/L	
Hg2600-3	DM2	SAM	1610145-06	100	11/7/2016 14:32:15	55116-1.RAW	2:32:15 PM	1243.18	3		1240.2	10.773	1077.304	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/7/2016 14:36:23	55117-1.RAW	2:36:23 PM	568.09			565.1	4.916	4.916	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/7/2016 14:40:32	55118-1.RAW	2:40:32 PM	15.83			12.8	0.112	0.112	ng/L	
Hg2600-3	DM2	SAM	1610145-07	100	11/7/2016 14:44:40	55119-1.RAW	2:44:40 PM	1253.39	3		1250.4	10.862	1086.185	ng/L	
Hg2600-3	DM2	SAM	1610145-08	100	11/7/2016 14:48:49	55120-1.RAW	2:48:49 PM	1247.30	3		1244.3	10.809	1080.885	ng/L	
Hg2600-3	DM2	SAM	1610145-09	100	11/7/2016 14:52:57	55121-1.RAW	2:52:57 PM	996.11	3		993.1	8.624	862.387	ng/L	
Hg2600-3	DM2	SAM	1610145-10	100	11/7/2016 14:57:05	55122-1.RAW	2:57:05 PM	863.12	3		860.1	7.467	746.704	ng/L	
Hg2600-3	DM2	SAM	1610145-11	100	11/7/2016 15:01:14	55123-1.RAW	3:01:14 PM	1491.09	3		1488.1	12.930	1292.957	ng/L	
Hg2600-3	DM2	SAM	1610145-12	100	11/7/2016 15:05:22	55124-1.RAW	3:05:22 PM	3060.48	3		3057.5	26.581	2658.134	ng/L	
Hg2600-3	DM2	SAM	1610145-13	100	11/7/2016 15:09:31	55125-1.RAW	3:09:31 PM	901.49	3		898.5	7.801	780.080	ng/L	
Hg2600-3	DM2	SAM	1610145-14	100	11/7/2016 15:13:39	55126-1.RAW	3:13:39 PM	1089.47	3		1086.5	9.436	943.599	ng/L	
Hg2600-3	DM2	SAM	1610145-15	100	11/7/2016 15:17:47	55127-1.RAW	3:17:47 PM	1032.64	3		1029.6	8.942	894.161	ng/L	
Hg2600-3	DM2	SAM	1610145-16	100	11/7/2016 15:21:56	55128-1.RAW	3:21:56 PM	1124.35	3		1121.4	9.739	973.939	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/7/2016 15:26:04	55129-1.RAW	3:26:04 PM	564.75			561.8	4.887	4.887	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/7/2016 15:30:13	55130-1.RAW	3:30:13 PM	13.71			10.7	0.093	0.093	ng/L	
Hg2600-3	DM2	SAM	F610469-DUP1	100	11/7/2016 15:34:21	55131-1.RAW	3:34:21 PM	3242.77	3		3239.8	28.167	2816.704	ng/L	
Hg2600-3	DM2	SAM	F610469-MS1	500	11/7/2016 15:38:30	55132-1.RAW	3:38:30 PM	1610.20	3		1607.2	13.978	6988.854	ng/L	
Hg2600-3	DM2	SAM	F610469-MSD1	500	11/7/2016 15:42:38	55133-1.RAW	3:42:38 PM	1756.93	3		1753.9	15.254	7627.018	ng/L	
Hg2600-3	DM2	SAM	F610469-MS2	500	11/7/2016 15:46:46	55134-1.RAW	3:46:46 PM	1274.90	3		1271.9	11.061	5530.489	ng/L	
Hg2600-3	DM2	SAM	F610469-MSD2	500	11/7/2016 15:50:55	55135-1.RAW	3:50:55 PM	1278.22	3		1275.2	11.090	5544.912	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	CAL	SEQ-CCVA	1	11/7/2016 15:55:03	55136-1.RAW	3:55:03 PM	540.91			537.9	4.679	4.679	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/7/2016 15:59:12	55137-1.RAW	3:59:12 PM	15.88			12.9	0.112	0.112	ng/L	

TotalMercury EPA1631  
 Operat DM  
 BlankS 2.998  
 Calib Eqn: Conc = (Area-2.998  
 Run Date: 11/7/2016  
 Blank SD: 1.250544527  
 Worksh THg2600  
 CalibFa 114.96  
 Status: QC Warnings:5/QC E  
 Run Time: 12:11:27  
 Blank RSD%: 41.71268438  
 Method #### R: 1  
 R<sup>2</sup>: 1  
 Descr THg26003-161107-1  
 CF SD: 2.495301951  
 CF RSD%: 2.17060445

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	9.86					55009-1.RAW	7:09:46	1132.94	Clean	OK	1
Clean										55010-1.RAW	7:12:37	0.00	Clean	NP	1
ws				3.00	0.03					55011-1.RAW	7:16:46	6.31	Sample	OK	1
ws				3.00	0.02					55012-1.RAW	7:20:54	5.43	Sample	OK	1
ws				3.00	0.02					55013-1.RAW	7:25:02	5.28	Sample	OK	1
SEQ-IBL1	A1			1	0.00	0.03				55014-1.RAW	7:29:11	3.84	Sample	OK	1
SEQ-IBL2	A2			1	0.00	0.03				55015-1.RAW	7:33:19	3.59	Sample	OK	1
SEQ-IBL3	A3			1	0.00	0.01				55016-1.RAW	7:37:28	1.56	Sample	OK	1
SEQ-CAL1	A4			1	3.00	0.51		101.29		55017-1.RAW	7:41:36	61.22	Sample	OK	1
SEQ-CAL2	A5			1	3.00	1.02		101.90		55018-1.RAW	7:45:45	120.14	Sample	OK	1
SEQ-CAL3	A6			1	3.00	5.08		101.54		55019-1.RAW	7:49:53	586.62	Sample	OK	1
SEQ-CAL4	A7			1	3.00	19.55		97.75		55020-1.RAW	7:54:01	2250.41	Sample	OK	1
SEQ-CAL5	A8			1	3.00	39.01		97.52		55021-1.RAW	7:58:10	4487.45	Sample	OK	1
SEQ-ICV1	A9			1	3.00	4.72		94.32		55022-1.RAW	8:02:18	545.13	Sample	OK	1
F610491-BLK1	A10			20	3.00	1.62				55023-1.RAW	8:06:27	12.32	Sample	OK	1
F610491-BLK2	A11			20	3.00	0.91				55024-1.RAW	8:10:35	8.25	Sample	OK	1
F610491-BLK3	A12			20	3.00	0.95				55025-1.RAW	8:14:43	8.49	Sample	OK	1
F610491-BS1	B1			20	3.00	101.26				55026-1.RAW	8:18:52	585.05	Sample	OK	1
F610491-BSD1	B2			20	3.00	99.08				55027-1.RAW	8:23:00	572.53	Sample	OK	1
F610491-BS2	B3			500	3.00	2009.32				55028-1.RAW	8:27:09	464.98	Sample	OK	1
1610232-02	B4			500	3.00	1264.20				55029-1.RAW	8:31:17	293.66	Sample	OK	1
1610232-08	B5			500	3.00	473.04				55030-1.RAW	8:35:26	111.76	Sample	OK	1
1610232-09	B6			500	3.00	1486.92				55031-1.RAW	8:39:34	344.87	Sample	OK	1
1610232-10	B7			500	3.00	1039.51				55032-1.RAW	8:43:42	242.00	Sample	OK	1
SEQ-CCV1	B8			1	3.00	4.98		99.60		55033-1.RAW	8:47:51	575.48	Sample	OK	1
SEQ-CCB1	B9			1	3.00	0.04		0.00		55034-1.RAW	8:51:59	7.33	Sample	OK	1
1610232-08RE1	B10			100	3.00	462.09				55035-1.RAW	8:56:08	534.21	Sample	OK	1
1610232-11	B11			100	3.00	463.37				55036-1.RAW	9:00:16	535.68	Sample	OK	1
1610232-12	B12			100	3.00	986.50				55037-1.RAW	9:04:24	1137.07	Sample	OK	1
1610232-13	C1			100	3.00	779.04				55038-1.RAW	9:08:33	898.57	Sample	OK	1
1610232-14	C2			100	3.00	817.64				55039-1.RAW	9:12:41	942.94	Sample	OK	1
1610232-15	C3			100	3.00	423.17				55040-1.RAW	9:16:50	489.47	Sample	OK	1
1610232-16	C4			100	3.00	918.16				55041-1.RAW	9:20:58	1058.50	Sample	OK	1
1610232-17	C5			100	3.00	863.04				55042-1.RAW	9:25:06	995.14	Sample	OK	1
1610232-18	C6			100	3.00	601.11				55043-1.RAW	9:29:15	694.03	Sample	OK	1
1610232-19	C7			100	3.00	378.67				55044-1.RAW	9:33:23	438.31	Sample	OK	1
SEQ-CCV2	C8			1	3.00	4.67		93.35		55045-1.RAW	9:37:32	539.58	Sample	OK	1
SEQ-CCB2	C9			1	3.00	0.05		0.00		55046-1.RAW	9:41:40	9.13	Sample	OK	1
1610232-20	C10			100	3.00	491.51				55047-1.RAW	9:45:49	568.04	Sample	OK	1
1610232-21	C11			100	3.00	540.13				55048-1.RAW	9:49:57	623.92	Sample	OK	1
1610232-22	C12			100	3.00	598.16				55049-1.RAW	9:54:05	690.63	Sample	OK	1
1610232-23	D1			100	3.00	815.62				55050-1.RAW	9:58:14	940.63	Sample	OK	1
1610232-24	D2			100	3.00	791.49				55051-1.RAW	10:02:22	912.88	Sample	OK	1



1610232-25	D3	100	3.00	733.20		55052-1.RAW	10:06:31	845.88	Sample	OK	1
1610232-26	D4	100	3.00	1131.50		55053-1.RAW	10:10:39	1303.75	Sample	OK	1
F610491-DUP1	D5	500	3.00	1591.08		55054-1.RAW	10:14:48	368.81	Sample	OK	1
F610491-MS1	D6	500	3.00	5907.38	371.05	55055-1.RAW	10:18:56	1361.21	Sample	OK	1
F610491-MSD1	D7	500	3.00	6194.25		55056-1.RAW	10:23:04	1427.17	Sample	OK	1
SEQ-CCV3	D8	1	3.00	4.73	94.53	55057-1.RAW	10:27:13	546.38	Sample	OK	1
SEQ-CCB3	D9	1	3.00	0.06	0.00	55058-1.RAW	10:31:21	10.27	Sample	OK	1
F610491-MS2	D10	500	3.00	5168.07	250485.70	55059-1.RAW	10:35:30	1191.23	Sample	OK	1
F610491-MSD2	D11	500	3.00	5402.32		55060-1.RAW	10:39:38	1245.09	Sample	OK	1
F610468-BLK1	D12	20	3.00	1.90		55061-1.RAW	10:43:46	13.90	Sample	OK	1
F610468-BLK2	A1	20	3.00	1.37		55062-1.RAW	10:47:55	10.87	Sample	OK	1
F610468-BLK3	A2	20	3.00	1.32		55063-1.RAW	10:52:03	10.57	Sample	OK	1
F610468-BS1	A3	20	3.00	102.98		55064-1.RAW	10:56:12	594.92	Sample	OK	1
F610468-BSD1	A4	20	3.00	103.56		55065-1.RAW	11:00:20	598.26	Sample	OK	1
F610468-BS2	A5	500	3.00	2040.54		55066-1.RAW	11:04:29	472.16	Sample	OK	1
1610144-57	A6	500	3.00	658.99		55067-1.RAW	11:08:37	154.51	Sample	OK	1
1610144-58	A7	500	3.00	851.46		55068-1.RAW	11:12:45	198.76	Sample	OK	1
SEQ-CCV4	A8	1	3.00	4.62	92.35	55069-1.RAW	11:16:54	533.82	Sample	OK	1
SEQ-CCB4	A9	1	3.00	0.03	0.00	55070-1.RAW	11:21:02	6.93	Sample	OK	1
1610144-59	A10	500	3.00	910.71		55071-1.RAW	11:25:11	212.39	Sample	OK	1
1610144-60	A11	500	3.00	759.61		55072-1.RAW	11:29:19	177.64	Sample	OK	1
1610144-61	A12	500	3.00	797.00		55073-1.RAW	11:33:27	186.24	Sample	OK	1
1610144-62	B1	500	3.00	1162.31		55074-1.RAW	11:37:36	270.23	Sample	OK	1
1610144-63	B2	500	3.00	687.19		55075-1.RAW	11:41:44	160.99	Sample	OK	1
1610144-64	B3	500	3.00	925.02		55076-1.RAW	11:45:53	215.68	Sample	OK	1
1610144-65	B4	500	3.00	541.00		55077-1.RAW	11:50:01	127.38	Sample	OK	1
1610144-66	B5	500	3.00	851.57		55078-1.RAW	11:54:10	198.79	Sample	OK	1
1610144-67	B6	500	3.00	615.65		55079-1.RAW	11:58:18	144.55	Sample	OK	1
1610144-68	B7	500	3.00	1159.51		55080-1.RAW	12:02:26	269.59	Sample	OK	1
SEQ-CCV5	B8	1	3.00	4.79	95.80	55081-1.RAW	12:06:35	553.67	Sample	OK	1
SEQ-CCB5	B9	1	3.00	0.04	0.00	55082-1.RAW	12:10:43	7.57	Sample	OK	1
1610144-69	B10	100	3.00	1644.40		55083-1.RAW	12:15:36	1893.38	Sample	OK	1
1610144-70	B11	100	3.00	992.73		55084-1.RAW	12:19:44	1144.23	Sample	OK	1
1610144-71	B12	100	3.00	1095.96		55085-1.RAW	12:23:53	1262.90	Sample	OK	1
1610144-72	C1	100	3.00	1096.01		55086-1.RAW	12:28:01	1262.96	Sample	OK	1
1610144-73	C2	100	3.00	567.97		55087-1.RAW	12:32:10	655.93	Sample	OK	1
1610144-74	C3	100	3.00	742.68		55088-1.RAW	12:36:18	856.77	Sample	OK	1
1610144-75	C4	100	3.00	685.16		55089-1.RAW	12:40:26	790.65	Sample	OK	1
1610144-76	C5	100	3.00	872.25		55090-1.RAW	12:44:35	1005.73	Sample	OK	1
F610468-DUP1	C6	500	3.00	563.78		55091-1.RAW	12:48:43	132.62	Sample	OK	1
F610468-MS1	C7	500	3.00	5119.64	906.49	55092-1.RAW	12:52:52	1180.10	Sample	OK	1
SEQ-CCV6	C8	1	3.00	4.74	94.81	55093-1.RAW	12:57:00	547.99	Sample	OK	1
SEQ-CCB6	C9	1	3.00	0.08	0.00	55094-1.RAW	13:01:09	12.44	Sample	OK	1
F610468-MSD1	C10	500	3.00	5181.40		55095-1.RAW	13:05:18	1194.29	Sample	OK	1
F610468-MS2	C11	500	3.00	5398.47	104.15	55096-1.RAW	13:09:26	1244.20	Sample	OK	1
F610468-MSD2	C12	500	3.00	5785.45		55097-1.RAW	13:13:35	1333.17	Sample	OK	1
F610469-BLK1	D1	20	3.00	2.08		55098-1.RAW	13:17:43	14.97	Sample	OK	1
F610469-BLK2	D2	20	3.00	1.49		55099-1.RAW	13:21:52	11.58	Sample	OK	1

F610469-BLK3	D3	20	3.00	0.92		55100-1.RAW	13:26:00	8.30	Sample	OK	1
F610469-BS1	D4	20	3.00	100.52		55101-1.RAW	13:30:09	580.77	Sample	OK	1
F610469-BSD1	D5	20	3.00	101.43		55102-1.RAW	13:34:17	585.99	Sample	OK	1
F610469-BS2	D6	500	3.00	2051.59		55103-1.RAW	13:38:26	474.69	Sample	OK	1
1610144-77	D7	100	3.00	843.23		55104-1.RAW	13:42:34	972.37	Sample	OK	1
SEQ-CCV7	D8	1	3.00	4.86	97.13	55105-1.RAW	13:46:42	561.30	Sample	OK	1
SEQ-CCB7	D9	1	3.00	0.07	0.00	55106-1.RAW	13:50:51	11.35	Sample	OK	1
F610468-DUP2	D10	500	3.00	834.65		55107-1.RAW	13:54:59	194.90	Sample	OK	1
1610144-78	D11	100	3.00	925.53		55108-1.RAW	13:59:08	1066.97	Sample	OK	1
1610144-79	D12	100	3.00	803.55		55109-1.RAW	14:03:16	926.75	Sample	OK	1
1610144-80	A1	100	3.00	835.16		55110-1.RAW	14:07:24	963.09	Sample	OK	1
1610145-01	A2	100	3.00	3321.84		55111-1.RAW	14:11:33	3821.74	Sample	OK	1
1610145-02	A3	100	3.00	831.14		55112-1.RAW	14:15:41	958.47	Sample	OK	1
1610145-03	A4	100	3.00	1927.74		55113-1.RAW	14:19:50	2219.11	Sample	OK	1
1610145-04	A5	100	3.00	929.62		55114-1.RAW	14:23:58	1071.68	Sample	OK	1
1610145-05	A6	100	3.00	2884.77		55115-1.RAW	14:28:07	3319.30	Sample	OK	1
1610145-06	A7	100	3.00	1078.80		55116-1.RAW	14:32:15	1243.18	Sample	OK	1
SEQ-CCV8	A8	1	3.00	4.92	98.31	55117-1.RAW	14:36:23	568.09	Sample	OK	1
SEQ-CCB8	A9	1	3.00	0.11	0.00	55118-1.RAW	14:40:32	15.83	Sample	OK	1
1610145-07	A10	100	3.00	1087.68		55119-1.RAW	14:44:40	1253.39	Sample	OK	1
1610145-08	A11	100	3.00	1082.38		55120-1.RAW	14:48:49	1247.30	Sample	OK	1
1610145-09	A12	100	3.00	863.89		55121-1.RAW	14:52:57	996.11	Sample	OK	1
1610145-10	B1	100	3.00	748.20		55122-1.RAW	14:57:05	863.12	Sample	OK	1
1610145-11	B2	100	3.00	1294.46		55123-1.RAW	15:01:14	1491.09	Sample	OK	1
1610145-12	B3	100	3.00	2659.63		55124-1.RAW	15:05:22	3060.48	Sample	OK	1
1610145-13	B4	100	3.00	781.58		55125-1.RAW	15:09:31	901.49	Sample	OK	1
1610145-14	B5	100	3.00	945.10		55126-1.RAW	15:13:39	1089.47	Sample	OK	1
1610145-15	B6	100	3.00	895.66		55127-1.RAW	15:17:47	1032.64	Sample	OK	1
1610145-16	B7	100	3.00	975.44		55128-1.RAW	15:21:56	1124.35	Sample	OK	1
SEQ-CCV9	B8	1	3.00	4.89	97.73	55129-1.RAW	15:26:04	564.75	Sample	OK	1
SEQ-CCB9	B9	1	3.00	0.09	0.00	55130-1.RAW	15:30:13	13.71	Sample	OK	1
F610469-DUP1	B10	100	3.00	2818.20		55131-1.RAW	15:34:21	3242.77	Sample	OK	1
F610469-MS1	B11	500	3.00	6990.35	247.95	55132-1.RAW	15:38:30	1610.20	Sample	OK	1
F610469-MSD1	B12	500	3.00	7628.52		55133-1.RAW	15:42:38	1756.93	Sample	OK	1
F610469-MS2	C1	500	3.00	5531.99	276599.41	55134-1.RAW	15:46:46	1274.90	Sample	OK	1
F610469-MSD2	C2	500	3.00	5546.41		55135-1.RAW	15:50:55	1278.22	Sample	OK	1
SEQ-CCVA	C3	1	3.00	4.68		55136-1.RAW	15:55:03	540.91	Sample	OK	1
SEQ-CCBA	C4	1	3.00	0.11		55137-1.RAW	15:59:12	15.88	Sample	OK	1

**ANALYSIS SEQUENCE**

**6K07013**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/7/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K07013-IBL1	QC	1			
6K07013-IBL2	QC	2			
6K07013-IBL3	QC	3			
6K07013-CAL1	QC	4	1605412		
6K07013-CAL2	QC	5	1605413		
6K07013-CAL3	QC	6	1605414		
6K07013-CAL4	QC	7	1605415		
6K07013-CAL5	QC	8	1605416		
6K07013-ICV1	QC	9	1605791		
F610491-BLK1	QC	10			
F610491-BLK2	QC	11			
F610491-BLK3	QC	12			
F610491-BS1	QC	13			
F610491-BSD1	QC	14			
F610491-BS2	QC	15			
1610232-02	Hg-CVAFS-T-7030	16			
1610232-08	Hg-CVAFS-T-7030	17			
1610232-09	Hg-CVAFS-T-7030	18			
1610232-10	Hg-CVAFS-T-7030	19			
6K07013-CCV1	QC	20	1605791		
6K07013-CCB1	QC	21			
1610232-08RE1	Hg-CVAFS-T-7030	22			Added 11/7/2016 by DM2
1610232-11	Hg-CVAFS-T-7030	23			
1610232-12	Hg-CVAFS-T-7030	24			
1610232-13	Hg-CVAFS-T-7030	25			
1610232-14	Hg-CVAFS-T-7030	26			
1610232-15	Hg-CVAFS-T-7030	27			
1610232-16	Hg-CVAFS-T-7030	28			
1610232-17	Hg-CVAFS-T-7030	29			
1610232-18	Hg-CVAFS-T-7030	30			
1610232-19	Hg-CVAFS-T-7030	31			
6K07013-CCV2	QC	32	1605791		
6K07013-CCB2	QC	33			
1610232-20	Hg-CVAFS-T-7030	34			
1610232-21	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K07013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/7/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610232-22	Hg-CVAFS-T-7030	36			
1610232-23	Hg-CVAFS-T-7030	37			
1610232-24	Hg-CVAFS-T-7030	38			
1610232-25	Hg-CVAFS-T-7030	39			
1610232-26	Hg-CVAFS-T-7030	40			
F610491-DUP1	QC	41			
F610491-MS1	QC	42			
F610491-MSD1	QC	43			
6K07013-CCV3	QC	44	1605791		
6K07013-CCB3	QC	45			
F610491-MS2	QC	46			
F610491-MSD2	QC	47			
F610468-BLK1	QC	48			
F610468-BLK2	QC	49			
F610468-BLK3	QC	50			
F610468-BS1	QC	51			
F610468-BSD1	QC	52			
F610468-BS2	QC	53			
1610144-57	Hg-CVAFS-T-7030	54			
1610144-58	Hg-CVAFS-T-7030	55			
6K07013-CCV4	QC	56	1605791		
6K07013-CCB4	QC	57			
1610144-59	Hg-CVAFS-T-7030	58			
1610144-60	Hg-CVAFS-T-7030	59			
1610144-61	Hg-CVAFS-T-7030	60			
1610144-62	Hg-CVAFS-T-7030	61			
1610144-63	Hg-CVAFS-T-7030	62			
1610144-64	Hg-CVAFS-T-7030	63			
1610144-65	Hg-CVAFS-T-7030	64			
1610144-66	Hg-CVAFS-T-7030	65			
1610144-67	Hg-CVAFS-T-7030	66			
1610144-68	Hg-CVAFS-T-7030	67			
6K07013-CCV5	QC	68	1605791		
6K07013-CCB5	QC	69			
1610144-69	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 77 of 228

Page 2 of 4

## ANALYSIS SEQUENCE

6K07013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/7/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610144-70	Hg-CVAFS-T-7030	71			
1610144-71	Hg-CVAFS-T-7030	72			
1610144-72	Hg-CVAFS-T-7030	73			
1610144-73	Hg-CVAFS-T-7030	74			
1610144-74	Hg-CVAFS-T-7030	75			
1610144-75	Hg-CVAFS-T-7030	76			
1610144-76	Hg-CVAFS-T-7030	77			
F610468-DUP1	QC	78			
F610468-MS1	QC	79			
6K07013-CCV6	QC	80	1605791		
6K07013-CCB6	QC	81			
F610468-MSD1	QC	82			
F610468-MS2	QC	83			
F610468-MSD2	QC	84			
F610469-BLK1	QC	85			
F610469-BLK2	QC	86			
F610469-BLK3	QC	87			
F610469-BS1	QC	88			
F610469-BSD1	QC	89			
F610469-BS2	QC	90			
1610144-77	Hg-CVAFS-T-7030	91			
6K07013-CCV7	QC	92	1605791		
6K07013-CCB7	QC	93			
F610468-DUP2	QC	94			
1610144-78	Hg-CVAFS-T-7030	95			
1610144-79	Hg-CVAFS-T-7030	96			
1610144-80	Hg-CVAFS-T-7030	97			
1610145-01	Hg-CVAFS-T-7030	98			
1610145-02	Hg-CVAFS-T-7030	99			
1610145-03	Hg-CVAFS-T-7030	100			
1610145-04	Hg-CVAFS-T-7030	101			
1610145-05	Hg-CVAFS-T-7030	102			
1610145-06	Hg-CVAFS-T-7030	103			
6K07013-CCV8	QC	104	1605791		
6K07013-CCB8	QC	105			

Due Date: 11/2/2016

Page 78 of 228

Page 3 of 4

**ANALYSIS SEQUENCE**

**6K07013**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/7/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610145-07	Hg-CVAFS-T-7030	106			
1610145-08	Hg-CVAFS-T-7030	107			
1610145-09	Hg-CVAFS-T-7030	108			
1610145-10	Hg-CVAFS-T-7030	109			
1610145-11	Hg-CVAFS-T-7030	110			
1610145-12	Hg-CVAFS-T-7030	111			
1610145-13	Hg-CVAFS-T-7030	112			
1610145-14	Hg-CVAFS-T-7030	113			
1610145-15	Hg-CVAFS-T-7030	114			
1610145-16	Hg-CVAFS-T-7030	115			
6K07013-CCV9	QC	116	1605791		
6K07013-CCB9	QC	117			
F610469-DUP1	QC	118			
F610469-MS1	QC	119			
F610469-MSD1	QC	120			
F610469-MS2	QC	121			
F610469-MSD2	QC	122			
6K07013-CCVA	QC	123	1605791		
6K07013-CCBA	QC	124			

Don Moore      11/7/16  
 Samples Loaded By      Date

Don Moore      11/7/16  
 Data Processed By      Date

**Failing Data Report - 6K07013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610468-DUP1	Hg-CVAFS-T-7030	42.04	18.7	55.43	55.43		ng/g				27.5	24.00	PASS-OVER	FAIL-DUP	QR-07

Don M. Green                      11/7/16  
 Analyst Reviewed By                      Date

[Signature]                      11/9/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F610469

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610469-BLK1	Blank	0.25	20					
F610469-BLK2	Blank	0.25	20					
F610469-BLK3	Blank	0.25	20					
F610469-BS1	Blank Spike	0.25	20	1605270	20			
F610469-BS2	DORM-4	0.126	20	1605470	126			
F610469-BSD1	Blank Spike	0.25	20	1605270	20			
F610469-DUP1	Duplicate [1610145-01]	0.2659	20					
F610469-MS1	Matrix Spike [1610145-01]	0.2845	20	1605712	100			
F610469-MS2	Matrix Spike [1610145-16]	0.2767	20	1605712	100			
F610469-MSD1	Matrix Spike Dup [1610145-01]	0.2944	20	1605712	100			
F610469-MSD2	Matrix Spike Dup [1610145-16]	0.2756	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1.000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606385	5% BrCl	19-Apr-17 00:00



**PREPARATION BENCH SHEET**

F610469

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-77	ES-FP_092616_BLM_WB_17	0.2642	20	-	-	-		
1610144-78	ES-FP_092616_BLM_WB_18	0.2875	20	-	-	-		
1610144-79	ES-FP_092616_BLM_WB_19	0.288	20	-	-	-		
1610144-80	ES-FP_092616_BLM_WB_20	0.2843	20	-	-	-		
1610145-01	BO-04_100316_MUM_WB_01	0.2837	20	QC	-	-	MS/MSD	
1610145-02	BO-04_100316_MUM_WB_02	0.2877	20	-	-	-		
1610145-03	BO-04_100316_MUM_WB_03	0.2641	20	-	-	-		
1610145-04	BO-04_100316_MUM_WB_04	0.2758	20	-	-	-		
1610145-05	BO-04_100316_MUM_WB_05	0.27	20	-	-	-		
1610145-06	BO-04_100316_MUM_WB_06	0.2834	20	-	-	-		
1610145-07	BO-04_100316_MUM_WB_07	0.2857	20	-	-	-		
1610145-08	BO-04_100316_MUM_WB_08	0.2881	20	-	-	-		
1610145-09	BO-04_100316_MUM_WB_09	0.2845	20	-	-	-		
1610145-10	BO-04_100316_MUM_WB_10	0.2849	20	-	-	-		
1610145-11	BO-04_100316_MUM_WB_11	0.2743	20	-	-	-		
1610145-12	BO-04_100316_MUM_WB_12	0.2657	20	-	-	-		
1610145-13	BO-04_100316_MUM_WB_13	0.2837	20	-	-	-		
1610145-14	BO-04_100316_MUM_WB_14	0.283	20	-	-	-		
1610145-15	BO-04_100316_MUM_WB_15	0.3078	20	-	-	-		

Page 82 of 228

Date: 11/2/2016

PREPARATION BENCH SHEET

F610469

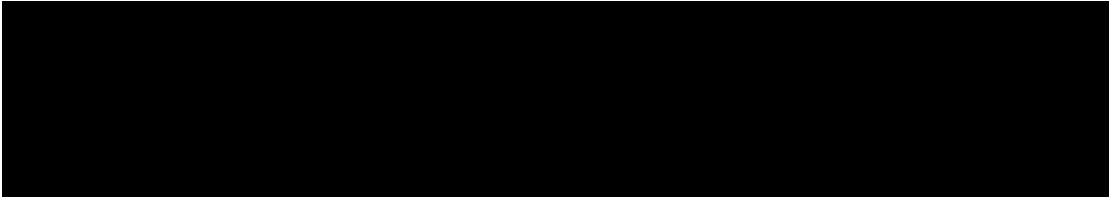
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610145-16	BO-04_100316_MUM_WB_16	0.3155	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610491

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/2/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610491-BLK1	Blank	0.25	20					
F610491-BLK2	Blank	0.25	20					
F610491-BLK3	Blank	0.25	20					
F610491-BS1	Blank Spike	0.25	20	1605270	20			
F610491-BS2	DORM-4	0.126	20	1605470	126			
F610491-BSD1	Blank Spike dup	0.25	20	1605270	20			
F610491-DUP1	Duplicate [1610232-02]	0.2918	20					
F610491-MS1	Matrix Spike [1610232-02]	0.2931	20	1605712	100			
F610491-MS2	Matrix Spike [1610232-22]	0.2721	20	1605712	100			
F610491-MSD1	Matrix Spike Dup [1610232-02]	0.2763	20	1605712	100			
F610491-MSD2	Matrix Spike Dup [1610232-22]	0.2894	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610491

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/2/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-02	ES-FP_092716_RAS_WB_01	0.2698	20	QC	-	-	MS/MSD	
1610232-08	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-		
1610232-08RE1	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-	Added 11/7/2016 by DM2	Added 11/7/2016 by DM2
1610232-09	ES-FP_092716_RAS_WB_08	0.2745	20	-	-	-		
1610232-10	ES-FP_092716_RAS_WB_09	0.2648	20	-	-	-		
1610232-11	ES-FP_092716_RAS_WB_10	0.2612	20	-	-	-		
1610232-12	ES-FP_092716_RAS_WB_11	0.266	20	-	-	-		
1610232-13	ES-FP_092716_RAS_WB_12	0.2844	20	-	-	-		
1610232-14	ES-FP_092716_RAS_WB_13	0.2917	20	-	-	-		
1610232-15	ES-FP_092716_RAS_WB_14	0.2684	20	-	-	-		
1610232-16	ES-FP_092716_RAS_WB_15	0.2865	20	-	-	-		
1610232-17	ES-FP_092716_RAS_WB_16	0.2839	20	-	-	-		
1610232-18	ES-FP_092716_RAS_WB_17	0.2703	20	-	-	-		
1610232-19	ES-FP_092716_RAS_WB_18	0.2788	20	-	-	-		
1610232-20	ES-FP_092716_RAS_WB_19	0.2934	20	-	-	-		
1610232-21	ES-FP_092716_RAS_WB_20	0.271	20	-	-	-		
1610232-22	OB-01_092116_RAS_WB_01	0.2682	20	-	-	-		
1610232-23	OB-01_092116_RAS_WB_02	0.2967	20	-	-	-		
1610232-24	OB-01_092116_RAS_WB_03	0.2843	20	-	-	-		

Page 85 of 228

Date: 11/2/2016

PREPARATION BENCH SHEET

F610491

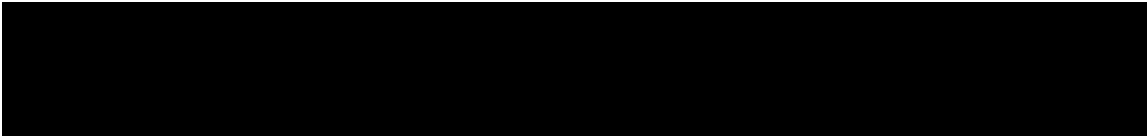
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

1610232-25	OB-01_092116_RAS_WB_04	0.3082	20	-	-	-	
1610232-26	OB-01_092116_RAS_WB_05	0.2745	20	QC	-	-	MS/MSD



**PREPARATION BENCH SHEET**

F610468

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610468-BLK1	Blank	0.25	20					
F610468-BLK2	Blank	0.25	20					
F610468-BLK3	Blank	0.25	20					
F610468-BS1	Blank Spike	0.25	20	1605270	20			
F610468-BS2	DORM-4	0.1262	20	1605470	126			
F610468-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610468-DUP1	Duplicate [1610144-61]	0.2675	20					
F610468-DUP2	Duplicate [1610144-61]	0.287	20					
F610468-MS1	Matrix Spike [1610144-61]	0.2773	20	1605712	100			
F610468-MS2	Matrix Spike [1610144-70]	0.294	20	1605712	100			
F610468-MSD1	Matrix Spike Dup [1610144-61]	0.2724	20	1605712	100			
F610468-MSD2	Matrix Spike Dup [1610144-70]	0.2874	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606385	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610468

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-57	ES-15_092716_BLM_WB_17	0.2642	20	-	-	-		
1610144-58	ES-15_092716_BLM_WB_18	0.271	20	-	-	-		
1610144-59	ES-15_092716_BLM_WB_19	0.2837	20	-	-	-		
1610144-60	ES-15_092716_BLM_WB_20	0.2965	20	-	-	-		
1610144-61	ES-FP_092616_BLM_WB_01	0.287	20	QC	-	-	MS/MSD	
1610144-62	ES-FP_092616_BLM_WB_02	0.2698	20	-	-	-		
1610144-63	ES-FP_092616_BLM_WB_03	0.2826	20	-	-	-		
1610144-64	ES-FP_092616_BLM_WB_04	0.2959	20	-	-	-		
1610144-65	ES-FP_092616_BLM_WB_05	0.27	20	-	-	-		
1610144-66	ES-FP_092616_BLM_WB_06	0.3049	20	-	-	-		
1610144-67	ES-FP_092616_BLM_WB_07	0.2719	20	-	-	-		
1610144-68	ES-FP_092616_BLM_WB_08	0.2881	20	-	-	-		
1610144-69	ES-FP_092616_BLM_WB_09	0.2948	20	-	-	-		
1610144-70	ES-FP_092616_BLM_WB_10	0.2677	20	-	-	-		
1610144-71	ES-FP_092616_BLM_WB_11	0.2759	20	-	-	-		
1610144-72	ES-FP_092616_BLM_WB_12	0.2982	20	-	-	-		
1610144-73	ES-FP_092616_BLM_WB_13	0.2741	20	-	-	-		
1610144-74	ES-FP_092616_BLM_WB_14	0.2852	20	-	-	-		
1610144-75	ES-FP_092616_BLM_WB_15	0.3013	20	-	-	-		

Page 88 of 228

Date: 11/2/2016

PREPARATION BENCH SHEET

F610468

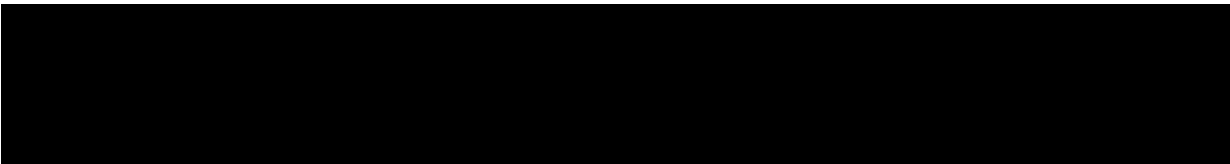
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610144-76	ES-FP_092616_BLM_WB_16	0.2947	20	-	-	-		
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PREPARATION BENCH SHEET

200.3

11/7/16 DM

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610491-BLK1	Blank	0.25	20					20X
F610491-BLK2	Blank	0.25	20					20X
F610491-BLK3	Blank	0.25	20					20X
F610491-BS1	Blank Spike	0.25	20	1605270	20			20X
F610491-BS2	DORM-4	0.126	20	1605470	126			500X
F610491-BSD1	Blank Spike dup	0.25	20	1605270	20			20X
F610491-DUP1	Duplicate [1610232-02]	0.2918	20					500X
F610491-MS1	Matrix Spike [1610232-02]	0.2931	20	1605712	100			500X
F610491-MS2	Matrix Spike [1610232-22]	0.2721	20	1605712	100			500X
F610491-MSD1	Matrix Spike Dup [1610232-02]	0.2763	20	1605712	100			500X
F610491-MSD2	Matrix Spike Dup [1610232-22]	0.2894	20	1605712	100			500X

Standard ID(s):  
 1605270  
 1605470  
 1605712

Description:  
 THg 100ng/mL Primary Spiking Standard  
 DORM-4  
 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s):  
 1603399  
 1606221  
 1606257

Description:  
 Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 26-Mar-17 00:00

1606370  
 1609636  
 1605635  
 1602941

PREPARATION BENCH SHEET

200-3

11/7/16 DM

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-02	ES-FP_092716_RAS_WB_01	0.2698	20	QC	-	-	MS/MSD	500x
1610232-08	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-		500x → 100x
1610232-09	ES-FP_092716_RAS_WB_08	0.2745	20	-	-	-		500x
1610232-10	ES-FP_092716_RAS_WB_09	0.2648	20	-	-	-		500x
1610232-11	ES-FP_092716_RAS_WB_10	0.2612	20	-	-	-		100x
1610232-12	ES-FP_092716_RAS_WB_11	0.266	20	-	-	-		100x
1610232-13	ES-FP_092716_RAS_WB_12	0.2844	20	-	-	-		100x
1610232-14	ES-FP_092716_RAS_WB_13	0.2917	20	-	-	-		100x
1610232-15	ES-FP_092716_RAS_WB_14	0.2684	20	-	-	-		100x
1610232-16	ES-FP_092716_RAS_WB_15	0.2865	20	-	-	-		100x
1610232-17	ES-FP_092716_RAS_WB_16	0.2839	20	-	-	-		100x
1610232-18	ES-FP_092716_RAS_WB_17	0.2703	20	-	-	-		100x
1610232-19	ES-FP_092716_RAS_WB_18	0.2788	20	-	-	-		100x
1610232-20	ES-FP_092716_RAS_WB_19	0.2934	20	-	-	-		100x
1610232-21	ES-FP_092716_RAS_WB_20	0.271	20	-	-	-		100x
1610232-22	OB-01_092116_RAS_WB_01	0.2682	20	-	-	-		100x
1610232-23	OB-01_092116_RAS_WB_02	0.2967	20	-	-	-		100x
1610232-24	OB-01_092116_RAS_WB_03	0.2843	20	-	-	-		100x
1610232-25	OB-01_092116_RAS_WB_04	0.3082	20	-	-	-		100x

Page 91 of 228

Date: 11/2/2016

PREPARATION BENCH SHEET

F610491

Eurofins Frontier Global Sciences, Inc.

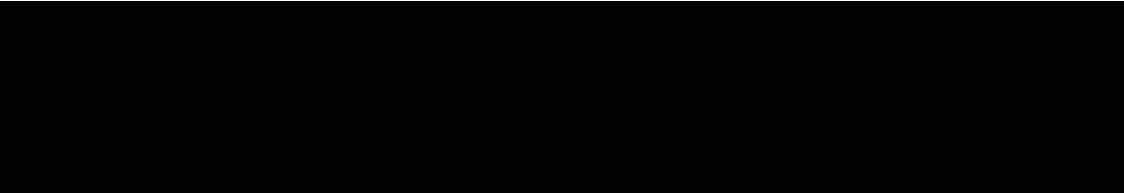
2600-3  
11/7/16 DM

Matrix: Tissue

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

Prepared: 11/2/2016

1610232-26	OB-01_092116_RAS_WB_05	0.2745	20	QC	-	-	MS/MSD	100%
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Technician: Duyen Batch#: F610491 Date: 11/1/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 15:45 Actual Temp. (raw): 75.0 °C w/ CF: 74.5 °C  
 Time out: 17:52 Actual Temp. (raw): 83 °C w/ CF: 82.5 °C

Final vol.: 20 mL (LIMS ID: 1606257) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: om 11/1/16 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MU 11607 Calibration Date: 10-30-16

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

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

70/30 LIMS ID: 1606221

Dispenser #: 04N23497 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 02K27494 ✓

Glass Vial # 00065688

Boiling Chip lot # 1603399 \*Hotblock Position: I5

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	F610491 Blank1	0.2920	23	1610232-18	0.2703	B52
2	F610491 Blank2	0.2752	24	1610232-19	0.2788	Dura-4 1605470
3	F610491 Blank3	0.2755	25	1610232-20	0.2934	
4	F610491 B51	0.2496	26	1610232-21	0.2710	
5	F610491 B5D1	0.2692	27	1610232-22	0.2682	Comments B51 B5D1
6	F610491 B52	0.1260	28	1610232-23	0.2967	=100µg µL = 20µL
7	F610491 Dupl	0.2918	29	1610232-24	0.2843	1605270 Dupl MS1 MS1
8	F610491 MS1	0.2931	30	1610232-25	0.3682	source
9	F610491 MS01	0.2763	31	1610232-26	0.2745	1610232-02
10	F610491 MS2	0.2721	32			MS2 MS02
11	<del>F610491 MS02</del>	<del>0.2894</del>	33			1610232-22
12	1610232-02	0.2698	34			
13	1610232-08	0.2546	35			
14	1610232-09	0.2745	36			
15	1610232-10	0.2648	37			
16	1610232-11	0.2612	38			
17	1610232-12	0.2660	39			
18	1610232-13	0.2844	40			
19	1610232-14	0.2917	41			
20	1610232-15	0.2684	42			
21	1610232-16	0.2865	43			
22	1610232-17	0.2839	44			

2600.3  
11/7/16 DM

PREPARATION BENCH SHEET

F610468

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610468-BLK1	Blank	0.25	20					20X
F610468-BLK2	Blank	0.25	20					20X
F610468-BLK3	Blank	0.25	20					20X
F610468-BS1	Blank Spike	0.25	20	1605270	20			20X
F610468-BS2	DORM-4	0.1262	20	1605470	126			500X
F610468-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610468-DUP1	Duplicate [1610144-61]	0.2675	20					500X
F610468-MS1	Matrix Spike [1610144-61]	0.2773	20	1605712	100			500X
F610468-MS2	Matrix Spike [1610144-70]	0.294	20	1605712	100			500X
F610468-MSD1	Matrix Spike Dup [1610144-61]	0.2724	20	1605712	100			500X
F610468-MSD2	Matrix Spike Dup [1610144-70]	0.2874	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606304	70/30 Digestion Acid	26-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606385	5% BrCl	19-Apr-17 00:00

DUP2 - AD 500X  
Source 1610144-61

1606370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-3  
11/7/16 DM

F610468

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-57	ES-15_092716_BLM_WB_17	0.2642	20	-	-	-		500X
1610144-58	ES-15_092716_BLM_WB_18	0.271	20	-	-	-		500X
1610144-59	ES-15_092716_BLM_WB_19	0.2837	20	-	-	-		500X
1610144-60	ES-15_092716_BLM_WB_20	0.2965	20	-	-	-		500X
1610144-61	ES-FP_092616_BLM_WB_01	0.287	20	QC	-	-	MS/MSD	500X
1610144-62	ES-FP_092616_BLM_WB_02	0.2698	20	-	-	-		500X
1610144-63	ES-FP_092616_BLM_WB_03	0.2826	20	-	-	-		500X
1610144-64	ES-FP_092616_BLM_WB_04	0.2959	20	-	-	-		500X
1610144-65	ES-FP_092616_BLM_WB_05	0.27	20	-	-	-		500X
1610144-66	ES-FP_092616_BLM_WB_06	0.3049	20	-	-	-		500X
1610144-67	ES-FP_092616_BLM_WB_07	0.2719	20	-	-	-		500X
1610144-68	ES-FP_092616_BLM_WB_08	0.2881	20	-	-	-		500X
1610144-69	ES-FP_092616_BLM_WB_09	0.2948	20	-	-	-		100X
1610144-70	ES-FP_092616_BLM_WB_10	0.2677	20	-	-	-		100X
1610144-71	ES-FP_092616_BLM_WB_11	0.2759	20	-	-	-		100X
1610144-72	ES-FP_092616_BLM_WB_12	0.2982	20	-	-	-		100X
1610144-73	ES-FP_092616_BLM_WB_13	0.2741	20	-	-	-		100X
1610144-74	ES-FP_092616_BLM_WB_14	0.2852	20	-	-	-		100X
1610144-75	ES-FP_092616_BLM_WB_15	0.3013	20	-	-	-		100X

Page 95 of 228

Date: 11/2/2016

PREPARATION BENCH SHEET

2600.3

11/7/16 DM

F610468

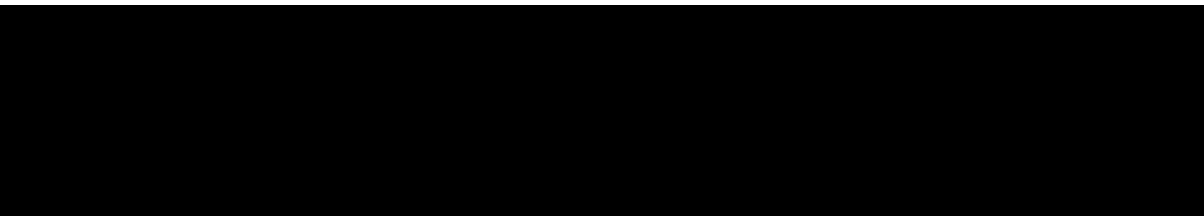
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610144-76	ES-FP_092616_BLM_WB_16	0.2947	20	-	-	-	100X
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Technician: Duyen Batch#: F610468 Date: 11/03/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 13:20 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 15:20 Actual Temp. (raw): 80.0 °C w/ CF: 79.5 °C

Final vol.: 20 mL (LIMS ID: 1606385) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: BC 11/3/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M651 11/3/16 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 02K27499 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  No  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: F15

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	F610468 Blank1	0.2646	23	1610144-68	0.2881	B52 20044
2	F610468 Blank2	0.2783	24	1610144-69	0.2948	1605470
3	F610468 Blank3	0.2528	25	1610144-70	0.2677	
4	F610468 B51	0.2674	26	1610144-71	0.2759	
5	F610468 B501	0.2493	27	1610144-72	0.2982	B51 B501
6	F610468 B52	0.1262	28	1610144-73	0.2741	= 100µg/L
7	F610468 Dup1	0.2675	29	1610144-74	0.2852	= 20µg
8	F610468 MS1	0.2773	30	1610144-75	0.3013	1605270
9	F610468 MS01	0.2724	31	1610144-76	0.2947	Dup 1. MS1 MS01
10	F610468 MS2	0.2940	32			source
11	F610468 MS02	0.2874	33			1610144-61
12	1610144-57	0.2642	34			MS2 MS02
13	1610144-58	0.2710	35			1610144-70
14	1610144-59	0.2837	36			1610144-59
15	1610144-60	0.2965	37			= 0.2837 µg
16	1610144-61	0.2870	38			11/03/16
17	1610144-62	0.2698	39			74
18	1610144-63	0.2826	40			
19	1610144-64	0.2959	41			
20	1610144-65	0.2700	42			
21	1610144-66	0.3049	43			
22	1610144-67	0.2719	44			



PREPARATION BENCH SHEET

2600.3  
11/2/16 DM

F610469

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610469-BLK1	Blank	0.25	20					20x
F610469-BLK2	Blank	0.25	20					20x
F610469-BLK3	Blank	0.25	20					20x
F610469-BS1	Blank Spike	0.25	20	1605270	20			20x
F610469-BS2	DORM-4	0.126	20	1605470	126			500x
F610469-BSD1	Blank Spike	0.25	20	1605270	20			20x
F610469-DUP1	Duplicate [1610145-01]	0.2659	20					100x
F610469-MS1	Matrix Spike [1610145-01]	0.2845	20	1605712	100			500x
F610469-MS2	Matrix Spike [1610145-16]	0.2767	20	1605712	100			500x
F610469-MSD1	Matrix Spike Dup [1610145-01]	0.2944	20	1605712	100			500x
F610469-MSD2	Matrix Spike Dup [1610145-16]	0.2756	20	1605712	100			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606304	70/30 Digestion Acid	26-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606385	5% BrCl	19-Apr-17 00:00

1602370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-3  
11/7/16 DM

F610469

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-77	ES-FP_092616_BLM_WB_17	0.2642	20	-	-	-		100X
1610144-78	ES-FP_092616_BLM_WB_18	0.2875	20	-	-	-		100X
1610144-79	ES-FP_092616_BLM_WB_19	0.288	20	-	-	-		100X
1610144-80	ES-FP_092616_BLM_WB_20	0.2843	20	-	-	-		100X
1610145-01	BO-04_100316_MUM_WB_01	0.2837	20	QC	-	-	MS/MSD	100X
1610145-02	BO-04_100316_MUM_WB_02	0.2877	20	-	-	-		100X
1610145-03	BO-04_100316_MUM_WB_03	0.2641	20	-	-	-		100X
1610145-04	BO-04_100316_MUM_WB_04	0.2758	20	-	-	-		100X
1610145-05	BO-04_100316_MUM_WB_05	0.27	20	-	-	-		100X
1610145-06	BO-04_100316_MUM_WB_06	0.2834	20	-	-	-		100X
1610145-07	BO-04_100316_MUM_WB_07	0.2857	20	-	-	-		100X
1610145-08	BO-04_100316_MUM_WB_08	0.2881	20	-	-	-		100X
1610145-09	BO-04_100316_MUM_WB_09	0.2845	20	-	-	-		100X
1610145-10	BO-04_100316_MUM_WB_10	0.2849	20	-	-	-		100X
1610145-11	BO-04_100316_MUM_WB_11	0.2743	20	-	-	-		100X
1610145-12	BO-04_100316_MUM_WB_12	0.2657	20	-	-	-		100X
1610145-13	BO-04_100316_MUM_WB_13	0.2837	20	-	-	-		100X
1610145-14	BO-04_100316_MUM_WB_14	0.283	20	-	-	-		100X
1610145-15	BO-04_100316_MUM_WB_15	0.3078	20	-	-	-		100X

Page 99 of 228

Date: 11/2/2016

PREPARATION BENCH SHEET

200.3  
11/7/16 DJM

F610469

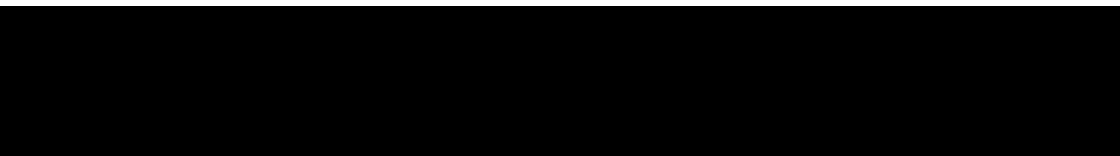
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610145-16	BO-04_100316_MUM_WB_16	0.3155	20	-	-	-		100X
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- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
  - EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
  - EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
  - EFGS-066 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: 13:20 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 15:20 Actual Temp. (raw): 80.0 °C w/ CF: 79.5 °C

Final vol.: 20 mL (LIMS ID: 1606385) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: QC 11-3-16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MW11667 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 021527494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159 Yes  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: F, 5

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	F610469 Blank1	0.2663	23	1610145-08	0.2881	BS2 DORM4
2	F610469 Blank2	0.2718	24	1610145-09	0.2845	1605470
3	F610469 Blank3	0.2786	25	1610145-10	0.2849	
4	F610469 BS1	0.2499	26	1610145-11	0.2743	Comments
5	F610469 BS01	0.2934	27	1610145-12	0.2657	BS1 BS01
6	F610469 BS2	0.2260	28	1610145-13	0.2837	= 100 µg/L
7	F610469 Dup1	0.3087	29	1610145-14	0.2830	= 20 µg/L
8	F610469 MS1	0.2845	30	1610145-15	0.3078	1605770
9	F610469 MS01	0.2949	31	1610145-16	0.3155	Dup1 MS1 MS01
10	F610469 MS2	0.2767	32			source
11	F610469 MS02	0.2756	33			1610145-01
12	1610144-77	0.2642	34			MS2 MS02
13	1610144-78	0.2875	35			1610145-16
14	1610144-79	0.2880	36			Dup1
15	1610144-80	0.2843	37			1610145-01
16	1610145-01	0.2837	38			= 0.2659 g
17	1610145-02	0.2877	39			11/3/16 D4
18	1610145-03	0.2641	40			
19	1610145-04	0.2758	41			
20	1610145-05	0.2700	42			
21	1610145-06	0.2834	43			
22	1610145-07	0.2857	44			



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

Analyst:	DON MORAN	Sequence(s) #:	6K07013
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-161107-1
Date:	11/7/2016	WO (s) #:	1610144, 1610145, 1610232
Batch #(s):	F610469, F610491, F610468		0

Analyst Initials DM Reviewer Initials R

- 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: F610468-DUP1 FAILED. RE-ANALYZED AND PASSED
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)  PASS  FAIL
- (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: \_\_\_\_\_
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?  YES  NO
- (c) Was a BrCl Blank analyzed for each preservation level?  YES  NO  N/A
- (d) Are Preparation Blanks summarized on QC page?  YES  NO
14. Filtration Blank Prepared (if yes, use FB qualifier)  YES  NO
- (a) Filtration Blank prep date same as associated samples' prep date  YES  NO  N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI  YES  NO  N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?  PASS  FAIL
- Comments: \_\_\_\_\_
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?  PASS  FAIL
- Comments: \_\_\_\_\_
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K07013
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-161107-1
Date:	11/7/2016	WO (s) #:	1610144, 1610145, 1610232
Batch #(s):	F610469, F610491, F610468		0

Analyst Initials DM

Reviewer Initials DM

- |  |  |                               |  |
|--|--|-------------------------------|--|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>                              |
| Comments: _____  |  |                               |  |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>                              |
| Comments: _____  |  |                               |  |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/>   |
| Comments: _____  |  |                               |  |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input 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 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 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 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 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                                     |
| 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 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 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"/> |

Files located at: \\Cuprum\gen\_admin\Quality Assurance\Training Master\DOCs

- |  |                                  |                              |                             |                                     |
|--|----------------------------------|------------------------------|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12/16/15</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>5/20/16</u> | Current SOP revision read?       | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/7/16</u>                               | LOD within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/7/16</u>                               | LOQ within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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





**THg26002-161108-1**



Frontier Global Sciences

**Analysis Datasheet for Total Mercury**

Date of Analysis: November 09, 2016

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K09002

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	111.46 units	222.92	97.35 units	194.69	99.0 %Rec
SEQ-CAL2	1	1.00 ng/L	212.45 units	212.45	198.34 units	198.34	100.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1012.13 units	202.43	998.02 units	199.60	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	3946.52 units	197.33	3932.41 units	196.62	100.0 %Rec
SEQ-CAL5	1	40.00 ng/L	7778.51 units	194.46	7764.40 units	194.11	98.7 %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**  
 196.67            +/- 2.34            1.2% RSD            205.92

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-TBL	3	14.11 units	±1.68	0.07 ng/L	±0.01

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	4.192 ng/L	±2.447
BLK	2	3	3.761 ng/L	±1.423
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: A 11/11/16

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	11/9/2016 9:14:07	16265-1.RAW	9:14:07 AM	14.00			-0.1	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	11/9/2016 9:18:16	16266-1.RAW	9:18:16 AM	15.85			1.7	0.009	0.009	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	11/9/2016 9:22:24	16267-1.RAW	9:22:24 AM	12.49			-1.6	-0.008	-0.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	11/9/2016 9:26:33	16268-1.RAW	9:26:33 AM	111.46			97.3	0.495	0.495	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	11/9/2016 9:30:41	16269-1.RAW	9:30:41 AM	212.45			198.3	1.008	1.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	11/9/2016 9:34:49	16270-1.RAW	9:34:49 AM	1012.13			998.0	5.075	5.075	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	11/9/2016 9:38:58	16271-1.RAW	9:38:58 AM	3946.52			3932.4	19.995	19.995	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	11/9/2016 9:43:06	16272-1.RAW	9:43:06 AM	7778.51			7764.4	39.479	39.479	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	11/9/2016 9:47:16	16273-1.RAW	9:47:16 AM	951.35			937.2	4.765	4.765	ng/L	
Hg2600-2	BC	BLK	F610470-BLK1	20	11/9/2016 9:51:24	16274-1.RAW	9:51:24 AM	82.53	1		68.4	0.348	6.957	ng/L	
Hg2600-2	BC	BLK	F610470-BLK2	20	11/9/2016 9:55:34	16275-1.RAW	9:55:34 AM	46.70	1		32.6	0.166	3.314	ng/L	
Hg2600-2	BC	BLK	F610470-BLK3	20	11/9/2016 9:59:42	16276-1.RAW	9:59:42 AM	36.78	1		22.7	0.115	2.305	ng/L	
Hg2600-2	BC	SAM	F610470-BS1	20	11/9/2016 10:03:51	16277-1.RAW	10:03:51 AM	1059.70	1		1045.6	5.107	102.136	ng/L	
Hg2600-2	BC	SAM	F610470-BSD1	20	11/9/2016 10:07:59	16278-1.RAW	10:07:59 AM	1016.41	1		1002.3	4.887	97.733	ng/L	
Hg2600-2	BC	SAM	F610470-BS2	500	11/9/2016 10:12:08	16279-1.RAW	10:12:08 AM	852.17	1		838.1	4.253	2126.395	ng/L	
Hg2600-2	BC	SAM	1610145-17	500	11/9/2016 10:16:16	16280-1.RAW	10:16:16 AM	645.17	1		631.1	3.200	1600.140	ng/L	
Hg2600-2	BC	SAM	1610145-18	500	11/9/2016 10:20:25	16281-1.RAW	10:20:25 AM	466.16	1		452.0	2.290	1145.044	ng/L	
Hg2600-2	BC	SAM	1610145-19	500	11/9/2016 10:24:33	16282-1.RAW	10:24:33 AM	336.12	1		322.0	1.629	814.444	ng/L	
Hg2600-2	BC	SAM	1610145-20	500	11/9/2016 10:28:42	16283-1.RAW	10:28:42 AM	388.00	1		373.9	1.893	946.338	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	11/9/2016 10:32:50	16284-1.RAW	10:32:50 AM	906.78			892.6	4.539	4.539	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	11/9/2016 10:36:59	16285-1.RAW	10:36:59 AM	29.83			15.7	0.080	0.080	ng/L	
Hg2600-2	BC	SAM	1610145-21	100	11/9/2016 10:41:07	16286-1.RAW	10:41:07 AM	5219.98	1		5205.9	26.428	2642.777	ng/L	
Hg2600-2	BC	SAM	1610145-22	100	11/9/2016 10:45:15	16287-1.RAW	10:45:15 AM	7266.48	1		7252.4	36.833	3683.339	ng/L	
Hg2600-2	BC	SAM	1610145-23	100	11/9/2016 10:49:24	16288-1.RAW	10:49:24 AM	3853.04	1		3838.9	19.477	1947.744	ng/L	
Hg2600-2	BC	SAM	1610145-24	100	11/9/2016 10:53:32	16289-1.RAW	10:53:32 AM	3237.72	1		3223.6	16.349	1634.880	ng/L	
Hg2600-2	BC	SAM	1610145-25	100	11/9/2016 10:57:41	16290-1.RAW	10:57:41 AM	3931.77	1		3917.7	19.878	1987.775	ng/L	
Hg2600-2	BC	SAM	1610145-26	100	11/9/2016 11:01:49	16291-1.RAW	11:01:49 AM	3398.14	1		3384.0	17.164	1716.447	ng/L	
Hg2600-2	BC	SAM	1610145-27	100	11/9/2016 11:05:58	16292-1.RAW	11:05:58 AM	3540.54	1		3526.4	17.889	1788.851	ng/L	
Hg2600-2	BC	SAM	1610145-28	100	11/9/2016 11:10:06	16293-1.RAW	11:10:06 AM	3210.69	1		3196.6	16.211	1621.136	ng/L	
Hg2600-2	BC	SAM	1610145-29	100	11/9/2016 11:14:15	16294-1.RAW	11:14:15 AM	2349.93	1		2335.8	11.835	1183.475	ng/L	
Hg2600-2	BC	SAM	1610145-30	100	11/9/2016 11:18:23	16295-1.RAW	11:18:23 AM	2702.29	1		2688.2	13.626	1362.635	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	11/9/2016 11:22:31	16296-1.RAW	11:22:31 AM	963.31			949.2	4.826	4.826	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	11/9/2016 11:26:40	16297-1.RAW	11:26:40 AM	55.36			41.2	0.210	0.210	ng/L	
Hg2600-2	BC	SAM	1610145-31	100	11/9/2016 11:30:48	16298-1.RAW	11:30:48 AM	2902.84	1		2888.7	14.646	1464.607	ng/L	
Hg2600-2	BC	SAM	1610145-32	100	11/9/2016 11:34:57	16299-1.RAW	11:34:57 AM	3031.68	1		3017.6	15.301	1530.117	ng/L	
Hg2600-2	BC	SAM	1610145-33	100	11/9/2016 11:39:05	16300-1.RAW	11:39:05 AM	2272.58	1		2258.5	11.441	1144.145	ng/L	
Hg2600-2	BC	SAM	1610145-34	100	11/9/2016 11:43:14	16301-1.RAW	11:43:14 AM	2449.61	1		2435.5	12.342	1234.158	ng/L	
Hg2600-2	BC	SAM	1610145-35	100	11/9/2016 11:47:22	16302-1.RAW	11:47:22 AM	2816.98	1		2802.9	14.210	1420.951	ng/L	
Hg2600-2	BC	SAM	1610145-36	100	11/9/2016 11:51:30	16303-1.RAW	11:51:30 AM	2374.49	1		2360.4	11.960	1195.963	ng/L	
Hg2600-2	BC	SAM	F610470-DUP1	100	11/9/2016 11:55:39	16304-1.RAW	11:55:39 AM	5946.79	1		5932.7	30.123	3012.330	ng/L	
Hg2600-2	BC	SAM	F610470-MS1	500	11/9/2016 11:59:47	16305-1.RAW	11:59:47 AM	3064.62	1		3050.5	15.502	7751.095	ng/L	
Hg2600-2	BC	SAM	F610470-MSD1	500	11/9/2016 12:03:56	16306-1.RAW	12:03:56 PM	3215.96	1		3201.8	16.272	8135.846	ng/L	
Hg2600-2	BC	SAM	F610470-MS2	500	11/9/2016 12:08:05	16307-1.RAW	12:08:05 PM	2337.40	1		2323.3	11.805	5902.287	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	11/9/2016 12:12:14	16308-1.RAW	12:12:14 PM	999.11			985.0	5.008	5.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	11/9/2016 12:16:22	16309-1.RAW	12:16:22 PM	58.96			44.8	0.228	0.228	ng/L	
Hg2600-2	BC	SAM	F610470-MSD2	500	11/9/2016 12:20:31	16310-1.RAW	12:20:31 PM	2459.30	1		2445.2	12.424	6212.193	ng/L	
Hg2600-2	BC	BLK	F610471-BLK1	20	11/9/2016 12:24:39	16311-1.RAW	12:24:39 PM	67.01	2		52.9	0.269	5.379	ng/L	
Hg2600-2	BC	BLK	F610471-BLK2	20	11/9/2016 12:28:47	16312-1.RAW	12:28:47 PM	45.55	2		31.4	0.160	3.197	ng/L	
Hg2600-2	BC	BLK	F610471-BLK3	20	11/9/2016 12:32:56	16313-1.RAW	12:32:56 PM	40.73	2		26.6	0.135	2.707	ng/L	
Hg2600-2	BC	SAM	F610471-BS1	20	11/9/2016 12:37:04	16314-1.RAW	12:37:04 PM	990.73	2		976.6	4.778	95.553	ng/L	
Hg2600-2	BC	SAM	F610471-BSD1	20	11/9/2016 12:41:13	16315-1.RAW	12:41:13 PM	1016.98	2		1002.9	4.911	98.222	ng/L	
Hg2600-2	BC	SAM	F610471-BS2	500	11/9/2016 12:45:21	16316-1.RAW	12:45:21 PM	833.46	2		819.3	4.159	2079.260	ng/L	
Hg2600-2	BC	SAM	1610145-37	100	11/9/2016 12:49:30	16317-1.RAW	12:49:30 PM	1893.57	2		1879.5	9.519	951.866	ng/L	
Hg2600-2	BC	SAM	1610145-38	100	11/9/2016 12:53:38	16318-1.RAW	12:53:38 PM	2529.40	2		2515.3	12.752	1275.159	ng/L	
Hg2600-2	BC	SAM	1610145-39	100	11/9/2016 12:57:47	16319-1.RAW	12:57:47 PM	1872.62	2		1858.5	9.412	941.213	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	11/9/2016 13:01:55	16320-1.RAW	1:01:55 PM	989.24			975.1	4.958	4.958	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	11/9/2016 13:06:03	16321-1.RAW	1:06:03 PM	47.01			32.9	0.167	0.167	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	1610145-40	100	11/9/2016 13:10:12	16322-1.RAW	1:10:12 PM	1358.81	2		1344.7	6.800	679.962	ng/L	
Hg2600-2	BC	SAM	1610145-41	100	11/9/2016 13:14:20	16323-1.RAW	1:14:20 PM	2418.94	2		2404.8	12.190	1218.995	ng/L	
Hg2600-2	BC	SAM	1610145-42	100	11/9/2016 13:18:29	16324-1.RAW	1:18:29 PM	1891.66	2		1877.5	9.509	950.894	ng/L	
Hg2600-2	BC	SAM	1610145-43	100	11/9/2016 13:22:37	16325-1.RAW	1:22:37 PM	1873.79	2		1859.7	9.418	941.808	ng/L	
Hg2600-2	BC	SAM	1610145-44	100	11/9/2016 13:26:46	16326-1.RAW	1:26:46 PM	2494.41	2		2480.3	12.574	1257.368	ng/L	
Hg2600-2	BC	SAM	1610145-45	100	11/9/2016 13:30:54	16327-1.RAW	1:30:54 PM	2304.21	2		2290.1	11.607	1160.659	ng/L	
Hg2600-2	BC	SAM	1610231-01	100	11/9/2016 13:35:03	16328-1.RAW	1:35:03 PM	674.18	2		660.1	3.319	331.856	ng/L	
Hg2600-2	BC	SAM	1610231-02	100	11/9/2016 13:39:11	16329-1.RAW	1:39:11 PM	1205.75	2		1191.6	6.021	602.137	ng/L	
Hg2600-2	BC	SAM	1610231-03	100	11/9/2016 13:43:19	16330-1.RAW	1:43:19 PM	388.09	2		374.0	1.864	186.391	ng/L	
Hg2600-2	BC	SAM	1610231-04	100	11/9/2016 13:47:28	16331-1.RAW	1:47:28 PM	757.32	2		743.2	3.741	374.129	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	11/9/2016 13:51:36	16332-1.RAW	1:51:36 PM	948.84			934.7	4.753	4.753	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	11/9/2016 13:55:45	16333-1.RAW	1:55:45 PM	39.17			25.1	0.127	0.127	ng/L	
Hg2600-2	BC	SAM	1610231-05	100	11/9/2016 13:59:53	16334-1.RAW	1:59:53 PM	1967.44	2		1953.3	9.894	989.425	ng/L	
Hg2600-2	BC	SAM	1610232-01	100	11/9/2016 14:04:02	16335-1.RAW	2:04:02 PM	1114.33	2		1100.2	5.557	555.654	ng/L	
Hg2600-2	BC	SAM	1610232-03	100	11/9/2016 14:08:10	16336-1.RAW	2:08:10 PM	3083.14	2		3069.0	15.567	1556.713	ng/L	
Hg2600-2	BC	SAM	1610232-04	100	11/9/2016 14:12:19	16337-1.RAW	2:12:19 PM	1349.33	2		1335.2	6.751	675.142	ng/L	
Hg2600-2	BC	SAM	1610232-05	100	11/9/2016 14:16:27	16338-1.RAW	2:16:27 PM	2211.11	2		2197.0	11.133	1113.322	ng/L	
Hg2600-2	BC	SAM	1610232-06	100	11/9/2016 14:20:35	16339-1.RAW	2:20:35 PM	1596.14	2		1582.0	8.006	800.635	ng/L	
Hg2600-2	BC	SAM	1610232-07	100	11/9/2016 14:24:44	16340-1.RAW	2:24:44 PM	1420.59	2		1406.5	7.114	711.375	ng/L	
Hg2600-2	BC	SAM	F610471-DUP1	100	11/9/2016 14:28:52	16341-1.RAW	2:28:52 PM	2725.61	2		2711.5	13.749	1374.924	ng/L	
Hg2600-2	BC	SAM	F610471-MS1	500	11/9/2016 14:33:01	16342-1.RAW	2:33:01 PM	2516.17	2		2502.1	12.714	6357.204	ng/L	
Hg2600-2	BC	SAM	F610471-MSD1	500	11/9/2016 14:37:09	16343-1.RAW	2:37:09 PM	2458.98	2		2444.9	12.424	6211.811	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	11/9/2016 14:41:18	16344-1.RAW	2:41:18 PM	975.27			961.2	4.887	4.887	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	11/9/2016 14:45:26	16345-1.RAW	2:45:26 PM	82.01			67.9	0.345	0.345	ng/L	
Hg2600-2	BC	SAM	F610471-MS2	500	11/9/2016 14:49:34	16346-1.RAW	2:49:34 PM	2119.04	2		2104.9	10.695	5347.583	ng/L	
Hg2600-2	BC	SAM	F610471-MSD2	500	11/9/2016 14:53:43	16347-1.RAW	2:53:43 PM	1970.45	2		1956.3	9.940	4969.823	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	11/9/2016 14:57:51	16348-1.RAW	2:57:51 PM	914.26			900.1	4.577	4.577	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	11/9/2016 15:02:00	16349-1.RAW	3:02:00 PM	49.96			35.8	0.182	0.182	ng/L	

TotalMercury    **Operat** BC    **Blanks** 14.114    **Calib Eqn:** Conc = (Area-14.11    **Run Date:** 11/8/2016    **Blank SD:** 1.684229152  
 EPA1631    **Worksh** WS0000    **CalibFa** 196.67    **Status:** QC Warnings:4/QC E    **Run Time:** 8:51:50    **Blank RSD%:** 11.93313659  
**Method** ####    **R:** 1    **R<sup>2</sup>:** 1    **CF SD:** 2.336722724  
**Descrip** THG26002-161108-2    **CF RSD%:** 1.188125159

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	0.02					16260-1.RAW	8:54:42	4.10	Clean	OK	1	
clean				0.00	0.00					16261-1.RAW	8:57:34	0.21	Clean	OK	1	
ws				14.11	0.00					16262-1.RAW	9:01:42	12.45	Sample	OK	1	
ws				14.11	0.00					16263-1.RAW	9:05:50	4.47	Sample	OK	1	
ws				14.11	0.00					16264-1.RAW	9:09:59	7.50	Sample	OK	1	
SEQ-IBL1	A1			0.00	0.07					16265-1.RAW	9:14:07	14.00	Sample	OK	1	
SEQ-IBL2	A2			0.00	0.08					16266-1.RAW	9:18:16	15.85	Sample	OK	1	
SEQ-IBL3	A3			0.00	0.06					16267-1.RAW	9:22:24	12.49	Sample	OK	1	
SEQ-CAL1	A4			14.11	0.49			98.99		16268-1.RAW	9:26:33	111.46	Sample	OK	1	
SEQ-CAL2	A5			14.11	1.01			100.85		16269-1.RAW	9:30:41	212.45	Sample	OK	1	
SEQ-CAL3	A6			14.11	5.07			101.49		16270-1.RAW	9:34:49	1012.13	Sample	OK	1	
SEQ-CAL4	A7			14.11	19.99			99.97		16271-1.RAW	9:38:58	3946.52	Sample	OK	1	
SEQ-CAL5	A8			14.11	39.48			98.70		16272-1.RAW	9:43:06	7778.51	Sample	OK	1	
SEQ-ICV1	A9			14.11	4.77			95.31		16273-1.RAW	9:47:16	951.35	Sample	OK	1	
F610470-BLK1	A10		20	14.11	6.96					16274-1.RAW	9:51:24	82.53	Sample	OK	1	
F610470-BLK2	A11		20	14.11	3.31					16275-1.RAW	9:55:34	46.70	Sample	OK	1	
F610470-BLK3	A12		20	14.11	2.30					16276-1.RAW	9:59:42	36.78	Sample	OK	1	
F610470-BS1	A13		20	14.11	106.33					16277-1.RAW	10:03:51	1059.70	Sample	OK	1	
F610470-BSD1	A14		20	14.11	101.93					16278-1.RAW	10:07:59	1016.41	Sample	OK	1	
F610470-BS2	A15		500	14.11	2130.57					16279-1.RAW	10:12:08	852.17	Sample	OK	1	
1610145-17	A16		500	14.11	1604.34					16280-1.RAW	10:16:16	645.17	Sample	OK	1	
1610145-18	A17		500	14.11	1149.24					16281-1.RAW	10:20:25	466.16	Sample	OK	1	
1610145-19	A18		500	14.11	818.64					16282-1.RAW	10:24:33	336.12	Sample	OK	1	
1610145-20	A19		500	14.11	950.53					16283-1.RAW	10:28:42	388.00	Sample	OK	1	
SEQ-CCV1	A20		1	14.11	4.54			90.77		16284-1.RAW	10:32:50	906.76	Sample	OK	1	
SEQ-CCB1	A21		1	14.11	0.08			0.00		16285-1.RAW	10:36:59	29.83	Sample	OK	1	
1610145-21	B1		100	14.11	2646.96					16286-1.RAW	10:41:07	5219.98	Sample	OK	1	
1610145-22	B2		100	14.11	3687.52					16287-1.RAW	10:45:15	7266.48	Sample	OK	1	
1610145-23	B3		100	14.11	1951.93					16288-1.RAW	10:49:24	3853.04	Sample	OK	1	
1610145-24	B4		100	14.11	1639.07					16289-1.RAW	10:53:32	3237.72	Sample	OK	1	
1610145-25	B5		100	14.11	1991.96					16290-1.RAW	10:57:41	3931.77	Sample	OK	1	
1610145-26	B6		100	14.11	1720.63					16291-1.RAW	11:01:49	3398.14	Sample	OK	1	
1610145-27	B7		100	14.11	1793.04					16292-1.RAW	11:05:58	3540.54	Sample	OK	1	
1610145-28	B8		100	14.11	1625.32					16293-1.RAW	11:10:06	3210.69	Sample	OK	1	
1610145-29	B9		100	14.11	1187.66					16294-1.RAW	11:14:15	2349.93	Sample	OK	1	
1610145-30	B10		100	14.11	1366.83					16295-1.RAW	11:18:23	2702.29	Sample	OK	1	
SEQ-CCV2	B11		1	14.11	4.83			96.52		16296-1.RAW	11:22:31	963.31	Sample	OK	1	
SEQ-CCB2	B12		1	14.11	0.21			0.00		16297-1.RAW	11:26:40	55.36	Sample	OK	1	
1610145-31	B13		100	14.11	1468.79					16298-1.RAW	11:30:48	2902.84	Sample	OK	1	
1610145-32	B14		100	14.11	1534.31					16299-1.RAW	11:34:57	3031.68	Sample	OK	1	
1610145-33	B15		100	14.11	1148.33					16300-1.RAW	11:39:05	2272.58	Sample	OK	1	
1610145-34	B16		100	14.11	1238.34					16301-1.RAW	11:43:14	2449.61	Sample	OK	1	
1610145-35	B17		100	14.11	1425.14					16302-1.RAW	11:47:22	2816.98	Sample	OK	1	
1610145-36	B18		100	14.11	1200.15					16303-1.RAW	11:51:30	2374.49	Sample	OK	1	
F610470-DUP1	B19		100	14.11	3016.51					16304-1.RAW	11:55:39	5946.79	Sample	OK	1	

F610470-MS1	B20	500	14.11	7755.26	257.01	16305-1.RAW	11:59:47	3064.62	Sample	OK	1
F610470-MSD1	B21	500	14.11	8140.02		16306-1.RAW	12:03:56	3215.96	Sample	OK	1
F610470-MS2	C1	500	14.11	5906.46	72.54	16307-1.RAW	12:08:05	2337.40	Sample	OK	1
SEQ-CCV3	C2	1	14.11	5.01	100.17	16308-1.RAW	12:12:14	999.11	Sample	OK	1
SEQ-CCB3	C3	1	14.11	0.23	0.00	16309-1.RAW	12:16:22	58.96	Sample	OK	1
F610470-MSD2	C4	500	14.11	6216.38		16310-1.RAW	12:20:31	2459.30	Sample	OK	1
F610471-BLK1	C5	20	14.11	5.38		16311-1.RAW	12:24:39	67.01	Sample	OK	1
F610471-BLK2	C6	20	14.11	3.20		16312-1.RAW	12:28:47	45.55	Sample	OK	1
F610471-BLK3	C7	20	14.11	2.71		16313-1.RAW	12:32:56	40.73	Sample	OK	1
F610471-BS1	C8	20	14.11	99.31		16314-1.RAW	12:37:04	990.73	Sample	OK	1
F610471-BSD1	C9	20	14.11	101.98		16315-1.RAW	12:41:13	1016.98	Sample	OK	1
F610471-BS2	C10	500	14.11	2083.02		16316-1.RAW	12:45:21	833.46	Sample	OK	1
1610145-37	C11	100	14.11	955.62		16317-1.RAW	12:49:30	1893.57	Sample	OK	1
1610145-38	C12	100	14.11	1278.92		16318-1.RAW	12:53:38	2529.40	Sample	OK	1
1610145-39	C13	100	14.11	944.97		16319-1.RAW	12:57:47	1872.62	Sample	OK	1
SEQ-CCV4	C14	1	14.11	4.96	99.16	16320-1.RAW	13:01:55	989.24	Sample	OK	1
SEQ-CCB4	C15	1	14.11	0.17	0.00	16321-1.RAW	13:06:03	47.01	Sample	OK	1
1610145-40	C16	100	14.11	683.72		16322-1.RAW	13:10:12	1358.81	Sample	OK	1
1610145-41	C17	100	14.11	1222.75		16323-1.RAW	13:14:20	2418.94	Sample	OK	1
1610145-42	C18	100	14.11	954.65		16324-1.RAW	13:18:29	1891.66	Sample	OK	1
1610145-43	C19	100	14.11	945.57		16325-1.RAW	13:22:37	1873.79	Sample	OK	1
1610145-44	C20	100	14.11	1261.13		16326-1.RAW	13:26:46	2494.41	Sample	OK	1
1610145-45	C21	100	14.11	1164.42		16327-1.RAW	13:30:54	2304.21	Sample	OK	1
1610231-01	A1	100	14.11	335.62		16328-1.RAW	13:35:03	674.18	Sample	OK	1
1610231-02	A2	100	14.11	605.90		16329-1.RAW	13:39:11	1205.75	Sample	OK	1
1610231-03	A3	100	14.11	190.15		16330-1.RAW	13:43:19	388.09	Sample	OK	1
1610231-04	A4	100	14.11	377.89		16331-1.RAW	13:47:28	757.32	Sample	OK	1
SEQ-CCV5	A5	1	14.11	4.75	95.05	16332-1.RAW	13:51:36	948.84	Sample	OK	1
SEQ-CCB5	A6	1	14.11	0.13	0.00	16333-1.RAW	13:55:45	39.17	Sample	OK	1
1610231-05	A7	100	14.11	993.18		16334-1.RAW	13:59:53	1967.44	Sample	OK	1
1610232-01	A8	100	14.11	559.42		16335-1.RAW	14:04:02	1114.33	Sample	OK	1
1610232-03	A9	100	14.11	1560.47		16336-1.RAW	14:08:10	3083.14	Sample	OK	1
1610232-04	A10	100	14.11	678.90		16337-1.RAW	14:12:19	1349.33	Sample	OK	1
1610232-05	A11	100	14.11	1117.08		16338-1.RAW	14:16:27	2211.11	Sample	OK	1
1610232-06	A12	100	14.11	804.39		16339-1.RAW	14:20:35	1596.14	Sample	OK	1
1610232-07	A13	100	14.11	715.13		16340-1.RAW	14:24:44	1420.59	Sample	OK	1
F610471-DUP1	A14	100	14.11	1378.68		16341-1.RAW	14:28:52	2725.61	Sample	OK	1
F610471-MS1	A15	500	14.11	6360.96	461.05	16342-1.RAW	14:33:01	2516.17	Sample	OK	1
F610471-MSD1	A16	500	14.11	6215.55		16343-1.RAW	14:37:09	2458.98	Sample	OK	1
SEQ-CCV6	A17	1	14.11	4.89	97.74	16344-1.RAW	14:41:18	975.27	Sample	OK	1
SEQ-CCB6	A18	1	14.11	0.35	0.00	16345-1.RAW	14:45:26	82.01	Sample	OK	1
F610471-MS2	A19	500	14.11	5351.32	228177.56	16346-1.RAW	14:49:34	2119.04	Sample	OK	1
F610471-MSD2	A20	500	14.11	4973.58		16347-1.RAW	14:53:43	1970.45	Sample	OK	1
SEQ-CCV7	A21	1	14.11	4.58	91.54	16348-1.RAW	14:57:51	914.26	Sample	OK	1
SEQ-CCB7	B1	1	14.11	0.18	0.00	16349-1.RAW	15:02:00	49.96	Sample	OK	1



## ANALYSIS SEQUENCE

6K09002



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/8/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K09002-IBL1	QC	1			
6K09002-IBL2	QC	2			
6K09002-IBL3	QC	3			
6K09002-CAL1	QC	4	1605412		
6K09002-CAL2	QC	5	1605413		
6K09002-CAL3	QC	6	1605414		
6K09002-CAL4	QC	7	1605415		
6K09002-CAL5	QC	8	1605416		
6K09002-ICV1	QC	9	1605791		
F610470-BLK1	QC	10			
F610470-BLK2	QC	11			
F610470-BLK3	QC	12			
F610470-BS1	QC	13			
F610470-BSD1	QC	14			
F610470-BS2	QC	15			
1610145-17	Hg-CVAFS-T-7030	16			
1610145-18	Hg-CVAFS-T-7030	17			
1610145-19	Hg-CVAFS-T-7030	18			
1610145-20	Hg-CVAFS-T-7030	19			
6K09002-CCV1	QC	20	1605791		
6K09002-CCB1	QC	21			
1610145-21	Hg-CVAFS-T-7030	22			
1610145-22	Hg-CVAFS-T-7030	23			
1610145-23	Hg-CVAFS-T-7030	24			
1610145-24	Hg-CVAFS-T-7030	25			
1610145-25	Hg-CVAFS-T-7030	26			
1610145-26	Hg-CVAFS-T-7030	27			
1610145-27	Hg-CVAFS-T-7030	28			
1610145-28	Hg-CVAFS-T-7030	29			
1610145-29	Hg-CVAFS-T-7030	30			
1610145-30	Hg-CVAFS-T-7030	31			
6K09002-CCV2	QC	32	1605791		
6K09002-CCB2	QC	33			
1610145-31	Hg-CVAFS-T-7030	34			
1610145-32	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K09002



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/8/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610145-33	Hg-CVAFS-T-7030	36			
1610145-34	Hg-CVAFS-T-7030	37			
1610145-35	Hg-CVAFS-T-7030	38			
1610145-36	Hg-CVAFS-T-7030	39			
F610470-DUP1	QC	40			
F610470-MS1	QC	41			
F610470-MSD1	QC	42			
F610470-MS2	QC	43			
6K09002-CCV3	QC	44	1605791		
6K09002-CCB3	QC	45			
F610470-MSD2	QC	46			
F610471-BLK1	QC	47			
F610471-BLK2	QC	48			
F610471-BLK3	QC	49			
F610471-BS1	QC	50			
F610471-BSD1	QC	51			
F610471-BS2	QC	52			
1610145-37	Hg-CVAFS-T-7030	53			
1610145-38	Hg-CVAFS-T-7030	54			
1610145-39	Hg-CVAFS-T-7030	55			
6K09002-CCV4	QC	56	1605791		
6K09002-CCB4	QC	57			
1610145-40	Hg-CVAFS-T-7030	58			
1610145-41	Hg-CVAFS-T-7030	59			
1610145-42	Hg-CVAFS-T-7030	60			
1610145-43	Hg-CVAFS-T-7030	61			
1610145-44	Hg-CVAFS-T-7030	62			
1610145-45	Hg-CVAFS-T-7030	63			
1610231-01	Hg-CVAFS-T-7030	64			
1610231-02	Hg-CVAFS-T-7030	65			
1610231-03	Hg-CVAFS-T-7030	66			
1610231-04	Hg-CVAFS-T-7030	67			
6K09002-CCV5	QC	68	1605791		
6K09002-CCB5	QC	69			
1610231-05	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016





**PREPARATION BENCH SHEET**

F610470

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610470-BLK1	Blank	0.25	20					
F610470-BLK2	Blank	0.25	20					
F610470-BLK3	Blank	0.25	20					
F610470-BS1	Blank Spike	0.25	20	1605270	20			
F610470-BS2	DORM-4	0.1257	20	1605470	126			
F610470-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610470-DUP1	Duplicate [1610145-21]	0.2742	20					
F610470-MS1	Matrix Spike [1610145-21]	0.2655	20	1605712	100			
F610470-MS2	Matrix Spike [1610145-30]	0.2784	20	1605712	100			
F610470-MSD1	Matrix Spike Dup [1610145-21]	0.2869	20	1605712	100			
F610470-MSD2	Matrix Spike Dup [1610145-30]	0.2729	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606367	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610470

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610145-17	BO-04_100316_MUM_WB_17	0.297	20	-	-	-		
1610145-18	BO-04_100316_MUM_WB_18	0.2665	20	-	-	-		
1610145-19	BO-04_100316_MUM_WB_19	0.2746	20	-	-	-		
1610145-20	BO-04_100316_MUM_WB_20	0.2962	20	-	-	-		
1610145-21	MMMC-01_092316_MUM_WB_01	0.2978	20	-	-	-		
1610145-22	MMMC-01_092316_MUM_WB_02	0.2962	20	-	-	-		
1610145-23	MMMC-01_092316_MUM_WB_03	0.279	20	-	-	-		
1610145-24	MMMC-01_092316_MUM_WB_04	0.2708	20	-	-	-		
1610145-25	OB-01_092516_MUM_WB_01	0.2976	20	-	-	-		
1610145-26	OB-05_092516_MUM_WB_01	0.3086	20	-	-	-		
1610145-27	OB-05_092516_MUM_WB_02	0.2856	20	-	-	-		
1610145-28	OB-05_092516_MUM_WB_03	0.2867	20	-	-	-		
1610145-29	OB-05_092516_MUM_WB_04	0.2882	20	-	-	-		
1610145-30	OB-05_092516_MUM_WB_05	0.2835	20	-	-	-		
1610145-31	OB-05_092516_MUM_WB_06	0.257	20	-	-	-		
1610145-32	OB-05_100316_MUM_WB_07	0.2874	20	-	-	-		
1610145-33	OB-05_100316_MUM_WB_08	0.2751	20	-	-	-		
1610145-34	OB-05_100316_MUM_WB_09	0.2961	20	-	-	-		
1610145-35	OB-05_100316_MUM_WB_10	0.3068	20	-	-	-		

Page 116 of 228

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610470

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

1610145-36	OB-05_100316_MUM_WB_11	0.2711	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610471-BLK1	Blank	0.25	20					
F610471-BLK2	Blank	0.25	20					
F610471-BLK3	Blank	0.25	20					
F610471-BS1	Blank Spike	0.25	20	1605270	20			
F610471-BS2	DORM-4	0.1253	20	1605470	125			
F610471-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610471-DUP1	Duplicate [1610145-44]	0.2533	20					
F610471-MS1	Matrix Spike [1610145-45]	0.2565	20	1605712	100			
F610471-MS2	Matrix Spike [1610231-01]	0.3261	20	1605712	100			
F610471-MSD1	Matrix Spike Dup [1610145-45]	0.258	20	1605712	100			
F610471-MSD2	Matrix Spike Dup [1610231-01]	0.3274	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610145-37	OB-05_100316_MUM_WB_12	0.2745	20	-	-	-		
1610145-38	OB-05_100316_MUM_WB_13	0.259	20	-	-	-		
1610145-39	OB-05_100316_MUM_WB_14	0.264	20	-	-	-		
1610145-40	OB-05_100316_MUM_WB_15	0.2779	20	-	-	-		
1610145-41	OB-05_100316_MUM_WB_16	0.2712	20	-	-	-		
1610145-42	OB-05_100316_MUM_WB_17	0.2655	20	-	-	-		
1610145-43	OB-05_100316_MUM_WB_18	0.2844	20	-	-	-		
1610145-44	OB-05_100316_MUM_WB_19	0.2625	20	-	-	-		
1610145-45	OB-05_100316_MUM_WB_20	0.265	20	QC	-	-	MS/MSD	
1610231-01	ES-13_072716_POL_WB_01	0.3194	20	QC	-	-	MS/MSD	
1610231-02	ES-13_072716_POL_WB_02	0.2665	20	-	-	-		
1610231-03	ES-13_072716_POL_WB_03	0.2906	20	-	-	-		
1610231-04	ES-13_072716_POL_WB_04	0.3029	20	-	-	-		
1610231-05	ES-13_072716_POL_WB_05	0.2776	20	-	-	-		
1610232-01	ES-13_092116_RAS_WB_01	0.2891	20	-	-	-		
1610232-03	ES-FP_092716_RAS_WB_02	0.2756	20	-	-	-		
1610232-04	ES-FP_092716_RAS_WB_03	0.2737	20	-	-	-		
1610232-05	ES-FP_092716_RAS_WB_04	0.2631	20	-	-	-		
1610232-06	ES-FP_092716_RAS_WB_05	0.2648	20	-	-	-		

Page 119 of 228

Date: 11/2/2016

PREPARATION BENCH SHEET

F610471

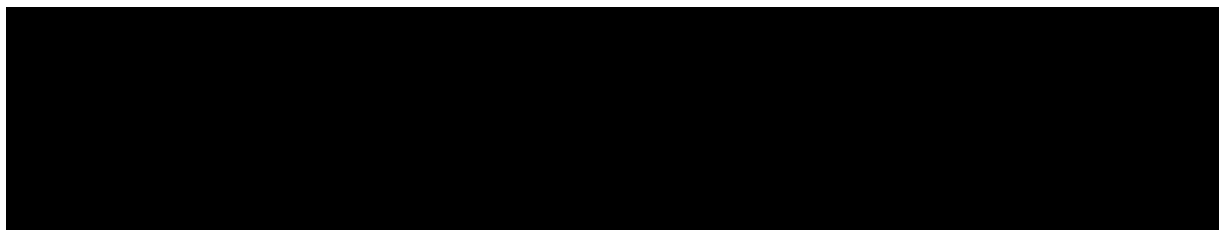
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

1610232-07	ES-FP_092716_RAS_WB_06	0.2919	20	-	-	-		
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BC 11/8/16

2600-2

PREPARATION BENCH SHEET

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610470-BLK1	Blank	0.25	20					20X
F610470-BLK2	Blank	0.25	20					20X
F610470-BLK3	Blank	0.25	20					20X
F610470-BS1	Blank Spike	0.25	20	1605270	20			20X
F610470-BS2	DORM-4	0.1257	20	1605470	126			500X
F610470-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610470-DUP1	Duplicate [1610145-21]	0.2742	20					100X
F610470-MS1	Matrix Spike [1610145-21]	0.2655	20	1605712	100			500X
F610470-MS2	Matrix Spike [1610145-30]	0.2784	20	1605712	100			500X
F610470-MSD1	Matrix Spike Dup [1610145-21]	0.2869	20	1605712	100			500X
F610470-MSD2	Matrix Spike Dup [1610145-30]	0.2729	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606304	70/30 Digestion Acid	26-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606367	5% BrCl	26-Mar-17 00:00
			1606465		19-Apr-17 00:00

1606370  
1605636  
1605635  
1602941



PREPARATION BENCH SHEET

Rx 11/8/16  
2600-2

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610145-17	BO-04_100316_MUM_WB_17	0.297	20	No 500x	
1610145-18	BO-04_100316_MUM_WB_18	0.2665	20	No 500x	
1610145-19	BO-04_100316_MUM_WB_19	0.2746	20	No 500x	
1610145-20	BO-04_100316_MUM_WB_20	0.2962	20	No 500x	
1610145-21	MMMC-01_092316_MUM_WB_01	0.2978	20	No 100x	
1610145-22	MMMC-01_092316_MUM_WB_02	0.2962	20	No 100x	
1610145-23	MMMC-01_092316_MUM_WB_03	0.279	20	No 100x	
1610145-24	MMMC-01_092316_MUM_WB_04	0.2708	20	No 100x	
1610145-25	OB-01_092516_MUM_WB_01	0.2976	20	No 100x	
1610145-26	OB-05_092516_MUM_WB_01	0.3086	20	No 100x	
1610145-27	OB-05_092516_MUM_WB_02	0.2856	20	No 100x	
1610145-28	OB-05_092516_MUM_WB_03	0.2867	20	No 100x	
1610145-29	OB-05_092516_MUM_WB_04	0.2882	20	No 100x	
1610145-30	OB-05_092516_MUM_WB_05	0.2835	20	No 100x	
1610145-31	OB-05_092516_MUM_WB_06	0.257	20	No 100x	
1610145-32	OB-05_100316_MUM_WB_07	0.2874	20	No 100x	
1610145-33	OB-05_100316_MUM_WB_08	0.2751	20	No 100x	
1610145-34	OB-05_100316_MUM_WB_09	0.2961	20	No 100x	
1610145-35	OB-05_100316_MUM_WB_10	0.3068	20	No 100x	
1610145-36	OB-05_100316_MUM_WB_11	0.2711	20	No 100x	

**PREPARATION BENCH SHEET**

*Bi 11/8/16  
2600-2*

**F610470**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Technician: Dwyer Batch#: F610470 Date: 11/04/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:50 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 13:50 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606367/1606465) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/4/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 10-30-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 022159 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  
 Glass Vial # 00065051 Boiling Chip lot # 1603399 \*Hotblock Position: J, 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	F610470 Blank1	0.2574	23	1610145-28	0.2867	BS2 DOPM-4
2	F610470 Blank2	0.2497	24	1610145-29	0.2882	1605470
3	F610470 Blank3	0.2640	25	1610145-30	0.2835	IT6
4	F610470 BS1	0.2920	26	1610145-31	0.2570	<b>Comments</b> BS1, BS01 = 100 µg/L = 20 mL 1605270 Dup1 MS1/MS01 source 1610145-21 MS2 MS02 1610145-30 11/4/16 DWS 5% BrCl Dispenser 022159 call yes MPM 11/7/16
5	F610470 BS01	0.2690	27	1610145-32	0.2874	
6	F610470 <sup>11/04/16</sup> BS2	0.1257	28	1610145-33	0.2751	
7	F610470 Dup1	0.2742	29	1610145-34	0.2961	
8	F610470 MS1	0.2655	30	1610145-35	0.3068	
9	F610470 MS01	0.2869	31	1610145-36	0.2711	
10	F610470 MS2	0.2784	32			
11	F610470 MS02	0.2729	33			
12	1610145-17	0.2970	34			
13	1610145-18	0.2665	35			
14	1610145-19	0.2746	36			
15	1610145-20	0.2962	37			
16	1610145-21	0.2978	38			
17	1610145-22	0.2962	39			
18	1610145-23	0.2790	40			
19	1610145-24	0.2708	41			
20	1610145-25	0.2976	42			
21	1610145-26	0.3086	43			
22	1610145-27	0.2856	44			

**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610471-BLK1	Blank	0.25	20					20X
F610471-BLK2	Blank	0.25	20					20X
F610471-BLK3	Blank	0.25	20					20X
F610471-BS1	Blank Spike	0.25	20	1605270	20			20X
F610471-BS2	DORM-4	0.1253	20	1605470	125			500X
F610471-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610471-DUP1	Duplicate [1610145-44]	0.2533	20					100X
F610471-MS1	Matrix Spike [1610145-45]	0.2565	20	1605712	100			500X
F610471-MS2	Matrix Spike [1610231-01]	0.3261	20	1605712	100			500X
F610471-MSD1	Matrix Spike Dup [1610145-45]	0.258	20	1605712	100			500X
F610471-MSD2	Matrix Spike Dup [1610231-01]	0.3274	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606465	5% BrCl	19-Apr-17 00:00

1606370  
1605636  
1605635  
1602941

**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610145-37	OB-05_100316_MUM_WB_12	0.2745	20	No 100X	
1610145-38	OB-05_100316_MUM_WB_13	0.259	20	No 100X	
1610145-39	OB-05_100316_MUM_WB_14	0.264	20	No 100X	
1610145-40	OB-05_100316_MUM_WB_15	0.2779	20	No 100X	
1610145-41	OB-05_100316_MUM_WB_16	0.2712	20	No 100X	
1610145-42	OB-05_100316_MUM_WB_17	0.2655	20	No 100X	
1610145-43	OB-05_100316_MUM_WB_18	0.2844	20	No 100X	
1610145-44	OB-05_100316_MUM_WB_19	0.2625	20	No 100X	
1610145-45	OB-05_100316_MUM_WB_20	0.265	20	No 100X	
1610231-01	ES-13_072716_POL_WB_01	0.3194	20	No 100X	
1610231-02	ES-13_072716_POL_WB_02	0.2665	20	No 100X	
1610231-03	ES-13_072716_POL_WB_03	0.2906	20	No 100X	
1610231-04	ES-13_072716_POL_WB_04	0.3029	20	No 100X	
1610231-05	ES-13_072716_POL_WB_05	0.2776	20	No 100X	
1610232-01	ES-13_092116_RAS_WB_01	0.2891	20	No 100X	
1610232-03	ES-FP_092716_RAS_WB_02	0.2756	20	No 100X	
1610232-04	ES-FP_092716_RAS_WB_03	0.2737	20	No 100X	
1610232-05	ES-FP_092716_RAS_WB_04	0.2631	20	No 100X	
1610232-06	ES-FP_092716_RAS_WB_05	0.2648	20	No 100X	
1610232-07	ES-FP_092716_RAS_WB_06	0.2919	20	No 100X	

**PREPARATION BENCH SHEET**

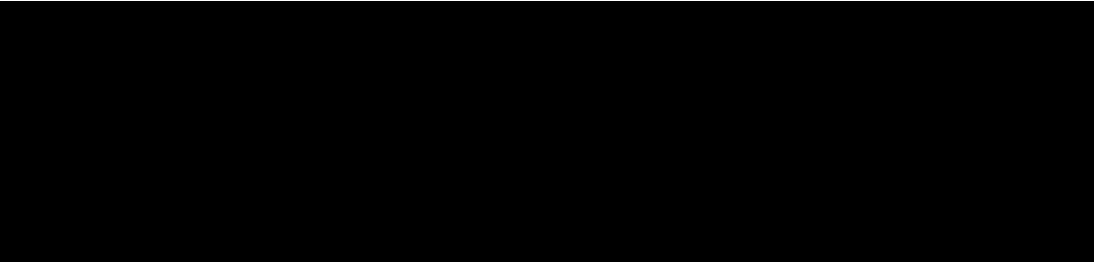
**F610471**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**



Technician: Duyon Batch#: F610 471 Date: 11-04-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:50 Actual Temp. (raw): 77.0 °C w/ CF: 76.5 °C  
 Time out: 13:50 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1600465) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/4/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M411667 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Dispenser SN#: 0222159 Calibration Date: 11/4/16  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  
 Glass Vial # 00065051 Boiling Chip lot # 1603399 \*Hotblock Position: J. 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	F610471 Blank1	0.2917	23	1610145-37	0.2917	BS2 POPH4 1605470
2	F610471 Blank2	0.2710	24	1610231-03-4/9/16	0.2906	
3	F610471 Blank3	0.2823	25	1610231-04-5/10/16	0.3029	
4	F610471 BS1	0.2980	26	1610231-05-5/10/16	0.2776	Comments BS1, BS01
5	F610471 BS01	0.2618	27	<del>11-4-16 out-06-52</del>	<del>0.24</del>	
6	F610471 BS2	0.1253	28	1610232-01	0.2891	= 100µL = 200µL 1605270
7	F610471 Dup1	0.2527	29	<del>11/4-1604-02</del>	<del>11/4/1604</del>	Dup1 source 161014544
8	F610471 MS1	0.2656	30	1610232-03	0.2756	MS1 MS01
9	F610471 MS01	0.2580	31	1610232-04	0.2737	1610145-45
10	F610471 MS2	0.3261	32	1610232-05	0.2631	MS2 MS02
11	F610471 MS02	0.3274	33	1610232-06	0.2648	1610231-01
12	1610145-37	0.2745	34	1610232-07	0.2919	Samples have a lot liquid 03, 11/4/16
13	1610145-38	0.2590	35			
14	1610145-39	0.2640	36			
15	1610145-40	0.2779	37			
16	1610145-41	0.2712	38			
17	1610145-42	0.2655	39			F610471-MS2 = 0.3261g
18	1610145-43	0.2844	40			
19	1610145-44	0.2625	41			11/4/16 04
20	1610145-45	0.2650	42			1610232-01 = 0.2891g
21	1610231-01-4/9/16	0.3194	43			
22	1610231-02-4/9/16	0.2665	44			

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

Analyst:	BC	Sequence(s) #:	6K09002
Reviewer:	<i>[Signature]</i>	Dataset ID(s):	THg26002-161108-1
Date:	11/9/2016	WO (s) #:	Various
Batch #(s):	F610470, F610471		

• 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: [Signature]

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



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

Analyst: BC	Sequence(s) #: 6K09002
Reviewer: 0 <i>[Signature]</i>	Dataset ID(s): THg26002-161108-1
Date: 11/9/2016	WO (s) #: Various
Batch #(s): F610470, F610471	0

Analyst Initials BC      Reviewer Initials A

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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   |  |  |   | <input type="checkbox"/>            |
| Comments: <u>NA</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:                                 |  |  |   | <input checked="" type="checkbox"/> |
| (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 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>	6K09002
<b>Reviewer:</b>	0 <i>Phy ML</i>	<b>Dataset ID(s):</b>	THg26002-161108-1
<b>Date:</b>	11/9/2016	<b>WO (s) #:</b>	Various
<b>Batch #(s):</b>	F610470, F610471		0

**Analyst Initials** BC      **Reviewer Initials** Ph

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\IDOCs
36. Date of analyst IDOC/CDOC: 12/17/15 IDOC/CDOC within last 12 months?  YES  NO
37. Date of analyst's SOP reading for method: 5/24/16 Current SOP revision read?  YES  NO
38. Date of LOD: 7/8/16 LOD within last 3 months?  YES  NO
39. Date of LOQ: 7/8/16 LOQ within last 3 months?  YES  NO

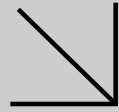
**Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**





Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-2444**

*The difference is service*



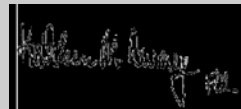
AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610145

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/19/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610145  
Work Order Number: 16-11-2444

1	16-11-2444 Level IV Case Narrative. . . . .	3
2	Work Order Narrative. . . . .	6
3	Sample Summary. . . . .	7
4	Client Sample Data. . . . .	9
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	9
5	Quality Control Sample Data. . . . .	15
	5.1 Sample Duplicate. . . . .	15
6	Glossary of Terms and Qualifiers. . . . .	18
7	Chain-of-Custody/Sample Receipt Form. . . . .	19
8	16-11-2444 Level IV Data Package. . . . .	32

## Case Narrative

Client Project Name: 1610145  
Work Order Number: 16-11-2444

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 45 tissue samples on November 29, 2016. A total of 45 containers were received in good condition at a temperature of -2.6°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
BO-04_100316_MUM_WB_01	16-11-2444-1	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_02	16-11-2444-2	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_03	16-11-2444-3	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_04	16-11-2444-4	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_05	16-11-2444-5	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_06	16-11-2444-6	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_07	16-11-2444-7	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_08	16-11-2444-8	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_09	16-11-2444-9	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_10	16-11-2444-10	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_11	16-11-2444-11	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_12	16-11-2444-12	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_13	16-11-2444-13	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_14	16-11-2444-14	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_15	16-11-2444-15	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_16	16-11-2444-16	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_17	16-11-2444-17	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_18	16-11-2444-18	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_19	16-11-2444-19	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
BO-04_100316_MUM_WB_20	16-11-2444-20	10/3/2016 10:35:00 AM	11/29/2016 12:30:00 PM
MMMC-01_092316_MUM_WB_01	16-11-2444-21	9/23/2016 11:30:00 AM	11/29/2016 12:30:00 PM
MMMC-01_092316_MUM_WB_02	16-11-2444-22	9/23/2016 11:30:00 AM	11/29/2016 12:30:00 PM
MMMC-01_092316_MUM_WB_03	16-11-2444-23	9/23/2016 11:30:00 AM	11/29/2016 12:30:00 PM
MMMC-01_092316_MUM_WB_04	16-11-2444-24	9/23/2016 11:30:00 AM	11/29/2016 12:30:00 PM
OB-01_092516_MUM_WB_01	16-11-2444-25	9/25/2016 11:30:00 AM	11/29/2016 12:30:00 PM
OB-05_092516_MUM_WB_01	16-11-2444-26	9/25/2016 11:30:00 AM	11/29/2016 12:30:00 PM
OB-05_092516_MUM_WB_02	16-11-2444-27	9/25/2016 11:30:00 AM	11/29/2016 12:30:00 PM
OB-05_092516_MUM_WB_03	16-11-2444-28	9/25/2016 11:30:00 AM	11/29/2016 12:30:00 PM
OB-05_092516_MUM_WB_04	16-11-2444-29	9/25/2016 11:30:00 AM	11/29/2016 12:30:00 PM

## Case Narrative

Client Project Name: 1610145  
Work Order Number: 16-11-2444

OB-05_092516_MUM_WB_05	16-11-2444-30	9/25/2016 11:30:00 AM	11/29/2016 12:30:00 PM
OB-05_092516_MUM_WB_06	16-11-2444-31	9/25/2016 11:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_07	16-11-2444-32	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_08	16-11-2444-33	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_09	16-11-2444-34	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_10	16-11-2444-35	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_11	16-11-2444-36	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_12	16-11-2444-37	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_13	16-11-2444-38	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_14	16-11-2444-39	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_15	16-11-2444-40	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_16	16-11-2444-41	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_17	16-11-2444-42	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_18	16-11-2444-43	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_19	16-11-2444-44	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM
OB-05_100316_MUM_WB_20	16-11-2444-45	10/03/2016 9:30:00 AM	11/29/2016 12:30:00 PM

### **DATA SUMMARY:**

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -45 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/06/16 and 12/07/16 in batch #s 161206B18 / 161206D18, 161207B26 / 161207D26, and 161207B27 / 161207D27.

## Case Narrative

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Client Project Name: 1610145  
Work Order Number: 16-11-2444

### Sample and QC:

#### Batch 0161206B18 / 0161206D18 (associated with samples 1-20):

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

#### Batch 0161207D26 / 0161207D26 (associated with samples 21-40):

Sample -22 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

#### Batch 0161207D27 / 0161207D27 (associated with samples 41-45):

A sample from another work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.



**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/29/16. They were assigned to Work Order 16-11-2444.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2444
11720 North Creek Parkway North, Suite 4	Project Name:	1610145
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/29/16 12:30
	Number of Containers:	45

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
BO-04_100316_MUM_WB_01	16-11-2444-1	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_02	16-11-2444-2	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_03	16-11-2444-3	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_04	16-11-2444-4	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_05	16-11-2444-5	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_06	16-11-2444-6	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_07	16-11-2444-7	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_08	16-11-2444-8	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_09	16-11-2444-9	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_10	16-11-2444-10	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_11	16-11-2444-11	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_12	16-11-2444-12	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_13	16-11-2444-13	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_14	16-11-2444-14	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_15	16-11-2444-15	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_16	16-11-2444-16	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_17	16-11-2444-17	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_18	16-11-2444-18	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_19	16-11-2444-19	10/03/16 10:35	1	Tissue
BO-04_100316_MUM_WB_20	16-11-2444-20	10/03/16 10:35	1	Tissue
MMMC-01_092316_MUM_WB_01	16-11-2444-21	09/23/16 11:30	1	Tissue
MMMC-01_092316_MUM_WB_02	16-11-2444-22	09/23/16 11:30	1	Tissue
MMMC-01_092316_MUM_WB_03	16-11-2444-23	09/23/16 11:30	1	Tissue
MMMC-01_092316_MUM_WB_04	16-11-2444-24	09/23/16 11:30	1	Tissue
OB-01_092516_MUM_WB_01	16-11-2444-25	09/25/16 11:30	1	Tissue
OB-05_092516_MUM_WB_01	16-11-2444-26	09/25/16 11:30	1	Tissue
OB-05_092516_MUM_WB_02	16-11-2444-27	09/25/16 11:30	1	Tissue
OB-05_092516_MUM_WB_03	16-11-2444-28	09/25/16 11:30	1	Tissue
OB-05_092516_MUM_WB_04	16-11-2444-29	09/25/16 11:30	1	Tissue
OB-05_092516_MUM_WB_05	16-11-2444-30	09/25/16 11:30	1	Tissue
OB-05_092516_MUM_WB_06	16-11-2444-31	09/25/16 11:30	1	Tissue
OB-05_100316_MUM_WB_07	16-11-2444-32	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_08	16-11-2444-33	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_09	16-11-2444-34	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_10	16-11-2444-35	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_11	16-11-2444-36	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_12	16-11-2444-37	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_13	16-11-2444-38	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_14	16-11-2444-39	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_15	16-11-2444-40	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_16	16-11-2444-41	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_17	16-11-2444-42	10/03/16 09:30	1	Tissue

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2444
11720 North Creek Parkway North, Suite 4	Project Name:	1610145
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/29/16 12:30
	Number of Containers:	45

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
OB-05_100316_MUM_WB_18	16-11-2444-43	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_19	16-11-2444-44	10/03/16 09:30	1	Tissue
OB-05_100316_MUM_WB_20	16-11-2444-45	10/03/16 09:30	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2444  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610145

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>BO-04_100316_MUM_WB_01</b>	<b>16-11-2444-1-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.6	0.10		1.00		
<b>BO-04_100316_MUM_WB_02</b>	<b>16-11-2444-2-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.5	0.10		1.00		
<b>BO-04_100316_MUM_WB_03</b>	<b>16-11-2444-3-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.2	0.10		1.00		
<b>BO-04_100316_MUM_WB_04</b>	<b>16-11-2444-4-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.0	0.10		1.00		
<b>BO-04_100316_MUM_WB_05</b>	<b>16-11-2444-5-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.6	0.10		1.00		
<b>BO-04_100316_MUM_WB_06</b>	<b>16-11-2444-6-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.0	0.10		1.00		
<b>BO-04_100316_MUM_WB_07</b>	<b>16-11-2444-7-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.2	0.10		1.00		
<b>BO-04_100316_MUM_WB_08</b>	<b>16-11-2444-8-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.5	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2444  
 Preparation: N/A  
 Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
 Units: %

Project: 1610145

Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
BO-04_100316_MUM_WB_09	16-11-2444-9-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.9	0.10		1.00		
BO-04_100316_MUM_WB_10	16-11-2444-10-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		
BO-04_100316_MUM_WB_11	16-11-2444-11-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.2	0.10		1.00		
BO-04_100316_MUM_WB_12	16-11-2444-12-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.1	0.10		1.00		
BO-04_100316_MUM_WB_13	16-11-2444-13-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.2	0.10		1.00		
BO-04_100316_MUM_WB_14	16-11-2444-14-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.6	0.10		1.00		
BO-04_100316_MUM_WB_15	16-11-2444-15-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		
BO-04_100316_MUM_WB_16	16-11-2444-16-A	10/03/16 10:35	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2444  
 Preparation: N/A  
 Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
 Units: %

Project: 1610145

Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>BO-04_100316_MUM_WB_17</b>	<b>16-11-2444-17-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.5	0.10		1.00		
<b>BO-04_100316_MUM_WB_18</b>	<b>16-11-2444-18-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.9	0.10		1.00		
<b>BO-04_100316_MUM_WB_19</b>	<b>16-11-2444-19-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.9	0.10		1.00		
<b>BO-04_100316_MUM_WB_20</b>	<b>16-11-2444-20-A</b>	<b>10/03/16 10:35</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/06/16</b>	<b>12/06/16 00:00</b>	<b>161206B18</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
<b>MMMC-01_092316_MUM_WB_01</b>	<b>16-11-2444-21-A</b>	<b>09/23/16 11:30</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/07/16</b>	<b>12/07/16 00:00</b>	<b>161207B26</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.6	0.10		1.00		
<b>MMMC-01_092316_MUM_WB_02</b>	<b>16-11-2444-22-A</b>	<b>09/23/16 11:30</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/07/16</b>	<b>12/07/16 00:00</b>	<b>161207B26</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.5	0.10		1.00		
<b>MMMC-01_092316_MUM_WB_03</b>	<b>16-11-2444-23-A</b>	<b>09/23/16 11:30</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/07/16</b>	<b>12/07/16 00:00</b>	<b>161207B26</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.6	0.10		1.00		
<b>MMMC-01_092316_MUM_WB_04</b>	<b>16-11-2444-24-A</b>	<b>09/23/16 11:30</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/07/16</b>	<b>12/07/16 00:00</b>	<b>161207B26</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.2	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2444  
 Preparation: N/A  
 Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
 Units: %

Project: 1610145

Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-01_092516_MUM_WB_01	16-11-2444-25-A	09/25/16 11:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.5	0.10		1.00		
OB-05_092516_MUM_WB_01	16-11-2444-26-A	09/25/16 11:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.5	0.10		1.00		
OB-05_092516_MUM_WB_02	16-11-2444-27-A	09/25/16 11:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.7	0.10		1.00		
OB-05_092516_MUM_WB_03	16-11-2444-28-A	09/25/16 11:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.1	0.10		1.00		
OB-05_092516_MUM_WB_04	16-11-2444-29-A	09/25/16 11:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.5	0.10		1.00		
OB-05_092516_MUM_WB_05	16-11-2444-30-A	09/25/16 11:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.8	0.10		1.00		
OB-05_092516_MUM_WB_06	16-11-2444-31-A	09/25/16 11:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.6	0.10		1.00		
OB-05_100316_MUM_WB_07	16-11-2444-32-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.2	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2444  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610145

Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-05_100316_MUM_WB_08	16-11-2444-33-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.6	0.10		1.00		
OB-05_100316_MUM_WB_09	16-11-2444-34-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.6	0.10		1.00		
OB-05_100316_MUM_WB_10	16-11-2444-35-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.8	0.10		1.00		
OB-05_100316_MUM_WB_11	16-11-2444-36-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.2	0.10		1.00		
OB-05_100316_MUM_WB_12	16-11-2444-37-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.6	0.10		1.00		
OB-05_100316_MUM_WB_13	16-11-2444-38-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		
OB-05_100316_MUM_WB_14	16-11-2444-39-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.1	0.10		1.00		
OB-05_100316_MUM_WB_15	16-11-2444-40-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.6	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2444  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610145

Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-05_100316_MUM_WB_16	16-11-2444-41-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.0	0.10		1.00		
OB-05_100316_MUM_WB_17	16-11-2444-42-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
OB-05_100316_MUM_WB_18	16-11-2444-43-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		
OB-05_100316_MUM_WB_19	16-11-2444-44-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.9	0.10		1.00		
OB-05_100316_MUM_WB_20	16-11-2444-45-A	10/03/16 09:30	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.5	0.10		1.00		
Method Blank	099-14-104-155	N/A	Tissue	N/A	12/06/16	12/06/16 00:00	161206B18
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		
Method Blank	099-14-104-156	N/A	Tissue	N/A	12/07/16	12/07/16 00:00	161207B26
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		
Method Blank	099-14-104-152	N/A	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/29/16  
Work Order: 16-11-2444  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610145

Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
BO-04_100316_MUM_WB_01	Sample	Tissue	N/A	12/06/16 00:00	12/06/16 00:00	161206D18
BO-04_100316_MUM_WB_01	Sample Duplicate	Tissue	N/A	12/06/16 00:00	12/06/16 00:00	161206D18

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	3.570	3.280	8	0-25	

RPD: Relative Percent Difference. CL: Control Limits



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2444  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610145

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
MMMC-01_092316_MUM_WB_02	Sample	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D26
MMMC-01_092316_MUM_WB_02	Sample Duplicate	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D26

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	3.490	3.750	7	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/29/16  
Work Order: 16-11-2444  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610145

Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-11-2556-41	Sample	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27
16-11-2556-41	Sample Duplicate	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	3.120	2.960	5	0-25	

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-2444

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610145

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

**16-11-2444**

Analysis Due: 02-Nov-16 19:00 Comments

1 Sample ID: 692 BO-04\_100316\_MUM\_WB\_01 EFGS Lab ID: 1610145-01 Sampled: 03-Oct-16 10:35

Misc. Subcontract 1 Lipids Analysis

Containers Supplied: 50\_60 ml PP Jar (B)

2 Sample ID: 693 BO-04\_100316\_MUM\_WB\_02 EFGS Lab ID: 1610145-02 Sampled: 03-Oct-16 10:35

Misc. Subcontract 1 Lipids Analysis

Containers Supplied: 50\_60 ml PP Jar (B)

3 Sample ID: 694 BO-04\_100316\_MUM\_WB\_03 EFGS Lab ID: 1610145-03 Sampled: 03-Oct-16 10:35

Misc. Subcontract 1 Lipids Analysis

Containers Supplied: 50\_60 ml PP Jar (B)

4 Sample ID: 695 BO-04\_100316\_MUM\_WB\_04 EFGS Lab ID: 1610145-04 Sampled: 03-Oct-16 10:35

Misc. Subcontract 1 Lipids Analysis

Containers Supplied: 50\_60 ml PP Jar (B)

Released By *[Signature]* Date *11/28/16* Received By *[Signature]* Date *11/29/16 12:30*  
Released By *[Signature]* Date *11/28/16* Received By *[Signature]* Date *11/29/16 12:30*

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610145

Analysis

Due: 02-Nov-16 19:00

Comments

2444

5 Sample ID: 696 BO-04\_100316\_MUM\_WB\_05

ERGS Lab ID: 1610145-05

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

6 Sample ID: 697 BO-04\_100316\_MUM\_WB\_06

ERGS Lab ID: 1610145-06

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

7 Sample ID: 698 BO-04\_100316\_MUM\_WB\_07

ERGS Lab ID: 1610145-07

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

8 Sample ID: 699 BO-04\_100316\_MUM\_WB\_08

ERGS Lab ID: 1610145-08

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

9 Sample ID: 700 BO-04\_100316\_MUM\_WB\_09

ERGS Lab ID: 1610145-09

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

10 Sample ID: 701 BO-04\_100316\_MUM\_WB\_10

ERGS Lab ID: 1610145-10

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

*[Signature]*

11/28/16

*[Signature]*

11/29/16 1230

Released By

Date

Received By

Date

*[Signature]*

11/29/16

*[Signature]*

11/29/16 1230



SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610145

2444

Analysis

Due: 02-Nov-16 19:00

Comments

11 Sample ID: 702 BO-04\_100316\_MUM\_WB\_11

ERGS Lab ID: 1610145-11

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

12 Sample ID: 703 BO-04\_100316\_MUM\_WB\_12

ERGS Lab ID: 1610145-12

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

13 Sample ID: 704 BO-04\_100316\_MUM\_WB\_13

ERGS Lab ID: 1610145-13

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

14 Sample ID: 705 BO-04\_100316\_MUM\_WB\_14

ERGS Lab ID: 1610145-14

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

15 Sample ID: 706 BO-04\_100316\_MUM\_WB\_15

ERGS Lab ID: 1610145-15

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

16 Sample ID: 707 BO-04\_100316\_MUM\_WB\_16

ERGS Lab ID: 1610145-16

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

Handwritten signature and date 11/28/16

Handwritten signature and date 11/29/16 1230



**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.  
1610145

Analysis

Due: 02-Nov-16 19:00

Comments

2444

17 Sample ID: 708 BO-04\_100316\_MUM\_WB\_17

ERGS Lab ID: 1610145-17

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

8 Sample ID: 709 BO-04\_100316\_MUM\_WB\_18

ERGS Lab ID: 1610145-18

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

19 Sample ID: 710 BO-04\_100316\_MUM\_WB\_19

ERGS Lab ID: 1610145-19

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

20 Sample ID: 711 BO-04\_100316\_MUM\_WB\_20

ERGS Lab ID: 1610145-20

Sampled: 03-Oct-16 10:35

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

21 Sample ID: 714 MMMC-01\_092316\_MUM\_WB\_01

ERGS Lab ID: 1610145-21

Sampled: 23-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

22 Sample ID: 715 MMMC-01\_092316\_MUM\_WB\_02

ERGS Lab ID: 1610145-22

Sampled: 23-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By


Date

Released By

Date

Received By

Date



11/28/16



11/29/16 1230

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610145

Analysis

Due: 02-Nov-16 19:00

Comments

2444

3 Sample ID: 716 MMMC-01\_092316\_MUM\_WB\_03

EFGS Lab ID: 1610145-23

Sampled: 23-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

24 Sample ID: 717 MMMC-01\_092316\_MUM\_WB\_04

EFGS Lab ID: 1610145-24

Sampled: 23-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

25 Sample ID: 736 OB-01\_092516\_MUM\_WB\_01

EFGS Lab ID: 1610145-25

Sampled: 25-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

26 Sample ID: 758 OB-05\_092516\_MUM\_WB\_01

EFGS Lab ID: 1610145-26

Sampled: 25-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

27 Sample ID: 759 OB-05\_092516\_MUM\_WB\_02

EFGS Lab ID: 1610145-27

Sampled: 25-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

28 Sample ID: 760 OB-05\_092516\_MUM\_WB\_03

EFGS Lab ID: 1610145-28

Sampled: 25-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date



11/28/16



11/29/16 1230

Released By

Date

Received By

Date



11/28/16



11/29/16 1230

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610145

Analysis

Due: 02-Nov-16 19:00

Comments

2444

24 Sample ID: 761 OB-05\_092516\_MUM\_WB\_04

EFGS Lab ID: 1610145-29

Sampled: 25-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

30 Sample ID: 762 OB-05\_092516\_MUM\_WB\_05

EFGS Lab ID: 1610145-30

Sampled: 25-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

31 Sample ID: 763 OB-05\_092516\_MUM\_WB\_06

EFGS Lab ID: 1610145-31

Sampled: 25-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

32 Sample ID: 764 OB-05\_100316\_MUM\_WB\_07

EFGS Lab ID: 1610145-32

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

33 Sample ID: 765 OB-05\_100316\_MUM\_WB\_08

EFGS Lab ID: 1610145-33

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

34 Sample ID: 766 OB-05\_100316\_MUM\_WB\_09

EFGS Lab ID: 1610145-34

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:


50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

  
11/28/16

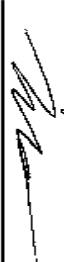
11/28/16

Released By

Date

Received By

Date

  
11/29/16 1230

11/29/16 1230

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610145

Analysis

Due: 02-Nov-16 19:00

Comments

2444

35 Sample ID: 767 OB-05\_100316\_MUM\_WB\_10

EFGS Lab ID: 1610145-35

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

36 Sample ID: 768 OB-05\_100316\_MUM\_WB\_11

EFGS Lab ID: 1610145-36

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

37 Sample ID: 769 OB-05\_100316\_MUM\_WB\_12

EFGS Lab ID: 1610145-37

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

38 Sample ID: 770 OB-05\_100316\_MUM\_WB\_13

EFGS Lab ID: 1610145-38

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

39 Sample ID: 771 OB-05\_100316\_MUM\_WB\_14

EFGS Lab ID: 1610145-39

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

40 Sample ID: 772 OB-05\_100316\_MUM\_WB\_15

EFGS Lab ID: 1610145-40

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:  
50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

*[Handwritten Signature]*  
11/28/16

*[Handwritten Signature]*

11/29/16 12:30

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610145

Analysis

Due: 02-Nov-16 19:00

Comments

2444

44 Sample ID: 773 OB-05\_100316\_MUM\_WB\_16

EFGS Lab ID: 1610145-41

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

45 Sample ID: 774 OB-05\_100316\_MUM\_WB\_17

EFGS Lab ID: 1610145-42

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

45 Sample ID: 775 OB-05\_100316\_MUM\_WB\_18

EFGS Lab ID: 1610145-43

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

44 Sample ID: 776 OB-05\_100316\_MUM\_WB\_19

EFGS Lab ID: 1610145-44

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

45 Sample ID: 777 OB-05\_100316\_MUM\_WB\_20

EFGS Lab ID: 1610145-45

Sampled: 03-Oct-16 09:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:


50\_60 ml PP Jar (B)

Released By

Date

Received By

Date



11/28/16



11/29/16 1230

Released By

Date

Received By

Date

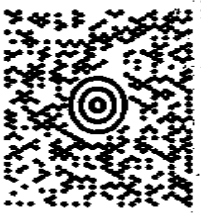
2444

1429 886 - 1996  
FRONTIER GLOBAL SCIENCES  
11720 N. CREEK PKWY N  
BOITHELL WA 98011 - 8244

DWT: 13.8.9

1.051

**SHIP TO:**  
SAMPLE RECEIVING  
(714) 886 - 6594  
EUROFINS CALSOCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841



CA 927 9-09



**UPS NEXT DAY AIR 1**

TRACKING #: 1Z 86W 060 01 6114 2860



BRNG: P/P

A-P1

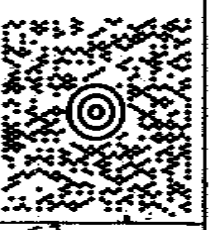


2444

FRONT BEER 1996 33 LBS 1 OF 1  
FRONTIER GLOBAL SCIENCES DWT: 24,13,14  
11720 N. CREEK RIVER N  
BOTHELL WA 98011 - 8244

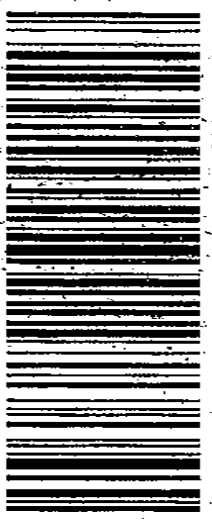
SHIP TO:  
SAMPLE RECEIVING  
714) 896-5494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841 - 1427

NO POSTAGE  
NECESSARY  
IF MAILED  
IN THE  
UNITED STATES



CA 927 9-09

UPS NEXT DAY AIR 1  
TRACKING #: 1Z 86W 060 01 6108 7572



BILLING: P/P

Dept No.: OVERHEAD  
REF 2: Suboonitrapi  
WB 18.J.18 Zed/ra ZP 450 72.0A 01/2016

SERVICE: ONLY SERVICE Available UPS Hours and areas of operation of service. When offered by our offices, although UPS does not discriminate in advertising based on gender, race, color, religion, national origin, or ancestry. If reported from the U.S. through systems that do not contain, identifying or address were reported from the U.S. in accordance with the Export Administration Regulations. Shipping charges apply to new or existing.

SAMPLE RECEIPT CHECKLIST

COOLER <sup>16/07/16</sup> 1 OF 1

CLIENT: EFGS

DATE: 12/02/2016

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.6 °C (w/ CF): 2.6 °C; Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 836

CUSTODY SEAL:  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836

SAMPLE CONDITION:  
 Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  Yes  No  N/A  
 Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals  Yes  No  N/A  
 Container(s) for certain analysis free of headspace .....  Yes  No  N/A  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  Yes  No  N/A  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  Yes  No  N/A  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE: (Trip Blank Lot Number: \_\_\_\_\_)  
 Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJun<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBzma  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve ( )  Encores® ( )  TerraCores® ( )  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (Tissue):  F  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, naz = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, \_\_\_\_\_ Labeled/Checked by: 836  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: \_\_\_\_\_

(27)H6 (-45) Received samples, 12/02/16



SAMPLE RECEIPT CHECKLIST

COOLER  OF

CLIENT: EFAS

DATE: 11 / 29 / 2016

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 1.9 °C (w/ CF): 1.9 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: LS

CUSTODY SEAL:

Cooler:  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: LS  
 Sample(s):  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1053

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A  
 Proper preservation chemical(s) noted on COC and/or sample container .....  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals .....  Yes  No  N/A  
 Container(s) for certain analysis free of headspace .....  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach) .....  Yes  No  N/A  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AAGB  125AAGB<sub>h</sub>  125AAGBP  125PB  
 125PBz<sub>na</sub>  250AAGB  250CCGB  250CCGBs  250PB  250PB<sub>h</sub>  500AAGB  500AAGJ  500AAGJs  
 500PB  1AGB  1AGB<sub>na2</sub>  1AGBs  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EnCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (TISSUE):  2  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Review Page 162 of 228

**SAMPLE ANOMALY REPORT**

**DATE: 11 / 29 / 2016**

**SAMPLES, CONTAINERS, AND LABELS:**

- Sample(s) NOT RECEIVED but listed on COC
- Sample(s) received but NOT LISTED on COC
- Holding time expired (list client or ECI sample ID and analysis)
- Insufficient sample amount for requested analysis (list analysis)
- Improper container(s) used (list analysis)
- Improper preservative used (list analysis)
- No preservative noted on COC or label (list analysis and notify lab)
- Sample container(s) not labeled
- Client sample label(s) illegible (list container type and analysis)
- Client sample label(s) do not match COC (comment)
- Project information
- Client sample ID
- Sampling date and/or time
- Number of container(s)
- Requested analysis
- Sample container(s) compromised (comment)
- Broken
- Water present in sample container
- Air sample container(s) compromised (comment)
- Flat
- Very low in volume
- Leaking (not transferred; duplicate bag submitted)
- Leaking (transferred into ECI Tedlar™ bags\*)
- Leaking (transferred into client's Tedlar™ bags\*)

Comments  
 (-27) to (45) NOT received.

**MISCELLANEOUS: (Describe)**

Comments

**HEADSPACE:**

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

Comments:

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.

Reported by: 1953  
 Reviewed by: 159



# QUALITY CONTROL CHECKLIST

WORK ORDER NUMBER: 16-11-2444

METHOD: % lipid.

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____	Date: ___/___/___
PREPARATION CONDITIONS	Yes	No	N/A	Comments (If No, why, and further action required)	
Correct Sample Aliquots Used	/				
Correct Reagents Used	/				
Correct Final Prep Volumes	/				
Correct Preparation Procedure	/				

ANALYST				Section Reviewed by: 1) <u>684</u>	Date: <u>12/13/16</u>	2) _____	Date: ___/___/___	3) _____	Date: ___/___/___	
INSTRUMENT CONDITIONS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/			/			/			
Valid Initial Calibration Curve	/			/			/			
Valid Cont. Calibration Std.	/			/			/			
Other Calibration Criteria Met	/			/			/			
SAMPLE ANALYSIS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/			/			/			
Instr. Signals within Quant. Range	/			/			/			
Reporting Limits Met	/			/			/			
REPORTING	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/			/			/			
Correct Batch #'s Reported	/			/			/			
Dilutions Reported	/			/			/			
Interferences Reported	/			/			/			
Out of Control Forms Completed	/			/			/			

GROUP LEADER				Section Reviewed by: <u>142</u>	Date: <u>12/13/16</u>
PROJECT REQUIREMENTS	Yes	No	N/A	Comments (If No, why, and further action required)	
Analyses by CEL Standard Methods	/				
Normal CEL RLs	/				
Normal CEL QC	/				
Normal CEL Deliverables	/				
QUALITY CONTROL	Yes	No	N/A	Comments (If No, why, and further action required)	
Acceptable Method Blanks (MB)	/				
Acceptable Field Blanks (FB, EB, TB)	/				
Acceptable Matrix Spikes (MS/MSD)	/				
Acceptable Lab Ctrl. Samples (LCS)	/				
Other Required QC Performed	/				
Out of Controls Addressed/Documented	/				
REPORTING	Yes	No	N/A	Comments (If No, why, and further action required)	
Correct Date Prepared	/				
Correct Date Analyzed	/				
Correct Units	/				
Analyst Review Performed (Init./Date)	/				
Out of Control Forms Acceptable	/				
CHECKS	Yes	No	N/A	Comments (If No, why, and further action required)	
Does the Data Make Sense	/				

GENERAL COMMENTS: \_\_\_\_\_

Page 164 of 228

Page 32 of 96

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 1** **CLIENT SAMPLE NUMBER:** 692 BO-04\_100316\_MUM\_WB\_01

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

<u>COMMENT:</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
<u>COMPOUND</u> % Lipids	3.57	1.00	3.57	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 2** **CLIENT SAMPLE NUMBER:** 693 BO-04\_100316\_MUM\_WB\_02

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
3.52	1.00	3.52	0.10	

% Lipids

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 3** **CLIENT SAMPLE NUMBER:** 694 BO-04\_100316\_MUM\_WB\_03

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 3.18 1.00 3.18 0.10

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 4** **CLIENT SAMPLE NUMBER:** 695 BO-04\_100316\_MUM\_WB\_04

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

<u>COMMENT:</u> <u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.95	1.00	3.95	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 5 CLIENT SAMPLE NUMBER: 696 BO-04\_100316\_MUM\_WB\_05

LCS/MB BATCH: 161206B18 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D18 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids ON COL CONC DF CONC RL QUAL  
2.64 1.00 2.64 0.10





**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 6** **CLIENT SAMPLE NUMBER:** 697 BO-04\_100316\_MUM\_WB\_06

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 3.04 1.00 3.04 0.10



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**DT EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**DT ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 7** **CLIENT SAMPLE NUMBER:** 698 BO-04\_100316\_NUM\_WB\_07

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 3.20 1.00 3.20 0.10

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**DT EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**DT ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 8** **CLIENT SAMPLE NUMBER:** 699 BO-04\_100316\_MUM\_WB\_08

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
% Lipids	3.52	1.00	3.52	0.10	



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 9** **CLIENT SAMPLE NUMBER:** 700 BO-04\_100316\_NUM\_WB\_09

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
--	--------------------	-----------	-------------	-----------	-------------

% Lipids

	2.87	1.00	2.87	0.10	
--	------	------	------	------	--



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 10** **CLIENT SAMPLE NUMBER:** 701 BO-04\_100316\_MUM\_WB\_10

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 3.39 1.00 3.39 0.10



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 11** **CLIENT SAMPLE NUMBER:** 702 BO-04\_100316\_MUM\_WB\_11

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

<u>COMMENT:</u> <u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.25	1.00	2.25	0.10	



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 12** **CLIENT SAMPLE NUMBER:** 703 BO-04\_100316\_MUM\_WB\_12

**LCS/MB BATCH:** 161206B18 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

<b>COMMENT:</b>	<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
<b>COMPOUND</b> % Lipids	4.13	1.00	4.13	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 13**      **CLIENT SAMPLE NUMBER:** 704 BO-04\_100316\_MUM\_WB\_13

**LCS/MB BATCH:** 161206B18      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161206D18      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.21	1.00	3.21	0.10	





**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 14**      **CLIENT SAMPLE NUMBER:** 705 BO-04\_100316\_MUM\_WB\_14

**LCS/MB BATCH:** 161206B18      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161206D18      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      4.63      1.00      4.63      0.10



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 15 CLIENT SAMPLE NUMBER: 706 BO-04\_100316\_MUM\_WB\_15

LCS/MB BATCH: 161206B18 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D18 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

<u>COMMENT:</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
<u>COMPOUND</u>	3.39	1.00	3.39	0.10	
% Lipids					



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 16 CLIENT SAMPLE NUMBER: 707 BO-04\_100316\_MUM\_WB\_16

LCS/MB BATCH: 161206B18 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D18 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
3.38	1.00	3.38	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 17 CLIENT SAMPLE NUMBER: 708 BO-04\_100316\_NUM\_WB\_17

LCS/MB BATCH: 161206B18 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D18 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids ON COL CONC DF CONC RL QUAL  
3.52 1.00 3.52 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 18 CLIENT SAMPLE NUMBER: 709 BO-04\_100316\_MUM\_WB\_18

LCS/MB BATCH: 161206B18 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D18 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT: ON COL CONC DF CONC RL QUAL  
COMPOUND

% Lipids 2.86 1.00 2.86 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 19 CLIENT SAMPLE NUMBER: 710 BO-04\_100316\_MUM\_WB\_19

LCS/MB BATCH: 161206B18 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161206D18 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
2.92	1.00	2.92	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 20 CLIENT SAMPLE NUMBER: 711 BO-04\_100316\_NUM\_WB\_20

LCS/MB BATCH: 161206B18 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D18 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
4.42	1.00	4.42	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 21 CLIENT SAMPLE NUMBER: 714 MMMC-01\_092316\_MUM\_WB\_01

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
5.63	1.00	5.63	0.10	





# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**DT EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**DT ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 22**      **CLIENT SAMPLE NUMBER:** 715 MMMC-01\_092316\_NUM\_WB\_02

**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D26      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
3.49	1.00	3.49	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 23 CLIENT SAMPLE NUMBER: 716 MMMC-01\_092316\_NUM\_WB\_03

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
4.65	1.00	4.65	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 24 CLIENT SAMPLE NUMBER: 717 MMMC-01\_092316\_MUM\_WB\_04

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT: ON COL CONC DF CONC RL QUAL  
COMPOUND

% Lipids 4.18 1.00 4.18 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 25 CLIENT SAMPLE NUMBER: 736 OB-01\_092516\_MUM\_WB\_01

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT: ON COL CONC DF CONC RL QUAL  
COMPOUND 4.51 1.00 4.51 0.10

% Lipids

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00  
DATA FILE:

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 26 CLIENT SAMPLE NUMBER: 758 OB-05\_092516\_NUM\_WB\_01

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 3.47 1.00 3.47 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 27 CLIENT SAMPLE NUMBER: 759 OB-05\_092516\_NUM\_WB\_02

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND  
% Lipids

ON COL CONC	DF	CONC	RL	QUAL
3.66	1.00	3.66	0.10	



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00  
**DATA FILE:**

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**# 28** **CLIENT SAMPLE NUMBER:** 760 OB-05\_092516\_NUM\_WB\_03

**LCS/MB BATCH:** 161207B26 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161207D26 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

---

% Lipids	3.09	1.00	3.09	0.10	
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RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 29 CLIENT SAMPLE NUMBER: 761 OB-05\_MUM\_WB\_04

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
2.52	1.00	2.52	0.10	





**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00  
**DATA FILE:**

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**# 30**      **CLIENT SAMPLE NUMBER:** 762 OB-05\_092516\_NUM\_WB\_05

**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161207D26      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.79      1.00      3.79      0.10

# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**DT EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**DT ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 31**      **CLIENT SAMPLE NUMBER:** 763 OB-05\_092516\_MUM\_WB\_06

**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D26      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      2.56      1.00      2.56      0.10

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**DT EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**DT ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 32**      **CLIENT SAMPLE NUMBER:** 764 OB-05\_100316\_NUM\_WB\_07

**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D26      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.18      1.00      3.18      0.10

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 33** **CLIENT SAMPLE NUMBER:** 765 OB-05\_100316\_MUM\_WB\_08

**LCS/MB BATCH:** 161207B26 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161207D26 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
2.58	1.00	2.58	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**DT EXTRACTED:** 2016-12-07 00:00  
**DATA FILE:**

**ANALYZED BY:** 1,065  
**DT ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**# 34**      **CLIENT SAMPLE NUMBER:** 766 OB-05\_100316\_MUM\_WB\_09

**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D26      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.58      1.00      3.58      0.10



FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**DT EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**DT ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 35** **CLIENT SAMPLE NUMBER:** 767 OB-05\_100316\_NUM\_WB\_10

**LCS/MB BATCH:** 161207B26 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161207D26 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

<u>COMMENT:</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
<u>COMPOUND</u>	3.82	1.00	3.82	0.10	

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00  
**DATA FILE:**

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**# 36**      **CLIENT SAMPLE NUMBER:** 768 OB-05\_100316\_NUM\_WB\_11

**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D26      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

---

% Lipids	2.24	1.00	2.24	0.10	
----------	------	------	------	------	--



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 37**      **CLIENT SAMPLE NUMBER:** 769 OB-05\_100316\_MUM\_WB\_12

**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D26      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.59      1.00      3.59      0.10





RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 38 CLIENT SAMPLE NUMBER: 770 OB-05\_100316\_MUM\_WB\_13

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL

% Lipids 3.41 1.00 3.41 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00  
DATA FILE:

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 39 CLIENT SAMPLE NUMBER: 771 OB-05\_100316\_NUM\_WB\_14

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:	ON COL CONC	DF	CONC	RL	QUAL
COMPOUND	4.11	1.00	4.11	0.10	
% Lipids					



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 40 CLIENT SAMPLE NUMBER: 772 OB-05\_100316\_MUM\_WB\_15

LCS/MB BATCH: 161207B26 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D26 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 2.56 1.00 2.56 0.10



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 41**      **CLIENT SAMPLE NUMBER:** 773 OB-05\_100316\_MUM\_WB\_16

**LCS/MB BATCH:** 161207B27      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D27      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      2.98      1.00      2.98      0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 42 CLIENT SAMPLE NUMBER: 774 OB-05\_100316\_MUM\_WB\_17

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
4.42	1.00	4.42	0.10	

% Lipids

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 43** **CLIENT SAMPLE NUMBER:** 775 OB-05\_100316\_MUM\_WB\_18

**LCS/MB BATCH:** 161207B27 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161207D27 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.44	1.00	3.44	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2444  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 44**      **CLIENT SAMPLE NUMBER:** 776 OB-05\_100316\_MUM\_WB\_19

**LCS/MB BATCH:** 161207B27      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161207D27      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.88      1.00      3.88      0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2444  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

CLIENT SAMPLE NUMBER: 777 OB-05\_100316\_MUM\_WB\_20

LCS/MB BATCH: 161207B27 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
2.50	1.00	2.50	0.10	





**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-155  
**MB BATCH ID:** 161206B18  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

DATA FILE:

**CLIENT WORK ORDER: 16-11-2444**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	692 BO-04_100316_MUM_WB_01		2016-12-06 00:00	
2	693 BO-04_100316_MUM_WB_02		2016-12-06 00:00	
3	694 BO-04_100316_MUM_WB_03		2016-12-06 00:00	
4	695 BO-04_100316_MUM_WB_04		2016-12-06 00:00	
5	696 BO-04_100316_MUM_WB_05		2016-12-06 00:00	
6	697 BO-04_100316_MUM_WB_06		2016-12-06 00:00	
7	698 BO-04_100316_MUM_WB_07		2016-12-06 00:00	
8	699 BO-04_100316_MUM_WB_08		2016-12-06 00:00	
9	700 BO-04_100316_MUM_WB_09		2016-12-06 00:00	
10	701 BO-04_100316_MUM_WB_10		2016-12-06 00:00	
11	702 BO-04_100316_MUM_WB_11		2016-12-06 00:00	
12	703 BO-04_100316_MUM_WB_12		2016-12-06 00:00	
13	704 BO-04_100316_MUM_WB_13		2016-12-06 00:00	
14	705 BO-04_100316_MUM_WB_14		2016-12-06 00:00	
15	706 BO-04_100316_MUM_WB_15		2016-12-06 00:00	
16	707 BO-04_100316_MUM_WB_16		2016-12-06 00:00	
17	708 BO-04_100316_MUM_WB_17		2016-12-06 00:00	
18	709 BO-04_100316_MUM_WB_18		2016-12-06 00:00	
19	710 BO-04_100316_MUM_WB_19		2016-12-06 00:00	
20	711 BO-04_100316_MUM_WB_20		2016-12-06 00:00	

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 099-14-104  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# MB**      **CLIENT SAMPLE NUMBER:** Method Blank

**LCS/MB BATCH:** 161206B18      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:**      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      0.0200      1.00      ND      0.10



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 099-14-104  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# MB**      **CLIENT SAMPLE NUMBER:** Method Blank  
**LCS/MB BATCH:** 161207B26      **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:**      **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**  
% Lipids      0.0200      1.00      ND      0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 099-14-104  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# MB** **CLIENT SAMPLE NUMBER:** Method Blank

**LCS/MB BATCH:** 161207B27 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** % **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.0100 1.00 ND 0.10



**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: Mec12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-156  
**MB BATCH ID:** 161207B26  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-11-2444**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
21	714		2016-12-07 00:00	
	MHWMC-01_092516_MUM_WB_01			
22	715		2016-12-07 00:00	
	MHWMC-01_092516_MUM_WB_02			
23	716		2016-12-07 00:00	
	MHWMC-01_092516_MUM_WB_03			
24	717		2016-12-07 00:00	
	MHWMC-01_092516_MUM_WB_04			
25	736 OB-01_092516_MUM_WB_01		2016-12-07 00:00	
26	758 OB-05_092516_MUM_WB_01		2016-12-07 00:00	
27	759 OB-05_092516_MUM_WB_02		2016-12-07 00:00	
28	760 OB-05_092516_MUM_WB_03		2016-12-07 00:00	
29	761 OB-05_092516_MUM_WB_04		2016-12-07 00:00	
30	762 OB-05_092516_MUM_WB_05		2016-12-07 00:00	
31	763 OB-05_092516_MUM_WB_06		2016-12-07 00:00	
32	764 OB-05_100316_MUM_WB_07		2016-12-07 00:00	
33	765 OB-05_100316_MUM_WB_08		2016-12-07 00:00	
34	766 OB-05_100316_MUM_WB_09		2016-12-07 00:00	
35	767 OB-05_100316_MUM_WB_10		2016-12-07 00:00	
36	768 OB-05_100316_MUM_WB_11		2016-12-07 00:00	
37	769 OB-05_100316_MUM_WB_12		2016-12-07 00:00	
38	770 OB-05_100316_MUM_WB_13		2016-12-07 00:00	
39	771 OB-05_100316_MUM_WB_14		2016-12-07 00:00	
40	772 OB-05_100316_MUM_WB_15		2016-12-07 00:00	

**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: Mec12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-152  
**MB BATCH ID:** 161207B27  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

DATA FILE:

**CLIENT WORK ORDER: 16-11-2444**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
41	773 OB-05_100316_MUM_WB_16		2016-12-07 00:00	
42	774 OB-05_100316_MUM_WB_17		2016-12-07 00:00	
43	775 OB-05_100316_MUM_WB_18		2016-12-07 00:00	
44	776 OB-05_100316_MUM_WB_19		2016-12-07 00:00	
45	777 OB-05_100316_MUM_WB_20		2016-12-07 00:00	



**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

**DUP SAMPLE ID:** 16-11-2444-1  
DUP BATCH: 161206D18  
INSTRUMENTS:  
    SAMPLE: N/A  
    DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
    SAMPLE: 2016-12-06 00:00  
    DUP SAMPLE: 2016-12-06 00:00

ANALYZED BY: 1,065  
D/T ANALYZED:  
    SAMPLE: 2016-12-06 00:00  
    DUP SAMPLE: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.570	3.280	8	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

**DUP SAMPLE ID:** 16-11-2444-22  
**DUP BATCH:** 161207D26  
**INSTRUMENTS:**  
    **SAMPLE:** N/A  
    **DUP SAMPLE:** N/A

**EXTRACTION:** N/A  
**D/T EXTRACTED:**  
    **SAMPLE:** 2016-12-07 00:00  
    **DUP SAMPLE:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:**  
    **SAMPLE:** 2016-12-07 00:00  
    **DUP SAMPLE:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.490	3.750	7	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		



**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

**DUP SAMPLE ID:** 16-11-2556-41  
**DUP BATCH:** 161207D27  
**INSTRUMENTS:**  
    **SAMPLE:** N/A  
    **DUP SAMPLE:** N/A

**EXTRACTION:** N/A  
**D/T EXTRACTED:**  
    **SAMPLE:** 2016-12-07 00:00  
    **DUP SAMPLE:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED**  
    **SAMPLE:** 2016-12-07 00:00  
    **DUP SAMPLE:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED**

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.120	2.960	5	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/04/16 Initials: LSL

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	Y	IO Lab
	100	99.99	98.00 - 102.00	Y	N
	500	499.98	498.00 - 502.00	Y	N
62	0.002	0.0019	0.00180 - 0.00220	Y	IO Lab
	1	0.9996	0.99900 - 1.00100	Y	N
	100	99.997	99.90000 - 100.10000	Y	N
26	1	1.00	0.98 - 1.02	Y	IO Lab
	100	99.99	98.00 - 102.00	Y	N
55	1	1.00	0.98 - 1.02	Y	IO Lab
	100	99.99	98.00 - 102.00	Y	N
	500	499.99	498.00 - 502.00	Y	N
11	1	1.00	0.98 - 1.02	Y	IO Lab
	100	99.98	98.00 - 102.00	Y	N
66	0.002	0.0018	0.00180 - 0.00220	Y	Metals
	1	0.9996	0.99900 - 1.00100	Y	N
	100	99.9987	99.90000 - 100.10000	Y	N
53	0.1	0.10	0.09 - 0.11	Y	Extractions
	1	1.00	0.98 - 1.02	Y	N
	100	99.99	98.00 - 102.00	Y	N
	500	499.99	498 - 502	Y	N
20	1	1.01	0.98 - 1.02	Y	Extractions
	100	100.00	98.00 - 102.00	Y	N
	500	499.98	498.00 - 502.00	Y	N
57	100	100.0	98.0-102.0	Y	Extractions
	1000	1000.0	998.0-1002.0	Y	N
	2000	2000.0	1998.0-2002.0	Y	N
52	0.002	0.0019	0.0018 - 0.0022	Y	Extractions
	1	0.9996	0.9990 - 1.0010	Y	N
	100	99.9946	99.9000 - 100.1000	Y	N
14	0.002	0.0018	0.0018 - 0.0022	Y	BOD Room
	1	1.0001	0.9990 - 1.0010	Y	N
	100	99.9946	99.9000 - 100.1000	Y	N
63	0.1	0.10	0.09 - 0.11	Y	BOD Room
	100	100.00	98.00 - 102.00	Y	N
64	1	1.01	0.98 - 1.02	Y	Metals Clean Room
	10	10.01	9.8 - 10.2	Y	N
	100	100.01	98.00 - 102.00	Y	N
34	0.002	0.00203	0.0018 - 0.0022	Y	Oil & Grease Room
	1	0.99963	0.9990 - 1.0010	Y	N
	100	99.99472	99.9000 - 100.1000	Y	N
30	1	0.99	0.98 - 1.02	Y	Oil & Grease Room
	100	99.97	98.00 - 102.00	Y	N



# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/02/16

Initials: BSJ

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
	500	500.00	498.00 - 502.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
62	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	1	0.9997	0.99900 - 1.00100	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.9968	99.90000 - 100.10000	<input checked="" type="radio"/> Y <input type="radio"/> N	
26	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
	500	499.93	498.00 - 502.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
66	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y <input type="radio"/> N	Metals
	1	0.9993	0.99900 - 1.00100	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.9984	99.90000 - 100.10000	<input checked="" type="radio"/> Y <input type="radio"/> N	
53	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
20	500	500.00	498 - 502	<input checked="" type="radio"/> Y <input type="radio"/> N	
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
	500	500.04	498.00 - 502.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
57	100	100.0	98.0-102.0	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	1000	1000.0	998.0-1002.0	<input checked="" type="radio"/> Y <input type="radio"/> N	
	2000	2000.0	1998.0-2002.0	<input checked="" type="radio"/> Y <input type="radio"/> N	
52	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.9947	99.9000 - 100.1000	<input checked="" type="radio"/> Y <input type="radio"/> N	
14	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y <input type="radio"/> N	BOD Room
	1	0.9999	0.9990 - 1.0010	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.9939	99.9000 - 100.1000	<input checked="" type="radio"/> Y <input type="radio"/> N	
63	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y <input type="radio"/> N	BOD Room
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
64	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	Metals Clean Room
	10	10.01	9.8 - 10.2	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
34	0.002	0.00196	0.0018 - 0.0022	<input checked="" type="radio"/> Y <input type="radio"/> N	Oil & Grease Room
	1	0.99965	0.9990 - 1.0010	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.99452	99.9000 - 100.1000	<input checked="" type="radio"/> Y <input type="radio"/> N	
30	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	Oil & Grease Room
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	



Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  Lipids

8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: 20 Filter ID#: 507-41-04 ASE ID#:  Soxtherm ID#: 1-8 Orbit Shaker ID#:  Sonicator ID#:

Ext. Start Date/Time: 12/06/16 9:20 Ext. End Date/Time: 12/06/16 11:30

Sand or Wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

507-19-19 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (ml):

Spike Std ID# & Volume Added (ml): E07-13-15 Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-44-06 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161206B18 Sample W (g) / V (ml)

Cell ID#:	Initial	Final	Clean Up Performed	Comments
MSD Dup 16-11-2444-1A	0.92		<input type="checkbox"/>	
16-11-2444-1A	1.00		<input type="checkbox"/>	
	-2A 0.99		<input type="checkbox"/>	
	-3A 1.20		<input type="checkbox"/>	
	-4A 1.03		<input type="checkbox"/>	
	-5A 1.68		<input type="checkbox"/>	
	-6A 1.36		<input type="checkbox"/>	
	-7A 1.64		<input type="checkbox"/>	
	-8A 1.74		<input type="checkbox"/>	
	-9A 1.14		<input type="checkbox"/>	
	-10A 1.28		<input type="checkbox"/>	
	-11A 0.63		<input type="checkbox"/>	
	-12A 1.64		<input type="checkbox"/>	
	-13A 0.12		<input type="checkbox"/>	
	-14A 0.72		<input type="checkbox"/>	
	-15A 1.39		<input type="checkbox"/>	
	-16A 1.39		<input type="checkbox"/>	
	-17A 1.07		<input type="checkbox"/>	
	-18A 0.86		<input type="checkbox"/>	
	-19A 1.59		<input type="checkbox"/>	
	-20A 0.74		<input type="checkbox"/>	

Peer Reviewed by: 684

Peer Reviewed Date: 12/06/16

Revision Date: 10/20/16

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  4110  
 8270  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )  
 Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580  
 Analyst ID#: Measuring Sample- 680 Start Extraction- 690 Blow Down- 680 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air  
 Balance ID#: 20 Filter ID#: 507-41-04 ASE ID#: Soxhmer ID#: 1-8 Orbit Shaker ID#: Sonicator ID#:  
 Ext. Start Date/Time: 12/07/16 9:00 Ext. End Date/Time: 12/07/16 11:30  
 Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth  
 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (ml): Spike Added to:  LCS  LCSD  MS  MSD  
 Spike Std ID# & Volume Added (ml):  
 Extraction Solvent:  MeCl<sub>2</sub>,  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile  
 Exchange Solvent ( Hexane  Acetonitrile) ID#:  
 Extraction Solvent ID#: 507-44-06

Clean Up Start Date & Time: Clean Up End Date & Time:  
 Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge ID#:  
 Clean Up Reagent ID#:

MB/LCS/MS Batch #: Cartridge Conditioning Column Pre-Elution Reagent ID#:  
 161207B26

Cell ID#:	Initial	Final	Clean Up Performed	Comments
MB	1.00	1	<input type="checkbox"/>	
LCS			<input type="checkbox"/>	
LCSD			<input type="checkbox"/>	
MS			<input type="checkbox"/>	
MSD	16-11-2444-22A	1.12	<input type="checkbox"/>	
	16-11-2444-21A	0.96	<input type="checkbox"/>	
	-22A	0.78	<input type="checkbox"/>	
	-23A	0.89	<input type="checkbox"/>	
	-24A	2.10	<input type="checkbox"/>	
	-25A	0.88	<input type="checkbox"/>	
	-26A	0.53	<input type="checkbox"/>	
	-27A	0.62	<input type="checkbox"/>	
	-28A	0.79	<input type="checkbox"/>	
	-29A	0.46	<input type="checkbox"/>	
	-30A	0.58	<input type="checkbox"/>	
	-31A	0.62	<input type="checkbox"/>	
	-32A	0.92	<input type="checkbox"/>	
	-33A	1.27	<input type="checkbox"/>	
	-34A	0.59	<input type="checkbox"/>	
	-35A	0.76	<input type="checkbox"/>	
	-36A	0.78	<input type="checkbox"/>	
	-37A	0.66	<input type="checkbox"/>	
	-38A	0.37	<input type="checkbox"/>	
	-39A	0.66	<input type="checkbox"/>	
	-40A	0.61	<input type="checkbox"/>	

Peer Reviewed by: \_\_\_\_\_

Peer Reviewed Date: \_\_\_\_\_

Revision Date: 10/20/16



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	4) Sand 507-19-19	1) Filter 507-41-04	
2) C <sub>6</sub> H <sub>14</sub>			
3) Na <sub>2</sub> SO <sub>4</sub>			

MATRIX	BATCH NUMBER	COMMENTS		
Tissue	MB: 161207 B26 Sample Duplicate: 161207 D26			
CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2444-22A	3.49	7	0-10	
Duplicate 1 -22A	3.75			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/07/16	MB	1.00	34	1	1	1.9011	1.9013	0.0002	0.02	684	
	16-11-2444-21A	0.96				1.8972	1.9512	0.0540	5.63		
	-22	0.78				1.8880	1.9152	0.0272	3.49		
	-23	0.89				1.8969	1.9383	0.0414	4.65		
	-24	2.10				1.9009	1.9886	0.0877	4.18		
	-25	0.88				1.8929	1.9326	0.0397	4.51		
	-26	0.53				1.8999	1.9183	0.0184	3.47		
	-27	0.62				1.9021	1.9248	0.0227	3.66		
	-28	0.79				1.9041	1.9285	0.0244	3.09		
	-29	0.46				1.8989	1.9105	0.0116	2.52		
	-30	0.58				1.8944	1.9164	0.0220	3.79		
	-31	0.62				1.8996	1.9155	0.0159	2.56		
	-32	0.92				1.8955	1.9248	0.0293	3.18		
	-33	1.27				1.9004	1.9332	0.0328	2.58		
	-34	0.59				1.8999	1.9210	0.0211	3.58		
	-35	0.76				1.8975	1.9265	0.0290	3.82		
	-36	0.78				1.9079	1.9254	0.0175	2.24		
	-37	0.66				1.8887	1.9124	0.0237	3.59		
	-38	0.37				1.9047	1.9173	0.0126	3.41		
	-39	0.66				1.9048	1.9319	0.0271	4.11		
	-40	0.61				1.8867	1.9023	0.0156	2.56		
	Duplicate 16-11-2444-22A	1.12				1.8726	1.9146	0.0420	3.75		

Page 224 of 228

Page 92 of 96

# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	4) Sand 507-19-19	1) Filter 507-41-04	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS		
Tissue	MB: 161206 B18 Sample Duplicate: 161206 D18			
CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2444-1 A	3.57	8	0 - 10	
Duplicate 16-11-2444-1A	3.28			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/06/16	MB	1.00	34	1	1	1.8726	1.8728	0.0002	0.02	684	
	16-11-2444-1A	1.00				1.8685	1.9042	0.0357	3.57		
	-2	0.99				1.8722	1.9070	0.0348	3.52		
	-3	1.20				1.8650	1.9032	0.0382	3.18		
	-4	1.03				1.8746	1.9153	0.0407	3.95		
	-5	1.68				1.8611	1.9054	0.0443	2.64		
	-6	1.36				1.8615	1.9028	0.0413	3.04		
	-7	1.64				1.8766	1.9290	0.0524	3.20		
	-8	1.74				1.8588	1.9201	0.0613	3.52		
	-9	1.14				1.8820	1.9147	0.0327	2.87		
	-10	1.28				1.8904	1.9338	0.0434	3.39		
	-11	0.63				1.8776	1.8918	0.0142	2.25		
	-12	1.64				1.8672	1.9350	0.0678	4.13		
	-13	0.62				1.8760	1.8959	0.0199	3.21		
	-14	0.72				1.8711	1.9044	0.0333	4.63		
	-15	1.39				1.8675	1.9146	0.0471	3.39		
	-16	1.39				1.8712	1.9182	0.0470	3.38		
	-17	1.07				1.8681	1.9058	0.0377	3.52		
	-18	0.86				1.8792	1.9038	0.0246	2.86		
	-19	1.59				1.8572	1.9036	0.0464	2.92		
	-20	0.74				1.8850	1.9177	0.0327	4.42		
	Duplicate 16-11-2444-1A	0.92				1.9015	1.9317	0.0302	3.28		





Lipid Content Raw Data Calculator

12/6/2016

	ID # A	Tissue Sampls (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
			M1	V1	V2	M2		
B-1	MB-161206B18	1.00	1	1	1.8726	1.8728	0.0002	0.02%
1	16-11-2444-1	1.00	1	1	1.8685	1.9042	0.0357	3.57%
2	16-11-2444-2	0.99	1	1	1.8722	1.9070	0.0348	3.52%
3	16-11-2444-3	1.20	1	1	1.8650	1.9032	0.0382	3.18%
4	16-11-2444-4	1.03	1	1	1.8746	1.9153	0.0407	3.95%
5	16-11-2444-5	1.68	1	1	1.8611	1.9054	0.0443	2.64%
6	16-11-2444-6	1.36	1	1	1.8615	1.9028	0.0413	3.04%
7	16-11-2444-7	1.64	1	1	1.8766	1.9290	0.0524	3.20%
8	16-11-2444-8	1.74	1	1	1.8588	1.9201	0.0613	3.52%
9	16-11-2444-9	1.14	1	1	1.8820	1.9147	0.0327	2.87%
10	16-11-2444-10	1.28	1	1	1.8904	1.9338	0.0434	3.39%
11	16-11-2444-11	0.63	1	1	1.8776	1.8918	0.0142	2.25%
12	16-11-2444-12	1.64	1	1	1.8672	1.9350	0.0678	4.13%
13	16-11-2444-13	0.62	1	1	1.8760	1.8959	0.0199	3.21%
14	16-11-2444-14	0.72	1	1	1.8711	1.9044	0.0333	4.63%
15	16-11-2444-15	1.39	1	1	1.8675	1.9146	0.0471	3.39%
16	16-11-2444-16	1.39	1	1	1.8712	1.9182	0.0470	3.38%
17	16-11-2444-17	1.07	1	1	1.8681	1.9058	0.0377	3.52%
18	16-11-2444-18	0.86	1	1	1.8792	1.9038	0.0246	2.86%
19	16-11-2444-19	1.59	1	1	1.8572	1.9036	0.0464	2.92%
20	16-11-2444-20	0.74	1	1	1.8850	1.9177	0.0327	4.42%
Dup-1	D 16-11-2444-1	0.92	1	1	1.9015	1.9317	0.0302	3.28%
L-1	LCS-1611206L18	0.12	1	1	1.8808	1.9981	0.1173	97.8%
B-2	MB-161207B26	1.00	1	1	1.9011	1.9013	0.0002	0.02%
21	16-11-2444-21	0.96	1	1	1.8972	1.9512	0.0540	5.63%
22	16-11-2444-22	0.78	1	1	1.8880	1.9152	0.0272	3.49%
23	16-11-2444-23	0.89	1	1	1.8969	1.9383	0.0414	4.65%
24	16-11-2444-24	2.10	1	1	1.9009	1.9886	0.0877	4.18%
25	16-11-2444-25	0.88	1	1	1.8929	1.9326	0.0397	4.51%
26	16-11-2444-26	0.53	1	1	1.8999	1.9183	0.0184	3.47%

Samples ID#	Lipid Content (%)	RPD
16-11-2444-1	3.57%	-8%
161206D18		
Dup 16-11-2444-1	3.28%	

Samples ID#	Lipid Content (%)	RPD
16-11-2444-22	3.49%	7%
161207D26		
Dup 16-11-2444-22	3.75%	

Samples ID#	Lipid Content (%)	RPD
16-11-2556-41	3.12%	-5%
161207D27		
Dup 16-11-2556-41	2.96%	



27	16-11-2444-27	0.62	1	1	1.9021	1.9248	0.0227	3.66%
28	16-11-2444-28	0.79	1	1	1.9041	1.9285	0.0244	3.09%
29	16-11-2444-29	0.46	1	1	1.8989	1.9105	0.0116	2.52%
30	16-11-2444-30	0.58	1	1	1.8944	1.9164	0.0220	3.79%
31	16-11-2444-31	0.62	1	1	1.8996	1.9155	0.0159	2.56%
32	16-11-2444-32	0.92	1	1	1.8955	1.9248	0.0293	3.18%
33	16-11-2444-33	1.27	1	1	1.9004	1.9332	0.0328	2.58%
34	16-11-2444-34	0.59	1	1	1.8999	1.9210	0.0211	3.58%
35	16-11-2444-35	0.76	1	1	1.8975	1.9265	0.0290	3.82%
36	16-11-2444-36	0.78	1	1	1.9079	1.9254	0.0175	2.24%
37	16-11-2444-37	0.66	1	1	1.8887	1.9124	0.0237	3.59%
38	16-11-2444-38	0.37	1	1	1.9047	1.9173	0.0126	3.41%
39	16-11-2444-39	0.66	1	1	1.9048	1.9319	0.0271	4.11%
40	16-11-2444-40	0.61	1	1	1.8867	1.9023	0.0156	2.56%
Dup-2	D 16-11-2444-22	1.12	1	1	1.8726	1.9146	0.0420	3.75%
L-2	LCS-161207L26	0.13	1	1	1.8893	2.0146	0.1253	96.4%
B-3	MB 161207B27	1.00	1	1	1.8858	1.8859	0.0001	0.01%
41	16-11-2444-41	0.66	1	1	1.9101	1.9298	0.0197	2.98%
42	16-11-2444-42	0.48	1	1	1.9012	1.9224	0.0212	4.42%
43	16-11-2444-43	0.77	1	1	1.9022	1.9287	0.0265	3.44%
44	16-11-2444-44	0.50	1	1	1.9090	1.9284	0.0194	3.88%
45	16-11-2444-45	0.06	1	1	1.8665	1.8680	0.0015	2.50%
46	16-11-2553-1	1.23	1	1	1.8652	1.8895	0.0243	1.98%
47	16-11-2553-2	0.78	1	1	1.8701	1.8818	0.0117	1.50%
48	16-11-2553-3	0.68	1	1	1.8782	1.8876	0.0094	1.38%
49	16-11-2553-5	0.58	1	1	1.8889	1.8968	0.0079	1.36%
50	16-11-2556-41	1.97	1	1	1.8714	1.9328	0.0614	3.12%
51	16-11-2556-42	1.43	1	1	1.8807	1.9336	0.0529	3.70%
Dup-3	D16-11-2556-41	2.06	1	1	1.8862	1.9472	0.0610	2.96%
L-3	LCS-161207L27	0.12	1	1	1.8786	1.9969	0.1183	98.6%





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:47

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_072716_POL_WB_01	1610231-01	Tissue	27-Jul-16 11:30	05-Oct-16 09:30
ES-13_072716_POL_WB_02	1610231-02	Tissue	27-Jul-16 11:30	05-Oct-16 09:30
ES-13_072716_POL_WB_03	1610231-03	Tissue	27-Jul-16 11:30	05-Oct-16 09:30
ES-13_072716_POL_WB_04	1610231-04	Tissue	27-Jul-16 11:30	05-Oct-16 09:30
ES-13_072716_POL_WB_05	1610231-05	Tissue	27-Jul-16 11:30	05-Oct-16 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.*

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:47

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/16/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1631 (EFGS-070).

## ANALYTICAL AND QUALITY CONTROL ISSUES

The samples were prepped in batch F610422 for the Methyl Mercury prep and batch F610471 for the total Mercury prep. Both batches used 1610231-01 for the batch QC.

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.

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:47

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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Eurofins Frontier Global Sciences, Inc.

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---

Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1610231

Client: AMEC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/11/16 Labeled By: CSP

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

Received By: LPM

Label Verified By: BGW

# of Coolers Received: 3 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>-6.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LPM</u>
Cooler 1: <u>-46 °C</u>	w/CF: <u>-46.1 °C</u>	Cooler 4: _____ °C	w/CF: _____ °C
Cooler 2: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	Cooler 5: _____ °C	w/CF: _____ °C
Cooler 3: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	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>Y</u>	

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

1: 8756 4740 9231 2: 7842 6248 7980 3: 7842 6248 7991



1610231

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Medium	Method	Fraction
--------	-------------	-------------	-----------------	---------	-----------	----------	--------------------------	--------------	--------	--------	----------

WB-20  
#777

779	10/3/2016	9:30	OB-05_100316_MUM_WB_MD_	MSD	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
887	7/27/2016	11:30	ES-13_072716_POL_WB_01	FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
888	7/27/2016	11:30	ES-13_072716_POL_WB_02	FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
889	7/27/2016	11:30	ES-13_072716_POL_WB_03	FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
890	7/27/2016	11:30	ES-13_072716_POL_WB_04	FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
907	7/27/2016	11:30	ES-13_072716_POL_WB_MS_	MS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
908	7/27/2016	11:30	ES-13_072716_POL_WB_MD01	MS/MSD	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1019	9/21/2016	12:04	ES-13_092116_RAS_WB_01	FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1041	9/27/2016	11:30	ES-FP_092716_RAS_WB_01	FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1042	9/27/2016	11:30	ES-FP_092716_RAS_WB_02	FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1043	9/27/2016	11:30	ES-FP_092716_RAS_WB_03	FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

Need 5 samples run plus an MS/MSD

use for MS/MSD

MS

MS/MSD

use for MS/MSD

Homogenize w/ MS/MSD volume if present

Tuesday, October 04, 2016

Pos Seal

-46.1°C, -47.1°C, -47.1°C

FedEx 8756 4740 9231

DMK 10/6/16

Lars Mitket  
EFCS  
10/5/16 9:30

Page 20 of 30

1610231

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
--------	-------------	-------------	-----------------	---------	-----------	----------	--------------------------	--------------	--------------	----------

QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: J. Desjarlais IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16:00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FEDEX TRACKING: 8756 47 40 9231

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**ES-13\_072716\_POL\_WB\_01**  
**1610231-01**

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)	3.3	0.5	2.1	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	20.8	0.351	3.13	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	
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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

ES-13\_072716\_POL\_WB\_02  
1610231-02

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

Sample Preparation: EFGS-010 KOH/Methanol Hg Digestion

Methyl Mercury (as Mercury)	1.5	0.4	1.7	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	J
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	45.2	0.420	3.75	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	
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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**ES-13\_072716\_POL\_WB\_03**  
**1610231-03**

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)	ND	0.4	1.7	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	12.8	0.385	3.44	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**ES-13\_072716\_POL\_WB\_04**  
**1610231-04**

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)	1.1	0.4	1.6	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	J
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	24.7	0.370	3.30	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	
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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**ES-13\_072716\_POL\_WB\_05**  
**1610231-05**

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)	4.1	0.4	1.7	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	71.3	0.403	3.60	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6J31010 - F610408</b>											
<b>Cal Standard (6J31010-CAL1)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		96.3				
<b>Cal Standard (6J31010-CAL2)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		101				
<b>Cal Standard (6J31010-CAL3)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		99.2				
<b>Cal Standard (6J31010-CAL4)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	1.9	-		ng/L	2.0020		92.4				
<b>Cal Standard (6J31010-CAL5)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		111				
<b>Calibration Blank (6J31010-CCB1)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.008	-		ng/L							U
<b>Calibration Blank (6J31010-CCB2)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.01	-		ng/L							U
<b>Calibration Blank (6J31010-CCB3)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U
<b>Calibration Blank (6J31010-CCB4)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U
<b>Calibration Blank (6J31010-CCB5)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

Quality Control Data

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

Batch 6J31010 - F610408

<b>Calibration Blank (6J31010-CCB6)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	-0.02	-		ng/L								U
<b>Calibration Check (6J31010-CCV1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		91.0	67-133				
<b>Calibration Check (6J31010-CCV2)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		82.6	67-133				
<b>Calibration Check (6J31010-CCV3)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133				
<b>Calibration Check (6J31010-CCV4)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.6	67-133				
<b>Calibration Check (6J31010-CCV5)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.9	67-133				
<b>Calibration Check (6J31010-CCV6)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		85.4	67-133				
<b>Instrument Blank (6J31010-IBL1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L								U
<b>Initial Cal Blank (6J31010-ICB1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.006	-		ng/L								
<b>Initial Cal Check (6J31010-ICV1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.5	67-133				

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K01010 - F610422</b>											
<b>Cal Standard (6K01010-CAL1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.7				
<b>Cal Standard (6K01010-CAL2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		92.4				
<b>Cal Standard (6K01010-CAL3)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		108				
<b>Cal Standard (6K01010-CAL4)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		98.2				
<b>Cal Standard (6K01010-CAL5)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	4.1	-		ng/L	4.0040		104				
<b>Calibration Blank (6K01010-CCB1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	-0.005	-		ng/L							U
<b>Calibration Blank (6K01010-CCB2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	-0.005	-		ng/L							U
<b>Calibration Check (6K01010-CCV1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		72.2	67-133			
<b>Calibration Check (6K01010-CCV2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.5	67-133			
<b>Instrument Blank (6K01010-IBL1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K01010 - F610422</b>											
<b>Initial Cal Blank (6K01010-ICB1)</b> Prepared: 01-Oct-16 Analyzed: 31-Oct-16											
Methyl Mercury (as Mercury)	0.006	-		ng/L							
<b>Initial Cal Check (6K01010-ICV1)</b> Prepared: 01-Oct-16 Analyzed: 31-Oct-16											
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		103	67-133			
<b>Batch 6K09002 - F610470</b>											
<b>Cal Standard (6K09002-CAL1)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.495	-		ng/L	0.50100		98.8				
<b>Cal Standard (6K09002-CAL2)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	1.008	-		ng/L	1.0020		101				
<b>Cal Standard (6K09002-CAL3)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	5.075	-		ng/L	5.0100		101				
<b>Cal Standard (6K09002-CAL4)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	19.99	-		ng/L	20.040		99.8				
<b>Cal Standard (6K09002-CAL5)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	39.48	-		ng/L	40.080		98.5				
<b>Calibration Blank (6K09002-CCB1)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.080	-		ng/L							
<b>Calibration Blank (6K09002-CCB2)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.210	-		ng/L							

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K09002 - F610470</b>											
<b>Calibration Blank (6K09002-CCB3)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.228	-		ng/L							
<b>Calibration Blank (6K09002-CCB4)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.167	-		ng/L							
<b>Calibration Blank (6K09002-CCB5)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.127	-		ng/L							
<b>Calibration Blank (6K09002-CCB6)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.345	-		ng/L							
<b>Calibration Blank (6K09002-CCB7)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.182	-		ng/L							
<b>Calibration Check (6K09002-CCV1)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.539	-		ng/L	5.0000		90.8	77-123			
<b>Calibration Check (6K09002-CCV2)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.826	-		ng/L	5.0000		96.5	77-123			
<b>Calibration Check (6K09002-CCV3)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	5.008	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (6K09002-CCV4)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.958	-		ng/L	5.0000		99.2	77-123			
<b>Calibration Check (6K09002-CCV5)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.753	-		ng/L	5.0000		95.1	77-123			

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**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 6K09002 - F610470**

<b>Calibration Check (6K09002-CCV6)</b>					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	4.887	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (6K09002-CCV7)</b>					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	4.577	-		ng/L	5.0000		91.5	77-123			
<b>Instrument Blank (6K09002-IBL1)</b>					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K09002-IBL2)</b>					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K09002-IBL3)</b>					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K09002-ICV1)</b>					Prepared: 08-Nov-16 Analyzed: 09-Nov-16						
Mercury	4.765	-		ng/L	5.0000		95.3	77-123			

**Batch F610422 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Blank (F610422-BLK1)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK2)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK3)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610422 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F610422-BLK4)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
<b>Blank (F610422-BLK5)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
<b>Blank (F610422-BLK6)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							FB, U
<b>Blank (F610422-BLK7)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F610422-BLK8)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F610422-BLK9)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F610422-BS1)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	241.2	2.0	7.8	ng/g	330.15		73.1	70-130			
<b>LCS Dup (F610422-BSD1)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	241.4	2.0	7.8	ng/g	330.02		73.2	70-130	0.122	25	
<b>Duplicate (F610422-DUP1)</b>					Source: 1610574-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	324.4	2.4	9.7	ng/g		366.5			12.2	35	
<b>Matrix Spike (F610422-MS1)</b>					Source: 1610231-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	45.6	1.1	4.4	ng/g	44.449	4.0	93.7	65-130			

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Amy Goodall, Project Manager

AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:47
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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 F610422 - EFGS-010 KOH/Methanol Hg Digestion**

<b>Matrix Spike (F610422-MS2)</b>		<b>Source: 1610610-01</b>		Prepared: 20-Oct-16 Analyzed: 30-Oct-16							
Methyl Mercury (as Mercury)	34.2	0.9	3.5	ng/g	35.123	3.2	88.4	65-130			
<b>Matrix Spike Dup (F610422-MSD1)</b>		<b>Source: 1610231-01</b>		Prepared: 20-Oct-16 Analyzed: 30-Oct-16							
Methyl Mercury (as Mercury)	43.8	1.0	4.1	ng/g	41.449	4.0	96.1	65-130	2.55	35	
<b>Matrix Spike Dup (F610422-MSD2)</b>		<b>Source: 1610610-01</b>		Prepared: 20-Oct-16 Analyzed: 30-Oct-16							
Methyl Mercury (as Mercury)	31.0	0.9	3.4	ng/g	33.875	3.2	82.1	65-130	7.41	35	

**Batch F610471 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610471-BLK1)</b>				Prepared: 04-Nov-16 Analyzed: 09-Nov-16							
Mercury	0.430	0.090	0.800	ng/g							J
<b>Blank (F610471-BLK2)</b>				Prepared: 04-Nov-16 Analyzed: 09-Nov-16							
Mercury	0.256	0.090	0.800	ng/g							J
<b>Blank (F610471-BLK3)</b>				Prepared: 04-Nov-16 Analyzed: 09-Nov-16							
Mercury	0.217	0.090	0.800	ng/g							J
<b>LCS (F610471-BS1)</b>				Prepared: 04-Nov-16 Analyzed: 09-Nov-16							
Mercury	7.644	0.090	0.800	ng/g	8.0160		95.4	75-125			
<b>LCS (F610471-BS2)</b>				Prepared: 04-Nov-16 Analyzed: 09-Nov-16							
Mercury	331.9	4.47	39.9	ng/g	381.58		87.0	75-125			
<b>LCS Dup (F610471-BSD1)</b>				Prepared: 04-Nov-16 Analyzed: 09-Nov-16							
Mercury	7.858	0.090	0.800	ng/g	8.0160		98.0	75-125	2.76	24	

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:47

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 F610471 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Duplicate (F610471-DUP1)</b>		<b>Source: 1610145-44</b>			Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	108.6	0.442	3.95	ng/g		95.80			12.5	24	
<b>Matrix Spike (F610471-MS1)</b>		<b>Source: 1610145-45</b>			Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	495.7	2.18	19.5	ng/g	389.86	87.60	105	71-125			
<b>Matrix Spike (F610471-MS2)</b>		<b>Source: 1610231-01</b>			Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	328.0	1.72	15.3	ng/g	306.65	20.78	100	71-125			
<b>Matrix Spike Dup (F610471-MSD1)</b>		<b>Source: 1610145-45</b>			Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	481.5	2.17	19.4	ng/g	387.60	87.60	102	71-125	2.95	24	
<b>Matrix Spike Dup (F610471-MSD2)</b>		<b>Source: 1610231-01</b>			Prepared: 04-Nov-16 Analyzed: 09-Nov-16						
Mercury	303.6	1.71	15.3	ng/g	305.44	20.78	92.6	71-125	7.87	24	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:47**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.
- 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



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-1BL1	1	10/30/16 10:20	17384-1.RAW	10:20:12	15.35			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/30/16 10:30	17385-1.RAW	10:30:43	44.62			29.3	0.048	0.048	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/30/16 10:41	17386-1.RAW	10:41:14	137.85			122.5	0.202	0.202	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/30/16 10:51	17387-1.RAW	10:51:44	618.71			603.4	0.993	0.993	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/30/16 11:02	17388-1.RAW	11:02:15	1139.78			1124.4	1.851	1.851	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/30/16 11:12	17389-1.RAW	11:12:46	2712.82			2697.5	4.440	4.440	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CV1	1	10/30/16 11:23	17390-1.RAW	11:23:16	299.62			284.3	0.468	0.468	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	10/30/16 11:33	17391-1.RAW	11:33:47	18.76			3.4	0.006	0.006	ng/L	
Hg2700-1	DM2	SAM	F610408-BS1	2000	10/30/16 11:44	17392-1.RAW	11:44:18	955.34	1		940.0	1.548	3095.490	ng/L	
Hg2700-1	DM2	SAM	F610408-BSD1	2000	10/30/16 11:54	17393-1.RAW	11:54:49	1084.61	1		1069.3	1.761	3521.003	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK1	500	10/30/16 12:05	17394-1.RAW	12:05:20	16.25	1		0.9	0.001	0.740	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK2	500	10/30/16 12:15	17395-1.RAW	12:15:50	14.55	1		-0.8	-0.001	-0.656	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK3	500	10/30/16 12:26	17396-1.RAW	12:26:21	10.49	1		-4.9	-0.008	-4.001	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK4	500	10/30/16 12:36	17397-1.RAW	12:36:52	10.99	1		-4.4	-0.005	-2.278	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK5	500	10/30/16 12:47	17398-1.RAW	12:47:22	7.33	1		-8.0	-0.011	-5.295	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK6	500	10/30/16 12:57	17399-1.RAW	12:57:53	8.47	1		-6.9	-0.009	-4.355	ng/L	
Hg2700-1	DM2	SAM	F610408-DUP1	500	10/30/16 13:08	17400-1.RAW	13:08:24	92.26	1		76.9	0.129	64.599	ng/L	
Hg2700-1	DM2	SAM	F610408-MS1	500	10/30/16 13:18	17401-1.RAW	13:18:54	561.13	1		545.8	0.901	450.447	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/30/16 13:29	17402-1.RAW	13:29:25	292.17			276.8	0.456	0.456	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/30/16 13:39	17403-1.RAW	13:39:56	10.45			-4.9	-0.008	-0.008	ng/L	
Hg2700-1	DM2	SAM	F610408-MSD1	500	10/30/16 13:50	17404-1.RAW	13:50:26	467.73	1		452.4	0.747	373.586	ng/L	
Hg2700-1	DM2	SAM	1610136-01	500	10/30/16 14:00	17405-1.RAW	14:00:57	21.81	1		6.5	0.013	6.624	ng/L	
Hg2700-1	DM2	SAM	1610338-01	500	10/30/16 14:11	17406-1.RAW	14:11:28	20.40	1		5.1	0.011	5.465	ng/L	
Hg2700-1	DM2	SAM	1610419-01	500	10/30/16 14:21	17407-1.RAW	14:21:58	52.06	1		36.7	0.063	31.514	ng/L	
Hg2700-1	DM2	SAM	1610419-02	500	10/30/16 14:32	17408-1.RAW	14:32:29	129.96	1		114.6	0.191	95.623	ng/L	
Hg2700-1	DM2	SAM	1610419-03	500	10/30/16 14:43	17409-1.RAW	14:43:00	76.29	1		60.9	0.103	51.455	ng/L	
Hg2700-1	DM2	SAM	1610419-04	500	10/30/16 14:53	17410-1.RAW	14:53:30	45.93	1		30.6	0.053	26.468	ng/L	
Hg2700-1	DM2	SAM	1610509-01	500	10/30/16 15:04	17411-1.RAW	15:04:01	27.50	1		12.1	0.023	11.302	ng/L	
Hg2700-1	DM2	SAM	F610422-BS1	2000	10/30/16 15:14	17412-1.RAW	15:14:32	950.97	2		935.6	1.544	3088.893	ng/L	
Hg2700-1	DM2	SAM	F610422-BSD1	2000	10/30/16 15:25	17413-1.RAW	15:25:03	948.44	2		933.1	1.540	3080.583	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/30/16 15:35	17414-1.RAW	15:35:33	266.45			251.1	0.413	0.413	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/30/16 15:46	17415-1.RAW	15:46:04	6.58			-8.8	-0.014	-0.014	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK1	500	10/30/16 15:56	17416-1.RAW	15:56:35	5.09	2		-10.3	-0.017	-8.438	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK2	500	10/30/16 16:07	17417-1.RAW	16:07:05	2.57	2		-12.8	-0.021	-10.514	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK3	500	10/30/16 16:17	17418-1.RAW	16:17:36	5.19	2		-10.2	-0.017	-8.356	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK4	500	10/30/16 16:28	17419-1.RAW	16:28:07	6.02	2		-9.3	0.003	1.427	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK5	500	10/30/16 16:38	17420-1.RAW	16:38:38	3.36	2		-12.0	-0.002	-0.760	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK6	500	10/30/16 16:49	17421-1.RAW	16:49:09	2.10	2		-13.2	-0.004	-1.798	ng/L	
Hg2700-1	DM2	SAM	F610422-DUP1	2500	10/30/16 16:59	17422-1.RAW	16:59:39	1027.95	2		1012.6	1.670	4175.576	ng/L	
Hg2700-1	DM2	SAM	F610422-MS1	1000	10/30/16 17:10	17423-1.RAW	17:10:10	321.92	2		306.6	0.514	513.673	ng/L	
Hg2700-1	DM2	SAM	F610422-MSD1	1000	10/30/16 17:20	17424-1.RAW	17:20:41	331.25	2		315.9	0.529	529.037	ng/L	
Hg2700-1	DM2	SAM	F610422-MS2	1000	10/30/16 17:31	17425-1.RAW	17:31:11	306.32	2		291.0	0.488	487.997	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	10/30/16 17:41	17426-1.RAW	17:41:42	273.24			257.9	0.424	0.424	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	10/30/16 17:52	17427-1.RAW	17:52:13	3.63			-11.7	-0.019	-0.019	ng/L	
Hg2700-1	DM2	SAM	F610422-MSD2	1000	10/30/16 18:02	17428-1.RAW	18:02:43	288.15	2		272.8	0.458	458.099	ng/L	
Hg2700-1	DM2	SAM	1610231-01	1000	10/30/16 18:13	17429-1.RAW	18:13:14	38.83	2		23.5	0.048	47.752	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	SAM	1610231-02	1000	10/30/16 18:23	17430-1.RAW	18:23:45	20.46	2		5.1	0.018	17.520	ng/L	
Hg2700-1	DM2	SAM	1610231-03	1000	10/30/16 18:34	17431-1.RAW	18:34:15	7.19	2		-8.2	-0.004	-4.319	ng/L	
Hg2700-1	DM2	SAM	1610231-04	1000	10/30/16 18:44	17432-1.RAW	18:44:46	13.97	2		-1.4	0.007	6.837	ng/L	
Hg2700-1	DM2	SAM	1610231-05	1000	10/30/16 18:55	17433-1.RAW	18:55:17	46.12	2		30.8	0.060	59.746	ng/L	
Hg2700-1	DM2	SAM	1610235-01	1000	10/30/16 19:05	17434-1.RAW	19:05:47	2.71	2		-12.6	-0.012	-11.693	ng/L	
Hg2700-1	DM2	SAM	1610235-02	1000	10/30/16 19:16	17435-1.RAW	19:16:18	0.78	2		-14.6	-0.015	-14.869	ng/L	
Hg2700-1	DM2	SAM	1610235-03	1000	10/30/16 19:26	17436-1.RAW	19:26:49	2.00	2		-13.3	-0.013	-12.867	ng/L	
Hg2700-1	DM2	SAM	1610235-04	1000	10/30/16 19:37	17437-1.RAW	19:37:19	1.81	2		-13.5	-0.013	-13.184	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	10/30/16 19:47	17438-1.RAW	19:47:50	278.78			263.4	0.434	0.434	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	10/30/16 19:58	17439-1.RAW	19:58:21	2.60			-12.7	-0.021	-0.021	ng/L	
Hg2700-1	DM2	SAM	1610235-05	1000	10/30/16 20:08	17440-1.RAW	20:08:51	7.90	2		-7.4	-0.003	-3.149	ng/L	
Hg2700-1	DM2	SAM	1610574-01	2500	10/30/16 20:19	17441-1.RAW	20:19:22	1332.41	2		1317.1	2.171	5428.326	ng/L	
Hg2700-1	DM2	SAM	1610574-02	2500	10/30/16 20:29	17442-1.RAW	20:29:53	951.10	2		935.7	1.544	3859.365	ng/L	
Hg2700-1	DM2	SAM	1610574-03	2500	10/30/16 20:40	17443-1.RAW	20:40:23	1543.32	2		1528.0	2.518	6296.138	ng/L	
Hg2700-1	DM2	SAM	1610574-04	2500	10/30/16 20:50	17444-1.RAW	20:50:54	1096.09	2		1080.7	1.782	4455.972	ng/L	
Hg2700-1	DM2	SAM	1610574-05	2500	10/30/16 21:01	17445-1.RAW	21:01:25	870.00	2		854.6	1.410	3525.675	ng/L	
Hg2700-1	DM2	SAM	1610610-01	1000	10/30/16 21:11	17446-1.RAW	21:11:56	35.05	2		19.7	0.042	41.531	ng/L	
Hg2700-1	DM2	SAM	1610610-02	1000	10/30/16 21:22	17447-1.RAW	21:22:27	39.42	2		24.1	0.049	48.723	ng/L	
Hg2700-1	DM2	SAM	1610610-03	1000	10/30/16 21:32	17448-1.RAW	21:32:58	15.86	2		0.5	0.010	9.939	ng/L	
Hg2700-1	DM2	SAM	1610610-04	1000	10/30/16 21:43	17449-1.RAW	21:43:28	7.71	2		-7.6	-0.003	-3.464	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	10/30/16 21:53	17450-1.RAW	21:53:59	297.76			282.4	0.465	0.465	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	10/30/16 22:04	17451-1.RAW	22:04:30	6.11			-9.2	-0.015	-0.015	ng/L	
Hg2700-1	DM2	SAM	1610617-01	1000	10/30/16 22:15	17452-1.RAW	22:15:00	11.88	2		-3.5	0.003	3.402	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	10/30/16 22:25	17453-1.RAW	22:25:31	275.08			259.7	0.427	0.427	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	10/30/16 22:36	17454-1.RAW	22:36:02	2.76			-12.6	-0.021	-0.021	ng/L	

MethylMercury Operat DM Blanks 15.349 Calif Eqn: Conc = (Area-15.349) / 607.6 Run Date: ##### Blank SD: 0  
 EPA163C Workst MMHG2 Calif Fz 607.69 Status: OK, 1 Warning Run Time: 9:53:39 Blank RSE 0  
 Method 2010-01 R: 0.9965 R1: 0.993077999 Calif Anal: Meric CF SD: 41.96551496  
 Descrip MMHG27001-161030-2 CF RSD%: 6.906186246

Sample/ID	Locator	Rinse	Dilute	Blank	ConcHo0 (n)	ConcHoMeq (ppt)	ConcHo2 (n)	ConcHo4 (n)	Rec%	QA	RawData	RunEnd	PeakHo0 (Ra)	PeakHoMeq (R)	PeakHo2 (Ra)	PeakHo4 (Ra)	Control (ctf)	Flags	RunCount
Clean				0.00	0.00	0.00					17382-1.RAW	9:59:10	0.14	0.87	0.03	0.00	cleandry	CT	1
W5	A1			1 15.349	0.1968323	0.00301756	0.0623979				17383-1.RAW	10:09:42	134.962617	15.5320549	53.267553	0	psample10	CT	1
SEQ-1BL1	A2			1 0	0.3574335	0.025257229	0.0923204				17384-1.RAW	10:20:12	217.210396	15.3485795	56.1026042	0	psample10	CT	1
SEQ-CAL1	A3			1 15.349	0.3322874	0.048189944	0.0796969		96.37		17385-1.RAW	10:30:43	217.277899	44.6310133	63.7660233	0	psample10	CT	1
SEQ-CAL2	A4			1 15.349	0.3235066	0.201705579	0.0975286		100.85		17386-1.RAW	10:41:14	211.941895	137.924053	74.6162879	0	psample10	CT	1
SEQ-CAL3	A5			1 15.349	0.4570575	0.992876297	0.2207962		99.29		17387-1.RAW	10:51:44	293.100328	618.724157	149.526563	0	psample10	CT	1
SEQ-CAL4	A6			1 15.349	0.6450772	1.850322461	0.3428981		92.52		17388-1.RAW	11:02:15	407.358558	1139.7795	224.333641	0	psample10	CT	1
SEQ-CAL5	A7			1 15.349	0.6775204	4.438867744	0.6895628		110.97		17389-1.RAW	11:12:46	427.074133	2712.82121	434.392198	0	psample10	CT	1
SEQ-ICV1	A8			1 15.349	1.0397957	0.467793676	0.3999663		93.67		17390-1.RAW	11:23:16	647.226841	299.623722	258.406031	0	psample10	CT	1
SEQ-ICB1	A9			1 15.349	0.2659431	0.004928735	0.0701389		0.00		17391-1.RAW	11:33:47	179.027024	18.3428447	57.9717093	0	psample10	CT	1
F610408-BS1	A10	2000		15.349	842.87089	3093.63658	680.52423				17392-1.RAW	11:44:18	271.452587	955.341657	222.1249	0	psample10	CT	1
F610408-BS01	A11	2000		15.349	839.92762	3519.07438	759.72633				17393-1.RAW	11:54:49	270.558384	1084.60978	245.109445	0	psample10	CT	1
F610408-BLK1	A12	500		15.349	125.62598	0.740363002	49.448365				17394-1.RAW	12:05:20	168.03312	16.3465085	75.4476799	0	psample10	CT	1
F610408-BLK2	A13	500		15.349	118.11977	-0.65814385	55.817717				17395-1.RAW	12:15:50	158.910156	14.5516098	63.1889205	0	psample10	CT	1
F610408-BLK3	A14	500		15.349	108.57902	4.00781171	47.554701				17396-1.RAW	12:26:21	147.314425	10.4775566	73.1461411	0	psample10	CT	1
*F610408-BLK4	A15	500		15.349	104.01745	-3.582767228	49.643854				17397-1.RAW	12:36:52	141.770347	10.9942235	75.6852746	0	psample10	CT	1
*F610408-BLK5	A16	500		15.349	95.384502	-6.59936868	43.225182				17398-1.RAW	12:47:22	131.277957	7.32787918	67.8840909	0	psample10	CT	1
*F610408-BLK6	A17	500		15.349	96.427453	5.224863662	45.817607				17399-1.RAW	12:57:53	134.976326	8.9964375	71.0348958	0	psample10	CT	1
F610408-DUP1	A18	500		15.349	243.72757	63.28245601	43.849728				17400-1.RAW	13:08:24	311.572497	92.261482	68.6431581	0	psample10	CT	1
F610408-MS1	A19	500		15.349	265.02946	449.0622387	66.223375		44906.22		17401-1.RAW	13:16:54	337.462571	561.133996	95.8358428	0	psample10	CT	1
SEQ-CCV1	A20			1 15.349	0.981058	0.455224372	0.4213319		91.16		17402-1.RAW	13:29:25	611.532254	291.966032	271.389742	0	psample10	CT	1
SEQ-CCB1	A21			1 15.349	0.2272631	0.008067478	0.0565485		0.00		17403-1.RAW	13:39:56	153.454025	10.4461174	49.7129025	0	psample10	CT	1
F610408-MSD1	B1	500		15.349	254.10853	372.2144323	53.947369				17404-1.RAW	13:50:26	374.189393	467.734016	80.9157197	0	psample10	CT	1
1610136-01	B2	500		15.349	153.39647	5.317262209	251.26153				17405-1.RAW	14:00:57	201.679333	21.8112216	320.729181	0	psample10	CT	1
1610138-01	B3	500		15.349	128.15584	6.760543078	201.766				17406-1.RAW	14:11:28	171.112209	26.0058712	260.575291	0	psample10	CT	1
1610141-01	B4	500		15.349	231.17213	30.20832132	35.562208				17407-1.RAW	14:21:58	296.31275	52.0635417	58.5705906	0	psample10	CT	1
1610149-02	B5	500		15.349	224.01172	94.30103861	35.321411				17408-1.RAW	14:32:29	287.610063	129.961127	59.4933239	0	psample10	CT	1
1610149-03	B6	500		15.349	195.00673	50.14091225	35.663302				17409-1.RAW	14:43:00	252.35772	76.2899339	58.6934659	0	psample10	CT	1
1610149-04	B7	500		15.349	188.43147	25.1576406	40.58145				17410-1.RAW	14:53:30	244.20616	45.925	64.670928	0	psample10	CT	1
1610509-01	B8	500		15.349	134.19945	9.994905441	151.18411				17411-1.RAW	15:04:01	178.453221	27.4962778	199.091968	0	psample10	CT	1
F610422-BS1	B9	2000		15.349	723.54801	3079.245086	638.65632				17412-1.RAW	15:14:32	235.195757	950.968851	208.402652	0	psample10	CT	1
F610422-BSD1	B10	2000		15.349	720.4464	3070.93684	659.31095				17413-1.RAW	15:25:03	234.254342	946.444413	215.678504	0	psample10	CT	1
SEQ-CCV2	B11			1 15.349	0.9171374	0.413199465	0.2537247		82.74		17414-1.RAW	15:35:33	572.688022	266.447727	230.305256	0	psample10	CT	1
SEQ-CCB2	B12			1 15.349	0.1653762	-0.014464007	0.0450256		0.00		17415-1.RAW	15:46:04	115.846875	6.55861742	42.7105114	0	psample10	CT	1
F610422-BLK1	B13	500		15.349	74.438696	8.436673545	37.846518				17416-1.RAW	15:56:35	105.820654	5.09483902	61.3469223	0	psample10	CT	1
F610422-BLK2	B14	500		15.349	64.281711	-10.51205085	47.930121				17417-1.RAW	16:07:05	93.475966	2.57244822	73.6024219	0	psample10	CT	1
F610422-BLK3	B15	500		15.349	58.625507	-8.354607629	42.695867				17418-1.RAW	16:17:36	86.8445519	5.1945786	67.240767	0	psample10	CT	1
*F610422-BLK4	B16	500		15.349	52.109706	-7.673882229	40.262583				17419-1.RAW	16:28:07	78.6822466	6.02192235	64.783503	0	psample10	OK	1
*F610422-BLK5	B17	500		15.349	55.503175	-9.861114579	38.806391				17420-1.RAW	16:38:36	82.8066288	3.36358902	62.5135417	0	psample10	CT	1
*F610422-BLK6	B18	500		15.349	53.146462	-10.86091916	36.153497				17421-1.RAW	16:49:09	79.9420359	2.1484375	59.2892433	0	psample10	CT	1
F610422-DUP1	B19	2500		15.349	639.73083	4165.735396	383.01719				17422-1.RAW	16:59:39	170.853047	1027.9465	108.451657	0	psample10	CT	1
F610422-MS1	B20	1000		15.349	270.50504	504.4813652	1095.187		50+48.13		17423-1.RAW	17:10:10	179.733106	321.919176	680.887796	0	psample10	CT	1
F610422-MSD1	B21	1000		15.349	285.63495	519.8421967	1156.7774				17424-1.RAW	17:20:41	188.92747	331.25393	706.162053	0	psample10	CT	1
F610422-MS2	C1	1000		15.349	194.69355	478.8092646	385.39624				17425-1.RAW	17:31:11	133.662879	306.318442	249.553078	0	psample10	CT	1
SEQ-CCV3	C2			1 15.349	1.1391162	0.424378468	0.292721		23940.46		17426-1.RAW	17:41:42	707.611258	273.241146	192.960133	0	psample10	CT	1
SEQ-CCB3	C3			1 15.349	0.1169056	-0.019113207	0.0281308		0.00		17427-1.RAW	17:52:13	86.3915483	3.73358845	32.443068	0	psample10	CT	1
F610422-MSD2	C4	1000		15.349	178.39642	448.0361725	432.1257				17428-1.RAW	18:02:43	123.759207	287.617803	277.949096	0	psample10	CT	1
1610231-01	C5	1000		15.349	272.21219	38.5665489	1098.2126				17429-1.RAW	18:13:14	150.385006	38.755393	682.72642	0	psample10	CT	1
1610231-02	C6	1000		15.349	208.13422	8.41613005	530.97164				17430-1.RAW	18:23:45	141.830705	20.4631155	338.017229	0	psample10	CT	1
1610231-03	C7	1000		15.349	135.66672	-13.4193386	258.04112				17431-1.RAW	18:34:15	97.7926033	7.19382102	172.158854	0	psample10	CT	1
1610231-04	C8	1000		15.349	155.57416	-5.265073958	426.75643				17432-1.RAW	18:44:46	109.890242	13.9722064	274.692294	0	psample10	CT	1
1610231-05	C9	1000		15.349	145.3865	50.6342654	457.07128				17433-1.RAW	18:55:17	103.699257	46.1188447	293.108389	0	psample10	CT	1
1610235-01	C10	1000		15.349	176.26364	-20.79186884	85.533126				17434-1.RAW	19:05:47	121.855554	2.71357485	67.3266908	0	psample10	CT	1
1610235-02	C11	1000																	



## ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6J31010-IBL1	QC	1			
6J31010-CAL1	QC	2	1606090		
6J31010-CAL2	QC	3	1606091		
6J31010-CAL3	QC	4	1606092		
6J31010-CAL4	QC	5	1606093		
6J31010-CAL5	QC	6	1606094		
6J31010-ICV1	QC	7	1605079		
6J31010-ICB1	QC	8			
F610408-BS1	QC	9			
F610408-BSD1	QC	10			
F610408-BLK1	QC	11			
F610408-BLK2	QC	12			
F610408-BLK3	QC	13			
F610408-BLK4	QC	14			
F610408-BLK5	QC	15			
F610408-BLK6	QC	16			
F610408-DUP1	QC	17			
F610408-MS1	QC	18			
6J31010-CCV1	QC	19	1605079		
6J31010-CCB1	QC	20			
F610408-MSD1	QC	21			
1610136-01	MHg-CVAFS-T-KOH	22			Scan all data for level IV report
1610338-01	MHg-CVAFS-T-KOH	23			Scan all data for level IV report
1610419-01	MHg-CVAFS-T-KOH	24			
1610419-02	MHg-CVAFS-T-KOH	25			
1610419-03	MHg-CVAFS-T-KOH	26			
1610419-04	MHg-CVAFS-T-KOH	27			
1610509-01	MHg-CVAFS-T-KOH	28			Scan all data for level IV report
F610422-BS1	QC	29			
F610422-BSD1	QC	30			
6J31010-CCV2	QC	31	1605079		
6J31010-CCB2	QC	32			
F610422-BLK1	QC	33			
F610422-BLK2	QC	34			
F610422-BLK3	QC	35			

Due Date: 10/28/2016

Page 28 of 221

Page 1 of 3

## ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F610422-BLK4	QC	36			
F610422-BLK5	QC	37			
F610422-BLK6	QC	38			
F610422-DUP1	QC	39			
F610422-MS1	QC	40			
F610422-MSD1	QC	41			
F610422-MS2	QC	42			
6J31010-CCV3	QC	43	1605079		
6J31010-CCB3	QC	44			
F610422-MSD2	QC	45			
1610231-01	MHg-CVAFS-T-KOH	46			
1610231-02	MHg-CVAFS-T-KOH	47			
1610231-03	MHg-CVAFS-T-KOH	48			
1610231-04	MHg-CVAFS-T-KOH	49			
1610231-05	MHg-CVAFS-T-KOH	50			
1610235-01	MHg-CVAFS-T-KOH	51			
1610235-02	MHg-CVAFS-T-KOH	52			
1610235-03	MHg-CVAFS-T-KOH	53			
1610235-04	MHg-CVAFS-T-KOH	54			
6J31010-CCV4	QC	55	1605079		
6J31010-CCB4	QC	56			
1610235-05	MHg-CVAFS-T-KOH	57			
1610574-01	MHg-CVAFS-T-KOH	58			
1610574-02	MHg-CVAFS-T-KOH	59			
1610574-03	MHg-CVAFS-T-KOH	60			
1610574-04	MHg-CVAFS-T-KOH	61			
1610574-05	MHg-CVAFS-T-KOH	62			
1610610-01	MHg-CVAFS-T-KOH	63			
1610610-02	MHg-CVAFS-T-KOH	64			
1610610-03	MHg-CVAFS-T-KOH	65			
1610610-04	MHg-CVAFS-T-KOH	66			
6J31010-CCV5	QC	67	1605079		
6J31010-CCB5	QC	68			
1610617-01	MHg-CVAFS-T-KOH	69			
6J31010-CCV6	QC	70	1605079		

Due Date: 10/28/2016

Page 29 of 221

Page 2 of 3



ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6J31010-CCB6	QC	71			

DM Mjorem      10/30/16  
Samples Loaded By      Date

DM Mjorem      10/31/16  
Data Processed By      Date

**Failing Data Report - 6J31010**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610408-DUP1	MHg-CVAFS-T-KOH	5.0	1.9	2.4	2.4		ng/g				71.9	35.00	PASS-OVER	FAIL-DUP	QR-07

Don Moran                      10/31/16  
 Analyst Reviewed By                      Date

[Signature]                      11/2/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1506872	MHg New Primary 100 ng/mL spike
1605470	DORM-4

<u>Expiration:</u>
03-Nov-16 00:00
19-Mar-17 00:00
19-Mar-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605678	Ethylating Agent (For Methyl Mercury Analysis)	28-Mar-17 00:00
1605926	25% KOH/Methanol	09-Apr-17 00:00
1605961	Acetate Buffer	11-Apr-17 00:00
1606119	Methanol, HPLC Grade	17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-		
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-		
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-		
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-		
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-		
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD	
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-		
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-		
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-		

Page 33 of 221

Date: 11/2/2016

PREPARATION BENCH SHEET

F610422

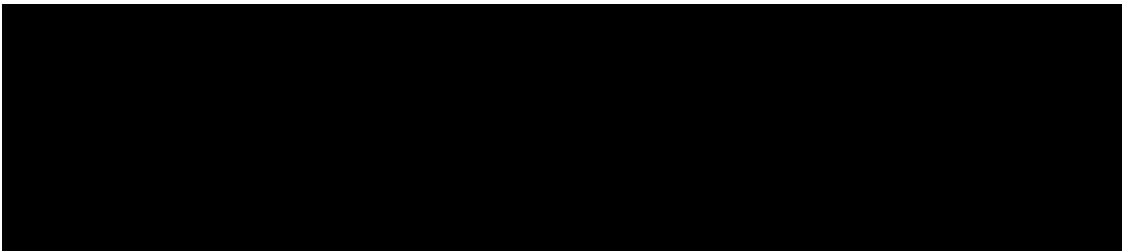
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610408

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/19/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610408-BLK1	Blank	0.25	20					
F610408-BLK2	Blank	0.25	20					
F610408-BLK3	Blank	0.25	20					
F610408-BLK4	FB for 1610136,1610338,1610509	0.265	20					
F610408-BLK5	Pre homogen blank 1610419	0.253	20					
F610408-BLK6	Post homogen blank 1610419	0.262	20					
F610408-BS1	LCS	0.252	20	1605470	252			
F610408-BSD1	LCS Dup	0.262	20	1605470	262			
F610408-DUP1	Duplicate [1610419-01]	0.257	20					
F610408-MS1	Matrix Spike [1610419-01]	0.254	20	1506872	100			
F610408-MSD1	Matrix Spike Dup [1610419-01]	0.266	20	1506872	100			

**Standard ID(s):**  
1506872  
1605470

**Description:**  
MHg New Primary 100 ng/mL spike  
DORM-4

**Expiration:**  
03-Nov-16 00:00  
19-Mar-17 00:00  
19-Mar-17 00:00

**Reagent ID(s):**  
1605678  
1605926  
1605961  
1606119

**Description:**  
Ethylating Agent (For Methyl Mercury Analysis)  
25% KOH/Methanol  
Acetate Buffer  
Methanol, HPLC Grade

**Expiration:**  
28-Mar-17 00:00  
09-Apr-17 00:00  
11-Apr-17 00:00  
17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610408

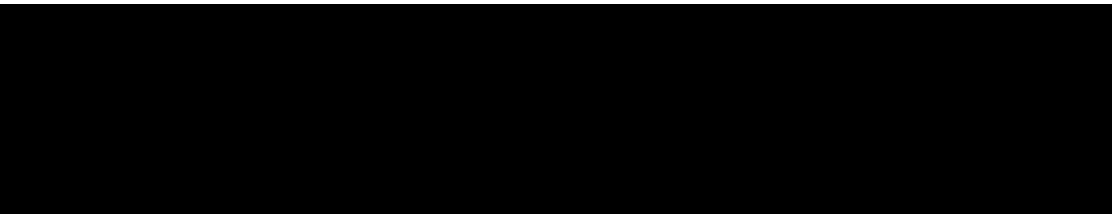
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/19/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610136-01	OL-2488-01	0.256	20	-	-	-	Scan all data for level IV report	
1610338-01	OL-2492-01	0.255	20	-	-	-	Scan all data for level IV report	
1610419-01	S-161003-01459 36132 31-40 Shrimp Tri Union	0.266	20	-	-	-		
1610419-02	S-161003-01461 36132 31-40 Shrimp Mazzetta	0.265	20	-	-	-		
1610419-03	NE 206 25549 S-160906-00426 Ore Cal	0.255	20	-	-	-	Shrimp	
1610419-04	SE 185 25549 S-160906-00428 Ore Cal	0.274	20	-	-	-	Shrimp	
1610509-01	OL-2497-01	0.253	20	-	-	-	Scan all data for level IV report	



PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					500X
F610422-BLK2	Blank	0.25	20					500X
F610422-BLK3	Blank	0.25	20					500X
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					500X
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					500X
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					500X
F610422-BS1	LCS	0.2561	20	1605470	256			2000X
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			2000X
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					2500X
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			1000X
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			1000X
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			1000X
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1506872	MHg New Primary 100 ng/mL spike	03-Nov-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1605926	25% KOH/Methanol	09-Apr-17 00:00
		19-Mar-17 00:00	1606119	Methanol, HPLC Grade	17-Oct-19 00:00

1605678

1605961



PREPARATION BENCH SHEET

F610422

Eurofins Frontier Global Sciences, Inc.

27007  
10/30/16 DM

Matrix: Tissue Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	1000X
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		1000X
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		1000X
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		1000X
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		1000X
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		1000X
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		1000X
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		1000X
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		1000X
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		1000X
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-		2500X
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-		2500X
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-		2500X
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-		2500X
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-		2500X
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD	1000X
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-		1000X
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-		1000X
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-		1000X

Page 38 of 221

Date: 11/2/2016

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-	1000x
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AMB

F610422

10-25-16

EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.

EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.

EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).

EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_

Vial Type:  Glass  Teflon

Balance#: 19 <sup>AMB 10-25-16</sup> Calibrated?  Yes  No Therm.#: 14545 Calibrated?  Yes  No

Time in: 1815 Actual Temp. (raw): 71.0 °C w/ CF: 70.8 °C

Time out: 1855 Actual Temp. (raw): 75.0 °C w/ CF: 74.7 °C

Final vol.: 20 mL (LIMS ID: 1606119) Spike vol.: 100 µL (LIMS ID: 1506872)

Spike Witness: N 10/25/16 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: NU09653 Calibration Date: 10-24-16

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

Pipette SN#: NU01152 Calibration Date: 10-25-16

70/30 LIMS ID: N/A

Dispenser #: 02N48426 Calibrated?  Yes  No

Other Acid LIMS ID: 25% KOH/Methanol: 1605926

Other Reagent/LIMS IDs: N/A

Centrifuge Tube lot # 00065550

Boiling Chip lot # 1603399

\*Hotblock Position: 08 N8

Glass vial

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	F610422-BLK1	0.2803	23	1610574-03	0.2785	DORMA
2	F610422-BLK2	0.2792	24	1610574-04	0.2740	1605470
3	F610422-BLK3	0.2563	25	1610574-05	0.2643	BS1, BSD1
4	F610422-BS1	0.2561	26	1610610-01	0.2588	Comments
5 *	F610422-BSD1	0.5520	27	F610422-MS2	0.2850	F610422-
6	F610422-BLK4	0.2645	28	F610422-MSD2	0.2955	DUP1:
7	F610422-BLK5	0.2680	29	1610610-02	0.2589	1610574-01
8	1610231-01	0.2399	30	1610610-03	0.2674	F610422-
9	F610422-MS1	0.2252	31	1610610-04	0.2801	MS1, MSD1:
10	F610422-MSD1	0.2415	32	1610617-01	0.3122	1610231-01
11	1601231-02	0.2871	33	F610422-BLK6	0.2629	F610422-
12	1601231-03	0.2928	34			MS2, MSD2:
13	1610231-04	0.3144	35			1610610-01
14	1610231-05	0.3021	36			F610422-BLK4:
15	1610235-01	0.2879	37			Prep (Pre) blank
16	1610235-02	0.2912	38			1610574
17	1610235-03	0.2665	39			F610422-BLK5:
18	1610235-04	0.2553	40			Prep (Post) blank
19	1610235-05	0.2820	41			F610422-BSD1
20	1610757-01	0.2962	42			Sample size:
21	F610422-07	0.2574	43			0.2552g
22	1610574-02	0.2647	44			AMB 10-25-16

AMB 10-25-16

20) 1610574-01 21) F610422-DUP  
AMB 10-25-16

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610408

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610408-BLK1	Blank	0.25	20					500X
F610408-BLK2	Blank	0.25	20					500X
F610408-BLK3	Blank	0.25	20					500X
F610408-BLK4	FB for 1610136,1610338,1610509	0.265	20					500X
F610408-BLK5	Pre homogen blank 1610419	0.253	20					500X
F610408-BLK6	Post homogen blank 1610419	0.262	20					500X
F610408-BS1	LCS	0.252	20	1605470	252			2000X
F610408-BSD1	LCS Dup	0.262	20	1605470	262			2000X
F610408-DUP1	Duplicate [1610419-01]	0.257	20					500X
F610408-MS1	Matrix Spike [1610419-01]	0.254	20	1506872	100			500X
F610408-MSD1	Matrix Spike Dup [1610419-01]	0.266	20	1506872	100			500X

Standard ID(s):  
1506872  
1605470

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
03-Nov-16 00:00  
19-Mar-17 00:00  
19-Mar-17 00:00

Reagent ID(s):  
1605926  
1606119

Description:  
25% KOH/Methanol  
Methanol, HPLC Grade

Expiration:  
09-Apr-17 00:00  
17-Oct-19 00:00

1605678

1605961

**PREPARATION BENCH SHEET**

2700-1  
10/30/16 DM

F610408

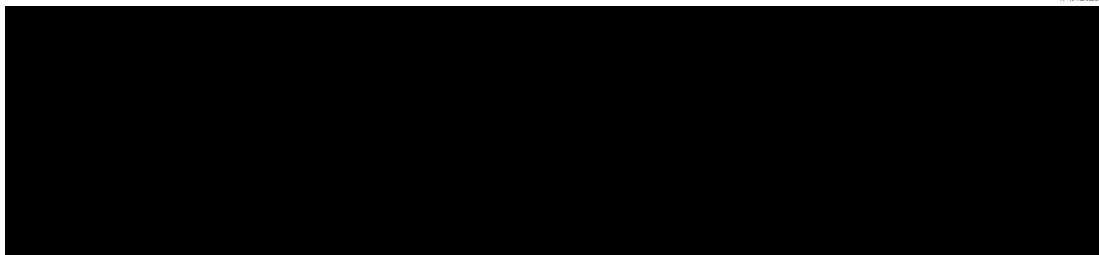
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/19/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610136-01	OL-2488-01	0.256	20	-	-	-	Scan all data for level IV report	500X
1610338-01	OL-2492-01	0.255	20	-	-	-	Scan all data for level IV report	500X
1610419-01	S-161003-01459 36132 31-40 Shrimp Tri Union	0.266	20	-	-	-		500X
1610419-02	S-161003-01461 36132 31-40 Shrimp Mazzetta	0.265	20	-	-	-		500X
1610419-03	NE 206 25549 S-160906-00426 Ore Cal	0.255	20	-	-	-	Shrimp	500X
1610419-04	SE 185 25549 S-160906-00428 Ore Cal	0.274	20	-	-	-	Shrimp	500X
1610509-01	OL-2497-01	0.253	20	-	-	-	Scan all data for level IV report	500X



Technician: MPM/AMB Batch#: F610408 Date: 10/19/16

- EFGS-010** Tissues - Methyl Mercury - KOH/Methanol: **Hot plate 75±5°C for 2-4 hours.**
  - EFGS-011** Tissues - Total Mercury - 70:30: **Hot plate 75±5°C for two hours.**
  - EFGS-045** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: **Heat Block 45°C (nitrogen purge for 30 minutes).**
  - EFGS-066** Solids - Total Mercury - Cold AR: **18-25°C for over four hours.**
- Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No  
 Time in: 1740 Actual Temp. (raw): 73.0 °C w/ CF: 72.5 °C  
 Time out: 2040 Actual Temp. (raw): timer °C w/ CF: timer °C

Final vol.: 20 mL (LIMS ID: 1606119) Spike vol.: 100 µL (LIMS ID: 1506872)  
 Spike Witness: PL 10/19/16 (initial and date) Spiked by AMB 10/19/16

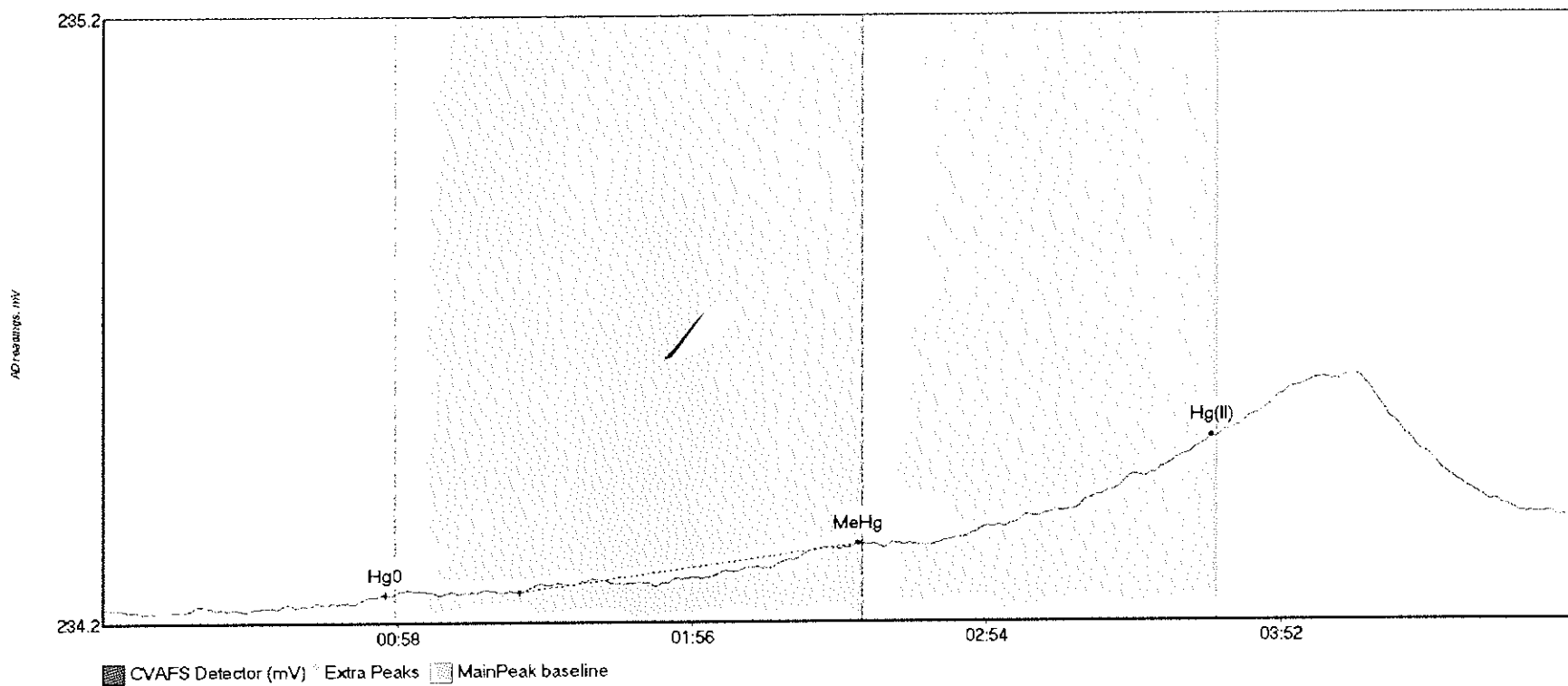
HCl LIMS ID: N/A Pipette SN#: NU09653 Calibration Date: 10-18-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01152 Calibration Date: 10-18-16  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1605926 Dispenser #: N/A  
 Glass Vial # 00065550 Boiling Chip lot # 1603399 \*Hotblock Position: H5

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	F610408-BIK1	0.254	23			BS1/BSDI
2	F610408-BIK2	0.259	24			DORM-4
3	F610408-BIK3	0.255	25			1605470
4	F610408-BIK4	0.265	26			<b>Comments</b>
5	F610408-BIK5	0.253	27			BIK4 Filter Blank
6	F610408-BIK6	0.262	28			1610136, 1610338,
7	F610408-BS1	0.252	29			1610509 MPM 10/19/16
8	F610408-BSDI	0.262	30			BIK5 Pre Blank
9	1610136-01	0.256	31			BIK6 Post Blank
10	1610338-01	0.255	32			1610419 (Homogenizati
11	1610419-01	0.266	33			AM B (blanks) Blanks)
12	F610408-DUP(1610419-01)	0.257	34			MPM 10/19/16
13	F610408-MSI(1610419-01)	0.254	35			
14	F610408-MSD(1610419-01)	0.266	36			
15	1610419-02	0.265	37			
16	1610419-03	0.255	38			
17	1610419-04	0.274	39			
18	1610509-01	0.253	40			
19			41			
20			42			
21			43			
22			44			

AMB 10/19/16

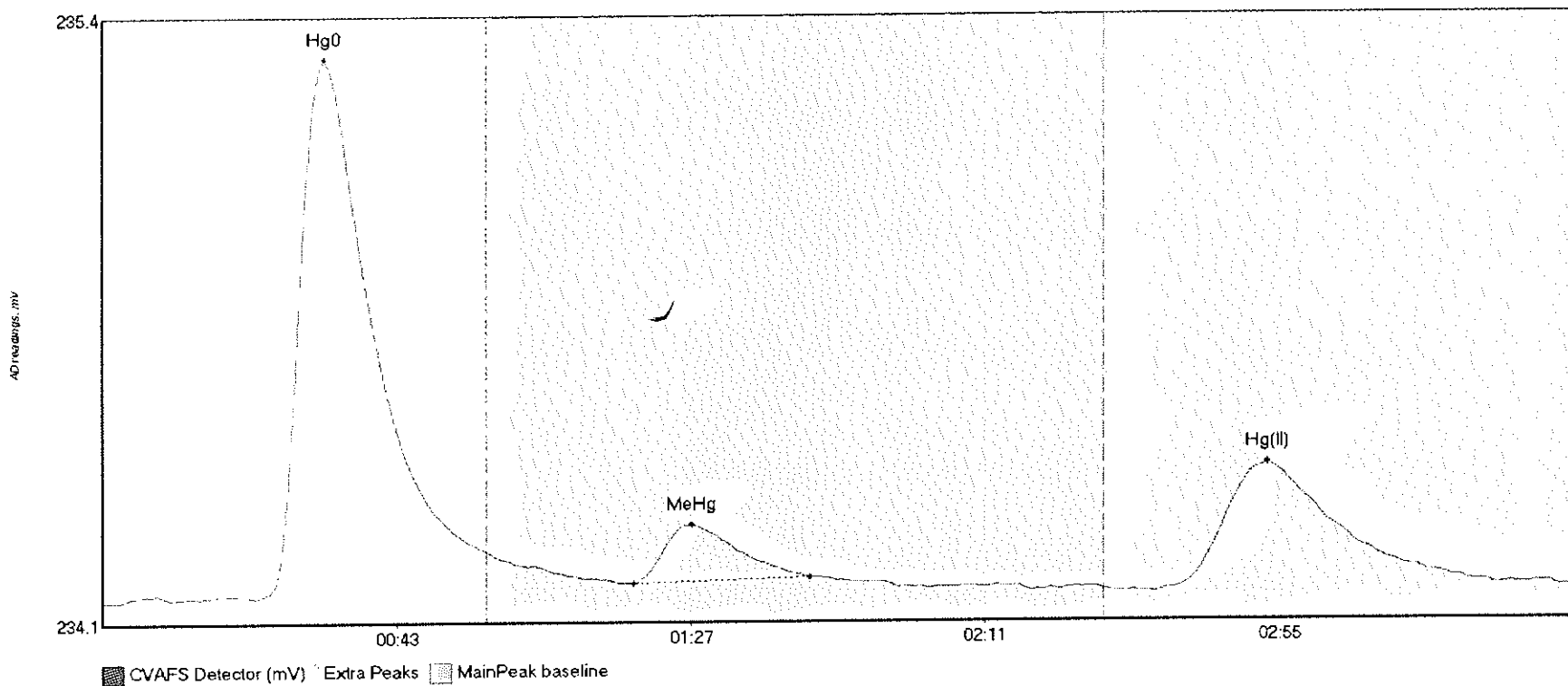
AMB 10-18-16

#1: Clean



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean Hg0	0.139	40.6	57.0	234.20	234.22	55.7	0.020	OK	234.1932	0.00	0.15	
Clean MeHg	0.866	82.3	150.0	234.22	234.30	149.2	0.080	CT	234.1932	0.00	0.15	
Clean Hg(II)	0.028	165.0	219.6	234.30	234.47	219.0	0.175	OK	234.1932	0.00	0.15	

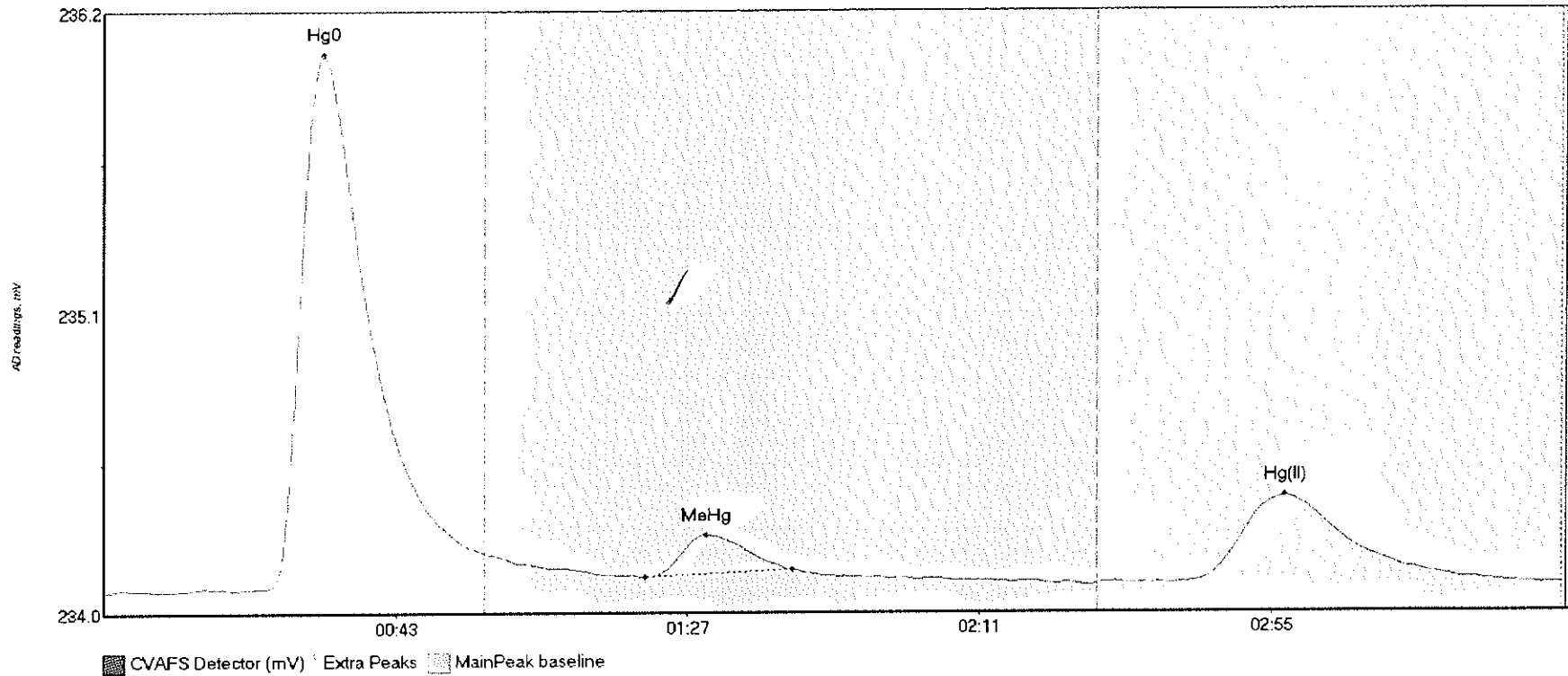
#2: WS



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BJDev	BJShift	Comment
WS Hg0	134.963	10.8	57.5	234.15	234.26	33.1	1.184	CT	234.1479	0.00	0.03	
WS MeHg	15.532	79.5	105.7	234.19	234.20	88.2	0.128	OK	234.1479	0.00	0.03	
WS Hg(II)	53.268	159.8	219.8	234.17	234.17	174.2	0.273	CT	234.1479	0.00	0.03	

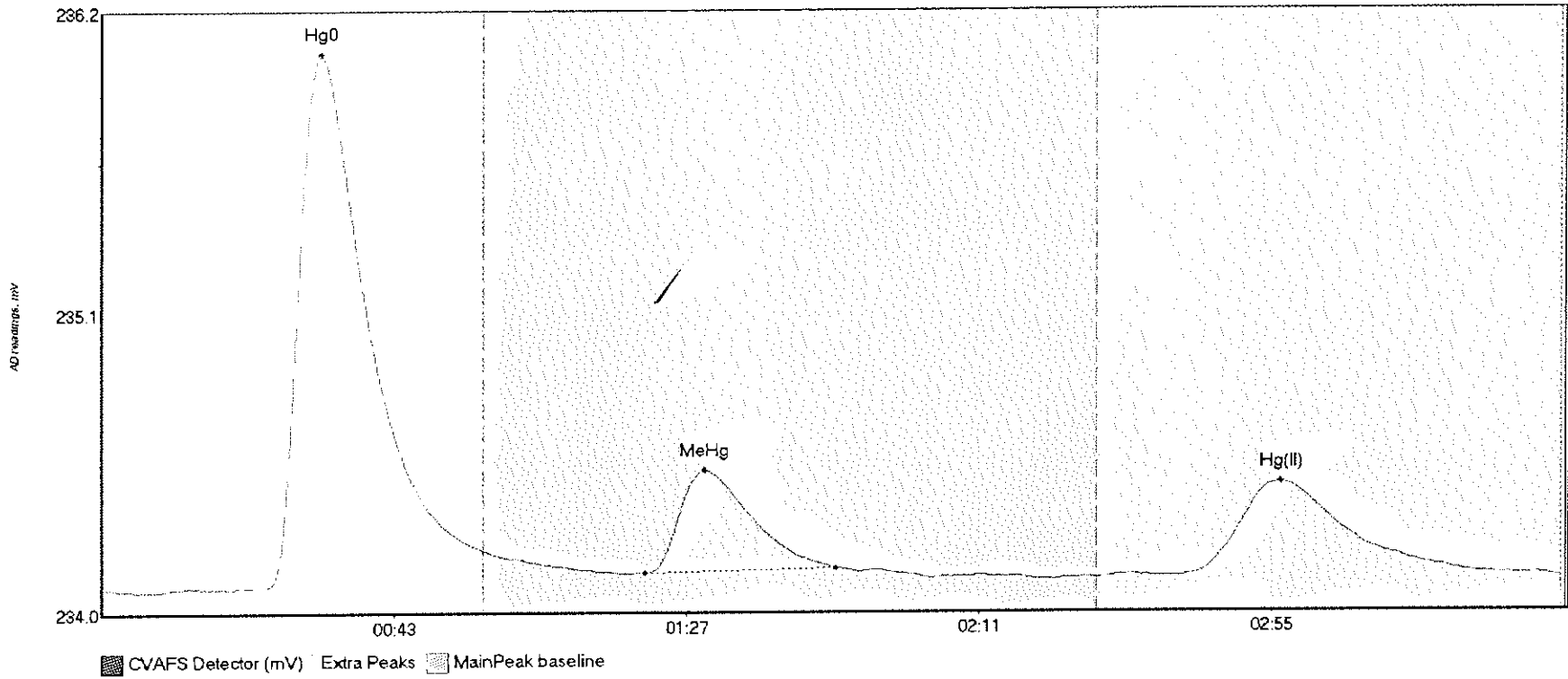


#3: SEQ-IBL1



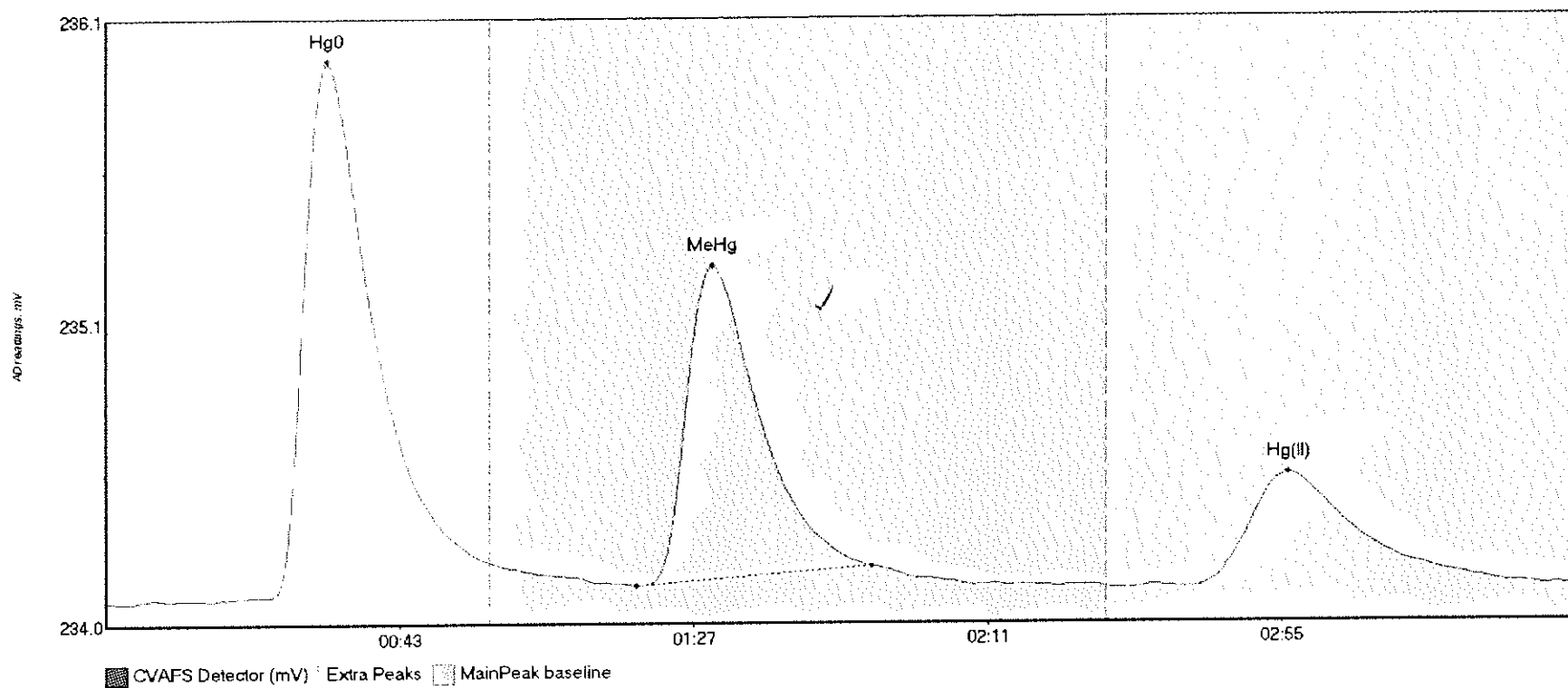
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	217.210	20.3	57.5	234.12	234.26	33.1	1.950	CT	234.1189	0.00	0.02	
SEQ-IBL1 MeHg	15.349	81.8	103.7	234.17	234.19	90.9	0.153	OK	234.1189	0.00	0.02	
SEQ-IBL1 Hg(II)	56.103	163.2	210.7	234.15	234.15	178.0	0.311	OK	234.1189	0.00	0.02	

#4: SEQ-CAL1



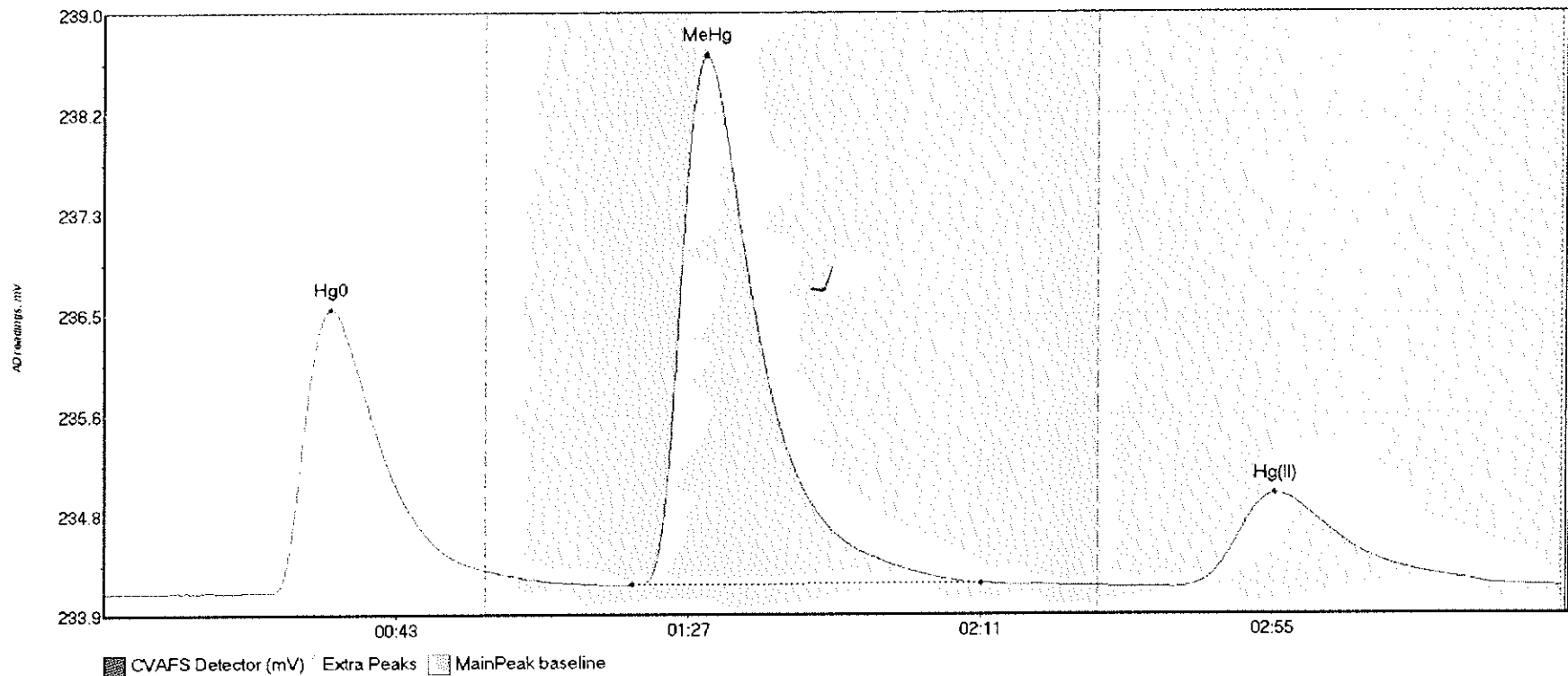
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	217.278	23.6	57.5	234.10	234.23	33.1	1.909	CT	234.0996	0.00	0.04	
SEQ-CAL1 MeHg	44.622	81.7	110.5	234.15	234.17	90.8	0.370	OK	234.0996	0.00	0.04	
SEQ-CAL1 Hg(II)	63.778	162.0	219.7	234.14	234.14	177.4	0.336	OK	234.0996	0.00	0.04	

#5: SEQ-CAL2



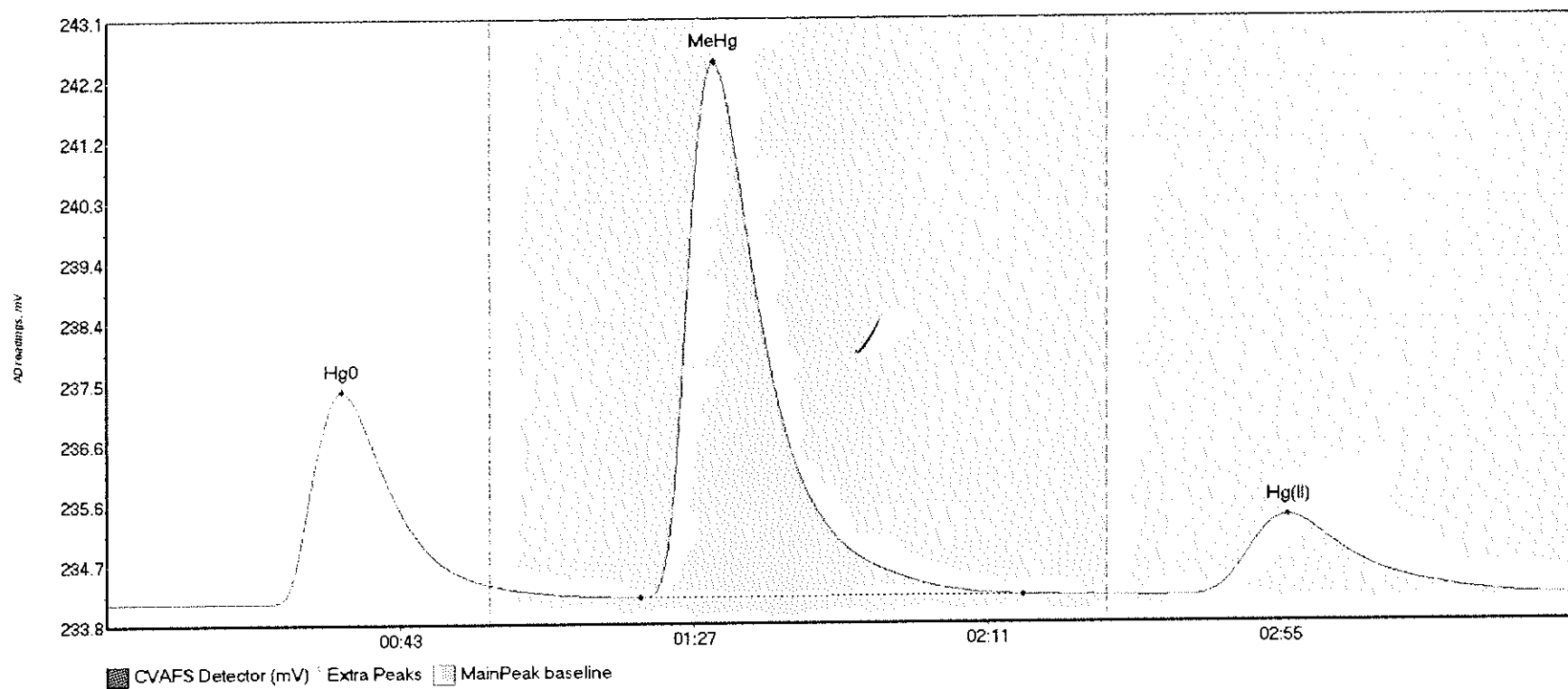
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	211.942	15.7	57.5	234.09	234.22	33.2	1.674	CT	234.0904	0.00	0.05	
SEQ-CAL2 MeHg	137.853	79.5	114.6	234.14	234.21	90.9	1.114	OK	234.0904	0.00	0.05	
SEQ-CAL2 Hg(II)	74.616	163.1	218.9	234.13	234.14	177.0	0.396	OK	234.0904	0.00	0.05	

#6: SEQ-CAL3



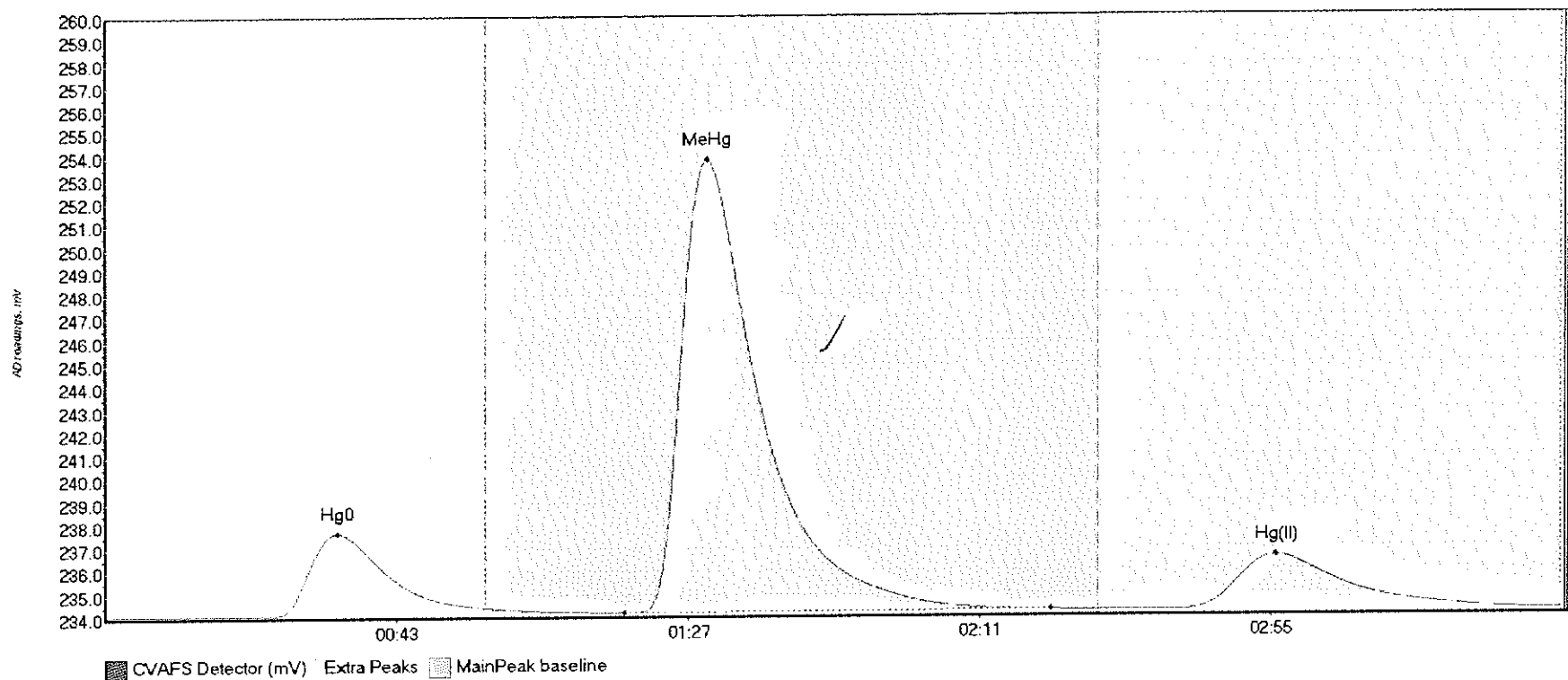
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	293.163	18.9	57.5	234.10	234.29	34.3	2.421	CT	234.0987	0.00	0.05	
SEQ-CAL3 MeHg	618.714	79.6	132.1	234.17	234.18	90.8	4.498	OK	234.0987	0.00	0.05	
SEQ-CAL3 Hg(II)	149.527	161.5	216.2	234.15	234.16	176.5	0.797	OK	234.0987	0.00	0.05	

#7: SEQ-CAL4



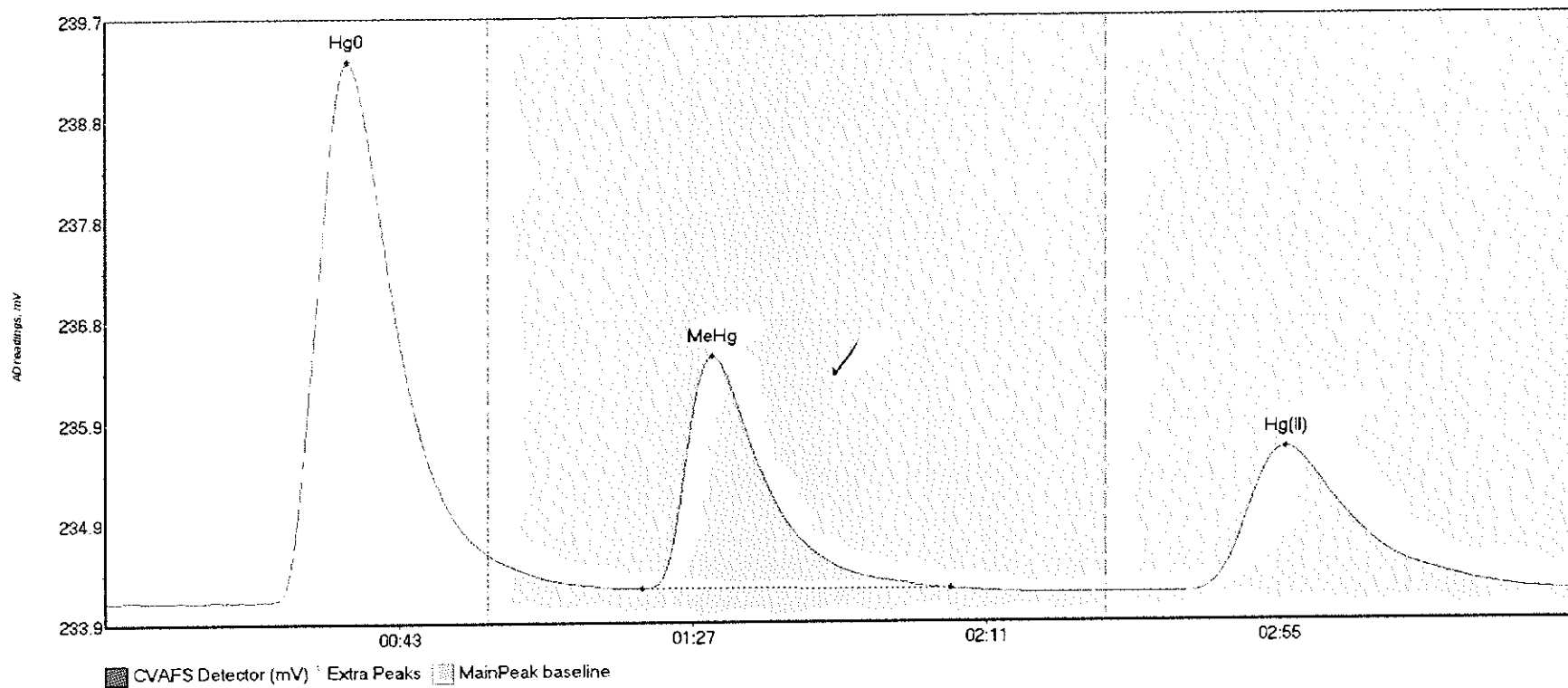
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	407.359	19.2	57.5	234.12	234.39	35.3	3.262	CT	234.1137	0.00	0.07	
SEQ-CAL4 MeHg	1139.779	80.0	137.3	234.19	234.21	91.0	8.234	OK	234.1137	0.00	0.07	
SEQ-CAL4 Hg(II)	224.334	161.5	215.5	234.19	234.20	177.2	1.223	OK	234.1137	0.00	0.07	

#8 SEQ-CAL5



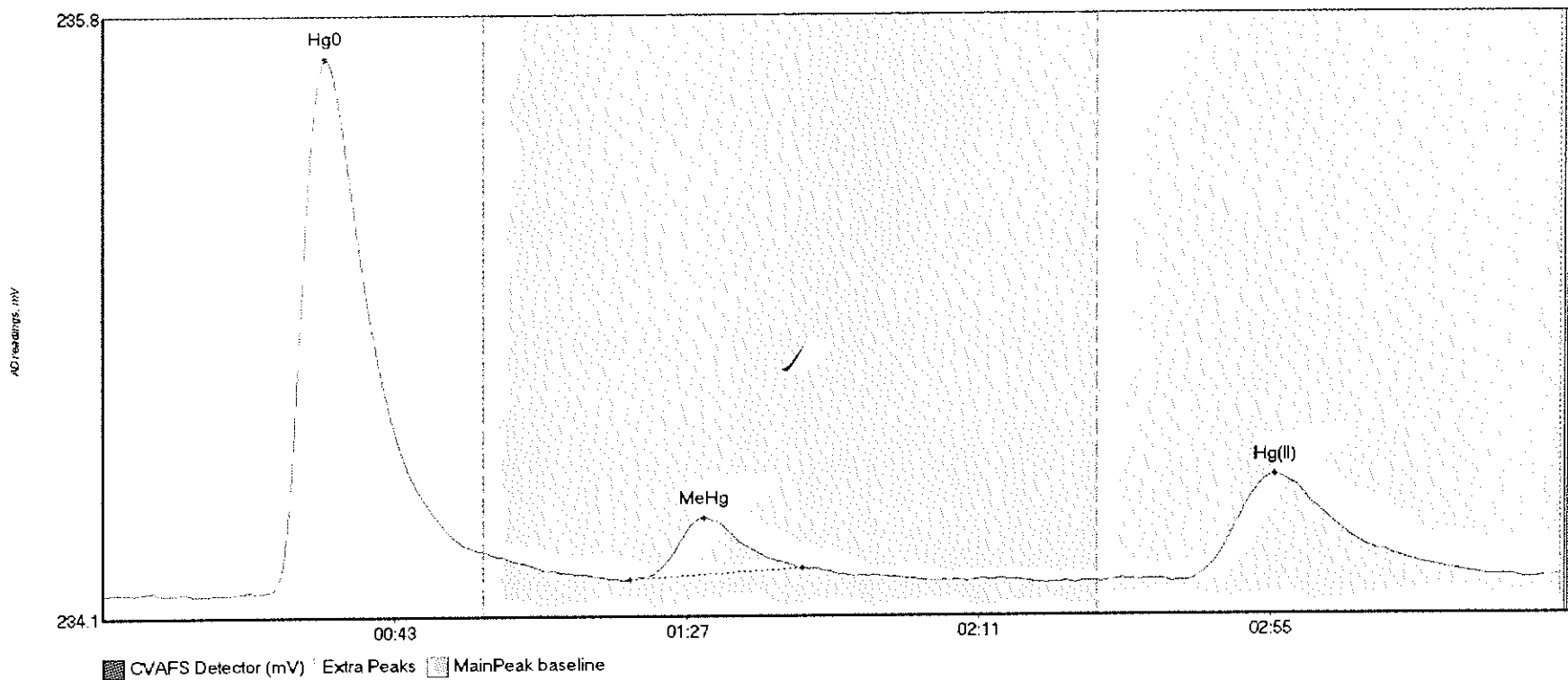
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CAL5 Hg0	427.074	9.8	57.5	234.12	234.41	35.1	3.567	CT	234.1148	0.00	0.12	
SEQ-CAL5 MeHg	2712.821	78.3	142.8	234.20	234.27	90.9	19.602	OK	234.1148	0.00	0.12	
SEQ-CAL5 Hg(II)	434.392	160.6	216.4	234.24	234.24	176.9	2.341	OK	234.1148	0.00	0.12	

#9: SEQ-ICV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-ICV1 Hg0	647.227	21.6	57.5	234.13	234.57	36.2	5.174	CT	234.1294	0.00	0.07	
SEQ-ICV1 MeHg	299.624	80.4	126.7	234.25	234.24	91.0	2.227	OK	234.1294	0.00	0.07	
SEQ-ICV1 Hg(II)	258.406	161.0	219.7	234.20	234.20	177.1	1.384	OK	234.1294	0.00	0.07	

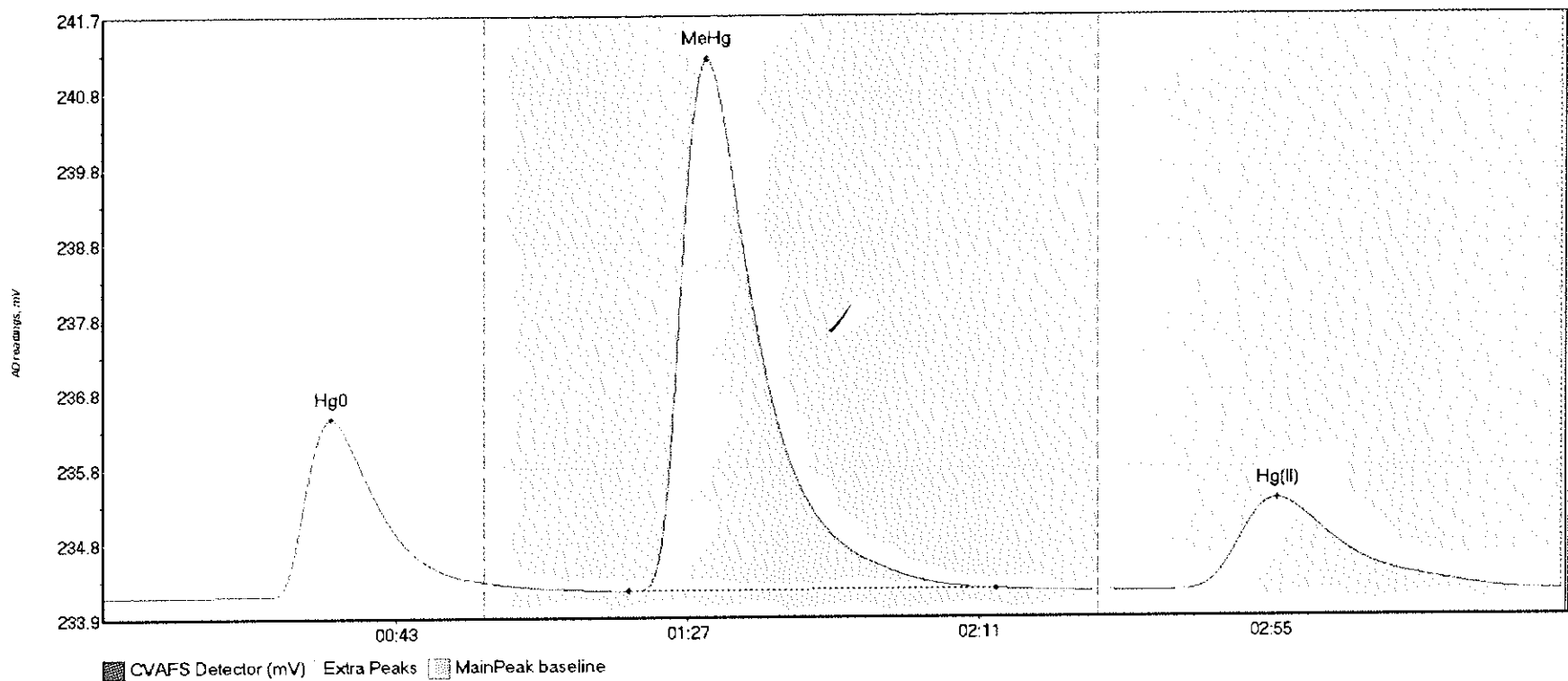
#10: SEQ-ICB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-ICB1 Hg0	179.145	23.5	57.5	234.14	234.26	33.5	1.578	CT	234.1397	0.00	0.05	
SEQ-ICB1 MeHg	18.760	79.5	105.4	234.18	234.21	90.6	0.183	OK	234.1397	0.00	0.05	
SEQ-ICB1 Hg(II)	57.972	163.1	215.1	234.17	234.18	176.7	0.312	OK	234.1397	0.00	0.05	

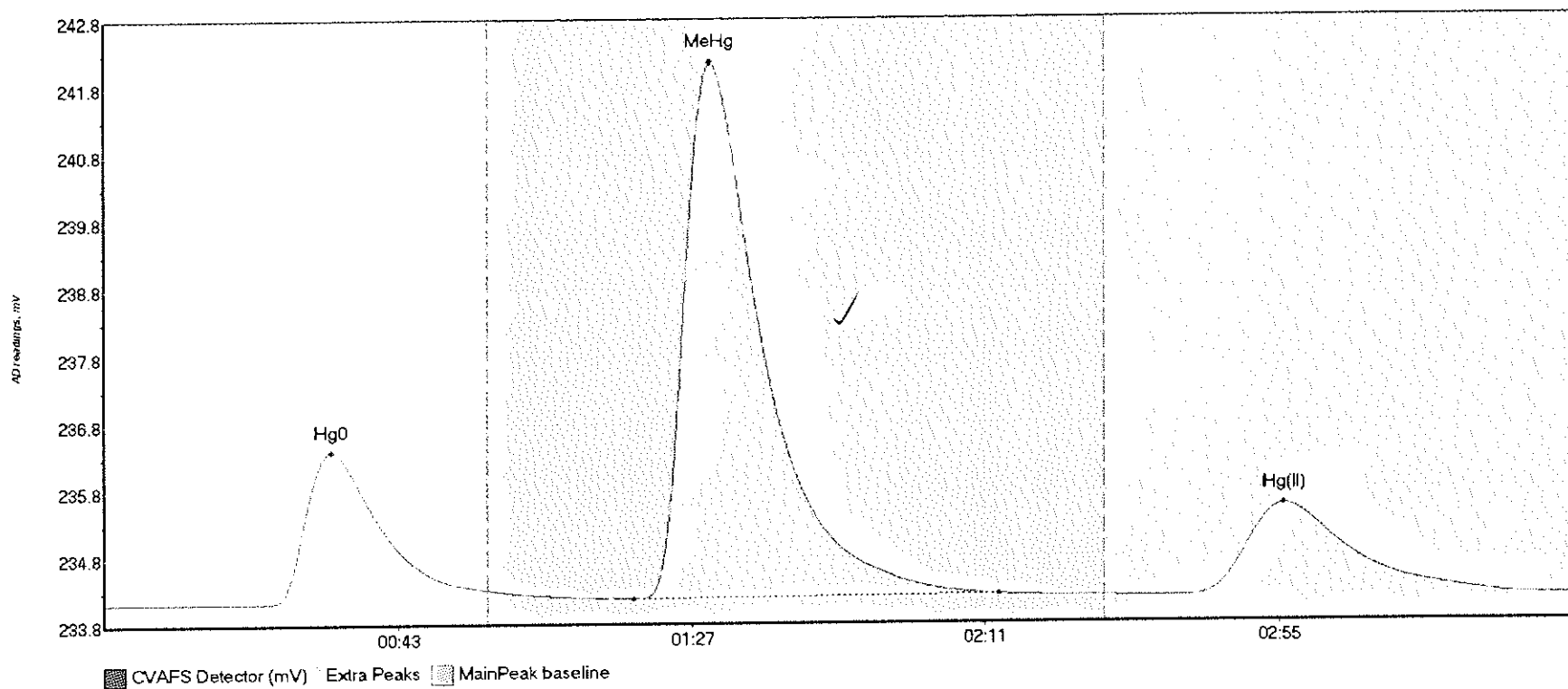


#11: F610408-BS1



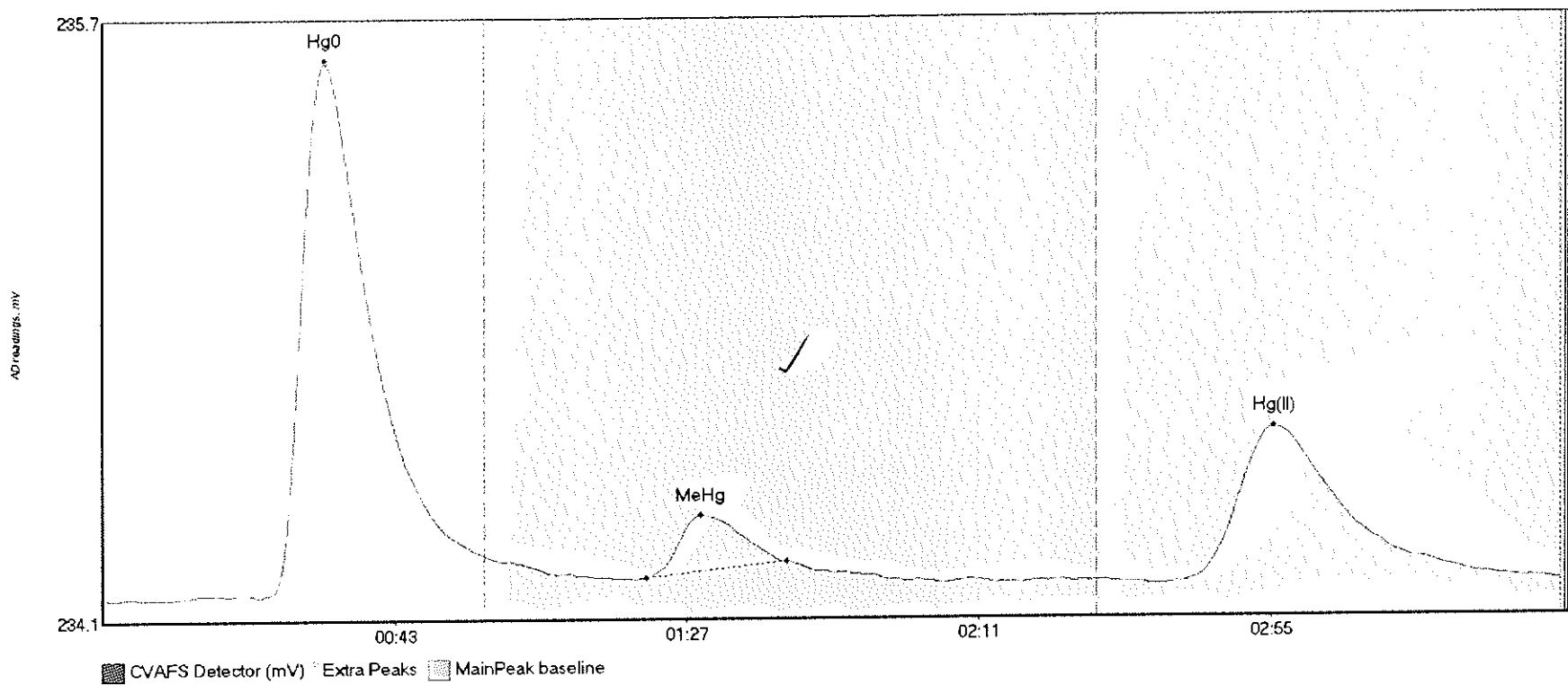
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F610408-BS1 Hg0	271.453	14.9	57.5	234.14	234.33	34.3	2.334	CT	234.1385	0.00	0.05	
F610408-BS1 MeH	955.342	79.1	134.6	234.21	234.22	90.9	6.967	OK	234.1385	0.00	0.05	
F610408-BS1 Hg(I)	222.124	162.6	215.6	234.20	234.20	177.0	1.195	OK	234.1385	0.00	0.05	

#12: F610408-BSD1



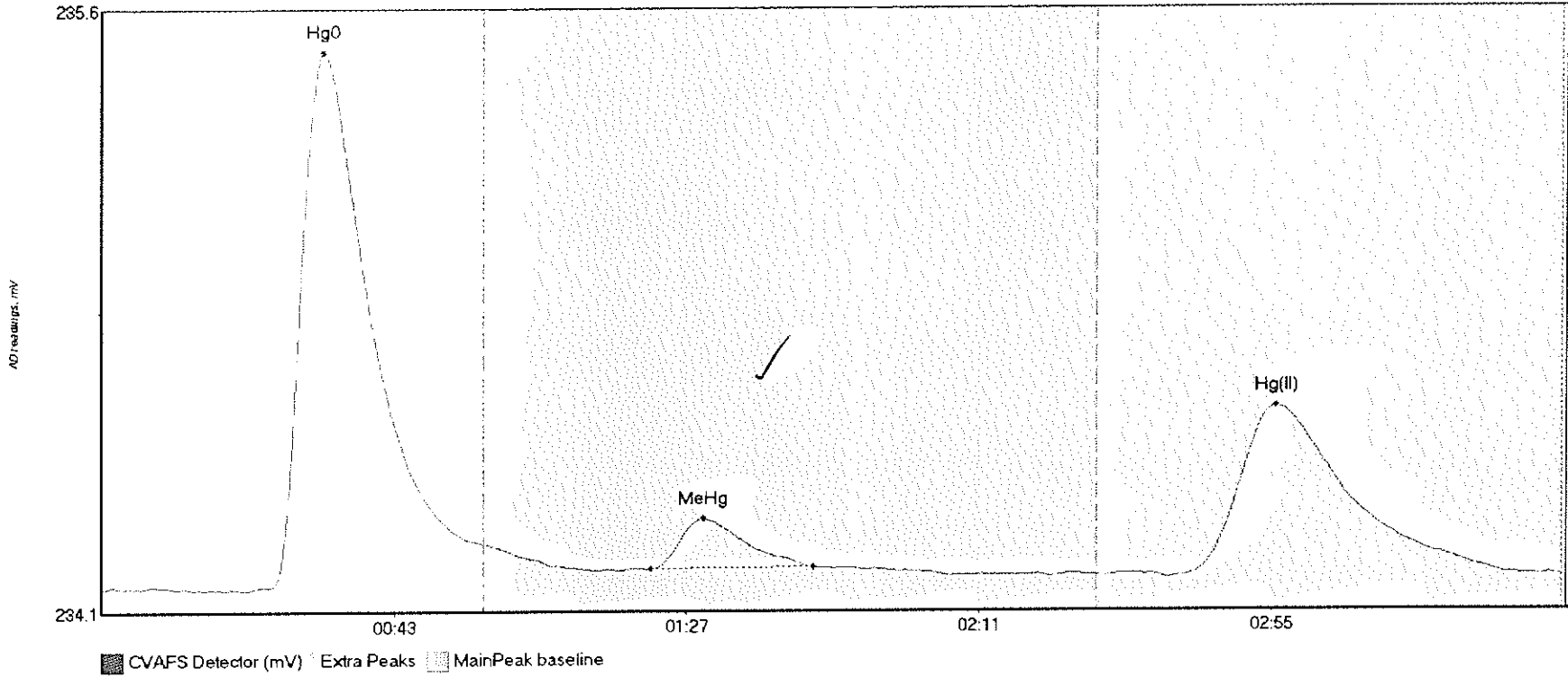
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BSD1 Hg	270.558	24.4	57.5	234.13	234.31	34.0	2.263	CT	234.1267	0.00	0.06	
F610408-BSD1 Me	1084.610	79.3	134.1	234.18	234.23	90.8	7.992	OK	234.1267	0.00	0.06	
F610408-BSD1 Hg	246.332	161.1	215.6	234.19	234.19	176.8	1.358	OK	234.1267	0.00	0.06	

#13: F610408-BLK1



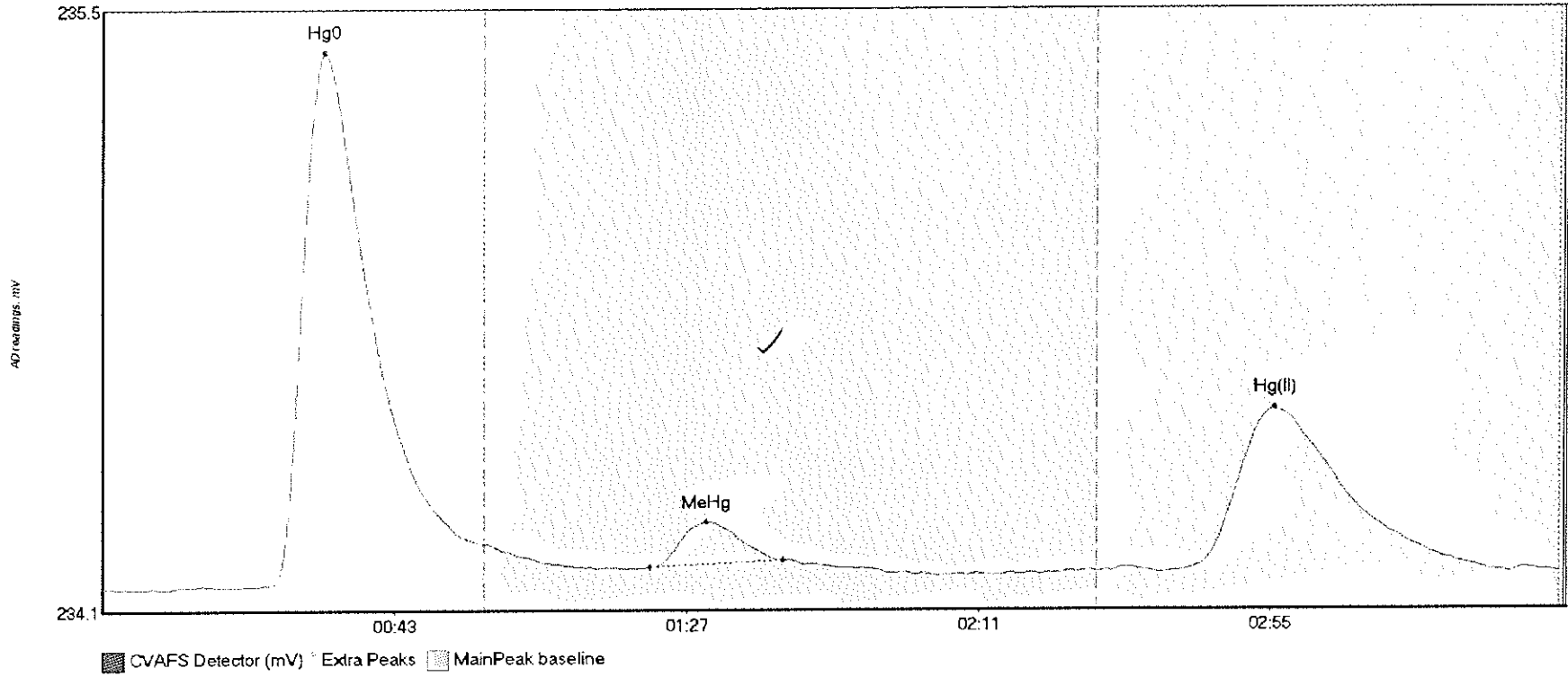
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK1 Hg	168.033	23.5	57.5	234.12	234.23	33.4	1.474	CT	234.1198	0.00	0.04	
F610408-BLK1 Me	16.249	82.0	103.0	234.17	234.21	90.1	0.172	OK	234.1198	0.00	0.04	
F610408-BLK1 Hg	75.448	162.6	214.3	234.15	234.16	176.5	0.425	OK	234.1198	0.00	0.04	

#14: F610408-BLK2



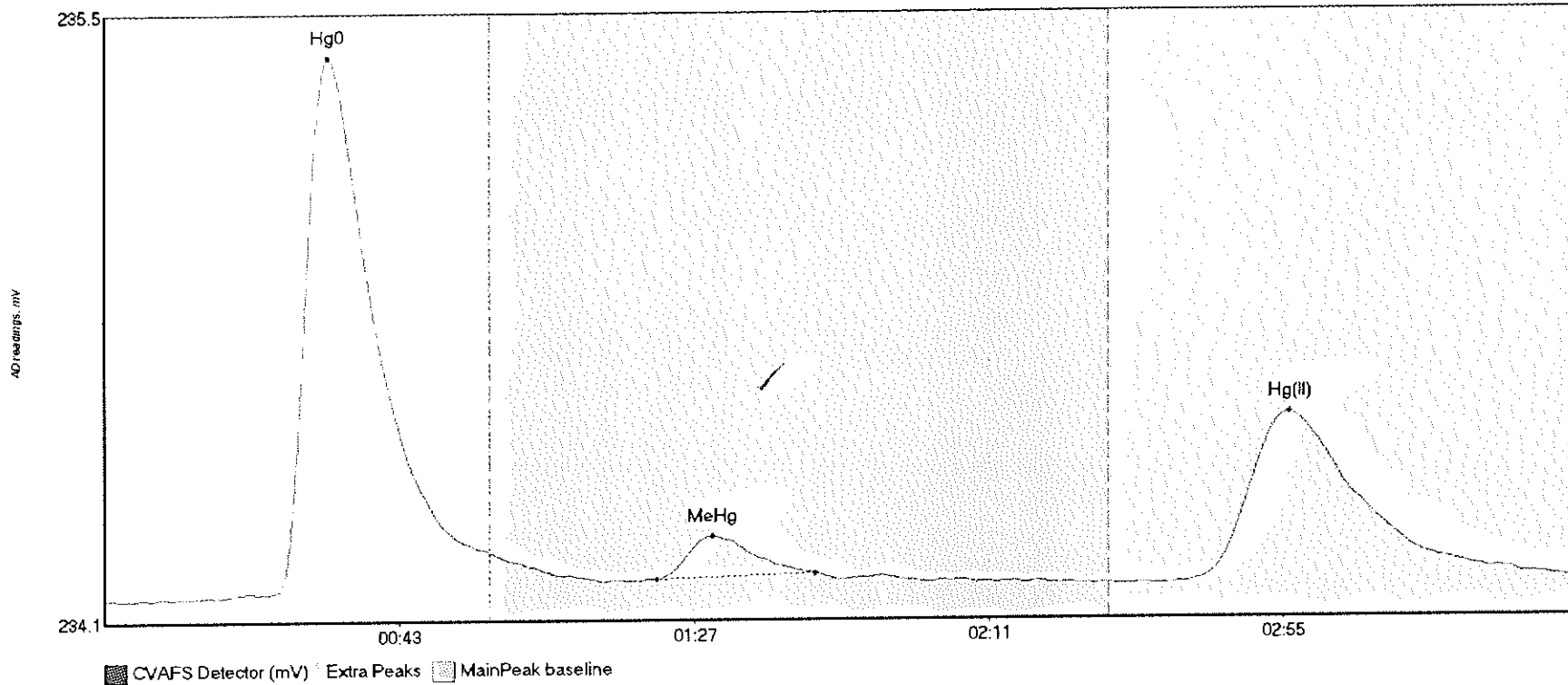
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK2 Hg	158.910	25.1	57.5	234.12	234.23	33.5	1.414	CT	234.1180	0.00	0.03	
F610408-BLK2 Me	14.552	82.7	107.0	234.17	234.17	90.6	0.133	OK	234.1180	0.00	0.03	
F610408-BLK2 Hg	82.920	161.8	211.1	234.15	234.15	176.7	0.450	OK	234.1180	0.00	0.03	

#15: F610408-BLK3



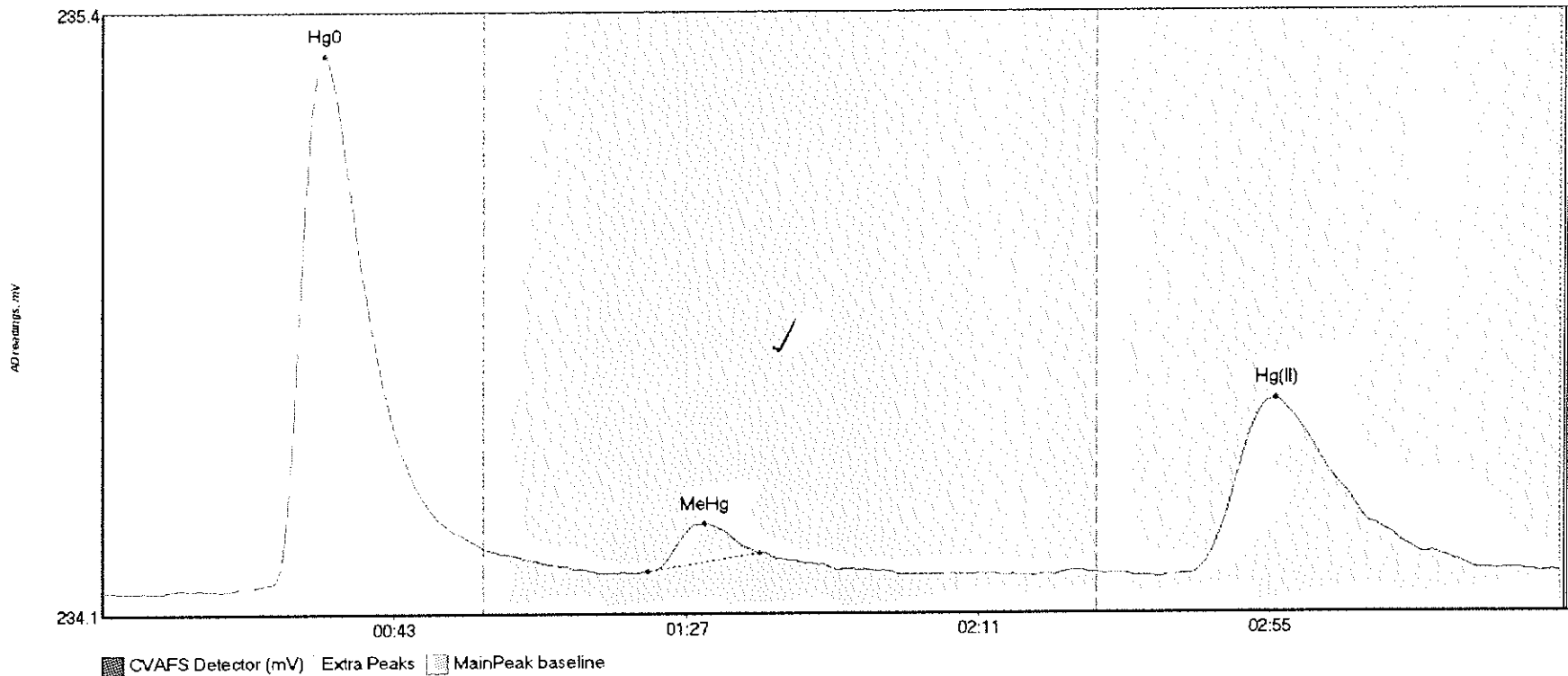
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK3 Hg	147.314	23.2	57.5	234.12	234.22	33.5	1.314	CP	234.1146	0.00	0.04	
F610408-BLK3 Me	10.486	82.5	102.6	234.16	234.18	91.0	0.112	OK	234.1146	0.00	0.04	
F610408-BLK3 Hg	73.146	160.9	209.9	234.15	234.16	176.7	0.400	OK	234.1146	0.00	0.04	

#16: \*F610408-BLK4



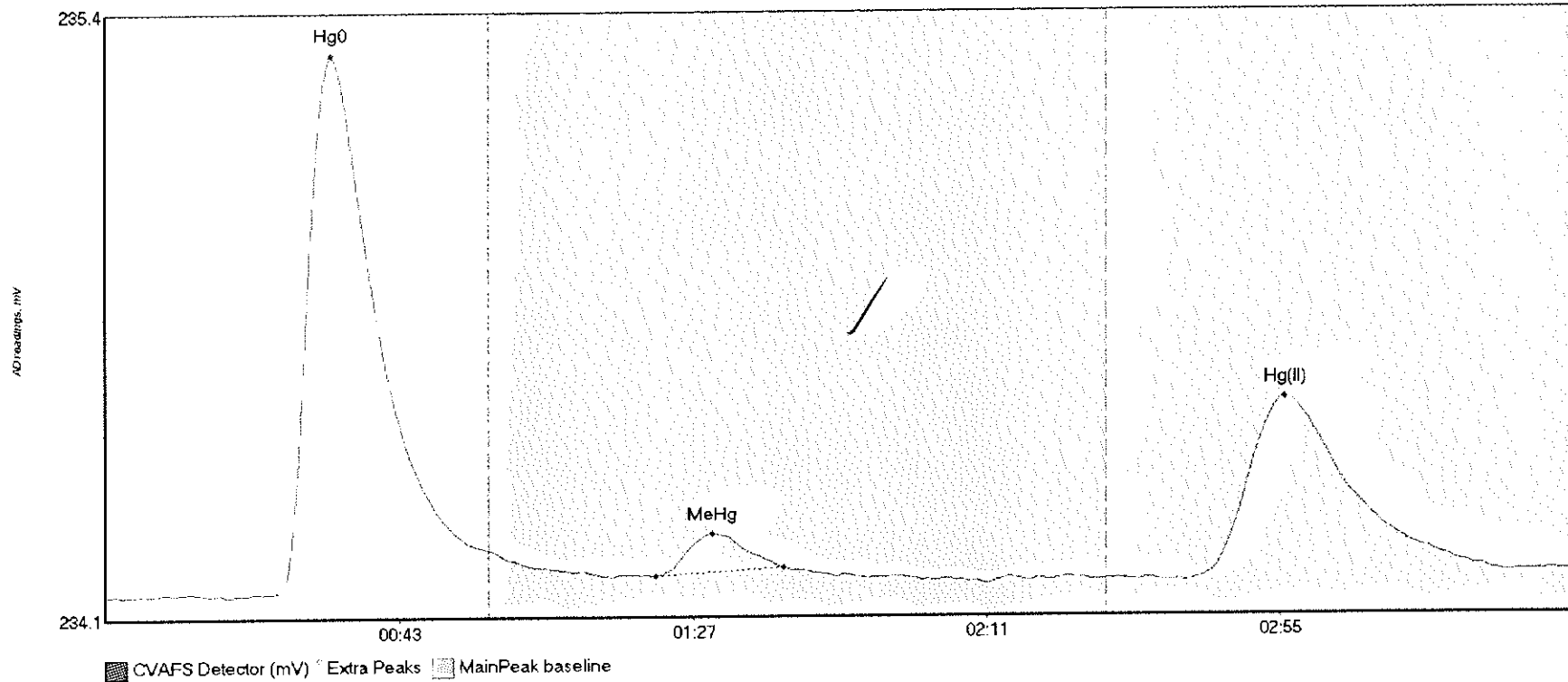
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK4 H	141.770	17.5	57.5	234.12	234.22	33.5	1.284	CT	234.1129	0.00	0.04	
*F610408-BLK4 M	10.994	82.3	106.2	234.15	234.17	90.8	0.104	OK	234.1129	0.00	0.04	
*F610408-BLK4 H	75.685	162.0	219.0	234.15	234.15	177.0	0.400	OK	234.1129	0.00	0.04	

#17: \*F610408-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK5 H	131.278	19.1	57.5	234.11	234.20	33.4	1.160	CT	234.1108	0.00	0.04	
*F610408-BLK5 M	7.328	82.2	99.0	234.15	234.19	90.8	0.104	OK	234.1108	0.00	0.04	
*F610408-BLK5 H	67.884	164.0	214.7	234.15	234.15	177.1	0.380	OK	234.1108	0.00	0.04	

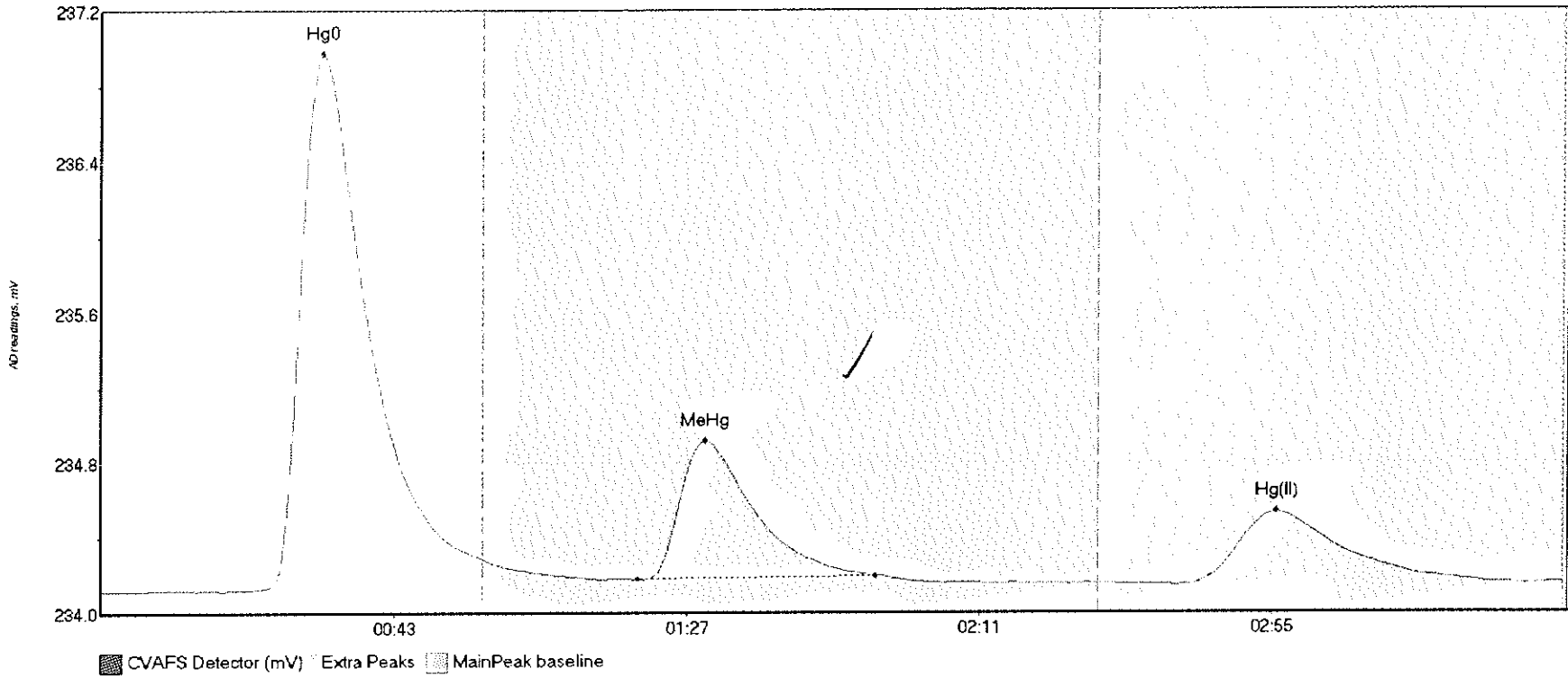
#18: \*F610408-BLK6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK6 H	134.976	25.2	57.5	234.12	234.21	33.7	1.195	CT	234.1142	0.00	0.05	
*F610408-BLK6 M	8.470	82.3	101.6	234.15	234.17	90.9	0.094	OK	234.1142	0.00	0.05	
*F610408-BLK6 H	71.025	161.6	210.4	234.14	234.16	176.8	0.407	OK	234.1142	0.00	0.05	

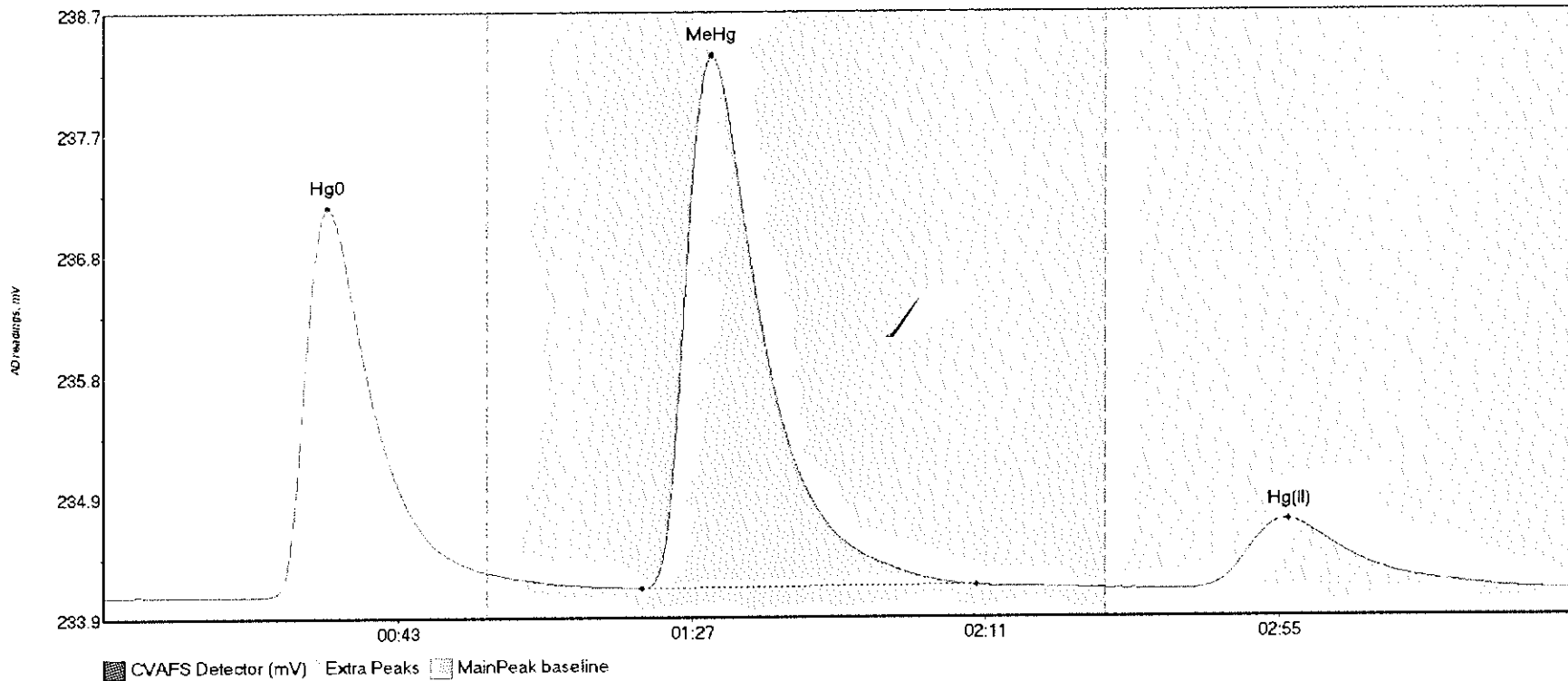


#19: F610408-DUP1



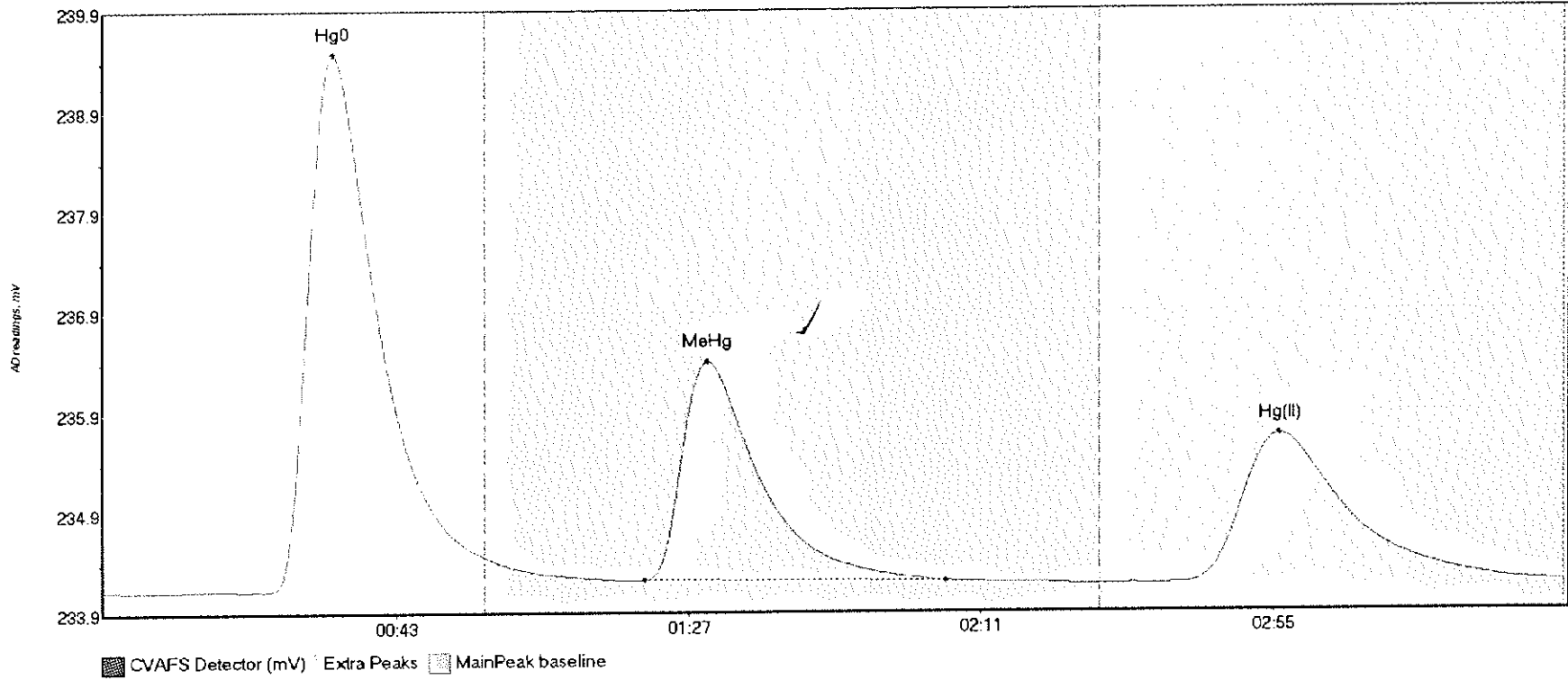
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-DUP1 Hg	311.572	21.7	57.5	234.12	234.28	33.2	2.814	CT	234.1156	0.00	0.04	
F610408-DUP1 Me	92.261	80.6	116.4	234.17	234.19	90.8	0.731	OK	234.1156	0.00	0.04	
F610408-DUP1 Hg	68.643	162.7	213.5	234.15	234.15	176.8	0.360	OK	234.1156	0.00	0.04	

#20: F610408-MS1



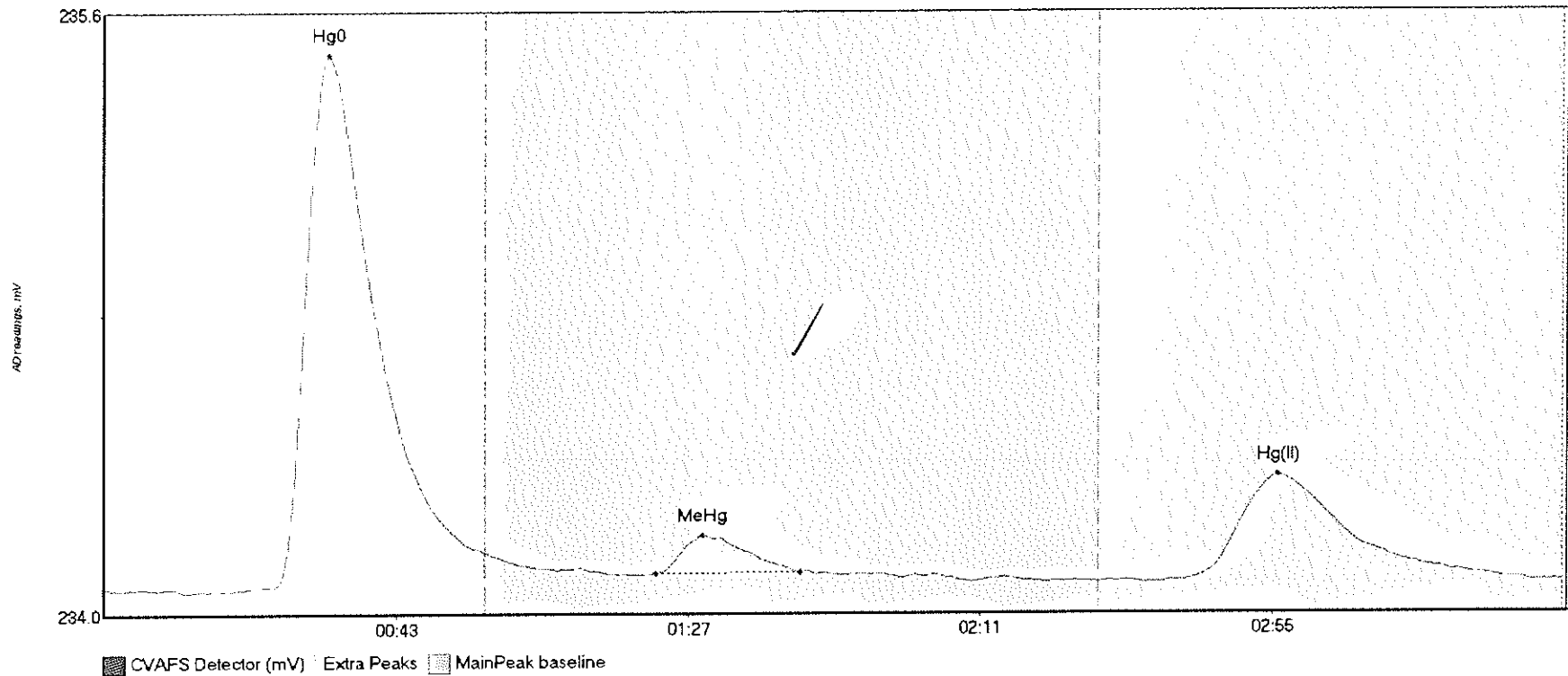
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-MS1 Hg0	337.463	23.7	57.5	234.11	234.30	33.5	3.036	CT	234.1108	0.00	0.04	
F610408-MS1 MeH	561.134	80.6	130.7	234.17	234.19	90.9	4.157	OK	234.1108	0.00	0.04	
F610408-MS1 Hg(I)	95.836	163.1	210.6	234.16	234.16	177.4	0.535	OK	234.1108	0.00	0.04	

#21: SEQ-CCV1



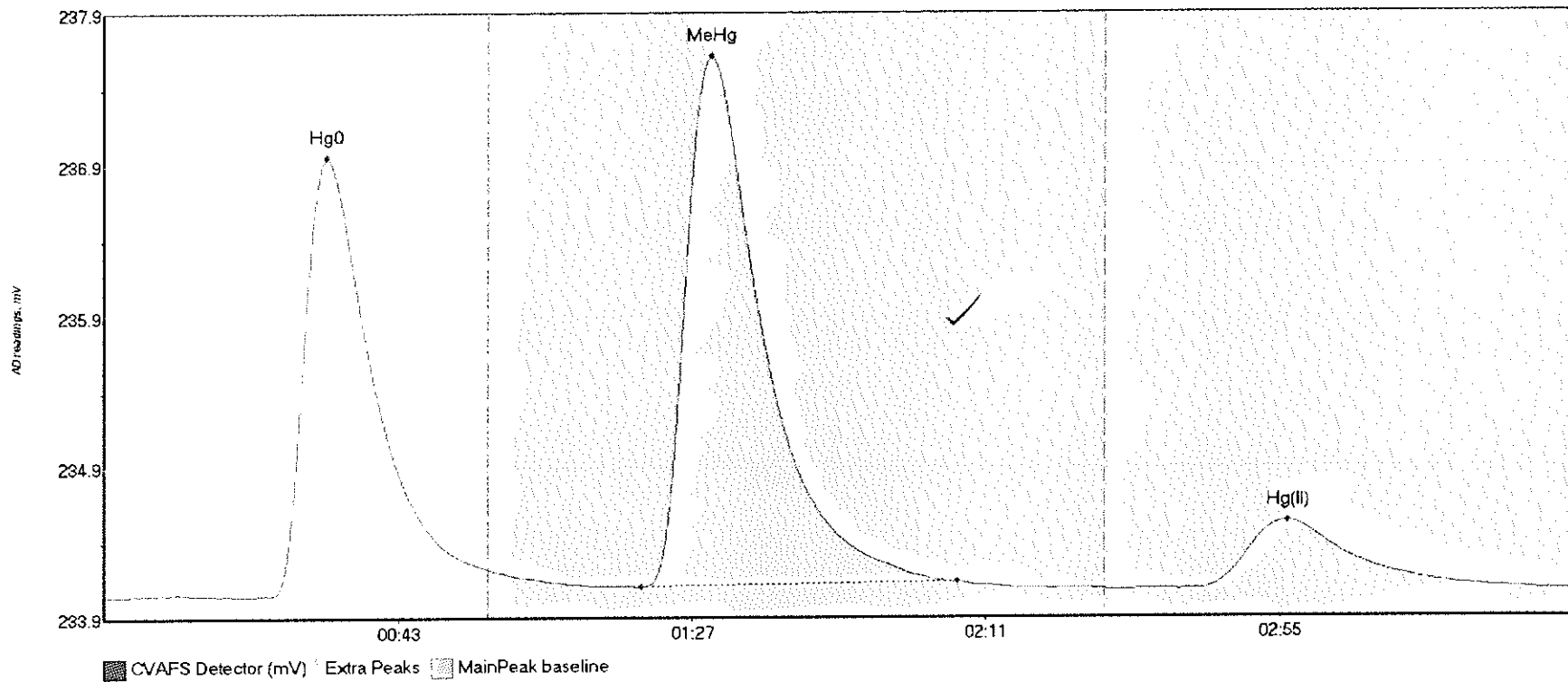
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	611.532	24.2	57.5	234.10	234.43	34.4	5.323	CT	234.1055	0.00	0.07	
SEQ-CCV1 MeHg	292.173	81.4	126.9	234.21	234.19	90.9	2.174	OK	234.1055	0.00	0.07	
SEQ-CCV1 Hg(II)	271.390	162.0	219.8	234.16	234.17	177.0	1.475	CT	234.1055	0.00	0.07	

#22: SEQ-CCB1



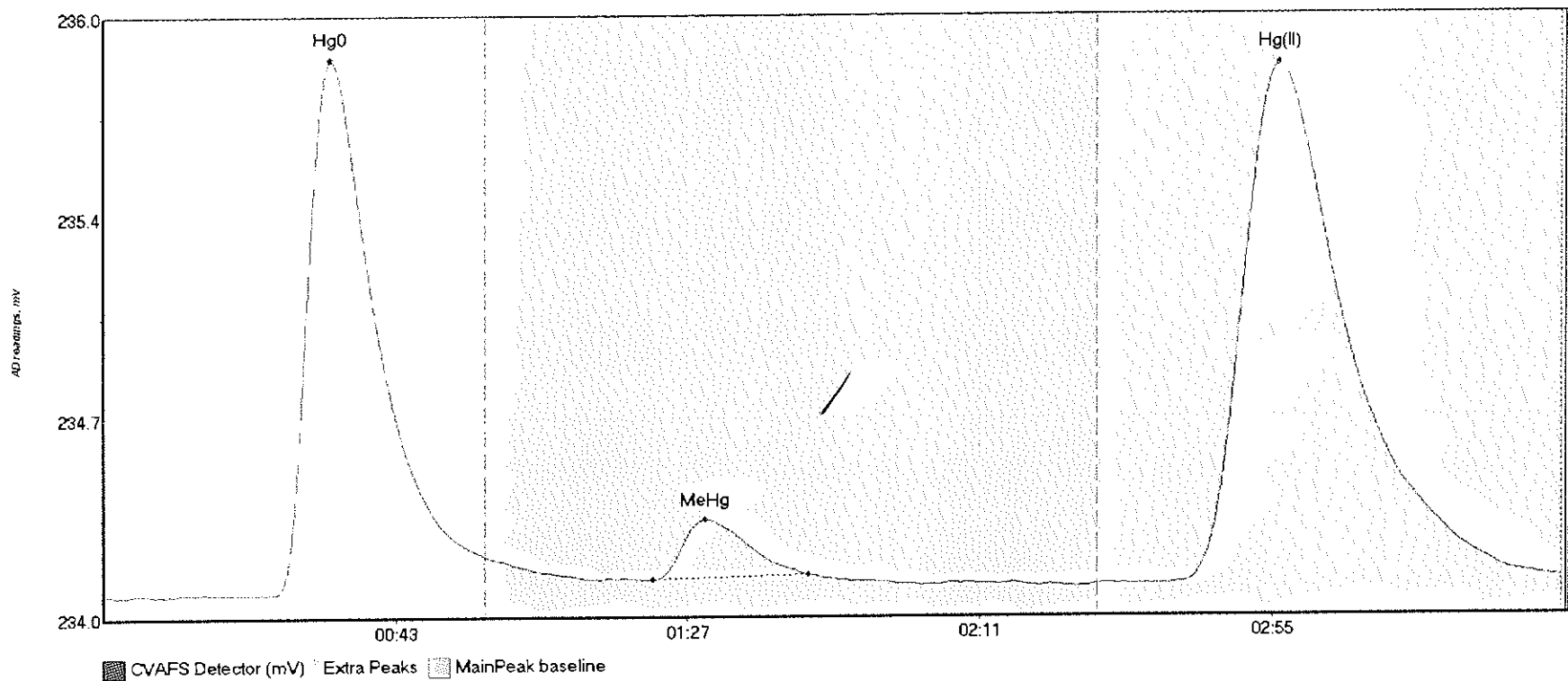
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	153.454	25.6	57.5	234.10	234.19	33.9	1.349	CT	234.1001	0.00	0.02	
SEQ-CCB1 MeHg	10.446	83.1	104.9	234.14	234.14	90.2	0.097	OK	234.1001	0.00	0.02	
SEQ-CCB1 Hg(II)	49.713	162.4	215.4	234.12	234.12	176.9	0.266	OK	234.1001	0.00	0.02	

#23: F610408-MSD1



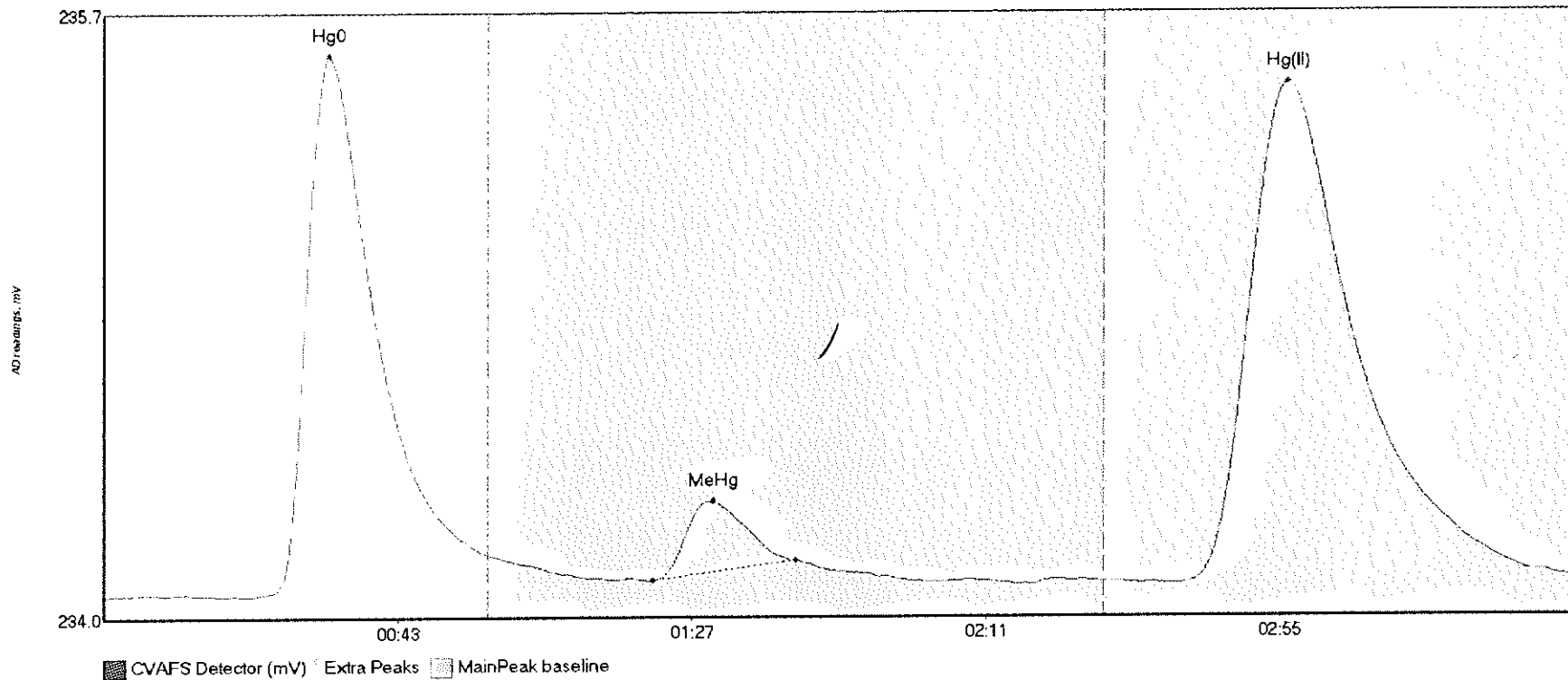
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-MSD1 Hg	324.189	21.1	57.5	234.08	234.25	33.3	2.898	CT	234.0803	0.00	0.04	
F610408-MSD1 Me	467.734	80.4	127.7	234.14	234.17	90.9	3.503	OK	234.0803	0.00	0.04	
F610408-MSD1 Hg	80.916	164.1	215.5	234.12	234.12	177.2	0.444	OK	234.0803	0.00	0.04	

#24: 1610136-01



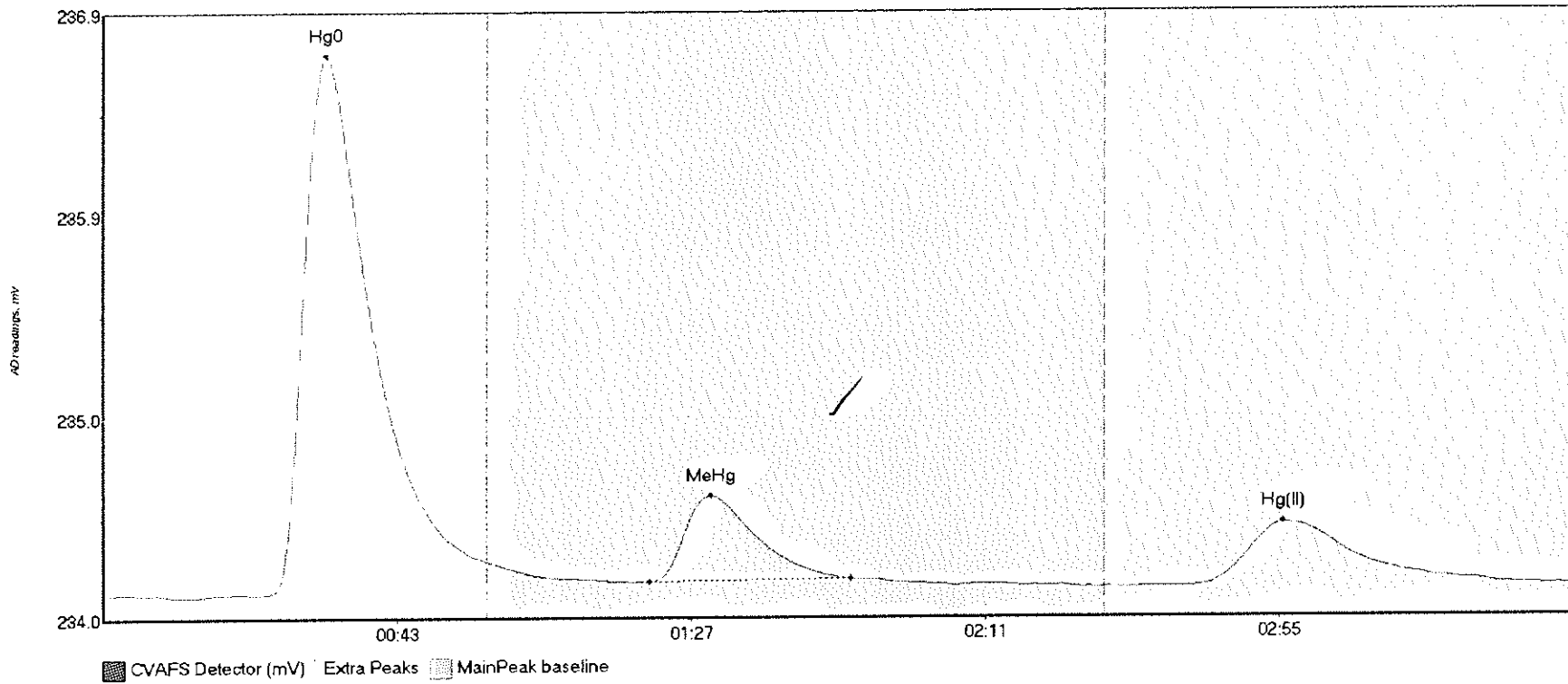
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	SlDev	SlShift	Comment
1610136-01 Hg0	201.679	23.5	57.5	234.08	234.21	34.2	1.811	CP	234.0746	0.00	0.05	
1610136-01 MeHg	21.811	82.9	106.2	234.12	234.14	90.8	0.205	OK	234.0746	0.00	0.05	
1610136-01 Hg(I)	320.739	160.0	219.8	234.11	234.13	177.2	1.759	CP	234.0746	0.00	0.05	

#25: 1610338-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610338-01 Hg0	171.112	23.1	57.5	234.07	234.18	33.7	1.525	CT	234.0659	0.00	0.05	
1610338-01 MeHg	20.403	82.2	103.6	234.11	234.16	91.3	0.225	OK	234.0659	0.00	0.05	
1610338-01 Hg(I)	260.575	161.0	219.8	234.10	234.12	177.2	1.418	CT	234.0659	0.00	0.05	

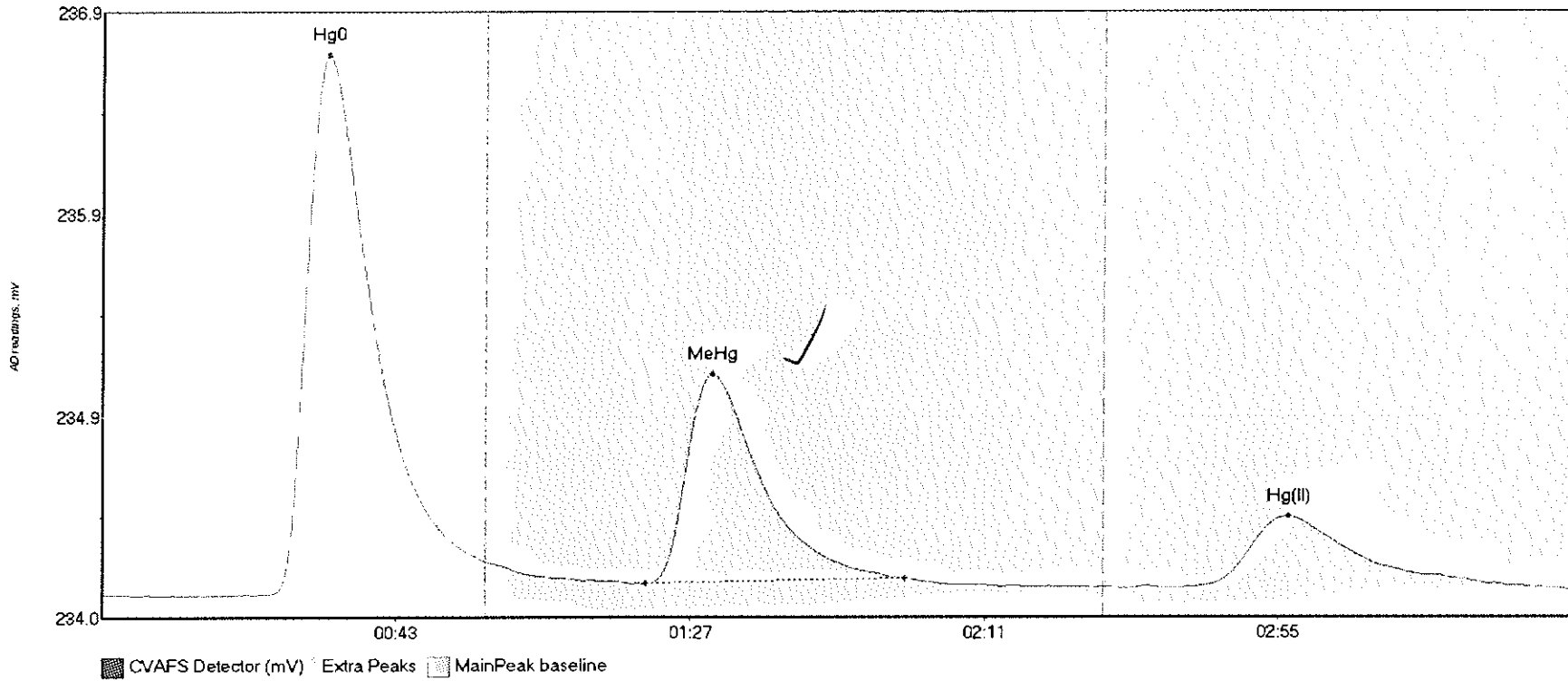
#26: 1610419-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-01 Hg0	296.313	23.5	57.5	234.07	234.23	33.5	2.662	CT	234.0697	0.00	0.04	
1610419-01 MeHg	52.057	81.7	111.9	234.13	234.14	91.0	0.429	OK	234.0697	0.00	0.04	
1610419-01 Hg(I)	58.571	162.6	216.9	234.10	234.11	176.6	0.314	OK	234.0697	0.00	0.04	

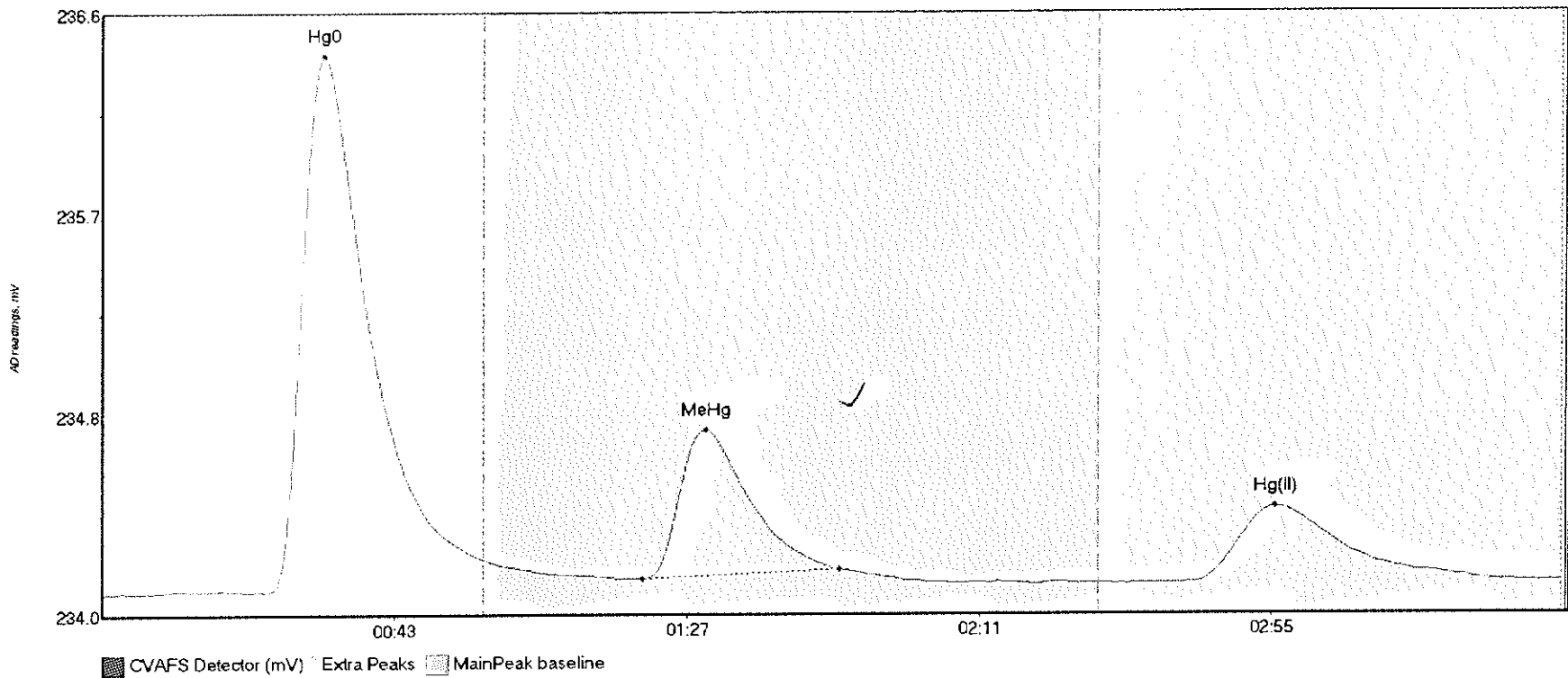


#27: 1610419-02



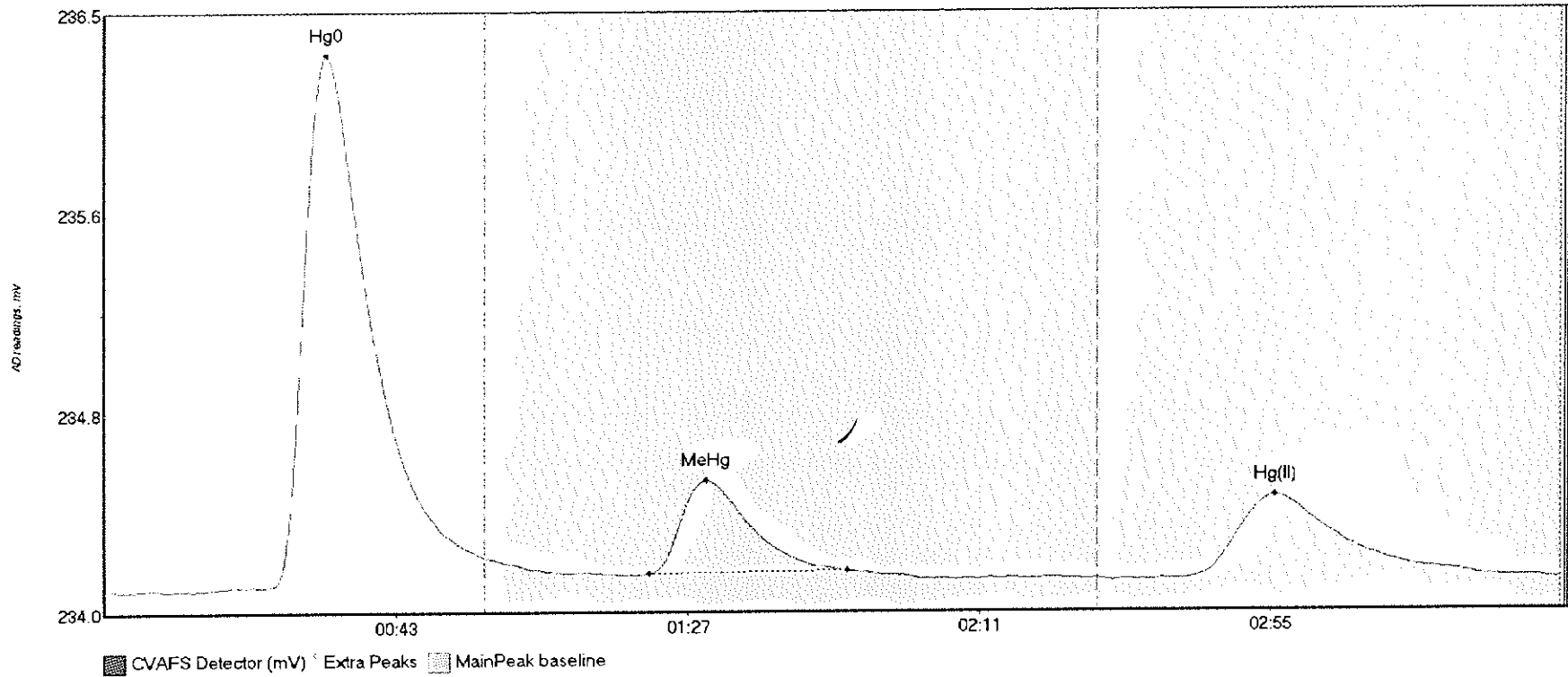
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-02 Hg0	287.610	24.6	57.5	234.08	234.24	33.9	2.590	CT	234.0800	0.00	0.02	
1610419-02 MeHg	129.961	81.3	120.2	234.13	234.15	91.3	1.008	OK	234.0800	0.00	0.02	
1610419-02 Hg(I)	59.493	163.3	210.6	234.12	234.12	177.6	0.337	OK	234.0800	0.00	0.02	

#28: 1610419-03



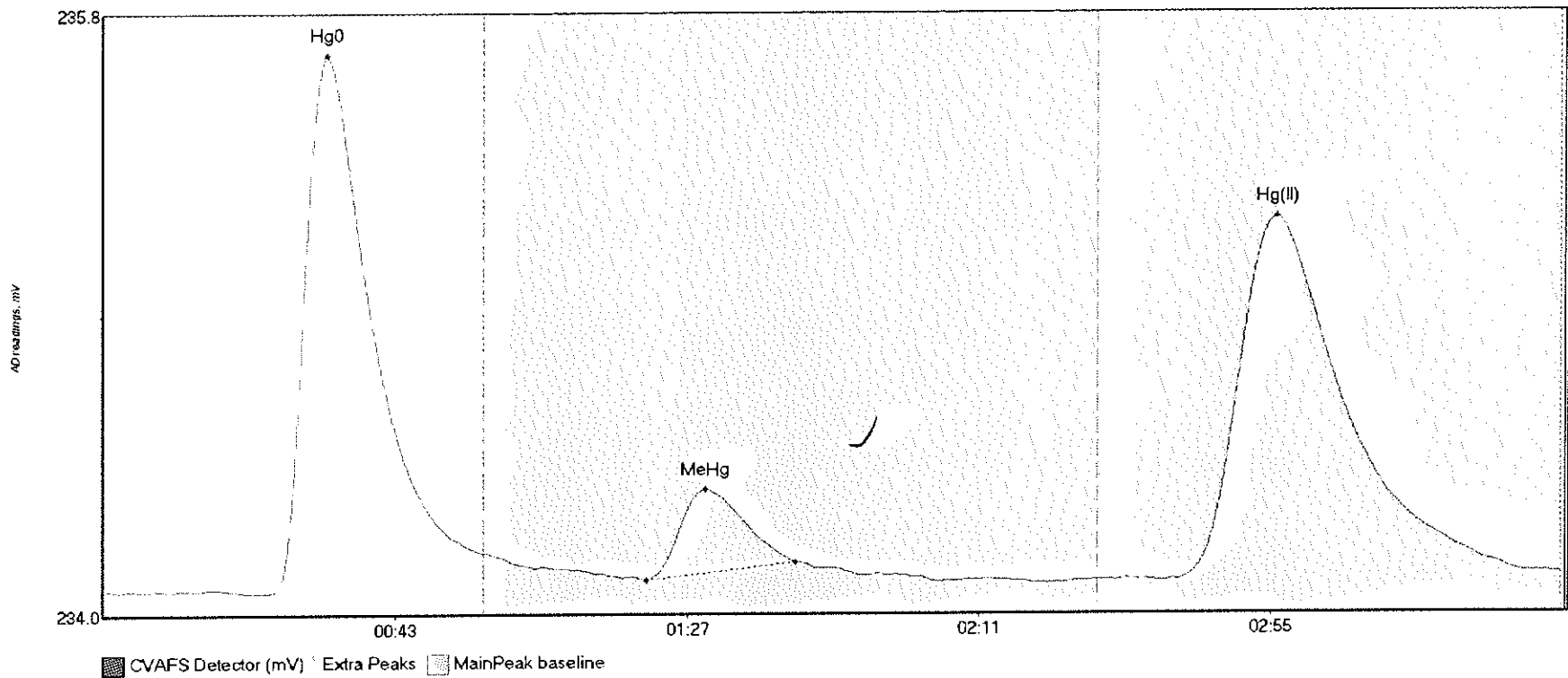
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-03 Hg0	252.358	7.4	57.5	234.07	234.21	33.4	2.328	CT	234.0693	0.00	0.05	
1610419-03 MeHg	76.289	81.3	111.0	234.13	234.17	90.9	0.649	OK	234.0693	0.00	0.05	
1610419-03 Hg(I)	58.692	164.1	216.7	234.12	234.12	176.6	0.325	OK	234.0693	0.00	0.05	

#29: 1610419-04



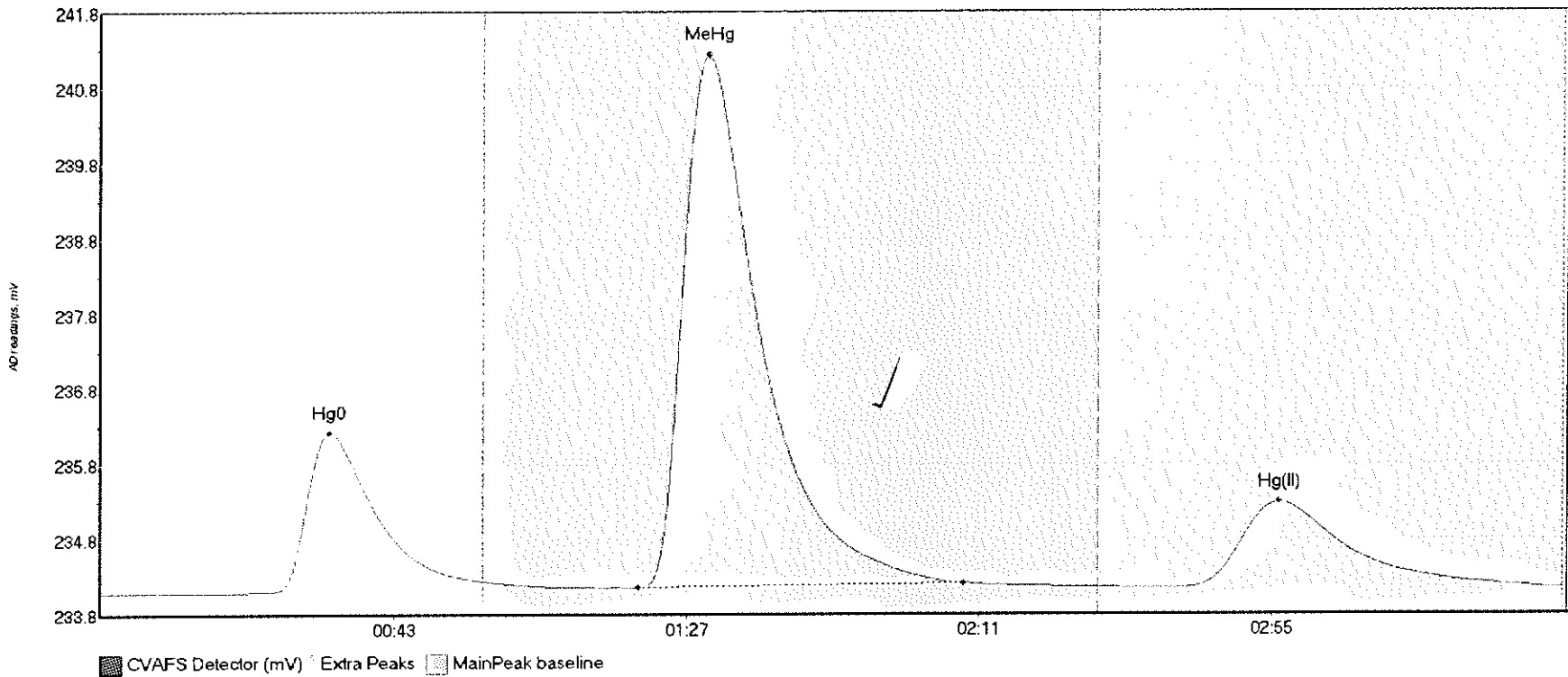
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-04 Hg0	244.366	17.1	57.5	234.08	234.21	33.5	2.218	CT	234.0801	0.00	0.03	
1610419-04 MeHg	45.925	82.1	112.2	234.14	234.15	90.8	0.390	OK	234.0801	0.00	0.03	
1610419-04 Hg(I	64.671	162.6	219.1	234.11	234.11	176.8	0.346	OK	234.0801	0.00	0.03	

#30: 1610509-01



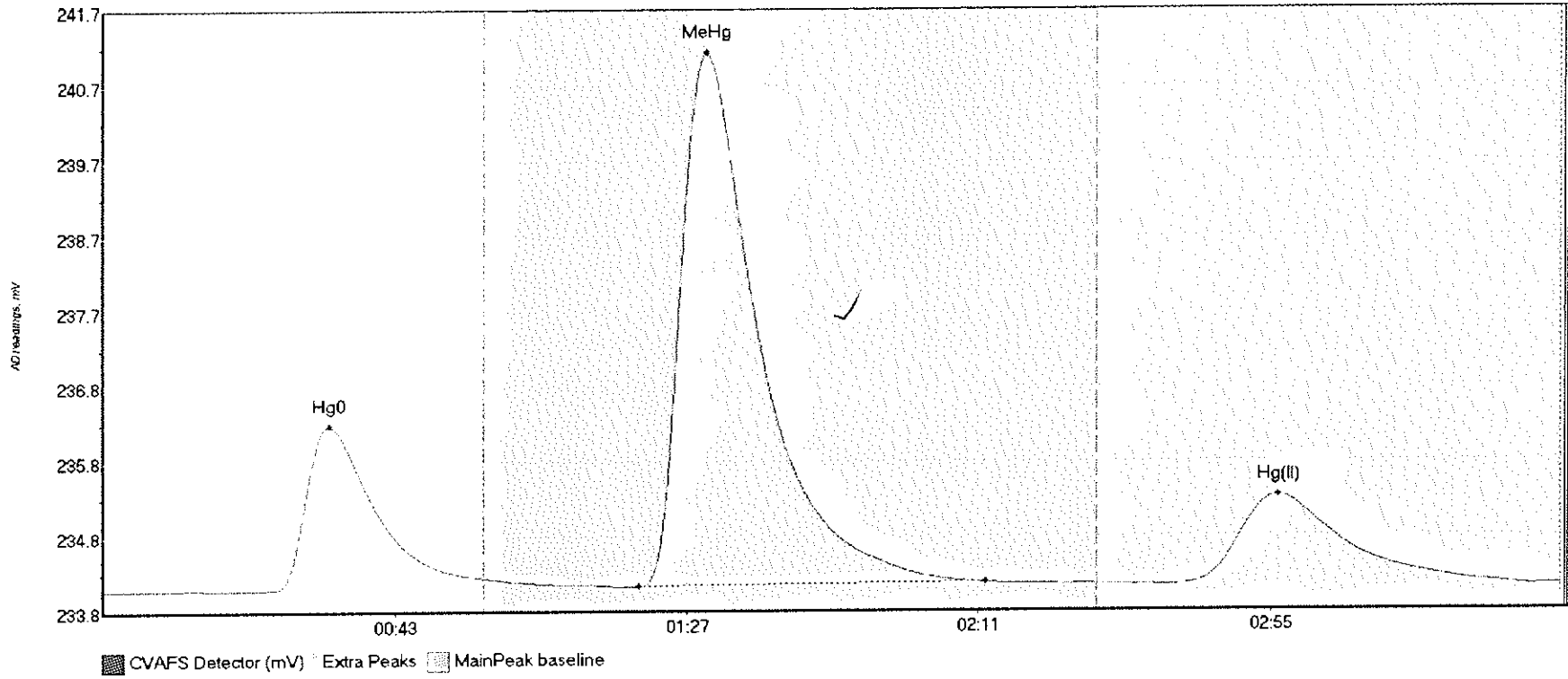
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610509-01 Hg0	178.453	25.1	57.5	234.08	234.20	33.7	1.610	CT	234.0884	0.00	0.05	
1610509-01 MeHg	27.496	81.9	104.3	234.12	234.17	90.8	0.273	OK	234.0884	0.00	0.05	
1610509-01 Hg(I)	199.078	162.2	219.2	234.12	234.14	177.0	1.088	OK	234.0884	0.00	0.05	

#31: F610422-BS1



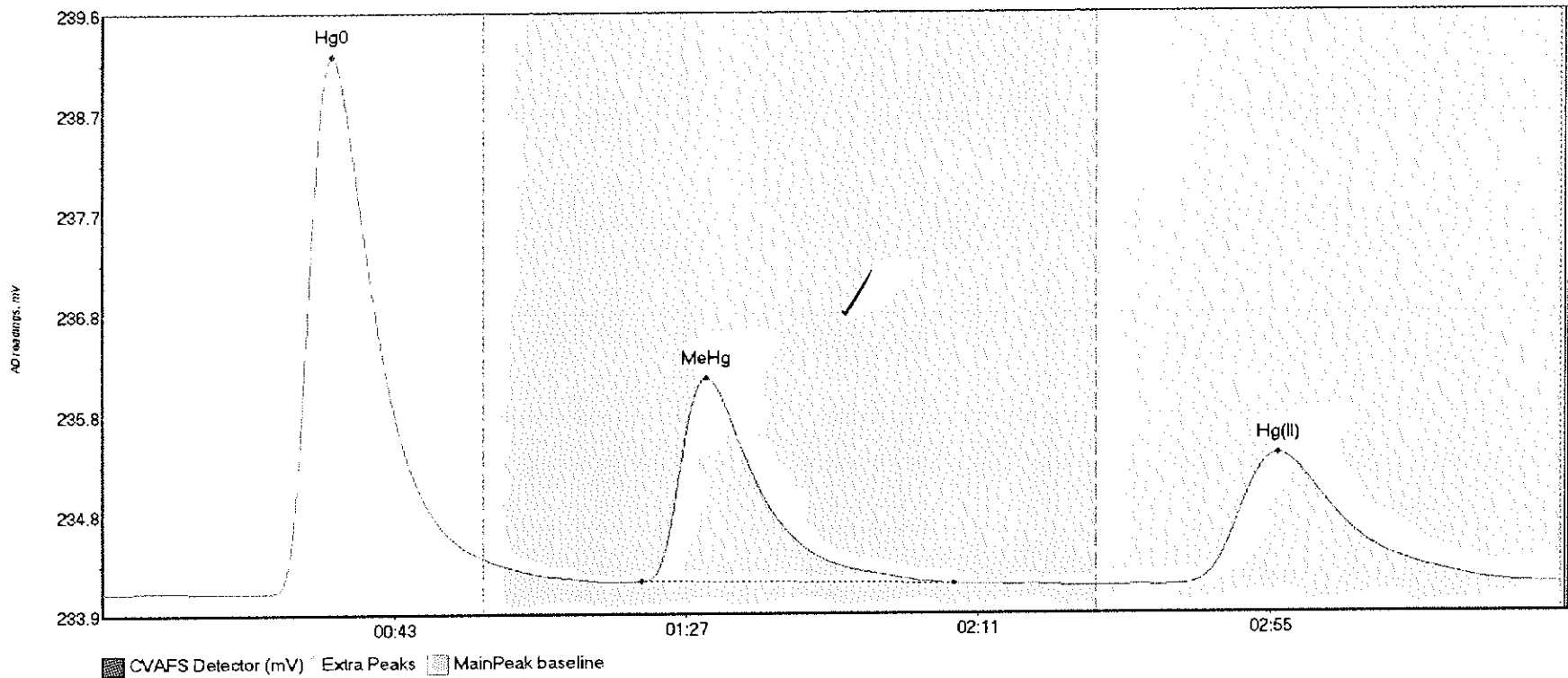
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BS1 Hg0	235.197	21.1	57.5	234.08	234.23	34.3	2.128	CT	234.0835	0.00	0.06	
F610422-BS1 MeH	950.969	80.8	129.7	234.14	234.21	91.3	7.064	OK	234.0835	0.00	0.06	
F610422-BS1 Hg(	209.403	162.3	218.7	234.14	234.14	177.2	1.133	OK	234.0835	0.00	0.06	

#32: F610422-BSD1



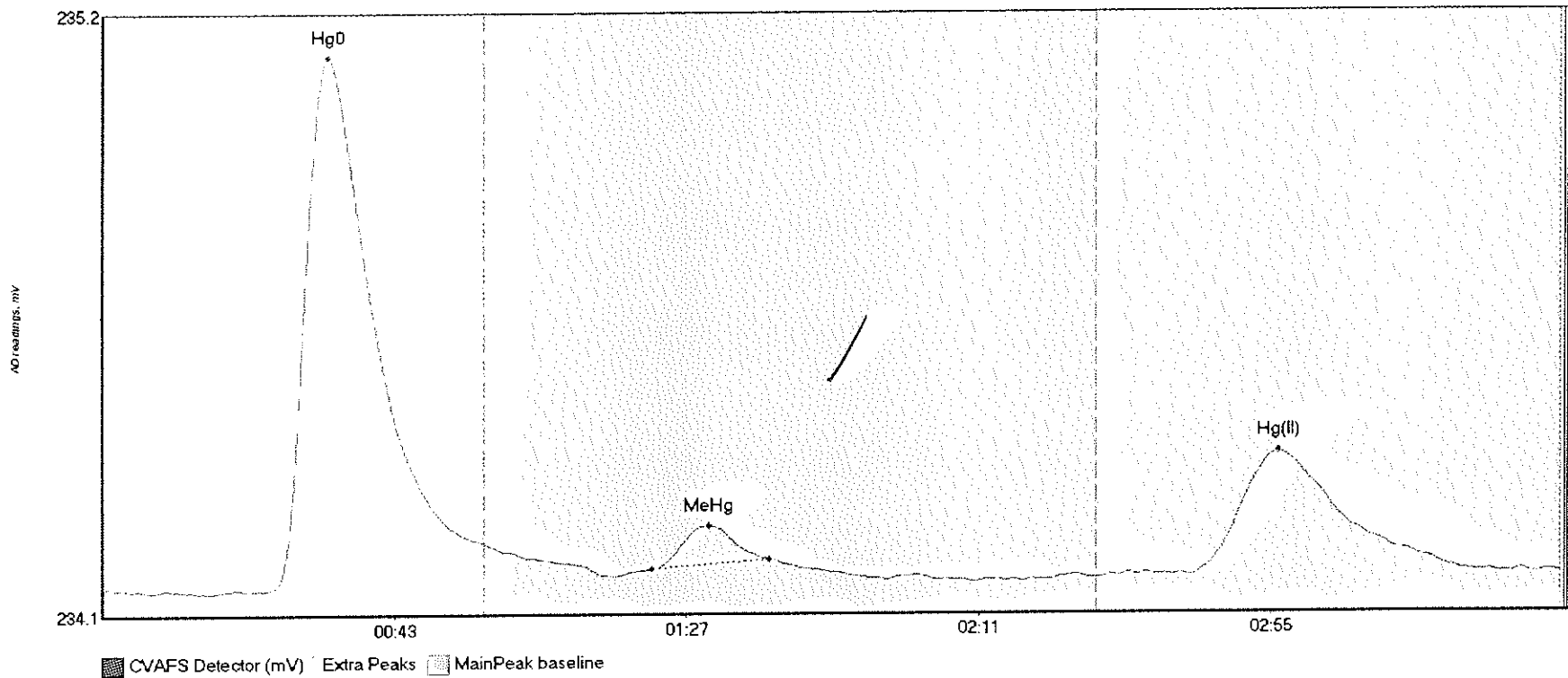
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BSD1 Hg	234.254	8.4	57.5	234.09	234.25	34.1	2.167	CT	234.0900	0.00	0.06	
F610422-BSD1 Me	948.444	80.7	133.2	234.14	234.18	91.0	6.992	OK	234.0900	0.00	0.06	
F610422-BSD1 Hg	215.642	161.5	215.6	234.15	234.14	177.2	1.168	OK	234.0900	0.00	0.06	

#33: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	572.688	24.6	57.5	234.09	234.42	34.6	5.145	CT	234.0940	0.00	0.07	
SEQ-CCV2 MeHg	266.448	81.3	128.5	234.19	234.16	91.0	1.957	OK	234.0940	0.00	0.07	
SEQ-CCV2 Hg(II)	230.305	162.2	217.1	234.15	234.16	177.2	1.258	OK	234.0940	0.00	0.07	

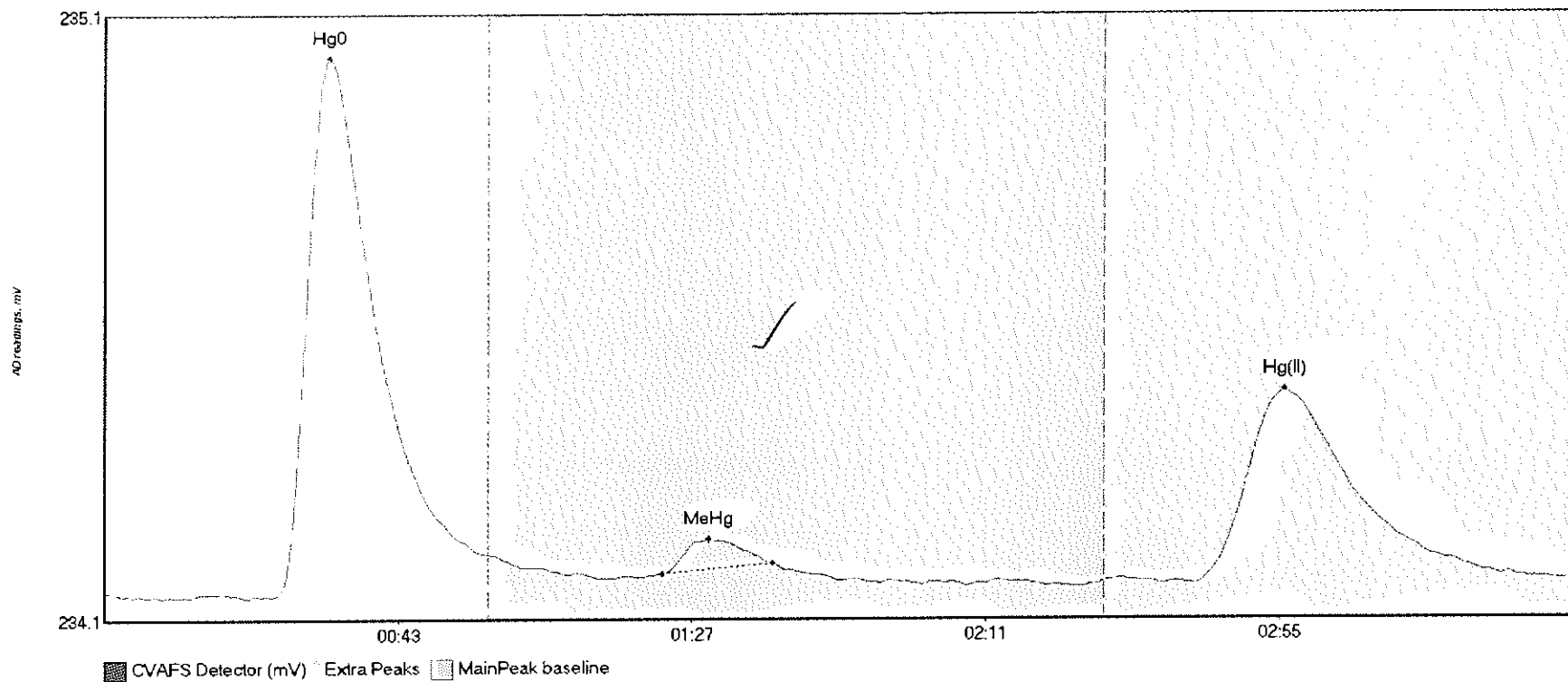
#34: SEQ-CCB2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCB2 Hg0	115.847	25.1	57.5	234.10	234.19	34.0	1.044	CT	234.1059	0.00	0.03	
SEQ-CCB2 MeHg	6.583	82.9	100.5	234.14	234.16	91.5	0.086	OK	234.1059	0.00	0.03	
SEQ-CCB2 Hg(II)	42.711	163.9	216.2	234.13	234.13	177.2	0.241	OK	234.1059	0.00	0.03	

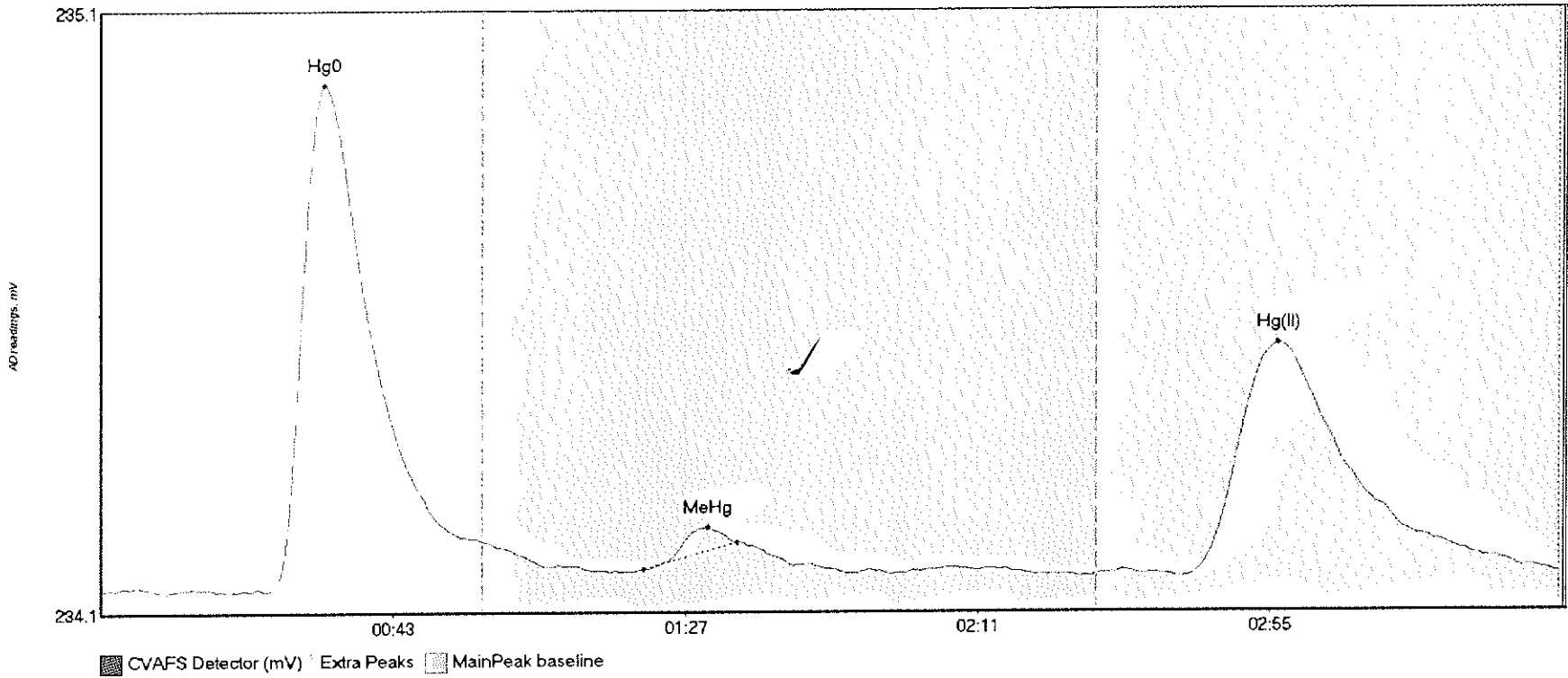


#35: F610422-BLK1



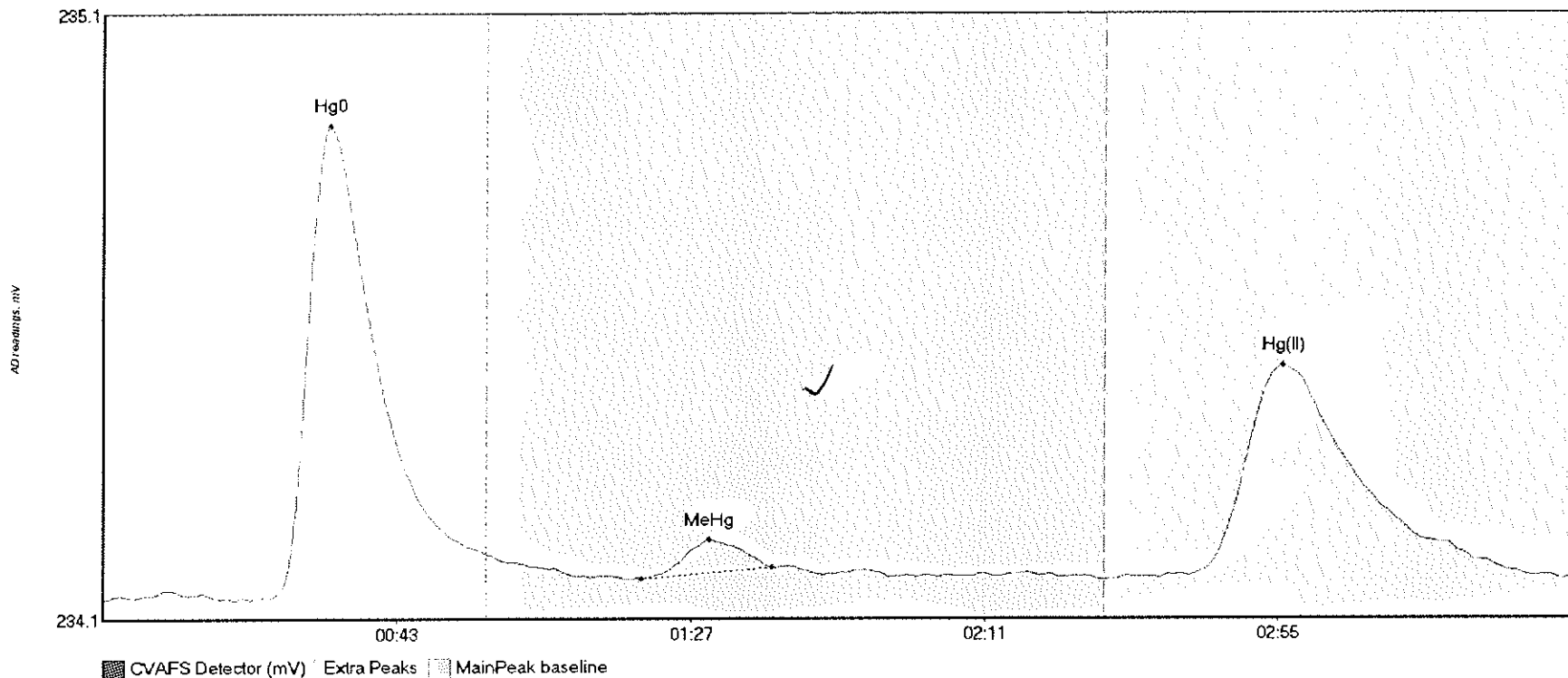
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK1 Hg	105.821	25.1	57.5	234.10	234.17	33.7	0.948	CT	234.1054	0.00	0.02	
F610422-BLK1 Me	5.095	83.6	100.2	234.14	234.16	90.6	0.061	OK	234.1054	0.00	0.02	
F610422-BLK1 Hg	61.347	163.6	213.7	234.12	234.13	176.8	0.340	OK	234.1054	0.00	0.02	

#36: F610422-BLK2



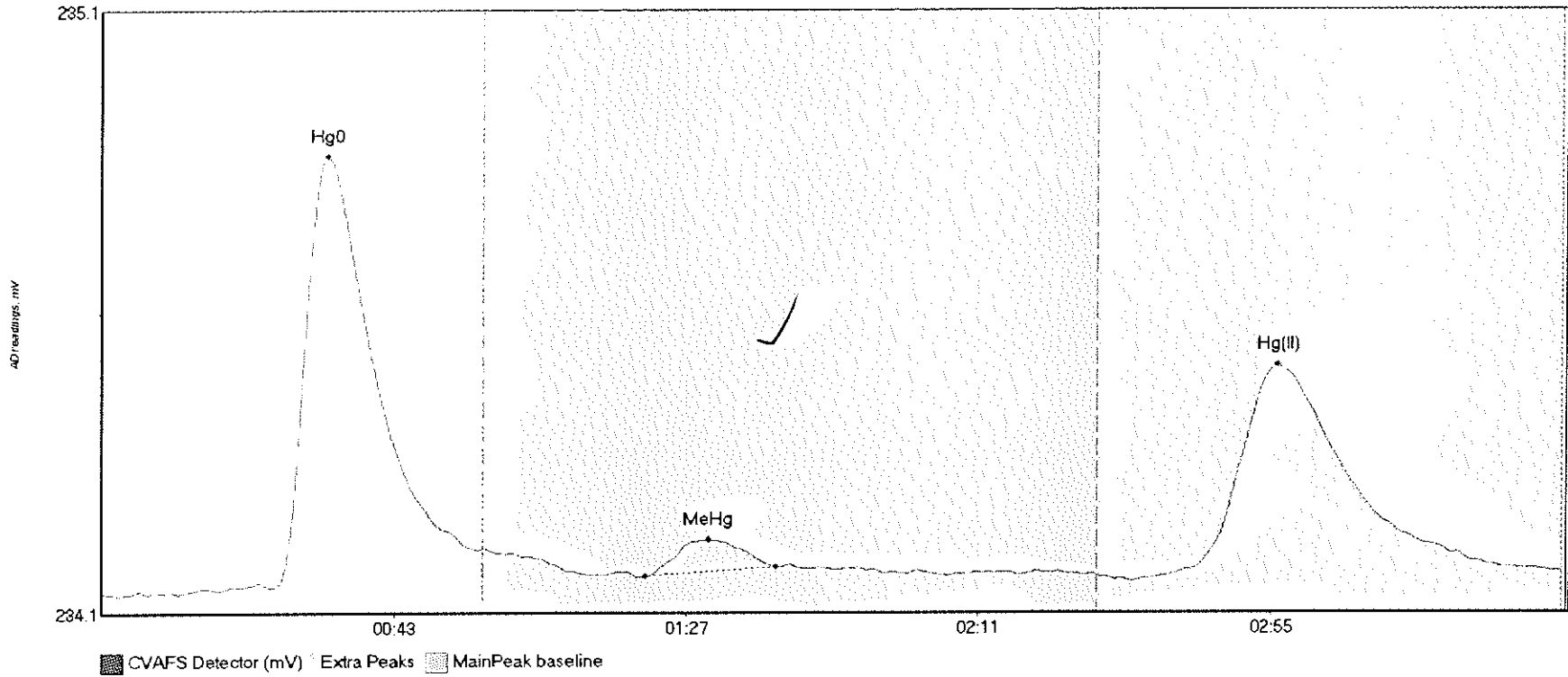
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK2 Hg	93.476	25.0	57.5	234.09	234.17	33.7	0.842	CT	234.0941	0.00	0.03	
F610422-BLK2 Me	2.572	81.7	95.9	234.13	234.17	91.4	0.070	OK	234.0941	0.00	0.03	
F610422-BLK2 Hg	73.602	163.9	219.8	234.12	234.12	177.3	0.385	CT	234.0941	0.00	0.03	

#37: F610422-BLK3



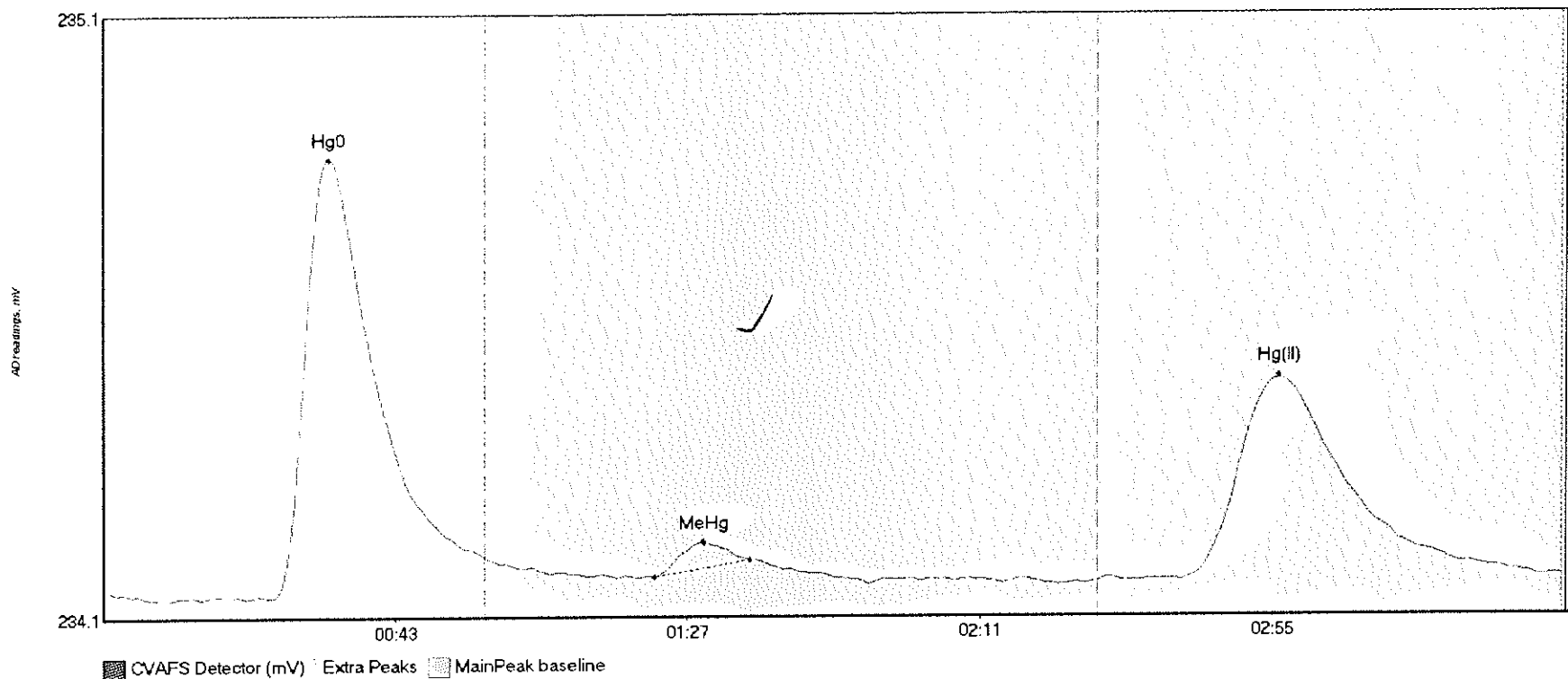
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK3 Hg	86.845	24.8	57.5	234.10	234.17	34.0	0.780	CT	234.1000	0.00	0.04	
F610422-BLK3 Me	5.195	80.6	100.2	234.13	234.15	90.7	0.065	OK	234.1000	0.00	0.04	
F610422-BLK3 Hg	67.241	150.2	214.3	234.13	234.14	176.8	0.351	OK	234.1000	0.00	0.04	

#38: \*F610422-BLK4



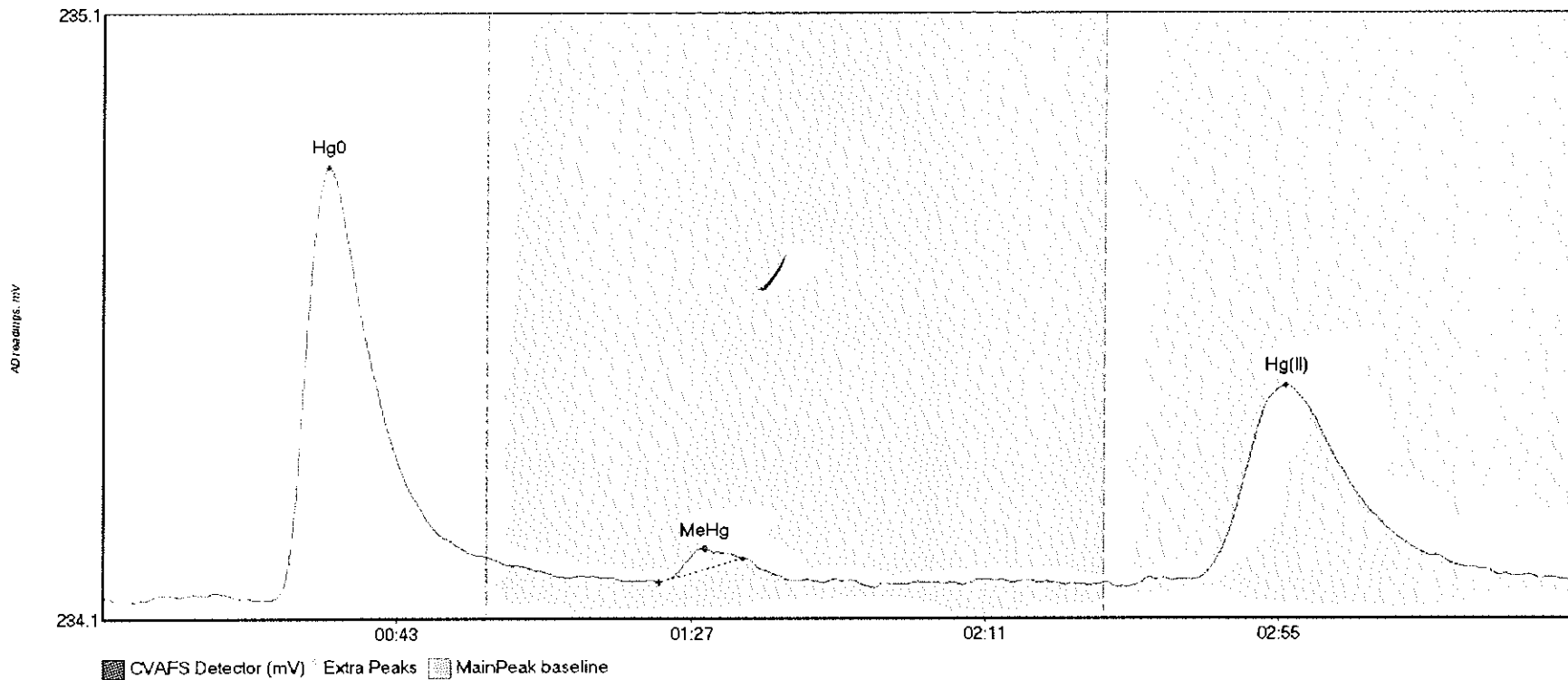
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK4 H	78.682	17.6	56.6	234.10	234.17	34.0	0.721	OK	234.0992	0.00	0.04	
*F610422-BLK4 M	6.022	81.9	101.4	234.13	234.14	91.3	0.061	OK	234.0992	0.00	0.04	
*F610422-BLK4 H	64.284	160.1	219.7	234.13	234.14	177.0	0.349	OK	234.0992	0.00	0.04	

#39: \*F610422-BLK5



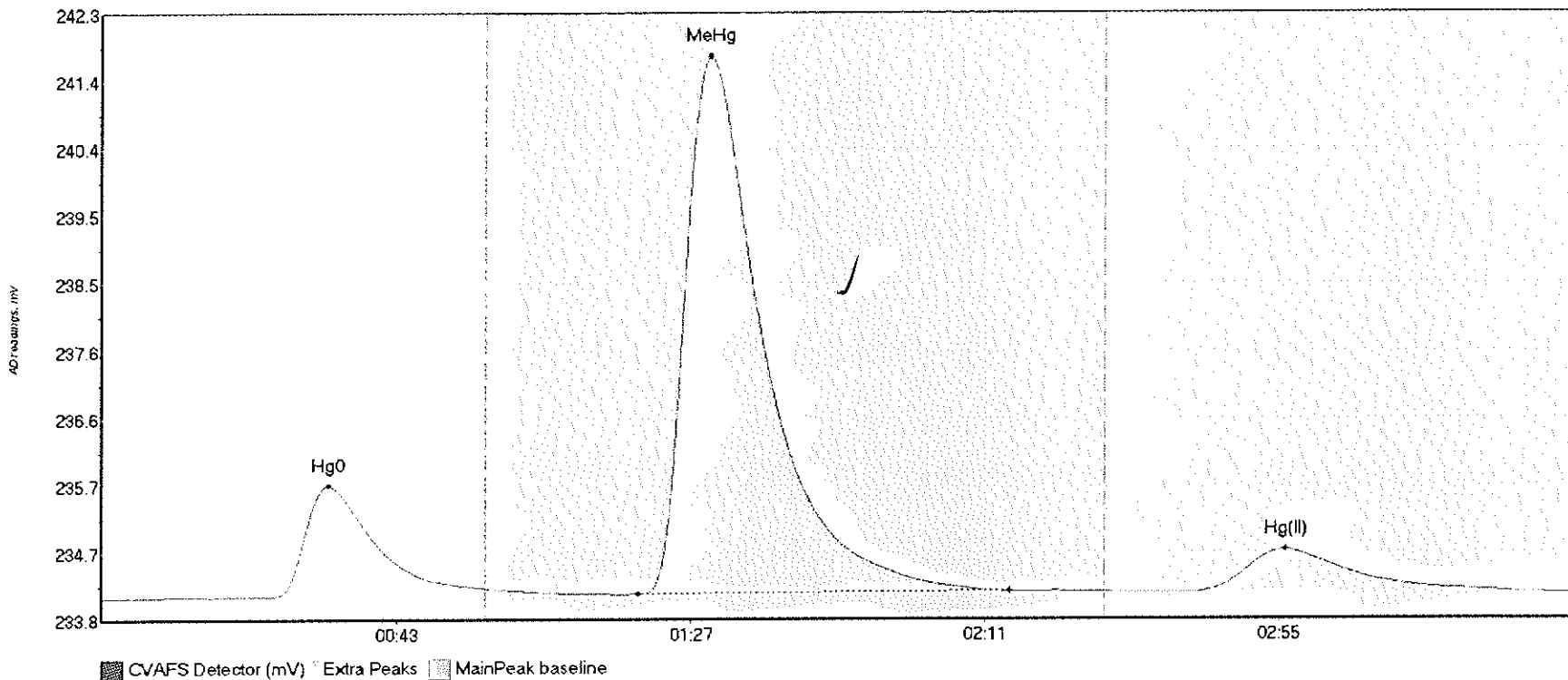
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK5 H	82.807	25.6	57.5	234.11	234.17	34.0	0.730	CF	234.1180	0.00	0.02	
*F610422-BLK5 M	3.364	83.1	97.5	234.14	234.17	90.6	0.058	OK	234.1180	0.00	0.02	
*F610422-BLK5 H	62.514	162.3	216.4	234.13	234.14	177.0	0.335	OK	234.1180	0.00	0.02	

#40: \*F610422-BLK6



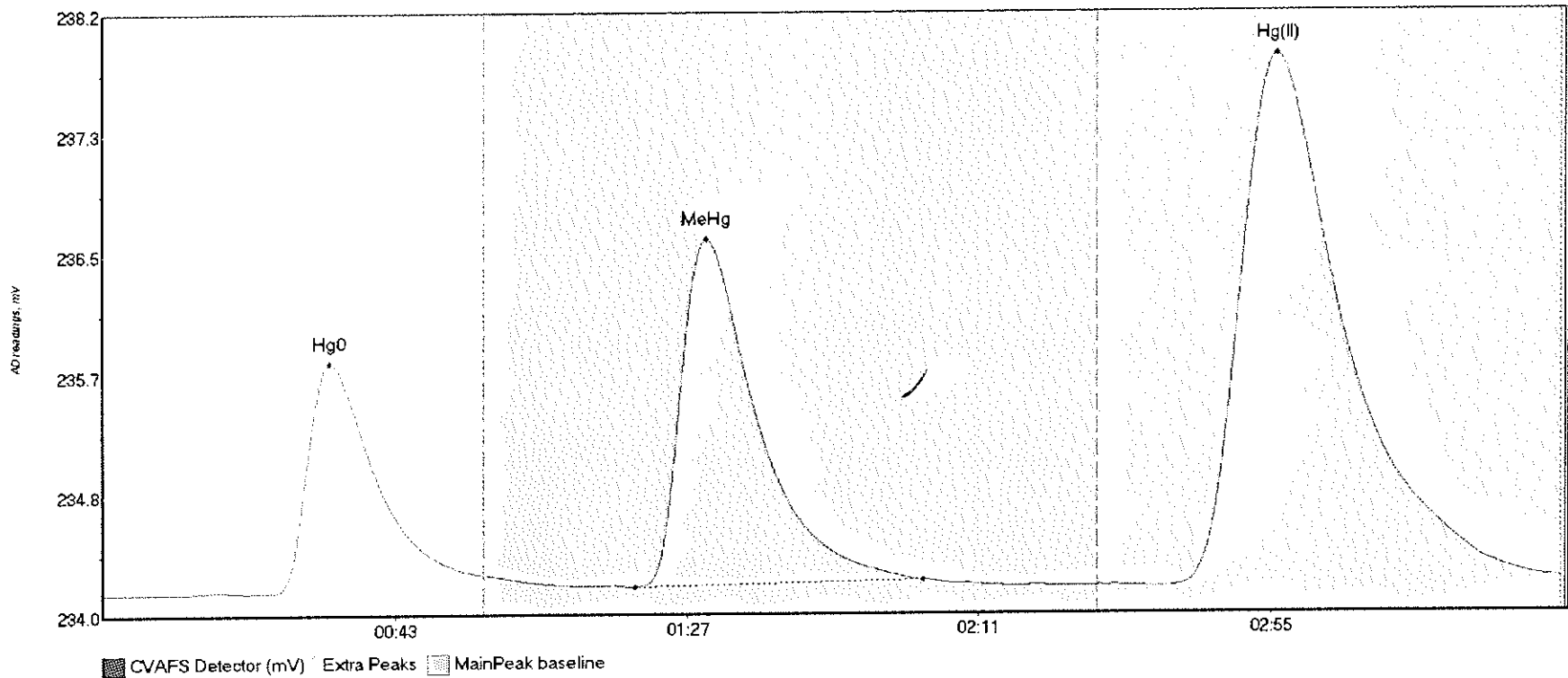
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK6 H	79.942	24.9	57.5	234.11	234.18	33.7	0.715	CT	234.1155	0.00	0.03	
*F610422-BLK6 M	2.102	83.1	95.8	234.14	234.18	90.0	0.057	OK	234.1155	0.00	0.03	
*F610422-BLK6 H	59.289	160.4	219.8	234.14	234.14	177.1	0.322	CT	234.1155	0.00	0.03	

#41: F610422-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-DUP1 Hg	170.853	4.5	57.5	234.10	234.23	33.8	1.586	CT	234.1032	0.00	0.06	
F610422-DUP1 Me	1027.946	80.2	135.8	234.16	234.19	90.9	7.554	OK	234.1032	0.00	0.06	
F610422-DUP1 Hg	108.452	162.3	212.6	234.17	234.17	177.1	0.597	OK	234.1032	0.00	0.06	

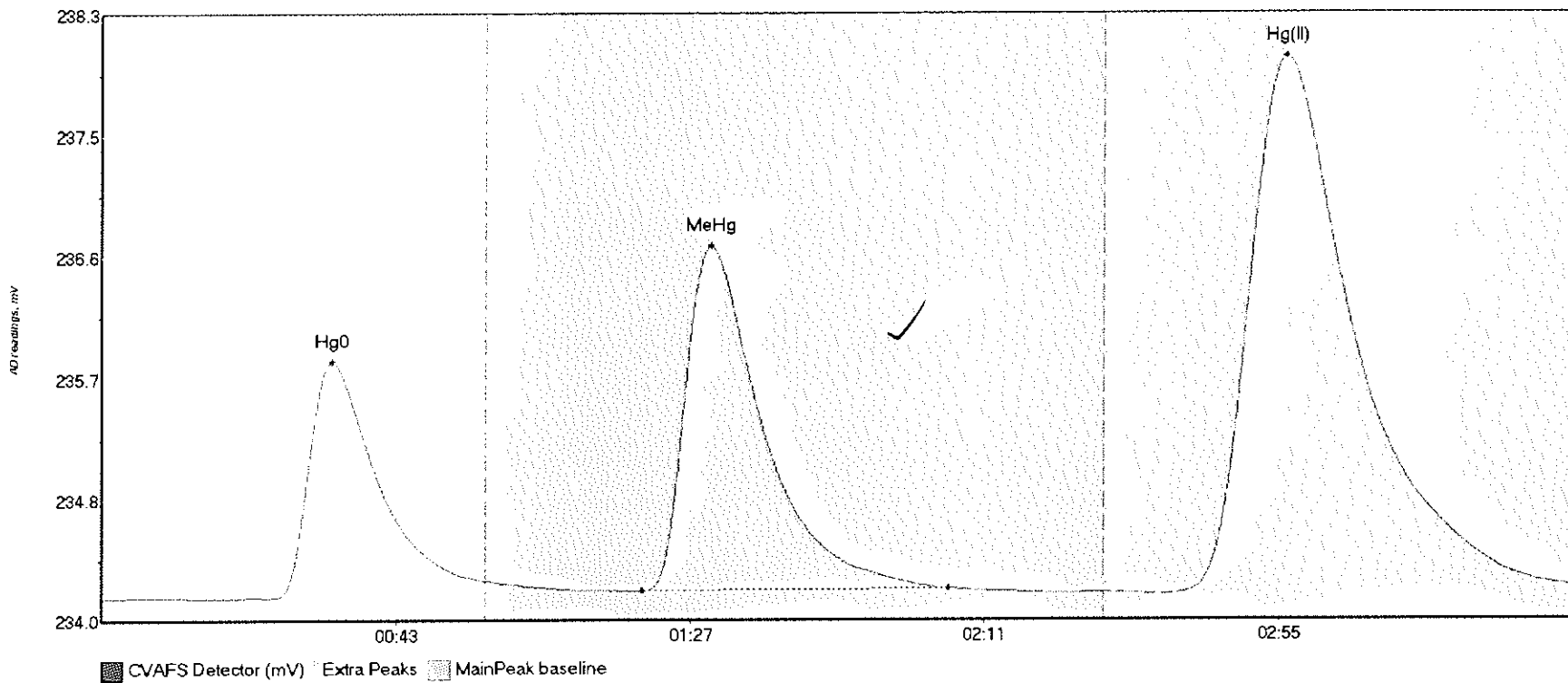
#42: F610422-MS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MS1 Hg0	179.733	21.8	57.5	234.12	234.25	34.2	1.618	CT	234.1208	0.00	0.09	
F610422-MS1 MeH	321.919	80.2	123.8	234.16	234.21	90.9	2.440	OK	234.1208	0.00	0.09	
F610422-MS1 Hg(I)	680.888	160.1	219.8	234.16	234.21	177.0	3.728	CT	234.1208	0.00	0.09	

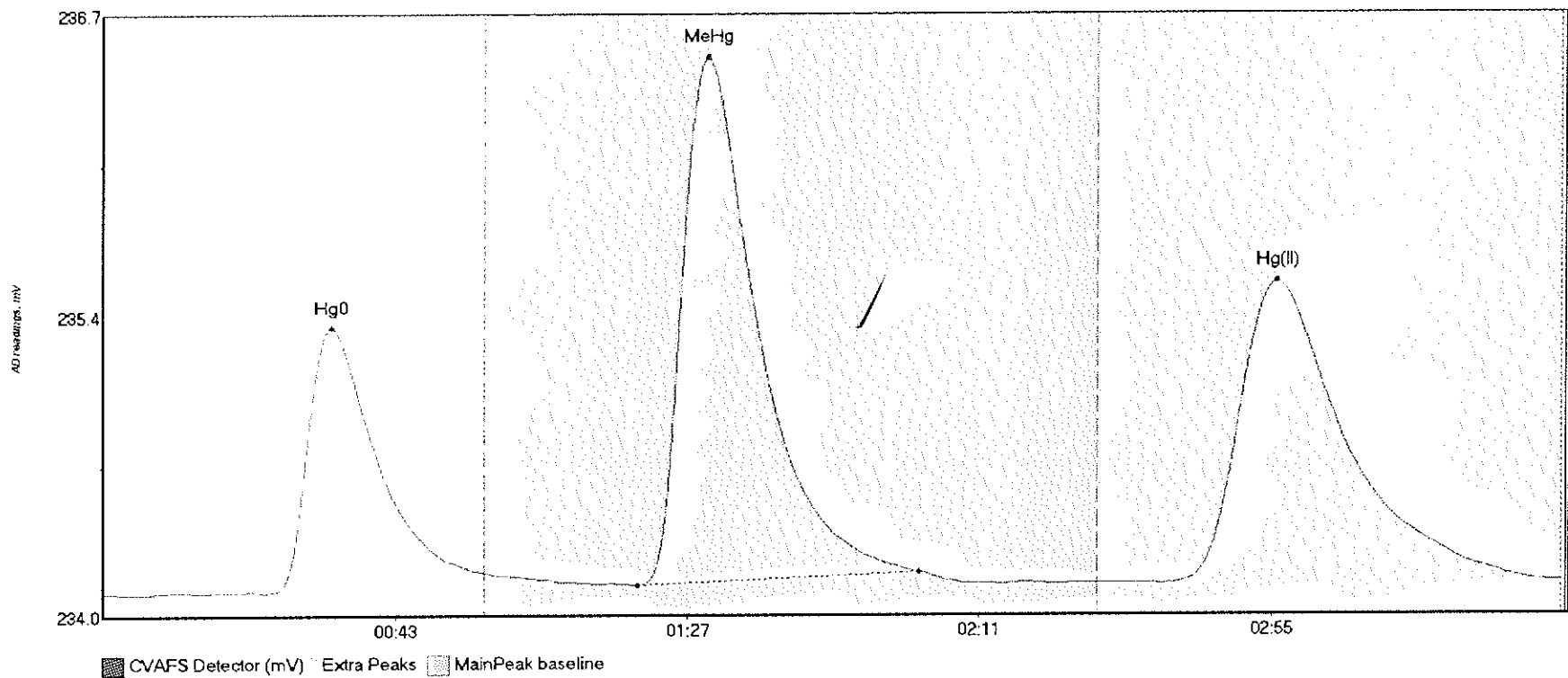


#43: F610422-MSD1



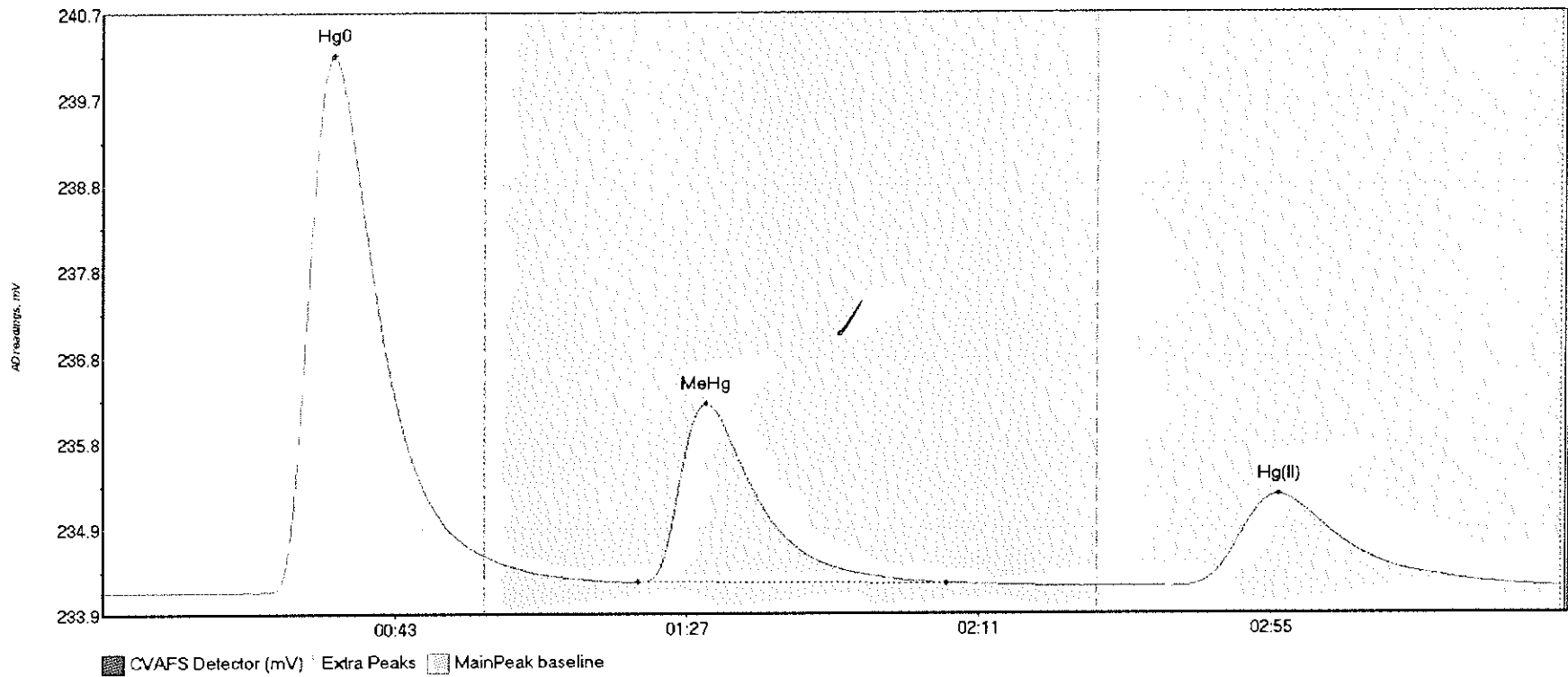
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MSD1 Hg	188.927	24.9	57.5	234.13	234.26	34.4	1.699	CT	234.1291	0.00	0.09	
F610422-MSD1 Me	331.254	80.9	126.8	234.18	234.20	91.0	2.484	OK	234.1291	0.00	0.09	
F610422-MSD1 Hg	706.162	159.7	219.8	234.16	234.22	177.0	3.862	CT	234.1291	0.00	0.09	

#44: F610422-MS2



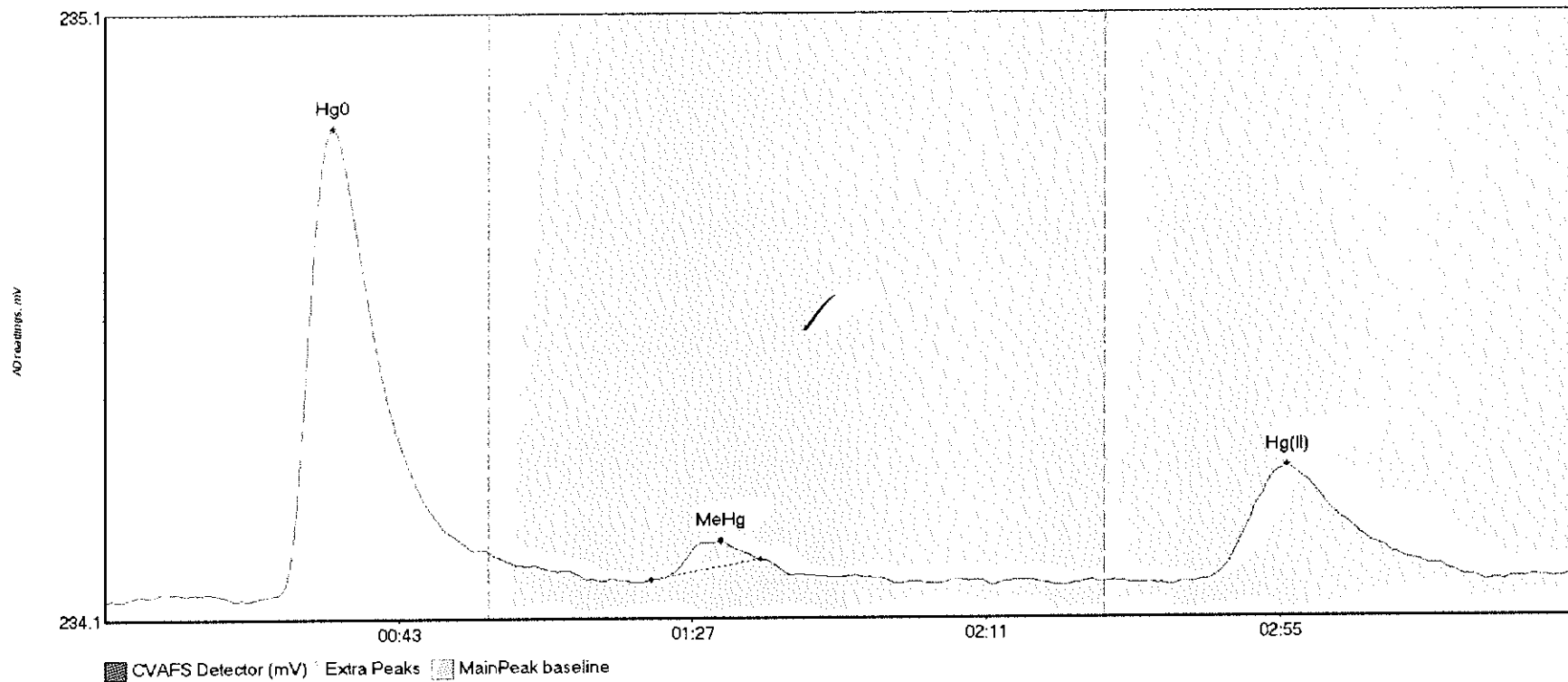
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F610422-MS2 Hg0	133.663	25.5	57.5	234.13	234.22	34.4	1.181	CT	234.1290	0.00	0.05	
F610422-MS2 MeH	306.318	80.6	123.0	234.16	234.22	91.1	2.355	OK	234.1290	0.00	0.05	
F610422-MS2 Hg(I)	249.553	159.9	219.0	234.17	234.18	176.9	1.347	OK	234.1290	0.00	0.05	

#45: SEQ-CCV3



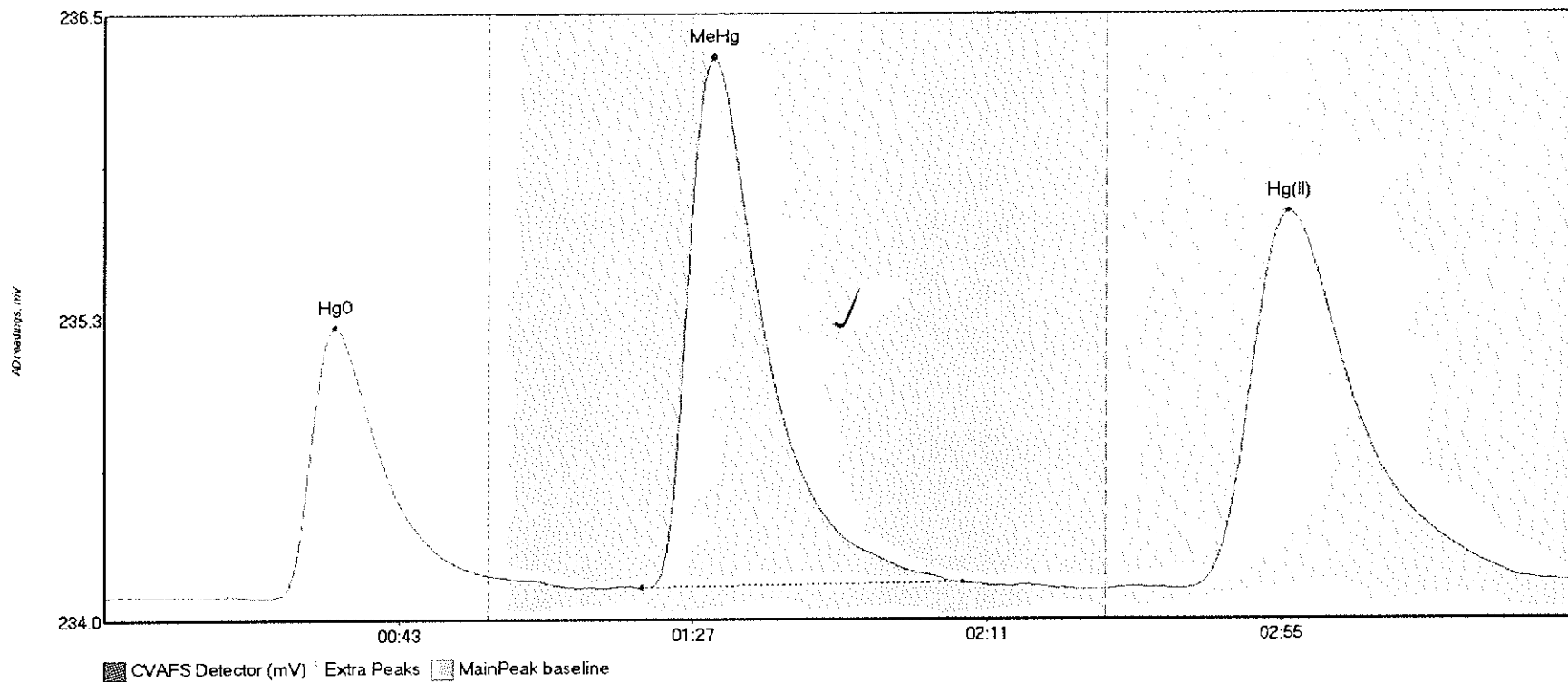
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	707.611	24.3	57.5	234.13	234.54	34.8	6.098	CT	234.1275	0.00	0.06	
SEQ-CCV3 MeHg	273.241	80.8	127.1	234.24	234.22	90.9	2.036	OK	234.1275	0.00	0.06	
SEQ-CCV3 Hg(II)	192.960	163.3	218.6	234.19	234.18	177.2	1.041	OK	234.1275	0.00	0.06	

#46: SEQ-CCB3



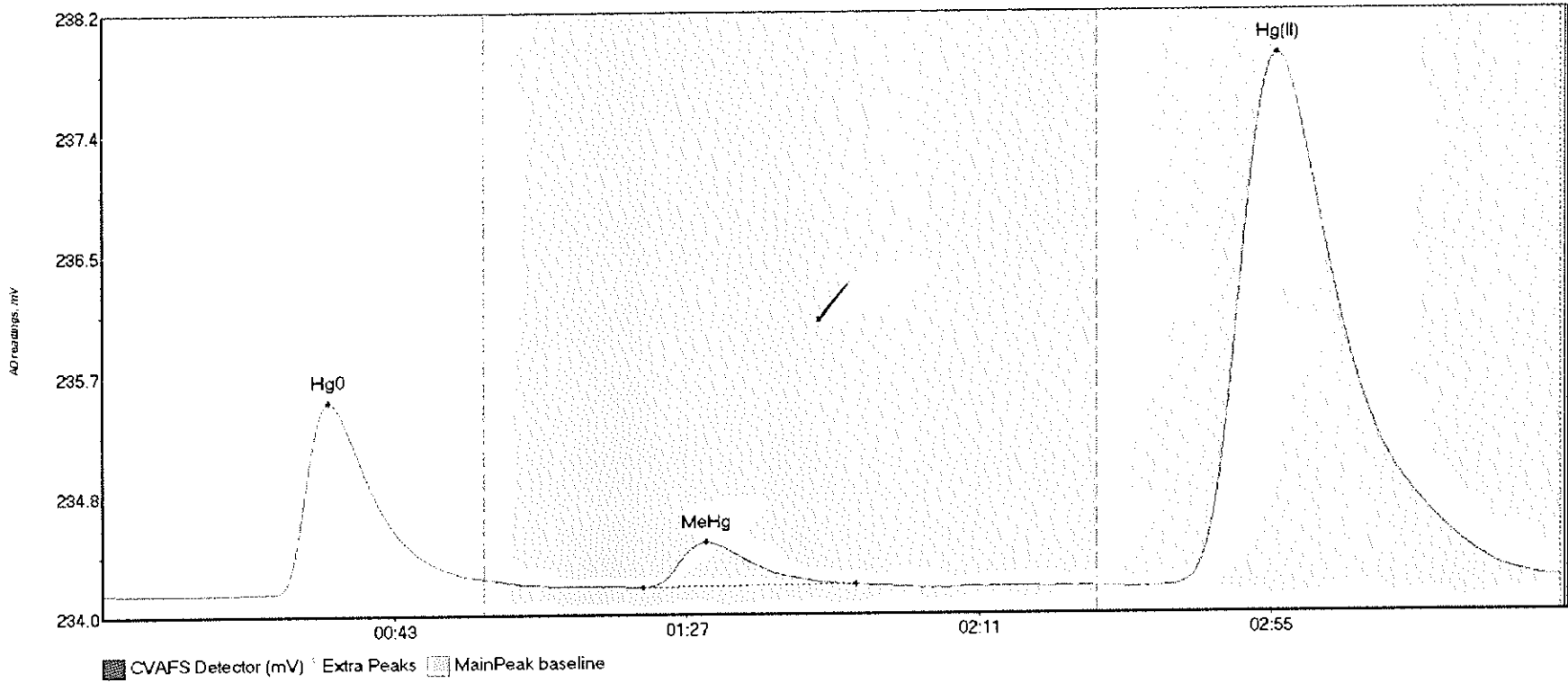
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	86.205	23.5	57.5	234.13	234.21	34.1	0.775	CT	234.1294	0.00	0.04	
SEQ-CCB3 MeHg	3.632	81.9	98.2	234.16	234.19	92.3	0.064	OK	234.1294	0.00	0.04	
SEQ-CCB3 Hg(II)	32.444	164.9	207.2	234.16	234.16	177.0	0.189	OK	234.1294	0.00	0.04	

#47: F610422-MSD2



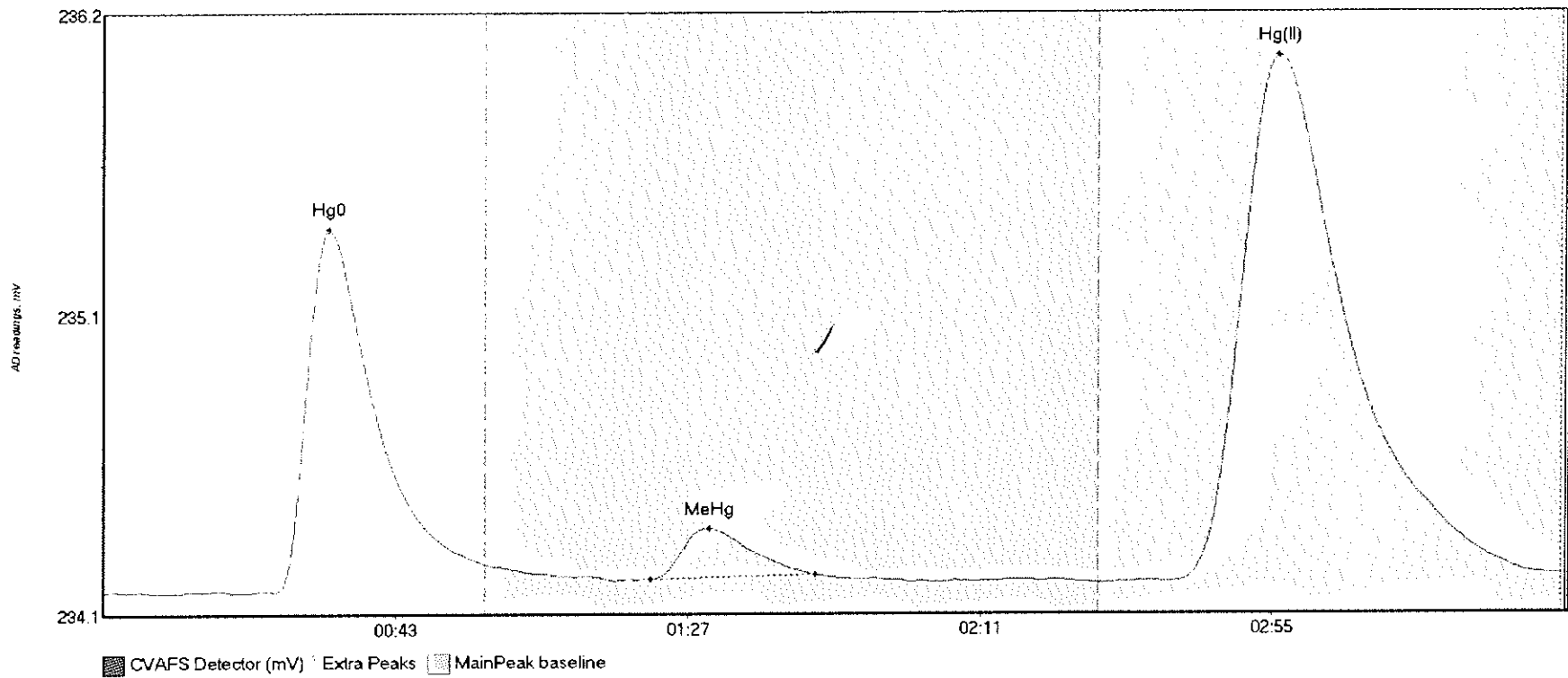
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MSD2 Hg	123.759	24.8	57.5	234.13	234.22	34.6	1.097	CT	234.1349	0.00	0.06	
F610422-MSD2 Me	288.153	80.5	128.5	234.17	234.19	91.1	2.147	OK	234.1349	0.00	0.06	
F610422-MSD2 Hg	277.949	162.0	219.5	234.17	234.20	177.1	1.525	OK	234.1349	0.00	0.06	

#48: 1610231-01



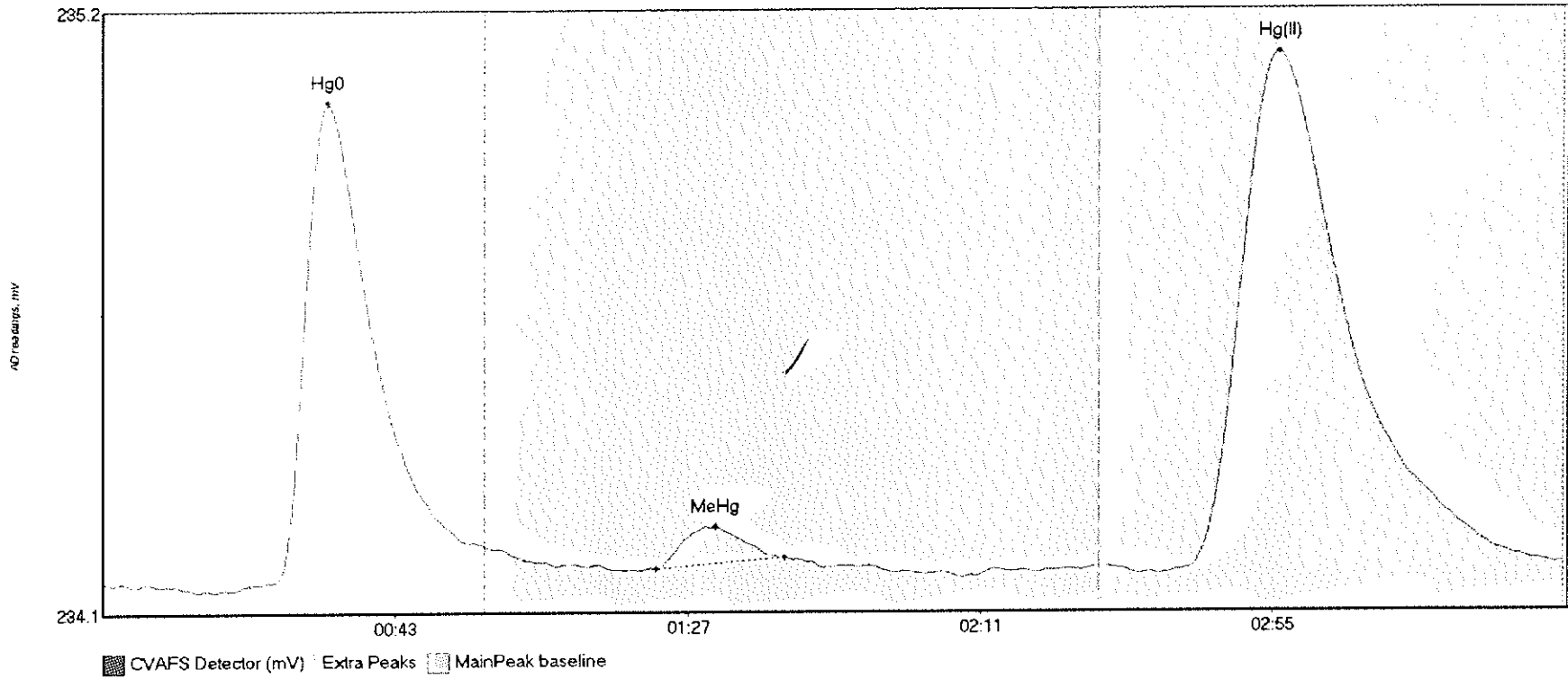
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-01 Hg0	150.386	25.8	57.5	234.15	234.24	34.2	1.344	CP	234.1458	0.00	0.09	
1610231-01 MeHg	38.831	81.4	113.4	234.18	234.19	91.0	0.319	OK	234.1458	0.00	0.09	
1610231-01 Hg(I)	682.775	159.4	218.9	234.17	234.23	177.0	3.743	OK	234.1458	0.00	0.09	

#49: 1610231-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610231-02 Hg0	141.831	25.9	57.5	234.15	234.24	34.0	1.267	CT	234.1466	0.00	0.06	
1610231-02 MeHg	20.463	82.5	107.3	234.19	234.21	91.3	0.179	OK	234.1466	0.00	0.06	
1610231-02 Hg(I)	336.017	160.5	219.8	234.18	234.20	177.1	1.840	CT	234.1466	0.00	0.06	

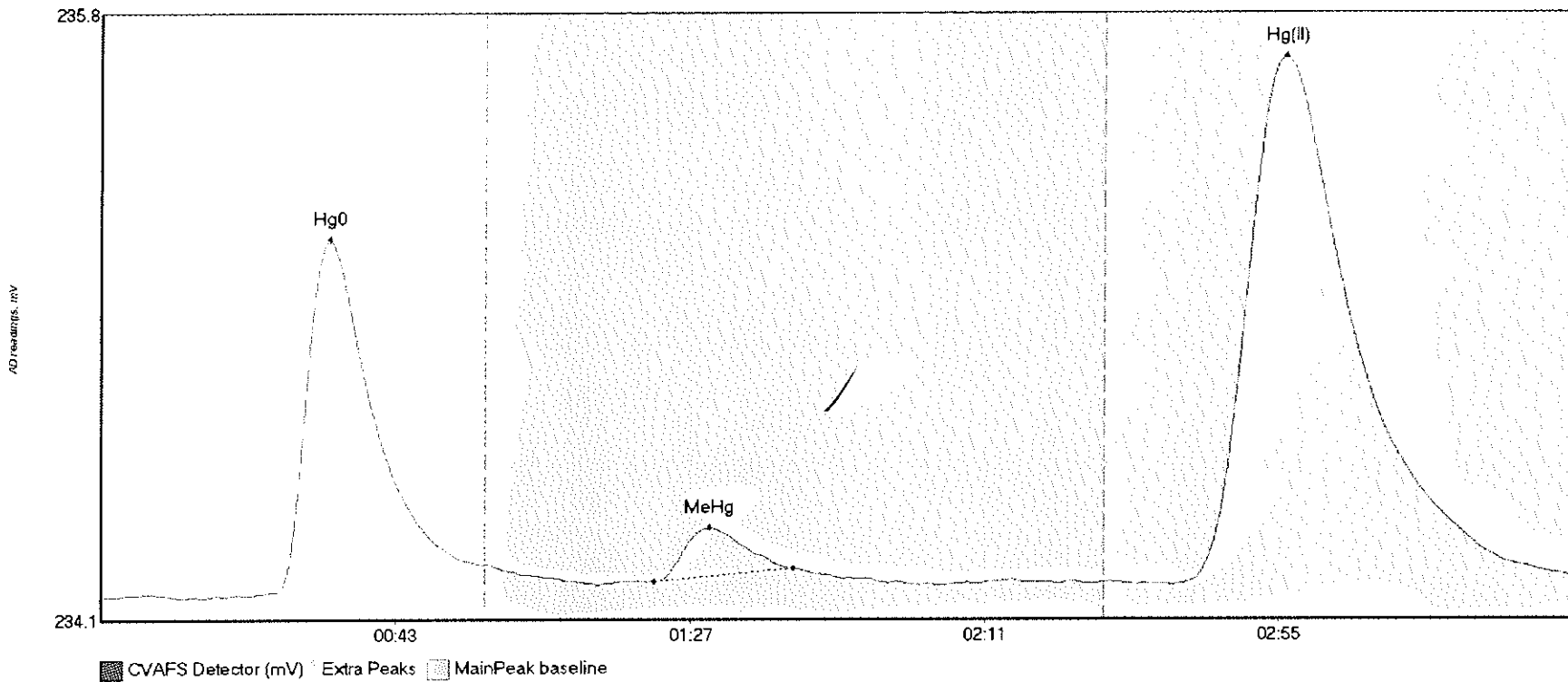
#50: 1610231-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	ElShift	Comment
1610231-03 Hg0	97.793	25.2	57.5	234.16	234.22	33.9	0.874	CT	234.1552	0.00	0.03	
1610231-03 MeHg	7.194	83.2	102.6	234.18	234.20	92.1	0.078	OK	234.1552	0.00	0.03	
1610231-03 Hg(I)	172.159	163.2	218.6	234.18	234.19	177.1	0.941	OK	234.1552	0.00	0.03	

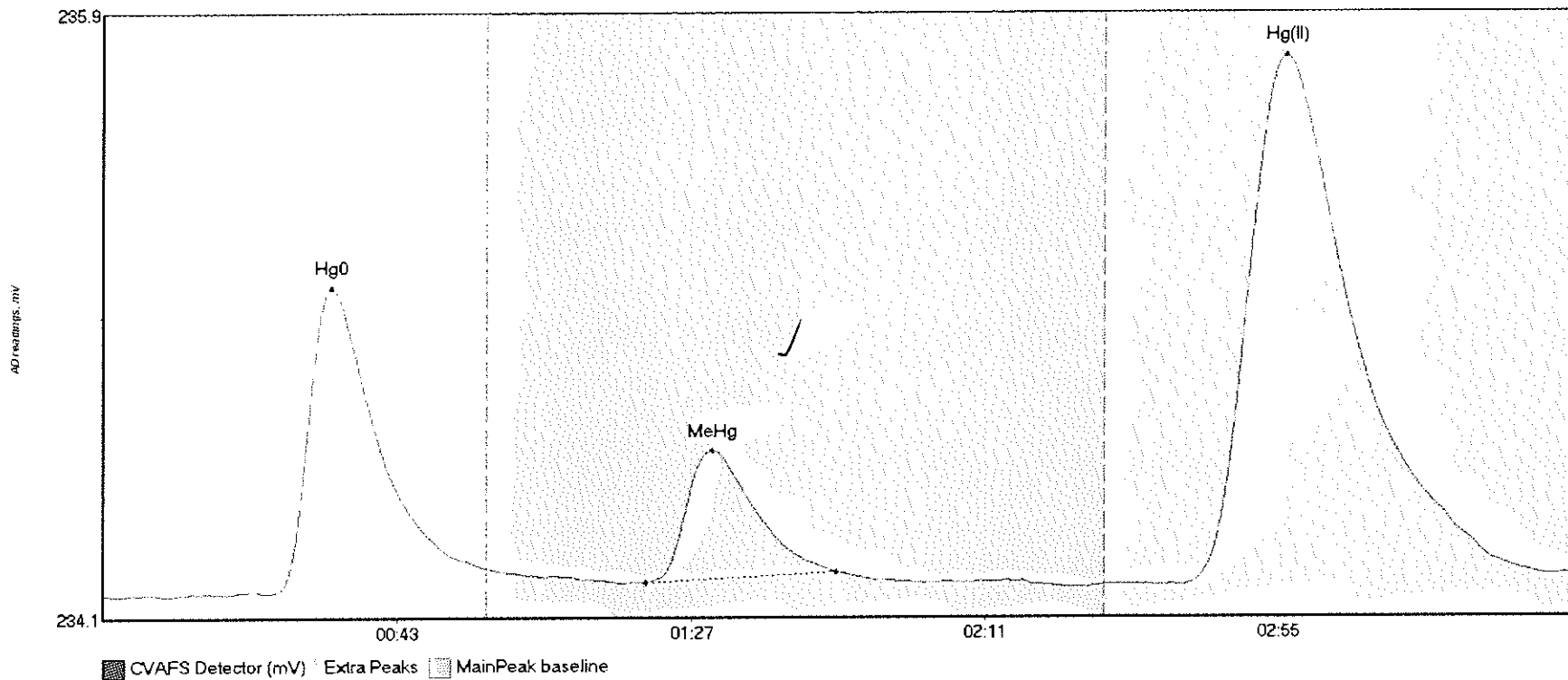


#51: 1610231-04



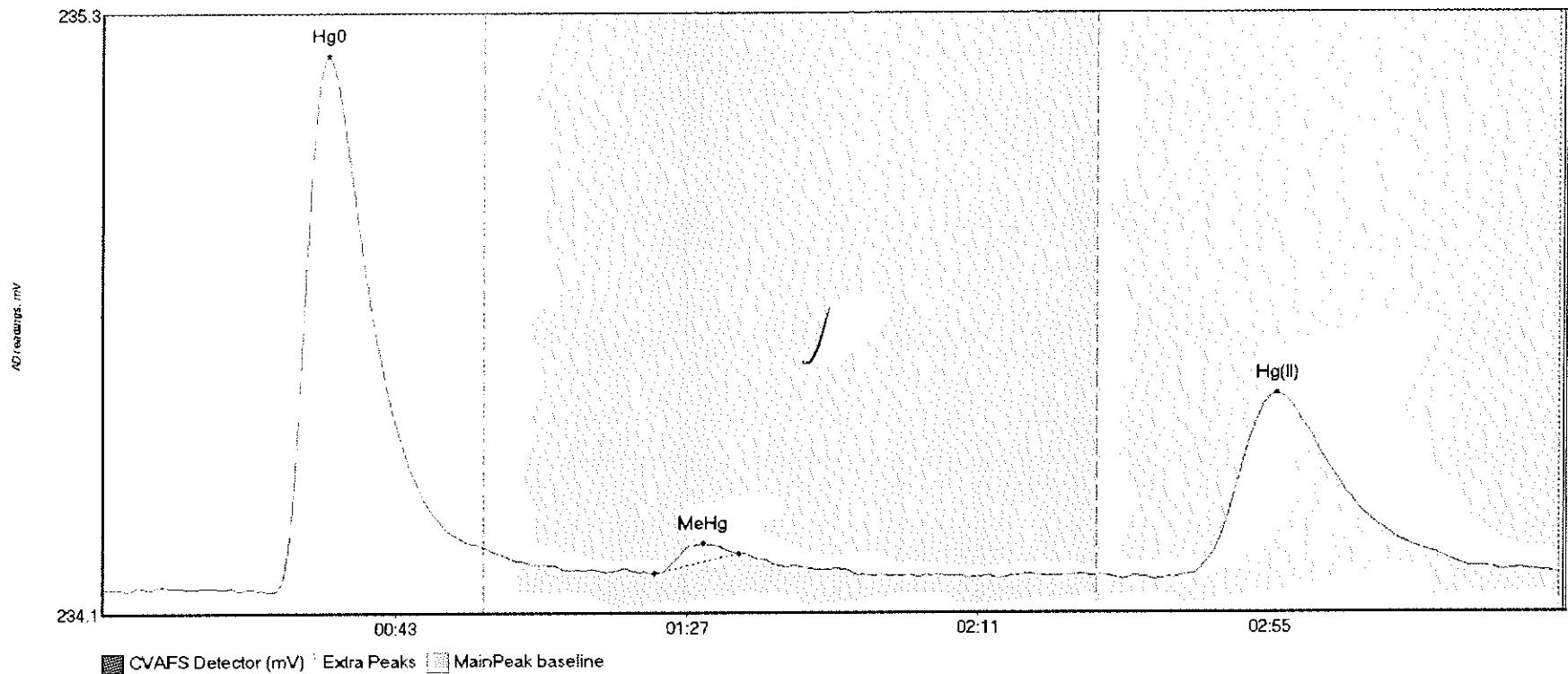
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-04 Hg0	109.890	22.2	57.0	234.15	234.24	34.1	1.008	OK	234.1448	0.00	0.06	
1610231-04 MeHg	13.972	82.6	163.4	234.19	234.22	90.9	0.152	OK	234.1448	0.00	0.06	
1610231-04 Hg(I)	274.692	160.1	219.8	234.18	234.20	177.0	1.495	CT	234.1448	0.00	0.06	

#52: 1610231-05



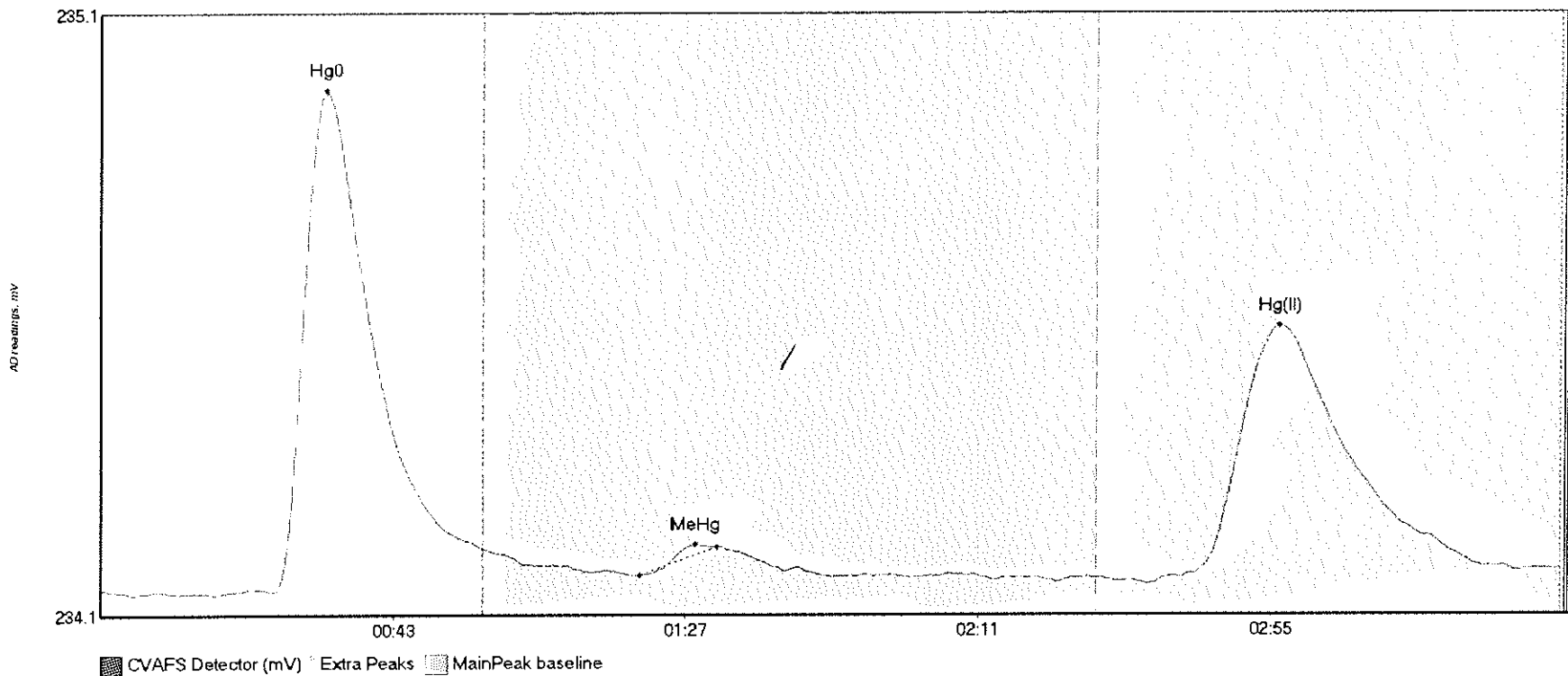
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-05 Hg0	103.699	19.4	57.5	234.16	234.23	34.1	0.931	CT	234.1531	0.00	0.06	
1610231-05 MeHg	46.119	81.2	109.9	234.19	234.22	91.1	0.401	OK	234.1531	0.00	0.06	
1610231-05 Hg(I	293.126	161.5	216.5	234.18	234.21	177.2	1.605	OK	234.1531	0.00	0.06	

#53: 1610235-01



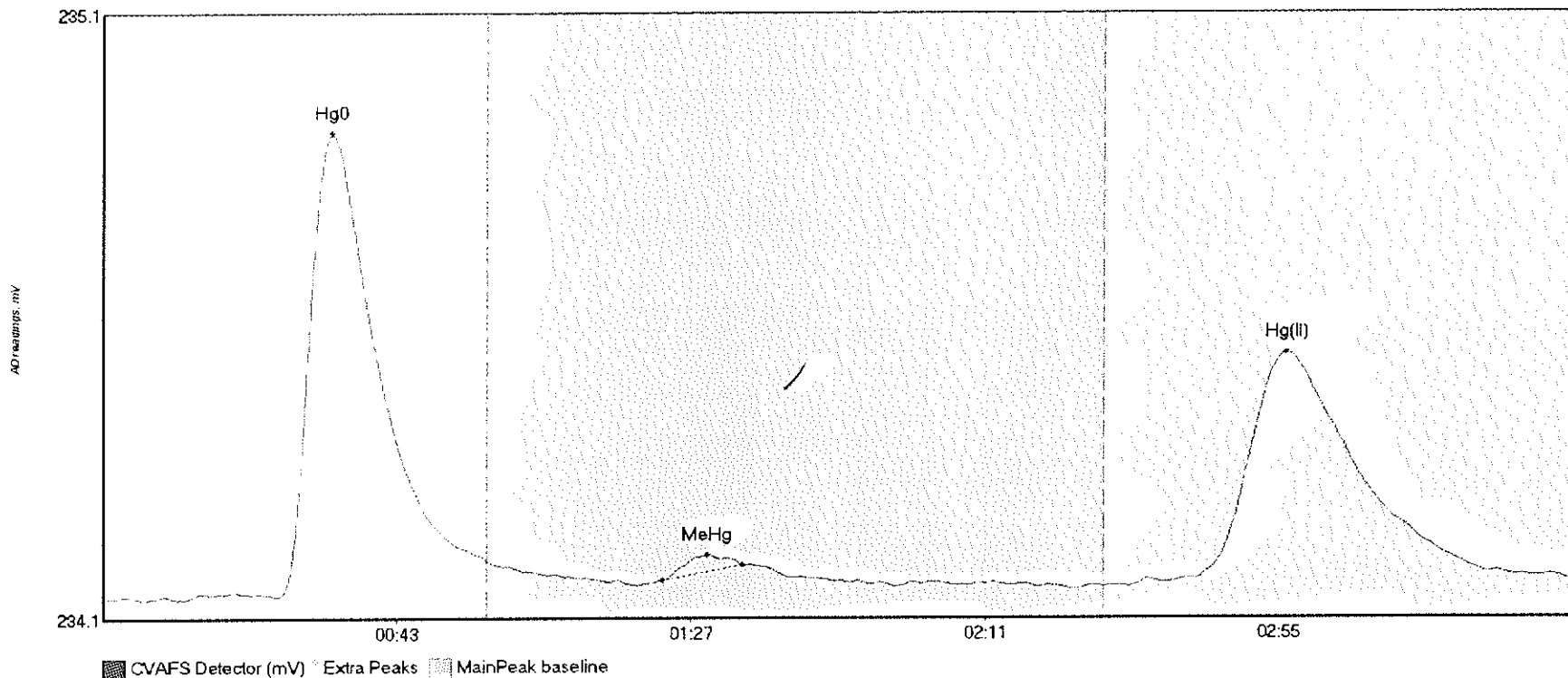
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-01 Hg0	121.856	25.0	57.5	234.16	234.25	33.8	1.095	CT	234.1658	0.00	0.03	
1610235-01 MeHg	2.714	83.1	95.9	234.20	234.24	90.5	0.062	OK	234.1658	0.00	0.03	
1610235-01 Hg(I)	67.327	164.3	219.8	234.20	234.20	177.2	0.370	CT	234.1658	0.00	0.03	

#54: 1610235-02



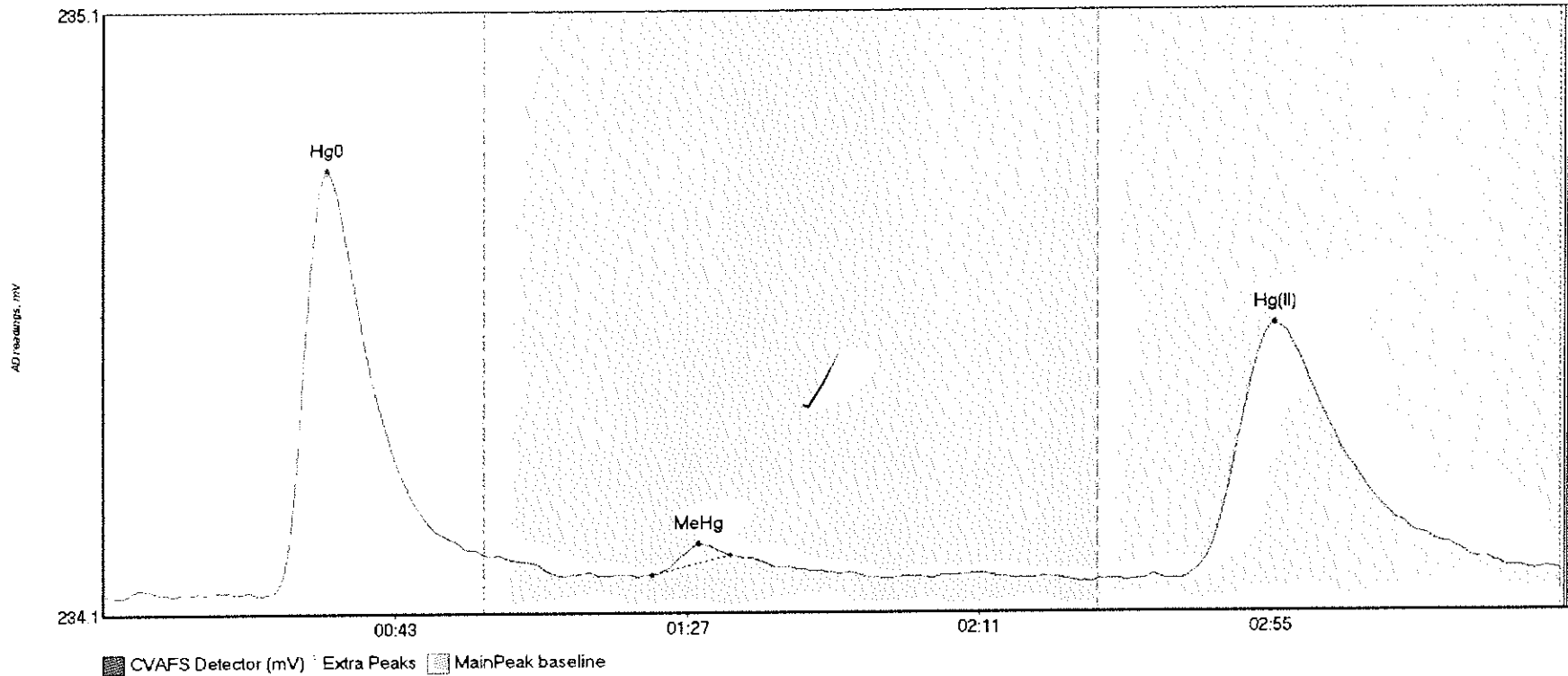
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1610235-02 Hg0	92.440	25.9	57.5	234.16	234.23	33.9	0.831	CT	234.1671	0.00	0.03	
1610235-02 MeHg	0.784	81.1	92.7	234.19	234.24	89.6	0.051	OK	234.1671	0.00	0.03	
1610235-02 Hg(I)	76.312	162.4	213.2	234.19	234.20	177.3	0.419	OK	234.1671	0.00	0.03	

#55: 1610235-03



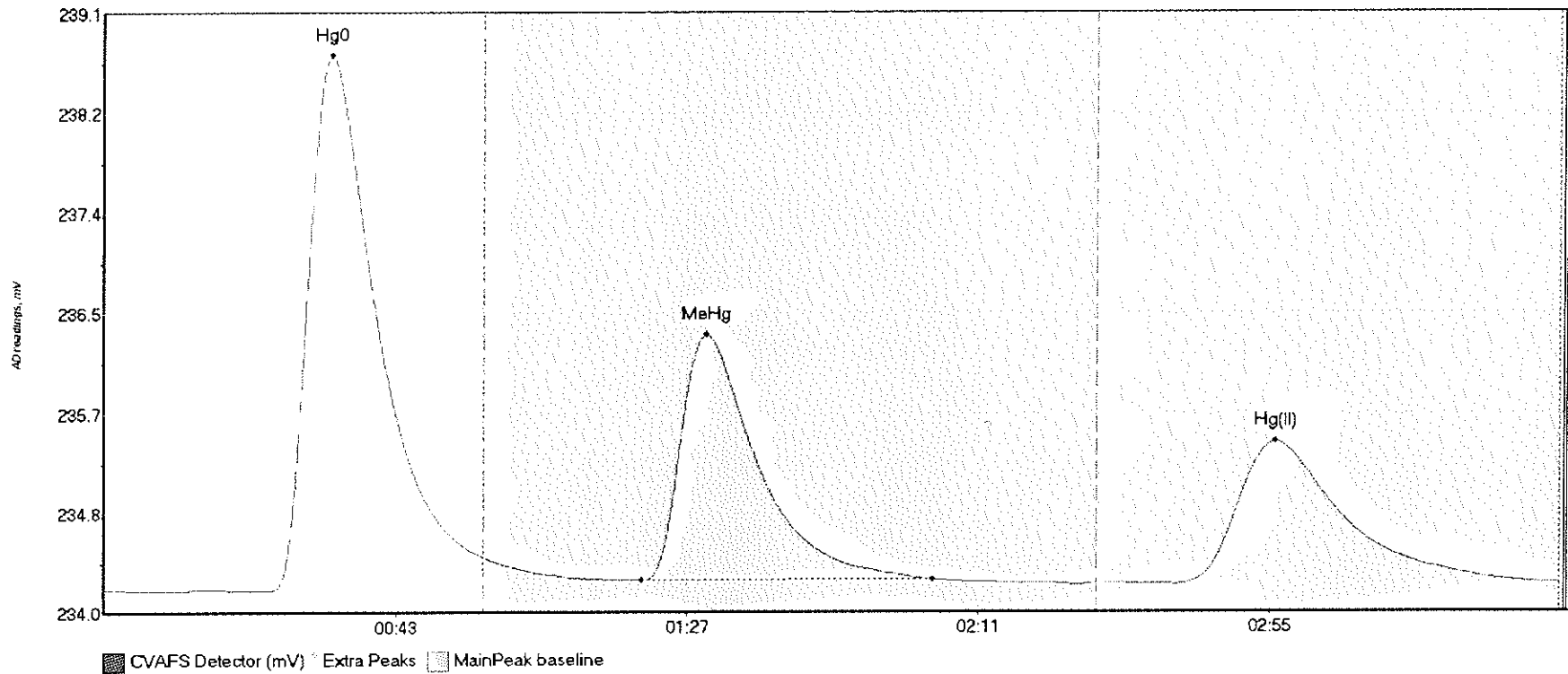
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
1610235-03 Hg0	85.368	26.1	57.5	234.16	234.22	34.3	0.765	CT	234.1596	0.00	0.03	
1610235-03 MeHg	2.000	83.8	95.8	234.19	234.21	90.4	0.042	OK	234.1596	0.00	0.03	
1610235-03 Hg(1)	72.797	153.7	219.7	234.18	234.19	177.2	0.386	OK	234.1596	0.00	0.03	

#56: 1610235-04



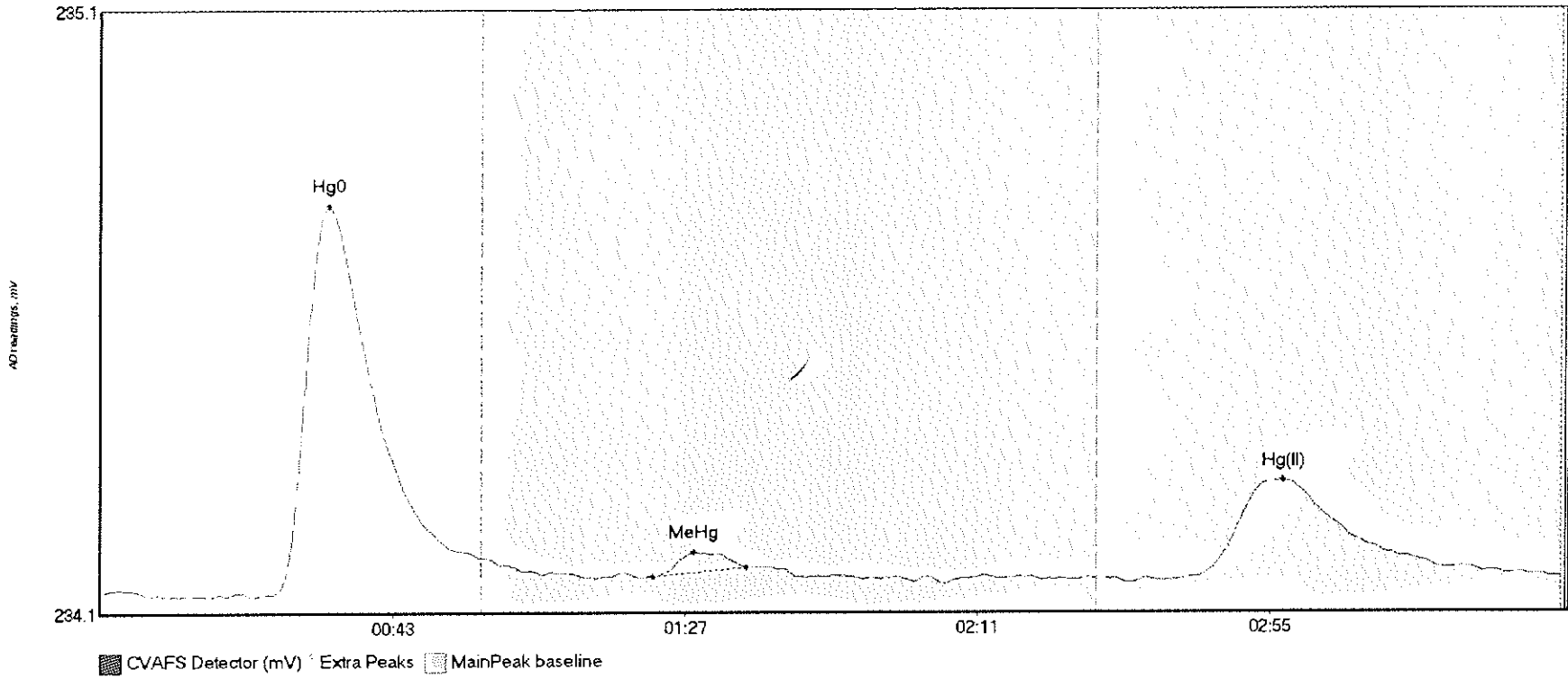
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-04 Hg0	78.443	23.4	57.5	234.16	234.22	33.7	0.705	CT	234.1578	0.00	0.04	
1610235-04 MeHg	1.808	82.7	94.4	234.19	234.22	89.8	0.052	OK	234.1578	0.00	0.04	
1610235-04 Hg(1	78.681	162.6	219.8	234.18	234.19	176.8	0.422	CT	234.1578	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	522.614	25.2	57.5	234.17	234.45	34.3	4.554	CT	234.1718	0.00	0.06	
SEQ-CCV4 MeHg	278.781	81.2	125.1	234.25	234.26	90.9	2.095	OK	234.1718	0.00	0.06	
SEQ-CCV4 Hg(II)	222.249	162.1	218.1	234.22	234.23	176.9	1.218	OK	234.1718	0.00	0.06	

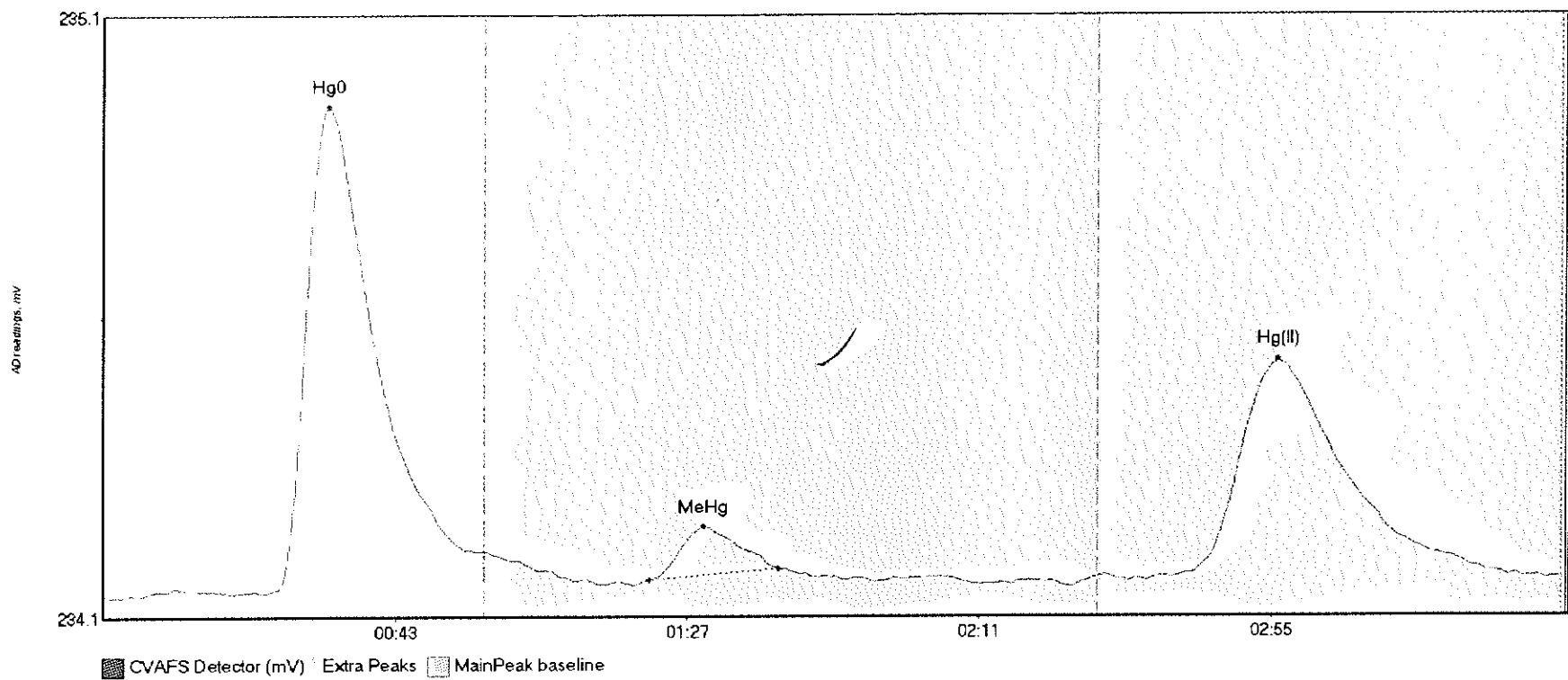
#58: SEQ-CCB4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	71.279	26.0	57.5	234.18	234.24	34.3	0.644	CT	234.1793	0.00	0.02	
SEQ-CCB4 MeHg	2.600	83.2	97.1	234.20	234.22	89.3	0.042	OK	234.1793	0.00	0.02	
SEQ-CCB4 Hg(II)	29.147	165.2	215.5	234.20	234.21	178.1	0.160	OK	234.1793	0.00	0.02	

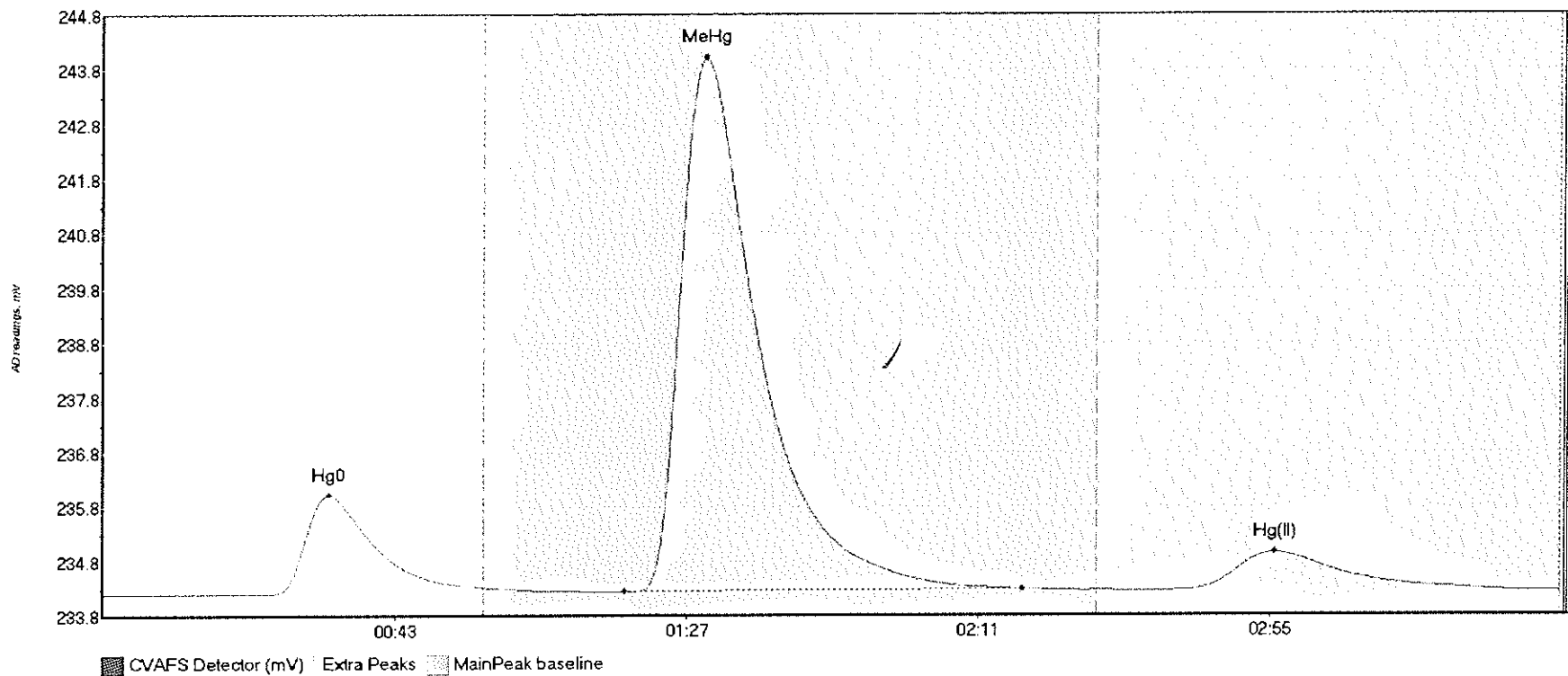


#59: 1610235-05



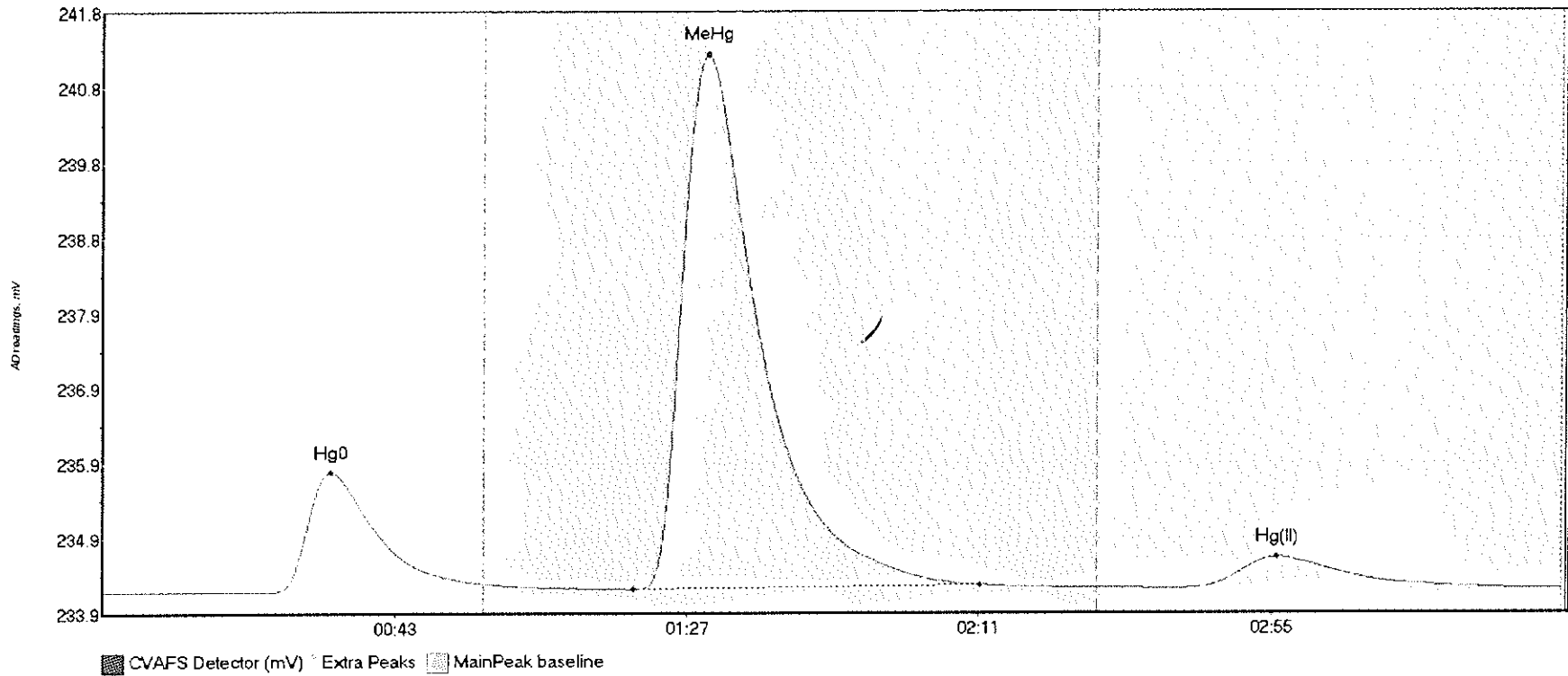
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-05 Hg0	89.927	24.2	56.4	234.18	234.25	33.9	0.809	OK	234.1753	0.00	0.03	
1610235-05 MeHg	7.905	82.3	101.8	234.20	234.22	90.4	0.089	OK	234.1753	0.00	0.03	
1610235-05 Hg(I)	63.345	163.7	211.9	234.21	234.21	177.1	0.352	OK	234.1753	0.00	0.03	

#60: 1610574-01



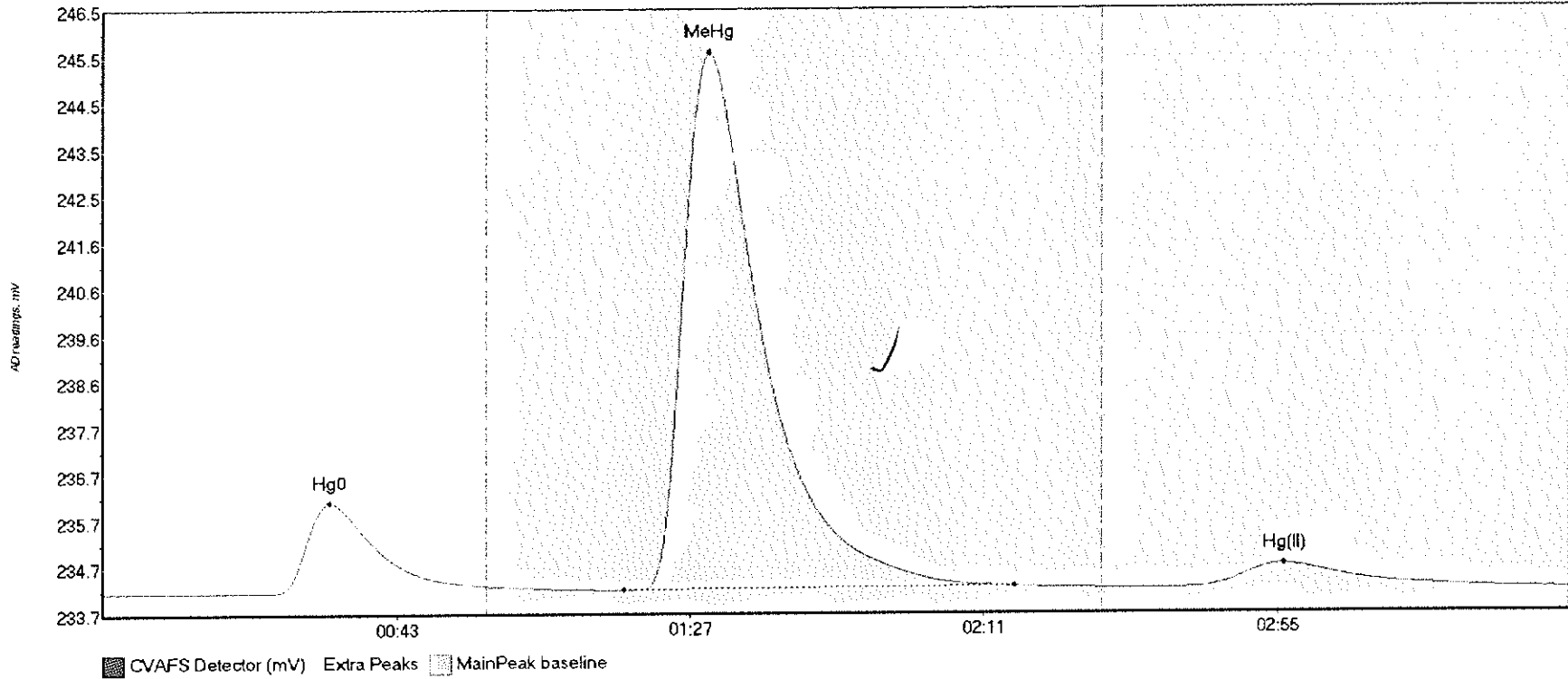
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-01 Hg0	201.765	24.5	57.5	234.18	234.30	34.0	1.814	CT	234.1835	0.60	0.04	
1610574-01 MeHg	1332.409	78.7	138.8	234.22	234.27	90.9	9.793	OK	234.1835	0.60	0.04	
1610574-01 Hg(I	126.093	162.1	212.9	234.24	234.23	176.7	0.689	OK	234.1835	0.60	0.04	

#61: 1610574-02



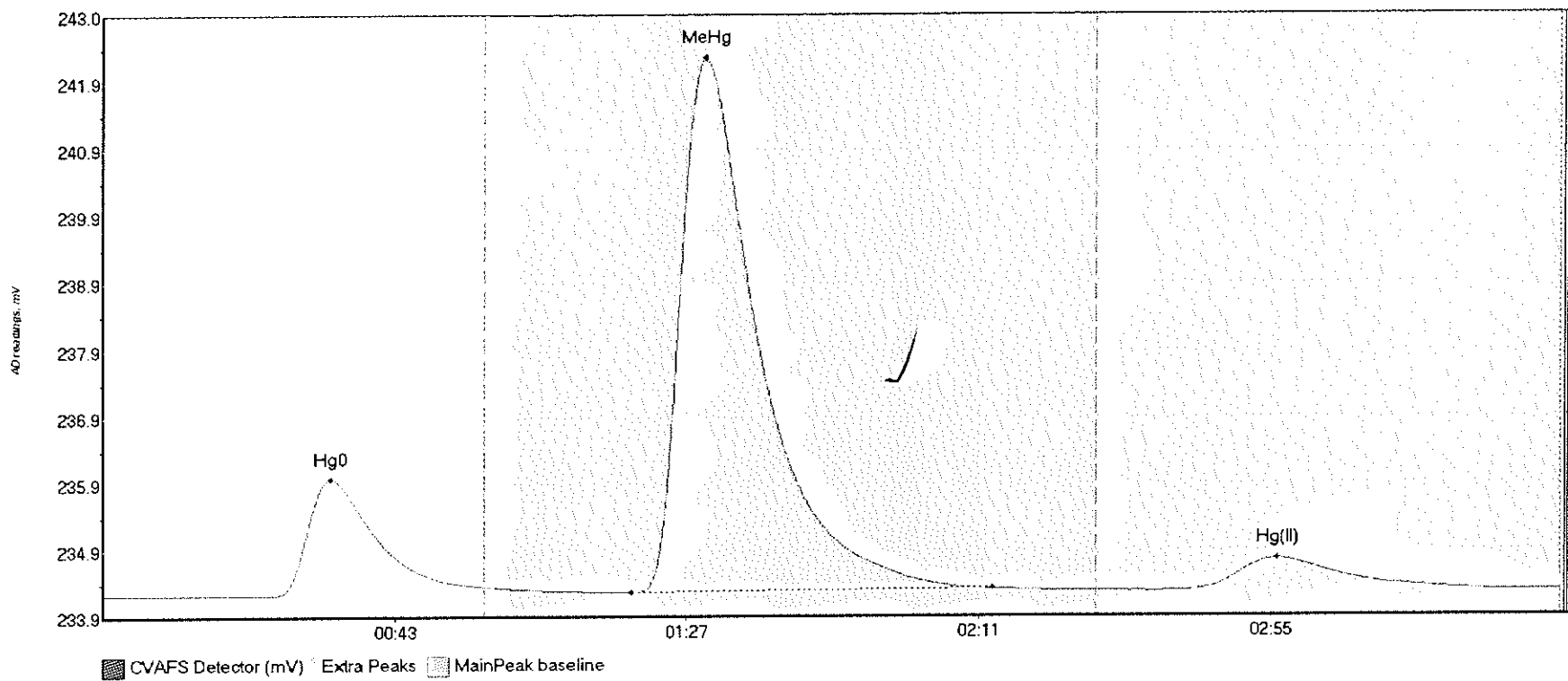
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-02 Hg0	175.896	25.2	57.5	234.19	234.30	34.4	1.574	CT	234.1929	0.00	0.04	
1610574-02 MeHg	951.096	80.0	132.3	234.23	234.28	91.1	7.019	OK	234.1929	0.00	0.04	
1610574-02 Hg(I)	73.743	162.0	212.2	234.23	234.24	176.9	0.413	OK	234.1929	0.00	0.04	

#62: 1610574-03



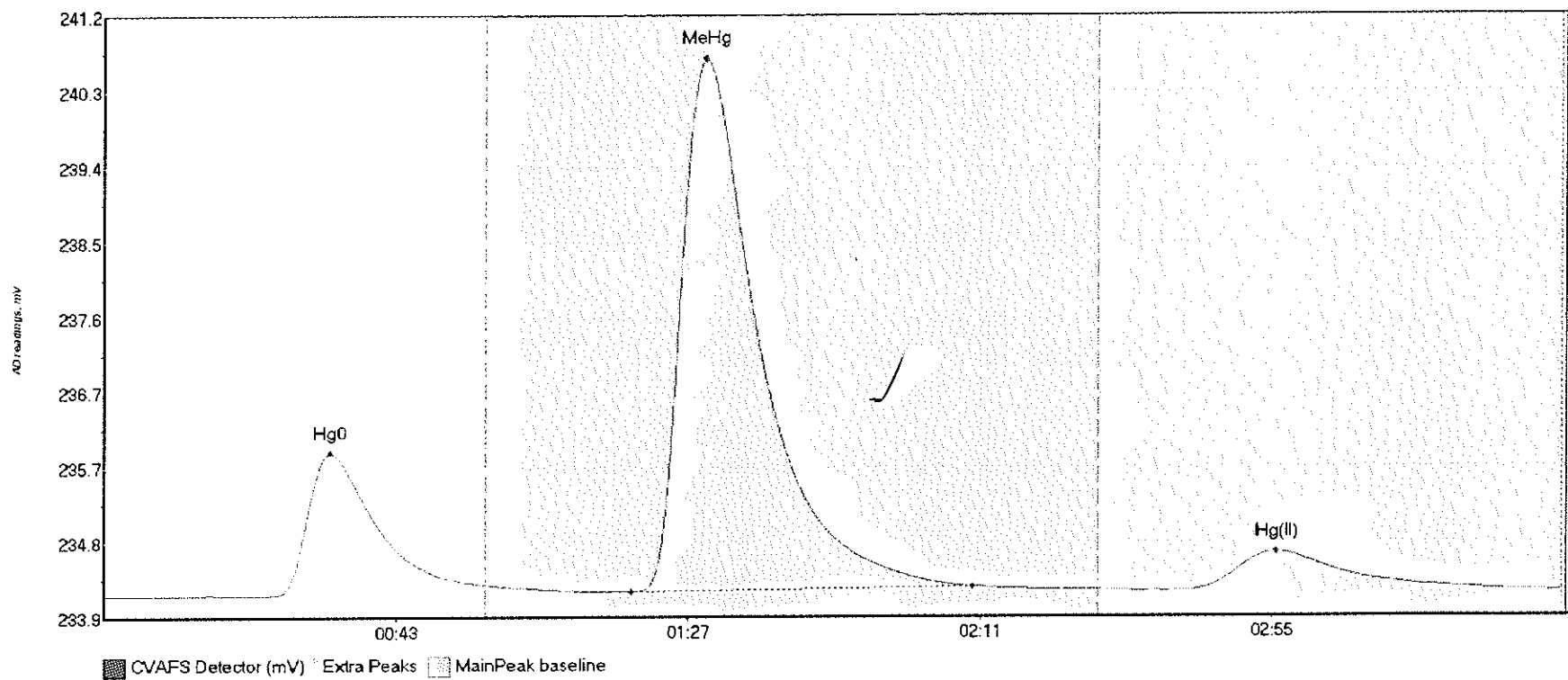
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-03 Hg0	209.161	17.9	57.5	234.19	234.33	34.0	1.908	CT	234.1899	0.00	0.05	
1610574-03 MeHg	1543.317	78.2	136.7	234.24	234.30	90.9	11.315	OK	234.1899	0.00	0.05	
1610574-03 Hg(I)	94.018	160.6	213.2	234.26	234.25	177.0	0.497	OK	234.1899	0.00	0.05	

#63: 1610574-04



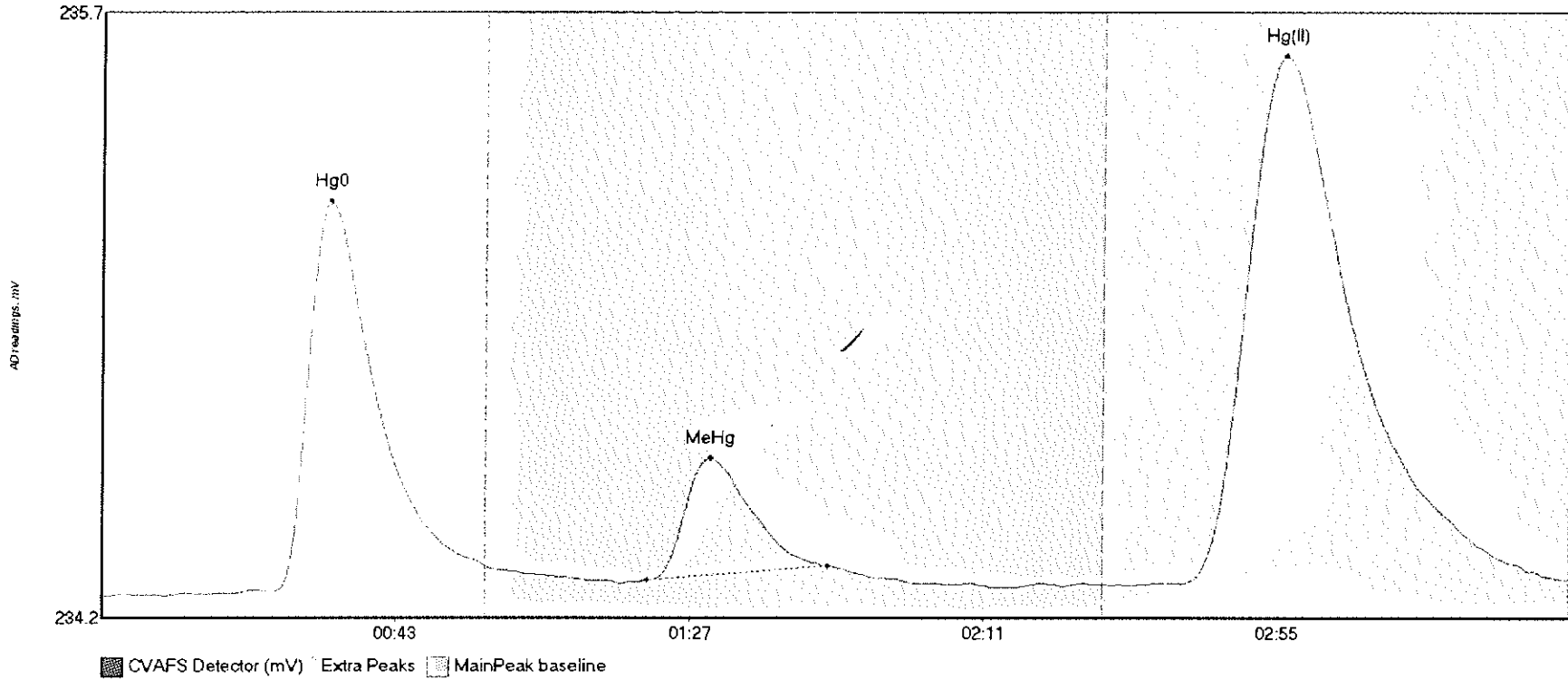
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610574-04 Hg0	192.753	19.5	57.5	234.20	234.32	34.4	1.760	CT	234.1945	0.00	0.06	
1610574-04 MeHg	1096.093	79.7	134.2	234.24	234.29	91.0	8.066	OK	234.1945	0.00	0.06	
1610574-04 Hg(I	87.192	161.1	210.7	234.25	234.25	177.1	0.479	OK	234.1945	0.00	0.06	

#64: 1610574-05



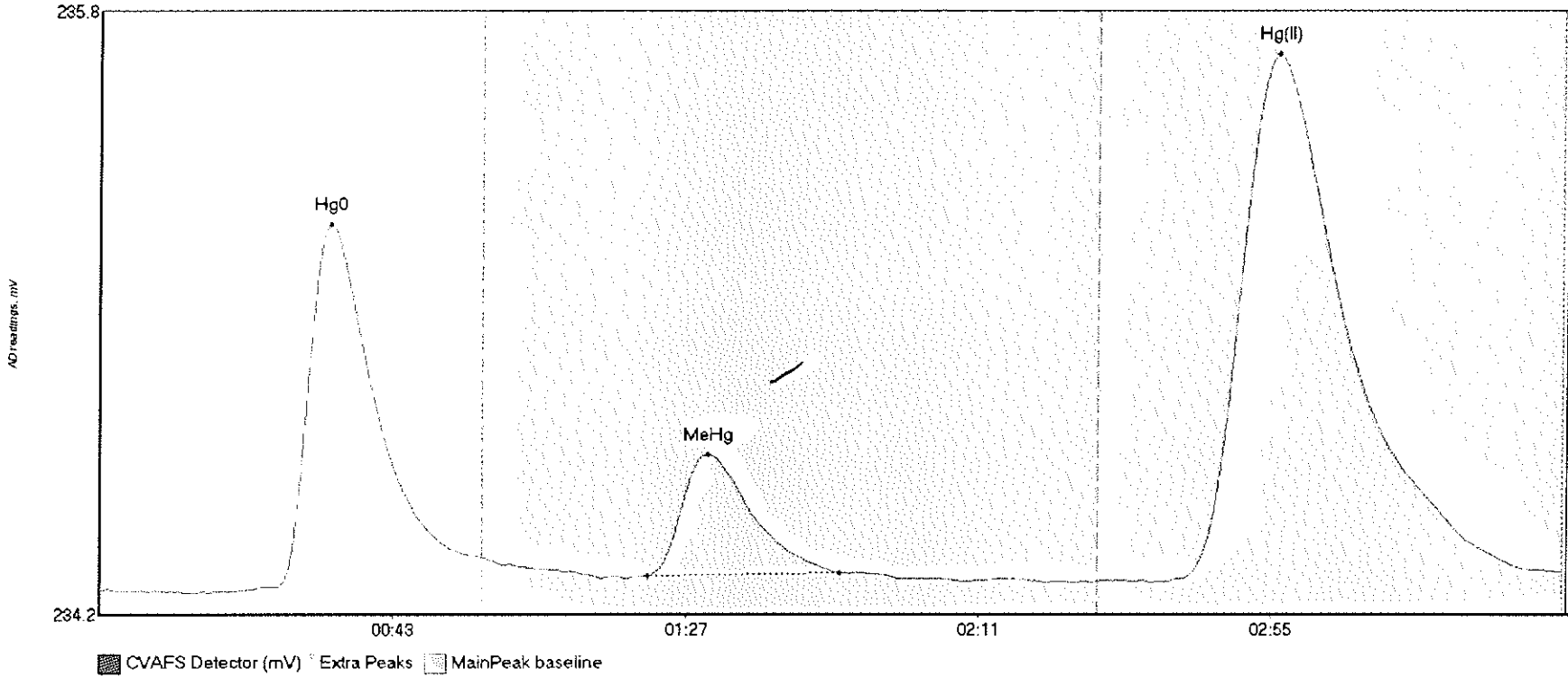
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-05 Hg0	191.234	24.0	57.5	234.21	234.33	34.1	1.716	CT	234.2029	0.00	0.05	
1610574-05 MeHg	869.998	79.5	130.9	234.25	234.30	90.8	6.414	OK	234.2029	0.00	0.05	
1610574-05 Hg(I	82.903	163.5	212.0	234.26	234.26	176.7	0.462	OK	234.2029	0.00	0.05	

#65: 1610610-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-01 Hg0	112.851	10.2	57.5	234.21	234.29	34.3	1.033	CT	234.2123	0.00	0.04	
1610610-01 MeHg	35.052	81.6	108.8	234.25	234.29	91.0	0.321	OK	234.2123	0.00	0.04	
1610610-01 Hg(I)	257.453	161.7	219.2	234.24	234.26	177.0	1.384	OK	234.2123	0.00	0.04	

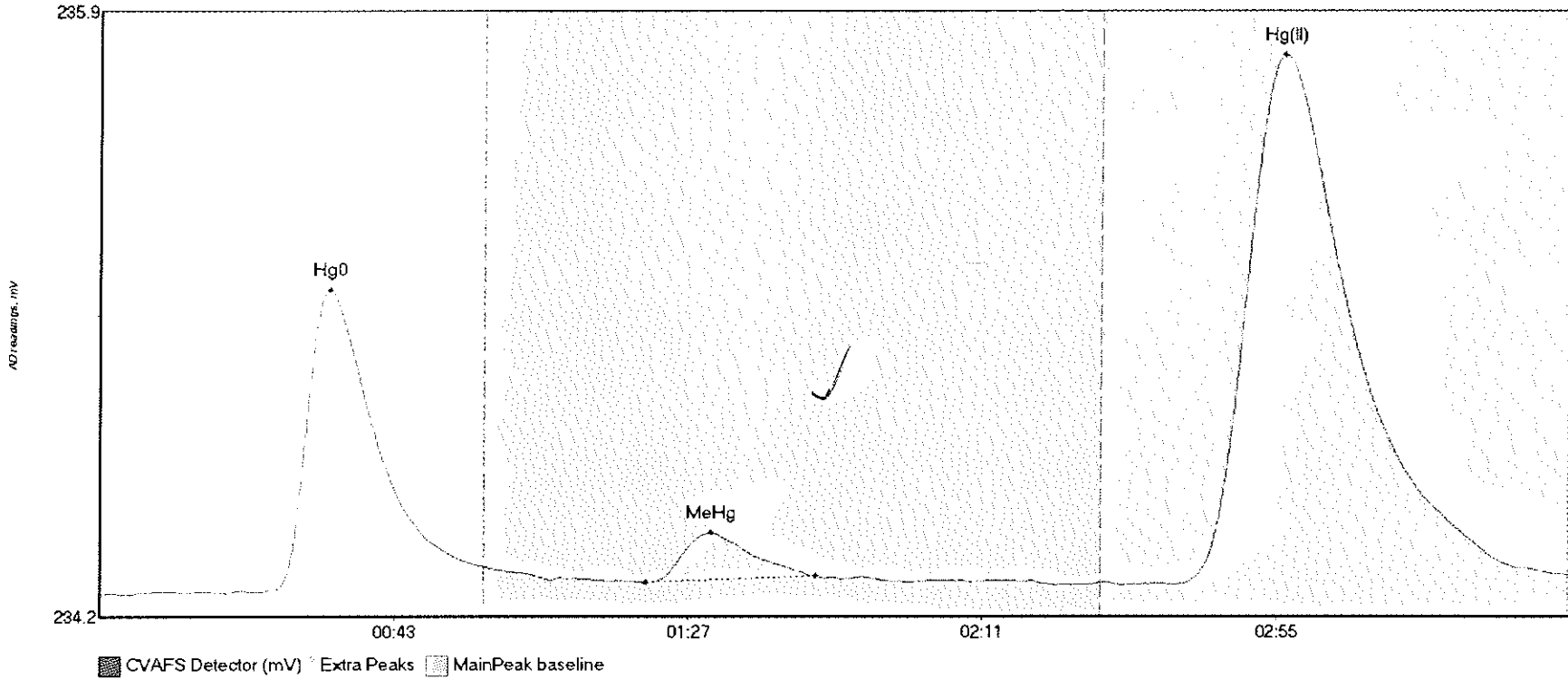
#66: 1610610-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-02 Hg0	108.116	22.3	57.5	234.22	234.31	34.6	0.999	CT	234.2247	0.00	0.05	
1610610-02 MeHg	39.422	82.3	111.1	234.26	234.27	91.3	0.331	OK	234.2247	0.00	0.05	
1610610-02 Hg(I)	264.464	159.9	219.8	234.25	234.27	177.1	1.439	CT	234.2247	0.00	0.05	

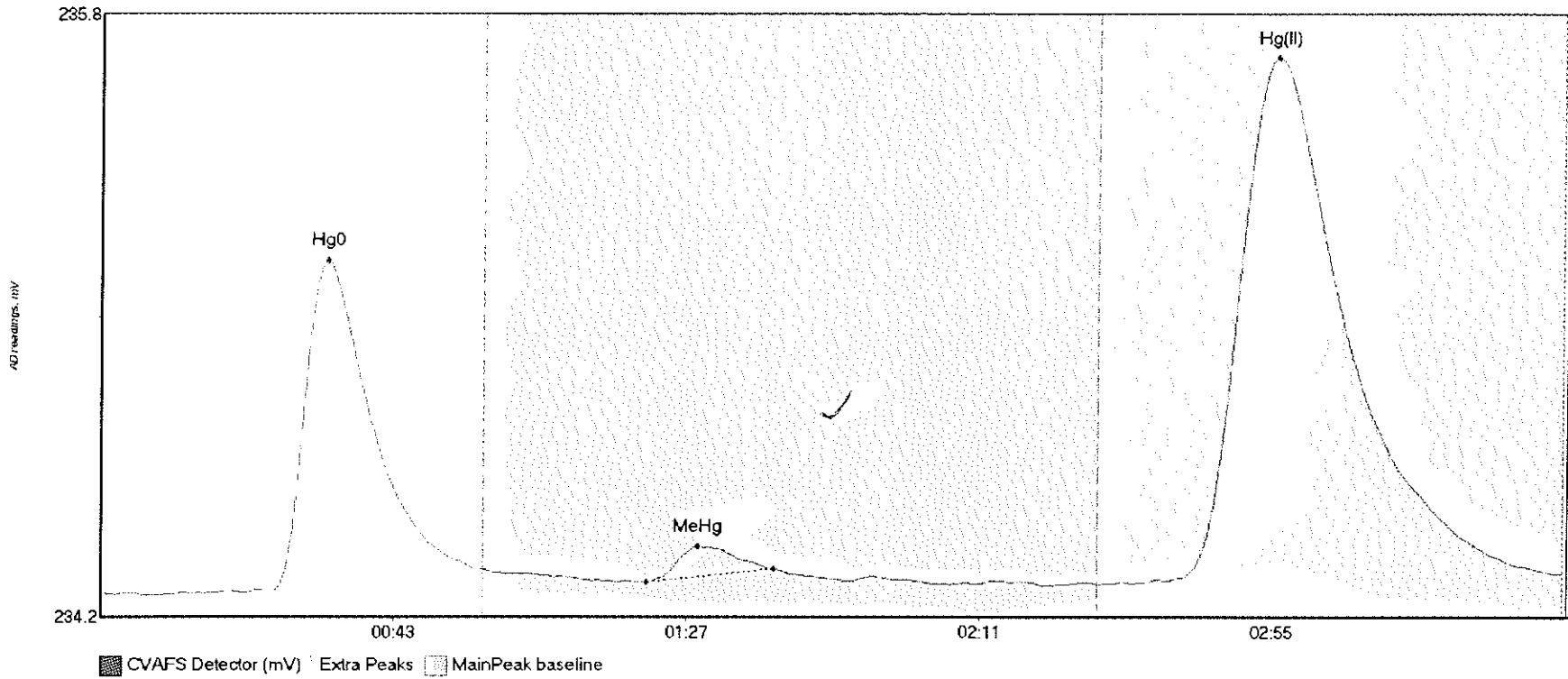


#67: 1610610-03



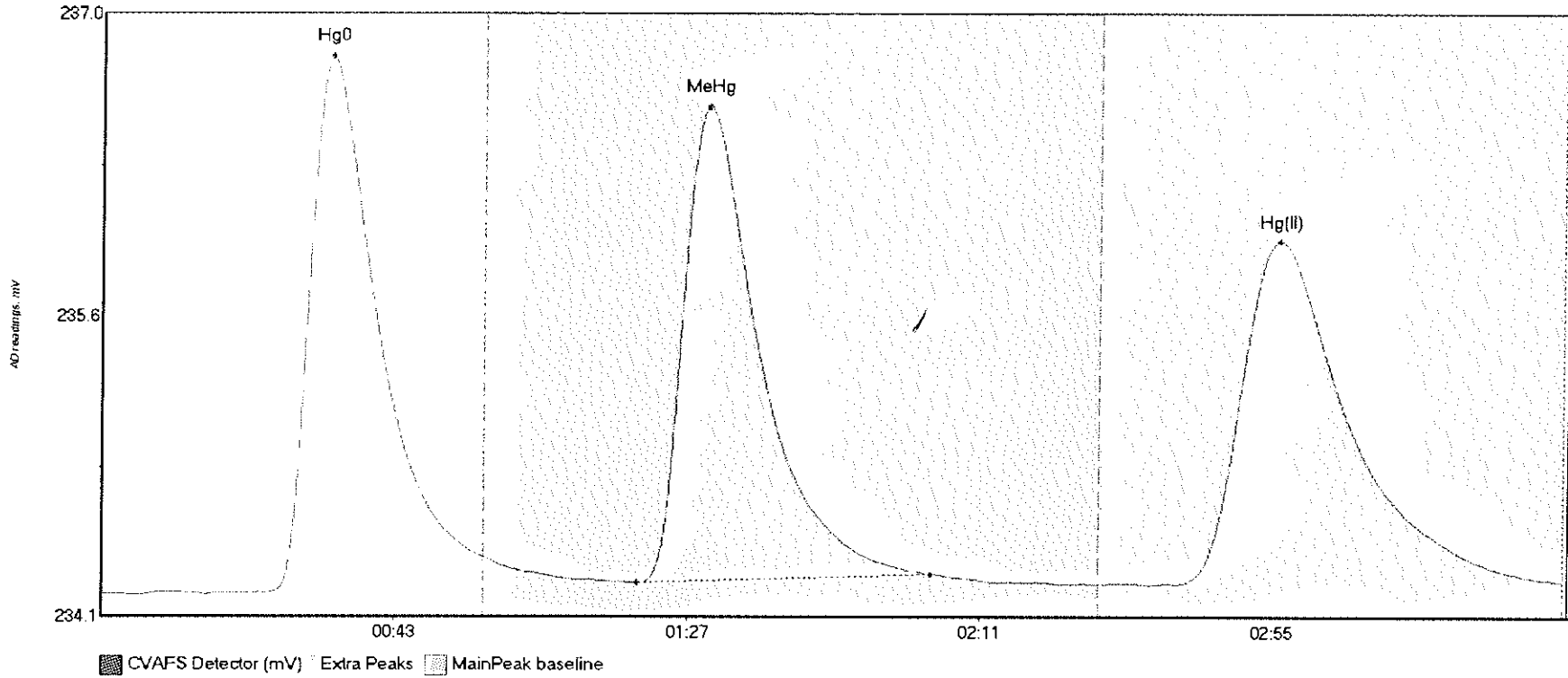
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610610-03 Hg0	96.737	19.2	57.5	234.22	234.30	34.4	0.878	CT	234.2187	0.00	0.06	
1610610-03 MeHg	15.857	81.7	167.0	234.25	234.27	91.5	0.145	OK	234.2187	0.00	0.06	
1610610-03 Hg(I)	281.499	160.8	219.8	234.25	234.28	177.1	1.533	CT	234.2187	0.00	0.06	

#68: 1610610-04



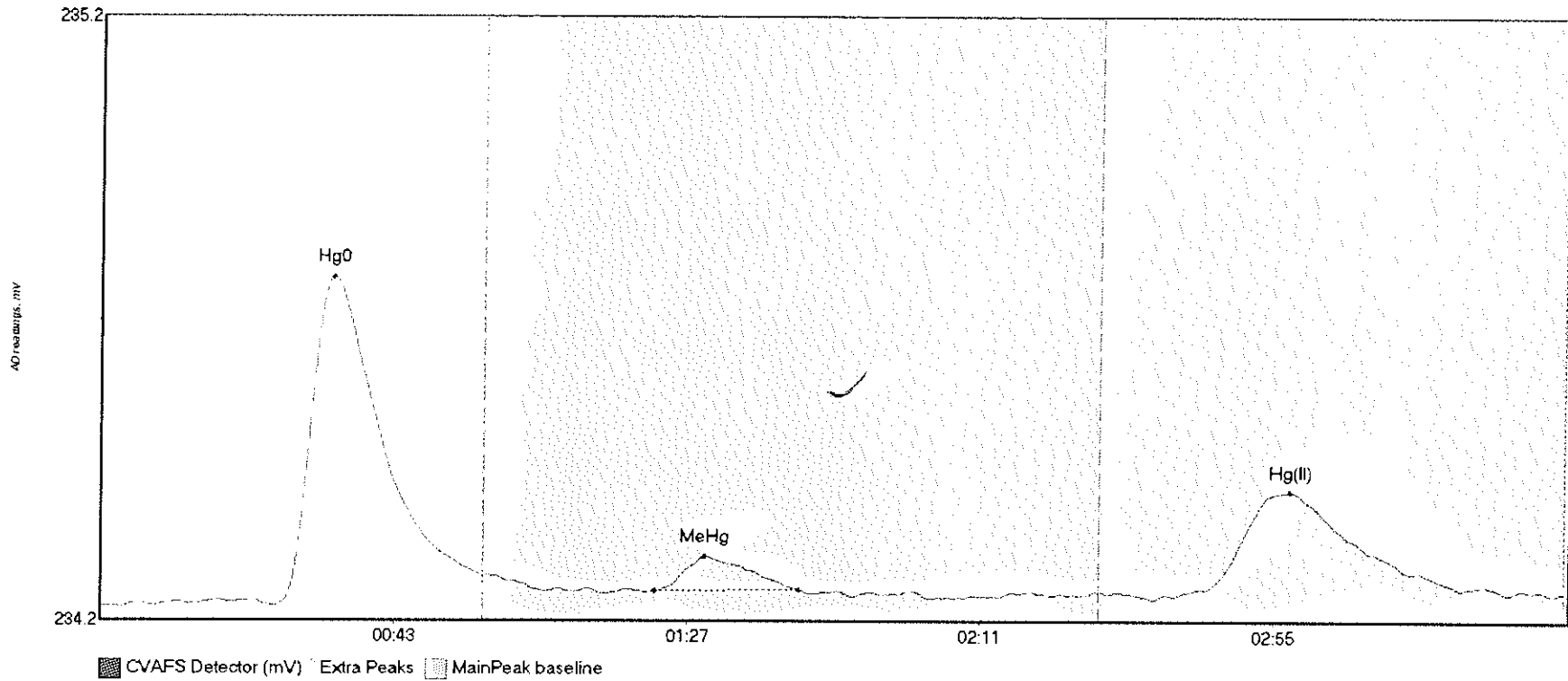
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-04 Hg0	98.932	21.9	57.5	234.24	234.30	34.1	0.887	CT	234.2337	0.00	0.05	
1610610-04 MeHg	7.714	82.0	101.1	234.26	234.30	89.7	0.094	OK	234.2337	0.00	0.05	
1610610-04 Hg(I)	257.883	156.8	219.7	234.26	234.29	176.8	1.403	OK	234.2337	0.00	0.05	

#69: SEQ-CCV5



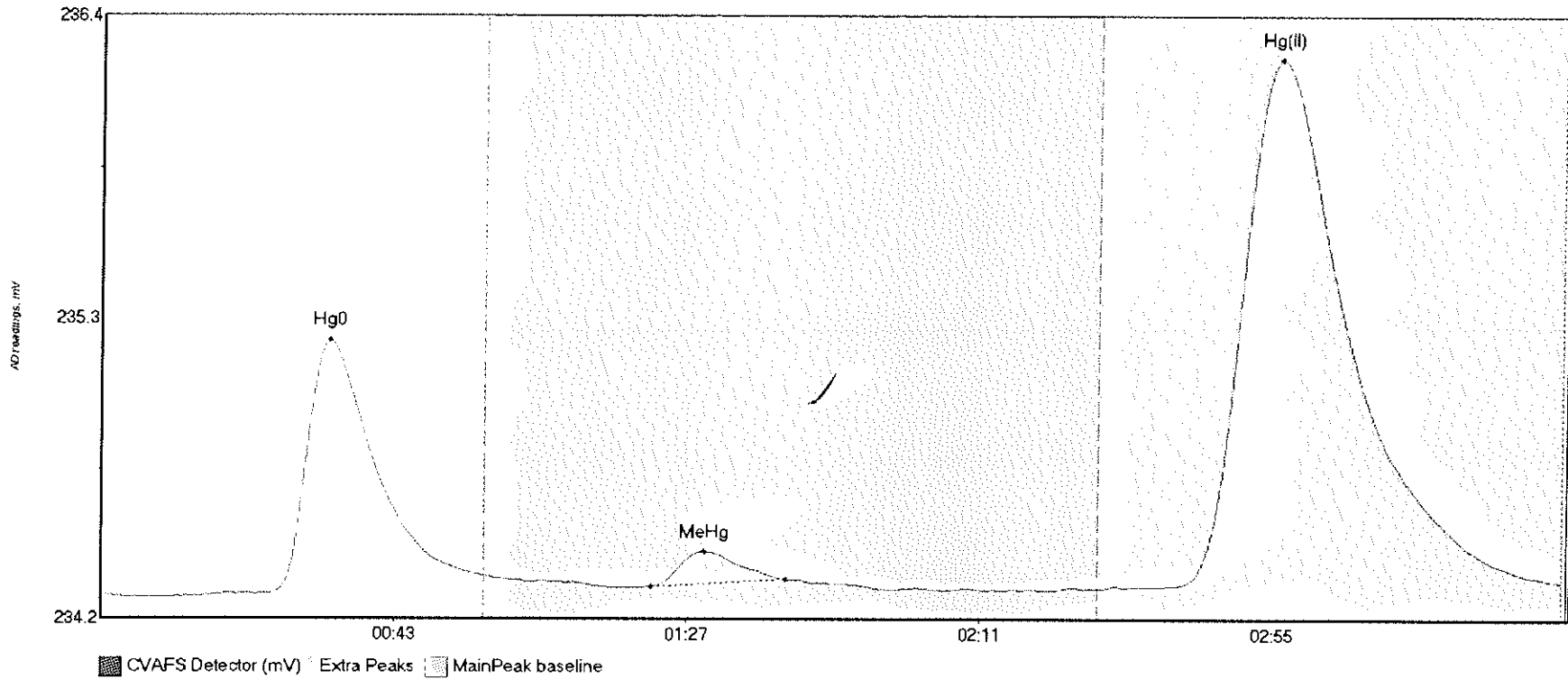
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCV5 Hg0	284.186	22.4	57.5	234.24	234.41	34.4	2.529	CT	234.2388	0.00	0.06	
SEQ-CCV5 MeHg	297.760	80.5	124.8	234.29	234.33	91.0	2.245	OK	234.2388	0.00	0.06	
SEQ-CCV5 Hg(II)	300.109	161.7	219.7	234.29	234.30	177.0	1.620	OK	234.2388	0.00	0.06	

#70: SEQ-CCB5



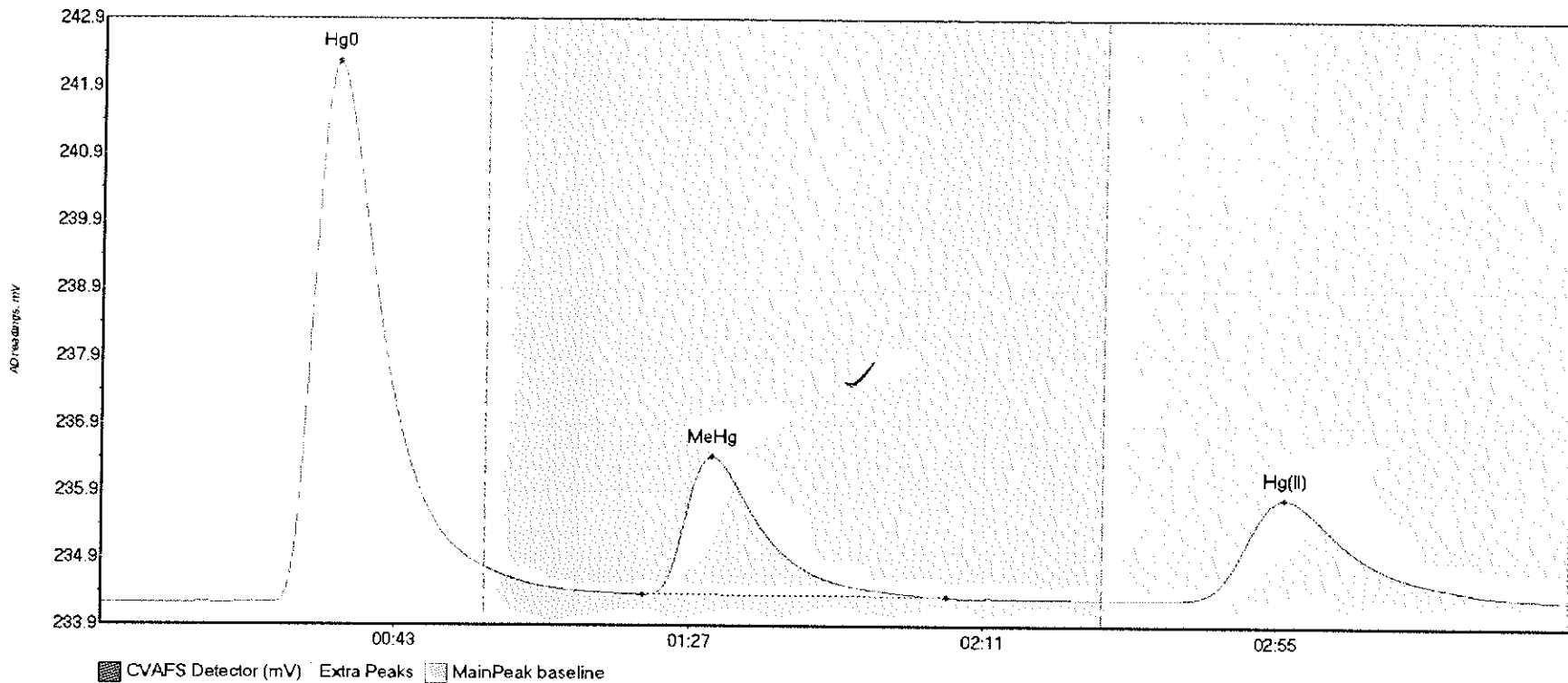
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCB5 Hg0	61.972	26.1	57.4	234.24	234.30	34.7	0.545	OK	234.2436	0.00	0.02	
SEQ-CCB5 MeHg	6.106	83.2	104.7	234.27	234.27	90.6	0.057	OK	234.2436	0.00	0.02	
SEQ-CCB5 Hg(II)	33.693	161.0	211.2	234.26	234.27	178.4	0.173	OK	234.2436	0.00	0.02	

#71: 1610617-01



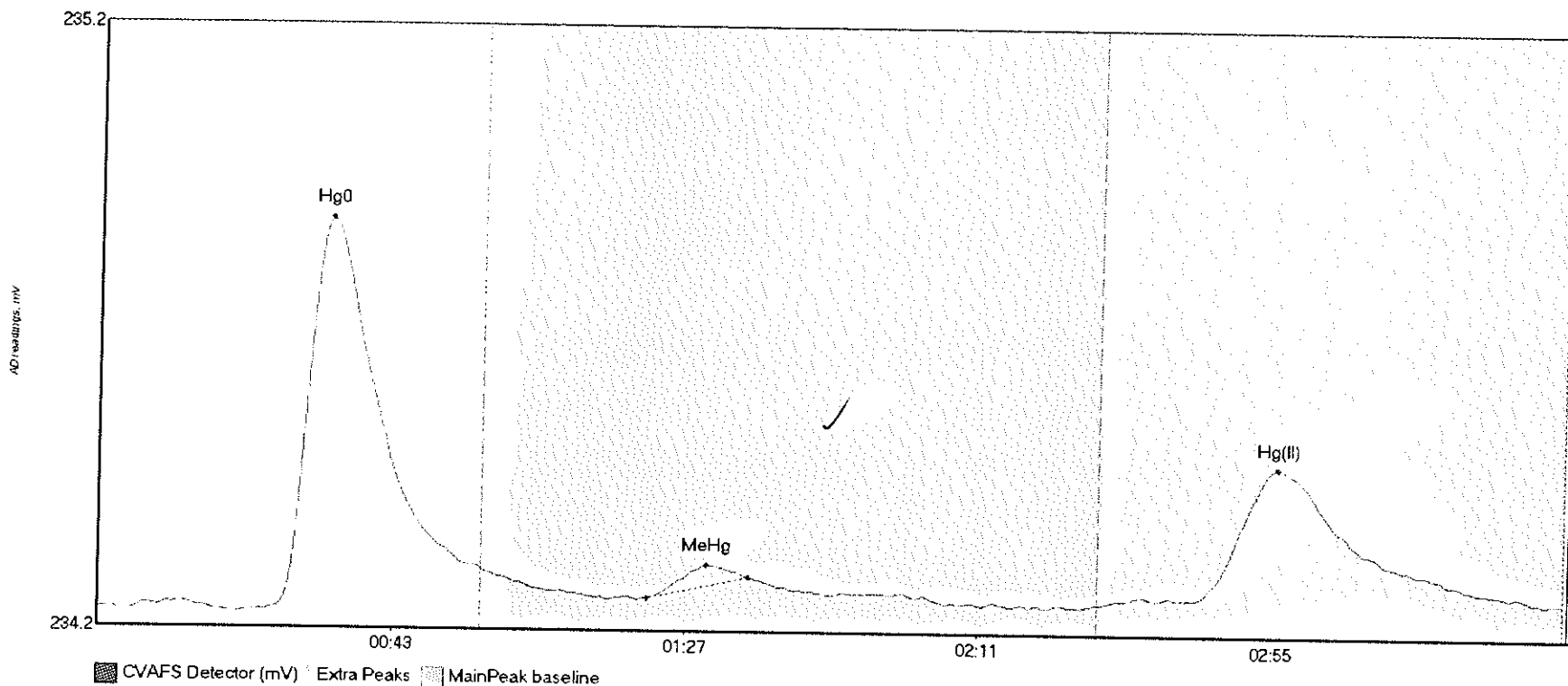
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610617-01 Hg0	103.534	23.5	57.5	234.25	234.32	34.3	0.933	CT	234.2486	0.00	0.05	
1610617-01 MeHg	11.885	82.7	102.9	234.28	234.30	90.7	0.129	OK	234.2486	0.00	0.05	
1610617-01 Hg(I)	357.282	154.0	219.8	234.28	234.30	177.0	1.945	CT	234.2486	0.00	0.05	

#72: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	886.183	12.3	57.5	234.24	234.78	35.2	7.968	CT	234.2449	0.00	0.08	
SEQ-CCV6 MeHg	275.085	81.0	126.6	234.38	234.35	91.3	2.039	OK	234.2449	0.00	0.08	
SEQ-CCV6 Hg(II)	275.829	160.0	219.4	234.31	234.32	177.2	1.496	OK	234.2449	0.00	0.08	

#73: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	72.222	25.0	57.5	234.25	234.32	34.5	0.648	CP	234.2555	0.00	0.03	
SEQ-CCB6 MeHg	2.764	82.3	97.4	234.28	234.31	91.1	0.055	OK	234.2555	0.00	0.03	
SEQ-CCB6 Hg(II)	44.946	150.1	217.2	234.27	234.28	176.7	0.229	OK	234.2555	0.00	0.03	

**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 6J31010
<b>Reviewer:</b> <i>[Signature]</i>	<b>Dataset ID #:</b> MMHG27001-161030-1
<b>Date:</b> 10/31/16	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F610422, F610408	<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:	
	<i>DM</i>		<i>DM</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 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 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	<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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6J31010
<b>Reviewer:</b>	0 <i>[Signature]</i>	<b>Dataset ID #:</b>	MMHG27001-161030-1
<b>Date:</b>	10/31/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422, F610408	<b>Client(s):</b>	VARIOUS

	Analyst Initials:		Reviewer Initials:	
	<i>DM</i>		<i>R</i>	
9. ICV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
10. CCV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
13. LCS/LCSD or BS/BSD RPD (< 25%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<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 type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: <b>F610408-DUP1 FAILED. HIGH RPD</b>				
20. Is there one set of MS/MSD per every 10 samples?	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
21. MS/MSD RPD(< 35%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
22. MS (AS) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
23. MSD (ASD) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
25. Are all samples within instrument calibration range (or at maximum aliquot size)?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: <b>VARIOUS SAMPLES BELOW CAL1</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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6J31010
<b>Reviewer:</b>	0 <i>DM</i>	<b>Dataset ID #:</b>	MMHG27001-161030-1
<b>Date:</b>	10/31/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422, F610408	<b>Client(s):</b>	VARIOUS

**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\IDOCs
38. Date of analyst IDOC/CDOC: 6/21/16 ~~7/9/2015~~ 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: 6/24/2016 LOD within last 3 months (within 12 months for MDN)?  YES  NO  N/A
41. Date of LOQ: 6/24/2016 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: *11/2/16*  YES  NO



Frontier Global Sciences

### MMHg27001-161031-1 solids

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: October 31, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6K01010

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	30.97 units	619.37	28.27 units	565.37	97.8 %Rec
SEQ-CAL2	1	0.20 ng/L	109.73 units	548.63	107.03 units	535.13	92.5 %Rec
SEQ-CAL3	1	1.00 ng/L	626.10 units	626.10	623.40 units	623.40	107.8 %Rec
SEQ-CAL4	1	2.00 ng/L	1139.68 units	569.84	1136.98 units	568.49	98.3 %Rec
SEQ-CAL5	1	4.00 ng/L	2400.16 units	600.04	2397.46 units	599.37	103.6 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

<b>Corr. Mean RF</b> 578.35	<b>Corr. St Dev RF</b> +/- 33.93	<b>Corr. RSD CF</b> 5.9% RSD	<b>Uncorr. Mean RF</b> 592.80
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#### Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	2.70 units		0.00 ng/L	#VALUE!

QUALITY ASSURANCE

PEER-REVIEWED

INITIALS: BC 11-2-16

#### Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.568 ng/L	±2.109
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 Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2700-1	DM2	CAL	SEQ-IBL1	1	10/31/16 11:05	17457-1.RAW	11:05:27	2.70			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/31/16 11:15	17458-1.RAW	11:15:57	30.97			28.3	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/31/16 11:26	17459-1.RAW	11:26:28	109.73			107.0	0.185	0.185	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/31/16 11:36	17460-1.RAW	11:36:59	626.10			623.4	1.078	1.078	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/31/16 11:47	17461-1.RAW	11:47:29	1139.68			1137.0	1.966	1.966	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/31/16 11:58	17462-1.RAW	11:58:00	2400.16			2397.5	4.145	4.145	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	10/31/16 12:08	17463-1.RAW	12:08:31	300.40			297.7	0.515	0.515	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	10/31/16 12:19	17464-1.RAW	12:19:02	6.17			3.5	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK7	500	10/31/16 13:02	17465-1.RAW	13:02:45	6.16	1		3.5	0.006	2.993	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK8	500	10/31/16 13:13	17466-1.RAW	13:13:16	2.17	1		-0.5	-0.001	-0.459	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK9	500	10/31/16 13:23	17467-1.RAW	13:23:47	1.74	1		-1.0	-0.002	-0.831	ng/L	
Hg2700-1	DM2	SAM	1610231-01RE1	500	10/31/16 13:34	17468-1.RAW	13:34:18	49.17	1		46.5	0.079	39.607	ng/L	
Hg2700-1	DM2	SAM	1610231-02RE1	500	10/31/16 13:44	17469-1.RAW	13:44:48	28.51	1		25.8	0.043	21.746	ng/L	
Hg2700-1	DM2	SAM	1610231-03RE1	500	10/31/16 13:55	17470-1.RAW	13:55:19	5.66	1		3.0	0.004	1.993	ng/L	
Hg2700-1	DM2	SAM	1610231-04RE1	500	10/31/16 14:05	17471-1.RAW	14:05:50	24.08	1		21.4	0.036	17.913	ng/L	
Hg2700-1	DM2	SAM	1610231-05RE1	500	10/31/16 14:16	17472-1.RAW	14:16:20	75.02	1		72.3	0.124	61.951	ng/L	
Hg2700-1	DM2	SAM	1610235-01RE1	500	10/31/16 14:26	17473-1.RAW	14:26:51	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-02RE1	500	10/31/16 14:37	17474-1.RAW	14:37:22	1.99	1		-0.7	-0.002	-1.179	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/31/16 14:47	17475-1.RAW	14:47:52	211.54			208.8	0.361	0.361	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/31/16 14:58	17476-1.RAW	14:58:23	0.00			-2.7	-0.005	-0.005	ng/L	
Hg2700-1	DM2	SAM	1610235-03RE1	500	10/31/16 15:08	17477-1.RAW	15:08:54	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-04RE1	500	10/31/16 15:19	17478-1.RAW	15:19:24	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-05RE1	500	10/31/16 15:29	17479-1.RAW	15:29:55	9.42	1		6.7	0.010	5.245	ng/L	
Hg2700-1	DM2	SAM	1610610-01RE1	500	10/31/16 15:40	17480-1.RAW	15:40:26	52.26	1		49.6	0.085	42.275	ng/L	
Hg2700-1	DM2	SAM	1610610-02RE1	500	10/31/16 15:50	17481-1.RAW	15:50:56	66.85	1		64.1	0.110	54.891	ng/L	
Hg2700-1	DM2	SAM	1610610-03RE1	500	10/31/16 16:01	17482-1.RAW	16:01:27	16.92	1		14.2	0.023	11.728	ng/L	
Hg2700-1	DM2	SAM	1610610-04RE1	500	10/31/16 16:11	17483-1.RAW	16:11:58	9.82	1		7.1	0.011	5.587	ng/L	
Hg2700-1	DM2	SAM	1610617-01RE1	500	10/31/16 16:22	17484-1.RAW	16:22:28	18.03	1		15.3	0.025	12.684	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/31/16 16:32	17485-1.RAW	16:32:59	281.97			279.3	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/31/16 16:43	17486-1.RAW	16:43:30	0.00			-2.7	-0.005	-0.005	ng/L	

MethylMercury EPA1630 Operat DM BlankS 2.7002 Calib Eqn: Conc = (Area-2.700) / 578 Run Date: ##### Blank SD: 0  
 Worksl MMHG2 CalibFa 578.35 Status: OK, 1 Warning Run Time: 12:52:12 Blank RSD: 0  
 Methor 2010-01 R: 0.9995 R²: 0.999089146 CalibAnah MerHg CF SD: 33.92965483  
 Descrpt MMHG27001-161031-1 CF RSD%: 5.86064477

Sample/ID	Location	Rinse	Dilute	Blank	ConcHg0(p)	ConcMerHg(ppb)	ConcHg2(p)	ConcPPhg(p)	Rec%	QA	RawData	RunEnd	PeakHg0 (Raw)	PeakMerHg (R)	PeakHg2(Raw)	PeakPPhg(Raw)	Control (eff)	Flags	RunCount		
Clean											17455-1.RAW		0.594412879	0	0	0	0	cleandry	OK	1	
WS											17456-1.RAW		42.59749053	3.010256866	63.79507576	0	0	psample10	CT	1	
SEQ-1BL1	A1		2.7002	0.0688848	0.00	0.1058366					17457-1.RAW		66.16378344	2.700213068	30.36472538	0	0	psample10	CT	1	
SEQ-CAL1	A2		1	0	0.1144011	0.00	0.0325024				17458-1.RAW		11.15:57	78.16588542	30.96870265	38.30151515	0	0	psample10	CT	1
SEQ-CAL2	A4		1	2.7002	0.1429473	0.05	0.0615568	97.76			17459-1.RAW		85.37369792	109.7254274	45.74114583	0	0	psample10	CT	1	
SEQ-CAL3	A5		1	2.7002	0.261864	0.08	0.0744203	92.53			17460-1.RAW		154.1490664	626.096804	120.0716856	0	0	psample10	CT	1	
SEQ-CAL4	A6		1	2.7002	0.4675858	1.97	0.3468556	107.79			17461-1.RAW		284.6931132	1139.675563	203.3038589	0	0	psample10	CT	1	
SEQ-CAL5	A7		1	2.7002	0.7566185	4.15	0.6852536	103.63			17462-1.RAW		440.289925	2400.162288	399.0161222	0	0	psample10	CT	1	
SEQ-ICV1	A8		1	2.7002	0.7778349	0.51	0.4127026	103.08			17463-1.RAW		452.5604545	300.4030703	241.3364347	0	0	psample10	CT	1	
SEQ-ICB1	A9		1	2.7002	0.1218712	0.01	0.0584896	0.00			17464-1.RAW	12:19:02	73.18433676	6.174857955	36.52765152	0	0	psample10	CT	1	
F610422-BLK7	A10		500	2.7002	35.222857	2.993454039	39.931912				17465-1.RAW		43.44243695	6.162736742	48.88939394	0	0	psample10	CT	1	
F610422-BLK8	A11		500	2.7002	53.415166	-0.459159583	79.808767				17466-1.RAW		84.48545511	2.160103866	95.0148911	0	0	psample10	OK	1	
F610422-BLK9	A12		500	2.7002	47.926416	-0.831124125	41.474864				17467-1.RAW		58.13662405	1.738853074	50.67412405	0	0	psample10	CT	1	
1610231-01RE1	A13		500	2.7002	231.81444	40.17465142	770.25125				17468-1.RAW		270.839622	49.17017045	893.6486496	0	0	psample10	CT	1	
1610231-02RE1	A14		500	2.7002	149.76099	22.31392935	436.96329				17469-1.RAW		175.9285245	28.51070076	508.1349733	0	0	psample10	CT	1	
1610231-03RE1	A15		500	2.7002	95.781299	2.56086179	201.83499				17470-1.RAW		113.4902936	5.662357955	236.1624384	0	0	psample10	CT	1	
1610231-04RE1	A16		500	2.7002	113.52238	18.48036298	347.45474				17471-1.RAW		134.011377	24.07642045	404.6005794	0	0	psample10	CT	1	
1610231-05RE1	A17		500	2.7002	138.39877	62.51870831	346.58008				17472-1.RAW		162.7858625	75.01550663	403.5888609	0	0	psample10	CT	1	
1610235-01RE1	A18		500								17473-1.RAW		138.5206194	0	69.56671402	0	0	psample10	CT	1	
1610235-02RE1	A19		500	2.7002	77.503218	-0.611605359	67.646142				17474-1.RAW		92.34805555	1.992770092	80.94640152	0	0	psample10	CT	1	
SEQ-CCV1	A20		1	2.7002	0.9637073	0.361104374	0.4872387	72.31			17475-1.RAW		560.0595894	211.8446496	284.4943668	0	0	psample10	CT	1	
SEQ-CCB1	A21		1								17476-1.RAW		66.48123753	0	62.93475379	0	0	psample10	DK	1	
1610235-03RE1	B1		500								17477-1.RAW		75.36769493	0	70.55852273	0	0	psample10	CT	1	
1610235-04RE1	B2		500								17478-1.RAW		68.21243242	0	73.38402892	0	0	psample10	CT	1	
1610235-05RE1	B3		500	2.7002	77.223181	5.812405735	58.276218				17479-1.RAW		92.02414773	9.423413826	70.10822518	0	0	psample10	CT	1	
1610610-01RE1	B4		500	2.7002	109.0239	42.84226351	353.827				17480-1.RAW		32.8079885	52.25579325	411.0713586	0	0	psample10	CT	1	
1610610-02RE1	B5		500	2.7002	111.1226	55.45893625	375.61977				17481-1.RAW		131.2355587	66.84947917	437.1790246	0	0	psample10	CT	1	
1610610-03RE1	B6		500	2.7002	109.37814	12.29586708	415.35191				17482-1.RAW		129.2177379	16.92282357	483.1371272	0	0	psample10	CT	1	
1610610-04RE1	B7		500	2.7002	105.69195	6.15447208	363.19725				17483-1.RAW		124.953923	9.819061439	422.8099142	0	0	psample10	CT	1	
1610617-01RE1	B8		500	2.7002	115.57415	13.25208777	434.515				17484-1.RAW		136.3896565	18.02888258	505.3030483	0	0	psample10	CT	1	
SEQ-CCV2	B9		1	2.7002	0.6538544	0.462879993	0.4112808	96.70			17485-1.RAW		380.8564067	281.9734848	240.5641188	0	0	psample10	CT	1	
SEQ-CCB2	B10		1								17486-1.RAW	15:43:30	81.32159091	0	36.87220644	0	0	psample10	CT	1	

Sample/ID	Location	Rinse	Dilute	Blank	ConcHqD(ppb)	ConcMeHg(ppb)	ConcHq2(ppb)	ConcPrHg(%)	Rec%	QA	RawData	RunEnd	PeakHqQ (Raw)	PeakMeHg (R)	PeakHq2(Raw)	PeakPrHg(Raw)	Control (elf)	Flags	RunCount	
Clean											17455-1.RAW	10:44:25	0.59412879	0	0	0	0	cleandry	OK	1
WS	A1		2.7002	0.0689066	0.00	0.105517					17456-1.RAW	10:54:56	42.59749053	3.010256896	63.79507576	0	0	psample10	CT	1
SEQ-1BL1	A2	1	0	0.1142715	0.00	0.0524428					17457-1.RAW	11:05:27	66.16378344	2.700213069	30.26472538	0	0	psample10	CT	1
SEQ-CAL1	A3	1	2.7002	0.1303368	0.05	0.061487		57.65			17458-1.RAW	11:15:57	78.16588542	30.96670265	38.30151515	0	0	psample10	CT	1
SEQ-CAL2	A4	1	2.7002	0.1427854	0.18	0.074336			92.42		17459-1.RAW	11:26:28	85.37369792	109.7254274	45.74114583	0	0	psample10	CT	1
SEQ-CAL3	A5	1	2.7002	0.2615674	1.08	0.202636			107.57		17460-1.RAW	11:36:59	154.1490664	626.096604	120.0274858	0	0	psample10	CT	1
SEQ-CAL4	A6	1	2.7002	0.4870336	1.97	0.3464627			88.75		17461-1.RAW	11:47:29	254.6951132	1146.234659	203.3038589	0	0	psample10	CT	1
SEQ-CAL5	A7	1	2.7002	0.7562457	4.14	0.5845085			103.52		17462-1.RAW	11:58:00	440.5702968	2400.162288	399.0340672	0	0	psample10	CT	1
SEQ-1CV1	A8	1	2.7002	0.7770365	0.51	0.4122351			103.10		17463-1.RAW	12:08:31	452.6082821	300.8176136	241.3864347	0	0	psample10	CT	1
SEQ-1CB1	A9	1	2.7002	0.1217332	0.01	0.0584234			0.00		17464-1.RAW	12:19:02	73.18433676	61.74857955	36.52765152	0	0	psample10	CT	1
F610422-BLK7	A10	500	2.7002	35.182961	2.990053505	39.878465					17465-1.RAW	13:02:45	43.44243695	6.162736742	48.87987689	0	0	psample10	CT	1
F610422-BLK8	A11	500	2.7002	53.354667	-0.458639515	79.718372					17466-1.RAW	13:13:16	64.48545511	2.169103886	95.0148911	0	0	psample10	OK	1
F610422-BLK9	A12	500	2.7002	47.572132	-0.819268855	41.427887					17467-1.RAW	13:23:47	58.13662405	1.751491477	50.67412405	0	0	psample10	CT	1
1610231-01RE1	A13	500	2.7002	231.55188	-40.10830355	769.37883					17468-1.RAW	13:34:18	270.839622	49.1460328	893.6486496	0	0	psample10	CT	1
1610231-02RE1	A14	500	2.7002	149.59137	22.28865549	436.46836					17469-1.RAW	13:44:48	175.9285245	28.51070076	508.1349733	0	0	psample10	CT	1
1610231-03RE1	A15	500	2.7002	95.672812	2.557961232	201.60638					17470-1.RAW	13:55:19	113.4902936	5.662357955	236.1624384	0	0	psample10	CT	1
1610231-04RE1	A16	500	2.7002	113.3938	18.45943121	346.34776					17471-1.RAW	14:05:50	134.011377	24.07642045	403.7744052	0	0	psample10	CT	1
1610231-05RE1	A17	500	2.7002	138.24202	62.96792802	346.18753					17472-1.RAW	14:16:20	162.7858625	75.61770833	403.5888609	0	0	psample10	CT	1
1610235-01RE1	A18	500									17473-1.RAW	14:26:51	138.5206194	0	69.56671402	0	0	psample10	CT	1
1610235-02RE1	A19	500	2.7002	77.415434	-0.610912624	67.569523					17474-1.RAW	14:37:22	92.34806555	1.992770092	80.94640152	0	0	psample10	CT	1
SEQ-CCV1	A20	1	2.7002	0.9626188	0.36069537	0.4869006			72.23		17475-1.RAW	14:47:52	560.0595894	211.5446496	284.6180884	0	0	psample10	CT	1
SEQ-CCB1	A21	1									17476-1.RAW	14:58:23	66.48123753	0	52.93475379	0	0	psample10	OK	1
1610235-03RE1	B1	500									17477-1.RAW	15:08:54	75.36769493	0	70.55852273	0	0	psample10	CT	1
1610235-04RE1	B2	500									17478-1.RAW	15:19:24	68.21243242	0	73.37765379	0	0	psample10	CT	1
1610235-05RE1	B3	500	2.7002	77.135714	5.805622318	58.210212					17479-1.RAW	15:29:55	92.02414773	9.423413826	70.10822518	0	0	psample10	CT	1
1610610-01RE1	B4	500	2.7002	108.90041	42.80514965	353.42351					17480-1.RAW	15:40:26	128.8079885	52.26900777	411.9681997	0	0	psample10	CT	1
1610610-02RE1	B5	500	2.7002	110.99674	55.27292578	375.19433					17481-1.RAW	15:50:56	121.2355587	66.70681818	437.1790246	0	0	psample10	CT	1
1610610-03RE1	B6	500	2.7002	109.25425	62.28194018	414.88146					17482-1.RAW	16:01:27	129.2177379	16.92282357	483.1371272	0	0	psample10	CT	1
1610610-04RE1	B7	500	2.7002	105.57223	61.47501221	362.78588					17483-1.RAW	16:11:58	124.953923	9.819081439	422.8099142	0	0	psample10	CT	1
1610617-01RE1	B8	500	2.7002	115.44325	13.23707781	434.02285					17484-1.RAW	16:22:28	136.3846565	18.02888256	505.3030463	0	0	psample10	CT	1
SEQ-CCV2	B9	1	2.7002	0.6531138	0.482336126	0.4108149			96.59		17485-1.RAW	16:32:59	380.8564067	281.9752604	240.564188	0	0	psample10	CT	1
SEQ-CCB2	B10	1									17486-1.RAW	16:43:30	61.32159091	0	36.82779356	0	0	psample10	CT	1



## ANALYSIS SEQUENCE

6K01010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K01010-IBL1	QC	1			
6K01010-CAL1	QC	2	1606090		
6K01010-CAL2	QC	3	1606091		
6K01010-CAL3	QC	4	1606092		
6K01010-CAL4	QC	5	1606093		
6K01010-CAL5	QC	6	1606094		
6K01010-ICV1	QC	7	1605079		
6K01010-ICB1	QC	8			
F610422-BLK7	QC	9			
F610422-BLK8	QC	10			
F610422-BLK9	QC	11			
1610231-01RE1	MHg-CVAFS-T-KOH	12			Added 10/31/2016 by DM2
1610231-02RE1	MHg-CVAFS-T-KOH	13			Added 10/31/2016 by DM2
1610231-03RE1	MHg-CVAFS-T-KOH	14			Added 10/31/2016 by DM2
1610231-04RE1	MHg-CVAFS-T-KOH	15			Added 10/31/2016 by DM2
1610231-05RE1	MHg-CVAFS-T-KOH	16			Added 10/31/2016 by DM2
1610235-01RE1	MHg-CVAFS-T-KOH	17			Added 10/31/2016 by DM2
1610235-02RE1	MHg-CVAFS-T-KOH	18			Added 10/31/2016 by DM2
6K01010-CCV1	QC	19	1605079		
6K01010-CCB1	QC	20			
1610235-03RE1	MHg-CVAFS-T-KOH	21			Added 10/31/2016 by DM2
1610235-04RE1	MHg-CVAFS-T-KOH	22			Added 10/31/2016 by DM2
1610235-05RE1	MHg-CVAFS-T-KOH	23			Added 10/31/2016 by DM2
1610610-01RE1	MHg-CVAFS-T-KOH	24			Added 10/31/2016 by DM2
1610610-02RE1	MHg-CVAFS-T-KOH	25			Added 10/31/2016 by DM2
1610610-03RE1	MHg-CVAFS-T-KOH	26			Added 10/31/2016 by DM2
1610610-04RE1	MHg-CVAFS-T-KOH	27			Added 10/31/2016 by DM2
1610617-01RE1	MHg-CVAFS-T-KOH	28			Added 10/31/2016 by DM2
6K01010-CCV2	QC	29	1605079		
6K01010-CCB2	QC	30			

Dan Moran  
Samples Loaded By

10/31/16  
Date

Dan Moran  
Data Processed By

11/1/16  
Date

Due Date: 11/2/2016



**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BLK7	Blank	0.5	20					
F610422-BLK8	Blank	0.5	20					
F610422-BLK9	Blank	0.5	20					
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

**Standard ID(s):**  
 1506872  
 1605470

**Description:**  
 MHg New Primary 100 ng/mL spike  
 DORM-4

**Expiration:**  
 03-Nov-16 00:00  
 19-Mar-17 00:00  
 19-Mar-17 00:00

**Reagent ID(s):**  
 1603399  
 1605678  
 1605926  
 1605961  
 1606119

**Description:**  
 Boiling Chips for AFS prep  
 Ethylating Agent (For Methyl Mercury Analysis)  
 25% KOH/Methanol  
 Acetate Buffer  
 Methanol, HPLC Grade

**Expiration:**  
 01-Jun-17 00:00  
 28-Mar-17 00:00  
 09-Apr-17 00:00  
 11-Apr-17 00:00  
 17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-01RE1	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-02RE1	ES-13_072716_POL_WB_02	0.2871	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-03RE1	ES-13_072716_POL_WB_03	0.2928	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-04RE1	ES-13_072716_POL_WB_04	0.3144	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610231-05RE1	ES-13_072716_POL_WB_05	0.3021	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		

Page 127 of 221

Date: 11/2/2016



**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BLK7	Blank	0.5	20					500X
F610422-BLK8	Blank	0.5	20					500X
F610422-BLK9	Blank	0.5	20					500X
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

Standard ID(s):  
1506872  
1605470

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
03-Nov-16 00:00  
19-Mar-17 00:00  
19-Mar-17 00:00

Reagent ID(s):  
1603399  
1605678  
1605926  
1605961  
1606119

Description:  
Boiling Chips for AFS prep  
Ethylating Agent (For Methyl Mercury Analysis)  
25% KOH/Methanol  
Acetate Buffer  
Methanol, HPLC Grade

Expiration:  
01-Jun-17 00:00  
28-Mar-17 00:00  
09-Apr-17 00:00  
11-Apr-17 00:00  
17-Oct-19 00:00

PREPARATION BENCH SHEET

2700-1  
10/31/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion Prepared: 10/20/2016

1610235-05RE1	FRB-01_092816_POL_WB_05	0.282	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-			
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-			
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-			
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-			
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-			
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD		
1610610-01RE1	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-			
1610610-02RE1	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-			
1610610-03RE1	NMC-5242-02 8644930	0.2674	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-			
1610610-04RE1	NMC-5242-03 8644931	0.2801	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-			
1610617-01RE1	GBPE-0022-01 8644933	0.3122	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x

PREPARATION BENCH SHEET

F610422

Eurofins Frontier Global Sciences, Inc.

10/31/16 DM  
2700-1

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-01RE1	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-02RE1	ES-13_072716_POL_WB_02	0.2871	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-03RE1	ES-13_072716_POL_WB_03	0.2928	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-04RE1	ES-13_072716_POL_WB_04	0.3144	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610231-05RE1	ES-13_072716_POL_WB_05	0.3021	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		

Page 132 of 221

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610422

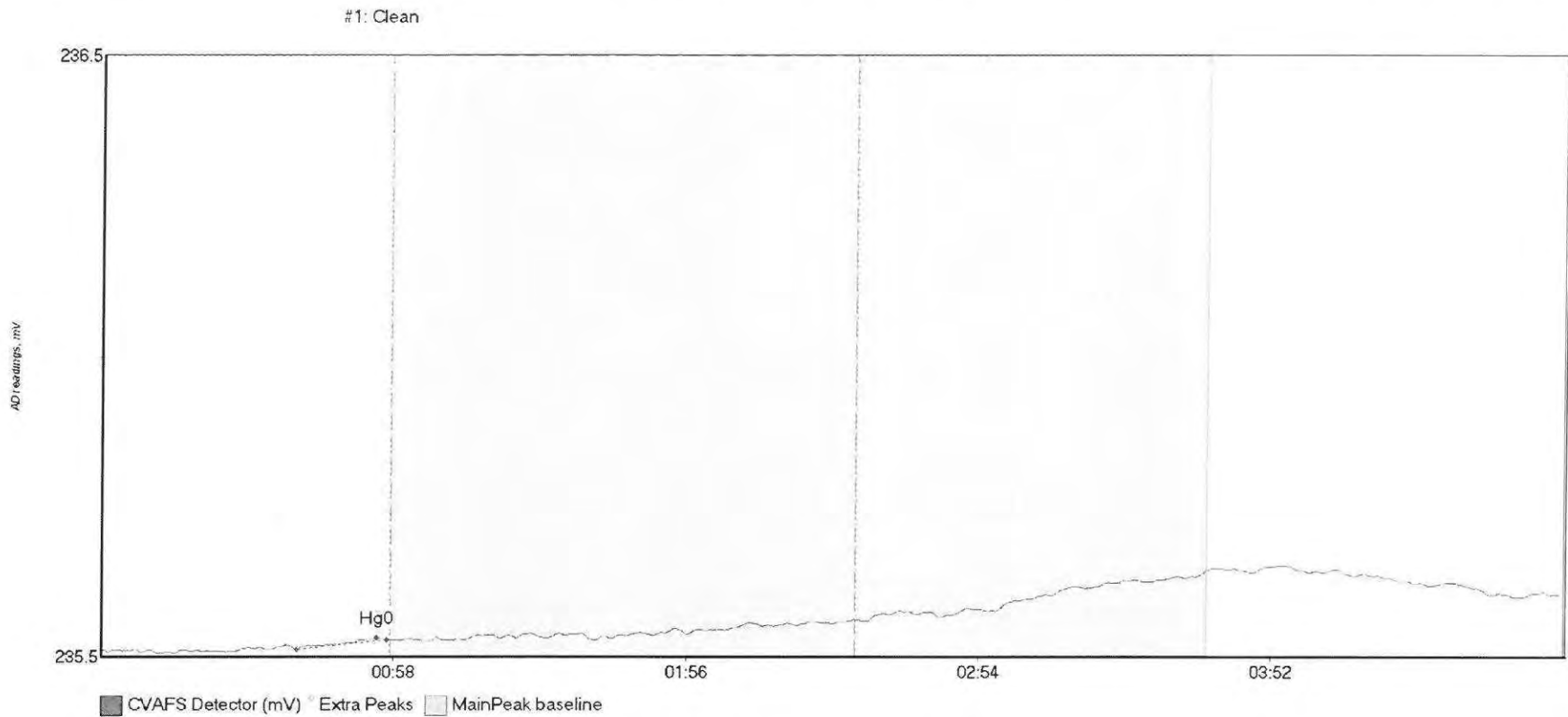
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

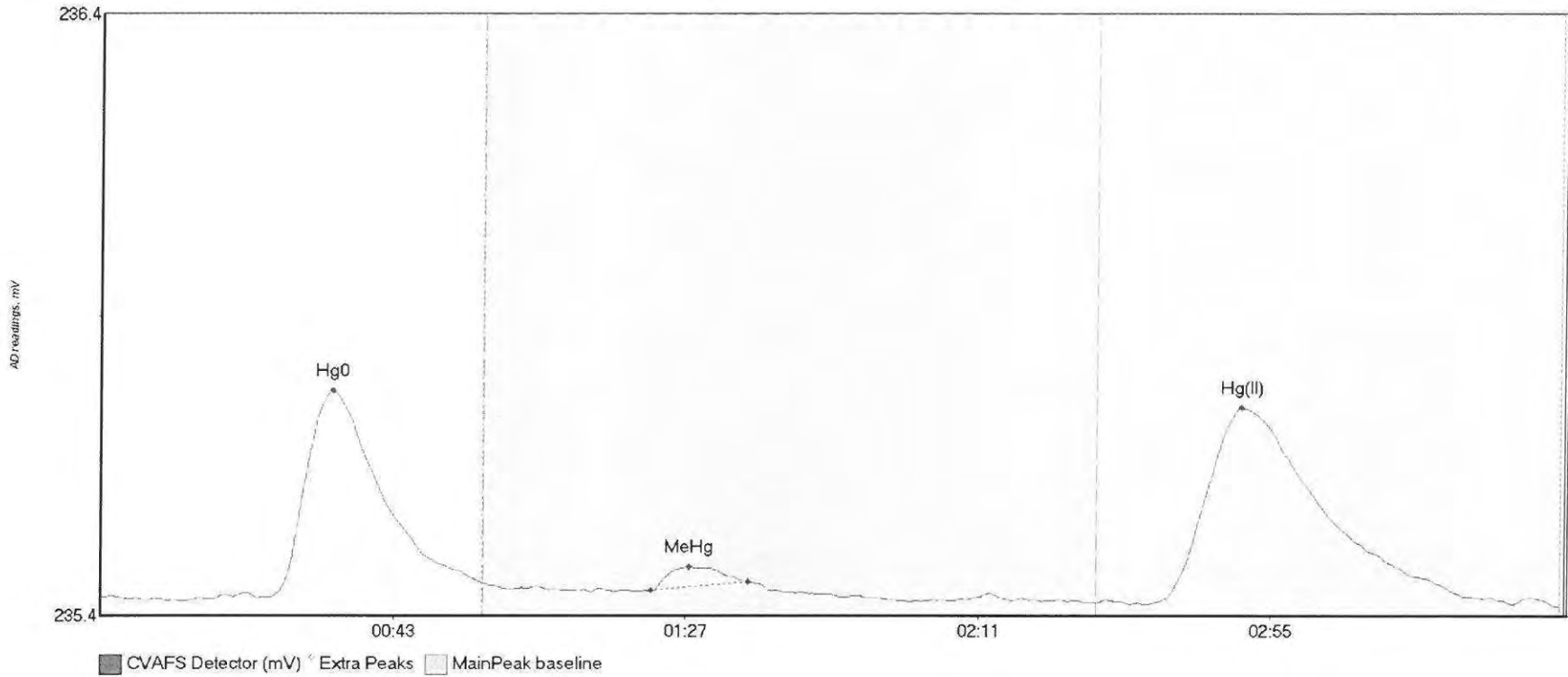




All Peaks verified  
BC 11-2-16

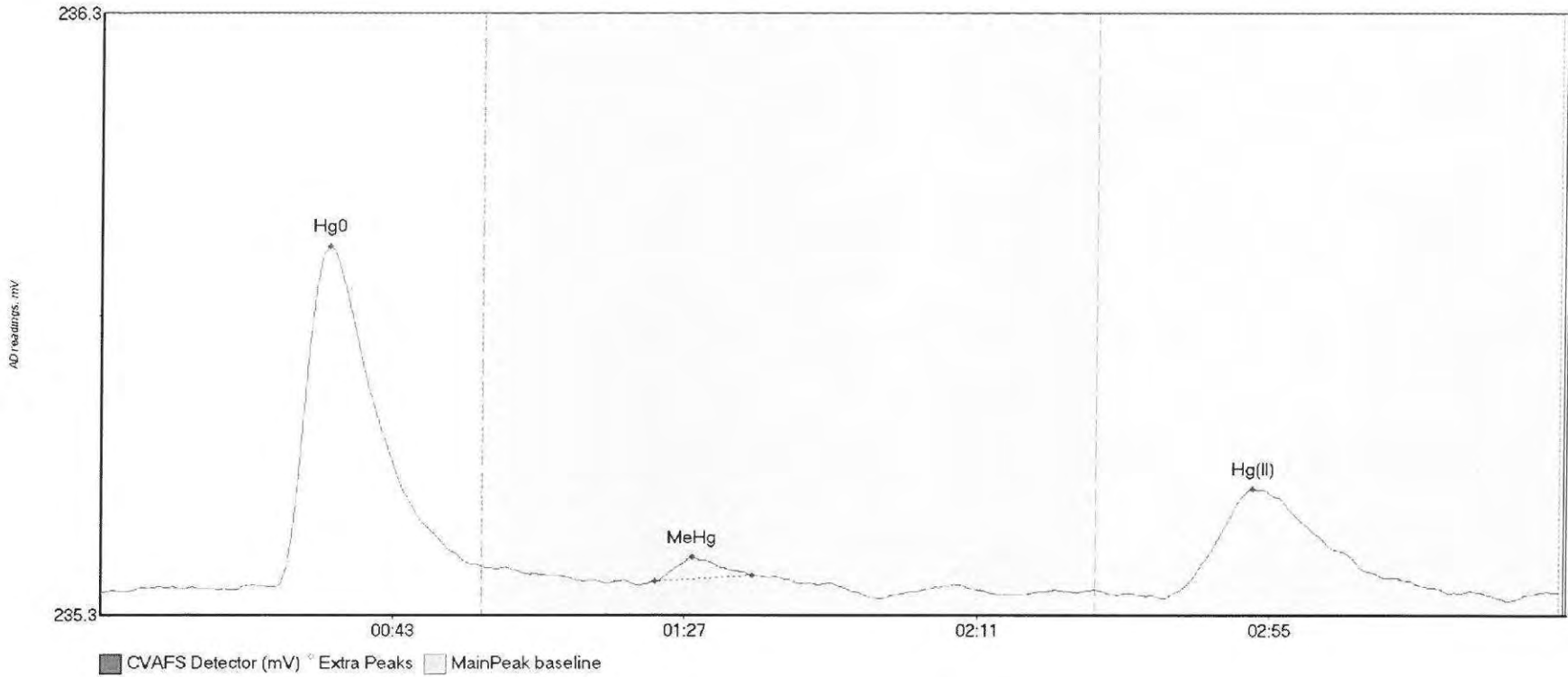
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean	0.594	39.0	56.9	235.54	235.56	55.0	0.019	OK	235.5403	0.00	0.09	016

#2: WS



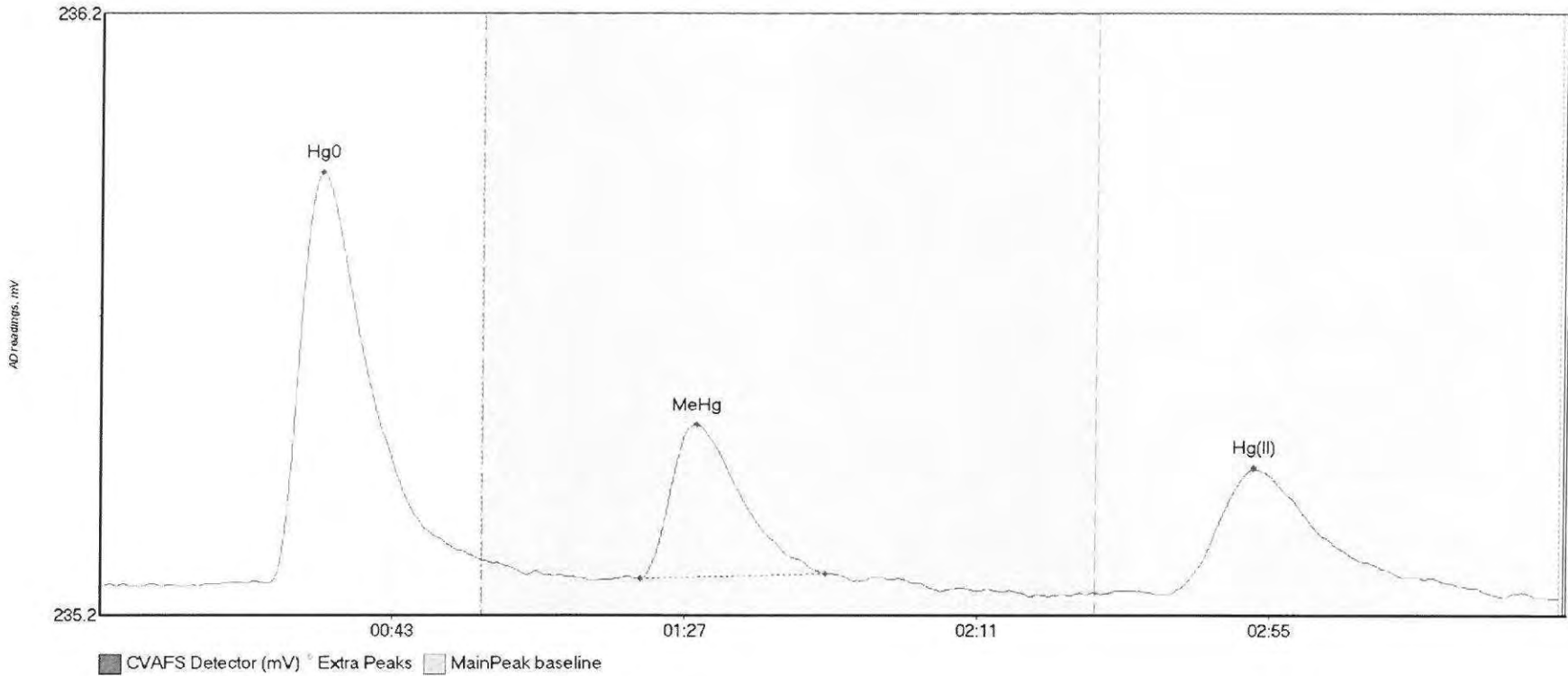
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	42.597	25.3	57.5	235.46	235.48	34.8	0.344	CT	235.4589	0.00	-0.02	
WS MeHg	3.010	82.9	97.4	235.47	235.48	88.6	0.039	OK	235.4589	0.00	-0.02	
WS Hg(II)	63.795	158.9	210.9	235.45	235.45	171.6	0.326	OK	235.4589	0.00	-0.02	

#3: SEQ-IBL1



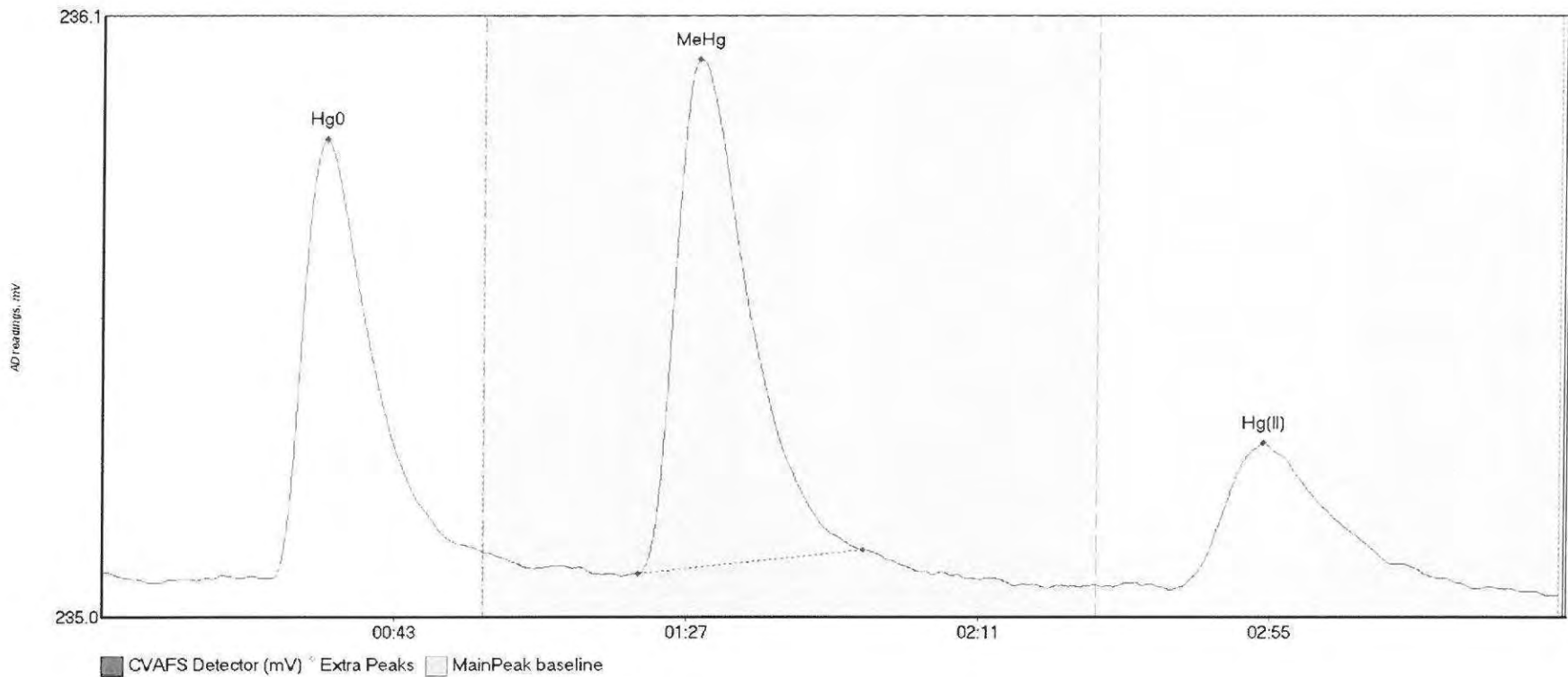
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	66.164	20.7	57.5	235.36	235.40	34.4	0.570	CT	235.3579	0.00	0.00	
SEQ-IBL1 MeHg	2.700	83.6	98.2	235.38	235.39	89.2	0.040	OK	235.3579	0.00	0.00	
SEQ-IBL1 Hg(II)	30.365	160.3	200.2	235.35	235.37	173.4	0.182	OK	235.3579	0.00	0.00	

#4: SEQ-CAL1



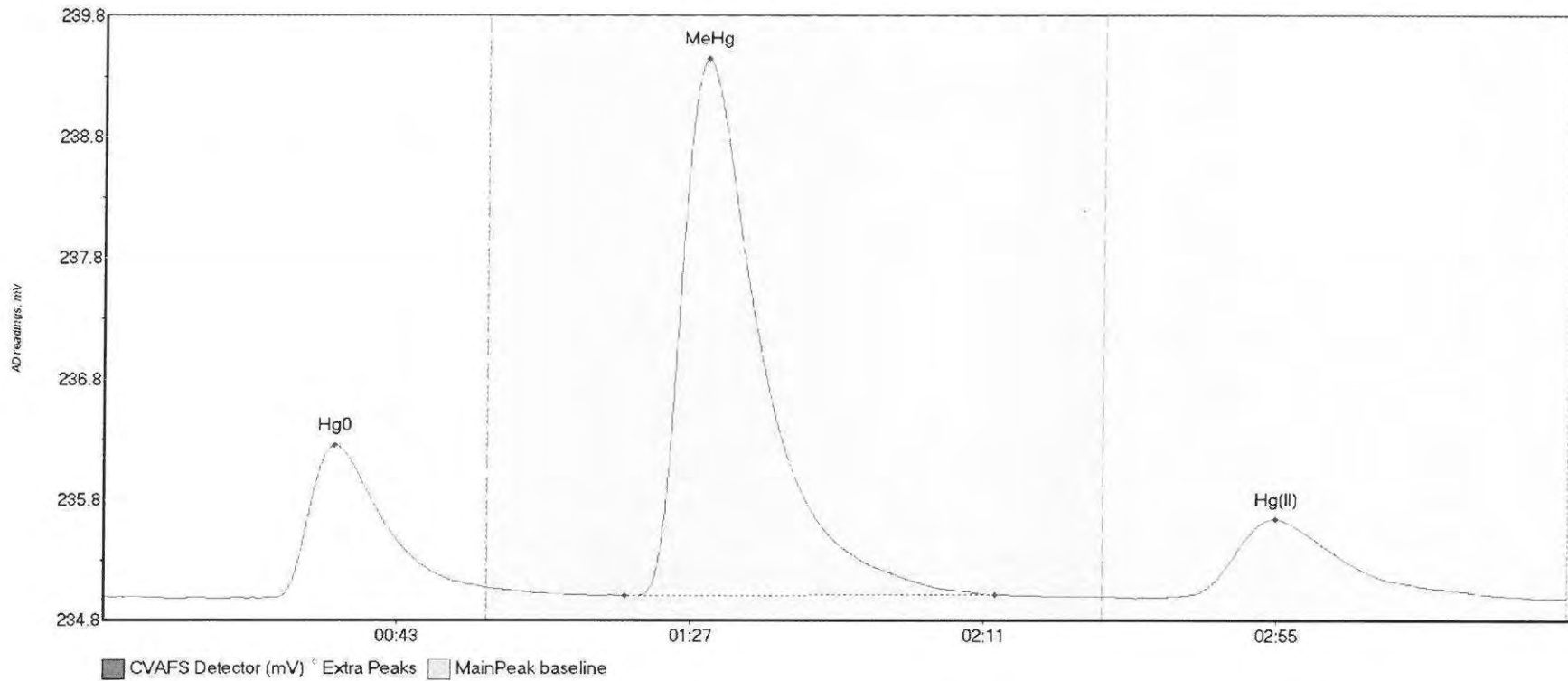
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	78.166	25.3	57.5	235.26	235.29	33.5	0.682	CT	235.2513	0.00	-0.02	
SEQ-CAL1 MeHg	30.969	81.3	109.2	235.26	235.27	89.8	0.257	OK	235.2513	0.00	-0.02	
SEQ-CAL1 Hg(II)	38.302	160.8	209.5	235.24	235.24	173.6	0.209	OK	235.2513	0.00	-0.02	

#5: SEQ-CAL2



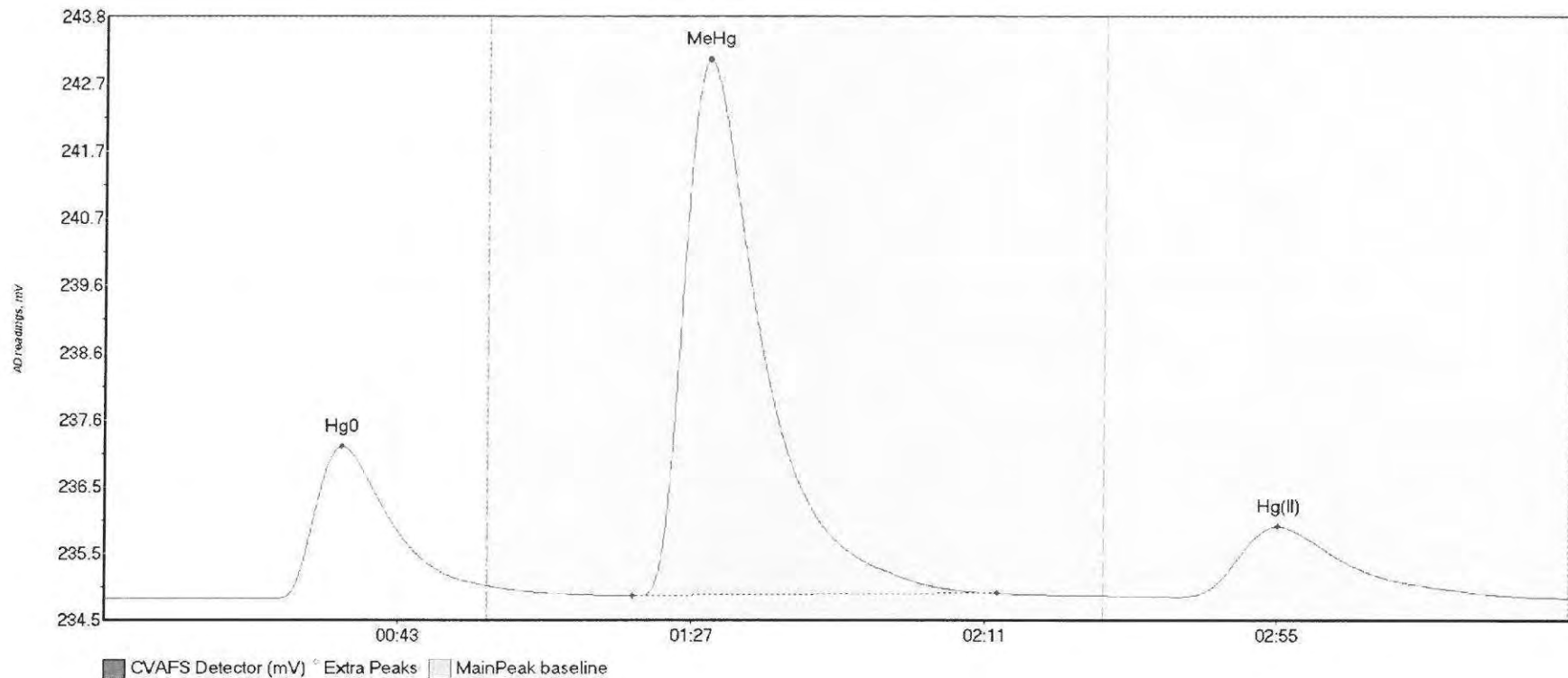
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	85.374	25.7	57.5	235.11	235.16	33.7	0.743	CT	235.1241	0.00	-0.04	
SEQ-CAL2 MeHg	109.725	80.7	114.6	235.12	235.16	89.8	0.872	OK	235.1241	0.00	-0.04	
SEQ-CAL2 Hg(II)	45.741	161.1	207.0	235.09	235.10	175.1	0.249	OK	235.1241	0.00	-0.04	

#6: SEQ-CAL3



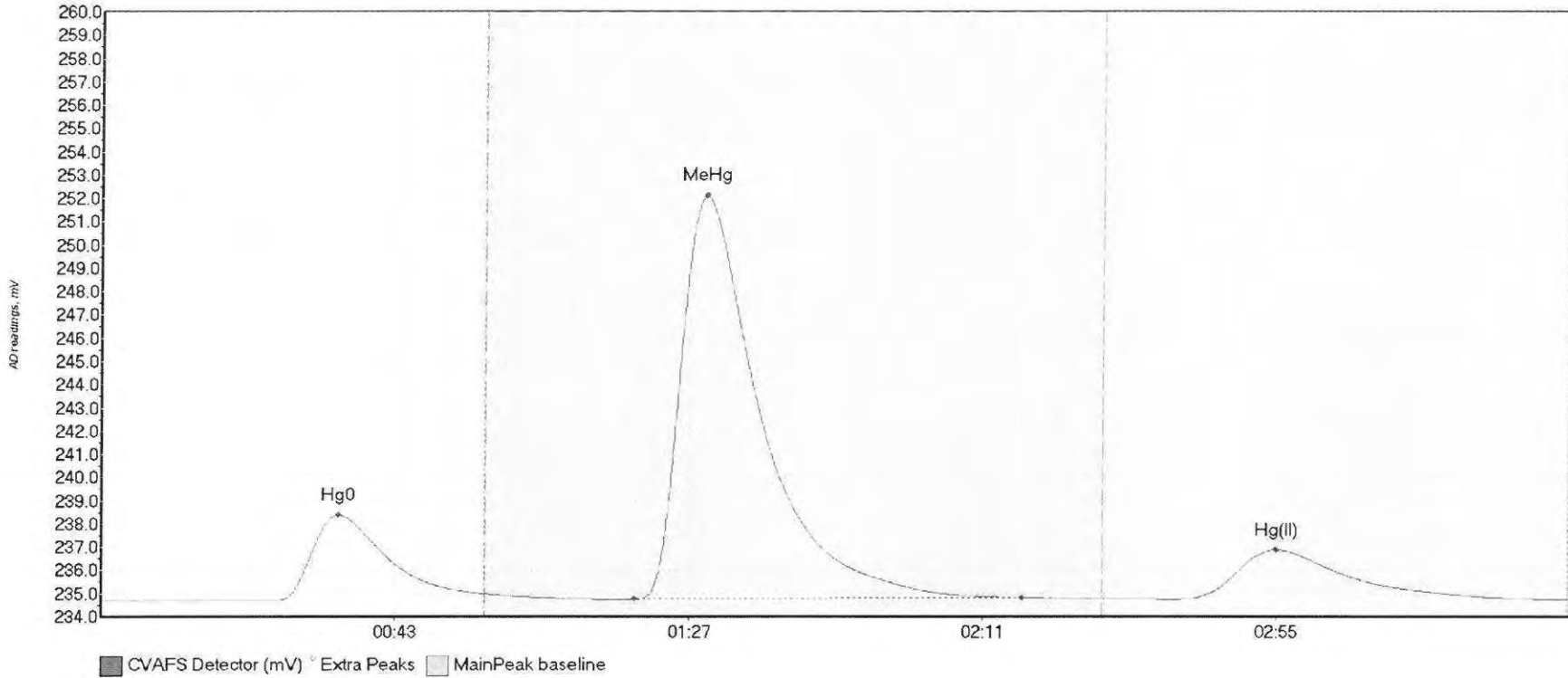
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	154.149	24.9	57.5	234.96	235.05	34.7	1.286	CT	234.9725	0.00	-0.02	
SEQ-CAL3 MeHg	626.097	78.1	133.7	234.98	234.99	90.3	4.505	OK	234.9725	0.00	-0.02	
SEQ-CAL3 Hg(II)	120.072	158.3	211.9	234.97	234.97	175.9	0.659	OK	234.9725	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	284.695	25.7	57.5	234.82	235.01	35.6	2.346	CT	234.8166	0.00	0.01	
SEQ-CAL4 MeHg	1139.677	79.2	133.9	234.86	234.89	90.5	8.249	OK	234.8166	0.00	0.01	
SEQ-CAL4 Hg(II)	203.304	161.4	213.8	234.84	234.84	176.2	1.092	OK	234.8166	0.00	0.01	

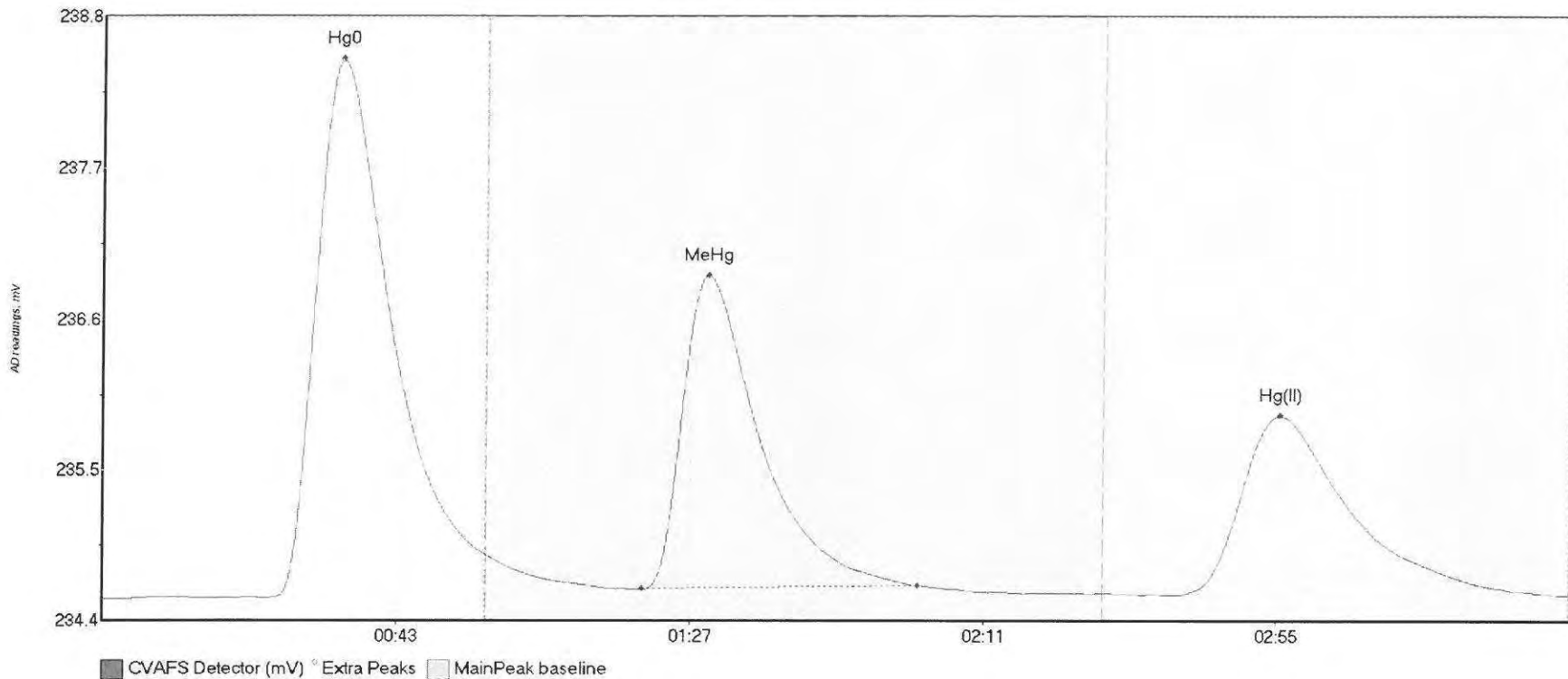
#8: SEQ-CAL5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	440.290	25.6	57.5	234.68	234.98	35.6	3.687	CT	234.6855	0.00	0.06	
SEQ-CAL5 MeHg	2400.162	79.7	137.9	234.75	234.82	90.5	17.349	OK	234.6855	0.00	0.06	
SEQ-CAL5 Hg(II)	399.016	159.8	218.2	234.76	234.74	176.1	2.122	OK	234.6855	0.00	0.06	

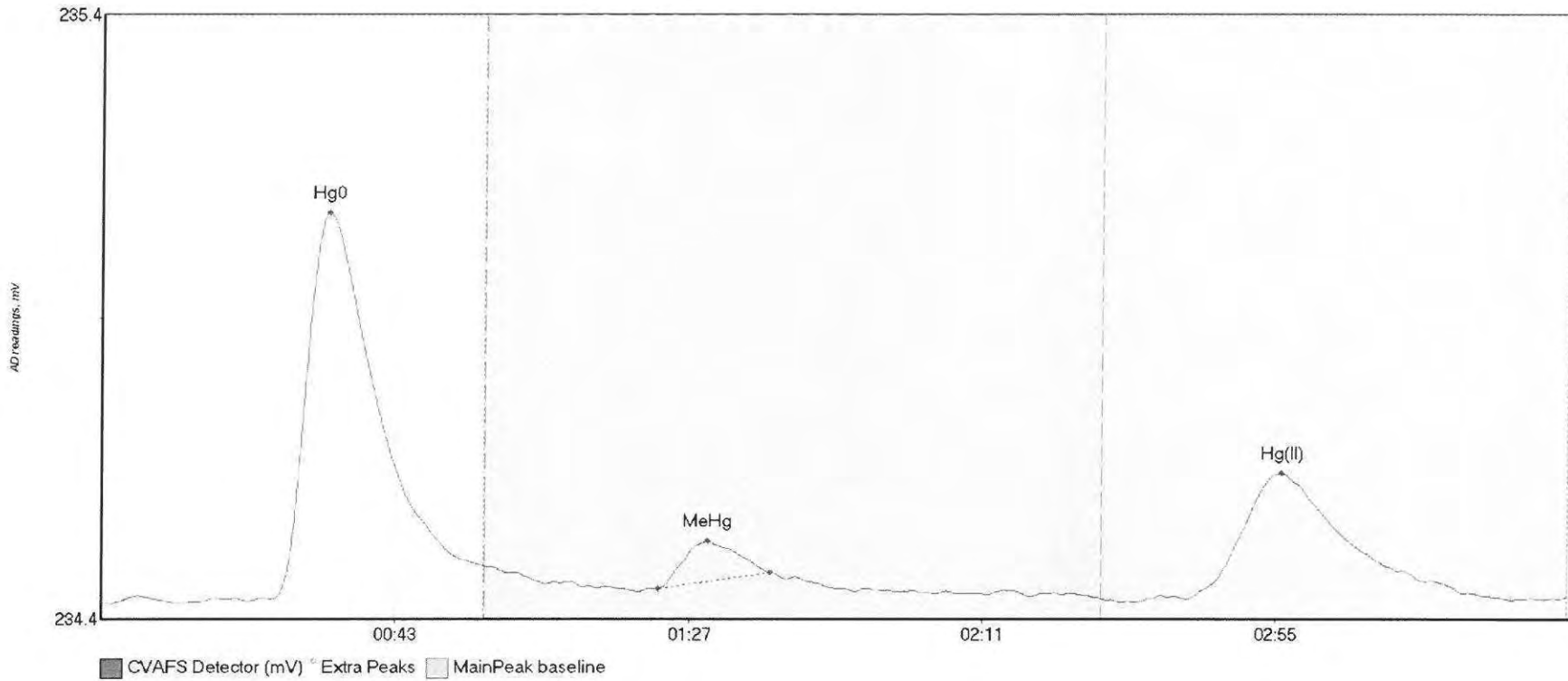


#9: SEQ-ICV1



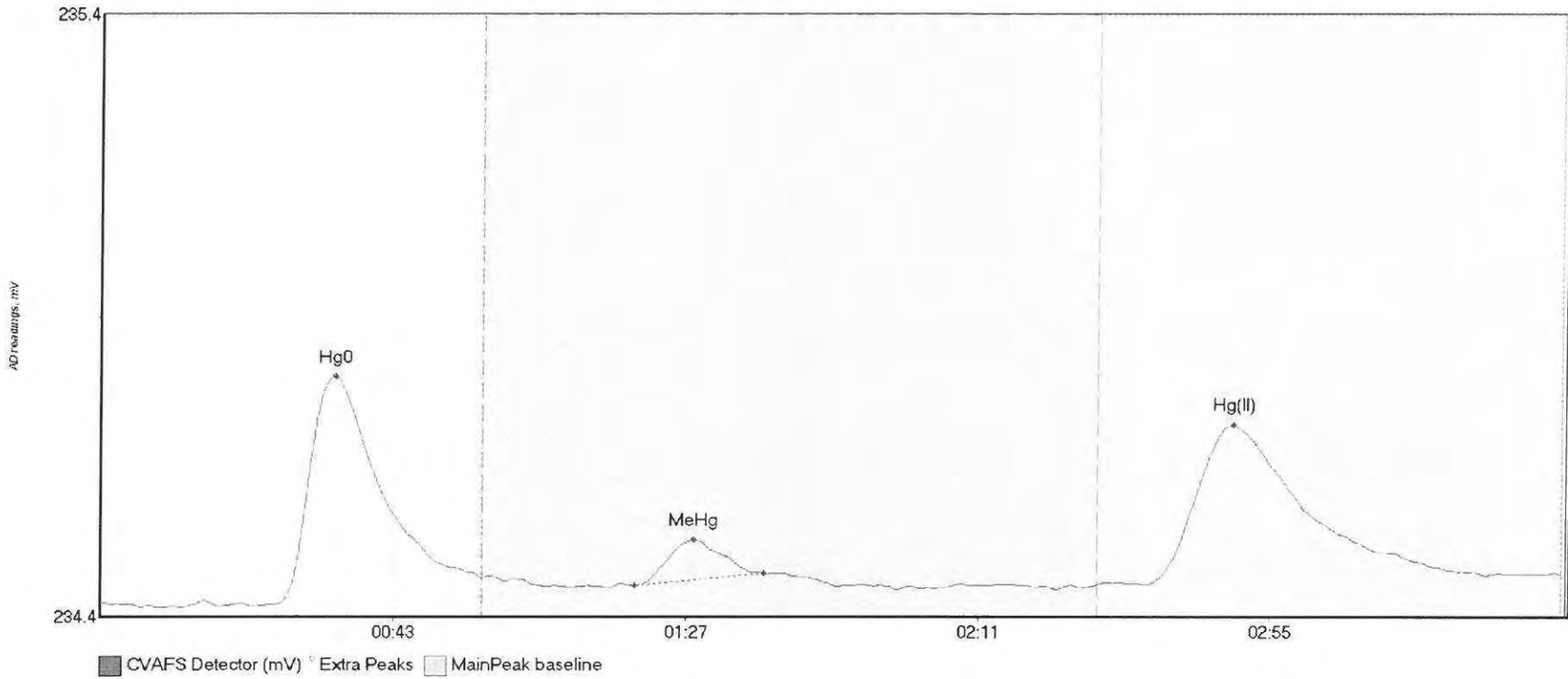
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	452.560	3.4	57.5	234.57	234.88	35.7	3.878	CT	234.5627	0.00	0.03	
SEQ-ICV1 MeHg	300.403	80.8	122.1	234.63	234.66	90.6	2.260	OK	234.5627	0.00	0.03	
SEQ-ICV1 Hg(II)	241.386	160.6	216.8	234.59	234.60	176.4	1.294	OK	234.5627	0.00	0.03	

#10: SEQ-ICB1



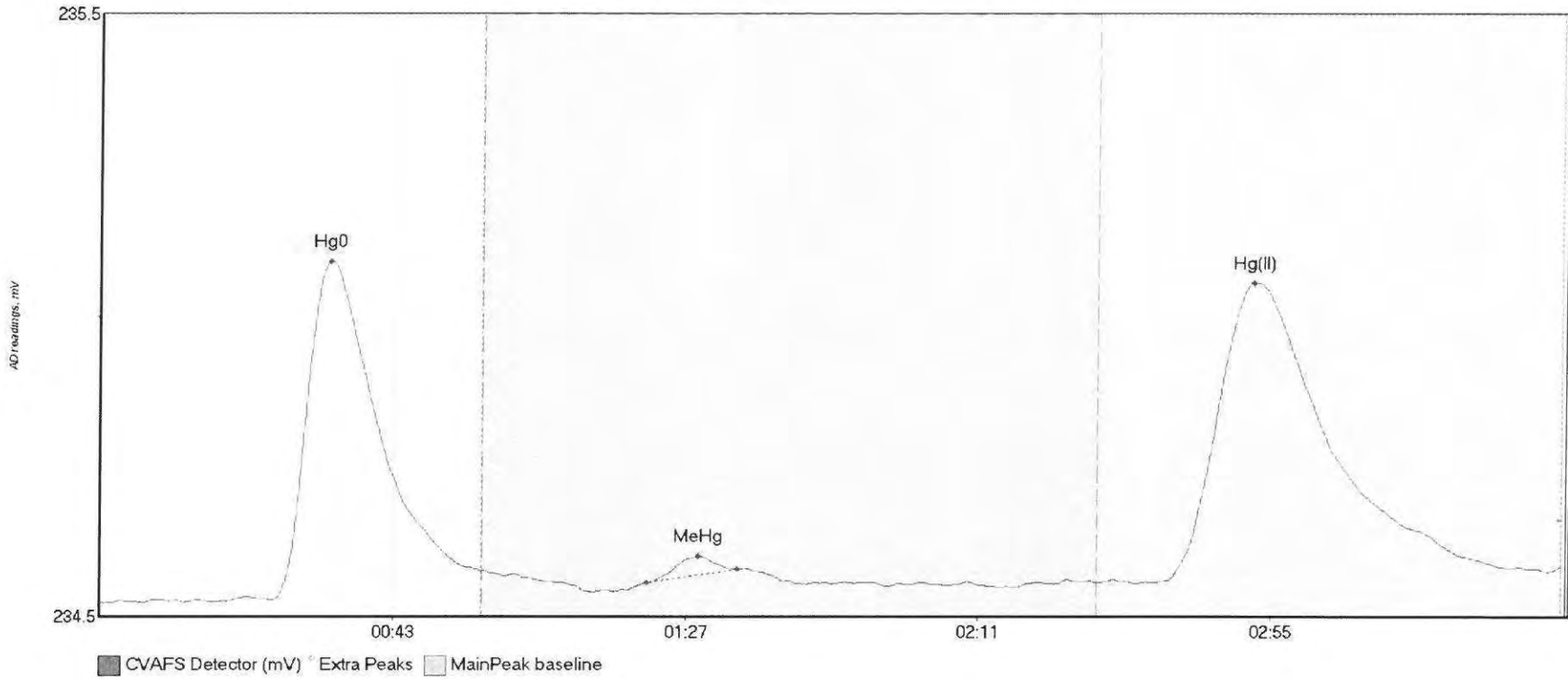
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	73.184	22.3	57.5	234.47	234.52	34.0	0.643	CT	234.4642	0.00	0.01	
SEQ-ICB1 MeHg	6.175	83.3	100.1	234.49	234.51	90.8	0.079	OK	234.4642	0.00	0.01	
SEQ-ICB1 Hg(II)	36.528	162.9	208.6	234.47	234.47	176.9	0.208	OK	234.4642	0.00	0.01	

#11: F610422-BLK7



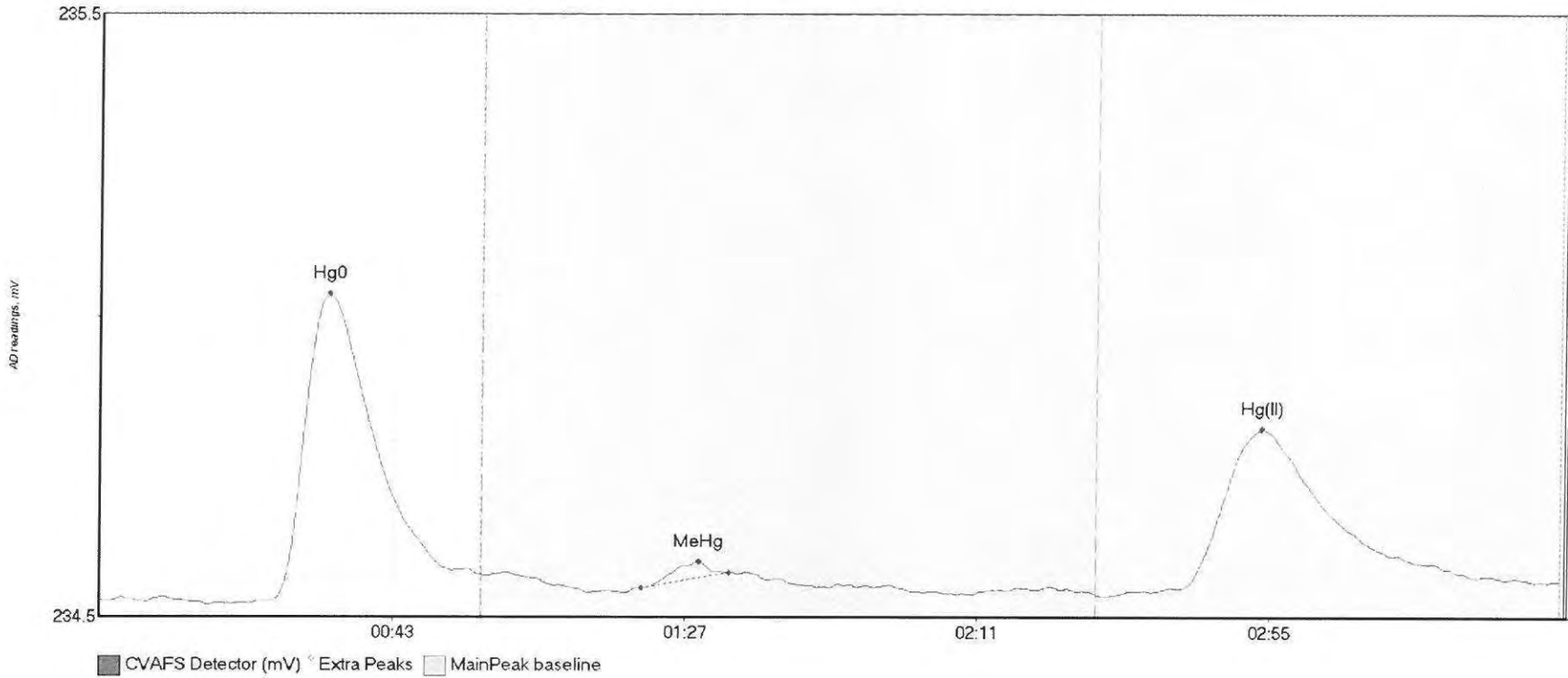
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK7 Hg	43.442	26.1	57.5	234.43	234.48	35.3	0.380	CT	234.4347	0.00	0.05	
F610422-BLK7 Me	6.163	80.3	99.7	234.46	234.48	89.1	0.076	OK	234.4347	0.00	0.05	
F610422-BLK7 Hg	48.889	157.3	208.4	234.46	234.48	170.5	0.265	OK	234.4347	0.00	0.05	

#12: F610422-BLK8



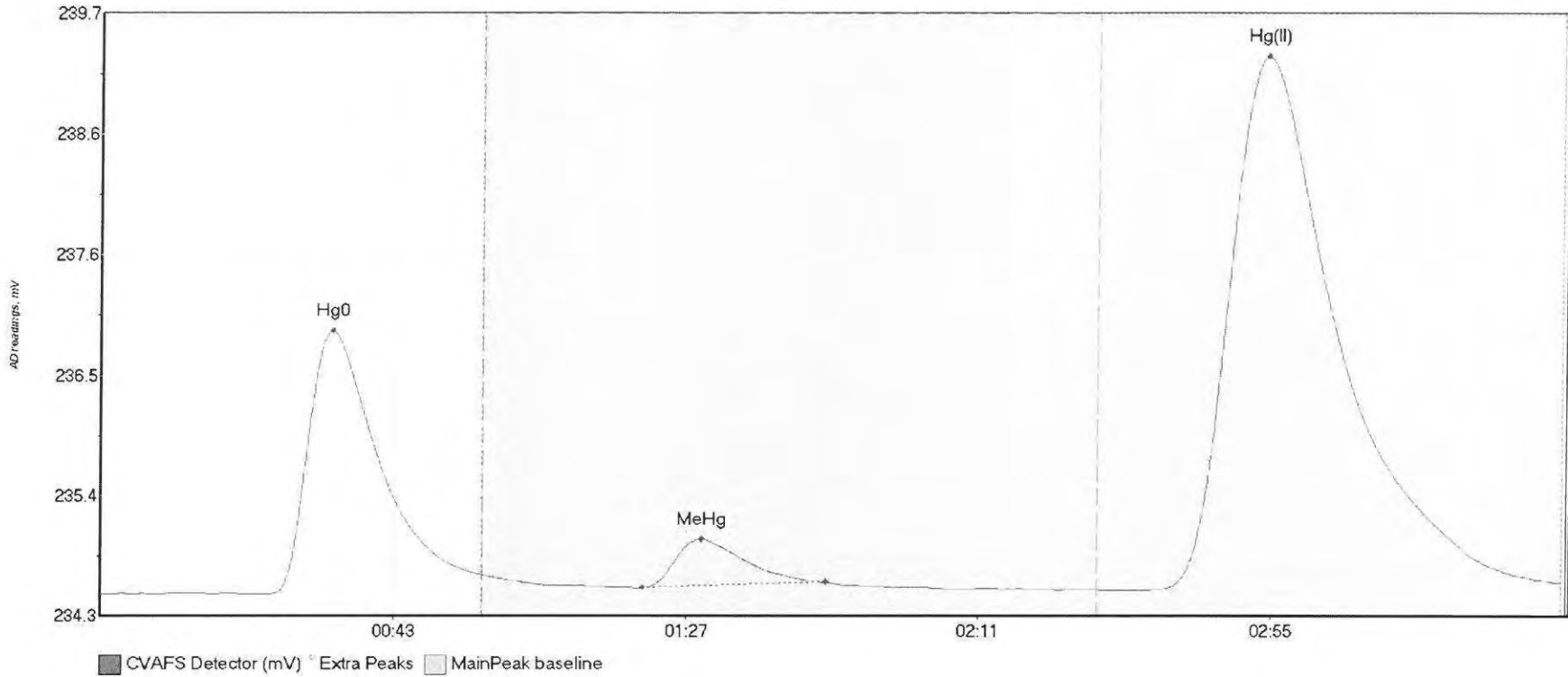
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK8 Hg	64.485	19.0	57.4	234.49	234.54	34.5	0.564	OK	234.4831	0.00	0.06	
F610422-BLK8 Me	2.169	82.1	95.7	234.52	234.54	89.9	0.044	OK	234.4831	0.00	0.06	
F610422-BLK8 Hg	95.015	160.3	217.9	234.52	234.53	173.3	0.496	OK	234.4831	0.00	0.06	

#13: F610422-BLK9



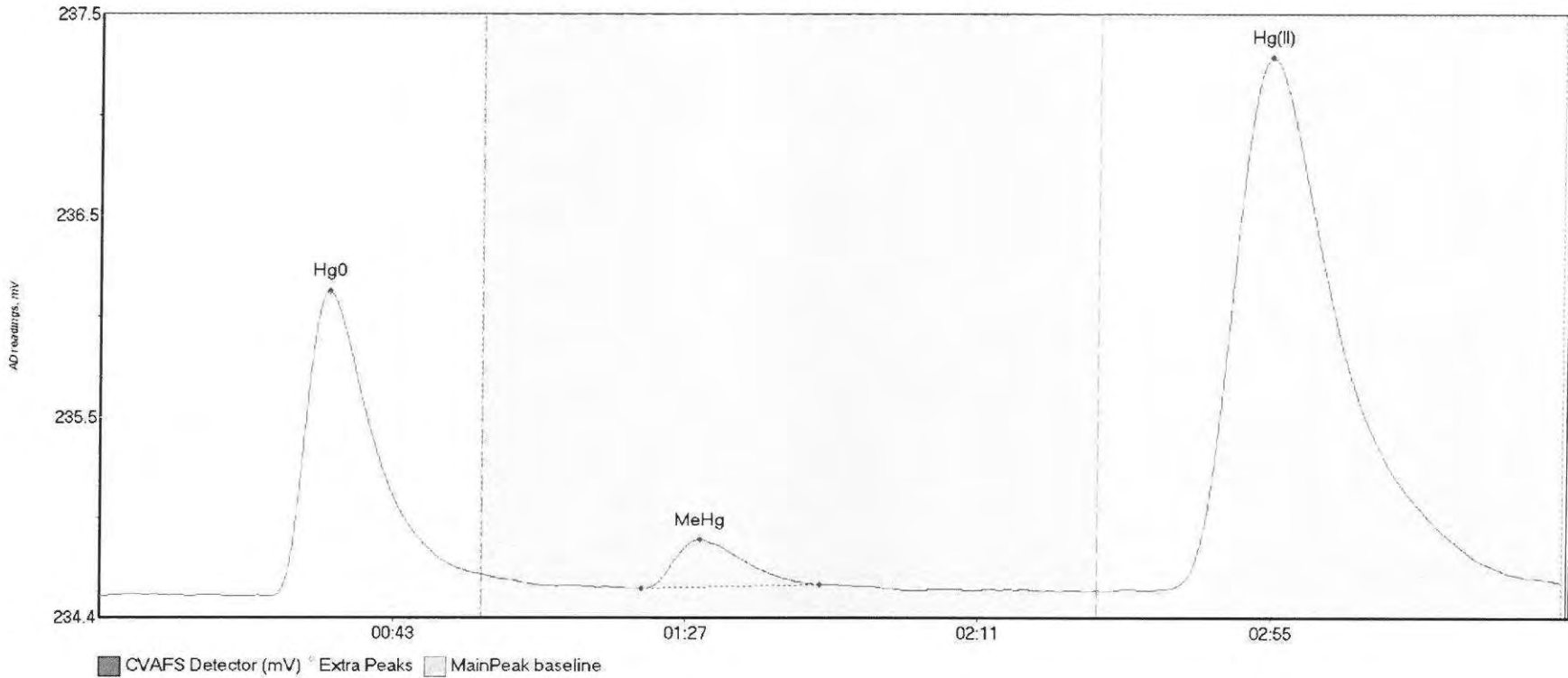
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK9 Hg	58.137	25.9	57.5	234.53	234.58	34.3	0.507	CT	234.5330	0.00	0.03	
F610422-BLK9 Me	1.739	81.5	94.6	234.55	234.58	90.0	0.044	OK	234.5330	0.00	0.03	
F610422-BLK9 Hg	50.674	153.5	217.9	234.54	234.56	174.8	0.274	OK	234.5330	0.00	0.03	

#14: 1610231-01RE1



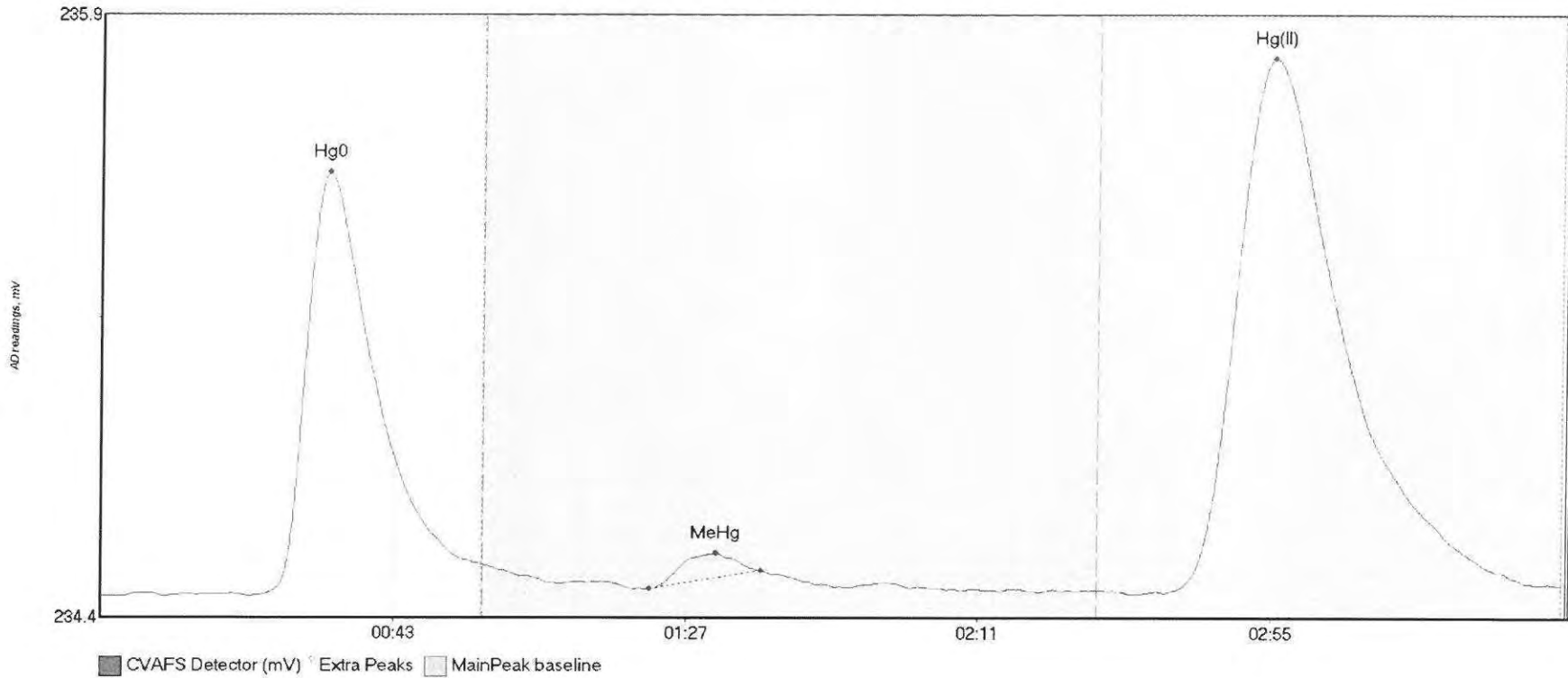
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-01RE1	H 270.840	25.1	57.5	234.55	234.71	34.8	2.336	CT	234.5463	0.00	0.10	
1610231-01RE1	M 49.170	81.5	109.0	234.60	234.65	90.3	0.429	OK	234.5463	0.00	0.10	
1610231-01RE1	H 893.649	159.0	219.8	234.58	234.64	175.3	4.725	CT	234.5463	0.00	0.10	

#15: 1610231-02RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-02RE1	H 175.929	25.7	57.5	234.53	234.65	34.3	1.560	CT	234.5321	0.00	0.07	
1610231-02RE1	M 28.511	81.5	108.2	234.57	234.59	90.2	0.250	OK	234.5321	0.00	0.07	
1610231-02RE1	H 508.135	158.1	219.8	234.56	234.60	175.8	2.730	CT	234.5321	0.00	0.07	

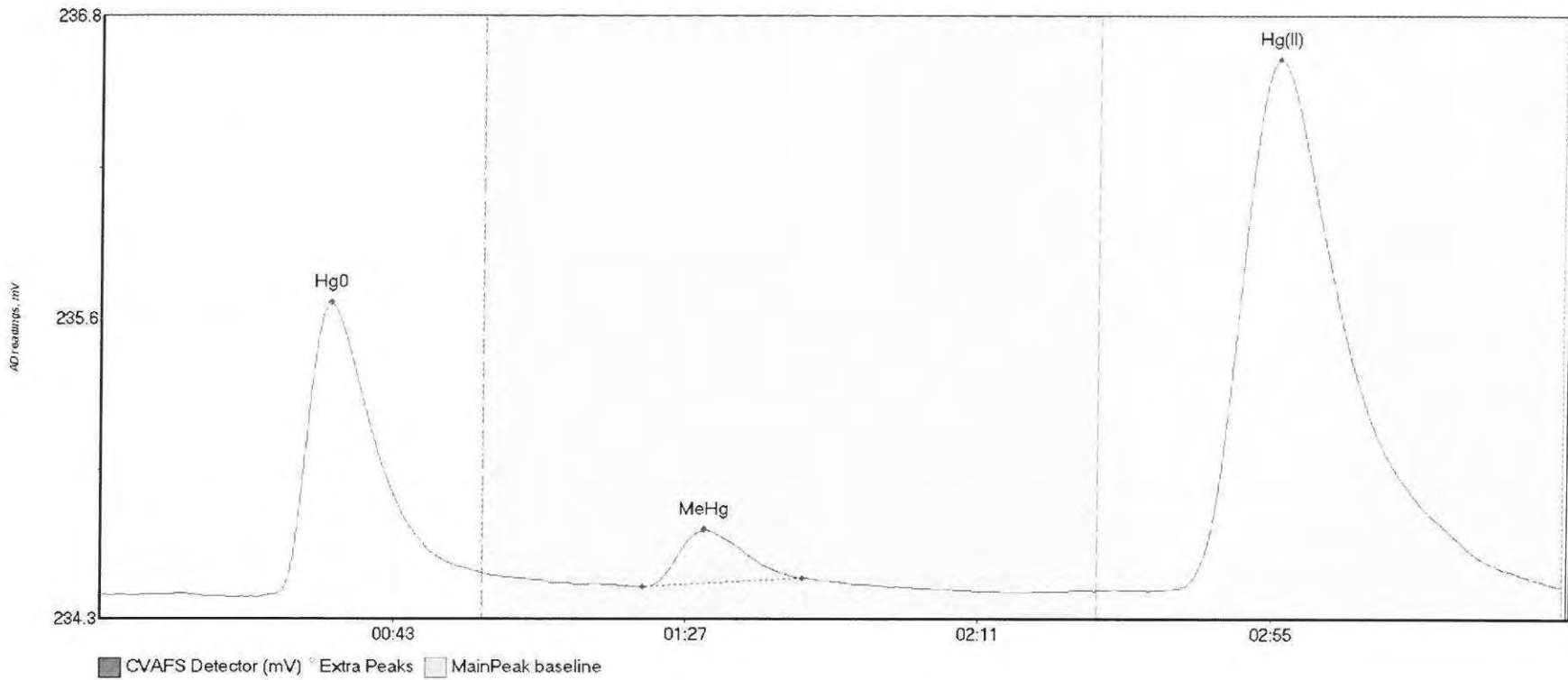
#16: 1610231-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-03RE1 H	113.490	24.0	57.5	234.49	234.56	34.2	1.009	CT	234.4881	0.00	0.02	
1610231-03RE1 M	5.662	82.6	99.1	234.50	234.55	92.5	0.086	OK	234.4881	0.00	0.02	
1610231-03RE1 H	236.162	159.9	219.6	234.50	234.51	176.2	1.277	OK	234.4881	0.00	0.02	

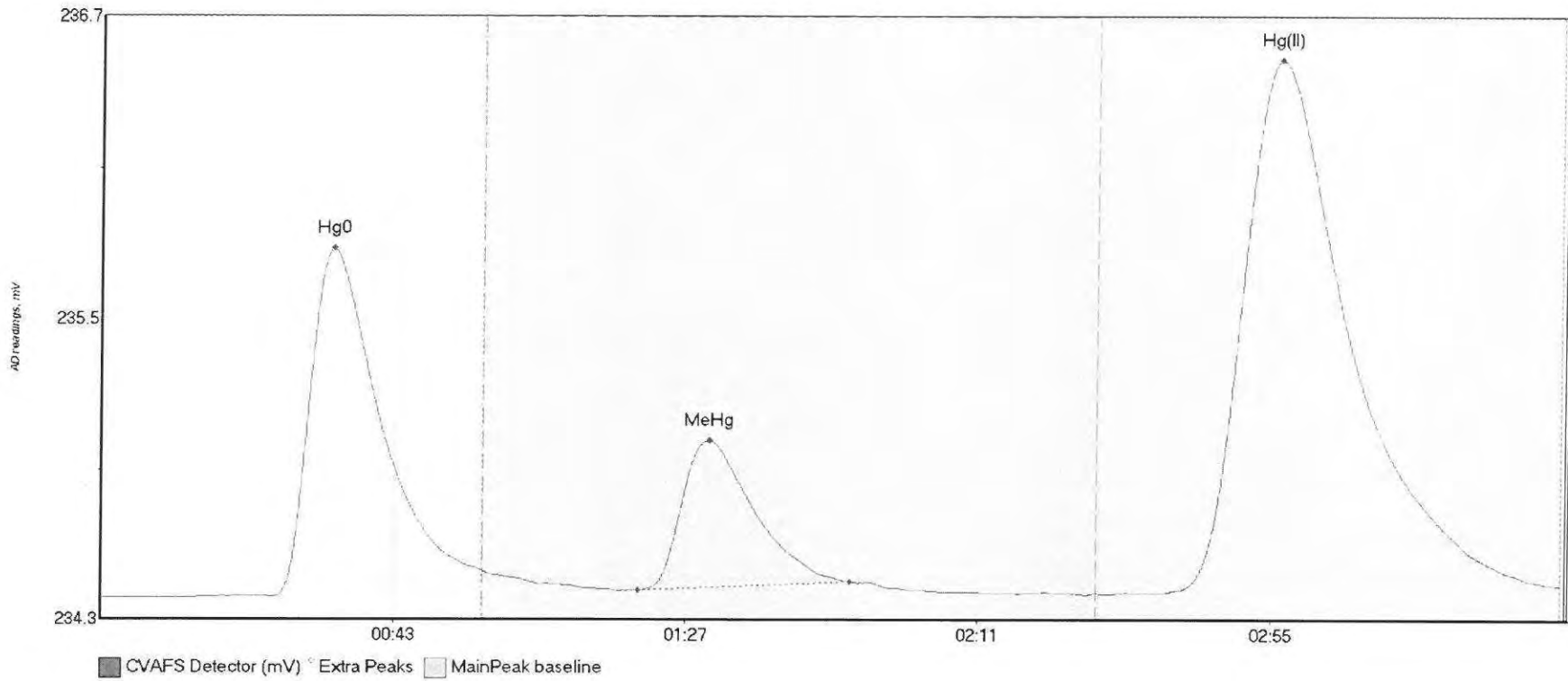


#17: 1610231-04RE1



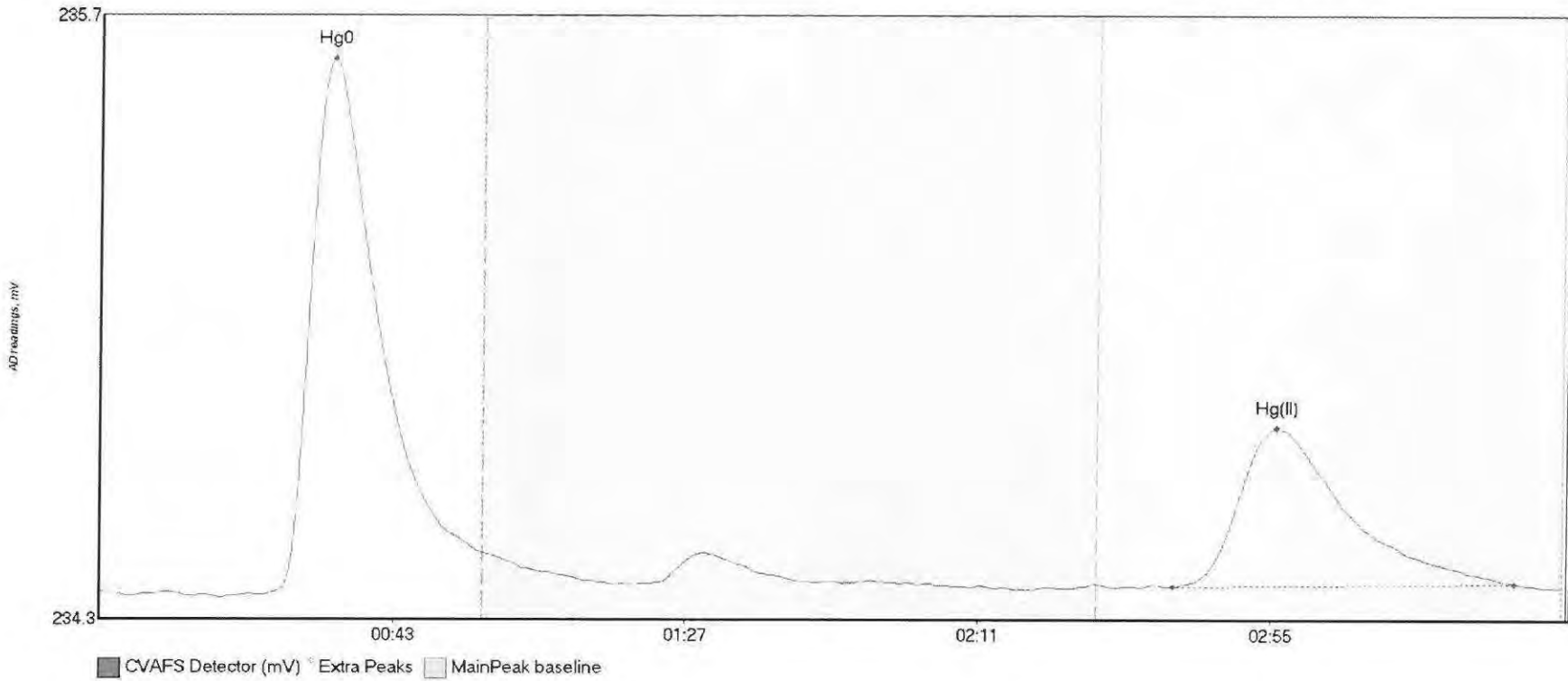
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-04RE1 H	134.011	25.4	57.5	234.43	234.52	34.4	1.194	CT	234.4327	0.00	0.03	
1610231-04RE1 M	24.076	81.6	105.5	234.46	234.50	90.8	0.235	OK	234.4327	0.00	0.03	
1610231-04RE1 H	404.601	159.3	219.8	234.45	234.46	176.9	2.176	CT	234.4327	0.00	0.03	

#18: 1610231-05RE1



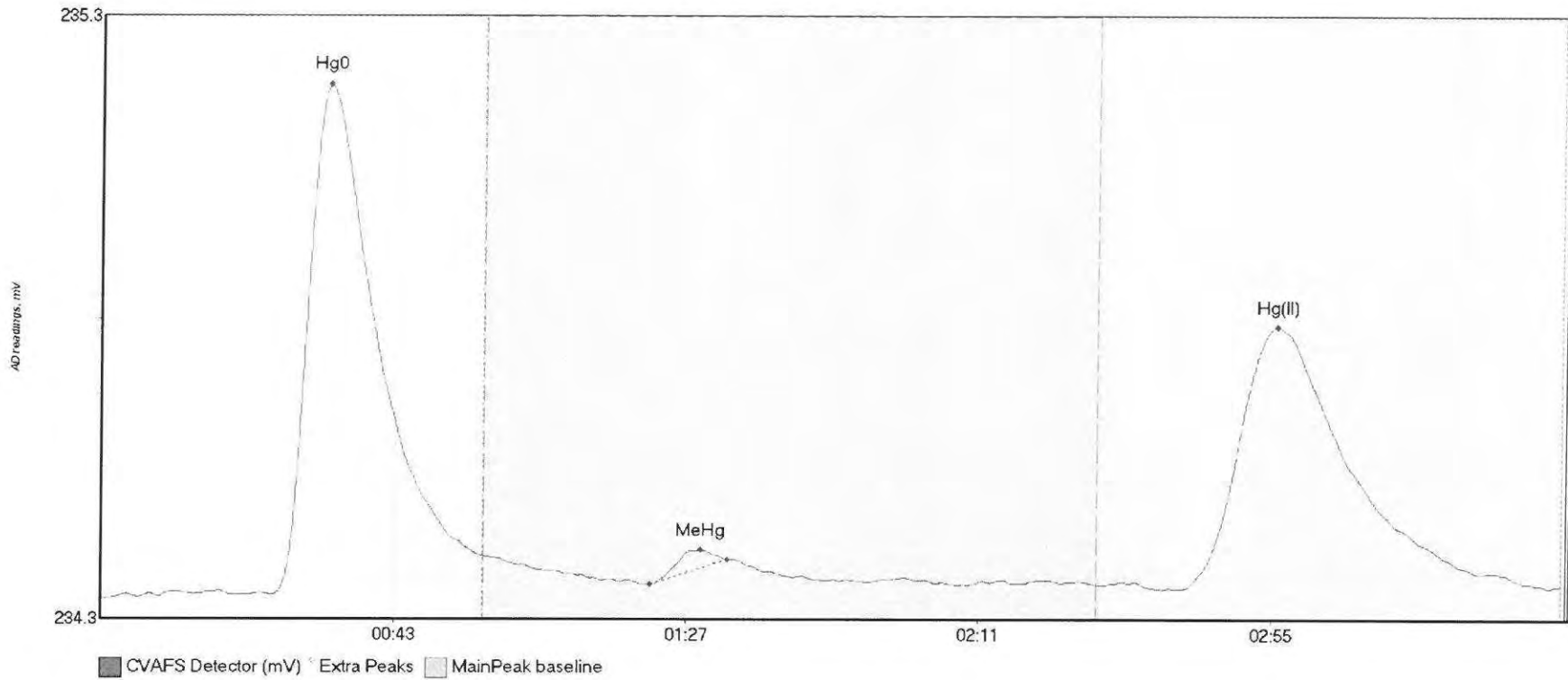
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-05RE1 H	162.786	25.7	57.5	234.39	234.49	34.8	1.418	CT	234.3835	0.00	0.05	
1610231-05RE1 M	75.016	80.9	112.7	234.41	234.45	91.4	0.612	OK	234.3835	0.00	0.05	
1610231-05RE1 H	403.589	159.3	219.8	234.40	234.43	177.2	2.172	CT	234.3835	0.00	0.05	

#19: 1610235-01RE1



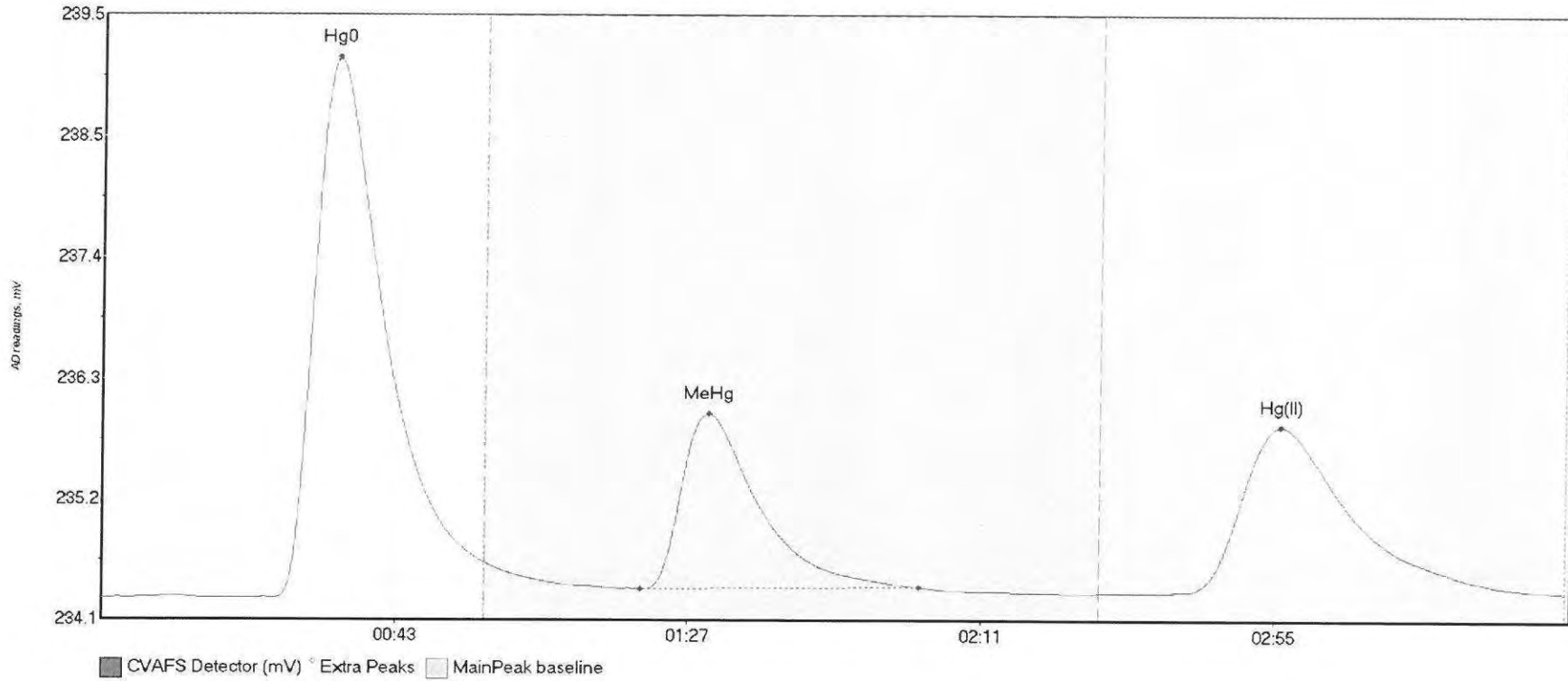
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-01RE1 H	138.521	24.5	57.5	234.34	234.44	34.8	1.260	CT	234.3497	0.00	0.01	
1610235-01RE1 H	69.567	161.3	212.8	234.36	234.37	176.7	0.374	OK	234.3497	0.00	0.01	

#20: 1610235-02RE1



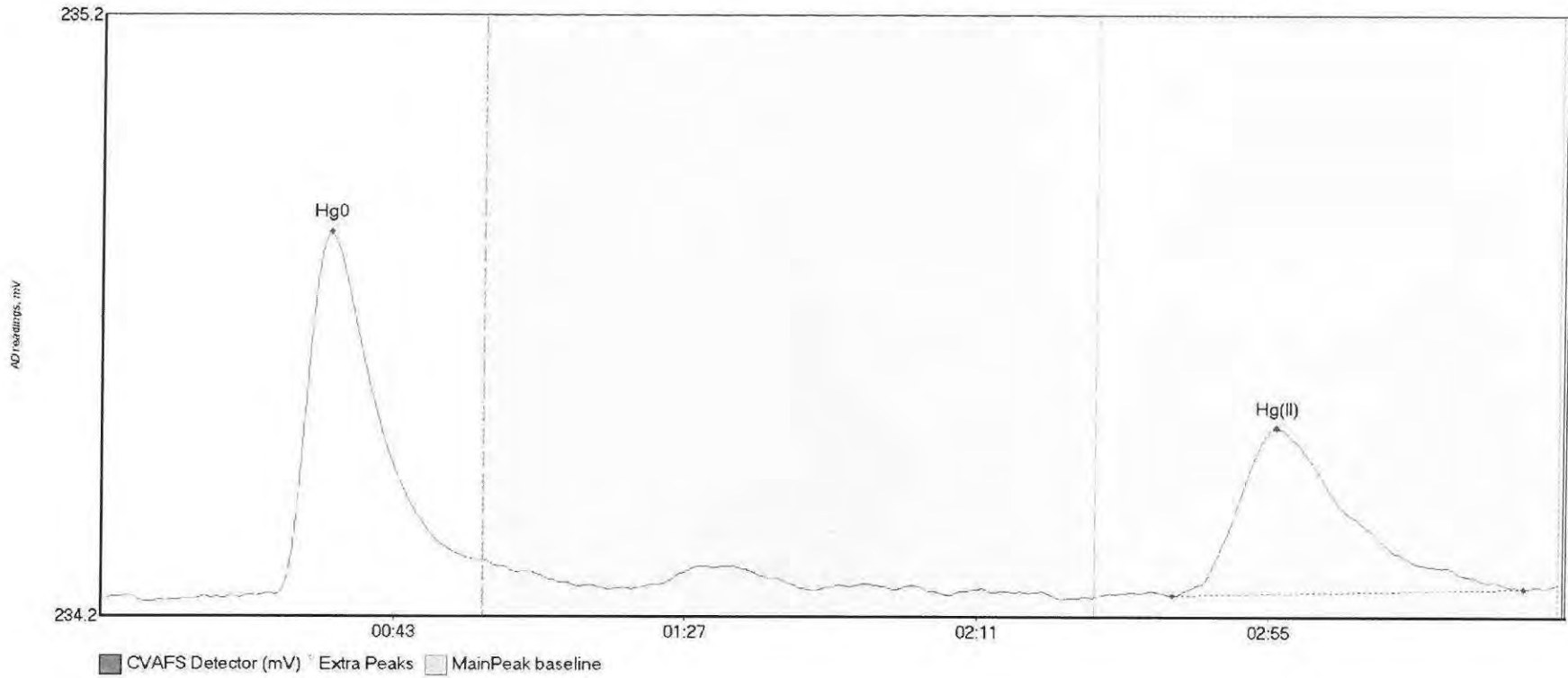
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-02RE1 H	92.348	8.9	57.5	234.30	234.37	34.2	0.847	CT	234.2989	0.00	0.02	
1610235-02RE1 M	1.993	82.6	94.2	234.32	234.36	90.2	0.057	OK	234.2989	0.00	0.02	
1610235-02RE1 H	80.946	163.0	214.5	234.32	234.33	176.7	0.435	OK	234.2989	0.00	0.02	

#21: SEQ-CCV1



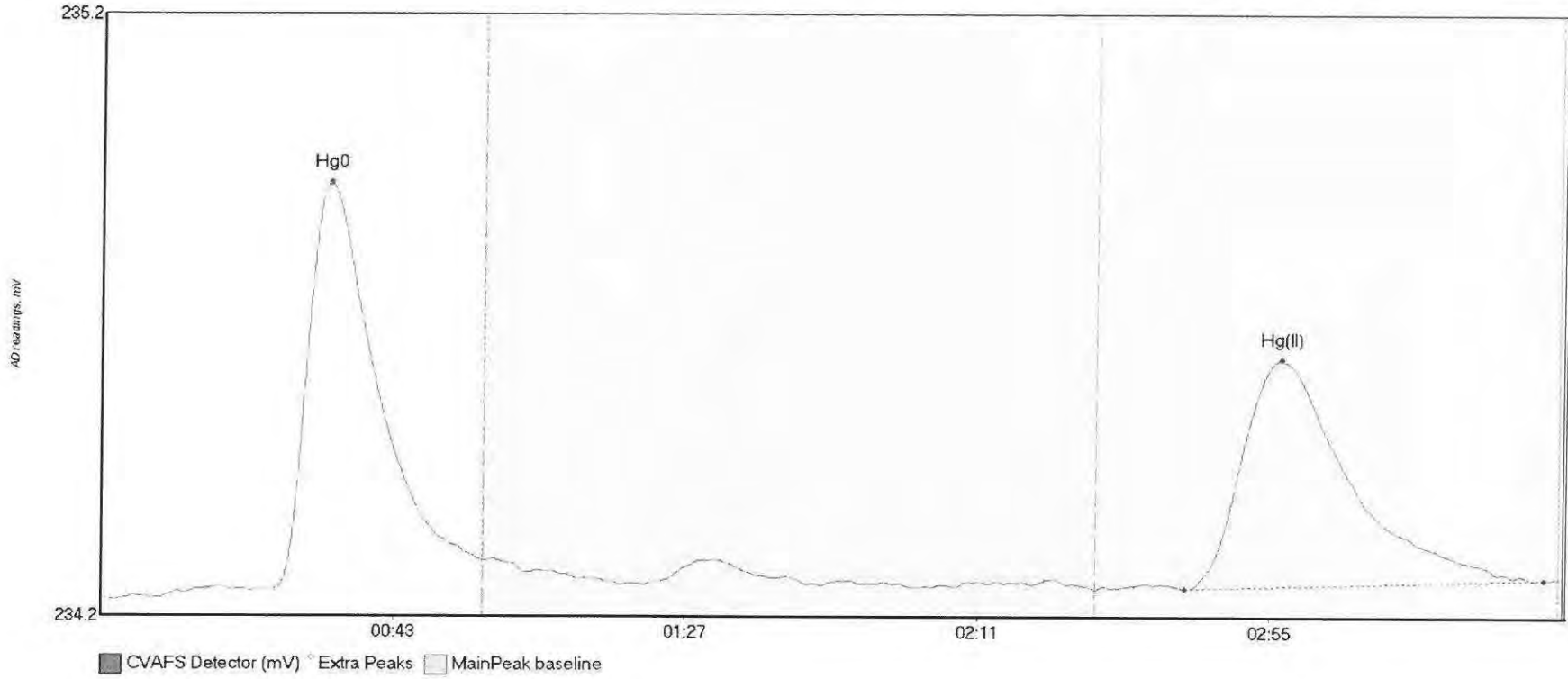
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	560.060	26.1	57.5	234.27	234.59	35.2	4.889	CT	234.2686	0.00	0.05	
SEQ-CCV1 MeHg	211.545	81.0	122.8	234.35	234.36	91.0	1.596	OK	234.2686	0.00	0.05	
SEQ-CCV1 Hg(II)	284.494	160.5	219.8	234.32	234.32	176.9	1.510	CT	234.2686	0.00	0.05	

#22: SEQ-CCB1



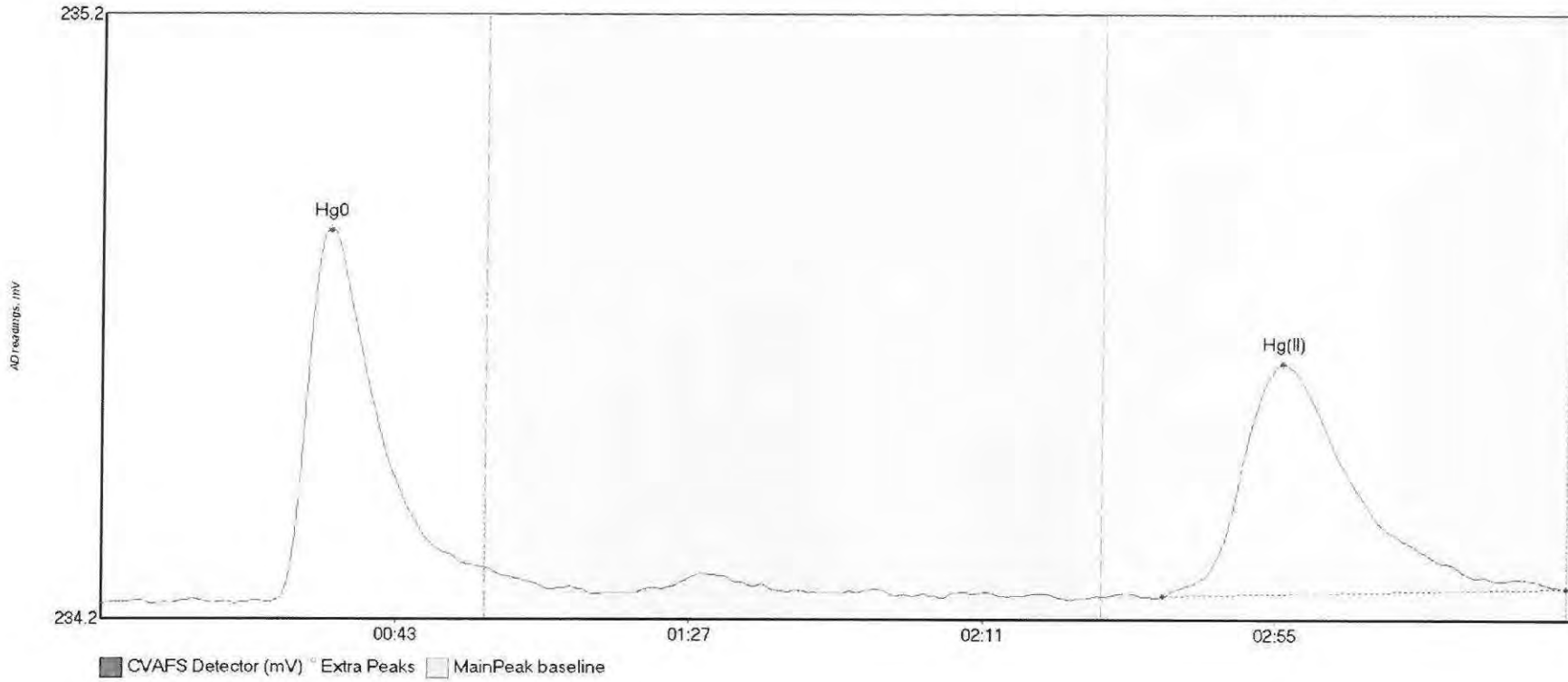
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	66.481	23.5	57.4	234.24	234.30	34.4	0.603	OK	234.2358	0.00	0.02	
SEQ-CCB1 Hg(II)	52.935	161.6	214.8	234.24	234.25	177.1	0.280	OK	234.2358	0.00	0.02	

#23: 1610235-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-03RE1 H	75.368	9.0	57.5	234.20	234.26	34.4	0.687	CT	234.2005	0.00	0.03	
1610235-03RE1 H	70.559	163.3	217.8	234.22	234.23	177.6	0.382	OK	234.2005	0.00	0.03	

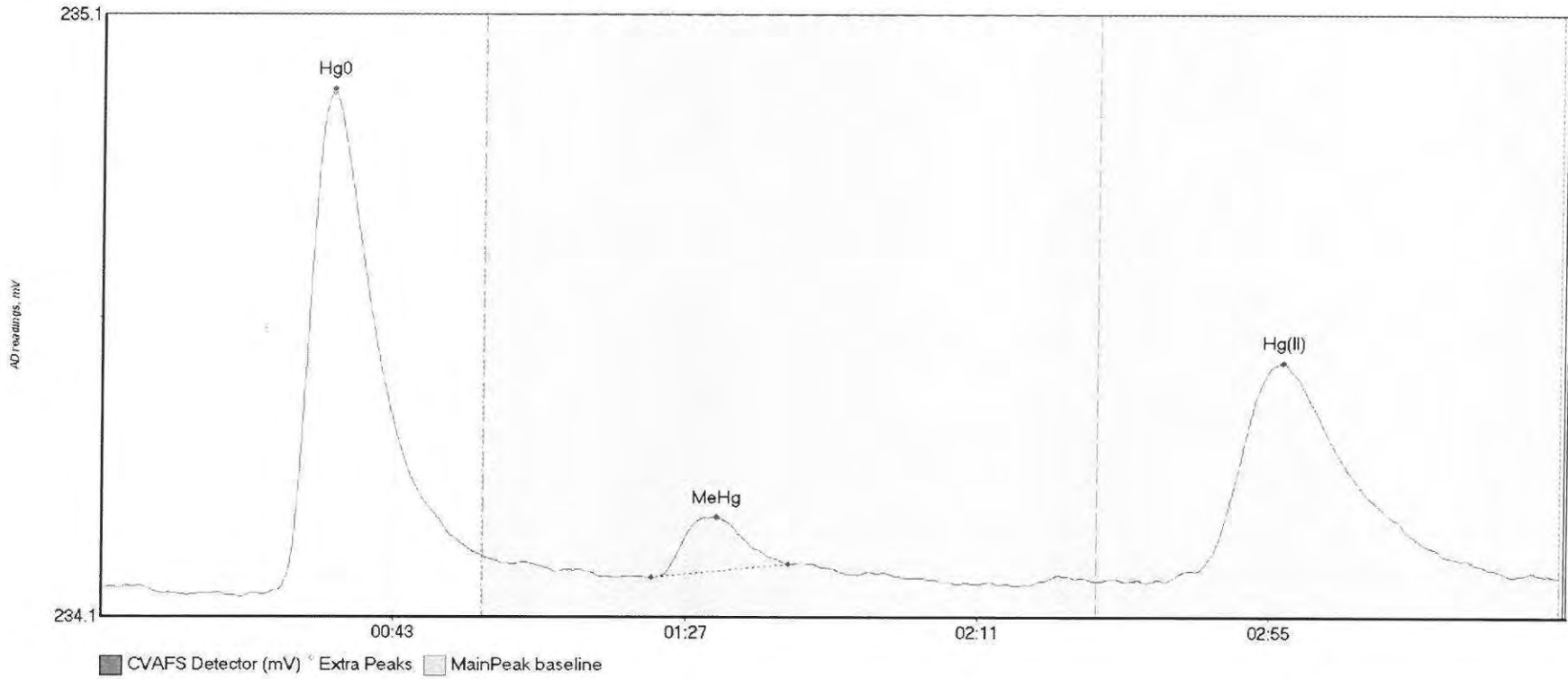
#24: 1610235-04RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-04RE1 H	68.212	25.1	57.5	234.19	234.25	34.1	0.618	CT	234.1910	0.00	0.03	
1610235-04RE1 H	73.384	159.2	219.8	234.20	234.22	177.1	0.386	CT	234.1910	0.00	0.03	016

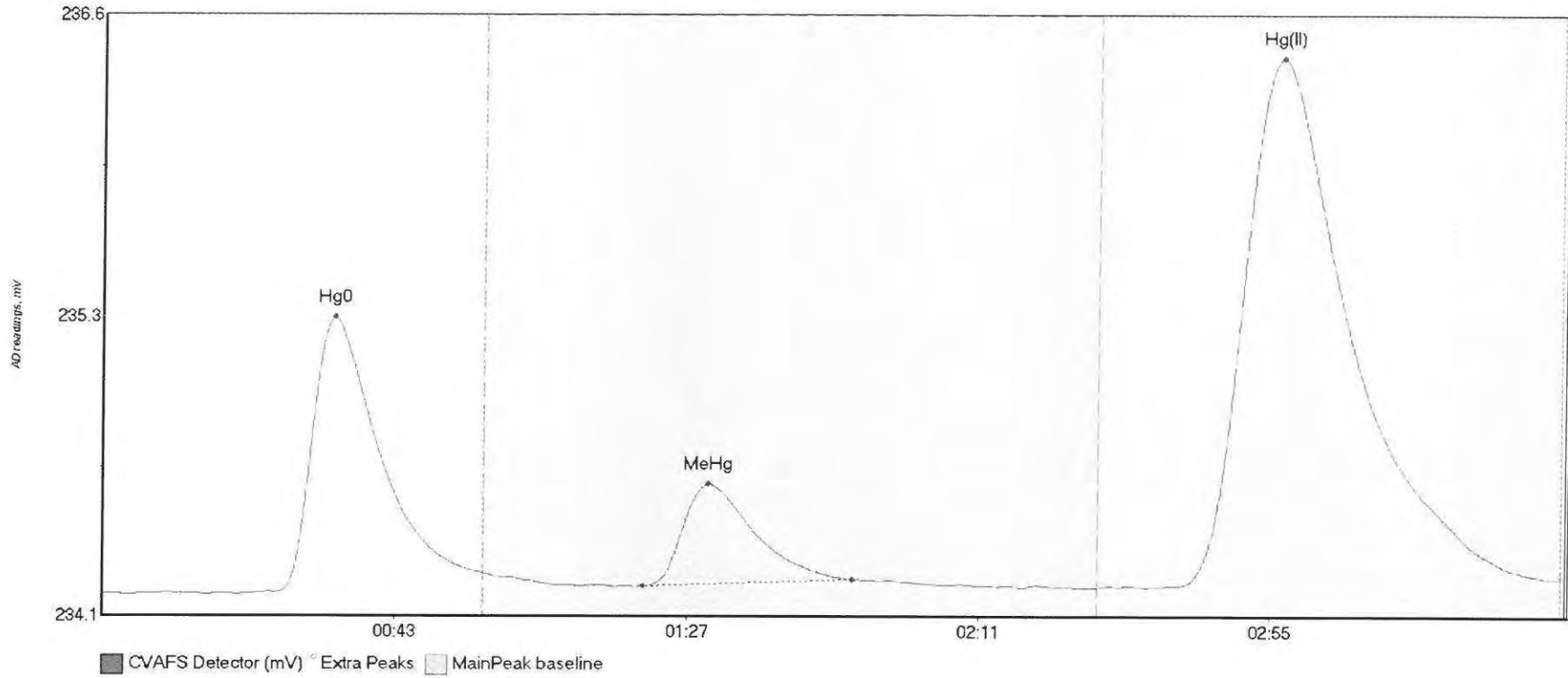


#25: 1610235-05RE1



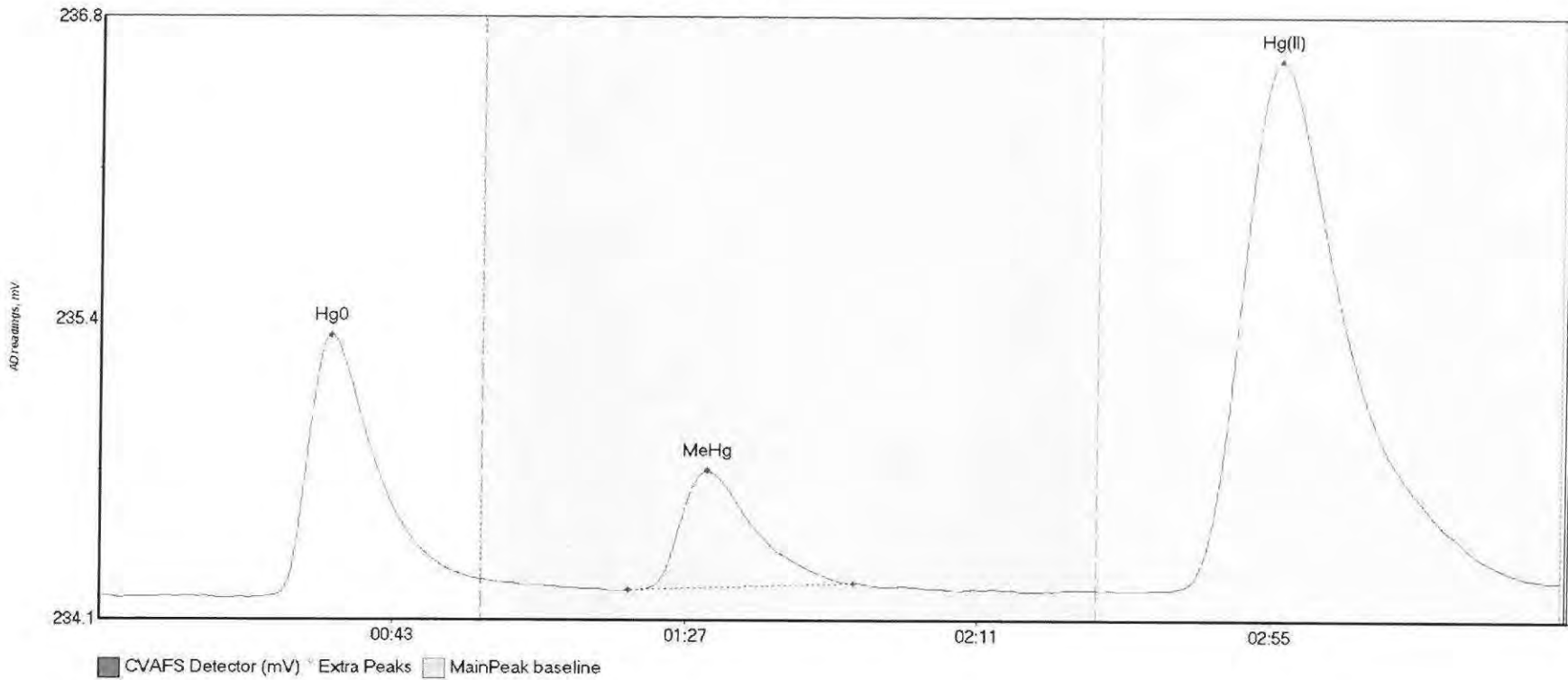
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max.	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-05RE1 H	92.024	26.4	57.5	234.18	234.24	34.7	0.828	CT	234.1868	0.00	0.02	
1610235-05RE1 M	9.423	82.9	103.5	234.20	234.23	92.6	0.101	OK	234.1868	0.00	0.02	
1610235-05RE1 H	70.108	160.3	219.8	234.20	234.20	178.0	0.365	CT	234.1868	0.00	0.02	

#26: 1610610-01RE1



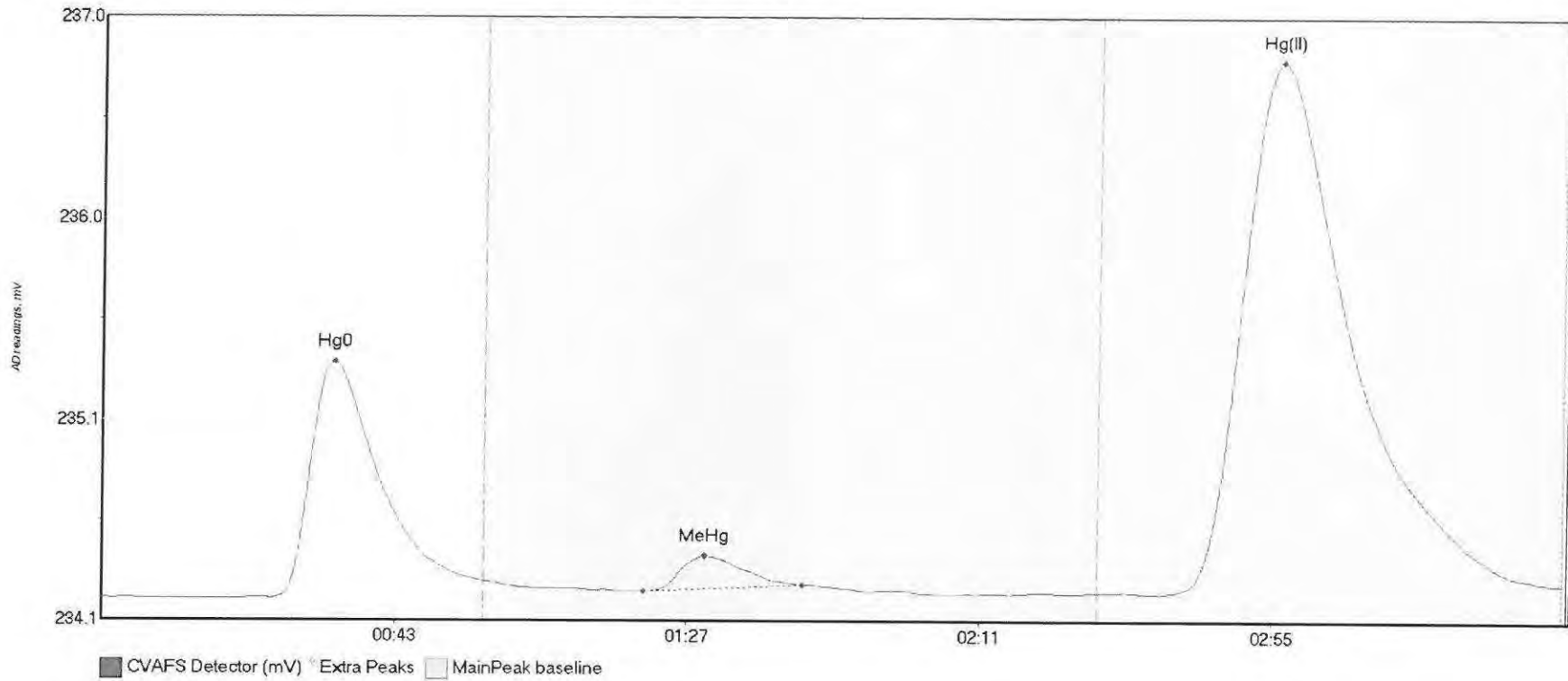
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-01RE1 H	128.808	22.1	57.5	234.17	234.26	34.8	1.166	CT	234.1748	0.00	0.06	
1610610-01RE1 M	52.256	81.5	113.0	234.21	234.23	91.2	0.432	OK	234.1748	0.00	0.06	
1610610-01RE1 H	411.971	161.5	219.8	234.21	234.24	177.6	2.231	CT	234.1748	0.00	0.06	

#27: 1610610-02RE1



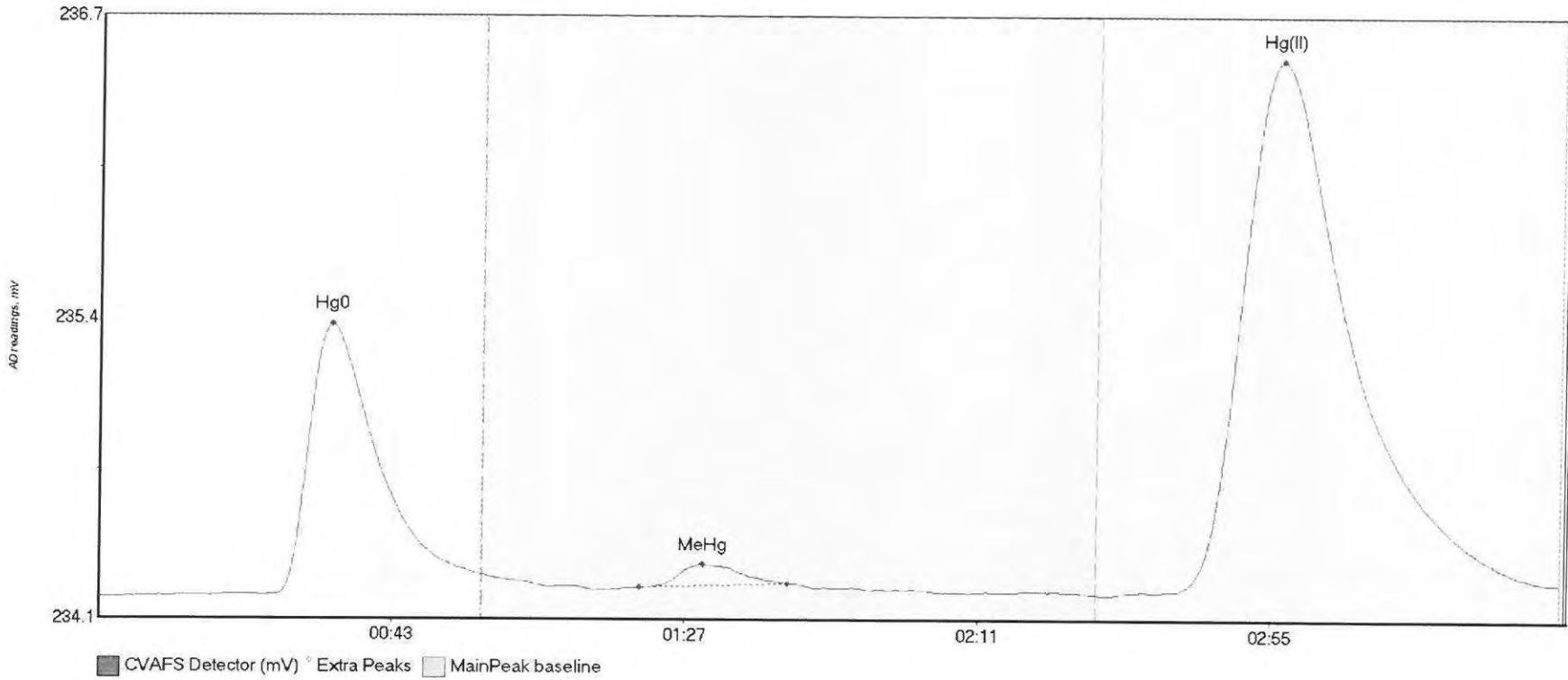
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-02RE1 H	131.236	24.4	57.5	234.18	234.26	34.6	1.171	CT	234.1805	0.00	0.07	
1610610-02RE1 M	66.849	79.4	113.5	234.21	234.24	91.1	0.536	OK	234.1805	0.00	0.07	
1610610-02RE1 H	437.179	160.8	218.2	234.21	234.25	177.2	2.367	OK	234.1805	0.00	0.07	

#28: 1610610-03RE1



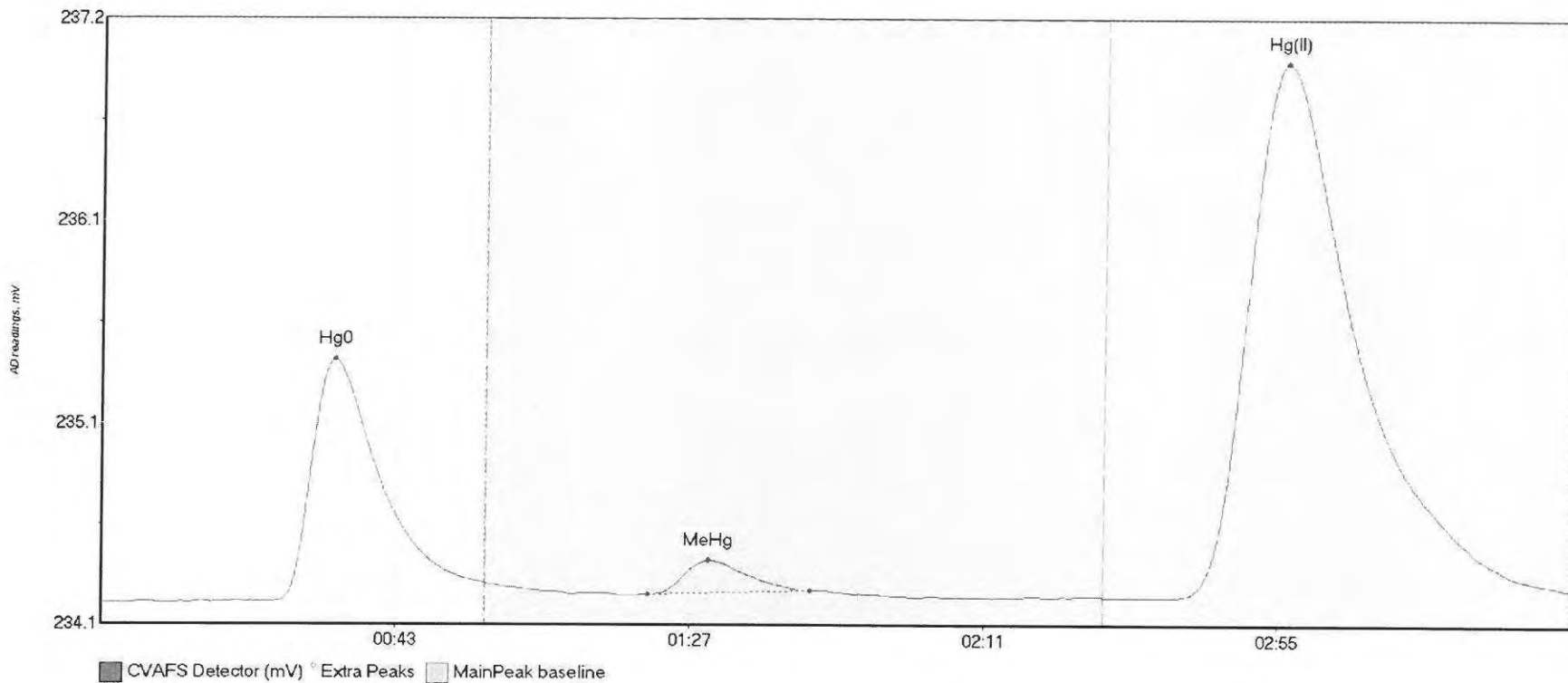
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-03RE1 H	129.218	25.4	57.5	234.18	234.27	34.8	1.150	CT	234.1851	0.00	0.07	
1610610-03RE1 M	16.923	81.6	105.3	234.22	234.25	90.6	0.173	OK	234.1851	0.00	0.07	
1610610-03RE1 H	483.137	159.3	219.8	234.21	234.26	177.1	2.588	CT	234.1851	0.00	0.07	

#29: 1610610-04RE1



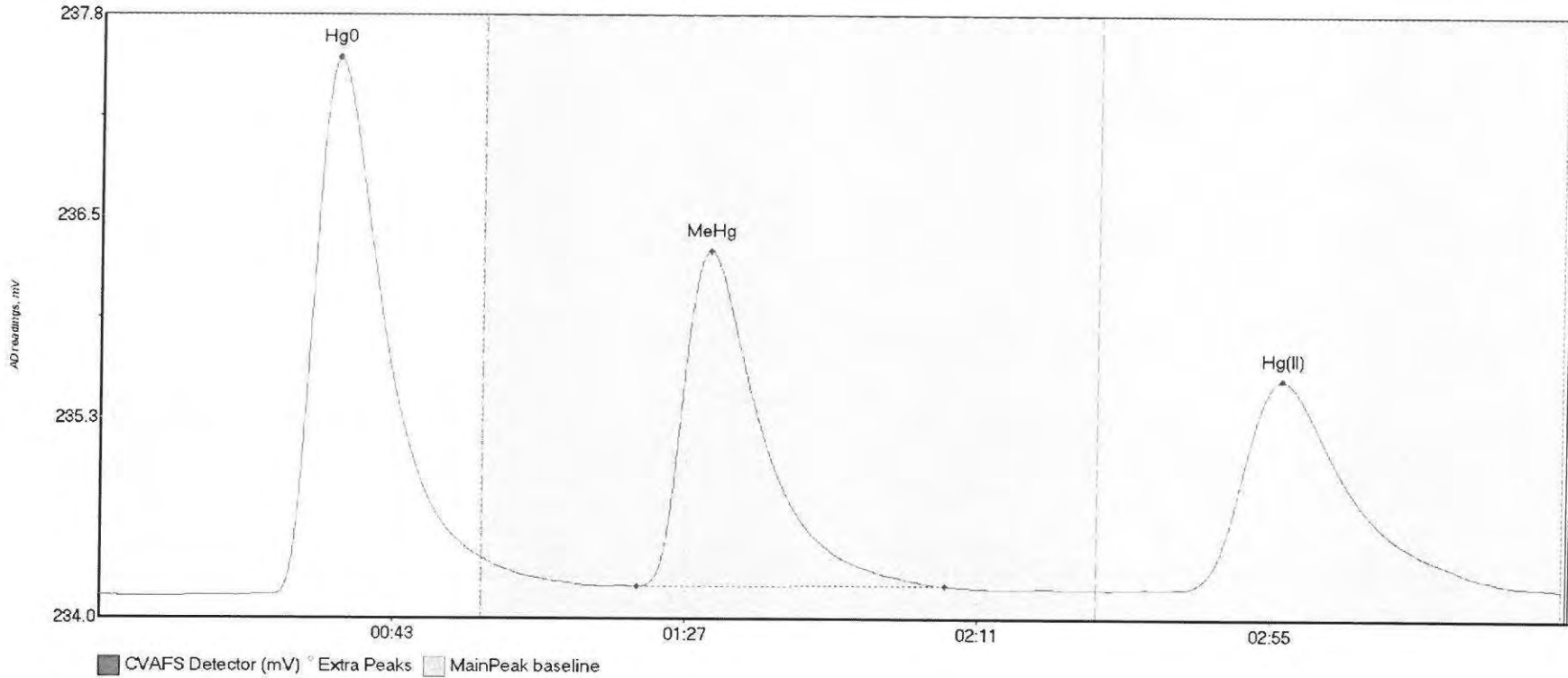
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-04RE1 H	124.954	10.6	57.5	234.19	234.28	34.9	1.156	CT	234.1861	0.00	0.06	
1610610-04RE1 M	9.819	81.2	103.5	234.23	234.25	90.7	0.100	OK	234.1861	0.00	0.06	
1610610-04RE1 H	422.810	151.7	219.8	234.20	234.25	177.3	2.273	CT	234.1861	0.00	0.06	

#30: 1610617-01RE1



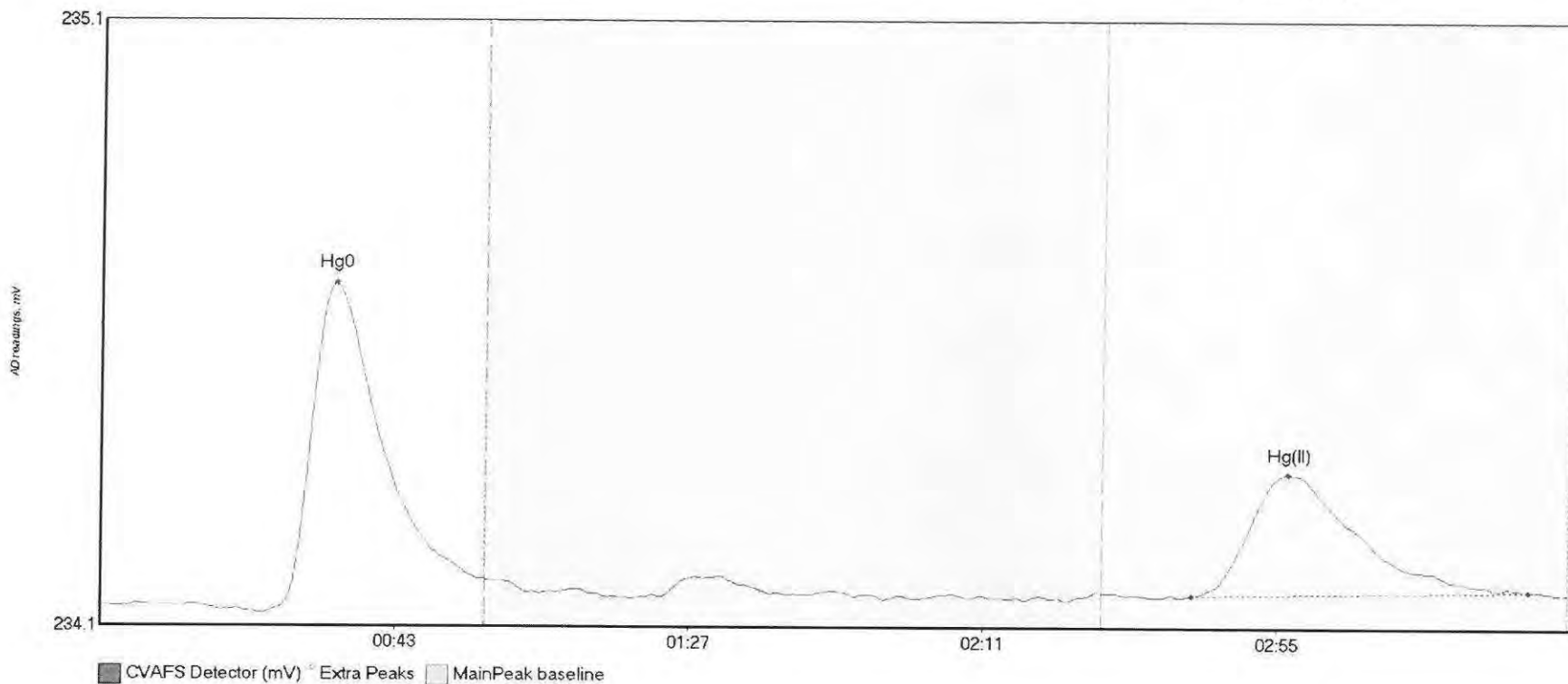
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610617-01RE1 H	136.385	16.3	57.5	234.19	234.28	34.8	1.237	CT	234.1828	0.00	0.07	
1610617-01RE1 M	18.029	81.8	106.0	234.23	234.24	90.7	0.176	OK	234.1828	0.00	0.07	
1610617-01RE1 H	505.303	161.0	219.8	234.21	234.25	177.0	2.720	CT	234.1828	0.00	0.07	

#31: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	380.856	21.9	57.5	234.19	234.43	35.5	3.340	CT	234.1898	0.00	0.05	
SEQ-CCV2 MeHg	281.973	80.9	127.2	234.25	234.25	91.4	2.086	OK	234.1898	0.00	0.05	
SEQ-CCV2 Hg(II)	240.564	161.1	219.8	234.24	234.24	177.6	1.304	CT	234.1898	0.00	0.05	

#32: SEQ-CCB2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	61.322	24.3	57.5	234.16	234.22	35.0	0.544	CF	234.1738	0.00	0.02	
SEQ-CCB2 Hg(II)	36.872	163.3	214.0	234.19	234.20	177.6	0.202	OK	234.1738	0.00	0.02	016



**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 6K01010
<b>Reviewer:</b> <i>[Signature]</i> 11/2/16	<b>Dataset ID #:</b> MMHG27001-161031-1
<b>Date:</b> 11/1/16	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F610422	<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: <i>DM</i>	Reviewer Initials: <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 checked="" type="checkbox"/> NO	<input 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 checked="" type="checkbox"/> NO	<input 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 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 <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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6K01010
<b>Reviewer:</b>	0 <i>B. [Signature]</i> 11/2/16	<b>Dataset ID #:</b>	MMHG27001-161031-1
<b>Date:</b>	11/1/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*B. [Signature]*

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 type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>NONE</b>				
13. LCS/LCSD or BS/BSD RPD (< 25%)	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>NONE</b>				
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 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 type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
19. MD RPD/MT RSD(< 35%)	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>NONE</b>				
20. Is there one set of MS/MSD per every 10 samples?	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>NONE</b>				
21. MS/MSD RPD(< 35%)	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>NONE</b>				
22. MS (AS) % Recoveries (65-130%)	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>NONE</b>				
23. MSD (ASD) % Recoveries (65-130%)	<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
Comments: <b>NONE</b>				
24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630)	<input 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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6K01010
<b>Reviewer:</b>	0 <i>[Signature]</i> 11/2/16	<b>Dataset ID #:</b>	MMHG27001-161031-1
<b>Date:</b>	11/1/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422	<b>Client(s):</b>	VARIOUS

**Analyst Initials:** DM      **Reviewer Initials:** BL

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: 6/21/16 <sup>7/9/2015</sup> 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: 6/24/2016 LOD within last 3 months (within 12 months for MDN)?  YES    NO    N/A
41. Date of LOQ: 6/24/2016 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

**THg26002-161108-1**



Frontier Global Sciences

**Analysis Datasheet for Total Mercury**

Date of Analysis: November 09, 2016

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K09002

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	111.46 units	222.92	97.35 units	194.69	99.0 %Rec
SEQ-CAL2	1	1.00 ng/L	212.45 units	212.45	198.34 units	198.34	100.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1012.13 units	202.43	998.02 units	199.60	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	3946.52 units	197.33	3932.41 units	196.62	100.0 %Rec
SEQ-CAL5	1	40.00 ng/L	7778.51 units	194.46	7764.40 units	194.11	98.7 %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**  
 196.67            +/- 2.34            1.2% RSD            205.92

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-TBL	3	14.11 units	±1.68	0.07 ng/L	±0.01

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	4.192 ng/L	±2.447
BLK	2	3	3.761 ng/L	±1.423
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: A 11/11/16

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	11/9/2016 9:14:07	16265-1.RAW	9:14:07 AM	14.00			-0.1	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	11/9/2016 9:18:16	16266-1.RAW	9:18:16 AM	15.85			1.7	0.009	0.009	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	11/9/2016 9:22:24	16267-1.RAW	9:22:24 AM	12.49			-1.6	-0.008	-0.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	11/9/2016 9:26:33	16268-1.RAW	9:26:33 AM	111.46			97.3	0.495	0.495	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	11/9/2016 9:30:41	16269-1.RAW	9:30:41 AM	212.45			198.3	1.008	1.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	11/9/2016 9:34:49	16270-1.RAW	9:34:49 AM	1012.13			998.0	5.075	5.075	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	11/9/2016 9:38:58	16271-1.RAW	9:38:58 AM	3946.52			3932.4	19.995	19.995	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	11/9/2016 9:43:06	16272-1.RAW	9:43:06 AM	7778.51			7764.4	39.479	39.479	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	11/9/2016 9:47:16	16273-1.RAW	9:47:16 AM	951.35			937.2	4.765	4.765	ng/L	
Hg2600-2	BC	BLK	F610470-BLK1	20	11/9/2016 9:51:24	16274-1.RAW	9:51:24 AM	82.53	1		68.4	0.348	6.957	ng/L	
Hg2600-2	BC	BLK	F610470-BLK2	20	11/9/2016 9:55:34	16275-1.RAW	9:55:34 AM	46.70	1		32.6	0.166	3.314	ng/L	
Hg2600-2	BC	BLK	F610470-BLK3	20	11/9/2016 9:59:42	16276-1.RAW	9:59:42 AM	36.78	1		22.7	0.115	2.305	ng/L	
Hg2600-2	BC	SAM	F610470-BS1	20	11/9/2016 10:03:51	16277-1.RAW	10:03:51 AM	1059.70	1		1045.6	5.107	102.136	ng/L	
Hg2600-2	BC	SAM	F610470-BSD1	20	11/9/2016 10:07:59	16278-1.RAW	10:07:59 AM	1016.41	1		1002.3	4.887	97.733	ng/L	
Hg2600-2	BC	SAM	F610470-BS2	500	11/9/2016 10:12:08	16279-1.RAW	10:12:08 AM	852.17	1		838.1	4.253	2126.395	ng/L	
Hg2600-2	BC	SAM	1610145-17	500	11/9/2016 10:16:16	16280-1.RAW	10:16:16 AM	645.17	1		631.1	3.200	1600.140	ng/L	
Hg2600-2	BC	SAM	1610145-18	500	11/9/2016 10:20:25	16281-1.RAW	10:20:25 AM	466.16	1		452.0	2.290	1145.044	ng/L	
Hg2600-2	BC	SAM	1610145-19	500	11/9/2016 10:24:33	16282-1.RAW	10:24:33 AM	336.12	1		322.0	1.629	814.444	ng/L	
Hg2600-2	BC	SAM	1610145-20	500	11/9/2016 10:28:42	16283-1.RAW	10:28:42 AM	388.00	1		373.9	1.893	946.338	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	11/9/2016 10:32:50	16284-1.RAW	10:32:50 AM	906.78			892.6	4.539	4.539	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	11/9/2016 10:36:59	16285-1.RAW	10:36:59 AM	29.83			15.7	0.080	0.080	ng/L	
Hg2600-2	BC	SAM	1610145-21	100	11/9/2016 10:41:07	16286-1.RAW	10:41:07 AM	5219.98	1		5205.9	26.428	2642.777	ng/L	
Hg2600-2	BC	SAM	1610145-22	100	11/9/2016 10:45:15	16287-1.RAW	10:45:15 AM	7266.48	1		7252.4	36.833	3683.339	ng/L	
Hg2600-2	BC	SAM	1610145-23	100	11/9/2016 10:49:24	16288-1.RAW	10:49:24 AM	3853.04	1		3838.9	19.477	1947.744	ng/L	
Hg2600-2	BC	SAM	1610145-24	100	11/9/2016 10:53:32	16289-1.RAW	10:53:32 AM	3237.72	1		3223.6	16.349	1634.880	ng/L	
Hg2600-2	BC	SAM	1610145-25	100	11/9/2016 10:57:41	16290-1.RAW	10:57:41 AM	3931.77	1		3917.7	19.878	1987.775	ng/L	
Hg2600-2	BC	SAM	1610145-26	100	11/9/2016 11:01:49	16291-1.RAW	11:01:49 AM	3398.14	1		3384.0	17.164	1716.447	ng/L	
Hg2600-2	BC	SAM	1610145-27	100	11/9/2016 11:05:58	16292-1.RAW	11:05:58 AM	3540.54	1		3526.4	17.889	1788.851	ng/L	
Hg2600-2	BC	SAM	1610145-28	100	11/9/2016 11:10:06	16293-1.RAW	11:10:06 AM	3210.69	1		3196.6	16.211	1621.136	ng/L	
Hg2600-2	BC	SAM	1610145-29	100	11/9/2016 11:14:15	16294-1.RAW	11:14:15 AM	2349.93	1		2335.8	11.835	1183.475	ng/L	
Hg2600-2	BC	SAM	1610145-30	100	11/9/2016 11:18:23	16295-1.RAW	11:18:23 AM	2702.29	1		2688.2	13.626	1362.635	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	11/9/2016 11:22:31	16296-1.RAW	11:22:31 AM	963.31			949.2	4.826	4.826	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	11/9/2016 11:26:40	16297-1.RAW	11:26:40 AM	55.36			41.2	0.210	0.210	ng/L	
Hg2600-2	BC	SAM	1610145-31	100	11/9/2016 11:30:48	16298-1.RAW	11:30:48 AM	2902.84	1		2888.7	14.646	1464.607	ng/L	
Hg2600-2	BC	SAM	1610145-32	100	11/9/2016 11:34:57	16299-1.RAW	11:34:57 AM	3031.68	1		3017.6	15.301	1530.117	ng/L	
Hg2600-2	BC	SAM	1610145-33	100	11/9/2016 11:39:05	16300-1.RAW	11:39:05 AM	2272.58	1		2258.5	11.441	1144.145	ng/L	
Hg2600-2	BC	SAM	1610145-34	100	11/9/2016 11:43:14	16301-1.RAW	11:43:14 AM	2449.61	1		2435.5	12.342	1234.158	ng/L	
Hg2600-2	BC	SAM	1610145-35	100	11/9/2016 11:47:22	16302-1.RAW	11:47:22 AM	2816.98	1		2802.9	14.210	1420.951	ng/L	
Hg2600-2	BC	SAM	1610145-36	100	11/9/2016 11:51:30	16303-1.RAW	11:51:30 AM	2374.49	1		2360.4	11.960	1195.963	ng/L	
Hg2600-2	BC	SAM	F610470-DUP1	100	11/9/2016 11:55:39	16304-1.RAW	11:55:39 AM	5946.79	1		5932.7	30.123	3012.330	ng/L	
Hg2600-2	BC	SAM	F610470-MS1	500	11/9/2016 11:59:47	16305-1.RAW	11:59:47 AM	3064.62	1		3050.5	15.502	7751.095	ng/L	
Hg2600-2	BC	SAM	F610470-MSD1	500	11/9/2016 12:03:56	16306-1.RAW	12:03:56 PM	3215.96	1		3201.8	16.272	8135.846	ng/L	
Hg2600-2	BC	SAM	F610470-MS2	500	11/9/2016 12:08:05	16307-1.RAW	12:08:05 PM	2337.40	1		2323.3	11.805	5902.287	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	11/9/2016 12:12:14	16308-1.RAW	12:12:14 PM	999.11			985.0	5.008	5.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	11/9/2016 12:16:22	16309-1.RAW	12:16:22 PM	58.96			44.8	0.228	0.228	ng/L	
Hg2600-2	BC	SAM	F610470-MSD2	500	11/9/2016 12:20:31	16310-1.RAW	12:20:31 PM	2459.30	1		2445.2	12.424	6212.193	ng/L	
Hg2600-2	BC	BLK	F610471-BLK1	20	11/9/2016 12:24:39	16311-1.RAW	12:24:39 PM	67.01	2		52.9	0.269	5.379	ng/L	
Hg2600-2	BC	BLK	F610471-BLK2	20	11/9/2016 12:28:47	16312-1.RAW	12:28:47 PM	45.55	2		31.4	0.160	3.197	ng/L	
Hg2600-2	BC	BLK	F610471-BLK3	20	11/9/2016 12:32:56	16313-1.RAW	12:32:56 PM	40.73	2		26.6	0.135	2.707	ng/L	
Hg2600-2	BC	SAM	F610471-BS1	20	11/9/2016 12:37:04	16314-1.RAW	12:37:04 PM	990.73	2		976.6	4.778	95.553	ng/L	
Hg2600-2	BC	SAM	F610471-BSD1	20	11/9/2016 12:41:13	16315-1.RAW	12:41:13 PM	1016.98	2		1002.9	4.911	98.222	ng/L	
Hg2600-2	BC	SAM	F610471-BS2	500	11/9/2016 12:45:21	16316-1.RAW	12:45:21 PM	833.46	2		819.3	4.159	2079.260	ng/L	
Hg2600-2	BC	SAM	1610145-37	100	11/9/2016 12:49:30	16317-1.RAW	12:49:30 PM	1893.57	2		1879.5	9.519	951.866	ng/L	
Hg2600-2	BC	SAM	1610145-38	100	11/9/2016 12:53:38	16318-1.RAW	12:53:38 PM	2529.40	2		2515.3	12.752	1275.159	ng/L	
Hg2600-2	BC	SAM	1610145-39	100	11/9/2016 12:57:47	16319-1.RAW	12:57:47 PM	1872.62	2		1858.5	9.412	941.213	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	11/9/2016 13:01:55	16320-1.RAW	1:01:55 PM	989.24			975.1	4.958	4.958	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	11/9/2016 13:06:03	16321-1.RAW	1:06:03 PM	47.01			32.9	0.167	0.167	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	1610145-40	100	11/9/2016 13:10:12	16322-1.RAW	1:10:12 PM	1358.81	2		1344.7	6.800	679.962	ng/L	
Hg2600-2	BC	SAM	1610145-41	100	11/9/2016 13:14:20	16323-1.RAW	1:14:20 PM	2418.94	2		2404.8	12.190	1218.995	ng/L	
Hg2600-2	BC	SAM	1610145-42	100	11/9/2016 13:18:29	16324-1.RAW	1:18:29 PM	1891.66	2		1877.5	9.509	950.894	ng/L	
Hg2600-2	BC	SAM	1610145-43	100	11/9/2016 13:22:37	16325-1.RAW	1:22:37 PM	1873.79	2		1859.7	9.418	941.808	ng/L	
Hg2600-2	BC	SAM	1610145-44	100	11/9/2016 13:26:46	16326-1.RAW	1:26:46 PM	2494.41	2		2480.3	12.574	1257.368	ng/L	
Hg2600-2	BC	SAM	1610145-45	100	11/9/2016 13:30:54	16327-1.RAW	1:30:54 PM	2304.21	2		2290.1	11.607	1160.659	ng/L	
Hg2600-2	BC	SAM	1610231-01	100	11/9/2016 13:35:03	16328-1.RAW	1:35:03 PM	674.18	2		660.1	3.319	331.856	ng/L	
Hg2600-2	BC	SAM	1610231-02	100	11/9/2016 13:39:11	16329-1.RAW	1:39:11 PM	1205.75	2		1191.6	6.021	602.137	ng/L	
Hg2600-2	BC	SAM	1610231-03	100	11/9/2016 13:43:19	16330-1.RAW	1:43:19 PM	388.09	2		374.0	1.864	186.391	ng/L	
Hg2600-2	BC	SAM	1610231-04	100	11/9/2016 13:47:28	16331-1.RAW	1:47:28 PM	757.32	2		743.2	3.741	374.129	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	11/9/2016 13:51:36	16332-1.RAW	1:51:36 PM	948.84			934.7	4.753	4.753	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	11/9/2016 13:55:45	16333-1.RAW	1:55:45 PM	39.17			25.1	0.127	0.127	ng/L	
Hg2600-2	BC	SAM	1610231-05	100	11/9/2016 13:59:53	16334-1.RAW	1:59:53 PM	1967.44	2		1953.3	9.894	989.425	ng/L	
Hg2600-2	BC	SAM	1610232-01	100	11/9/2016 14:04:02	16335-1.RAW	2:04:02 PM	1114.33	2		1100.2	5.557	555.654	ng/L	
Hg2600-2	BC	SAM	1610232-03	100	11/9/2016 14:08:10	16336-1.RAW	2:08:10 PM	3083.14	2		3069.0	15.567	1556.713	ng/L	
Hg2600-2	BC	SAM	1610232-04	100	11/9/2016 14:12:19	16337-1.RAW	2:12:19 PM	1349.33	2		1335.2	6.751	675.142	ng/L	
Hg2600-2	BC	SAM	1610232-05	100	11/9/2016 14:16:27	16338-1.RAW	2:16:27 PM	2211.11	2		2197.0	11.133	1113.322	ng/L	
Hg2600-2	BC	SAM	1610232-06	100	11/9/2016 14:20:35	16339-1.RAW	2:20:35 PM	1596.14	2		1582.0	8.006	800.635	ng/L	
Hg2600-2	BC	SAM	1610232-07	100	11/9/2016 14:24:44	16340-1.RAW	2:24:44 PM	1420.59	2		1406.5	7.114	711.375	ng/L	
Hg2600-2	BC	SAM	F610471-DUP1	100	11/9/2016 14:28:52	16341-1.RAW	2:28:52 PM	2725.61	2		2711.5	13.749	1374.924	ng/L	
Hg2600-2	BC	SAM	F610471-MS1	500	11/9/2016 14:33:01	16342-1.RAW	2:33:01 PM	2516.17	2		2502.1	12.714	6357.204	ng/L	
Hg2600-2	BC	SAM	F610471-MSD1	500	11/9/2016 14:37:09	16343-1.RAW	2:37:09 PM	2458.98	2		2444.9	12.424	6211.811	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	11/9/2016 14:41:18	16344-1.RAW	2:41:18 PM	975.27			961.2	4.887	4.887	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	11/9/2016 14:45:26	16345-1.RAW	2:45:26 PM	82.01			67.9	0.345	0.345	ng/L	
Hg2600-2	BC	SAM	F610471-MS2	500	11/9/2016 14:49:34	16346-1.RAW	2:49:34 PM	2119.04	2		2104.9	10.695	5347.583	ng/L	
Hg2600-2	BC	SAM	F610471-MSD2	500	11/9/2016 14:53:43	16347-1.RAW	2:53:43 PM	1970.45	2		1956.3	9.940	4969.823	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	11/9/2016 14:57:51	16348-1.RAW	2:57:51 PM	914.26			900.1	4.577	4.577	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	11/9/2016 15:02:00	16349-1.RAW	3:02:00 PM	49.96			35.8	0.182	0.182	ng/L	

TotalMercury    **Operat** BC    **Blanks** 14.114    **Calib Eqn:** Conc = (Area-14.11    **Run Date:** 11/8/2016    **Blank SD:** 1.684229152  
 EPA1631    **Worksh** WS0000    **CalibFa** 196.67    **Status:** QC Warnings:4/QC E    **Run Time:** 8:51:50    **Blank RSD%:** 11.93313659  
**Method** ####    **R:** 1    **R<sup>2</sup>:** 1    **CF SD:** 2.336722724  
**Descrip** THG26002-161108-2    **CF RSD%:** 1.188125159

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	0.02					16260-1.RAW	8:54:42	4.10	Clean	OK	1	
clean				0.00	0.00					16261-1.RAW	8:57:34	0.21	Clean	OK	1	
ws				14.11	0.00					16262-1.RAW	9:01:42	12.45	Sample	OK	1	
ws				14.11	0.00					16263-1.RAW	9:05:50	4.47	Sample	OK	1	
ws				14.11	0.00					16264-1.RAW	9:09:59	7.50	Sample	OK	1	
SEQ-IBL1	A1			0.00	0.07					16265-1.RAW	9:14:07	14.00	Sample	OK	1	
SEQ-IBL2	A2			0.00	0.08					16266-1.RAW	9:18:16	15.85	Sample	OK	1	
SEQ-IBL3	A3			0.00	0.06					16267-1.RAW	9:22:24	12.49	Sample	OK	1	
SEQ-CAL1	A4			14.11	0.49			98.99		16268-1.RAW	9:26:33	111.46	Sample	OK	1	
SEQ-CAL2	A5			14.11	1.01			100.85		16269-1.RAW	9:30:41	212.45	Sample	OK	1	
SEQ-CAL3	A6			14.11	5.07			101.49		16270-1.RAW	9:34:49	1012.13	Sample	OK	1	
SEQ-CAL4	A7			14.11	19.99			99.97		16271-1.RAW	9:38:58	3946.52	Sample	OK	1	
SEQ-CAL5	A8			14.11	39.48			98.70		16272-1.RAW	9:43:06	7778.51	Sample	OK	1	
SEQ-ICV1	A9			14.11	4.77			95.31		16273-1.RAW	9:47:16	951.35	Sample	OK	1	
F610470-BLK1	A10		20	14.11	6.96					16274-1.RAW	9:51:24	82.53	Sample	OK	1	
F610470-BLK2	A11		20	14.11	3.31					16275-1.RAW	9:55:34	46.70	Sample	OK	1	
F610470-BLK3	A12		20	14.11	2.30					16276-1.RAW	9:59:42	36.78	Sample	OK	1	
F610470-BS1	A13		20	14.11	106.33					16277-1.RAW	10:03:51	1059.70	Sample	OK	1	
F610470-BSD1	A14		20	14.11	101.93					16278-1.RAW	10:07:59	1016.41	Sample	OK	1	
F610470-BS2	A15		500	14.11	2130.57					16279-1.RAW	10:12:08	852.17	Sample	OK	1	
1610145-17	A16		500	14.11	1604.34					16280-1.RAW	10:16:16	645.17	Sample	OK	1	
1610145-18	A17		500	14.11	1149.24					16281-1.RAW	10:20:25	466.16	Sample	OK	1	
1610145-19	A18		500	14.11	818.64					16282-1.RAW	10:24:33	336.12	Sample	OK	1	
1610145-20	A19		500	14.11	950.53					16283-1.RAW	10:28:42	388.00	Sample	OK	1	
SEQ-CCV1	A20		1	14.11	4.54			90.77		16284-1.RAW	10:32:50	906.76	Sample	OK	1	
SEQ-CCB1	A21		1	14.11	0.08			0.00		16285-1.RAW	10:36:59	29.83	Sample	OK	1	
1610145-21	B1		100	14.11	2646.96					16286-1.RAW	10:41:07	5219.98	Sample	OK	1	
1610145-22	B2		100	14.11	3687.52					16287-1.RAW	10:45:15	7266.48	Sample	OK	1	
1610145-23	B3		100	14.11	1951.93					16288-1.RAW	10:49:24	3853.04	Sample	OK	1	
1610145-24	B4		100	14.11	1639.07					16289-1.RAW	10:53:32	3237.72	Sample	OK	1	
1610145-25	B5		100	14.11	1991.96					16290-1.RAW	10:57:41	3931.77	Sample	OK	1	
1610145-26	B6		100	14.11	1720.63					16291-1.RAW	11:01:49	3398.14	Sample	OK	1	
1610145-27	B7		100	14.11	1793.04					16292-1.RAW	11:05:58	3540.54	Sample	OK	1	
1610145-28	B8		100	14.11	1625.32					16293-1.RAW	11:10:06	3210.69	Sample	OK	1	
1610145-29	B9		100	14.11	1187.66					16294-1.RAW	11:14:15	2349.93	Sample	OK	1	
1610145-30	B10		100	14.11	1366.83					16295-1.RAW	11:18:23	2702.29	Sample	OK	1	
SEQ-CCV2	B11		1	14.11	4.83			96.52		16296-1.RAW	11:22:31	963.31	Sample	OK	1	
SEQ-CCB2	B12		1	14.11	0.21			0.00		16297-1.RAW	11:26:40	55.36	Sample	OK	1	
1610145-31	B13		100	14.11	1468.79					16298-1.RAW	11:30:48	2902.84	Sample	OK	1	
1610145-32	B14		100	14.11	1534.31					16299-1.RAW	11:34:57	3031.68	Sample	OK	1	
1610145-33	B15		100	14.11	1148.33					16300-1.RAW	11:39:05	2272.58	Sample	OK	1	
1610145-34	B16		100	14.11	1238.34					16301-1.RAW	11:43:14	2449.61	Sample	OK	1	
1610145-35	B17		100	14.11	1425.14					16302-1.RAW	11:47:22	2816.98	Sample	OK	1	
1610145-36	B18		100	14.11	1200.15					16303-1.RAW	11:51:30	2374.49	Sample	OK	1	
F610470-DUP1	B19		100	14.11	3016.51					16304-1.RAW	11:55:39	5946.79	Sample	OK	1	

F610470-MS1	B20	500	14.11	7755.26	257.01	16305-1.RAW	11:59:47	3064.62	Sample	OK	1
F610470-MSD1	B21	500	14.11	8140.02		16306-1.RAW	12:03:56	3215.96	Sample	OK	1
F610470-MS2	C1	500	14.11	5906.46	72.54	16307-1.RAW	12:08:05	2337.40	Sample	OK	1
SEQ-CCV3	C2	1	14.11	5.01	100.17	16308-1.RAW	12:12:14	999.11	Sample	OK	1
SEQ-CCB3	C3	1	14.11	0.23	0.00	16309-1.RAW	12:16:22	58.96	Sample	OK	1
F610470-MSD2	C4	500	14.11	6216.38		16310-1.RAW	12:20:31	2459.30	Sample	OK	1
F610471-BLK1	C5	20	14.11	5.38		16311-1.RAW	12:24:39	67.01	Sample	OK	1
F610471-BLK2	C6	20	14.11	3.20		16312-1.RAW	12:28:47	45.55	Sample	OK	1
F610471-BLK3	C7	20	14.11	2.71		16313-1.RAW	12:32:56	40.73	Sample	OK	1
F610471-BS1	C8	20	14.11	99.31		16314-1.RAW	12:37:04	990.73	Sample	OK	1
F610471-BSD1	C9	20	14.11	101.98		16315-1.RAW	12:41:13	1016.98	Sample	OK	1
F610471-BS2	C10	500	14.11	2083.02		16316-1.RAW	12:45:21	833.46	Sample	OK	1
1610145-37	C11	100	14.11	955.62		16317-1.RAW	12:49:30	1893.57	Sample	OK	1
1610145-38	C12	100	14.11	1278.92		16318-1.RAW	12:53:38	2529.40	Sample	OK	1
1610145-39	C13	100	14.11	944.97		16319-1.RAW	12:57:47	1872.62	Sample	OK	1
SEQ-CCV4	C14	1	14.11	4.96	99.16	16320-1.RAW	13:01:55	989.24	Sample	OK	1
SEQ-CCB4	C15	1	14.11	0.17	0.00	16321-1.RAW	13:06:03	47.01	Sample	OK	1
1610145-40	C16	100	14.11	683.72		16322-1.RAW	13:10:12	1358.81	Sample	OK	1
1610145-41	C17	100	14.11	1222.75		16323-1.RAW	13:14:20	2418.94	Sample	OK	1
1610145-42	C18	100	14.11	954.65		16324-1.RAW	13:18:29	1891.66	Sample	OK	1
1610145-43	C19	100	14.11	945.57		16325-1.RAW	13:22:37	1873.79	Sample	OK	1
1610145-44	C20	100	14.11	1261.13		16326-1.RAW	13:26:46	2494.41	Sample	OK	1
1610145-45	C21	100	14.11	1164.42		16327-1.RAW	13:30:54	2304.21	Sample	OK	1
1610231-01	A1	100	14.11	335.62		16328-1.RAW	13:35:03	674.18	Sample	OK	1
1610231-02	A2	100	14.11	605.90		16329-1.RAW	13:39:11	1205.75	Sample	OK	1
1610231-03	A3	100	14.11	190.15		16330-1.RAW	13:43:19	388.09	Sample	OK	1
1610231-04	A4	100	14.11	377.89		16331-1.RAW	13:47:28	757.32	Sample	OK	1
SEQ-CCV5	A5	1	14.11	4.75	95.05	16332-1.RAW	13:51:36	948.84	Sample	OK	1
SEQ-CCB5	A6	1	14.11	0.13	0.00	16333-1.RAW	13:55:45	39.17	Sample	OK	1
1610231-05	A7	100	14.11	993.18		16334-1.RAW	13:59:53	1967.44	Sample	OK	1
1610232-01	A8	100	14.11	559.42		16335-1.RAW	14:04:02	1114.33	Sample	OK	1
1610232-03	A9	100	14.11	1560.47		16336-1.RAW	14:08:10	3083.14	Sample	OK	1
1610232-04	A10	100	14.11	678.90		16337-1.RAW	14:12:19	1349.33	Sample	OK	1
1610232-05	A11	100	14.11	1117.08		16338-1.RAW	14:16:27	2211.11	Sample	OK	1
1610232-06	A12	100	14.11	804.39		16339-1.RAW	14:20:35	1596.14	Sample	OK	1
1610232-07	A13	100	14.11	715.13		16340-1.RAW	14:24:44	1420.59	Sample	OK	1
F610471-DUP1	A14	100	14.11	1378.68		16341-1.RAW	14:28:52	2725.61	Sample	OK	1
F610471-MS1	A15	500	14.11	6360.96	461.05	16342-1.RAW	14:33:01	2516.17	Sample	OK	1
F610471-MSD1	A16	500	14.11	6215.55		16343-1.RAW	14:37:09	2458.98	Sample	OK	1
SEQ-CCV6	A17	1	14.11	4.89	97.74	16344-1.RAW	14:41:18	975.27	Sample	OK	1
SEQ-CCB6	A18	1	14.11	0.35	0.00	16345-1.RAW	14:45:26	82.01	Sample	OK	1
F610471-MS2	A19	500	14.11	5351.32	228177.56	16346-1.RAW	14:49:34	2119.04	Sample	OK	1
F610471-MSD2	A20	500	14.11	4973.58		16347-1.RAW	14:53:43	1970.45	Sample	OK	1
SEQ-CCV7	A21	1	14.11	4.58	91.54	16348-1.RAW	14:57:51	914.26	Sample	OK	1
SEQ-CCB7	B1	1	14.11	0.18	0.00	16349-1.RAW	15:02:00	49.96	Sample	OK	1





## ANALYSIS SEQUENCE

6K09002



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/8/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K09002-IBL1	QC	1			
6K09002-IBL2	QC	2			
6K09002-IBL3	QC	3			
6K09002-CAL1	QC	4	1605412		
6K09002-CAL2	QC	5	1605413		
6K09002-CAL3	QC	6	1605414		
6K09002-CAL4	QC	7	1605415		
6K09002-CAL5	QC	8	1605416		
6K09002-ICV1	QC	9	1605791		
F610470-BLK1	QC	10			
F610470-BLK2	QC	11			
F610470-BLK3	QC	12			
F610470-BS1	QC	13			
F610470-BSD1	QC	14			
F610470-BS2	QC	15			
1610145-17	Hg-CVAFS-T-7030	16			
1610145-18	Hg-CVAFS-T-7030	17			
1610145-19	Hg-CVAFS-T-7030	18			
1610145-20	Hg-CVAFS-T-7030	19			
6K09002-CCV1	QC	20	1605791		
6K09002-CCB1	QC	21			
1610145-21	Hg-CVAFS-T-7030	22			
1610145-22	Hg-CVAFS-T-7030	23			
1610145-23	Hg-CVAFS-T-7030	24			
1610145-24	Hg-CVAFS-T-7030	25			
1610145-25	Hg-CVAFS-T-7030	26			
1610145-26	Hg-CVAFS-T-7030	27			
1610145-27	Hg-CVAFS-T-7030	28			
1610145-28	Hg-CVAFS-T-7030	29			
1610145-29	Hg-CVAFS-T-7030	30			
1610145-30	Hg-CVAFS-T-7030	31			
6K09002-CCV2	QC	32	1605791		
6K09002-CCB2	QC	33			
1610145-31	Hg-CVAFS-T-7030	34			
1610145-32	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K09002



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/8/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610145-33	Hg-CVAFS-T-7030	36			
1610145-34	Hg-CVAFS-T-7030	37			
1610145-35	Hg-CVAFS-T-7030	38			
1610145-36	Hg-CVAFS-T-7030	39			
F610470-DUP1	QC	40			
F610470-MS1	QC	41			
F610470-MSD1	QC	42			
F610470-MS2	QC	43			
6K09002-CCV3	QC	44	1605791		
6K09002-CCB3	QC	45			
F610470-MSD2	QC	46			
F610471-BLK1	QC	47			
F610471-BLK2	QC	48			
F610471-BLK3	QC	49			
F610471-BS1	QC	50			
F610471-BSD1	QC	51			
F610471-BS2	QC	52			
1610145-37	Hg-CVAFS-T-7030	53			
1610145-38	Hg-CVAFS-T-7030	54			
1610145-39	Hg-CVAFS-T-7030	55			
6K09002-CCV4	QC	56	1605791		
6K09002-CCB4	QC	57			
1610145-40	Hg-CVAFS-T-7030	58			
1610145-41	Hg-CVAFS-T-7030	59			
1610145-42	Hg-CVAFS-T-7030	60			
1610145-43	Hg-CVAFS-T-7030	61			
1610145-44	Hg-CVAFS-T-7030	62			
1610145-45	Hg-CVAFS-T-7030	63			
1610231-01	Hg-CVAFS-T-7030	64			
1610231-02	Hg-CVAFS-T-7030	65			
1610231-03	Hg-CVAFS-T-7030	66			
1610231-04	Hg-CVAFS-T-7030	67			
6K09002-CCV5	QC	68	1605791		
6K09002-CCB5	QC	69			
1610231-05	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

**ANALYSIS SEQUENCE**

**6K09002**

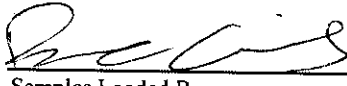


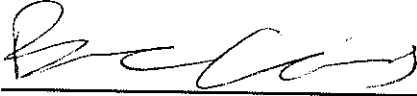
**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/8/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610232-01	Hg-CVAFS-T-7030	71			
1610232-03	Hg-CVAFS-T-7030	72			
1610232-04	Hg-CVAFS-T-7030	73			
1610232-05	Hg-CVAFS-T-7030	74			
1610232-06	Hg-CVAFS-T-7030	75			
1610232-07	Hg-CVAFS-T-7030	76			
F610471-DUP1	QC	77			
F610471-MS1	QC	78			
F610471-MSD1	QC	79			
6K09002-CCV6	QC	80	1605791		
6K09002-CCB6	QC	81			
F610471-MS2	QC	82			
F610471-MSD2	QC	83			
6K09002-CCV7	QC	84	1605791		
6K09002-CCB7	QC	85			

  
 Samples Loaded By \_\_\_\_\_ Date 11/9/16  
 1610232 11/8/16

  
 Data Processed By \_\_\_\_\_ Date 11/9/16

Due Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610470

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610470-BLK1	Blank	0.25	20					
F610470-BLK2	Blank	0.25	20					
F610470-BLK3	Blank	0.25	20					
F610470-BS1	Blank Spike	0.25	20	1605270	20			
F610470-BS2	DORM-4	0.1257	20	1605470	126			
F610470-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610470-DUP1	Duplicate [1610145-21]	0.2742	20					
F610470-MS1	Matrix Spike [1610145-21]	0.2655	20	1605712	100			
F610470-MS2	Matrix Spike [1610145-30]	0.2784	20	1605712	100			
F610470-MSD1	Matrix Spike Dup [1610145-21]	0.2869	20	1605712	100			
F610470-MSD2	Matrix Spike Dup [1610145-30]	0.2729	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606367	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610470

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610145-17	BO-04_100316_MUM_WB_17	0.297	20	-	-	-		
1610145-18	BO-04_100316_MUM_WB_18	0.2665	20	-	-	-		
1610145-19	BO-04_100316_MUM_WB_19	0.2746	20	-	-	-		
1610145-20	BO-04_100316_MUM_WB_20	0.2962	20	-	-	-		
1610145-21	MMMC-01_092316_MUM_WB_01	0.2978	20	-	-	-		
1610145-22	MMMC-01_092316_MUM_WB_02	0.2962	20	-	-	-		
1610145-23	MMMC-01_092316_MUM_WB_03	0.279	20	-	-	-		
1610145-24	MMMC-01_092316_MUM_WB_04	0.2708	20	-	-	-		
1610145-25	OB-01_092516_MUM_WB_01	0.2976	20	-	-	-		
1610145-26	OB-05_092516_MUM_WB_01	0.3086	20	-	-	-		
1610145-27	OB-05_092516_MUM_WB_02	0.2856	20	-	-	-		
1610145-28	OB-05_092516_MUM_WB_03	0.2867	20	-	-	-		
1610145-29	OB-05_092516_MUM_WB_04	0.2882	20	-	-	-		
1610145-30	OB-05_092516_MUM_WB_05	0.2835	20	-	-	-		
1610145-31	OB-05_092516_MUM_WB_06	0.257	20	-	-	-		
1610145-32	OB-05_100316_MUM_WB_07	0.2874	20	-	-	-		
1610145-33	OB-05_100316_MUM_WB_08	0.2751	20	-	-	-		
1610145-34	OB-05_100316_MUM_WB_09	0.2961	20	-	-	-		
1610145-35	OB-05_100316_MUM_WB_10	0.3068	20	-	-	-		

Page 179 of 221

Date: 11/2/2016

PREPARATION BENCH SHEET

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

1610145-36	OB-05_100316_MUM_WB_11	0.2711	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610471-BLK1	Blank	0.25	20					
F610471-BLK2	Blank	0.25	20					
F610471-BLK3	Blank	0.25	20					
F610471-BS1	Blank Spike	0.25	20	1605270	20			
F610471-BS2	DORM-4	0.1253	20	1605470	125			
F610471-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610471-DUP1	Duplicate [1610145-44]	0.2533	20					
F610471-MS1	Matrix Spike [1610145-45]	0.2565	20	1605712	100			
F610471-MS2	Matrix Spike [1610231-01]	0.3261	20	1605712	100			
F610471-MSD1	Matrix Spike Dup [1610145-45]	0.258	20	1605712	100			
F610471-MSD2	Matrix Spike Dup [1610231-01]	0.3274	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00



**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610145-37	OB-05_100316_MUM_WB_12	0.2745	20	-	-	-		
1610145-38	OB-05_100316_MUM_WB_13	0.259	20	-	-	-		
1610145-39	OB-05_100316_MUM_WB_14	0.264	20	-	-	-		
1610145-40	OB-05_100316_MUM_WB_15	0.2779	20	-	-	-		
1610145-41	OB-05_100316_MUM_WB_16	0.2712	20	-	-	-		
1610145-42	OB-05_100316_MUM_WB_17	0.2655	20	-	-	-		
1610145-43	OB-05_100316_MUM_WB_18	0.2844	20	-	-	-		
1610145-44	OB-05_100316_MUM_WB_19	0.2625	20	-	-	-		
1610145-45	OB-05_100316_MUM_WB_20	0.265	20	QC	-	-	MS/MSD	
1610231-01	ES-13_072716_POL_WB_01	0.3194	20	QC	-	-	MS/MSD	
1610231-02	ES-13_072716_POL_WB_02	0.2665	20	-	-	-		
1610231-03	ES-13_072716_POL_WB_03	0.2906	20	-	-	-		
1610231-04	ES-13_072716_POL_WB_04	0.3029	20	-	-	-		
1610231-05	ES-13_072716_POL_WB_05	0.2776	20	-	-	-		
1610232-01	ES-13_092116_RAS_WB_01	0.2891	20	-	-	-		
1610232-03	ES-FP_092716_RAS_WB_02	0.2756	20	-	-	-		
1610232-04	ES-FP_092716_RAS_WB_03	0.2737	20	-	-	-		
1610232-05	ES-FP_092716_RAS_WB_04	0.2631	20	-	-	-		
1610232-06	ES-FP_092716_RAS_WB_05	0.2648	20	-	-	-		

Page 182 of 221

Date: 11/2/2016

PREPARATION BENCH SHEET

F610471

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

1610232-07	ES-FP_092716_RAS_WB_06	0.2919	20	-	-	-		
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BC 11/8/16

2600-2

PREPARATION BENCH SHEET

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610470-BLK1	Blank	0.25	20					20X
F610470-BLK2	Blank	0.25	20					20X
F610470-BLK3	Blank	0.25	20					20X
F610470-BS1	Blank Spike	0.25	20	1605270	20			20X
F610470-BS2	DORM-4	0.1257	20	1605470	126			500X
F610470-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610470-DUP1	Duplicate [1610145-21]	0.2742	20					100X
F610470-MS1	Matrix Spike [1610145-21]	0.2655	20	1605712	100			500X
F610470-MS2	Matrix Spike [1610145-30]	0.2784	20	1605712	100			500X
F610470-MSD1	Matrix Spike Dup [1610145-21]	0.2869	20	1605712	100			500X
F610470-MSD2	Matrix Spike Dup [1610145-30]	0.2729	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606304	70/30 Digestion Acid	26-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606367	5% BrCl	26-Mar-17 00:00
			1606465		19-Apr-17 00:00

1606370  
1605634  
1605635  
1602941

PREPARATION BENCH SHEET

Rx 11/8/16  
2600-2

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610145-17	BO-04_100316_MUM_WB_17	0.297	20	No 500x	
1610145-18	BO-04_100316_MUM_WB_18	0.2665	20	No 500x	
1610145-19	BO-04_100316_MUM_WB_19	0.2746	20	No 500x	
1610145-20	BO-04_100316_MUM_WB_20	0.2962	20	No 500x	
1610145-21	MMMC-01_092316_MUM_WB_01	0.2978	20	No 100x	
1610145-22	MMMC-01_092316_MUM_WB_02	0.2962	20	No 100x	
1610145-23	MMMC-01_092316_MUM_WB_03	0.279	20	No 100x	
1610145-24	MMMC-01_092316_MUM_WB_04	0.2708	20	No 100x	
1610145-25	OB-01_092516_MUM_WB_01	0.2976	20	No 100x	
1610145-26	OB-05_092516_MUM_WB_01	0.3086	20	No 100x	
1610145-27	OB-05_092516_MUM_WB_02	0.2856	20	No 100x	
1610145-28	OB-05_092516_MUM_WB_03	0.2867	20	No 100x	
1610145-29	OB-05_092516_MUM_WB_04	0.2882	20	No 100x	
1610145-30	OB-05_092516_MUM_WB_05	0.2835	20	No 100x	
1610145-31	OB-05_092516_MUM_WB_06	0.257	20	No 100x	
1610145-32	OB-05_100316_MUM_WB_07	0.2874	20	No 100x	
1610145-33	OB-05_100316_MUM_WB_08	0.2751	20	No 100x	
1610145-34	OB-05_100316_MUM_WB_09	0.2961	20	No 100x	
1610145-35	OB-05_100316_MUM_WB_10	0.3068	20	No 100x	
1610145-36	OB-05_100316_MUM_WB_11	0.2711	20	No 100x	

**PREPARATION BENCH SHEET**

*Bi 11/8/16  
2600-2*

**F610470**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Technician: Dwyer Batch#: F610470 Date: 11/04/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:50 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 13:50 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606367/1606465) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/4/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 10-30-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 022159 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  
 Glass Vial # 00065051 Boiling Chip lot # 1603399 \*Hotblock Position: J, 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	F610470 Blank1	0.2574	23	1610145-28	0.2867	BS2 DOPM4
2	F610470 Blank2	0.2497	24	1610145-29	0.2882	1605470
3	F610470 Blank3	0.2640	25	1610145-30	0.2835	IT6
4	F610470 BS1	0.2920	26	1610145-31	0.2570	<b>Comments</b> BS1, BS01 = 100 µg/L = 20 mL 1605270 Dup1 MS1/MS01 source 1610145-21 MS2 MS02 1610145-30 11/4/16 DWS 5% BrCl Dispenser 022159 call yes MPM 11/7/16
5	F610470 BS01	0.2690	27	1610145-32	0.2874	
6	F610470 <sup>11/04/16</sup> BS2	0.1257	28	1610145-33	0.2751	
7	F610470 Dup1	0.2742	29	1610145-34	0.2961	
8	F610470 MS1	0.2655	30	1610145-35	0.3068	
9	F610470 MS01	0.2869	31	1610145-36	0.2711	
10	F610470 MS2	0.2784	32			
11	F610470 MS02	0.2729	33			
12	1610145-17	0.2970	34			
13	1610145-18	0.2665	35			
14	1610145-19	0.2746	36			
15	1610145-20	0.2962	37			
16	1610145-21	0.2978	38			
17	1610145-22	0.2962	39			
18	1610145-23	0.2790	40			
19	1610145-24	0.2708	41			
20	1610145-25	0.2976	42			
21	1610145-26	0.3086	43			
22	1610145-27	0.2856	44			

**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610471-BLK1	Blank	0.25	20					20X
F610471-BLK2	Blank	0.25	20					20X
F610471-BLK3	Blank	0.25	20					20X
F610471-BS1	Blank Spike	0.25	20	1605270	20			20X
F610471-BS2	DORM-4	0.1253	20	1605470	125			500X
F610471-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610471-DUP1	Duplicate [1610145-44]	0.2533	20					100X
F610471-MS1	Matrix Spike [1610145-45]	0.2565	20	1605712	100			500X
F610471-MS2	Matrix Spike [1610231-01]	0.3261	20	1605712	100			500X
F610471-MSD1	Matrix Spike Dup [1610145-45]	0.258	20	1605712	100			500X
F610471-MSD2	Matrix Spike Dup [1610231-01]	0.3274	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606465	5% BrCl	19-Apr-17 00:00

1606370  
1605636  
1605635  
1602941

**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610145-37	OB-05_100316_MUM_WB_12	0.2745	20	No 100X	
1610145-38	OB-05_100316_MUM_WB_13	0.259	20	No 100X	
1610145-39	OB-05_100316_MUM_WB_14	0.264	20	No 100X	
1610145-40	OB-05_100316_MUM_WB_15	0.2779	20	No 100X	
1610145-41	OB-05_100316_MUM_WB_16	0.2712	20	No 100X	
1610145-42	OB-05_100316_MUM_WB_17	0.2655	20	No 100X	
1610145-43	OB-05_100316_MUM_WB_18	0.2844	20	No 100X	
1610145-44	OB-05_100316_MUM_WB_19	0.2625	20	No 100X	
1610145-45	OB-05_100316_MUM_WB_20	0.265	20	No 100X	
1610231-01	ES-13_072716_POL_WB_01	0.3194	20	No 100X	
1610231-02	ES-13_072716_POL_WB_02	0.2665	20	No 100X	
1610231-03	ES-13_072716_POL_WB_03	0.2906	20	No 100X	
1610231-04	ES-13_072716_POL_WB_04	0.3029	20	No 100X	
1610231-05	ES-13_072716_POL_WB_05	0.2776	20	No 100X	
1610232-01	ES-13_092116_RAS_WB_01	0.2891	20	No 100X	
1610232-03	ES-FP_092716_RAS_WB_02	0.2756	20	No 100X	
1610232-04	ES-FP_092716_RAS_WB_03	0.2737	20	No 100X	
1610232-05	ES-FP_092716_RAS_WB_04	0.2631	20	No 100X	
1610232-06	ES-FP_092716_RAS_WB_05	0.2648	20	No 100X	
1610232-07	ES-FP_092716_RAS_WB_06	0.2919	20	No 100X	



**PREPARATION BENCH SHEET**

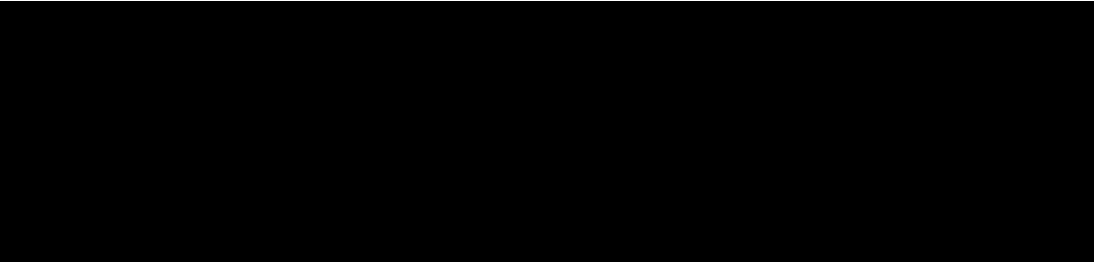
F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**



Technician: Duyon Batch#: F610 471 Date: 11-04-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:50 Actual Temp. (raw): 77.0 °C w/ CF: 76.5 °C  
 Time out: 13:50 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1600465) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/4/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M411667 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Dispenser SN#: 0222159 Calibration Date: 11/4/16  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  
 Glass Vial # 00065051 Boiling Chip lot # 1603399 \*Hotblock Position: J. 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	F610471 Blank1	0.2917	23	1610145-37	0.2917	BS2 POPH4 1605470
2	F610471 Blank2	0.2710	24	1610231-03-4/9/16	0.2906	
3	F610471 Blank3	0.2823	25	1610231-04-5/10/16	0.3029	
4	F610471 BS1	0.2980	26	1610231-05-5/10/16	0.2776	Comments BS1, BS01
5	F610471 BS01	0.2618	27	<del>11-4-16 out-06-52</del>	<del>0.24</del>	
6	F610471 BS2	0.1253	28	1610232-01	0.2891	= 100µL = 200µL 1605270
7	F610471 Dup1	0.2527	29	<del>11/4-1604-02</del>	<del>11/4/1604</del>	Dup1 source 161014544
8	F610471 MS1	0.2656	30	1610232-03	0.2756	MS1 MS01
9	F610471 MS01	0.2580	31	1610232-04	0.2737	1610145-45
10	F610471 MS2	0.3261	32	1610232-05	0.2631	MS2 MS02
11	F610471 MS02	0.3274	33	1610232-06	0.2648	1610231-01
12	1610145-37	0.2745	34	1610232-07	0.2919	Samples have a lot liquid 03, 11/4/16
13	1610145-38	0.2590	35			
14	1610145-39	0.2640	36			
15	1610145-40	0.2779	37			
16	1610145-41	0.2712	38			
17	1610145-42	0.2655	39			F610471-MS2 = 0.3261g
18	1610145-43	0.2844	40			
19	1610145-44	0.2625	41			11/4/16 04
20	1610145-45	0.2650	42			1610232-01 = 0.2891g
21	1610231-01-4/9/16	0.3194	43			
22	1610231-02-4/9/16	0.2665	44			

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

Analyst:	BC	Sequence(s) #:	6K09002
Reviewer:	<i>[Signature]</i>	Dataset ID(s):	THg26002-161108-1
Date:	11/9/2016	WO (s) #:	Various
Batch #(s):	F610470, F610471		

• 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: [Signature]

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

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

Analyst: BC	Sequence(s) #: 6K09002
Reviewer: 0 <i>[Signature]</i>	Dataset ID(s): THg26002-161108-1
Date: 11/9/2016	WO (s) #: Various
Batch #(s): F610470, F610471	0

Analyst Initials BC      Reviewer Initials A

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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   |  |  |   | <input type="checkbox"/>            |
| Comments: <u>NA</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 type="checkbox"/>            |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	BC	Sequence(s) #:	6K09002
Reviewer:	0 <i>Phy ML</i>	Dataset ID(s):	THg26002-161108-1
Date:	11/9/2016	WO (s) #:	Various
Batch #(s):	F610470, F610471		0

Analyst Initials BC                      Reviewer Initials Ph

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 25. Are re-runs noted with reason?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 27. Is the B trap <5% A Traps  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 28. Are spiked trap recoveries 75-125% of true value?  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A  |
| 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\IDOCs

- |  |                                  |   |                             |                                     |
|--|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12/17/15</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>5/24/16</u> | Current SOP revision read?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/8/16</u>                               | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/8/16</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:	BC	Sequence(s) #:	6K09002
Reviewer:	0 <i>Ry N.L.</i>	Dataset ID(s):	THg26002-161108-1
Date:	11/9/2016	WO (s) #:	Various
Batch #(s):	F610470, F610471		0

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


Additional Page (s)?  YES



Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-2442**

*The difference is service*



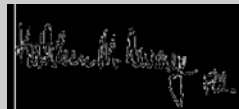
AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610231

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/16/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610231  
Work Order Number: 16-11-2442

1	Work Order Narrative. . . . .	3
2	16-11-2442 Level IV Case Narrative. . . . .	4
3	Sample Summary. . . . .	5
4	Client Sample Data. . . . .	6
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	6
5	Quality Control Sample Data. . . . .	7
	5.1 Sample Duplicate. . . . .	7
6	Glossary of Terms and Qualifiers. . . . .	8
7	Chain-of-Custody/Sample Receipt Form. . . . .	9
8	16-11-2442 Level IV Data Package. . . . .	15



**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/29/16. They were assigned to Work Order 16-11-2442.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Case Narrative

Client Project Name: 1610231  
Work Order Number: 16-11-2442

### **CONDITION UPON RECEIPT:**

Eurofins Calscience, Inc. received 5 tissue samples on November 29, 2016. A total of 5 containers were received in good condition at a temperature of 1.9°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
ES-13_072716_POL_WB_01	16-11-2442-1	7/27/2016 11:30:00 AM	11/29/2016 12:30:00 PM
ES-13_072716_POL_WB_02	16-11-2442-2	7/27/2016 11:30:00 AM	11/29/2016 12:30:00 PM
ES-13_072716_POL_WB_03	16-11-2442-3	7/27/2016 11:30:00 AM	11/29/2016 12:30:00 PM
ES-13_072716_POL_WB_04	16-11-2442-4	7/27/2016 11:30:00 AM	11/29/2016 12:30:00 PM
ES-13_072716_POL_WB_05	16-11-2442-5	7/27/2016 11:30:00 AM	11/29/2016 12:30:00 PM

### **DATA SUMMARY:**

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

Not enough sample mass was received for sample -5 to perform the requested analysis; therefore, analytical testing was performed on samples -1 through -4 only.

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -4 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/06/16 in batch # 161206B17 / 161206D17.

### **Sample and QC:**

A sample from another work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2442
11720 North Creek Parkway North, Suite 4	Project Name:	1610231
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/29/16 12:30
	Number of Containers:	5

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
ES-13_072716_POL_WB_01	16-11-2442-1	07/27/16 11:30	1	Tissue
ES-13_072716_POL_WB_02	16-11-2442-2	07/27/16 11:30	1	Tissue
ES-13_072716_POL_WB_03	16-11-2442-3	07/27/16 11:30	1	Tissue
ES-13_072716_POL_WB_04	16-11-2442-4	07/27/16 11:30	1	Tissue
ES-13_072716_POL_WB_05	16-11-2442-5	07/27/16 11:30	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/29/16  
Work Order: 16-11-2442  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1610231

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-13_072716_POL_WB_01	16-11-2442-1-A	07/27/16 11:30	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.8	0.10		1.00		
ES-13_072716_POL_WB_02	16-11-2442-2-A	07/27/16 11:30	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.3	0.10		1.00		
ES-13_072716_POL_WB_03	16-11-2442-3-A	07/27/16 11:30	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		
ES-13_072716_POL_WB_04	16-11-2442-4-A	07/27/16 11:30	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.3	0.10		1.00		
Method Blank	099-14-104-151	N/A	Tissue	N/A	12/06/16	12/06/16 00:00	161206B17
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/29/16  
 Work Order: 16-11-2442  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610231

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-11-2443-1	Sample	Tissue	N/A	12/06/16 00:00	12/06/16 00:00	161206D17
16-11-2443-1	Sample Duplicate	Tissue	N/A	12/06/16 00:00	12/06/16 00:00	161206D17

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	7.330	7.040	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-2442

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1610231

1610231

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Due: 02-Nov-16 19:00

Comments

Sample ID: 887-ES-13\_072716\_POL\_WB\_01

EFGS Lab ID: 1610231-01  
MS/MSD

Sampled: 27-Jul-16 11:30

**Misc. Subcontract 1**

*Containers Supplied:*

34 Plastic Bag (B)

Lipids Analysis

Sample ID: 888-ES-13\_072716\_POL\_WB\_02

EFGS Lab ID: 1610231-02

Sampled: 27-Jul-16 11:30

**Misc. Subcontract 1**

*Containers Supplied:*

34 Plastic Bag (B)

Lipids Analysis

Sample ID: 889-ES-13\_072716\_POL\_WB\_03

EFGS Lab ID: 1610231-03

Sampled: 27-Jul-16 11:30

**Misc. Subcontract 1**

*Containers Supplied:*

34 Plastic Bag (B)

Lipids Analysis

Sample ID: 890-ES-13\_072716\_POL\_WB\_04

EFGS Lab ID: 1610231-04

Sampled: 27-Jul-16 11:30

**Misc. Subcontract 1**

*Containers Supplied:*

34 Plastic Bag (B)

Lipids Analysis

RECEIVED

Release By

Date

Received By

Date

Released By

Date

Received By

Date

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.  
**1610231**

Analysis

Due: 02-Nov-16 19:00

Comments

Sample ID: 907 ES-13\_072716\_POI\_WB\_05

EFGS Lab ID: 1610231-05

Sampled: 27-Jul-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

**REVISÉD**

Released By		Date	11/28/16	Received By		Date	
Released By		Date	11/28/16	Received By		Date	11/29/16



SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610231

16-11-2442

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone : 7148955494  
Fax: x

Analysis

Due: 02-Nov-16 19:00

Comments

1 Sample ID: 887 ES-13\_072716\_POL\_WB\_01

EFGS Lab ID: 1610231-01  
MS/MSD

Sampled: 27-Jul-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

2 Sample ID: 888 ES-13\_072716\_POL\_WB\_02

EFGS Lab ID: 1610231-02

Sampled: 27-Jul-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

3 Sample ID: 889 ES-13\_072716\_POL\_WB\_03

EFGS Lab ID: 1610231-03

Sampled: 27-Jul-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

4 Sample ID: 890 ES-13\_072716\_POL\_WB\_04

EFGS Lab ID: 1610231-04


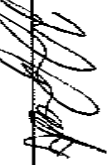

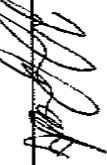
Sampled: 27-Jul-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By		Date	11/25/16	Received By		Date	11/29/16
Released By		Date	11/29/16	Received By		Date	11/29/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610231

2442

Analysis

Due: 02-Nov-16 19:00

Comments

5 Sample ID: 907 ES-13\_072716\_POL\_WB\_05

ERGS Lab ID: 1610231-05

Sampled: 27-Jul-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

  
Date 11/28/16

Received By


Date

Released By

  
Date 11/28/16

Received By

Date

 11/29/16 1230



2442

FRONT DECK  
(425) 698-1095  
FRONTIER GLOBAL SCIENCES  
11720 N CREEK PKWY N  
BOHELL WA 98011-8244

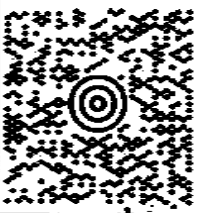
33 LBS

1 OF 1

DWT: 24.13.14

SHIP TO:  
SAMPLE RECEIVING  
(714) 896-6494  
EUROFINS CALSCIENCE, INC.  
7440 LINGOLN WAY  
GARDEN GROVE CA 92841-1427

NO POST OFFICE



CA 927 9-09



UPS NEXT DAY AIR 1  
TRACKING #: 1Z 86W 06D 01 5108 757Z



BILLING: P/P

Dept No.: OVERHEAD  
REF 2:SUBDONTR901

W9 18.0.18 Zebra ZP 480 72.0A 01/2016



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SAMPLE RECEIPT CHECKLIST

CLIENT: EFFS

DATE: 11 / 29 / 2016

COOLER 1 OF 1

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)  Sample

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 1.9 °C (w/ CF): 1.9 °C;  Blank

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: LS

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: LS

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples  Yes  No  N/A

COC document(s) received complete  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC  Yes  No  N/A

Sample container label(s) consistent with COC  Yes  No  N/A

Sample container(s) intact and in good condition  Yes  No  N/A

Proper containers for analyses requested  Yes  No  N/A

Sufficient volume/mass for analyses requested  Yes  No  N/A

Samples received within holding time  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time  Yes  No  N/A

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses  Yes  No  N/A

Volatile Organics  Total Metals  Dissolved Metals  Yes  No  N/A

Container(s) for certain analysis free of headspace  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  Yes  No  N/A

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  Yes  No  N/A

Tedlar™ bag(s) free of condensation  Yes  No  N/A

CONTAINER TYPE: (Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBP  125PB

125PBzma  250AGB  2500CGB  2500CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  Encores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix ISSUE 10/20/15  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, \_\_\_\_\_ Labeled/Checked by: LS

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: LS

\* (-1) received 3 containers.

# QUALITY CONTROL CHECKLIST

WORK ORDER NUMBER: 16-11-2442

METHOD: Lipids

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____ Date: ____/____/____
PREPARATION CONDITIONS	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Sample Aliquots Used	/			
Correct Reagents Used	/			
Correct Final Prep Volumes	/			
Correct Preparation Procedure	/			

ANALYST				Section Reviewed by: 1) <u>684</u> Date: <u>12/13/16</u> 2) _____ Date: ____/____/____ 3) _____ Date: ____/____/____			
INSTRUMENT CONDITIONS	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/		/				
Valid Initial Calibration Curve	/		/				
Valid Cont. Calibration Std.	/		/				
Other Calibration Criteria Met	/		/				
SAMPLE ANALYSIS	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/		/				
Instr. Signals within Quant. Range	/		/				
Reporting Limits Met	/		/				
REPORTING	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/		/				
Correct Batch #'s Reported	/		/				
Dilutions Reported	/		/				
Interferences Reported	/		/				
Out of Control Forms Completed	/		/				

GROUP LEADER				Section Reviewed by: <u>142</u> Date: <u>12/13/16</u>			
PROJECT REQUIREMENTS	Yes	No	N/A				Comments (If No, why, and further action required)
Analyses by CEL Standard Methods							
Normal CEL RLs							
Normal CEL QC							
Normal CEL Deliverables							
QUALITY CONTROL	Yes	No	N/A				Comments (If No, why, and further action required)
Acceptable Method Blanks (MB)	/						
Acceptable Field Blanks (FB, EB, TB)							
Acceptable Matrix Spikes (MS/MSD)							
Acceptable Lab Ctrl. Samples (LCS)							
Other Required QC Performed							
Out of Controls Addressed/Documented							
REPORTING	Yes	No	N/A				Comments (If No, why, and further action required)
Correct Date Prepared							
Correct Date Analyzed							
Correct Units							
Analyst Review Performed (Init./Date)							
Out of Control Forms Acceptable							
RESULTS CHECK	Yes	No	N/A				Comments (If No, why, and further action required)
Does the Data Make Sense	/						

GENERAL COMMENTS: Sample #5 contain water only. Need to remove from test.

Page 210 of 221

Page 15 of 26

**RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2442  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 1      CLIENT SAMPLE NUMBER: 887 ES-13\_072716\_POL\_WB\_01**

**LCS/MB BATCH:** 161206B17      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161206D17      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

COMPOUND	ON COL	CONC	DF	CONC	RL	QUAL
% Lipids	1.82		1.00	1.82	0.10	7c



**RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2442  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

**# 2**      **CLIENT SAMPLE NUMBER:** 888 ES-13\_072716\_POL\_WB\_02

**LCS/MB BATCH:** 161206B17  
**MS/MSD BATCH:** 161206D17  
**UNITS:** %

**SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.31	1.00	3.31	0.10	7c



**RAW DATA SHEET**  
**FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2442  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 3 CLIENT SAMPLE NUMBER: 889 ES-13\_072716\_POL\_WB\_03

LCS/MB BATCH: 161206B17 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161206D17 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
3.37	1.00	3.37	0.10	7c

% Lipids





**RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2442  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 4 CLIENT SAMPLE NUMBER: 890 ES-13\_072716\_POL\_WB\_04

LCS/MB BATCH: 161206B17  
MS/MSD BATCH: 161206D17  
UNITS: %

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND:

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	4.33	1.00	4.33	0.10	7c



METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**MB SAMPLE ID:** 099-14-104-151  
**MB BATCH ID:** 161206B17  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

DATA FILE:

CLIENT WORK ORDER: 16-11-2442

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
1	887 ES-13_072716_POL_WB_01	2016-12-06 00:00		
2	888 ES-13_072716_POL_WB_02	2016-12-06 00:00		
3	889 ES-13_072716_POL_WB_03	2016-12-06 00:00		
4	890 ES-13_072716_POL_WB_04	2016-12-06 00:00		



# RAW DATA SHEET FOR METHOD: MeCI2 Ext. (NOAA 1993a)

**WORK ORDER:** 099-14-104  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-06 00:00  
**DATA FILE:**

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-12-06 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**# MB**      **CLIENT SAMPLE NUMBER:** Method Blank

**LCS/MB BATCH:** 161206B17      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:**                      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %                              **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

	<u>ON COL</u>	<u>CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.0200		1.00	ND	0.10	



### DUPLICATE REPORT FOR METHOD: MeC12 Ext. (NOAA 1993a)

[Return to Contents](#) 

DUP SAMPLE ID: 16-11-2443-1  
DUP BATCH: 161206D17  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
SAMPLE: 2016-12-06 00:00  
DUP SAMPLE: 2016-12-06 00:00

ANALYZED BY: 684  
D/T ANALYZED:  
SAMPLE: 2016-12-06 00:00  
DUP SAMPLE: 2016-12-06 00:00  
REVIEWED BY:  
D/T REVIEWED:

COMPOUND	% Lipids	SAMPLE CONC	DUP CONC	% RPD	CONTROL LIMIT	STATUS	QUALIFIERS
		7.330	7.040	4	0-25	PASS	

Data Files:

TYPE	DATA FILE	SDP
	<u>DATA FILE PATH</u>	

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  LIPIDS  
 8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )  
 Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580  
 Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-  
 Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air  
 Balance ID#: 20 Filter ID#: 507-41-04 ASE ID#: — Soxtherm ID#: 1-8 Orbit Shaker ID#: — Sonicator ID#: —  
 Ext. Start Date/Time: 12/06/16 9:00 Ext. End Date/Time: 12/06/16 11:30  
 Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth  
 Surrogate Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD  
 Spike Std ID# & Volume Added (mL): Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time: Cartridge ID#:  
 Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge Conditioning Column Pre-Elution Reagent ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:  
 MB/LCS/MS Batch #: 161206817

Cell ID#:	Sample W (g) / V (mL)		Clean Up Performed	Comments
	Initial	Final		
IMB	1.00	1	<input type="checkbox"/>	
LCS			<input type="checkbox"/>	
LCSD			<input type="checkbox"/>	
MS			<input type="checkbox"/>	
MSD Dup	16-11-2443-1 A	1.02	<input type="checkbox"/>	
	16-11-2442-1 A	0.22	<input type="checkbox"/>	
	-2A	0.13	<input type="checkbox"/>	
	-3A	0.30	<input type="checkbox"/>	
	-4A	0.42	<input type="checkbox"/>	
	16-11-2443-1 A	1.02	<input type="checkbox"/>	
	-2A	1.02	<input type="checkbox"/>	
	-3A	1.00	<input type="checkbox"/>	
	-4A	1.00	<input type="checkbox"/>	
	-5A	1.02	<input type="checkbox"/>	
	-6A	1.02	<input type="checkbox"/>	
	-7A	1.01	<input type="checkbox"/>	
	16-11-2445-2 A	1.14	<input type="checkbox"/>	
	-3A	0.82	<input type="checkbox"/>	
	-4A	1.18	<input type="checkbox"/>	
	-5A	1.14	<input type="checkbox"/>	
	-6A	1.88	<input type="checkbox"/>	
	-7A	1.49	<input type="checkbox"/>	
	-8A	1.70	<input type="checkbox"/>	
	-9A	1.08	<input type="checkbox"/>	
	-10A	1.73	<input type="checkbox"/>	

Peer Reviewed by: 6824 Peer Reviewed Date: 12/06/16 Revision Date: 10/20/16



# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/04/16 Initials: 651

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	(Y)	IO Lab
	100	99.99	98.00 - 102.00	(Y)	
	500	499.98	498.00 - 502.00	(Y)	
62	0.002	0.0019	0.00180 - 0.00220	(Y)	IO Lab
	1	0.9996	0.99900 - 1.00100	(Y)	
	100	99.9977	99.90000 - 100.10000	(Y)	
26	1	1.00	0.98 - 1.02	(Y)	IO Lab
55	100	99.99	98.00 - 102.00	(Y)	
	1	1.00	0.98 - 1.02	(Y)	IO Lab
	100	99.99	98.00 - 102.00	(Y)	
11	500	499.99	498.00 - 502.00	(Y)	
	1	1.00	0.98 - 1.02	(Y)	IO Lab
	100	99.98	98.00 - 102.00	(Y)	
66	0.002	0.0018	0.00180 - 0.00220	(Y)	Metals
	1	0.9996	0.99900 - 1.00100	(Y)	
	100	99.9987	99.90000 - 100.10000	(Y)	
53	0.1	0.10	0.09 - 0.11	(Y)	Extractions
	1	1.00	0.98 - 1.02	(Y)	
	100	99.99	98.00 - 102.00	(Y)	
20	500	499.99	498 - 502	(Y)	
	1	1.01	0.98 - 1.02	(Y)	Extractions
	100	100.00	98.00 - 102.00	(Y)	
57	500	499.98	498.00 - 502.00	(Y)	
	100	100.0	98.0-102.0	(Y)	Extractions
	1000	1000.0	998.0-1002.0	(Y)	
52	2000	2000.0	1998.0-2002.0	(Y)	
	0.002	0.0019	0.0018 - 0.0022	(Y)	Extractions
	1	0.9996	0.9990 - 1.0010	(Y)	
14	100	99.9946	99.9000 - 100.1000	(Y)	BOD Room
	0.002	0.0018	0.0018 - 0.0022	(Y)	
	1	1.0001	0.9990 - 1.0010	(Y)	BOD Room
63	100	99.9946	99.9000 - 100.1000	(Y)	
	0.1	0.10	0.09 - 0.11	(Y)	BOD Room
	100	100.00	98.00 - 102.00	(Y)	
64	1	1.01	0.98 - 1.02	(Y)	Metals Clean Room
	10	10.01	9.8 - 10.2	(Y)	
	100	100.01	98.00 - 102.00	(Y)	
34	0.002	0.00203	0.0018 - 0.0022	(Y)	Oil & Grease Room
	1	0.99963	0.9990 - 1.0010	(Y)	
	100	99.99472	99.9000 - 100.1000	(Y)	
30	1	0.99	0.98 - 1.02	(Y)	Oil & Grease Room
	100	99.97	98.00 - 102.00	(Y)	

Lipid Content Raw Data Calculator

12/6/2016

	ID # A	Tissue Sampls (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
			M1	V1	V2	M2		
0-1	MB 161206B17	1.00	1	1	1.8623	1.8625	0.0002	0.02%
1	16-11-2442-1	0.22	1	1	1.9024	1.9064	0.0040	1.82%
2	16-11-2442-2	0.13	1	1	1.9185	1.9228	0.0043	3.31%
3	16-11-2442-3	0.30	1	1	1.9038	1.9139	0.0101	3.37%
4	16-11-2442-4	0.42	1	1	1.8941	1.9123	0.0182	4.33%
5	16-11-2443-1	1.02	1	1	1.9010	1.9758	0.0748	7.33%
6	16-11-2443-2	1.02	1	1	1.9041	1.9277	0.0236	2.31%
7	16-11-2443-3	1.00	1	1	1.8979	1.9270	0.0291	2.91%
8	16-11-2443-4	1.00	1	1	1.8948	2.0644	0.1696	16.96%
9	16-11-2443-5	1.02	1	1	1.9010	1.9133	0.0123	1.21%
10	16-11-2443-6	1.02	1	1	1.9041	1.9202	0.0161	1.58%
11	16-11-2443-7	1.01	1	1	1.8897	1.9075	0.0178	1.76%
12	16-11-2445-2	1.14	1	1	1.8868	1.9138	0.0270	2.37%
13	16-11-2445-3	0.82	1	1	1.9092	1.9215	0.0123	1.50%
14	16-11-2445-4	1.18	1	1	1.9021	1.9288	0.0267	2.26%
15	16-11-2445-5	1.14	1	1	1.8903	1.9140	0.0237	2.08%
16	16-11-2445-6	1.88	1	1	1.9088	1.9365	0.0277	1.47%
17	16-11-2445-7	1.49	1	1	1.8922	1.9318	0.0396	2.66%
18	16-11-2445-8	1.70	1	1	1.9115	1.9223	0.0108	0.64%
19	16-11-2445-9	1.08	1	1	1.9123	1.9272	0.0149	1.38%
20	16-11-2445-10	1.73	1	1	1.8902	1.9176	0.0274	1.58%
Dup-1	D 16-11-2443-1	1.02	1	1	1.8863	1.9581	0.0718	7.04%
L-3	LCS-161206L17	0.12	1	1	1.8869	1.9998	0.1129	94.1%

Samples ID#	Lipid Content (%)	RPD
16-11-2443-1	7.33%	-4%
161206D17		
Dup 16-11-2443-1	7.04%	



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 907-44-06	4) Sand 907-19-19	1) Filter 907-41-04	
2) C <sub>6</sub> H <sub>14</sub> -			
3) Na <sub>2</sub> SO <sub>4</sub> -			

MATRIX	BATCH NUMBER	COMMENTS
Tissue	MB: 161206 B17 Sample Duplicate: 161206 D17	

CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2443-1A	7.33	4	0-10	
Duplicate 16-11-2443-1A	7.04			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
				12/06/16	MB	1.00	34				
	16-11-2442-1A	0.22				1.9024	1.9064	0.0040	1.82		
	-2	0.13				1.9185	1.9228	0.0043	3.31		
	-3	0.30				1.9038	1.9139	0.0101	3.37		
	-4 A	0.42				1.8941	1.9123	0.0182	4.33		
	16-11-2443-1A	1.02				1.9010	1.9758	0.0748	7.33		
	-2	1.02				1.9041	1.9277	0.0236	2.31		
	-3	1.00				1.8979	1.9270	0.0291	2.91		
	-4	1.00				1.8948	2.0644	0.1696	16.96		
	-5	1.02				1.9010	1.9133	0.0123	1.21		
	-6	1.02				1.9041	1.9202	0.0161	1.58		
	-7 A	1.01				1.8897	1.9075	0.0178	1.76		
	16-11-2445-2A	1.14				1.8868	1.9138	0.0270	2.37		
	-3	0.82				1.9092	1.9215	0.0123	1.50		
	-4	1.18				1.9021	1.9288	0.0267	2.26		
	-5	1.14				1.8903	1.9140	0.0237	2.08		
	-6	1.88				1.9088	1.9365	0.0277	1.47		
	-7	1.49				1.8922	1.9318	0.0396	2.66		
	-8	1.70				1.9115	1.9223	0.0108	0.64		
	-9	1.08				1.9123	1.9272	0.0149	1.38		
	-10 A	1.73				1.8902	1.9176	0.0274	1.58		
	Duplicate 16-11-2443-1A	1.02				1.8863	1.9581	0.0718	7.04		





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_092116_RAS_WB_01	1610232-01	Tissue	21-Sep-16 12:04	05-Oct-16 09:30
ES-FP_092716_RAS_WB_01	1610232-02	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_02	1610232-03	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_03	1610232-04	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_04	1610232-05	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_05	1610232-06	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_06	1610232-07	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_07	1610232-08	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_08	1610232-09	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_09	1610232-10	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_10	1610232-11	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_11	1610232-12	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_12	1610232-13	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_13	1610232-14	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_14	1610232-15	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_15	1610232-16	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_16	1610232-17	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_17	1610232-18	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_18	1610232-19	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_19	1610232-20	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
ES-FP_092716_RAS_WB_20	1610232-21	Tissue	27-Sep-16 11:30	05-Oct-16 09:30
OB-01_092116_RAS_WB_01	1610232-22	Tissue	21-Sep-16 13:34	05-Oct-16 09:30
OB-01_092116_RAS_WB_02	1610232-23	Tissue	21-Sep-16 13:34	05-Oct-16 09:30
OB-01_092116_RAS_WB_03	1610232-24	Tissue	21-Sep-16 13:34	05-Oct-16 09:30
OB-01_092116_RAS_WB_04	1610232-25	Tissue	21-Sep-16 13:34	05-Oct-16 09:30
OB-01_092116_RAS_WB_05	1610232-26	Tissue	21-Sep-16 13:34	05-Oct-16 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.

Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-01_092116_RAS_WB_06	1610232-27	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_07	1610232-28	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_08	1610232-29	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_09	1610232-30	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_10	1610232-31	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_11	1610232-32	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_12	1610232-33	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_13	1610232-34	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_14	1610232-35	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_15	1610232-36	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_16	1610232-37	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_17	1610232-38	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_18	1610232-39	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_19	1610232-40	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-01_092116_RAS_WB_20	1610232-41	Tissue	21-Sep-16 12:54	05-Oct-16 09:30
OB-05_092116_RAS_WB_01	1610232-42	Tissue	21-Sep-16 15:00	05-Oct-16 09:30

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:49

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/20/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

## ANALYTICAL AND QUALITY CONTROL ISSUES

Samples were prepped in 4 batches for Total Mercury; F610491, F610471, F610492, and F610510. In batch F610491, samples 1610232-02 and 161010232-22 were used as the batch QC source. In batch F610510, sample 1610232-26 was used as the QC source.

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

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

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the

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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.*

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

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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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.*

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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1610232

Client: AMEC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/7/16 Labeled By: Bow

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

Received By: LM

Label Verified By: CSF

# of Coolers Received: 3

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>-5.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LM</u>
Cooler 1: <u>-46 °C</u>	w/CF: <u>-46.1 °C</u>	Cooler 4: _____ °C	w/CF: _____ °C
Cooler 2: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	Cooler 5: _____ °C	w/CF: _____ °C
Cooler 3: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	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>Y</u>	

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

1: 8756 4740 9231      2: 7842 6248 7980      3: 7842 6248 7991

1610232

*Samp # Sample Date Sample Time Field Sample ID QC Code Qty Total Qty Each Bottle Size and Material Preservative Medium Method Fraction*

WB-20  
#777

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Medium	Method	Fraction
779	10/3/2016	9:30	OB-05_100316_MUM_WB_MD_		1						
				MSD	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
887	7/27/2016	11:30	ES-13_072716_POL_WB_01		1						
				FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
888	7/27/2016	11:30	ES-13_072716_POL_WB_02		1						
				FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
889	7/27/2016	11:30	ES-13_072716_POL_WB_03		1						
				FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
890	7/27/2016	11:30	ES-13_072716_POL_WB_04		1						
				FS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
907	7/27/2016	11:30	ES-13_072716_POL_WB_MS		1						
				MS	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
908	7/27/2016	11:30	ES-13_072716_POL_WB_MD01		1						
				MS/MSD	1	2 oz	Polyethylene	Freeze	TIS	Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1019	9/21/2016	12:04	ES-13_092116_RAS_WB_01		1						
				FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1041	9/27/2016	11:30	ES-FP_092716_RAS_WB_01		1						
				FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1042	9/27/2016	11:30	ES-FP_092716_RAS_WB_02		1						
				FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1043	9/27/2016	11:30	ES-FP_092716_RAS_WB_03		1						
				FS	1		Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

Need 5 samples run plus an MS/MSD

use for MS/MSD

MS

MS/MSD

use for MS/MSD

Homogenize w/ MS/MSD volume if present

Tuesday, October 04, 2016

Page 20 of 30

DMK  
10/6/10

Kos Seal  
-40.1°C, -47.1°C, 47.1°C  
FolBR  
8756 4740 9231

*[Signature]*  
Lars M. Hett  
EPLS  
10/5/16 9:30

1610232

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media Method</i>	<i>Fraction</i>
1044	9/27/2016	11:30	ES-FP_092716_RAS_WB_04		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1045	9/27/2016	11:30	ES-FP_092716_RAS_WB_05		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1046	9/27/2016	11:30	ES-FP_092716_RAS_WB_06		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1047	9/27/2016	11:30	ES-FP_092716_RAS_WB_07		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1048	9/27/2016	11:30	ES-FP_092716_RAS_WB_08		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1049	9/27/2016	11:30	ES-FP_092716_RAS_WB_09		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1050	9/27/2016	11:30	ES-FP_092716_RAS_WB_10		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1051	9/27/2016	11:30	ES-FP_092716_RAS_WB_11		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1052	9/27/2016	11:30	ES-FP_092716_RAS_WB_12		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1053	9/27/2016	11:30	ES-FP_092716_RAS_WB_13		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1054	9/27/2016	11:30	ES-FP_092716_RAS_WB_14		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 21 of 30



1610232

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
1055	9/27/2016	11:30	ES-FP_092716_RAS_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1056	9/27/2016	11:30	ES-FP_092716_RAS_WB_16		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1057	9/27/2016	11:30	ES-FP_092716_RAS_WB_17		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1058	9/27/2016	11:30	ES-FP_092716_RAS_WB_18		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1059	9/27/2016	11:30	ES-FP_092716_RAS_WB_19		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1060	9/27/2016	11:30	ES-FP_092716_RAS_WB_20		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
				MS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1063	9/21/2016	13:34	OB-01_092116_RAS_WB_01		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1064	9/21/2016	13:34	OB-01_092116_RAS_WB_02		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1065	9/21/2016	13:34	OB-01_092116_RAS_WB_03		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

WB\_01  
1041

Tuesday, October 04, 2016

Page 22 of 30

DKK  
10/6/16

1610232

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1066	9/21/2016	13:34	OB-01_092116_RAS_WB_04	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1067	9/21/2016	13:34	OB-01_092116_RAS_WB_05	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1068	9/21/2016	12:54	OB-01_092116_RAS_WB_06	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1069	9/21/2016	12:54	OB-01_092116_RAS_WB_07	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1070	9/21/2016	12:54	OB-01_092116_RAS_WB_08	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1071	9/21/2016	12:54	OB-01_092116_RAS_WB_09	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1072	9/21/2016	12:54	OB-01_092116_RAS_WB_10	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1073	9/21/2016	12:54	OB-01_092116_RAS_WB_11	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1074	9/21/2016	12:54	OB-01_092116_RAS_WB_12	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1075	9/21/2016	12:54	OB-01_092116_RAS_WB_13	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1076	9/21/2016	12:54	OB-01_092116_RAS_WB_14	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

USE FOR MS/MSD

Tuesday, October 04, 2016

Page 23 of 30

Dyk  
10/6/16

1610232

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media	Method	Fraction
1077	9/21/2016	12:54	OB-01_092116_RAS_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1078	9/21/2016	12:54	OB-01_092116_RAS_WB_16		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1079	9/21/2016	12:54	OB-01_092116_RAS_WB_17		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1080	9/21/2016	12:54	OB-01_092116_RAS_WB_18		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1081	9/21/2016	12:54	OB-01_092116_RAS_WB_19		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1082	9/21/2016	12:54	OB-01_092116_RAS_WB_20		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
		13:34		FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1083	9/21/2016	<del>12:00</del>	OB-01_092116_RAS_WB_MS_		1						
				MS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1084	9/21/2016	<del>12:00</del>	OB-01_092116_RAS_WB_MD_		1						
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1085	9/21/2016	15:00	OB-05_092116_RAS_WB_01		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1413	9/29/2016	12:00	FRB-01_092916_TOM_WB_01		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1433	9/29/2016	12:00	FRB-01_092916_TOM_WB_MD_		1						
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

WB-05  
#1067

WB-01  
1413

Tuesday, October 04, 2016

Page 24 of 30

DMK  
10/6/16

1610232

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material Preservative Media Method</i>	<i>Fraction</i>
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QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: *J. Desjarlais* IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16.00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FOX EX TRACKING: 8756 47 40 923 1

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-13\_092116\_RAS\_WB\_01**  
**1610232-01**

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	38.4	0.387	3.46	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_01**  
**1610232-02**

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	93.6	2.08	18.5	ng/g	500	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_02**  
**1610232-03**

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	113	0.406	3.63	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_03**  
**1610232-04**

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	49.3	0.409	3.65	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

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14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_04**  
**1610232-05**

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	84.6	0.426	3.80	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_05**  
**1610232-06**

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	60.5	0.423	3.78	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_06**  
**1610232-07**

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	48.7	0.384	3.43	ng/g	100	F610471	04-Nov-16	6K09002	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_07**  
**1610232-08**

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	36.2	0.440	3.93	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_08**  
**1610232-09**

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	108	2.04	18.2	ng/g	500	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_09**  
**1610232-10**

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	78.4	2.11	18.9	ng/g	500	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_10**  
**1610232-11**

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	35.4	0.429	3.83	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_11**  
**1610232-12**

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	74.1	0.421	3.76	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_12**  
**1610232-13**

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	54.7	0.394	3.52	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_13**  
**1610232-14**

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	56.0	0.384	3.43	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_14**  
**1610232-15**

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	31.4	0.417	3.73	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_15**  
**1610232-16**

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	64.0	0.391	3.49	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_16**  
**1610232-17**

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	60.7	0.395	3.52	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_17**  
**1610232-18**

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	44.4	0.414	3.70	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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AMEC Foster Wheeler  
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_18**  
**1610232-19**

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	27.1	0.402	3.59	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	



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Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_19**  
**1610232-20**

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	33.4	0.382	3.41	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**ES-FP\_092716\_RAS\_WB\_20**  
**1610232-21**

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	39.8	0.413	3.69	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_01**  
**1610232-22**

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	44.5	0.418	3.73	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_02**  
**1610232-23**

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	54.9	0.377	3.37	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_03**  
**1610232-24**

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	55.6	0.394	3.52	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_04**  
**1610232-25**

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	0.363	3.24	ng/g	100	F610491	01-Nov-16	6K07013	07-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_05**  
**1610232-26**

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	81.9	0.445	3.98	ng/g	100	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_06**  
**1610232-27**

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	146	1.90	17.0	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_07**  
**1610232-28**

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	140	2.10	18.8	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_08**  
**1610232-29**

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	75.3	2.09	18.7	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_09**  
**1610232-30**

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	90.8	2.08	18.6	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_10**  
**1610232-31**

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	94.6	2.13	19.1	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_11**  
**1610232-32**

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	95.4	2.10	18.7	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_12**  
**1610232-33**

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	116	2.24	20.0	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_13**  
**1610232-34**

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	79.5	2.19	19.6	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_14**  
**1610232-35**

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	31.8	0.423	3.78	ng/g	100	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_15**  
**1610232-36**

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	33.6	0.428	3.82	ng/g	100	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_16**  
**1610232-37**

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	102	2.08	18.6	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_17**  
**1610232-38**

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	103	2.08	18.6	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_18**  
**1610232-39**

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	44.2	2.09	18.7	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_19**  
**1610232-40**

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	58.2	2.17	19.4	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-01\_092116\_RAS\_WB\_20**  
**1610232-41**

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	82.8	2.13	19.0	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:49

**OB-05\_092116\_RAS\_WB\_01**  
**1610232-42**

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	201	2.12	18.9	ng/g	500	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K07013 - F610469</b>											
<b>Cal Standard (6K07013-CAL1)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.506	-		ng/L	0.50100		101				
<b>Cal Standard (6K07013-CAL2)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	1.019	-		ng/L	1.0020		102				
<b>Cal Standard (6K07013-CAL3)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	5.077	-		ng/L	5.0100		101				
<b>Cal Standard (6K07013-CAL4)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	19.55	-		ng/L	20.040		97.6				
<b>Cal Standard (6K07013-CAL5)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	39.01	-		ng/L	40.080		97.3				
<b>Calibration Blank (6K07013-CCB1)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.038	-		ng/L							
<b>Calibration Blank (6K07013-CCB2)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.053	-		ng/L							
<b>Calibration Blank (6K07013-CCB3)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.063	-		ng/L							
<b>Calibration Blank (6K07013-CCB4)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.034	-		ng/L							
<b>Calibration Blank (6K07013-CCB5)</b> Prepared & Analyzed: 07-Nov-16											
Mercury	0.040	-		ng/L							

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K07013 - F610469</b>											
<b>Calibration Blank (6K07013-CCB6)</b>											
Mercury	0.082	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB7)</b>											
Mercury	0.073	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB8)</b>											
Mercury	0.112	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCB9)</b>											
Mercury	0.093	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Blank (6K07013-CCBA)</b>											
Mercury	0.112	-		ng/L							Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV1)</b>											
Mercury	4.980	-		ng/L	5.0000		99.6	77-123			Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV2)</b>											
Mercury	4.668	-		ng/L	5.0000		93.4	77-123			Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV3)</b>											
Mercury	4.727	-		ng/L	5.0000		94.5	77-123			Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV4)</b>											
Mercury	4.617	-		ng/L	5.0000		92.3	77-123			Prepared & Analyzed: 07-Nov-16
<b>Calibration Check (6K07013-CCV5)</b>											
Mercury	4.790	-		ng/L	5.0000		95.8	77-123			Prepared & Analyzed: 07-Nov-16

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6K07013 - F610469

<b>Calibration Check (6K07013-CCV6)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	4.741	-		ng/L	5.0000		94.8	77-123				
<b>Calibration Check (6K07013-CCV7)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	4.857	-		ng/L	5.0000		97.1	77-123				
<b>Calibration Check (6K07013-CCV8)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	4.916	-		ng/L	5.0000		98.3	77-123				
<b>Calibration Check (6K07013-CCV9)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	4.887	-		ng/L	5.0000		97.7	77-123				
<b>Calibration Check (6K07013-CCVA)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	4.679	-		ng/L	5.0000		93.6	77-123				
<b>Instrument Blank (6K07013-IBL1)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K07013-IBL2)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K07013-IBL3)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Initial Cal Check (6K07013-ICV1)</b>												Prepared & Analyzed: 07-Nov-16
Mercury	4.716	-		ng/L	5.0000		94.3	77-123				

Batch 6K09002 - F610470

<b>Cal Standard (6K09002-CAL1)</b>												Prepared: 08-Nov-16 Analyzed: 09-Nov-16
Mercury	0.495	-		ng/L	0.50100		98.8					

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K09002 - F610470</b>											
<b>Cal Standard (6K09002-CAL2)</b>											
Mercury	1.008	-		ng/L	1.0020		101				Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Cal Standard (6K09002-CAL3)</b>											
Mercury	5.075	-		ng/L	5.0100		101				Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Cal Standard (6K09002-CAL4)</b>											
Mercury	19.99	-		ng/L	20.040		99.8				Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Cal Standard (6K09002-CAL5)</b>											
Mercury	39.48	-		ng/L	40.080		98.5				Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Calibration Blank (6K09002-CCB1)</b>											
Mercury	0.080	-		ng/L							Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Calibration Blank (6K09002-CCB2)</b>											
Mercury	0.210	-		ng/L							Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Calibration Blank (6K09002-CCB3)</b>											
Mercury	0.228	-		ng/L							Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Calibration Blank (6K09002-CCB4)</b>											
Mercury	0.167	-		ng/L							Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Calibration Blank (6K09002-CCB5)</b>											
Mercury	0.127	-		ng/L							Prepared: 08-Nov-16 Analyzed: 09-Nov-16
<b>Calibration Blank (6K09002-CCB6)</b>											
Mercury	0.345	-		ng/L							Prepared: 08-Nov-16 Analyzed: 09-Nov-16

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K09002 - F610470</b>											
<b>Calibration Blank (6K09002-CCB7)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.182	-		ng/L							
<b>Calibration Check (6K09002-CCV1)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.539	-		ng/L	5.0000		90.8	77-123			
<b>Calibration Check (6K09002-CCV2)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.826	-		ng/L	5.0000		96.5	77-123			
<b>Calibration Check (6K09002-CCV3)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	5.008	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (6K09002-CCV4)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.958	-		ng/L	5.0000		99.2	77-123			
<b>Calibration Check (6K09002-CCV5)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.753	-		ng/L	5.0000		95.1	77-123			
<b>Calibration Check (6K09002-CCV6)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.887	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (6K09002-CCV7)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	4.577	-		ng/L	5.0000		91.5	77-123			
<b>Instrument Blank (6K09002-IBL1)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K09002-IBL2)</b> Prepared: 08-Nov-16 Analyzed: 09-Nov-16											
Mercury	ND	0.004	0.040	ng/L							U

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Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6K09002 - F610470

Instrument Blank (6K09002-IBL3)

Prepared: 08-Nov-16 Analyzed: 09-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (6K09002-ICV1)

Prepared: 08-Nov-16 Analyzed: 09-Nov-16

Mercury	4.765	-		ng/L	5.0000		95.3	77-123			
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Batch 6K10008 - F610492

Cal Standard (6K10008-CAL1)

Prepared & Analyzed: 09-Nov-16

Mercury	0.523	-		ng/L	0.50100		104				
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Cal Standard (6K10008-CAL2)

Prepared & Analyzed: 09-Nov-16

Mercury	1.016	-		ng/L	1.0020		101				
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Cal Standard (6K10008-CAL3)

Prepared & Analyzed: 09-Nov-16

Mercury	4.926	-		ng/L	5.0100		98.3				
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Cal Standard (6K10008-CAL4)

Prepared & Analyzed: 09-Nov-16

Mercury	19.58	-		ng/L	20.040		97.7				
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Cal Standard (6K10008-CAL5)

Prepared & Analyzed: 09-Nov-16

Mercury	38.96	-		ng/L	40.080		97.2				
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Calibration Blank (6K10008-CCB1)

Prepared & Analyzed: 09-Nov-16

Mercury	0.055	-		ng/L							
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Calibration Blank (6K10008-CCB2)

Prepared & Analyzed: 09-Nov-16

Mercury	0.032	-		ng/L							
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Amy Goodall, Project Manager



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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10008 - F610492</b>											
<b>Calibration Blank (6K10008-CCB3)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.037	-		ng/L							
<b>Calibration Blank (6K10008-CCB4)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.028	-		ng/L							
<b>Calibration Blank (6K10008-CCB6)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.052	-		ng/L							
<b>Calibration Blank (6K10008-CCB7)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.058	-		ng/L							
<b>Calibration Blank (6K10008-CCB8)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.057	-		ng/L							
<b>Calibration Blank (6K10008-CCB9)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.337	-		ng/L							
<b>Calibration Blank (6K10008-CCBA)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.203	-		ng/L							
<b>Calibration Blank (6K10008-CCBB)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.150	-		ng/L							
<b>Calibration Check (6K10008-CCV1)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	5.138	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (6K10008-CCV2)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.767	-		ng/L	5.0000		95.3	77-123			

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Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10008 - F610492</b>											
<b>Calibration Check (6K10008-CCV3)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.701	-		ng/L	5.0000		94.0	77-123			
<b>Calibration Check (6K10008-CCV4)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.788	-		ng/L	5.0000		95.8	77-123			
<b>Calibration Check (6K10008-CCV6)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.879	-		ng/L	5.0000		97.6	77-123			
<b>Calibration Check (6K10008-CCV7)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.718	-		ng/L	5.0000		94.4	77-123			
<b>Calibration Check (6K10008-CCV8)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.704	-		ng/L	5.0000		94.1	77-123			
<b>Calibration Check (6K10008-CCV9)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	5.141	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (6K10008-CCVA)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.928	-		ng/L	5.0000		98.6	77-123			
<b>Calibration Check (6K10008-CCVB)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	5.012	-		ng/L	5.0000		100	77-123			
<b>Instrument Blank (6K10008-IBL1)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10008-IBL2)</b> Prepared & Analyzed: 09-Nov-16											
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 6K10008 - F610492

Instrument Blank (6K10008-IBL3)

Prepared & Analyzed: 09-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (6K10008-ICV1)

Prepared & Analyzed: 09-Nov-16

Mercury	4.743	-		ng/L	5.0000		94.9	77-123			
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Batch 6K10018 - F610510

Cal Standard (6K10018-CAL1)

Prepared & Analyzed: 10-Nov-16

Mercury	0.520	-		ng/L	0.50100		104				
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Cal Standard (6K10018-CAL2)

Prepared & Analyzed: 10-Nov-16

Mercury	0.992	-		ng/L	1.0020		99.0				
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Cal Standard (6K10018-CAL3)

Prepared & Analyzed: 10-Nov-16

Mercury	4.994	-		ng/L	5.0100		99.7				
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Cal Standard (6K10018-CAL4)

Prepared & Analyzed: 10-Nov-16

Mercury	19.09	-		ng/L	20.040		95.3				
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Cal Standard (6K10018-CAL5)

Prepared & Analyzed: 10-Nov-16

Mercury	40.53	-		ng/L	40.080		101				
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Calibration Blank (6K10018-CCB1)

Prepared & Analyzed: 10-Nov-16

Mercury	0.047	-		ng/L							
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Calibration Blank (6K10018-CCB2)

Prepared & Analyzed: 10-Nov-16

Mercury	0.057	-		ng/L							
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Calibration Blank (6K10018-CCB3)</b>											
Mercury	0.114	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB4)</b>											
Mercury	0.112	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB5)</b>											
Mercury	0.118	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB6)</b>											
Mercury	0.182	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB7)</b>											
Mercury	0.179	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB8)</b>											
Mercury	0.105	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB9)</b>											
Mercury	0.101	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV1)</b>											
Mercury	4.771	-		ng/L	5.0000		95.4	77-123			Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV2)</b>											
Mercury	4.625	-		ng/L	5.0000		92.5	77-123			Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV3)</b>											
Mercury	4.707	-		ng/L	5.0000		94.1	77-123			Prepared & Analyzed: 10-Nov-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 6K10018 - F610510

<b>Calibration Check (6K10018-CCV4)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.609	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV5)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.678	-		ng/L	5.0000		93.6	77-123			
<b>Calibration Check (6K10018-CCV6)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.542	-		ng/L	5.0000		90.8	77-123			
<b>Calibration Check (6K10018-CCV7)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.981	-		ng/L	5.0000		99.6	77-123			
<b>Calibration Check (6K10018-CCV8)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.610	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV9)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.524	-		ng/L	5.0000		90.5	77-123			
<b>Instrument Blank (6K10018-IBL1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K10018-ICV1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			

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AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:49
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**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610471 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610471-BLK1)</b> Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.430	0.090	0.800	ng/g							J
<b>Blank (F610471-BLK2)</b> Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.256	0.090	0.800	ng/g							J
<b>Blank (F610471-BLK3)</b> Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.217	0.090	0.800	ng/g							J
<b>LCS (F610471-BS1)</b> Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	7.644	0.090	0.800	ng/g	8.0160		95.4	75-125			
<b>LCS (F610471-BS2)</b> Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	331.9	4.47	39.9	ng/g	381.58		87.0	75-125			
<b>LCS Dup (F610471-BSD1)</b> Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	7.858	0.090	0.800	ng/g	8.0160		98.0	75-125	2.76	24	
<b>Duplicate (F610471-DUP1)</b> Source: 1610145-44 Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	108.6	0.442	3.95	ng/g		95.80			12.5	24	
<b>Matrix Spike (F610471-MS1)</b> Source: 1610145-45 Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	495.7	2.18	19.5	ng/g	389.86	87.60	105	71-125			
<b>Matrix Spike (F610471-MS2)</b> Source: 1610231-01 Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	328.0	1.72	15.3	ng/g	306.65	20.78	100	71-125			
<b>Matrix Spike Dup (F610471-MSD1)</b> Source: 1610145-45 Prepared: 04-Nov-16 Analyzed: 09-Nov-16											
Mercury	481.5	2.17	19.4	ng/g	387.60	87.60	102	71-125	2.95	24	

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch F610471 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike Dup (F610471-MSD2)</b>		<b>Source: 1610231-01</b>			<b>Prepared: 04-Nov-16 Analyzed: 09-Nov-16</b>						
Mercury	303.6	1.71	15.3	ng/g	305.44	20.78	92.6	71-125	7.87	24	

**Batch F610491 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610491-BLK1)</b>		<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>										
Mercury	0.130	0.090	0.800	ng/g								J

<b>Blank (F610491-BLK2)</b>		<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>										
Mercury	ND	0.090	0.800	ng/g								U

<b>Blank (F610491-BLK3)</b>		<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>										
Mercury	ND	0.090	0.800	ng/g								U

<b>LCS (F610491-BS1)</b>		<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>										
Mercury	8.008	0.090	0.800	ng/g	8.0160		99.9	75-125				

<b>LCS (F610491-BS2)</b>		<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>										
Mercury	318.8	4.44	39.7	ng/g	382.50		83.3	75-125				

<b>LCS Dup (F610491-BSD1)</b>		<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>										
Mercury	7.834	0.090	0.800	ng/g	8.0160		97.7	75-125	2.20	24		

<b>Duplicate (F610491-DUP1)</b>		<b>Source: 1610232-02</b>			<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>							
Mercury	109.0	1.92	17.1	ng/g		93.63			15.1	24		

<b>Matrix Spike (F610491-MS1)</b>		<b>Source: 1610232-02</b>			<b>Prepared: 02-Nov-16 Analyzed: 07-Nov-16</b>							
Mercury	403.0	1.91	17.1	ng/g	341.18	93.63	90.7	71-125				

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F610491 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Matrix Spike (F610491-MS2)</b>		<b>Source: 1610232-22</b>			Prepared: 02-Nov-16 Analyzed: 07-Nov-16						
Mercury	379.8	2.06	18.4	ng/g	367.51	44.52	91.2	71-125			
<b>Matrix Spike Dup (F610491-MSD1)</b>		<b>Source: 1610232-02</b>			Prepared: 02-Nov-16 Analyzed: 07-Nov-16						
Mercury	448.3	2.03	18.1	ng/g	361.93	93.63	98.0	71-125	7.75	24	
<b>Matrix Spike Dup (F610491-MSD2)</b>		<b>Source: 1610232-22</b>			Prepared: 02-Nov-16 Analyzed: 07-Nov-16						
Mercury	373.3	1.94	17.3	ng/g	345.54	44.52	95.1	71-125	4.20	24	

Batch F610492 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F610492-BLK1)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.204	0.090	0.800	ng/g							J
<b>Blank (F610492-BLK2)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.106	0.090	0.800	ng/g							J
<b>Blank (F610492-BLK3)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.091	0.090	0.800	ng/g							J
<b>LCS (F610492-BS1)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	8.163	0.090	0.800	ng/g	8.0160		102	75-125			
<b>LCS (F610492-BS2)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	325.4	4.47	39.9	ng/g	382.50		85.1	75-125			
<b>LCS Dup (F610492-BSD1)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	8.418	0.090	0.800	ng/g	8.0160		105	75-125	3.07	24	

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch F610492 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Duplicate (F610492-DUP2)</b>		<b>Source: 1610233-01RE1</b>		Prepared: 07-Nov-16 Analyzed: 09-Nov-16							
Mercury	34.73	0.438	3.91	ng/g		36.52			5.02	24	AD
<b>Matrix Spike (F610492-MS1)</b>		<b>Source: 1610233-01RE1</b>		Prepared: 07-Nov-16 Analyzed: 09-Nov-16							
Mercury	389.4	2.17	19.4	ng/g	387.15	36.52	91.1	71-125			
<b>Matrix Spike (F610492-MS2)</b>		<b>Source: 1610234-01RE1</b>		Prepared: 07-Nov-16 Analyzed: 09-Nov-16							
Mercury	365.6	2.16	19.3	ng/g	385.65	6.489	93.1	71-125			
<b>Matrix Spike Dup (F610492-MSD1)</b>		<b>Source: 1610233-01RE1</b>		Prepared: 07-Nov-16 Analyzed: 09-Nov-16							
Mercury	375.8	2.09	18.7	ng/g	373.69	36.52	90.8	71-125	0.378	24	
<b>Matrix Spike Dup (F610492-MSD2)</b>		<b>Source: 1610234-01RE1</b>		Prepared: 07-Nov-16 Analyzed: 09-Nov-16							
Mercury	337.2	2.09	18.7	ng/g	373.69	6.489	88.5	71-125	5.09	24	

**Batch F610510 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610510-BLK1)</b>				Prepared: 08-Nov-16 Analyzed: 10-Nov-16							
Mercury	0.338	0.090	0.800	ng/g							J
<b>Blank (F610510-BLK2)</b>				Prepared: 08-Nov-16 Analyzed: 10-Nov-16							
Mercury	0.135	0.090	0.800	ng/g							J
<b>Blank (F610510-BLK3)</b>				Prepared: 08-Nov-16 Analyzed: 10-Nov-16							
Mercury	0.091	0.090	0.800	ng/g							J
<b>LCS (F610510-BS1)</b>				Prepared: 08-Nov-16 Analyzed: 10-Nov-16							
Mercury	7.531	0.090	0.800	ng/g	8.0160		93.9	75-125			

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Amy Goodall, Project Manager

AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:49
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**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch F610510 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS (F610510-BS2)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	333.9	4.46	39.8	ng/g	384.02		86.9	75-125			
<b>LCS Dup (F610510-BSD1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	8.201	0.090	0.800	ng/g	8.0160		102	75-125	8.52	24	
<b>Duplicate (F610510-DUP1)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	98.84	0.415	3.70	ng/g		81.91			18.7	24	
<b>Duplicate (F610510-DUP2)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	78.95	0.445	3.98	ng/g		81.91			3.68	24	AD
<b>Matrix Spike (F610510-MS1)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	391.1	1.98	17.6	ng/g	352.73	81.91	87.6	71-125			
<b>Matrix Spike (F610510-MS2)</b>					Source: 1610236-20 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	302.5	1.99	17.8	ng/g	355.37	6.516	83.3	71-125			
<b>Matrix Spike Dup (F610510-MSD1)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	404.3	2.08	18.5	ng/g	370.92	81.91	86.9	71-125	0.851	24	
<b>Matrix Spike Dup (F610510-MSD2)</b>					Source: 1610236-20 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	298.9	1.93	17.2	ng/g	344.47	6.516	84.9	71-125	1.90	24	

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:49

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- 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

THg26003-161107-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 07, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K07013

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	61.22 units	122.44	58.22 units	116.44	101.3 %Rec
SEQ-CAL2	1	1.00 ng/L	120.14 units	120.14	117.14 units	117.14	101.9 %Rec
SEQ-CAL3	1	5.00 ng/L	586.62 units	117.32	583.62 units	116.72	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2250.41 units	112.52	2247.41 units	112.37	97.7 %Rec
SEQ-CAL5	1	40.00 ng/L	4487.45 units	112.19	4484.45 units	112.11	97.5 %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>				
114.96	+/- 2.50	2.2% RSD	116.92				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.00 units	±1.25	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.164 ng/L	±0.397
BLK	2	3	1.527 ng/L	±0.320
BLK	3	3	1.499 ng/L	±0.580
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:        11/7/16



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	11/7/2016 7:29:11	55014-1.RAW	7:29:11 AM	3.84			0.8	0.007	0.007	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/7/2016 7:33:19	55015-1.RAW	7:33:19 AM	3.59			0.6	0.005	0.005	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/7/2016 7:37:28	55016-1.RAW	7:37:28 AM	1.56			-1.4	-0.013	-0.013	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/7/2016 7:41:36	55017-1.RAW	7:41:36 AM	61.22			58.2	0.506	0.506	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/7/2016 7:45:45	55018-1.RAW	7:45:45 AM	120.14			117.1	1.019	1.019	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/7/2016 7:49:53	55019-1.RAW	7:49:53 AM	586.62			583.6	5.077	5.077	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/7/2016 7:54:01	55020-1.RAW	7:54:01 AM	2250.41			2247.4	19.550	19.550	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/7/2016 7:58:10	55021-1.RAW	7:58:10 AM	4487.45			4484.5	39.009	39.009	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	11/7/2016 8:02:18	55022-1.RAW	8:02:18 AM	545.13			542.1	4.716	4.716	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK1	20	11/7/2016 8:06:27	55023-1.RAW	8:06:27 AM	12.32	1		9.3	0.081	1.622	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK2	20	11/7/2016 8:10:35	55024-1.RAW	8:10:35 AM	8.25	1		5.3	0.046	0.914	ng/L	
Hg2600-3	DM2	BLK	F610491-BLK3	20	11/7/2016 8:14:43	55025-1.RAW	8:14:43 AM	8.49	1		5.5	0.048	0.955	ng/L	
Hg2600-3	DM2	SAM	F610491-BS1	20	11/7/2016 8:18:52	55026-1.RAW	8:18:52 AM	585.05	1		582.1	5.005	100.099	ng/L	
Hg2600-3	DM2	SAM	F610491-BSD1	20	11/7/2016 8:23:00	55027-1.RAW	8:23:00 AM	572.53	1		569.5	4.896	97.920	ng/L	
Hg2600-3	DM2	SAM	F610491-BS2	500	11/7/2016 8:27:09	55028-1.RAW	8:27:09 AM	464.98	1		462.0	4.016	2008.154	ng/L	
Hg2600-3	DM2	SAM	1610232-02	500	11/7/2016 8:31:17	55029-1.RAW	8:31:17 AM	293.66	1		290.7	2.526	1263.033	ng/L	
Hg2600-3	DM2	SAM	1610232-08	500	11/7/2016 8:35:26	55030-1.RAW	8:35:26 AM	111.76	1		108.8	0.944	471.875	ng/L	
Hg2600-3	DM2	SAM	1610232-09	500	11/7/2016 8:39:34	55031-1.RAW	8:39:34 AM	344.87	1		341.9	2.972	1485.757	ng/L	
Hg2600-3	DM2	SAM	1610232-10	500	11/7/2016 8:43:42	55032-1.RAW	8:43:42 AM	242.00	1		239.0	2.077	1038.351	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/7/2016 8:47:51	55033-1.RAW	8:47:51 AM	575.46			572.5	4.980	4.980	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/7/2016 8:51:59	55034-1.RAW	8:51:59 AM	7.33			4.3	0.038	0.038	ng/L	
Hg2600-3	DM2	SAM	1610232-08RE1	100	11/7/2016 8:56:08	55035-1.RAW	8:56:08 AM	534.21	1		531.2	4.609	460.924	ng/L	
Hg2600-3	DM2	SAM	1610232-11	100	11/7/2016 9:00:16	55036-1.RAW	9:00:16 AM	535.68	1		532.7	4.622	462.208	ng/L	
Hg2600-3	DM2	SAM	1610232-12	100	11/7/2016 9:04:24	55037-1.RAW	9:04:24 AM	1137.07	1		1134.1	9.853	985.337	ng/L	
Hg2600-3	DM2	SAM	1610232-13	100	11/7/2016 9:08:33	55038-1.RAW	9:08:33 AM	898.57	1		895.6	7.779	777.874	ng/L	
Hg2600-3	DM2	SAM	1610232-14	100	11/7/2016 9:12:41	55039-1.RAW	9:12:41 AM	942.94	1		939.9	8.165	816.473	ng/L	
Hg2600-3	DM2	SAM	1610232-15	100	11/7/2016 9:16:50	55040-1.RAW	9:16:50 AM	489.47	1		486.5	4.220	422.005	ng/L	
Hg2600-3	DM2	SAM	1610232-16	100	11/7/2016 9:20:58	55041-1.RAW	9:20:58 AM	1058.50	1		1055.5	9.170	916.995	ng/L	
Hg2600-3	DM2	SAM	1610232-17	100	11/7/2016 9:25:06	55042-1.RAW	9:25:06 AM	995.14	1		992.1	8.619	861.875	ng/L	
Hg2600-3	DM2	SAM	1610232-18	100	11/7/2016 9:29:15	55043-1.RAW	9:29:15 AM	694.03	1		691.0	5.999	599.947	ng/L	
Hg2600-3	DM2	SAM	1610232-19	100	11/7/2016 9:33:23	55044-1.RAW	9:33:23 AM	438.31	1		435.3	3.775	377.505	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/7/2016 9:37:32	55045-1.RAW	9:37:32 AM	539.58			536.6	4.668	4.668	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/7/2016 9:41:40	55046-1.RAW	9:41:40 AM	9.13			6.1	0.053	0.053	ng/L	
Hg2600-3	DM2	SAM	1610232-20	100	11/7/2016 9:45:49	55047-1.RAW	9:45:49 AM	568.04	1		565.0	4.904	490.351	ng/L	
Hg2600-3	DM2	SAM	1610232-21	100	11/7/2016 9:49:57	55048-1.RAW	9:49:57 AM	623.92	1		620.9	5.390	538.963	ng/L	
Hg2600-3	DM2	SAM	1610232-22	100	11/7/2016 9:54:05	55049-1.RAW	9:54:05 AM	690.63	1		687.6	5.970	596.995	ng/L	
Hg2600-3	DM2	SAM	1610232-23	100	11/7/2016 9:58:14	55050-1.RAW	9:58:14 AM	940.63	1		937.6	8.145	814.461	ng/L	
Hg2600-3	DM2	SAM	1610232-24	100	11/7/2016 10:02:22	55051-1.RAW	10:02:22 AM	912.88	1		909.9	7.903	790.325	ng/L	
Hg2600-3	DM2	SAM	1610232-25	100	11/7/2016 10:06:31	55052-1.RAW	10:06:31 AM	845.88	1		842.9	7.320	732.037	ng/L	
Hg2600-3	DM2	SAM	1610232-26	100	11/7/2016 10:10:39	55053-1.RAW	10:10:39 AM	1303.75	1		1300.8	11.303	1130.333	ng/L	
Hg2600-3	DM2	SAM	F610491-DUP1	500	11/7/2016 10:14:48	55054-1.RAW	10:14:48 AM	368.81	1		365.8	3.180	1589.912	ng/L	
Hg2600-3	DM2	SAM	F610491-MS1	500	11/7/2016 10:18:56	55055-1.RAW	10:18:56 AM	1361.21	1		1358.2	11.812	5906.216	ng/L	
Hg2600-3	DM2	SAM	F610491-MSD1	500	11/7/2016 10:23:04	55056-1.RAW	10:23:04 AM	1427.17	1		1424.2	12.386	6193.088	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/7/2016 10:27:13	55057-1.RAW	10:27:13 AM	546.38			543.4	4.727	4.727	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/7/2016 10:31:21	55058-1.RAW	10:31:21 AM	10.27			7.3	0.063	0.063	ng/L	
Hg2600-3	DM2	SAM	F610491-MS2	500	11/7/2016 10:35:30	55059-1.RAW	10:35:30 AM	1191.23	1		1188.2	10.334	5166.909	ng/L	
Hg2600-3	DM2	SAM	F610491-MSD2	500	11/7/2016 10:39:38	55060-1.RAW	10:39:38 AM	1245.09	1		1242.1	10.802	5401.154	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK1	20	11/7/2016 10:43:46	55061-1.RAW	10:43:46 AM	13.90	2		10.9	0.095	1.896	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK2	20	11/7/2016 10:47:55	55062-1.RAW	10:47:55 AM	10.87	2		7.9	0.068	1.369	ng/L	
Hg2600-3	DM2	BLK	F610468-BLK3	20	11/7/2016 10:52:03	55063-1.RAW	10:52:03 AM	10.57	2		7.6	0.066	1.317	ng/L	
Hg2600-3	DM2	SAM	F610468-BS1	20	11/7/2016 10:56:12	55064-1.RAW	10:56:12 AM	594.92	2		591.9	5.073	101.452	ng/L	
Hg2600-3	DM2	SAM	F610468-BSD1	20	11/7/2016 11:00:20	55065-1.RAW	11:00:20 AM	598.26	2		595.3	5.102	102.034	ng/L	
Hg2600-3	DM2	SAM	F610468-BS2	500	11/7/2016 11:04:29	55066-1.RAW	11:04:29 AM	472.16	2		469.2	4.078	2039.018	ng/L	
Hg2600-3	DM2	SAM	1610144-57	500	11/7/2016 11:08:37	55067-1.RAW	11:08:37 AM	154.51	2		151.5	1.315	657.462	ng/L	
Hg2600-3	DM2	SAM	1610144-58	500	11/7/2016 11:12:45	55068-1.RAW	11:12:45 AM	198.76	2		195.8	1.700	849.932	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/7/2016 11:16:54	55069-1.RAW	11:16:54 AM	533.82			530.8	4.617	4.617	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/7/2016 11:21:02	55070-1.RAW	11:21:02 AM	6.93			3.9	0.034	0.034	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	1610144-59	500	11/7/2016 11:25:11	55071-1.RAW	11:25:11 AM	212.39	2		209.4	1.818	909.178	ng/L	
Hg2600-3	DM2	SAM	1610144-60	500	11/7/2016 11:29:19	55072-1.RAW	11:29:19 AM	177.64	2		174.6	1.516	758.078	ng/L	
Hg2600-3	DM2	SAM	1610144-61	500	11/7/2016 11:33:27	55073-1.RAW	11:33:27 AM	186.24	2		183.2	1.591	795.475	ng/L	
Hg2600-3	DM2	SAM	1610144-62	500	11/7/2016 11:37:36	55074-1.RAW	11:37:36 AM	270.23	2		267.2	2.322	1160.783	ng/L	
Hg2600-3	DM2	SAM	1610144-63	500	11/7/2016 11:41:44	55075-1.RAW	11:41:44 AM	160.99	2		158.0	1.371	685.660	ng/L	
Hg2600-3	DM2	SAM	1610144-64	500	11/7/2016 11:45:53	55076-1.RAW	11:45:53 AM	215.88	2		212.7	1.847	923.498	ng/L	
Hg2600-3	DM2	SAM	1610144-65	500	11/7/2016 11:50:01	55077-1.RAW	11:50:01 AM	127.38	2		124.4	1.079	539.472	ng/L	
Hg2600-3	DM2	SAM	1610144-66	500	11/7/2016 11:54:10	55078-1.RAW	11:54:10 AM	198.79	2		195.8	1.700	850.041	ng/L	
Hg2600-3	DM2	SAM	1610144-67	500	11/7/2016 11:58:18	55079-1.RAW	11:58:18 AM	144.55	2		141.5	1.228	614.127	ng/L	
Hg2600-3	DM2	SAM	1610144-68	500	11/7/2016 12:02:26	55080-1.RAW	12:02:26 PM	269.59	2		266.6	2.316	1157.984	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/7/2016 12:06:35	55081-1.RAW	12:06:35 PM	553.6736327			550.7	4.790	4.790	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/7/2016 12:10:43	55082-1.RAW	12:10:43 PM	7.57			4.6	0.040	0.040	ng/L	
Hg2600-3	DM2	SAM	1610144-69	100	11/7/2016 12:15:36	55083-1.RAW	12:15:36 PM	1893.38	2		1890.4	16.429	1642.869	ng/L	
Hg2600-3	DM2	SAM	1610144-70	100	11/7/2016 12:19:44	55084-1.RAW	12:19:44 PM	1144.23	2		1141.2	9.912	991.203	ng/L	
Hg2600-3	DM2	SAM	1610144-71	100	11/7/2016 12:23:53	55085-1.RAW	12:23:53 PM	1262.90	2		1259.9	10.944	1094.434	ng/L	
Hg2600-3	DM2	SAM	1610144-72	100	11/7/2016 12:28:01	55086-1.RAW	12:28:01 PM	1262.96	2		1260.0	10.945	1094.486	ng/L	
Hg2600-3	DM2	SAM	1610144-73	100	11/7/2016 12:32:10	55087-1.RAW	12:32:10 PM	655.93	2		652.9	5.664	566.444	ng/L	
Hg2600-3	DM2	SAM	1610144-74	100	11/7/2016 12:36:18	55088-1.RAW	12:36:18 PM	856.77	2		853.8	7.412	741.150	ng/L	
Hg2600-3	DM2	SAM	1610144-75	100	11/7/2016 12:40:26	55089-1.RAW	12:40:26 PM	790.65	2		787.6	6.836	683.630	ng/L	
Hg2600-3	DM2	SAM	1610144-76	100	11/7/2016 12:44:35	55090-1.RAW	12:44:35 PM	1005.73	2		1002.7	8.707	870.725	ng/L	
Hg2600-3	DM2	SAM	F610468-DUP1	500	11/7/2016 12:48:43	55091-1.RAW	12:48:43 PM	132.62	2		129.6	1.125	562.251	ng/L	
Hg2600-3	DM2	SAM	F610468-MS1	500	11/7/2016 12:52:52	55092-1.RAW	12:52:52 PM	1180.10	2		1177.1	10.236	5118.118	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/7/2016 12:57:00	55093-1.RAW	12:57:00 PM	547.99			545.0	4.741	4.741	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/7/2016 13:01:09	55094-1.RAW	1:01:09 PM	12.44			9.4	0.082	0.082	ng/L	
Hg2600-3	DM2	SAM	F610468-MSD1	500	11/7/2016 13:05:18	55095-1.RAW	1:05:18 PM	1194.29	2		1191.3	10.360	5179.877	ng/L	
Hg2600-3	DM2	SAM	F610468-MS2	500	11/7/2016 13:09:26	55096-1.RAW	1:09:26 PM	1244.20	2		1241.2	10.794	5396.945	ng/L	
Hg2600-3	DM2	SAM	F610468-MSD2	500	11/7/2016 13:13:35	55097-1.RAW	1:13:35 PM	1333.17	2		1330.2	11.568	5783.918	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK1	20	11/7/2016 13:17:43	55098-1.RAW	1:17:43 PM	14.97	3		12.0	0.104	2.082	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK2	20	11/7/2016 13:21:52	55099-1.RAW	1:21:52 PM	11.58	3		8.6	0.075	1.493	ng/L	
Hg2600-3	DM2	BLK	F610469-BLK3	20	11/7/2016 13:26:00	55100-1.RAW	1:26:00 PM	8.30	3		5.3	0.046	0.923	ng/L	
Hg2600-3	DM2	SAM	F610469-BS1	20	11/7/2016 13:30:09	55101-1.RAW	1:30:09 PM	580.77	3		577.8	4.951	99.018	ng/L	
Hg2600-3	DM2	SAM	F610469-BSD1	20	11/7/2016 13:34:17	55102-1.RAW	1:34:17 PM	585.99	3		583.0	4.996	99.926	ng/L	
Hg2600-3	DM2	SAM	F610469-BS2	500	11/7/2016 13:38:26	55103-1.RAW	1:38:26 PM	474.69	3		471.7	4.100	2050.090	ng/L	
Hg2600-3	DM2	SAM	1610144-77	100	11/7/2016 13:42:34	55104-1.RAW	1:42:34 PM	972.37	3		969.4	8.417	841.734	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/7/2016 13:46:42	55105-1.RAW	1:46:42 PM	561.30			558.3	4.857	4.857	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/7/2016 13:50:51	55106-1.RAW	1:50:51 PM	11.35			8.4	0.073	0.073	ng/L	
Hg2600-3	DM2	SAM	F610468-DUP2	500	11/7/2016 13:54:59	55107-1.RAW	1:54:59 PM	194.90	2		191.9	1.666	833.124	ng/L	
Hg2600-3	DM2	SAM	1610144-78	100	11/7/2016 13:59:08	55108-1.RAW	1:59:08 PM	1066.97	3		1064.0	9.240	924.028	ng/L	
Hg2600-3	DM2	SAM	1610144-79	100	11/7/2016 14:03:16	55109-1.RAW	2:03:16 PM	926.75	3		923.8	8.021	802.051	ng/L	
Hg2600-3	DM2	SAM	1610144-80	100	11/7/2016 14:07:24	55110-1.RAW	2:07:24 PM	963.09	3		960.1	8.337	833.665	ng/L	
Hg2600-3	DM2	SAM	1610145-01	100	11/7/2016 14:11:33	55111-1.RAW	2:11:33 PM	3821.74	3		3818.7	33.203	3320.338	ng/L	
Hg2600-3	DM2	SAM	1610145-02	100	11/7/2016 14:15:41	55112-1.RAW	2:15:41 PM	958.47	3		955.5	8.296	829.644	ng/L	
Hg2600-3	DM2	SAM	1610145-03	100	11/7/2016 14:19:50	55113-1.RAW	2:19:50 PM	2219.11	3		2216.1	19.262	1926.245	ng/L	
Hg2600-3	DM2	SAM	1610145-04	100	11/7/2016 14:23:58	55114-1.RAW	2:23:58 PM	1071.68	3		1068.7	9.281	928.120	ng/L	
Hg2600-3	DM2	SAM	1610145-05	100	11/7/2016 14:28:07	55115-1.RAW	2:28:07 PM	3319.30	3		3316.3	28.833	2883.274	ng/L	
Hg2600-3	DM2	SAM	1610145-06	100	11/7/2016 14:32:15	55116-1.RAW	2:32:15 PM	1243.18	3		1240.2	10.773	1077.304	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/7/2016 14:36:23	55117-1.RAW	2:36:23 PM	568.09			565.1	4.916	4.916	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/7/2016 14:40:32	55118-1.RAW	2:40:32 PM	15.83			12.8	0.112	0.112	ng/L	
Hg2600-3	DM2	SAM	1610145-07	100	11/7/2016 14:44:40	55119-1.RAW	2:44:40 PM	1253.39	3		1250.4	10.862	1086.185	ng/L	
Hg2600-3	DM2	SAM	1610145-08	100	11/7/2016 14:48:49	55120-1.RAW	2:48:49 PM	1247.30	3		1244.3	10.809	1080.885	ng/L	
Hg2600-3	DM2	SAM	1610145-09	100	11/7/2016 14:52:57	55121-1.RAW	2:52:57 PM	996.11	3		993.1	8.624	862.387	ng/L	
Hg2600-3	DM2	SAM	1610145-10	100	11/7/2016 14:57:05	55122-1.RAW	2:57:05 PM	863.12	3		860.1	7.467	746.704	ng/L	
Hg2600-3	DM2	SAM	1610145-11	100	11/7/2016 15:01:14	55123-1.RAW	3:01:14 PM	1491.09	3		1488.1	12.930	1292.957	ng/L	
Hg2600-3	DM2	SAM	1610145-12	100	11/7/2016 15:05:22	55124-1.RAW	3:05:22 PM	3060.48	3		3057.5	26.581	2658.134	ng/L	
Hg2600-3	DM2	SAM	1610145-13	100	11/7/2016 15:09:31	55125-1.RAW	3:09:31 PM	901.49	3		898.5	7.801	780.080	ng/L	
Hg2600-3	DM2	SAM	1610145-14	100	11/7/2016 15:13:39	55126-1.RAW	3:13:39 PM	1089.47	3		1086.5	9.436	943.599	ng/L	
Hg2600-3	DM2	SAM	1610145-15	100	11/7/2016 15:17:47	55127-1.RAW	3:17:47 PM	1032.64	3		1029.6	8.942	894.161	ng/L	
Hg2600-3	DM2	SAM	1610145-16	100	11/7/2016 15:21:56	55128-1.RAW	3:21:56 PM	1124.35	3		1121.4	9.739	973.939	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/7/2016 15:26:04	55129-1.RAW	3:26:04 PM	564.75			561.8	4.887	4.887	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/7/2016 15:30:13	55130-1.RAW	3:30:13 PM	13.71			10.7	0.093	0.093	ng/L	
Hg2600-3	DM2	SAM	F610469-DUP1	100	11/7/2016 15:34:21	55131-1.RAW	3:34:21 PM	3242.77	3		3239.8	28.167	2816.704	ng/L	
Hg2600-3	DM2	SAM	F610469-MS1	500	11/7/2016 15:38:30	55132-1.RAW	3:38:30 PM	1610.20	3		1607.2	13.978	6988.854	ng/L	
Hg2600-3	DM2	SAM	F610469-MSD1	500	11/7/2016 15:42:38	55133-1.RAW	3:42:38 PM	1756.93	3		1753.9	15.254	7627.018	ng/L	
Hg2600-3	DM2	SAM	F610469-MS2	500	11/7/2016 15:46:46	55134-1.RAW	3:46:46 PM	1274.90	3		1271.9	11.061	5530.489	ng/L	
Hg2600-3	DM2	SAM	F610469-MSD2	500	11/7/2016 15:50:55	55135-1.RAW	3:50:55 PM	1278.22	3		1275.2	11.090	5544.912	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	CAL	SEQ-CCVA	1	11/7/2016 15:55:03	55136-1.RAW	3:55:03 PM	540.91			537.9	4.679	4.679	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/7/2016 15:59:12	55137-1.RAW	3:59:12 PM	15.88			12.9	0.112	0.112	ng/L	

TotalMercury EPA1631  
 Operat DM  
 BlankS: 2.998  
 Calib Eqn: Conc = (Area-2.998  
 Run Date: 11/7/2016  
 Blank SD: 1.250544527  
 Worksh: THg2600  
 CalibFa: 114.96  
 Status: QC Warnings:5/QC E  
 Run Time: 12:11:27  
 Blank RSD%: 41.71268438  
 Method #### R: 1  
 R<sup>2</sup>: 1  
 Descr: THg26003-161107-1  
 CF SD: 2.495301951  
 CF RSD%: 2.17060445

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	9.86					55009-1.RAW	7:09:46	1132.94	Clean	OK	1
Clean										55010-1.RAW	7:12:37	0.00	Clean	NP	1
ws				3.00	0.03					55011-1.RAW	7:16:46	6.31	Sample	OK	1
ws				3.00	0.02					55012-1.RAW	7:20:54	5.43	Sample	OK	1
ws				3.00	0.02					55013-1.RAW	7:25:02	5.28	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.03					55014-1.RAW	7:29:11	3.84	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.03					55015-1.RAW	7:33:19	3.59	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.01					55016-1.RAW	7:37:28	1.56	Sample	OK	1
SEQ-CAL1	A4		1	3.00	0.51		101.29			55017-1.RAW	7:41:36	61.22	Sample	OK	1
SEQ-CAL2	A5		1	3.00	1.02		101.90			55018-1.RAW	7:45:45	120.14	Sample	OK	1
SEQ-CAL3	A6		1	3.00	5.08		101.54			55019-1.RAW	7:49:53	586.62	Sample	OK	1
SEQ-CAL4	A7		1	3.00	19.55		97.75			55020-1.RAW	7:54:01	2250.41	Sample	OK	1
SEQ-CAL5	A8		1	3.00	39.01		97.52			55021-1.RAW	7:58:10	4487.45	Sample	OK	1
SEQ-ICV1	A9		1	3.00	4.72		94.32			55022-1.RAW	8:02:18	545.13	Sample	OK	1
F610491-BLK1	A10		20	3.00	1.62					55023-1.RAW	8:06:27	12.32	Sample	OK	1
F610491-BLK2	A11		20	3.00	0.91					55024-1.RAW	8:10:35	8.25	Sample	OK	1
F610491-BLK3	A12		20	3.00	0.95					55025-1.RAW	8:14:43	8.49	Sample	OK	1
F610491-BS1	B1		20	3.00	101.26					55026-1.RAW	8:18:52	585.05	Sample	OK	1
F610491-BSD1	B2		20	3.00	99.08					55027-1.RAW	8:23:00	572.53	Sample	OK	1
F610491-BS2	B3		500	3.00	2009.32					55028-1.RAW	8:27:09	464.98	Sample	OK	1
1610232-02	B4		500	3.00	1264.20					55029-1.RAW	8:31:17	293.66	Sample	OK	1
1610232-08	B5		500	3.00	473.04					55030-1.RAW	8:35:26	111.76	Sample	OK	1
1610232-09	B6		500	3.00	1486.92					55031-1.RAW	8:39:34	344.87	Sample	OK	1
1610232-10	B7		500	3.00	1039.51					55032-1.RAW	8:43:42	242.00	Sample	OK	1
SEQ-CCV1	B8		1	3.00	4.98		99.60			55033-1.RAW	8:47:51	575.48	Sample	OK	1
SEQ-CCB1	B9		1	3.00	0.04		0.00			55034-1.RAW	8:51:59	7.33	Sample	OK	1
1610232-08RE1	B10		100	3.00	462.09					55035-1.RAW	8:56:08	534.21	Sample	OK	1
1610232-11	B11		100	3.00	463.37					55036-1.RAW	9:00:16	535.68	Sample	OK	1
1610232-12	B12		100	3.00	986.50					55037-1.RAW	9:04:24	1137.07	Sample	OK	1
1610232-13	C1		100	3.00	779.04					55038-1.RAW	9:08:33	898.57	Sample	OK	1
1610232-14	C2		100	3.00	817.64					55039-1.RAW	9:12:41	942.94	Sample	OK	1
1610232-15	C3		100	3.00	423.17					55040-1.RAW	9:16:50	489.47	Sample	OK	1
1610232-16	C4		100	3.00	918.16					55041-1.RAW	9:20:58	1058.50	Sample	OK	1
1610232-17	C5		100	3.00	863.04					55042-1.RAW	9:25:06	995.14	Sample	OK	1
1610232-18	C6		100	3.00	601.11					55043-1.RAW	9:29:15	694.03	Sample	OK	1
1610232-19	C7		100	3.00	378.67					55044-1.RAW	9:33:23	438.31	Sample	OK	1
SEQ-CCV2	C8		1	3.00	4.67		93.35			55045-1.RAW	9:37:32	539.58	Sample	OK	1
SEQ-CCB2	C9		1	3.00	0.05		0.00			55046-1.RAW	9:41:40	9.13	Sample	OK	1
1610232-20	C10		100	3.00	491.51					55047-1.RAW	9:45:49	568.04	Sample	OK	1
1610232-21	C11		100	3.00	540.13					55048-1.RAW	9:49:57	623.92	Sample	OK	1
1610232-22	C12		100	3.00	598.16					55049-1.RAW	9:54:05	690.63	Sample	OK	1
1610232-23	D1		100	3.00	815.62					55050-1.RAW	9:58:14	940.63	Sample	OK	1
1610232-24	D2		100	3.00	791.49					55051-1.RAW	10:02:22	912.88	Sample	OK	1

1610232-25	D3	100	3.00	733.20		55052-1.RAW	10:06:31	845.88	Sample	OK	1
1610232-26	D4	100	3.00	1131.50		55053-1.RAW	10:10:39	1303.75	Sample	OK	1
F610491-DUP1	D5	500	3.00	1591.08		55054-1.RAW	10:14:48	368.81	Sample	OK	1
F610491-MS1	D6	500	3.00	5907.38	371.05	55055-1.RAW	10:18:56	1361.21	Sample	OK	1
F610491-MSD1	D7	500	3.00	6194.25		55056-1.RAW	10:23:04	1427.17	Sample	OK	1
SEQ-CCV3	D8	1	3.00	4.73	94.53	55057-1.RAW	10:27:13	546.38	Sample	OK	1
SEQ-CCB3	D9	1	3.00	0.06	0.00	55058-1.RAW	10:31:21	10.27	Sample	OK	1
F610491-MS2	D10	500	3.00	5168.07	250485.70	55059-1.RAW	10:35:30	1191.23	Sample	OK	1
F610491-MSD2	D11	500	3.00	5402.32		55060-1.RAW	10:39:38	1245.09	Sample	OK	1
F610468-BLK1	D12	20	3.00	1.90		55061-1.RAW	10:43:46	13.90	Sample	OK	1
F610468-BLK2	A1	20	3.00	1.37		55062-1.RAW	10:47:55	10.87	Sample	OK	1
F610468-BLK3	A2	20	3.00	1.32		55063-1.RAW	10:52:03	10.57	Sample	OK	1
F610468-BS1	A3	20	3.00	102.98		55064-1.RAW	10:56:12	594.92	Sample	OK	1
F610468-BSD1	A4	20	3.00	103.56		55065-1.RAW	11:00:20	598.26	Sample	OK	1
F610468-BS2	A5	500	3.00	2040.54		55066-1.RAW	11:04:29	472.16	Sample	OK	1
1610144-57	A6	500	3.00	658.99		55067-1.RAW	11:08:37	154.51	Sample	OK	1
1610144-58	A7	500	3.00	851.46		55068-1.RAW	11:12:45	198.76	Sample	OK	1
SEQ-CCV4	A8	1	3.00	4.62	92.35	55069-1.RAW	11:16:54	533.82	Sample	OK	1
SEQ-CCB4	A9	1	3.00	0.03	0.00	55070-1.RAW	11:21:02	6.93	Sample	OK	1
1610144-59	A10	500	3.00	910.71		55071-1.RAW	11:25:11	212.39	Sample	OK	1
1610144-60	A11	500	3.00	759.61		55072-1.RAW	11:29:19	177.64	Sample	OK	1
1610144-61	A12	500	3.00	797.00		55073-1.RAW	11:33:27	186.24	Sample	OK	1
1610144-62	B1	500	3.00	1162.31		55074-1.RAW	11:37:36	270.23	Sample	OK	1
1610144-63	B2	500	3.00	687.19		55075-1.RAW	11:41:44	160.99	Sample	OK	1
1610144-64	B3	500	3.00	925.02		55076-1.RAW	11:45:53	215.68	Sample	OK	1
1610144-65	B4	500	3.00	541.00		55077-1.RAW	11:50:01	127.38	Sample	OK	1
1610144-66	B5	500	3.00	851.57		55078-1.RAW	11:54:10	198.79	Sample	OK	1
1610144-67	B6	500	3.00	615.65		55079-1.RAW	11:58:18	144.55	Sample	OK	1
1610144-68	B7	500	3.00	1159.51		55080-1.RAW	12:02:26	269.59	Sample	OK	1
SEQ-CCV5	B8	1	3.00	4.79	95.80	55081-1.RAW	12:06:35	553.67	Sample	OK	1
SEQ-CCB5	B9	1	3.00	0.04	0.00	55082-1.RAW	12:10:43	7.57	Sample	OK	1
1610144-69	B10	100	3.00	1644.40		55083-1.RAW	12:15:36	1893.38	Sample	OK	1
1610144-70	B11	100	3.00	992.73		55084-1.RAW	12:19:44	1144.23	Sample	OK	1
1610144-71	B12	100	3.00	1095.96		55085-1.RAW	12:23:53	1262.90	Sample	OK	1
1610144-72	C1	100	3.00	1096.01		55086-1.RAW	12:28:01	1262.96	Sample	OK	1
1610144-73	C2	100	3.00	567.97		55087-1.RAW	12:32:10	655.93	Sample	OK	1
1610144-74	C3	100	3.00	742.68		55088-1.RAW	12:36:18	856.77	Sample	OK	1
1610144-75	C4	100	3.00	685.16		55089-1.RAW	12:40:26	790.65	Sample	OK	1
1610144-76	C5	100	3.00	872.25		55090-1.RAW	12:44:35	1005.73	Sample	OK	1
F610468-DUP1	C6	500	3.00	563.78		55091-1.RAW	12:48:43	132.62	Sample	OK	1
F610468-MS1	C7	500	3.00	5119.64	906.49	55092-1.RAW	12:52:52	1180.10	Sample	OK	1
SEQ-CCV6	C8	1	3.00	4.74	94.81	55093-1.RAW	12:57:00	547.99	Sample	OK	1
SEQ-CCB6	C9	1	3.00	0.08	0.00	55094-1.RAW	13:01:09	12.44	Sample	OK	1
F610468-MSD1	C10	500	3.00	5181.40		55095-1.RAW	13:05:18	1194.29	Sample	OK	1
F610468-MS2	C11	500	3.00	5398.47	104.15	55096-1.RAW	13:09:26	1244.20	Sample	OK	1
F610468-MSD2	C12	500	3.00	5785.45		55097-1.RAW	13:13:35	1333.17	Sample	OK	1
F610469-BLK1	D1	20	3.00	2.08		55098-1.RAW	13:17:43	14.97	Sample	OK	1
F610469-BLK2	D2	20	3.00	1.49		55099-1.RAW	13:21:52	11.58	Sample	OK	1

F610469-BLK3	D3	20	3.00	0.92		55100-1.RAW	13:26:00	8.30	Sample	OK	1
F610469-BS1	D4	20	3.00	100.52		55101-1.RAW	13:30:09	580.77	Sample	OK	1
F610469-BSD1	D5	20	3.00	101.43		55102-1.RAW	13:34:17	585.99	Sample	OK	1
F610469-BS2	D6	500	3.00	2051.59		55103-1.RAW	13:38:26	474.69	Sample	OK	1
1610144-77	D7	100	3.00	843.23		55104-1.RAW	13:42:34	972.37	Sample	OK	1
SEQ-CCV7	D8	1	3.00	4.86	97.13	55105-1.RAW	13:46:42	561.30	Sample	OK	1
SEQ-CCB7	D9	1	3.00	0.07	0.00	55106-1.RAW	13:50:51	11.35	Sample	OK	1
F610468-DUP2	D10	500	3.00	834.65		55107-1.RAW	13:54:59	194.90	Sample	OK	1
1610144-78	D11	100	3.00	925.53		55108-1.RAW	13:59:08	1066.97	Sample	OK	1
1610144-79	D12	100	3.00	803.55		55109-1.RAW	14:03:16	926.75	Sample	OK	1
1610144-80	A1	100	3.00	835.16		55110-1.RAW	14:07:24	963.09	Sample	OK	1
1610145-01	A2	100	3.00	3321.84		55111-1.RAW	14:11:33	3821.74	Sample	OK	1
1610145-02	A3	100	3.00	831.14		55112-1.RAW	14:15:41	958.47	Sample	OK	1
1610145-03	A4	100	3.00	1927.74		55113-1.RAW	14:19:50	2219.11	Sample	OK	1
1610145-04	A5	100	3.00	929.62		55114-1.RAW	14:23:58	1071.68	Sample	OK	1
1610145-05	A6	100	3.00	2884.77		55115-1.RAW	14:28:07	3319.30	Sample	OK	1
1610145-06	A7	100	3.00	1078.80		55116-1.RAW	14:32:15	1243.18	Sample	OK	1
SEQ-CCV8	A8	1	3.00	4.92	98.31	55117-1.RAW	14:36:23	568.09	Sample	OK	1
SEQ-CCB8	A9	1	3.00	0.11	0.00	55118-1.RAW	14:40:32	15.83	Sample	OK	1
1610145-07	A10	100	3.00	1087.68		55119-1.RAW	14:44:40	1253.39	Sample	OK	1
1610145-08	A11	100	3.00	1082.38		55120-1.RAW	14:48:49	1247.30	Sample	OK	1
1610145-09	A12	100	3.00	863.89		55121-1.RAW	14:52:57	996.11	Sample	OK	1
1610145-10	B1	100	3.00	748.20		55122-1.RAW	14:57:05	863.12	Sample	OK	1
1610145-11	B2	100	3.00	1294.46		55123-1.RAW	15:01:14	1491.09	Sample	OK	1
1610145-12	B3	100	3.00	2659.63		55124-1.RAW	15:05:22	3060.48	Sample	OK	1
1610145-13	B4	100	3.00	781.58		55125-1.RAW	15:09:31	901.49	Sample	OK	1
1610145-14	B5	100	3.00	945.10		55126-1.RAW	15:13:39	1089.47	Sample	OK	1
1610145-15	B6	100	3.00	895.66		55127-1.RAW	15:17:47	1032.64	Sample	OK	1
1610145-16	B7	100	3.00	975.44		55128-1.RAW	15:21:56	1124.35	Sample	OK	1
SEQ-CCV9	B8	1	3.00	4.89	97.73	55129-1.RAW	15:26:04	564.75	Sample	OK	1
SEQ-CCB9	B9	1	3.00	0.09	0.00	55130-1.RAW	15:30:13	13.71	Sample	OK	1
F610469-DUP1	B10	100	3.00	2818.20		55131-1.RAW	15:34:21	3242.77	Sample	OK	1
F610469-MS1	B11	500	3.00	6990.35	247.95	55132-1.RAW	15:38:30	1610.20	Sample	OK	1
F610469-MSD1	B12	500	3.00	7628.52		55133-1.RAW	15:42:38	1756.93	Sample	OK	1
F610469-MS2	C1	500	3.00	5531.99	276599.41	55134-1.RAW	15:46:46	1274.90	Sample	OK	1
F610469-MSD2	C2	500	3.00	5546.41		55135-1.RAW	15:50:55	1278.22	Sample	OK	1
SEQ-CCVA	C3	1	3.00	4.68		55136-1.RAW	15:55:03	540.91	Sample	OK	1
SEQ-CCBA	C4	1	3.00	0.11		55137-1.RAW	15:59:12	15.88	Sample	OK	1

**ANALYSIS SEQUENCE**

**6K07013**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/7/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K07013-IBL1	QC	1			
6K07013-IBL2	QC	2			
6K07013-IBL3	QC	3			
6K07013-CAL1	QC	4	1605412		
6K07013-CAL2	QC	5	1605413		
6K07013-CAL3	QC	6	1605414		
6K07013-CAL4	QC	7	1605415		
6K07013-CAL5	QC	8	1605416		
6K07013-ICV1	QC	9	1605791		
F610491-BLK1	QC	10			
F610491-BLK2	QC	11			
F610491-BLK3	QC	12			
F610491-BS1	QC	13			
F610491-BSD1	QC	14			
F610491-BS2	QC	15			
1610232-02	Hg-CVAFS-T-7030	16			
1610232-08	Hg-CVAFS-T-7030	17			
1610232-09	Hg-CVAFS-T-7030	18			
1610232-10	Hg-CVAFS-T-7030	19			
6K07013-CCV1	QC	20	1605791		
6K07013-CCB1	QC	21			
1610232-08RE1	Hg-CVAFS-T-7030	22			Added 11/7/2016 by DM2
1610232-11	Hg-CVAFS-T-7030	23			
1610232-12	Hg-CVAFS-T-7030	24			
1610232-13	Hg-CVAFS-T-7030	25			
1610232-14	Hg-CVAFS-T-7030	26			
1610232-15	Hg-CVAFS-T-7030	27			
1610232-16	Hg-CVAFS-T-7030	28			
1610232-17	Hg-CVAFS-T-7030	29			
1610232-18	Hg-CVAFS-T-7030	30			
1610232-19	Hg-CVAFS-T-7030	31			
6K07013-CCV2	QC	32	1605791		
6K07013-CCB2	QC	33			
1610232-20	Hg-CVAFS-T-7030	34			
1610232-21	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K07013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/7/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610232-22	Hg-CVAFS-T-7030	36			
1610232-23	Hg-CVAFS-T-7030	37			
1610232-24	Hg-CVAFS-T-7030	38			
1610232-25	Hg-CVAFS-T-7030	39			
1610232-26	Hg-CVAFS-T-7030	40			
F610491-DUP1	QC	41			
F610491-MS1	QC	42			
F610491-MSD1	QC	43			
6K07013-CCV3	QC	44	1605791		
6K07013-CCB3	QC	45			
F610491-MS2	QC	46			
F610491-MSD2	QC	47			
F610468-BLK1	QC	48			
F610468-BLK2	QC	49			
F610468-BLK3	QC	50			
F610468-BS1	QC	51			
F610468-BSD1	QC	52			
F610468-BS2	QC	53			
1610144-57	Hg-CVAFS-T-7030	54			
1610144-58	Hg-CVAFS-T-7030	55			
6K07013-CCV4	QC	56	1605791		
6K07013-CCB4	QC	57			
1610144-59	Hg-CVAFS-T-7030	58			
1610144-60	Hg-CVAFS-T-7030	59			
1610144-61	Hg-CVAFS-T-7030	60			
1610144-62	Hg-CVAFS-T-7030	61			
1610144-63	Hg-CVAFS-T-7030	62			
1610144-64	Hg-CVAFS-T-7030	63			
1610144-65	Hg-CVAFS-T-7030	64			
1610144-66	Hg-CVAFS-T-7030	65			
1610144-67	Hg-CVAFS-T-7030	66			
1610144-68	Hg-CVAFS-T-7030	67			
6K07013-CCV5	QC	68	1605791		
6K07013-CCB5	QC	69			
1610144-69	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 80 of 308

Page 2 of 4



## ANALYSIS SEQUENCE

6K07013

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/7/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610144-70	Hg-CVAFS-T-7030	71			
1610144-71	Hg-CVAFS-T-7030	72			
1610144-72	Hg-CVAFS-T-7030	73			
1610144-73	Hg-CVAFS-T-7030	74			
1610144-74	Hg-CVAFS-T-7030	75			
1610144-75	Hg-CVAFS-T-7030	76			
1610144-76	Hg-CVAFS-T-7030	77			
F610468-DUP1	QC	78			
F610468-MS1	QC	79			
6K07013-CCV6	QC	80	1605791		
6K07013-CCB6	QC	81			
F610468-MSD1	QC	82			
F610468-MS2	QC	83			
F610468-MSD2	QC	84			
F610469-BLK1	QC	85			
F610469-BLK2	QC	86			
F610469-BLK3	QC	87			
F610469-BS1	QC	88			
F610469-BSD1	QC	89			
F610469-BS2	QC	90			
1610144-77	Hg-CVAFS-T-7030	91			
6K07013-CCV7	QC	92	1605791		
6K07013-CCB7	QC	93			
F610468-DUP2	QC	94			
1610144-78	Hg-CVAFS-T-7030	95			
1610144-79	Hg-CVAFS-T-7030	96			
1610144-80	Hg-CVAFS-T-7030	97			
1610145-01	Hg-CVAFS-T-7030	98			
1610145-02	Hg-CVAFS-T-7030	99			
1610145-03	Hg-CVAFS-T-7030	100			
1610145-04	Hg-CVAFS-T-7030	101			
1610145-05	Hg-CVAFS-T-7030	102			
1610145-06	Hg-CVAFS-T-7030	103			
6K07013-CCV8	QC	104	1605791		
6K07013-CCB8	QC	105			

Due Date: 11/2/2016

Page 81 of 308

Page 3 of 4

**ANALYSIS SEQUENCE**

**6K07013**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/7/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610145-07	Hg-CVAFS-T-7030	106			
1610145-08	Hg-CVAFS-T-7030	107			
1610145-09	Hg-CVAFS-T-7030	108			
1610145-10	Hg-CVAFS-T-7030	109			
1610145-11	Hg-CVAFS-T-7030	110			
1610145-12	Hg-CVAFS-T-7030	111			
1610145-13	Hg-CVAFS-T-7030	112			
1610145-14	Hg-CVAFS-T-7030	113			
1610145-15	Hg-CVAFS-T-7030	114			
1610145-16	Hg-CVAFS-T-7030	115			
6K07013-CCV9	QC	116	1605791		
6K07013-CCB9	QC	117			
F610469-DUP1	QC	118			
F610469-MS1	QC	119			
F610469-MSD1	QC	120			
F610469-MS2	QC	121			
F610469-MSD2	QC	122			
6K07013-CCVA	QC	123	1605791		
6K07013-CCBA	QC	124			

Don Mooren      11/7/16  
 Samples Loaded By      Date

Don Mooren      11/7/16  
 Data Processed By      Date

**Failing Data Report - 6K07013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610468-DUP1	Hg-CVAFS-T-7030	42.04	18.7	55.43	55.43		ng/g				27.5	24.00	PASS-OVER	FAIL-DUP	QR-07

Don M. Green                      11/7/16  
 Analyst Reviewed By                      Date

[Signature]                      11/9/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F610469

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610469-BLK1	Blank	0.25	20					
F610469-BLK2	Blank	0.25	20					
F610469-BLK3	Blank	0.25	20					
F610469-BS1	Blank Spike	0.25	20	1605270	20			
F610469-BS2	DORM-4	0.126	20	1605470	126			
F610469-BSD1	Blank Spike	0.25	20	1605270	20			
F610469-DUP1	Duplicate [1610145-01]	0.2659	20					
F610469-MS1	Matrix Spike [1610145-01]	0.2845	20	1605712	100			
F610469-MS2	Matrix Spike [1610145-16]	0.2767	20	1605712	100			
F610469-MSD1	Matrix Spike Dup [1610145-01]	0.2944	20	1605712	100			
F610469-MSD2	Matrix Spike Dup [1610145-16]	0.2756	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1.000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606385	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610469

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-77	ES-FP_092616_BLM_WB_17	0.2642	20	-	-	-		
1610144-78	ES-FP_092616_BLM_WB_18	0.2875	20	-	-	-		
1610144-79	ES-FP_092616_BLM_WB_19	0.288	20	-	-	-		
1610144-80	ES-FP_092616_BLM_WB_20	0.2843	20	-	-	-		
1610145-01	BO-04_100316_MUM_WB_01	0.2837	20	QC	-	-	MS/MSD	
1610145-02	BO-04_100316_MUM_WB_02	0.2877	20	-	-	-		
1610145-03	BO-04_100316_MUM_WB_03	0.2641	20	-	-	-		
1610145-04	BO-04_100316_MUM_WB_04	0.2758	20	-	-	-		
1610145-05	BO-04_100316_MUM_WB_05	0.27	20	-	-	-		
1610145-06	BO-04_100316_MUM_WB_06	0.2834	20	-	-	-		
1610145-07	BO-04_100316_MUM_WB_07	0.2857	20	-	-	-		
1610145-08	BO-04_100316_MUM_WB_08	0.2881	20	-	-	-		
1610145-09	BO-04_100316_MUM_WB_09	0.2845	20	-	-	-		
1610145-10	BO-04_100316_MUM_WB_10	0.2849	20	-	-	-		
1610145-11	BO-04_100316_MUM_WB_11	0.2743	20	-	-	-		
1610145-12	BO-04_100316_MUM_WB_12	0.2657	20	-	-	-		
1610145-13	BO-04_100316_MUM_WB_13	0.2837	20	-	-	-		
1610145-14	BO-04_100316_MUM_WB_14	0.283	20	-	-	-		
1610145-15	BO-04_100316_MUM_WB_15	0.3078	20	-	-	-		

Page 85 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

F610469

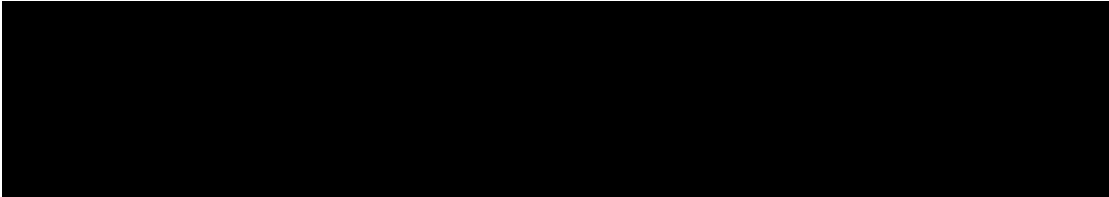
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610145-16	BO-04_100316_MUM_WB_16	0.3155	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610491

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/2/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610491-BLK1	Blank	0.25	20					
F610491-BLK2	Blank	0.25	20					
F610491-BLK3	Blank	0.25	20					
F610491-BS1	Blank Spike	0.25	20	1605270	20			
F610491-BS2	DORM-4	0.126	20	1605470	126			
F610491-BSD1	Blank Spike dup	0.25	20	1605270	20			
F610491-DUP1	Duplicate [1610232-02]	0.2918	20					
F610491-MS1	Matrix Spike [1610232-02]	0.2931	20	1605712	100			
F610491-MS2	Matrix Spike [1610232-22]	0.2721	20	1605712	100			
F610491-MSD1	Matrix Spike Dup [1610232-02]	0.2763	20	1605712	100			
F610491-MSD2	Matrix Spike Dup [1610232-22]	0.2894	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606257	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610491

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/2/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-02	ES-FP_092716_RAS_WB_01	0.2698	20	QC	-	-	MS/MSD	
1610232-08	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-		
1610232-08RE1	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-	Added 11/7/2016 by DM2	Added 11/7/2016 by DM2
1610232-09	ES-FP_092716_RAS_WB_08	0.2745	20	-	-	-		
1610232-10	ES-FP_092716_RAS_WB_09	0.2648	20	-	-	-		
1610232-11	ES-FP_092716_RAS_WB_10	0.2612	20	-	-	-		
1610232-12	ES-FP_092716_RAS_WB_11	0.266	20	-	-	-		
1610232-13	ES-FP_092716_RAS_WB_12	0.2844	20	-	-	-		
1610232-14	ES-FP_092716_RAS_WB_13	0.2917	20	-	-	-		
1610232-15	ES-FP_092716_RAS_WB_14	0.2684	20	-	-	-		
1610232-16	ES-FP_092716_RAS_WB_15	0.2865	20	-	-	-		
1610232-17	ES-FP_092716_RAS_WB_16	0.2839	20	-	-	-		
1610232-18	ES-FP_092716_RAS_WB_17	0.2703	20	-	-	-		
1610232-19	ES-FP_092716_RAS_WB_18	0.2788	20	-	-	-		
1610232-20	ES-FP_092716_RAS_WB_19	0.2934	20	-	-	-		
1610232-21	ES-FP_092716_RAS_WB_20	0.271	20	-	-	-		
1610232-22	OB-01_092116_RAS_WB_01	0.2682	20	-	-	-		
1610232-23	OB-01_092116_RAS_WB_02	0.2967	20	-	-	-		
1610232-24	OB-01_092116_RAS_WB_03	0.2843	20	-	-	-		

Page 88 of 308

Date: 11/2/2016



PREPARATION BENCH SHEET

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

1610232-25	OB-01_092116_RAS_WB_04	0.3082	20	-	-	-		
1610232-26	OB-01_092116_RAS_WB_05	0.2745	20	QC	-	-	MS/MSD	



**PREPARATION BENCH SHEET**

F610468

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610468-BLK1	Blank	0.25	20					
F610468-BLK2	Blank	0.25	20					
F610468-BLK3	Blank	0.25	20					
F610468-BS1	Blank Spike	0.25	20	1605270	20			
F610468-BS2	DORM-4	0.1262	20	1605470	126			
F610468-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610468-DUP1	Duplicate [1610144-61]	0.2675	20					
F610468-DUP2	Duplicate [1610144-61]	0.287	20					
F610468-MS1	Matrix Spike [1610144-61]	0.2773	20	1605712	100			
F610468-MS2	Matrix Spike [1610144-70]	0.294	20	1605712	100			
F610468-MSD1	Matrix Spike Dup [1610144-61]	0.2724	20	1605712	100			
F610468-MSD2	Matrix Spike Dup [1610144-70]	0.2874	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606370	3% SnCl <sub>2</sub> THg reductant	20-Apr-17 00:00
			1606385	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610468

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-57	ES-15_092716_BLM_WB_17	0.2642	20	-	-	-		
1610144-58	ES-15_092716_BLM_WB_18	0.271	20	-	-	-		
1610144-59	ES-15_092716_BLM_WB_19	0.2837	20	-	-	-		
1610144-60	ES-15_092716_BLM_WB_20	0.2965	20	-	-	-		
1610144-61	ES-FP_092616_BLM_WB_01	0.287	20	QC	-	-	MS/MSD	
1610144-62	ES-FP_092616_BLM_WB_02	0.2698	20	-	-	-		
1610144-63	ES-FP_092616_BLM_WB_03	0.2826	20	-	-	-		
1610144-64	ES-FP_092616_BLM_WB_04	0.2959	20	-	-	-		
1610144-65	ES-FP_092616_BLM_WB_05	0.27	20	-	-	-		
1610144-66	ES-FP_092616_BLM_WB_06	0.3049	20	-	-	-		
1610144-67	ES-FP_092616_BLM_WB_07	0.2719	20	-	-	-		
1610144-68	ES-FP_092616_BLM_WB_08	0.2881	20	-	-	-		
1610144-69	ES-FP_092616_BLM_WB_09	0.2948	20	-	-	-		
1610144-70	ES-FP_092616_BLM_WB_10	0.2677	20	-	-	-		
1610144-71	ES-FP_092616_BLM_WB_11	0.2759	20	-	-	-		
1610144-72	ES-FP_092616_BLM_WB_12	0.2982	20	-	-	-		
1610144-73	ES-FP_092616_BLM_WB_13	0.2741	20	-	-	-		
1610144-74	ES-FP_092616_BLM_WB_14	0.2852	20	-	-	-		
1610144-75	ES-FP_092616_BLM_WB_15	0.3013	20	-	-	-		

Page 91 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

F610468

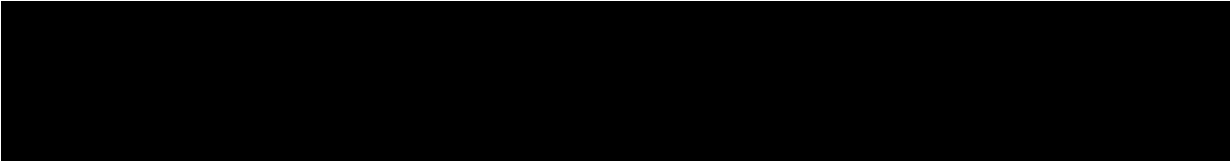
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610144-76	ES-FP_092616_BLM_WB_16	0.2947	20	-	-	-		
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PREPARATION BENCH SHEET

200.3

11/7/16 DM

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610491-BLK1	Blank	0.25	20					20X
F610491-BLK2	Blank	0.25	20					20X
F610491-BLK3	Blank	0.25	20					20X
F610491-BS1	Blank Spike	0.25	20	1605270	20			20X
F610491-BS2	DORM-4	0.126	20	1605470	126			500X
F610491-BSD1	Blank Spike dup	0.25	20	1605270	20			20X
F610491-DUP1	Duplicate [1610232-02]	0.2918	20					500X
F610491-MS1	Matrix Spike [1610232-02]	0.2931	20	1605712	100			500X
F610491-MS2	Matrix Spike [1610232-22]	0.2721	20	1605712	100			500X
F610491-MSD1	Matrix Spike Dup [1610232-02]	0.2763	20	1605712	100			500X
F610491-MSD2	Matrix Spike Dup [1610232-22]	0.2894	20	1605712	100			500X

**Standard ID(s):**  
 1605270  
 1605470  
 1605712

**Description:**  
 THg 100ng/mL Primary Spiking Standard  
 DORM-4  
 THg 1,000ng/mL Secondary Spiking Standard

**Expiration:**  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

**Reagent ID(s):**  
 1603399  
 1606221  
 1606257

**Description:**  
 Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

**Expiration:**  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 26-Mar-17 00:00

1606370  
 1609636  
 1605635  
 1602941

PREPARATION BENCH SHEET

200-3

11/7/16 DM

F610491

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/2/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-02	ES-FP_092716_RAS_WB_01	0.2698	20	QC	-	-	MS/MSD	500x
1610232-08	ES-FP_092716_RAS_WB_07	0.2546	20	-	-	-		500x → 100x
1610232-09	ES-FP_092716_RAS_WB_08	0.2745	20	-	-	-		500x
1610232-10	ES-FP_092716_RAS_WB_09	0.2648	20	-	-	-		500x
1610232-11	ES-FP_092716_RAS_WB_10	0.2612	20	-	-	-		100x
1610232-12	ES-FP_092716_RAS_WB_11	0.266	20	-	-	-		100x
1610232-13	ES-FP_092716_RAS_WB_12	0.2844	20	-	-	-		100x
1610232-14	ES-FP_092716_RAS_WB_13	0.2917	20	-	-	-		100x
1610232-15	ES-FP_092716_RAS_WB_14	0.2684	20	-	-	-		100x
1610232-16	ES-FP_092716_RAS_WB_15	0.2865	20	-	-	-		100x
1610232-17	ES-FP_092716_RAS_WB_16	0.2839	20	-	-	-		100x
1610232-18	ES-FP_092716_RAS_WB_17	0.2703	20	-	-	-		100x
1610232-19	ES-FP_092716_RAS_WB_18	0.2788	20	-	-	-		100x
1610232-20	ES-FP_092716_RAS_WB_19	0.2934	20	-	-	-		100x
1610232-21	ES-FP_092716_RAS_WB_20	0.271	20	-	-	-		100x
1610232-22	OB-01_092116_RAS_WB_01	0.2682	20	-	-	-		100x
1610232-23	OB-01_092116_RAS_WB_02	0.2967	20	-	-	-		100x
1610232-24	OB-01_092116_RAS_WB_03	0.2843	20	-	-	-		100x
1610232-25	OB-01_092116_RAS_WB_04	0.3082	20	-	-	-		100x

Page 94 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

F610491

Eurofins Frontier Global Sciences, Inc.

2600.3  
11/7/16 DM

Matrix: Tissue

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

Prepared: 11/2/2016

1610232-26	OB-01_092116_RAS_WB_05	0.2745	20	QC	-	-	MS/MSD	100%
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Technician: Duyen Batch#: F610491 Date: 11/1/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 15:45 Actual Temp. (raw): 75.0 °C w/ CF: 74.5 °C  
 Time out: 17:52 Actual Temp. (raw): 83 °C w/ CF: 82.5 °C

Final vol.: 20 mL (LIMS ID: 1606257) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: om 11/1/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU 11607 Calibration Date: 10-30-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 04N23499 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 02K27494  Yes  No  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: I5

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	F610491 Blank1	0.2920	23	1610232-18	0.2703	B52
2	F610491 Blank2	0.2752	24	1610232-19	0.2788	Dura-4 1605470
3	F610491 Blank3	0.2755	25	1610232-20	0.2934	
4	F610491 B51	0.2496	26	1610232-21	0.2710	<b>Comments</b>
5	F610491 B5D1	0.2692	27	1610232-22	0.2682	B51 B5D1
6	F610491 B52	0.1260	28	1610232-23	0.2967	=100µg Hg = 20µL
7	F610491 Dup1	0.2918	29	1610232-24	0.2843	1605270
8	F610491 MS1	0.2931	30	1610232-25	0.3682	Dup1 MS1 (M)
9	F610491 MS01	0.2763	31	1610232-26	0.2745	source 1610232-02
10	F610491 MS2	0.2721	32			MS2 MS02
11	<del>F610491 MS02</del>	<del>0.2894</del>	33	<del>1610232-26</del>		1610232-22
12	1610232-02	0.2698	34			
13	1610232-08	0.2546	35			F610491-MS02
14	1610232-09	0.2745	36			11/2/16 MS
15	1610232-10	0.2648	37			*Vials 32
16	1610232-11	0.2612	38			1610232-26
17	1610232-12	0.2660	39			
18	1610232-13	0.2844	40			
19	1610232-14	0.2917	41			
20	1610232-15	0.2684	42			
21	1610232-16	0.2865	43			
22	1610232-17	0.2839	44			

Verified By: R 11/2/16



2600.3  
11/7/16 DM

PREPARATION BENCH SHEET

F610468

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610468-BLK1	Blank	0.25	20					20X
F610468-BLK2	Blank	0.25	20					20X
F610468-BLK3	Blank	0.25	20					20X
F610468-BS1	Blank Spike	0.25	20	1605270	20			20X
F610468-BS2	DORM-4	0.1262	20	1605470	126			500X
F610468-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610468-DUP1	Duplicate [1610144-61]	0.2675	20					500X
F610468-MS1	Matrix Spike [1610144-61]	0.2773	20	1605712	100			500X
F610468-MS2	Matrix Spike [1610144-70]	0.294	20	1605712	100			500X
F610468-MSD1	Matrix Spike Dup [1610144-61]	0.2724	20	1605712	100			500X
F610468-MSD2	Matrix Spike Dup [1610144-70]	0.2874	20	1605712	100			500X

Standard ID(s):  
1605270 THg 100ng/mL Primary Spiking Standard  
1605470 DORM-4  
1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
10-Dec-16 00:00  
19-Mar-17 00:00  
03-Apr-17 00:00

Reagent ID(s):  
1603399 Boiling Chips for AFS prep  
1606304 70/30 Digestion Acid  
1606385 5% BrCl

Expiration:  
01-Jun-17 00:00  
26-Apr-17 00:00  
19-Apr-17 00:00

DUP2 - AD 500X  
Source 1610144-61

1606370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-3

11/7/16 DM

F610468

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-57	ES-15_092716_BLM_WB_17	0.2642	20	-	-	-		500X
1610144-58	ES-15_092716_BLM_WB_18	0.271	20	-	-	-		500X
1610144-59	ES-15_092716_BLM_WB_19	0.2837	20	-	-	-		500X
1610144-60	ES-15_092716_BLM_WB_20	0.2965	20	-	-	-		500X
1610144-61	ES-FP_092616_BLM_WB_01	0.287	20	QC	-	-	MS/MSD	500X
1610144-62	ES-FP_092616_BLM_WB_02	0.2698	20	-	-	-		500X
1610144-63	ES-FP_092616_BLM_WB_03	0.2826	20	-	-	-		500X
1610144-64	ES-FP_092616_BLM_WB_04	0.2959	20	-	-	-		500X
1610144-65	ES-FP_092616_BLM_WB_05	0.27	20	-	-	-		500X
1610144-66	ES-FP_092616_BLM_WB_06	0.3049	20	-	-	-		500X
1610144-67	ES-FP_092616_BLM_WB_07	0.2719	20	-	-	-		500X
1610144-68	ES-FP_092616_BLM_WB_08	0.2881	20	-	-	-		500X
1610144-69	ES-FP_092616_BLM_WB_09	0.2948	20	-	-	-		100X
1610144-70	ES-FP_092616_BLM_WB_10	0.2677	20	-	-	-		100X
1610144-71	ES-FP_092616_BLM_WB_11	0.2759	20	-	-	-		100X
1610144-72	ES-FP_092616_BLM_WB_12	0.2982	20	-	-	-		100X
1610144-73	ES-FP_092616_BLM_WB_13	0.2741	20	-	-	-		100X
1610144-74	ES-FP_092616_BLM_WB_14	0.2852	20	-	-	-		100X
1610144-75	ES-FP_092616_BLM_WB_15	0.3013	20	-	-	-		100X

Page 98 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

2600.3

11/7/16 DM

F610468

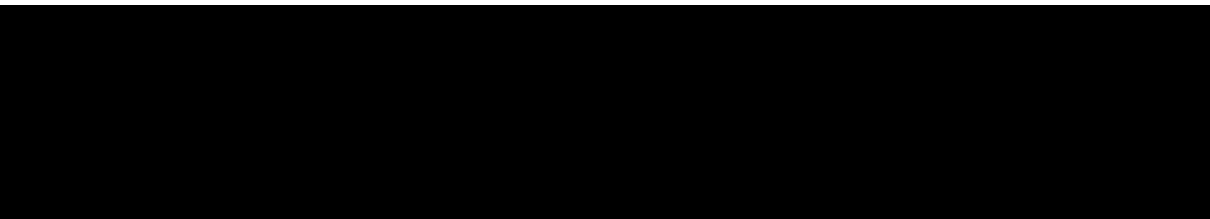
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610144-76	ES-FP_092616_BLM_WB_16	0.2947	20	-	-	-	100X
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Technician: Duyen Batch#: F610468 Date: 11/03/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 13:20 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 15:20 Actual Temp. (raw): 80.0 °C w/ CF: 79.5 °C

Final vol.: 20 mL (LIMS ID: 1606385) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: BC 11/3/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M651 11/3/16 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 02K27499 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  No  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: F15

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	F610468 Blank1	0.2646	23	1610144-68	0.2881	B52 20044
2	F610468 Blank2	0.2783	24	1610144-69	0.2948	1605470
3	F610468 Blank3	0.2528	25	1610144-70	0.2677	
4	F610468 B51	0.2674	26	1610144-71	0.2759	
5	F610468 B501	0.2493	27	1610144-72	0.2982	B51 B501
6	F610468 B52	0.1262	28	1610144-73	0.2741	= 100µg/L
7	F610468 Dup1	0.2675	29	1610144-74	0.2852	= 20µg
8	F610468 MS1	0.2773	30	1610144-75	0.3013	1605270
9	F610468 MS01	0.2724	31	1610144-76	0.2947	Dup 1. MS1 MS01
10	F610468 MS2	0.2940	32			source
11	F610468 MS02	0.2874	33			1610144-61
12	1610144-57	0.2642	34			MS2 MS02
13	1610144-58	0.2710	35			1610144-70
14	1610144-59	0.2837	36			1610144-59
15	1610144-60	0.2965	37			= 0.2837 g
16	1610144-61	0.2870	38			11/03/16
17	1610144-62	0.2698	39			748
18	1610144-63	0.2826	40			
19	1610144-64	0.2959	41			
20	1610144-65	0.2700	42			
21	1610144-66	0.3049	43			
22	1610144-67	0.2719	44			

PREPARATION BENCH SHEET

2600.3  
11/2/16 DM

F610469

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610469-BLK1	Blank	0.25	20					20x
F610469-BLK2	Blank	0.25	20					20x
F610469-BLK3	Blank	0.25	20					20x
F610469-BS1	Blank Spike	0.25	20	1605270	20			20x
F610469-BS2	DORM-4	0.126	20	1605470	126			500x
F610469-BSD1	Blank Spike	0.25	20	1605270	20			20x
F610469-DUP1	Duplicate [1610145-01]	0.2659	20					100x
F610469-MS1	Matrix Spike [1610145-01]	0.2845	20	1605712	100			500x
F610469-MS2	Matrix Spike [1610145-16]	0.2767	20	1605712	100			500x
F610469-MSD1	Matrix Spike Dup [1610145-01]	0.2944	20	1605712	100			500x
F610469-MSD2	Matrix Spike Dup [1610145-16]	0.2756	20	1605712	100			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606304	70/30 Digestion Acid	26-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606385	5% BrCl	19-Apr-17 00:00

1602370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

2600-3  
11/7/16 DM

F610469

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610144-77	ES-FP_092616_BLM_WB_17	0.2642	20	-	-	-		100X
1610144-78	ES-FP_092616_BLM_WB_18	0.2875	20	-	-	-		100X
1610144-79	ES-FP_092616_BLM_WB_19	0.288	20	-	-	-		100X
1610144-80	ES-FP_092616_BLM_WB_20	0.2843	20	-	-	-		100X
1610145-01	BO-04_100316_MUM_WB_01	0.2837	20	QC	-	-	MS/MSD	100X
1610145-02	BO-04_100316_MUM_WB_02	0.2877	20	-	-	-		100X
1610145-03	BO-04_100316_MUM_WB_03	0.2641	20	-	-	-		100X
1610145-04	BO-04_100316_MUM_WB_04	0.2758	20	-	-	-		100X
1610145-05	BO-04_100316_MUM_WB_05	0.27	20	-	-	-		100X
1610145-06	BO-04_100316_MUM_WB_06	0.2834	20	-	-	-		100X
1610145-07	BO-04_100316_MUM_WB_07	0.2857	20	-	-	-		100X
1610145-08	BO-04_100316_MUM_WB_08	0.2881	20	-	-	-		100X
1610145-09	BO-04_100316_MUM_WB_09	0.2845	20	-	-	-		100X
1610145-10	BO-04_100316_MUM_WB_10	0.2849	20	-	-	-		100X
1610145-11	BO-04_100316_MUM_WB_11	0.2743	20	-	-	-		100X
1610145-12	BO-04_100316_MUM_WB_12	0.2657	20	-	-	-		100X
1610145-13	BO-04_100316_MUM_WB_13	0.2837	20	-	-	-		100X
1610145-14	BO-04_100316_MUM_WB_14	0.283	20	-	-	-		100X
1610145-15	BO-04_100316_MUM_WB_15	0.3078	20	-	-	-		100X

Page 102 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

200.3  
11/7/16 DM

F610469

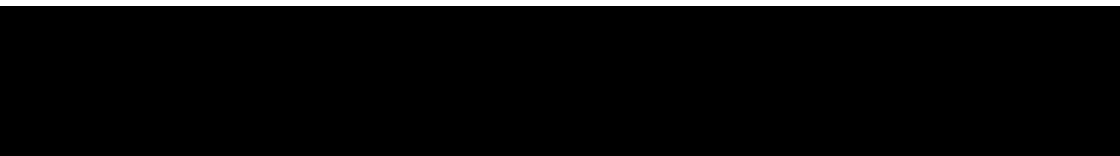
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/3/2016

1610145-16	BO-04_100316_MUM_WB_16	0.3155	20	-	-	-		100X
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- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
  - EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
  - EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
  - EFGS-066 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: 13:20 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 15:20 Actual Temp. (raw): 80.0 °C w/ CF: 79.5 °C

Final vol.: 20 mL (LIMS ID: 1606385) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: QC 11-3-16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MW11667 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 021527494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159 Yes  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: F, 5

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	F610469 Blank1	0.2663	23	1610145-08	0.2881	BS2 DORM4
2	F610469 Blank2	0.2718	24	1610145-09	0.2845	1605470
3	F610469 Blank3	0.2786	25	1610145-10	0.2849	
4	F610469 BS1	0.2499	26	1610145-11	0.2743	Comments
5	F610469 BS01	0.2934	27	1610145-12	0.2657	BS1 BS01
6	F610469 BS2	0.2260	28	1610145-13	0.2837	= 100 µg/L
7	F610469 Dupl	0.3087	29	1610145-14	0.2830	= 20 µg/L
8	F610469 MS1	0.2845	30	1610145-15	0.3078	1605770
9	F610469 MS01	0.2949	31	1610145-16	0.3155	Dupl MS1 MS01
10	F610469 MS2	0.2767	32			source
11	F610469 MS02	0.2756	33			1610145-01
12	1610144-77	0.2642	34			MS2 MS02
13	1610144-78	0.2875	35			1610145-16
14	1610144-79	0.2880	36			Dupl
15	1610144-80	0.2843	37			1610145-01
16	1610145-01	0.2837	38			= 0.2659 g
17	1610145-02	0.2877	39			11/3/16 D4
18	1610145-03	0.2641	40			
19	1610145-04	0.2758	41			
20	1610145-05	0.2700	42			
21	1610145-06	0.2834	43			
22	1610145-07	0.2857	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>6K07013</u>
Reviewer: <u>DM</u>	Dataset ID(s): <u>THG26003-161107-1</u>
Date: <u>11/7/2016</u>	WO (s) #: <u>1610144, 1610145, 1610232</u>
Batch #(s): <u>F610469, F610491, F610468</u>	<u>0</u>

Analyst Initials DM      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 checked="" type="checkbox"/> |
| Comments: <u>F610468-DUP1 FAILED. RE-ANALYZED AND PASSED</u>   |  |  |   |                                     |
| 13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list) | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:                                 |  |  |   |                                     |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	6K07013
Reviewer:	0 <i>Thy M</i>	Dataset ID(s):	THG26003-161107-1
Date:	11/7/2016	WO (s) #:	1610144, 1610145, 1610232
Batch #(s):	F610469, F610491, F610468		0

Analyst Initials *DM*

Reviewer Initials *Thy*

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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>12/16/15</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>5/20/16</u> | Current SOP revision read?       | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/7/16</u>                               | LOD within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/7/16</u>                               | LOQ within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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



**THg26002-161108-1**



Frontier Global Sciences

**Analysis Datasheet for Total Mercury**

Date of Analysis: November 09, 2016

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K09002

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	111.46 units	222.92	97.35 units	194.69	99.0 %Rec
SEQ-CAL2	1	1.00 ng/L	212.45 units	212.45	198.34 units	198.34	100.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1012.13 units	202.43	998.02 units	199.60	101.5 %Rec
SEQ-CAL4	1	20.00 ng/L	3946.52 units	197.33	3932.41 units	196.62	100.0 %Rec
SEQ-CAL5	1	40.00 ng/L	7778.51 units	194.46	7764.40 units	194.11	98.7 %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**  
 196.67            +/- 2.34            1.2% RSD            205.92

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-TBL	3	14.11 units	±1.68	0.07 ng/L	±0.01

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	4.192 ng/L	±2.447
BLK	2	3	3.761 ng/L	±1.423
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: A 11/11/16

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	11/9/2016 9:14:07	16265-1.RAW	9:14:07 AM	14.00			-0.1	-0.001	-0.001	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	11/9/2016 9:18:16	16266-1.RAW	9:18:16 AM	15.85			1.7	0.009	0.009	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	11/9/2016 9:22:24	16267-1.RAW	9:22:24 AM	12.49			-1.6	-0.008	-0.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	11/9/2016 9:26:33	16268-1.RAW	9:26:33 AM	111.46			97.3	0.495	0.495	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	11/9/2016 9:30:41	16269-1.RAW	9:30:41 AM	212.45			198.3	1.008	1.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	11/9/2016 9:34:49	16270-1.RAW	9:34:49 AM	1012.13			998.0	5.075	5.075	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	11/9/2016 9:38:58	16271-1.RAW	9:38:58 AM	3946.52			3932.4	19.995	19.995	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	11/9/2016 9:43:06	16272-1.RAW	9:43:06 AM	7778.51			7764.4	39.479	39.479	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	11/9/2016 9:47:16	16273-1.RAW	9:47:16 AM	951.35			937.2	4.765	4.765	ng/L	
Hg2600-2	BC	BLK	F610470-BLK1	20	11/9/2016 9:51:24	16274-1.RAW	9:51:24 AM	82.53	1		68.4	0.348	6.957	ng/L	
Hg2600-2	BC	BLK	F610470-BLK2	20	11/9/2016 9:55:34	16275-1.RAW	9:55:34 AM	46.70	1		32.6	0.166	3.314	ng/L	
Hg2600-2	BC	BLK	F610470-BLK3	20	11/9/2016 9:59:42	16276-1.RAW	9:59:42 AM	36.78	1		22.7	0.115	2.305	ng/L	
Hg2600-2	BC	SAM	F610470-BS1	20	11/9/2016 10:03:51	16277-1.RAW	10:03:51 AM	1059.70	1		1045.6	5.107	102.136	ng/L	
Hg2600-2	BC	SAM	F610470-BSD1	20	11/9/2016 10:07:59	16278-1.RAW	10:07:59 AM	1016.41	1		1002.3	4.887	97.733	ng/L	
Hg2600-2	BC	SAM	F610470-BS2	500	11/9/2016 10:12:08	16279-1.RAW	10:12:08 AM	852.17	1		838.1	4.253	2126.395	ng/L	
Hg2600-2	BC	SAM	1610145-17	500	11/9/2016 10:16:16	16280-1.RAW	10:16:16 AM	645.17	1		631.1	3.200	1600.140	ng/L	
Hg2600-2	BC	SAM	1610145-18	500	11/9/2016 10:20:25	16281-1.RAW	10:20:25 AM	466.16	1		452.0	2.290	1145.044	ng/L	
Hg2600-2	BC	SAM	1610145-19	500	11/9/2016 10:24:33	16282-1.RAW	10:24:33 AM	336.12	1		322.0	1.629	814.444	ng/L	
Hg2600-2	BC	SAM	1610145-20	500	11/9/2016 10:28:42	16283-1.RAW	10:28:42 AM	388.00	1		373.9	1.893	946.338	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	11/9/2016 10:32:50	16284-1.RAW	10:32:50 AM	906.78			892.6	4.539	4.539	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	11/9/2016 10:36:59	16285-1.RAW	10:36:59 AM	29.83			15.7	0.080	0.080	ng/L	
Hg2600-2	BC	SAM	1610145-21	100	11/9/2016 10:41:07	16286-1.RAW	10:41:07 AM	5219.98	1		5205.9	26.428	2642.777	ng/L	
Hg2600-2	BC	SAM	1610145-22	100	11/9/2016 10:45:15	16287-1.RAW	10:45:15 AM	7266.48	1		7252.4	36.833	3683.339	ng/L	
Hg2600-2	BC	SAM	1610145-23	100	11/9/2016 10:49:24	16288-1.RAW	10:49:24 AM	3853.04	1		3838.9	19.477	1947.744	ng/L	
Hg2600-2	BC	SAM	1610145-24	100	11/9/2016 10:53:32	16289-1.RAW	10:53:32 AM	3237.72	1		3223.6	16.349	1634.880	ng/L	
Hg2600-2	BC	SAM	1610145-25	100	11/9/2016 10:57:41	16290-1.RAW	10:57:41 AM	3931.77	1		3917.7	19.878	1987.775	ng/L	
Hg2600-2	BC	SAM	1610145-26	100	11/9/2016 11:01:49	16291-1.RAW	11:01:49 AM	3398.14	1		3384.0	17.164	1716.447	ng/L	
Hg2600-2	BC	SAM	1610145-27	100	11/9/2016 11:05:58	16292-1.RAW	11:05:58 AM	3540.54	1		3526.4	17.889	1788.851	ng/L	
Hg2600-2	BC	SAM	1610145-28	100	11/9/2016 11:10:06	16293-1.RAW	11:10:06 AM	3210.69	1		3196.6	16.211	1621.136	ng/L	
Hg2600-2	BC	SAM	1610145-29	100	11/9/2016 11:14:15	16294-1.RAW	11:14:15 AM	2349.93	1		2335.8	11.835	1183.475	ng/L	
Hg2600-2	BC	SAM	1610145-30	100	11/9/2016 11:18:23	16295-1.RAW	11:18:23 AM	2702.29	1		2688.2	13.626	1362.635	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	11/9/2016 11:22:31	16296-1.RAW	11:22:31 AM	963.31			949.2	4.826	4.826	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	11/9/2016 11:26:40	16297-1.RAW	11:26:40 AM	55.36			41.2	0.210	0.210	ng/L	
Hg2600-2	BC	SAM	1610145-31	100	11/9/2016 11:30:48	16298-1.RAW	11:30:48 AM	2902.84	1		2888.7	14.646	1464.607	ng/L	
Hg2600-2	BC	SAM	1610145-32	100	11/9/2016 11:34:57	16299-1.RAW	11:34:57 AM	3031.68	1		3017.6	15.301	1530.117	ng/L	
Hg2600-2	BC	SAM	1610145-33	100	11/9/2016 11:39:05	16300-1.RAW	11:39:05 AM	2272.58	1		2258.5	11.441	1144.145	ng/L	
Hg2600-2	BC	SAM	1610145-34	100	11/9/2016 11:43:14	16301-1.RAW	11:43:14 AM	2449.61	1		2435.5	12.342	1234.158	ng/L	
Hg2600-2	BC	SAM	1610145-35	100	11/9/2016 11:47:22	16302-1.RAW	11:47:22 AM	2816.98	1		2802.9	14.210	1420.951	ng/L	
Hg2600-2	BC	SAM	1610145-36	100	11/9/2016 11:51:30	16303-1.RAW	11:51:30 AM	2374.49	1		2360.4	11.960	1195.963	ng/L	
Hg2600-2	BC	SAM	F610470-DUP1	100	11/9/2016 11:55:39	16304-1.RAW	11:55:39 AM	5946.79	1		5932.7	30.123	3012.330	ng/L	
Hg2600-2	BC	SAM	F610470-MS1	500	11/9/2016 11:59:47	16305-1.RAW	11:59:47 AM	3064.62	1		3050.5	15.502	7751.095	ng/L	
Hg2600-2	BC	SAM	F610470-MSD1	500	11/9/2016 12:03:56	16306-1.RAW	12:03:56 PM	3215.96	1		3201.8	16.272	8135.846	ng/L	
Hg2600-2	BC	SAM	F610470-MS2	500	11/9/2016 12:08:05	16307-1.RAW	12:08:05 PM	2337.40	1		2323.3	11.805	5902.287	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	11/9/2016 12:12:14	16308-1.RAW	12:12:14 PM	999.11			985.0	5.008	5.008	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	11/9/2016 12:16:22	16309-1.RAW	12:16:22 PM	58.96			44.8	0.228	0.228	ng/L	
Hg2600-2	BC	SAM	F610470-MSD2	500	11/9/2016 12:20:31	16310-1.RAW	12:20:31 PM	2459.30	1		2445.2	12.424	6212.193	ng/L	
Hg2600-2	BC	BLK	F610471-BLK1	20	11/9/2016 12:24:39	16311-1.RAW	12:24:39 PM	67.01	2		52.9	0.269	5.379	ng/L	
Hg2600-2	BC	BLK	F610471-BLK2	20	11/9/2016 12:28:47	16312-1.RAW	12:28:47 PM	45.55	2		31.4	0.160	3.197	ng/L	
Hg2600-2	BC	BLK	F610471-BLK3	20	11/9/2016 12:32:56	16313-1.RAW	12:32:56 PM	40.73	2		26.6	0.135	2.707	ng/L	
Hg2600-2	BC	SAM	F610471-BS1	20	11/9/2016 12:37:04	16314-1.RAW	12:37:04 PM	990.73	2		976.6	4.778	95.553	ng/L	
Hg2600-2	BC	SAM	F610471-BSD1	20	11/9/2016 12:41:13	16315-1.RAW	12:41:13 PM	1016.98	2		1002.9	4.911	98.222	ng/L	
Hg2600-2	BC	SAM	F610471-BS2	500	11/9/2016 12:45:21	16316-1.RAW	12:45:21 PM	833.46	2		819.3	4.159	2079.260	ng/L	
Hg2600-2	BC	SAM	1610145-37	100	11/9/2016 12:49:30	16317-1.RAW	12:49:30 PM	1893.57	2		1879.5	9.519	951.866	ng/L	
Hg2600-2	BC	SAM	1610145-38	100	11/9/2016 12:53:38	16318-1.RAW	12:53:38 PM	2529.40	2		2515.3	12.752	1275.159	ng/L	
Hg2600-2	BC	SAM	1610145-39	100	11/9/2016 12:57:47	16319-1.RAW	12:57:47 PM	1872.62	2		1858.5	9.412	941.213	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	11/9/2016 13:01:55	16320-1.RAW	1:01:55 PM	989.24			975.1	4.958	4.958	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	11/9/2016 13:06:03	16321-1.RAW	1:06:03 PM	47.01			32.9	0.167	0.167	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	1610145-40	100	11/9/2016 13:10:12	16322-1.RAW	1:10:12 PM	1358.81	2		1344.7	6.800	679.962	ng/L	
Hg2600-2	BC	SAM	1610145-41	100	11/9/2016 13:14:20	16323-1.RAW	1:14:20 PM	2418.94	2		2404.8	12.190	1218.995	ng/L	
Hg2600-2	BC	SAM	1610145-42	100	11/9/2016 13:18:29	16324-1.RAW	1:18:29 PM	1891.66	2		1877.5	9.509	950.894	ng/L	
Hg2600-2	BC	SAM	1610145-43	100	11/9/2016 13:22:37	16325-1.RAW	1:22:37 PM	1873.79	2		1859.7	9.418	941.808	ng/L	
Hg2600-2	BC	SAM	1610145-44	100	11/9/2016 13:26:46	16326-1.RAW	1:26:46 PM	2494.41	2		2480.3	12.574	1257.368	ng/L	
Hg2600-2	BC	SAM	1610145-45	100	11/9/2016 13:30:54	16327-1.RAW	1:30:54 PM	2304.21	2		2290.1	11.607	1160.659	ng/L	
Hg2600-2	BC	SAM	1610231-01	100	11/9/2016 13:35:03	16328-1.RAW	1:35:03 PM	674.18	2		660.1	3.319	331.856	ng/L	
Hg2600-2	BC	SAM	1610231-02	100	11/9/2016 13:39:11	16329-1.RAW	1:39:11 PM	1205.75	2		1191.6	6.021	602.137	ng/L	
Hg2600-2	BC	SAM	1610231-03	100	11/9/2016 13:43:19	16330-1.RAW	1:43:19 PM	388.09	2		374.0	1.864	186.391	ng/L	
Hg2600-2	BC	SAM	1610231-04	100	11/9/2016 13:47:28	16331-1.RAW	1:47:28 PM	757.32	2		743.2	3.741	374.129	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	11/9/2016 13:51:36	16332-1.RAW	1:51:36 PM	948.84			934.7	4.753	4.753	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	11/9/2016 13:55:45	16333-1.RAW	1:55:45 PM	39.17			25.1	0.127	0.127	ng/L	
Hg2600-2	BC	SAM	1610231-05	100	11/9/2016 13:59:53	16334-1.RAW	1:59:53 PM	1967.44	2		1953.3	9.894	989.425	ng/L	
Hg2600-2	BC	SAM	1610232-01	100	11/9/2016 14:04:02	16335-1.RAW	2:04:02 PM	1114.33	2		1100.2	5.557	555.654	ng/L	
Hg2600-2	BC	SAM	1610232-03	100	11/9/2016 14:08:10	16336-1.RAW	2:08:10 PM	3083.14	2		3069.0	15.567	1556.713	ng/L	
Hg2600-2	BC	SAM	1610232-04	100	11/9/2016 14:12:19	16337-1.RAW	2:12:19 PM	1349.33	2		1335.2	6.751	675.142	ng/L	
Hg2600-2	BC	SAM	1610232-05	100	11/9/2016 14:16:27	16338-1.RAW	2:16:27 PM	2211.11	2		2197.0	11.133	1113.322	ng/L	
Hg2600-2	BC	SAM	1610232-06	100	11/9/2016 14:20:35	16339-1.RAW	2:20:35 PM	1596.14	2		1582.0	8.006	800.635	ng/L	
Hg2600-2	BC	SAM	1610232-07	100	11/9/2016 14:24:44	16340-1.RAW	2:24:44 PM	1420.59	2		1406.5	7.114	711.375	ng/L	
Hg2600-2	BC	SAM	F610471-DUP1	100	11/9/2016 14:28:52	16341-1.RAW	2:28:52 PM	2725.61	2		2711.5	13.749	1374.924	ng/L	
Hg2600-2	BC	SAM	F610471-MS1	500	11/9/2016 14:33:01	16342-1.RAW	2:33:01 PM	2516.17	2		2502.1	12.714	6357.204	ng/L	
Hg2600-2	BC	SAM	F610471-MSD1	500	11/9/2016 14:37:09	16343-1.RAW	2:37:09 PM	2458.98	2		2444.9	12.424	6211.811	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	11/9/2016 14:41:18	16344-1.RAW	2:41:18 PM	975.27			961.2	4.887	4.887	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	11/9/2016 14:45:26	16345-1.RAW	2:45:26 PM	82.01			67.9	0.345	0.345	ng/L	
Hg2600-2	BC	SAM	F610471-MS2	500	11/9/2016 14:49:34	16346-1.RAW	2:49:34 PM	2119.04	2		2104.9	10.695	5347.583	ng/L	
Hg2600-2	BC	SAM	F610471-MSD2	500	11/9/2016 14:53:43	16347-1.RAW	2:53:43 PM	1970.45	2		1956.3	9.940	4969.823	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	11/9/2016 14:57:51	16348-1.RAW	2:57:51 PM	914.26			900.1	4.577	4.577	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	11/9/2016 15:02:00	16349-1.RAW	3:02:00 PM	49.96			35.8	0.182	0.182	ng/L	

TotalMercury    **Operat** BC    **Blanks** 14.114    **Calib Eqn:** Conc = (Area-14.11    **Run Date:** 11/8/2016    **Blank SD:** 1.684229152  
 EPA1631    **Worksh** WS0000    **CalibFa** 196.67    **Status:** QC Warnings:4/QC E    **Run Time:** 8:51:50    **Blank RSD%:** 11.93313659  
**Method** ####    **R:** 1    **R<sup>2</sup>:** 1    **CF SD:** 2.336722724  
**Descrip** THG26002-161108-2    **CF RSD%:** 1.188125159

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	0.02					16260-1.RAW	8:54:42	4.10	Clean	OK	1	
clean				0.00	0.00					16261-1.RAW	8:57:34	0.21	Clean	OK	1	
ws				14.11	0.00					16262-1.RAW	9:01:42	12.45	Sample	OK	1	
ws				14.11	0.00					16263-1.RAW	9:05:50	4.47	Sample	OK	1	
ws				14.11	0.00					16264-1.RAW	9:09:59	7.50	Sample	OK	1	
SEQ-IBL1	A1			0.00	0.07					16265-1.RAW	9:14:07	14.00	Sample	OK	1	
SEQ-IBL2	A2			0.00	0.08					16266-1.RAW	9:18:16	15.85	Sample	OK	1	
SEQ-IBL3	A3			0.00	0.06					16267-1.RAW	9:22:24	12.49	Sample	OK	1	
SEQ-CAL1	A4			14.11	0.49			98.99		16268-1.RAW	9:26:33	111.46	Sample	OK	1	
SEQ-CAL2	A5			14.11	1.01			100.85		16269-1.RAW	9:30:41	212.45	Sample	OK	1	
SEQ-CAL3	A6			14.11	5.07			101.49		16270-1.RAW	9:34:49	1012.13	Sample	OK	1	
SEQ-CAL4	A7			14.11	19.99			99.97		16271-1.RAW	9:38:58	3946.52	Sample	OK	1	
SEQ-CAL5	A8			14.11	39.48			98.70		16272-1.RAW	9:43:06	7778.51	Sample	OK	1	
SEQ-ICV1	A9			14.11	4.77			95.31		16273-1.RAW	9:47:16	951.35	Sample	OK	1	
F610470-BLK1	A10		20	14.11	6.96					16274-1.RAW	9:51:24	82.53	Sample	OK	1	
F610470-BLK2	A11		20	14.11	3.31					16275-1.RAW	9:55:34	46.70	Sample	OK	1	
F610470-BLK3	A12		20	14.11	2.30					16276-1.RAW	9:59:42	36.78	Sample	OK	1	
F610470-BS1	A13		20	14.11	106.33					16277-1.RAW	10:03:51	1059.70	Sample	OK	1	
F610470-BSD1	A14		20	14.11	101.93					16278-1.RAW	10:07:59	1016.41	Sample	OK	1	
F610470-BS2	A15		500	14.11	2130.57					16279-1.RAW	10:12:08	852.17	Sample	OK	1	
1610145-17	A16		500	14.11	1604.34					16280-1.RAW	10:16:16	645.17	Sample	OK	1	
1610145-18	A17		500	14.11	1149.24					16281-1.RAW	10:20:25	466.16	Sample	OK	1	
1610145-19	A18		500	14.11	818.64					16282-1.RAW	10:24:33	336.12	Sample	OK	1	
1610145-20	A19		500	14.11	950.53					16283-1.RAW	10:28:42	388.00	Sample	OK	1	
SEQ-CCV1	A20		1	14.11	4.54			90.77		16284-1.RAW	10:32:50	906.76	Sample	OK	1	
SEQ-CCB1	A21		1	14.11	0.08			0.00		16285-1.RAW	10:36:59	29.83	Sample	OK	1	
1610145-21	B1		100	14.11	2646.96					16286-1.RAW	10:41:07	5219.98	Sample	OK	1	
1610145-22	B2		100	14.11	3687.52					16287-1.RAW	10:45:15	7266.48	Sample	OK	1	
1610145-23	B3		100	14.11	1951.93					16288-1.RAW	10:49:24	3853.04	Sample	OK	1	
1610145-24	B4		100	14.11	1639.07					16289-1.RAW	10:53:32	3237.72	Sample	OK	1	
1610145-25	B5		100	14.11	1991.96					16290-1.RAW	10:57:41	3931.77	Sample	OK	1	
1610145-26	B6		100	14.11	1720.63					16291-1.RAW	11:01:49	3398.14	Sample	OK	1	
1610145-27	B7		100	14.11	1793.04					16292-1.RAW	11:05:58	3540.54	Sample	OK	1	
1610145-28	B8		100	14.11	1625.32					16293-1.RAW	11:10:06	3210.69	Sample	OK	1	
1610145-29	B9		100	14.11	1187.66					16294-1.RAW	11:14:15	2349.93	Sample	OK	1	
1610145-30	B10		100	14.11	1366.83					16295-1.RAW	11:18:23	2702.29	Sample	OK	1	
SEQ-CCV2	B11		1	14.11	4.83			96.52		16296-1.RAW	11:22:31	963.31	Sample	OK	1	
SEQ-CCB2	B12		1	14.11	0.21			0.00		16297-1.RAW	11:26:40	55.36	Sample	OK	1	
1610145-31	B13		100	14.11	1468.79					16298-1.RAW	11:30:48	2902.84	Sample	OK	1	
1610145-32	B14		100	14.11	1534.31					16299-1.RAW	11:34:57	3031.68	Sample	OK	1	
1610145-33	B15		100	14.11	1148.33					16300-1.RAW	11:39:05	2272.58	Sample	OK	1	
1610145-34	B16		100	14.11	1238.34					16301-1.RAW	11:43:14	2449.61	Sample	OK	1	
1610145-35	B17		100	14.11	1425.14					16302-1.RAW	11:47:22	2816.98	Sample	OK	1	
1610145-36	B18		100	14.11	1200.15					16303-1.RAW	11:51:30	2374.49	Sample	OK	1	
F610470-DUP1	B19		100	14.11	3016.51					16304-1.RAW	11:55:39	5946.79	Sample	OK	1	



F610470-MS1	B20	500	14.11	7755.26	257.01	16305-1.RAW	11:59:47	3064.62	Sample	OK	1
F610470-MSD1	B21	500	14.11	8140.02		16306-1.RAW	12:03:56	3215.96	Sample	OK	1
F610470-MS2	C1	500	14.11	5906.46	72.54	16307-1.RAW	12:08:05	2337.40	Sample	OK	1
SEQ-CCV3	C2	1	14.11	5.01	100.17	16308-1.RAW	12:12:14	999.11	Sample	OK	1
SEQ-CCB3	C3	1	14.11	0.23	0.00	16309-1.RAW	12:16:22	58.96	Sample	OK	1
F610470-MSD2	C4	500	14.11	6216.38		16310-1.RAW	12:20:31	2459.30	Sample	OK	1
F610471-BLK1	C5	20	14.11	5.38		16311-1.RAW	12:24:39	67.01	Sample	OK	1
F610471-BLK2	C6	20	14.11	3.20		16312-1.RAW	12:28:47	45.55	Sample	OK	1
F610471-BLK3	C7	20	14.11	2.71		16313-1.RAW	12:32:56	40.73	Sample	OK	1
F610471-BS1	C8	20	14.11	99.31		16314-1.RAW	12:37:04	990.73	Sample	OK	1
F610471-BSD1	C9	20	14.11	101.98		16315-1.RAW	12:41:13	1016.98	Sample	OK	1
F610471-BS2	C10	500	14.11	2083.02		16316-1.RAW	12:45:21	833.46	Sample	OK	1
1610145-37	C11	100	14.11	955.62		16317-1.RAW	12:49:30	1893.57	Sample	OK	1
1610145-38	C12	100	14.11	1278.92		16318-1.RAW	12:53:38	2529.40	Sample	OK	1
1610145-39	C13	100	14.11	944.97		16319-1.RAW	12:57:47	1872.62	Sample	OK	1
SEQ-CCV4	C14	1	14.11	4.96	99.16	16320-1.RAW	13:01:55	989.24	Sample	OK	1
SEQ-CCB4	C15	1	14.11	0.17	0.00	16321-1.RAW	13:06:03	47.01	Sample	OK	1
1610145-40	C16	100	14.11	683.72		16322-1.RAW	13:10:12	1358.81	Sample	OK	1
1610145-41	C17	100	14.11	1222.75		16323-1.RAW	13:14:20	2418.94	Sample	OK	1
1610145-42	C18	100	14.11	954.65		16324-1.RAW	13:18:29	1891.66	Sample	OK	1
1610145-43	C19	100	14.11	945.57		16325-1.RAW	13:22:37	1873.79	Sample	OK	1
1610145-44	C20	100	14.11	1261.13		16326-1.RAW	13:26:46	2494.41	Sample	OK	1
1610145-45	C21	100	14.11	1164.42		16327-1.RAW	13:30:54	2304.21	Sample	OK	1
1610231-01	A1	100	14.11	335.62		16328-1.RAW	13:35:03	674.18	Sample	OK	1
1610231-02	A2	100	14.11	605.90		16329-1.RAW	13:39:11	1205.75	Sample	OK	1
1610231-03	A3	100	14.11	190.15		16330-1.RAW	13:43:19	388.09	Sample	OK	1
1610231-04	A4	100	14.11	377.89		16331-1.RAW	13:47:28	757.32	Sample	OK	1
SEQ-CCV5	A5	1	14.11	4.75	95.05	16332-1.RAW	13:51:36	948.84	Sample	OK	1
SEQ-CCB5	A6	1	14.11	0.13	0.00	16333-1.RAW	13:55:45	39.17	Sample	OK	1
1610231-05	A7	100	14.11	993.18		16334-1.RAW	13:59:53	1967.44	Sample	OK	1
1610232-01	A8	100	14.11	559.42		16335-1.RAW	14:04:02	1114.33	Sample	OK	1
1610232-03	A9	100	14.11	1560.47		16336-1.RAW	14:08:10	3083.14	Sample	OK	1
1610232-04	A10	100	14.11	678.90		16337-1.RAW	14:12:19	1349.33	Sample	OK	1
1610232-05	A11	100	14.11	1117.08		16338-1.RAW	14:16:27	2211.11	Sample	OK	1
1610232-06	A12	100	14.11	804.39		16339-1.RAW	14:20:35	1596.14	Sample	OK	1
1610232-07	A13	100	14.11	715.13		16340-1.RAW	14:24:44	1420.59	Sample	OK	1
F610471-DUP1	A14	100	14.11	1378.68		16341-1.RAW	14:28:52	2725.61	Sample	OK	1
F610471-MS1	A15	500	14.11	6360.96	461.05	16342-1.RAW	14:33:01	2516.17	Sample	OK	1
F610471-MSD1	A16	500	14.11	6215.55		16343-1.RAW	14:37:09	2458.98	Sample	OK	1
SEQ-CCV6	A17	1	14.11	4.89	97.74	16344-1.RAW	14:41:18	975.27	Sample	OK	1
SEQ-CCB6	A18	1	14.11	0.35	0.00	16345-1.RAW	14:45:26	82.01	Sample	OK	1
F610471-MS2	A19	500	14.11	5351.32	228177.56	16346-1.RAW	14:49:34	2119.04	Sample	OK	1
F610471-MSD2	A20	500	14.11	4973.58		16347-1.RAW	14:53:43	1970.45	Sample	OK	1
SEQ-CCV7	A21	1	14.11	4.58	91.54	16348-1.RAW	14:57:51	914.26	Sample	OK	1
SEQ-CCB7	B1	1	14.11	0.18	0.00	16349-1.RAW	15:02:00	49.96	Sample	OK	1



## ANALYSIS SEQUENCE

6K09002



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/8/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K09002-IBL1	QC	1			
6K09002-IBL2	QC	2			
6K09002-IBL3	QC	3			
6K09002-CAL1	QC	4	1605412		
6K09002-CAL2	QC	5	1605413		
6K09002-CAL3	QC	6	1605414		
6K09002-CAL4	QC	7	1605415		
6K09002-CAL5	QC	8	1605416		
6K09002-ICV1	QC	9	1605791		
F610470-BLK1	QC	10			
F610470-BLK2	QC	11			
F610470-BLK3	QC	12			
F610470-BS1	QC	13			
F610470-BSD1	QC	14			
F610470-BS2	QC	15			
1610145-17	Hg-CVAFS-T-7030	16			
1610145-18	Hg-CVAFS-T-7030	17			
1610145-19	Hg-CVAFS-T-7030	18			
1610145-20	Hg-CVAFS-T-7030	19			
6K09002-CCV1	QC	20	1605791		
6K09002-CCB1	QC	21			
1610145-21	Hg-CVAFS-T-7030	22			
1610145-22	Hg-CVAFS-T-7030	23			
1610145-23	Hg-CVAFS-T-7030	24			
1610145-24	Hg-CVAFS-T-7030	25			
1610145-25	Hg-CVAFS-T-7030	26			
1610145-26	Hg-CVAFS-T-7030	27			
1610145-27	Hg-CVAFS-T-7030	28			
1610145-28	Hg-CVAFS-T-7030	29			
1610145-29	Hg-CVAFS-T-7030	30			
1610145-30	Hg-CVAFS-T-7030	31			
6K09002-CCV2	QC	32	1605791		
6K09002-CCB2	QC	33			
1610145-31	Hg-CVAFS-T-7030	34			
1610145-32	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K09002



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/8/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610145-33	Hg-CVAFS-T-7030	36			
1610145-34	Hg-CVAFS-T-7030	37			
1610145-35	Hg-CVAFS-T-7030	38			
1610145-36	Hg-CVAFS-T-7030	39			
F610470-DUP1	QC	40			
F610470-MS1	QC	41			
F610470-MSD1	QC	42			
F610470-MS2	QC	43			
6K09002-CCV3	QC	44	1605791		
6K09002-CCB3	QC	45			
F610470-MSD2	QC	46			
F610471-BLK1	QC	47			
F610471-BLK2	QC	48			
F610471-BLK3	QC	49			
F610471-BS1	QC	50			
F610471-BSD1	QC	51			
F610471-BS2	QC	52			
1610145-37	Hg-CVAFS-T-7030	53			
1610145-38	Hg-CVAFS-T-7030	54			
1610145-39	Hg-CVAFS-T-7030	55			
6K09002-CCV4	QC	56	1605791		
6K09002-CCB4	QC	57			
1610145-40	Hg-CVAFS-T-7030	58			
1610145-41	Hg-CVAFS-T-7030	59			
1610145-42	Hg-CVAFS-T-7030	60			
1610145-43	Hg-CVAFS-T-7030	61			
1610145-44	Hg-CVAFS-T-7030	62			
1610145-45	Hg-CVAFS-T-7030	63			
1610231-01	Hg-CVAFS-T-7030	64			
1610231-02	Hg-CVAFS-T-7030	65			
1610231-03	Hg-CVAFS-T-7030	66			
1610231-04	Hg-CVAFS-T-7030	67			
6K09002-CCV5	QC	68	1605791		
6K09002-CCB5	QC	69			
1610231-05	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

ANALYSIS SEQUENCE

6K09002





Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/8/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610232-01	Hg-CVAFS-T-7030	71			
1610232-03	Hg-CVAFS-T-7030	72			
1610232-04	Hg-CVAFS-T-7030	73			
1610232-05	Hg-CVAFS-T-7030	74			
1610232-06	Hg-CVAFS-T-7030	75			
1610232-07	Hg-CVAFS-T-7030	76			
F610471-DUP1	QC	77			
F610471-MS1	QC	78			
F610471-MSD1	QC	79			
6K09002-CCV6	QC	80	1605791		
6K09002-CCB6	QC	81			
F610471-MS2	QC	82			
F610471-MSD2	QC	83			
6K09002-CCV7	QC	84	1605791		
6K09002-CCB7	QC	85			

  
 Samples Loaded By \_\_\_\_\_ Date 11/9/16  
 1610232 11/8/16

  
 Data Processed By \_\_\_\_\_ Date 11/9/16

Due Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610470

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610470-BLK1	Blank	0.25	20					
F610470-BLK2	Blank	0.25	20					
F610470-BLK3	Blank	0.25	20					
F610470-BS1	Blank Spike	0.25	20	1605270	20			
F610470-BS2	DORM-4	0.1257	20	1605470	126			
F610470-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610470-DUP1	Duplicate [1610145-21]	0.2742	20					
F610470-MS1	Matrix Spike [1610145-21]	0.2655	20	1605712	100			
F610470-MS2	Matrix Spike [1610145-30]	0.2784	20	1605712	100			
F610470-MSD1	Matrix Spike Dup [1610145-21]	0.2869	20	1605712	100			
F610470-MSD2	Matrix Spike Dup [1610145-30]	0.2729	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606304	70/30 Digestion Acid	26-Apr-17 00:00
			1606367	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610470

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610145-17	BO-04_100316_MUM_WB_17	0.297	20	-	-	-		
1610145-18	BO-04_100316_MUM_WB_18	0.2665	20	-	-	-		
1610145-19	BO-04_100316_MUM_WB_19	0.2746	20	-	-	-		
1610145-20	BO-04_100316_MUM_WB_20	0.2962	20	-	-	-		
1610145-21	MMMC-01_092316_MUM_WB_01	0.2978	20	-	-	-		
1610145-22	MMMC-01_092316_MUM_WB_02	0.2962	20	-	-	-		
1610145-23	MMMC-01_092316_MUM_WB_03	0.279	20	-	-	-		
1610145-24	MMMC-01_092316_MUM_WB_04	0.2708	20	-	-	-		
1610145-25	OB-01_092516_MUM_WB_01	0.2976	20	-	-	-		
1610145-26	OB-05_092516_MUM_WB_01	0.3086	20	-	-	-		
1610145-27	OB-05_092516_MUM_WB_02	0.2856	20	-	-	-		
1610145-28	OB-05_092516_MUM_WB_03	0.2867	20	-	-	-		
1610145-29	OB-05_092516_MUM_WB_04	0.2882	20	-	-	-		
1610145-30	OB-05_092516_MUM_WB_05	0.2835	20	-	-	-		
1610145-31	OB-05_092516_MUM_WB_06	0.257	20	-	-	-		
1610145-32	OB-05_100316_MUM_WB_07	0.2874	20	-	-	-		
1610145-33	OB-05_100316_MUM_WB_08	0.2751	20	-	-	-		
1610145-34	OB-05_100316_MUM_WB_09	0.2961	20	-	-	-		
1610145-35	OB-05_100316_MUM_WB_10	0.3068	20	-	-	-		

Page 119 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

1610145-36	OB-05_100316_MUM_WB_11	0.2711	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610471-BLK1	Blank	0.25	20					
F610471-BLK2	Blank	0.25	20					
F610471-BLK3	Blank	0.25	20					
F610471-BS1	Blank Spike	0.25	20	1605270	20			
F610471-BS2	DORM-4	0.1253	20	1605470	125			
F610471-BSD1	Blank Spike Dup	0.25	20	1605270	20			
F610471-DUP1	Duplicate [1610145-44]	0.2533	20					
F610471-MS1	Matrix Spike [1610145-45]	0.2565	20	1605712	100			
F610471-MS2	Matrix Spike [1610231-01]	0.3261	20	1605712	100			
F610471-MSD1	Matrix Spike Dup [1610145-45]	0.258	20	1605712	100			
F610471-MSD2	Matrix Spike Dup [1610231-01]	0.3274	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610145-37	OB-05_100316_MUM_WB_12	0.2745	20	-	-	-		
1610145-38	OB-05_100316_MUM_WB_13	0.259	20	-	-	-		
1610145-39	OB-05_100316_MUM_WB_14	0.264	20	-	-	-		
1610145-40	OB-05_100316_MUM_WB_15	0.2779	20	-	-	-		
1610145-41	OB-05_100316_MUM_WB_16	0.2712	20	-	-	-		
1610145-42	OB-05_100316_MUM_WB_17	0.2655	20	-	-	-		
1610145-43	OB-05_100316_MUM_WB_18	0.2844	20	-	-	-		
1610145-44	OB-05_100316_MUM_WB_19	0.2625	20	-	-	-		
1610145-45	OB-05_100316_MUM_WB_20	0.265	20	QC	-	-	MS/MSD	
1610231-01	ES-13_072716_POL_WB_01	0.3194	20	QC	-	-	MS/MSD	
1610231-02	ES-13_072716_POL_WB_02	0.2665	20	-	-	-		
1610231-03	ES-13_072716_POL_WB_03	0.2906	20	-	-	-		
1610231-04	ES-13_072716_POL_WB_04	0.3029	20	-	-	-		
1610231-05	ES-13_072716_POL_WB_05	0.2776	20	-	-	-		
1610232-01	ES-13_092116_RAS_WB_01	0.2891	20	-	-	-		
1610232-03	ES-FP_092716_RAS_WB_02	0.2756	20	-	-	-		
1610232-04	ES-FP_092716_RAS_WB_03	0.2737	20	-	-	-		
1610232-05	ES-FP_092716_RAS_WB_04	0.2631	20	-	-	-		
1610232-06	ES-FP_092716_RAS_WB_05	0.2648	20	-	-	-		

Page 122 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

F610471

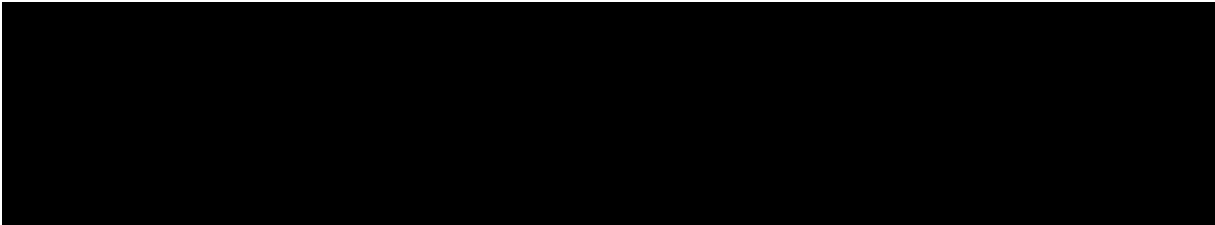
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

1610232-07	ES-FP_092716_RAS_WB_06	0.2919	20	-	-	-		
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BC 11/8/16

2600-2

PREPARATION BENCH SHEET

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610470-BLK1	Blank	0.25	20					20X
F610470-BLK2	Blank	0.25	20					20X
F610470-BLK3	Blank	0.25	20					20X
F610470-BS1	Blank Spike	0.25	20	1605270	20			20X
F610470-BS2	DORM-4	0.1257	20	1605470	126			500X
F610470-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610470-DUP1	Duplicate [1610145-21]	0.2742	20					100X
F610470-MS1	Matrix Spike [1610145-21]	0.2655	20	1605712	100			500X
F610470-MS2	Matrix Spike [1610145-30]	0.2784	20	1605712	100			500X
F610470-MSD1	Matrix Spike Dup [1610145-21]	0.2869	20	1605712	100			500X
F610470-MSD2	Matrix Spike Dup [1610145-30]	0.2729	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606304	70/30 Digestion Acid	26-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606367	5% BrCl	26-Mar-17 00:00
			1606465		19-Apr-17 00:00

1606370  
1605636  
1605635  
1602941

PREPARATION BENCH SHEET

Rx 11/8/16  
2600-2

F610470

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610145-17	BO-04_100316_MUM_WB_17	0.297	20	No 500x	
1610145-18	BO-04_100316_MUM_WB_18	0.2665	20	No 500x	
1610145-19	BO-04_100316_MUM_WB_19	0.2746	20	No 500x	
1610145-20	BO-04_100316_MUM_WB_20	0.2962	20	No 500x	
1610145-21	MMMC-01_092316_MUM_WB_01	0.2978	20	No 100x	
1610145-22	MMMC-01_092316_MUM_WB_02	0.2962	20	No 100x	
1610145-23	MMMC-01_092316_MUM_WB_03	0.279	20	No 100x	
1610145-24	MMMC-01_092316_MUM_WB_04	0.2708	20	No 100x	
1610145-25	OB-01_092516_MUM_WB_01	0.2976	20	No 100x	
1610145-26	OB-05_092516_MUM_WB_01	0.3086	20	No 100x	
1610145-27	OB-05_092516_MUM_WB_02	0.2856	20	No 100x	
1610145-28	OB-05_092516_MUM_WB_03	0.2867	20	No 100x	
1610145-29	OB-05_092516_MUM_WB_04	0.2882	20	No 100x	
1610145-30	OB-05_092516_MUM_WB_05	0.2835	20	No 100x	
1610145-31	OB-05_092516_MUM_WB_06	0.257	20	No 100x	
1610145-32	OB-05_100316_MUM_WB_07	0.2874	20	No 100x	
1610145-33	OB-05_100316_MUM_WB_08	0.2751	20	No 100x	
1610145-34	OB-05_100316_MUM_WB_09	0.2961	20	No 100x	
1610145-35	OB-05_100316_MUM_WB_10	0.3068	20	No 100x	
1610145-36	OB-05_100316_MUM_WB_11	0.2711	20	No 100x	

**PREPARATION BENCH SHEET**

*Bi 11/8/16  
2600-2*

**F610470**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Technician: Dwyer Batch#: F610470 Date: 11/04/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:50 Actual Temp. (raw): 78.0 °C w/ CF: 77.5 °C  
 Time out: 13:50 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606367/1606465) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/4/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 10-30-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606304 Dispenser #: 022159 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  
 Glass Vial # 00065051 Boiling Chip lot # 1603399 \*Hotblock Position: J, 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	F610470 Blank1	0.2574	23	1610145-28	0.2867	BS2 DOPM4
2	F610470 Blank2	0.2497	24	1610145-29	0.2882	1605470
3	F610470 Blank3	0.2640	25	1610145-30	0.2835	IT6
4	F610470 BS1	0.2920	26	1610145-31	0.2570	<b>Comments</b> BS1, BS01 = 100 µg/L = 20 mL 1605270 Dup1 MS1/MS01 source 1610145-21 MS2 MS02 1610145-30 11/4/16 DWS 5% BrCl Dispenser 022159 call yes MPM 11/7/16
5	F610470 BS01	0.2690	27	1610145-32	0.2874	
6	F610470 <sup>11/04/16</sup> BS2	0.1257	28	1610145-33	0.2751	
7	F610470 Dup1	0.2742	29	1610145-34	0.2961	
8	F610470 MS1	0.2655	30	1610145-35	0.3068	
9	F610470 MS01	0.2869	31	1610145-36	0.2711	
10	F610470 MS2	0.2784	32			
11	F610470 MS02	0.2729	33			
12	1610145-17	0.2970	34			
13	1610145-18	0.2665	35			
14	1610145-19	0.2746	36			
15	1610145-20	0.2962	37			
16	1610145-21	0.2978	38			
17	1610145-22	0.2962	39			
18	1610145-23	0.2790	40			
19	1610145-24	0.2708	41			
20	1610145-25	0.2976	42			
21	1610145-26	0.3086	43			
22	1610145-27	0.2856	44			

**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610471-BLK1	Blank	0.25	20					20X
F610471-BLK2	Blank	0.25	20					20X
F610471-BLK3	Blank	0.25	20					20X
F610471-BS1	Blank Spike	0.25	20	1605270	20			20X
F610471-BS2	DORM-4	0.1253	20	1605470	125			500X
F610471-BSD1	Blank Spike Dup	0.25	20	1605270	20			20X
F610471-DUP1	Duplicate [1610145-44]	0.2533	20					100X
F610471-MS1	Matrix Spike [1610145-45]	0.2565	20	1605712	100			500X
F610471-MS2	Matrix Spike [1610231-01]	0.3261	20	1605712	100			500X
F610471-MSD1	Matrix Spike Dup [1610145-45]	0.258	20	1605712	100			500X
F610471-MSD2	Matrix Spike Dup [1610231-01]	0.3274	20	1605712	100			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606465	5% BrCl	19-Apr-17 00:00

1606370  
1605636  
1605635  
1602941



**PREPARATION BENCH SHEET**

F610471

**Eurofins Frontier Global Sciences, Inc.**

Matrix: Tissue

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

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610145-37	OB-05_100316_MUM_WB_12	0.2745	20	No 100X	
1610145-38	OB-05_100316_MUM_WB_13	0.259	20	No 100X	
1610145-39	OB-05_100316_MUM_WB_14	0.264	20	No 100X	
1610145-40	OB-05_100316_MUM_WB_15	0.2779	20	No 100X	
1610145-41	OB-05_100316_MUM_WB_16	0.2712	20	No 100X	
1610145-42	OB-05_100316_MUM_WB_17	0.2655	20	No 100X	
1610145-43	OB-05_100316_MUM_WB_18	0.2844	20	No 100X	
1610145-44	OB-05_100316_MUM_WB_19	0.2625	20	No 100X	
1610145-45	OB-05_100316_MUM_WB_20	0.265	20	No 100X	
1610231-01	ES-13_072716_POL_WB_01	0.3194	20	No 100X	
1610231-02	ES-13_072716_POL_WB_02	0.2665	20	No 100X	
1610231-03	ES-13_072716_POL_WB_03	0.2906	20	No 100X	
1610231-04	ES-13_072716_POL_WB_04	0.3029	20	No 100X	
1610231-05	ES-13_072716_POL_WB_05	0.2776	20	No 100X	
1610232-01	ES-13_092116_RAS_WB_01	0.2891	20	No 100X	
1610232-03	ES-FP_092716_RAS_WB_02	0.2756	20	No 100X	
1610232-04	ES-FP_092716_RAS_WB_03	0.2737	20	No 100X	
1610232-05	ES-FP_092716_RAS_WB_04	0.2631	20	No 100X	
1610232-06	ES-FP_092716_RAS_WB_05	0.2648	20	No 100X	
1610232-07	ES-FP_092716_RAS_WB_06	0.2919	20	No 100X	

**PREPARATION BENCH SHEET**

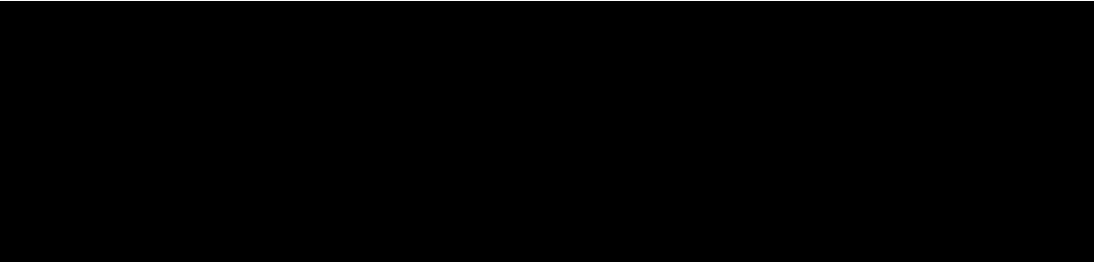
**F610471**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/4/2016**



Technician: Duyon Batch#: F610 471 Date: 11-04-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:50 Actual Temp. (raw): 77.0 °C w/ CF: 76.5 °C  
 Time out: 13:50 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1600465) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/4/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: M411667 Calibration Date: 10/30/16  
 HNO<sub>3</sub> LIMS ID: N/A Dispenser SN#: 0222159 Calibration Date: 11/4/16  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 022159  Yes  
 Glass Vial # 00065051 Boiling Chip lot # 1603399 \*Hotblock Position: J. 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	F610471 Blank1	0.2917	23	1610145-37	0.2917	BS2 POP44 1605470
2	F610471 Blank2	0.2710	24	1610231-03-4/9/16	0.2906	
3	F610471 Blank3	0.2823	25	1610231-04-5/10/16	0.3029	
4	F610471 BS1	0.2980	26	1610231-05-5/10/16	0.2776	Comments BS1, BS01
5	F610471 BS01	0.2618	27	11-4-16 out-06-52	11-4-16	
6	F610471 BS2	0.1253	28	1610232-01	0.2891	= 100µL = 200µL 1605270
7	F610471 Dup1	0.2527	29	11/4-1604-02	11/4/1604	Dup1 source 161014544
8	F610471 MS1	0.2656	30	1610232-03	0.2756	MS1 MS01
9	F610471 MS01	0.2580	31	1610232-04	0.2737	1610145-45
10	F610471 MS2	0.3261	32	1610232-05	0.2631	MS2 MS02
11	F610471 MS02	0.3274	33	1610232-06	0.2648	1610231-01
12	1610145-37	0.2745	34	1610232-07	0.2919	Samples have a lot liquid 03, 11/4/16
13	1610145-38	0.2590	35			
14	1610145-39	0.2640	36			
15	1610145-40	0.2779	37			
16	1610145-41	0.2712	38			
17	1610145-42	0.2655	39		11/4/16	F610471-MS2 = 0.3261g
18	1610145-43	0.2844	40		04	
19	1610145-44	0.2625	41			11/4/16 04
20	1610145-45	0.2650	42			1610232-01 = 0.2891g
21	1610231-01-4/9/16	0.3194	43			
22	1610231-02-4/9/16	0.2665	44			



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

Analyst: BC	Sequence(s) #: 6K09002
Reviewer: 0 <i>[Signature]</i>	Dataset ID(s): THg26002-161108-1
Date: 11/9/2016	WO (s) #: Various
Batch #(s): F610470, F610471	0

Analyst Initials BC      Reviewer Initials A

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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>NA</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 type="checkbox"/>            |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	BC	Sequence(s) #:	6K09002
Reviewer:	0 <i>Phy ML</i>	Dataset ID(s):	THg26002-161108-1
Date:	11/9/2016	WO (s) #:	Various
Batch #(s):	F610470, F610471		0

Analyst Initials BC                      Reviewer Initials Ph

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 25. Are re-runs noted with reason?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps? | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 27. Is the B trap <5% A Traps  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 28. Are spiked trap recoveries 75-125% of true value?  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 29. Have non-reportable samples been imported into LIMS and clicked to non-reportable?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A  |
| 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\IDOCs

- |  |                                  |   |                             |                                     |
|--|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12/17/15</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>5/24/16</u> | Current SOP revision read?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/8/16</u>                               | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/8/16</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

THg26003-161109-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 09, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K10008, 6K10005, 6K10006, 6K10007

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	64.24 units	128.47	61.57 units	123.14	104.6 %Rec
SEQ-CAL2	1	1.00 ng/L	122.17 units	122.17	119.50 units	119.50	101.6 %Rec
SEQ-CAL3	1	5.00 ng/L	582.32 units	116.46	579.65 units	115.93	98.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2306.34 units	115.32	2303.68 units	115.18	97.9 %Rec
SEQ-CAL5	1	40.00 ng/L	4587.17 units	114.68	4584.50 units	114.61	97.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF**    **Corr. St Dev RF**    **Corr. RSD CF**    **Uncorr. Mean RF**  
 117.67            +/- 3.60            3.1% RSD            119.42

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	2.67 units	±0.35	0.02 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.667 ng/L	±0.766
BLK	2	3	1.558 ng/L	±0.092
BLK	3	3	4.768 ng/L	±0.930
BLK	4	3	30.407 ng/L	±3.464
BLK	5	3	24.875 ng/L	±5.179
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE

PEER - REVIEWED

INITIALS:   R     11/11/16



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	11/9/2016 8:15:38	55245-1.RAW	8:15:38 AM	2.83			0.2	0.001	0.001	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/9/2016 8:19:47	55246-1.RAW	8:19:47 AM	2.27			-0.4	-0.003	-0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/9/2016 8:23:55	55247-1.RAW	8:23:55 AM	2.90			0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/9/2016 8:28:04	55248-1.RAW	8:28:04 AM	64.24			61.6	0.523	0.523	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/9/2016 8:32:12	55249-1.RAW	8:32:12 AM	122.17			119.5	1.016	1.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/9/2016 8:36:20	55250-1.RAW	8:36:20 AM	582.32			579.6	4.926	4.926	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/9/2016 8:40:29	55251-1.RAW	8:40:29 AM	2306.34			2303.7	19.577	19.577	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/9/2016 8:44:37	55252-1.RAW	8:44:37 AM	4587.17			4584.5	38.959	38.959	ng/L	
Hg2600-3	DM2	CAL	SEQ-JCV1	1	11/9/2016 8:48:46	55253-1.RAW	8:48:46 AM	560.83			558.2	4.743	4.743	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK1	20	11/9/2016 8:52:54	55254-1.RAW	8:52:54 AM	17.64	1		15.0	0.127	2.544	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK2	20	11/9/2016 8:57:03	55255-1.RAW	8:57:03 AM	10.45	1		7.8	0.066	1.324	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK3	20	11/9/2016 9:01:11	55256-1.RAW	9:01:11 AM	9.33	1		6.7	0.057	1.133	ng/L	
Hg2600-3	DM2	SAM	F610492-BS1	20	11/9/2016 9:05:20	55257-1.RAW	9:05:20 AM	612.84	1		610.2	5.102	102.039	ng/L	
Hg2600-3	DM2	SAM	F610492-BS1	20	11/9/2016 9:09:28	55258-1.RAW	9:09:28 AM	631.56	1		628.9	5.261	105.220	ng/L	
Hg2600-3	DM2	SAM	F610492-BS2	500	11/9/2016 9:13:36	55259-1.RAW	9:13:36 AM	482.41	1		479.7	4.074	2036.757	ng/L	
Hg2600-3	DM2	SAM	1610232-27	500	11/9/2016 9:17:45	55260-1.RAW	9:17:45 AM	511.01	1		508.3	4.317	2158.274	ng/L	
Hg2600-3	DM2	SAM	1610232-28	500	11/9/2016 9:21:53	55261-1.RAW	9:21:53 AM	440.55	1		437.9	3.718	1858.902	ng/L	
Hg2600-3	DM2	SAM	1610232-29	500	11/9/2016 9:26:02	55262-1.RAW	9:26:02 AM	240.38	1		237.7	2.017	1008.377	ng/L	
Hg2600-3	DM2	SAM	1610232-30	500	11/9/2016 9:30:10	55263-1.RAW	9:30:10 AM	290.98	1		288.3	2.447	1223.368	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/9/2016 9:34:19	55264-1.RAW	9:34:19 AM	607.30			604.6	5.138	5.138	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/9/2016 9:38:27	55265-1.RAW	9:38:27 AM	9.18			6.5	0.055	0.055	ng/L	
Hg2600-3	DM2	SAM	1610232-31	500	11/9/2016 9:42:35	55266-1.RAW	9:42:35 AM	295.04	1		292.4	2.481	1240.631	ng/L	
Hg2600-3	DM2	SAM	1610232-32	500	11/9/2016 9:46:44	55267-1.RAW	9:46:44 AM	302.33	1		299.7	2.543	1271.624	ng/L	
Hg2600-3	DM2	SAM	1610232-33	500	11/9/2016 9:50:52	55268-1.RAW	9:50:52 AM	345.70	1		343.0	2.912	1455.875	ng/L	
Hg2600-3	DM2	SAM	1610232-34	500	11/9/2016 9:55:01	55269-1.RAW	9:55:01 AM	242.31	1		239.6	2.033	1016.573	ng/L	
Hg2600-3	DM2	SAM	1610232-35	500	11/9/2016 9:59:09	55270-1.RAW	9:59:09 AM	108.41	1		105.7	0.895	447.656	ng/L	
Hg2600-3	DM2	SAM	1610232-36	500	11/9/2016 10:03:18	55271-1.RAW	10:03:18 AM	106.87	1		104.2	0.882	441.116	ng/L	
Hg2600-3	DM2	SAM	1610232-37	500	11/9/2016 10:07:26	55272-1.RAW	10:07:26 AM	326.82	1		324.1	2.751	1375.647	ng/L	
Hg2600-3	DM2	SAM	1610232-38	500	11/9/2016 10:11:35	55273-1.RAW	10:11:35 AM	328.48	1		325.8	2.765	1382.714	ng/L	
Hg2600-3	DM2	SAM	1610232-39	500	11/9/2016 10:15:43	55274-1.RAW	10:15:43 AM	142.09	1		139.4	1.181	590.750	ng/L	
Hg2600-3	DM2	SAM	1610232-40	500	11/9/2016 10:19:52	55275-1.RAW	10:19:52 AM	179.89	1		177.2	1.503	751.350	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/9/2016 10:24:00	55276-1.RAW	10:24:00 AM	563.66			561.0	4.767	4.767	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/9/2016 10:28:08	55277-1.RAW	10:28:08 AM	6.46			3.8	0.032	0.032	ng/L	
Hg2600-3	DM2	SAM	1610232-41	500	11/9/2016 10:32:16	55278-1.RAW	10:32:16 AM	259.24	1		256.6	2.177	1088.501	ng/L	
Hg2600-3	DM2	SAM	1610232-42	500	11/9/2016 10:36:24	55279-1.RAW	10:36:24 AM	628.33	1		625.7	5.314	2656.808	ng/L	
Hg2600-3	DM2	SAM	1610233-01	500	11/9/2016 10:40:32	55280-1.RAW	10:40:32 AM	117.97	1		115.3	0.977	488.258	ng/L	
Hg2600-3	DM2	SAM	1610234-01	500	11/9/2016 10:44:40	55281-1.RAW	10:44:40 AM	28.53	1		25.9	0.216	108.237	ng/L	
Hg2600-3	DM2	SAM	1610234-02	500	11/9/2016 10:48:49	55282-1.RAW	10:48:49 AM	39.87	1		37.2	0.313	156.419	ng/L	
Hg2600-3	DM2	SAM	1610234-03	500	11/9/2016 10:52:57	55283-1.RAW	10:52:57 AM	32.04	1		29.4	0.246	123.128	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP1	500	11/9/2016 10:57:05	55284-1.RAW	10:57:05 AM	107.32	1		104.7	0.886	443.029	ng/L	
Hg2600-3	DM2	SAM	F610492-MS1	500	11/9/2016 11:01:14	55285-1.RAW	11:01:14 AM	1186.50	1		1183.8	10.057	5028.478	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD1	500	11/9/2016 11:05:22	55286-1.RAW	11:05:22 AM	1186.46	1		1183.8	10.057	5028.281	ng/L	
Hg2600-3	DM2	SAM	F610492-MS2	500	11/9/2016 11:09:31	55287-1.RAW	11:09:31 AM	1118.68	1		1116.0	9.481	4740.298	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/9/2016 11:13:39	55288-1.RAW	11:13:39 AM	555.90			553.2	4.701	4.701	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/9/2016 11:17:47	55289-1.RAW	11:17:47 AM	7.03			4.4	0.037	0.037	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD2	500	11/9/2016 11:21:56	55290-1.RAW	11:21:56 AM	1064.88	1		1062.2	9.023	4511.692	ng/L	
Hg2600-3	DM2	SAM	1610232-35RE1	100	11/9/2016 11:26:04	55291-1.RAW	11:26:04 AM	500.24	1		497.6	4.212	421.176	ng/L	
Hg2600-3	DM2	SAM	1610232-36RE1	100	11/9/2016 11:30:13	55292-1.RAW	11:30:13 AM	522.84	1		520.2	4.404	440.379	ng/L	
Hg2600-3	DM2	SAM	1610233-01RE1	100	11/9/2016 11:34:21	55293-1.RAW	11:34:21 AM	548.06	1		545.4	4.618	461.814	ng/L	
Hg2600-3	DM2	SAM	1610234-01RE1	20	11/9/2016 11:38:30	55294-1.RAW	11:38:30 AM	501.58	1		498.9	4.156	83.128	ng/L	
Hg2600-3	DM2	SAM	1610234-02RE1	20	11/9/2016 11:42:38	55295-1.RAW	11:42:38 AM	757.46	1		754.8	6.331	126.618	ng/L	
Hg2600-3	DM2	SAM	1610234-03RE1	20	11/9/2016 11:46:46	55296-1.RAW	11:46:46 AM	547.63	1		545.0	4.548	90.955	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP2	100	11/9/2016 11:50:55	55297-1.RAW	11:50:55 AM	527.20	1		524.5	4.441	444.082	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK1	20	11/9/2016 11:55:03	55298-1.RAW	11:55:03 AM	12.40	2		9.7	0.083	1.654	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK2	20	11/9/2016 11:59:12	55299-1.RAW	11:59:12 AM	11.32	2		8.7	0.074	1.471	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/9/2016 12:03:20	55300-1.RAW	12:03:20 PM	566.05			563.4	4.788	4.788	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/9/2016 12:07:28	55301-1.RAW	12:07:28 PM	5.92			3.3	0.028	0.028	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	BLK	F610522-BLK3	20	11/9/2016 12:11:37	55302-1.RAW	12:11:37 PM	11.78	2		9.1	0.077	1.549	ng/L	
Hg2600-3	DM2	SAM	F610522-BS1	20	11/9/2016 12:15:45	55303-1.RAW	12:15:45 PM	595.53	2		592.9	4.960	99.205	ng/L	
Hg2600-3	DM2	SAM	F610522-BSD1	20	11/9/2016 12:19:54	55304-1.RAW	12:19:54 PM	591.35	2		588.7	4.925	98.495	ng/L	
Hg2600-3	DM2	SAM	1609620-01	2500	11/9/2016 12:24:02	55305-1.RAW	12:24:02 PM	130.11	2		127.4	1.082	2705.955	ng/L	
Hg2600-3	DM2	SAM	1609620-02	2500	11/9/2016 12:28:10	55306-1.RAW	12:28:10 PM	112.07	2		109.4	0.929	2322.775	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 12:32:19	55307-1.RAW	12:32:19 PM	175.47	2		172.8	1.468	3669.731	ng/L	
Hg2600-3	DM2	SAM	1609620-07	250000	11/9/2016 12:36:27	55308-1.RAW	12:36:27 PM	6.52	2		3.9	0.033	8193.902	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 12:40:36	55309-1.RAW	12:40:36 PM	2505.68	2		2503.0	21.271	5317666.312	ng/L	
Hg2600-3	DM2	SAM	1609620-09	250000	11/9/2016 12:44:44	55310-1.RAW	12:44:44 PM	34.94	2		32.3	0.274	68559.010	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP1	2500	11/9/2016 12:48:53	55311-1.RAW	12:48:53 PM	602.10	2		599.4	5.093	12733.430	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/9/2016 12:53:01	55312-1.RAW	12:53:01 PM	12.56371495			9.9	0.084	0.084	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/9/2016 12:57:09	55313-1.RAW	12:57:09 PM	175.36			172.7	1.468	1.468	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/9/2016 13:02:31	55314-1.RAW	1:02:31 PM	576.74			574.1	4.879	4.879	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/9/2016 13:06:40	55315-1.RAW	1:06:40 PM	8.83			6.2	0.052	0.052	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/9/2016 13:10:48	55316-1.RAW	1:10:48 PM	557.84			555.2	4.718	4.718	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/9/2016 13:14:57	55317-1.RAW	1:14:57 PM	9.47			6.8	0.058	0.058	ng/L	
Hg2600-3	DM2	SAM	F610522-MS1	2500	11/9/2016 13:19:05	55318-1.RAW	1:19:05 PM	754.02	2		751.4	6.384	15961.037	ng/L	
Hg2600-3	DM2	SAM	F610522-MSD1	2500	11/9/2016 13:23:13	55319-1.RAW	1:23:13 PM	744.28	2		741.6	6.302	15754.093	ng/L	
Hg2600-3	DM2	SAM	1609620-02RE1	500	11/9/2016 13:27:22	55320-1.RAW	1:27:22 PM	537.57	2		534.9	4.542	2271.242	ng/L	
Hg2600-3	DM2	SAM	1609620-07RE1	500	11/9/2016 13:31:30	55321-1.RAW	1:31:30 PM	638.60	2		635.9	5.401	2700.549	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	2500	11/9/2016 13:35:39	55322-1.RAW	1:35:39 PM	2641.63	2		2639.0	22.425	56063.466	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP2	2500	11/9/2016 13:39:47	55323-1.RAW	1:39:47 PM	184.12	2		181.5	1.541	3853.456	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK1	50	11/9/2016 13:43:55	55324-1.RAW	1:43:55 PM	16.35	3		13.7	0.116	5.815	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK2	50	11/9/2016 13:48:04	55325-1.RAW	1:48:04 PM	12.18	3		9.5	0.081	4.041	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK3	50	11/9/2016 13:52:12	55326-1.RAW	1:52:12 PM	13.14	3		10.5	0.089	4.449	ng/L	
Hg2600-3	DM2	SAM	F610521-BS1	50	11/9/2016 13:56:21	55327-1.RAW	1:56:21 PM	1876.64	3		1874.0	15.830	791.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/9/2016 14:00:29	55328-1.RAW	2:00:29 PM	556.22			553.6	4.704	4.704	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/9/2016 14:04:38	55329-1.RAW	2:04:38 PM	9.41			6.7	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F610521-BSD1	50	11/9/2016 14:08:48	55330-1.RAW	2:08:48 PM	1836.32	3		1833.7	15.487	774.355	ng/L	
Hg2600-3	DM2	SAM	1609620-01	1000	11/9/2016 14:12:54	55331-1.RAW	2:12:54 PM	519.01	3		516.3	4.383	4383.153	ng/L	
Hg2600-3	DM2	SAM	1609620-02	1000	11/9/2016 14:17:03	55332-1.RAW	2:17:03 PM	483.50	3		480.8	4.081	4081.366	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 14:21:11	55333-1.RAW	2:21:11 PM	162.09	3		159.4	1.353	3382.278	ng/L	
Hg2600-3	DM2	SAM	1609620-07	500	11/9/2016 14:25:20	55334-1.RAW	2:25:20 PM	744.64	3		742.0	6.296	3147.903	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 14:29:28	55335-1.RAW	2:29:28 PM	117.23	3		114.6	0.974	243396.464	ng/L	
Hg2600-3	DM2	SAM	1609620-09	500	11/9/2016 14:33:37	55336-1.RAW	2:33:37 PM	135227.20	3		135224.5	1149.134	574566.924	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:42:04	55337-1.RAW	2:42:04 PM	65.99	x		63.3	0.538	0.000	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:44:55	55338-1.RAW	2:44:55 PM	43.28	x		40.6	0.345	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:49:03	55339-1.RAW	2:49:03 PM	73.89	x		71.2	0.605	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:53:12	55340-1.RAW	2:53:12 PM	45.04	x		42.4	0.360	0.000	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP1	2500	11/9/2016 14:57:20	55341-1.RAW	2:57:20 PM	313.44	3		310.8	2.639	6597.639	ng/L	
Hg2600-3	DM2	SAM	F610521-MS1	1000	11/9/2016 15:01:29	55342-1.RAW	3:01:29 PM	2885.17	3		2882.5	24.491	24490.876	ng/L	
Hg2600-3	DM2	SAM	F610521-MSD1	1000	11/9/2016 15:05:37	55343-1.RAW	3:05:37 PM	2892.02	3		2889.4	24.549	24549.097	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/9/2016 15:09:45	55344-1.RAW	3:09:45 PM	607.62			605.0	5.141	5.141	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/9/2016 15:13:54	55345-1.RAW	3:13:54 PM	42.28			39.6	0.337	0.337	ng/L	
Hg2600-3	DM2	SAM	1609620-08RE1	10000	11/9/2016 15:18:02	55346-1.RAW	3:18:02 PM	2756.52	3		2753.9	23.402	234018.516	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	250000	11/9/2016 15:22:11	55347-1.RAW	3:22:11 PM	380.23	3		377.6	3.209	802130.963	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK1	100	11/9/2016 15:26:19	55348-1.RAW	3:26:19 PM	43.07	4		40.4	0.343	34.332	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK2	100	11/9/2016 15:30:27	55349-1.RAW	3:30:27 PM	36.92	4		34.3	0.291	29.110	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK3	100	11/9/2016 15:34:36	55350-1.RAW	3:34:36 PM	35.35	4		32.7	0.278	27.777	ng/L	
Hg2600-3	DM2	SAM	*F611244-BLK4	100	11/9/2016 15:38:44	55351-1.RAW	3:38:44 PM	37.08	4	x	34.4	0.292	29.244	ng/L	
Hg2600-3	DM2	SAM	F611244-BS1	100	11/9/2016 15:42:53	55352-1.RAW	3:42:53 PM	587.75	4		585.1	4.668	466.802	ng/L	
Hg2600-3	DM2	SAM	F611244-BS2	100	11/9/2016 15:47:01	55353-1.RAW	3:47:01 PM	565.03	4		562.4	4.475	447.495	ng/L	
Hg2600-3	DM2	SAM	F611244-BS3	500	11/9/2016 15:51:10	55354-1.RAW	3:51:10 PM	1125.58	4		1122.9	9.482	4740.893	ng/L	
Hg2600-3	DM2	SAM	F611244-BS4	500	11/9/2016 15:55:18	55355-1.RAW	3:55:18 PM	1071.22	4		1068.6	9.020	4509.899	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	11/9/2016 15:59:26	55356-1.RAW	3:59:26 PM	582.59			579.9	4.928	4.928	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/9/2016 16:03:35	55357-1.RAW	4:03:35 PM	26.55			23.9	0.203	0.203	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP2	2500	11/9/2016 16:07:43	55358-1.RAW	4:07:43 PM	178.23	3		175.6	1.490	3725.082	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK1	100	11/9/2016 16:11:52	55359-1.RAW	4:11:52 PM	27.30	5		24.6	0.209	20.937	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK2	100	11/9/2016 16:16:00	55360-1.RAW	4:16:00 PM	29.67	5		27.0	0.229	22.946	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK3	100	11/9/2016 16:20:08	55361-1.RAW	4:20:08 PM	38.84	5		36.2	0.307	30.741	ng/L	
Hg2600-3	DM2	SAM	*F611245-BLK4	100	11/9/2016 16:24:17	55362-1.RAW	4:24:17 PM	27.08	5	x	24.4	0.207	20.743	ng/L	
Hg2600-3	DM2	SAM	F611245-BS1	100	11/9/2016 16:28:25	55363-1.RAW	4:28:25 PM	567.36	5		564.7	4.550	455.007	ng/L	
Hg2600-3	DM2	SAM	F611245-BS2	100	11/9/2016 16:32:34	55364-1.RAW	4:32:34 PM	566.59	5		563.9	4.544	454.352	ng/L	
Hg2600-3	DM2	SAM	F611245-BS3	500	11/9/2016 16:36:42	55365-1.RAW	4:36:42 PM	1114.12	5		1111.5	9.395	4697.734	ng/L	
Hg2600-3	DM2	SAM	F611245-BS4	500	11/9/2016 16:40:51	55366-1.RAW	4:40:51 PM	1069.27	5		1066.6	9.014	4507.139	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	CAL	SEQ-CCVB	1	11/9/2016 16:44:59	55367-1.RAW	4:44:59 PM	592.46			589.8	5.012	5.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	11/9/2016 16:49:07	55368-1.RAW	4:49:07 PM	20.31			17.6	0.150	0.150	ng/L	

TotalMercury EPA1631  
 Operab DM  
 BlankS: 2.6664  
 Calib Eqn:  
 Conc = (Area-2.666  
 Run Date: 11/9/2016  
 Blank SD: 0.349034759  
 Worksh THg2600  
 CalibFa 117.67  
 Status:  
 QC Warnings:4/QC E  
 Run Time: 12:58:22  
 Blank RSD%: 13.0898751  
 Method #### R:  
 1 R<sup>2</sup>: 1  
 CF SD: 3.600437568  
 CF RSD%: 3.059665855

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	4.38					55240-1.RAW	7:56:13	515.19	Clean	OK	1	
clean										55241-1.RAW	7:59:04	0.00	Clean	NP	1	
ws				2.67	0.00					55242-1.RAW	8:03:13	2.37	Sample	OK	1	
ws				2.67	0.01					55243-1.RAW	8:07:21	3.42	Sample	OK	1	
ws										55244-1.RAW	8:11:30	0.00	Sample	NP	1	
SEQ-IBL1	A1		1	0.00	0.02					55245-1.RAW	8:15:38	2.83	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.02					55246-1.RAW	8:19:47	2.27	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.02					55247-1.RAW	8:23:55	2.90	Sample	OK	1	
SEQ-CAL1	A4		1	2.67	0.52			104.65		55248-1.RAW	8:28:04	64.24	Sample	OK	1	
SEQ-CAL2	A5		1	2.67	1.02			101.55		55249-1.RAW	8:32:12	122.17	Sample	OK	1	
SEQ-CAL3	A6		1	2.67	4.93			98.52		55250-1.RAW	8:36:20	582.32	Sample	OK	1	
SEQ-CAL4	A7		1	2.67	19.58			97.88		55251-1.RAW	8:40:29	2306.34	Sample	OK	1	
SEQ-CAL5	A8		1	2.67	38.96			97.40		55252-1.RAW	8:44:37	4587.17	Sample	FB	1	
SEQ-ICV1	A9		1	2.67	4.74			94.87		55253-1.RAW	8:48:46	560.83	Sample	OK	1	
F610492-BLK1	A10		20	2.67	2.54					55254-1.RAW	8:52:54	17.64	Sample	OK	1	
F610492-BLK2	A11		20	2.67	1.32					55255-1.RAW	8:57:03	10.45	Sample	OK	1	
F610492-BLK3	A12		20	2.67	1.13					55256-1.RAW	9:01:11	9.33	Sample	OK	1	
F610492-BS1	B1		20	2.67	103.71					55257-1.RAW	9:05:20	612.84	Sample	OK	1	
F610492-BSD1	B2		20	2.67	106.89					55258-1.RAW	9:09:28	631.56	Sample	OK	1	
F610492-BS2	B3		500	2.67	2038.42					55259-1.RAW	9:13:36	482.41	Sample	OK	1	
1610232-27	B4		500	2.67	2159.94					55260-1.RAW	9:17:45	511.01	Sample	OK	1	
1610232-28	B5		500	2.67	1860.57					55261-1.RAW	9:21:53	440.55	Sample	OK	1	
1610232-29	B6		500	2.67	1010.04					55262-1.RAW	9:26:02	240.38	Sample	OK	1	
1610232-30	B7		500	2.67	1225.03					55263-1.RAW	9:30:10	290.98	Sample	OK	1	
SEQ-CCV1	B8		1	2.67	5.14			102.76		55264-1.RAW	9:34:19	607.30	Sample	OK	1	
SEQ-CCB1	B9		1	2.67	0.06			0.00		55265-1.RAW	9:38:27	9.18	Sample	OK	1	
1610232-31	B10		500	2.67	1242.30					55266-1.RAW	9:42:35	295.04	Sample	OK	1	
1610232-32	B11		500	2.67	1273.29					55267-1.RAW	9:46:44	302.33	Sample	OK	1	
1610232-33	B12		500	2.67	1457.54					55268-1.RAW	9:50:52	345.70	Sample	OK	1	
1610232-34	C1		500	2.67	1018.24					55269-1.RAW	9:55:01	242.31	Sample	OK	1	
1610232-35	C2		500	2.67	449.32					55270-1.RAW	9:59:09	108.41	Sample	OK	1	
1610232-36	C3		500	2.67	442.78					55271-1.RAW	10:03:18	106.87	Sample	OK	1	
1610232-37	C4		500	2.67	1377.31					55272-1.RAW	10:07:26	326.82	Sample	OK	1	
1610232-38	C5		500	2.67	1384.38					55273-1.RAW	10:11:35	328.48	Sample	OK	1	
1610232-39	C6		500	2.67	592.42					55274-1.RAW	10:15:43	142.09	Sample	OK	1	
1610232-40	C7		500	2.67	753.02					55275-1.RAW	10:19:52	179.89	Sample	OK	1	
SEQ-CCV2	C8		1	2.67	4.77			95.35		55276-1.RAW	10:24:00	563.66	Sample	OK	1	
SEQ-CCB2	C9		1	2.67	0.03			0.00		55277-1.RAW	10:28:08	6.46	Sample	OK	1	
1610232-41	C10		500	2.67	1090.17					55278-1.RAW	10:32:16	259.24	Sample	OK	1	
1610232-42	C11		500	2.67	2658.47					55279-1.RAW	10:36:24	628.33	Sample	OK	1	
1610233-01	C12		500	2.67	489.93					55280-1.RAW	10:40:32	117.97	Sample	OK	1	
1610234-01	D1		500	2.67	109.90					55281-1.RAW	10:44:40	28.53	Sample	OK	1	
1610234-02	D2		500	2.67	158.09					55282-1.RAW	10:48:49	39.87	Sample	OK	1	
1610234-03	D3		500	2.67	124.80					55283-1.RAW	10:52:57	32.04	Sample	OK	1	
F610492-DUP1	D4		500	2.67	444.70					55284-1.RAW	10:57:05	107.32	Sample	OK	1	
F610492-MS1	D5		500	2.67	5030.15			1128.60		55285-1.RAW	11:01:14	1186.50	Sample	OK	1	
F610492-MSD1	D6		500	2.67	5029.95					55286-1.RAW	11:05:22	1186.46	Sample	OK	1	
F610492-MS2	D7		500	2.67	4741.97			94.24		55287-1.RAW	11:09:31	1118.68	Sample	OK	1	
SEQ-CCV3	D8		1	2.67	4.70			94.03		55288-1.RAW	11:13:39	555.90	Sample	OK	1	
SEQ-CCB3	D9		1	2.67	0.04			0.00		55289-1.RAW	11:17:47	7.03	Sample	OK	1	

F610492-MSD2	D10	500	2.67	4513.36		55290-1.RAW	11:21:56	1064.88	Sample	OK	1
1610232-35RE1	D11	100	2.67	422.84		55291-1.RAW	11:26:04	500.24	Sample	OK	1
1610232-36RE1	D12	100	2.67	442.05		55292-1.RAW	11:30:13	522.84	Sample	OK	1
1610233-01RE1	A1	100	2.67	463.48		55293-1.RAW	11:34:21	548.06	Sample	OK	1
1610234-01RE1	A2	20	2.67	84.80		55294-1.RAW	11:38:30	501.58	Sample	OK	1
1610234-02RE1	A3	20	2.67	128.29		55295-1.RAW	11:42:38	757.46	Sample	OK	1
1610234-03RE1	A4	20	2.67	92.62		55296-1.RAW	11:46:46	547.63	Sample	OK	1
F610492-DUP2	A5	100	2.67	445.75		55297-1.RAW	11:50:55	527.20	Sample	OK	1
F610522-BLK1	A6	20	2.67	1.65		55298-1.RAW	11:55:03	12.40	Sample	OK	1
F610522-BLK2	A7	20	2.67	1.47		55299-1.RAW	11:59:12	11.32	Sample	OK	1
SEQ-CCV4	A8	1	2.67	4.79	95.75	55300-1.RAW	12:03:20	566.05	Sample	OK	1
SEQ-CCB4	A9	1	2.67	0.03	0.00	55301-1.RAW	12:07:28	5.92	Sample	OK	1
F610522-BLK3	A10	20	2.67	1.55		55302-1.RAW	12:11:37	11.78	Sample	OK	1
F610522-BS1	A11	20	2.67	100.76		55303-1.RAW	12:15:45	595.53	Sample	OK	1
F610522-BSD1	A12	20	2.67	100.05		55304-1.RAW	12:19:54	591.35	Sample	OK	1
1609620-01	B1	2500	2.67	2707.51		55305-1.RAW	12:24:02	130.11	Sample	OK	1
1609620-02	B2	2500	2.67	2324.33		55306-1.RAW	12:28:10	112.07	Sample	OK	1
1609620-03	B3	2500	2.67	3671.29		55307-1.RAW	12:32:19	175.47	Sample	OK	1
1609620-07	B4	250000	2.67	8195.46		55308-1.RAW	12:36:27	6.52	Sample	OK	1
1609620-08	B5	250000	2.67	5317667.87		55309-1.RAW	12:40:36	2505.68	Sample	OK	1
1609620-09	B6	250000	2.67	68560.57		55310-1.RAW	12:44:44	34.94	Sample	OK	1
F610522-DUP1	B7	2500	2.67	12734.99		55311-1.RAW	12:48:53	602.10	Sample	OK	1
SEQ-CCV5	B8	1	2.67	0.08	1.68	55312-1.RAW	12:53:01	12.56	Sample	OK	1
SEQ-CCB5	B9	1	2.67	1.47	0.00	55313-1.RAW	12:57:09	175.36	Sample	OK	1
SEQ-CCV6	D1	1	2.67	4.88	97.57	55314-1.RAW	13:02:31	576.74	Sample	OK	1
SEQ-CCB6	D2	1	2.67	0.05	0.00	55315-1.RAW	13:06:40	8.83	Sample	OK	1
SEQ-CCV7	D3	1	2.67	4.72	94.36	55316-1.RAW	13:10:48	557.84	Sample	OK	1
SEQ-CCB7	D4	1	2.67	0.06	0.00	55317-1.RAW	13:14:57	9.47	Sample	OK	1
F610522-MS1	B12	2500	2.67	15962.60	#####	55318-1.RAW	13:19:05	754.02	Sample	OK	1
F610522-MSD1	C1	2500	2.67	15755.65		55319-1.RAW	13:23:13	744.28	Sample	OK	1
1609620-02RE1	C2	500	2.67	2272.80		55320-1.RAW	13:27:22	537.57	Sample	OK	1
1609620-07RE1	C3	500	2.67	2702.11		55321-1.RAW	13:31:30	638.60	Sample	OK	1
1609620-09RE1	C4	2500	2.67	56065.02		55322-1.RAW	13:35:39	2641.63	Sample	OK	1
F610522-DUP2	C5	2500	2.67	3855.01		55323-1.RAW	13:39:47	184.12	Sample	OK	1
F610521-BLK1	C6	50	2.67	5.82		55324-1.RAW	13:43:55	16.35	Sample	OK	1
F610521-BLK2	C7	50	2.67	4.04		55325-1.RAW	13:48:04	12.18	Sample	OK	1
F610521-BLK3	C8	50	2.67	4.45		55326-1.RAW	13:52:12	13.14	Sample	OK	1
F610521-BS1	C9	50	2.67	796.26		55327-1.RAW	13:56:21	1876.64	Sample	OK	1
SEQ-CCV8	C10	1	2.67	4.70	94.08	55328-1.RAW	14:00:29	556.22	Sample	OK	1
SEQ-CCB8	C11	1	2.67	0.06	0.00	55329-1.RAW	14:04:38	9.41	Sample	OK	1
F610521-BSD1	C12	50	2.67	779.12		55330-1.RAW	14:08:46	1836.32	Sample	OK	1
1609620-01	D1	1000	2.67	4387.92		55331-1.RAW	14:12:54	519.01	Sample	OK	1
1609620-02	D2	1000	2.67	4086.13		55332-1.RAW	14:17:03	483.50	Sample	OK	1
1609620-03	D3	2500	2.67	3387.05		55333-1.RAW	14:21:11	162.09	Sample	OK	1
1609620-07	D4	500	2.67	3152.67		55334-1.RAW	14:25:20	744.64	Sample	OK	1
1609620-08	D5	250000	2.67	243401.23		55335-1.RAW	14:29:28	117.23	Sample	OK	1
1609620-09	D6	500	2.67	574571.69		55336-1.RAW	14:33:37	135227.20	Sample	OLFB	
CLEAN				0.56		55337-1.RAW	14:42:04	65.99	Clean	OK	1
CLEAN				0.37		55338-1.RAW	14:44:55	43.28	Clean	OK	1
WS				0.61		55339-1.RAW	14:49:03	73.89	Sample	OK	1
WS				0.36		55340-1.RAW	14:53:12	45.04	Sample	OK	1
F610521-DUP1	D7	2500	2.67	6602.41		55341-1.RAW	14:57:20	313.44	Sample	OK	1
F610521-MS1	D8	1000	2.67	24495.64	370.95	55342-1.RAW	15:01:29	2885.17	Sample	OK	1
F610521-MSD1	D9	1000	2.67	24553.87		55343-1.RAW	15:05:37	2892.02	Sample	FB	1
SEQ-CCV9	D10	1	2.67	5.14	102.82	55344-1.RAW	15:09:45	607.62	Sample	OK	1

WRONG LOCATION  
WRONG LOCATION

SEQ-CCB9	D11	1	2.67	0.34	0.00	55345-1.RAW	15:13:54	42.28	Sample	OK	1
1609620-08RE1	D12	10000	2.67	234023.28		55346-1.RAW	15:18:02	2756.52	Sample	OK	1
1609620-09RE1	A1	250000	2.67	802135.73		55347-1.RAW	15:22:11	380.23	Sample	OK	1
F611244-BLK1	A2	100	2.67	34.33		55348-1.RAW	15:26:19	43.07	Sample	OK	1
F611244-BLK2	A3	100	2.67	29.11		55349-1.RAW	15:30:27	36.92	Sample	OK	1
F611244-BLK3	A4	100	2.67	27.78		55350-1.RAW	15:34:36	35.35	Sample	OK	1
*F611244-BLK4	A5	100	2.67	29.24		55351-1.RAW	15:38:44	37.08	Sample	OK	1
F611244-BS1	A6	100	2.67	497.21		55352-1.RAW	15:42:53	587.75	Sample	OK	1
F611244-BS2	A7	100	2.67	477.90		55353-1.RAW	15:47:01	565.03	Sample	OK	1
F611244-BS3	A8	500	2.67	4771.30		55354-1.RAW	15:51:10	1125.58	Sample	OK	1
F611244-BS4	A9	500	2.67	4540.31		55355-1.RAW	15:55:18	1071.22	Sample	OK	1
SEQ-CCVA	A10	1	2.67	4.93		55356-1.RAW	15:59:26	582.59	Sample	OK	1
SEQ-CCBA	A11	1	2.67	0.20		55357-1.RAW	16:03:35	26.55	Sample	OK	1
F610521-DUP2	A12	2500	2.67	3729.85		55358-1.RAW	16:07:43	178.23	Sample	OK	1
F611245-BLK1	B1	100	2.67	20.94		55359-1.RAW	16:11:52	27.30	Sample	OK	1
F611245-BLK2	B2	100	2.67	22.95		55360-1.RAW	16:16:00	29.67	Sample	OK	1
F611245-BLK3	B3	100	2.67	30.74		55361-1.RAW	16:20:08	38.84	Sample	OK	1
*F611245-BLK4	B4	100	2.67	20.74		55362-1.RAW	16:24:17	27.08	Sample	OK	1
F611245-BS1	B5	100	2.67	479.88		55363-1.RAW	16:28:25	587.36	Sample	OK	1
F611245-BS2	B6	100	2.67	479.23		55364-1.RAW	16:32:34	566.59	Sample	OK	1
F611245-BS3	B7	500	2.67	4722.61		55365-1.RAW	16:36:42	1114.12	Sample	OK	1
F611245-BS4	B8	500	2.67	4532.01		55366-1.RAW	16:40:51	1069.27	Sample	OK	1
SEQ-CCVB	B9	1	2.67	5.01		55367-1.RAW	16:44:59	592.46	Sample	OK	1
SEQ-CCBB	B10	1	2.67	0.15		55368-1.RAW	16:49:07	20.31	Sample	OK	1

## ANALYSIS SEQUENCE

6K10007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10007-IBL1	QC	1			
6K10007-IBL2	QC	2			
6K10007-IBL3	QC	3			
6K10007-CAL1	QC	4	1605412		
6K10007-CAL2	QC	5	1605413		
6K10007-CAL3	QC	6	1605414		
6K10007-CAL4	QC	7	1605415		
6K10007-CAL5	QC	8	1605416		
6K10007-ICV1	QC	9	1605791		
6K10007-CCV1	QC	10	1605791		
6K10007-CCB1	QC	11			
6K10007-CCV2	QC	12	1605791		
6K10007-CCB2	QC	13			
6K10007-CCV3	QC	14	1605791		
6K10007-CCB3	QC	15			
6K10007-CCV4	QC	16	1605791		
6K10007-CCB4	QC	17			
6K10007-CCV5	QC	18	1605791		
6K10007-CCB5	QC	19			
6K10007-CCV6	QC	20	1605791		
6K10007-CCB6	QC	21			
6K10007-CCV7	QC	22	1605791		
6K10007-CCB7	QC	23			
F610521-BLK1	QC	24			
F610521-BLK2	QC	25			
F610521-BLK3	QC	26			
F610521-BS1	QC	27			
6K10007-CCV8	QC	28	1605791		
6K10007-CCB8	QC	29			
F610521-BSD1	QC	30			
1609620-01	Hg-CVAFS-S-SSE-F4	31			
1609620-02	Hg-CVAFS-S-SSE-F4	32			
1609620-03	Hg-CVAFS-S-SSE-F4	33			
1609620-07	Hg-CVAFS-S-SSE-F4	34			
1609620-08	Hg-CVAFS-S-SSE-F4	35			

Due Date: 10/21/2016

Page 143 of 308

Page 1 of 2

# ANALYSIS SEQUENCE

6K10007

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F4	36			
F610521-DUP1	QC	37			
F610521-MS1	QC	38			
F610521-MSD1	QC	39			
6K10007-CCV9	QC	40	1605791		
6K10007-CCB9	QC	41			
1609620-08RE1	Hg-CVAFS-S-SSE-F4	42			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F4	43			Added 11/9/2016 by DM2
6K10007-CCVA	QC	44	1605791		
6K10007-CCBA	QC	45			
F610521-DUP2	QC	46			
6K10007-CCVB	QC	47	1605791		
6K10007-CCBB	QC	48			

Don M. Mason      11/9/16  
 Samples Loaded By      Date

Don M. Mason      11/10/16  
 Data Processed By      Date





## ANALYSIS SEQUENCE

6K10006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10006-IBL1	QC	1			
6K10006-IBL2	QC	2			
6K10006-IBL3	QC	3			
6K10006-CAL1	QC	4	1605412		
6K10006-CAL2	QC	5	1605413		
6K10006-CAL3	QC	6	1605414		
6K10006-CAL4	QC	7	1605415		
6K10006-CAL5	QC	8	1605416		
6K10006-ICV1	QC	9	1605791		
6K10006-CCV1	QC	10	1605791		
6K10006-CCB1	QC	11			
6K10006-CCV2	QC	12	1605791		
6K10006-CCB2	QC	13			
6K10006-CCV3	QC	14	1605791		
6K10006-CCB3	QC	15			
F610522-BLK1	QC	16			
F610522-BLK2	QC	17			
6K10006-CCV4	QC	18	1605791		
6K10006-CCB4	QC	19			
F610522-BLK3	QC	20			
F610522-BS1	QC	21			
F610522-BSD1	QC	22			
1609620-01	Hg-CVAFS-S-SSE-F5	23			
1609620-02	Hg-CVAFS-S-SSE-F5	24			
1609620-03	Hg-CVAFS-S-SSE-F5	25			
1609620-07	Hg-CVAFS-S-SSE-F5	26			
1609620-08	Hg-CVAFS-S-SSE-F5	27			
1609620-09	Hg-CVAFS-S-SSE-F5	28			
F610522-DUP1	QC	29			
6K10006-CCV5	QC	30	1605791		
6K10006-CCB5	QC	31			
6K10006-CCV6	QC	32	1605791		
6K10006-CCB6	QC	33			
6K10006-CCV7	QC	34	1605791		
6K10006-CCB7	QC	35			

Due Date: 10/21/2016

Page 146 of 308

Page 1 of 2

**ANALYSIS SEQUENCE**

**6K10006**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F610522-MS1	QC	36			
F610522-MSD1	QC	37			
1609620-02RE1	Hg-CVAFS-S-SSE-F5	38			Added 11/9/2016 by DM2
1609620-07RE1	Hg-CVAFS-S-SSE-F5	39			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F5	40			Added 11/9/2016 by DM2
F610522-DUP2	QC	41			
6K10006-CCV8	QC	42	1605791		
6K10006-CCB8	QC	43			
6K10006-CCV9	QC	44	1605791		
6K10006-CCB9	QC	45			
6K10006-CCVA	QC	46	1605791		
6K10006-CCBA	QC	47			
6K10006-CCVB	QC	48	1605791		
6K10006-CCBB	QC	49			

Dan Maxam      11/9/16  
 Samples Loaded By      Date

Dan Maxam      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10006**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610522-DUP1	Hg-CVAFS-S-SSE-F5	2313	227	661.6	661.6		ng/g				111	25.00	PASS-OVER	FAIL-DUP	QR-07
6K10006-CCV5	Hg-CVAFS-S-SSE-F5	0.08	1.250			5.0000	ng/L	1.68	75.00	125.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10006-CCB5	Hg-CVAFS-S-SSE-F5	1.47	1.250				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

Don Moxem                      11/10/16  
 Analyst Reviewed By                      Date

Ryan M/L                      11/11/16  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K10005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-IBL1	QC	1			
6K10005-IBL2	QC	2			
6K10005-IBL3	QC	3			
6K10005-CAL1	QC	4	1605412		
6K10005-CAL2	QC	5	1605413		
6K10005-CAL3	QC	6	1605414		
6K10005-CAL4	QC	7	1605415		
6K10005-CAL5	QC	8	1605416		
6K10005-ICV1	QC	9	1605791		
6K10005-CCV1	QC	10	1605791		
6K10005-CCB1	QC	11			
6K10005-CCV2	QC	12	1605791		
6K10005-CCB2	QC	13			
6K10005-CCV3	QC	14	1605791		
6K10005-CCB3	QC	15			
6K10005-CCV4	QC	16	1605791		
6K10005-CCB4	QC	17			
6K10005-CCV5	QC	18	1605791		
6K10005-CCB5	QC	19			
6K10005-CCV6	QC	20	1605791		
6K10005-CCB6	QC	21			
6K10005-CCV7	QC	22	1605791		
6K10005-CCB7	QC	23			
6K10005-CCV8	QC	24	1605791		
6K10005-CCB8	QC	25			
6K10005-CCV9	QC	26	1605791		
6K10005-CCB9	QC	27			
F611244-BLK1	QC	28			
F611244-BLK2	QC	29			
F611244-BLK3	QC	30			
F611244-BLK4	QC	31			
F611244-BS1	QC	32			
F611244-BS2	QC	33			
F611244-BS3	QC	34			
F611244-BS4	QC	35			

**ANALYSIS SEQUENCE**

**6K10005**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-CCVA	QC	36	1605791		
6K10005-CCBA	QC	37			
F611245-BLK1	QC	38			
F611245-BLK2	QC	39			
F611245-BLK3	QC	40			
F611245-BLK4	QC	41			
F611245-BS1	QC	42			
F611245-BS2	QC	43			
F611245-BS3	QC	44			
F611245-BS4	QC	45			
6K10005-CCVB	QC	46	1605791		
6K10005-CCBB	QC	47			

Don Moran      11/9/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10005**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10005-CCV5	Hg_FSTM_TRAP_A	0.08	0.500			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10005-CCB5	Hg_FSTM_TRAP_A	1.47	0.500				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

Don Moxem                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      N/L                      11/21/16  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10008-IBL1	QC	1			
6K10008-IBL2	QC	2			
6K10008-IBL3	QC	3			
6K10008-CAL1	QC	4	1605412		
6K10008-CAL2	QC	5	1605413		
6K10008-CAL3	QC	6	1605414		
6K10008-CAL4	QC	7	1605415		
6K10008-CAL5	QC	8	1605416		
6K10008-ICV1	QC	9	1605791		
F610492-BLK1	QC	10			
F610492-BLK2	QC	11			
F610492-BLK3	QC	12			
F610492-BS1	QC	13			
F610492-BSD1	QC	14			
F610492-BS2	QC	15			
1610232-27	Hg-CVAFS-T-7030	16			
1610232-28	Hg-CVAFS-T-7030	17			
1610232-29	Hg-CVAFS-T-7030	18			
1610232-30	Hg-CVAFS-T-7030	19			
6K10008-CCV1	QC	20	1605791		
6K10008-CCB1	QC	21			
1610232-31	Hg-CVAFS-T-7030	22			
1610232-32	Hg-CVAFS-T-7030	23			
1610232-33	Hg-CVAFS-T-7030	24			
1610232-34	Hg-CVAFS-T-7030	25			
1610232-35	Hg-CVAFS-T-7030	26			
1610232-36	Hg-CVAFS-T-7030	27			
1610232-37	Hg-CVAFS-T-7030	28			
1610232-38	Hg-CVAFS-T-7030	29			
1610232-39	Hg-CVAFS-T-7030	30			
1610232-40	Hg-CVAFS-T-7030	31			
6K10008-CCV2	QC	32	1605791		
6K10008-CCB2	QC	33			
1610232-41	Hg-CVAFS-T-7030	34			
1610232-42	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

Page 152 of 308

Page 1 of 3



## ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610233-01	Hg-CVAFS-T-7030	36			
1610234-01	Hg-CVAFS-T-7030	37			
1610234-02	Hg-CVAFS-T-7030	38			
1610234-03	Hg-CVAFS-T-7030	39			
F610492-DUP1	QC	40			
F610492-MS1	QC	41			
F610492-MSD1	QC	42			
F610492-MS2	QC	43			
6K10008-CCV3	QC	44	1605791		
6K10008-CCB3	QC	45			
F610492-MSD2	QC	46			
1610232-35RE1	Hg-CVAFS-T-7030	47			Added 11/9/2016 by DM2
1610232-36RE1	Hg-CVAFS-T-7030	48			Added 11/9/2016 by DM2
1610233-01RE1	Hg-CVAFS-T-7030	49			Added 11/9/2016 by DM2
1610234-01RE1	Hg-CVAFS-T-7030	50			Added 11/9/2016 by DM2
1610234-02RE1	Hg-CVAFS-T-7030	51			Added 11/9/2016 by DM2
1610234-03RE1	Hg-CVAFS-T-7030	52			Added 11/9/2016 by DM2
F610492-DUP2	QC	53			
6K10008-CCV4	QC	54	1605791		
6K10008-CCB4	QC	55			
6K10008-CCV5	QC	56	1605791		
6K10008-CCB5	QC	57			
6K10008-CCV6	QC	58	1605791		
6K10008-CCB6	QC	59			
6K10008-CCV7	QC	60	1605791		
6K10008-CCB7	QC	61			
6K10008-CCV8	QC	62	1605791		
6K10008-CCB8	QC	63			
6K10008-CCV9	QC	64	1605791		
6K10008-CCB9	QC	65			
6K10008-CCVA	QC	66	1605791		
6K10008-CCBA	QC	67			
6K10008-CCVB	QC	68	1605791		
6K10008-CCBB	QC	69			

Due Date: 11/2/2016

Page 153 of 308

Page 2 of 3

ANALYSIS SEQUENCE

6KI0008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Matern      11/9/16  
Samples Loaded By      Date

Don Matern      11/10/16  
Data Processed By      Date

**Failing Data Report - 6K10008**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10008-CCV5	Hg-CVAFS-T-7030	0.084	2.000			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	wrong location

    Dan Maceen                        11/10/16  
Analyst Reviewed By                    Date

    Ryan N/A                        11/21/16  
Peer Reviewed By                    Date

**PREPARATION BENCH SHEET**

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					
F611245-BLK2	Blank	1	40					
F611245-BLK3	Blank	1	40					
F611245-BLK4	Blank	1	40					
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00 03-Apr-17 00:00	1602941 1605635 1605636 1606221 1606367 1606370	25% Hydroxylamine-HCl working solution THg Dilute 1% BrCl THg Washstation (0.5% BrCl) 70/30 Digestion Acid 5% BrCl 3% SnCl2 THg reductant	03-Dec-16 00:00 09-Feb-17 00:00 03-Dec-16 00:00 22-Apr-17 00:00 26-Mar-17 00:00 20-Apr-17 00:00

FSTM Lot Testing 161102B

**PREPARATION BENCH SHEET**

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					
F611244-BLK2	Blank	1	40					
F611244-BLK3	Blank	1	40					
F611244-BLK4	Blank	1	40					
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00 03-Apr-17 00:00	1602941 1605635 1605636 1606221 1606367 1606370	25% Hydroxylamine-HCl working solution THg Dilute 1% BrCl THg Washstation (0.5% BrCl) 70/30 Digestion Acid 5% BrCl 3% SnCl2 THg reductant	03-Dec-16 00:00 09-Feb-17 00:00 03-Dec-16 00:00 22-Apr-17 00:00 26-Mar-17 00:00 20-Apr-17 00:00

FSTM Lot Testing 161102A

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					
F610492-BLK2	Blank	0.25	20					
F610492-BLK3	Blank	0.25	20					
F610492-BS1	LCS	0.25	20	1605270	20			
F610492-BS2	LCS	0.1252	20	1605470	125.2			
F610492-BSD1	LCS Dup	0.25	20	1605270	20			
F610492-DUP1	Duplicate [1610233-01RE1]	0.2557	20					
F610492-DUP2	Duplicate [1610233-01RE1]	0.2557	20					
F610492-MS1	Matrix Spike [1610233-01RE1]	0.2583	20	1605712	100			
F610492-MS2	Matrix Spike [1610234-01RE1]	0.2593	20	1605712	100			
F610492-MSD1	Matrix Spike Dup [1610233-01RE1]	0.2676	20	1605712	100			
F610492-MSD2	Matrix Spike Dup [1610234-01RE1]	0.2676	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00
			1606500		

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	-	-	-		
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	-	-	-		
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	-	-	-		
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	-	-	-		
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	-	-	-		
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	-	-	-		
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	-	-	-		
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	-	-	-		
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-		
1610232-35RE1	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-		
1610232-36RE1	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	-	-	-		
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	-	-	-		
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	-	-	-		
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	-	-	-		
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	-	-	-		
232-42	OB-05_092116_RAS_WB_01	0.264	20	-	-	-		
233-01	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD	

Page 159 of 308

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

1610233-01RE1	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD	
1610234-01RE1	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-		
1610234-02RE1	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-		
1610234-03RE1	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2





**PREPARATION BENCH SHEET**

F610522

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					
F610522-BLK2	Blank	0.25	40					
F610522-BLK3	Blank	0.25	40					
F610522-BS1	LCS	0.25	40	1605270	40			
F610522-BSD1	LCS Dup	0.25	40	1605270	40			
F610522-DUP1	Duplicate [1609620-03]	0.256	40					
F610522-DUP2	Duplicate [1609620-03]	0.258	40					
F610522-MS1	Matrix Spike [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->40mL; 40mL->40mL; Spiked 0.02mL.
F610522-MSD1	Matrix Spike Dup [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->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>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605815	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610522

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (ml.)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	40	-	-	-		
1609620-02RE1	Sand-Na25-2-bottom	0.258	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-03	Sand-Na25-3-bottom	0.258	40	-	-	-		
1609620-07	Hg0	0.263	40	-	-	-		
1609620-07RE1	Hg0	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-08	HgS	0.256	40	-	-	-		
1609620-09	Hg2Cl2	0.263	40	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

F610521

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					
F610521-BLK2	Blank	0.25	125					
F610521-BLK3	Blank	0.25	125					
F610521-BS1	LCS	0.002	1	1604715	100			
F610521-BSD1	LCS Dup	0.002	1	1604715	100			
F610521-DUP1	Duplicate [1609620-03]	0.256	125					
F610521-DUP2	Duplicate [1609620-03]	0.258	125					
F610521-MS1	Matrix Spike [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; Spiked 0.05mL
F610521-MSD1	Matrix Spike Dup [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; 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>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605838	12N HNO3	05-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610521

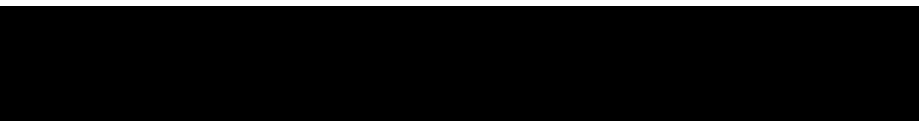
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	125	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	125	-	-	-		
1609620-07	Hg0	0.263	125	-	-	-		
1609620-08	HgS	0.256	125	-	-	-		
1609620-08RE1	HgS	0.256	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-09	Hg2Cl2	0.263	125	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

200.3

11/9/16 DM

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					100x
F611245-BLK2	Blank	1	40					100x
F611245-BLK3	Blank	1	40					100x
F611245-BLK4	Blank	1	40					100x
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			500x
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			500x

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

1602941  
 1605636  
 1605635  
 1606379

FSTM Lot Testing 161102B



**PREPARATION BENCH SHEET**

2600-3

11/9/16 DM

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					100X
F611244-BLK2	Blank	1	40					100X
F611244-BLK3	Blank	1	40					100X
F611244-BLK4	Blank	1	40					100X
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			500X
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			500X

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

FSTM Lot Testing 161102A

1602041  
 1605636  
 1605635  
 1606370





PREPARATION BENCH SHEET

2600-3  
11/9/16 DM

F610522

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					20X
F610522-BLK2	Blank	0.25	40					20X
F610522-BLK3	Blank	0.25	40					20X
F610522-BS1	LCS	0.25	40	1605270	40			20X
F610522-BSD1	LCS Dup	0.25	40	1605270	40			20X
F610522-DUP1	Duplicate [1609620-03]	0.256	40					2500X
F610522-MS1	Matrix Spike 1609620-01	0.25	40	1605272	25			2500X
F610522-MSD1	Matrix Spike Dup 1609620-01	0.25	40	1605272	25			2500X

Standard ID(s): 1605270  
Description: THg 100ng/mL Primary Spiking Standard

Expiration: 10-Dec-16 00:00

Reagent ID(s):  
1603399 Boiling Chips for AFS prep  
1605815 Fisher Nitric Acid, Tracemetal Grade  
1606137 Omnitrace Hydrochloric Acid  
1606465 5% BrCl

Expiration:  
01-Jun-17 00:00  
24-Mar-18 00:00  
13-Oct-19 00:00  
19-Apr-17 00:00

DUP1 - AD 2500X  
Source 1609620-03

1602041  
1605636  
1605635  
1606570

PREPARATION BENCH SHEET

200.3

11/9/16 DM

F610522

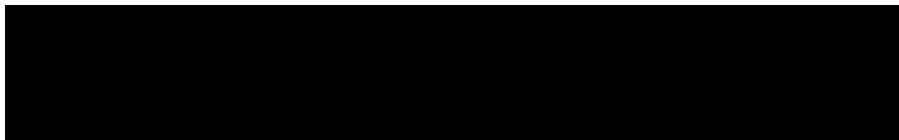
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	No	2500X
1609620-02	Sand-Na25-2-bottom	0.258	40	No	2500X → 500X
1609620-03	Sand-Na25-3-bottom	0.258	40	No	2500X
1609620-07	Hg0	0.263	40	No	DM 11/9/16 → 250,000X → 500X
1609620-08	HgS	0.256	40	No	250,000X
1609620-09	Hg2Cl2	0.263	40	No	250,000X → 2500X



Technician: MPM Batch#: F610518 Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CVAFS-S-SSE-F1 through F5

Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)  
 Spike Witness: MPM 11/4/16 (initial and date) Pipette 11/16/19 cal 10/30/16

F2-PH2  
 HCl LIMS ID: 1605762  
 F1 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163  
 F2 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163  
 F3 KOH  
 Other Acid LIMS ID: 1605821

Pipette SN#: M111607 Calibration Date: 11-6-16 MPM 11/1/16  
 F1  
 Pipette SN#: NU01049 Calibration Date: 10/30/16  
 F2 Pipette  
 Dispenser #: NU01049 Calibrated?  Yes  No  
 F3 Pipette  
 Dispenser #: NU01049 cal. yes

Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*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 type="checkbox"/> NA
1	F610518-BIK1	0.254	23			
2	F610518-BIK2	0.265	24			1605057
3	F610518-BIK3	0.267	25			1605058
4	1609620-01	0.260	26			1605059
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			<b>Comments</b>
7	F610518-DUP(1609620-03)	0.256	29			F2 Batch # F610519
8	1609620-07	0.263	30			F3 Batch # F610520
9	1609620-08	0.256	31			F4 Batch # F610521
10	1609620-09	0.263	32			F5 Batch # F610522
11			33			MPM 10/28/16
12			34			1609620-07: HgO
13			35			1609620-08: HgS
14			36			1609620-09: Hg <sub>2</sub> Cl <sub>2</sub>
15			37			MPM 10/31/16
16			38			F3 BrCl 1605634 MPM 11/1/16
17			39			F4 12N HNO <sub>3</sub> 1605838
18			40			F4 BrCl 1605634 MPM 11/1/16
19			41			F4 Pipette NU01049
20			42			cal. 10/30/16
21			43			F5 boiling chips #
22			44			1603399 BS/BSD

balance 19 cal. yes  
 BS1 0.2670g  
 BSD1 0.2608g  
 HCl 1606137  
 Dispenser 0842293  
 14N HNO<sub>3</sub> 1605815  
 Dispenser 0545812  
 vial # 00065276  
 11/4/16 MPM  
 F5 F610522  
 BrCl: 1606465  
 dispenser: 022159  
 AMB 11/7/16

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610521

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					50X
F610521-BLK2	Blank	0.25	125					50X
F610521-BLK3	Blank	0.25	125					50X
F610521-BS1	LCS 0.002	0.25	125	1604715	100			50X
F610521-BSD1	LCS Dup 0.002	0.25	125	1604715	100			50X
F610521-DUP1	Duplicate [1609620-03]	0.256	125					2500X
F610521-MS1	Matrix Spike 1609620-01	0.25	125	1605272	100			1000X
F610521-MSD1	Matrix Spike Dup 1609620-01	0.25	125	1605272	100			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605838	12N HNO3	05-Apr-17 00:00

DUP2 - AD 2500X  
Source 1609620-03

1602941  
1605636  
1605635  
1606370

PREPARATION BENCH SHEET

2600-3

F610521

11/9/16 DM

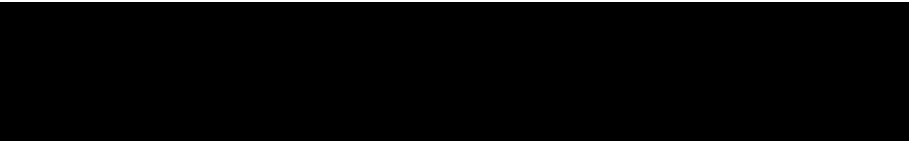
Euofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	No	1000X
1609620-02	Sand-Na25-2-bottom	0.258	125	No	1000X
1609620-03	Sand-Na25-3-bottom	0.258	125	No	2500X
1609620-07	Hg0	0.263	125	No	500X
1609620-08	HgS	0.256	125	No	250,000X → 10,000X
1609620-09	Hg2Cl2	0.263	125	No	500X → 250,000X



Technician: MPM Batch#: F610518 Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CVAFS-S-SSE-F1 through F5

Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)  
 Spike Witness: MPM 11/4/16 (initial and date) Pipette MU11619 cal. 10/30/16

F2-PH2  
 HCl LIMS ID: 1605762 Pipette SN#: MU11607 Calibration Date: 11-6-16 MPM 11/1/16  
 F1 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163 Pipette SN#: NU01049 Calibration Date: 10/30/16  
 F2 BrCl  
 H<sub>2</sub>O LIMS ID: 1606163 Dispenser #: NU01049 Calibrated?  Yes  No  
 F3 KOH  
 Other Acid LIMS ID: 1605821 Dispenser #: NU01049 cal. Yes

Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*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 type="checkbox"/> NA
1	F610518-B1K1	0.254	23			1605057
2	F610518-B1K2	0.265	24			1605058
3	F610518-B1K3	0.267	25			1605059
4	1609620-01	0.260	26			
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			
7	F610518-DUP1(1609620-03)	0.256	29			
8	1609620-07	0.263	30			
9	1609620-08	0.256	31			
10	1609620-09	0.263	32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Comments**  
 F2 Batch # F610519  
 F3 Batch # F610520  
 F4 Batch # F610521  
 F5 Batch # F610522  
 MPM 10/28/16  
 1609620-07: HgO  
 1609620-08: HgS  
 1609620-09: Hg<sub>2</sub>Cl<sub>2</sub>  
 MPM 10/31/16  
 F3 BrCl 1605634 MPM 11/1/16  
 F4 IZN HNO<sub>3</sub> 1605838  
 F4 BrCl 1605634 MPM 11/4/16  
 F4 Pipette NU01049  
 cal. 10/30/16  
 F5 boiling chips #  
 1603399 BS/BSD  
 balance 19 cal. yes  
 BS1 0.2670g  
 BSD1 0.2608g  
 HCl 1606137  
 dispenser 0842293  
 IAN HNO<sub>3</sub> 1605815  
 Dispenser 05N8842  
 vial # 00065276  
 11/4/16 MPM

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					20X
F610492-BLK2	Blank	0.25	20					20X
F610492-BLK3	Blank	0.25	20					20X
F610492-BS1	LCS	0.25	20	1605270	20			20X
F610492-BS2	LCS	0.1252	20	1605470	125.2			500X
F610492-BSD1	LCS Dup	0.25	20	1605270	20			20X
F610492-DUP1	Duplicate [1610233-01] RE1	0.2557	20					500X
F610492-MS1	Matrix Spike [1610233-01] RE1	0.2583	20	1605712	100			500X
F610492-MS2	Matrix Spike [1610234-01] RE1	0.2593	20	1605712	100			500X
F610492-MSD1	Matrix Spike Dup [1610233-01] RE1	0.2676	20	1605712	100			500X
F610492-MSD2	Matrix Spike Dup [1610234-01] RE1	0.2676	20	1605712	100			500X

Standard ID(s):  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s):  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606465 5% BrCl  
 1606500

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - 100X  
 re-run of DUP1

1602941  
 1605636  
 1605635  
 1604570

PREPARATION BENCH SHEET

2600-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	No	500X
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	No	500X
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	No	500X
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	No	500X
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	No	500X
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	No	500X
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	No	500X
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	No	500X
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	No	500X → 100X
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	No	500X → 100X
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	No	500X
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	No	500X
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	No	500X
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	No	500X
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	No	500X
1610232-42	OB-05_092116_RAS_WB_01	0.264	20	No	500X
1610233-01	FRB-01_092916_TOM_WB_01	0.2529	20	No	500X → 100X
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	No	500X → 20X
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	No	500X → 20X
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	No	500X → 20X



**PREPARATION BENCH SHEET**

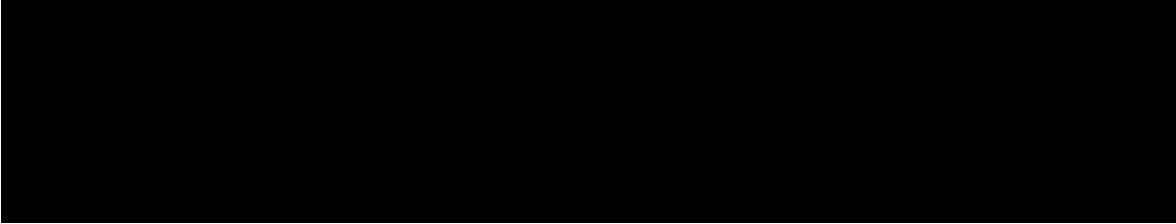
F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**



Technician: Dyer/MPM Batch#: F610492 Date: 11/7/14

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 1535 <sup>1545</sup> <sub>11/7/16</sub> Actual Temp. (raw): 80 °C w/ CF: 79.7 °C  
 Time out: 1745 Actual Temp. (raw): 85 °C w/ CF: 84.7 °C

Final vol.: 20 mL (LIMS ID: 1601465/1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/7/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 0222159 Cal. yes  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: D6

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	F610492 Blank1	0.2510	23	1610232-38	0.2695	DORM-4 BS2 1605470
2	F610492 Blank2	0.2738	24	1610232-39	0.2674	
3	F610492 Blank3	0.2503	25	1610232-40	0.2583	
4	F610492 BS1	0.2612	26	1610232-41	0.2629	<b>Comments</b> BS1, BS01 = 100 µL = 20 µL 1605270 Dup / MS / MS01 1610233-01 MS2 MS02 1610234-01
5	F610492 BS01	0.2819	27	1610232-42	0.2640	
6	F610492 BS2	0.1252	28	1610233-01	0.2529	
7	F610492 Dup1	0.2557	29	1610234-01	0.2542	
8	F610492 MS1	0.2583	30	1610234-02	0.2577	
9	F610492 MS01	0.2676	31	1610234-03	0.2680	
10	F610492 MS2	0.2593	32			
11	F610492 MS02	0.2676	33			
12	1610232-27	0.2948	34			
13	1610232-28	0.2663	35			
14	1610232-29	0.2678	36			
15	1610232-30	0.2694	37			
16	1610232-31	0.2624	38			
17	1610232-32	0.2667	39			
18	1610232-33	0.2502	40			
19	1610232-34	0.2557	41			
20	1610232-35	0.2645	42			
21	1610232-36	0.2619	43			
22	1610232-37	0.2694	44			

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	<i>DM</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		

• 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: h

- |   |   |  |                                     |
|---|---|--|-------------------------------------|
| 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 type="checkbox"/> YES            | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (d) Check and compare masses (review prep benchsheet)   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (e) Check & compare initial & final volumes   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?                           | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A        |
| 50 ml / aliquot = Excel dilution value  |   |  |                                     |
| (g) Is the sequence #, analyst, date, and instrument # on the QC page?                              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed)                              | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)               | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| 3. High QA? WO#(s)/Client(s): _____   | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS)  | <input type="checkbox"/> YES            | <input checked="" type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch?   | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples?               | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs?  | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		0

Analyst Initials DM

Reviewer Initials [Signature]

- 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: **SEQ-CCV5 FAILED. WRONG LOCATION. 1609620-09 HIGH SAMPLE. F610521-DUP1 HIGH RPD. F610522-DUP1 FAILED. HIGH RPD. SEQ-CCB5 FAILED. WRONG LOCATION**
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: **SEQ-CCB5 FAILED. WRONG LOCATION**
17. Have Total Solids been applied? (if NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		0

Analyst Initials DM

Reviewer Initials DM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input 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 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>12/16/2015</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 type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/7/2016</u>                               | LOD within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/7/16, 7/8/16</u>                         | LOQ within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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





Frontier Global Sciences

THg26002-161110-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 10, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K10018, 6K10017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	116.97 units	233.95	105.93 units	211.87	104.1 %Rec
SEQ-CAL2	1	1.00 ng/L	213.06 units	213.06	202.02 units	202.02	99.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1027.62 units	205.52	1016.58 units	203.32	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3897.25 units	194.86	3886.21 units	194.31	95.5 %Rec
SEQ-CAL5	1	40.00 ng/L	8261.28 units	206.53	8250.24 units	206.26	101.3 %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  
 203.55            +/- 6.41            3.1% RSD            210.78

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.04 units	±2.85	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.420 ng/L	±2.584
BLK	2	3	2.349 ng/L	±1.647
BLK	3	3	3.028 ng/L	±2.564
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   11/10/16

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	11/10/2016 8:02:45	65431-1.RAW	8:02:45 AM	9.55			-1.5	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/10/2016 8:06:54	65432-1.RAW	8:06:54 AM	14.32			3.3	0.016	0.016	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/10/2016 8:11:02	65433-1.RAW	8:11:02 AM	9.24			-1.8	-0.009	-0.009	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/10/2016 8:15:11	65434-1.RAW	8:15:11 AM	116.97			105.9	0.520	0.520	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/10/2016 8:19:19	65435-1.RAW	8:19:19 AM	213.06			202.0	0.992	0.992	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/10/2016 8:23:27	65436-1.RAW	8:23:27 AM	1027.62			1016.6	4.994	4.994	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/10/2016 8:27:36	65437-1.RAW	8:27:36 AM	3897.25			3886.2	19.092	19.092	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/10/2016 8:31:44	65438-1.RAW	8:31:44 AM	8261.28			8250.2	40.531	40.531	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/10/2016 8:35:54	65439-1.RAW	8:35:54 AM	1011.29			1000.3	4.914	4.914	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK1	20	11/10/2016 8:41:32	65440-1.RAW	8:41:32 AM	75.69	1		64.7	0.318	6.353	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK2	20	11/10/2016 8:45:41	65441-1.RAW	8:45:41 AM	35.79	1		24.7	0.122	2.432	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK3	20	11/10/2016 8:49:49	65442-1.RAW	8:49:49 AM	26.06	1		15.0	0.074	1.476	ng/L	
Hg2600-2	DM2	SAM	F610509-BS1	20	11/10/2016 8:53:57	65443-1.RAW	8:53:57 AM	1052.88	1		1041.8	4.947	98.943	ng/L	
Hg2600-2	DM2	SAM	F610509-BSD1	20	11/10/2016 8:58:06	65444-1.RAW	8:58:06 AM	1070.02	1		1059.0	5.031	100.629	ng/L	
Hg2600-2	DM2	SAM	F610509-BS2	500	11/10/2016 9:02:14	65445-1.RAW	9:02:14 AM	918.96	1		907.9	4.454	2226.751	ng/L	
Hg2600-2	DM2	SAM	1610234-16	100	11/10/2016 9:06:23	65446-1.RAW	9:06:23 AM	248.86	1		237.8	1.134	113.417	ng/L	
Hg2600-2	DM2	SAM	1610234-17	100	11/10/2016 9:10:31	65447-1.RAW	9:10:31 AM	262.12	1		251.1	1.199	119.929	ng/L	
Hg2600-2	DM2	SAM	1610234-18	100	11/10/2016 9:14:40	65448-1.RAW	9:14:40 AM	336.90	1		325.9	1.567	156.664	ng/L	
Hg2600-2	DM2	SAM	1610234-19	100	11/10/2016 9:18:48	65449-1.RAW	9:18:48 AM	172.80	1		161.8	0.760	76.049	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/10/2016 9:22:57	65450-1.RAW	9:22:57 AM	982.22			971.2	4.771	4.771	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/10/2016 9:27:05	65451-1.RAW	9:27:05 AM	20.52			9.5	0.047	0.047	ng/L	
Hg2600-2	DM2	SAM	1610234-20	100	11/10/2016 9:31:13	65452-1.RAW	9:31:13 AM	257.22	1		246.2	1.175	117.522	ng/L	
Hg2600-2	DM2	SAM	1610235-01	100	11/10/2016 9:35:22	65453-1.RAW	9:35:22 AM	85.94	1		74.9	0.334	33.376	ng/L	
Hg2600-2	DM2	SAM	1610235-02	100	11/10/2016 9:39:30	65454-1.RAW	9:39:30 AM	113.68	1		102.6	0.470	47.003	ng/L	
Hg2600-2	DM2	SAM	1610235-03	100	11/10/2016 9:43:39	65455-1.RAW	9:43:39 AM	60.69	1		49.7	0.210	20.973	ng/L	
Hg2600-2	DM2	SAM	1610235-04	100	11/10/2016 9:47:47	65456-1.RAW	9:47:47 AM	132.06	1		121.0	0.560	56.035	ng/L	
Hg2600-2	DM2	SAM	1610235-05	100	11/10/2016 9:51:55	65457-1.RAW	9:51:55 AM	74.80	1		63.8	0.279	27.905	ng/L	
Hg2600-2	DM2	SAM	1610236-01	100	11/10/2016 9:56:04	65458-1.RAW	9:56:04 AM	197.24	1		186.2	0.881	88.056	ng/L	
Hg2600-2	DM2	SAM	1610236-02	100	11/10/2016 10:00:12	65459-1.RAW	10:00:12 AM	215.19	1		204.1	0.969	96.872	ng/L	
Hg2600-2	DM2	SAM	1610236-03	20	11/10/2016 10:13:52	65460-2.RAW	10:13:52 AM	1077.96	1		1066.9	5.070	101.409	ng/L	
Hg2600-2	DM2	SAM	1610236-04	20	11/10/2016 10:18:01	65461-1.RAW	10:18:01 AM	977.10	1		966.1	4.575	91.499	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/10/2016 10:22:09	65462-1.RAW	10:22:09 AM	952.48			941.4	4.625	4.625	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/10/2016 10:26:17	65463-1.RAW	10:26:17 AM	22.58			11.5	0.057	0.057	ng/L	
Hg2600-2	DM2	SAM	1610236-05	20	11/10/2016 10:30:26	65464-1.RAW	10:30:26 AM	968.77	1		957.7	4.534	90.681	ng/L	
Hg2600-2	DM2	SAM	1610236-06	20	11/10/2016 10:34:34	65465-1.RAW	10:34:34 AM	1171.28	1		1160.2	5.529	110.578	ng/L	
Hg2600-2	DM2	SAM	1610236-07	20	11/10/2016 10:38:43	65466-1.RAW	10:38:43 AM	762.76	1		751.7	3.522	70.439	ng/L	
Hg2600-2	DM2	SAM	1610236-08	20	11/10/2016 10:42:51	65467-1.RAW	10:42:51 AM	1113.32	1		1102.3	5.244	104.883	ng/L	
Hg2600-2	DM2	SAM	1610236-09	20	11/10/2016 10:46:59	65468-1.RAW	10:46:59 AM	1111.16	1		1100.1	5.234	104.671	ng/L	
Hg2600-2	DM2	SAM	1610236-10	20	11/10/2016 10:51:08	65469-1.RAW	10:51:08 AM	1083.48	1		1072.4	5.098	101.951	ng/L	
Hg2600-2	DM2	SAM	1610234-19RE1	20	11/10/2016 10:55:16	65470-1.RAW	10:55:16 AM	720.20	1		709.2	3.313	66.258	ng/L	
Hg2600-2	DM2	SAM	1610235-01RE1	20	11/10/2016 10:59:25	65471-1.RAW	10:59:25 AM	326.22	1		315.2	1.377	27.548	ng/L	
Hg2600-2	DM2	SAM	1610235-02RE1	20	11/10/2016 11:03:33	65472-1.RAW	11:03:33 AM	424.48	1		413.4	1.860	37.202	ng/L	
Hg2600-2	DM2	SAM	1610235-03RE1	20	11/10/2016 11:07:42	65473-1.RAW	11:07:42 AM	221.82	1		210.8	0.864	17.290	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/10/2016 11:11:50	65474-1.RAW	11:11:50 AM	969.26			958.2	4.707	4.707	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/10/2016 11:15:58	65475-1.RAW	11:15:58 AM	34.34			23.3	0.114	0.114	ng/L	
Hg2600-2	DM2	SAM	1610235-04RE1	20	11/10/2016 11:20:07	65476-1.RAW	11:20:07 AM	532.70	1		521.7	2.392	47.835	ng/L	
Hg2600-2	DM2	SAM	1610235-05RE1	20	11/10/2016 11:24:15	65477-1.RAW	11:24:15 AM	296.98	1		285.9	1.234	24.675	ng/L	
Hg2600-2	DM2	SAM	1610236-01RE1	20	11/10/2016 11:28:24	65478-1.RAW	11:28:24 AM	820.04	1		809.0	3.803	76.067	ng/L	
Hg2600-2	DM2	SAM	1610236-02RE1	20	11/10/2016 11:32:32	65479-1.RAW	11:32:32 AM	921.07	1		910.0	4.300	85.994	ng/L	
Hg2600-2	DM2	SAM	F610509-DUP1	100	11/10/2016 11:36:41	65480-1.RAW	11:36:41 AM	229.84	1		218.8	1.041	104.073	ng/L	
Hg2600-2	DM2	SAM	F610509-MS1	500	11/10/2016 11:40:49	65481-1.RAW	11:40:49 AM	1869.32	1		1858.3	9.122	4561.166	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD1	500	11/10/2016 11:44:57	65482-1.RAW	11:44:57 AM	1849.00	1		1838.0	9.023	4511.266	ng/L	
Hg2600-2	DM2	SAM	F610509-MS2	500	11/10/2016 11:49:07	65483-1.RAW	11:49:07 AM	1939.11	1		1928.1	9.465	4732.606	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD2	500	11/10/2016 11:53:15	65484-1.RAW	11:53:15 AM	1991.80	1		1980.8	9.724	4862.016	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK1	20	11/10/2016 11:57:24	65485-1.RAW	11:57:24 AM	54.01	2		43.0	0.211	4.223	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/10/2016 12:01:32	65486-1.RAW	12:01:32 PM	949.16			938.1	4.609	4.609	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/10/2016 12:05:40	65487-1.RAW	12:05:40 PM	33.79			22.8	0.112	0.112	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	F610510-BLK2	20	11/10/2016 12:09:49	65488-1.RAW	12:09:49 PM	28.24	2		17.2	0.085	1.690	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK3	20	11/10/2016 12:13:58	65489-1.RAW	12:13:58 PM	22.57	2		11.5	0.057	1.133	ng/L	
Hg2600-2	DM2	SAM	F610510-BS1	20	11/10/2016 12:18:06	65490-1.RAW	12:18:06 PM	993.01	2		982.0	4.707	94.134	ng/L	
Hg2600-2	DM2	SAM	F610510-BSD1	20	11/10/2016 12:22:14	65491-1.RAW	12:22:14 PM	1078.26	2		1067.2	5.126	102.510	ng/L	
Hg2600-2	DM2	SAM	F610510-BS2	500	11/10/2016 12:26:23	65492-1.RAW	12:26:23 PM	864.93	2		853.9	4.190	2095.112	ng/L	
Hg2600-2	DM2	SAM	1610232-26RE1	100	11/10/2016 12:30:31	65493-1.RAW	12:30:31 PM	2112.51	2		2101.5	10.300	1030.042	ng/L	
Hg2600-2	DM2	SAM	1610236-11	20	11/10/2016 12:34:40	65494-1.RAW	12:34:40 PM	1017.46	2		1006.4	4.827	96.536	ng/L	
Hg2600-2	DM2	SAM	1610236-12	20	11/10/2016 12:38:49	65495-1.RAW	12:38:49 PM	1001.21	2		990.2	4.747	94.939	ng/L	
Hg2600-2	DM2	SAM	1610236-13	20	11/10/2016 12:42:58	65496-1.RAW	12:42:58 PM	999.53	2		988.5	4.739	94.774	ng/L	
Hg2600-2	DM2	SAM	1610236-14	20	11/10/2016 12:47:06	65497-1.RAW	12:47:06 PM	921.27	2		910.2	4.354	87.085	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/10/2016 12:51:14	65498-1.RAW	12:51:14 PM	963.2184419			952.2	4.678	4.678	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/10/2016 12:55:23	65499-1.RAW	12:55:23 PM	35.11			24.1	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1610236-15	20	11/10/2016 12:59:31	65500-1.RAW	12:59:31 PM	1263.04	2		1252.0	6.033	120.665	ng/L	
Hg2600-2	DM2	SAM	1610236-16	20	11/10/2016 13:03:40	65501-1.RAW	1:03:40 PM	938.87	2		927.8	4.441	88.815	ng/L	
Hg2600-2	DM2	SAM	1610236-17	20	11/10/2016 13:07:48	65502-1.RAW	1:07:48 PM	836.21	2		825.2	3.936	78.728	ng/L	
Hg2600-2	DM2	SAM	1610236-18	20	11/10/2016 13:11:57	65503-1.RAW	1:11:57 PM	1244.98	2		1233.9	5.945	118.891	ng/L	
Hg2600-2	DM2	SAM	1610236-19	20	11/10/2016 13:16:05	65504-1.RAW	1:16:05 PM	1045.03	2		1034.0	4.962	99.245	ng/L	
Hg2600-2	DM2	SAM	1610236-20	20	11/10/2016 13:20:13	65505-1.RAW	1:20:13 PM	887.46	2		876.4	4.188	83.763	ng/L	
Hg2600-2	DM2	SAM	1610238-01	20	11/10/2016 13:24:22	65506-1.RAW	1:24:22 PM	4134.58	2		4123.5	20.140	402.805	ng/L	
Hg2600-2	DM2	SAM	1610238-02	20	11/10/2016 13:28:30	65507-1.RAW	1:28:30 PM	469.89	2		458.9	2.137	42.735	ng/L	
Hg2600-2	DM2	SAM	1610238-03	20	11/10/2016 13:32:39	65508-1.RAW	1:32:39 PM	53.93	2		42.9	0.093	1.865	ng/L	
Hg2600-2	DM2	SAM	1610238-04	20	11/10/2016 13:36:47	65509-1.RAW	1:36:47 PM	64.85	2		53.8	0.147	2.939	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/10/2016 13:40:56	65510-1.RAW	1:40:56 PM	935.61			924.6	4.542	4.542	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/10/2016 13:45:04	65511-1.RAW	1:45:04 PM	48.10			37.1	0.182	0.182	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP1	100	11/10/2016 13:49:12	65512-1.RAW	1:49:12 PM	2732.85	2		2721.8	13.348	1334.795	ng/L	
Hg2600-2	DM2	SAM	F610510-MS1	500	11/10/2016 13:53:21	65513-1.RAW	1:53:21 PM	2268.80	2		2257.8	11.087	5543.497	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD1	500	11/10/2016 13:57:29	65514-1.RAW	1:57:29 PM	2230.51	2		2219.5	10.899	5449.451	ng/L	
Hg2600-2	DM2	SAM	F610510-MS2	500	11/10/2016 14:01:38	65515-1.RAW	2:01:38 PM	1744.44	2		1733.4	8.511	4255.493	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD2	500	11/10/2016 14:05:46	65516-1.RAW	2:05:46 PM	1778.12	2		1767.1	8.676	4338.209	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK1	20	11/10/2016 14:09:54	65517-1.RAW	2:09:54 PM	71.75	3		60.7	0.298	5.965	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK2	20	11/10/2016 14:14:03	65518-1.RAW	2:14:03 PM	30.21	3		19.2	0.094	1.884	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK3	20	11/10/2016 14:18:11	65519-1.RAW	2:18:11 PM	23.61	3		12.6	0.062	1.236	ng/L	
Hg2600-2	DM2	SAM	F611274-BS1	20	11/10/2016 14:22:20	65520-1.RAW	2:22:20 PM	3819.97	3		3808.9	18.561	371.215	ng/L	
Hg2600-2	DM2	SAM	F611274-BSD1	20	11/10/2016 14:26:28	65521-1.RAW	2:26:28 PM	4212.05	3		4201.0	20.487	409.737	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/10/2016 14:30:37	65522-1.RAW	2:30:37 PM	1024.98			1013.9	4.981	4.981	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/10/2016 14:34:45	65523-1.RAW	2:34:45 PM	47.48			36.4	0.179	0.179	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV1	1	11/10/2016 14:38:54	65524-1.RAW	2:38:54 PM	132.52			121.5	0.597	0.597	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV2	1	11/10/2016 14:43:02	65525-1.RAW	2:43:02 PM	72.20			61.2	0.300	0.300	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP2	100	11/10/2016 14:47:11	65526-1.RAW	2:47:11 PM	2036.71	2		2025.7	9.928	992.805	ng/L	
Hg2600-2	DM2	SAM	1609620-01	20	11/10/2016 14:51:19	65527-1.RAW	2:51:19 PM	167.70	3		156.7	0.618	12.364	ng/L	
Hg2600-2	DM2	SAM	1609620-02	20	11/10/2016 14:55:27	65528-1.RAW	2:55:27 PM	249.25	3		238.2	1.019	20.377	ng/L	
Hg2600-2	DM2	SAM	1609620-03	20	11/10/2016 14:59:36	65529-1.RAW	2:59:36 PM	155.33	3		144.3	0.557	11.149	ng/L	
Hg2600-2	DM2	SAM	1609620-07	100	11/10/2016 15:03:44	65530-1.RAW	3:03:44 PM	1276.99	3		1266.0	6.189	618.895	ng/L	
Hg2600-2	DM2	SAM	1609620-08	100	11/10/2016 15:07:53	65531-1.RAW	3:07:53 PM	863.58	3		852.5	4.158	415.801	ng/L	
Hg2600-2	DM2	SAM	1609620-09	100	11/10/2016 15:12:01	65532-1.RAW	3:12:01 PM	765.08	3		754.0	3.674	367.411	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP1	20	11/10/2016 15:16:10	65533-1.RAW	3:16:10 PM	317.42	3		306.4	1.354	27.075	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/10/2016 15:20:18	65534-1.RAW	3:20:18 PM	949.40			938.4	4.610	4.610	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/10/2016 15:24:27	65535-1.RAW	3:24:27 PM	32.50			21.5	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	F611274-MS1	20	11/10/2016 15:28:35	65536-1.RAW	3:28:35 PM	1241.91	3		1230.9	5.895	117.910	ng/L	
Hg2600-2	DM2	SAM	F611274-MSD1	20	11/10/2016 15:32:43	65537-1.RAW	3:32:43 PM	1234.95	3		1223.9	5.861	117.226	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP2	20	11/10/2016 15:37:16	65538-1.RAW	3:37:16 PM	157.92	3		146.9	0.570	11.404	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/10/2016 15:41:24	65539-1.RAW	3:41:24 PM	931.84			920.8	4.524	4.524	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/10/2016 15:45:33	65540-1.RAW	3:45:33 PM	31.63			20.6	0.101	0.101	ng/L	

TotalMercury EPA1631  
 Operati DM  
 BlankSi 11.038  
 Calib Eqn: Conc = (Area-11.03  
 Run Date: #####  
 Blank SD: 2.847022414  
 Works: THG260  
 CalibFa 203.55  
 Status: QC Warnings:4/QC E  
 Run Time: 15:33:07  
 Blank RSD%: 25.79243936  
 Method #### R: 0.9996  
 R²: 0.9992  
 CF SD: 6.409000594  
 CF RSD%: 3.148548865  
 Descrip THG26002-161110-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.77					65426-1.RAW	7:43:20	359.88	Clean	OK	1
clean				0.00	0.01					65427-1.RAW	7:46:12	1.21	Clean	OK	1
ws				11.04	0.01					65428-1.RAW	7:50:20	12.29	Sample	OK	1
ws				11.04	0.00					65429-1.RAW	7:54:28	10.84	Sample	OK	1
ws				11.04	0.00					65430-1.RAW	7:58:37	11.72	Sample	OK	1
SEQ-IBL1	A1			0.00	0.05					65431-1.RAW	8:02:45	9.55	Sample	OK	1
SEQ-IBL2	A2			0.00	0.07					65432-1.RAW	8:06:54	14.32	Sample	OK	1
SEQ-IBL3	A3			0.00	0.05					65433-1.RAW	8:11:02	9.24	Sample	OK	1
SEQ-CAL1	A4			11.04	0.52			104.09		65434-1.RAW	8:15:11	116.97	Sample	OK	1
SEQ-CAL2	A5			11.04	0.99			99.25		65435-1.RAW	8:19:19	213.06	Sample	OK	1
SEQ-CAL3	A6			11.04	4.99			99.88		65436-1.RAW	8:23:27	1027.62	Sample	OK	1
SEQ-CAL4	A7			11.04	19.09			95.46		65437-1.RAW	8:27:36	3897.25	Sample	OK	1
SEQ-CAL5	A8			11.04	40.53			101.33		65438-1.RAW	8:31:44	8261.28	Sample	OK	1
SEQ-ICV1	A9			11.04	4.91			98.28		65439-1.RAW	8:35:54	1011.29	Sample	OK	1
F610509-BLK1	A10		20	11.04	6.35					65440-1.RAW	8:41:32	75.69	Sample	OK	1
F610509-BLK2	A11		20	11.04	2.43					65441-1.RAW	8:45:41	35.79	Sample	OK	1
F610509-BLK3	A12		20	11.04	1.48					65442-1.RAW	8:49:49	26.06	Sample	OK	1
F610509-BS1	A13		20	11.04	102.36					65443-1.RAW	8:53:57	1052.86	Sample	OK	1
F610509-BSD1	A14		20	11.04	104.05					65444-1.RAW	8:58:06	1070.02	Sample	OK	1
F610509-BS2	A15		500	11.04	2230.17					65445-1.RAW	9:02:14	918.96	Sample	OK	1
1610234-16	A16		100	11.04	116.84					65446-1.RAW	9:06:23	248.86	Sample	OK	1
1610234-17	A17		100	11.04	123.35					65447-1.RAW	9:10:31	262.12	Sample	OK	1
1610234-18	A18		100	11.04	160.08					65448-1.RAW	9:14:40	336.90	Sample	OK	1
1610234-19	A19		100	11.04	79.47					65449-1.RAW	9:18:48	172.80	Sample	OK	1
SEQ-CCV1	A20		1	11.04	4.77			95.42		65450-1.RAW	9:22:57	982.22	Sample	OK	1
SEQ-CCB1	A21		1	11.04	0.05			0.00		65451-1.RAW	9:27:05	20.52	Sample	OK	1
1610234-20	B1		100	11.04	120.94					65452-1.RAW	9:31:13	257.22	Sample	OK	1
1610235-01	B2		100	11.04	36.80					65453-1.RAW	9:35:22	85.94	Sample	OK	1
1610235-02	B3		100	11.04	50.42					65454-1.RAW	9:39:30	113.68	Sample	OK	1
1610235-03	B4		100	11.04	24.39					65455-1.RAW	9:43:39	60.69	Sample	OK	1
1610235-04	B5		100	11.04	59.46					65456-1.RAW	9:47:47	132.06	Sample	OK	1
1610235-05	B6		100	11.04	31.33					65457-1.RAW	9:51:55	74.80	Sample	OK	1
1610236-01	B7		100	11.04	91.48					65458-1.RAW	9:56:04	197.24	Sample	OK	1
1610236-02	B8		100	11.04	100.29					65459-1.RAW	10:00:12	215.19	Sample	OK	1
1610236-03	B9		20	11.04	104.83					65460-2.RAW	10:13:52	1077.96	Sample	OK	1
1610236-04	B10		20	11.04	94.92					65461-1.RAW	10:18:01	977.10	Sample	OK	1
SEQ-CCV2	B11		1	11.04	4.63			92.50		65462-1.RAW	10:22:09	952.48	Sample	OK	1
SEQ-CCB2	B12		1	11.04	0.06			0.00		65463-1.RAW	10:26:17	22.58	Sample	OK	1
1610236-05	B13		20	11.04	94.10					65464-1.RAW	10:30:26	968.77	Sample	OK	1
1610236-06	B14		20	11.04	114.00					65465-1.RAW	10:34:34	1171.28	Sample	OK	1
1610236-07	B15		20	11.04	73.86					65466-1.RAW	10:38:43	762.76	Sample	OK	1
1610236-08	B16		20	11.04	108.30					65467-1.RAW	10:42:51	1113.32	Sample	OK	1
1610236-09	B17		20	11.04	108.09					65468-1.RAW	10:46:59	1111.16	Sample	OK	1

1610236-10	B18	20	11.04	105.37		65469-1.RAW	10:51:08	1083.48	Sample	OK	1
1610234-19RE1	B19	20	11.04	69.68		65470-1.RAW	10:55:16	720.20	Sample	OK	1
1610235-01RE1	B20	20	11.04	30.97		65471-1.RAW	10:59:25	326.22	Sample	OK	1
1610235-02RE1	B21	20	11.04	40.62		65472-1.RAW	11:03:33	424.48	Sample	OK	1
1610235-03RE1	C1	20	11.04	20.71		65473-1.RAW	11:07:42	221.82	Sample	OK	1
SEQ-CCV3	C2	1	11.04	4.71	94.15	65474-1.RAW	11:11:50	969.26	Sample	OK	1
SEQ-CCB3	C3	1	11.04	0.11	0.00	65475-1.RAW	11:15:58	34.34	Sample	OK	1
1610235-04RE1	C4	20	11.04	51.26		65476-1.RAW	11:20:07	532.70	Sample	OK	1
1610235-05RE1	C5	20	11.04	28.09		65477-1.RAW	11:24:15	296.98	Sample	OK	1
1610236-01RE1	C6	20	11.04	79.49		65478-1.RAW	11:28:24	820.04	Sample	OK	1
1610236-02RE1	C7	20	11.04	89.41		65479-1.RAW	11:32:32	921.07	Sample	OK	1
F610509-DUP1	C8	100	11.04	107.49		65480-1.RAW	11:36:41	229.84	Sample	OK	1
F610509-MS1	C9	500	11.04	4564.59	4207.27	65481-1.RAW	11:40:49	1869.32	Sample	OK	1
F610509-MSD1	C10	500	11.04	4514.69		65482-1.RAW	11:44:57	1849.00	Sample	OK	1
F610509-MS2	C11	500	11.04	4736.03	104.86	65483-1.RAW	11:49:07	1939.11	Sample	OK	1
F610509-MSD2	C12	500	11.04	4865.44		65484-1.RAW	11:53:15	1991.80	Sample	OK	1
F610510-BLK1	C13	20	11.04	4.22		65485-1.RAW	11:57:24	54.01	Sample	OK	1
SEQ-CCV4	C14	1	11.04	4.61	92.17	65486-1.RAW	12:01:32	949.16	Sample	OK	1
SEQ-CCB4	C15	1	11.04	0.11	0.00	65487-1.RAW	12:05:40	33.79	Sample	OK	1
F610510-BLK2	C16	20	11.04	1.69		65488-1.RAW	12:09:49	28.24	Sample	OK	1
F610510-BLK3	C17	20	11.04	1.13		65489-1.RAW	12:13:58	22.57	Sample	OK	1
F610510-BS1	C18	20	11.04	96.48		65490-1.RAW	12:18:06	993.01	Sample	OK	1
F610510-BSD1	C19	20	11.04	104.86		65491-1.RAW	12:22:14	1078.26	Sample	OK	1
F610510-BS2	C20	500	11.04	2097.46		65492-1.RAW	12:26:23	864.93	Sample	OK	1
1610232-26RE1	C21	100	11.04	1032.39		65493-1.RAW	12:30:31	2112.51	Sample	OK	1
1610236-11	A1	20	11.04	98.88		65494-1.RAW	12:34:40	1017.46	Sample	OK	1
1610236-12	A2	20	11.04	97.29		65495-1.RAW	12:38:49	1001.21	Sample	OK	1
1610236-13	A3	20	11.04	97.12		65496-1.RAW	12:42:58	999.53	Sample	OK	1
1610236-14	A4	20	11.04	89.43		65497-1.RAW	12:47:06	921.27	Sample	OK	1
SEQ-CCV5	A5	1	11.04	4.68	93.56	65498-1.RAW	12:51:14	963.22	Sample	OK	1
SEQ-CCB5	A6	1	11.04	0.12	0.00	65499-1.RAW	12:55:23	35.11	Sample	OK	1
1610236-15	A7	20	11.04	123.01		65500-1.RAW	12:59:31	1263.04	Sample	OK	1
1610236-16	A8	20	11.04	91.16		65501-1.RAW	13:03:40	938.87	Sample	OK	1
1610236-17	A9	20	11.04	81.08		65502-1.RAW	13:07:48	836.21	Sample	OK	1
1610236-18	A10	20	11.04	121.24		65503-1.RAW	13:11:57	1244.98	Sample	OK	1
1610236-19	A11	20	11.04	101.59		65504-1.RAW	13:16:05	1045.03	Sample	OK	1
1610236-20	A12	20	11.04	86.11		65505-1.RAW	13:20:13	887.46	Sample	OK	1
1610238-01	A13	20	11.04	405.15		65506-1.RAW	13:24:22	4134.58	Sample	OK	1
1610238-02	A14	20	11.04	45.08		65507-1.RAW	13:28:30	469.89	Sample	OK	1
1610238-03	A15	20	11.04	4.21		65508-1.RAW	13:32:39	53.93	Sample	OK	1
1610238-04	A16	20	11.04	5.29		65509-1.RAW	13:36:47	64.85	Sample	OK	1
SEQ-CCV6	A17	1	11.04	4.54	90.84	65510-1.RAW	13:40:56	935.61	Sample	OK	1
SEQ-CCB6	A18	1	11.04	0.18	0.00	65511-1.RAW	13:45:04	48.10	Sample	OK	1
F610510-DUP1	A19	100	11.04	1337.14		65512-1.RAW	13:49:12	2732.85	Sample	OK	1
F610510-MS1	A20	500	11.04	5545.85	414.44	65513-1.RAW	13:53:21	2268.80	Sample	OK	1
F610510-MSD1	A21	500	11.04	5451.80		65514-1.RAW	13:57:29	2230.51	Sample	OK	1
F610510-MS2	B1	500	11.04	4257.84	78.07	65515-1.RAW	14:01:38	1744.44	Sample	OK	1
F610510-MSD2	B2	500	11.04	4340.56		65516-1.RAW	14:05:46	1778.12	Sample	OK	1

F611274-BLK1	B3	20	11.04	5.97		65517-1.RAW	14:09:54	71.75	Sample	OK	1
F611274-BLK2	B4	20	11.04	1.88		65518-1.RAW	14:14:03	30.21	Sample	OK	1
F611274-BLK3	B5	20	11.04	1.24		65519-1.RAW	14:18:11	23.61	Sample	OK	1
F611274-BS1	B6	20	11.04	374.24		65520-1.RAW	14:22:20	3819.97	Sample	OK	1
F611274-BSD1	B7	20	11.04	412.77		65521-1.RAW	14:26:28	4212.05	Sample	OK	1
SEQ-CCV7	B8	1	11.04	4.98	99.62	65522-1.RAW	14:30:37	1024.98	Sample	OK	1
SEQ-CCB7	B9	1	11.04	0.18	0.00	65523-1.RAW	14:34:45	47.48	Sample	OK	1
SEQ-LCV1	B10	1	11.04	0.60		65524-1.RAW	14:38:54	132.52	Sample	OK	1
SEQ-LCV2	B11	1	11.04	0.30		65525-1.RAW	14:43:02	72.20	Sample	OK	1
F610510-DUP2	B12	100	11.04	995.15		65526-1.RAW	14:47:11	2036.71	Sample	OK	1
1609620-01	B13	20	11.04	15.39		65527-1.RAW	14:51:19	167.70	Sample	OK	1
1609620-02	B14	20	11.04	23.41		65528-1.RAW	14:55:27	249.25	Sample	OK	1
1609620-03	B15	20	11.04	14.18		65529-1.RAW	14:59:36	155.33	Sample	OK	1
1609620-07	B16	100	11.04	621.92		65530-1.RAW	15:03:44	1276.99	Sample	OK	1
1609620-08	B17	100	11.04	418.83		65531-1.RAW	15:07:53	863.58	Sample	OK	1
1609620-09	B18	100	11.04	370.44		65532-1.RAW	15:12:01	765.08	Sample	OK	1
F611274-DUP1	B19	20	11.04	30.10		65533-1.RAW	15:16:10	317.42	Sample	OK	1
SEQ-CCV8	B20	1	11.04	4.61	92.20	65534-1.RAW	15:20:18	949.40	Sample	OK	1
SEQ-CCB8	B21	1	11.04	0.11	0.00	65535-1.RAW	15:24:27	32.50	Sample	OK	1
F611274-MS1	C1	20	11.04	120.94	10940.31	65536-1.RAW	15:28:35	1241.91	Sample	OK	1
F611274-MSD1	C2	20	11.04	120.25		65537-1.RAW	15:32:43	1234.95	Sample	OK	1
F611274-DUP2	C3	20	11.04	14.43		65538-1.RAW	15:37:16	157.92	Sample	OK	1
SEQ-CCV9	C4	1	11.04	4.52	90.47	65539-1.RAW	15:41:24	931.84	Sample	OK	1
SEQ-CCB9	C5	1	11.04	0.10	0.00	65540-1.RAW	15:45:33	31.63	Sample	OK	1

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10018-IBL1	QC	1			
6K10018-IBL2	QC	2			
6K10018-IBL3	QC	3			
6K10018-CAL1	QC	4	1605412		
6K10018-CAL2	QC	5	1605413		
6K10018-CAL3	QC	6	1605414		
6K10018-CAL4	QC	7	1605415		
6K10018-CAL5	QC	8	1605416		
6K10018-ICV1	QC	9	1605791		
F610509-BLK1	QC	10			
F610509-BLK2	QC	11			
F610509-BLK3	QC	12			
F610509-BS1	QC	13			
F610509-BSD1	QC	14			
F610509-BS2	QC	15			
1610234-16	Hg-CVAFS-T-7030	16			
1610234-17	Hg-CVAFS-T-7030	17			
1610234-18	Hg-CVAFS-T-7030	18			
1610234-19	Hg-CVAFS-T-7030	19			
6K10018-CCV1	QC	20	1605791		
6K10018-CCB1	QC	21			
1610234-20	Hg-CVAFS-T-7030	22			
1610235-01	Hg-CVAFS-T-7030	23			
1610235-02	Hg-CVAFS-T-7030	24			
1610235-03	Hg-CVAFS-T-7030	25			
1610235-04	Hg-CVAFS-T-7030	26			
1610235-05	Hg-CVAFS-T-7030	27			
1610236-01	Hg-CVAFS-T-7030	28			
1610236-02	Hg-CVAFS-T-7030	29			
1610236-03	Hg-CVAFS-T-7030	30			
1610236-04	Hg-CVAFS-T-7030	31			
6K10018-CCV2	QC	32	1605791		
6K10018-CCB2	QC	33			
1610236-05	Hg-CVAFS-T-7030	34			
1610236-06	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-07	Hg-CVAFS-T-7030	36			
1610236-08	Hg-CVAFS-T-7030	37			
1610236-09	Hg-CVAFS-T-7030	38			
1610236-10	Hg-CVAFS-T-7030	39			
1610234-19RE1	Hg-CVAFS-T-7030	40			Added 11/10/2016 by DM2
1610235-01RE1	Hg-CVAFS-T-7030	41			Added 11/10/2016 by DM2
1610235-02RE1	Hg-CVAFS-T-7030	42			Added 11/10/2016 by DM2
1610235-03RE1	Hg-CVAFS-T-7030	43			Added 11/10/2016 by DM2
6K10018-CCV3	QC	44	1605791		
6K10018-CCB3	QC	45			
1610235-04RE1	Hg-CVAFS-T-7030	46			Added 11/10/2016 by DM2
1610235-05RE1	Hg-CVAFS-T-7030	47			Added 11/10/2016 by DM2
1610236-01RE1	Hg-CVAFS-T-7030	48			Added 11/10/2016 by DM2
1610236-02RE1	Hg-CVAFS-T-7030	49			Added 11/10/2016 by DM2
F610509-DUP1	QC	50			
F610509-MS1	QC	51			
F610509-MSD1	QC	52			
F610509-MS2	QC	53			
F610509-MSD2	QC	54			
F610510-BLK1	QC	55			
6K10018-CCV4	QC	56	1605791		
6K10018-CCB4	QC	57			
F610510-BLK2	QC	58			
F610510-BLK3	QC	59			
F610510-BS1	QC	60			
F610510-BSD1	QC	61			
F610510-BS2	QC	62			
1610232-26RE1	Hg-CVAFS-T-7030	63			Re-extract added 11/2/2016 by RN
1610236-11	Hg-CVAFS-T-7030	64			
1610236-12	Hg-CVAFS-T-7030	65			
1610236-13	Hg-CVAFS-T-7030	66			
1610236-14	Hg-CVAFS-T-7030	67			
6K10018-CCV5	QC	68	1605791		
6K10018-CCB5	QC	69			
1610236-15	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 190 of 308

**ANALYSIS SEQUENCE**

**6K10018**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/10/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-16	Hg-CVAFS-T-7030	71			
1610236-17	Hg-CVAFS-T-7030	72			
1610236-18	Hg-CVAFS-T-7030	73			
1610236-19	Hg-CVAFS-T-7030	74			
1610236-20	Hg-CVAFS-T-7030	75			
1610238-01	Hg-CVAFS-T-7030	76			
1610238-02	Hg-CVAFS-T-7030	77			
1610238-03	Hg-CVAFS-T-7030	78			
1610238-04	Hg-CVAFS-T-7030	79			
6K10018-CCV6	QC	80	1605791		
6K10018-CCB6	QC	81			
F610510-DUP1	QC	82			
F610510-MS1	QC	83			
F610510-MSD1	QC	84			
F610510-MS2	QC	85			
F610510-MSD2	QC	86			
6K10018-CCV7	QC	87	1605791		
6K10018-CCB7	QC	88			
F610510-DUP2	QC	89			
6K10018-CCV8	QC	90	1605791		
6K10018-CCB8	QC	91			
6K10018-CCV9	QC	92	1605791		
6K10018-CCB9	QC	93			

Don Moran      11/10/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

# Failing Data Report - 6K10018

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. Pearson  
Analyst Reviewed By

11/10/16  
Date

Ry M. 11/20/16  
Peer Reviewed By Date



## ANALYSIS SEQUENCE

6K10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10017-IBL1	QC	1			
6K10017-IBL2	QC	2			
6K10017-IBL3	QC	3			
6K10017-CAL1	QC	4	1605412		
6K10017-CAL2	QC	5	1605413		
6K10017-CAL3	QC	6	1605414		
6K10017-CAL4	QC	7	1605415		
6K10017-CAL5	QC	8	1605416		
6K10017-ICV1	QC	9	1605791		
6K10017-CCV1	QC	10	1605791		
6K10017-CCB1	QC	11			
6K10017-CCV2	QC	12	1605791		
6K10017-CCB2	QC	13			
6K10017-CCV3	QC	14	1605791		
6K10017-CCB3	QC	15			
6K10017-CCV4	QC	16	1605791		
6K10017-CCB4	QC	17			
6K10017-CCV5	QC	18	1605791		
6K10017-CCB5	QC	19			
6K10017-CCV6	QC	20	1605791		
6K10017-CCB6	QC	21			
F611274-BLK1	QC	22			
F611274-BLK2	QC	23			
F611274-BLK3	QC	24			
F611274-BS1	QC	25			
F611274-BSD1	QC	26			
6K10017-CCV7	QC	27	1605791		
6K10017-CCB7	QC	28			
6K10017-LCV1	QC	29	1606488		
6K10017-LCV2	QC	30	1606489		
1609620-01	Hg-CVAFS-S-SSE-F6	31			
1609620-02	Hg-CVAFS-S-SSE-F6	32			
1609620-03	Hg-CVAFS-S-SSE-F6	33			
1609620-07	Hg-CVAFS-S-SSE-F6	34			
1609620-08	Hg-CVAFS-S-SSE-F6	35			

Due Date: 10/21/2016

Page 193 of 308

# ANALYSIS SEQUENCE

6K10017

**Instrument:** Hg2600-2

**Calibration ID:** UNASSIGNED

**Analyzed:** 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F6	36			
F611274-DUP1	QC	37			
6K10017-CCV8	QC	38	1605791		
6K10017-CCB8	QC	39			
F611274-MS1	QC	40			
F611274-MSD1	QC	41			
F611274-DUP2	QC	42			
6K10017-CCV9	QC	43	1605791		
6K10017-CCB9	QC	44			

Don Mason                      11/10/16  
 Samples Loaded By                      Date

Don Mason                      11/10/16  
 Data Processed By                      Date

**Failing Data Report - 6K10017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F611274-DUP1	Hg-CVAFS-S-SSE-F6	61.49	22.7	25.12	25.12		ng/g				84.0	25.00	PASS-OVER	FAIL-DUP	QR. 07

Don Mason                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      11/21/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F611274

**Euofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion**

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					
F611274-BLK2	Blank	0.25	500					
F611274-BLK3	Blank	0.25	500					
F611274-BS1	LCS	0.25	500	1605712	200			
F611274-BSD1	LCS Dup	0.25	500	1605712	200			
F611274-DUP1	Duplicate [1609620-03]	0.256	500					
F611274-DUP2	Duplicate [1609620-03]	0.258	500					
F611274-MS1	Matrix Spike [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL
F611274-MSD1	Matrix Spike Dup [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605349	3:1 HNO3/HF	12-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606529	5% BrCl	19-Apr-17 00:00

PREPARATION BENCH SHEET

F611274

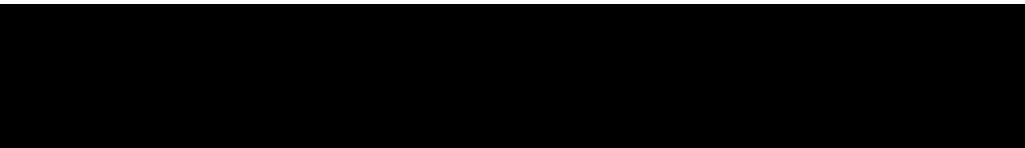
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		
1609620-07	Hg0	0.263	500	-	-	-		
1609620-08	HgS	0.256	500	-	-	-		
1609620-09	Hg2Cl2	0.263	500	-	-	-		



**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					
F610510-BLK2	Blank	0.25	20					
F610510-BLK3	Blank	0.25	20					
F610510-BS1	Blank Spike	0.25	20	1605270	20			
F610510-BS2	DORM-4	0.1255	20	1605470	126			
F610510-BSD1	Blank Spike	0.25	20	1605270	20			
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					
F610510-DUP2	Duplicate [1610232-26RE1]	0.2515	20					
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016	
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-		
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-		
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-		
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-		
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**



**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					
F610509-BLK2	Blank	0.25	20					
F610509-BLK3	Blank	0.25	20					
F610509-BS1	Blank Spike	0.25	20	1605270	20			
F610509-BS2	DORM-4	0.1256	20	1605470	126			
F610509-BSD1	Blank Spike	0.25	20	1605270	20			
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-		
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-		
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-		
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-		
1610234-19RE1	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-		
1610235-05RE1	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-		
1610236-01RE1	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-		

Page 202 of 308

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610509

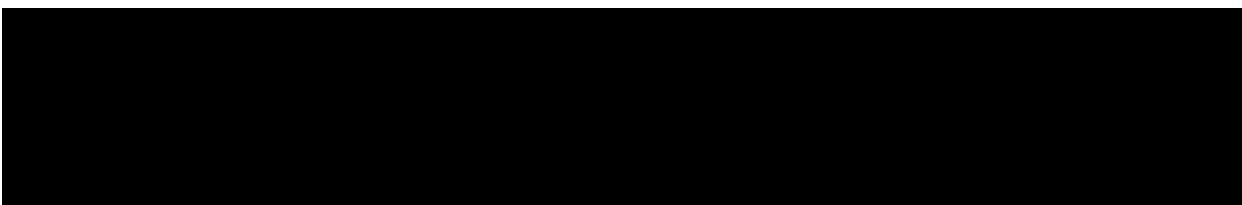
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

1610236-02REI	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-		
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-		
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-		
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-		
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-		
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-		
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-		
1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-		



PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F611274

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					20X
F611274-BLK2	Blank	0.25	500					20X
F611274-BLK3	Blank	0.25	500					20X
F611274-BS1	LCS	0.25	500	1605712	200			20X
F611274-BSD1	LCS Dup	0.25	500	1605712	200			20X
F611274-DUP1	Duplicate [1609620-03]	0.256	500					20X
F611274-MS1	Matrix Spike 1609620.02	0.25	500	1605272	25			20X
F611274-MSD1	Matrix Spike Dup 1609620.02	0.25	500	1605272	25			20X

Standard ID(s): 1605712  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 03-Apr-17 00:00

Reagent ID(s): 1603399, 1605349, 1606137, 1606529  
 Description: Boiling Chips for AFS prep, 3:1 HNO3/HF, Omnitrace Hydrochloric Acid, 5% BrCl  
 Expiration: 01-Jun-17 00:00, 12-Mar-17 00:00, 13-Oct-19 00:00, 19-Apr-17 00:00

DUP2 - 20X

Source 1609620.03

1602941

1605636

1605635

1606370

PREPARATION BENCH SHEET

200.2  
11/10/16 DM

F611274

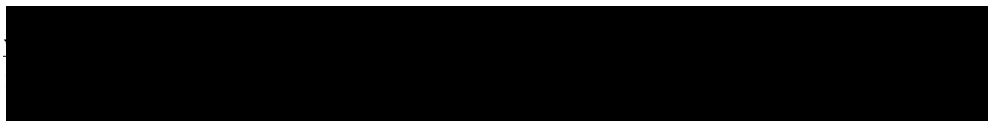
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		20X
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		20X
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		20X
1609620-07	Hg0	0.263	500	-	-	-		100X
1609620-08	HgS	0.256	500	-	-	-		100X
1609620-09	Hg2Cl2	0.263	500	-	-	-		100X



# Oven Bomb Digestions

Lab Tech(s): AMB Spiked By: AMB TM Batch #: N/A Hg Batch #: F611274  
 Balance #: 19 for blanks Oven SN: OVN-0202 Therm. SN: 2040514271  
 Temp. (°C): 128.8 (w/o CF) 128.8 (w/ CF) Date In: 11/8/16 Time In: 1900  
 Date Out: 11/9/16 Time Out: 0700 Final Vol. (mL): 40

Spike Name	Volume (µL)	LIMS #	Combined LIMS #
Thg-1000mg	200	1605712	
<del>AMB 11-7-16</del>			

Pipette / Dispenser MW11619 Cal Date  
~~AW100610 AMB 11-7-16 11-7-16~~  
0842293 11-01-16  
NU11049 11-7-16  
02Z159 11-4-16  
09M67809 11-9-16 8-23-16  
~~02K27494 AMB 8-3-16~~  
AMB 11-9-16

**EFGS-111 130±5°C 12 hours**  
 (below applies to entire batch)  
 4 mL split removed and 5% BrCl added?   
 LIMS #: 160529  
 Added 25 mL of HF/HNO<sub>3</sub> solution?   
 LIMS #: 1605349  
 Added 3 mL conc. HCl?   
 LIMS #: 1606137

**EFGS-084 130±5°C 18 hours**  
 (below applies to entire batch)  
 Added 10 mL conc. HCl?   
 LIMS #: AMB 11-7-16  
 Added 7 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Boil Down	Step 1	25 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:
	Step 2	25 mL conc. HNO <sub>3</sub> added? <u>AMB 11-7-16</u> <input type="checkbox"/> LIMS #:
	Step 3	5 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:

**EFGS-141 160±5°C 18 hours**  
 (below applies to entire batch)  
 Added 7.5 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Splice witness: PL 11/7/16

#	Sample/ Batch ID	Bomb #	Sample (g)	Notes
1	F611274-BLK1	N282	0.2865	
2	F611274-BLK2	D39	0.2589	
3	F611274-BLK3	N122	0.2681	
4	F611274-BS1	N29	0.2963	
5	F611274-BSD1	A63	0.2720	
6	F611274-DUPI	N27	0.256	source: 1609620-03
7	1609620-01	N94	0.260	
8	1609620-02	TM089	0.258	
9	1609620-03	N152	0.258	
10	1609620-07	N234	0.263	
11	1609620-08	N106	0.256	
12	1609620-09	TM097	0.263	

Additional Comments:  
 Boiling chips: 1603399 Glass vials: 00064588  
 - SSE FG -  
 Centrifuge tubes: 1252617 Pink Tape  
0026

PREPARATION BENCH SHEET

2600-2

F610510

11/10/16 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					20X
F610510-BLK2	Blank	0.25	20					20X
F610510-BLK3	Blank	0.25	20					20X
F610510-BS1	Blank Spike	0.25	20	1605270	20			20X
F610510-BS2	DORM-4	0.1255	20	1605470	126			500X
F610510-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					100X
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			500X
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			500X
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			500X
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			500X

Standard ID(s): Description:  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): Description:  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606500 5% BrCl

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - AD 100X  
 SOURCE 1610232-26RE1

1602941  
 1605636  
 1605635  
 1606370

PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F610510

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016 t	100X
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-	20X	
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-	20X	
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-	20X	
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-	20X	
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		20X
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		20X
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		20X
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		20X
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		20X
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	20X
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		20X
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		20X
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		20X
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		20X



**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Technician: Dwyer Batch#: F610510 Date: 11/8/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:35 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:35 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11609 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: 022159  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: G.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 type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F610510 Blank1	0.2911	23	1610238-01	0.2917	DOM-4 B50 1605470
2	F610510 Blank2	0.2551	24	1610238-02	0.2941	
3	F610510 Blank3	0.2916	25	1610238-03	0.2869	
4	F610510 B51	0.2607	26	1610238-04	0.2985	
5	F610510 B501	0.2518	27	1610238		<b>Comments</b> B51 B501 = 100 µg/mL = 20 µL 1605270 Dup1 MS1 MS01 = 1610232-26 w/ 11/8/16-26 MS2 MS02 1610236-20 = MS02 = 0.2963 g 11/8/16 1610236-15 = 0.2885 g 11/8/16
6	F610510 B52	0.1255	28			
7	F610510 Dup	0.2701	29			
8	F610510 MS1	0.2835	30			
9	F610510 MS01	0.2696	31			
10	F610510 MS2	0.2814	32			
11	F610510 MS02	0.2703	33			
12	1610232-26 RZ1	0.2515	34			
13	1610236-11	0.2990	35			
14	1610236-12	0.2876	36			
15	1610236-13	0.2792	37			
16	1610236-14	0.2611	38			
17	1610236-15	0.2885	39			
18	1610236-16	0.2870	40			
19	1610236-17	0.2754	41			
20	1610236-18	0.2880	42			
21	1610236-19	0.2700	43			
22	1610236-20	0.2571	44			

Reviewed  
 11/9/16  
 DM

2600-2

11/10/16 DM

### PREPARATION BENCH SHEET

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					20X
F610509-BLK2	Blank	0.25	20					20X
F610509-BLK3	Blank	0.25	20					20X
F610509-BS1	Blank Spike	0.25	20	1605270	20			20X
F610509-BS2	DORM-4	0.1256	20	1605470	126			500X
F610509-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					100X
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			500X
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			500X
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			500X
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			500X

Standard ID(s):  
 1605270  
 1605470  
 1605712

Description:  
 THg 100ng/mL Primary Spiking Standard  
 DORM-4  
 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s):  
 1603399  
 1606221  
 1606500

Description:  
 Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

KAC37D

1602941

K0503L

1605035

PREPARATION BENCH SHEET

200.2

11/10/16 DM

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-	100x	
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-	100x	
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-	100x	
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	100x → 20x	
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-	100x	
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	100x → 20x	
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	100x → 20x	
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	100x → 20x	
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	100x → 20x	
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	100x → 20x	
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	100x → 20x	
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	100x → 20x	
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-	100x 20x	
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-	100x 20x	
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-	100x 20x	
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-	100x 20x	
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-	100x 20x	
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-	100x 20x	
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-	100x 20x	
							20x	

Page 212 of 308

Date: 11/2/2016

PREPARATION BENCH SHEET

2600-2

11/10/16 dm

F610509

Eurofins Frontier Global Sciences, Inc.

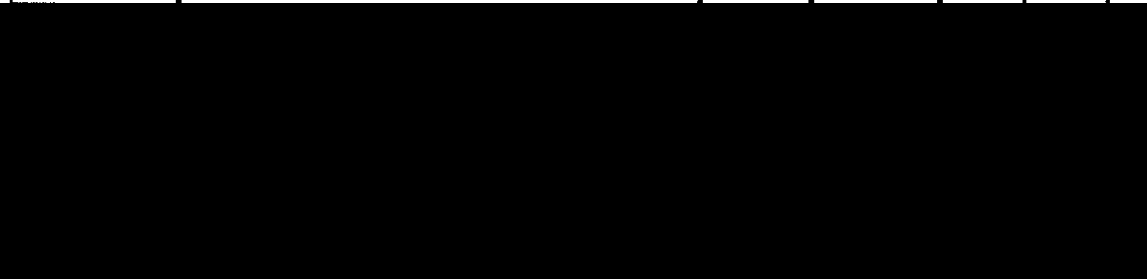
Matrix: Tissue

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

Prepared: 11/8/2016

1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-	<del>100X</del>	
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20X



Technician: DW Batch#: F610509 Date: 11-8-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:30 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:30 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU 11619 Calibration Date: 11-7-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: Dispenser # 022159 ATYEX  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: 9, 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	F610509 Blank1	0.2510	23	1610236-02	0.2886	B52 DORU-4
2	F610509 Blank2	0.2913	24	1610236-03	0.2789	1605470
3	F610509 Blank3	0.2618	25	1610236-04	0.2873	
4	F610509 B51	0.2762	26	1610236-05	0.2790	
5	F610509 B501	0.2547	27	1610236-06	0.2901	Comments
6	F610509 B52	0.1256	28	1610236-07	0.2780	B51 B501
7	F610509 Dup1	0.2738	29	1610236-08	0.2623	= 100% Hg
8	F610509 MS1	0.2948	30	1610236-09	0.2976	= 20% Hg
9	F610509 MS01	0.2911	31	1610236-10	0.2960	1605270
10	F610509 MS2	0.2952	32			Dup1 MS1/MS01
11	F610509 MS02	0.2982	33			sample
12	1610234-16	0.2831	34			1610234-16
13	1610234-17	0.2794	35			MS2 MS02
14	1610234-18	0.2811	36			= 1610236-03
15	1610234-19	0.2681	37			11/8/16 DW
16	1610234-20	0.2789	38			1610235-04
17	1610235-21	0.2894	39			= 0.3006 g
18	1610235-02	0.3024	40			11/8/16 DW
19	1610235-03	0.2996	41			1610236-02
20	1610235-04	0.3006	42			= 0.2886 g
21	1610235-05	0.2708	43			
22	1610236-01	0.2786	44			

Reviewed  
 11/9/16 DM

**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>6K10018, 6K10017</u>
Reviewer: <u><i>[Signature]</i></u>	Dataset ID(s): <u>THG26002-161110-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F611274, F6105010, F610509</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 checked="" 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: RA

- |   |  |  |                                     |
|---|--|--|-------------------------------------|
| 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)

Analyst:	DON MORAN	Sequence(s) #:	6K10018, 6K10017
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26002-161110-1
Date:	11/10/2016	WO (s) #:	VARIOUS
Batch #(s):	F611274, F6105010, F610509		0

Analyst Initials DM

Reviewer Initials A

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 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>F611274-DUP1 FAILED. HIGH RPD</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 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 type="checkbox"/>            |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments:  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments:  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |



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

Analyst:	DON MORAN	Sequence(s) #:	6K10018, 6K10017
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26002-161110-1
Date:	11/10/2016	WO (s) #:	VARIOUS
Batch #(s):	F611274, F6105010, F610509		0

Analyst Initials DM                      Reviewer Initials AK

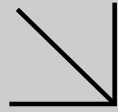
- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 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   |   |
| 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 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\IDOCs**
- |   |            |  |   |                             |                                     |
|---|------------|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____                | 12/16/2015 | _____ 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: _____                              | 7/8/2016   | _____ LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 7/8/2016   | _____ LOQ within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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



Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



## WORK ORDER NUMBER: 16-11-2556

*The difference is service*



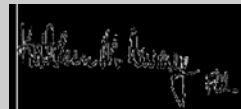
AIR | SOIL | WATER | MARINE CHEMISTRY

### Analytical Report For

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610232

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/19/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610232  
Work Order Number: 16-11-2556

1	16-11-2556 Level IV Case Narrative. . . . .	3
2	Work Order Narrative. . . . .	6
3	Sample Summary. . . . .	7
4	Client Sample Data. . . . .	8
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	8
5	Quality Control Sample Data. . . . .	14
	5.1 Sample Duplicate. . . . .	14
6	Glossary of Terms and Qualifiers. . . . .	17
7	Chain-of-Custody/Sample Receipt Form. . . . .	18
8	16-11-2556 Level IV Data Package. . . . .	29

## Case Narrative

Client Project Name: 1610232  
Work Order Number: 16-11-2556

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 42 tissue samples on November 30, 2016. A total of 42 containers were received in good condition at a temperature of -3.6°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
ES-13_092116_RAS_WB_01	16-11-2556-1	9/21/2016 12:04:00 PM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_01	16-11-2556-2	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_02	16-11-2556-3	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_03	16-11-2556-4	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_04	16-11-2556-5	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_05	16-11-2556-6	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_06	16-11-2556-7	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_07	16-11-2556-8	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_08	16-11-2556-9	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_09	16-11-2556-10	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_10	16-11-2556-11	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_11	16-11-2556-12	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_12	16-11-2556-13	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_13	16-11-2556-14	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_14	16-11-2556-15	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_15	16-11-2556-16	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_16	16-11-2556-17	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_17	16-11-2556-18	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_18	16-11-2556-19	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_19	16-11-2556-20	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
ES-FP_092716_RAS_WB_20	16-11-2556-21	9/27/2016 11:30:00 AM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_01	16-11-2556-22	9/21/2016 13:34:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_02	16-11-2556-23	9/21/2016 13:34:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_03	16-11-2556-24	9/21/2016 13:34:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_04	16-11-2556-25	9/21/2016 13:34:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_05	16-11-2556-26	9/21/2016 13:34:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_06	16-11-2556-27	9/21/2016 13:34:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_07	16-11-2556-28	9/21/2016 13:34:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_08	16-11-2556-29	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM

## Case Narrative

Client Project Name: 1610232  
Work Order Number: 16-11-2556

OB-01_092116_RAS_WB_09	16-11-2556-30	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_10	16-11-2556-31	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_11	16-11-2556-32	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_12	16-11-2556-33	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_13	16-11-2556-34	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_14	16-11-2556-35	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_15	16-11-2556-36	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_16	16-11-2556-37	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_17	16-11-2556-38	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_18	16-11-2556-39	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_19	16-11-2556-40	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-01_092116_RAS_WB_20	16-11-2556-41	9/21/2016 12:54:00 PM	11/30/2016 11:10:00 PM
OB-05_092116_RAS_WB_01	16-11-2556-42	9/21/2016 15:00:00 PM	11/30/2016 11:10:00 PM

### **DATA SUMMARY:**

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -42 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/07/16 and 12/09/16 in batch #s 161207B27 / 161207D27, 161209B02 / 161209D02, and 161209B03 / 161209D03.

### **Sample and QC:**

#### **Batch 161207B27 / 161207D27 (associated with samples 41-42):**

Sample -41 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

## Case Narrative

---

Client Project Name: 1610232  
Work Order Number: 16-11-2556

Batch 161209B02 / 161209D02 (associated with samples 1-20):

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

Batch 161209B03 / 161209D03 (associated with samples 21-40):

Sample -22 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/30/16. They were assigned to Work Order 16-11-2556.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2556
11720 North Creek Parkway North, Suite 4	Project Name:	1610232
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/30/16 11:10
	Number of Containers:	42

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
ES-13_092116_RAS_WB_01	16-11-2556-1	09/21/16 12:04	1	Tissue
ES-FP_092716_RAS_WB_01	16-11-2556-2	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_02	16-11-2556-3	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_03	16-11-2556-4	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_04	16-11-2556-5	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_05	16-11-2556-6	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_06	16-11-2556-7	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_07	16-11-2556-8	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_08	16-11-2556-9	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_09	16-11-2556-10	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_10	16-11-2556-11	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_11	16-11-2556-12	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_12	16-11-2556-13	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_13	16-11-2556-14	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_14	16-11-2556-15	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_15	16-11-2556-16	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_16	16-11-2556-17	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_17	16-11-2556-18	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_18	16-11-2556-19	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_19	16-11-2556-20	09/27/16 11:30	1	Tissue
ES-FP_092716_RAS_WB_20	16-11-2556-21	09/27/16 11:30	1	Tissue
OB-01_092116_RAS_WB_01	16-11-2556-22	09/21/16 13:34	1	Tissue
OB-01_092116_RAS_WB_02	16-11-2556-23	09/21/16 13:34	1	Tissue
OB-01_092116_RAS_WB_03	16-11-2556-24	09/21/16 13:34	1	Tissue
OB-01_092116_RAS_WB_04	16-11-2556-25	09/21/16 13:34	1	Tissue
OB-01_092116_RAS_WB_05	16-11-2556-26	09/21/16 13:34	1	Tissue
OB-01_092116_RAS_WB_06	16-11-2556-27	09/21/16 13:34	1	Tissue
OB-01_092116_RAS_WB_07	16-11-2556-28	09/21/16 13:34	1	Tissue
OB-01_092116_RAS_WB_08	16-11-2556-29	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_09	16-11-2556-30	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_10	16-11-2556-31	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_11	16-11-2556-32	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_12	16-11-2556-33	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_13	16-11-2556-34	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_14	16-11-2556-35	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_15	16-11-2556-36	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_16	16-11-2556-37	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_17	16-11-2556-38	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_18	16-11-2556-39	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_19	16-11-2556-40	09/21/16 12:54	1	Tissue
OB-01_092116_RAS_WB_20	16-11-2556-41	09/21/16 12:54	1	Tissue
OB-05_092116_RAS_WB_01	16-11-2556-42	09/21/16 15:00	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610232

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-13_092116_RAS_WB_01	16-11-2556-1-A	09/21/16 12:04	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		8.0	0.10		1.00		
ES-FP_092716_RAS_WB_01	16-11-2556-2-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		8.0	0.10		1.00		
ES-FP_092716_RAS_WB_02	16-11-2556-3-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		9.5	0.10		1.00		
ES-FP_092716_RAS_WB_03	16-11-2556-4-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		7.9	0.10		1.00		
ES-FP_092716_RAS_WB_04	16-11-2556-5-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		9.3	0.10		1.00		
ES-FP_092716_RAS_WB_05	16-11-2556-6-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		7.1	0.10		1.00		
ES-FP_092716_RAS_WB_06	16-11-2556-7-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.0	0.10		1.00		
ES-FP_092716_RAS_WB_07	16-11-2556-8-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.5	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610232

Page 2 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-FP_092716_RAS_WB_08	16-11-2556-9-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.8	0.10		1.00		
ES-FP_092716_RAS_WB_09	16-11-2556-10-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		9.0	0.10		1.00		
ES-FP_092716_RAS_WB_10	16-11-2556-11-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		7.7	0.10		1.00		
ES-FP_092716_RAS_WB_11	16-11-2556-12-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.0	0.10		1.00		
ES-FP_092716_RAS_WB_12	16-11-2556-13-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.5	0.10		1.00		
ES-FP_092716_RAS_WB_13	16-11-2556-14-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.3	0.10		1.00		
ES-FP_092716_RAS_WB_14	16-11-2556-15-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
ES-FP_092716_RAS_WB_15	16-11-2556-16-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.2	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610232

Page 3 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-FP_092716_RAS_WB_16	16-11-2556-17-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.3	0.10		1.00		
ES-FP_092716_RAS_WB_17	16-11-2556-18-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.2	0.10		1.00		
ES-FP_092716_RAS_WB_18	16-11-2556-19-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.3	0.10		1.00		
ES-FP_092716_RAS_WB_19	16-11-2556-20-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.9	0.10		1.00		
ES-FP_092716_RAS_WB_20	16-11-2556-21-A	09/27/16 11:30	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.7	0.10		1.00		
OB-01_092116_RAS_WB_01	16-11-2556-22-A	09/21/16 13:34	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.3	0.10		1.00		
OB-01_092116_RAS_WB_02	16-11-2556-23-A	09/21/16 13:34	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		8.2	0.10		1.00		
OB-01_092116_RAS_WB_03	16-11-2556-24-A	09/21/16 13:34	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		6.0	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
 Units: %

Project: 1610232

Page 4 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-01_092116_RAS_WB_04	16-11-2556-25-A	09/21/16 13:34	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.1	0.10		1.00		
OB-01_092116_RAS_WB_05	16-11-2556-26-A	09/21/16 13:34	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		10	0.10		1.00		
OB-01_092116_RAS_WB_06	16-11-2556-27-A	09/21/16 13:34	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.8	0.10		1.00		
OB-01_092116_RAS_WB_07	16-11-2556-28-A	09/21/16 13:34	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.5	0.10		1.00		
OB-01_092116_RAS_WB_08	16-11-2556-29-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		
OB-01_092116_RAS_WB_09	16-11-2556-30-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.0	0.10		1.00		
OB-01_092116_RAS_WB_10	16-11-2556-31-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.2	0.10		1.00		
OB-01_092116_RAS_WB_11	16-11-2556-32-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.2	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610232

Page 5 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-01_092116_RAS_WB_12	16-11-2556-33-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.4	0.10		1.00		
OB-01_092116_RAS_WB_13	16-11-2556-34-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.3	0.10		1.00		
OB-01_092116_RAS_WB_14	16-11-2556-35-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.3	0.10		1.00		
OB-01_092116_RAS_WB_15	16-11-2556-36-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		6.1	0.10		1.00		
OB-01_092116_RAS_WB_16	16-11-2556-37-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		9.8	0.10		1.00		
OB-01_092116_RAS_WB_17	16-11-2556-38-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.7	0.10		1.00		
OB-01_092116_RAS_WB_18	16-11-2556-39-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.2	0.10		1.00		
OB-01_092116_RAS_WB_19	16-11-2556-40-A	09/21/16 12:54	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.7	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/30/16  
Work Order: 16-11-2556  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1610232

Page 6 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OB-01_092116_RAS_WB_20	16-11-2556-41-A	09/21/16 12:54	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.1	0.10		1.00		
OB-05_092116_RAS_WB_01	16-11-2556-42-A	09/21/16 15:00	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.7	0.10		1.00		
Method Blank	099-14-104-152	N/A	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		
Method Blank	099-14-104-157	N/A	Tissue	N/A	12/09/16	12/09/16 00:00	161209B02
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		
Method Blank	099-14-104-158	N/A	Tissue	N/A	12/09/16	12/09/16 00:00	161209B03
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610232

Page 1 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OB-01_092116_RAS_WB_20	Sample	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27
OB-01_092116_RAS_WB_20	Sample Duplicate	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	3.120	2.960	5	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits





Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610232

Page 2 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
ES-13_092116_RAS_WB_01	Sample	Tissue	N/A	12/09/16 00:00	12/09/16 00:00	161209D02
ES-13_092116_RAS_WB_01	Sample Duplicate	Tissue	N/A	12/09/16 00:00	12/09/16 00:00	161209D02

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	7.950	7.350	8	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2556  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610232

Page 3 of 3

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
OB-01_092116_RAS_WB_01	Sample	Tissue	N/A	12/09/16 00:00	12/09/16 00:00	161209D03
OB-01_092116_RAS_WB_01	Sample Duplicate	Tissue	N/A	12/09/16 00:00	12/09/16 00:00	161209D03

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	3.260	3.380	4	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-2556

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610232

16-11-2556

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Due: 02-Nov-16 19:00

Comments

1 Sample ID: 1019 ES-13\_092116\_RAS\_WB\_01

EFGS Lab ID: 1610232-01

Sampled: 21-Sep-16 12:04

Misc. Subcontract 1

Lipids Analysis

*Containers Supplied:*

34\_Plastic Bag (B)

2 Sample ID: 1041 ES-FP\_092716\_RAS\_WB\_01

EFGS Lab ID: 1610232-02  
MS/MSD

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

*Containers Supplied:*

34\_Plastic Bag (B)

3 Sample ID: 1042 ES-FP\_092716\_RAS\_WB\_02

EFGS Lab ID: 1610232-03

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

*Containers Supplied:*

34\_Plastic Bag (B)

4 Sample ID: 1043 ES-FP\_092716\_RAS\_WB\_03

EFGS Lab ID: 1610232-04


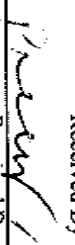
Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

*Containers Supplied:*

34\_Plastic Bag (B)

Released By		Date	11/20/16	Received By		Date	11/30/16	1110
Released By	Connor Fotsis	Date	11/20/16	Received By	Praveen	Date	11/30/16	1110

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610232

2556

Analysis

Due: 02-Nov-16 19:00

Comments

5 Sample ID: 1044 ES-FP\_092716\_RAS\_WB\_04

EFGS Lab ID: 1610232-05

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

6 Sample ID: 1045 ES-FP\_092716\_RAS\_WB\_05

EFGS Lab ID: 1610232-06

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

7 Sample ID: 1046 ES-FP\_092716\_RAS\_WB\_06

EFGS Lab ID: 1610232-07

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

8 Sample ID: 1047 ES-FP\_092716\_RAS\_WB\_07

EFGS Lab ID: 1610232-08

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

9 Sample ID: 1048 ES-FP\_092716\_RAS\_WB\_08

EFGS Lab ID: 1610232-09

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

10 Sample ID: 1049 ES-FP\_092716\_RAS\_WB\_09

EFGS Lab ID: 1610232-10

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

11/29/16

Received By

Date

11/29/16

11/30/16

11/30/16

11/30/16

11/30/16

11/10

Released By

Date

Received By

Date

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610232

2556

Analysis

Due: 02-Nov-16 19:00

Comments

1 / Sample ID: 1050 ES-FP\_092716\_RAS\_WB\_10

EFGS Lab ID: 1610232-11

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

1 / Sample ID: 1051 ES-FP\_092716\_RAS\_WB\_11

EFGS Lab ID: 1610232-12

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

1 / Sample ID: 1052 ES-FP\_092716\_RAS\_WB\_12

EFGS Lab ID: 1610232-13

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

1 / Sample ID: 1053 ES-FP\_092716\_RAS\_WB\_13

EFGS Lab ID: 1610232-14

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

1 / Sample ID: 1054 ES-FP\_092716\_RAS\_WB\_14

EFGS Lab ID: 1610232-15

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

1 / Sample ID: 1055 ES-FP\_092716\_RAS\_WB\_15

EFGS Lab ID: 1610232-16



Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By:  Date: 11/29/16 Received By:  Date: 11/30/16

Released By: *Colinse Foot* Date: 11/29/16 Received By: *Presley* Date: 11/30/16

(415)

**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1610232

2556

Analysis

Due: 02-Nov-16 19:00

Comments

17 Sample ID: 1056 ES-FP\_092716\_RAS\_WB\_16

EFGS Lab ID: 1610232-17

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

18 Sample ID: 1057 ES-FP\_092716\_RAS\_WB\_17

EFGS Lab ID: 1610232-18

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

19 Sample ID: 1058 ES-FP\_092716\_RAS\_WB\_18

EFGS Lab ID: 1610232-19

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

20 Sample ID: 1059 ES-FP\_092716\_RAS\_WB\_19

EFGS Lab ID: 1610232-20

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

21 Sample ID: 1060 ES-FP\_092716\_RAS\_WB\_20

EFGS Lab ID: 1610232-21

Sampled: 27-Sep-16 11:30

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

22 Sample ID: 1063 OB-01\_092116\_RAS\_WB\_01

EFGS Lab ID: 1610232-22

Sampled: 21-Sep-16 13:34

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

Date

Received By

Date

Released By

Date

Received By

Date

9551

FRONT DESK  
(425) 686-1996  
FRONTIER GLOBAL SCIENCES  
11720 N. CREEK PKWY N.  
BOTHELL WA 98011-9244


27 LBS

DWGT: 24,13,14

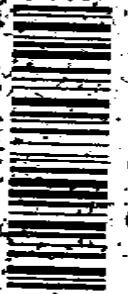
1 OF 1

SHIP TO:

SAMPLE RECEIVING  
(714) 895-5494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841-1427

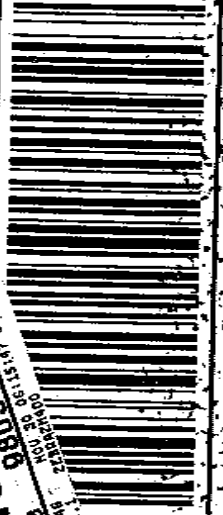


**CA 927 9-09**



**UPS NEXT DAY AIR 1**

TRACKING #: 1Z 86W 950 01 4918 9806




BILLING: P/P

Dept No.: OVERHEAD  
REF 2: SUBCONTRAI

5302 19151130  
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 9001-10211  
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 11.11

GARDEN GROVE CA 92841-1427  
 7440 LINCOLN WAY  
 EUROFINS CALSCIENCE


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SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610232

2556

Analysis

Due: 02-Nov-16 19:00

Comments

23 Sample ID: 1064 OB-01\_092116\_RAS\_WB\_02

EFGS Lab ID: 1610232-23

Sampled: 21-Sep-16 13:34

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

24 Sample ID: 1065 OB-01\_092116\_RAS\_WB\_03

EFGS Lab ID: 1610232-24

Sampled: 21-Sep-16 13:34

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

25 Sample ID: 1066 OB-01\_092116\_RAS\_WB\_04

EFGS Lab ID: 1610232-25

Sampled: 21-Sep-16 13:34

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

26 Sample ID: 1067 OB-01\_092116\_RAS\_WB\_05

EFGS Lab ID: 1610232-26  
MS/MSD

Sampled: 21-Sep-16 13:34

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

27 Sample ID: 1068 OB-01\_092116\_RAS\_WB\_06

EFGS Lab ID: 1610232-27

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

28 Sample ID: 1069 OB-01\_092116\_RAS\_WB\_07

EFGS Lab ID: 1610232-28

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

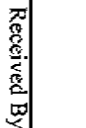
Lipids Analysis

Containers Supplied:

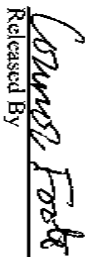
34 Plastic Bag (B)

Released By: 

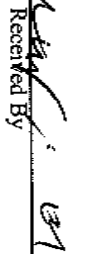
Date: 11/29/16

Received By: 

Date: 11/30/16 1110

Released By: 

Date: 11/29/16

Received By: 

Date: 11/30/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610232

2556

Analysis

Due: 02-Nov-16 19:00

Comments

29 Sample ID: 1070 OB-01\_092116\_RAS\_WB\_08

EFGS Lab ID: 1610232-29

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

30 Sample ID: 1071 OB-01\_092116\_RAS\_WB\_09

EFGS Lab ID: 1610232-30

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

31 Sample ID: 1072 OB-01\_092116\_RAS\_WB\_10

EFGS Lab ID: 1610232-31

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

32 Sample ID: 1073 OB-01\_092116\_RAS\_WB\_11

EFGS Lab ID: 1610232-32

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

33 Sample ID: 1074 OB-01\_092116\_RAS\_WB\_12

EFGS Lab ID: 1610232-33

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

34 Sample ID: 1075 OB-01\_092116\_RAS\_WB\_13

EFGS Lab ID: 1610232-34

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

Released By

11/29/16

Received By

Date

Loana Ede

11/29/16

Pr...

11/30/16

1110

Released By

(WFS)

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610232

2556

Analysis

Due: 02-Nov-16 19:00

Comments

35 Sample ID: 1076 OB-01\_092116\_RAS\_WB\_14

EFGS Lab ID: 1610232-35

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

36 Sample ID: 1077 OB-01\_092116\_RAS\_WB\_15

EFGS Lab ID: 1610232-36

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

37 Sample ID: 1078 OB-01\_092116\_RAS\_WB\_16

EFGS Lab ID: 1610232-37

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

38 Sample ID: 1079 OB-01\_092116\_RAS\_WB\_17

EFGS Lab ID: 1610232-38

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

39 Sample ID: 1080 OB-01\_092116\_RAS\_WB\_18

EFGS Lab ID: 1610232-39

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

40 Sample ID: 1081 OB-01\_092116\_RAS\_WB\_19

EFGS Lab ID: 1610232-40


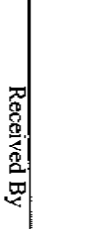
Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By:  Date: 11/29/16 Received By:  Date: 11/30/16

Released By:  Date: 11/29/16 (WPS) Received By:  Date: 11/30/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610232

9556

Analysis

Due: 02-Nov-16 19:00

Comments

4 / Sample ID: 1082 OB-01\_092116\_RAS\_WB\_20

EFGS Lab ID: 1610232-41

Sampled: 21-Sep-16 12:54

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

42 Sample ID: 1085 OB-05\_092116\_RAS\_WB\_01

EFGS Lab ID: 1610232-42

Sampled: 21-Sep-16 15:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

11/29/16

Received By

Date

Released By

11/29/16  
(wps)

Received By

Date



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

CLIENT: EFGS, Inc. DATE: 11/30/2016

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 3.4 °C (w/ CF): 3.6 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 832

CUSTODY SEAL:  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 832  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1053

SAMPLE CONDITION:  
 Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A  
 Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals  
 Container(s) for certain analysis free of headspace .....  Yes  No  N/A  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

CONTAINER TYPE: (Trip Blank Lot Number: \_\_\_\_\_)  
 Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBzma  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  Encores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (TISSUE):  Zn  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>,  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH  
 Labeled/Checked by: 1053  
 Reviewed by: 719

**SAMPLE ANOMALY REPORT**

DATE: 11 / 30 / 2016

**SAMPLES, CONTAINERS, AND LABELS:**

- Sample(s) NOT RECEIVED but listed on COC
- Sample(s) received but NOT LISTED on COC
- Holding time expired (list client or ECI sample ID and analysis)
- Insufficient sample amount for requested analysis (list analysis)
- Improper container(s) used (list analysis)
- Improper preservative used (list analysis)
- No preservative noted on COC or label (list analysis and notify lab)
- Sample container(s) not labeled
- Client sample label(s) illegible (list container type and analysis)
- Client sample label(s) do not match COC (comment)
- Project Information
- Client sample ID
- Sampling date and/or time
- Number of container(s)
- Requested analysis
- Sample container(s) compromised (comment)
- Broken
- Water present in sample container
- Air sample container(s) compromised (comment)
- Flat
- Very low in volume
- Leaking (not transferred; duplicate bag submitted)
- Leaking (transferred into ECI Tedlar™ bags\*)
- Leaking (transferred into client's Tedlar™ bags\*)

\* Transferred at client's request.

**MISCELLANEOUS: (Describe)**

**HEADSPACE:**

(Containers with bubble > 6 mm or ¼ inch for volatile organic or dissolved gas analysis)

ECI Sample ID	ECI Container ID	Total Number**	ECI Sample ID	ECI Container ID	Total Number**

(Containers with bubble for other analysis)

ECI Sample ID	ECI Container ID	Total Number**	Requested Analysis

**Comments**

(-23) TO (-42) collection time  
per label 12:00

**Comments**

Comments: \_\_\_\_\_

Reported by: 1053

Reviewed by: 778

\*\* Record the total number of containers (i.e., vials or bottles) for the affected sample.

WORK ORDER NUMBER: 16-11-2556

# QUALITY CONTROL CHECKLIST

METHOD: % lipid.

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____	Date: ____/____/____
PREPARATION CONDITIONS	Yes	No	N/A	Comments (If No, why, and further action required)	
Correct Sample Aliquots Used	/				
Correct Reagents Used	/				
Correct Final Prep Volumes	/				
Correct Preparation Procedure	/				

ANALYST		Section Reviewed by: 1) <u>684</u> Date: <u>12/13/16</u>		2) _____ Date: ____/____/____		3) _____ Date: ____/____/____				
INSTRUMENT CONDITIONS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/	/	/	/	/	/	/	/	/	
Valid Initial Calibration Curve	/	/	/	/	/	/	/	/	/	
Valid Cont. Calibration Std.	/	/	/	/	/	/	/	/	/	
Other Calibration Criteria Met	/	/	/	/	/	/	/	/	/	
SAMPLE ANALYSIS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/	/	/	/	/	/	/	/	/	
Instr. Signals within Quant. Range	/	/	/	/	/	/	/	/	/	
Reporting Limits Met	/	/	/	/	/	/	/	/	/	
REPORTING	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/	/	/	/	/	/	/	/	/	
Correct Batch #'s Reported	/	/	/	/	/	/	/	/	/	
Dilutions Reported	/	/	/	/	/	/	/	/	/	
Interferences Reported	/	/	/	/	/	/	/	/	/	
Out of Control Forms Completed	/	/	/	/	/	/	/	/	/	

GROUP LEADER				Section Reviewed by: <u>142</u> Date: <u>12/13/16</u>	
PROJECT REQUIREMENTS	Yes	No	N/A	Comments (If No, why, and further action required)	
Analyses by CEL Standard Methods					
Normal CEL RLs					
Normal CEL QC					
Normal CEL Deliverables					
QUALITY CONTROL	Yes	No	N/A	Comments (If No, why, and further action required)	
Acceptable Method Blanks (MB)	/				
Acceptable Field Blanks (FB, EB, TB)					
Acceptable Matrix Spikes (MS/MSD)					
Acceptable Lab Ctrl. Samples (LCS)					
Other Required QC Performed					
Out of Controls Addressed/Documented					
REPORTING	Yes	No	N/A	Comments (If No, why, and further action required)	
Correct Date Prepared					
Correct Date Analyzed					
Correct Units					
Analyst Review Performed (Init./Date)					
Out of Control Forms Acceptable	/				
ETS CHECK	Yes	No	N/A	Comments (If No, why, and further action required)	
Does the Data Make Sense	/				

GENERAL COMMENTS: \_\_\_\_\_

Page 247 of 308

Page 29 of 90

FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2356  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 1 CLIENT SAMPLE NUMBER: 1019 ES-13\_092116\_RAS\_WB\_01

LCS/MB BATCH: 161209B02 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D02 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
7.95	1.00	7.95	0.10	

% Lipids





FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**CLIENT SAMPLE NUMBER:** 1041 ES-FP\_092716\_RAS\_WB\_01

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**  
% Lipids      8.00      1.00      8.00      0.10



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 3**      **CLIENT SAMPLE NUMBER:** 1042 ES-FP\_092716\_RAS\_WB\_02

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

---

% Lipids	9.50	1.00	9.50	0.10	
----------	------	------	------	------	--



FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:** N/A

**# 4** **CLIENT SAMPLE NUMBER:** 1043 ES-FP\_092716\_RAS\_WB\_03

**LCS/MB BATCH:** 161209B02 **SAMPLE VOLUME /WEIGHT:** 20.00 g  
**MS/MSD BATCH:** 161209D02 **FINAL VOLUME /WEIGHT:** 20.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
7.90	1.00	7.90	0.10	

% Lipids



FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

CLIENT SAMPLE NUMBER: 1044 ES-FP\_092716\_RAS\_WB\_04

LCS/MB BATCH: 161209B02 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D02 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
% Lipids	9.27	1.00	9.27	0.10	



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 6** **CLIENT SAMPLE NUMBER:** 1045 ES-FP\_092716\_RAS\_WB\_05

**LCS/MB BATCH:** 161209B02 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161209D02 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**  
% Lipids 7.09 1.00 7.09 0.10



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00  
**DATA FILE:**

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**# 7** **CLIENT SAMPLE NUMBER:** 1046 ES-FP\_092716\_RAS\_WB\_06

**LCS/MB BATCH:** 161209B02 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161209D02 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
% Lipids	4.02	1.00	4.02	0.10	

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**CLIENT SAMPLE NUMBER:** 1047 ES-FP\_092716\_RAS\_WB\_07

**# 8**  
**LCS/MB BATCH:** 161209B02  
**MS/MSD BATCH:** 161209D02  
**UNITS:** %

**SAMPLE VOLUME / WEIGHT:** 20.00 g  
**FINAL VOLUME / WEIGHT:** 2.00 ml  
**ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
5.49	1.00	5.49	0.10	



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 9**      **CLIENT SAMPLE NUMBER:** 1048 ES-FP\_092716\_RAS\_WB\_08

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

---

% Lipids	3.82	1.00	3.82	0.10	
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# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 10**      **CLIENT SAMPLE NUMBER:** 1049 ES-FP\_092716\_RAS\_WB\_09

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

**% Lipids**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

9.05      1.00      9.05      0.10



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 11** **CLIENT SAMPLE NUMBER:** 1050 ES-FP\_092716\_RAS\_WB\_10

**LCS/MB BATCH:** 161209B02 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161209D02 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

**% Lipids**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
7.71	1.00	7.71	0.10	

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 12 CLIENT SAMPLE NUMBER: 1051 ES-FP\_092716\_RAS\_WB\_11

LCS/MB BATCH: 161209B02 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161209D02 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
4.00	1.00	4.00	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 13 CLIENT SAMPLE NUMBER: 1052 ES-FP\_092716\_RAS\_WB\_12

LCS/MB BATCH: 161209B02 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161209D02 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
5.50	1.00	5.50	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 14**      **CLIENT SAMPLE NUMBER:** 1053 ES-FP\_092716\_RAS\_WB\_13

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:** 20.00 g      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:** 2.00 ml      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      5.33      1.00      5.33      0.10

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 15**      **CLIENT SAMPLE NUMBER:** 1054 ES-FP\_092716\_RAS\_WB\_14

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.41	1.00	4.41	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 16**      **CLIENT SAMPLE NUMBER:** 1055 ES-FP\_092716\_RAS\_WB\_15

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME /WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME /WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

---

% Lipids	5.16	1.00	5.16	0.10	
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# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 17**      **CLIENT SAMPLE NUMBER:** 1056 ES-FP\_092716\_RAS\_WB\_16

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
5.31	1.00	5.31	0.10	





# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 18**      **CLIENT SAMPLE NUMBER:** 1057 ES-FP\_092716\_RAS\_WB\_17

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      4.16      1.00      4.16      0.10

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:** N/A

**# 19** **CLIENT SAMPLE NUMBER:** 1058 ES-FP\_092716\_RAS\_WB\_18

**LCS/MB BATCH:** 161209B02 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161209D02 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 4.33 1.00 4.33 0.10



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 20**      **CLIENT SAMPLE NUMBER:** 1059 ES-FP\_092716\_RAS\_WB\_19

**LCS/MB BATCH:** 161209B02      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D02      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
2.93	1.00	2.93	0.10	

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 21**      **CLIENT SAMPLE NUMBER:** 1060 ES-FP\_092716\_RAS\_WB\_20

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.73      1.00      3.73      0.10

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 22 CLIENT SAMPLE NUMBER: 1063 OB-01\_092116\_RAS\_WB\_01

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT: ON COL CONC DF CONC RL QUAL  
COMPOUND

% Lipids 3.26 1.00 3.26 0.10



FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 23 CLIENT SAMPLE NUMBER: 1064 OB-01\_092116\_RAS\_WB\_02

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL

% Lipids 8.18 1.00 8.18 0.10



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 24**      **CLIENT SAMPLE NUMBER:** 1065 OB-01\_092116\_RAS\_WB\_03

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
6.04	1.00	6.04	0.10	

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 25 CLIENT SAMPLE NUMBER: 1066 OB-01\_092116\_RAS\_WB\_04

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids ON COL CONC DF CONC RL QUAL  
1.13 1.00 1.13 0.10





# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 26**      **CLIENT SAMPLE NUMBER:** 1067 OB-01\_092116\_RAS\_WB\_05

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      10.3      1.00      10.3      0.10

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 27**      **CLIENT SAMPLE NUMBER:** 1068 OB-01\_092116\_RAS\_WB\_06

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      4.78      1.00      4.78      0.10

# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 28**      **CLIENT SAMPLE NUMBER:** 1069 OB-01\_092116\_RAS\_WB\_07

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:** 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      4.47      1.00      4.47      0.10

# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 29**      **CLIENT SAMPLE NUMBER:** 1070 OB-01\_092116\_RAS\_WB\_08

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND:**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.36      1.00      3.36      0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 30 CLIENT SAMPLE NUMBER: 1071 OB-01\_092116\_RAS\_WB\_09

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
3.96	1.00	3.96	0.10	

% Lipids

# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 31 CLIENT SAMPLE NUMBER: 1072 OB-01\_092116\_RAS\_WB\_10

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND ON COL CONC DF CONC RL QUAL

% Lipids 4.21 1.00 4.21 0.10

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 32 CLIENT SAMPLE NUMBER: 1073 OB-01\_092116\_RAS\_WB\_11

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
5.22	1.00	5.22	0.10	



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY: 142  
D/T REVIEWED: 2016-12-14 09:42

DATA FILE:

# 33 CLIENT SAMPLE NUMBER: 1074 OB-01\_092116\_RAS\_WB\_12

LCS/MB BATCH: 161209B03 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	3.45	1.00	3.45	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 34 CLIENT SAMPLE NUMBER: 1075 OB-01\_092116\_RAS\_WB\_13

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL

% Lipids 5.33 1.00 5.33 0.10

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 35**      **CLIENT SAMPLE NUMBER: 1076 OB-01\_092116\_RAS\_WB\_14**

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
2.30	1.00	2.30	0.10	

% Lipids

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 36 CLIENT SAMPLE NUMBER: 1077 OB-01\_092116\_RAS\_WB\_15

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 6.14 1.00 6.14 0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 37 CLIENT SAMPLE NUMBER: 1078 OB-01\_092116\_RAS\_WB\_16

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
9.82	1.00	9.82	0.10	

% Lipids



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 38 CLIENT SAMPLE NUMBER: 1079 OB-01\_092116\_RAS\_WB\_17

LCS/MB BATCH: 161209B03 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
--------------------	-----------	-------------	-----------	-------------

% Lipids 2.74 1.00 2.74 0.10



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 39**      **CLIENT SAMPLE NUMBER: 1080 OB-01\_092116\_RAS\_WB\_18**

**LCS/MB BATCH:** 161209B03      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161209D03      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      4.25      1.00      4.25      0.10

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1.065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 40 CLIENT SAMPLE NUMBER: 1081 OB-01\_092116\_RAS\_WB\_19

LCS/MB BATCH: 161209B03 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161209D03 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 3.71 1.00 3.71 0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2556  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00  
**DATA FILE:**

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**# 41**      **CLIENT SAMPLE NUMBER:** 1082 OB-01\_092116\_RAS\_WB\_20

**LCS/MB BATCH:** 161207B27      **SAMPLE VOLUME / WEIGHT:** 20.00 g  
**MS/MSD BATCH:** 161207D27      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      3.12      1.00      3.12      0.10





RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2556  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 42 CLIENT SAMPLE NUMBER: 1085 OB-05\_092116\_RAS\_WB\_01

LCS/MB BATCH: 161207B27 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
3.70	1.00	3.70	0.10	

% Lipids



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161209B02 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

ON COL CONC

DF

CONC

RL

QUAL

COMPOUND % Lipids 0.0100 1.00 ND 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-09 00:00

ANALYZED BY: 1.065  
D/T ANALYZED: 2016-12-09 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161209B03 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

ON COL CONC

DF

CONC

RL

QUAL

% Lipids 0.0300 1.00 ND 0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.0100	1.00	ND	0.10	

% Lipids



**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-157  
**MB BATCH ID:** 161209B02  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-11-2556**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	1019 ES-13_092716_RAS_WB_01		2016-12-09 00:00	
2	1041 ES-FP_092716_RAS_WB_01		2016-12-09 00:00	
3	1042 ES-FP_092716_RAS_WB_02		2016-12-09 00:00	
4	1043 ES-FP_092716_RAS_WB_03		2016-12-09 00:00	N/A
5	1044 ES-FP_092716_RAS_WB_04		2016-12-09 00:00	
6	1045 ES-FP_092716_RAS_WB_05		2016-12-09 00:00	
7	1046 ES-FP_092716_RAS_WB_06		2016-12-09 00:00	
8	1047 ES-FP_092716_RAS_WB_07		2016-12-09 00:00	
9	1048 ES-FP_092716_RAS_WB_08		2016-12-09 00:00	
10	1049 ES-FP_092716_RAS_WB_09		2016-12-09 00:00	
11	1050 ES-FP_092716_RAS_WB_10		2016-12-09 00:00	
12	1051 ES-FP_092716_RAS_WB_11		2016-12-09 00:00	
13	1052 ES-FP_092716_RAS_WB_12		2016-12-09 00:00	
14	1053 ES-FP_092716_RAS_WB_13		2016-12-09 00:00	
15	1054 ES-FP_092716_RAS_WB_14		2016-12-09 00:00	
16	1055 ES-FP_092716_RAS_WB_15		2016-12-09 00:00	
17	1056 ES-FP_092716_RAS_WB_16		2016-12-09 00:00	
18	1057 ES-FP_092716_RAS_WB_17		2016-12-09 00:00	
19	1058 ES-FP_092716_RAS_WB_18		2016-12-09 00:00	N/A
20	1059 ES-FP_092716_RAS_WB_19		2016-12-09 00:00	

**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-158  
**MB BATCH ID:** 161209B03  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-11-2556**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
21	1060	ES-FP_092716_RAS_WB_20	2016-12-09 00:00	
22	1063	OB-01_092116_RAS_WB_01	2016-12-09 00:00	
23	1064	OB-01_092116_RAS_WB_02	2016-12-09 00:00	
24	1065	OB-01_092116_RAS_WB_03	2016-12-09 00:00	
25	1066	OB-01_092116_RAS_WB_04	2016-12-09 00:00	
26	1067	OB-01_092116_RAS_WB_05	2016-12-09 00:00	
27	1068	OB-01_092116_RAS_WB_06	2016-12-09 00:00	
28	1069	OB-01_092116_RAS_WB_07	2016-12-09 00:00	
29	1070	OB-01_092116_RAS_WB_08	2016-12-09 00:00	
30	1071	OB-01_092116_RAS_WB_09	2016-12-09 00:00	
31	1072	OB-01_092116_RAS_WB_10	2016-12-09 00:00	
32	1073	OB-01_092116_RAS_WB_11	2016-12-09 00:00	
33	1074	OB-01_092116_RAS_WB_12	2016-12-09 00:00	
34	1075	OB-01_092116_RAS_WB_13	2016-12-09 00:00	
35	1076	OB-01_092116_RAS_WB_14	2016-12-09 00:00	
36	1077	OB-01_092116_RAS_WB_15	2016-12-09 00:00	
37	1078	OB-01_092116_RAS_WB_16	2016-12-09 00:00	
38	1079	OB-01_092116_RAS_WB_17	2016-12-09 00:00	
39	1080	OB-01_092116_RAS_WB_18	2016-12-09 00:00	
40	1081	OB-01_092116_RAS_WB_19	2016-12-09 00:00	

METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: Mec12 Ext. (NOAA 1993a)

**MB SAMPLE ID:** 099-14-104-152  
**MB BATCH ID:** 161207B27  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-11-2556**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
41	1082 OB-01	_092116_RAS_WB_20	2016-12-07 00:00	
42	1085 OB-05	_092116_RAS_WB_01	2016-12-07 00:00	



## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-11-2556-1  
**DUP BATCH:** 161209D02  
**INSTRUMENTS:**  
    **SAMPLE:** N/A  
    **DUP SAMPLE:** N/A

**EXTRACTION:** N/A  
**D/T EXTRACTED:**  
    **SAMPLE:** 2016-12-09 00:00  
    **DUP SAMPLE:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED**  
    **SAMPLE:** 2016-12-09 00:00  
    **DUP SAMPLE:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED**

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	7.950	7.350	8	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		



**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

**DUP SAMPLE ID:** 16-11-2556-22  
**DUP BATCH:** 161209D03  
**INSTRUMENTS:**  
    **SAMPLE:** N/A  
    **DUP SAMPLE:** N/A

**EXTRACTION:** N/A  
**D/T EXTRACTED:**  
    **SAMPLE:** 2016-12-09 00:00  
    **DUP SAMPLE:** 2016-12-09 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:**  
    **SAMPLE:** 2016-12-09 00:00  
    **DUP SAMPLE:** 2016-12-09 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.260	3.380	4	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-11-2556-41

**DUP BATCH:** 161207D27

**INSTRUMENTS:**

**SAMPLE:** N/A

**DUP SAMPLE:** N/A

**EXTRACTION:** N/A

**D/T EXTRACTED:**

**SAMPLE:** 2016-12-07 00:00

**DUP SAMPLE:** 2016-12-07 00:00

**ANALYZED BY:** 1,065

**D/T ANALYZED**

**SAMPLE:** 2016-12-07 00:00

**DUP SAMPLE:** 2016-12-07 00:00

**REVIEWED BY:**

**D/T REVIEWED**

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.120	2.960	5	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 307-44-06	4) Sand 307-19-19	1) Filter 307-41-04	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS		
Tissue	MB: 161209B02 Sample Duplicate: 161209D02			
CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2556-1A	7.95	8	0-10	
Duplicate 16-11-2556-1A	7.35			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/09/16	MB	1.00	34	1	1	1.8787	1.8788	0.0001	0.01	684	
	16-11-2556-1A	1.32				1.8774	1.9824	0.1050	7.95		
	-2	1.56				1.8951	2.0199	0.1248	8.00		
	-3	1.12				1.8993	2.0057	0.1064	9.50		
	-4	1.08				1.8948	1.9801	0.0853	7.90		
	-5	1.47				1.8937	2.0299	0.1362	9.27		
	-6	1.02				1.8886	1.9609	0.0723	7.09		
	-7	1.41				1.8753	1.9320	0.0567	4.02		
	-8	1.13				1.8844	1.9464	0.0620	5.49		
	-9	1.57				1.8897	1.9497	0.0600	3.82		
	-10	1.50				1.8888	2.0246	0.1358	9.05		
	-11	1.05				1.8764	1.9574	0.0810	7.71		
	-12	1.63				1.8513	1.9165	0.0652	4.00		
	-13	1.15				1.8773	1.9406	0.0633	5.50		
	-14	1.51				1.8775	1.9580	0.0805	5.33		
	-15	1.72				1.8595	1.9354	0.0759	4.41		
	-16	1.01				1.8611	1.9132	0.0521	5.16		
	-17	1.05				1.8890	1.9448	0.0558	5.31		
	-18	1.22				1.8653	1.9160	0.0507	4.16		
	-19	1.01				1.8720	1.9157	0.0437	4.33		
	-20	1.79				1.9038	1.9563	0.0525	2.93		
	Duplicate 16-11-2556-1A	1.53				1.8775	1.9899	0.1124	7.35		

Page 299 of 308

Page 81 of 90

# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	4) Sand 507-19-19	1) Filter 507-41-04	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS
Tissue	MB: 161209 B03 Sample Duplicate: 161209 D03	

CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2556-22A	3.26	4	0-10	
Duplicate 16-11-2556-22A	3.38			

Instructions:

1. Cel ID consists of Work Order Number and Container ID.
2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
				12/09/16	MB	1.00	34				
	16-11-2556-21A	1.73				1.8874	1.9519	0.0645	3.73		
	-22	2.08				1.8799	1.9477	0.0678	3.26		
	-23	1.40				1.8843	1.9988	0.1145	8.18		
	-24	1.82				1.8960	2.0059	0.1099	6.04		
	-25	2.04				1.8941	1.9172	0.0231	1.13		
	-26	1.21				1.8933	2.0180	0.1247	10.31		
	-27	2.09				1.8953	1.9953	0.1000	4.78		
	-28	2.06				1.8839	1.9760	0.0921	4.47		
	-29	2.10				1.8825	1.9531	0.0706	3.36		
	-30	1.81				1.8986	1.9703	0.0717	3.96		
	-31	1.28				1.8590	1.9129	0.0539	4.21		
	-32	1.52				1.8919	1.9712	0.0793	5.22		
	-33	1.85				1.8959	1.9597	0.0638	3.45		
	-34	2.04				1.8601	1.9688	0.1087	5.33		
	-35	2.08				1.8975	1.9454	0.0479	2.30		
	-36	1.13				1.8958	1.9652	0.0694	6.14		
	-37	1.30				1.8850	2.0126	0.1276	9.82		
	-38	2.02				1.8911	1.9464	0.0553	2.74		
	-39	1.74				1.8774	1.9514	0.0740	4.25		
	-40	1.16				1.8605	1.9035	0.0430	3.71		
	Duplicate 16-11-2556-22A	1.60				1.8658	1.9198	0.0540	3.38		



Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  4191d  
 8270  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )  
 Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580  
 Analyst ID#: Measuring Sample- 686 Start Extraction- 686 Blow Down- 686 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air  
 Balance ID#: 20 Filter ID#: 507-44-04 ASE ID#: Soxtherm ID#: 1-8 Orbit Shaker ID#: Sonicator ID:  
 Ext. Start Date/Time: 12/09/16 9:00 Ext. End Date/Time: 12/09/16 11:30  
 Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth  
 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD  
 Spike Std ID# & Volume Added (mL):  
 Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile  
 Extraction Solvent ID#: 507-44-06 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time: Cartridge Conditioning Column Pre-Elution Reagent ID#:  
 Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge ID#:  
 Clean Up Reagent ID#:

MB/LCS/MS Batch #:	161209 B02	Sample W (g) / V (mL)		Clean Up Performed	Comments
		Initial	Final		
Cell ID#:					
MB		1.00	1	<input type="checkbox"/>	
LCS				<input type="checkbox"/>	
LCSD				<input type="checkbox"/>	
MS				<input type="checkbox"/>	
MSD	16-11-2586-1A	1.53	1	<input type="checkbox"/>	
	16-11-2556-1A	1.32		<input type="checkbox"/>	
	-2A	1.56		<input type="checkbox"/>	
	-3A	1.12		<input type="checkbox"/>	
	-4A	1.08		<input type="checkbox"/>	
	-5A	1.47		<input type="checkbox"/>	
	-6A	1.02		<input type="checkbox"/>	
	-7A	1.41		<input type="checkbox"/>	
	-8A	1.13		<input type="checkbox"/>	
	-9A	1.57		<input type="checkbox"/>	
	-10A	1.50		<input type="checkbox"/>	
	-11A	1.05		<input type="checkbox"/>	
	-12A	1.63		<input type="checkbox"/>	
	-13A	1.15		<input type="checkbox"/>	
	-14A	1.57		<input type="checkbox"/>	
	-15A	1.72		<input type="checkbox"/>	
	-16A	1.01		<input type="checkbox"/>	
	-17A	1.05		<input type="checkbox"/>	
	-18A	1.22		<input type="checkbox"/>	
	-19A	1.01		<input type="checkbox"/>	
	-20A	1.79		<input type="checkbox"/>	

Peer Reviewed by:

Peer Reviewed Date:

Revision Date: 10/20/16



Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  Lipids

8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID#: Measuring Sample: 680 Start Extraction: 680 Blow Down: 680 Clean Up:

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: 20 Filter ID#: 507-41-04 ASE ID#:  Soxhlem ID#: 1-8 Orbit Shaker ID#:  Sonicator ID#:

Ext. Start Date/Time: 12/09/16 9:00 Ext. End Date/Time: 12/09/16 11:30

Sand or Wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

507-19-19 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (ml):

Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-44-06 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other

Cartridge ID#:

Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161209B03

Sample W (g) / V (ml)

Clean Up Performed

Comments

Cell ID#:	Initial	Final	Clean Up Performed	Comments
MB	1.00	1	<input type="checkbox"/>	
LCS			<input type="checkbox"/>	
LCSD			<input type="checkbox"/>	
MS			<input type="checkbox"/>	
MSD	16-11-2556-22A	1.60	<input type="checkbox"/>	
	16-11-2556-21A	1.73	<input type="checkbox"/>	
	22A	2.08	<input type="checkbox"/>	
	23A	1.40	<input type="checkbox"/>	
	24A	1.82	<input type="checkbox"/>	
	25A	2.04	<input type="checkbox"/>	
	26A	1.21	<input type="checkbox"/>	
	27A	2.09	<input type="checkbox"/>	
	28A	2.06	<input type="checkbox"/>	
	29A	2.10	<input type="checkbox"/>	
	30A	1.81	<input type="checkbox"/>	
	31A	1.28	<input type="checkbox"/>	
	32A	1.52	<input type="checkbox"/>	
	33A	1.85	<input type="checkbox"/>	
	34A	2.04	<input type="checkbox"/>	
	35A	2.08	<input type="checkbox"/>	
	36A	1.13	<input type="checkbox"/>	
	37A	1.30	<input type="checkbox"/>	
	38A	2.02	<input type="checkbox"/>	
	39A	1.74	<input type="checkbox"/>	
	40A	1.16	<input type="checkbox"/>	

Analysis Method (EPA Method):  608  8061  8082  8141  8310  TO-13  TO-4  8141  
 8270 (  Soil  Soil SIMI SUPER  PAH  SIMI PAH  SIMI Pest  SIMI PCB cong.  SIMI FL )  
 Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580  
 Analyst ID# Measuring Sample: 607 Start Extraction: 6:00 Blow Down: 6:00 Clean Up:  
 Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air  
 Balance ID#: 20 Filter ID#: 507-47-44 ASE ID#:  Soxhlet ID#: 1-8 Orbit Shaker ID#:  Sonicator ID#:   
 Ext. Start Date/Time: 12/07/16 9:00 Ext. End Date/Time: 12/07/16 11:30  
 Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth  
 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (mL):  
 Spike Std ID# & Volume Added (mL):  
 Extraction Solvent:  MeCl<sub>2</sub>,  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile  
 Exchange Solvent (  Hexane  Acetonitrile ) ID#: 607-44-06  
 Clean Up Start Date & Time: 607-44-06 Clean Up End Date & Time:  
 Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other  
 Cartridge Conditioning Column Pre-Elution Reagent ID#: 607-44-06  
 Cartridge ID#: 607-44-06

Cell ID#:	Sample W (g) / V (mL)	Initial	Final	Clean Up Performed	Comments
MB		1.00		<input type="checkbox"/>	
LCS				<input type="checkbox"/>	
MS				<input type="checkbox"/>	
MSD DUP				<input type="checkbox"/>	
	16-11-2558-41A	2.06	1	<input type="checkbox"/>	
	16-11-2444-41A	0.66		<input type="checkbox"/>	
	-42A	0.48		<input type="checkbox"/>	
	-43A	0.77		<input type="checkbox"/>	
	-44A	0.50		<input type="checkbox"/>	
	-45A	0.06		<input type="checkbox"/>	
	16-11-2553-1A	1.23		<input type="checkbox"/>	
	-2A	0.78		<input type="checkbox"/>	
	-3A	0.68		<input type="checkbox"/>	
	-5A	0.58		<input type="checkbox"/>	
	16-11-2556-41A	1.97		<input type="checkbox"/>	
	-42A	1.43		<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	
				<input type="checkbox"/>	

Peer Reviewed by: \_\_\_\_\_

Peer Reviewed Date: \_\_\_\_\_

Revision Date: 10/20/15



# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/09/16 Initials: CS7

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	99.998	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
	500	499.997	498.00 - 502.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
62	0.002	0.0018	0.00180 - 0.00220	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	1	0.99993	0.99900 - 1.00100	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.9965	99.90000 - 100.10000	<input checked="" type="radio"/> Y <input type="radio"/> N	
26	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	99.999	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
55	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
	500	499.98	498.00 - 502.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	IO Lab
	100	99.997	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
66	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y <input type="radio"/> N	Metals
	1	0.9996	0.99900 - 1.00100	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.9981	99.90000 - 100.10000	<input checked="" type="radio"/> Y <input type="radio"/> N	
53	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	1	0.98	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
	500	499.89	498 - 502	<input checked="" type="radio"/> Y <input type="radio"/> N	
20	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
	500	499.57	498.00 - 502.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
57	100	100.0	98.0-102.0	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	1000	1000.0	998.0-1002.0	<input checked="" type="radio"/> Y <input type="radio"/> N	
	2000	2000.0	1998.0-2002.0	<input checked="" type="radio"/> Y <input type="radio"/> N	
52	0.002	0.0020	0.0018 - 0.0022	<input checked="" type="radio"/> Y <input type="radio"/> N	Extractions
	1	0.9998	0.9990 - 1.0010	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.9947	99.9000 - 100.1000	<input checked="" type="radio"/> Y <input type="radio"/> N	
14	0.002	0.0020	0.0018 - 0.0022	<input checked="" type="radio"/> Y <input type="radio"/> N	BOD Room
	1	0.9999	0.9990 - 1.0010	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	100.0171	99.9000 - 100.1000	<input checked="" type="radio"/> Y <input type="radio"/> N	
63	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y <input type="radio"/> N	BOD Room
	100	99.95	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
64	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	Metals Clean Room
	10	10.01	9.8 - 10.2	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	
34	0.002	0.00211	0.0018 - 0.0022	<input checked="" type="radio"/> Y <input type="radio"/> N	Oil & Grease Room
	1	0.99968	0.9990 - 1.0010	<input checked="" type="radio"/> Y <input type="radio"/> N	
	100	99.99477	99.9000 - 100.1000	<input checked="" type="radio"/> Y <input type="radio"/> N	
30	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y <input type="radio"/> N	Oil & Grease Room
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y <input type="radio"/> N	

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/07/16 Initials: LSJ

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1 100	1.00 100.00	0.98 - 1.02 98.00 - 102.00	Y N	IO Lab
	500	500.00	498.00 - 502.00	Y	
62	0.002 1 100	0.0019 0.9997 99.9968	0.00180 - 0.00220 0.99900 - 1.00100 99.90000 - 100.10000	Y Y Y	IO Lab
26	1 100	1.00 100.00	0.98 - 1.02 98.00 - 102.00	Y N	IO Lab
55	1 100 500	1.00 99.97 499.93	0.98 - 1.02 98.00 - 102.00 498.00 - 502.00	Y Y Y	IO Lab
11	1 100	1.00 100.01	0.98 - 1.02 98.00 - 102.00	Y N	IO Lab
66	0.002 1 100	0.0019 0.9993 99.9984	0.00180 - 0.00220 0.99900 - 1.00100 99.90000 - 100.10000	Y Y Y	Metals
53	0.1 1 100	0.10 1.00 99.99	0.09 - 0.11 0.98 - 1.02 98.00 - 102.00	Y Y Y	Extractions
20	1 100 500	1.00 99.99 500.04	0.98 - 1.02 98.00 - 102.00 498.00 - 502.00	Y Y Y	Extractions
57	100 1000 2000	100.0 1000.0 2000.0	98.0 - 102.0 998.0 - 1002.0 1998.0 - 2002.0	Y Y Y	Extractions
52	0.002 1 100	0.0019 0.9996 99.9947	0.0018 - 0.0022 0.9990 - 1.0010 99.9000 - 100.1000	Y Y Y	Extractions
14	0.002 1 100	0.0019 0.9999 99.9939	0.0018 - 0.0022 0.9990 - 1.0010 99.9000 - 100.1000	Y Y Y	BOD Room
63	0.1 100	0.10 99.99	0.09 - 0.11 98.00 - 102.00	Y N	BOD Room
64	1 10	1.01 10.01	0.98 - 1.02 9.8 - 10.2	Y N	Metals Clean Room
34	0.002 1 100	0.00196 0.99965 99.99452	0.0018 - 0.0022 0.9990 - 1.0010 99.9000 - 100.1000	Y Y Y	Oil & Grease Room
30	1 100	1.01 100.01	0.98 - 1.02 98.00 - 102.00	Y N	Oil & Grease Room

Lipid Content Raw Data Calculator

12/9/2016

	ID # A	Tissue Samples (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
		M1	V1	V2	M2	M3	M3 - M2	C
B-1	MB 161209B02	1.00	1	1	1.8787	1.8788	0.0001	0.01%
1	16-11-2556-1	1.32	1	1	1.8774	1.9824	0.1050	7.95%
2	16-11-2556-2	1.56	1	1	1.8951	2.0199	0.1248	8.00%
3	16-11-2556-3	1.12	1	1	1.8993	2.0057	0.1064	9.50%
4	16-11-2556-4	1.08	1	1	1.8948	1.9801	0.0853	7.90%
5	16-11-2556-5	1.47	1	1	1.8937	2.0299	0.1362	9.27%
6	16-11-2556-6	1.02	1	1	1.8886	1.9609	0.0723	7.09%
7	16-11-2556-7	1.41	1	1	1.8753	1.9320	0.0567	4.02%
8	16-11-2556-8	1.13	1	1	1.8844	1.9464	0.0620	5.49%
9	16-11-2556-9	1.57	1	1	1.8897	1.9497	0.0600	3.82%
10	16-11-2556-10	1.50	1	1	1.8888	2.0246	0.1358	9.05%
11	16-11-2556-11	1.05	1	1	1.8764	1.9574	0.0810	7.71%
12	16-11-2556-12	1.63	1	1	1.8513	1.9165	0.0652	4.00%
13	16-11-2556-13	1.15	1	1	1.8773	1.9406	0.0633	5.50%
14	16-11-2556-14	1.51	1	1	1.8775	1.9580	0.0805	5.33%
15	16-11-2556-15	1.72	1	1	1.8595	1.9354	0.0759	4.41%
16	16-11-2556-16	1.01	1	1	1.8611	1.9132	0.0521	5.16%
17	16-11-2556-17	1.05	1	1	1.8890	1.9448	0.0558	5.31%
18	16-11-2556-18	1.22	1	1	1.8653	1.9160	0.0507	4.16%
19	16-11-2556-19	1.01	1	1	1.8720	1.9157	0.0437	4.33%
20	16-11-2556-20	1.79	1	1	1.9038	1.9563	0.0525	2.93%
Dup-1	D 16-11-2556-1	1.53	1	1	1.8775	1.9899	0.1124	7.35%
L-1	LCS-161209L02	0.13	1	1	1.8752	1.9984	0.1232	94.8%
B-2	MB-161209B03	1.00	1	1	1.8873	1.8876	0.0003	0.03%
21	16-11-2556-21	1.73	1	1	1.8874	1.9519	0.0645	3.73%
22	16-11-2556-22	2.08	1	1	1.8799	1.9477	0.0678	3.26%
23	16-11-2556-23	1.40	1	1	1.8843	1.9988	0.1145	8.18%
24	16-11-2556-24	1.82	1	1	1.8960	2.0059	0.1099	6.04%
25	16-11-2556-25	2.04	1	1	1.8941	1.9172	0.0231	1.13%
26	16-11-2556-26	1.21	1	1	1.8933	2.0180	0.1247	10.31%

Samples ID#	Lipid Content (%)	RPD
16-11-2556-1	7.95%	-8%
161209D02		
Dup 16-11-2556-1	7.35%	

Samples ID#	Lipid Content (%)	RPD
16-11-2556-22	3.26%	4%
161209D03		
Dup 16-11-2556-22	3.38%	

Samples ID#	Lipid Content (%)	RPD
16-11-2556-41	3.12%	-5%
161207D27		
Dup 16-11-2556-41	2.96%	

27	16-11-2556-27	2.09	1	1	1.8953	1.9953	0.1000	4.78%
28	16-11-2556-28	2.06	1	1	1.8839	1.9760	0.0921	4.47%
29	16-11-2556-29	2.10	1	1	1.8825	1.9531	0.0706	3.36%
30	16-11-2556-30	1.81	1	1	1.8986	1.9703	0.0717	3.96%
31	16-11-2556-31	1.28	1	1	1.8590	1.9129	0.0539	4.21%
32	16-11-2556-32	1.52	1	1	1.8919	1.9712	0.0793	5.22%
33	16-11-2556-33	1.85	1	1	1.8959	1.9597	0.0638	3.45%
34	16-11-2556-34	2.04	1	1	1.8601	1.9688	0.1087	5.33%
35	16-11-2556-35	2.08	1	1	1.8975	1.9454	0.0479	2.30%
36	16-11-2556-36	1.13	1	1	1.8958	1.9652	0.0694	6.14%
37	16-11-2556-37	1.30	1	1	1.8850	2.0126	0.1276	9.82%
38	16-11-2556-38	2.02	1	1	1.8911	1.9464	0.0553	2.74%
39	16-11-2556-39	1.74	1	1	1.8774	1.9514	0.0740	4.25%
40	16-11-2556-40	1.16	1	1	1.8605	1.9035	0.0430	3.71%
Dup-2	D16-11-2556-22	1.60	1	1	1.8658	1.9198	0.0540	3.38%
L-2	LCS-161209L03	0.10	1	1	1.8688	1.9680	0.0992	99.2%
B-3	MB 161207B27	1.00	1	1	1.8858	1.8859	0.0001	0.01%
41	16-11-2444-41	0.66	1	1	1.9101	1.9298	0.0197	2.98%
42	16-11-2444-42	0.48	1	1	1.9012	1.9224	0.0212	4.42%
43	16-11-2444-43	0.77	1	1	1.9022	1.9287	0.0265	3.44%
44	16-11-2444-44	0.50	1	1	1.9090	1.9284	0.0194	3.88%
45	16-11-2444-45	0.06	1	1	1.8665	1.8680	0.0015	2.50%
46	16-11-2553-1	1.23	1	1	1.8652	1.8895	0.0243	1.98%
47	16-11-2553-2	0.78	1	1	1.8701	1.8818	0.0117	1.50%
48	16-11-2553-3	0.68	1	1	1.8782	1.8876	0.0094	1.38%
49	16-11-2553-5	0.58	1	1	1.8889	1.8968	0.0079	1.36%
50	16-11-2556-41	1.97	1	1	1.8714	1.9328	0.0614	3.12%
51	16-11-2556-42	1.43	1	1	1.8807	1.9336	0.0529	3.70%
DUP	D16-11-2556-41	2.06	1	1	1.8862	1.9472	0.0610	2.96%
L-3	LCS-161207L27	0.12	1	1	1.8786	1.9969	0.1183	98.6%





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive style with a period at the end.

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:52

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_092916_TOM_WB_01	1610233-01	Tissue	29-Sep-16 12:00	05-Oct-16 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.*

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:52

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/12/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

## 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.



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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:52

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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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.

**1610233**

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

Analysis

Due: 02-Nov-16 19:00

Comments

Sample ID: 1413 FRB-01\_092916\_TOM\_WB\_01

EFGS Lab ID: 1610233-01  
MS/MSD

Sampled: 29-Sep-16 12:00

**Misc. Subcontract 1**

Containers Supplied:

34 Plastic Bag (B)

Lipids Analysis

88W060 NOV 14, 2016 ACT WT 6.7 LBS #PK 1  
SVC 1DA BL WT  
TRACKING# 1286W0600149683148 ALL CURRENCY USD  
DEPT NO.: OVERHEAD  
REF 2:SUBCONTRACT

HC 0.00 CNS 0.00 FRT: SHP  
SHIPMENT NR RATE CHARGES: SVC 21.67 USD  
DV 0.00 COD 0.00 RS 0.00  
DC 0.00 DGD 0.00  
AH 0.00 PR 0.00 ROD 0.00  
TOT NR CHG 21.67 NR+HC21.67

Released By

Date

Received By

Date

Released By

Date

Received By

Date



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:52

**FRB-01\_092916\_TOM\_WB\_01**  
**1610233-01**

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	36.5	0.443	3.95	ng/g	100	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	
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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:52

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10008 - F610492</b>											
<b>Cal Standard (6K10008-CAL1)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	0.523	-		ng/L	0.50100		104				
<b>Cal Standard (6K10008-CAL2)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	1.016	-		ng/L	1.0020		101				
<b>Cal Standard (6K10008-CAL3)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	4.926	-		ng/L	5.0100		98.3				
<b>Cal Standard (6K10008-CAL4)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	19.58	-		ng/L	20.040		97.7				
<b>Cal Standard (6K10008-CAL5)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	38.96	-		ng/L	40.080		97.2				
<b>Calibration Blank (6K10008-CCB1)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	0.055	-		ng/L							
<b>Calibration Blank (6K10008-CCB2)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	0.032	-		ng/L							
<b>Calibration Blank (6K10008-CCB3)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	0.037	-		ng/L							
<b>Calibration Blank (6K10008-CCB4)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	0.028	-		ng/L							
<b>Calibration Blank (6K10008-CCB6)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	0.052	-		ng/L							

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:52

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10008 - F610492</b>											
<b>Calibration Blank (6K10008-CCB7)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.058	-		ng/L							
<b>Calibration Blank (6K10008-CCB8)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.057	-		ng/L							
<b>Calibration Blank (6K10008-CCB9)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.337	-		ng/L							
<b>Calibration Blank (6K10008-CCBA)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.203	-		ng/L							
<b>Calibration Blank (6K10008-CCBB)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.150	-		ng/L							
<b>Calibration Check (6K10008-CCV1)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	5.138	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (6K10008-CCV2)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.767	-		ng/L	5.0000		95.3	77-123			
<b>Calibration Check (6K10008-CCV3)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.701	-		ng/L	5.0000		94.0	77-123			
<b>Calibration Check (6K10008-CCV4)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.788	-		ng/L	5.0000		95.8	77-123			
<b>Calibration Check (6K10008-CCV6)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.879	-		ng/L	5.0000		97.6	77-123			

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:52

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 6K10008 - F610492

<b>Calibration Check (6K10008-CCV7)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	4.718	-		ng/L	5.0000		94.4	77-123			
<b>Calibration Check (6K10008-CCV8)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	4.704	-		ng/L	5.0000		94.1	77-123			
<b>Calibration Check (6K10008-CCV9)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	5.141	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (6K10008-CCVA)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	4.928	-		ng/L	5.0000		98.6	77-123			
<b>Calibration Check (6K10008-CCVB)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	5.012	-		ng/L	5.0000		100	77-123			
<b>Instrument Blank (6K10008-IBL1)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10008-IBL2)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10008-IBL3)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K10008-ICV1)</b>					Prepared & Analyzed: 09-Nov-16						
Mercury	4.743	-		ng/L	5.0000		94.9	77-123			

Batch F610492 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F610492-BLK1)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.204	0.090	0.800	ng/g							J

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:52

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610492 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610492-BLK2)</b> Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.106	0.090	0.800	ng/g							J
<b>Blank (F610492-BLK3)</b> Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	0.091	0.090	0.800	ng/g							J
<b>LCS (F610492-BS1)</b> Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	8.163	0.090	0.800	ng/g	8.0160		102	75-125			
<b>LCS (F610492-BS2)</b> Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	325.4	4.47	39.9	ng/g	382.50		85.1	75-125			
<b>LCS Dup (F610492-BSD1)</b> Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	8.418	0.090	0.800	ng/g	8.0160		105	75-125	3.07	24	
<b>Duplicate (F610492-DUP2)</b> Source: 1610233-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	34.73	0.438	3.91	ng/g		36.52			5.02	24	AD
<b>Matrix Spike (F610492-MS1)</b> Source: 1610233-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	389.4	2.17	19.4	ng/g	387.15	36.52	91.1	71-125			
<b>Matrix Spike (F610492-MS2)</b> Source: 1610234-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	365.6	2.16	19.3	ng/g	385.65	6.489	93.1	71-125			
<b>Matrix Spike Dup (F610492-MSD1)</b> Source: 1610233-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	375.8	2.09	18.7	ng/g	373.69	36.52	90.8	71-125	0.378	24	
<b>Matrix Spike Dup (F610492-MSD2)</b> Source: 1610234-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16											
Mercury	337.2	2.09	18.7	ng/g	373.69	6.489	88.5	71-125	5.09	24	

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:52

### 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.
- 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







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	11/9/2016 8:15:38	55245-1.RAW	8:15:38 AM	2.83			0.2	0.001	0.001	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/9/2016 8:19:47	55246-1.RAW	8:19:47 AM	2.27			-0.4	-0.003	-0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/9/2016 8:23:55	55247-1.RAW	8:23:55 AM	2.90			0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/9/2016 8:28:04	55248-1.RAW	8:28:04 AM	64.24			61.6	0.523	0.523	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/9/2016 8:32:12	55249-1.RAW	8:32:12 AM	122.17			119.5	1.016	1.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/9/2016 8:36:20	55250-1.RAW	8:36:20 AM	582.32			579.6	4.926	4.926	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/9/2016 8:40:29	55251-1.RAW	8:40:29 AM	2306.34			2303.7	19.577	19.577	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/9/2016 8:44:37	55252-1.RAW	8:44:37 AM	4587.17			4584.5	38.959	38.959	ng/L	
Hg2600-3	DM2	CAL	SEQ-JCV1	1	11/9/2016 8:48:46	55253-1.RAW	8:48:46 AM	560.83			558.2	4.743	4.743	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK1	20	11/9/2016 8:52:54	55254-1.RAW	8:52:54 AM	17.64	1		15.0	0.127	2.544	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK2	20	11/9/2016 8:57:03	55255-1.RAW	8:57:03 AM	10.45	1		7.8	0.066	1.324	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK3	20	11/9/2016 9:01:11	55256-1.RAW	9:01:11 AM	9.33	1		6.7	0.057	1.133	ng/L	
Hg2600-3	DM2	SAM	F610492-BS1	20	11/9/2016 9:05:20	55257-1.RAW	9:05:20 AM	612.84	1		610.2	5.102	102.039	ng/L	
Hg2600-3	DM2	SAM	F610492-BS1	20	11/9/2016 9:09:28	55258-1.RAW	9:09:28 AM	631.56	1		628.9	5.261	105.220	ng/L	
Hg2600-3	DM2	SAM	F610492-BS2	500	11/9/2016 9:13:36	55259-1.RAW	9:13:36 AM	482.41	1		479.7	4.074	2036.757	ng/L	
Hg2600-3	DM2	SAM	1610232-27	500	11/9/2016 9:17:45	55260-1.RAW	9:17:45 AM	511.01	1		508.3	4.317	2158.274	ng/L	
Hg2600-3	DM2	SAM	1610232-28	500	11/9/2016 9:21:53	55261-1.RAW	9:21:53 AM	440.55	1		437.9	3.718	1858.902	ng/L	
Hg2600-3	DM2	SAM	1610232-29	500	11/9/2016 9:26:02	55262-1.RAW	9:26:02 AM	240.38	1		237.7	2.017	1008.377	ng/L	
Hg2600-3	DM2	SAM	1610232-30	500	11/9/2016 9:30:10	55263-1.RAW	9:30:10 AM	290.98	1		288.3	2.447	1223.368	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/9/2016 9:34:19	55264-1.RAW	9:34:19 AM	607.30			604.6	5.138	5.138	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/9/2016 9:38:27	55265-1.RAW	9:38:27 AM	9.18			6.5	0.055	0.055	ng/L	
Hg2600-3	DM2	SAM	1610232-31	500	11/9/2016 9:42:35	55266-1.RAW	9:42:35 AM	295.04	1		292.4	2.481	1240.631	ng/L	
Hg2600-3	DM2	SAM	1610232-32	500	11/9/2016 9:46:44	55267-1.RAW	9:46:44 AM	302.33	1		299.7	2.543	1271.624	ng/L	
Hg2600-3	DM2	SAM	1610232-33	500	11/9/2016 9:50:52	55268-1.RAW	9:50:52 AM	345.70	1		343.0	2.912	1455.875	ng/L	
Hg2600-3	DM2	SAM	1610232-34	500	11/9/2016 9:55:01	55269-1.RAW	9:55:01 AM	242.31	1		239.6	2.033	1016.573	ng/L	
Hg2600-3	DM2	SAM	1610232-35	500	11/9/2016 9:59:09	55270-1.RAW	9:59:09 AM	108.41	1		105.7	0.895	447.656	ng/L	
Hg2600-3	DM2	SAM	1610232-36	500	11/9/2016 10:03:18	55271-1.RAW	10:03:18 AM	106.87	1		104.2	0.882	441.116	ng/L	
Hg2600-3	DM2	SAM	1610232-37	500	11/9/2016 10:07:26	55272-1.RAW	10:07:26 AM	326.82	1		324.1	2.751	1375.647	ng/L	
Hg2600-3	DM2	SAM	1610232-38	500	11/9/2016 10:11:35	55273-1.RAW	10:11:35 AM	328.48	1		325.8	2.765	1382.714	ng/L	
Hg2600-3	DM2	SAM	1610232-39	500	11/9/2016 10:15:43	55274-1.RAW	10:15:43 AM	142.09	1		139.4	1.181	590.750	ng/L	
Hg2600-3	DM2	SAM	1610232-40	500	11/9/2016 10:19:52	55275-1.RAW	10:19:52 AM	179.89	1		177.2	1.503	751.350	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/9/2016 10:24:00	55276-1.RAW	10:24:00 AM	563.66			561.0	4.767	4.767	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/9/2016 10:28:08	55277-1.RAW	10:28:08 AM	6.46			3.8	0.032	0.032	ng/L	
Hg2600-3	DM2	SAM	1610232-41	500	11/9/2016 10:32:16	55278-1.RAW	10:32:16 AM	259.24	1		256.6	2.177	1088.501	ng/L	
Hg2600-3	DM2	SAM	1610232-42	500	11/9/2016 10:36:24	55279-1.RAW	10:36:24 AM	628.33	1		625.7	5.314	2656.808	ng/L	
Hg2600-3	DM2	SAM	1610233-01	500	11/9/2016 10:40:32	55280-1.RAW	10:40:32 AM	117.97	1		115.3	0.977	488.258	ng/L	
Hg2600-3	DM2	SAM	1610234-01	500	11/9/2016 10:44:40	55281-1.RAW	10:44:40 AM	28.53	1		25.9	0.216	108.237	ng/L	
Hg2600-3	DM2	SAM	1610234-02	500	11/9/2016 10:48:49	55282-1.RAW	10:48:49 AM	39.87	1		37.2	0.313	156.419	ng/L	
Hg2600-3	DM2	SAM	1610234-03	500	11/9/2016 10:52:57	55283-1.RAW	10:52:57 AM	32.04	1		29.4	0.246	123.128	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP1	500	11/9/2016 10:57:05	55284-1.RAW	10:57:05 AM	107.32	1		104.7	0.886	443.029	ng/L	
Hg2600-3	DM2	SAM	F610492-MS1	500	11/9/2016 11:01:14	55285-1.RAW	11:01:14 AM	1186.50	1		1183.8	10.057	5028.478	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD1	500	11/9/2016 11:05:22	55286-1.RAW	11:05:22 AM	1186.46	1		1183.8	10.057	5028.281	ng/L	
Hg2600-3	DM2	SAM	F610492-MS2	500	11/9/2016 11:09:31	55287-1.RAW	11:09:31 AM	1118.68	1		1116.0	9.481	4740.298	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/9/2016 11:13:39	55288-1.RAW	11:13:39 AM	555.90			553.2	4.701	4.701	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/9/2016 11:17:47	55289-1.RAW	11:17:47 AM	7.03			4.4	0.037	0.037	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD2	500	11/9/2016 11:21:56	55290-1.RAW	11:21:56 AM	1064.88	1		1062.2	9.023	4511.692	ng/L	
Hg2600-3	DM2	SAM	1610232-35RE1	100	11/9/2016 11:26:04	55291-1.RAW	11:26:04 AM	500.24	1		497.6	4.212	421.176	ng/L	
Hg2600-3	DM2	SAM	1610232-36RE1	100	11/9/2016 11:30:13	55292-1.RAW	11:30:13 AM	522.84	1		520.2	4.404	440.379	ng/L	
Hg2600-3	DM2	SAM	1610233-01RE1	100	11/9/2016 11:34:21	55293-1.RAW	11:34:21 AM	548.06	1		545.4	4.618	461.814	ng/L	
Hg2600-3	DM2	SAM	1610234-01RE1	20	11/9/2016 11:38:30	55294-1.RAW	11:38:30 AM	501.58	1		498.9	4.156	83.128	ng/L	
Hg2600-3	DM2	SAM	1610234-02RE1	20	11/9/2016 11:42:38	55295-1.RAW	11:42:38 AM	757.46	1		754.8	6.331	126.618	ng/L	
Hg2600-3	DM2	SAM	1610234-03RE1	20	11/9/2016 11:46:46	55296-1.RAW	11:46:46 AM	547.63	1		545.0	4.548	90.955	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP2	100	11/9/2016 11:50:55	55297-1.RAW	11:50:55 AM	527.20	1		524.5	4.441	444.082	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK1	20	11/9/2016 11:55:03	55298-1.RAW	11:55:03 AM	12.40	2		9.7	0.083	1.654	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK2	20	11/9/2016 11:59:12	55299-1.RAW	11:59:12 AM	11.32	2		8.7	0.074	1.471	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/9/2016 12:03:20	55300-1.RAW	12:03:20 PM	566.05			563.4	4.788	4.788	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/9/2016 12:07:28	55301-1.RAW	12:07:28 PM	5.92			3.3	0.028	0.028	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	BLK	F610522-BLK3	20	11/9/2016 12:11:37	55302-1.RAW	12:11:37 PM	11.78	2		9.1	0.077	1.549	ng/L	
Hg2600-3	DM2	SAM	F610522-BS1	20	11/9/2016 12:15:45	55303-1.RAW	12:15:45 PM	595.53	2		592.9	4.960	99.205	ng/L	
Hg2600-3	DM2	SAM	F610522-BSD1	20	11/9/2016 12:19:54	55304-1.RAW	12:19:54 PM	591.35	2		588.7	4.925	98.495	ng/L	
Hg2600-3	DM2	SAM	1609620-01	2500	11/9/2016 12:24:02	55305-1.RAW	12:24:02 PM	130.11	2		127.4	1.082	2705.955	ng/L	
Hg2600-3	DM2	SAM	1609620-02	2500	11/9/2016 12:28:10	55306-1.RAW	12:28:10 PM	112.07	2		109.4	0.929	2322.775	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 12:32:19	55307-1.RAW	12:32:19 PM	175.47	2		172.8	1.468	3669.731	ng/L	
Hg2600-3	DM2	SAM	1609620-07	250000	11/9/2016 12:36:27	55308-1.RAW	12:36:27 PM	6.52	2		3.9	0.033	8193.902	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 12:40:36	55309-1.RAW	12:40:36 PM	2505.68	2		2503.0	21.271	5317666.312	ng/L	
Hg2600-3	DM2	SAM	1609620-09	250000	11/9/2016 12:44:44	55310-1.RAW	12:44:44 PM	34.94	2		32.3	0.274	68559.010	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP1	2500	11/9/2016 12:48:53	55311-1.RAW	12:48:53 PM	602.10	2		599.4	5.093	12733.430	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/9/2016 12:53:01	55312-1.RAW	12:53:01 PM	12.56371495			9.9	0.084	0.084	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/9/2016 12:57:09	55313-1.RAW	12:57:09 PM	175.36			172.7	1.468	1.468	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/9/2016 13:02:31	55314-1.RAW	1:02:31 PM	576.74			574.1	4.879	4.879	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/9/2016 13:06:40	55315-1.RAW	1:06:40 PM	8.83			6.2	0.052	0.052	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/9/2016 13:10:48	55316-1.RAW	1:10:48 PM	557.84			555.2	4.718	4.718	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/9/2016 13:14:57	55317-1.RAW	1:14:57 PM	9.47			6.8	0.058	0.058	ng/L	
Hg2600-3	DM2	SAM	F610522-MS1	2500	11/9/2016 13:19:05	55318-1.RAW	1:19:05 PM	754.02	2		751.4	6.384	15961.037	ng/L	
Hg2600-3	DM2	SAM	F610522-MSD1	2500	11/9/2016 13:23:13	55319-1.RAW	1:23:13 PM	744.28	2		741.6	6.302	15754.093	ng/L	
Hg2600-3	DM2	SAM	1609620-02RE1	500	11/9/2016 13:27:22	55320-1.RAW	1:27:22 PM	537.57	2		534.9	4.542	2271.242	ng/L	
Hg2600-3	DM2	SAM	1609620-07RE1	500	11/9/2016 13:31:30	55321-1.RAW	1:31:30 PM	638.60	2		635.9	5.401	2700.549	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	2500	11/9/2016 13:35:39	55322-1.RAW	1:35:39 PM	2641.63	2		2639.0	22.425	56063.466	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP2	2500	11/9/2016 13:39:47	55323-1.RAW	1:39:47 PM	184.12	2		181.5	1.541	3853.456	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK1	50	11/9/2016 13:43:55	55324-1.RAW	1:43:55 PM	16.35	3		13.7	0.116	5.815	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK2	50	11/9/2016 13:48:04	55325-1.RAW	1:48:04 PM	12.18	3		9.5	0.081	4.041	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK3	50	11/9/2016 13:52:12	55326-1.RAW	1:52:12 PM	13.14	3		10.5	0.089	4.449	ng/L	
Hg2600-3	DM2	SAM	F610521-BS1	50	11/9/2016 13:56:21	55327-1.RAW	1:56:21 PM	1876.64	3		1874.0	15.830	791.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/9/2016 14:00:29	55328-1.RAW	2:00:29 PM	556.22			553.6	4.704	4.704	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/9/2016 14:04:38	55329-1.RAW	2:04:38 PM	9.41			6.7	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F610521-BSD1	50	11/9/2016 14:08:48	55330-1.RAW	2:08:48 PM	1836.32	3		1833.7	15.487	774.355	ng/L	
Hg2600-3	DM2	SAM	1609620-01	1000	11/9/2016 14:12:54	55331-1.RAW	2:12:54 PM	519.01	3		516.3	4.383	4383.153	ng/L	
Hg2600-3	DM2	SAM	1609620-02	1000	11/9/2016 14:17:03	55332-1.RAW	2:17:03 PM	483.50	3		480.8	4.081	4081.366	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 14:21:11	55333-1.RAW	2:21:11 PM	162.09	3		159.4	1.353	3382.278	ng/L	
Hg2600-3	DM2	SAM	1609620-07	500	11/9/2016 14:25:20	55334-1.RAW	2:25:20 PM	744.64	3		742.0	6.296	3147.903	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 14:29:28	55335-1.RAW	2:29:28 PM	117.23	3		114.6	0.974	243396.464	ng/L	
Hg2600-3	DM2	SAM	1609620-09	500	11/9/2016 14:33:37	55336-1.RAW	2:33:37 PM	135227.20	3		135224.5	1149.134	574566.924	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:42:04	55337-1.RAW	2:42:04 PM	65.99	x		63.3	0.538	0.000	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:44:55	55338-1.RAW	2:44:55 PM	43.28	x		40.6	0.345	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:49:03	55339-1.RAW	2:49:03 PM	73.89	x		71.2	0.605	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:53:12	55340-1.RAW	2:53:12 PM	45.04	x		42.4	0.360	0.000	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP1	2500	11/9/2016 14:57:20	55341-1.RAW	2:57:20 PM	313.44	3		310.8	2.639	6597.639	ng/L	
Hg2600-3	DM2	SAM	F610521-MS1	1000	11/9/2016 15:01:29	55342-1.RAW	3:01:29 PM	2885.17	3		2882.5	24.491	24490.876	ng/L	
Hg2600-3	DM2	SAM	F610521-MSD1	1000	11/9/2016 15:05:37	55343-1.RAW	3:05:37 PM	2892.02	3		2889.4	24.549	24549.097	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/9/2016 15:09:45	55344-1.RAW	3:09:45 PM	607.62			605.0	5.141	5.141	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/9/2016 15:13:54	55345-1.RAW	3:13:54 PM	42.28			39.6	0.337	0.337	ng/L	
Hg2600-3	DM2	SAM	1609620-08RE1	10000	11/9/2016 15:18:02	55346-1.RAW	3:18:02 PM	2756.52	3		2753.9	23.402	234018.516	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	250000	11/9/2016 15:22:11	55347-1.RAW	3:22:11 PM	380.23	3		377.6	3.209	802130.963	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK1	100	11/9/2016 15:26:19	55348-1.RAW	3:26:19 PM	43.07	4		40.4	0.343	34.332	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK2	100	11/9/2016 15:30:27	55349-1.RAW	3:30:27 PM	36.92	4		34.3	0.291	29.110	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK3	100	11/9/2016 15:34:36	55350-1.RAW	3:34:36 PM	35.35	4		32.7	0.278	27.777	ng/L	
Hg2600-3	DM2	SAM	*F611244-BLK4	100	11/9/2016 15:38:44	55351-1.RAW	3:38:44 PM	37.08	4	x	34.4	0.292	29.244	ng/L	
Hg2600-3	DM2	SAM	F611244-BS1	100	11/9/2016 15:42:53	55352-1.RAW	3:42:53 PM	587.75	4		585.1	4.668	466.802	ng/L	
Hg2600-3	DM2	SAM	F611244-BS2	100	11/9/2016 15:47:01	55353-1.RAW	3:47:01 PM	565.03	4		562.4	4.475	447.495	ng/L	
Hg2600-3	DM2	SAM	F611244-BS3	500	11/9/2016 15:51:10	55354-1.RAW	3:51:10 PM	1125.58	4		1122.9	9.482	4740.893	ng/L	
Hg2600-3	DM2	SAM	F611244-BS4	500	11/9/2016 15:55:18	55355-1.RAW	3:55:18 PM	1071.22	4		1068.6	9.020	4509.899	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	11/9/2016 15:59:26	55356-1.RAW	3:59:26 PM	582.59			579.9	4.928	4.928	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/9/2016 16:03:35	55357-1.RAW	4:03:35 PM	26.55			23.9	0.203	0.203	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP2	2500	11/9/2016 16:07:43	55358-1.RAW	4:07:43 PM	178.23	3		175.6	1.490	3725.082	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK1	100	11/9/2016 16:11:52	55359-1.RAW	4:11:52 PM	27.30	5		24.6	0.209	20.937	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK2	100	11/9/2016 16:16:00	55360-1.RAW	4:16:00 PM	29.67	5		27.0	0.229	22.946	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK3	100	11/9/2016 16:20:08	55361-1.RAW	4:20:08 PM	38.84	5		36.2	0.307	30.741	ng/L	
Hg2600-3	DM2	SAM	*F611245-BLK4	100	11/9/2016 16:24:17	55362-1.RAW	4:24:17 PM	27.08	5	x	24.4	0.207	20.743	ng/L	
Hg2600-3	DM2	SAM	F611245-BS1	100	11/9/2016 16:28:25	55363-1.RAW	4:28:25 PM	567.36	5		564.7	4.550	455.007	ng/L	
Hg2600-3	DM2	SAM	F611245-BS2	100	11/9/2016 16:32:34	55364-1.RAW	4:32:34 PM	566.59	5		563.9	4.544	454.352	ng/L	
Hg2600-3	DM2	SAM	F611245-BS3	500	11/9/2016 16:36:42	55365-1.RAW	4:36:42 PM	1114.12	5		1111.5	9.395	4697.734	ng/L	
Hg2600-3	DM2	SAM	F611245-BS4	500	11/9/2016 16:40:51	55366-1.RAW	4:40:51 PM	1069.27	5		1066.6	9.014	4507.139	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	CAL	SEQ-CCVB	1	11/9/2016 16:44:59	55367-1.RAW	4:44:59 PM	592.46			589.8	5.012	5.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	11/9/2016 16:49:07	55368-1.RAW	4:49:07 PM	20.31			17.6	0.150	0.150	ng/L	

TotalMercury EPA1631  
 Operab DM  
 BlankS: 2.6664  
 Calib Eqn:  
 Conc = (Area-2.666  
 Run Date: 11/9/2016  
 Blank SD: 0.349034759  
 Worksh THg2600  
 CalibFa 117.67  
 Status:  
 QC Warnings:4/QC E  
 Run Time: 12:58:22  
 Blank RSD%: 13.0898751  
 Method #### R:  
 1 R<sup>2</sup>: 1  
 CF SD: 3.600437568  
 CF RSD%: 3.059665855

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	4.38					55240-1.RAW	7:56:13	515.19	Clean	OK	1	
clean										55241-1.RAW	7:59:04	0.00	Clean	NP	1	
ws				2.67	0.00					55242-1.RAW	8:03:13	2.37	Sample	OK	1	
ws				2.67	0.01					55243-1.RAW	8:07:21	3.42	Sample	OK	1	
ws										55244-1.RAW	8:11:30	0.00	Sample	NP	1	
SEQ-IBL1	A1		1	0.00	0.02					55245-1.RAW	8:15:38	2.83	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.02					55246-1.RAW	8:19:47	2.27	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.02					55247-1.RAW	8:23:55	2.90	Sample	OK	1	
SEQ-CAL1	A4		1	2.67	0.52			104.65		55248-1.RAW	8:28:04	64.24	Sample	OK	1	
SEQ-CAL2	A5		1	2.67	1.02			101.55		55249-1.RAW	8:32:12	122.17	Sample	OK	1	
SEQ-CAL3	A6		1	2.67	4.93			98.52		55250-1.RAW	8:36:20	582.32	Sample	OK	1	
SEQ-CAL4	A7		1	2.67	19.58			97.88		55251-1.RAW	8:40:29	2306.34	Sample	OK	1	
SEQ-CAL5	A8		1	2.67	38.96			97.40		55252-1.RAW	8:44:37	4587.17	Sample	FB	1	
SEQ-ICV1	A9		1	2.67	4.74			94.87		55253-1.RAW	8:48:46	560.83	Sample	OK	1	
F610492-BLK1	A10		20	2.67	2.54					55254-1.RAW	8:52:54	17.64	Sample	OK	1	
F610492-BLK2	A11		20	2.67	1.32					55255-1.RAW	8:57:03	10.45	Sample	OK	1	
F610492-BLK3	A12		20	2.67	1.13					55256-1.RAW	9:01:11	9.33	Sample	OK	1	
F610492-BS1	B1		20	2.67	103.71					55257-1.RAW	9:05:20	612.84	Sample	OK	1	
F610492-BSD1	B2		20	2.67	106.89					55258-1.RAW	9:09:28	631.56	Sample	OK	1	
F610492-BS2	B3		500	2.67	2038.42					55259-1.RAW	9:13:36	482.41	Sample	OK	1	
1610232-27	B4		500	2.67	2159.94					55260-1.RAW	9:17:45	511.01	Sample	OK	1	
1610232-28	B5		500	2.67	1860.57					55261-1.RAW	9:21:53	440.55	Sample	OK	1	
1610232-29	B6		500	2.67	1010.04					55262-1.RAW	9:26:02	240.38	Sample	OK	1	
1610232-30	B7		500	2.67	1225.03					55263-1.RAW	9:30:10	290.98	Sample	OK	1	
SEQ-CCV1	B8		1	2.67	5.14			102.76		55264-1.RAW	9:34:19	607.30	Sample	OK	1	
SEQ-CCB1	B9		1	2.67	0.06			0.00		55265-1.RAW	9:38:27	9.18	Sample	OK	1	
1610232-31	B10		500	2.67	1242.30					55266-1.RAW	9:42:35	295.04	Sample	OK	1	
1610232-32	B11		500	2.67	1273.29					55267-1.RAW	9:46:44	302.33	Sample	OK	1	
1610232-33	B12		500	2.67	1457.54					55268-1.RAW	9:50:52	345.70	Sample	OK	1	
1610232-34	C1		500	2.67	1018.24					55269-1.RAW	9:55:01	242.31	Sample	OK	1	
1610232-35	C2		500	2.67	449.32					55270-1.RAW	9:59:09	108.41	Sample	OK	1	
1610232-36	C3		500	2.67	442.78					55271-1.RAW	10:03:18	106.87	Sample	OK	1	
1610232-37	C4		500	2.67	1377.31					55272-1.RAW	10:07:26	326.82	Sample	OK	1	
1610232-38	C5		500	2.67	1384.38					55273-1.RAW	10:11:35	328.48	Sample	OK	1	
1610232-39	C6		500	2.67	592.42					55274-1.RAW	10:15:43	142.09	Sample	OK	1	
1610232-40	C7		500	2.67	753.02					55275-1.RAW	10:19:52	179.89	Sample	OK	1	
SEQ-CCV2	C8		1	2.67	4.77			95.35		55276-1.RAW	10:24:00	563.66	Sample	OK	1	
SEQ-CCB2	C9		1	2.67	0.03			0.00		55277-1.RAW	10:28:08	6.46	Sample	OK	1	
1610232-41	C10		500	2.67	1090.17					55278-1.RAW	10:32:16	259.24	Sample	OK	1	
1610232-42	C11		500	2.67	2658.47					55279-1.RAW	10:36:24	628.33	Sample	OK	1	
1610233-01	C12		500	2.67	489.93					55280-1.RAW	10:40:32	117.97	Sample	OK	1	
1610234-01	D1		500	2.67	109.90					55281-1.RAW	10:44:40	28.53	Sample	OK	1	
1610234-02	D2		500	2.67	158.09					55282-1.RAW	10:48:49	39.87	Sample	OK	1	
1610234-03	D3		500	2.67	124.80					55283-1.RAW	10:52:57	32.04	Sample	OK	1	
F610492-DUP1	D4		500	2.67	444.70					55284-1.RAW	10:57:05	107.32	Sample	OK	1	
F610492-MS1	D5		500	2.67	5030.15			1128.60		55285-1.RAW	11:01:14	1186.50	Sample	OK	1	
F610492-MSD1	D6		500	2.67	5029.95					55286-1.RAW	11:05:22	1186.46	Sample	OK	1	
F610492-MS2	D7		500	2.67	4741.97			94.24		55287-1.RAW	11:09:31	1118.68	Sample	OK	1	
SEQ-CCV3	D8		1	2.67	4.70			94.03		55288-1.RAW	11:13:39	555.90	Sample	OK	1	
SEQ-CCB3	D9		1	2.67	0.04			0.00		55289-1.RAW	11:17:47	7.03	Sample	OK	1	

F610492-MSD2	D10	500	2.67	4513.36		55290-1.RAW	11:21:56	1064.88	Sample	OK	1
1610232-35RE1	D11	100	2.67	422.84		55291-1.RAW	11:26:04	500.24	Sample	OK	1
1610232-36RE1	D12	100	2.67	442.05		55292-1.RAW	11:30:13	522.84	Sample	OK	1
1610233-01RE1	A1	100	2.67	463.48		55293-1.RAW	11:34:21	548.06	Sample	OK	1
1610234-01RE1	A2	20	2.67	84.80		55294-1.RAW	11:38:30	501.58	Sample	OK	1
1610234-02RE1	A3	20	2.67	128.29		55295-1.RAW	11:42:38	757.46	Sample	OK	1
1610234-03RE1	A4	20	2.67	92.62		55296-1.RAW	11:46:46	547.63	Sample	OK	1
F610492-DUP2	A5	100	2.67	445.75		55297-1.RAW	11:50:55	527.20	Sample	OK	1
F610522-BLK1	A6	20	2.67	1.65		55298-1.RAW	11:55:03	12.40	Sample	OK	1
F610522-BLK2	A7	20	2.67	1.47		55299-1.RAW	11:59:12	11.32	Sample	OK	1
SEQ-CCV4	A8	1	2.67	4.79	95.75	55300-1.RAW	12:03:20	566.05	Sample	OK	1
SEQ-CCB4	A9	1	2.67	0.03	0.00	55301-1.RAW	12:07:28	5.92	Sample	OK	1
F610522-BLK3	A10	20	2.67	1.55		55302-1.RAW	12:11:37	11.78	Sample	OK	1
F610522-BS1	A11	20	2.67	100.76		55303-1.RAW	12:15:45	595.53	Sample	OK	1
F610522-BSD1	A12	20	2.67	100.05		55304-1.RAW	12:19:54	591.35	Sample	OK	1
1609620-01	B1	2500	2.67	2707.51		55305-1.RAW	12:24:02	130.11	Sample	OK	1
1609620-02	B2	2500	2.67	2324.33		55306-1.RAW	12:28:10	112.07	Sample	OK	1
1609620-03	B3	2500	2.67	3671.29		55307-1.RAW	12:32:19	175.47	Sample	OK	1
1609620-07	B4	250000	2.67	8195.46		55308-1.RAW	12:36:27	6.52	Sample	OK	1
1609620-08	B5	250000	2.67	5317667.87		55309-1.RAW	12:40:36	2505.68	Sample	OK	1
1609620-09	B6	250000	2.67	68560.57		55310-1.RAW	12:44:44	34.94	Sample	OK	1
F610522-DUP1	B7	2500	2.67	12734.99		55311-1.RAW	12:48:53	602.10	Sample	OK	1
SEQ-CCV5	B8	1	2.67	0.08	1.68	55312-1.RAW	12:53:01	12.56	Sample	OK	1
SEQ-CCB5	B9	1	2.67	1.47	0.00	55313-1.RAW	12:57:09	175.36	Sample	OK	1
SEQ-CCV6	D1	1	2.67	4.88	97.57	55314-1.RAW	13:02:31	576.74	Sample	OK	1
SEQ-CCB6	D2	1	2.67	0.05	0.00	55315-1.RAW	13:06:40	8.83	Sample	OK	1
SEQ-CCV7	D3	1	2.67	4.72	94.36	55316-1.RAW	13:10:48	557.84	Sample	OK	1
SEQ-CCB7	D4	1	2.67	0.06	0.00	55317-1.RAW	13:14:57	9.47	Sample	OK	1
F610522-MS1	B12	2500	2.67	15962.60	#####	55318-1.RAW	13:19:05	754.02	Sample	OK	1
F610522-MSD1	C1	2500	2.67	15755.65		55319-1.RAW	13:23:13	744.28	Sample	OK	1
1609620-02RE1	C2	500	2.67	2272.80		55320-1.RAW	13:27:22	537.57	Sample	OK	1
1609620-07RE1	C3	500	2.67	2702.11		55321-1.RAW	13:31:30	638.60	Sample	OK	1
1609620-09RE1	C4	2500	2.67	56065.02		55322-1.RAW	13:35:39	2641.63	Sample	OK	1
F610522-DUP2	C5	2500	2.67	3855.01		55323-1.RAW	13:39:47	184.12	Sample	OK	1
F610521-BLK1	C6	50	2.67	5.82		55324-1.RAW	13:43:55	16.35	Sample	OK	1
F610521-BLK2	C7	50	2.67	4.04		55325-1.RAW	13:48:04	12.18	Sample	OK	1
F610521-BLK3	C8	50	2.67	4.45		55326-1.RAW	13:52:12	13.14	Sample	OK	1
F610521-BS1	C9	50	2.67	796.26		55327-1.RAW	13:56:21	1876.64	Sample	OK	1
SEQ-CCV8	C10	1	2.67	4.70	94.08	55328-1.RAW	14:00:29	556.22	Sample	OK	1
SEQ-CCB8	C11	1	2.67	0.06	0.00	55329-1.RAW	14:04:38	9.41	Sample	OK	1
F610521-BSD1	C12	50	2.67	779.12		55330-1.RAW	14:08:46	1836.32	Sample	OK	1
1609620-01	D1	1000	2.67	4387.92		55331-1.RAW	14:12:54	519.01	Sample	OK	1
1609620-02	D2	1000	2.67	4086.13		55332-1.RAW	14:17:03	483.50	Sample	OK	1
1609620-03	D3	2500	2.67	3387.05		55333-1.RAW	14:21:11	162.09	Sample	OK	1
1609620-07	D4	500	2.67	3152.67		55334-1.RAW	14:25:20	744.64	Sample	OK	1
1609620-08	D5	250000	2.67	243401.23		55335-1.RAW	14:29:28	117.23	Sample	OK	1
1609620-09	D6	500	2.67	574571.69		55336-1.RAW	14:33:37	135227.20	Sample	OLFB	
CLEAN			0.00	0.56		55337-1.RAW	14:42:04	65.99	Clean	OK	1
CLEAN			0.00	0.37		55338-1.RAW	14:44:55	43.28	Clean	OK	1
WS			2.67	0.61		55339-1.RAW	14:49:03	73.89	Sample	OK	1
WS			2.67	0.36		55340-1.RAW	14:53:12	45.04	Sample	OK	1
F610521-DUP1	D7	2500	2.67	6602.41		55341-1.RAW	14:57:20	313.44	Sample	OK	1
F610521-MS1	D8	1000	2.67	24495.64	370.95	55342-1.RAW	15:01:29	2885.17	Sample	OK	1
F610521-MSD1	D9	1000	2.67	24553.87		55343-1.RAW	15:05:37	2892.02	Sample	FB	1
SEQ-CCV9	D10	1	2.67	5.14	102.82	55344-1.RAW	15:09:45	607.62	Sample	OK	1

WRONG LOCATION  
WRONG LOCATION

SEQ-CCB9	D11	1	2.67	0.34	0.00	55345-1.RAW	15:13:54	42.28	Sample	OK	1
1609620-08RE1	D12	10000	2.67	234023.28		55346-1.RAW	15:18:02	2756.52	Sample	OK	1
1609620-09RE1	A1	250000	2.67	802135.73		55347-1.RAW	15:22:11	380.23	Sample	OK	1
F611244-BLK1	A2	100	2.67	34.33		55348-1.RAW	15:26:19	43.07	Sample	OK	1
F611244-BLK2	A3	100	2.67	29.11		55349-1.RAW	15:30:27	36.92	Sample	OK	1
F611244-BLK3	A4	100	2.67	27.78		55350-1.RAW	15:34:36	35.35	Sample	OK	1
*F611244-BLK4	A5	100	2.67	29.24		55351-1.RAW	15:38:44	37.08	Sample	OK	1
F611244-BS1	A6	100	2.67	497.21		55352-1.RAW	15:42:53	587.75	Sample	OK	1
F611244-BS2	A7	100	2.67	477.90		55353-1.RAW	15:47:01	565.03	Sample	OK	1
F611244-BS3	A8	500	2.67	4771.30		55354-1.RAW	15:51:10	1125.58	Sample	OK	1
F611244-BS4	A9	500	2.67	4540.31		55355-1.RAW	15:55:18	1071.22	Sample	OK	1
SEQ-CCVA	A10	1	2.67	4.93		55356-1.RAW	15:59:26	582.59	Sample	OK	1
SEQ-CCBA	A11	1	2.67	0.20		55357-1.RAW	16:03:35	26.55	Sample	OK	1
F610521-DUP2	A12	2500	2.67	3729.85		55358-1.RAW	16:07:43	178.23	Sample	OK	1
F611245-BLK1	B1	100	2.67	20.94		55359-1.RAW	16:11:52	27.30	Sample	OK	1
F611245-BLK2	B2	100	2.67	22.95		55360-1.RAW	16:16:00	29.67	Sample	OK	1
F611245-BLK3	B3	100	2.67	30.74		55361-1.RAW	16:20:08	38.84	Sample	OK	1
*F611245-BLK4	B4	100	2.67	20.74		55362-1.RAW	16:24:17	27.08	Sample	OK	1
F611245-BS1	B5	100	2.67	479.88		55363-1.RAW	16:28:25	587.36	Sample	OK	1
F611245-BS2	B6	100	2.67	479.23		55364-1.RAW	16:32:34	566.59	Sample	OK	1
F611245-BS3	B7	500	2.67	4722.61		55365-1.RAW	16:36:42	1114.12	Sample	OK	1
F611245-BS4	B8	500	2.67	4532.01		55366-1.RAW	16:40:51	1069.27	Sample	OK	1
SEQ-CCVB	B9	1	2.67	5.01		55367-1.RAW	16:44:59	592.46	Sample	OK	1
SEQ-CCBB	B10	1	2.67	0.15		55368-1.RAW	16:49:07	20.31	Sample	OK	1

## ANALYSIS SEQUENCE

6K10007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10007-IBL1	QC	1			
6K10007-IBL2	QC	2			
6K10007-IBL3	QC	3			
6K10007-CAL1	QC	4	1605412		
6K10007-CAL2	QC	5	1605413		
6K10007-CAL3	QC	6	1605414		
6K10007-CAL4	QC	7	1605415		
6K10007-CAL5	QC	8	1605416		
6K10007-ICV1	QC	9	1605791		
6K10007-CCV1	QC	10	1605791		
6K10007-CCB1	QC	11			
6K10007-CCV2	QC	12	1605791		
6K10007-CCB2	QC	13			
6K10007-CCV3	QC	14	1605791		
6K10007-CCB3	QC	15			
6K10007-CCV4	QC	16	1605791		
6K10007-CCB4	QC	17			
6K10007-CCV5	QC	18	1605791		
6K10007-CCB5	QC	19			
6K10007-CCV6	QC	20	1605791		
6K10007-CCB6	QC	21			
6K10007-CCV7	QC	22	1605791		
6K10007-CCB7	QC	23			
F610521-BLK1	QC	24			
F610521-BLK2	QC	25			
F610521-BLK3	QC	26			
F610521-BS1	QC	27			
6K10007-CCV8	QC	28	1605791		
6K10007-CCB8	QC	29			
F610521-BSD1	QC	30			
1609620-01	Hg-CVAFS-S-SSE-F4	31			
1609620-02	Hg-CVAFS-S-SSE-F4	32			
1609620-03	Hg-CVAFS-S-SSE-F4	33			
1609620-07	Hg-CVAFS-S-SSE-F4	34			
1609620-08	Hg-CVAFS-S-SSE-F4	35			

Due Date: 10/21/2016

Page 19 of 79

Page 1 of 2

**ANALYSIS SEQUENCE**

**6K10007**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F4	36			
F610521-DUP1	QC	37			
F610521-MS1	QC	38			
F610521-MSD1	QC	39			
6K10007-CCV9	QC	40	1605791		
6K10007-CCB9	QC	41			
1609620-08RE1	Hg-CVAFS-S-SSE-F4	42			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F4	43			Added 11/9/2016 by DM2
6K10007-CCVA	QC	44	1605791		
6K10007-CCBA	QC	45			
F610521-DUP2	QC	46			
6K10007-CCVB	QC	47	1605791		
6K10007-CCBB	QC	48			

Don M. Mason      11/9/16  
 Samples Loaded By      Date

Don M. Mason      11/10/16  
 Data Processed By      Date





## ANALYSIS SEQUENCE

6K10006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10006-IBL1	QC	1			
6K10006-IBL2	QC	2			
6K10006-IBL3	QC	3			
6K10006-CAL1	QC	4	1605412		
6K10006-CAL2	QC	5	1605413		
6K10006-CAL3	QC	6	1605414		
6K10006-CAL4	QC	7	1605415		
6K10006-CAL5	QC	8	1605416		
6K10006-ICV1	QC	9	1605791		
6K10006-CCV1	QC	10	1605791		
6K10006-CCB1	QC	11			
6K10006-CCV2	QC	12	1605791		
6K10006-CCB2	QC	13			
6K10006-CCV3	QC	14	1605791		
6K10006-CCB3	QC	15			
F610522-BLK1	QC	16			
F610522-BLK2	QC	17			
6K10006-CCV4	QC	18	1605791		
6K10006-CCB4	QC	19			
F610522-BLK3	QC	20			
F610522-BS1	QC	21			
F610522-BSD1	QC	22			
1609620-01	Hg-CVAFS-S-SSE-F5	23			
1609620-02	Hg-CVAFS-S-SSE-F5	24			
1609620-03	Hg-CVAFS-S-SSE-F5	25			
1609620-07	Hg-CVAFS-S-SSE-F5	26			
1609620-08	Hg-CVAFS-S-SSE-F5	27			
1609620-09	Hg-CVAFS-S-SSE-F5	28			
F610522-DUP1	QC	29			
6K10006-CCV5	QC	30	1605791		
6K10006-CCB5	QC	31			
6K10006-CCV6	QC	32	1605791		
6K10006-CCB6	QC	33			
6K10006-CCV7	QC	34	1605791		
6K10006-CCB7	QC	35			

Due Date: 10/21/2016

Page 22 of 79

Page 1 of 2

**ANALYSIS SEQUENCE**

**6K10006**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F610522-MS1	QC	36			
F610522-MSD1	QC	37			
1609620-02RE1	Hg-CVAFS-S-SSE-F5	38			Added 11/9/2016 by DM2
1609620-07RE1	Hg-CVAFS-S-SSE-F5	39			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F5	40			Added 11/9/2016 by DM2
F610522-DUP2	QC	41			
6K10006-CCV8	QC	42	1605791		
6K10006-CCB8	QC	43			
6K10006-CCV9	QC	44	1605791		
6K10006-CCB9	QC	45			
6K10006-CCVA	QC	46	1605791		
6K10006-CCBA	QC	47			
6K10006-CCVB	QC	48	1605791		
6K10006-CCBB	QC	49			

Dan Maxam      11/9/16  
 Samples Loaded By      Date

Dan Maxam      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10006**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610522-DUP1	Hg-CVAFS-S-SSE-F5	2313	227	661.6	661.6		ng/g				111	25.00	PASS-OVER	FAIL-DUP	QR-07
6K10006-CCV5	Hg-CVAFS-S-SSE-F5	0.08	1.250			5.0000	ng/L	1.68	75.00	125.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10006-CCB5	Hg-CVAFS-S-SSE-F5	1.47	1.250				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

Don Moxem                      11/10/16  
 Analyst Reviewed By                      Date

Ryan M/L                      11/11/16  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K10005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-IBL1	QC	1			
6K10005-IBL2	QC	2			
6K10005-IBL3	QC	3			
6K10005-CAL1	QC	4	1605412		
6K10005-CAL2	QC	5	1605413		
6K10005-CAL3	QC	6	1605414		
6K10005-CAL4	QC	7	1605415		
6K10005-CAL5	QC	8	1605416		
6K10005-ICV1	QC	9	1605791		
6K10005-CCV1	QC	10	1605791		
6K10005-CCB1	QC	11			
6K10005-CCV2	QC	12	1605791		
6K10005-CCB2	QC	13			
6K10005-CCV3	QC	14	1605791		
6K10005-CCB3	QC	15			
6K10005-CCV4	QC	16	1605791		
6K10005-CCB4	QC	17			
6K10005-CCV5	QC	18	1605791		
6K10005-CCB5	QC	19			
6K10005-CCV6	QC	20	1605791		
6K10005-CCB6	QC	21			
6K10005-CCV7	QC	22	1605791		
6K10005-CCB7	QC	23			
6K10005-CCV8	QC	24	1605791		
6K10005-CCB8	QC	25			
6K10005-CCV9	QC	26	1605791		
6K10005-CCB9	QC	27			
F611244-BLK1	QC	28			
F611244-BLK2	QC	29			
F611244-BLK3	QC	30			
F611244-BLK4	QC	31			
F611244-BS1	QC	32			
F611244-BS2	QC	33			
F611244-BS3	QC	34			
F611244-BS4	QC	35			

**ANALYSIS SEQUENCE**

**6K10005**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-CCVA	QC	36	1605791		
6K10005-CCBA	QC	37			
F611245-BLK1	QC	38			
F611245-BLK2	QC	39			
F611245-BLK3	QC	40			
F611245-BLK4	QC	41			
F611245-BS1	QC	42			
F611245-BS2	QC	43			
F611245-BS3	QC	44			
F611245-BS4	QC	45			
6K10005-CCVB	QC	46	1605791		
6K10005-CCBB	QC	47			

Don Moran      11/9/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10005**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10005-CCV5	Hg_FSTM_TRAP_A	0.08	0.500			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10005-CCB5	Hg_FSTM_TRAP_A	1.47	0.500				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

Don Moxem                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      11/21/16  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10008-IBL1	QC	1			
6K10008-IBL2	QC	2			
6K10008-IBL3	QC	3			
6K10008-CAL1	QC	4	1605412		
6K10008-CAL2	QC	5	1605413		
6K10008-CAL3	QC	6	1605414		
6K10008-CAL4	QC	7	1605415		
6K10008-CAL5	QC	8	1605416		
6K10008-ICV1	QC	9	1605791		
F610492-BLK1	QC	10			
F610492-BLK2	QC	11			
F610492-BLK3	QC	12			
F610492-BS1	QC	13			
F610492-BSD1	QC	14			
F610492-BS2	QC	15			
1610232-27	Hg-CVAFS-T-7030	16			
1610232-28	Hg-CVAFS-T-7030	17			
1610232-29	Hg-CVAFS-T-7030	18			
1610232-30	Hg-CVAFS-T-7030	19			
6K10008-CCV1	QC	20	1605791		
6K10008-CCB1	QC	21			
1610232-31	Hg-CVAFS-T-7030	22			
1610232-32	Hg-CVAFS-T-7030	23			
1610232-33	Hg-CVAFS-T-7030	24			
1610232-34	Hg-CVAFS-T-7030	25			
1610232-35	Hg-CVAFS-T-7030	26			
1610232-36	Hg-CVAFS-T-7030	27			
1610232-37	Hg-CVAFS-T-7030	28			
1610232-38	Hg-CVAFS-T-7030	29			
1610232-39	Hg-CVAFS-T-7030	30			
1610232-40	Hg-CVAFS-T-7030	31			
6K10008-CCV2	QC	32	1605791		
6K10008-CCB2	QC	33			
1610232-41	Hg-CVAFS-T-7030	34			
1610232-42	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

Page 28 of 79

Page 1 of 3



## ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610233-01	Hg-CVAFS-T-7030	36			
1610234-01	Hg-CVAFS-T-7030	37			
1610234-02	Hg-CVAFS-T-7030	38			
1610234-03	Hg-CVAFS-T-7030	39			
F610492-DUP1	QC	40			
F610492-MS1	QC	41			
F610492-MSD1	QC	42			
F610492-MS2	QC	43			
6K10008-CCV3	QC	44	1605791		
6K10008-CCB3	QC	45			
F610492-MSD2	QC	46			
1610232-35RE1	Hg-CVAFS-T-7030	47			Added 11/9/2016 by DM2
1610232-36RE1	Hg-CVAFS-T-7030	48			Added 11/9/2016 by DM2
1610233-01RE1	Hg-CVAFS-T-7030	49			Added 11/9/2016 by DM2
1610234-01RE1	Hg-CVAFS-T-7030	50			Added 11/9/2016 by DM2
1610234-02RE1	Hg-CVAFS-T-7030	51			Added 11/9/2016 by DM2
1610234-03RE1	Hg-CVAFS-T-7030	52			Added 11/9/2016 by DM2
F610492-DUP2	QC	53			
6K10008-CCV4	QC	54	1605791		
6K10008-CCB4	QC	55			
6K10008-CCV5	QC	56	1605791		
6K10008-CCB5	QC	57			
6K10008-CCV6	QC	58	1605791		
6K10008-CCB6	QC	59			
6K10008-CCV7	QC	60	1605791		
6K10008-CCB7	QC	61			
6K10008-CCV8	QC	62	1605791		
6K10008-CCB8	QC	63			
6K10008-CCV9	QC	64	1605791		
6K10008-CCB9	QC	65			
6K10008-CCVA	QC	66	1605791		
6K10008-CCBA	QC	67			
6K10008-CCVB	QC	68	1605791		
6K10008-CCBB	QC	69			

Due Date: 11/2/2016

Page 29 of 79

Page 2 of 3

ANALYSIS SEQUENCE

6KI0008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Matern      11/9/16  
Samples Loaded By      Date

Don Matern      11/10/16  
Data Processed By      Date

**Failing Data Report - 6K10008**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10008-CCV5	Hg-CVAFS-T-7030	0.084	2.000			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	wrong location

    Dan Maceen                              11/10/16      
 Analyst Reviewed By                      Date

    Ryan N/L                              11/21/16      
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					
F611245-BLK2	Blank	1	40					
F611245-BLK3	Blank	1	40					
F611245-BLK4	Blank	1	40					
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			

<u>Standard ID(s):</u> 1605712	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 03-Apr-17 00:00 03-Apr-17 00:00	<u>Reagent ID(s):</u> 1602941 1605635 1605636 1606221 1606367 1606370	<u>Description:</u> 25% Hydroxylamine-HCl working solution THg Dilute 1% BrCl THg Washstation (0.5% BrCl) 70/30 Digestion Acid 5% BrCl 3% SnCl <sub>2</sub> THg reductant	<u>Expiration:</u> 03-Dec-16 00:00 09-Feb-17 00:00 03-Dec-16 00:00 22-Apr-17 00:00 26-Mar-17 00:00 20-Apr-17 00:00
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FSTM Lot Testing 161102B

**PREPARATION BENCH SHEET**

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					
F611244-BLK2	Blank	1	40					
F611244-BLK3	Blank	1	40					
F611244-BLK4	Blank	1	40					
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00 03-Apr-17 00:00	1602941 1605635 1605636 1606221 1606367 1606370	25% Hydroxylamine-HCl working solution THg Dilute 1% BrCl THg Washstation (0.5% BrCl) 70/30 Digestion Acid 5% BrCl 3% SnCl2 THg reductant	03-Dec-16 00:00 09-Feb-17 00:00 03-Dec-16 00:00 22-Apr-17 00:00 26-Mar-17 00:00 20-Apr-17 00:00

FSTM Lot Testing 161102A

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					
F610492-BLK2	Blank	0.25	20					
F610492-BLK3	Blank	0.25	20					
F610492-BS1	LCS	0.25	20	1605270	20			
F610492-BS2	LCS	0.1252	20	1605470	125.2			
F610492-BSD1	LCS Dup	0.25	20	1605270	20			
F610492-DUP1	Duplicate [1610233-01RE1]	0.2557	20					
F610492-DUP2	Duplicate [1610233-01RE1]	0.2557	20					
F610492-MS1	Matrix Spike [1610233-01RE1]	0.2583	20	1605712	100			
F610492-MS2	Matrix Spike [1610234-01RE1]	0.2593	20	1605712	100			
F610492-MSD1	Matrix Spike Dup [1610233-01RE1]	0.2676	20	1605712	100			
F610492-MSD2	Matrix Spike Dup [1610234-01RE1]	0.2676	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00
			1606500		

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	-	-	-		
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	-	-	-		
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	-	-	-		
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	-	-	-		
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	-	-	-		
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	-	-	-		
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	-	-	-		
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	-	-	-		
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-		
1610232-35RE1	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-		
1610232-36RE1	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	-	-	-		
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	-	-	-		
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	-	-	-		
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	-	-	-		
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	-	-	-		
232-42	OB-05_092116_RAS_WB_01	0.264	20	-	-	-		
233-01	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD	

**PREPARATION BENCH SHEET**

F610492

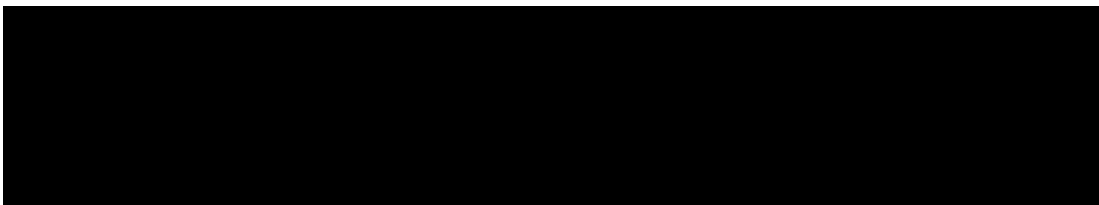
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

1610233-01RE1	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD	
1610234-01RE1	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-		
1610234-02RE1	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-		
1610234-03RE1	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2





**PREPARATION BENCH SHEET**

F610522

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					
F610522-BLK2	Blank	0.25	40					
F610522-BLK3	Blank	0.25	40					
F610522-BS1	LCS	0.25	40	1605270	40			
F610522-BSD1	LCS Dup	0.25	40	1605270	40			
F610522-DUP1	Duplicate [1609620-03]	0.256	40					
F610522-DUP2	Duplicate [1609620-03]	0.258	40					
F610522-MS1	Matrix Spike [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->40mL; 40mL->40mL; Spiked 0.02mL.
F610522-MSD1	Matrix Spike Dup [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->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>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605815	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610522

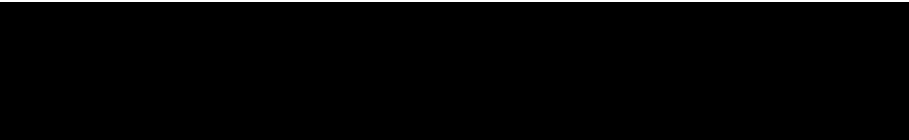
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (ml.)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	40	-	-	-		
1609620-02RE1	Sand-Na25-2-bottom	0.258	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-03	Sand-Na25-3-bottom	0.258	40	-	-	-		
1609620-07	Hg0	0.263	40	-	-	-		
1609620-07RE1	Hg0	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-08	HgS	0.256	40	-	-	-		
1609620-09	Hg2Cl2	0.263	40	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

F610521

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					
F610521-BLK2	Blank	0.25	125					
F610521-BLK3	Blank	0.25	125					
F610521-BS1	LCS	0.002	1	1604715	100			
F610521-BSD1	LCS Dup	0.002	1	1604715	100			
F610521-DUP1	Duplicate [1609620-03]	0.256	125					
F610521-DUP2	Duplicate [1609620-03]	0.258	125					
F610521-MS1	Matrix Spike [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; Spiked 0.05mL
F610521-MSD1	Matrix Spike Dup [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; 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>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605838	12N HNO3	05-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610521

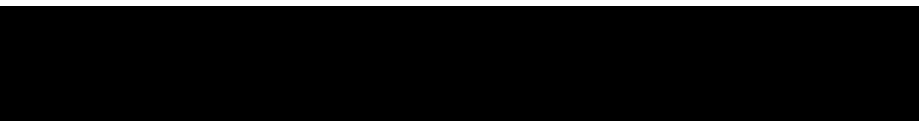
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	125	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	125	-	-	-		
1609620-07	Hg0	0.263	125	-	-	-		
1609620-08	HgS	0.256	125	-	-	-		
1609620-08RE1	HgS	0.256	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-09	Hg2Cl2	0.263	125	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

200.3

11/9/16 DM

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					100x
F611245-BLK2	Blank	1	40					100x
F611245-BLK3	Blank	1	40					100x
F611245-BLK4	Blank	1	40					100x
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			500x
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			500x

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

1602941  
 1605636  
 1605635  
 1606379

FSTM Lot Testing 161102B



**PREPARATION BENCH SHEET**

2600-3

11/9/16 DM

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					100X
F611244-BLK2	Blank	1	40					100X
F611244-BLK3	Blank	1	40					100X
F611244-BLK4	Blank	1	40					100X
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			500X
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			500X

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

FSTM Lot Testing 161102A

1602041  
 1605636  
 1605635  
 1606370





PREPARATION BENCH SHEET

2600-3  
11/9/16 DM

F610522

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					20X
F610522-BLK2	Blank	0.25	40					20X
F610522-BLK3	Blank	0.25	40					20X
F610522-BS1	LCS	0.25	40	1605270	40			20X
F610522-BSD1	LCS Dup	0.25	40	1605270	40			20X
F610522-DUP1	Duplicate [1609620-03]	0.256	40					2500X
F610522-MS1	Matrix Spike 1609620-01	0.25	40	1605272	25			2500X
F610522-MSD1	Matrix Spike Dup 1609620-01	0.25	40	1605272	25			2500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605815	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606465	5% BrCl	19-Apr-17 00:00

DUP1 - AD 2500X  
Source 1609620-03

1602041  
1605636  
1605635  
1606570

PREPARATION BENCH SHEET

200.3

11/9/16 DM

F610522

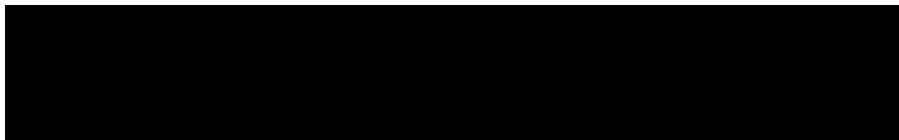
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	No	2500X
1609620-02	Sand-Na25-2-bottom	0.258	40	No	2500X → 500X
1609620-03	Sand-Na25-3-bottom	0.258	40	No	2500X
1609620-07	Hg0	0.263	40	No	DM 11/9/16 → 250,000X → 500X
1609620-08	HgS	0.256	40	No	250,000X
1609620-09	Hg2Cl2	0.263	40	No	250,000X → 2500X



Technician: MPM Batch#: F610518 Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CVAFS-S-SSE-F1 through F5

Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)  
 Spike Witness: MPM 11/4/16 (initial and date) Pipette M111607 cal. 10/30/16

F2-PH2  
 HCl LIMS ID: 1605762  
 F1 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163  
 F2 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163  
 F3 KOH  
 Other Acid LIMS ID: 1605821

Pipette SN#: M111607 Calibration Date: 11-6-16 MPM 11/1/16  
 F1  
 Pipette SN#: NU01049 Calibration Date: 10/30/16  
 F2 Pipette  
 Dispenser #: NU01049 Calibrated?  Yes  No  
 F3 Pipette  
 Dispenser #: NU01049 cal. Yes

Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*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 type="checkbox"/> NA
1	F610518-BIK1	0.254	23			
2	F610518-BIK2	0.265	24			1605057
3	F610518-BIK3	0.267	25			1605058
4	1609620-01	0.260	26			1605059
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			<b>Comments</b>
7	F610518-DUP(1609620-03)	0.256	29			F2 Batch # F610519
8	1609620-07	0.263	30			F3 Batch # F610520
9	1609620-08	0.256	31			F4 Batch # F610521
10	1609620-09	0.263	32			F5 Batch # F610522
11			33			MPM 10/28/16
12			34			1609620-07: HgO
13			35			1609620-08: HgS
14			36			1609620-09: Hg <sub>2</sub> Cl <sub>2</sub>
15			37			MPM 10/31/16
16			38			F3 BrCl 1605634 MPM 11/1/16
17			39			F4 12N HNO <sub>3</sub> 1605838
18			40			F4 BrCl 1605634 MPM 11/1/16
19			41			F4 Pipette NU01049
20			42			cal. 10/30/16
21			43			F5 boiling chips #
22			44			1603399 BS/BSD

balance 19 cal. yes  
 BS1 0.2670g  
 BSD1 0.2608g  
 HCl 1606137  
 Dispenser 0842293  
 14N HNO<sub>3</sub> 1605815  
 Dispenser 0545812  
 vial # 00065276  
 11/4/16 MPM  
 F5 F610522  
 BrCl: 1606465  
 dispenser: 022159  
 AMB 11/7/16

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610521

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					50X
F610521-BLK2	Blank	0.25	125					50X
F610521-BLK3	Blank	0.25	125					50X
F610521-BS1	LCS 0.002	0.25	125	1604715	100			50X
F610521-BSD1	LCS Dup 0.002	0.25	125	1604715	100			50X
F610521-DUP1	Duplicate [1609620-03]	0.256	125					2500X
F610521-MS1	Matrix Spike 1609620-01	0.25	125	1605272	100			1000X
F610521-MSD1	Matrix Spike Dup 1609620-01	0.25	125	1605272	100			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605838	12N HNO3	05-Apr-17 00:00

DUP2 - AD 2500X  
Source 1609620-03

1602941  
1605636  
1605635  
1606370

PREPARATION BENCH SHEET

2600-3

F610521

11/9/16 DM

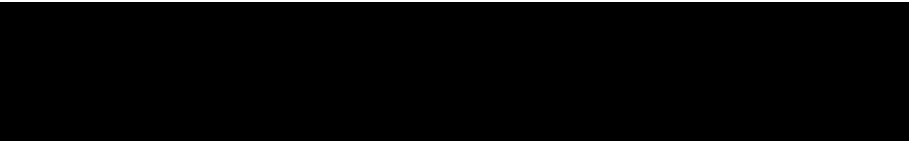
Euofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	No	1000X
1609620-02	Sand-Na25-2-bottom	0.258	125	No	1000X
1609620-03	Sand-Na25-3-bottom	0.258	125	No	2500X
1609620-07	Hg0	0.263	125	No	500X
1609620-08	HgS	0.256	125	No	250,000X → 10,000X
1609620-09	Hg2Cl2	0.263	125	No	500X → 250,000X



Technician: MPM Batch#: F610518 Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CVAFS-S-SSE-F1 through F5

Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)  
 Spike Witness: MPM 11/4/16 (initial and date) Pipette MU11619 cal. 10/30/16

F2-PH2  
 HCl LIMS ID: 1605762 Pipette SN#: MU11607 Calibration Date: 11-6-16 MPM 11/1/16  
 F1 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163 Pipette SN#: NU01049 Calibration Date: 10/30/16  
 F2 BrCl  
 H<sub>2</sub>O LIMS ID: 1606163 Dispenser #: NU01049 Calibrated?  Yes  No  
 F3 KOH  
 Other Acid LIMS ID: 1605821 Dispenser #: NU01049 cal. Yes

Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*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 type="checkbox"/> NA
1	F610518-B1K1	0.254	23			1605057
2	F610518-B1K2	0.265	24			1605058
3	F610518-B1K3	0.267	25			1605059
4	1609620-01	0.260	26			
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			
7	F610518-DUP1(1609620-03)	0.256	29			
8	1609620-07	0.263	30			
9	1609620-08	0.256	31			
10	1609620-09	0.263	32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Comments**  
 F2 Batch # F610519  
 F3 Batch # F610520  
 F4 Batch # F610521  
 F5 Batch # F610522  
 MPM 10/28/16  
 1609620-07: HgO  
 1609620-08: HgS  
 1609620-09: Hg<sub>2</sub>Cl<sub>2</sub>  
 MPM 10/31/16  
 F3 BrCl 1605634 MPM 11/1/16  
 F4 IZN HNO<sub>3</sub> 1605838  
 F4 BrCl 1605634 MPM 11/4/16  
 F4 Pipette NU01049  
 cal. 10/30/16  
 F5 boiling chips #  
 1603399 BS/BSD  
 balance 19 cal. yes  
 BS1 0.2670g  
 BSD1 0.2608g  
 HCl 1606137  
 Dispenser 0842293  
 IAN HNO<sub>3</sub> 1605815  
 Dispenser 05N8842  
 vial # 00065276  
 11/4/16 MPM

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					20X
F610492-BLK2	Blank	0.25	20					20X
F610492-BLK3	Blank	0.25	20					20X
F610492-BS1	LCS	0.25	20	1605270	20			20X
F610492-BS2	LCS	0.1252	20	1605470	125.2			500X
F610492-BSD1	LCS Dup	0.25	20	1605270	20			20X
F610492-DUP1	Duplicate [1610233-01] RE1	0.2557	20					500X
F610492-MS1	Matrix Spike [1610233-01] RE1	0.2583	20	1605712	100			500X
F610492-MS2	Matrix Spike [1610234-01] RE1	0.2593	20	1605712	100			500X
F610492-MSD1	Matrix Spike Dup [1610233-01] RE1	0.2676	20	1605712	100			500X
F610492-MSD2	Matrix Spike Dup [1610234-01] RE1	0.2676	20	1605712	100			500X

Standard ID(s):  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s):  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606465 5% BrCl  
 1606500

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - 100X  
 re-run of DUP1

1602941  
 1605636  
 1605635  
 1605670

PREPARATION BENCH SHEET

2600-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	No	500X
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	No	500X
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	No	500X
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	No	500X
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	No	500X
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	No	500X
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	No	500X
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	No	500X
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	No	500X → 100X
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	No	500X → 100X
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	No	500X
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	No	500X
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	No	500X
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	No	500X
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	No	500X
1610232-42	OB-05_092116_RAS_WB_01	0.264	20	No	500X
1610233-01	FRB-01_092916_TOM_WB_01	0.2529	20	No	500X → 100X
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	No	500X → 20X
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	No	500X → 20X
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	No	500X → 20X



**PREPARATION BENCH SHEET**

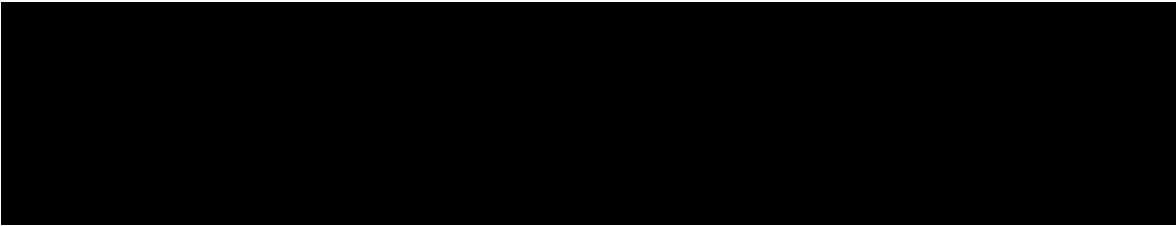
F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**



Technician: Dyer/MPM Batch#: F610492 Date: 11/7/14

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 1535 <sup>1545</sup> <sub>11/7/16</sub> Actual Temp. (raw): 80 °C w/ CF: 79.7 °C  
 Time out: 1745 Actual Temp. (raw): 85 °C w/ CF: 84.7 °C

Final vol.: 20 mL (LIMS ID: 1601465/1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/7/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 0222159 Cal. yes  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: D6

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	F610492 Blank1	0.2510	23	1610232-38	0.2695	DORM-4 BS2 1605470
2	F610492 Blank2	0.2738	24	1610232-39	0.2674	
3	F610492 Blank3	0.2503	25	1610232-40	0.2583	
4	F610492 BS1	0.2612	26	1610232-41	0.2629	<b>Comments</b> BS1, BS01 = 100 µL = 20 µL 1605270 Dup / MS / MS01 1610233-01 MS2 MS02 1610234-01
5	F610492 BS01	0.2819	27	1610232-42	0.2640	
6	F610492 BS2	0.1252	28	1610233-01	0.2529	
7	F610492 Dup1	0.2557	29	1610234-01	0.2542	
8	F610492 MS1	0.2583	30	1610234-02	0.2577	
9	F610492 MS01	0.2676	31	1610234-03	0.2680	
10	F610492 MS2	0.2593	32			
11	F610492 MS02	0.2676	33			
12	1610232-27	0.2948	34			
13	1610232-28	0.2663	35			
14	1610232-29	0.2678	36			
15	1610232-30	0.2694	37			
16	1610232-31	0.2624	38			
17	1610232-32	0.2667	39			
18	1610232-33	0.2502	40			
19	1610232-34	0.2557	41			
20	1610232-35	0.2645	42			
21	1610232-36	0.2619	43			
22	1610232-37	0.2694	44			

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	<i>[Signature]</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		

• 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: [Signature]

1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?)
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
--	---	-----------------------------	-------------------------------------
2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
--	---	-----------------------------	-------------------------------------

  - (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?  
Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
--	---	-----------------------------	-------------------------------------
  - (b) Check 5% of transcription from Instrument print-out and Excel file  
Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
--	---	-----------------------------	-------------------------------------
  - (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries).
 

	<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
--	------------------------------	-----------------------------	------------------------------	-------------------------------------
  - (d) Check and compare masses (review prep benchsheet)
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
--	---	-----------------------------	------------------------------	-------------------------------------
  - (e) Check & compare initial & final volumes
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
--	---	-----------------------------	------------------------------	-------------------------------------
  - (f) Do aliquots and dilutions written on benchsheet match those in Excel?  
50 ml / aliquot = Excel dilution value
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>
--	---	-----------------------------	------------------------------	-------------------------------------
  - (g) Is the sequence #, analyst, date, and instrument # on the QC page?
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
--	---	-----------------------------	--	-------------------------------------
  - (h) Is the analysis status correct? (analyzed/initial review/reviewed)
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
--	---	-----------------------------	--	-------------------------------------
  - (i) Original prep bench sheet added to data package?
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
--	---	-----------------------------	--	-------------------------------------
  - (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
--	---	-----------------------------	--	-------------------------------------
3. High QA? WO#(s)/Client(s): \_\_\_\_\_
 

	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
--	------------------------------	--	-------------------------------------
4. Client specific QC? (if Yes, refer to Project Notes/LIMS)
 

	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/>
--	------------------------------	--	-------------------------------------

  - (a) Have the QC requirements been met for all WO#s?
 

	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
--	---	-----------------------------	--
  - (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) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		0

Analyst Initials DM

Reviewer Initials [Signature]

- 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: **SEQ-CCV5 FAILED. WRONG LOCATION. 1609620-09 HIGH SAMPLE. F610521-DUP1 HIGH RPD. F610522-DUP1 FAILED. HIGH RPD. SEQ-CCB5 FAILED. WRONG LOCATION**
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: **SEQ-CCB5 FAILED. WRONG LOCATION**
17. Have Total Solids been applied? (if NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		0

Analyst Initials DM

Reviewer Initials DM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input 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 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>12/16/2015</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 type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/7/2016</u>                               | LOD within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/7/16, 7/8/16</u>                         | LOQ within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

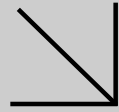
**Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**





Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-1263**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610233

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244

Approved for release on 12/11/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610233  
Work Order Number: 16-11-1263

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	6
	4.1 Sample Duplicate. . . . .	6
5	Glossary of Terms and Qualifiers. . . . .	7
6	Chain-of-Custody/Sample Receipt Form. . . . .	8
7	16-11-1263 Level IV Case Narrative. . . . .	11
8	16-11-1263 Level IV Data Package. . . . .	12



**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/15/16. They were assigned to Work Order 16-11-1263.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-1263
11720 North Creek Parkway North, Suite 4	Project Name:	1610233
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/15/16 10:40
	Number of Containers:	1

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
FRB-01_092916_TOM_WB_01	16-11-1263-1	10/29/16 12:00	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/15/16  
Work Order: 16-11-1263  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1610233

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092916_TOM_WB_01	16-11-1263-1-A	10/29/16 12:00	Tissue	N/A	11/21/16	11/21/16 00:00	161121B18

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
% Lipids	0.36	0.10	1.00	

Method Blank	099-14-104-148	N/A	Tissue	N/A	11/21/16	11/21/16 00:00	161121B18
--------------	----------------	-----	--------	-----	----------	-------------------	-----------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
% Lipids	ND	0.10	1.00	



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/15/16  
Work Order: 16-11-1263  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610233

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
FRB-01_092916_TOM_WB_01	Sample	Tissue	N/A	11/21/16 00:00	11/21/16 00:00	161121D18
FRB-01_092916_TOM_WB_01	Sample Duplicate	Tissue	N/A	11/21/16 00:00	11/21/16 00:00	161121D18

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.3600	0.3300	9	0-25	

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-1263

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.  
**1610233**

**SENDING LABORATORY:**  
Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

**RECEIVING LABORATORY:**  
Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

**16-11-1263**

**Analysis**

Due: 02-Nov-16 19:00

Comments

① Sample ID: 1413 FRB-01\_092916\_TOM\_WB\_01


EFGS Lab ID: 1610233-01  
MS/MSD

Sampled: 29-Sep-16 12:00

**Misc. Subcontract 1**  
*Containers Supplied:*  
34\_Plastic Bag (B)

Lipids Analysis

Released By

  
11/14/16  
Date

Received By

  
11/15/16 1047  
Date

Date

1263

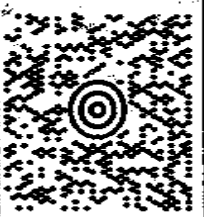
FRONT DESK  
(425) 888 - 1986  
FRONTIER GLOBAL SCIENCES  
17720 N CREEK Pkwy N  
BOTHELL WA 98011-8244

7 LBS

1 OF 1

DWT: 13.9,9

SHIP TO:  
SAMPLE RECEIVING  
(714) 896 - 5494  
EUROFINS CAT SCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841 - 1427



CA 927 9-09



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**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: Eurofins Frontier

DATE: 11/15/2016

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 2.6 °C (w/ CF): 2.6 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 836

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen     
 Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A  
 Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals     
 Container(s) for certain analysis free of headspace .....  Yes  No  N/A  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PUna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBzma  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve ( )  Encores® ( )  TerraCores® ( )  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix Tissue   \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub> Labeled/Checked by: 836  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 836



## Case Narrative

Client Project Name: 1610233  
Work Order Number: 16-11-1263

### **CONDITION UPON RECEIPT:**

Eurofins Calscience, Inc. received one tissue sample on November 8, 2016. A total of one container was received in good condition at a temperature of 2.6°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
FRB-01_092916_TOM_WB_01	16-11-1263-1	10/29/16 12:00	11/15/16 10:40

### **DATA SUMMARY:**

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Sample -1 was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The sample was prepared and analyzed on 11/21/16 in batch #s 161121B18 / 161121D18.

### **Sample and QC:**

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**% Lipids via MeCl<sub>2</sub> Ext.  
(NOAA 1993a)**

**RAW DATA**

[Return to Contents](#) 

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-1263  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-11-21 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2016-11-21 00:00  
REVIEWED BY: 27  
D/T REVIEWED: 2016-12-09 12:43

DATA FILE:

# 1 CLIENT SAMPLE NUMBER: FRB-01\_092916\_TOM\_WB\_01

LCS/MB BATCH: 161121B18 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161121D18 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.380	1.00	0.380	0.10	

% Lipids



METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**MB SAMPLE ID:** 099-14-104-148  
**MB BATCH ID:** 161121B18  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-11-21 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2016-11-21 00:00  
**REVIEWED BY:** 27  
**D/T REVIEWED:** 2016-12-09 12:41  
**MATRIX:** Tissue

DATA FILE:

**CLIENT WORK ORDER: 16-11-1263**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	FRB-01	_092916_TOM_WB_01	2016-11-21 00:00	



# RAW DATA SHEET FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 099-14-104      **ANALYZED BY:** 684  
**INSTRUMENT:** N/A      **D/T ANALYZED:** 2016-11-21 00:00  
**EXTRACTION:** N/A      **REVIEWED BY:** 27  
**D/T EXTRACTED:** 2016-11-21 00:00      **D/T REVIEWED:** 2016-12-09 12:41

**DATA FILE:**

**# MB**      **CLIENT SAMPLE NUMBER:** Method Blank

**LCS/MB BATCH:** 161121B18      **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:**      **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**  
% Lipids      0.0200      1.00      ND      0.10

**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 16-11-1263-1  
DUP BATCH: 161121D18  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
SAMPLE: 2016-11-21 00:00  
DUP SAMPLE: 2016-11-21 00:00

ANALYZED BY: 684  
D/T ANALYZED:  
SAMPLE: 2016-11-21 00:00  
DUP SAMPLE: 2016-11-21 00:00  
REVIEWED BY: 27  
D/T REVIEWED: 2016-12-09 12:43

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	0.3600	0.3300	9	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		



Lipid Content Raw Data Calculator

11/21/2016

	ID # A	Tissue Sample (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
			M1	V1	V2	M2		
0-1	MB-1	1.00	1	1	1.8648	1.8650	0.0002	0.02%
1	16-11-1263-1	1.00	1	1	1.9065	1.9101	0.0036	0.36%
2								
3								
DUP	Dup 16-11-1263-1	1.00	1	1	1.8935	1.8968	0.0033	0.33%
L	LCS-161121118	0.11	1	1	1.8863	1.9903	0.1040	94.5%

Samples ID#	Lipid Content (%)	RPD
16-11-1263-1	0.36%	-9%
161121D18		
Dup 16-11-1263-1	0.33%	









# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 11/21/16 Initials: LSL

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	
	500	499.89	498.00 - 502.00	<input checked="" type="radio"/> Y	
62	0.002	0.0018	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	0.9994	0.99900 - 1.00100	<input checked="" type="radio"/> Y	
	100	99.9965	99.90000 - 100.10000	<input checked="" type="radio"/> Y	
26	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	
	500	499.96	498.00 - 502.00	<input checked="" type="radio"/> Y	
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	
66	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9996	0.99900 - 1.00100	<input checked="" type="radio"/> Y	
	100	99.9979	99.90000 - 100.10000	<input checked="" type="radio"/> Y	
53	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	
20	500	499.93	498 - 502	<input checked="" type="radio"/> Y	Extractions
	1	0.98	0.98 - 1.02	<input checked="" type="radio"/> Y	
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	
57	500	499.99	498.00 - 502.00	<input checked="" type="radio"/> Y	Extractions
	100	100.0	98.0 - 102.0	<input checked="" type="radio"/> Y	
	1000	1000.0	998.0 - 1002.0	<input checked="" type="radio"/> Y	
52	2000	1999.9	1998.0 - 2002.0	<input checked="" type="radio"/> Y	Extractions
	0.002	0.0021	0.0018 - 0.0022	<input checked="" type="radio"/> Y	
	1	0.9995	0.9990 - 1.0010	<input checked="" type="radio"/> Y	
14	100	99.9946	99.9000 - 100.1000	<input checked="" type="radio"/> Y	BOD Room
	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	
	1	0.9997	0.9990 - 1.0010	<input checked="" type="radio"/> Y	
63	100	99.9920	99.9000 - 100.1000	<input checked="" type="radio"/> Y	BOD Room
	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	
64	100	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	9.99	9.8 - 10.2	<input checked="" type="radio"/> Y	
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	
34	0.002	0.00200	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.99955	0.9990 - 1.0010	<input checked="" type="radio"/> Y	
	100	99.9946	99.9000 - 100.1000	<input checked="" type="radio"/> Y	
30	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.96	98.00 - 102.00	<input checked="" type="radio"/> Y	

# Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS	
								DATE	WHO	DATE	WHO		
1	8140/8141 OP pesticide calib. Mix A	Restek	32277	A083466	08-31-12	1ml	G	12-29-11	CZ	12-29-11	CZ		
2												1-25-12	684
3												2-2-12	785
4												↓	↓
5												3-22-12	684
6												3-29-12	7
7												4-2-12	785
8												4-2-12	785
9												2-29-12	7
10												↓	↓
11	8330 Calibration Std		33905	A084334	05-31-12	1ml	G	12-29-11	CZ	01-09-12	CZ	View'd on 1/14/12	B2 P. 41
12												8-14-12	785
13												5-22-13	785
14												6-3-13	785
15	olive oil	market	NA	NA	NA	1L	G	12-29-11	CZ	12-29-11	CZ		
16													
17													
18													
19													
20													
21													
22													
23													

COMMENTS:



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_092816_MUM_WB_01	1610234-01	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_02	1610234-02	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_03	1610234-03	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_04	1610234-04	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_05	1610234-05	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_06	1610234-06	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_07	1610234-07	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_08	1610234-08	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_09	1610234-09	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_10	1610234-10	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_11	1610234-11	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_12	1610234-12	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_13	1610234-13	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_14	1610234-14	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_15	1610234-15	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_16	1610234-16	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_17	1610234-17	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_18	1610234-18	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_19	1610234-19	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_MUM_WB_20	1610234-20	Tissue	28-Sep-16 13:00	05-Oct-16 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.

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:54

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/20/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

## ANALYTICAL AND QUALITY CONTROL ISSUES

Samples were prepped in 3 batches for total Mercury; F610492, F610509, and F610498. In batch F610492, sample 1610234-01 was used as the source QC. In batch F610509, sample 1610234-16 was used as the source QC.

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

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

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the

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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.*

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

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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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.*

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Amy Goodall, Project Manager

### Sample Receipt Checklist

EFGS Work Order: 1610234

Client: AMEC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/5/16 Labeled By: AMM

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

Received By: LM

Label Verified By: isf

# of Coolers Received: 3 Samples Arrived By:  Shipping Service \_\_\_\_\_ Courier \_\_\_\_\_ Hand \_\_\_\_\_ Other (Specify: \_\_\_\_\_)

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

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

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

TID: <u>5225</u>	CF: <u>-6.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LM</u>
Cooler 1: <u>-46 °C</u>	w/CF: <u>-46.1 °C</u>	Cooler 4: _____ °C	w/CF: _____ °C
Cooler 2: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	Cooler 5: _____ °C	w/CF: _____ °C
Cooler 3: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	Cooler 6: _____ °C	w/CF: _____ °C

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

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

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

1: 8756 4740 9231      2: 7842 6248 7980      3: 7842 6248 7991



1610234

WB-01  
1413

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1434	9/29/2016	12:00	FRB-01_092916_TOM_WB_MS_	MS			Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1435	9/28/2016	13:00	FRB-01_092816_MUM_WB_01	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1436	9/28/2016	13:00	FRB-01_092816_MUM_WB_02	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1437	9/28/2016	13:00	FRB-01_092816_MUM_WB_03	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1438	9/28/2016	13:00	FRB-01_092816_MUM_WB_04	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1439	9/28/2016	13:00	FRB-01_092816_MUM_WB_05	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1440	9/28/2016	13:00	FRB-01_092816_MUM_WB_06	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1441	9/28/2016	13:00	FRB-01_092816_MUM_WB_07	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1442	9/28/2016	13:00	FRB-01_092816_MUM_WB_08	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1443	9/28/2016	13:00	FRB-01_092816_MUM_WB_09	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1444	9/28/2016	13:00	FRB-01_092816_MUM_WB_10	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

(use for MS/MSD)

Homogenize w/ volume from MS/MSD

Tuesday, October 04, 2016

Page 25 of 30

DYK  
10/6/16

1610234

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media</i>	<i>Method</i>	<i>Fraction</i>
1445	9/28/2016	13:00	FRB-01_092816_MUM_WB_11		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1446	9/28/2016	13:00	FRB-01_092816_MUM_WB_12		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1447	9/28/2016	13:00	FRB-01_092816_MUM_WB_13		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1448	9/28/2016	13:00	FRB-01_092816_MUM_WB_14		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1449	9/28/2016	13:00	FRB-01_092816_MUM_WB_15		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1450	9/28/2016	13:00	FRB-01_092816_MUM_WB_16		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1451	9/28/2016	13:00	FRB-01_092816_MUM_WB_17		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1452	9/28/2016	13:00	FRB-01_092816_MUM_WB_18		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1453	9/28/2016	13:00	FRB-01_092816_MUM_WB_19		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1454	9/28/2016	13:00	FRB-01_092816_MUM_WB_20		1						
				FS		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T
1455	9/28/2016	13:00	FRB-01_092816_MUM_WB_MD_		1						
				MSD		1	Ziploc Bag	Freeze	TIS	Hg (1631e)/ Lipids (1993a)	T

WB-01  
1435

Tuesday, October 04, 2016

Page 26 of 30

DYK  
10/6/16

1610234

WB 01  
1435

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1456	9/28/2016	13:00	FRB-01_092816_MUM_WB_MS	MS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1457	9/28/2016	13:40	FRB-01_092816_POL_WB_01	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1458	9/28/2016	13:40	FRB-01_092816_POL_WB_02	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1459	9/28/2016	13:40	FRB-01_092816_POL_WB_03	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1460	9/28/2016	13:40	FRB-01_092816_POL_WB_04	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1461	9/28/2016	13:40	FRB-01_092816_POL_WB_05	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1479	9/28/2016	13:00	FRB-01_092816_RAS_WB_01	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1480	9/28/2016	13:00	FRB-01_092816_RAS_WB_02	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1481	9/28/2016	13:00	FRB-01_092816_RAS_WB_03	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1482	9/28/2016	13:00	FRB-01_092816_RAS_WB_04	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1483	9/28/2016	13:00	FRB-01_092816_RAS_WB_05	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 27 of 30

DUK  
10/6/16

1610234

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
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QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: J. Desjarlais IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16.00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FED EX TRACKING: 8756 47 40 9231

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_01**  
**1610234-01**

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	6.49	0.087	0.781	ng/g	20	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	
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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_02**  
**1610234-02**

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	9.83	0.087	0.776	ng/g	20	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_03**  
**1610234-03**

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	6.77	0.083	0.745	ng/g	20	F610492	07-Nov-16	6K10008	09-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_04**  
**1610234-04**

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	5.16	0.085	0.757	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_05**  
**1610234-05**

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	6.90	0.087	0.774	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_06**  
**1610234-06**

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	7.83	0.088	0.784	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_07**  
**1610234-07**

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	9.29	0.085	0.758	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_08**  
**1610234-08**

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	5.76	0.087	0.777	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_09**  
**1610234-09**

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	7.05	0.088	0.785	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_10**  
**1610234-10**

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	8.37	0.089	0.793	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_11**  
**1610234-11**

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	13.5	0.088	0.783	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_12**  
**1610234-12**

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	7.67	0.085	0.757	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_13**  
**1610234-13**

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	0.083	0.744	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_14**  
**1610234-14**

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	7.90	0.083	0.745	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_15**  
**1610234-15**

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	8.19	0.087	0.776	ng/g	20	F610498	08-Nov-16	6K11009	11-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_16**  
**1610234-16**

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	8.01	0.396	3.53	ng/g	100	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_17**  
**1610234-17**

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	8.58	0.401	3.58	ng/g	100	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_18**  
**1610234-18**

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	11.1	0.398	3.56	ng/g	100	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_19**  
**1610234-19**

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	4.94	0.084	0.746	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:54

**FRB-01\_092816\_MUM\_WB\_20**  
**1610234-20**

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	8.43	0.402	3.59	ng/g	100	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager





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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10008 - F610492</b>											
<b>Cal Standard (6K10008-CAL1)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	0.523	-		ng/L	0.50100		104				
<b>Cal Standard (6K10008-CAL2)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	1.016	-		ng/L	1.0020		101				
<b>Cal Standard (6K10008-CAL3)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	4.926	-		ng/L	5.0100		98.3				
<b>Cal Standard (6K10008-CAL4)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	19.58	-		ng/L	20.040		97.7				
<b>Cal Standard (6K10008-CAL5)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	38.96	-		ng/L	40.080		97.2				
<b>Calibration Blank (6K10008-CCB1)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	0.055	-		ng/L							
<b>Calibration Blank (6K10008-CCB2)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	0.032	-		ng/L							
<b>Calibration Blank (6K10008-CCB3)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	0.037	-		ng/L							
<b>Calibration Blank (6K10008-CCB4)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	0.028	-		ng/L							
<b>Calibration Blank (6K10008-CCB6)</b>						Prepared & Analyzed: 09-Nov-16					
Mercury	0.052	-		ng/L							

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Amy Goodall, Project Manager



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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10008 - F610492</b>											
<b>Calibration Blank (6K10008-CCB7)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.058	-		ng/L							
<b>Calibration Blank (6K10008-CCB8)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.057	-		ng/L							
<b>Calibration Blank (6K10008-CCB9)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.337	-		ng/L							
<b>Calibration Blank (6K10008-CCBA)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.203	-		ng/L							
<b>Calibration Blank (6K10008-CCBB)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	0.150	-		ng/L							
<b>Calibration Check (6K10008-CCV1)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	5.138	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (6K10008-CCV2)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.767	-		ng/L	5.0000		95.3	77-123			
<b>Calibration Check (6K10008-CCV3)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.701	-		ng/L	5.0000		94.0	77-123			
<b>Calibration Check (6K10008-CCV4)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.788	-		ng/L	5.0000		95.8	77-123			
<b>Calibration Check (6K10008-CCV6)</b> Prepared & Analyzed: 09-Nov-16											
Mercury	4.879	-		ng/L	5.0000		97.6	77-123			

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

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 6K10008 - F610492

Calibration Check (6K10008-CCV7) Prepared & Analyzed: 09-Nov-16

Mercury	4.718	-		ng/L	5.0000		94.4	77-123			
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Calibration Check (6K10008-CCV8) Prepared & Analyzed: 09-Nov-16

Mercury	4.704	-		ng/L	5.0000		94.1	77-123			
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Calibration Check (6K10008-CCV9) Prepared & Analyzed: 09-Nov-16

Mercury	5.141	-		ng/L	5.0000		103	77-123			
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Calibration Check (6K10008-CCVA) Prepared & Analyzed: 09-Nov-16

Mercury	4.928	-		ng/L	5.0000		98.6	77-123			
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Calibration Check (6K10008-CCVB) Prepared & Analyzed: 09-Nov-16

Mercury	5.012	-		ng/L	5.0000		100	77-123			
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Instrument Blank (6K10008-IBL1) Prepared & Analyzed: 09-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K10008-IBL2) Prepared & Analyzed: 09-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K10008-IBL3) Prepared & Analyzed: 09-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (6K10008-ICV1) Prepared & Analyzed: 09-Nov-16

Mercury	4.743	-		ng/L	5.0000		94.9	77-123			
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Batch 6K10018 - F610510

Cal Standard (6K10018-CAL1) Prepared & Analyzed: 10-Nov-16

Mercury	0.520	-		ng/L	0.50100		104				
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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

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 6K10018 - F610510

<b>Cal Standard (6K10018-CAL2)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	0.992	-		ng/L	1.0020		99.0				
<b>Cal Standard (6K10018-CAL3)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	4.994	-		ng/L	5.0100		99.7				
<b>Cal Standard (6K10018-CAL4)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	19.09	-		ng/L	20.040		95.3				
<b>Cal Standard (6K10018-CAL5)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	40.53	-		ng/L	40.080		101				
<b>Calibration Blank (6K10018-CCB1)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	0.047	-		ng/L							
<b>Calibration Blank (6K10018-CCB2)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	0.057	-		ng/L							
<b>Calibration Blank (6K10018-CCB3)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	0.114	-		ng/L							
<b>Calibration Blank (6K10018-CCB4)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	0.112	-		ng/L							
<b>Calibration Blank (6K10018-CCB5)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	0.118	-		ng/L							
<b>Calibration Blank (6K10018-CCB6)</b>						Prepared & Analyzed: 10-Nov-16					
Mercury	0.182	-		ng/L							

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Calibration Blank (6K10018-CCB7)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.179	-		ng/L							
<b>Calibration Blank (6K10018-CCB8)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.105	-		ng/L							
<b>Calibration Blank (6K10018-CCB9)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.101	-		ng/L							
<b>Calibration Check (6K10018-CCV1)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.771	-		ng/L	5.0000		95.4	77-123			
<b>Calibration Check (6K10018-CCV2)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.625	-		ng/L	5.0000		92.5	77-123			
<b>Calibration Check (6K10018-CCV3)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.707	-		ng/L	5.0000		94.1	77-123			
<b>Calibration Check (6K10018-CCV4)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.609	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV5)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.678	-		ng/L	5.0000		93.6	77-123			
<b>Calibration Check (6K10018-CCV6)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.542	-		ng/L	5.0000		90.8	77-123			
<b>Calibration Check (6K10018-CCV7)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.981	-		ng/L	5.0000		99.6	77-123			

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Amy Goodall, Project Manager



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Project: Penobscot Tissues Hg and Methyl Hg 2016  
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Project Manager: Denise King

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6K10018 - F610510

<b>Calibration Check (6K10018-CCV8)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.610	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV9)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.524	-		ng/L	5.0000		90.5	77-123			
<b>Instrument Blank (6K10018-IBL1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K10018-ICV1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			

Batch 6K11009 - F610498

<b>Cal Standard (6K11009-CAL1)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	0.529	-		ng/L	0.50100		106				
<b>Cal Standard (6K11009-CAL2)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	1.019	-		ng/L	1.0020		102				
<b>Cal Standard (6K11009-CAL3)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	4.991	-		ng/L	5.0100		99.6				

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K11009 - F610498</b>											
<b>Cal Standard (6K11009-CAL4)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	18.97	-		ng/L	20.040		94.6				
<b>Cal Standard (6K11009-CAL5)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	39.09	-		ng/L	40.080		97.5				
<b>Calibration Blank (6K11009-CCB3)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	0.041	-		ng/L							
<b>Calibration Blank (6K11009-CCB4)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	0.205	-		ng/L							
<b>Calibration Blank (6K11009-CCB5)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	0.093	-		ng/L							
<b>Calibration Blank (6K11009-CCB6)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	0.153	-		ng/L							
<b>Calibration Blank (6K11009-CCB7)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	0.151	-		ng/L							
<b>Calibration Check (6K11009-CCV3)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	4.690	-		ng/L	5.0000		93.8	77-123			
<b>Calibration Check (6K11009-CCV4)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	4.992	-		ng/L	5.0000		99.8	77-123			
<b>Calibration Check (6K11009-CCV5)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	4.664	-		ng/L	5.0000		93.3	77-123			

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Amy Goodall, Project Manager



AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:54
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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6K11009 - F610498

<b>Calibration Check (6K11009-CCV6)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	5.068	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (6K11009-CCV7)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	4.846	-		ng/L	5.0000		96.9	77-123			
<b>Instrument Blank (6K11009-IBL1)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K11009-IBL2)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K11009-IBL3)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K11009-ICV1)</b>					Prepared & Analyzed: 11-Nov-16						
Mercury	4.921	-		ng/L	5.0000		98.4	77-123			

Batch F610492 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F610492-BLK1)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.204	0.090	0.800	ng/g							J
<b>Blank (F610492-BLK2)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.106	0.090	0.800	ng/g							J
<b>Blank (F610492-BLK3)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	0.091	0.090	0.800	ng/g							J

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Amy Goodall, Project Manager



AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:54
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**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch F610492 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS (F610492-BS1)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	8.163	0.090	0.800	ng/g	8.0160		102	75-125			
<b>LCS (F610492-BS2)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	325.4	4.47	39.9	ng/g	382.50		85.1	75-125			
<b>LCS Dup (F610492-BSD1)</b>					Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	8.418	0.090	0.800	ng/g	8.0160		105	75-125	3.07	24	
<b>Duplicate (F610492-DUP2)</b>					Source: 1610233-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	34.73	0.438	3.91	ng/g		36.52			5.02	24	AD
<b>Matrix Spike (F610492-MS1)</b>					Source: 1610233-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	389.4	2.17	19.4	ng/g	387.15	36.52	91.1	71-125			
<b>Matrix Spike (F610492-MS2)</b>					Source: 1610234-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	365.6	2.16	19.3	ng/g	385.65	6.489	93.1	71-125			
<b>Matrix Spike Dup (F610492-MSD1)</b>					Source: 1610233-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	375.8	2.09	18.7	ng/g	373.69	36.52	90.8	71-125	0.378	24	
<b>Matrix Spike Dup (F610492-MSD2)</b>					Source: 1610234-01RE1 Prepared: 07-Nov-16 Analyzed: 09-Nov-16						
Mercury	337.2	2.09	18.7	ng/g	373.69	6.489	88.5	71-125	5.09	24	

**Batch F610498 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610498-BLK1)</b>					Prepared: 08-Nov-16 Analyzed: 11-Nov-16						
Mercury	0.166	0.090	0.800	ng/g							J

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610498 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610498-BLK2)</b> Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F610498-BLK3)</b> Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	0.121	0.090	0.800	ng/g							J
<b>LCS (F610498-BS1)</b> Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	7.563	0.090	0.800	ng/g	8.0160		94.3	75-125			
<b>LCS (F610498-BS2)</b> Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	356.2	4.42	39.4	ng/g	382.50		93.1	75-125			
<b>LCS Dup (F610498-BSD1)</b> Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	7.933	0.090	0.800	ng/g	8.0160		99.0	75-125	4.78	24	
<b>Duplicate (F610498-DUP1)</b> Source: 1610138-01RE1 Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	1304	2.18	19.4	ng/g		1372			5.06	24	
<b>Matrix Spike (F610498-MS1)</b> Source: 1610138-01RE1 Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	1865	4.30	38.4	ng/g	383.58	1372	129	71-125			QM-02
<b>Matrix Spike (F610498-MS2)</b> Source: 1610138-02 Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	772.0	2.19	19.6	ng/g	391.85	394.3	96.4	71-125			
<b>Matrix Spike Dup (F610498-MSD1)</b> Source: 1610138-01RE1 Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	2050	4.28	38.2	ng/g	381.97	1372	178	71-125	32.0	24	QM-02
<b>Matrix Spike Dup (F610498-MSD2)</b> Source: 1610138-02 Prepared: 08-Nov-16 Analyzed: 11-Nov-16											
Mercury	792.5	2.18	19.5	ng/g	389.41	394.3	102	71-125	5.91	24	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
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**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610509-BLK1)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	0.508	0.090	0.800	ng/g							J
<b>Blank (F610509-BLK2)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	0.195	0.090	0.800	ng/g							J
<b>Blank (F610509-BLK3)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	0.118	0.090	0.800	ng/g							J
<b>LCS (F610509-BS1)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	7.915	0.090	0.800	ng/g	8.0160		98.7	75-125			
<b>LCS (F610509-BS2)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	354.6	4.46	39.8	ng/g	383.72		92.4	75-125			
<b>LCS Dup (F610509-BSD1)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	8.050	0.090	0.800	ng/g	8.0160		100	75-125	1.69	24	
<b>Duplicate (F610509-DUP1)</b> Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	7.602	0.409	3.65	ng/g		8.012			5.26	24	
<b>Matrix Spike (F610509-MS1)</b> Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	309.4	1.90	17.0	ng/g	339.21	8.012	88.9	71-125			
<b>Matrix Spike (F610509-MS2)</b> Source: 1610236-03 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	320.6	1.90	16.9	ng/g	338.75	7.272	92.5	71-125			
<b>Matrix Spike Dup (F610509-MSD1)</b> Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	309.9	1.92	17.2	ng/g	343.52	8.012	87.9	71-125	1.10	24	

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Amy Goodall, Project Manager



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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 F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F610509-MSD2)

Source: 1610236-03

Prepared: 08-Nov-16 Analyzed: 10-Nov-16

Mercury	326.1	1.88	16.8	ng/g	335.35	7.272	95.1	71-125	2.74	24	
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The results in this report only apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:54

### 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.
- 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.
- 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





Frontier Global Sciences

THg26003-161109-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 09, 2016

Instrument #: Hg2600-3

LIMS Sequence #: 6K10008, 6K10005, 6K10006, 6K10007

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	64.24 units	128.47	61.57 units	123.14	104.6 %Rec
SEQ-CAL2	1	1.00 ng/L	122.17 units	122.17	119.50 units	119.50	101.6 %Rec
SEQ-CAL3	1	5.00 ng/L	582.32 units	116.46	579.65 units	115.93	98.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2306.34 units	115.32	2303.68 units	115.18	97.9 %Rec
SEQ-CAL5	1	40.00 ng/L	4587.17 units	114.68	4584.50 units	114.61	97.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF**    **Corr. St Dev RF**    **Corr. RSD CF**    **Uncorr. Mean RF**  
 117.67            +/- 3.60            3.1% RSD            119.42

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	2.67 units	±0.35	0.02 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.667 ng/L	±0.766
BLK	2	3	1.558 ng/L	±0.092
BLK	3	3	4.768 ng/L	±0.930
BLK	4	3	30.407 ng/L	±3.464
BLK	5	3	24.875 ng/L	±5.179
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE

PEER - REVIEWED

INITIALS:   R     11/11/16

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	11/9/2016 8:15:38	55245-1.RAW	8:15:38 AM	2.83			0.2	0.001	0.001	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/9/2016 8:19:47	55246-1.RAW	8:19:47 AM	2.27			-0.4	-0.003	-0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/9/2016 8:23:55	55247-1.RAW	8:23:55 AM	2.90			0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/9/2016 8:28:04	55248-1.RAW	8:28:04 AM	64.24			61.6	0.523	0.523	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/9/2016 8:32:12	55249-1.RAW	8:32:12 AM	122.17			119.5	1.016	1.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/9/2016 8:36:20	55250-1.RAW	8:36:20 AM	582.32			579.6	4.926	4.926	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/9/2016 8:40:29	55251-1.RAW	8:40:29 AM	2306.34			2303.7	19.577	19.577	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/9/2016 8:44:37	55252-1.RAW	8:44:37 AM	4587.17			4584.5	38.959	38.959	ng/L	
Hg2600-3	DM2	CAL	SEQ-JCV1	1	11/9/2016 8:48:46	55253-1.RAW	8:48:46 AM	560.83			558.2	4.743	4.743	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK1	20	11/9/2016 8:52:54	55254-1.RAW	8:52:54 AM	17.64	1		15.0	0.127	2.544	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK2	20	11/9/2016 8:57:03	55255-1.RAW	8:57:03 AM	10.45	1		7.8	0.066	1.324	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK3	20	11/9/2016 9:01:11	55256-1.RAW	9:01:11 AM	9.33	1		6.7	0.057	1.133	ng/L	
Hg2600-3	DM2	SAM	F610492-BS1	20	11/9/2016 9:05:20	55257-1.RAW	9:05:20 AM	612.84	1		610.2	5.102	102.039	ng/L	
Hg2600-3	DM2	SAM	F610492-BS1	20	11/9/2016 9:09:28	55258-1.RAW	9:09:28 AM	631.56	1		628.9	5.261	105.220	ng/L	
Hg2600-3	DM2	SAM	F610492-BS2	500	11/9/2016 9:13:36	55259-1.RAW	9:13:36 AM	482.41	1		479.7	4.074	2036.757	ng/L	
Hg2600-3	DM2	SAM	1610232-27	500	11/9/2016 9:17:45	55260-1.RAW	9:17:45 AM	511.01	1		508.3	4.317	2158.274	ng/L	
Hg2600-3	DM2	SAM	1610232-28	500	11/9/2016 9:21:53	55261-1.RAW	9:21:53 AM	440.55	1		437.9	3.718	1858.902	ng/L	
Hg2600-3	DM2	SAM	1610232-29	500	11/9/2016 9:26:02	55262-1.RAW	9:26:02 AM	240.38	1		237.7	2.017	1008.377	ng/L	
Hg2600-3	DM2	SAM	1610232-30	500	11/9/2016 9:30:10	55263-1.RAW	9:30:10 AM	290.98	1		288.3	2.447	1223.368	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/9/2016 9:34:19	55264-1.RAW	9:34:19 AM	607.30			604.6	5.138	5.138	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/9/2016 9:38:27	55265-1.RAW	9:38:27 AM	9.18			6.5	0.055	0.055	ng/L	
Hg2600-3	DM2	SAM	1610232-31	500	11/9/2016 9:42:35	55266-1.RAW	9:42:35 AM	295.04	1		292.4	2.481	1240.631	ng/L	
Hg2600-3	DM2	SAM	1610232-32	500	11/9/2016 9:46:44	55267-1.RAW	9:46:44 AM	302.33	1		299.7	2.543	1271.624	ng/L	
Hg2600-3	DM2	SAM	1610232-33	500	11/9/2016 9:50:52	55268-1.RAW	9:50:52 AM	345.70	1		343.0	2.912	1455.875	ng/L	
Hg2600-3	DM2	SAM	1610232-34	500	11/9/2016 9:55:01	55269-1.RAW	9:55:01 AM	242.31	1		239.6	2.033	1016.573	ng/L	
Hg2600-3	DM2	SAM	1610232-35	500	11/9/2016 9:59:09	55270-1.RAW	9:59:09 AM	108.41	1		105.7	0.895	447.656	ng/L	
Hg2600-3	DM2	SAM	1610232-36	500	11/9/2016 10:03:18	55271-1.RAW	10:03:18 AM	106.87	1		104.2	0.882	441.116	ng/L	
Hg2600-3	DM2	SAM	1610232-37	500	11/9/2016 10:07:26	55272-1.RAW	10:07:26 AM	326.82	1		324.1	2.751	1375.647	ng/L	
Hg2600-3	DM2	SAM	1610232-38	500	11/9/2016 10:11:35	55273-1.RAW	10:11:35 AM	328.48	1		325.8	2.765	1382.714	ng/L	
Hg2600-3	DM2	SAM	1610232-39	500	11/9/2016 10:15:43	55274-1.RAW	10:15:43 AM	142.09	1		139.4	1.181	590.750	ng/L	
Hg2600-3	DM2	SAM	1610232-40	500	11/9/2016 10:19:52	55275-1.RAW	10:19:52 AM	179.89	1		177.2	1.503	751.350	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/9/2016 10:24:00	55276-1.RAW	10:24:00 AM	563.66			561.0	4.767	4.767	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/9/2016 10:28:08	55277-1.RAW	10:28:08 AM	6.46			3.8	0.032	0.032	ng/L	
Hg2600-3	DM2	SAM	1610232-41	500	11/9/2016 10:32:16	55278-1.RAW	10:32:16 AM	259.24	1		256.6	2.177	1088.501	ng/L	
Hg2600-3	DM2	SAM	1610232-42	500	11/9/2016 10:36:24	55279-1.RAW	10:36:24 AM	628.33	1		625.7	5.314	2656.808	ng/L	
Hg2600-3	DM2	SAM	1610233-01	500	11/9/2016 10:40:32	55280-1.RAW	10:40:32 AM	117.97	1		115.3	0.977	488.258	ng/L	
Hg2600-3	DM2	SAM	1610234-01	500	11/9/2016 10:44:40	55281-1.RAW	10:44:40 AM	28.53	1		25.9	0.216	108.237	ng/L	
Hg2600-3	DM2	SAM	1610234-02	500	11/9/2016 10:48:49	55282-1.RAW	10:48:49 AM	39.87	1		37.2	0.313	156.419	ng/L	
Hg2600-3	DM2	SAM	1610234-03	500	11/9/2016 10:52:57	55283-1.RAW	10:52:57 AM	32.04	1		29.4	0.246	123.128	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP1	500	11/9/2016 10:57:05	55284-1.RAW	10:57:05 AM	107.32	1		104.7	0.886	443.029	ng/L	
Hg2600-3	DM2	SAM	F610492-MS1	500	11/9/2016 11:01:14	55285-1.RAW	11:01:14 AM	1186.50	1		1183.8	10.057	5028.478	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD1	500	11/9/2016 11:05:22	55286-1.RAW	11:05:22 AM	1186.46	1		1183.8	10.057	5028.281	ng/L	
Hg2600-3	DM2	SAM	F610492-MS2	500	11/9/2016 11:09:31	55287-1.RAW	11:09:31 AM	1118.68	1		1116.0	9.481	4740.298	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/9/2016 11:13:39	55288-1.RAW	11:13:39 AM	555.90			553.2	4.701	4.701	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/9/2016 11:17:47	55289-1.RAW	11:17:47 AM	7.03			4.4	0.037	0.037	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD2	500	11/9/2016 11:21:56	55290-1.RAW	11:21:56 AM	1064.88	1		1062.2	9.023	4511.692	ng/L	
Hg2600-3	DM2	SAM	1610232-35RE1	100	11/9/2016 11:26:04	55291-1.RAW	11:26:04 AM	500.24	1		497.6	4.212	421.176	ng/L	
Hg2600-3	DM2	SAM	1610232-36RE1	100	11/9/2016 11:30:13	55292-1.RAW	11:30:13 AM	522.84	1		520.2	4.404	440.379	ng/L	
Hg2600-3	DM2	SAM	1610233-01RE1	100	11/9/2016 11:34:21	55293-1.RAW	11:34:21 AM	548.06	1		545.4	4.618	461.814	ng/L	
Hg2600-3	DM2	SAM	1610234-01RE1	20	11/9/2016 11:38:30	55294-1.RAW	11:38:30 AM	501.58	1		498.9	4.156	83.128	ng/L	
Hg2600-3	DM2	SAM	1610234-02RE1	20	11/9/2016 11:42:38	55295-1.RAW	11:42:38 AM	757.46	1		754.8	6.331	126.618	ng/L	
Hg2600-3	DM2	SAM	1610234-03RE1	20	11/9/2016 11:46:46	55296-1.RAW	11:46:46 AM	547.63	1		545.0	4.548	90.955	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP2	100	11/9/2016 11:50:55	55297-1.RAW	11:50:55 AM	527.20	1		524.5	4.441	444.082	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK1	20	11/9/2016 11:55:03	55298-1.RAW	11:55:03 AM	12.40	2		9.7	0.083	1.654	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK2	20	11/9/2016 11:59:12	55299-1.RAW	11:59:12 AM	11.32	2		8.7	0.074	1.471	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/9/2016 12:03:20	55300-1.RAW	12:03:20 PM	566.05			563.4	4.788	4.788	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/9/2016 12:07:28	55301-1.RAW	12:07:28 PM	5.92			3.3	0.028	0.028	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	BLK	F610522-BLK3	20	11/9/2016 12:11:37	55302-1.RAW	12:11:37 PM	11.78	2		9.1	0.077	1.549	ng/L	
Hg2600-3	DM2	SAM	F610522-BS1	20	11/9/2016 12:15:45	55303-1.RAW	12:15:45 PM	595.53	2		592.9	4.960	99.205	ng/L	
Hg2600-3	DM2	SAM	F610522-BSD1	20	11/9/2016 12:19:54	55304-1.RAW	12:19:54 PM	591.35	2		588.7	4.925	98.495	ng/L	
Hg2600-3	DM2	SAM	1609620-01	2500	11/9/2016 12:24:02	55305-1.RAW	12:24:02 PM	130.11	2		127.4	1.082	2705.955	ng/L	
Hg2600-3	DM2	SAM	1609620-02	2500	11/9/2016 12:28:10	55306-1.RAW	12:28:10 PM	112.07	2		109.4	0.929	2322.775	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 12:32:19	55307-1.RAW	12:32:19 PM	175.47	2		172.8	1.468	3669.731	ng/L	
Hg2600-3	DM2	SAM	1609620-07	250000	11/9/2016 12:36:27	55308-1.RAW	12:36:27 PM	6.52	2		3.9	0.033	8193.902	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 12:40:36	55309-1.RAW	12:40:36 PM	2505.68	2		2503.0	21.271	5317666.312	ng/L	
Hg2600-3	DM2	SAM	1609620-09	250000	11/9/2016 12:44:44	55310-1.RAW	12:44:44 PM	34.94	2		32.3	0.274	68559.010	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP1	2500	11/9/2016 12:48:53	55311-1.RAW	12:48:53 PM	602.10	2		599.4	5.093	12733.430	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/9/2016 12:53:01	55312-1.RAW	12:53:01 PM	12.56371495			9.9	0.084	0.084	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/9/2016 12:57:09	55313-1.RAW	12:57:09 PM	175.36			172.7	1.468	1.468	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/9/2016 13:02:31	55314-1.RAW	1:02:31 PM	576.74			574.1	4.879	4.879	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/9/2016 13:06:40	55315-1.RAW	1:06:40 PM	8.83			6.2	0.052	0.052	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/9/2016 13:10:48	55316-1.RAW	1:10:48 PM	557.84			555.2	4.718	4.718	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/9/2016 13:14:57	55317-1.RAW	1:14:57 PM	9.47			6.8	0.058	0.058	ng/L	
Hg2600-3	DM2	SAM	F610522-MS1	2500	11/9/2016 13:19:05	55318-1.RAW	1:19:05 PM	754.02	2		751.4	6.384	15961.037	ng/L	
Hg2600-3	DM2	SAM	F610522-MSD1	2500	11/9/2016 13:23:13	55319-1.RAW	1:23:13 PM	744.28	2		741.6	6.302	15754.093	ng/L	
Hg2600-3	DM2	SAM	1609620-02RE1	500	11/9/2016 13:27:22	55320-1.RAW	1:27:22 PM	537.57	2		534.9	4.542	2271.242	ng/L	
Hg2600-3	DM2	SAM	1609620-07RE1	500	11/9/2016 13:31:30	55321-1.RAW	1:31:30 PM	638.60	2		635.9	5.401	2700.549	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	2500	11/9/2016 13:35:39	55322-1.RAW	1:35:39 PM	2641.63	2		2639.0	22.425	56063.466	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP2	2500	11/9/2016 13:39:47	55323-1.RAW	1:39:47 PM	184.12	2		181.5	1.541	3853.456	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK1	50	11/9/2016 13:43:55	55324-1.RAW	1:43:55 PM	16.35	3		13.7	0.116	5.815	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK2	50	11/9/2016 13:48:04	55325-1.RAW	1:48:04 PM	12.18	3		9.5	0.081	4.041	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK3	50	11/9/2016 13:52:12	55326-1.RAW	1:52:12 PM	13.14	3		10.5	0.089	4.449	ng/L	
Hg2600-3	DM2	SAM	F610521-BS1	50	11/9/2016 13:56:21	55327-1.RAW	1:56:21 PM	1876.64	3		1874.0	15.830	791.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/9/2016 14:00:29	55328-1.RAW	2:00:29 PM	556.22			553.6	4.704	4.704	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/9/2016 14:04:38	55329-1.RAW	2:04:38 PM	9.41			6.7	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F610521-BSD1	50	11/9/2016 14:08:48	55330-1.RAW	2:08:48 PM	1836.32	3		1833.7	15.487	774.355	ng/L	
Hg2600-3	DM2	SAM	1609620-01	1000	11/9/2016 14:12:54	55331-1.RAW	2:12:54 PM	519.01	3		516.3	4.383	4383.153	ng/L	
Hg2600-3	DM2	SAM	1609620-02	1000	11/9/2016 14:17:03	55332-1.RAW	2:17:03 PM	483.50	3		480.8	4.081	4081.366	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 14:21:11	55333-1.RAW	2:21:11 PM	162.09	3		159.4	1.353	3382.278	ng/L	
Hg2600-3	DM2	SAM	1609620-07	500	11/9/2016 14:25:20	55334-1.RAW	2:25:20 PM	744.64	3		742.0	6.296	3147.903	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 14:29:28	55335-1.RAW	2:29:28 PM	117.23	3		114.6	0.974	243396.464	ng/L	
Hg2600-3	DM2	SAM	1609620-09	500	11/9/2016 14:33:37	55336-1.RAW	2:33:37 PM	135227.20	3		135224.5	1149.134	574566.924	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:42:04	55337-1.RAW	2:42:04 PM	65.99	x		63.3	0.538	0.000	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:44:55	55338-1.RAW	2:44:55 PM	43.28	x		40.6	0.345	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:49:03	55339-1.RAW	2:49:03 PM	73.89	x		71.2	0.605	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:53:12	55340-1.RAW	2:53:12 PM	45.04	x		42.4	0.360	0.000	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP1	2500	11/9/2016 14:57:20	55341-1.RAW	2:57:20 PM	313.44	3		310.8	2.639	6597.639	ng/L	
Hg2600-3	DM2	SAM	F610521-MS1	1000	11/9/2016 15:01:29	55342-1.RAW	3:01:29 PM	2885.17	3		2882.5	24.491	24490.876	ng/L	
Hg2600-3	DM2	SAM	F610521-MSD1	1000	11/9/2016 15:05:37	55343-1.RAW	3:05:37 PM	2892.02	3		2889.4	24.549	24549.097	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/9/2016 15:09:45	55344-1.RAW	3:09:45 PM	607.62			605.0	5.141	5.141	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/9/2016 15:13:54	55345-1.RAW	3:13:54 PM	42.28			39.6	0.337	0.337	ng/L	
Hg2600-3	DM2	SAM	1609620-08RE1	10000	11/9/2016 15:18:02	55346-1.RAW	3:18:02 PM	2756.52	3		2753.9	23.402	234018.516	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	250000	11/9/2016 15:22:11	55347-1.RAW	3:22:11 PM	380.23	3		377.6	3.209	802130.963	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK1	100	11/9/2016 15:26:19	55348-1.RAW	3:26:19 PM	43.07	4		40.4	0.343	34.332	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK2	100	11/9/2016 15:30:27	55349-1.RAW	3:30:27 PM	36.92	4		34.3	0.291	29.110	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK3	100	11/9/2016 15:34:36	55350-1.RAW	3:34:36 PM	35.35	4		32.7	0.278	27.777	ng/L	
Hg2600-3	DM2	SAM	*F611244-BLK4	100	11/9/2016 15:38:44	55351-1.RAW	3:38:44 PM	37.08	4	x	34.4	0.292	29.244	ng/L	
Hg2600-3	DM2	SAM	F611244-BS1	100	11/9/2016 15:42:53	55352-1.RAW	3:42:53 PM	587.75	4		585.1	4.668	466.802	ng/L	
Hg2600-3	DM2	SAM	F611244-BS2	100	11/9/2016 15:47:01	55353-1.RAW	3:47:01 PM	565.03	4		562.4	4.475	447.495	ng/L	
Hg2600-3	DM2	SAM	F611244-BS3	500	11/9/2016 15:51:10	55354-1.RAW	3:51:10 PM	1125.58	4		1122.9	9.482	4740.893	ng/L	
Hg2600-3	DM2	SAM	F611244-BS4	500	11/9/2016 15:55:18	55355-1.RAW	3:55:18 PM	1071.22	4		1068.6	9.020	4509.899	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	11/9/2016 15:59:26	55356-1.RAW	3:59:26 PM	582.59			579.9	4.928	4.928	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/9/2016 16:03:35	55357-1.RAW	4:03:35 PM	26.55			23.9	0.203	0.203	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP2	2500	11/9/2016 16:07:43	55358-1.RAW	4:07:43 PM	178.23	3		175.6	1.490	3725.082	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK1	100	11/9/2016 16:11:52	55359-1.RAW	4:11:52 PM	27.30	5		24.6	0.209	20.937	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK2	100	11/9/2016 16:16:00	55360-1.RAW	4:16:00 PM	29.67	5		27.0	0.229	22.946	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK3	100	11/9/2016 16:20:08	55361-1.RAW	4:20:08 PM	38.84	5		36.2	0.307	30.741	ng/L	
Hg2600-3	DM2	SAM	*F611245-BLK4	100	11/9/2016 16:24:17	55362-1.RAW	4:24:17 PM	27.08	5	x	24.4	0.207	20.743	ng/L	
Hg2600-3	DM2	SAM	F611245-BS1	100	11/9/2016 16:28:25	55363-1.RAW	4:28:25 PM	567.36	5		564.7	4.550	455.007	ng/L	
Hg2600-3	DM2	SAM	F611245-BS2	100	11/9/2016 16:32:34	55364-1.RAW	4:32:34 PM	566.59	5		563.9	4.544	454.352	ng/L	
Hg2600-3	DM2	SAM	F611245-BS3	500	11/9/2016 16:36:42	55365-1.RAW	4:36:42 PM	1114.12	5		1111.5	9.395	4697.734	ng/L	
Hg2600-3	DM2	SAM	F611245-BS4	500	11/9/2016 16:40:51	55366-1.RAW	4:40:51 PM	1069.27	5		1066.6	9.014	4507.139	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	CAL	SEQ-CCVB	1	11/9/2016 16:44:59	55367-1.RAW	4:44:59 PM	592.46			589.8	5.012	5.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	11/9/2016 16:49:07	55368-1.RAW	4:49:07 PM	20.31			17.6	0.150	0.150	ng/L	

TotalMercury EPA1631  
 Operab DM  
 BlankS: 2.6664  
 Calib Eqn:  
 Conc = (Area-2.666  
 Run Date: 11/9/2016  
 Blank SD: 0.349034759  
 Worksh THg2600  
 CalibFa 117.67  
 Status:  
 QC Warnings:4/QC E  
 Run Time: 12:58:22  
 Blank RSD%: 13.0898751  
 Method #### R: 1  
 R<sup>2</sup>: 1  
 CF SD: 3.600437568  
 CF RSD%: 3.059665855

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	4.38					55240-1.RAW	7:56:13	515.19	Clean	OK	1	
clean										55241-1.RAW	7:59:04	0.00	Clean	NP	1	
ws				2.67	0.00					55242-1.RAW	8:03:13	2.37	Sample	OK	1	
ws				2.67	0.01					55243-1.RAW	8:07:21	3.42	Sample	OK	1	
ws										55244-1.RAW	8:11:30	0.00	Sample	NP	1	
SEQ-IBL1	A1		1	0.00	0.02					55245-1.RAW	8:15:38	2.83	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.02					55246-1.RAW	8:19:47	2.27	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.02					55247-1.RAW	8:23:55	2.90	Sample	OK	1	
SEQ-CAL1	A4		1	2.67	0.52			104.65		55248-1.RAW	8:28:04	64.24	Sample	OK	1	
SEQ-CAL2	A5		1	2.67	1.02			101.55		55249-1.RAW	8:32:12	122.17	Sample	OK	1	
SEQ-CAL3	A6		1	2.67	4.93			98.52		55250-1.RAW	8:36:20	582.32	Sample	OK	1	
SEQ-CAL4	A7		1	2.67	19.58			97.88		55251-1.RAW	8:40:29	2306.34	Sample	OK	1	
SEQ-CAL5	A8		1	2.67	38.96			97.40		55252-1.RAW	8:44:37	4587.17	Sample	FB	1	
SEQ-ICV1	A9		1	2.67	4.74			94.87		55253-1.RAW	8:48:46	560.83	Sample	OK	1	
F610492-BLK1	A10		20	2.67	2.54					55254-1.RAW	8:52:54	17.64	Sample	OK	1	
F610492-BLK2	A11		20	2.67	1.32					55255-1.RAW	8:57:03	10.45	Sample	OK	1	
F610492-BLK3	A12		20	2.67	1.13					55256-1.RAW	9:01:11	9.33	Sample	OK	1	
F610492-BS1	B1		20	2.67	103.71					55257-1.RAW	9:05:20	612.84	Sample	OK	1	
F610492-BSD1	B2		20	2.67	106.89					55258-1.RAW	9:09:28	631.56	Sample	OK	1	
F610492-BS2	B3		500	2.67	2038.42					55259-1.RAW	9:13:36	482.41	Sample	OK	1	
1610232-27	B4		500	2.67	2159.94					55260-1.RAW	9:17:45	511.01	Sample	OK	1	
1610232-28	B5		500	2.67	1860.57					55261-1.RAW	9:21:53	440.55	Sample	OK	1	
1610232-29	B6		500	2.67	1010.04					55262-1.RAW	9:26:02	240.38	Sample	OK	1	
1610232-30	B7		500	2.67	1225.03					55263-1.RAW	9:30:10	290.98	Sample	OK	1	
SEQ-CCV1	B8		1	2.67	5.14			102.76		55264-1.RAW	9:34:19	607.30	Sample	OK	1	
SEQ-CCB1	B9		1	2.67	0.06			0.00		55265-1.RAW	9:38:27	9.18	Sample	OK	1	
1610232-31	B10		500	2.67	1242.30					55266-1.RAW	9:42:35	295.04	Sample	OK	1	
1610232-32	B11		500	2.67	1273.29					55267-1.RAW	9:46:44	302.33	Sample	OK	1	
1610232-33	B12		500	2.67	1457.54					55268-1.RAW	9:50:52	345.70	Sample	OK	1	
1610232-34	C1		500	2.67	1018.24					55269-1.RAW	9:55:01	242.31	Sample	OK	1	
1610232-35	C2		500	2.67	449.32					55270-1.RAW	9:59:09	108.41	Sample	OK	1	
1610232-36	C3		500	2.67	442.78					55271-1.RAW	10:03:18	106.87	Sample	OK	1	
1610232-37	C4		500	2.67	1377.31					55272-1.RAW	10:07:26	326.82	Sample	OK	1	
1610232-38	C5		500	2.67	1384.38					55273-1.RAW	10:11:35	328.48	Sample	OK	1	
1610232-39	C6		500	2.67	592.42					55274-1.RAW	10:15:43	142.09	Sample	OK	1	
1610232-40	C7		500	2.67	753.02					55275-1.RAW	10:19:52	179.89	Sample	OK	1	
SEQ-CCV2	C8		1	2.67	4.77			95.35		55276-1.RAW	10:24:00	563.66	Sample	OK	1	
SEQ-CCB2	C9		1	2.67	0.03			0.00		55277-1.RAW	10:28:08	6.46	Sample	OK	1	
1610232-41	C10		500	2.67	1090.17					55278-1.RAW	10:32:16	259.24	Sample	OK	1	
1610232-42	C11		500	2.67	2658.47					55279-1.RAW	10:36:24	628.33	Sample	OK	1	
1610233-01	C12		500	2.67	489.93					55280-1.RAW	10:40:32	117.97	Sample	OK	1	
1610234-01	D1		500	2.67	109.90					55281-1.RAW	10:44:40	28.53	Sample	OK	1	
1610234-02	D2		500	2.67	158.09					55282-1.RAW	10:48:49	39.87	Sample	OK	1	
1610234-03	D3		500	2.67	124.80					55283-1.RAW	10:52:57	32.04	Sample	OK	1	
F610492-DUP1	D4		500	2.67	444.70					55284-1.RAW	10:57:05	107.32	Sample	OK	1	
F610492-MS1	D5		500	2.67	5030.15			1128.60		55285-1.RAW	11:01:14	1186.50	Sample	OK	1	
F610492-MSD1	D6		500	2.67	5029.95					55286-1.RAW	11:05:22	1186.46	Sample	OK	1	
F610492-MS2	D7		500	2.67	4741.97			94.24		55287-1.RAW	11:09:31	1118.68	Sample	OK	1	
SEQ-CCV3	D8		1	2.67	4.70			94.03		55288-1.RAW	11:13:39	555.90	Sample	OK	1	
SEQ-CCB3	D9		1	2.67	0.04			0.00		55289-1.RAW	11:17:47	7.03	Sample	OK	1	

F610492-MSD2	D10	500	2.67	4513.36		55290-1.RAW	11:21:56	1064.88	Sample	OK	1
1610232-35RE1	D11	100	2.67	422.84		55291-1.RAW	11:26:04	500.24	Sample	OK	1
1610232-36RE1	D12	100	2.67	442.05		55292-1.RAW	11:30:13	522.84	Sample	OK	1
1610233-01RE1	A1	100	2.67	463.48		55293-1.RAW	11:34:21	548.06	Sample	OK	1
1610234-01RE1	A2	20	2.67	84.80		55294-1.RAW	11:38:30	501.58	Sample	OK	1
1610234-02RE1	A3	20	2.67	128.29		55295-1.RAW	11:42:38	757.46	Sample	OK	1
1610234-03RE1	A4	20	2.67	92.62		55296-1.RAW	11:46:46	547.63	Sample	OK	1
F610492-DUP2	A5	100	2.67	445.75		55297-1.RAW	11:50:55	527.20	Sample	OK	1
F610522-BLK1	A6	20	2.67	1.65		55298-1.RAW	11:55:03	12.40	Sample	OK	1
F610522-BLK2	A7	20	2.67	1.47		55299-1.RAW	11:59:12	11.32	Sample	OK	1
SEQ-CCV4	A8	1	2.67	4.79	95.75	55300-1.RAW	12:03:20	566.05	Sample	OK	1
SEQ-CCB4	A9	1	2.67	0.03	0.00	55301-1.RAW	12:07:28	5.92	Sample	OK	1
F610522-BLK3	A10	20	2.67	1.55		55302-1.RAW	12:11:37	11.78	Sample	OK	1
F610522-BS1	A11	20	2.67	100.76		55303-1.RAW	12:15:45	595.53	Sample	OK	1
F610522-BSD1	A12	20	2.67	100.05		55304-1.RAW	12:19:54	591.35	Sample	OK	1
1609620-01	B1	2500	2.67	2707.51		55305-1.RAW	12:24:02	130.11	Sample	OK	1
1609620-02	B2	2500	2.67	2324.33		55306-1.RAW	12:28:10	112.07	Sample	OK	1
1609620-03	B3	2500	2.67	3671.29		55307-1.RAW	12:32:19	175.47	Sample	OK	1
1609620-07	B4	250000	2.67	8195.46		55308-1.RAW	12:36:27	6.52	Sample	OK	1
1609620-08	B5	250000	2.67	5317667.87		55309-1.RAW	12:40:36	2505.68	Sample	OK	1
1609620-09	B6	250000	2.67	68560.57		55310-1.RAW	12:44:44	34.94	Sample	OK	1
F610522-DUP1	B7	2500	2.67	12734.99		55311-1.RAW	12:48:53	602.10	Sample	OK	1
SEQ-CCV5	B8	1	2.67	0.08	1.68	55312-1.RAW	12:53:01	12.56	Sample	OK	1
SEQ-CCB5	B9	1	2.67	1.47	0.00	55313-1.RAW	12:57:09	175.36	Sample	OK	1
SEQ-CCV6	D1	1	2.67	4.88	97.57	55314-1.RAW	13:02:31	576.74	Sample	OK	1
SEQ-CCB6	D2	1	2.67	0.05	0.00	55315-1.RAW	13:06:40	8.83	Sample	OK	1
SEQ-CCV7	D3	1	2.67	4.72	94.36	55316-1.RAW	13:10:48	557.84	Sample	OK	1
SEQ-CCB7	D4	1	2.67	0.06	0.00	55317-1.RAW	13:14:57	9.47	Sample	OK	1
F610522-MS1	B12	2500	2.67	15962.60	#####	55318-1.RAW	13:19:05	754.02	Sample	OK	1
F610522-MSD1	C1	2500	2.67	15755.65		55319-1.RAW	13:23:13	744.28	Sample	OK	1
1609620-02RE1	C2	500	2.67	2272.80		55320-1.RAW	13:27:22	537.57	Sample	OK	1
1609620-07RE1	C3	500	2.67	2702.11		55321-1.RAW	13:31:30	638.60	Sample	OK	1
1609620-09RE1	C4	2500	2.67	56065.02		55322-1.RAW	13:35:39	2641.63	Sample	OK	1
F610522-DUP2	C5	2500	2.67	3855.01		55323-1.RAW	13:39:47	184.12	Sample	OK	1
F610521-BLK1	C6	50	2.67	5.82		55324-1.RAW	13:43:55	16.35	Sample	OK	1
F610521-BLK2	C7	50	2.67	4.04		55325-1.RAW	13:48:04	12.18	Sample	OK	1
F610521-BLK3	C8	50	2.67	4.45		55326-1.RAW	13:52:12	13.14	Sample	OK	1
F610521-BS1	C9	50	2.67	796.26		55327-1.RAW	13:56:21	1876.64	Sample	OK	1
SEQ-CCV8	C10	1	2.67	4.70	94.08	55328-1.RAW	14:00:29	556.22	Sample	OK	1
SEQ-CCB8	C11	1	2.67	0.06	0.00	55329-1.RAW	14:04:38	9.41	Sample	OK	1
F610521-BSD1	C12	50	2.67	779.12		55330-1.RAW	14:08:46	1836.32	Sample	OK	1
1609620-01	D1	1000	2.67	4387.92		55331-1.RAW	14:12:54	519.01	Sample	OK	1
1609620-02	D2	1000	2.67	4086.13		55332-1.RAW	14:17:03	483.50	Sample	OK	1
1609620-03	D3	2500	2.67	3387.05		55333-1.RAW	14:21:11	162.09	Sample	OK	1
1609620-07	D4	500	2.67	3152.67		55334-1.RAW	14:25:20	744.64	Sample	OK	1
1609620-08	D5	250000	2.67	243401.23		55335-1.RAW	14:29:28	117.23	Sample	OK	1
1609620-09	D6	500	2.67	574571.69		55336-1.RAW	14:33:37	135227.20	Sample	OLFB	1
CLEAN			0.00	0.56		55337-1.RAW	14:42:04	65.99	Clean	OK	1
CLEAN			0.00	0.37		55338-1.RAW	14:44:55	43.28	Clean	OK	1
WS			2.67	0.61		55339-1.RAW	14:49:03	73.89	Sample	OK	1
WS			2.67	0.36		55340-1.RAW	14:53:12	45.04	Sample	OK	1
F610521-DUP1	D7	2500	2.67	6602.41		55341-1.RAW	14:57:20	313.44	Sample	OK	1
F610521-MS1	D8	1000	2.67	24495.64	370.95	55342-1.RAW	15:01:29	2885.17	Sample	OK	1
F610521-MSD1	D9	1000	2.67	24553.87		55343-1.RAW	15:05:37	2892.02	Sample	FB	1
SEQ-CCV9	D10	1	2.67	5.14	102.82	55344-1.RAW	15:09:45	607.62	Sample	OK	1

WRONG LOCATION  
WRONG LOCATION

SEQ-CCB9	D11	1	2.67	0.34	0.00	55345-1.RAW	15:13:54	42.28	Sample	OK	1
1609620-08RE1	D12	10000	2.67	234023.28		55346-1.RAW	15:18:02	2756.52	Sample	OK	1
1609620-09RE1	A1	250000	2.67	802135.73		55347-1.RAW	15:22:11	380.23	Sample	OK	1
F611244-BLK1	A2	100	2.67	34.33		55348-1.RAW	15:26:19	43.07	Sample	OK	1
F611244-BLK2	A3	100	2.67	29.11		55349-1.RAW	15:30:27	36.92	Sample	OK	1
F611244-BLK3	A4	100	2.67	27.78		55350-1.RAW	15:34:36	35.35	Sample	OK	1
*F611244-BLK4	A5	100	2.67	29.24		55351-1.RAW	15:38:44	37.08	Sample	OK	1
F611244-BS1	A6	100	2.67	497.21		55352-1.RAW	15:42:53	587.75	Sample	OK	1
F611244-BS2	A7	100	2.67	477.90		55353-1.RAW	15:47:01	565.03	Sample	OK	1
F611244-BS3	A8	500	2.67	4771.30		55354-1.RAW	15:51:10	1125.58	Sample	OK	1
F611244-BS4	A9	500	2.67	4540.31		55355-1.RAW	15:55:18	1071.22	Sample	OK	1
SEQ-CCVA	A10	1	2.67	4.93		55356-1.RAW	15:59:26	582.59	Sample	OK	1
SEQ-CCBA	A11	1	2.67	0.20		55357-1.RAW	16:03:35	26.55	Sample	OK	1
F610521-DUP2	A12	2500	2.67	3729.85		55358-1.RAW	16:07:43	178.23	Sample	OK	1
F611245-BLK1	B1	100	2.67	20.94		55359-1.RAW	16:11:52	27.30	Sample	OK	1
F611245-BLK2	B2	100	2.67	22.95		55360-1.RAW	16:16:00	29.67	Sample	OK	1
F611245-BLK3	B3	100	2.67	30.74		55361-1.RAW	16:20:08	38.84	Sample	OK	1
*F611245-BLK4	B4	100	2.67	20.74		55362-1.RAW	16:24:17	27.08	Sample	OK	1
F611245-BS1	B5	100	2.67	479.88		55363-1.RAW	16:28:25	587.36	Sample	OK	1
F611245-BS2	B6	100	2.67	479.23		55364-1.RAW	16:32:34	566.59	Sample	OK	1
F611245-BS3	B7	500	2.67	4722.61		55365-1.RAW	16:36:42	1114.12	Sample	OK	1
F611245-BS4	B8	500	2.67	4532.01		55366-1.RAW	16:40:51	1069.27	Sample	OK	1
SEQ-CCVB	B9	1	2.67	5.01		55367-1.RAW	16:44:59	592.46	Sample	OK	1
SEQ-CCBB	B10	1	2.67	0.15		55368-1.RAW	16:49:07	20.31	Sample	OK	1

## ANALYSIS SEQUENCE

6K10007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10007-IBL1	QC	1			
6K10007-IBL2	QC	2			
6K10007-IBL3	QC	3			
6K10007-CAL1	QC	4	1605412		
6K10007-CAL2	QC	5	1605413		
6K10007-CAL3	QC	6	1605414		
6K10007-CAL4	QC	7	1605415		
6K10007-CAL5	QC	8	1605416		
6K10007-ICV1	QC	9	1605791		
6K10007-CCV1	QC	10	1605791		
6K10007-CCB1	QC	11			
6K10007-CCV2	QC	12	1605791		
6K10007-CCB2	QC	13			
6K10007-CCV3	QC	14	1605791		
6K10007-CCB3	QC	15			
6K10007-CCV4	QC	16	1605791		
6K10007-CCB4	QC	17			
6K10007-CCV5	QC	18	1605791		
6K10007-CCB5	QC	19			
6K10007-CCV6	QC	20	1605791		
6K10007-CCB6	QC	21			
6K10007-CCV7	QC	22	1605791		
6K10007-CCB7	QC	23			
F610521-BLK1	QC	24			
F610521-BLK2	QC	25			
F610521-BLK3	QC	26			
F610521-BS1	QC	27			
6K10007-CCV8	QC	28	1605791		
6K10007-CCB8	QC	29			
F610521-BSD1	QC	30			
1609620-01	Hg-CVAFS-S-SSE-F4	31			
1609620-02	Hg-CVAFS-S-SSE-F4	32			
1609620-03	Hg-CVAFS-S-SSE-F4	33			
1609620-07	Hg-CVAFS-S-SSE-F4	34			
1609620-08	Hg-CVAFS-S-SSE-F4	35			

Due Date: 10/21/2016

Page 50 of 202

Page 1 of 2

**ANALYSIS SEQUENCE**

**6K10007**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F4	36			
F610521-DUP1	QC	37			
F610521-MS1	QC	38			
F610521-MSD1	QC	39			
6K10007-CCV9	QC	40	1605791		
6K10007-CCB9	QC	41			
1609620-08RE1	Hg-CVAFS-S-SSE-F4	42			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F4	43			Added 11/9/2016 by DM2
6K10007-CCVA	QC	44	1605791		
6K10007-CCBA	QC	45			
F610521-DUP2	QC	46			
6K10007-CCVB	QC	47	1605791		
6K10007-CCBB	QC	48			

Don M. Mason      11/9/16  
 Samples Loaded By      Date

Don M. Mason      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10007**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1609620-09	Hg-CVAFS-S-SSE-F4	273000	238				ng/g						FAIL-OVER	PASS	E
6K10007-CCV5	Hg-CVAFS-S-SSE-F4	0.08	2.496			5.0000	ng/L	1.68	75.00	125.00			PASS-OVER	FAIL-CCV	Wrong Location
F610521-DUP1	Hg-CVAFS-S-SSE-F4	3746	1420	1905	1905		ng/g				65.1	25.00	PASS-OVER	FAIL-DUP	QR-07

Don Matern                      11/10/16  
 Analyst Reviewed By                      Date

\_\_\_\_\_  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K10006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10006-IBL1	QC	1			
6K10006-IBL2	QC	2			
6K10006-IBL3	QC	3			
6K10006-CAL1	QC	4	1605412		
6K10006-CAL2	QC	5	1605413		
6K10006-CAL3	QC	6	1605414		
6K10006-CAL4	QC	7	1605415		
6K10006-CAL5	QC	8	1605416		
6K10006-ICV1	QC	9	1605791		
6K10006-CCV1	QC	10	1605791		
6K10006-CCB1	QC	11			
6K10006-CCV2	QC	12	1605791		
6K10006-CCB2	QC	13			
6K10006-CCV3	QC	14	1605791		
6K10006-CCB3	QC	15			
F610522-BLK1	QC	16			
F610522-BLK2	QC	17			
6K10006-CCV4	QC	18	1605791		
6K10006-CCB4	QC	19			
F610522-BLK3	QC	20			
F610522-BS1	QC	21			
F610522-BSD1	QC	22			
1609620-01	Hg-CVAFS-S-SSE-F5	23			
1609620-02	Hg-CVAFS-S-SSE-F5	24			
1609620-03	Hg-CVAFS-S-SSE-F5	25			
1609620-07	Hg-CVAFS-S-SSE-F5	26			
1609620-08	Hg-CVAFS-S-SSE-F5	27			
1609620-09	Hg-CVAFS-S-SSE-F5	28			
F610522-DUP1	QC	29			
6K10006-CCV5	QC	30	1605791		
6K10006-CCB5	QC	31			
6K10006-CCV6	QC	32	1605791		
6K10006-CCB6	QC	33			
6K10006-CCV7	QC	34	1605791		
6K10006-CCB7	QC	35			

Due Date: 10/21/2016

Page 53 of 202

Page 1 of 2



**ANALYSIS SEQUENCE**

**6K10006**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F610522-MS1	QC	36			
F610522-MSD1	QC	37			
1609620-02RE1	Hg-CVAFS-S-SSE-F5	38			Added 11/9/2016 by DM2
1609620-07RE1	Hg-CVAFS-S-SSE-F5	39			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F5	40			Added 11/9/2016 by DM2
F610522-DUP2	QC	41			
6K10006-CCV8	QC	42	1605791		
6K10006-CCB8	QC	43			
6K10006-CCV9	QC	44	1605791		
6K10006-CCB9	QC	45			
6K10006-CCVA	QC	46	1605791		
6K10006-CCBA	QC	47			
6K10006-CCVB	QC	48	1605791		
6K10006-CCBB	QC	49			

Dan Maxam      11/9/16  
 Samples Loaded By      Date

Dan Maxam      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10006**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610522-DUP1	Hg-CVAFS-S-SSE-F5	2313	227	661.6	661.6		ng/g				111	25.00	PASS-OVER	FAIL-DUP	QR-07
6K10006-CCV5	Hg-CVAFS-S-SSE-F5	0.08	1.250			5.0000	ng/L	1.68	75.00	125.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10006-CCB5	Hg-CVAFS-S-SSE-F5	1.47	1.250				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

Don Moxem                      11/10/16  
 Analyst Reviewed By                      Date

Ryan M/L                                      11/11/16  
 Peer Reviewed By                                      Date

## ANALYSIS SEQUENCE

6K10005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-IBL1	QC	1			
6K10005-IBL2	QC	2			
6K10005-IBL3	QC	3			
6K10005-CAL1	QC	4	1605412		
6K10005-CAL2	QC	5	1605413		
6K10005-CAL3	QC	6	1605414		
6K10005-CAL4	QC	7	1605415		
6K10005-CAL5	QC	8	1605416		
6K10005-ICV1	QC	9	1605791		
6K10005-CCV1	QC	10	1605791		
6K10005-CCB1	QC	11			
6K10005-CCV2	QC	12	1605791		
6K10005-CCB2	QC	13			
6K10005-CCV3	QC	14	1605791		
6K10005-CCB3	QC	15			
6K10005-CCV4	QC	16	1605791		
6K10005-CCB4	QC	17			
6K10005-CCV5	QC	18	1605791		
6K10005-CCB5	QC	19			
6K10005-CCV6	QC	20	1605791		
6K10005-CCB6	QC	21			
6K10005-CCV7	QC	22	1605791		
6K10005-CCB7	QC	23			
6K10005-CCV8	QC	24	1605791		
6K10005-CCB8	QC	25			
6K10005-CCV9	QC	26	1605791		
6K10005-CCB9	QC	27			
F611244-BLK1	QC	28			
F611244-BLK2	QC	29			
F611244-BLK3	QC	30			
F611244-BLK4	QC	31			
F611244-BS1	QC	32			
F611244-BS2	QC	33			
F611244-BS3	QC	34			
F611244-BS4	QC	35			

**ANALYSIS SEQUENCE**

**6K10005**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/9/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-CCVA	QC	36	1605791		
6K10005-CCBA	QC	37			
F611245-BLK1	QC	38			
F611245-BLK2	QC	39			
F611245-BLK3	QC	40			
F611245-BLK4	QC	41			
F611245-BS1	QC	42			
F611245-BS2	QC	43			
F611245-BS3	QC	44			
F611245-BS4	QC	45			
6K10005-CCVB	QC	46	1605791		
6K10005-CCBB	QC	47			

Don Moran      11/9/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10005**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10005-CCV5	Hg_FSTM_TRAP_A	0.08	0.500			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10005-CCB5	Hg_FSTM_TRAP_A	1.47	0.500				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

*Don Moxem*  
 Analyst Reviewed By \_\_\_\_\_  
 11/10/16  
 Date

*[Signature]* *N/L*  
 Peer Reviewed By \_\_\_\_\_  
 11/21/16  
 Date

## ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10008-IBL1	QC	1			
6K10008-IBL2	QC	2			
6K10008-IBL3	QC	3			
6K10008-CAL1	QC	4	1605412		
6K10008-CAL2	QC	5	1605413		
6K10008-CAL3	QC	6	1605414		
6K10008-CAL4	QC	7	1605415		
6K10008-CAL5	QC	8	1605416		
6K10008-ICV1	QC	9	1605791		
F610492-BLK1	QC	10			
F610492-BLK2	QC	11			
F610492-BLK3	QC	12			
F610492-BS1	QC	13			
F610492-BSD1	QC	14			
F610492-BS2	QC	15			
1610232-27	Hg-CVAFS-T-7030	16			
1610232-28	Hg-CVAFS-T-7030	17			
1610232-29	Hg-CVAFS-T-7030	18			
1610232-30	Hg-CVAFS-T-7030	19			
6K10008-CCV1	QC	20	1605791		
6K10008-CCB1	QC	21			
1610232-31	Hg-CVAFS-T-7030	22			
1610232-32	Hg-CVAFS-T-7030	23			
1610232-33	Hg-CVAFS-T-7030	24			
1610232-34	Hg-CVAFS-T-7030	25			
1610232-35	Hg-CVAFS-T-7030	26			
1610232-36	Hg-CVAFS-T-7030	27			
1610232-37	Hg-CVAFS-T-7030	28			
1610232-38	Hg-CVAFS-T-7030	29			
1610232-39	Hg-CVAFS-T-7030	30			
1610232-40	Hg-CVAFS-T-7030	31			
6K10008-CCV2	QC	32	1605791		
6K10008-CCB2	QC	33			
1610232-41	Hg-CVAFS-T-7030	34			
1610232-42	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

Page 59 of 202

Page 1 of 3

## ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610233-01	Hg-CVAFS-T-7030	36			
1610234-01	Hg-CVAFS-T-7030	37			
1610234-02	Hg-CVAFS-T-7030	38			
1610234-03	Hg-CVAFS-T-7030	39			
F610492-DUP1	QC	40			
F610492-MS1	QC	41			
F610492-MSD1	QC	42			
F610492-MS2	QC	43			
6K10008-CCV3	QC	44	1605791		
6K10008-CCB3	QC	45			
F610492-MSD2	QC	46			
1610232-35RE1	Hg-CVAFS-T-7030	47			Added 11/9/2016 by DM2
1610232-36RE1	Hg-CVAFS-T-7030	48			Added 11/9/2016 by DM2
1610233-01RE1	Hg-CVAFS-T-7030	49			Added 11/9/2016 by DM2
1610234-01RE1	Hg-CVAFS-T-7030	50			Added 11/9/2016 by DM2
1610234-02RE1	Hg-CVAFS-T-7030	51			Added 11/9/2016 by DM2
1610234-03RE1	Hg-CVAFS-T-7030	52			Added 11/9/2016 by DM2
F610492-DUP2	QC	53			
6K10008-CCV4	QC	54	1605791		
6K10008-CCB4	QC	55			
6K10008-CCV5	QC	56	1605791		
6K10008-CCB5	QC	57			
6K10008-CCV6	QC	58	1605791		
6K10008-CCB6	QC	59			
6K10008-CCV7	QC	60	1605791		
6K10008-CCB7	QC	61			
6K10008-CCV8	QC	62	1605791		
6K10008-CCB8	QC	63			
6K10008-CCV9	QC	64	1605791		
6K10008-CCB9	QC	65			
6K10008-CCVA	QC	66	1605791		
6K10008-CCBA	QC	67			
6K10008-CCVB	QC	68	1605791		
6K10008-CCBB	QC	69			

Due Date: 11/2/2016

Page 60 of 202

Page 2 of 3

ANALYSIS SEQUENCE

6KI0008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Matern      11/9/16  
Samples Loaded By      Date

Don Matern      11/10/16  
Data Processed By      Date



**Failing Data Report - 6K10008**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10008-CCV5	Hg-CVAFS-T-7030	0.084	2.000			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	wrong location

    Dan Moran                          11/10/16  
 Analyst Reviewed By                      Date

    Ryan N/L                          11/21/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					
F611245-BLK2	Blank	1	40					
F611245-BLK3	Blank	1	40					
F611245-BLK4	Blank	1	40					
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00 03-Apr-17 00:00	1602941 1605635 1605636 1606221 1606367 1606370	25% Hydroxylamine-HCl working solution THg Dilute 1% BrCl THg Washstation (0.5% BrCl) 70/30 Digestion Acid 5% BrCl 3% SnCl2 THg reductant	03-Dec-16 00:00 09-Feb-17 00:00 03-Dec-16 00:00 22-Apr-17 00:00 26-Mar-17 00:00 20-Apr-17 00:00

FSTM Lot Testing 161102B

**PREPARATION BENCH SHEET**

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					
F611244-BLK2	Blank	1	40					
F611244-BLK3	Blank	1	40					
F611244-BLK4	Blank	1	40					
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00 03-Apr-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606367	5% BrCl	26-Mar-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

FSTM Lot Testing 161102A

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					
F610492-BLK2	Blank	0.25	20					
F610492-BLK3	Blank	0.25	20					
F610492-BS1	LCS	0.25	20	1605270	20			
F610492-BS2	LCS	0.1252	20	1605470	125.2			
F610492-BSD1	LCS Dup	0.25	20	1605270	20			
F610492-DUP1	Duplicate [1610233-01RE1]	0.2557	20					
F610492-DUP2	Duplicate [1610233-01RE1]	0.2557	20					
F610492-MS1	Matrix Spike [1610233-01RE1]	0.2583	20	1605712	100			
F610492-MS2	Matrix Spike [1610234-01RE1]	0.2593	20	1605712	100			
F610492-MSD1	Matrix Spike Dup [1610233-01RE1]	0.2676	20	1605712	100			
F610492-MSD2	Matrix Spike Dup [1610234-01RE1]	0.2676	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00
			1606500		

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	-	-	-		
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	-	-	-		
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	-	-	-		
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	-	-	-		
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	-	-	-		
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	-	-	-		
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	-	-	-		
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	-	-	-		
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-		
1610232-35RE1	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-		
1610232-36RE1	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	-	-	-		
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	-	-	-		
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	-	-	-		
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	-	-	-		
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	-	-	-		
232-42	OB-05_092116_RAS_WB_01	0.264	20	-	-	-		
233-01	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD	

Page 66 of 202

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

1610233-01RE1	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD	
1610234-01RE1	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-		
1610234-02RE1	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-		
1610234-03RE1	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

F610522

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					
F610522-BLK2	Blank	0.25	40					
F610522-BLK3	Blank	0.25	40					
F610522-BS1	LCS	0.25	40	1605270	40			
F610522-BSD1	LCS Dup	0.25	40	1605270	40			
F610522-DUP1	Duplicate [1609620-03]	0.256	40					
F610522-DUP2	Duplicate [1609620-03]	0.258	40					
F610522-MS1	Matrix Spike [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->40mL; 40mL->40mL; Spiked 0.02mL.
F610522-MSD1	Matrix Spike Dup [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->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>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605815	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610522

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (ml.)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	40	-	-	-		
1609620-02RE1	Sand-Na25-2-bottom	0.258	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-03	Sand-Na25-3-bottom	0.258	40	-	-	-		
1609620-07	Hg0	0.263	40	-	-	-		
1609620-07RE1	Hg0	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-08	HgS	0.256	40	-	-	-		
1609620-09	Hg2Cl2	0.263	40	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2





**PREPARATION BENCH SHEET**

F610521

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					
F610521-BLK2	Blank	0.25	125					
F610521-BLK3	Blank	0.25	125					
F610521-BS1	LCS	0.002	1	1604715	100			
F610521-BSD1	LCS Dup	0.002	1	1604715	100			
F610521-DUP1	Duplicate [1609620-03]	0.256	125					
F610521-DUP2	Duplicate [1609620-03]	0.258	125					
F610521-MS1	Matrix Spike [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; Spiked 0.05mL
F610521-MSD1	Matrix Spike Dup [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; 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>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605838	12N HNO3	05-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610521

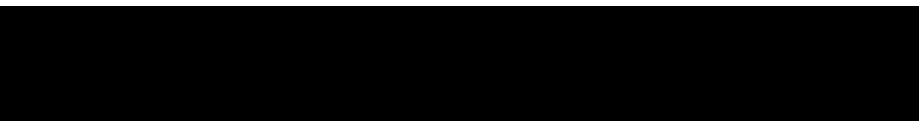
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	125	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	125	-	-	-		
1609620-07	Hg0	0.263	125	-	-	-		
1609620-08	HgS	0.256	125	-	-	-		
1609620-08RE1	HgS	0.256	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-09	Hg2Cl2	0.263	125	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

200.3

11/9/16 DM

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					100x
F611245-BLK2	Blank	1	40					100x
F611245-BLK3	Blank	1	40					100x
F611245-BLK4	Blank	1	40					100x
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			500x
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			500x

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

1602941  
 1605636  
 1605635  
 1606379

FSTM Lot Testing 161102B



**PREPARATION BENCH SHEET**

2600-3

11/9/16 DM

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					100X
F611244-BLK2	Blank	1	40					100X
F611244-BLK3	Blank	1	40					100X
F611244-BLK4	Blank	1	40					100X
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			500X
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			500X

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

FSTM Lot Testing 161102A

1602041  
 1605636  
 1605635  
 1606370



PREPARATION BENCH SHEET

2600-3  
11/9/16 DM

F610522

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					20X
F610522-BLK2	Blank	0.25	40					20X
F610522-BLK3	Blank	0.25	40					20X
F610522-BS1	LCS	0.25	40	1605270	40			20X
F610522-BSD1	LCS Dup	0.25	40	1605270	40			20X
F610522-DUP1	Duplicate [1609620-03]	0.256	40					2500X
F610522-MS1	Matrix Spike 1609620-01	0.25	40	1605272	25			2500X
F610522-MSD1	Matrix Spike Dup 1609620-01	0.25	40	1605272	25			2500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605815	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606465	5% BrCl	19-Apr-17 00:00

DUP1 - AD 2500X  
Source 1609620-03

1602041  
1605636  
1605635  
1606570

PREPARATION BENCH SHEET

200.3

11/9/16 DM

F610522

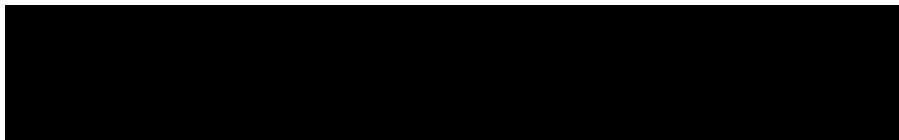
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	No	2500X
1609620-02	Sand-Na25-2-bottom	0.258	40	No	2500X → 500X
1609620-03	Sand-Na25-3-bottom	0.258	40	No	2500X
1609620-07	Hg0	0.263	40	No	DM 11/9/16 → 250,000X → 500X
1609620-08	HgS	0.256	40	No	250,000X
1609620-09	Hg2Cl2	0.263	40	No	250,000X → 2500X





Technician: MPM Batch#: F610518 Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CVAFS-S-SSE-F1 through F5

Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)  
 Spike Witness: MPM 11/4/16 (initial and date) Pipette NU01049 cal. 10/30/16

F2-PH2  
 HCl LIMS ID: 1605762  
 F1 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163  
 F2 BrCl  
 70:30 LIMS ID: 1606163  
 F3 KOH  
 Other Acid LIMS ID: 1605821

Pipette SN#: MU11607 Calibration Date: 11-6-16 MPM 11/1/16  
 F1  
 Pipette SN#: NU01049 Calibration Date: 10/30/16  
 F2 Pipette  
 Dispenser #: NU01049 Calibrated?  Yes  No  
 MPM 11/3/16  
 F3 Pipette  
 Dispenser #: NU01049 cal. yes

Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*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 type="checkbox"/> NA
1	F610518-BIK1	0.254	23			
2	F610518-BIK2	0.265	24			1605057 1605058 1605059
3	F610518-BIK3	0.267	25			
4	1609620-01	0.260	26			
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			
7	F610518-DUP(1609620-03)	0.256	29			
8	1609620-07	0.263	30			
9	1609620-08	0.256	31			
10	1609620-09	0.263	32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Comments**  
 F2 Batch # F610519  
 F3 Batch # F610520  
 F4 Batch # F610521  
 F5 Batch # F610522  
 MPM 10/28/16  
 1609620-07: HgO  
 1609620-08: HgS  
 1609620-09: Hg<sub>2</sub>Cl<sub>2</sub>  
 MPM 10/31/16  
 F3 BrCl 1605634 MPM 11/1/16  
 F4 12N HNO<sub>3</sub> 1605838  
 F4 BrCl 1605634 MPM 11/1/16  
 F4 Pipette NU01049  
 cal. 10/30/16  
 F5 boiling chips #  
 1603399 BS/BSD  
 balance 19 cal. yes  
 BS1 0.2670g  
 BSD1 0.2608g  
 HCl 1606137  
 dispenser 0842293  
 14N HNO<sub>3</sub> 1605815  
 dispenser 0545812  
 vial # 00065276  
 11/4/16 MPM  
 F5 F610522  
 BrCl: 1606465  
 dispenser: 022159  
 AMB 11/7/16

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610521

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					50X
F610521-BLK2	Blank	0.25	125					50X
F610521-BLK3	Blank	0.25	125					50X
F610521-BS1	LCS 0.002	0.25	125	1604715	100			50X
F610521-BSD1	LCS Dup 0.002	0.25	125	1604715	100			50X
F610521-DUP1	Duplicate [1609620-03]	0.256	125					2500X
F610521-MS1	Matrix Spike 1609620-01	0.25	125	1605272	100			1000X
F610521-MSD1	Matrix Spike Dup 1609620-01	0.25	125	1605272	100			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605838	12N HNO3	05-Apr-17 00:00

DUP2 - AD 2500X  
Source 1609620-03

1602941  
1605636  
1605635  
1606370

PREPARATION BENCH SHEET

2600-3

F610521

11/9/16 DM

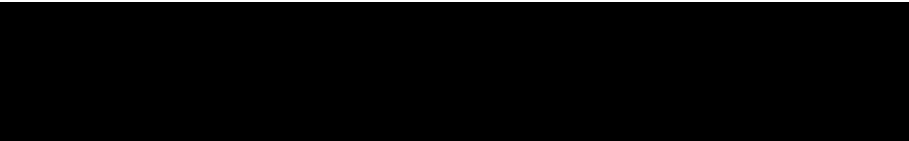
Euofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	No	1000X
1609620-02	Sand-Na25-2-bottom	0.258	125	No	1000X
1609620-03	Sand-Na25-3-bottom	0.258	125	No	2500X
1609620-07	Hg0	0.263	125	No	500X
1609620-08	HgS	0.256	125	No	250,000X → 10,000X
1609620-09	Hg2Cl2	0.263	125	No	500X → 250,000X



Technician: MPM Batch#: F610518 Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CVAFS-S-SSE-F1 through F5

Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: N/A Calibrated?  Yes  No  
 Time in: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Time out: N/A Actual Temp. (raw): N/A °C w/ CF: N/A °C  
 Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)  
 Spike Witness: MPM 11/4/16 (initial and date) Pipette MU11619 cal. 10/30/16

F2-PH2  
 HCl LIMS ID: 1605762 Pipette SN#: MU11607 Calibration Date: 11-6-16 MPM 11/1/16  
 F1 BrCl  
 HNO<sub>3</sub> LIMS ID: 1606163 Pipette SN#: NU01049 Calibration Date: 10/30/16  
 F2 BrCl  
 H<sub>2</sub>O LIMS ID: 1606163 F2 Pipette  
 F3 KOH  
 Other Acid LIMS ID: 1605821 F3 Pipette  
 Dispenser #: NU01049 Calibrated?  Yes  No  
 Dispenser #: NU01049 cal. Yes

Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*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 type="checkbox"/> NA
1	F610518-B1K1	0.254	23			1605057
2	F610518-B1K2	0.265	24			1605058
3	F610518-B1K3	0.267	25			1605059
4	1609620-01	0.260	26			
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			
7	F610518-DUP1(1609620-03)	0.256	29			
8	1609620-07	0.263	30			
9	1609620-08	0.256	31			
10	1609620-09	0.263	32			
11			33			
12			34			
13			35			
14			36			
15			37			
16			38			
17			39			
18			40			
19			41			
20			42			
21			43			
22			44			

**Comments**  
 F2 Batch # F610519  
 F3 Batch # F610520  
 F4 Batch # F610521  
 F5 Batch # F610522  
 MPM 10/28/16  
 1609620-07: HgO  
 1609620-08: HgS  
 1609620-09: Hg<sub>2</sub>Cl<sub>2</sub>  
 MPM 10/31/16  
 F3 BrCl 1605634 MPM 11/1/16  
 F4 IZN HNO<sub>3</sub> 1605838  
 F4 BrCl 1605634 MPM 11/4/16  
 F4 Pipette NU01049  
 cal. 10/30/16  
 F5 boiling chips #  
 1603399 BS/BSD  
 balance 19 cal. yes  
 BS1 0.2670g  
 BSD1 0.2608g  
 HCl 1606137  
 dispenser 0842293  
 IAN HNO<sub>3</sub> 1605815  
 Dispenser 05N8842  
 vial # 00065276  
 11/4/16 MPM

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					20X
F610492-BLK2	Blank	0.25	20					20X
F610492-BLK3	Blank	0.25	20					20X
F610492-BS1	LCS	0.25	20	1605270	20			20X
F610492-BS2	LCS	0.1252	20	1605470	125.2			500X
F610492-BSD1	LCS Dup	0.25	20	1605270	20			20X
F610492-DUP1	Duplicate [1610233-01] RE1	0.2557	20					500X
F610492-MS1	Matrix Spike [1610233-01] RE1	0.2583	20	1605712	100			500X
F610492-MS2	Matrix Spike [1610234-01] RE1	0.2593	20	1605712	100			500X
F610492-MSD1	Matrix Spike Dup [1610233-01] RE1	0.2676	20	1605712	100			500X
F610492-MSD2	Matrix Spike Dup [1610234-01] RE1	0.2676	20	1605712	100			500X

Standard ID(s):  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s):  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606465 5% BrCl  
 1606500

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - 100X  
 re-run of DUP1

1602941  
 1605636  
 1605635  
 160570

PREPARATION BENCH SHEET

2600-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	No	500X
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	No	500X
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	No	500X
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	No	500X
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	No	500X
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	No	500X
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	No	500X
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	No	500X
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	No	500X → 100X
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	No	500X → 100X
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	No	500X
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	No	500X
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	No	500X
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	No	500X
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	No	500X
1610232-42	OB-05_092116_RAS_WB_01	0.264	20	No	500X
1610233-01	FRB-01_092916_TOM_WB_01	0.2529	20	No	500X → 100X
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	No	500X → 20X
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	No	500X → 20X
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	No	500X → 20X

**PREPARATION BENCH SHEET**

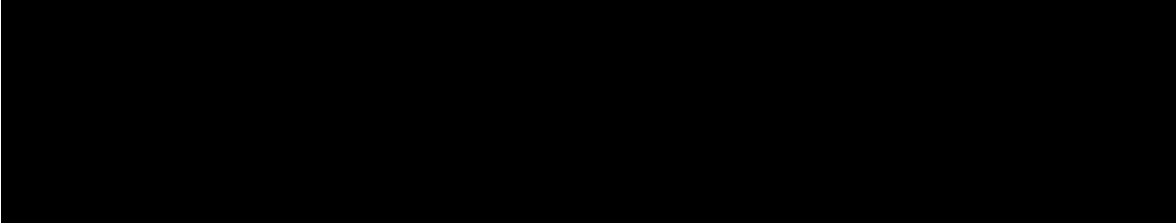
F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**



Technician: Dyer/MPM Batch#: F610492 Date: 11/7/14

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 1535 <sup>1545</sup> <sub>11/7/16</sub> Actual Temp. (raw): 80 °C w/ CF: 79.7 °C  
 Time out: 1745 Actual Temp. (raw): 85 °C w/ CF: 84.7 °C

Final vol.: 20 mL (LIMS ID: 1601465/1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/7/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 0222159 Cal. yes  
 Glass Vial # 00065688 Boiling Chip lot # 1603399 \*Hotblock Position: D6

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	F610492 Blank1	0.2510	23	1610232-38	0.2695	DORM-4 BS2 1605470
2	F610492 Blank2	0.2738	24	1610232-39	0.2674	
3	F610492 Blank3	0.2503	25	1610232-40	0.2583	
4	F610492 BS1	0.2612	26	1610232-41	0.2629	<b>Comments</b> BS1, BS01 = 100 µL = 20 µL 1605270 Dup / MS / MS01 1610233-01 MS2 MS02 1610234-01
5	F610492 BS01	0.2819	27	1610232-42	0.2640	
6	F610492 BS2	0.1252	28	1610233-01	0.2529	
7	F610492 Dup1	0.2557	29	1610234-01	0.2542	
8	F610492 MS1	0.2583	30	1610234-02	0.2577	
9	F610492 MS01	0.2676	31	1610234-03	0.2680	
10	F610492 MS2	0.2593	32			
11	F610492 MS02	0.2676	33			
12	1610232-27	0.2948	34			
13	1610232-28	0.2663	35			
14	1610232-29	0.2678	36			
15	1610232-30	0.2694	37			
16	1610232-31	0.2624	38			
17	1610232-32	0.2667	39			
18	1610232-33	0.2502	40			
19	1610232-34	0.2557	41			
20	1610232-35	0.2645	42			
21	1610232-36	0.2619	43			
22	1610232-37	0.2694	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>6K10008, 6K10007, 6K10006, 6K10005</u>
Reviewer: <u>[Signature]</u>	Dataset ID(s): <u>THG26003-161109-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>1610232, 1610233, 1610234, 1609620</u>
Batch #(s): <u>F611245, F611244, F610492, F610522, F610521</u>	

• Select the correct preparation method.

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

Analyst Initials: DM

Reviewer Initials: [Signature]

- 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-yymmdd-1 or THg26002-yymmdd-1
 

<input checked="" 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 (expiries).
 

<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 checked="" 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 checked="" type="checkbox"/>
------------------------------	--	-------------------------------------
- Client specific QC? (if Yes, refer to Project Notes/LIMS)
 

<input type="checkbox"/> YES	<input checked="" 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"/>
---	-----------------------------	-------------------------------------
- 5a. 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"/>
---	-----------------------------	-------------------------------------

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		0

Analyst Initials DM

Reviewer Initials [Signature]

- 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: **SEQ-CCV5 FAILED. WRONG LOCATION. 1609620-09 HIGH SAMPLE. F610521-DUP1 HIGH RPD. F610522-DUP1 FAILED. HIGH RPD. SEQ-CCB5 FAILED. WRONG LOCATION**
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: **SEQ-CCB5 FAILED. WRONG LOCATION**
17. Have Total Solids been applied? (if NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		0

Analyst Initials DM

Reviewer Initials DM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |                               |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input 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 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                 | 12/16/2015     | 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: | 5/20/2016      | Current SOP revision read?       | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD:                              | 7/7/2016       | LOD within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ:                              | 7/7/16, 7/8/16 | LOQ within last 3 months?        | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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





Frontier Global Sciences

THg26002-161110-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 10, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K10018, 6K10017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	116.97 units	233.95	105.93 units	211.87	104.1 %Rec
SEQ-CAL2	1	1.00 ng/L	213.06 units	213.06	202.02 units	202.02	99.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1027.62 units	205.52	1016.58 units	203.32	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3897.25 units	194.86	3886.21 units	194.31	95.5 %Rec
SEQ-CAL5	1	40.00 ng/L	8261.28 units	206.53	8250.24 units	206.26	101.3 %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  
 203.55            +/- 6.41            3.1% RSD            210.78

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.04 units	±2.85	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.420 ng/L	±2.584
BLK	2	3	2.349 ng/L	±1.647
BLK	3	3	3.028 ng/L	±2.564
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   11/10/16

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	11/10/2016 8:02:45	65431-1.RAW	8:02:45 AM	9.55			-1.5	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/10/2016 8:06:54	65432-1.RAW	8:06:54 AM	14.32			3.3	0.016	0.016	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/10/2016 8:11:02	65433-1.RAW	8:11:02 AM	9.24			-1.8	-0.009	-0.009	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/10/2016 8:15:11	65434-1.RAW	8:15:11 AM	116.97			105.9	0.520	0.520	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/10/2016 8:19:19	65435-1.RAW	8:19:19 AM	213.06			202.0	0.992	0.992	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/10/2016 8:23:27	65436-1.RAW	8:23:27 AM	1027.62			1016.6	4.994	4.994	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/10/2016 8:27:36	65437-1.RAW	8:27:36 AM	3897.25			3886.2	19.092	19.092	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/10/2016 8:31:44	65438-1.RAW	8:31:44 AM	8261.28			8250.2	40.531	40.531	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/10/2016 8:35:54	65439-1.RAW	8:35:54 AM	1011.29			1000.3	4.914	4.914	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK1	20	11/10/2016 8:41:32	65440-1.RAW	8:41:32 AM	75.69	1		64.7	0.318	6.353	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK2	20	11/10/2016 8:45:41	65441-1.RAW	8:45:41 AM	35.79	1		24.7	0.122	2.432	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK3	20	11/10/2016 8:49:49	65442-1.RAW	8:49:49 AM	26.06	1		15.0	0.074	1.476	ng/L	
Hg2600-2	DM2	SAM	F610509-BS1	20	11/10/2016 8:53:57	65443-1.RAW	8:53:57 AM	1052.88	1		1041.8	4.947	98.943	ng/L	
Hg2600-2	DM2	SAM	F610509-BSD1	20	11/10/2016 8:58:06	65444-1.RAW	8:58:06 AM	1070.02	1		1059.0	5.031	100.629	ng/L	
Hg2600-2	DM2	SAM	F610509-BS2	500	11/10/2016 9:02:14	65445-1.RAW	9:02:14 AM	918.96	1		907.9	4.454	2226.751	ng/L	
Hg2600-2	DM2	SAM	1610234-16	100	11/10/2016 9:06:23	65446-1.RAW	9:06:23 AM	248.86	1		237.8	1.134	113.417	ng/L	
Hg2600-2	DM2	SAM	1610234-17	100	11/10/2016 9:10:31	65447-1.RAW	9:10:31 AM	262.12	1		251.1	1.199	119.929	ng/L	
Hg2600-2	DM2	SAM	1610234-18	100	11/10/2016 9:14:40	65448-1.RAW	9:14:40 AM	336.90	1		325.9	1.567	156.664	ng/L	
Hg2600-2	DM2	SAM	1610234-19	100	11/10/2016 9:18:48	65449-1.RAW	9:18:48 AM	172.80	1		161.8	0.760	76.049	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/10/2016 9:22:57	65450-1.RAW	9:22:57 AM	982.22			971.2	4.771	4.771	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/10/2016 9:27:05	65451-1.RAW	9:27:05 AM	20.52			9.5	0.047	0.047	ng/L	
Hg2600-2	DM2	SAM	1610234-20	100	11/10/2016 9:31:13	65452-1.RAW	9:31:13 AM	257.22	1		246.2	1.175	117.522	ng/L	
Hg2600-2	DM2	SAM	1610235-01	100	11/10/2016 9:35:22	65453-1.RAW	9:35:22 AM	85.94	1		74.9	0.334	33.376	ng/L	
Hg2600-2	DM2	SAM	1610235-02	100	11/10/2016 9:39:30	65454-1.RAW	9:39:30 AM	113.68	1		102.6	0.470	47.003	ng/L	
Hg2600-2	DM2	SAM	1610235-03	100	11/10/2016 9:43:39	65455-1.RAW	9:43:39 AM	60.69	1		49.7	0.210	20.973	ng/L	
Hg2600-2	DM2	SAM	1610235-04	100	11/10/2016 9:47:47	65456-1.RAW	9:47:47 AM	132.06	1		121.0	0.560	56.035	ng/L	
Hg2600-2	DM2	SAM	1610235-05	100	11/10/2016 9:51:55	65457-1.RAW	9:51:55 AM	74.80	1		63.8	0.279	27.905	ng/L	
Hg2600-2	DM2	SAM	1610236-01	100	11/10/2016 9:56:04	65458-1.RAW	9:56:04 AM	197.24	1		186.2	0.881	88.056	ng/L	
Hg2600-2	DM2	SAM	1610236-02	100	11/10/2016 10:00:12	65459-1.RAW	10:00:12 AM	215.19	1		204.1	0.969	96.872	ng/L	
Hg2600-2	DM2	SAM	1610236-03	20	11/10/2016 10:13:52	65460-2.RAW	10:13:52 AM	1077.96	1		1066.9	5.070	101.409	ng/L	
Hg2600-2	DM2	SAM	1610236-04	20	11/10/2016 10:18:01	65461-1.RAW	10:18:01 AM	977.10	1		966.1	4.575	91.499	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/10/2016 10:22:09	65462-1.RAW	10:22:09 AM	952.48			941.4	4.625	4.625	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/10/2016 10:26:17	65463-1.RAW	10:26:17 AM	22.58			11.5	0.057	0.057	ng/L	
Hg2600-2	DM2	SAM	1610236-05	20	11/10/2016 10:30:26	65464-1.RAW	10:30:26 AM	968.77	1		957.7	4.534	90.681	ng/L	
Hg2600-2	DM2	SAM	1610236-06	20	11/10/2016 10:34:34	65465-1.RAW	10:34:34 AM	1171.28	1		1160.2	5.529	110.578	ng/L	
Hg2600-2	DM2	SAM	1610236-07	20	11/10/2016 10:38:43	65466-1.RAW	10:38:43 AM	762.76	1		751.7	3.522	70.439	ng/L	
Hg2600-2	DM2	SAM	1610236-08	20	11/10/2016 10:42:51	65467-1.RAW	10:42:51 AM	1113.32	1		1102.3	5.244	104.883	ng/L	
Hg2600-2	DM2	SAM	1610236-09	20	11/10/2016 10:46:59	65468-1.RAW	10:46:59 AM	1111.16	1		1100.1	5.234	104.671	ng/L	
Hg2600-2	DM2	SAM	1610236-10	20	11/10/2016 10:51:08	65469-1.RAW	10:51:08 AM	1083.48	1		1072.4	5.098	101.951	ng/L	
Hg2600-2	DM2	SAM	1610234-19RE1	20	11/10/2016 10:55:16	65470-1.RAW	10:55:16 AM	720.20	1		709.2	3.313	66.258	ng/L	
Hg2600-2	DM2	SAM	1610235-01RE1	20	11/10/2016 10:59:25	65471-1.RAW	10:59:25 AM	326.22	1		315.2	1.377	27.548	ng/L	
Hg2600-2	DM2	SAM	1610235-02RE1	20	11/10/2016 11:03:33	65472-1.RAW	11:03:33 AM	424.48	1		413.4	1.860	37.202	ng/L	
Hg2600-2	DM2	SAM	1610235-03RE1	20	11/10/2016 11:07:42	65473-1.RAW	11:07:42 AM	221.82	1		210.8	0.864	17.290	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/10/2016 11:11:50	65474-1.RAW	11:11:50 AM	969.26			958.2	4.707	4.707	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/10/2016 11:15:58	65475-1.RAW	11:15:58 AM	34.34			23.3	0.114	0.114	ng/L	
Hg2600-2	DM2	SAM	1610235-04RE1	20	11/10/2016 11:20:07	65476-1.RAW	11:20:07 AM	532.70	1		521.7	2.392	47.835	ng/L	
Hg2600-2	DM2	SAM	1610235-05RE1	20	11/10/2016 11:24:15	65477-1.RAW	11:24:15 AM	296.98	1		285.9	1.234	24.675	ng/L	
Hg2600-2	DM2	SAM	1610236-01RE1	20	11/10/2016 11:28:24	65478-1.RAW	11:28:24 AM	820.04	1		809.0	3.803	76.067	ng/L	
Hg2600-2	DM2	SAM	1610236-02RE1	20	11/10/2016 11:32:32	65479-1.RAW	11:32:32 AM	921.07	1		910.0	4.300	85.994	ng/L	
Hg2600-2	DM2	SAM	F610509-DUP1	100	11/10/2016 11:36:41	65480-1.RAW	11:36:41 AM	229.84	1		218.8	1.041	104.073	ng/L	
Hg2600-2	DM2	SAM	F610509-MS1	500	11/10/2016 11:40:49	65481-1.RAW	11:40:49 AM	1869.32	1		1858.3	9.122	4561.166	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD1	500	11/10/2016 11:44:57	65482-1.RAW	11:44:57 AM	1849.00	1		1838.0	9.023	4511.266	ng/L	
Hg2600-2	DM2	SAM	F610509-MS2	500	11/10/2016 11:49:07	65483-1.RAW	11:49:07 AM	1939.11	1		1928.1	9.465	4732.606	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD2	500	11/10/2016 11:53:15	65484-1.RAW	11:53:15 AM	1991.80	1		1980.8	9.724	4862.016	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK1	20	11/10/2016 11:57:24	65485-1.RAW	11:57:24 AM	54.01	2		43.0	0.211	4.223	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/10/2016 12:01:32	65486-1.RAW	12:01:32 PM	949.16			938.1	4.609	4.609	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/10/2016 12:05:40	65487-1.RAW	12:05:40 PM	33.79			22.8	0.112	0.112	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	F610510-BLK2	20	11/10/2016 12:09:49	65488-1.RAW	12:09:49 PM	28.24	2		17.2	0.085	1.690	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK3	20	11/10/2016 12:13:58	65489-1.RAW	12:13:58 PM	22.57	2		11.5	0.057	1.133	ng/L	
Hg2600-2	DM2	SAM	F610510-BS1	20	11/10/2016 12:18:06	65490-1.RAW	12:18:06 PM	993.01	2		982.0	4.707	94.134	ng/L	
Hg2600-2	DM2	SAM	F610510-BSD1	20	11/10/2016 12:22:14	65491-1.RAW	12:22:14 PM	1078.26	2		1067.2	5.126	102.510	ng/L	
Hg2600-2	DM2	SAM	F610510-BS2	500	11/10/2016 12:26:23	65492-1.RAW	12:26:23 PM	864.93	2		853.9	4.190	2095.112	ng/L	
Hg2600-2	DM2	SAM	1610232-26RE1	100	11/10/2016 12:30:31	65493-1.RAW	12:30:31 PM	2112.51	2		2101.5	10.300	1030.042	ng/L	
Hg2600-2	DM2	SAM	1610236-11	20	11/10/2016 12:34:40	65494-1.RAW	12:34:40 PM	1017.46	2		1006.4	4.827	96.536	ng/L	
Hg2600-2	DM2	SAM	1610236-12	20	11/10/2016 12:38:49	65495-1.RAW	12:38:49 PM	1001.21	2		990.2	4.747	94.939	ng/L	
Hg2600-2	DM2	SAM	1610236-13	20	11/10/2016 12:42:58	65496-1.RAW	12:42:58 PM	999.53	2		988.5	4.739	94.774	ng/L	
Hg2600-2	DM2	SAM	1610236-14	20	11/10/2016 12:47:06	65497-1.RAW	12:47:06 PM	921.27	2		910.2	4.354	87.085	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/10/2016 12:51:14	65498-1.RAW	12:51:14 PM	963.2184419			952.2	4.678	4.678	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/10/2016 12:55:23	65499-1.RAW	12:55:23 PM	35.11			24.1	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1610236-15	20	11/10/2016 12:59:31	65500-1.RAW	12:59:31 PM	1263.04	2		1252.0	6.033	120.665	ng/L	
Hg2600-2	DM2	SAM	1610236-16	20	11/10/2016 13:03:40	65501-1.RAW	1:03:40 PM	938.87	2		927.8	4.441	88.815	ng/L	
Hg2600-2	DM2	SAM	1610236-17	20	11/10/2016 13:07:48	65502-1.RAW	1:07:48 PM	836.21	2		825.2	3.936	78.728	ng/L	
Hg2600-2	DM2	SAM	1610236-18	20	11/10/2016 13:11:57	65503-1.RAW	1:11:57 PM	1244.98	2		1233.9	5.945	118.891	ng/L	
Hg2600-2	DM2	SAM	1610236-19	20	11/10/2016 13:16:05	65504-1.RAW	1:16:05 PM	1045.03	2		1034.0	4.962	99.245	ng/L	
Hg2600-2	DM2	SAM	1610236-20	20	11/10/2016 13:20:13	65505-1.RAW	1:20:13 PM	887.46	2		876.4	4.188	83.763	ng/L	
Hg2600-2	DM2	SAM	1610238-01	20	11/10/2016 13:24:22	65506-1.RAW	1:24:22 PM	4134.58	2		4123.5	20.140	402.805	ng/L	
Hg2600-2	DM2	SAM	1610238-02	20	11/10/2016 13:28:30	65507-1.RAW	1:28:30 PM	469.89	2		458.9	2.137	42.735	ng/L	
Hg2600-2	DM2	SAM	1610238-03	20	11/10/2016 13:32:39	65508-1.RAW	1:32:39 PM	53.93	2		42.9	0.093	1.865	ng/L	
Hg2600-2	DM2	SAM	1610238-04	20	11/10/2016 13:36:47	65509-1.RAW	1:36:47 PM	64.85	2		53.8	0.147	2.939	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/10/2016 13:40:56	65510-1.RAW	1:40:56 PM	935.61			924.6	4.542	4.542	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/10/2016 13:45:04	65511-1.RAW	1:45:04 PM	48.10			37.1	0.182	0.182	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP1	100	11/10/2016 13:49:12	65512-1.RAW	1:49:12 PM	2732.85	2		2721.8	13.348	1334.795	ng/L	
Hg2600-2	DM2	SAM	F610510-MS1	500	11/10/2016 13:53:21	65513-1.RAW	1:53:21 PM	2268.80	2		2257.8	11.087	5543.497	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD1	500	11/10/2016 13:57:29	65514-1.RAW	1:57:29 PM	2230.51	2		2219.5	10.899	5449.451	ng/L	
Hg2600-2	DM2	SAM	F610510-MS2	500	11/10/2016 14:01:38	65515-1.RAW	2:01:38 PM	1744.44	2		1733.4	8.511	4255.493	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD2	500	11/10/2016 14:05:46	65516-1.RAW	2:05:46 PM	1778.12	2		1767.1	8.676	4338.209	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK1	20	11/10/2016 14:09:54	65517-1.RAW	2:09:54 PM	71.75	3		60.7	0.298	5.965	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK2	20	11/10/2016 14:14:03	65518-1.RAW	2:14:03 PM	30.21	3		19.2	0.094	1.884	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK3	20	11/10/2016 14:18:11	65519-1.RAW	2:18:11 PM	23.61	3		12.6	0.062	1.236	ng/L	
Hg2600-2	DM2	SAM	F611274-BS1	20	11/10/2016 14:22:20	65520-1.RAW	2:22:20 PM	3819.97	3		3808.9	18.561	371.215	ng/L	
Hg2600-2	DM2	SAM	F611274-BSD1	20	11/10/2016 14:26:28	65521-1.RAW	2:26:28 PM	4212.05	3		4201.0	20.487	409.737	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/10/2016 14:30:37	65522-1.RAW	2:30:37 PM	1024.98			1013.9	4.981	4.981	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/10/2016 14:34:45	65523-1.RAW	2:34:45 PM	47.48			36.4	0.179	0.179	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV1	1	11/10/2016 14:38:54	65524-1.RAW	2:38:54 PM	132.52			121.5	0.597	0.597	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV2	1	11/10/2016 14:43:02	65525-1.RAW	2:43:02 PM	72.20			61.2	0.300	0.300	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP2	100	11/10/2016 14:47:11	65526-1.RAW	2:47:11 PM	2036.71	2		2025.7	9.928	992.805	ng/L	
Hg2600-2	DM2	SAM	1609620-01	20	11/10/2016 14:51:19	65527-1.RAW	2:51:19 PM	167.70	3		156.7	0.618	12.364	ng/L	
Hg2600-2	DM2	SAM	1609620-02	20	11/10/2016 14:55:27	65528-1.RAW	2:55:27 PM	249.25	3		238.2	1.019	20.377	ng/L	
Hg2600-2	DM2	SAM	1609620-03	20	11/10/2016 14:59:36	65529-1.RAW	2:59:36 PM	155.33	3		144.3	0.557	11.149	ng/L	
Hg2600-2	DM2	SAM	1609620-07	100	11/10/2016 15:03:44	65530-1.RAW	3:03:44 PM	1276.99	3		1266.0	6.189	618.895	ng/L	
Hg2600-2	DM2	SAM	1609620-08	100	11/10/2016 15:07:53	65531-1.RAW	3:07:53 PM	863.58	3		852.5	4.158	415.801	ng/L	
Hg2600-2	DM2	SAM	1609620-09	100	11/10/2016 15:12:01	65532-1.RAW	3:12:01 PM	765.08	3		754.0	3.674	367.411	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP1	20	11/10/2016 15:16:10	65533-1.RAW	3:16:10 PM	317.42	3		306.4	1.354	27.075	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/10/2016 15:20:18	65534-1.RAW	3:20:18 PM	949.40			938.4	4.610	4.610	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/10/2016 15:24:27	65535-1.RAW	3:24:27 PM	32.50			21.5	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	F611274-MS1	20	11/10/2016 15:28:35	65536-1.RAW	3:28:35 PM	1241.91	3		1230.9	5.895	117.910	ng/L	
Hg2600-2	DM2	SAM	F611274-MSD1	20	11/10/2016 15:32:43	65537-1.RAW	3:32:43 PM	1234.95	3		1223.9	5.861	117.226	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP2	20	11/10/2016 15:37:16	65538-1.RAW	3:37:16 PM	157.92	3		146.9	0.570	11.404	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/10/2016 15:41:24	65539-1.RAW	3:41:24 PM	931.84			920.8	4.524	4.524	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/10/2016 15:45:33	65540-1.RAW	3:45:33 PM	31.63			20.6	0.101	0.101	ng/L	

TotalMercury EPA1631  
 Operati DM  
 BlankSi 11.038  
 Calib Eqn: Conc = (Area-11.03  
 Run Date: #####  
 Blank SD: 2.847022414  
 Works: THG260  
 CalibFa 203.55  
 Status: QC Warnings:4/QC E  
 Run Time: 15:33:07  
 Blank RSD%: 25.79243936  
 Method #### R: 0.9996  
 R²: 0.9992  
 CF SD: 6.409000594  
 CF RSD%: 3.148548865  
 Descrip THG26002-161110-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.77					65426-1.RAW	7:43:20	359.88	Clean	OK	1
clean				0.00	0.01					65427-1.RAW	7:46:12	1.21	Clean	OK	1
ws				11.04	0.01					65428-1.RAW	7:50:20	12.29	Sample	OK	1
ws				11.04	0.00					65429-1.RAW	7:54:28	10.84	Sample	OK	1
ws				11.04	0.00					65430-1.RAW	7:58:37	11.72	Sample	OK	1
SEQ-IBL1	A1			0.00	0.05					65431-1.RAW	8:02:45	9.55	Sample	OK	1
SEQ-IBL2	A2			0.00	0.07					65432-1.RAW	8:06:54	14.32	Sample	OK	1
SEQ-IBL3	A3			0.00	0.05					65433-1.RAW	8:11:02	9.24	Sample	OK	1
SEQ-CAL1	A4			11.04	0.52			104.09		65434-1.RAW	8:15:11	116.97	Sample	OK	1
SEQ-CAL2	A5			11.04	0.99			99.25		65435-1.RAW	8:19:19	213.06	Sample	OK	1
SEQ-CAL3	A6			11.04	4.99			99.88		65436-1.RAW	8:23:27	1027.62	Sample	OK	1
SEQ-CAL4	A7			11.04	19.09			95.46		65437-1.RAW	8:27:36	3897.25	Sample	OK	1
SEQ-CAL5	A8			11.04	40.53			101.33		65438-1.RAW	8:31:44	8261.28	Sample	OK	1
SEQ-ICV1	A9			11.04	4.91			98.28		65439-1.RAW	8:35:54	1011.29	Sample	OK	1
F610509-BLK1	A10		20	11.04	6.35					65440-1.RAW	8:41:32	75.69	Sample	OK	1
F610509-BLK2	A11		20	11.04	2.43					65441-1.RAW	8:45:41	35.79	Sample	OK	1
F610509-BLK3	A12		20	11.04	1.48					65442-1.RAW	8:49:49	26.06	Sample	OK	1
F610509-BS1	A13		20	11.04	102.36					65443-1.RAW	8:53:57	1052.86	Sample	OK	1
F610509-BSD1	A14		20	11.04	104.05					65444-1.RAW	8:58:06	1070.02	Sample	OK	1
F610509-BS2	A15		500	11.04	2230.17					65445-1.RAW	9:02:14	918.96	Sample	OK	1
1610234-16	A16		100	11.04	116.84					65446-1.RAW	9:06:23	248.86	Sample	OK	1
1610234-17	A17		100	11.04	123.35					65447-1.RAW	9:10:31	262.12	Sample	OK	1
1610234-18	A18		100	11.04	160.08					65448-1.RAW	9:14:40	336.90	Sample	OK	1
1610234-19	A19		100	11.04	79.47					65449-1.RAW	9:18:48	172.80	Sample	OK	1
SEQ-CCV1	A20		1	11.04	4.77			95.42		65450-1.RAW	9:22:57	982.22	Sample	OK	1
SEQ-CCB1	A21		1	11.04	0.05			0.00		65451-1.RAW	9:27:05	20.52	Sample	OK	1
1610234-20	B1		100	11.04	120.94					65452-1.RAW	9:31:13	257.22	Sample	OK	1
1610235-01	B2		100	11.04	36.80					65453-1.RAW	9:35:22	85.94	Sample	OK	1
1610235-02	B3		100	11.04	50.42					65454-1.RAW	9:39:30	113.68	Sample	OK	1
1610235-03	B4		100	11.04	24.39					65455-1.RAW	9:43:39	60.69	Sample	OK	1
1610235-04	B5		100	11.04	59.46					65456-1.RAW	9:47:47	132.06	Sample	OK	1
1610235-05	B6		100	11.04	31.33					65457-1.RAW	9:51:55	74.80	Sample	OK	1
1610236-01	B7		100	11.04	91.48					65458-1.RAW	9:56:04	197.24	Sample	OK	1
1610236-02	B8		100	11.04	100.29					65459-1.RAW	10:00:12	215.19	Sample	OK	1
1610236-03	B9		20	11.04	104.83					65460-2.RAW	10:13:52	1077.96	Sample	OK	1
1610236-04	B10		20	11.04	94.92					65461-1.RAW	10:18:01	977.10	Sample	OK	1
SEQ-CCV2	B11		1	11.04	4.63			92.50		65462-1.RAW	10:22:09	952.48	Sample	OK	1
SEQ-CCB2	B12		1	11.04	0.06			0.00		65463-1.RAW	10:26:17	22.58	Sample	OK	1
1610236-05	B13		20	11.04	94.10					65464-1.RAW	10:30:26	968.77	Sample	OK	1
1610236-06	B14		20	11.04	114.00					65465-1.RAW	10:34:34	1171.28	Sample	OK	1
1610236-07	B15		20	11.04	73.86					65466-1.RAW	10:38:43	762.76	Sample	OK	1
1610236-08	B16		20	11.04	108.30					65467-1.RAW	10:42:51	1113.32	Sample	OK	1
1610236-09	B17		20	11.04	108.09					65468-1.RAW	10:46:59	1111.16	Sample	OK	1



1610236-10	B18	20	11.04	105.37		65469-1.RAW	10:51:08	1083.48	Sample	OK	1
1610234-19RE1	B19	20	11.04	69.68		65470-1.RAW	10:55:16	720.20	Sample	OK	1
1610235-01RE1	B20	20	11.04	30.97		65471-1.RAW	10:59:25	326.22	Sample	OK	1
1610235-02RE1	B21	20	11.04	40.62		65472-1.RAW	11:03:33	424.48	Sample	OK	1
1610235-03RE1	C1	20	11.04	20.71		65473-1.RAW	11:07:42	221.82	Sample	OK	1
SEQ-CCV3	C2	1	11.04	4.71	94.15	65474-1.RAW	11:11:50	969.26	Sample	OK	1
SEQ-CCB3	C3	1	11.04	0.11	0.00	65475-1.RAW	11:15:58	34.34	Sample	OK	1
1610235-04RE1	C4	20	11.04	51.26		65476-1.RAW	11:20:07	532.70	Sample	OK	1
1610235-05RE1	C5	20	11.04	28.09		65477-1.RAW	11:24:15	296.98	Sample	OK	1
1610236-01RE1	C6	20	11.04	79.49		65478-1.RAW	11:28:24	820.04	Sample	OK	1
1610236-02RE1	C7	20	11.04	89.41		65479-1.RAW	11:32:32	921.07	Sample	OK	1
F610509-DUP1	C8	100	11.04	107.49		65480-1.RAW	11:36:41	229.84	Sample	OK	1
F610509-MS1	C9	500	11.04	4564.59	4207.27	65481-1.RAW	11:40:49	1869.32	Sample	OK	1
F610509-MSD1	C10	500	11.04	4514.69		65482-1.RAW	11:44:57	1849.00	Sample	OK	1
F610509-MS2	C11	500	11.04	4736.03	104.86	65483-1.RAW	11:49:07	1939.11	Sample	OK	1
F610509-MSD2	C12	500	11.04	4865.44		65484-1.RAW	11:53:15	1991.80	Sample	OK	1
F610510-BLK1	C13	20	11.04	4.22		65485-1.RAW	11:57:24	54.01	Sample	OK	1
SEQ-CCV4	C14	1	11.04	4.61	92.17	65486-1.RAW	12:01:32	949.16	Sample	OK	1
SEQ-CCB4	C15	1	11.04	0.11	0.00	65487-1.RAW	12:05:40	33.79	Sample	OK	1
F610510-BLK2	C16	20	11.04	1.69		65488-1.RAW	12:09:49	28.24	Sample	OK	1
F610510-BLK3	C17	20	11.04	1.13		65489-1.RAW	12:13:58	22.57	Sample	OK	1
F610510-BS1	C18	20	11.04	96.48		65490-1.RAW	12:18:06	993.01	Sample	OK	1
F610510-BSD1	C19	20	11.04	104.86		65491-1.RAW	12:22:14	1078.26	Sample	OK	1
F610510-BS2	C20	500	11.04	2097.46		65492-1.RAW	12:26:23	864.93	Sample	OK	1
1610232-26RE1	C21	100	11.04	1032.39		65493-1.RAW	12:30:31	2112.51	Sample	OK	1
1610236-11	A1	20	11.04	98.88		65494-1.RAW	12:34:40	1017.46	Sample	OK	1
1610236-12	A2	20	11.04	97.29		65495-1.RAW	12:38:49	1001.21	Sample	OK	1
1610236-13	A3	20	11.04	97.12		65496-1.RAW	12:42:58	999.53	Sample	OK	1
1610236-14	A4	20	11.04	89.43		65497-1.RAW	12:47:06	921.27	Sample	OK	1
SEQ-CCV5	A5	1	11.04	4.68	93.56	65498-1.RAW	12:51:14	963.22	Sample	OK	1
SEQ-CCB5	A6	1	11.04	0.12	0.00	65499-1.RAW	12:55:23	35.11	Sample	OK	1
1610236-15	A7	20	11.04	123.01		65500-1.RAW	12:59:31	1263.04	Sample	OK	1
1610236-16	A8	20	11.04	91.16		65501-1.RAW	13:03:40	938.87	Sample	OK	1
1610236-17	A9	20	11.04	81.08		65502-1.RAW	13:07:48	836.21	Sample	OK	1
1610236-18	A10	20	11.04	121.24		65503-1.RAW	13:11:57	1244.98	Sample	OK	1
1610236-19	A11	20	11.04	101.59		65504-1.RAW	13:16:05	1045.03	Sample	OK	1
1610236-20	A12	20	11.04	86.11		65505-1.RAW	13:20:13	887.46	Sample	OK	1
1610238-01	A13	20	11.04	405.15		65506-1.RAW	13:24:22	4134.58	Sample	OK	1
1610238-02	A14	20	11.04	45.08		65507-1.RAW	13:28:30	469.89	Sample	OK	1
1610238-03	A15	20	11.04	4.21		65508-1.RAW	13:32:39	53.93	Sample	OK	1
1610238-04	A16	20	11.04	5.29		65509-1.RAW	13:36:47	64.85	Sample	OK	1
SEQ-CCV6	A17	1	11.04	4.54	90.84	65510-1.RAW	13:40:56	935.61	Sample	OK	1
SEQ-CCB6	A18	1	11.04	0.18	0.00	65511-1.RAW	13:45:04	48.10	Sample	OK	1
F610510-DUP1	A19	100	11.04	1337.14		65512-1.RAW	13:49:12	2732.85	Sample	OK	1
F610510-MS1	A20	500	11.04	5545.85	414.44	65513-1.RAW	13:53:21	2268.80	Sample	OK	1
F610510-MSD1	A21	500	11.04	5451.80		65514-1.RAW	13:57:29	2230.51	Sample	OK	1
F610510-MS2	B1	500	11.04	4257.84	78.07	65515-1.RAW	14:01:38	1744.44	Sample	OK	1
F610510-MSD2	B2	500	11.04	4340.56		65516-1.RAW	14:05:46	1778.12	Sample	OK	1

F611274-BLK1	B3	20	11.04	5.97		65517-1.RAW	14:09:54	71.75	Sample	OK	1
F611274-BLK2	B4	20	11.04	1.88		65518-1.RAW	14:14:03	30.21	Sample	OK	1
F611274-BLK3	B5	20	11.04	1.24		65519-1.RAW	14:18:11	23.61	Sample	OK	1
F611274-BS1	B6	20	11.04	374.24		65520-1.RAW	14:22:20	3819.97	Sample	OK	1
F611274-BSD1	B7	20	11.04	412.77		65521-1.RAW	14:26:28	4212.05	Sample	OK	1
SEQ-CCV7	B8	1	11.04	4.98	99.62	65522-1.RAW	14:30:37	1024.98	Sample	OK	1
SEQ-CCB7	B9	1	11.04	0.18	0.00	65523-1.RAW	14:34:45	47.48	Sample	OK	1
SEQ-LCV1	B10	1	11.04	0.60		65524-1.RAW	14:38:54	132.52	Sample	OK	1
SEQ-LCV2	B11	1	11.04	0.30		65525-1.RAW	14:43:02	72.20	Sample	OK	1
F610510-DUP2	B12	100	11.04	995.15		65526-1.RAW	14:47:11	2036.71	Sample	OK	1
1609620-01	B13	20	11.04	15.39		65527-1.RAW	14:51:19	167.70	Sample	OK	1
1609620-02	B14	20	11.04	23.41		65528-1.RAW	14:55:27	249.25	Sample	OK	1
1609620-03	B15	20	11.04	14.18		65529-1.RAW	14:59:36	155.33	Sample	OK	1
1609620-07	B16	100	11.04	621.92		65530-1.RAW	15:03:44	1276.99	Sample	OK	1
1609620-08	B17	100	11.04	418.83		65531-1.RAW	15:07:53	863.58	Sample	OK	1
1609620-09	B18	100	11.04	370.44		65532-1.RAW	15:12:01	765.08	Sample	OK	1
F611274-DUP1	B19	20	11.04	30.10		65533-1.RAW	15:16:10	317.42	Sample	OK	1
SEQ-CCV8	B20	1	11.04	4.61	92.20	65534-1.RAW	15:20:18	949.40	Sample	OK	1
SEQ-CCB8	B21	1	11.04	0.11	0.00	65535-1.RAW	15:24:27	32.50	Sample	OK	1
F611274-MS1	C1	20	11.04	120.94	10940.31	65536-1.RAW	15:28:35	1241.91	Sample	OK	1
F611274-MSD1	C2	20	11.04	120.25		65537-1.RAW	15:32:43	1234.95	Sample	OK	1
F611274-DUP2	C3	20	11.04	14.43		65538-1.RAW	15:37:16	157.92	Sample	OK	1
SEQ-CCV9	C4	1	11.04	4.52	90.47	65539-1.RAW	15:41:24	931.84	Sample	OK	1
SEQ-CCB9	C5	1	11.04	0.10	0.00	65540-1.RAW	15:45:33	31.63	Sample	OK	1

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10018-IBL1	QC	1			
6K10018-IBL2	QC	2			
6K10018-IBL3	QC	3			
6K10018-CAL1	QC	4	1605412		
6K10018-CAL2	QC	5	1605413		
6K10018-CAL3	QC	6	1605414		
6K10018-CAL4	QC	7	1605415		
6K10018-CAL5	QC	8	1605416		
6K10018-ICV1	QC	9	1605791		
F610509-BLK1	QC	10			
F610509-BLK2	QC	11			
F610509-BLK3	QC	12			
F610509-BS1	QC	13			
F610509-BSD1	QC	14			
F610509-BS2	QC	15			
1610234-16	Hg-CVAFS-T-7030	16			
1610234-17	Hg-CVAFS-T-7030	17			
1610234-18	Hg-CVAFS-T-7030	18			
1610234-19	Hg-CVAFS-T-7030	19			
6K10018-CCV1	QC	20	1605791		
6K10018-CCB1	QC	21			
1610234-20	Hg-CVAFS-T-7030	22			
1610235-01	Hg-CVAFS-T-7030	23			
1610235-02	Hg-CVAFS-T-7030	24			
1610235-03	Hg-CVAFS-T-7030	25			
1610235-04	Hg-CVAFS-T-7030	26			
1610235-05	Hg-CVAFS-T-7030	27			
1610236-01	Hg-CVAFS-T-7030	28			
1610236-02	Hg-CVAFS-T-7030	29			
1610236-03	Hg-CVAFS-T-7030	30			
1610236-04	Hg-CVAFS-T-7030	31			
6K10018-CCV2	QC	32	1605791		
6K10018-CCB2	QC	33			
1610236-05	Hg-CVAFS-T-7030	34			
1610236-06	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-07	Hg-CVAFS-T-7030	36			
1610236-08	Hg-CVAFS-T-7030	37			
1610236-09	Hg-CVAFS-T-7030	38			
1610236-10	Hg-CVAFS-T-7030	39			
1610234-19RE1	Hg-CVAFS-T-7030	40			Added 11/10/2016 by DM2
1610235-01RE1	Hg-CVAFS-T-7030	41			Added 11/10/2016 by DM2
1610235-02RE1	Hg-CVAFS-T-7030	42			Added 11/10/2016 by DM2
1610235-03RE1	Hg-CVAFS-T-7030	43			Added 11/10/2016 by DM2
6K10018-CCV3	QC	44	1605791		
6K10018-CCB3	QC	45			
1610235-04RE1	Hg-CVAFS-T-7030	46			Added 11/10/2016 by DM2
1610235-05RE1	Hg-CVAFS-T-7030	47			Added 11/10/2016 by DM2
1610236-01RE1	Hg-CVAFS-T-7030	48			Added 11/10/2016 by DM2
1610236-02RE1	Hg-CVAFS-T-7030	49			Added 11/10/2016 by DM2
F610509-DUP1	QC	50			
F610509-MS1	QC	51			
F610509-MSD1	QC	52			
F610509-MS2	QC	53			
F610509-MSD2	QC	54			
F610510-BLK1	QC	55			
6K10018-CCV4	QC	56	1605791		
6K10018-CCB4	QC	57			
F610510-BLK2	QC	58			
F610510-BLK3	QC	59			
F610510-BS1	QC	60			
F610510-BSD1	QC	61			
F610510-BS2	QC	62			
1610232-26RE1	Hg-CVAFS-T-7030	63			Re-extract added 11/2/2016 by RN
1610236-11	Hg-CVAFS-T-7030	64			
1610236-12	Hg-CVAFS-T-7030	65			
1610236-13	Hg-CVAFS-T-7030	66			
1610236-14	Hg-CVAFS-T-7030	67			
6K10018-CCV5	QC	68	1605791		
6K10018-CCB5	QC	69			
1610236-15	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 97 of 202

**ANALYSIS SEQUENCE**

**6K10018**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/10/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-16	Hg-CVAFS-T-7030	71			
1610236-17	Hg-CVAFS-T-7030	72			
1610236-18	Hg-CVAFS-T-7030	73			
1610236-19	Hg-CVAFS-T-7030	74			
1610236-20	Hg-CVAFS-T-7030	75			
1610238-01	Hg-CVAFS-T-7030	76			
1610238-02	Hg-CVAFS-T-7030	77			
1610238-03	Hg-CVAFS-T-7030	78			
1610238-04	Hg-CVAFS-T-7030	79			
6K10018-CCV6	QC	80	1605791		
6K10018-CCB6	QC	81			
F610510-DUP1	QC	82			
F610510-MS1	QC	83			
F610510-MSD1	QC	84			
F610510-MS2	QC	85			
F610510-MSD2	QC	86			
6K10018-CCV7	QC	87	1605791		
6K10018-CCB7	QC	88			
F610510-DUP2	QC	89			
6K10018-CCV8	QC	90	1605791		
6K10018-CCB8	QC	91			
6K10018-CCV9	QC	92	1605791		
6K10018-CCB9	QC	93			

Don Moran      11/10/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

**Failing Data Report - 6K10018**

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. Pearson      11/10/16  
Analyst Reviewed By      Date

Ry M      11/20/16  
Peer Reviewed By      Date

## ANALYSIS SEQUENCE

6K10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10017-IBL1	QC	1			
6K10017-IBL2	QC	2			
6K10017-IBL3	QC	3			
6K10017-CAL1	QC	4	1605412		
6K10017-CAL2	QC	5	1605413		
6K10017-CAL3	QC	6	1605414		
6K10017-CAL4	QC	7	1605415		
6K10017-CAL5	QC	8	1605416		
6K10017-ICV1	QC	9	1605791		
6K10017-CCV1	QC	10	1605791		
6K10017-CCB1	QC	11			
6K10017-CCV2	QC	12	1605791		
6K10017-CCB2	QC	13			
6K10017-CCV3	QC	14	1605791		
6K10017-CCB3	QC	15			
6K10017-CCV4	QC	16	1605791		
6K10017-CCB4	QC	17			
6K10017-CCV5	QC	18	1605791		
6K10017-CCB5	QC	19			
6K10017-CCV6	QC	20	1605791		
6K10017-CCB6	QC	21			
F611274-BLK1	QC	22			
F611274-BLK2	QC	23			
F611274-BLK3	QC	24			
F611274-BS1	QC	25			
F611274-BSD1	QC	26			
6K10017-CCV7	QC	27	1605791		
6K10017-CCB7	QC	28			
6K10017-LCV1	QC	29	1606488		
6K10017-LCV2	QC	30	1606489		
1609620-01	Hg-CVAFS-S-SSE-F6	31			
1609620-02	Hg-CVAFS-S-SSE-F6	32			
1609620-03	Hg-CVAFS-S-SSE-F6	33			
1609620-07	Hg-CVAFS-S-SSE-F6	34			
1609620-08	Hg-CVAFS-S-SSE-F6	35			

Due Date: 10/21/2016

Page 100 of 202

**ANALYSIS SEQUENCE**

**6K10017**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/10/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F6	36			
F611274-DUP1	QC	37			
6K10017-CCV8	QC	38	1605791		
6K10017-CCB8	QC	39			
F611274-MS1	QC	40			
F611274-MSD1	QC	41			
F611274-DUP2	QC	42			
6K10017-CCV9	QC	43	1605791		
6K10017-CCB9	QC	44			

Don Matam                      11/10/16  
 Samples Loaded By                      Date

Don Matam                      11/10/16  
 Data Processed By                      Date



**Failing Data Report - 6K10017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F611274-DUP1	Hg-CVAFS-S-SSE-F6	61.49	22.7	25.12	25.12		ng/g				84.0	25.00	PASS-OVER	FAIL-DUP	QR. 07

Don Mason                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      11/21/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F611274

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion**

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					
F611274-BLK2	Blank	0.25	500					
F611274-BLK3	Blank	0.25	500					
F611274-BS1	LCS	0.25	500	1605712	200			
F611274-BSD1	LCS Dup	0.25	500	1605712	200			
F611274-DUP1	Duplicate [1609620-03]	0.256	500					
F611274-DUP2	Duplicate [1609620-03]	0.258	500					
F611274-MS1	Matrix Spike [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL
F611274-MSD1	Matrix Spike Dup [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605349	3:1 HNO3/HF	12-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606529	5% BrCl	19-Apr-17 00:00

PREPARATION BENCH SHEET

F611274

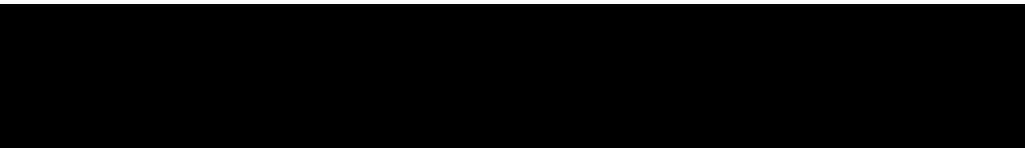
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		
1609620-07	Hg0	0.263	500	-	-	-		
1609620-08	HgS	0.256	500	-	-	-		
1609620-09	Hg2Cl2	0.263	500	-	-	-		



**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					
F610510-BLK2	Blank	0.25	20					
F610510-BLK3	Blank	0.25	20					
F610510-BS1	Blank Spike	0.25	20	1605270	20			
F610510-BS2	DORM-4	0.1255	20	1605470	126			
F610510-BSD1	Blank Spike	0.25	20	1605270	20			
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					
F610510-DUP2	Duplicate [1610232-26RE1]	0.2515	20					
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016	
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-		
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-		
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-		
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-		
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

**PREPARATION BENCH SHEET**

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					
F610509-BLK2	Blank	0.25	20					
F610509-BLK3	Blank	0.25	20					
F610509-BS1	Blank Spike	0.25	20	1605270	20			
F610509-BS2	DORM-4	0.1256	20	1605470	126			
F610509-BSD1	Blank Spike	0.25	20	1605270	20			
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-		
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-		
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-		
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-		
1610234-19RE1	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-		
1610235-05RE1	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-		
1610236-01RE1	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-		

Page 109 of 202

Date: 11/2/2016



**PREPARATION BENCH SHEET**

F610509

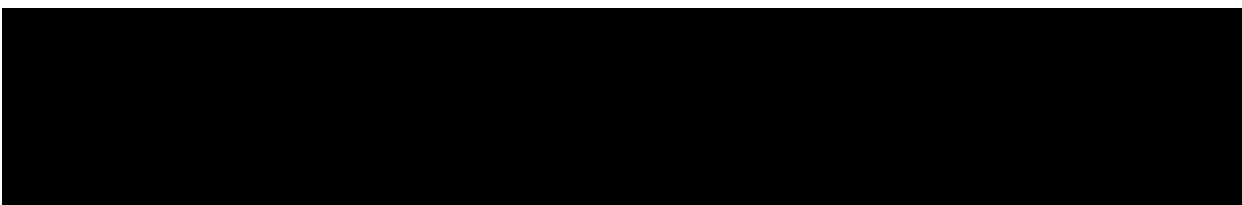
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

1610236-02REI	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-		
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-		
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-		
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-		
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-		
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-		
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-		
1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-		



PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F611274

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					20X
F611274-BLK2	Blank	0.25	500					20X
F611274-BLK3	Blank	0.25	500					20X
F611274-BS1	LCS	0.25	500	1605712	200			20X
F611274-BSD1	LCS Dup	0.25	500	1605712	200			20X
F611274-DUP1	Duplicate [1609620-03]	0.256	500					20X
F611274-MS1	Matrix Spike 1609620.02	0.25	500	1605272	25			20X
F611274-MSD1	Matrix Spike Dup 1609620.02	0.25	500	1605272	25			20X

Standard ID(s): 1605712  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 03-Apr-17 00:00

Reagent ID(s): 1603399, 1605349, 1606137, 1606529  
 Description: Boiling Chips for AFS prep, 3:1 HNO3/HF, Omnitrace Hydrochloric Acid, 5% BrCl  
 Expiration: 01-Jun-17 00:00, 12-Mar-17 00:00, 13-Oct-19 00:00, 19-Apr-17 00:00

DUP2 - 20X

Source 1609620.03

1602941

1605636

1605635

1606370

PREPARATION BENCH SHEET

200.2  
11/10/16 DM

F611274

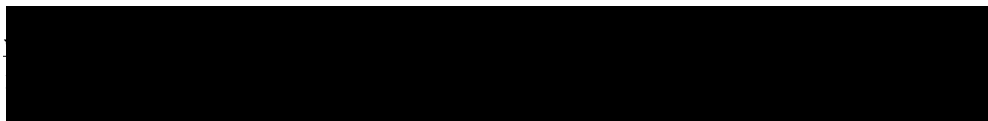
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		20X
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		20X
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		20X
1609620-07	Hg0	0.263	500	-	-	-		100X
1609620-08	HgS	0.256	500	-	-	-		100X
1609620-09	Hg2Cl2	0.263	500	-	-	-		100X



# Oven Bomb Digestions

Lab Tech(s): AMB Spiked By: AMB TM Batch #: N/A Hg Batch #: F611274  
 Balance #: 19 for blanks Oven SN: OVN-0202 Therm. SN: 2040514271  
 Temp. (°C): 128.8 (w/o CF) 128.8 (w/ CF) Date In: 11/8/16 Time In: 1900  
 Date Out: 11/9/16 Time Out: 0700 Final Vol. (mL): 40

Spike Name	Volume (µL)	LIMS #	Combined LIMS #
Thg-1000mg	200	1605712	
<del>AMB 11-7-16</del>			

Pipette / Dispenser MW11679 Cal Date  
~~AW100610 AMB 11-7-16 11-7-16~~  
0842293 11-01-16  
NU11049 11-7-16  
02Z159 11-4-16  
09M67809 11-9-16 8-23-16  
~~02K27494 AMB 8-3-16~~  
AMB 11-9-16

**EFGS-111 130±5°C 12 hours**  
 (below applies to entire batch)  
 4 mL split removed and 5% BrCl added?   
 LIMS #: 160529  
 Added 25 mL of HF/HNO<sub>3</sub> solution?   
 LIMS #: 1605349  
 Added 3 mL conc. HCl?   
 LIMS #: 1606137

**EFGS-084 130±5°C 18 hours**  
 (below applies to entire batch)  
 Added 10 mL conc. HCl?   
 LIMS #: AMB 11-7-16  
 Added 7 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Boil Down	Step 1	25 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:
	Step 2	25 mL conc. HNO <sub>3</sub> added? <u>AMB 11-7-16</u> <input type="checkbox"/> LIMS #:
	Step 3	5 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:

**EFGS-141 160±5°C 18 hours**  
 (below applies to entire batch)  
 Added 7.5 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Splice witness: PL 11/7/16

#	Sample/ Batch ID	Bomb #	Sample (g)	Notes
1	F611274-BLK1	N282	0.2865	
2	F611274-BLK2	D39	0.2589	
3	F611274-BLK3	N122	0.2681	
4	F611274-BS1	N29	0.2963	
5	F611274-BSD1	A63	0.2720	
6	F611274-DUPI	N27	0.256	source: 1609620-03
7	1609620-01	N94	0.260	
8	1609620-02	TM089	0.258	
9	1609620-03	N152	0.258	
10	1609620-07	N234	0.263	
11	1609620-08	N106	0.256	
12	1609620-09	TM097	0.263	

Additional Comments:  
 Boiling chips: 1603399 Glass vials: 00064588  
 - SSE FG -  
 Centrifuge tubes: 1252617 Pink Tape  
0026

PREPARATION BENCH SHEET

2600-2

F610510

11/10/16 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					20X
F610510-BLK2	Blank	0.25	20					20X
F610510-BLK3	Blank	0.25	20					20X
F610510-BS1	Blank Spike	0.25	20	1605270	20			20X
F610510-BS2	DORM-4	0.1255	20	1605470	126			500X
F610510-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					100X
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			500X
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			500X
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			500X
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			500X

Standard ID(s): Description:  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): Description:  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606500 5% BrCl

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - AD 100X  
 SOURCE 1610232-26RE1

1602941  
 1605636  
 1605635  
 1606370

PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F610510

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016 t	100X
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-	20X	
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-	20X	
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-	20X	
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-	20X	
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		20X
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		20X
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		20X
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		20X
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		20X
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	20X
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		20X
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		20X
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		20X
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		20X

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Technician: Dwyer Batch#: F610510 Date: 11/8/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:35 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:35 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11609 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: 022159  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: G.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 type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F610510 Blank1	0.2911	23	1610238-01	0.2917	DOM-4 B50 1605470
2	F610510 Blank2	0.2551	24	1610238-02	0.2941	
3	F610510 Blank3	0.2916	25	1610238-03	0.2869	
4	F610510 B51	0.2607	26	1610238-04	0.2985	
5	F610510 B501	0.2518	27	1610238		Comments B51 B501 = 100 µg/mL = 20 µL 1605270
6	F610510 B52	0.1255	28			
7	F610510 Dup	0.2701	29			Dup1 MS1 MS01 = 16103232-26 w/ 11/8/16-26
8	F610510 MS1	0.2835	30			
9	F610510 MS01	0.2696	31			MS2 MS02 1610236-20 = MS02 = 0.2963 g 11/8/16 1610236-15 = 0.2885 g 11/8/16
10	F610510 MS2	0.2814	32			
11	F610510 MS02	0.2703	33			
12	1610232-26 RZ1	0.2515	34			
13	1610236-11	0.2990	35			
14	1610236-12	0.2876	36			
15	1610236-13	0.2792	37			
16	1610236-14	0.2611	38			
17	1610236-15	0.2885	39			
18	1610236-16	0.2870	40			
19	1610236-17	0.2754	41			
20	1610236-18	0.2880	42			
21	1610236-19	0.2700	43			
22	1610236-20	0.2571	44			

Reviewed

11/9/16  
DM



2600-2

11/10/16 DM

## PREPARATION BENCH SHEET

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					20X
F610509-BLK2	Blank	0.25	20					20X
F610509-BLK3	Blank	0.25	20					20X
F610509-BS1	Blank Spike	0.25	20	1605270	20			20X
F610509-BS2	DORM-4	0.1256	20	1605470	126			500X
F610509-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					100X
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			500X
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			500X
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			500X
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			500X

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

1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

1603399  
 1606221  
 1606500

Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

K0537D

1602941

K0503L

1605035

PREPARATION BENCH SHEET

200.2

11/10/16 DM

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-	100x	
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-	100x	
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-	100x	
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	100x → 20x	
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-	100x	
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	100x → 20x	
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	100x → 20x	
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	100x → 20x	
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	100x → 20x	
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	100x → 20x	
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	100x → 20x	
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	100x → 20x	
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-	100x 20x	
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-	100x 20x	
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-	100x 20x	
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-	100x 20x	
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-	100x 20x	
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-	100x 20x	
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-	100x 20x	
							20x	

Page 19 of 202

Date: 11/2/2016

PREPARATION BENCH SHEET

2600-2

11/10/16 dm

F610509

Eurofins Frontier Global Sciences, Inc.

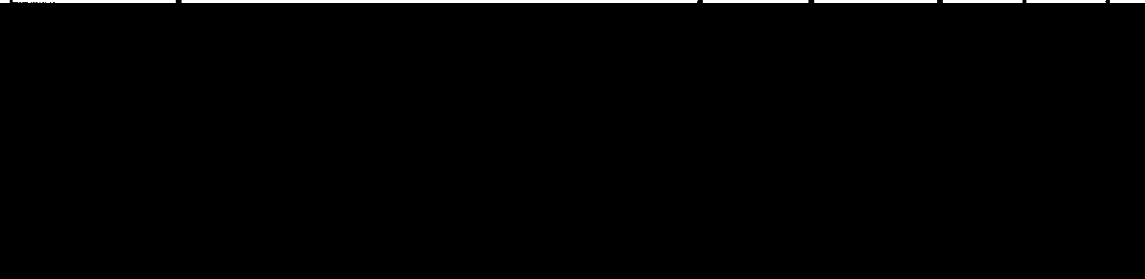
Matrix: Tissue

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

Prepared: 11/8/2016

1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-	<del>100X</del>	
------------	-------------------------	-------	----	---	---	---	-----------------	--

20X



Technician: DW Batch#: F610509 Date: 11-8-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:30 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:30 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU 11619 Calibration Date: 11-7-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: Dispenser # 022159 ATYEX  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: 9, 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	F610509 Blank1	0.2510	23	1610236-02	0.2886	B52 DOPH-4
2	F610509 Blank2	0.2913	24	1610236-03	0.2789	1605470
3	F610509 Blank3	0.2618	25	1610236-04	0.2873	
4	F610509 B51	0.2762	26	1610236-05	0.2790	
5	F610509 B501	0.2547	27	1610236-06	0.2901	<b>Comments</b> B51 B501
6	F610509 B52	0.1256	28	1610236-07	0.2780	= 100% Hg
7	F610509 Dup1	0.2738	29	1610236-08	0.2623	= 20% Hg
8	F610509 MS1	0.2948	30	1610236-09	0.2976	1605270
9	F610509 MS01	0.2911	31	1610236-10	0.2960	Dup1 MS1/MS01
10	F610509 MS2	0.2952	32			sample
11	F610509 MS02	0.2982	33			1610234-16
12	1610234-16	0.2831	34			MS2 MS02
13	1610234-17	0.2794	35			= 1610236-03
14	1610234-18	0.2811	36			11/8/16 D4
15	1610234-19	0.2681	37			D4
16	1610234-20	0.2789	38			1610235-04
17	1610235-21	0.2894	39			= 0.3006 g
18	1610235-02	0.3024	40			11/8/16 D4
19	1610235-03	0.2996	41			1610236-02
20	1610235-04	0.3006	42			= 0.2886 g
21	1610235-05	0.2708	43			
22	1610236-01	0.2786	44			

Reviewed  
 11/9/16 DM



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

Analyst:	DON MORAN	Sequence(s) #:	6K10018, 6K10017
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26002-161110-1
Date:	11/10/2016	WO (s) #:	VARIOUS
Batch #(s):	F611274, F6105010, F610509		0

Analyst Initials *DM*

Reviewer Initials *A*

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 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:  | <i>F611274-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 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 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 type="checkbox"/>            |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments:  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments:  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst: <u>DON MORAN</u>	Sequence(s) #: <u>6K10018, 6K10017</u>
Reviewer: <u>0</u>	Dataset ID(s): <u>THG26002-161110-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F611274, F6105010, F610509</u>	<u>0</u>

Analyst Initials DM

Reviewer Initials A

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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   |   |
| 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 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\IDOCs

- |  |   |                             |                                     |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 12/16/2015 _____ 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: _____ 7/8/2016 _____ LOD within last 3 months?                                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/8/2016 _____ 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.**





**THg26002-161111-1**



Frontier Global Sciences

**Analysis Datasheet for Total Mercury**

Date of Analysis: November 11, 2016

Analyst: BC

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K11008, 6K11009

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	128.60 units	257.20	112.67 units	225.34	105.8 %Rec
SEQ-CAL2	1	1.00 ng/L	232.95 units	232.95	217.02 units	217.02	101.9 %Rec
SEQ-CAL3	1	5.00 ng/L	1079.21 units	215.84	1063.28 units	212.66	99.8 %Rec
SEQ-CAL4	1	20.00 ng/L	4056.96 units	202.85	4041.03 units	202.05	94.8 %Rec
SEQ-CAL5	1	40.00 ng/L	8344.54 units	208.61	8328.61 units	208.22	97.7 %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**  
 213.06            +/- 8.82            4.1% RSD            223.49

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	15.93 units	±1.40	0.07 ng/L	±0.01

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.163 ng/L	±0.209
BLK	2	1	0.805 ng/L	
BLK	3	1	1.076 ng/L	
BLK	4	1	0.000 ng/L	
BLK	5	3	1.487 ng/L	±0.597
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE

PEER - REVIEWED

INITIALS: BC 11/14/16

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	11/11/2016 8:20:43	65546-1.RAW	8:20:43 AM	17.35				1.4	0.007	0.007	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL2	1	11/11/2016 8:24:52	65547-1.RAW	8:24:52 AM	14.56				-1.4	-0.006	-0.006	ng/L	
Hg2600-2	BC	CAL	SEQ-IBL3	1	11/11/2016 8:29:00	65548-1.RAW	8:29:00 AM	15.88				-0.1	0.000	0.000	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL1	1	11/11/2016 8:33:08	65549-1.RAW	8:33:08 AM	128.60				112.7	0.529	0.529	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL2	1	11/11/2016 8:37:17	65550-1.RAW	8:37:17 AM	232.95				217.0	1.019	1.019	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL3	1	11/11/2016 8:41:25	65551-1.RAW	8:41:25 AM	1079.21				1063.3	4.991	4.991	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL4	1	11/11/2016 8:45:33	65552-1.RAW	8:45:33 AM	4056.96				4041.0	18.967	18.967	ng/L	
Hg2600-2	BC	CAL	SEQ-CAL5	1	11/11/2016 8:49:41	65553-1.RAW	8:49:41 AM	8344.54				8328.6	39.091	39.091	ng/L	
Hg2600-2	BC	CAL	SEQ-ICV1	1	11/11/2016 8:53:50	65554-1.RAW	8:53:50 AM	1064.35				1048.4	4.921	4.921	ng/L	
Hg2600-2	BC	BLK	F611324-BLK1	1	11/11/2016 9:04:33	65555-1.RAW	9:04:33 AM	102.01	1			86.1	0.404	0.404	ng/L	
Hg2600-2	BC	BLK	F611324-BLK2	1	11/11/2016 9:08:41	65556-1.RAW	9:08:41 AM	24.54	1			8.6	0.040	0.040	ng/L	
Hg2600-2	BC	BLK	F611324-BLK3	1	11/11/2016 9:12:49	65557-1.RAW	9:12:49 AM	25.59	1			9.7	0.045	0.045	ng/L	
Hg2600-2	BC	BLK	F611324-BLK4	10	11/11/2016 9:16:58	65558-1.RAW	9:16:58 AM	33.09	2			17.2	0.081	0.085	ng/L	
Hg2600-2	BC	BLK	F611324-BLK5	10	11/11/2016 9:21:06	65559-1.RAW	9:21:06 AM	38.85	3			22.9	0.108	1.076	ng/L	
Hg2600-2	BC	SAM	F611324-BS1	1	11/11/2016 9:25:15	65560-1.RAW	9:25:15 AM	3314.75	1			3298.8	15.320	15.320	ng/L	
Hg2600-2	BC	SAM	F611324-BSD1	1	11/11/2016 9:29:23	65561-1.RAW	9:29:23 AM	3416.19	1			3400.3	15.796	15.796	ng/L	
Hg2600-2	BC	SAM	1610566-01	1	11/11/2016 9:34:08	65562-1.RAW	9:34:08 AM	133.52	1			117.6	0.389	0.389	ng/L	
Hg2600-2	BC	SAM	1610566-02	1	11/11/2016 9:38:16	65563-1.RAW	9:38:16 AM	70.61	1			54.7	0.093	0.093	ng/L	
Hg2600-2	BC	SAM	1610566-03	1	11/11/2016 9:42:25	65564-1.RAW	9:42:25 AM	218.08	1			202.2	0.786	0.786	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV1	1	11/11/2016 9:46:33	65565-1.RAW	9:46:33 AM	997.01				981.1	4.605	4.605	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB1	1	11/11/2016 9:50:42	65566-1.RAW	9:50:42 AM	28.71				12.8	0.060	0.060	ng/L	
Hg2600-2	BC	BLK	F611324-BLK6	1	11/11/2016 9:54:50	65567-1.RAW	9:54:50 AM	20.15	4			4.2	0.020	0.000	ng/L	
Hg2600-2	BC	SAM	1610566-04	1	11/11/2016 9:58:58	65568-1.RAW	9:58:58 AM	135.70	1			119.8	0.399	0.399	ng/L	
Hg2600-2	BC	SAM	1610566-05	1	11/11/2016 10:03:07	65569-1.RAW	10:03:07 AM	135.47	1			119.5	0.398	0.398	ng/L	
Hg2600-2	BC	SAM	1610566-06	1	11/11/2016 10:07:15	65570-1.RAW	10:07:15 AM	68.98	1			53.1	0.086	0.086	ng/L	
Hg2600-2	BC	SAM	1610566-07	1	11/11/2016 10:11:24	65571-1.RAW	10:11:24 AM	189.92	1			174.0	0.653	0.653	ng/L	
Hg2600-2	BC	SAM	1610566-08	1	11/11/2016 10:15:32	65572-1.RAW	10:15:32 AM	73.08	1			57.1	0.105	0.105	ng/L	
Hg2600-2	BC	SAM	1610566-09	1	11/11/2016 10:19:40	65573-1.RAW	10:19:40 AM	876.36	1			860.4	3.875	3.875	ng/L	
Hg2600-2	BC	SAM	1610566-10	1	11/11/2016 10:23:49	65574-1.RAW	10:23:49 AM	143.54	1			127.6	0.436	0.436	ng/L	
Hg2600-2	BC	SAM	1610566-11	1	11/11/2016 10:27:57	65575-1.RAW	10:27:57 AM	169.88	1			154.0	0.559	0.559	ng/L	
Hg2600-2	BC	SAM	1610566-12	1	11/11/2016 10:32:06	65576-1.RAW	10:32:06 AM	70.61	1			54.7	0.093	0.093	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV2	1	11/11/2016 10:36:14	65577-1.RAW	10:36:14 AM	1015.28				999.3	4.690	4.690	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB2	1	11/11/2016 10:40:23	65578-1.RAW	10:40:23 AM	25.72				9.8	0.046	0.046	ng/L	
Hg2600-2	BC	SAM	1611029-01	1	11/11/2016 10:44:31	65579-1.RAW	10:44:31 AM	19.13	1			3.2	-0.148	-0.148	ng/L	
Hg2600-2	BC	SAM	1611129-01	10	11/11/2016 10:48:39	65580-1.RAW	10:48:39 AM	440.53	3			424.6	1.885	18.853	ng/L	
Hg2600-2	BC	SAM	1611291-01	1	11/11/2016 10:52:48	65581-1.RAW	10:52:48 AM	1345.14	1			1329.2	6.076	6.076	ng/L	
Hg2600-2	BC	SAM	1611291-02	1	11/11/2016 10:56:56	65582-1.RAW	10:56:56 AM	26.24	1			10.3	-0.115	-0.115	ng/L	
Hg2600-2	BC	SAM	1611291-04	1	11/11/2016 11:01:05	65583-1.RAW	11:01:05 AM	17.24	1			1.3	-0.157	-0.157	ng/L	
Hg2600-2	BC	SAM	1611291-05	10	11/11/2016 11:05:13	65584-1.RAW	11:05:13 AM	1388.68	2			1352.8	6.269	62.687	ng/L	
Hg2600-2	BC	SAM	1611291-06	1	11/11/2016 11:09:21	65585-1.RAW	11:09:21 AM	24.28	1			8.4	-0.124	-0.124	ng/L	
Hg2600-2	BC	SAM	F611324-DUP1	1	11/11/2016 11:13:30	65586-1.RAW	11:13:30 AM	857.69	1			841.8	3.788	3.788	ng/L	
Hg2600-2	BC	SAM	F611324-MS1	1	11/11/2016 11:17:38	65587-1.RAW	11:17:38 AM	620.83	1			604.9	2.676	2.676	ng/L	
Hg2600-2	BC	SAM	F611324-MSD1	1	11/11/2016 11:21:47	65588-1.RAW	11:21:47 AM	631.25	1			615.3	2.725	2.725	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV3	1	11/11/2016 11:25:55	65589-1.RAW	11:25:55 AM	1015.08				999.2	4.690	4.690	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB3	1	11/11/2016 11:30:04	65590-1.RAW	11:30:04 AM	24.58				8.7	0.041	0.041	ng/L	
Hg2600-2	BC	SAM	F611324-MS2	1	11/11/2016 11:34:12	65591-1.RAW	11:34:12 AM	600.79	1			584.9	2.582	2.582	ng/L	
Hg2600-2	BC	SAM	F611324-MSD2	1	11/11/2016 11:38:20	65592-1.RAW	11:38:20 AM	595.07	1			579.1	2.555	2.555	ng/L	
Hg2600-2	BC	BLK	F610498-BLK1	20	11/11/2016 11:42:29	65593-1.RAW	11:42:29 AM	38.01	5			22.1	0.104	2.073	ng/L	
Hg2600-2	BC	BLK	F610498-BLK2	20	11/11/2016 11:46:37	65594-1.RAW	11:46:37 AM	25.29	5			9.4	0.044	0.879	ng/L	
Hg2600-2	BC	BLK	F610498-BLK3	20	11/11/2016 11:50:46	65595-1.RAW	11:50:46 AM	32.00	5			16.1	0.075	1.509	ng/L	
Hg2600-2	BC	SAM	F610498-BS1	20	11/11/2016 11:54:54	65596-1.RAW	11:54:54 AM	1038.81	5			1022.9	4.727	94.533	ng/L	
Hg2600-2	BC	SAM	F610498-BSD1	20	11/11/2016 11:59:02	65597-1.RAW	11:59:02 AM	1088.08	5			1072.2	4.958	99.158	ng/L	
Hg2600-2	BC	SAM	F610498-BS2	500	11/11/2016 12:03:11	65598-1.RAW	12:03:11 PM	978.76	5			962.8	4.516	2258.078	ng/L	
Hg2600-2	BC	SAM	1610138-01	20	11/11/2016 12:07:19	65599-1.RAW	12:07:19 PM	114558.63	5			114542.7	537.542	10750.842	ng/L	
Hg2600-2	BC	SAM	CLEAN		11/11/2016 12:15:46	65600-1.RAW	12:15:46 PM	43.32	x			27.4	0.129	0.000	ng/L	
Hg2600-2	BC	SAM	WS		11/11/2016 12:19:55	65601-1.RAW	12:19:55 PM	88.04	x			72.1	0.338	0.000	ng/L	
Hg2600-2	BC	SAM	WS		11/11/2016 12:24:03	65602-1.RAW	12:24:03 PM	56.51	x			40.6	0.190	0.000	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-2	BC	SAM	WS		11/11/2016 12:28:43	65604-1.RAW	12:28:43 PM	54.39		x	38.5	0.181	0.000	ng/L	
Hg2600-2	BC	SAM	1610138-01RE1	500	11/11/2016 12:32:51	65603-2.RAW	12:32:51 PM	7451.44	5		7435.5	34.896	17448.129	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV4	1	11/11/2016 12:37:00	65605-1.RAW	12:37:00 PM	1079.45			1063.5	4.992	4.992	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB4	1	11/11/2016 12:41:08	65606-1.RAW	12:41:08 PM	59.68			43.8	0.205	0.205	ng/L	
Hg2600-2	BC	SAM	1610138-02	500	11/11/2016 12:45:18	65607-1.RAW	12:45:18 PM	2246.99	5		2231.1	10.469	5234.353	ng/L	
Hg2600-2	BC	SAM	1610138-03	500	11/11/2016 12:49:26	65608-1.RAW	12:49:26 PM	2203.43	5		2187.5	10.264	5132.127	ng/L	
Hg2600-2	BC	SAM	1610138-04	500	11/11/2016 13:00:29	65609-1.RAW	1:00:29 PM	3115.34	5		3099.4	14.544	7272.193	ng/L	
Hg2600-2	BC	SAM	1610138-05	500	11/11/2016 13:04:37	65610-1.RAW	1:04:37 PM	2568.64	5		2552.7	11.978	5989.200	ng/L	
Hg2600-2	BC	SAM	1610138-06	500	11/11/2016 13:08:46	65611-1.RAW	1:08:46 PM	2432.05	5		2416.1	11.337	5668.651	ng/L	
Hg2600-2	BC	SAM	1610138-07	500	11/11/2016 13:12:54	65612-1.RAW	1:12:54 PM	416.32	5		400.4	1.876	938.147	ng/L	
Hg2600-2	BC	SAM	1610138-08	500	11/11/2016 13:17:03	65613-1.RAW	1:17:03 PM	2705.52	5		2689.6	12.621	6310.429	ng/L	
Hg2600-2	BC	SAM	1610234-04	20	11/11/2016 13:21:11	65614-1.RAW	1:21:11 PM	758.21	5		742.3	3.410	68.193	ng/L	
Hg2600-2	BC	SAM	1610234-05	20	11/11/2016 13:25:20	65615-1.RAW	1:25:20 PM	982.48	5		966.6	4.462	89.245	ng/L	
Hg2600-2	BC	SAM	1610234-06	20	11/11/2016 13:29:28	65616-1.RAW	1:29:28 PM	1095.16	5		1079.2	4.991	99.823	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV5	1	11/11/2016 13:33:37	65617-1.RAW	1:33:37 PM	1009.73			993.8	4.664	4.664	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB5	1	11/11/2016 13:37:45	65618-1.RAW	1:37:45 PM	35.66			19.7	0.093	0.093	ng/L	
Hg2600-2	BC	SAM	1610234-07	20	11/11/2016 13:41:54	65619-1.RAW	1:41:54 PM	1337.16	5		1321.2	6.127	122.540	ng/L	
Hg2600-2	BC	SAM	1610234-08	20	11/11/2016 13:46:02	65620-1.RAW	1:46:02 PM	821.47	5		805.5	3.707	74.131	ng/L	
Hg2600-2	BC	SAM	1610234-09	20	11/11/2016 13:50:10	65621-1.RAW	1:50:10 PM	989.19	5		973.3	4.494	89.875	ng/L	
Hg2600-2	BC	SAM	1610234-10	20	11/11/2016 13:54:19	65622-1.RAW	1:54:19 PM	1155.32	5		1139.4	5.273	105.470	ng/L	
Hg2600-2	BC	SAM	1610234-11	20	11/11/2016 13:58:27	65623-1.RAW	1:58:27 PM	1865.05	5		1849.1	8.605	172.094	ng/L	
Hg2600-2	BC	SAM	1610234-12	20	11/11/2016 14:02:36	65624-1.RAW	2:02:36 PM	1111.97	5		1096.0	5.070	101.401	ng/L	
Hg2600-2	BC	SAM	1610234-13	20	11/11/2016 14:06:44	65625-1.RAW	2:06:44 PM	1374.16	5		1358.2	6.301	126.013	ng/L	
Hg2600-2	BC	SAM	1610234-14	20	11/11/2016 14:10:53	65626-1.RAW	2:10:53 PM	1160.79	5		1144.9	5.299	105.983	ng/L	
Hg2600-2	BC	SAM	1610234-15	20	11/11/2016 14:15:01	65627-1.RAW	2:15:01 PM	1154.89	5		1139.0	5.271	105.430	ng/L	
Hg2600-2	BC	SAM	F610498-DUP1	500	11/11/2016 14:19:09	65628-1.RAW	2:19:09 PM	7159.46	5		7143.5	33.526	16762.912	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV6	1	11/11/2016 14:23:18	65629-1.RAW	2:23:18 PM	1095.64			1079.7	5.068	5.068	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB6	1	11/11/2016 14:27:26	65630-1.RAW	2:27:26 PM	48.59			32.7	0.153	0.153	ng/L	
Hg2600-2	BC	SAM	F610498-MS1	1000	11/11/2016 14:31:35	65631-1.RAW	2:31:35 PM	5196.38	5		5180.5	24.313	24313.419	ng/L	
Hg2600-2	BC	SAM	F610498-MSD1	1000	11/11/2016 14:35:43	65632-1.RAW	2:35:43 PM	5734.70	5		5718.8	26.840	26840.073	ng/L	
Hg2600-2	BC	SAM	F610498-MS2	500	11/11/2016 14:39:53	65633-1.RAW	2:39:53 PM	4213.93	5		4198.0	19.701	9850.358	ng/L	
Hg2600-2	BC	SAM	F610498-MSD2	500	11/11/2016 14:44:01	65634-1.RAW	2:44:01 PM	4352.39	5		4336.5	20.351	10175.295	ng/L	
Hg2600-2	BC	SAM	1611291-03	1	11/11/2016 14:54:54	65635-1.RAW	2:54:54 PM	1676.76	4		1660.8	7.795	7.795	ng/L	
Hg2600-2	BC	CAL	SEQ-CCV7	1	11/11/2016 14:59:03	65636-1.RAW	2:59:03 PM	1048.37			1032.4	4.846	4.846	ng/L	
Hg2600-2	BC	CAL	SEQ-CCB7	1	11/11/2016 15:03:11	65637-1.RAW	3:03:11 PM	48.08			32.2	0.151	0.151	ng/L	

TotalMercury EPA1631  
 Operat: BC  
 Worksh THG2600  
 Method ####  
 Descrip THG26002-161111-1

BlankSi 15.931  
 CalibFa 213.06  
 R: 0.9999

Calib Eqn: Conc = (Area-15.93  
 Status: QC Warnings:5/QC E  
 R<sup>2</sup>: 0.9998

Run Date: #####  
 Run Time: 14:50:45

Blank SD: 1.395224382  
 Blank RSD%: 8.758163347  
 CF SD: 8.824214499  
 CF RSD%: 4.141699249

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	3.48					65541-1.RAW	8:01:18	742.49	Clean	OK	1
CLEAN				0.00	0.01					65542-1.RAW	8:04:09	2.26	Clean	OK	1
WS				15.93	0.05					65543-1.RAW	8:08:18	27.38	Sample	OK	1
WS				15.93	0.04					65544-1.RAW	8:12:26	23.40	Sample	OK	1
WS				15.93	0.00					65545-1.RAW	8:16:35	12.60	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.08					65546-1.RAW	8:20:43	17.35	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.07					65547-1.RAW	8:24:52	14.56	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.07					65548-1.RAW	8:29:00	15.88	Sample	OK	1
SEQ-CAL1	A4		1	15.93	0.53			105.77		65549-1.RAW	8:33:08	128.60	Sample	OK	1
SEQ-CAL2	A5		1	15.93	1.02			101.86		65550-1.RAW	8:37:17	232.95	Sample	OK	1
SEQ-CAL3	A6		1	15.93	4.99			99.81		65551-1.RAW	8:41:25	1079.21	Sample	OK	1
SEQ-CAL4	A7		1	15.93	18.97			94.83		65552-1.RAW	8:45:33	4056.96	Sample	OK	1
SEQ-CAL5	A8		1	15.93	39.09			97.73		65553-1.RAW	8:49:41	8344.54	Sample	OK	1
SEQ-ICV1	A9		1	15.93	4.92			98.42		65554-1.RAW	8:53:50	1064.35	Sample	OK	1
F611324-BLK1	A10		1	15.93	0.40					65555-1.RAW	9:04:33	102.01	Sample	OK	1
F611324-BLK2	A11		1	15.93	0.04					65556-1.RAW	9:08:41	24.54	Sample	OK	1
F611324-BLK3	A12		1	15.93	0.05					65557-1.RAW	9:12:49	25.59	Sample	OK	1
F611324-BLK4	A13		10	15.93	0.81					65558-1.RAW	9:16:58	33.09	Sample	OK	1
F611324-BLK5	A14		10	15.93	1.08					65559-1.RAW	9:21:06	38.85	Sample	OK	1
F611324-BS1	A15		1	15.93	15.48					65560-1.RAW	9:25:15	3314.75	Sample	OK	1
F611324-BSD1	A16		1	15.93	15.96					65561-1.RAW	9:29:23	3416.19	Sample	OK	1
1610566-01	A17		1	15.93	0.55					65562-1.RAW	9:34:08	133.52	Sample	OK	1
1610566-02	A18		1	15.93	0.26					65563-1.RAW	9:38:16	70.61	Sample	OK	1
1610566-03	A19		1	15.93	0.95					65564-1.RAW	9:42:25	218.08	Sample	OK	1
SEQ-CCV1	A20		1	15.93	4.60			92.10		65565-1.RAW	9:46:33	997.01	Sample	OK	1
SEQ-CCB1	A21		1	15.93	0.06			0.00		65566-1.RAW	9:50:42	28.71	Sample	OK	1
F611324-BLK6	B1			15.93	0.02					65567-1.RAW	9:54:50	20.15	Sample	OK	1
1610566-04	B2		1	15.93	0.56					65568-1.RAW	9:58:58	135.70	Sample	OK	1
1610566-05	B3		1	15.93	0.56					65569-1.RAW	10:03:07	135.47	Sample	OK	1
1610566-06	B4		1	15.93	0.25					65570-1.RAW	10:07:15	68.98	Sample	OK	1
1610566-07	B5		1	15.93	0.82					65571-1.RAW	10:11:24	189.92	Sample	OK	1
1610566-08	B6		1	15.93	0.27					65572-1.RAW	10:15:32	73.06	Sample	OK	1
1610566-09	B7		1	15.93	4.04					65573-1.RAW	10:19:40	876.36	Sample	OK	1
1610566-10	B8		1	15.93	0.60					65574-1.RAW	10:23:49	143.54	Sample	OK	1
1610566-11	B9		1	15.93	0.72					65575-1.RAW	10:27:57	169.88	Sample	OK	1
1610566-12	B10		1	15.93	0.26					65576-1.RAW	10:32:06	70.61	Sample	OK	1
SEQ-CCV2	B11		1	15.93	4.69			93.81		65577-1.RAW	10:36:14	1015.26	Sample	OK	1
SEQ-CCB2	B12		1	15.93	0.05			0.00		65578-1.RAW	10:40:23	25.72	Sample	OK	1
1611029-01	B13		1	15.93	0.02					65579-1.RAW	10:44:31	19.13	Sample	OK	1
1611129-01	B14		10	15.93	19.93					65580-1.RAW	10:48:39	440.53	Sample	OK	1
1611291-01	B15		1	15.93	6.24					65581-1.RAW	10:52:48	1345.14	Sample	OK	1
1611291-02	B16		1	15.93	0.05					65582-1.RAW	10:56:56	26.24	Sample	OK	1
1611291-04	B17		1	15.93	0.01					65583-1.RAW	11:01:05	17.24	Sample	OK	1

1611291-05	B18	10	15.93	63.49		65584-1.RAW	11:05:13	1368.68	Sample	OK	1
1611291-06	B19	1	15.93	0.04		65585-1.RAW	11:09:21	24.28	Sample	OK	1
F611324-DUP1	B20	1	15.93	3.95		65586-1.RAW	11:13:30	857.69	Sample	OK	1
F611324-MS1	B21	1	15.93	2.84	57.35	65587-1.RAW	11:17:38	620.83	Sample	OK	1
F611324-MSD1	C1	1	15.93	2.89		65588-1.RAW	11:21:47	631.25	Sample	OK	1
SEQ-CCV3	C2	1	15.93	4.69	93.79	65589-1.RAW	11:25:55	1015.08	Sample	OK	1
SEQ-CCB3	C3	1	15.93	0.04	0.00	65590-1.RAW	11:30:04	24.58	Sample	OK	1
F611324-MS2	C4	1	15.93	2.75	134.52	65591-1.RAW	11:34:12	600.79	Sample	OK	1
F611324-MSD2	C5	1	15.93	2.72		65592-1.RAW	11:38:20	595.07	Sample	OK	1
F610498-BLK1	C6	20	15.93	2.07		65593-1.RAW	11:42:29	38.01	Sample	OK	1
F610498-BLK2	C7	20	15.93	0.88		65594-1.RAW	11:46:37	25.29	Sample	OK	1
F610498-BLK3	C8	20	15.93	1.51		65595-1.RAW	11:50:46	32.00	Sample	OK	1
F610498-BS1	C9	20	15.93	96.02		65596-1.RAW	11:54:54	1038.81	Sample	OK	1
F610498-BSD1	C10	20	15.93	100.64		65597-1.RAW	11:59:02	1088.08	Sample	OK	1
F610498-BS2	C11	500	15.93	2259.56		65598-1.RAW	12:03:11	978.76	Sample	OK	1
1610138-01	C12	20	15.93	10752.26		65599-1.RAW	12:07:19	114558.63	Sample	OLFB	
CLEAN			0.00	0.20		65600-1.RAW	12:15:46	43.32	Clean	OK	1
WS			15.93	0.34		65601-1.RAW	12:19:55	88.04	Sample	OK	1
WS			15.93	0.19		65602-1.RAW	12:24:03	56.51	Sample	OK	1
WS			15.93	0.18		65604-1.RAW	12:28:43	54.39	Sample	OK	1
1610138-01RE1	C13	500	15.93	17449.51		65603-2.RAW	12:32:51	7451.44	Sample	OK	1
SEQ-CCV4	C14	1	15.93	4.99	99.83	65605-1.RAW	12:37:00	1079.45	Sample	OK	1
SEQ-CCB4	C15	1	15.93	0.21	0.00	65606-1.RAW	12:41:08	59.68	Sample	OK	1
1610138-02	C16	500	15.93	5235.80		65607-1.RAW	12:45:18	2246.99	Sample	OK	1
1610138-03	C17	500	15.93	5133.59		65608-1.RAW	12:49:26	2203.43	Sample	OK	1
1610138-04	C18	500	15.93	7273.63		65609-1.RAW	13:00:29	3115.34	Sample	OK	1
1610138-05	C19	500	15.93	5990.64		65610-1.RAW	13:04:37	2568.64	Sample	OK	1
1610138-06	C20	500	15.93	5670.10		65611-1.RAW	13:08:46	2432.05	Sample	OK	1
1610138-07	C21	500	15.93	939.62		65612-1.RAW	13:12:54	416.32	Sample	OK	1
1610138-08	A1	500	15.93	6311.87		65613-1.RAW	13:17:03	2705.52	Sample	OK	1
1610234-04	A2	20	15.93	69.68		65614-1.RAW	13:21:11	758.21	Sample	OK	1
1610234-05	A3	20	15.93	90.73		65615-1.RAW	13:25:20	982.48	Sample	OK	1
1610234-06	A4	20	15.93	101.31		65616-1.RAW	13:29:28	1095.16	Sample	OK	1
SEQ-CCV5	A5	1	15.93	4.66	93.29	65617-1.RAW	13:33:37	1009.73	Sample	OK	1
SEQ-CCB5	A6	1	15.93	0.09	0.00	65618-1.RAW	13:37:45	35.66	Sample	OK	1
1610234-07	A7	20	15.93	124.02		65619-1.RAW	13:41:54	1337.16	Sample	OK	1
1610234-08	A8	20	15.93	75.62		65620-1.RAW	13:46:02	821.47	Sample	OK	1
1610234-09	A9	20	15.93	91.36		65621-1.RAW	13:50:10	989.19	Sample	OK	1
1610234-10	A10	20	15.93	106.96		65622-1.RAW	13:54:19	1155.32	Sample	OK	1
1610234-11	A11	20	15.93	173.58		65623-1.RAW	13:58:27	1865.05	Sample	OK	1
1610234-12	A12	20	15.93	102.89		65624-1.RAW	14:02:36	1111.97	Sample	OK	1
1610234-13	A13	20	15.93	127.50		65625-1.RAW	14:06:44	1374.16	Sample	OK	1
1610234-14	A14	20	15.93	107.47		65626-1.RAW	14:10:53	1160.79	Sample	OK	1
1610234-15	A15	20	15.93	106.92		65627-1.RAW	14:15:01	1154.89	Sample	OK	1
F610498-DUP1	A16	500	15.93	16764.30		65628-1.RAW	14:19:09	7159.46	Sample	OK	1
SEQ-CCV6	A17	1	15.93	5.07	101.35	65629-1.RAW	14:23:18	1095.64	Sample	OK	1
SEQ-CCB6	A18	1	15.93	0.15	0.00	65630-1.RAW	14:27:26	48.59	Sample	OK	1
F610498-MS1	A19	1000	15.93	24314.76	#####	65631-1.RAW	14:31:35	5196.38	Sample	OK	1

F610498-MSD1	A20	1000	15.93	26841.41		65632-1.RAW	14:35:43	5734.70 Sample	OK	1
F610498-MS2	A21	500	15.93	9851.79	36.70	65633-1.RAW	14:39:53	4213.93 Sample	OK	1
F610498-MSD2	B1	500	15.93	10176.73		65634-1.RAW	14:44:01	4352.39 Sample	OK	1
1611291-03	B2	1	15.93	7.80		65635-1.RAW	14:54:54	1676.76 Sample	OK	1
SEQ-CCV7	B3	1	15.93	4.85	96.92	65636-1.RAW	14:59:03	1048.37 Sample	OK	1
SEQ-CCB7	B4	1				65637-1.RAW	15:03:11	48.08 Sample	OK	1

## ANALYSIS SEQUENCE

6K11009



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/11/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K11009-JBL1	QC	1			
6K11009-JBL2	QC	2			
6K11009-JBL3	QC	3			
6K11009-CAL1	QC	4	1605412		
6K11009-CAL2	QC	5	1605413		
6K11009-CAL3	QC	6	1605414		
6K11009-CAL4	QC	7	1605415		
6K11009-CAL5	QC	8	1605416		
6K11009-ICV1	QC	9	1605791		
6K11009-CCV3	QC	10	1605791		
6K11009-CCB3	QC	11			
F610498-BLK1	QC	12			
F610498-BLK2	QC	13			
F610498-BLK3	QC	14			
F610498-BS1	QC	15			
F610498-BSD1	QC	16			
F610498-BS2	QC	17			
1610138-01	Hg-CVAFS-T-7030	18			
1610138-01RE1	Hg-CVAFS-T-7030	19			Added 11/11/2016 by BC
6K11009-CCV4	QC	20	1605791		
6K11009-CCB4	QC	21			
1610138-02	Hg-CVAFS-T-7030	22			
1610138-03	Hg-CVAFS-T-7030	23			
1610138-04	Hg-CVAFS-T-7030	24			
1610138-05	Hg-CVAFS-T-7030	25			
1610138-06	Hg-CVAFS-T-7030	26			
1610138-07	Hg-CVAFS-T-7030	27			
1610138-08	Hg-CVAFS-T-7030	28			
1610234-04	Hg-CVAFS-T-7030	29			
1610234-05	Hg-CVAFS-T-7030	30			
1610234-06	Hg-CVAFS-T-7030	31			
6K11009-CCV5	QC	32	1605791		
6K11009-CCB5	QC	33			
1610234-07	Hg-CVAFS-T-7030	34			
1610234-08	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K11009

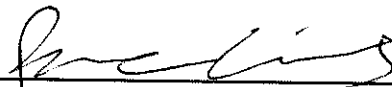


Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/11/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610234-09	Hg-CVAFS-T-7030	36			
1610234-10	Hg-CVAFS-T-7030	37			
1610234-11	Hg-CVAFS-T-7030	38			
1610234-12	Hg-CVAFS-T-7030	39			
1610234-13	Hg-CVAFS-T-7030	40			
1610234-14	Hg-CVAFS-T-7030	41			
1610234-15	Hg-CVAFS-T-7030	42			
F610498-DUP1	QC	43			
6K11009-CCV6	QC	44	1605791		
6K11009-CCB6	QC	45			
F610498-MS1	QC	46			
F610498-MSD1	QC	47			
F610498-MS2	QC	48			
F610498-MSD2	QC	49			
6K11009-CCV7	QC	50	1605791		
6K11009-CCB7	QC	51			

  
 Samples Loaded By \_\_\_\_\_ Date 11/11/16

  
 Data Processed By \_\_\_\_\_ Date 11/11/16

Due Date: 11/2/2016



## ANALYSIS SEQUENCE

6K11008



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/11/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K11008-IBL1	QC	1			
6K11008-IBL2	QC	2			
6K11008-IBL3	QC	3			
6K11008-CAL1	QC	4	1605412		
6K11008-CAL2	QC	5	1605413		
6K11008-CAL3	QC	6	1605414		
6K11008-CAL4	QC	7	1605415		
6K11008-CAL5	QC	8	1605416		
6K11008-ICV1	QC	9	1605791		
F611324-BLK1	QC	10			
F611324-BLK2	QC	11			
F611324-BLK3	QC	12			
F611324-BLK4	QC	13			
F611324-BLK5	QC	14			
F611324-BS1	QC	15			
F611324-BSD1	QC	16			
1610566-01	Hg-CVAFS-W-1631	17			Scan all data for level IV report
1610566-02	Hg-CVAFS-W-1631	18			Scan all data for level IV report
1610566-03	Hg-CVAFS-W-1631	19			Scan all data for level IV report
6K11008-CCV1	QC	20	1605791		
6K11008-CCB1	QC	21			
F611324-BLK6	QC	22			
1610566-04	Hg-CVAFS-W-1631	23			Scan all data for level IV report
1610566-05	Hg-CVAFS-W-1631	24			Scan all data for level IV report
1610566-06	Hg-CVAFS-W-1631	25			Scan all data for level IV report
1610566-07	Hg-CVAFS-W-1631	26			Scan all data for level IV report
1610566-08	Hg-CVAFS-W-1631	27			Scan all data for level IV report
1610566-09	Hg-CVAFS-W-1631	28			Scan all data for level IV report
1610566-10	Hg-CVAFS-W-1631	29			Scan all data for level IV report
1610566-11	Hg-CVAFS-W-1631	30			Scan all data for level IV report
1610566-12	Hg-CVAFS-W-1631	31			Scan all data for level IV report
6K11008-CCV2	QC	32	1605791		
6K11008-CCB2	QC	33			
1611029-01	Hg-CVAFS-W-1631	34			Do not oven samples (CCV 90-110%, CCB <), <1/2 PQL
1611129-01	Hg-CVAFS-W-1631	35			

Due Date: 11/14/2016

## ANALYSIS SEQUENCE

6K11008



Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/11/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611291-01	Hg-CVAFS-W-1631	36			
1611291-02	Hg-CVAFS-W-1631	37			
1611291-04	Hg-CVAFS-W-1631	38			
1611291-05	Hg-CVAFS-W-1631	39			
1611291-06	Hg-CVAFS-W-1631	40			
F611324-DUP1	QC	41			
F611324-MS1	QC	42			
F611324-MSD1	QC	43			
6K11008-CCV3	QC	44	1605791		
6K11008-CCB3	QC	45			
F611324-MS2	QC	46			
F611324-MSD2	QC	47			
6K11008-CCV4	QC	48	1605791		
6K11008-CCB4	QC	49			
6K11008-CCV6	QC	50	1605791		
6K11008-CCB6	QC	51			
1611291-03	Hg-CVAFS-W-1631	52			
6K11008-CCV7	QC	53	1605791		
6K11008-CCB7	QC	54			

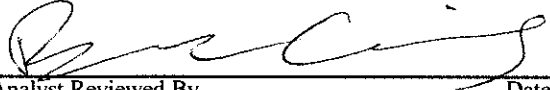
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 Samples Loaded By \_\_\_\_\_ Date

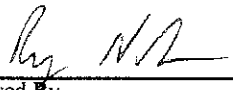
 11/11/16  
 Data Processed By \_\_\_\_\_ Date

Due Date: 11/14/2016

# Failing Data Report - 6K11008


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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 11/11/16  
Analyst Reviewed By Date

 11/14/16  
Peer Reviewed By Date

**Failing Data Report - 6K11009**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1610138-01	Hg-CVAFS-T-7030	845	0.786				ng/g						FAIL-OVER	PASS	E
F610498-MS1	Hg-CVAFS-T-7030	1865	38.4		1372	383.58	ng/g	129	71.00	125.00			PASS-OVER	FAIL-MS	QM-02
F610498-MSD1	Hg-CVAFS-T-7030	2050	38.2	1865	1372	381.97	ng/g	178	71.00	125.00	32.0	24.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM-02

  
 Analyst Reviewed By \_\_\_\_\_ Date 11/11/16

  
 Peer Reviewed By \_\_\_\_\_ Date 11/14/16

**PREPARATION BENCH SHEET**

F611324

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/11/2016**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611324-BLK1	Blank	100	101					Source: 1610566-17
F611324-BLK2	Blank	100	101					Source: 1610566-17
F611324-BLK3	Blank	100	101					Source: 1610566-17
F611324-BLK4	Blank	100	200					
F611324-BLK5	Blank	100	400					
F611324-BLK6	Blank	100	102					
F611324-BS1	LCS	50	50.5	1604715	100			
F611324-BSD1	LCS Dup	50	50.5	1604715	100			
F611324-DUP1	Duplicate [1610566-09]	100	101					
F611324-MS1	Matrix Spike [1610566-01]	49.50495	50	1605271	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611324-MS2	Matrix Spike [1610566-02]	49.50495	50	1605271	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611324-MSD1	Matrix Spike Dup [1610566-01]	49.50495	50	1605271	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611324-MSD2	Matrix Spike Dup [1610566-02]	49.50495	50	1605271	125			[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	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605271	THg 1ng/mL Calibration Standard	10-Dec-16 00:00	1606163	0.2 N BRCL OCTOBER 2016	19-Apr-17 00:00
			1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611324

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/11/2016**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610566-01	GBPE-0024-01	100	101	QC	-	-	MS/MSD Scan all data for level IV rept	
1610566-02	GBPE-0024-01 Dissolved	100	101	QC	-	-	MS/MSD Scan all data for level IV rept	
1610566-03	GBPE-0024-02	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-04	GBPE-0024-02 Dissolved	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-05	GBPE-0024-03	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-06	GBPE-0024-03 Dissolved	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-07	GBPE-0024-04	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-08	GBPE-0024-04 Dissolved	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-09	GBPE-0024-05	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-10	GBPE-0024-05 Dissolved	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-11	GBPE-0024-06	100	101	-	-	-	Preservation Blank created Scan all data	
1610566-12	GBPE-0024-06 Dissolved	100	101	-	-	-	Preservation Blank created Scan all data	
1611029-01	November 2016 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, C	
1611129-01	HP T50 Hydrogen Peroxide	100	400	-	-	-	50/50 split	
1611291-01	Lagoons	100	101	-	-	-		
1611291-02	Lagoons Field Blank	100	101	-	-	-		
1611291-03	Clarifier	100	102	-	-	-		
1611291-04	Clarifier Field Blank	100	101	-	-	-		
1611291-05	A149	100	200	-	-	-		

Page 139 of 202

Date: 11/14/2016

PREPARATION BENCH SHEET

F611324

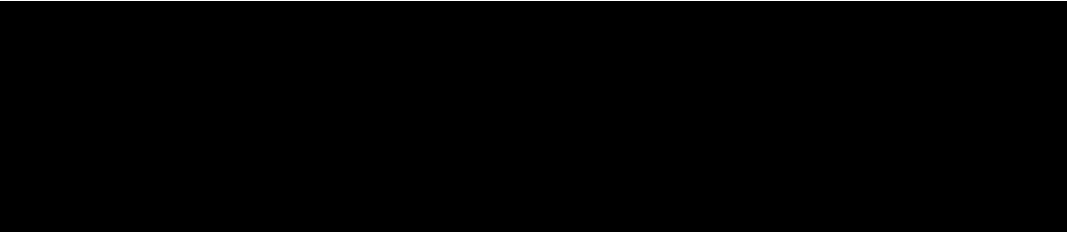
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/11/2016

1611291-06	A149 Blank	100	101	-	-	-		
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**PREPARATION BENCH SHEET**

F610498

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610498-BLK1	Blank	0.25	20					
F610498-BLK2	Blank	0.25	20					
F610498-BLK3	Blank	0.25	20					
F610498-BS1	LCS	0.25	20	1605270	20			
F610498-BS2	LCS	0.1268	20	1605470	126.8			
F610498-BSD1	LCS Dup	0.25	20	1605270	20			
F610498-DUP1	Duplicate [1610138-01RE1]	0.2571	20					
F610498-MS1	Matrix Spike [1610138-01RE1]	0.2607	20	1605712	100			
F610498-MS2	Matrix Spike [1610138-02]	0.2552	20	1605712	100			
F610498-MSD1	Matrix Spike Dup [1610138-01RE1]	0.2618	20	1605712	100			
F610498-MSD2	Matrix Spike Dup [1610138-02]	0.2568	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl <sub>2</sub> THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00



**PREPARATION BENCH SHEET**

F610498

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610138-01	BO-04_080516_EEL_WB_01	0.2544	20	QC	-	-	MS/MSD	
1610138-01RE1	BO-04_080516_EEL_WB_01	0.2544	20	QC	-	-	MS/MSD Added 11/11/2016 by BC	Added 11/11/2016 by BC
1610138-02	OB-01_080216_EEL_WB_01	0.2655	20	-	-	-		
1610138-03	OB-05_080316_EEL_WB_01	0.2627	20	-	-	-		
1610138-04	OB-05_080316_EEL_WB_02	0.2513	20	-	-	-		
1610138-05	OB-05_080316_EEL_WB_04	0.2596	20	-	-	-		
1610138-06	OB-05_080516_EEL_WB_05	0.2646	20	-	-	-		
1610138-07	HORSESHOE_080316_FISH_BAIT	0.2643	20	-	-	-	Originally 1610238-05, moved to this w	
1610138-08	OB-05_080316_EEL_WB_03	0.2601	20	-	-	-		
1610234-04	FRB-01_092816_MUM_WB_04	0.2643	20	-	-	-		
1610234-05	FRB-01_092816_MUM_WB_05	0.2585	20	-	-	-		
1610234-06	FRB-01_092816_MUM_WB_06	0.255	20	-	-	-		
1610234-07	FRB-01_092816_MUM_WB_07	0.2639	20	-	-	-		
1610234-08	FRB-01_092816_MUM_WB_08	0.2574	20	-	-	-		
1610234-09	FRB-01_092816_MUM_WB_09	0.2548	20	-	-	-		
1610234-10	FRB-01_092816_MUM_WB_10	0.2521	20	-	-	-		
1610234-11	FRB-01_092816_MUM_WB_11	0.2555	20	-	-	-		
1610234-12	FRB-01_092816_MUM_WB_12	0.2643	20	-	-	-		
1610234-13	FRB-01_092816_MUM_WB_13	0.2688	20	-	-	-		

Page 142 of 202

Date: 11/2/2016

PREPARATION BENCH SHEET

F610498

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

1610234-14	FRB-01_092816_MUM_WB_14	0.2684	20	-	-	-		
1610234-15	FRB-01_092816_MUM_WB_15	0.2576	20	-	-	-		



PREPARATION BENCH SHEET

2600-2

11/11/16 BC

F611324

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/11/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611324-BLK1	Blank	100	101					IX source 1610566-17
F611324-BLK2	Blank	100	101					IX
F611324-BLK3	Blank	100	<del>101</del>					IX
F611324-BLK4	Blank	100	200					10X
F611324-BLK5	Blank	100	<del>101</del> 400					10X
F611324-BS1	LCS	100	101	1604715	100			IX
F611324-BSD1	LCS Dup	100	101	1604715	100			IX
F611324-DUP1	Duplicate 1610566-09	100	101					IX
F611324-MS1	Matrix Spike [1610566-01]	100	101	1605271	125			IX
F611324-MS2	Matrix Spike [1610566-02]	100	101	1605271	125			IX
F611324-MSD1	Matrix Spike Dup [1610566-01]	100	101	1605271	125			IX
F611324-MSD2	Matrix Spike Dup [1610566-02]	100	101	1605271	125			IX

Standard ID(s): Description:

Expiration:

BLK 6

100

102

IX

1602941

1606188

1606189

1606370

1606163

PREPARATION BENCH SHEET

F611324

Eurofins Frontier Global Sciences, Inc.

2600-2

11/11/16 BC

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/11/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610566-01	GBPE-0024-01	100	101	QC	-	-	MS/MSD Scan all data for level IV rep	IX
1610566-02	GBPE-0024-01 Dissolved	100	101	QC	-	-	MS/MSD Scan all data for level IV rep	IX
1610566-03	GBPE-0024-02	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-04	GBPE-0024-02 Dissolved	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-05	GBPE-0024-03	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-06	GBPE-0024-03 Dissolved	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-07	GBPE-0024-04	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-08	GBPE-0024-04 Dissolved	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-09	GBPE-0024-05	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-10	GBPE-0024-05 Dissolved	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-11	GBPE-0024-06	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1610566-12	GBPE-0024-06 Dissolved	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1611029-01	November 2016 Monthly Water ICPMS Sink 1	100	101	-	-	-	Do not oven samples (CCV 90-110%, t	IX
1611129-01	HP T50 Hydrogen Peroxide	100	400	-	-	-	50/50 split	10X
1611291-01	Lagoons	100	101	-	-	-		IX
1611291-02	Lagoons Field Blank	100	101	-	-	-		IX
1611291-03	Clarifier	100	101	-	-	-		
1611291-04	Clarifier Field Blank	100	101	-	-	-		IX
1611291-05	A149	100	200	-	-	-		10X

Page 145 of 202

Date: 11/14/2016

2600-2

11/11/16 BC

PREPARATION BENCH SHEET

F611324

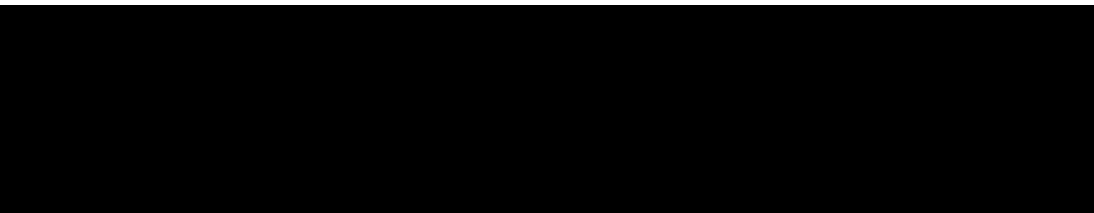
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/11/2016

1611291-06	A149 Blank	100	101	-	-	-	IX	
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# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CSJ Date: 11/2/16 Time Completed: 1542

Work Orders: 1611291  
1611276

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

Technician: CSJ Date: 11/11/16 Time Completed: 930  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1606163, 1606163  
Pipette SN: J07631, MU32229  
Cal. Date: 11/8/16, 11/9/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611291-01A	300	3.00	y			
1611291-02A	300	3.00	y			
1611291-03A	300	3.00	y	N	3.00	y
1611291-04A	300	3.00	y			
1611291-05B	300 <del>50</del> 10	3.00 <del>50</del> 10	y			
1611291-06A	300	3.00	y			
1611276-01A	300	3.00	y			
1611276-02A	300	3.00	y			
1611276-03A	300	3.00	y			
1611276-04A	300	3.00	y			
1611276-05A	300	3.00	y			
1611276-06A	300	3.00	y			
1611276-07A	300	3.00	y			
1611276-08A	300	3.00	y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 20px auto;"> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CSJ</span> <span style="position: absolute; top: 10px; left: 50%; transform: translate(-50%, -50%); font-size: 1.5em;">11/9/16</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: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



PREPARATION BENCH SHEET

2600-2  
11/11/16 BC

F610498

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610498-BLK1	Blank	0.25	20					20x
F610498-BLK2	Blank	0.25	20					20x
F610498-BLK3	Blank	0.25	20					20x
F610498-BS1	LCS	0.25	20	1605270	20			20x
F610498-BS2	LCS	0.1268	20		126.8			500x
F610498-BSD1	LCS Dup	0.25	20	1605270	20			20x
F610498-DUP1	Duplicate [1610138-01]	0.2571	20					<del>1000x</del> 500x
F610498-MS1	Matrix Spike [1610138-01]	0.2607	20	1605712	100			1000x
F610498-MS2	Matrix Spike [1610138-02]	0.2552	20	1605712	100			500x
F610498-MSD1	Matrix Spike Dup [1610138-01]	0.2618	20	1605712	100			1000x
F610498-MSD2	Matrix Spike Dup [1610138-02]	0.2568	20	1605712	100			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

1602941  
~~1605~~  
1606188  
1606189  
1606370

**PREPARATION BENCH SHEET**

F610498

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610138-01	BO-04_080516_EEL_WB_01	0.2544	20	No 20X → 500X	
1610138-02	OB-01_080216_EEL_WB_01	0.2655	20	No <del>20</del> 500X	
1610138-03	OB-05_080316_EEL_WB_01	0.2627	20	No 500X	
1610138-04	OB-05_080316_EEL_WB_02	0.2513	20	No 500X	
1610138-05	OB-05_080316_EEL_WB_04	0.2596	20	No 500X	
1610138-06	OB-05_080516_EEL_WB_05	0.2646	20	No 500X	
1610138-07	HORSESHOE_080316_FISH_BAIT	0.2643	20	No 500X	
1610138-08	OB-05_080316_EEL_WB_03	0.2601	20	No 500X	
1610234-04	FRB-01_092816_MUM_WB_04	0.2643	20	No 520X	
1610234-05	FRB-01_092816_MUM_WB_05	0.2585	20	No 20X	
1610234-06	FRB-01_092816_MUM_WB_06	0.255	20	No 20X	
1610234-07	FRB-01_092816_MUM_WB_07	0.2639	20	No 20X	
1610234-08	FRB-01_092816_MUM_WB_08	0.2574	20	No 20X	
1610234-09	FRB-01_092816_MUM_WB_09	0.2548	20	No 20X	
1610234-10	FRB-01_092816_MUM_WB_10	0.2521	20	No 20X	
1610234-11	FRB-01_092816_MUM_WB_11	0.2555	20	No 20X	
1610234-12	FRB-01_092816_MUM_WB_12	0.2643	20	No 20X	
1610234-13	FRB-01_092816_MUM_WB_13	0.2688	20	No 20X	
1610234-14	FRB-01_092816_MUM_WB_14	0.2684	20	No 20X	
1610234-15	FRB-01_092816_MUM_WB_15	0.2576	20	No 20X	

**PREPARATION BENCH SHEET**

F610498

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Technician: MPM Batch#: F610498 Date: 11/8/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 1629 Actual Temp. (raw): 72.5 °C w/ CF: 72.3 °C

Time out: 1829 Actual Temp. (raw): 75.0 °C w/ CF: 74.7 °C AMB 11/8/16

Final vol.: 20 mL (LIMS ID: 1606500) <sup>5% BrCl</sup> Spike vol.: 100 µL (LIMS ID: 1605712) <sup>MS/MSD</sup>

Spike Witness: AMB 11/8/16 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MV11619 Calibration Date: 11/7/16

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

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

70/30 LIMS ID: 1606221

Dispenser #: 02K27494 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 02Z2159 cal. Yes

Glass Vial # 00060545 Boiling Chip lot # 1603399 \*Hotblock Position: A2

Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	Vial #	Sample ID Number	Sample Size <input type="checkbox"/> mL <input checked="" type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F610498-BIK1	0.2599	23	1610234-07B	0.2639	BS2 DORM-4 1605470
2	F610498-BIK2	0.2554	24	1610234-08B	0.2574	
3	F610498-BIK3	0.2577	25	1610234-09B	0.2548	
4	F610498-BS1	0.2563	26	1610234-10B	0.2521	
5	F610498-BSD1	0.2597	27	1610234-11B	0.2555	Comments BS/BSD1 20ml of 100ng/ml 1605270 MPM 11/8/16
6	F610498-BSD2	0.1268	28	1610234-12B	0.2643	
7	1610138-01B	0.2544	29	1610234-13B	0.2688	
8	F610498-DUP1(1610138-01)	0.2571	30	1610234-14B	0.2684	
9	F610498-MS1(1610138-01)	0.2607	31	1610234-15B	0.2576	
10	F610498-MSD1(1610138-01)	0.2618	32			
11	1610138-02B	0.2655	33			
12	F610498-MS2(1610138-02)	0.2552	34			
13	F610498-MSD2(1610138-02)	0.2568	35			
14	1610138-03B	0.2627	36			
15	1610138-04B	0.2513	37			
16	1610138-05B	0.2596	38			
17	1610138-06B	0.2646	39			
18	1610138-07B	0.2643	40			
19	1610138-08B	0.2601	41			
20	1610234-04B	0.2643	42			
21	1610234-05B	0.2585	43			
22	1610234-06B	0.2550	44			

MPM 11/8/16

Verified By: BC 11/8/16



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

Analyst: <u>BC</u>	Sequence(s) #: <u>6K11008, 6K11009</u>
Reviewer: <u>0 [Signature]</u>	Dataset ID(s): <u>THg26002-161111-1</u>
Date: <u>11/11/2016</u>	WO (s) #: <u>Various</u>
Batch #(s): <u>F611324, F610498</u>	<u>0</u>

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 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>off curve sample, underspiked MS/MSD</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:                                 |  |  |   | <input checked="" type="checkbox"/> |
| (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?                                   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| (c) Was a BrCl Blank analyzed for each preservation level?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	BC	Sequence(s) #:	6K11008, 6K11009
Reviewer:	0 <i>ly M</i>	Dataset ID(s):	THg26002-161111-1
Date:	11/11/2016	WO (s) #:	Various
Batch #(s):	F611324, F610498		0

Analyst Initials BC                      Reviewer Initials ly

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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   |   |
| 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| 31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning.  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 32. Does the data set need scanning?   | <input checked="" type="checkbox"/> YES  |                               | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| 33. Does the dataset have an LOQ/LOQ or DOC?   | <input type="checkbox"/> YES             |                               | <input checked="" type="checkbox"/> N/A <input type="checkbox"/>            |
| 34. Water samples: has the preservation log been included in dataset for final volume verification?  | <input 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\lgen admin\Quality Assurance\Training Master\DOCs

- |  |                                  |   |                             |                                     |
|--|----------------------------------|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: <u>12/17/15</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>5/24/16</u> | Current SOP revision read?       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: <u>7/8/16 6/15/16</u>                       | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: <u>7/8/16 6/15/16</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.**

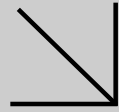






Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-2554**

*The difference is service*



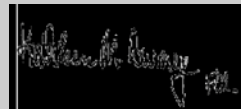
AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610234

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/19/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610234  
Work Order Number: 16-11-2554

1	16-11-2554 Level IV Case Narrative. . . . .	3
2	Work Order Narrative. . . . .	5
3	Sample Summary. . . . .	6
4	Client Sample Data. . . . .	7
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	7
5	Quality Control Sample Data. . . . .	10
	5.1 Sample Duplicate. . . . .	10
6	Glossary of Terms and Qualifiers. . . . .	11
7	Chain-of-Custody/Sample Receipt Form. . . . .	12
8	16-11-2554 Level IV Data Package. . . . .	18

## Case Narrative

Client Project Name: 1610234  
Work Order Number: 16-11-2554

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 20 tissue samples on November 30, 2016. A total of 23 containers were received in good condition at a temperature of -3.6°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
FRB-01_092816_MUM_WB_01	16-11-2553-1	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_02	16-11-2553-2	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_03	16-11-2553-3	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_04	16-11-2553-4	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_05	16-11-2553-5	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_06	16-11-2553-6	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_07	16-11-2553-7	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_08	16-11-2553-8	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_09	16-11-2553-9	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_10	16-11-2553-10	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_11	16-11-2553-11	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_12	16-11-2553-12	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_13	16-11-2553-13	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_14	16-11-2553-14	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_15	16-11-2553-15	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_16	16-11-2553-16	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_17	16-11-2553-17	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_18	16-11-2553-18	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_19	16-11-2553-19	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_MUM_WB_20	16-11-2553-20	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM


  
Return to Contents

### DATA SUMMARY:

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

## Case Narrative

---

Client Project Name: 1610234  
Work Order Number: 16-11-2554

### % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):

Samples -1 through -20 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/08/16 in batch # 161208B13 / 161208D13.

### Sample and QC:

A sample from another work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/30/16. They were assigned to Work Order 16-11-2554.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2554
11720 North Creek Parkway North, Suite 4	Project Name:	1610234
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/30/16 11:10
	Number of Containers:	23

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
FRB-01_092816_MUM_WB_01	16-11-2554-1	09/28/16 13:00	4	Tissue
FRB-01_092816_MUM_WB_02	16-11-2554-2	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_03	16-11-2554-3	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_04	16-11-2554-4	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_05	16-11-2554-5	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_06	16-11-2554-6	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_07	16-11-2554-7	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_08	16-11-2554-8	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_09	16-11-2554-9	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_10	16-11-2554-10	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_11	16-11-2554-11	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_12	16-11-2554-12	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_13	16-11-2554-13	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_14	16-11-2554-14	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_15	16-11-2554-15	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_16	16-11-2554-16	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_17	16-11-2554-17	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_18	16-11-2554-18	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_19	16-11-2554-19	09/28/16 13:00	1	Tissue
FRB-01_092816_MUM_WB_20	16-11-2554-20	09/28/16 13:00	1	Tissue


  
Return to Contents

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2554  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610234

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_MUM_WB_01	16-11-2554-1-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.1	0.10		1.00		
FRB-01_092816_MUM_WB_02	16-11-2554-2-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.3	0.10		1.00		
FRB-01_092816_MUM_WB_03	16-11-2554-3-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
FRB-01_092816_MUM_WB_04	16-11-2554-4-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.3	0.10		1.00		
FRB-01_092816_MUM_WB_05	16-11-2554-5-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.7	0.10		1.00		
FRB-01_092816_MUM_WB_06	16-11-2554-6-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.5	0.10		1.00		
FRB-01_092816_MUM_WB_07	16-11-2554-7-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.3	0.10		1.00		
FRB-01_092816_MUM_WB_08	16-11-2554-8-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.6	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2554  
 Preparation: N/A  
 Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
 Units: %

Project: 1610234

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_MUM_WB_09	16-11-2554-9-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.5	0.10		1.00		
FRB-01_092816_MUM_WB_10	16-11-2554-10-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.5	0.10		1.00		
FRB-01_092816_MUM_WB_11	16-11-2554-11-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.2	0.10		1.00		
FRB-01_092816_MUM_WB_12	16-11-2554-12-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		5.2	0.10		1.00		
FRB-01_092816_MUM_WB_13	16-11-2554-13-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.8	0.10		1.00		
FRB-01_092816_MUM_WB_14	16-11-2554-14-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.8	0.10		1.00		
FRB-01_092816_MUM_WB_15	16-11-2554-15-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.6	0.10		1.00		
FRB-01_092816_MUM_WB_16	16-11-2554-16-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.8	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/30/16  
Work Order: 16-11-2554  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1610234

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_MUM_WB_17	16-11-2554-17-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.8	0.10		1.00		
FRB-01_092816_MUM_WB_18	16-11-2554-18-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.3	0.10		1.00		
FRB-01_092816_MUM_WB_19	16-11-2554-19-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
FRB-01_092816_MUM_WB_20	16-11-2554-20-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.2	0.10		1.00		
Method Blank	099-14-104-153	N/A	Tissue	N/A	12/08/16	12/08/16 00:00	161208B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2554  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610234

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
FRB-01_092816_MUM_WB_01	Sample	Tissue	N/A	12/08/16 00:00	12/08/16 00:00	161208D13
FRB-01_092816_MUM_WB_01	Sample Duplicate	Tissue	N/A	12/08/16 00:00	12/08/16 00:00	161208D13

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	4.130	4.030	2	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-2554

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610234

16-11-2554

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :714895494  
Fax: x

Analysis

Due: 02-Nov-16 19:00

Comments

1 Sample ID: 1435 FRB-01\_092816\_MUM\_WB\_01      EFGS Lab ID: 1610234-01      Sampled: 28-Sep-16 13:00  
MS/MSD

Misc. Subcontract 1      Lipids Analysis  
Containers Supplied:  
34 Plastic Bag (B)

2 Sample ID: 1436 FRB-01\_092816\_MUM\_WB\_02      EFGS Lab ID: 1610234-02      Sampled: 28-Sep-16 13:00





Misc. Subcontract 1      Lipids Analysis  
Containers Supplied:  
34 Plastic Bag (B)

3 Sample ID: 1437 FRB-01\_092816\_MUM\_WB\_03      EFGS Lab ID: 1610234-03      Sampled: 28-Sep-16 13:00

Misc. Subcontract 1      Lipids Analysis  
Containers Supplied:  
34 Plastic Bag (B)

4 Sample ID: 1438 FRB-01\_092816\_MUM\_WB\_04      EFGS Lab ID: 1610234-04      Sampled: 28-Sep-16 13:00

Misc. Subcontract 1      Lipids Analysis  
Containers Supplied:  
34 Plastic Bag (B)

Released By		Date	11/29/16	Received By		Date	11/30/16	1110
Released By		Date	11/29/16	Received By		Date	11/30/16	1110

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1610234

2554

Analysis Due: 02-Nov-16 19:00 Comments

5 Sample ID: 1439 FRB-01\_092816\_MUM\_WB\_05 EFGS Lab ID: 1610234-05 Sampled: 28-Sep-16 13:00

Misc. Subcontract 1  
Containers Supplied:  
34\_Plastic Bag (B)  
Lipids Analysis

6 Sample ID: 1440 FRB-01\_092816\_MUM\_WB\_06 EFGS Lab ID: 1610234-06 Sampled: 28-Sep-16 13:00

Misc. Subcontract 1  
Containers Supplied:  
34\_Plastic Bag (B)  
Lipids Analysis

7 Sample ID: 1441 FRB-01\_092816\_MUM\_WB\_07 EFGS Lab ID: 1610234-07 Sampled: 28-Sep-16 13:00

Misc. Subcontract 1  
Containers Supplied:  
34\_Plastic Bag (B)  
Lipids Analysis

8 Sample ID: 1442 FRB-01\_092816\_MUM\_WB\_08 EFGS Lab ID: 1610234-08 Sampled: 28-Sep-16 13:00

Misc. Subcontract 1  
Containers Supplied:  
34\_Plastic Bag (B)  
Lipids Analysis

9 Sample ID: 1443 FRB-01\_092816\_MUM\_WB\_09 EFGS Lab ID: 1610234-09 Sampled: 28-Sep-16 13:00

Misc. Subcontract 1  
Containers Supplied:  
34\_Plastic Bag (B)  
Lipids Analysis

10 Sample ID: 1444 FRB-01\_092816\_MUM\_WB\_10 EFGS Lab ID: 1610234-10 Sampled: 28-Sep-16 13:00

Misc. Subcontract 1  
Containers Supplied:  
34\_Plastic Bag (B)  
Lipids Analysis

Released By: [Signature] Date: 11/29/16 Received By: [Signature] Date: 11/30/16  
Released By: [Signature] Date: 11/29/16 Received By: [Signature] Date: 11/30/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610234

2554

Analysis

Due: 02-Nov-16 19:00

Comments

11 Sample ID: 1445 FRB-01\_092816\_MUM\_WB\_11

EFGS Lab ID: 1610234-11

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

12 Sample ID: 1446 FRB-01\_092816\_MUM\_WB\_12

EFGS Lab ID: 1610234-12

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

13 Sample ID: 1447 FRB-01\_092816\_MUM\_WB\_13

EFGS Lab ID: 1610234-13

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

14 Sample ID: 1448 FRB-01\_092816\_MUM\_WB\_14

EFGS Lab ID: 1610234-14

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

15 Sample ID: 1449 FRB-01\_092816\_MUM\_WB\_15

EFGS Lab ID: 1610234-15

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

16 Sample ID: 1450 FRB-01\_092816\_MUM\_WB\_16

EFGS Lab ID: 1610234-16

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

*[Signature]* 11/29/16

Date

Received By

Date

Released By

*[Signature]* 11/29/16

Date

Received By

Date

**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1610234

2554

Analysis

Due: 02-Nov-16 19:00

Comments

17 Sample ID: 1451 FRB-01\_092816\_MUM\_WB\_17

EFGS Lab ID: 1610234-17

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

18 Sample ID: 1452 FRB-01\_092816\_MUM\_WB\_18

EFGS Lab ID: 1610234-18

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

19 Sample ID: 1453 FRB-01\_092816\_MUM\_WB\_19

EFGS Lab ID: 1610234-19

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

20 Sample ID: 1454 FRB-01\_092816\_MUM\_WB\_20

EFGS Lab ID: 1610234-20

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

*[Signature]*  
11/29/16

Received By

*[Signature]*  
11/30/16

Released By

*[Signature]*  
11/29/16

Received By

*[Signature]*  
11/30/16

2524

FRONT DESK  
(425) 868-1996  
FRONTIER GLOBAL SCIENCES  
11720 N. CREW PKWY N.  
BOTHELL, WA 98011-8244

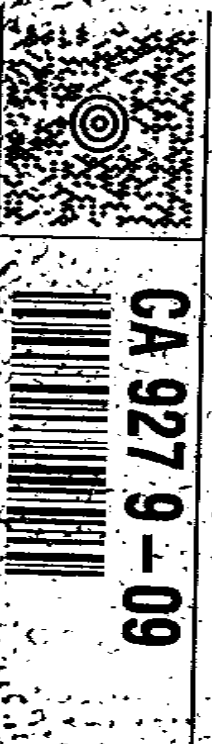
27 LBS

1 OF 1

DWT: 24.13, 14

**SHIP TO:**

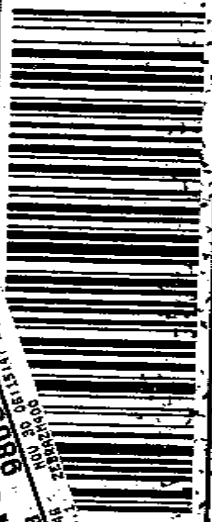
**SAMPLE RECEIVING**  
**(714) 895-5494**  
**EUROFINS CALSCIENCE, INC.**  
**7440 LINGOLN WAY**  
**GARDEN GROVE CA 92841-1427**



**CA 927 9-09**

**UPS NEXT DAY AIR**

TRACKING #: 1Z 86W 650 01 4918 9806



BILLING: P/P

Dept No.: OVERHEAD  
REF 2: Subcontract

W8 19.1

SHIP TO: 2524  
FRONTIER GLOBAL SCIENCES  
11720 N. CREW PKWY N.  
BOTHELL, WA 98011-8244  
DWT: 24.13, 14  
EUROFINS CALSCIENCE  
7440 LINGOLN WAY  
GARDEN GROVE CA 92841-1427

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502 07 199



SAMPLE RECEIPT CHECKLIST

COOLER / OF /

WORK ORDER NUMBER: 16-194-17 of 4554

CLIENT: EFGS, Inc.

DATE: 11 / 30 / 2016

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.6 °C; Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 836

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1069

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples  Yes  No  N/A

COC document(s) received complete  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC   Yes  No  N/A

Sample container label(s) consistent with COC   Yes  No  N/A

Sample container(s) intact and in good condition   Yes  No  N/A

Proper containers for analyses requested   Yes  No  N/A

Sufficient volume/mass for analyses requested   Yes  No  N/A

Samples received within holding time   Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen   Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container   Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals   Yes  No  N/A

Container(s) for certain analysis free of headspace   Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation   Yes  No  N/A

CONTAINER TYPE: (Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOA<sub>h</sub>  VOA<sub>na2</sub>  100PJ  100PJ<sub>na2</sub>  125AGB  125AGB<sub>h</sub>  125AGB<sub>p</sub>  125PB

125PBz<sub>na</sub>  250AGB  250CGB  250CGB<sub>s</sub>  250PB  250PB<sub>n</sub>  500AGB  500AG<sub>J</sub>  500AG<sub>J<sub>s</sub></sub>

500PB  1AGB  1AGB<sub>na2</sub>  1AGB<sub>s</sub>  1PB  1PB<sub>na</sub>  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  Encores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (\_\_\_\_\_)  Labeled (\_\_\_\_\_)  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1069

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, z<sub>na</sub> = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 1017

# QUALITY CONTROL CHECKLIST

WORK ORDER NUMBER: 16-11-2554

METHOD: % lipid.  
 Section Reviewed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____	Date: ___/___/___
PREPARATION CONDITIONS	Yes	No	N/A	Comments (If No, why, and further action required)	
Correct Sample Aliquots Used	/				
Correct Reagents Used	/				
Correct Final Prep Volumes	/				
Correct Preparation Procedure	/				

ANALYST \_\_\_\_\_ Section Reviewed by: 1) 684 Date: 12/13/16 2) \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_ 3) \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

INSTRUMENT CONDITIONS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/			/			/			
Valid Initial Calibration Curve	/			/			/			
Valid Cont. Calibration Std.	/			/			/			
Other Calibration Criteria Met	/			/			/			

SAMPLE ANALYSIS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/			/			/			
Instr. Signals within Quant. Range	/			/			/			
Reporting Limits Met	/			/			/			

REPORTING	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/			/			/			
Correct Batch #'s Reported	/			/			/			
Dilutions Reported	/			/			/			
Interferences Reported	/			/			/			
Out of Control Forms Completed	/			/			/			

GROUP LEADER \_\_\_\_\_ Section Reviewed by: 142 Date: 12/13/16

PROJECT REQUIREMENTS	Yes	No	N/A	Comments (If No, why, and further action required)
Analyses by CEL Standard Methods	/			
Normal CEL RLs	/			
Normal CEL QC	/			
Normal CEL Deliverables	/			

QUALITY CONTROL	Yes	No	N/A	Comments (If No, why, and further action required)
Acceptable Method Blanks (MB)	/			
Acceptable Field Blanks (FB, EB, TB)				
Acceptable Matrix Spikes (MS/MSD)				
Acceptable Lab Ctrl. Samples (LCS)				
Other Required QC Performed				
Out of Controls Addressed/Documented				

REPORTING	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Date Prepared	/			
Correct Date Analyzed	/			
Correct Units	/			
Analyst Review Performed (Init./Date)	/			
Out of Control Forms Acceptable				

OUTS CHECK	Yes	No	N/A	Comments (If No, why, and further action required)
Does the Data Make Sense	/			

GENERAL COMMENTS: \_\_\_\_\_

Page 175 of 202

Page 18 of 45

RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2554

INSTRUMENT: N/A

EXTRACTION: N/A

D/T EXTRACTED: 2016-12-08 00:00

DATA FILE:

ANALYZED BY: 1,065

D/T ANALYZED: 2016-12-08 00:00

REVIEWED BY:

D/T REVIEWED:

# 1 CLIENT SAMPLE NUMBER: 1435 FRB-01\_092816\_MUM\_WB\_01

LCS/MB BATCH: 161208B13

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g

MS/MSD BATCH: 161208D13

FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml

UNITS: %

ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

QUAL

% Lipids

RL

CONC

DF

ON COL CONC

0.10

4.13

1.00

4.13



**RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 2 CLIENT SAMPLE NUMBER: 1436 FRB-01\_092816\_MUM\_WB\_02

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.26	1.00	4.26	0.10	



RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 3 CLIENT SAMPLE NUMBER: 1437 FRB-01\_092816\_MUM\_WB\_03

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
4.45	1.00	4.45	0.10	

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 4 CLIENT SAMPLE NUMBER: 1438 FRB-01\_092816\_MUM\_WB\_04

LCS/MB BATCH: 161208B13 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.32	1.00	4.32	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 5 CLIENT SAMPLE NUMBER: 1439 FRB-01\_092816\_MUM\_WB\_05

LCS/MB BATCH: 161208B13 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	5.69	1.00	5.69	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 6 CLIENT SAMPLE NUMBER: 1440 FRB-01\_092816\_MUM\_WB\_06

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	4.46	1.00	4.46	0.10	





**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 7 CLIENT SAMPLE NUMBER: 1441 FRB-01\_092816\_MUM\_WB\_07

LCS/MB BATCH: 161208B13 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	5.30	1.00	5.30	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 8 CLIENT SAMPLE NUMBER: 1442 FRB-01\_092816\_MUM\_WB\_08

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.60	1.00	3.60	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 9 CLIENT SAMPLE NUMBER: 1443 FRB-01\_092816\_MUM\_WB\_09

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.50	1.00	4.50	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 10 CLIENT SAMPLE NUMBER: 1444 FRB-01\_092816\_MUM\_WB\_10

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	5.53	1.00	5.53	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 11 CLIENT SAMPLE NUMBER: 1445 FRB-01\_092816\_MUM\_WB\_11

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	5.17	1.00	5.17	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2554

**INSTRUMENT:** N/A

**EXTRACTION:** N/A

**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065

**D/T ANALYZED:** 2016-12-08 00:00

**REVIEWED BY:**

**D/T REVIEWED:**

**DATA FILE:**

**# 12**      **CLIENT SAMPLE NUMBER:** 1446 FRB-01\_092816\_MUM\_WB\_12

**LCS/MB BATCH:** 161208B13

**MS/MSD BATCH:** 161208D13

**UNITS:** %

**SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g

**FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml

**ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
5.24	1.00	5.24	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 13 CLIENT SAMPLE NUMBER: 1447 FRB-01\_092816\_MUM\_WB\_13

LCS/MB BATCH: 161208B13 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.83	1.00	4.83	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 14 CLIENT SAMPLE NUMBER: 1448 FRB-01\_092816\_MUM\_WB\_14

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.77	1.00	4.77	0.10	





**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554

INSTRUMENT: N/A

EXTRACTION: N/A

D/T EXTRACTED: 2016-12-08 00:00

DATA FILE:

ANALYZED BY: 1,065

D/T ANALYZED: 2016-12-08 00:00

REVIEWED BY:

D/T REVIEWED:

# 15 CLIENT SAMPLE NUMBER: 1449 FRB-01\_092816\_MUM\_WB\_15

LCS/MB BATCH: 161208B13

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g

MS/MSD BATCH: 161208D13

FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml

UNITS: %

ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.64	1.00	4.64	0.10	



RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00  
DATA FILE:

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 16 CLIENT SAMPLE NUMBER: 1450 FRB-01\_092816\_MUM\_WB\_16

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
4.81	1.00	4.81	0.10	

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2554  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

**# 17**      **CLIENT SAMPLE NUMBER:** 1451 FRB-01\_092816\_MUM\_WB\_17

**LCS/MB BATCH:** 161208B13      **SAMPLE VOLUME /WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161208D13      **FINAL VOLUME /WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.76	1.00	4.76	0.10	

**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2554  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 18**      **CLIENT SAMPLE NUMBER:** 1452 FRB-01\_092816\_MUM\_WB\_18

**LCS/MB BATCH:** 161208B13      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161208D13      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
% Lipids	4.30	1.00	4.30	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 19 CLIENT SAMPLE NUMBER: 1453 FRB-01\_092816\_MUM\_WB\_19

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.35	1.00	4.35	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2554  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 20 CLIENT SAMPLE NUMBER: 1454 FRB-01\_092816\_MUM\_WB\_20

LCS/MB BATCH: 161208B13 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D13 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	4.22	1.00	4.22	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

**# MB**      CLIENT SAMPLE NUMBER:    **Method Blank**

LCS/MB BATCH:    161208B13      SAMPLE VOLUME / WEIGHT:    DEFAULT: 20.00 g  
MS/MSD BATCH:    %                      FINAL VOLUME / WEIGHT:      DEFAULT: 2.00 ml  
UNITS:                                      ADJUSTMENT RATIO TO PF:    1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.000	1.00	ND	0.10	

% Lipids



METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

MB SAMPLE ID: 099-14-104-153  
MB BATCH ID: 161208B13  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:  
MATRIX: Tissue

DATA FILE:

CLIENT WORK ORDER: 16-11-2554

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	1435	FRB-01_092816_MUM_WB_01	2016-12-08 00:00	
2	1436	FRB-01_092816_MUM_WB_02	2016-12-08 00:00	
3	1437	FRB-01_092816_MUM_WB_03	2016-12-08 00:00	
4	1438	FRB-01_092816_MUM_WB_04	2016-12-08 00:00	
5	1439	FRB-01_092816_MUM_WB_05	2016-12-08 00:00	
6	1440	FRB-01_092816_MUM_WB_06	2016-12-08 00:00	
7	1441	FRB-01_092816_MUM_WB_07	2016-12-08 00:00	
8	1442	FRB-01_092816_MUM_WB_08	2016-12-08 00:00	
9	1443	FRB-01_092816_MUM_WB_09	2016-12-08 00:00	
10	1444	FRB-01_092816_MUM_WB_10	2016-12-08 00:00	
11	1445	FRB-01_092816_MUM_WB_11	2016-12-08 00:00	
12	1446	FRB-01_092816_MUM_WB_12	2016-12-08 00:00	
13	1447	FRB-01_092816_MUM_WB_13	2016-12-08 00:00	
14	1448	FRB-01_092816_MUM_WB_14	2016-12-08 00:00	
15	1449	FRB-01_092816_MUM_WB_15	2016-12-08 00:00	
16	1450	FRB-01_092816_MUM_WB_16	2016-12-08 00:00	
17	1451	FRB-01_092816_MUM_WB_17	2016-12-08 00:00	
18	1452	FRB-01_092816_MUM_WB_18	2016-12-08 00:00	
19	1453	FRB-01_092816_MUM_WB_19	2016-12-08 00:00	
20	1454	FRB-01_092816_MUM_WB_20	2016-12-08 00:00	



### DUPLICATE REPORT FOR METHOD: MeC12 Ext. (NOAA 1993a)

DUP SAMPLE ID: 16-11-2554-1  
DUP BATCH: 161208D13  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
SAMPLE: 2016-12-08 00:00  
DUP SAMPLE: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED:  
SAMPLE: 2016-12-08 00:00  
DUP SAMPLE: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

COMPOUND	% Lipids	SAMPLE CONC	DUP CONC	% RPD	CONTROL LIMIT	STATUS	QUALIFIERS
		4.130	4.030	2	0-25	PASS	

Data Files:

TYPE	DATA FILE	DATA FILE PATH	SDP

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/08/16 Initials: LS

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (If not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	Y	IO Lab
	100	99.98	98.00 - 102.00	Y	
	500	499.95	498.00 - 502.00	Y	
62	0.002	0.0021	0.00180 - 0.00220	Y	IO Lab
	1	0.9997	0.99900 - 1.00100	Y	
	100	99.9967	99.90000 - 100.10000	Y	
26	1	0.99	0.98 - 1.02	Y	IO Lab
	100	99.98	98.00 - 102.00	Y	
55	1	1.01	0.98 - 1.02	Y	IO Lab
	100	99.98	98.00 - 102.00	Y	
	500	499.94	498.00 - 502.00	Y	
11	1	0.99	0.98 - 1.02	Y	IO Lab
	100	99.97	98.00 - 102.00	Y	
66	0.002	0.0021	0.00180 - 0.00220	Y	Metals
	1	0.9997	0.99900 - 1.00100	Y	
	100	99.9987	99.90000 - 100.10000	Y	
53	0.1	0.10	0.09 - 0.11	Y	Extractions
	1	1.01	0.98 - 1.02	Y	
	100	100.01	98.00 - 102.00	Y	
	500	499.99	498 - 502	Y	
20	1	0.99	0.98 - 1.02	Y	Extractions
	100	99.92	98.00 - 102.00	Y	
	500	499.47	498.00 - 502.00	Y	
57	100	100.0	98.0-102.0	Y	Extractions
	1000	1000.0	998.0-1002.0	Y	
	2000	2000.0	1998.0-2002.0	Y	
52	0.002	0.0018	0.0018 - 0.0022	Y	Extractions
	1	0.9996	0.9990 - 1.0010	Y	
	100	99.9946	99.9000 - 100.1000	Y	
14	0.002	0.0018	0.0018 - 0.0022	Y	BOD Room
	1	0.9992	0.9990 - 1.0010	Y	
	100	99.9922	99.9000 - 100.1000	Y	
63	0.1	0.10	0.09 - 0.11	Y	BOD Room
	100	99.99	98.00 - 102.00	Y	
64	1	1.01	0.98 - 1.02	Y	Metals Clean Room
	10	10.02	9.8 - 10.2	Y	
	100	100.03	98.00 - 102.00	Y	
34	0.002	0.00203	0.0018 - 0.0022	Y	Oil & Grease Room
	1	0.99964	0.9990 - 1.0010	Y	
	100	99.99476	99.9000 - 100.1000	Y	
30	1	1.00	0.98 - 1.02	Y	Oil & Grease Room
	100	99.98	98.00 - 102.00	Y	

# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	4) Sand 507-19-19	1) Filter 507-41-04	
2) C <sub>6</sub> H <sub>14</sub>			
3) Na <sub>2</sub> SO <sub>4</sub>			

MATRIX	BATCH NUMBER	COMMENTS		
Tissue	MB: 161208B13			
	Sample Duplicate: 161208D13			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/08/16	MB	1.00	34	1	1	1.9130	1.9130	0.0000	0.00	684	
	16-11-2554-1A	1.36				1.8906	1.9468	0.0562	4.13		
	-2	1.28				1.8718	1.9263	0.0545	4.26		
	-3	1.12				1.9079	1.9577	0.0498	4.45		
	-4	1.24				1.8896	1.9432	0.0536	4.32		
	-5	0.98				1.8988	1.9546	0.0558	5.69		
	-6	1.09				1.9005	1.9491	0.0486	4.46		
	-7	1.30				1.8940	1.9629	0.0689	5.30		
	-8	1.42				1.8906	1.9417	0.0511	3.60		
	-9	1.09				1.9008	1.9498	0.0490	4.50		
	-10	1.04				1.8765	1.9340	0.0575	5.53		
	-11	2.18				1.8957	2.0085	0.1128	5.17		
	-12	1.30				1.9027	1.9708	0.0681	5.24		
	-13	1.20				1.9161	1.9740	0.0579	4.83		
	-14	1.88				1.9120	2.0016	0.0896	4.77		
	-15	1.14				1.9128	1.9657	0.0529	4.64		
	-16	1.72				1.9002	1.9829	0.0827	4.81		
	-17	1.58				1.9062	1.9814	0.0752	4.76		
	-18	1.42				1.8633	1.9244	0.0611	4.30		
	-19	1.23				1.8681	1.9216	0.0535	4.35		
	-20	1.21				1.8527	1.9038	0.0511	4.22		
	Duplicate 16-11-2554-1A	1.02				1.8687	1.9098	0.0411	4.03		

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  Lipids  
 8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )  
 Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580  
 Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-  
 Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air  
 Balance ID#: 20 Filter ID#: 507-41-04 ASE ID#: Soxtherm ID#: 1-8 Orbit Shaker ID#: Sonicator ID:   
 Ext. Start Date/Time: 12/08/16 9:00 Ext. End Date/Time: 12/08/16 11:30  
 Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth  
 Drying Agent(s) ID#: 507-22-03  
 Surrogate Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD  
 Spike Std ID# & Volume Added (mL):  
 Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile  
 Exchange Solvent (  Hexane  Acetonitrile ) ID#:   
 Clean Up Start Date & Time: Clean Up End Date & Time:  
 Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge ID#:   
 Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:   
 MB/LCS/MS Batch #: 161208 B13  

Cell ID#:	Sample W (g) / V (mL)		Clean Up Performed	Comments
	Initial	Final		
MB	1.00	1	<input type="checkbox"/>	
LCS			<input type="checkbox"/>	
LCSD			<input type="checkbox"/>	
MS			<input type="checkbox"/>	
MSD Dup 16-11-2554-1A	1.02	1	<input type="checkbox"/>	
16-11-2554-1A	1.36		<input type="checkbox"/>	
-2A	1.28		<input type="checkbox"/>	
-3A	1.12		<input type="checkbox"/>	
-4A	1.24		<input type="checkbox"/>	
-5A	0.98		<input type="checkbox"/>	
-6A	1.09		<input type="checkbox"/>	
-7A	1.30		<input type="checkbox"/>	
-8A	1.42		<input type="checkbox"/>	
-9A	1.09		<input type="checkbox"/>	
-10A	1.04		<input type="checkbox"/>	
-11A	2.18		<input type="checkbox"/>	
-12A	1.30		<input type="checkbox"/>	
-13A	1.20		<input type="checkbox"/>	
-14A	1.88		<input type="checkbox"/>	
-15A	1.14		<input type="checkbox"/>	
-16A	1.72		<input type="checkbox"/>	
-17A	1.58		<input type="checkbox"/>	
-18A	1.42		<input type="checkbox"/>	
-19A	1.23		<input type="checkbox"/>	
-20A	1.21		<input type="checkbox"/>	

Peer Reviewed by: \_\_\_\_\_ Peer Reviewed Date: \_\_\_\_\_ Revision Date: 10/20/16



Lipid Content Raw Data Calculator

12/8/2016

	ID # A	Tissue Sampls (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
			M1	V1	V2	M2		
0-1	MB 161208B13	1.00	1	1	1.9130	1.9130	0.0000	0.00%
1	16-11-2554-1	1.36	1	1	1.8906	1.9468	0.0562	4.13%
2	16-11-2554-2	1.28	1	1	1.8718	1.9263	0.0545	4.26%
3	16-11-2554-3	1.12	1	1	1.9079	1.9577	0.0498	4.45%
4	16-11-2554-4	1.24	1	1	1.8896	1.9432	0.0536	4.32%
5	16-11-2554-5	0.98	1	1	1.8988	1.9546	0.0558	5.69%
6	16-11-2554-6	1.09	1	1	1.9005	1.9491	0.0486	4.46%
7	16-11-2554-7	1.30	1	1	1.8940	1.9629	0.0689	5.30%
8	16-11-2554-8	1.42	1	1	1.8906	1.9417	0.0511	3.60%
9	16-11-2554-9	1.09	1	1	1.9008	1.9498	0.0490	4.50%
10	16-11-2554-10	1.04	1	1	1.8765	1.9340	0.0575	5.53%
11	16-11-2554-11	2.18	1	1	1.8957	2.0085	0.1128	5.17%
12	16-11-2554-12	1.30	1	1	1.9027	1.9708	0.0681	5.24%
13	16-11-2554-13	1.20	1	1	1.9161	1.9740	0.0579	4.83%
14	16-11-2554-14	1.88	1	1	1.9120	2.0016	0.0896	4.77%
15	16-11-2554-15	1.14	1	1	1.9128	1.9657	0.0529	4.64%
16	16-11-2554-16	1.72	1	1	1.9002	1.9829	0.0827	4.81%
17	16-11-2554-17	1.58	1	1	1.9062	1.9814	0.0752	4.76%
18	16-11-2554-18	1.42	1	1	1.8633	1.9244	0.0611	4.30%
19	16-11-2554-19	1.23	1	1	1.8681	1.9216	0.0535	4.35%
20	16-11-2554-20	1.21	1	1	1.8527	1.9038	0.0511	4.22%
DUP-1	D 16-11-2554-1	1.02	1	1	1.8687	1.9098	0.0411	4.03%
L	LCS-161208L13	0.11	1	1	1.8805	1.9869	0.1064	96.7%

Samples ID#	Lipid Content (%)	RPD
16-11-2554-1	4.13%	-2%
161208D13		
Dup 16-11-2554-1	4.03%	





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive style.

Amy Goodall  
Project Manager



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_092816_POL_WB_01	1610235-01	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_02	1610235-02	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_03	1610235-03	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_04	1610235-04	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_05	1610235-05	Tissue	28-Sep-16 13:40	05-Oct-16 09:30

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:55

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/20/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1631 (EFGS-070).

## ANALYTICAL AND QUALITY CONTROL ISSUES

Samples were prepped in batch F610509 for total Mercury and batch F610422 for Methyl Mercury. No samples from this work order were used for the batch QC source.

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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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:55

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: 1610235

Client: AMEC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/7/16 Labeled By: CSP

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

Received By: LSM

Label Verified By: BOW

# of Coolers Received: 3 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>-6.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LSM</u>
Cooler 1: <u>-46 °C</u>	w/CF: <u>-46.1 °C</u>	Cooler 4: <u>°C</u>	w/CF: <u>°C</u>
Cooler 2: <u>-47 °C</u>	w/CF: <u>47.1 °C</u>	Cooler 5: <u>°C</u>	w/CF: <u>°C</u>
Cooler 3: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	Cooler 6: <u>°C</u>	w/CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>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>Y</u>	

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

1: 8756 4740 9231 2: 7842 6248 7980 3: 7842 6248 7991

1610235

WB 01  
1435

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1456	9/28/2016	13:00	FRB-01_092816_MUM_WB_MS_	MS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1457	9/28/2016	13:40	FRB-01_092816_POL_WB_01	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1458	9/28/2016	13:40	FRB-01_092816_POL_WB_02	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1459	9/28/2016	13:40	FRB-01_092816_POL_WB_03	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1460	9/28/2016	13:40	FRB-01_092816_POL_WB_04	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1461	9/28/2016	13:40	FRB-01_092816_POL_WB_05	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1479	9/28/2016	13:00	FRB-01_092816_RAS_WB_01	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1480	9/28/2016	13:00	FRB-01_092816_RAS_WB_02	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1481	9/28/2016	13:00	FRB-01_092816_RAS_WB_03	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1482	9/28/2016	13:00	FRB-01_092816_RAS_WB_04	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1483	9/28/2016	13:00	FRB-01_092816_RAS_WB_05	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 27 of 30

DKK  
10/6/16

Yes Seal  
-46.1°C, -47.1°C, -47.1°C  
FedEx 8756 4740 9231

*[Signature]*  
Lars M. Hest  
10/5/16 9:30

1610235

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
--------	-------------	-------------	-----------------	---------	-----------	----------	--------------------------	--------------	--------------	----------

QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: J. Desjarlais IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16.00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FED EX TRACKING: 8756 47 40 923 1

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_01**  
**1610235-01**

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)	ND	0.4	1.7	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
-----------------------------	----	-----	-----	------	-----	---------	-----------	---------	-----------	-------------------------	---

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

Mercury	1.90	0.077	0.691	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	
---------	------	-------	-------	------	----	---------	-----------	---------	-----------	-----------	--

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_02**  
**1610235-02**

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)	ND	0.4	1.7	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	2.46	0.074	0.661	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_03**  
**1610235-03**

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)	ND	0.5	1.9	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
-----------------------------	----	-----	-----	------	-----	---------	-----------	---------	-----------	-------------------------	---

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

Mercury	1.15	0.075	0.668	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	
---------	------	-------	-------	------	----	---------	-----------	---------	-----------	-----------	--

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_04**  
**1610235-04**

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)	ND	0.5	2.0	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	3.18	0.075	0.665	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_05**  
**1610235-05**

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)	0.4	0.4	1.8	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	J
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	1.82	0.083	0.739	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6J31010 - F610408</b>											
<b>Cal Standard (6J31010-CAL1)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		96.3				
<b>Cal Standard (6J31010-CAL2)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		101				
<b>Cal Standard (6J31010-CAL3)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		99.2				
<b>Cal Standard (6J31010-CAL4)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	1.9	-		ng/L	2.0020		92.4				
<b>Cal Standard (6J31010-CAL5)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		111				
<b>Calibration Blank (6J31010-CCB1)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.008	-		ng/L							U
<b>Calibration Blank (6J31010-CCB2)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.01	-		ng/L							U
<b>Calibration Blank (6J31010-CCB3)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U
<b>Calibration Blank (6J31010-CCB4)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U
<b>Calibration Blank (6J31010-CCB5)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

Quality Control Data

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

Batch 6J31010 - F610408

<b>Calibration Blank (6J31010-CCB6)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	-0.02	-		ng/L								U
<b>Calibration Check (6J31010-CCV1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		91.0	67-133				
<b>Calibration Check (6J31010-CCV2)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		82.6	67-133				
<b>Calibration Check (6J31010-CCV3)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133				
<b>Calibration Check (6J31010-CCV4)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.6	67-133				
<b>Calibration Check (6J31010-CCV5)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.9	67-133				
<b>Calibration Check (6J31010-CCV6)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		85.4	67-133				
<b>Instrument Blank (6J31010-IBL1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L								U
<b>Initial Cal Blank (6J31010-ICB1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.006	-		ng/L								
<b>Initial Cal Check (6J31010-ICV1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.5	67-133				

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K01010 - F610422</b>											
<b>Cal Standard (6K01010-CAL1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.7				
<b>Cal Standard (6K01010-CAL2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		92.4				
<b>Cal Standard (6K01010-CAL3)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		108				
<b>Cal Standard (6K01010-CAL4)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		98.2				
<b>Cal Standard (6K01010-CAL5)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	4.1	-		ng/L	4.0040		104				
<b>Calibration Blank (6K01010-CCB1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	-0.005	-		ng/L							U
<b>Calibration Blank (6K01010-CCB2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	-0.005	-		ng/L							U
<b>Calibration Check (6K01010-CCV1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		72.2	67-133			
<b>Calibration Check (6K01010-CCV2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.5	67-133			
<b>Instrument Blank (6K01010-IBL1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L							U

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 6K01010 - F610422**

**Initial Cal Blank (6K01010-ICB1)**

Prepared: 01-Oct-16 Analyzed: 31-Oct-16

Methyl Mercury (as Mercury) 0.006 - ng/L

**Initial Cal Check (6K01010-ICV1)**

Prepared: 01-Oct-16 Analyzed: 31-Oct-16

Methyl Mercury (as Mercury) 0.5 - ng/L 0.50049 103 67-133

**Batch 6K10018 - F610510**

**Cal Standard (6K10018-CAL1)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.520 - ng/L 0.50100 104

**Cal Standard (6K10018-CAL2)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.992 - ng/L 1.0020 99.0

**Cal Standard (6K10018-CAL3)**

Prepared & Analyzed: 10-Nov-16

Mercury 4.994 - ng/L 5.0100 99.7

**Cal Standard (6K10018-CAL4)**

Prepared & Analyzed: 10-Nov-16

Mercury 19.09 - ng/L 20.040 95.3

**Cal Standard (6K10018-CAL5)**

Prepared & Analyzed: 10-Nov-16

Mercury 40.53 - ng/L 40.080 101

**Calibration Blank (6K10018-CCB1)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.047 - ng/L

**Calibration Blank (6K10018-CCB2)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.057 - ng/L

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Calibration Blank (6K10018-CCB3)</b>											
Mercury	0.114	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB4)</b>											
Mercury	0.112	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB5)</b>											
Mercury	0.118	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB6)</b>											
Mercury	0.182	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB7)</b>											
Mercury	0.179	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB8)</b>											
Mercury	0.105	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB9)</b>											
Mercury	0.101	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV1)</b>											
Mercury	4.771	-		ng/L	5.0000		95.4	77-123			Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV2)</b>											
Mercury	4.625	-		ng/L	5.0000		92.5	77-123			Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV3)</b>											
Mercury	4.707	-		ng/L	5.0000		94.1	77-123			Prepared & Analyzed: 10-Nov-16

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Reported:  
14-Jan-17 12:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6K10018 - F610510

<b>Calibration Check (6K10018-CCV4)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.609	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV5)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.678	-		ng/L	5.0000		93.6	77-123			
<b>Calibration Check (6K10018-CCV6)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.542	-		ng/L	5.0000		90.8	77-123			
<b>Calibration Check (6K10018-CCV7)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.981	-		ng/L	5.0000		99.6	77-123			
<b>Calibration Check (6K10018-CCV8)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.610	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV9)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.524	-		ng/L	5.0000		90.5	77-123			
<b>Instrument Blank (6K10018-IBL1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K10018-ICV1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610422 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F610422-BLK1)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK2)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK3)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK4)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
<b>Blank (F610422-BLK5)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
<b>Blank (F610422-BLK6)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							FB, U
<b>Blank (F610422-BLK7)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F610422-BLK8)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F610422-BLK9)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F610422-BS1)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	241.2	2.0	7.8	ng/g	330.15		73.1	70-130			

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch F610422 - EFGS-010 KOH/Methanol Hg Digestion**

<b>LCS Dup (F610422-BSD1)</b>											
					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	241.4	2.0	7.8	ng/g	330.02		73.2	70-130	0.122	25	
<b>Duplicate (F610422-DUP1)</b>											
					Source: 1610574-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	324.4	2.4	9.7	ng/g		366.5			12.2	35	
<b>Matrix Spike (F610422-MS1)</b>											
					Source: 1610231-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	45.6	1.1	4.4	ng/g	44.449	4.0	93.7	65-130			
<b>Matrix Spike (F610422-MS2)</b>											
					Source: 1610610-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	34.2	0.9	3.5	ng/g	35.123	3.2	88.4	65-130			
<b>Matrix Spike Dup (F610422-MSD1)</b>											
					Source: 1610231-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	43.8	1.0	4.1	ng/g	41.449	4.0	96.1	65-130	2.55	35	
<b>Matrix Spike Dup (F610422-MSD2)</b>											
					Source: 1610610-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	31.0	0.9	3.4	ng/g	33.875	3.2	82.1	65-130	7.41	35	

**Batch F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610509-BLK1)</b>											
					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.508	0.090	0.800	ng/g							J
<b>Blank (F610509-BLK2)</b>											
					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.195	0.090	0.800	ng/g							J
<b>Blank (F610509-BLK3)</b>											
					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.118	0.090	0.800	ng/g							J

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Amy Goodall, Project Manager

AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues Hg and Methyl Hg 2016 Project Number: 3616166052 Project Manager: Denise King	Reported: 14-Jan-17 12:55
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**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>LCS (F610509-BS1)</b>											
Mercury	7.915	0.090	0.800	ng/g	8.0160		98.7	75-125			Prepared: 08-Nov-16 Analyzed: 10-Nov-16
<b>LCS (F610509-BS2)</b>											
Mercury	354.6	4.46	39.8	ng/g	383.72		92.4	75-125			Prepared: 08-Nov-16 Analyzed: 10-Nov-16
<b>LCS Dup (F610509-BSD1)</b>											
Mercury	8.050	0.090	0.800	ng/g	8.0160		100	75-125	1.69	24	Prepared: 08-Nov-16 Analyzed: 10-Nov-16
<b>Duplicate (F610509-DUP1)</b>											
Mercury	7.602	0.409	3.65	ng/g		8.012			5.26	24	Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16
<b>Matrix Spike (F610509-MS1)</b>											
Mercury	309.4	1.90	17.0	ng/g	339.21	8.012	88.9	71-125			Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16
<b>Matrix Spike (F610509-MS2)</b>											
Mercury	320.6	1.90	16.9	ng/g	338.75	7.272	92.5	71-125			Source: 1610236-03 Prepared: 08-Nov-16 Analyzed: 10-Nov-16
<b>Matrix Spike Dup (F610509-MSD1)</b>											
Mercury	309.9	1.92	17.2	ng/g	343.52	8.012	87.9	71-125	1.10	24	Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16
<b>Matrix Spike Dup (F610509-MSD2)</b>											
Mercury	326.1	1.88	16.8	ng/g	335.35	7.272	95.1	71-125	2.74	24	Source: 1610236-03 Prepared: 08-Nov-16 Analyzed: 10-Nov-16

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:55

### Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- 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.
- 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





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-1BL1	1	10/30/16 10:20	17384-1.RAW	10:20:12	15.35			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/30/16 10:30	17385-1.RAW	10:30:43	44.62			29.3	0.048	0.048	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/30/16 10:41	17386-1.RAW	10:41:14	137.85			122.5	0.202	0.202	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/30/16 10:51	17387-1.RAW	10:51:44	618.71			603.4	0.993	0.993	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/30/16 11:02	17388-1.RAW	11:02:15	1139.78			1124.4	1.851	1.851	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/30/16 11:12	17389-1.RAW	11:12:46	2712.82			2697.5	4.440	4.440	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CV1	1	10/30/16 11:23	17390-1.RAW	11:23:16	299.62			284.3	0.468	0.468	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	10/30/16 11:33	17391-1.RAW	11:33:47	18.76			3.4	0.006	0.006	ng/L	
Hg2700-1	DM2	SAM	F610408-BS1	2000	10/30/16 11:44	17392-1.RAW	11:44:18	955.34	1		940.0	1.548	3095.490	ng/L	
Hg2700-1	DM2	SAM	F610408-BSD1	2000	10/30/16 11:54	17393-1.RAW	11:54:49	1084.61	1		1069.3	1.761	3521.003	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK1	500	10/30/16 12:05	17394-1.RAW	12:05:20	16.25	1		0.9	0.001	0.740	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK2	500	10/30/16 12:15	17395-1.RAW	12:15:50	14.55	1		-0.8	-0.001	-0.656	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK3	500	10/30/16 12:26	17396-1.RAW	12:26:21	10.49	1		-4.9	-0.008	-4.001	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK4	500	10/30/16 12:36	17397-1.RAW	12:36:52	10.99	1		-4.4	-0.005	-2.278	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK5	500	10/30/16 12:47	17398-1.RAW	12:47:22	7.33	1		-8.0	-0.011	-5.295	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK6	500	10/30/16 12:57	17399-1.RAW	12:57:53	8.47	1		-6.9	-0.009	-4.355	ng/L	
Hg2700-1	DM2	SAM	F610408-DUP1	500	10/30/16 13:08	17400-1.RAW	13:08:24	92.26	1		76.9	0.129	64.599	ng/L	
Hg2700-1	DM2	SAM	F610408-MS1	500	10/30/16 13:18	17401-1.RAW	13:18:54	561.13	1		545.8	0.901	450.447	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/30/16 13:29	17402-1.RAW	13:29:25	292.17			276.8	0.456	0.456	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/30/16 13:39	17403-1.RAW	13:39:56	10.45			-4.9	-0.008	-0.008	ng/L	
Hg2700-1	DM2	SAM	F610408-MSD1	500	10/30/16 13:50	17404-1.RAW	13:50:26	467.73	1		452.4	0.747	373.586	ng/L	
Hg2700-1	DM2	SAM	1610136-01	500	10/30/16 14:00	17405-1.RAW	14:00:57	21.81	1		6.5	0.013	6.624	ng/L	
Hg2700-1	DM2	SAM	1610338-01	500	10/30/16 14:11	17406-1.RAW	14:11:28	20.40	1		5.1	0.011	5.465	ng/L	
Hg2700-1	DM2	SAM	1610419-01	500	10/30/16 14:21	17407-1.RAW	14:21:58	52.06	1		36.7	0.063	31.514	ng/L	
Hg2700-1	DM2	SAM	1610419-02	500	10/30/16 14:32	17408-1.RAW	14:32:29	129.96	1		114.6	0.191	95.623	ng/L	
Hg2700-1	DM2	SAM	1610419-03	500	10/30/16 14:43	17409-1.RAW	14:43:00	76.29	1		60.9	0.103	51.455	ng/L	
Hg2700-1	DM2	SAM	1610419-04	500	10/30/16 14:53	17410-1.RAW	14:53:30	45.93	1		30.6	0.053	26.468	ng/L	
Hg2700-1	DM2	SAM	1610509-01	500	10/30/16 15:04	17411-1.RAW	15:04:01	27.50	1		12.1	0.023	11.302	ng/L	
Hg2700-1	DM2	SAM	F610422-BS1	2000	10/30/16 15:14	17412-1.RAW	15:14:32	950.97	2		935.6	1.544	3088.893	ng/L	
Hg2700-1	DM2	SAM	F610422-BSD1	2000	10/30/16 15:25	17413-1.RAW	15:25:03	948.44	2		933.1	1.540	3080.583	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/30/16 15:35	17414-1.RAW	15:35:33	266.45			251.1	0.413	0.413	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/30/16 15:46	17415-1.RAW	15:46:04	6.58			-8.8	-0.014	-0.014	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK1	500	10/30/16 15:56	17416-1.RAW	15:56:35	5.09	2		-10.3	-0.017	-8.438	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK2	500	10/30/16 16:07	17417-1.RAW	16:07:05	2.57	2		-12.8	-0.021	-10.514	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK3	500	10/30/16 16:17	17418-1.RAW	16:17:36	5.19	2		-10.2	-0.017	-8.356	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK4	500	10/30/16 16:28	17419-1.RAW	16:28:07	6.02	2		-9.3	0.003	1.427	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK5	500	10/30/16 16:38	17420-1.RAW	16:38:38	3.36	2		-12.0	-0.002	-0.760	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK6	500	10/30/16 16:49	17421-1.RAW	16:49:09	2.10	2		-13.2	-0.004	-1.798	ng/L	
Hg2700-1	DM2	SAM	F610422-DUP1	2500	10/30/16 16:59	17422-1.RAW	16:59:39	1027.95	2		1012.6	1.670	4175.576	ng/L	
Hg2700-1	DM2	SAM	F610422-MS1	1000	10/30/16 17:10	17423-1.RAW	17:10:10	321.92	2		306.6	0.514	513.673	ng/L	
Hg2700-1	DM2	SAM	F610422-MSD1	1000	10/30/16 17:20	17424-1.RAW	17:20:41	331.25	2		315.9	0.529	529.037	ng/L	
Hg2700-1	DM2	SAM	F610422-MS2	1000	10/30/16 17:31	17425-1.RAW	17:31:11	306.32	2		291.0	0.488	487.997	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	10/30/16 17:41	17426-1.RAW	17:41:42	273.24			257.9	0.424	0.424	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	10/30/16 17:52	17427-1.RAW	17:52:13	3.63			-11.7	-0.019	-0.019	ng/L	
Hg2700-1	DM2	SAM	F610422-MSD2	1000	10/30/16 18:02	17428-1.RAW	18:02:43	288.15	2		272.8	0.458	458.099	ng/L	
Hg2700-1	DM2	SAM	1610231-01	1000	10/30/16 18:13	17429-1.RAW	18:13:14	38.83	2		23.5	0.048	47.752	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	SAM	1610231-02	1000	10/30/16 18:23	17430-1.RAW	18:23:45	20.46	2			5.1	0.018	17.520	ng/L	
Hg2700-1	DM2	SAM	1610231-03	1000	10/30/16 18:34	17431-1.RAW	18:34:15	7.19	2			-8.2	-0.004	-4.319	ng/L	
Hg2700-1	DM2	SAM	1610231-04	1000	10/30/16 18:44	17432-1.RAW	18:44:46	13.97	2			-1.4	0.007	6.837	ng/L	
Hg2700-1	DM2	SAM	1610231-05	1000	10/30/16 18:55	17433-1.RAW	18:55:17	46.12	2			30.8	0.060	59.746	ng/L	
Hg2700-1	DM2	SAM	1610235-01	1000	10/30/16 19:05	17434-1.RAW	19:05:47	2.71	2			-12.6	-0.012	-11.693	ng/L	
Hg2700-1	DM2	SAM	1610235-02	1000	10/30/16 19:16	17435-1.RAW	19:16:18	0.78	2			-14.6	-0.015	-14.869	ng/L	
Hg2700-1	DM2	SAM	1610235-03	1000	10/30/16 19:26	17436-1.RAW	19:26:49	2.00	2			-13.3	-0.013	-12.867	ng/L	
Hg2700-1	DM2	SAM	1610235-04	1000	10/30/16 19:37	17437-1.RAW	19:37:19	1.81	2			-13.5	-0.013	-13.184	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	10/30/16 19:47	17438-1.RAW	19:47:50	278.78				263.4	0.434	0.434	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	10/30/16 19:58	17439-1.RAW	19:58:21	2.60				-12.7	-0.021	-0.021	ng/L	
Hg2700-1	DM2	SAM	1610235-05	1000	10/30/16 20:08	17440-1.RAW	20:08:51	7.90	2			-7.4	-0.003	-3.149	ng/L	
Hg2700-1	DM2	SAM	1610574-01	2500	10/30/16 20:19	17441-1.RAW	20:19:22	1332.41	2			1317.1	2.171	5428.326	ng/L	
Hg2700-1	DM2	SAM	1610574-02	2500	10/30/16 20:29	17442-1.RAW	20:29:53	951.10	2			935.7	1.544	3859.365	ng/L	
Hg2700-1	DM2	SAM	1610574-03	2500	10/30/16 20:40	17443-1.RAW	20:40:23	1543.32	2			1528.0	2.518	6296.138	ng/L	
Hg2700-1	DM2	SAM	1610574-04	2500	10/30/16 20:50	17444-1.RAW	20:50:54	1096.09	2			1080.7	1.782	4455.972	ng/L	
Hg2700-1	DM2	SAM	1610574-05	2500	10/30/16 21:01	17445-1.RAW	21:01:25	870.00	2			854.6	1.410	3525.675	ng/L	
Hg2700-1	DM2	SAM	1610610-01	1000	10/30/16 21:11	17446-1.RAW	21:11:56	35.05	2			19.7	0.042	41.531	ng/L	
Hg2700-1	DM2	SAM	1610610-02	1000	10/30/16 21:22	17447-1.RAW	21:22:27	39.42	2			24.1	0.049	48.723	ng/L	
Hg2700-1	DM2	SAM	1610610-03	1000	10/30/16 21:32	17448-1.RAW	21:32:58	15.86	2			0.5	0.010	9.939	ng/L	
Hg2700-1	DM2	SAM	1610610-04	1000	10/30/16 21:43	17449-1.RAW	21:43:28	7.71	2			-7.6	-0.003	-3.464	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	10/30/16 21:53	17450-1.RAW	21:53:59	297.76				282.4	0.465	0.465	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	10/30/16 22:04	17451-1.RAW	22:04:30	6.11				-9.2	-0.015	-0.015	ng/L	
Hg2700-1	DM2	SAM	1610617-01	1000	10/30/16 22:15	17452-1.RAW	22:15:00	11.88	2			-3.5	0.003	3.402	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	10/30/16 22:25	17453-1.RAW	22:25:31	275.08				259.7	0.427	0.427	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	10/30/16 22:36	17454-1.RAW	22:36:02	2.76				-12.6	-0.021	-0.021	ng/L	

Methylmercury Operat DM Blanks 15.349 Calib Eqn: Conc = (Area-15.349) / 607.6 Run Date: ##### Blank SD: 0  
 EPA1630 Worksl MMHG2 CalibFz 607.69 Status: OK, 1 Warning Run Time: 9:53:39 Blank RSE 0  
 Method 2010-01-R: 0.9965 R1: 0.993077999 CalibAnalr Meric CF SD: 41.96551496  
 Descrip MMHG27001-161030-2 CF RSD%: 6.906186246

Sample/ID	Locator	Rinse	Dilute	Blank	ConcHo0(n)	ConcMeHg(ppb)	ConcHo2(n)	ConcPctHo(r)	Rec%	QA	RawData	RunEnd	PeakHo0 (R)	PeakMeHg (R)	PeakHo2 (R)	PeakPctHo (R)	Control (rtf)	Flags	RunCount	
Clean			0.00	0.00	0.00	0.00					17382-1.RAW	9:58:10	0.14	0.87	0.03		0.00	cleandry	CT	1
W5	A1	1	15.349	0.1968323	0.000301756	0.0623979					17383-1.RAW	10:09:42	134.962617	15.5320549	53.267553		0	psample10	CT	1
SEQ-1BL1	A2	1	0	0.3574335	0.025257229	0.0923204					17384-1.RAW	10:20:12	217.210396	15.3485795	56.1026042		0	psample10	CT	1
SEQ-CAL1	A3	1	15.349	0.3322874	0.048189944	0.0969669			96.37		17385-1.RAW	10:30:43	217.277899	44.6310133	63.7660223		0	psample10	CT	1
SEQ-CAL2	A4	1	15.349	0.3235066	0.201705579	0.0975286			100.85		17386-1.RAW	10:41:14	211.941895	137.924053	74.6162879		0	psample10	CT	1
SEQ-CAL3	A5	1	15.349	0.4570575	0.992876297	0.2207962			99.29		17387-1.RAW	10:51:44	293.100328	618.724157	149.526563		0	psample10	CT	1
SEQ-CAL4	A6	1	15.349	0.6450772	1.850322461	0.2428981			92.52		17388-1.RAW	11:02:15	407.358558	1139.7795	224.333641		0	psample10	CT	1
SEQ-CAL5	A7	1	15.349	0.6775264	4.438807744	0.6895628			110.97		17389-1.RAW	11:12:46	427.074133	2712.82121	434.392198		0	psample10	CT	1
SEQ-ICV1	A8	1	15.349	1.0397957	0.467793676	0.3999663			93.67		17390-1.RAW	11:23:16	647.226841	299.623722	258.406031		0	psample10	CT	1
SEQ-ICB1	A9	1	15.349	0.2659431	0.004928735	0.0701389			0.00		17391-1.RAW	11:33:47	179.027024	18.3428447	57.9717093		0	psample10	CT	1
F610408-BS1	A10	2000	15.349	842.87089	3093.63658	680.52423					17392-1.RAW	11:44:18	271.452587	955.340167	222.1241		0	psample10	CT	1
F610408-BS01	A11	2000	15.349	839.92762	3519.074388	759.72633					17393-1.RAW	11:54:49	270.558384	1084.80978	246.109445		0	psample10	CT	1
F610408-BLK1	A12	500	15.349	125.62598	0.740363002	49.448365					17394-1.RAW	12:05:20	168.03312	16.3465085	75.4476799		0	psample10	CT	1
F610408-BLK2	A13	500	15.349	118.11977	-0.65814385	55.817717					17395-1.RAW	12:15:50	158.910156	14.5516098	83.1889205		0	psample10	CT	1
F610408-BLK3	A14	500	15.349	108.57902	4.00781171	47.554701					17396-1.RAW	12:26:21	147.314425	10.4775566	73.1461411		0	psample10	CT	1
*F610408-BLK4	A15	500	15.349	104.01745	-3.582767228	49.643854					17397-1.RAW	12:36:52	141.730347	10.9942235	75.6852746		0	psample10	CT	1
*F610408-BLK5	A16	500	15.349	95.384502	-6.59936868	43.225182					17398-1.RAW	12:47:22	131.277957	7.32787918	67.8840909		0	psample10	CT	1
*F610408-BLK6	A17	500	15.349	96.427453	5.224863662	45.817607					17399-1.RAW	12:57:53	134.976326	8.9964375	71.0348958		0	psample10	CT	1
F610408-DUP1	A18	500	15.349	243.72757	63.28245601	43.849728					17400-1.RAW	13:08:24	311.572497	92.261482	68.6431581		0	psample10	CT	1
F610408-MS1	A19	500	15.349	265.02946	449.0622387	66.223375			44906.22		17401-1.RAW	13:18:54	337.462571	561.133996	95.8358428		0	psample10	CT	1
SEQ-CCV1	A20	1	15.349	0.981058	0.455224372	0.4213319			91.16		17402-1.RAW	13:29:25	611.532254	291.966032	271.389742		0	psample10	CT	1
SEQ-CCB1	A21	1	15.349	0.2272631	0.008067478	0.0565485			0.00		17403-1.RAW	13:39:56	153.454025	10.4461174	49.7129025		0	psample10	CT	1
F610408-MS01	B1	500	15.349	254.10853	372.2144323	53.947369					17404-1.RAW	13:50:26	374.189393	467.734016	80.9157197		0	psample10	CT	1
1610136-01	B2	500	15.349	153.39647	5.317282209	251.26153					17405-1.RAW	14:00:57	201.679333	21.8112216	320.729181		0	psample10	CT	1
1610138-01	B3	500	15.349	128.15594	6.760543078	201.766					17406-1.RAW	14:11:28	171.112209	26.0058712	260.575291		0	psample10	CT	1
1610141-01	B4	500	15.349	231.17213	30.26832132	35.602008					17407-1.RAW	14:21:58	796.31275	52.0635417	58.5705906		0	psample10	CT	1
1610149-02	B5	500	15.349	224.01172	94.30103861	35.321411					17408-1.RAW	14:32:29	287.610063	129.961127	59.4932329		0	psample10	CT	1
1610149-03	B6	500	15.349	195.00673	50.14091225	35.663302					17409-1.RAW	14:43:00	244.30616	45.925	64.670928		0	psample10	CT	1
1610149-04	B7	500	15.349	188.43147	25.1576406	40.58145					17410-1.RAW	14:53:40	244.30616	45.925	64.670928		0	psample10	CT	1
1610509-01	B8	500	15.349	134.19945	9.994905441	151.18411					17411-1.RAW	15:04:01	178.453221	27.4962778	198.091688		0	psample10	CT	1
F610422-BS1	B9	2000	15.349	723.54801	3079.245086	638.65632					17412-1.RAW	15:14:32	235.195757	930.968851	208.402652		0	psample10	CT	1
F610422-BS01	B10	2000	15.349	720.4464	3070.93684	659.31095					17413-1.RAW	15:25:03	234.254342	946.444413	215.678504		0	psample10	CT	1
SEQ-CCV2	B11	1	15.349	0.9171374	0.413199465	0.2537247			82.74		17414-1.RAW	15:35:33	572.688022	266.447727	230.305256		0	psample10	CT	1
SEQ-CCB2	B12	1	15.349	0.1653762	-0.014464007	0.0450256			0.00		17415-1.RAW	15:46:04	115.846875	6.55861742	42.7105114		0	psample10	CT	1
F610422-BLK1	B13	500	15.349	74.438696	8.436673545	37.846518					17416-1.RAW	15:56:35	105.820654	5.09483902	61.3469223		0	psample10	CT	1
F610422-BLK2	B14	500	15.349	64.281711	-10.51205085	47.930121					17417-1.RAW	16:07:05	93.475966	2.57244822	73.6024219		0	psample10	CT	1
F610422-BLK3	B15	500	15.349	58.625507	-8.354607629	42.695867					17418-1.RAW	16:17:36	86.8445519	5.1945786	67.240767		0	psample10	CT	1
*F610422-BLK4	B16	500	15.349	52.109706	-7.678382229	40.262583					17419-1.RAW	16:28:07	78.6822466	6.02192235	64.783503		0	psample10	OK	1
*F610422-BLK5	B17	500	15.349	55.503175	-9.861114579	38.806391					17420-1.RAW	16:38:38	82.806288	3.36358902	62.5135417		0	psample10	CT	1
*F610422-BLK6	B18	500	15.349	53.146462	-10.86091916	36.153497					17421-1.RAW	16:49:09	79.942059	2.1484375	59.2892433		0	psample10	CT	1
F610422-DUP1	B19	2500	15.349	639.73083	4165.735396	383.01719					17422-1.RAW	16:59:39	170.853047	1027.9465	108.451657		0	psample10	CT	1
F610422-MS1	B20	1000	15.349	270.50504	504.4813652	1095.187			50448.13		17423-1.RAW	17:10:10	179.733106	321.919176	680.887796		0	psample10	CT	1
F610422-MS01	B21	1000	15.349	285.63495	519.8421967	1156.7774					17424-1.RAW	17:20:41	188.92747	331.25393	706.162053		0	psample10	CT	1
F610422-MS2	B22	1000	15.349	194.69355	478.8092646	385.39624					17425-1.RAW	17:31:11	133.662879	306.318442	249.553078		0	psample10	CT	1
SEQ-CCV3	C2	1	15.349	1.1391162	0.424378468	0.292721			23940.46		17426-1.RAW	17:41:42	707.611258	273.241146	192.960133		0	psample10	CT	1
SEQ-CCB3	C3	1	15.349	0.1169056	-0.019113207	0.0281308			0.00		17427-1.RAW	17:52:13	86.3915483	3.73386845	32.443068		0	psample10	CT	1
F610422-MS02	C4	1000	15.349	178.39642	448.0361725	432.1257					17428-1.RAW	18:02:43	123.759207	287.617803	277.9498096		0	psample10	CT	1
1610231-01	C5	1000	15.349	272.21219	38.56654889	1098.2126					17429-1.RAW	18:13:14	150.385006	38.7853693	682.72642		0	psample10	CT	1
1610231-02	C6	1000	15.349	208.13422	8.41613009	530.97164					17430-1.RAW	18:23:45	141.830705	20.4631155	338.017229		0	psample10	CT	1
1610231-03	C7	1000	15.349	135.66672	-13.4193386	258.04112					17431-1.RAW	18:34:15	97.7926033	7.19382102	172.158854		0	psample10	CT	1
1610231-04	C8	1000	15.349	155.57416	-2.265073958	426.75643					17432-1.RAW	18:44:46	109.890242	13.9722064	274.692294		0	psample10	CT	1
1610231-05	C9	1000	15.349	145.3865	50.6342654	457.07128					17433-1.RAW	18:55:17	103.699257	46.1188447	293.108389		0	psample10	CT	1





## ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6J31010-IBL1	QC	1			
6J31010-CAL1	QC	2	1606090		
6J31010-CAL2	QC	3	1606091		
6J31010-CAL3	QC	4	1606092		
6J31010-CAL4	QC	5	1606093		
6J31010-CAL5	QC	6	1606094		
6J31010-ICV1	QC	7	1605079		
6J31010-ICB1	QC	8			
F610408-BS1	QC	9			
F610408-BSD1	QC	10			
F610408-BLK1	QC	11			
F610408-BLK2	QC	12			
F610408-BLK3	QC	13			
F610408-BLK4	QC	14			
F610408-BLK5	QC	15			
F610408-BLK6	QC	16			
F610408-DUP1	QC	17			
F610408-MS1	QC	18			
6J31010-CCV1	QC	19	1605079		
6J31010-CCB1	QC	20			
F610408-MSD1	QC	21			
1610136-01	MHg-CVAFS-T-KOH	22			Scan all data for level IV report
1610338-01	MHg-CVAFS-T-KOH	23			Scan all data for level IV report
1610419-01	MHg-CVAFS-T-KOH	24			
1610419-02	MHg-CVAFS-T-KOH	25			
1610419-03	MHg-CVAFS-T-KOH	26			
1610419-04	MHg-CVAFS-T-KOH	27			
1610509-01	MHg-CVAFS-T-KOH	28			Scan all data for level IV report
F610422-BS1	QC	29			
F610422-BSD1	QC	30			
6J31010-CCV2	QC	31	1605079		
6J31010-CCB2	QC	32			
F610422-BLK1	QC	33			
F610422-BLK2	QC	34			
F610422-BLK3	QC	35			

Due Date: 10/28/2016

Page 28 of 230

Page 1 of 3

## ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F610422-BLK4	QC	36			
F610422-BLK5	QC	37			
F610422-BLK6	QC	38			
F610422-DUP1	QC	39			
F610422-MS1	QC	40			
F610422-MSD1	QC	41			
F610422-MS2	QC	42			
6J31010-CCV3	QC	43	1605079		
6J31010-CCB3	QC	44			
F610422-MSD2	QC	45			
1610231-01	MHg-CVAFS-T-KOH	46			
1610231-02	MHg-CVAFS-T-KOH	47			
1610231-03	MHg-CVAFS-T-KOH	48			
1610231-04	MHg-CVAFS-T-KOH	49			
1610231-05	MHg-CVAFS-T-KOH	50			
1610235-01	MHg-CVAFS-T-KOH	51			
1610235-02	MHg-CVAFS-T-KOH	52			
1610235-03	MHg-CVAFS-T-KOH	53			
1610235-04	MHg-CVAFS-T-KOH	54			
6J31010-CCV4	QC	55	1605079		
6J31010-CCB4	QC	56			
1610235-05	MHg-CVAFS-T-KOH	57			
1610574-01	MHg-CVAFS-T-KOH	58			
1610574-02	MHg-CVAFS-T-KOH	59			
1610574-03	MHg-CVAFS-T-KOH	60			
1610574-04	MHg-CVAFS-T-KOH	61			
1610574-05	MHg-CVAFS-T-KOH	62			
1610610-01	MHg-CVAFS-T-KOH	63			
1610610-02	MHg-CVAFS-T-KOH	64			
1610610-03	MHg-CVAFS-T-KOH	65			
1610610-04	MHg-CVAFS-T-KOH	66			
6J31010-CCV5	QC	67	1605079		
6J31010-CCB5	QC	68			
1610617-01	MHg-CVAFS-T-KOH	69			
6J31010-CCV6	QC	70	1605079		

Due Date: 10/28/2016

Page 29 of 230

Page 2 of 3

ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6J31010-CCB6	QC	71			

DM Mjorem 10/30/16  
Samples Loaded By Date

DM Mjorem 10/31/16  
Data Processed By Date

**Failing Data Report - 6J31010**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610408-DUP1	MHg-CVAFS-T-KOH	5.0	1.9	2.4	2.4		ng/g				71.9	35.00	PASS-OVER	FAIL-DUP	QR-07

Don Moran                      10/31/16  
 Analyst Reviewed By                      Date

[Signature]                      11/2/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1506872	MHg New Primary 100 ng/mL spike
1605470	DORM-4

<u>Expiration:</u>
03-Nov-16 00:00
19-Mar-17 00:00
19-Mar-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605678	Ethylating Agent (For Methyl Mercury Analysis)	28-Mar-17 00:00
1605926	25% KOH/Methanol	09-Apr-17 00:00
1605961	Acetate Buffer	11-Apr-17 00:00
1606119	Methanol, HPLC Grade	17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-		
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-		
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-		
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-		
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-		
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD	
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-		
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-		
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-		

Page 33 of 230

Date: 11/2/2016

PREPARATION BENCH SHEET

F610422

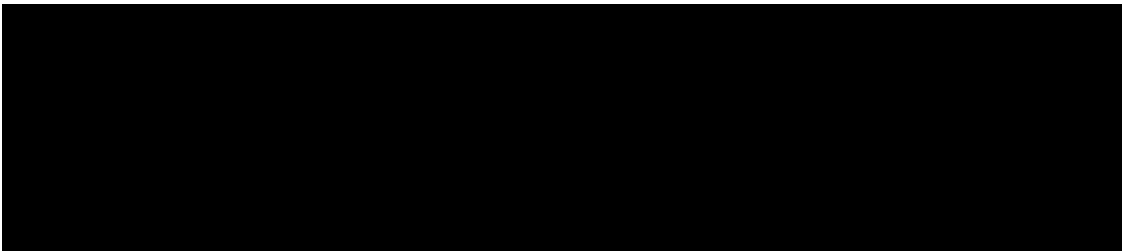
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610408

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/19/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610408-BLK1	Blank	0.25	20					
F610408-BLK2	Blank	0.25	20					
F610408-BLK3	Blank	0.25	20					
F610408-BLK4	FB for 1610136,1610338,1610509	0.265	20					
F610408-BLK5	Pre homogen blank 1610419	0.253	20					
F610408-BLK6	Post homogen blank 1610419	0.262	20					
F610408-BS1	LCS	0.252	20	1605470	252			
F610408-BSD1	LCS Dup	0.262	20	1605470	262			
F610408-DUP1	Duplicate [1610419-01]	0.257	20					
F610408-MS1	Matrix Spike [1610419-01]	0.254	20	1506872	100			
F610408-MSD1	Matrix Spike Dup [1610419-01]	0.266	20	1506872	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1506872	MHg New Primary 100 ng/mL spike	03-Nov-16 00:00	1605678	Ethylating Agent (For Methyl Mercury Analysis)	28-Mar-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1605926	25% KOH/Methanol	09-Apr-17 00:00
		19-Mar-17 00:00	1605961	Acetate Buffer	11-Apr-17 00:00
			1606119	Methanol, HPLC Grade	17-Oct-19 00:00



**PREPARATION BENCH SHEET**

F610408

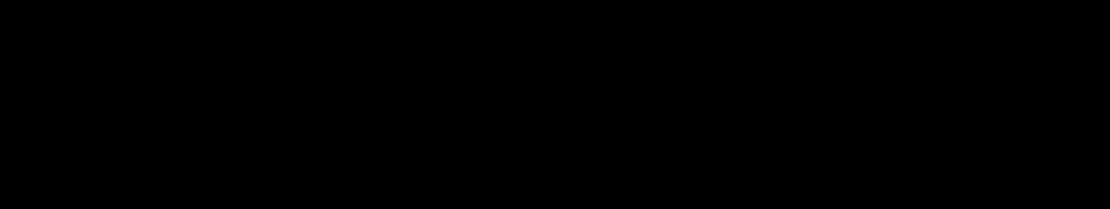
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/19/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610136-01	OL-2488-01	0.256	20	-	-	-	Scan all data for level IV report	
1610338-01	OL-2492-01	0.255	20	-	-	-	Scan all data for level IV report	
1610419-01	S-161003-01459 36132 31-40 Shrimp Tri Union	0.266	20	-	-	-		
1610419-02	S-161003-01461 36132 31-40 Shrimp Mazzetta	0.265	20	-	-	-		
1610419-03	NE 206 25549 S-160906-00426 Ore Cal	0.255	20	-	-	-	Shrimp	
1610419-04	SE 185 25549 S-160906-00428 Ore Cal	0.274	20	-	-	-	Shrimp	
1610509-01	OL-2497-01	0.253	20	-	-	-	Scan all data for level IV report	



PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					500X
F610422-BLK2	Blank	0.25	20					500X
F610422-BLK3	Blank	0.25	20					500X
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					500X
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					500X
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					500X
F610422-BS1	LCS	0.2561	20	1605470	256			2000X
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			2000X
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					2500X
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			1000X
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			1000X
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			1000X
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1506872	MHg New Primary 100 ng/mL spike	03-Nov-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1605926	25% KOH/Methanol	09-Apr-17 00:00
		19-Mar-17 00:00	1606119	Methanol, HPLC Grade	17-Oct-19 00:00

1605678

1605961

PREPARATION BENCH SHEET

F610422

Eurofins Frontier Global Sciences, Inc.

27007  
10/30/16 DM

Matrix: Tissue Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	1000X
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		1000X
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		1000X
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		1000X
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		1000X
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		1000X
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		1000X
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		1000X
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		1000X
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		1000X
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-		2500X
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-		2500X
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-		2500X
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-		2500X
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-		2500X
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD	1000X
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-		1000X
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-		1000X
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-		1000X

Page 38 of 230

Date: 11/2/2016

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-	1000x
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AMB

F610422

10-25-16

**EFGS-010** Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.

**EFGS-011** Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.

**EFGS-045** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).

**EFGS-066** Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_

Vial Type:  Glass  Teflon

Balance#: 19 <sup>AMB 10-25-16</sup> Calibrated?  Yes  No Therm.#: 14545 Calibrated?  Yes  No

Time in: 181645 Actual Temp. (raw): 71.0 °C w/ CF: 70.8 °C

Time out: 1855 Actual Temp. (raw): 75.0 °C w/ CF: 74.7 °C

Final vol.: 20 mL (LIMS ID: 1606119) Spike vol.: 100 µL (LIMS ID: 1506872)

Spike Witness: M 10/25/16 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: NU09653 Calibration Date: 10-24-16

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

Pipette SN#: NU01152 Calibration Date: 10-25-16

70/30 LIMS ID: N/A

Dispenser #: 02N48426 Calibrated?  Yes  No

Other Acid LIMS ID: 25% KOH/Methanol: 1605926

Other Reagent/LIMS IDs: N/A

Centrifuge Tube lot # 00065550

Boiling Chip lot # 1603399

\*Hotblock Position: 08 N8

Glass vial

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	F610422-BLK1	0.2803	23	1610574-03	0.2785	DORMA
2	F610422-BLK2	0.2792	24	1610574-04	0.2740	1605470
3	F610422-BLK3	0.2563	25	1610574-05	0.2643	BS1, BSD1
4	F610422-BS1	0.2561	26	1610610-01	0.2588	Comments
5 *	F610422-BSD1	0.5520	27	F610422-MS2	0.2850	F610422-
6	F610422-BLK4	0.2645	28	F610422-MSD2	0.2955	DUP1:
7	F610422-BLK5	0.2680	29	1610610-02	0.2589	1610574-01
8	1610231-01	0.2399	30	1610610-03	0.2674	F610422-
9	F610422-MS1	0.2252	31	1610610-04	0.2801	MS1, MSD1:
10	F610422-MSD1	0.2415	32	1610617-01	0.3122	1610231-01
11	1601231-02	0.2871	33	F610422-BLK6	0.2629	F610422-
12	1601231-03	0.2928	34			MS2, MSD2:
13	1610231-04	0.3144	35			1610610-01
14	1610231-05	0.3021	36			F610422-BLK4:
15	1610235-01	0.2879	37			Prep (Pre) blank
16	1610235-02	0.2912	38			1610574
17	1610235-03	0.2665	39			F610422-BLK5:
18	1610235-04	0.2553	40			Prep (Post) blank
19	1610235-05	0.2820	41			F610422-BSD1
20	1610757-01	0.2962	42			Sample size:
21	F610422-01	0.2574	43			0.2552g
22	1610574-02	0.2647	44			AMB 10-25-16

AMB 10-25-16

20) 1610574-01 21) F610422-DUP  
AMB 10-25-16

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610408

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610408-BLK1	Blank	0.25	20					500X
F610408-BLK2	Blank	0.25	20					500X
F610408-BLK3	Blank	0.25	20					500X
F610408-BLK4	FB for 1610136,1610338,1610509	0.265	20					500X
F610408-BLK5	Pre homogen blank 1610419	0.253	20					500X
F610408-BLK6	Post homogen blank 1610419	0.262	20					500X
F610408-BS1	LCS	0.252	20	1605470	252			2000X
F610408-BSD1	LCS Dup	0.262	20	1605470	262			2000X
F610408-DUP1	Duplicate [1610419-01]	0.257	20					500X
F610408-MS1	Matrix Spike [1610419-01]	0.254	20	1506872	100			500X
F610408-MSD1	Matrix Spike Dup [1610419-01]	0.266	20	1506872	100			500X

Standard ID(s):  
1506872  
1605470

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
03-Nov-16 00:00  
19-Mar-17 00:00  
19-Mar-17 00:00

Reagent ID(s):  
1605926  
1606119

Description:  
25% KOH/Methanol  
Methanol, HPLC Grade

Expiration:  
09-Apr-17 00:00  
17-Oct-19 00:00

1605678

1605961

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610408

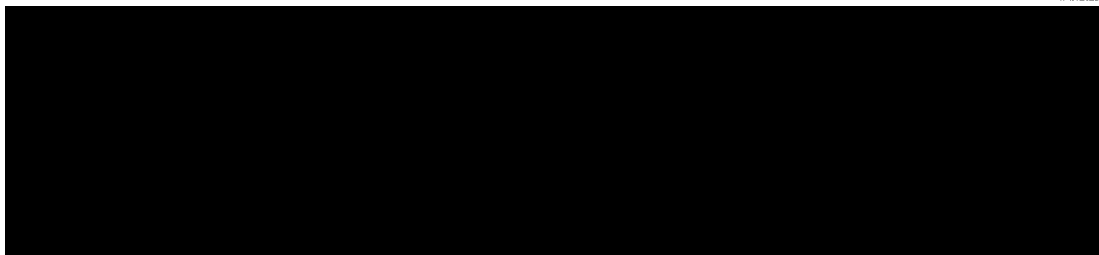
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610136-01	OL-2488-01	0.256	20	-	-	-	Scan all data for level IV report	500X
1610338-01	OL-2492-01	0.255	20	-	-	-	Scan all data for level IV report	500X
1610419-01	S-161003-01459 36132 31-40 Shrimp Tri Union	0.266	20	-	-	-		500X
1610419-02	S-161003-01461 36132 31-40 Shrimp Mazzetta	0.265	20	-	-	-		500X
1610419-03	NE 206 25549 S-160906-00426 Ore Cal	0.255	20	-	-	-	Shrimp	500X
1610419-04	SE 185 25549 S-160906-00428 Ore Cal	0.274	20	-	-	-	Shrimp	500X
1610509-01	OL-2497-01	0.253	20	-	-	-	Scan all data for level IV report	500X



Technician: MPM/AMB Batch#: F610408 Date: 10/19/16

- EFGS-010** Tissues - Methyl Mercury - KOH/Methanol: **Hot plate 75±5°C for 2-4 hours.**
  - EFGS-011** Tissues - Total Mercury - 70:30: **Hot plate 75±5°C for two hours.**
  - EFGS-045** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: **Heat Block 45°C (nitrogen purge for 30 minutes).**
  - EFGS-066** Solids - Total Mercury - Cold AR: **18-25°C for over four hours.**
- Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No  
 Time in: 1740 Actual Temp. (raw): 73.0 °C w/ CF: 72.5 °C  
 Time out: 2040 Actual Temp. (raw): timer °C w/ CF: timer °C

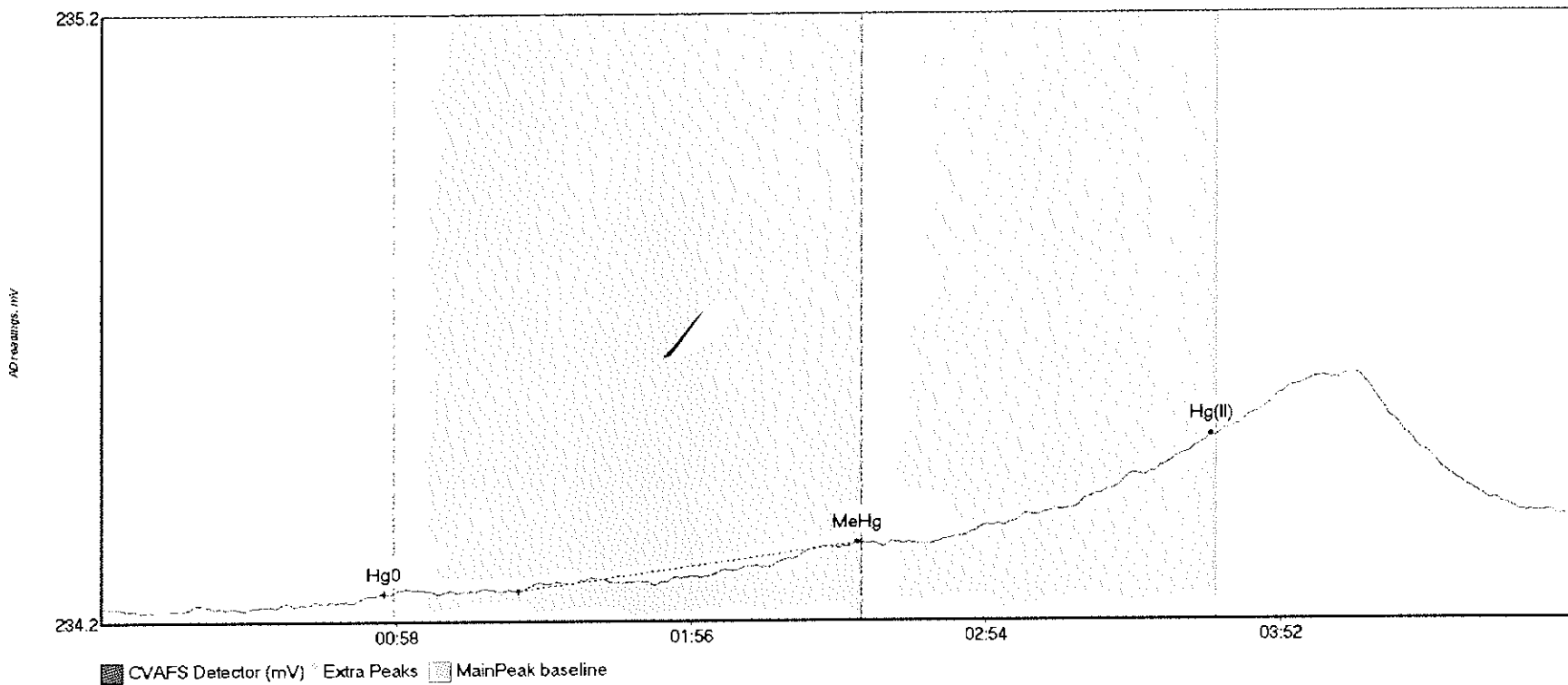
Final vol.: 20 mL (LIMS ID: 1606119) Spike vol.: 100 µL (LIMS ID: 1506872)  
 Spike Witness: PL 10/19/16 (initial and date) Spiked by AMB 10/19/16

HCl LIMS ID: N/A Pipette SN#: NU09653 Calibration Date: 10-18-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01152 Calibration Date: 10-18-16  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1605926 Dispenser #: N/A  
 Glass Vial # 00065550 Boiling Chip lot # 1603399 \*Hotblock Position: H5

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	F610408-BIK1	0.254	23			BSI/BSDI
2	F610408-BIK2	0.259	24			DORM-4
3	F610408-BIK3	0.255	25			1605470
4	F610408-BIK4	0.265	26			<b>Comments</b>
5	F610408-BIK5	0.253	27			BIK4 Filter Blank
6	F610408-BIK6	0.262	28			1610136, 1610338,
7	F610408-BSI	0.252	29			1610509 MPM 10/19/16
8	F610408-BSDI	0.262	30			BIK5 Pre Blank
9	1610136-01	0.256	31			BIK6 Post Blank
10	1610338-01	0.255	32			1610419 (Homogenizati
11	1610419-01	0.266	33			AM B (blanks) Blanks)
12	F610408-DUP(1610419-01)	0.257	34			MPM 10/19/16
13	F610408-MSI(1610419-01)	0.254	35			
14	F610408-MSD(1610419-01)	0.266	36			
15	1610419-02	0.265	37			
16	1610419-03	0.255	38			
17	1610419-04	0.274	39			
18	1610509-01	0.253	40			
19			41			
20			42			
21			43			
22			44			

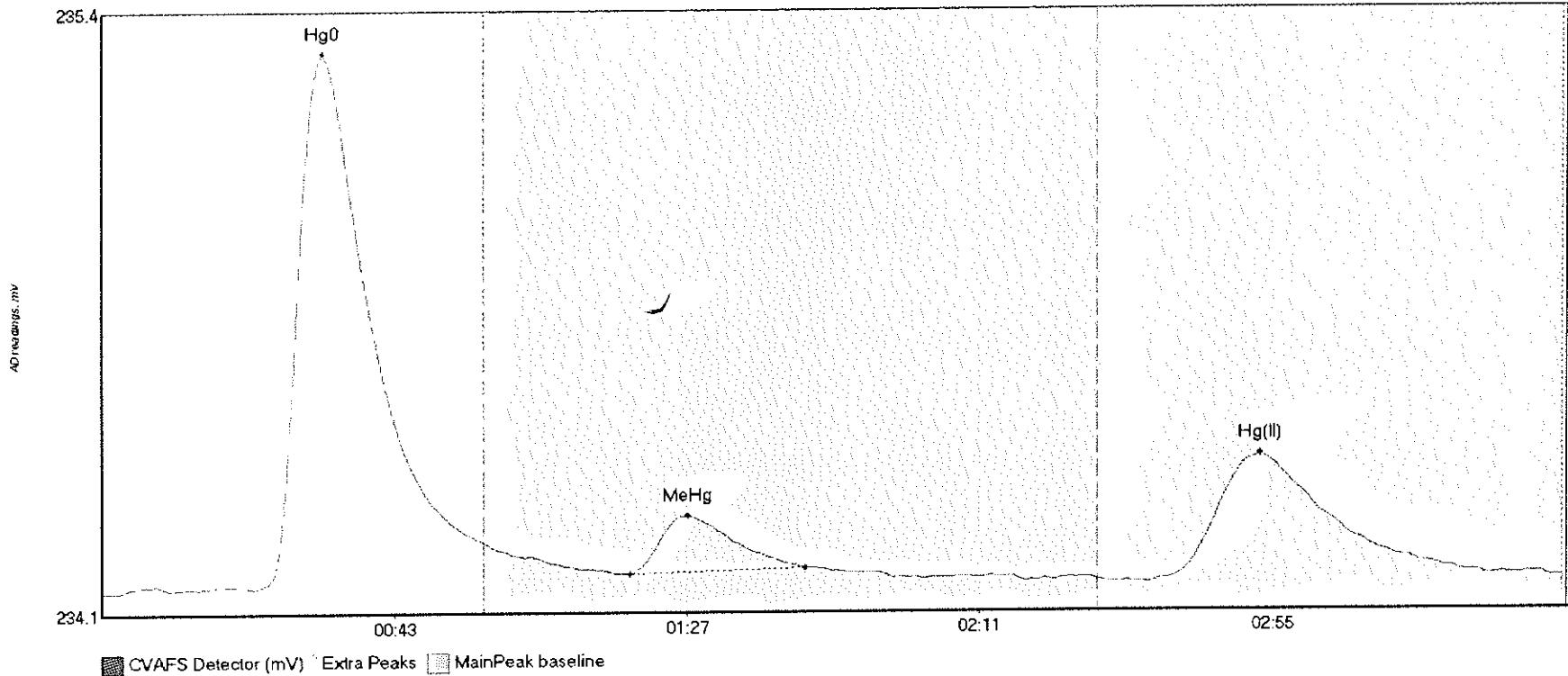


#1: Clean



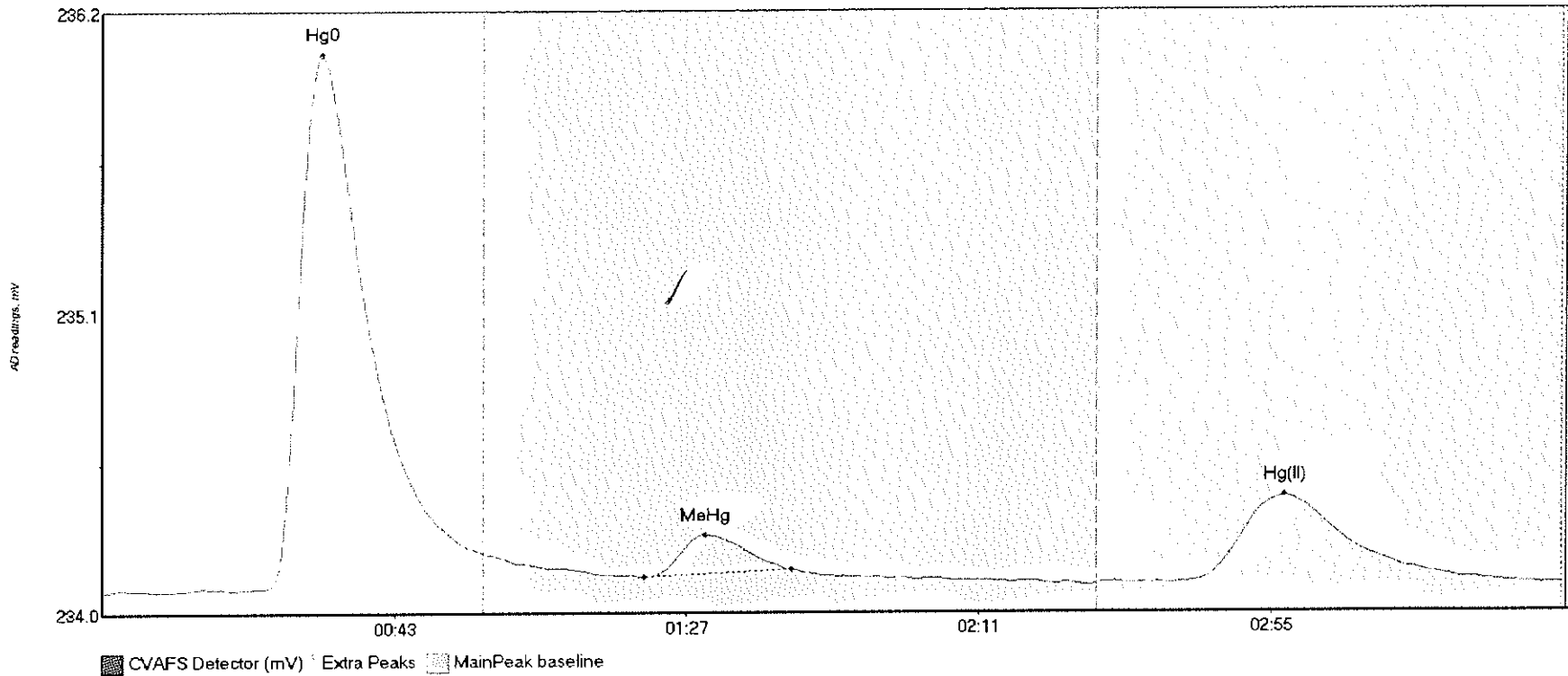
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean Hg0	0.139	40.6	57.0	234.20	234.22	55.7	0.020	OK	234.1932	0.00	0.15	
Clean MeHg	0.866	82.3	150.0	234.22	234.30	149.2	0.080	CT	234.1932	0.00	0.15	
Clean Hg(II)	0.028	165.0	219.6	234.30	234.47	219.0	0.175	OK	234.1932	0.00	0.15	

#2: WS



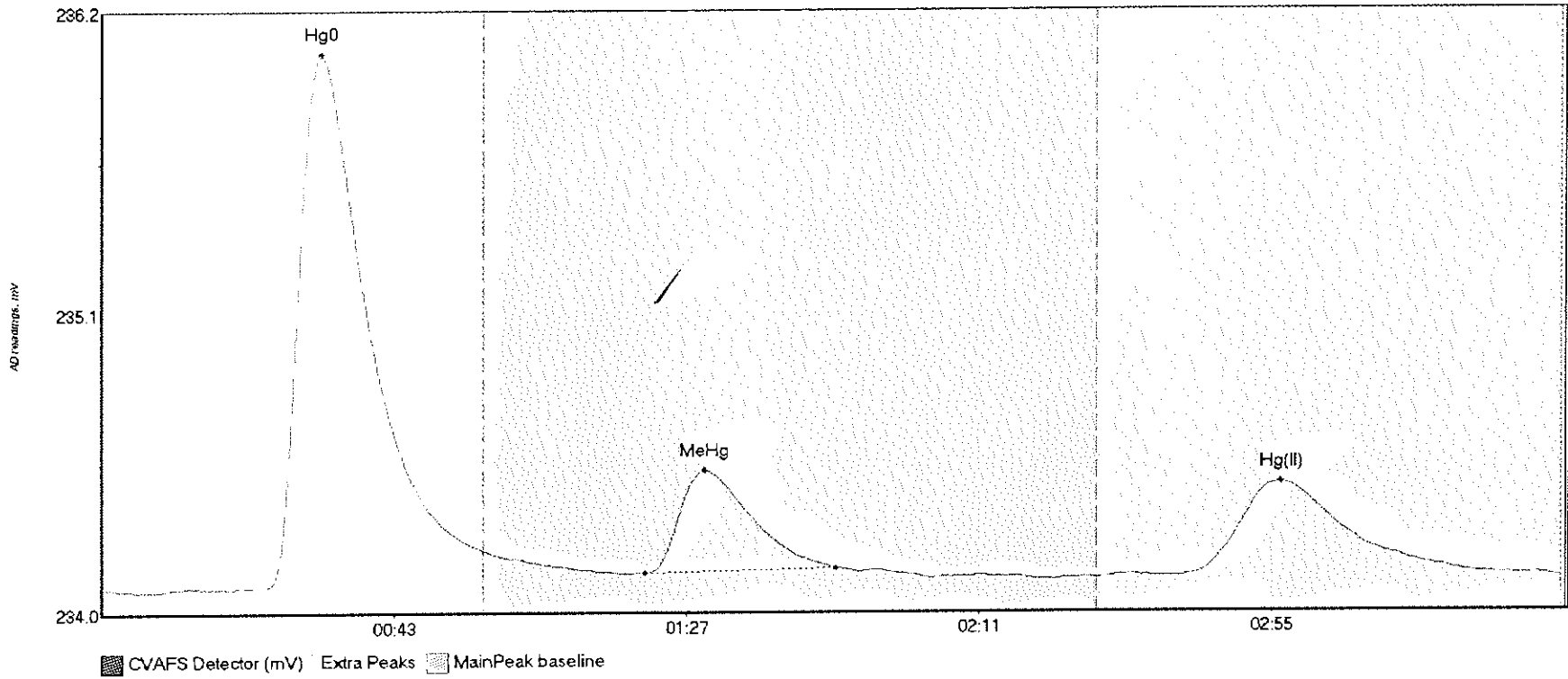
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BJDev	BJShift	Comment
WS Hg0	134.963	10.8	57.5	234.15	234.26	33.1	1.184	CT	234.1479	0.00	0.03	
WS MeHg	15.532	79.5	105.7	234.19	234.20	88.2	0.128	OK	234.1479	0.00	0.03	
WS Hg(II)	53.268	159.8	219.8	234.17	234.17	174.2	0.273	CT	234.1479	0.00	0.03	

#3: SEQ-IBL1



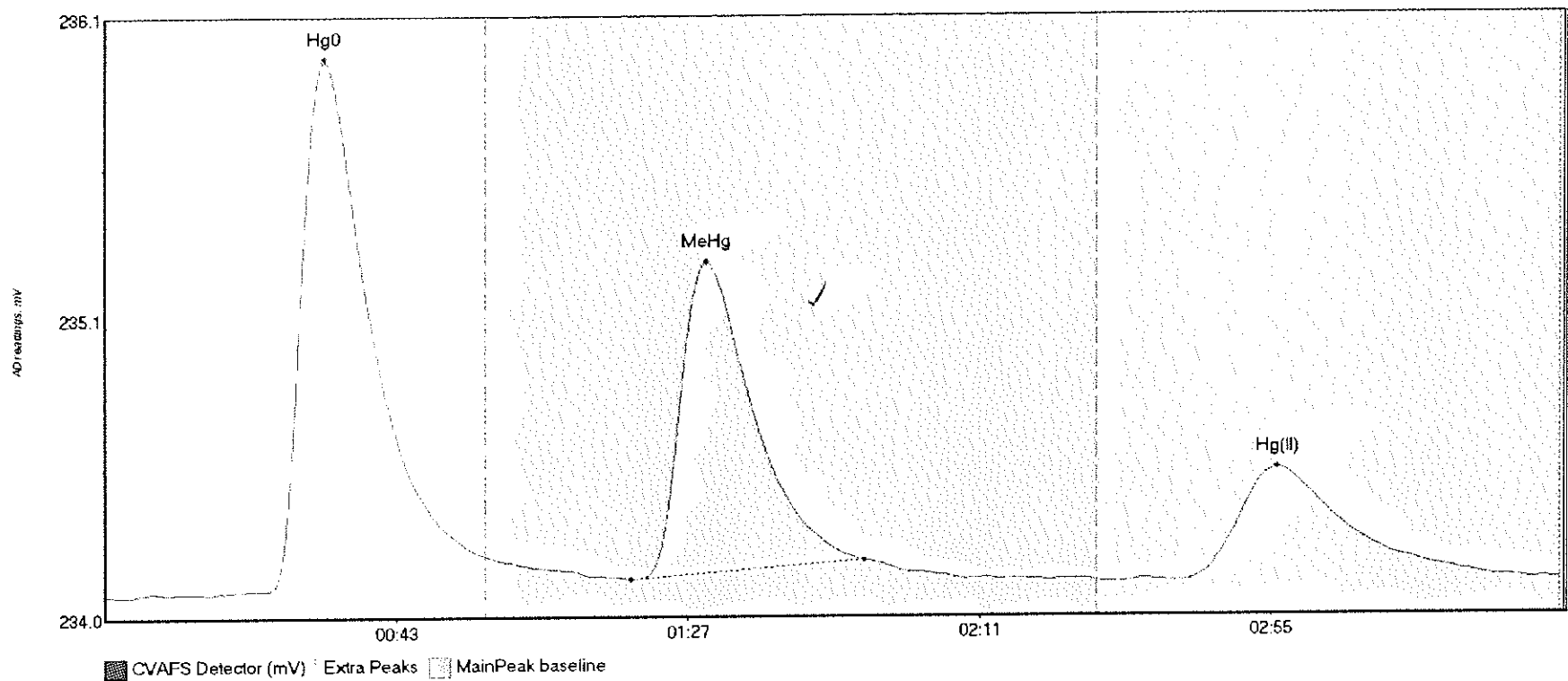
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	217.210	20.3	57.5	234.12	234.26	33.1	1.950	CT	234.1189	0.00	0.02	
SEQ-IBL1 MeHg	15.349	81.8	103.7	234.17	234.19	90.9	0.153	OK	234.1189	0.00	0.02	
SEQ-IBL1 Hg(II)	56.103	163.2	210.7	234.15	234.15	178.0	0.311	OK	234.1189	0.00	0.02	

#4: SEQ-CAL1



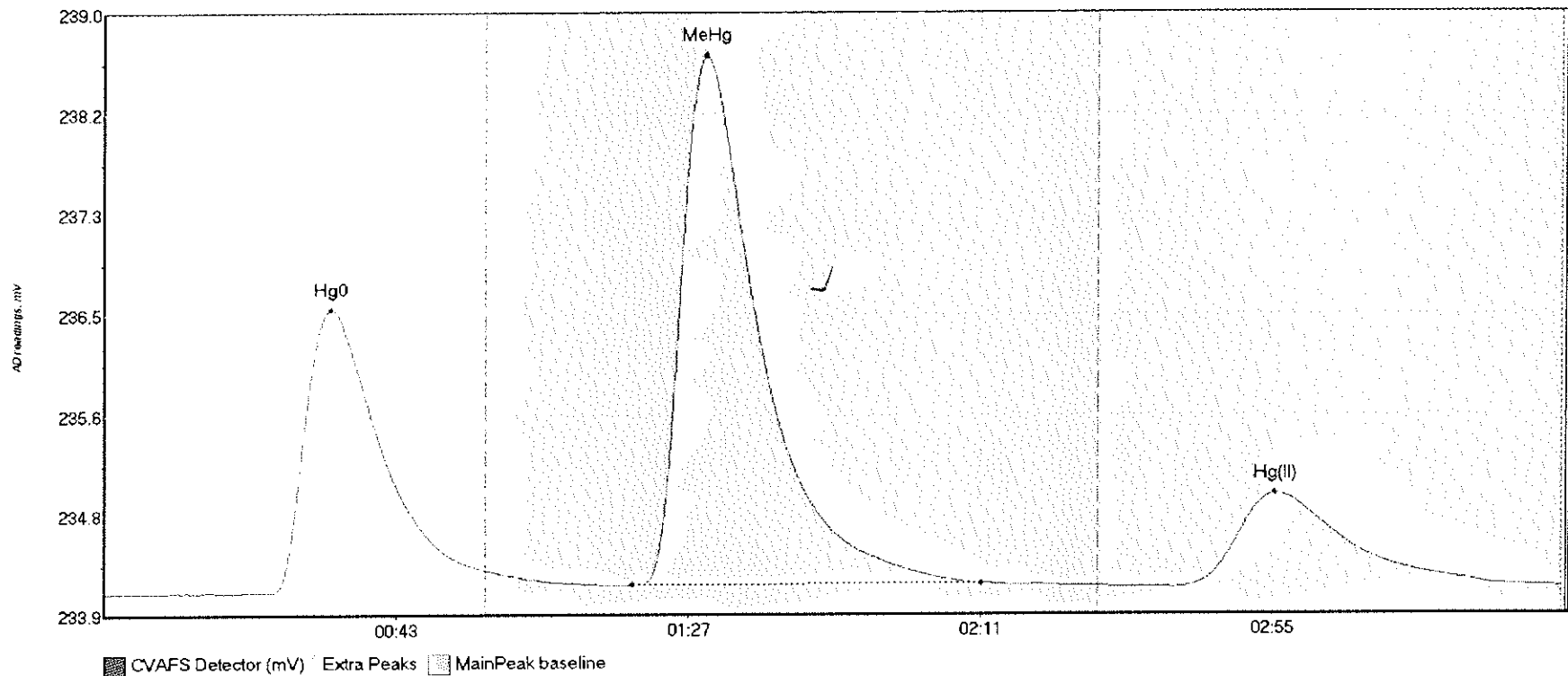
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	217.278	23.6	57.5	234.10	234.23	33.1	1.909	CT	234.0996	0.00	0.04	
SEQ-CAL1 MeHg	44.622	81.7	110.5	234.15	234.17	90.8	0.370	OK	234.0996	0.00	0.04	
SEQ-CAL1 Hg(II)	63.778	162.0	219.7	234.14	234.14	177.4	0.336	OK	234.0996	0.00	0.04	

#5: SEQ-CAL2



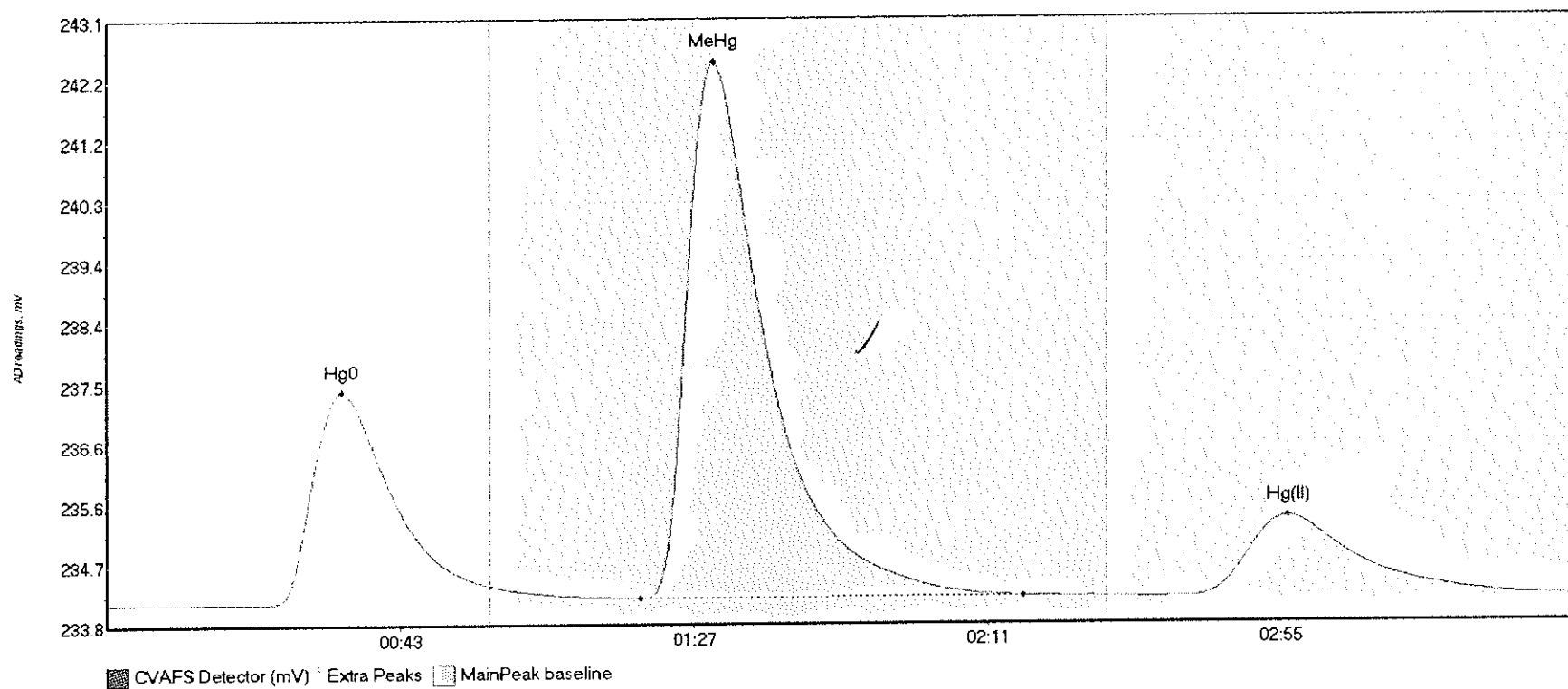
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	211.942	15.7	57.5	234.09	234.22	33.2	1.674	CT	234.0904	0.00	0.05	
SEQ-CAL2 MeHg	137.853	79.5	114.6	234.14	234.21	90.9	1.114	OK	234.0904	0.00	0.05	
SEQ-CAL2 Hg(II)	74.616	163.1	218.9	234.13	234.14	177.0	0.396	OK	234.0904	0.00	0.05	

#6: SEQ-CAL3



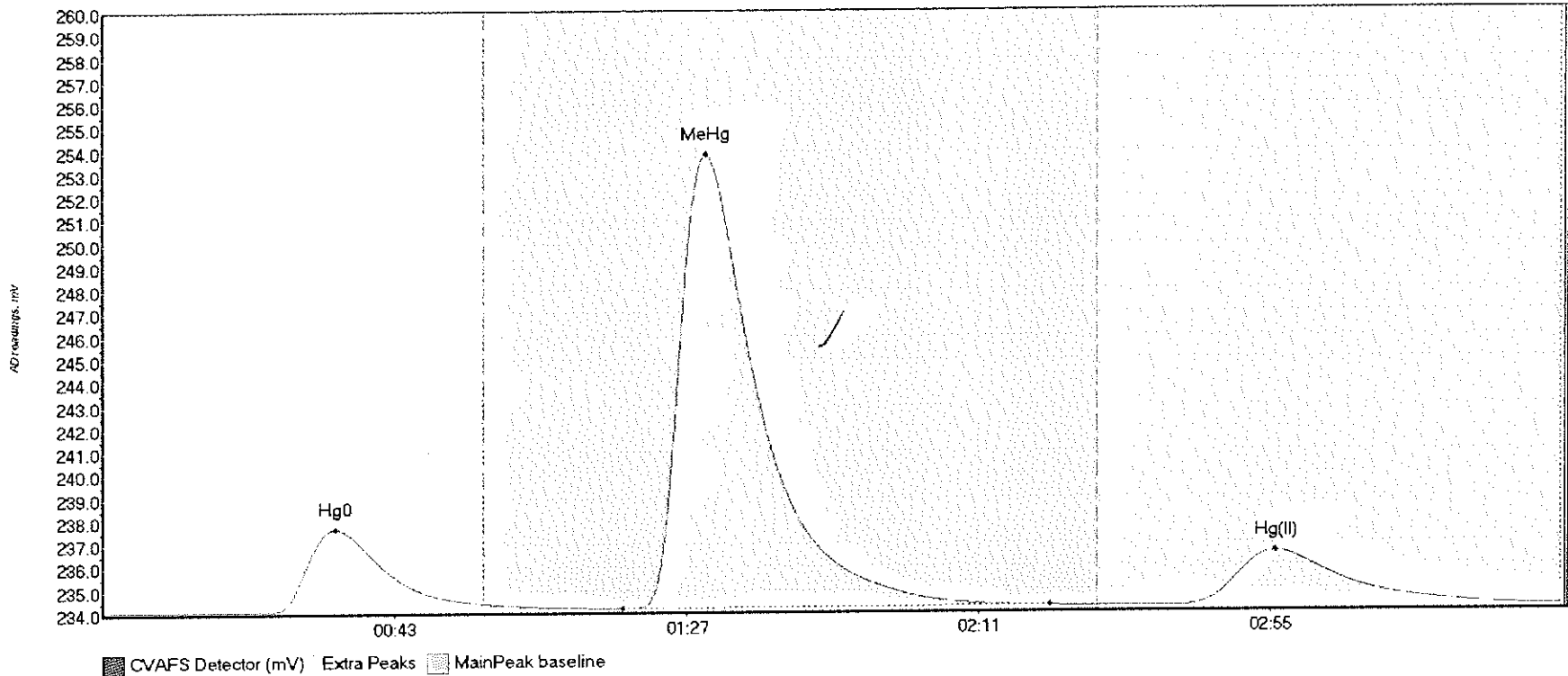
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	293.163	18.9	57.5	234.10	234.29	34.3	2.421	CT	234.0987	0.00	0.05	
SEQ-CAL3 MeHg	618.714	79.6	132.1	234.17	234.18	90.8	4.498	OK	234.0987	0.00	0.05	
SEQ-CAL3 Hg(II)	149.527	161.5	216.2	234.15	234.16	176.5	0.797	OK	234.0987	0.00	0.05	

#7: SEQ-CAL4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	407.359	19.2	57.5	234.12	234.39	35.3	3.262	CT	234.1137	0.00	0.07	
SEQ-CAL4 MeHg	1139.779	80.0	137.3	234.19	234.21	91.0	8.234	OK	234.1137	0.00	0.07	
SEQ-CAL4 Hg(II)	224.334	161.5	215.5	234.19	234.20	177.2	1.223	OK	234.1137	0.00	0.07	

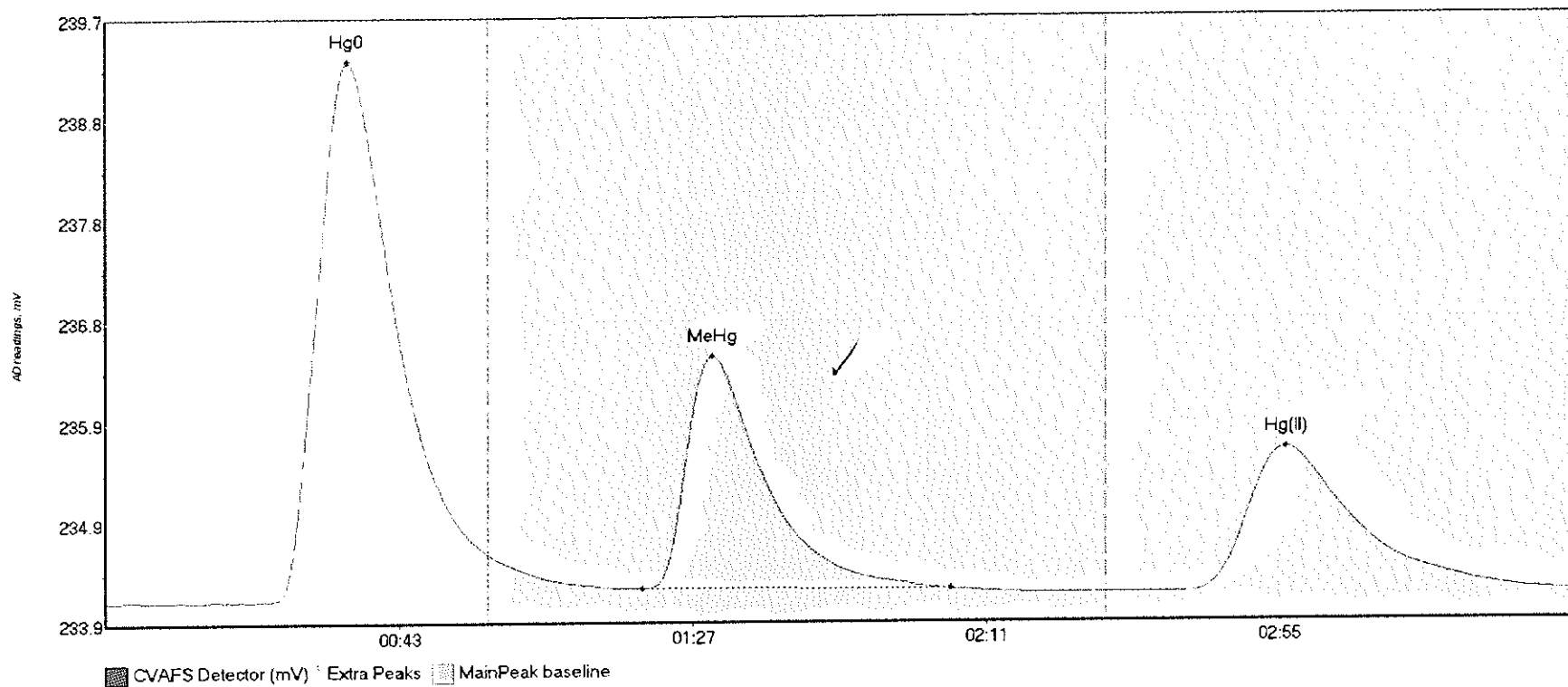
#8 SEQ-CAL5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CAL5 Hg0	427.074	9.8	57.5	234.12	234.41	35.1	3.567	CT	234.1148	0.00	0.12	
SEQ-CAL5 MeHg	2712.821	78.3	142.8	234.20	234.27	90.9	19.602	OK	234.1148	0.00	0.12	
SEQ-CAL5 Hg(II)	434.392	160.6	216.4	234.24	234.24	176.9	2.341	OK	234.1148	0.00	0.12	

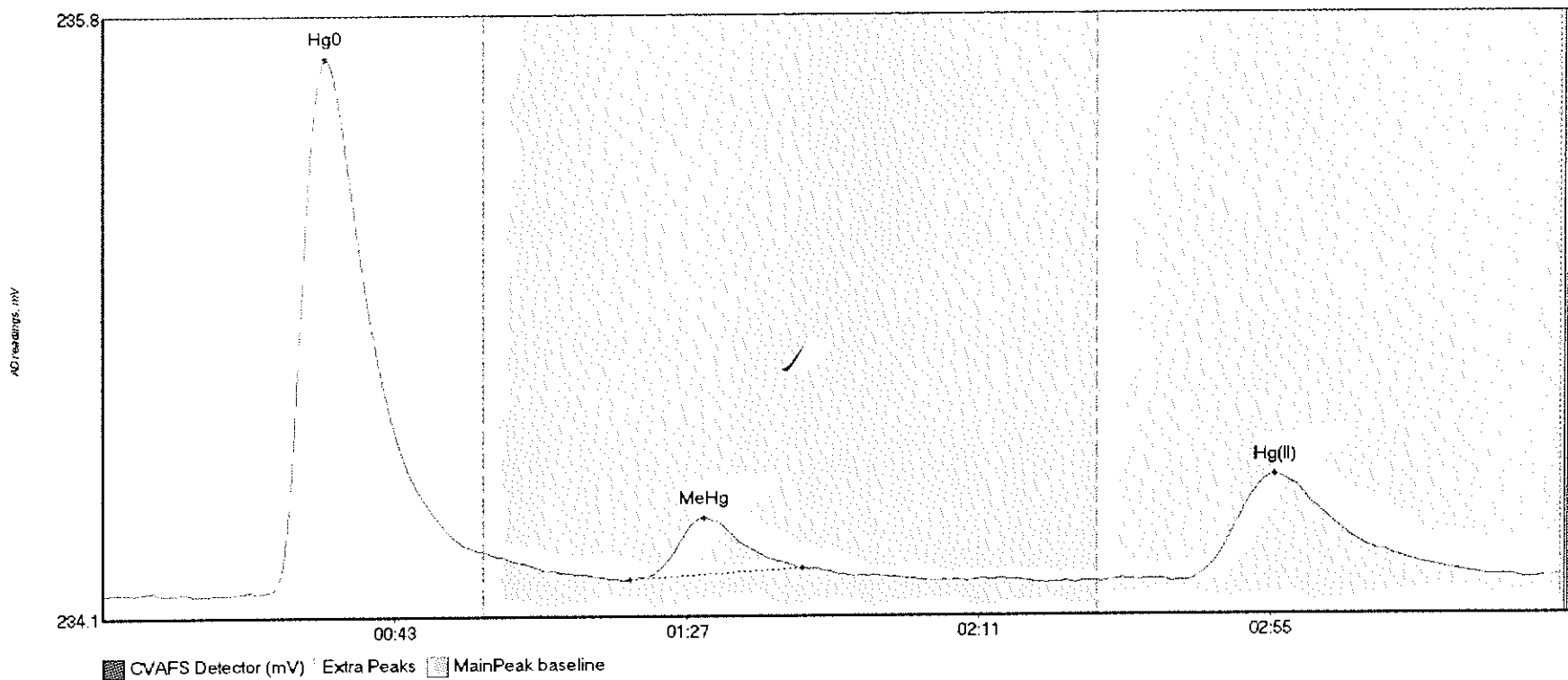


#9: SEQ-ICV1



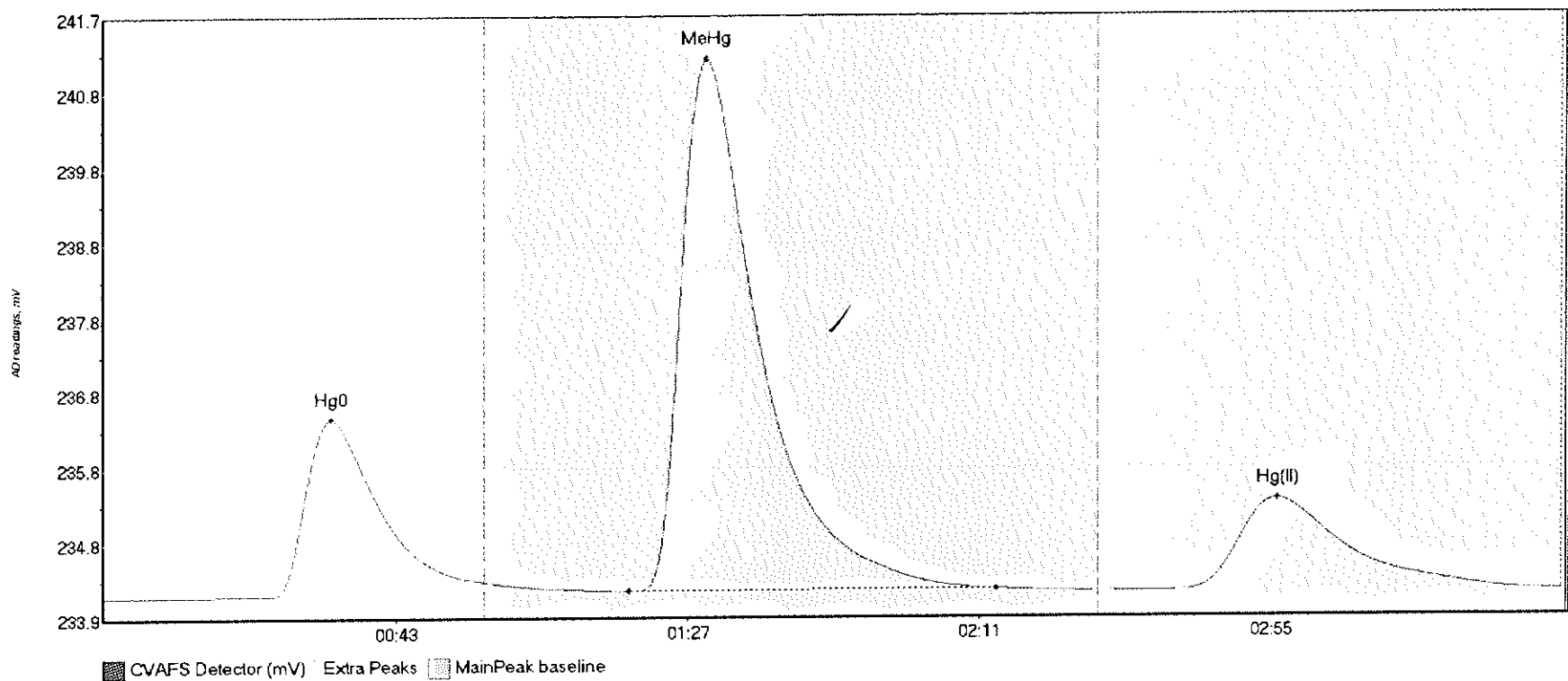
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-ICV1 Hg0	647.227	21.6	57.5	234.13	234.57	36.2	5.174	CT	234.1294	0.00	0.07	
SEQ-ICV1 MeHg	299.624	80.4	126.7	234.25	234.24	91.0	2.227	OK	234.1294	0.00	0.07	
SEQ-ICV1 Hg(II)	258.406	161.0	219.7	234.20	234.20	177.1	1.384	OK	234.1294	0.00	0.07	

#10: SEQ-ICB1



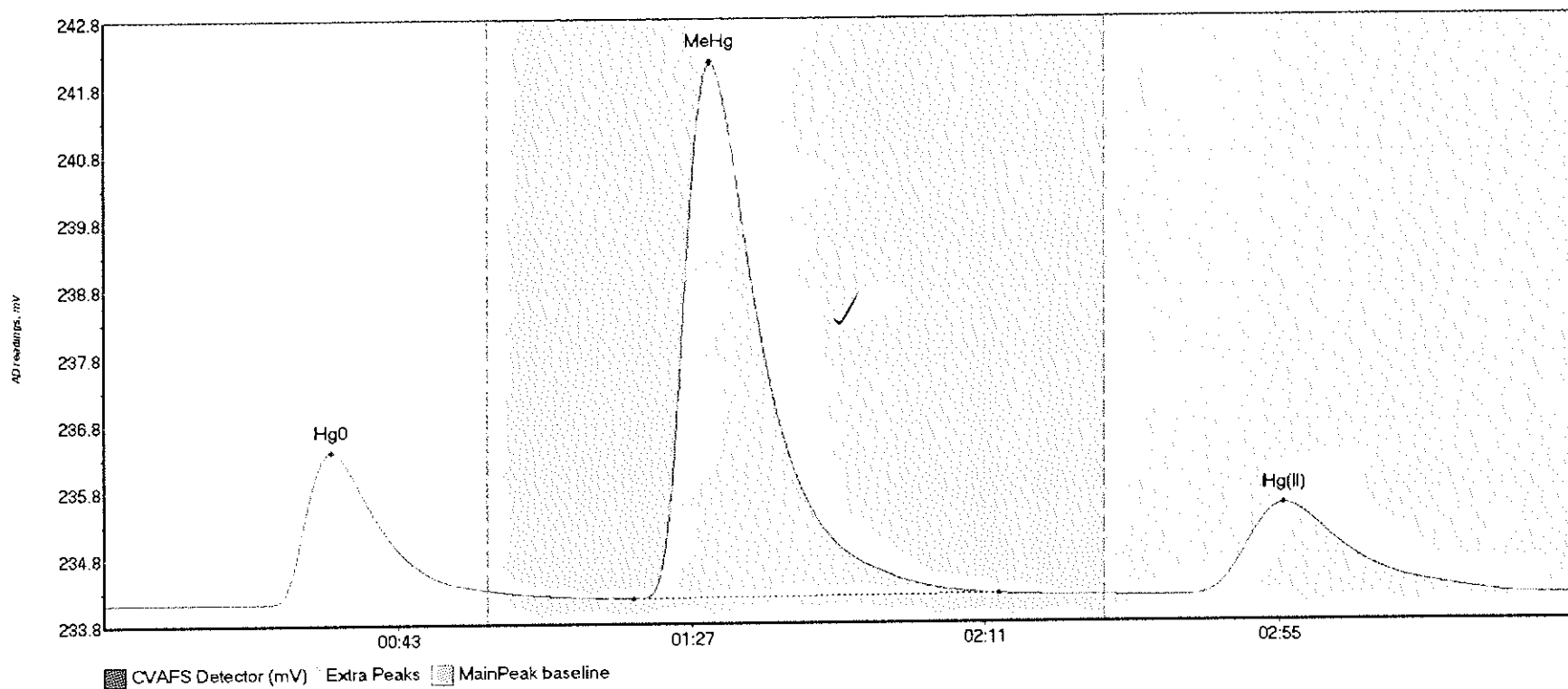
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-ICB1 Hg0	179.145	23.5	57.5	234.14	234.26	33.5	1.578	CT	234.1397	0.00	0.05	
SEQ-ICB1 MeHg	18.760	79.5	105.4	234.18	234.21	90.6	0.183	OK	234.1397	0.00	0.05	
SEQ-ICB1 Hg(II)	57.972	163.1	215.1	234.17	234.18	176.7	0.312	OK	234.1397	0.00	0.05	

#11: F610408-BS1



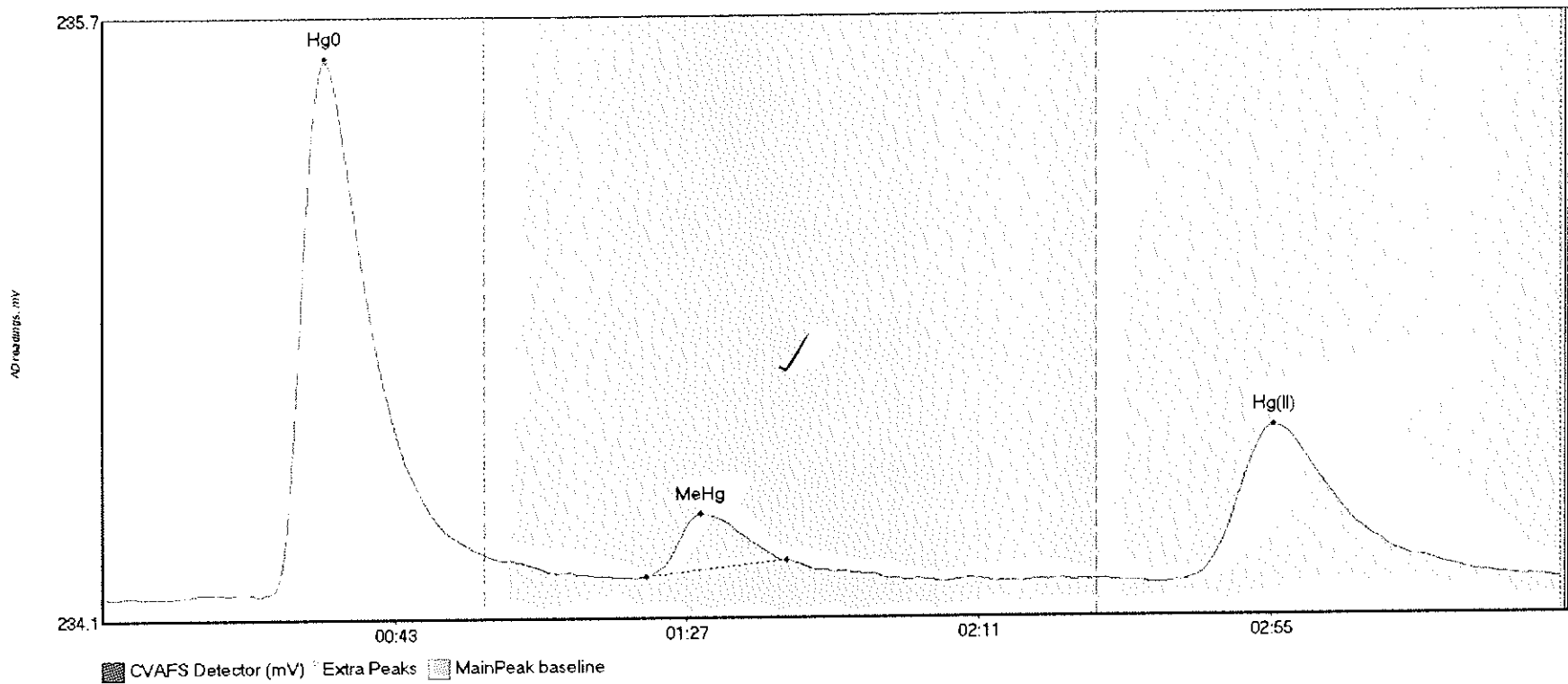
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BS1 Hg0	271.453	14.9	57.5	234.14	234.33	34.3	2.334	CT	234.1385	0.00	0.05	
F610408-BS1 MeH	955.342	79.1	134.6	234.21	234.22	90.9	6.967	OK	234.1385	0.00	0.05	
F610408-BS1 Hg(I)	222.124	162.6	215.6	234.20	234.20	177.0	1.195	OK	234.1385	0.00	0.05	

#12: F610408-BSD1



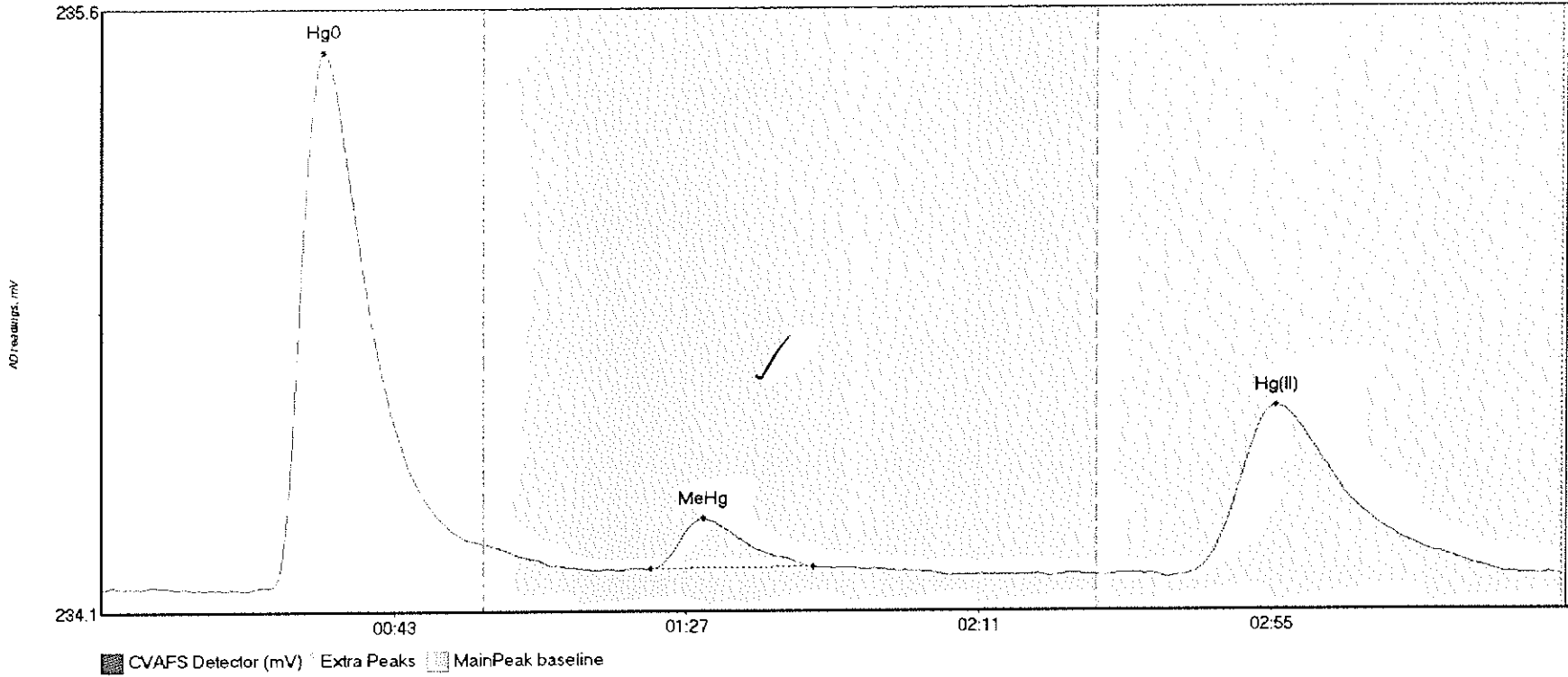
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BSD1 Hg	270.558	24.4	57.5	234.13	234.31	34.0	2.263	CT	234.1267	0.00	0.06	
F610408-BSD1 Me	1084.610	79.3	134.1	234.18	234.23	90.8	7.992	OK	234.1267	0.00	0.06	
F610408-BSD1 Hg	246.332	161.1	215.6	234.19	234.19	176.8	1.358	OK	234.1267	0.00	0.06	

#13: F610408-BLK1



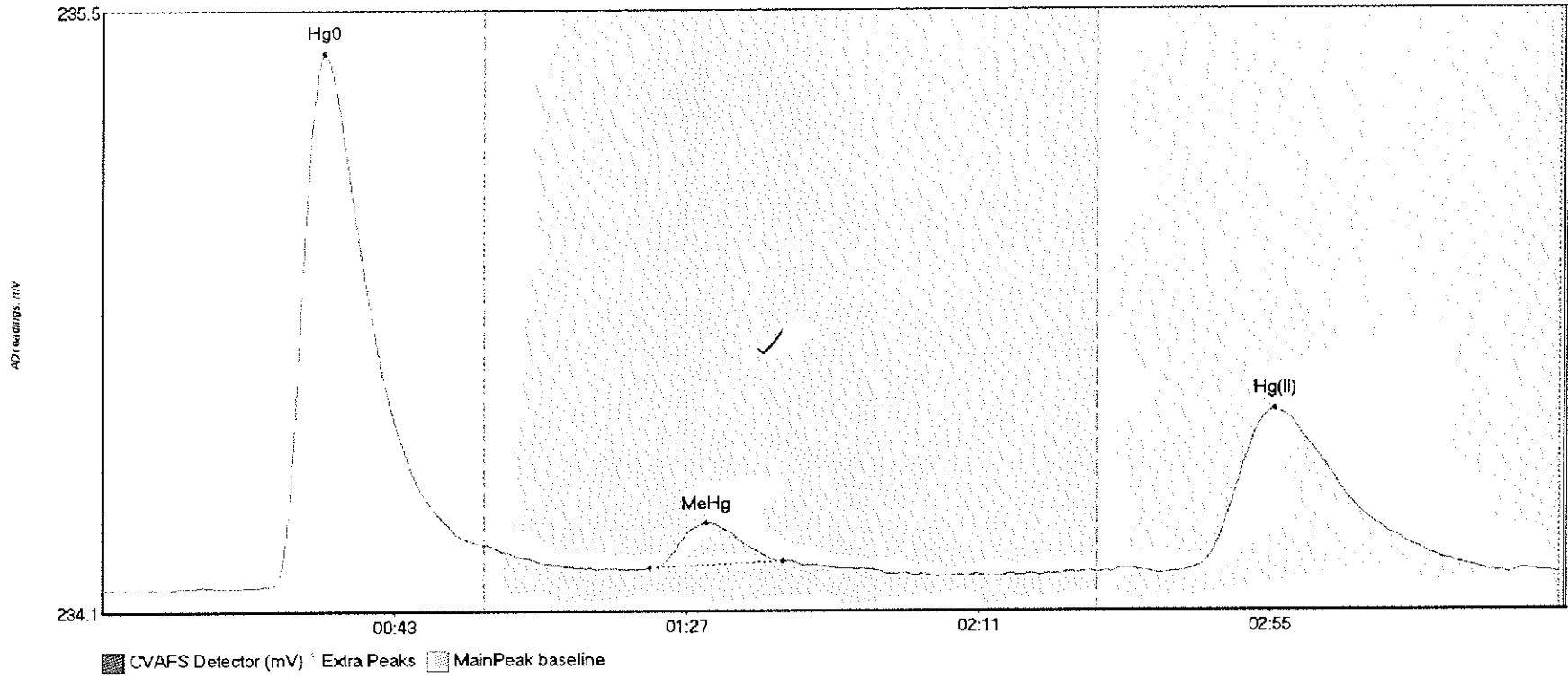
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK1 Hg	168.033	23.5	57.5	234.12	234.23	33.4	1.474	CT	234.1198	0.00	0.04	
F610408-BLK1 Me	16.249	82.0	103.0	234.17	234.21	90.1	0.172	OK	234.1198	0.00	0.04	
F610408-BLK1 Hg	75.448	162.6	214.3	234.15	234.16	176.5	0.425	OK	234.1198	0.00	0.04	

#14: F610408-BLK2



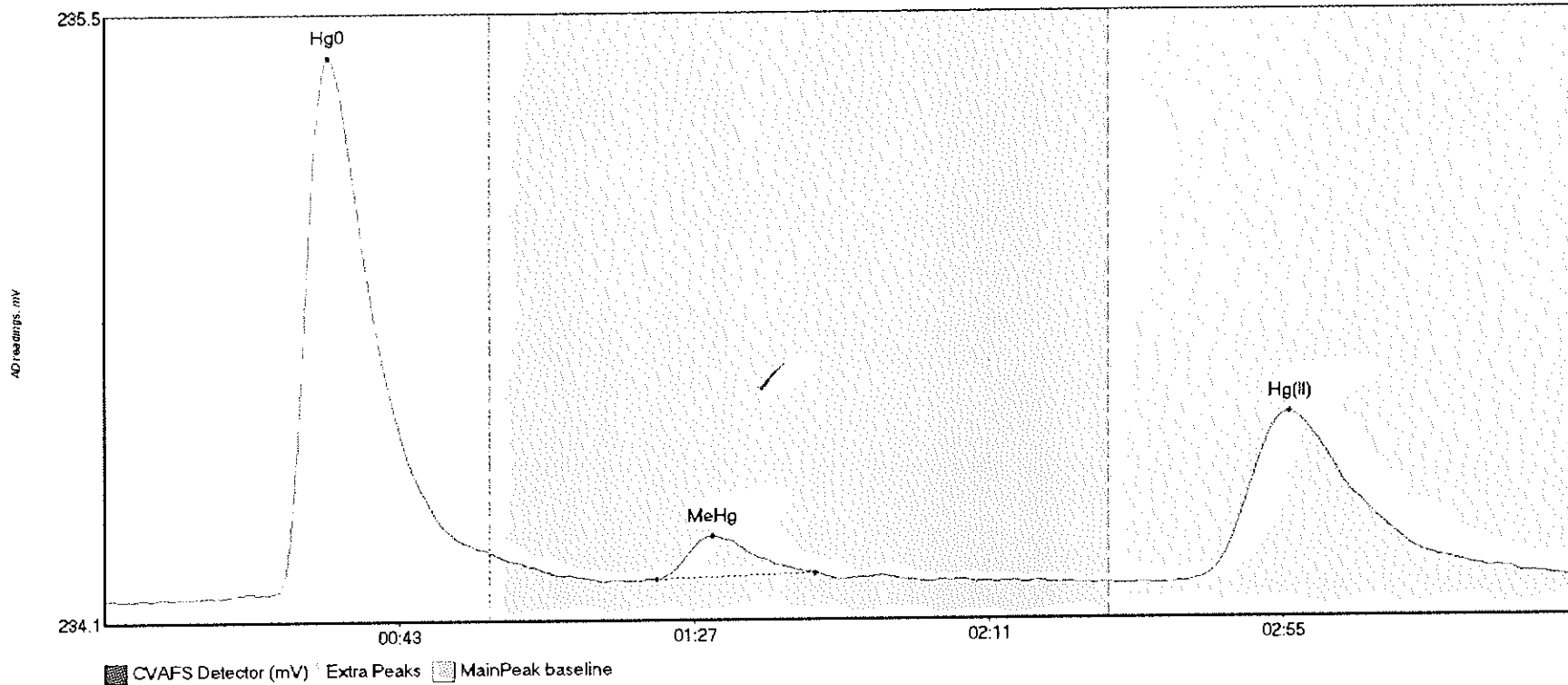
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK2 Hg	158.910	25.1	57.5	234.12	234.23	33.5	1.414	CT	234.1180	0.00	0.03	
F610408-BLK2 Me	14.552	82.7	107.0	234.17	234.17	90.6	0.133	OK	234.1180	0.00	0.03	
F610408-BLK2 Hg	82.920	161.8	211.1	234.15	234.15	176.7	0.450	OK	234.1180	0.00	0.03	

#15: F610408-BLK3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK3 Hg	147.314	23.2	57.5	234.12	234.22	33.5	1.314	CP	234.1146	0.00	0.04	
F610408-BLK3 Me	10.486	82.5	102.6	234.16	234.18	91.0	0.112	OK	234.1146	0.00	0.04	
F610408-BLK3 Hg	73.146	160.9	209.9	234.15	234.16	176.7	0.400	OK	234.1146	0.00	0.04	

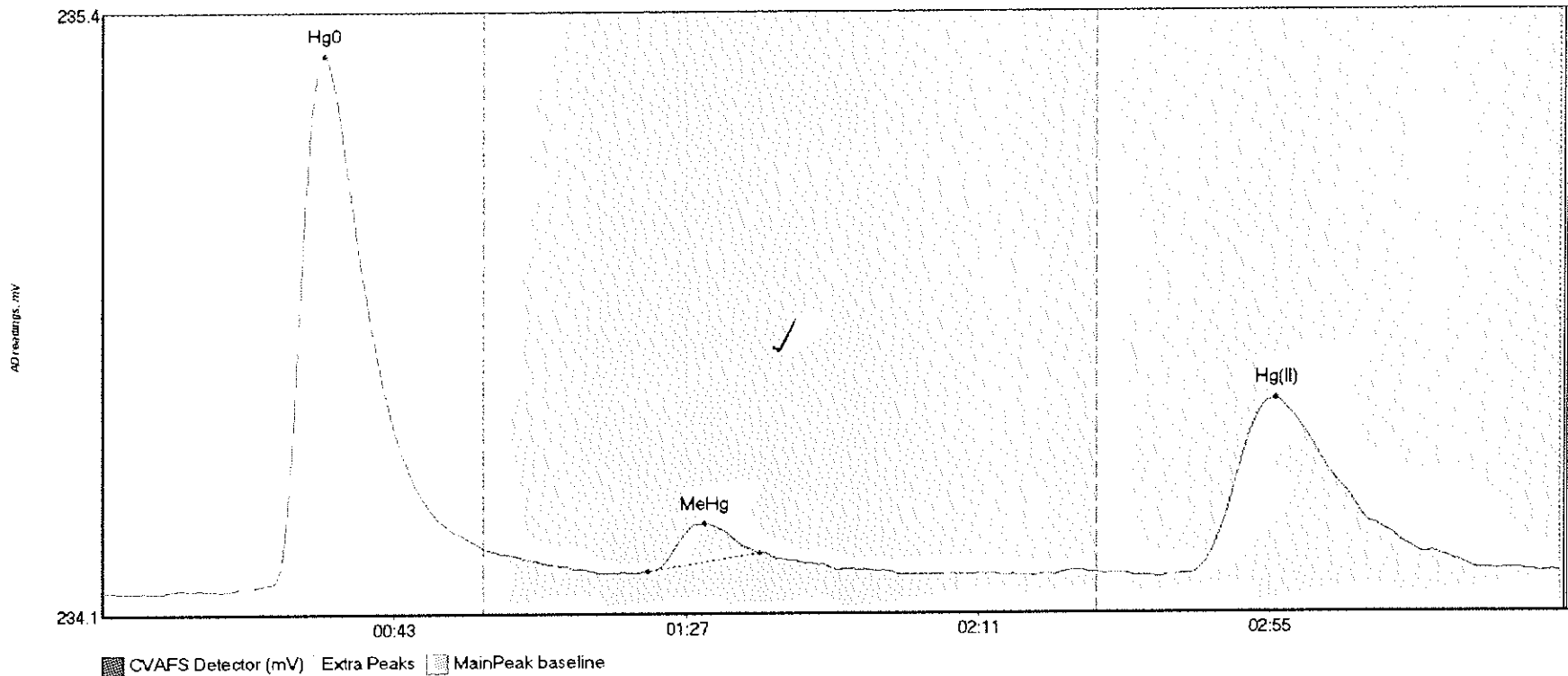
#16: \*F610408-BLK4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK4 H	141.770	17.5	57.5	234.12	234.22	33.5	1.284	CT	234.1129	0.00	0.04	
*F610408-BLK4 M	10.994	82.3	106.2	234.15	234.17	90.8	0.104	OK	234.1129	0.00	0.04	
*F610408-BLK4 H	75.685	162.0	219.0	234.15	234.15	177.0	0.400	OK	234.1129	0.00	0.04	

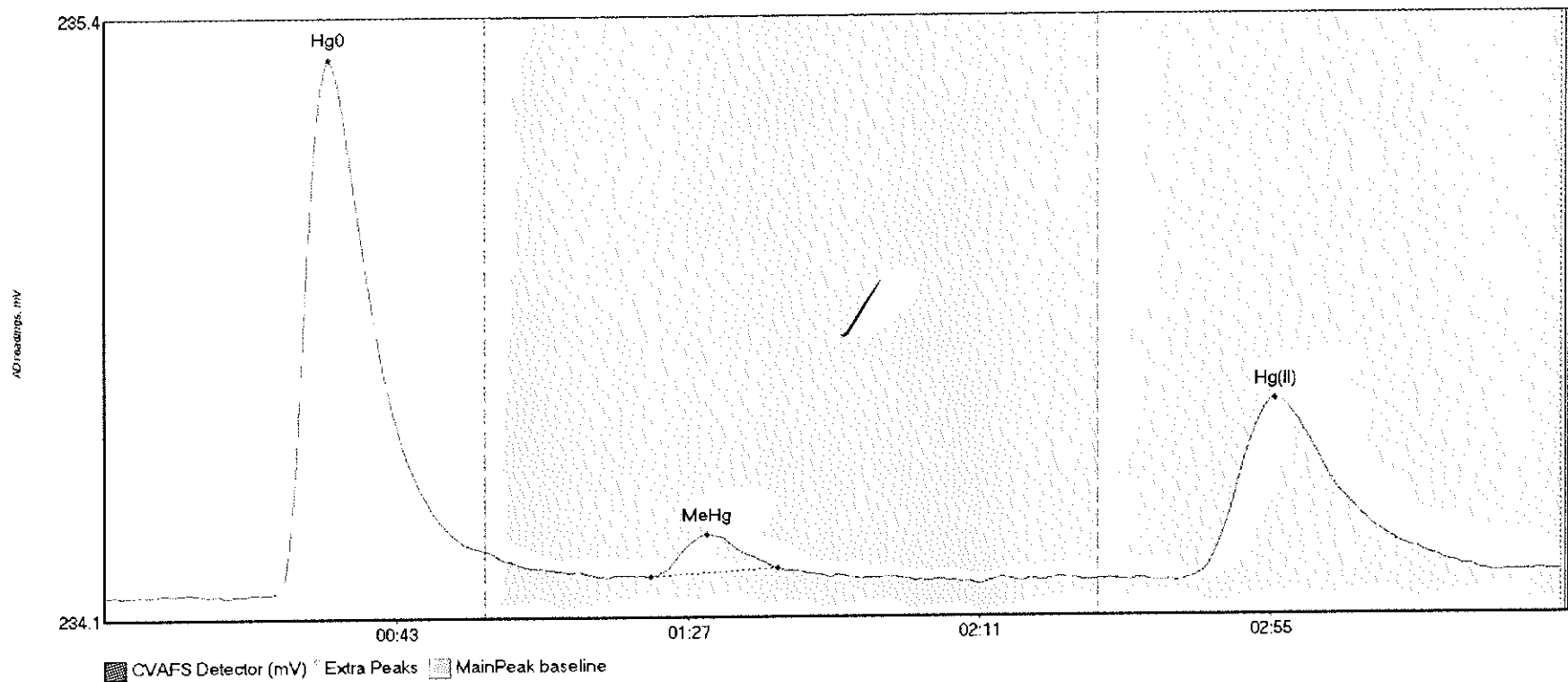


#17: \*F610408-BLK5



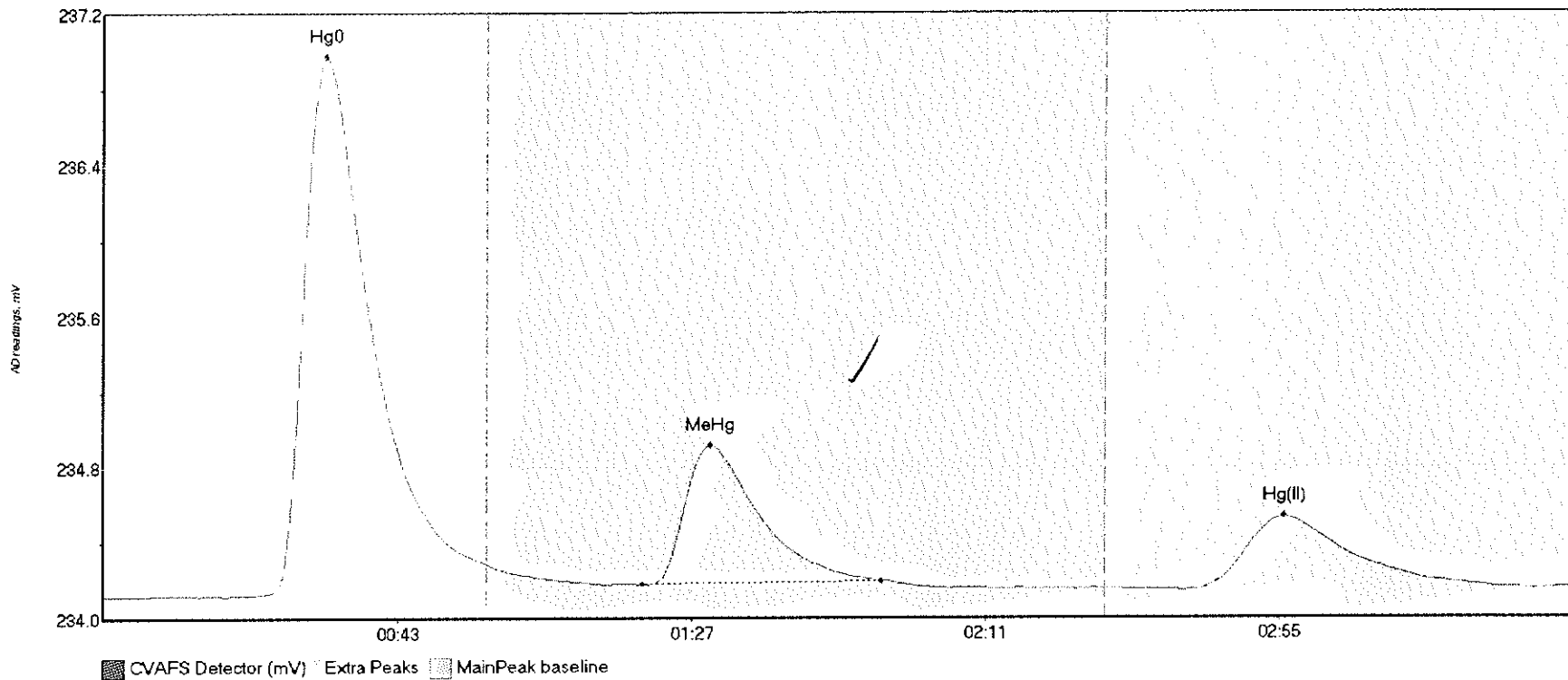
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK5 H	131.278	19.1	57.5	234.11	234.20	33.4	1.160	CT	234.1108	0.00	0.04	
*F610408-BLK5 M	7.328	82.2	99.0	234.15	234.19	90.8	0.104	OK	234.1108	0.00	0.04	
*F610408-BLK5 H	67.884	164.0	214.7	234.15	234.15	177.1	0.380	OK	234.1108	0.00	0.04	

#18: \*F610408-BLK6



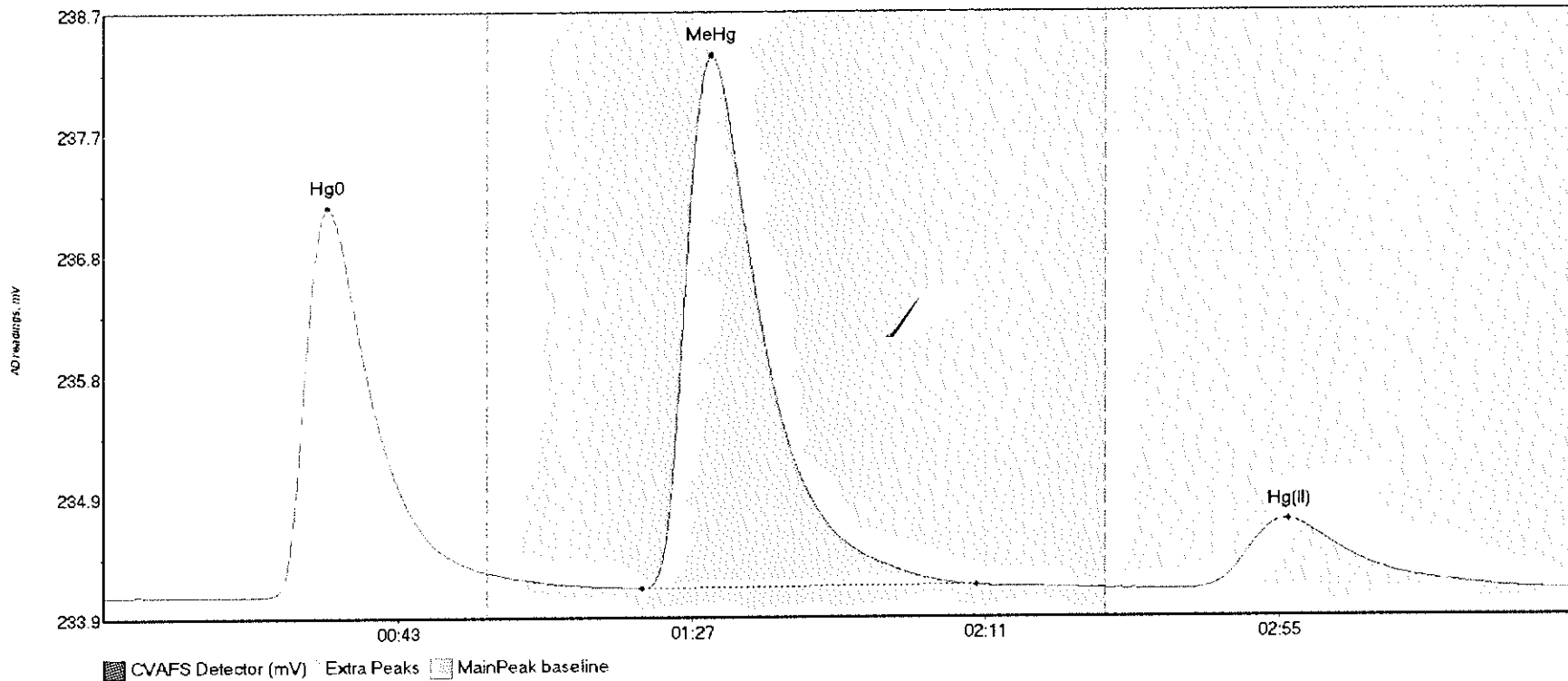
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK6 H	134.976	25.2	57.5	234.12	234.21	33.7	1.195	CT	234.1142	0.00	0.05	
*F610408-BLK6 M	8.470	82.3	101.6	234.15	234.17	90.9	0.094	OK	234.1142	0.00	0.05	
*F610408-BLK6 H	71.025	161.6	210.4	234.14	234.16	176.8	0.407	OK	234.1142	0.00	0.05	

#19: F610408-DUP1



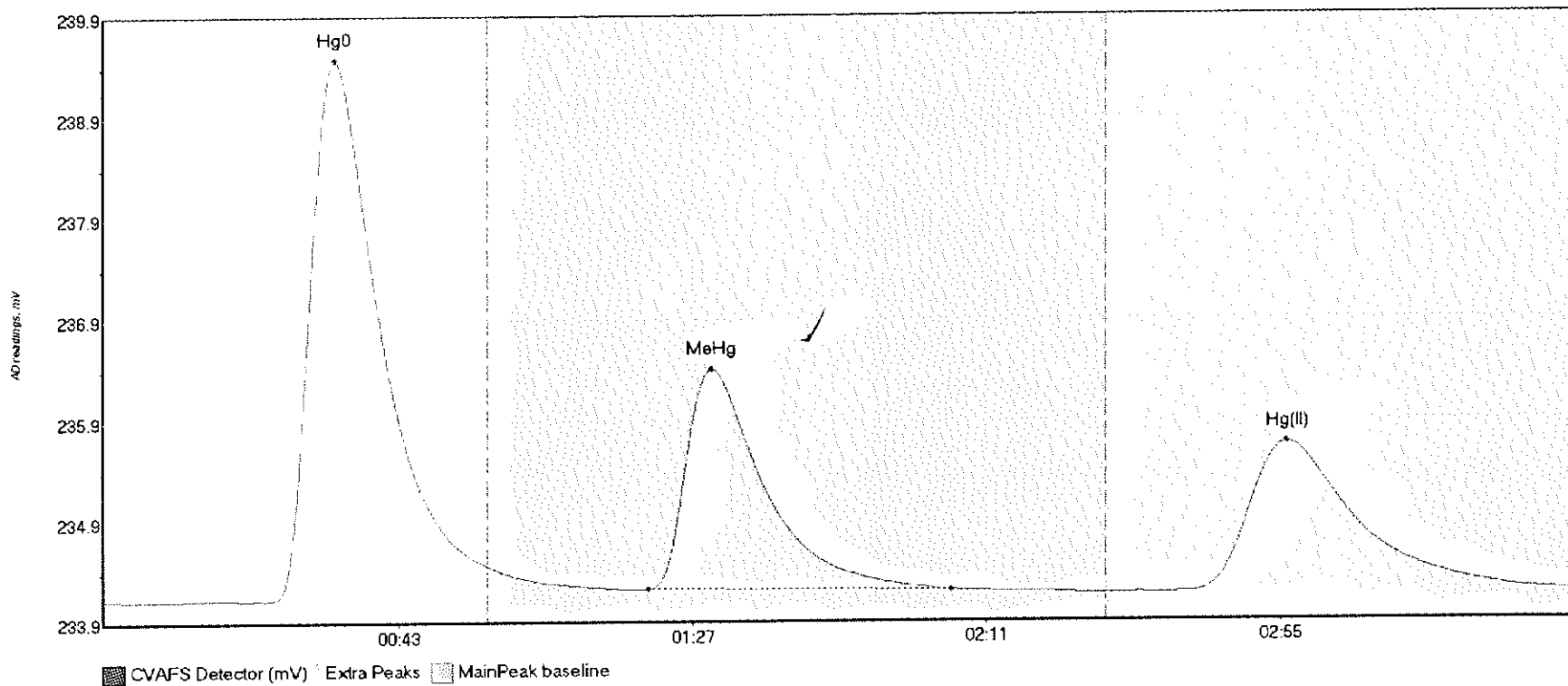
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-DUP1 Hg	311.572	21.7	57.5	234.12	234.28	33.2	2.814	CT	234.1156	0.00	0.04	
F610408-DUP1 Me	92.261	80.6	116.4	234.17	234.19	90.8	0.731	OK	234.1156	0.00	0.04	
F610408-DUP1 Hg	68.643	162.7	213.5	234.15	234.15	176.8	0.360	OK	234.1156	0.00	0.04	

#20: F610408-MS1



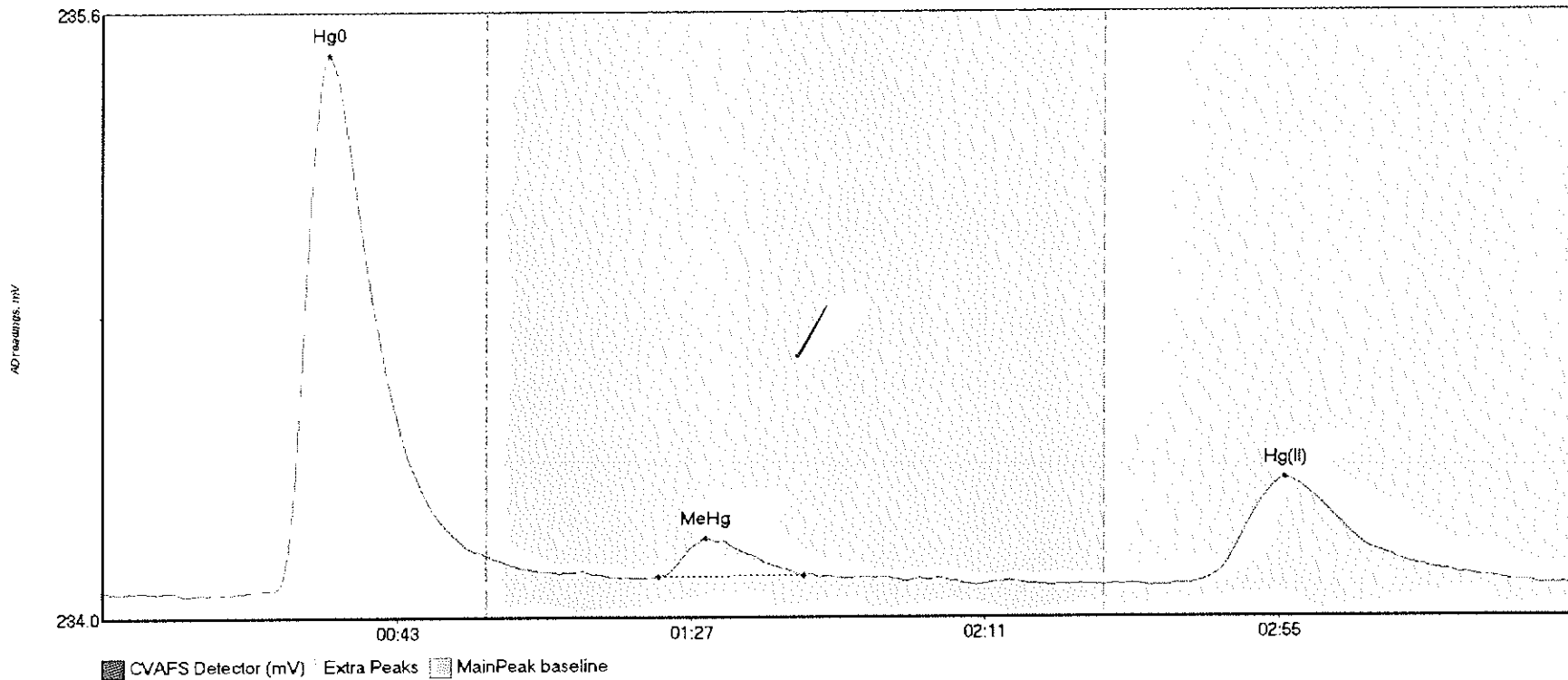
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-MS1 Hg0	337.463	23.7	57.5	234.11	234.30	33.5	3.036	CT	234.1108	0.00	0.04	
F610408-MS1 MeH	561.134	80.6	130.7	234.17	234.19	90.9	4.157	OK	234.1108	0.00	0.04	
F610408-MS1 Hg(I	95.836	163.1	210.6	234.16	234.16	177.4	0.535	OK	234.1108	0.00	0.04	

#21: SEQ-CCV1



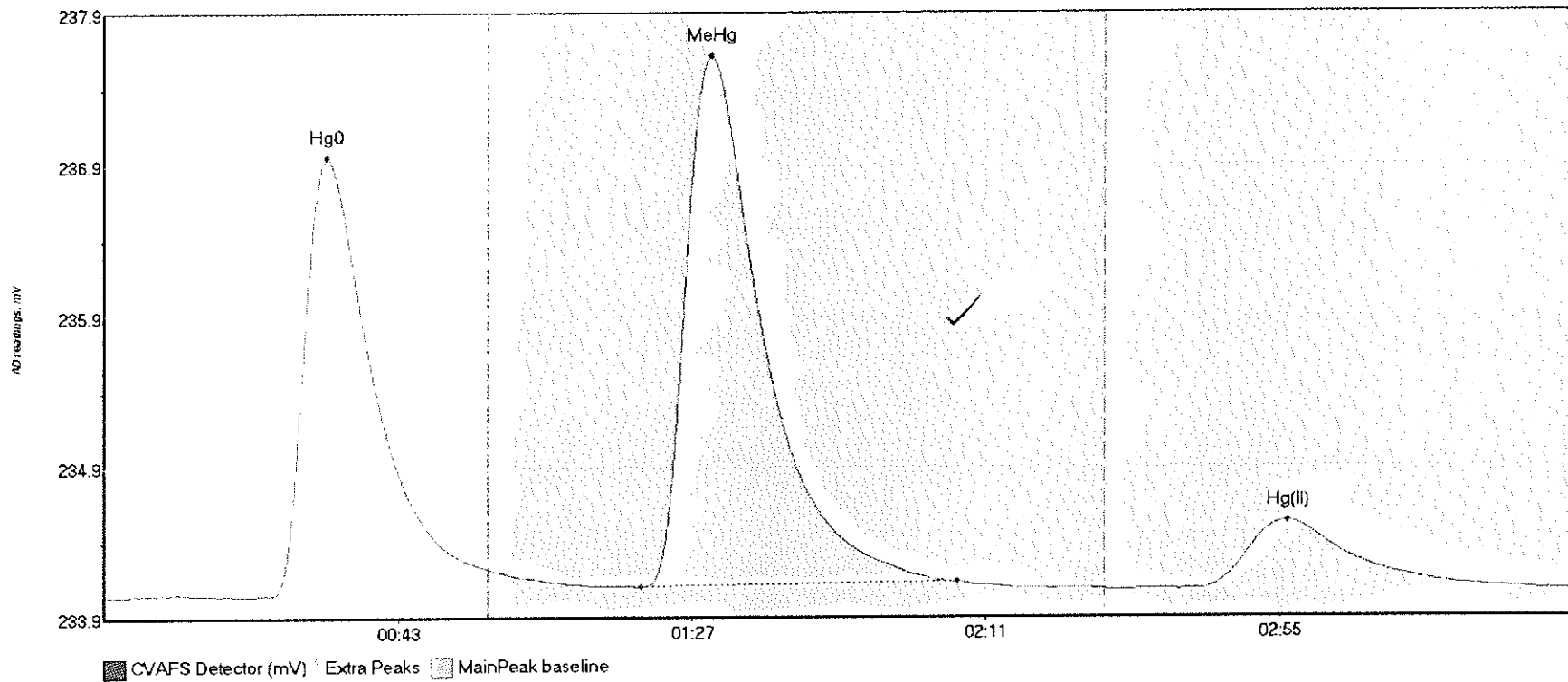
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	611.532	24.2	57.5	234.10	234.43	34.4	5.323	CT	234.1055	0.00	0.07	
SEQ-CCV1 MeHg	292.173	81.4	126.9	234.21	234.19	90.9	2.174	OK	234.1055	0.00	0.07	
SEQ-CCV1 Hg(II)	271.390	162.0	219.8	234.16	234.17	177.0	1.475	CT	234.1055	0.00	0.07	

#22: SEQ-CCB1



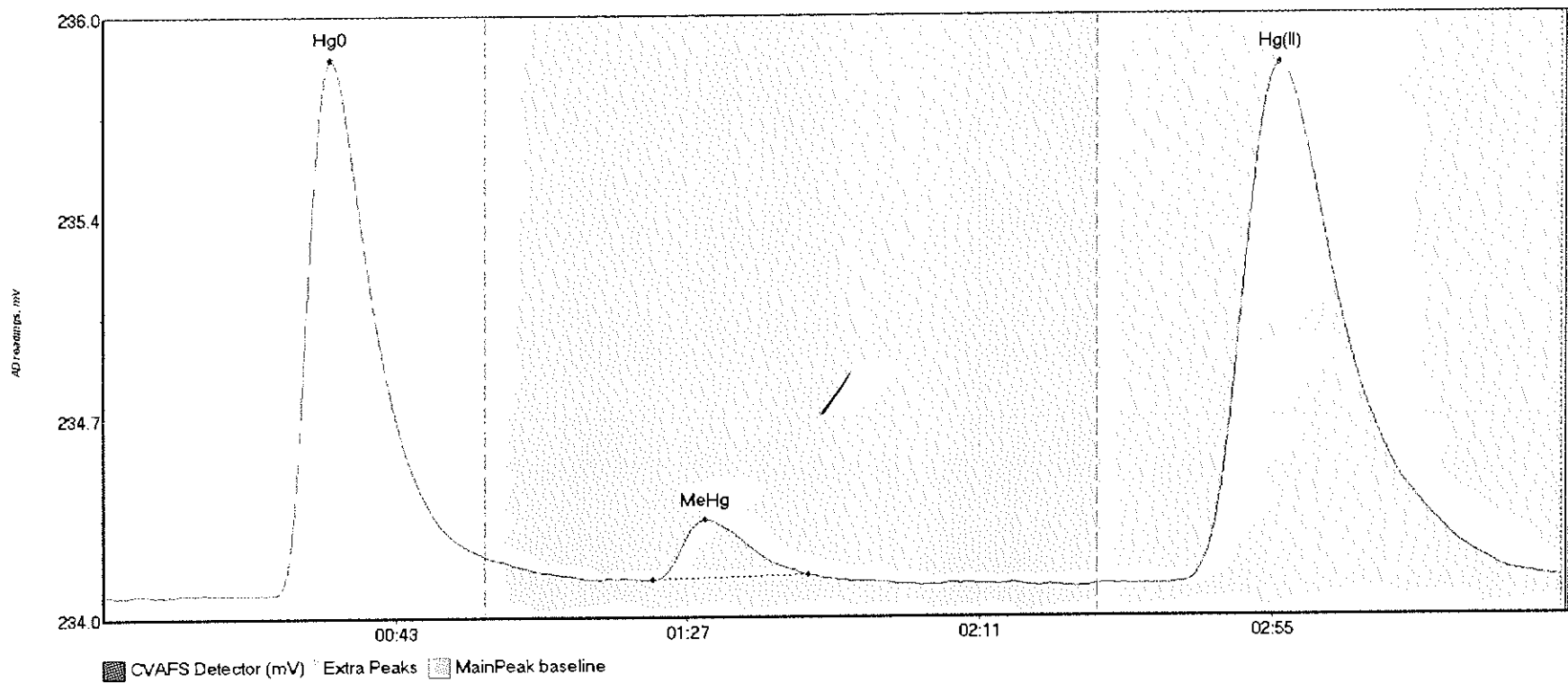
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg <sup>0</sup>	153.454	25.6	57.5	234.10	234.19	33.9	1.349	CT	234.1001	0.00	0.02	
SEQ-CCB1 MeHg	10.446	83.1	104.9	234.14	234.14	90.2	0.097	OK	234.1001	0.00	0.02	
SEQ-CCB1 Hg(II)	49.713	162.4	215.4	234.12	234.12	176.9	0.266	OK	234.1001	0.00	0.02	

#23: F610408-MSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-MSD1 Hg	324.189	21.1	57.5	234.08	234.25	33.3	2.898	CT	234.0803	0.00	0.04	
F610408-MSD1 Me	467.734	80.4	127.7	234.14	234.17	90.9	3.503	OK	234.0803	0.00	0.04	
F610408-MSD1 Hg	80.916	164.1	215.5	234.12	234.12	177.2	0.444	OK	234.0803	0.00	0.04	

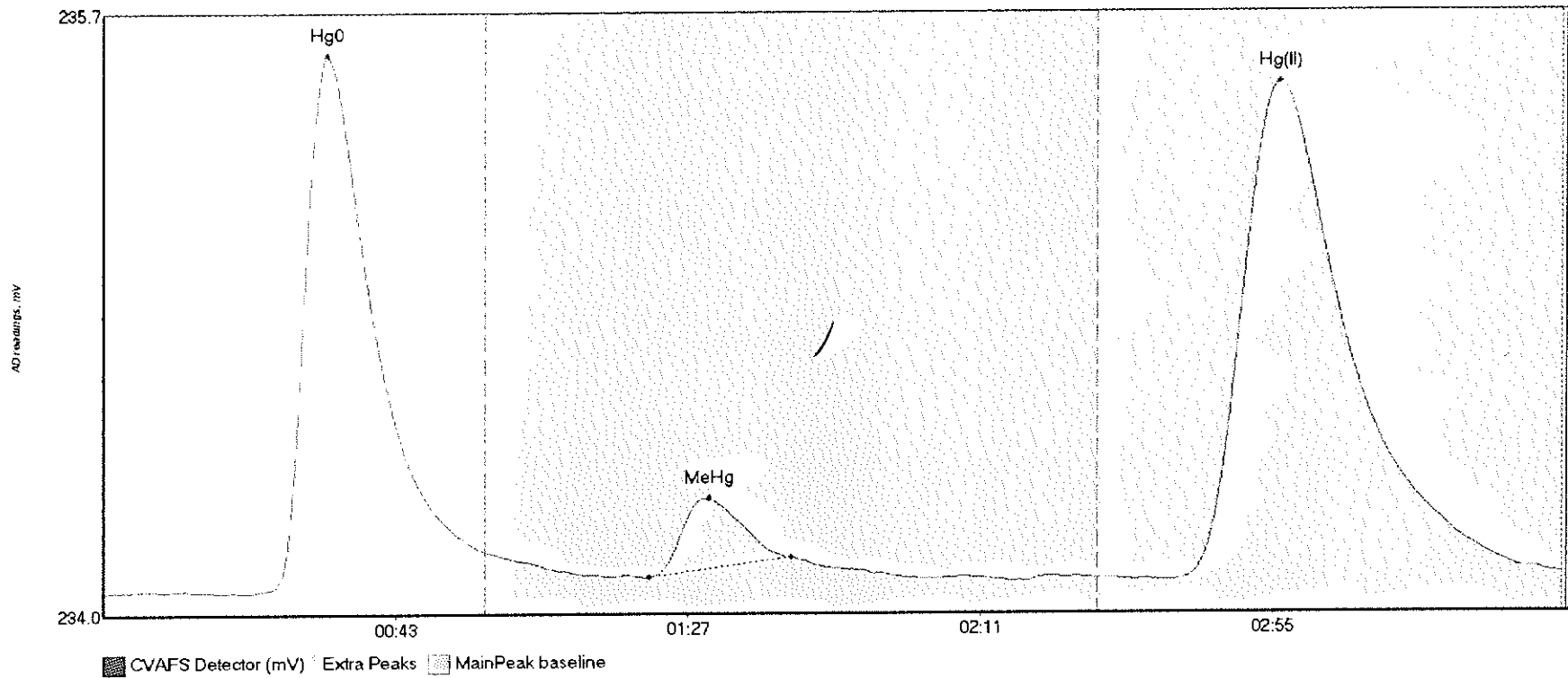
#24: 1610136-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	SlDev	SlShift	Comment
1610136-01 Hg0	201.679	23.5	57.5	234.08	234.21	34.2	1.811	CP	234.0746	0.00	0.05	
1610136-01 MeHg	21.811	82.9	106.2	234.12	234.14	90.8	0.205	OK	234.0746	0.00	0.05	
1610136-01 Hg(I)	320.739	160.0	219.8	234.11	234.13	177.2	1.759	CP	234.0746	0.00	0.05	

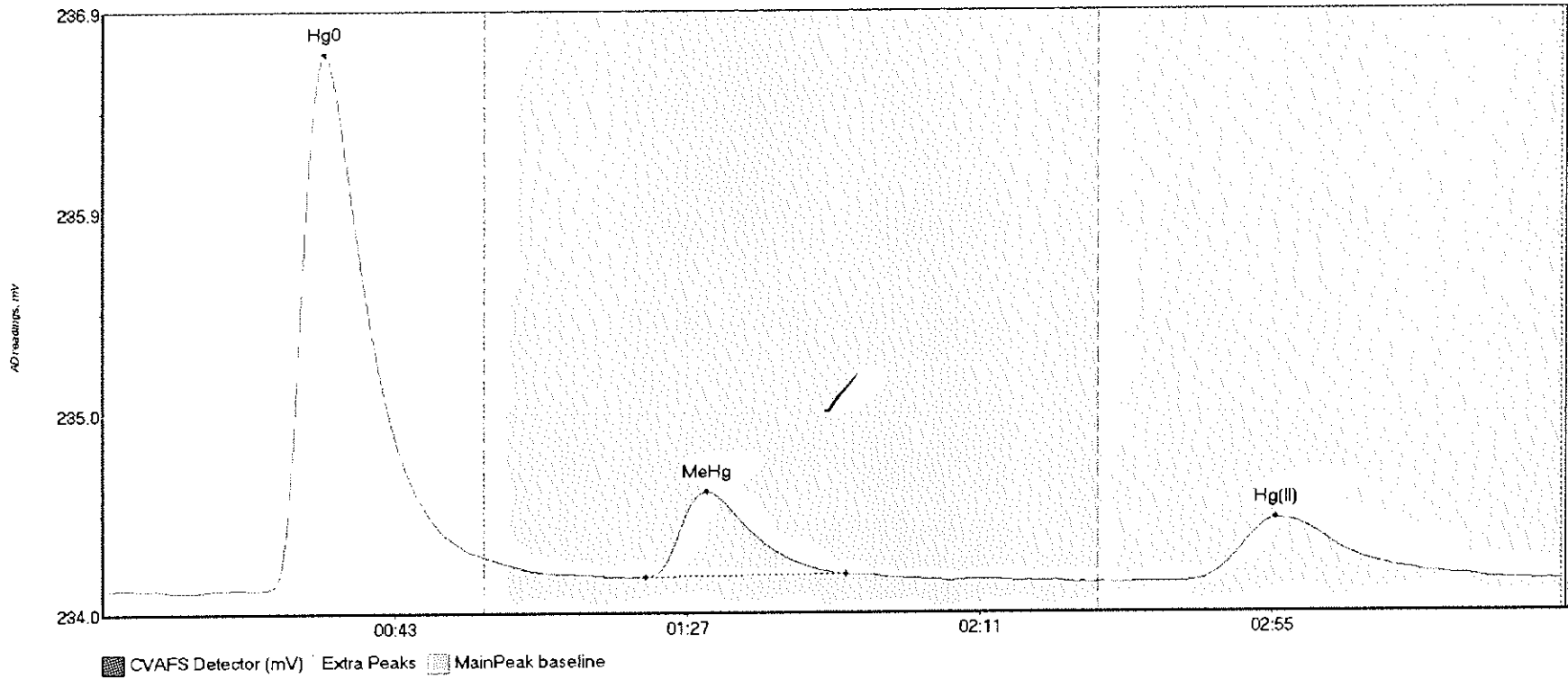


#25: 1610338-01



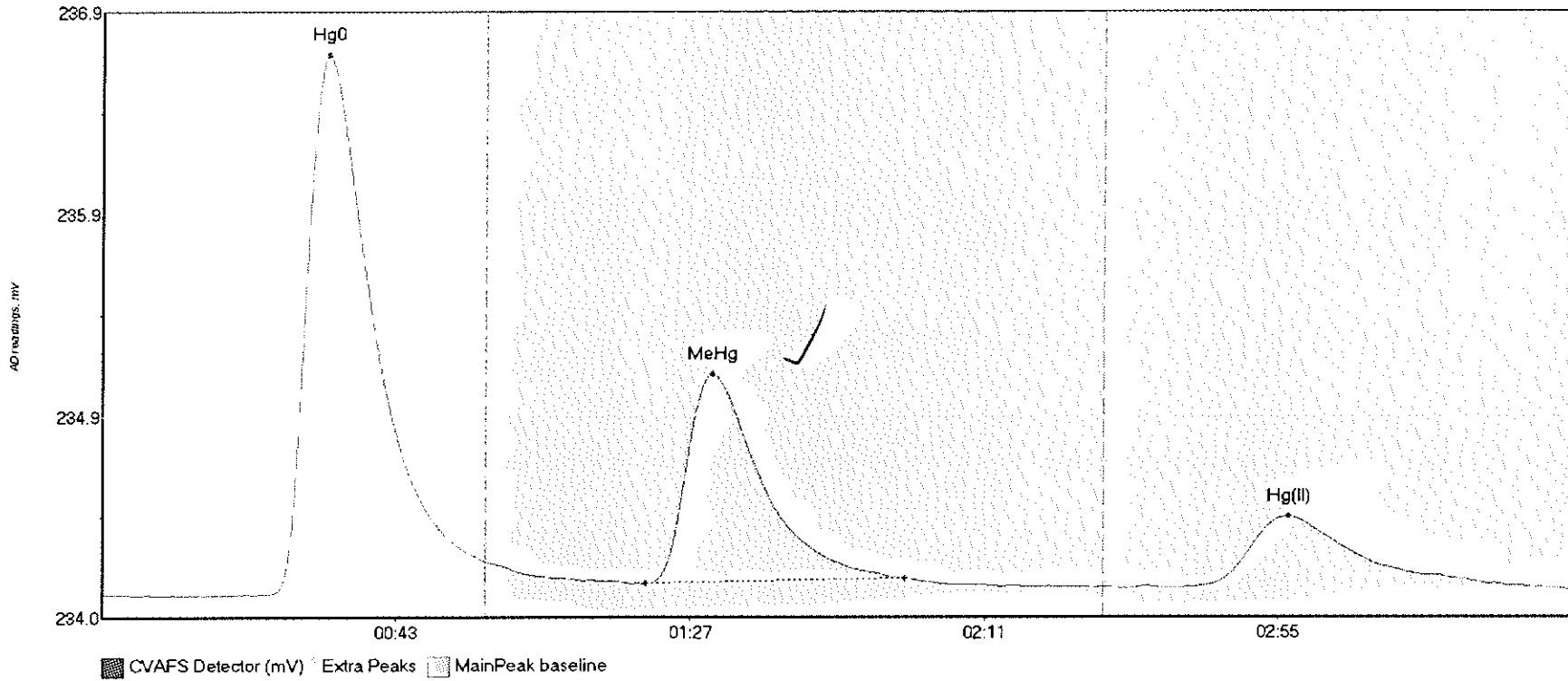
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610338-01 Hg0	171.112	23.1	57.5	234.07	234.18	33.7	1.525	CT	234.0659	0.00	0.05	
1610338-01 MeHg	20.403	82.2	103.6	234.11	234.16	91.3	0.225	OK	234.0659	0.00	0.05	
1610338-01 Hg(I)	260.575	161.0	219.8	234.10	234.12	177.2	1.418	CT	234.0659	0.00	0.05	

#26: 1610419-01



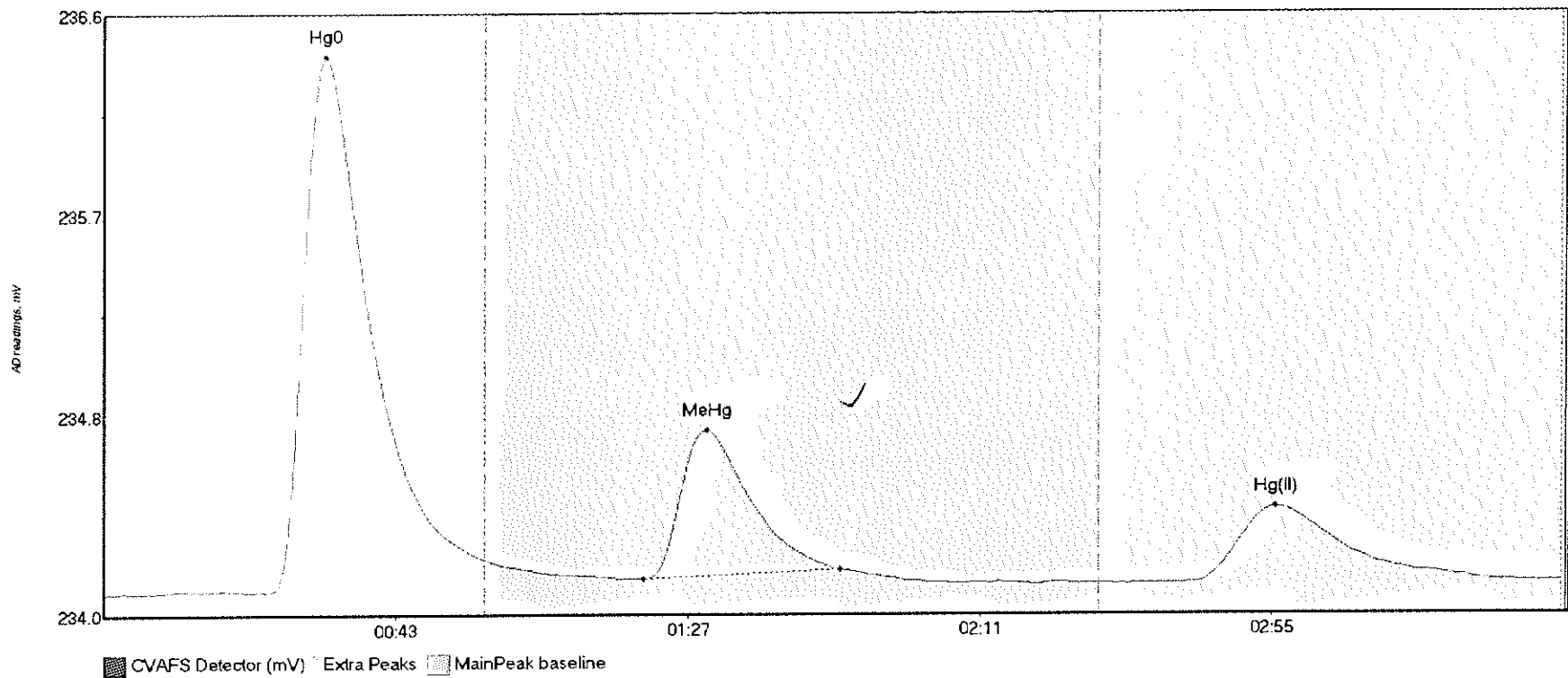
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-01 Hg0	296.313	23.5	57.5	234.07	234.23	33.5	2.662	CT	234.0697	0.00	0.04	
1610419-01 MeHg	52.057	81.7	111.9	234.13	234.14	91.0	0.429	OK	234.0697	0.00	0.04	
1610419-01 Hg(I)	58.571	162.6	216.9	234.10	234.11	176.6	0.314	OK	234.0697	0.00	0.04	

#27: 1610419-02



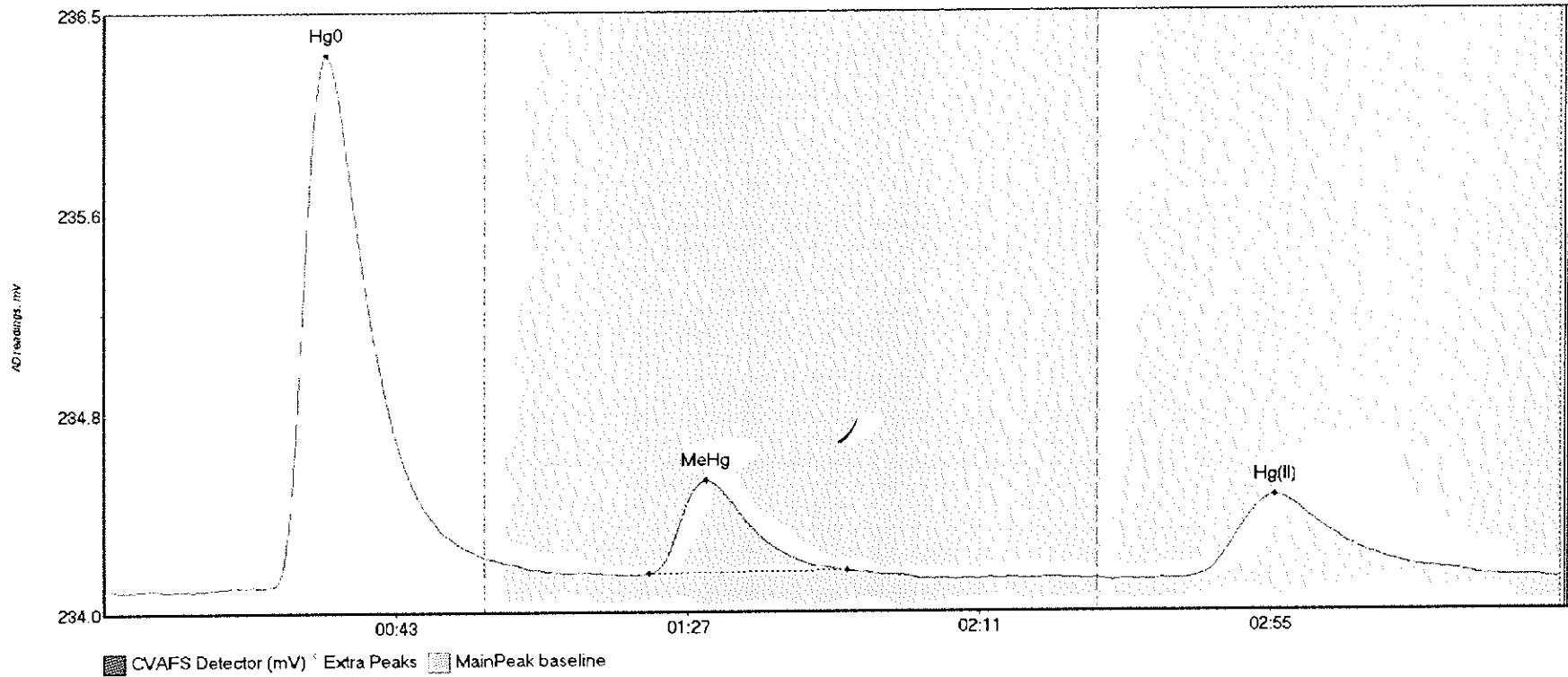
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-02 Hg0	287.610	24.6	57.5	234.08	234.24	33.9	2.590	CT	234.0800	0.00	0.02	
1610419-02 MeHg	129.961	81.3	120.2	234.13	234.15	91.3	1.008	OK	234.0800	0.00	0.02	
1610419-02 Hg(I	59.493	163.3	210.6	234.12	234.12	177.6	0.337	OK	234.0800	0.00	0.02	

#28: 1610419-03



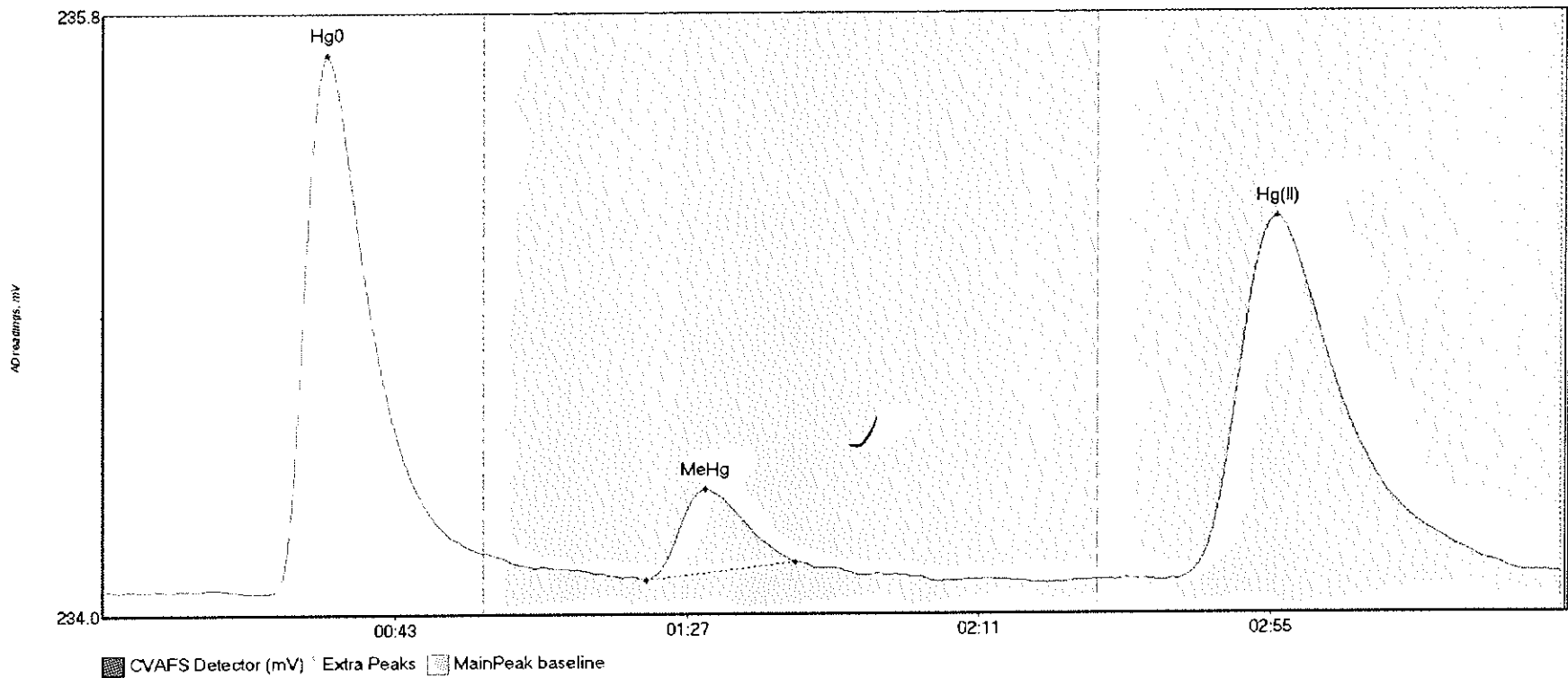
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-03 Hg0	252.358	7.4	57.5	234.07	234.21	33.4	2.328	CT	234.0693	0.00	0.05	
1610419-03 MeHg	76.289	81.3	111.0	234.13	234.17	90.9	0.649	OK	234.0693	0.00	0.05	
1610419-03 Hg(I)	58.692	164.1	216.7	234.12	234.12	176.6	0.325	OK	234.0693	0.00	0.05	

#29: 1610419-04



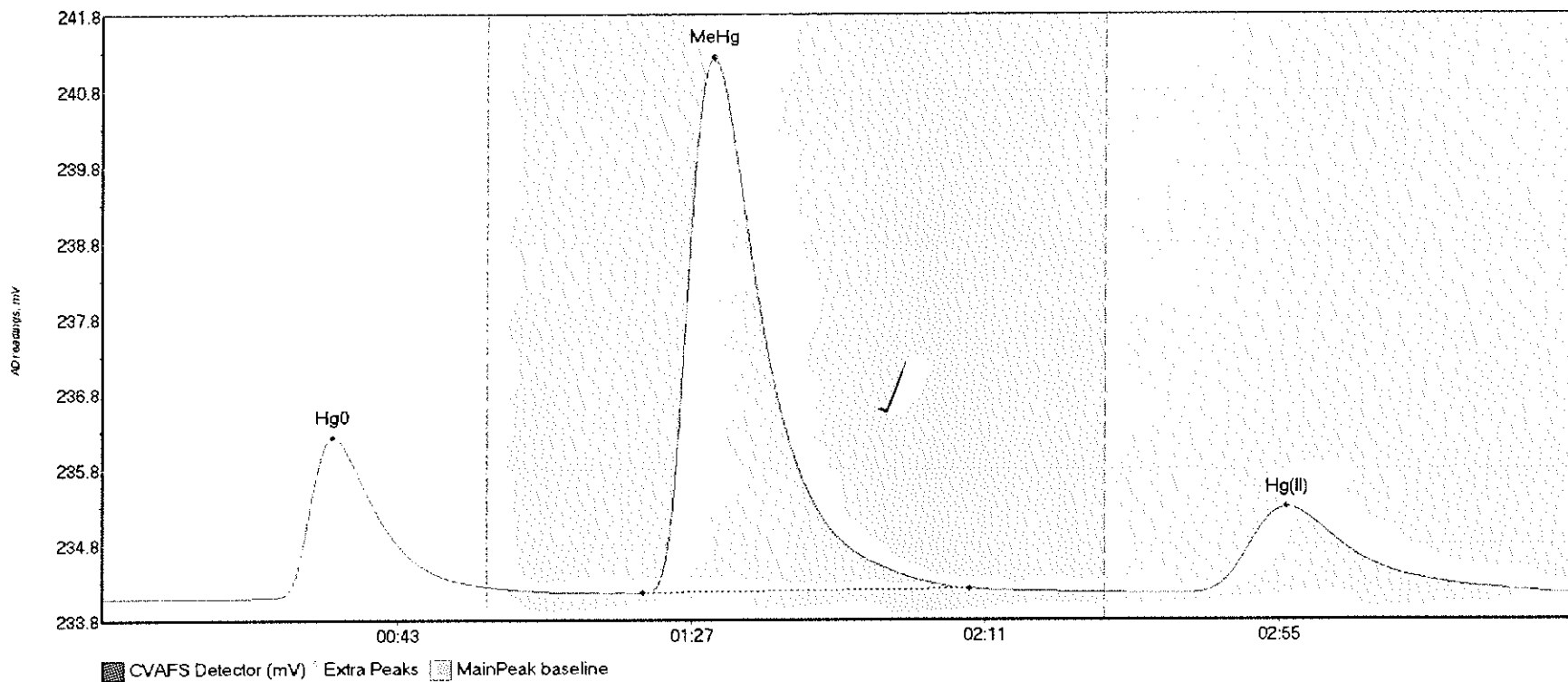
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-04 Hg0	244.366	17.1	57.5	234.08	234.21	33.5	2.218	CT	234.0801	0.00	0.03	
1610419-04 MeHg	45.925	82.1	112.2	234.14	234.15	90.8	0.390	OK	234.0801	0.00	0.03	
1610419-04 Hg(I	64.671	162.6	219.1	234.11	234.11	176.8	0.346	OK	234.0801	0.00	0.03	

#30: 1610509-01



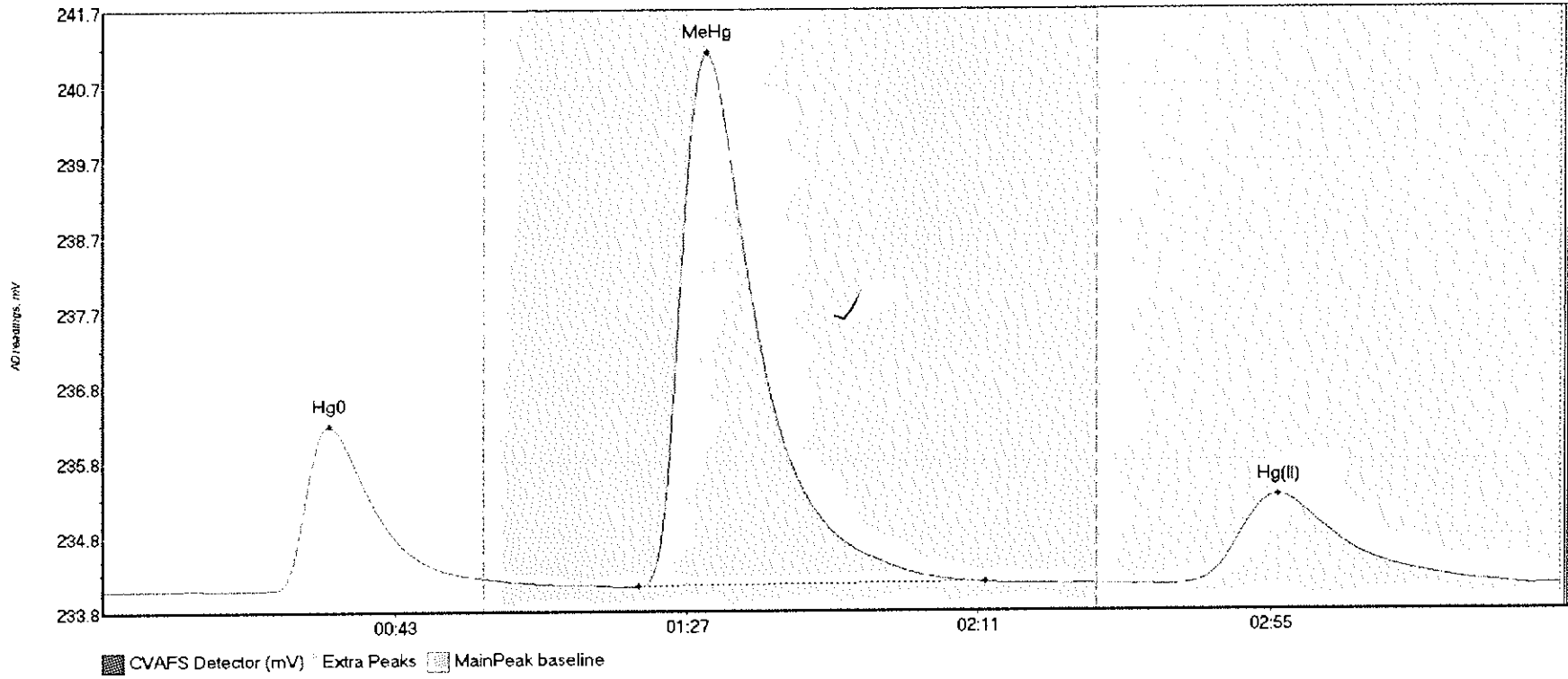
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610509-01 Hg0	178.453	25.1	57.5	234.08	234.20	33.7	1.610	CT	234.0884	0.00	0.05	
1610509-01 MeHg	27.496	81.9	104.3	234.12	234.17	90.8	0.273	OK	234.0884	0.00	0.05	
1610509-01 Hg(I)	199.078	162.2	219.2	234.12	234.14	177.0	1.088	OK	234.0884	0.00	0.05	

#31: F610422-BS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BS1 Hg0	235.197	21.1	57.5	234.08	234.23	34.3	2.128	CT	234.0835	0.00	0.06	
F610422-BS1 MeH	950.969	80.8	129.7	234.14	234.21	91.3	7.064	OK	234.0835	0.00	0.06	
F610422-BS1 Hg(	209.403	162.3	218.7	234.14	234.14	177.2	1.133	OK	234.0835	0.00	0.06	

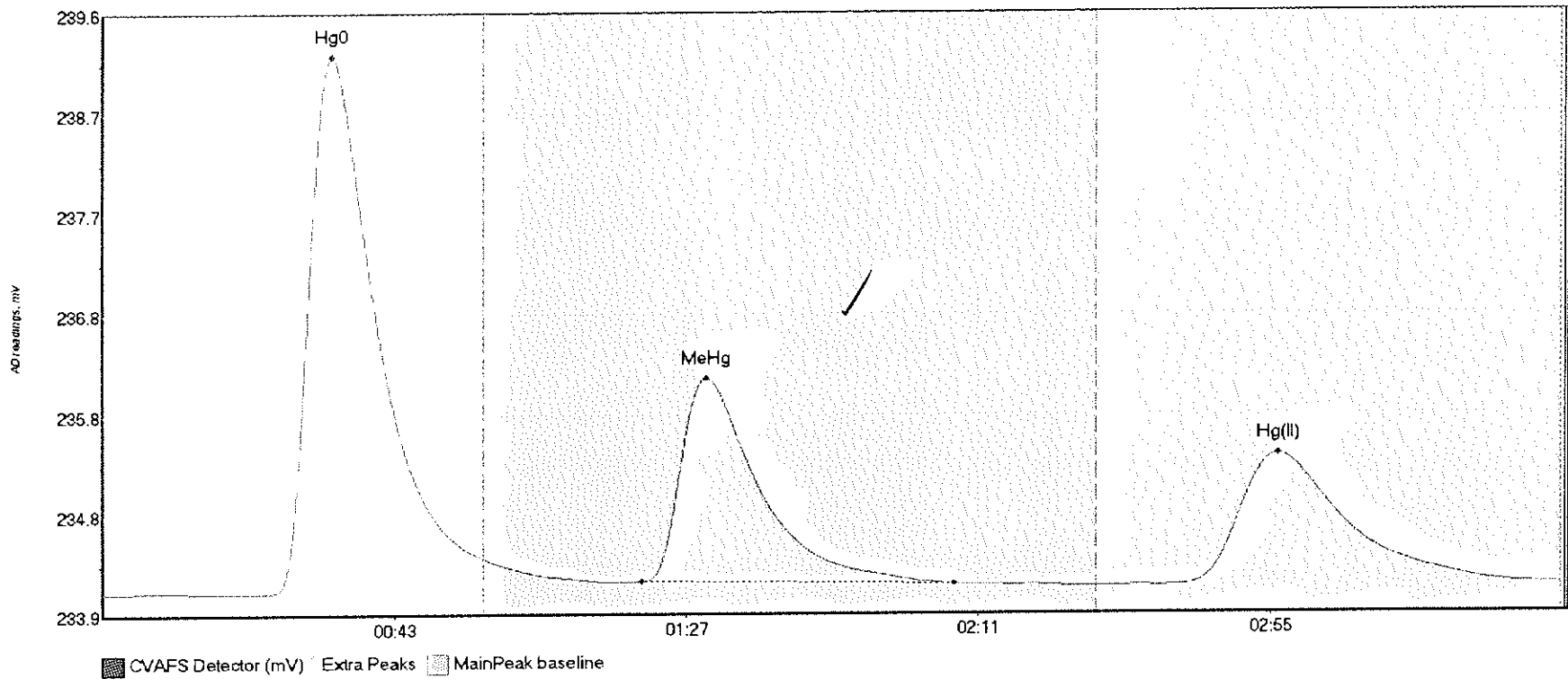
#32: F610422-BSD1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BSD1 Hg	234.254	8.4	57.5	234.09	234.25	34.1	2.167	CT	234.0900	0.00	0.06	
F610422-BSD1 Me	948.444	80.7	133.2	234.14	234.18	91.0	6.992	OK	234.0900	0.00	0.06	
F610422-BSD1 Hg	215.642	161.5	215.6	234.15	234.14	177.2	1.168	OK	234.0900	0.00	0.06	

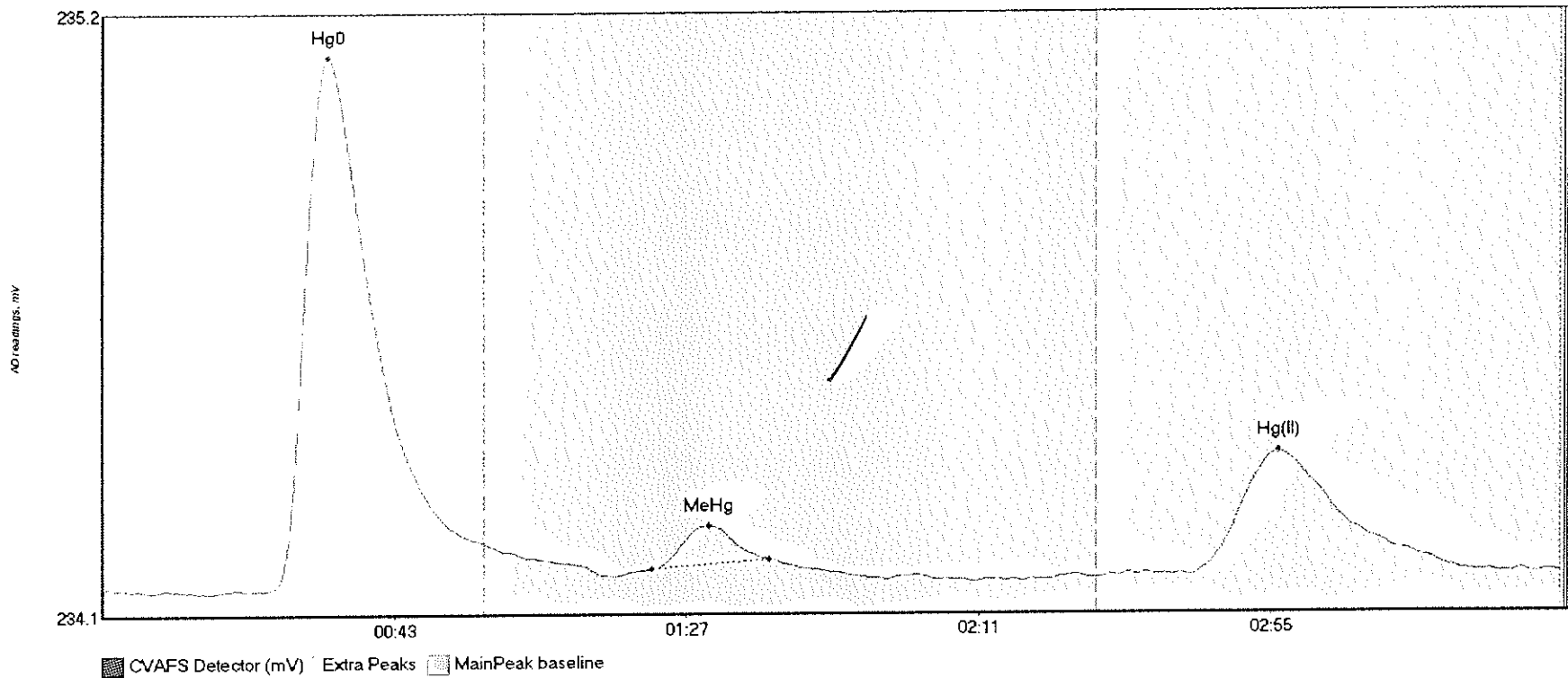


#33: SEQ-CCV2



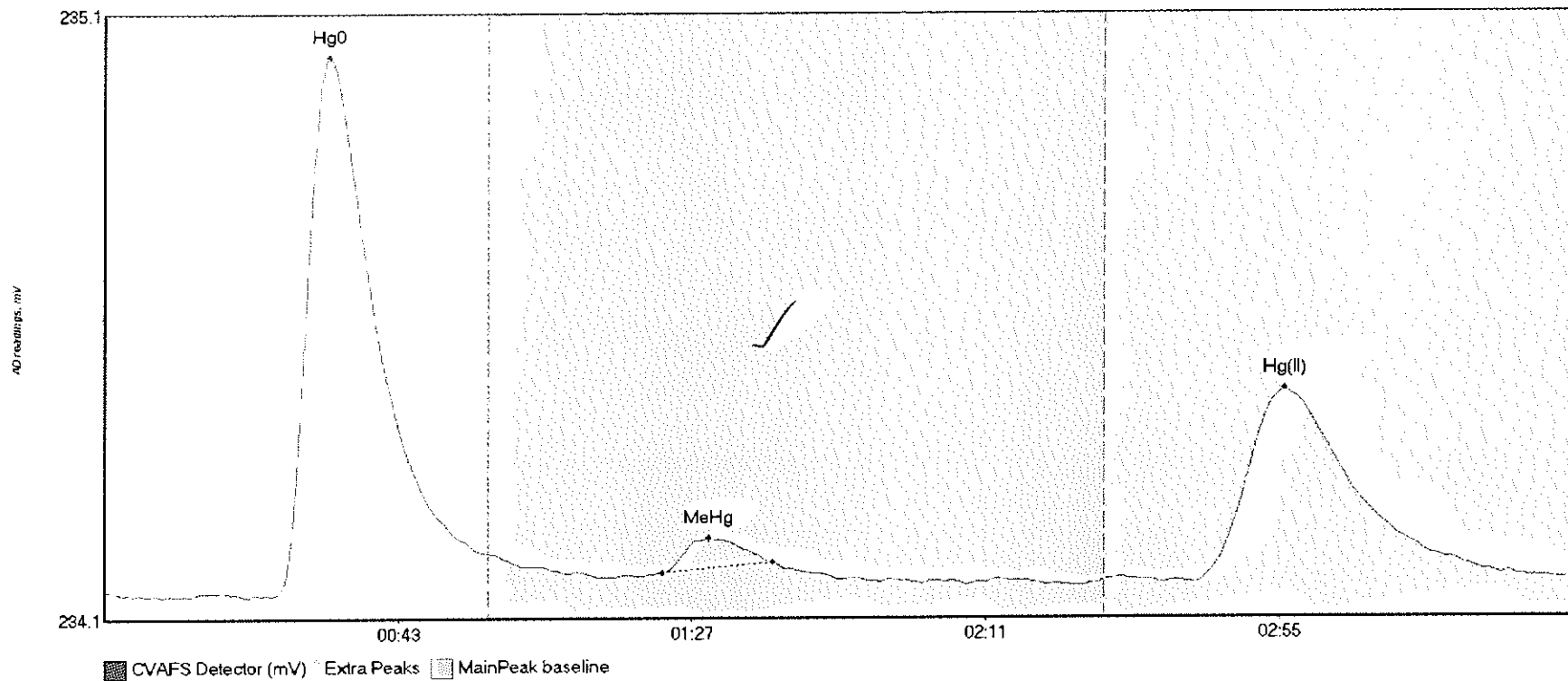
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	572.688	24.6	57.5	234.09	234.42	34.6	5.145	CT	234.0940	0.00	0.07	
SEQ-CCV2 MeHg	266.448	81.3	128.5	234.19	234.16	91.0	1.957	OK	234.0940	0.00	0.07	
SEQ-CCV2 Hg(II)	230.305	162.2	217.1	234.15	234.16	177.2	1.258	OK	234.0940	0.00	0.07	

#34: SEQ-CCB2



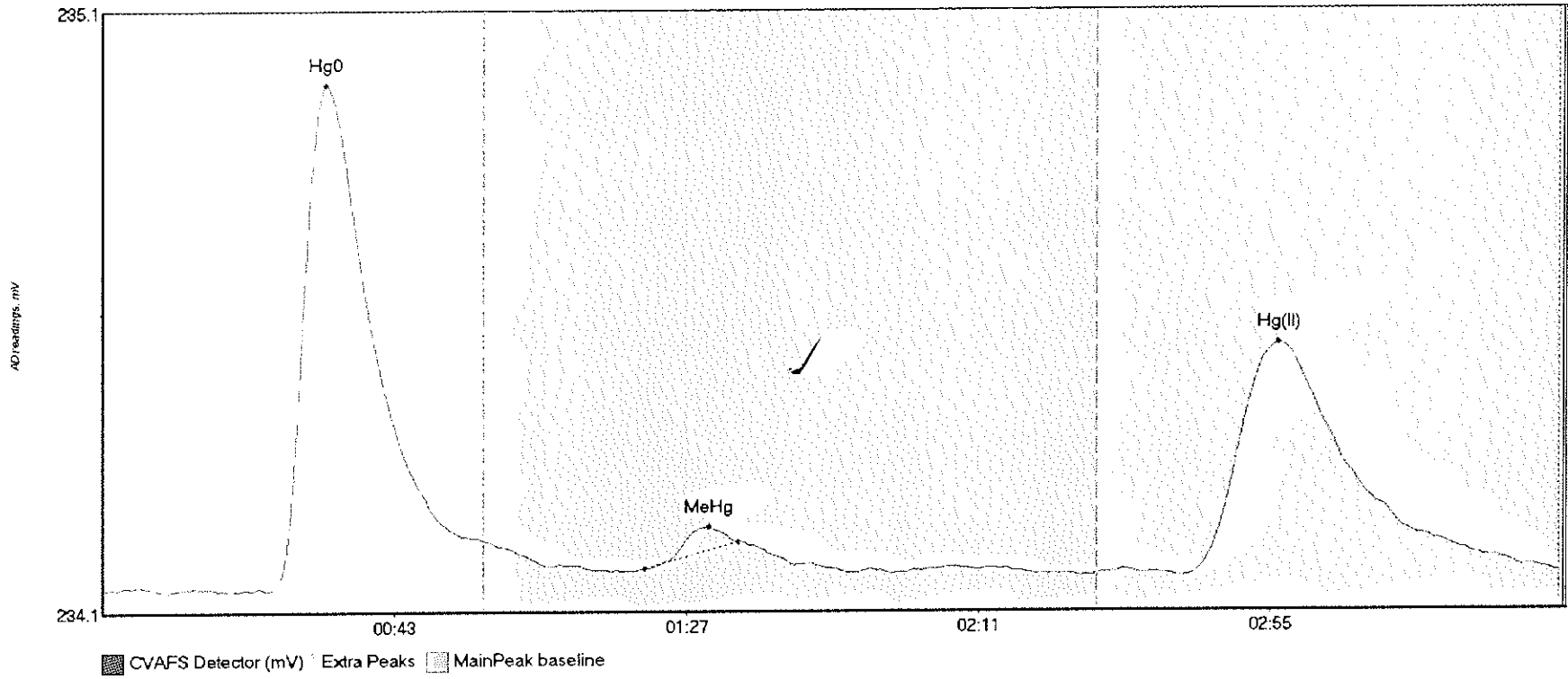
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	ElShift	Comment
SEQ-CCB2 Hg0	115.847	25.1	57.5	234.10	234.19	34.0	1.044	CT	234.1059	0.00	0.03	
SEQ-CCB2 MeHg	6.583	82.9	100.5	234.14	234.16	91.5	0.086	OK	234.1059	0.00	0.03	
SEQ-CCB2 Hg(II)	42.711	163.9	216.2	234.13	234.13	177.2	0.241	OK	234.1059	0.00	0.03	

#35: F610422-BLK1



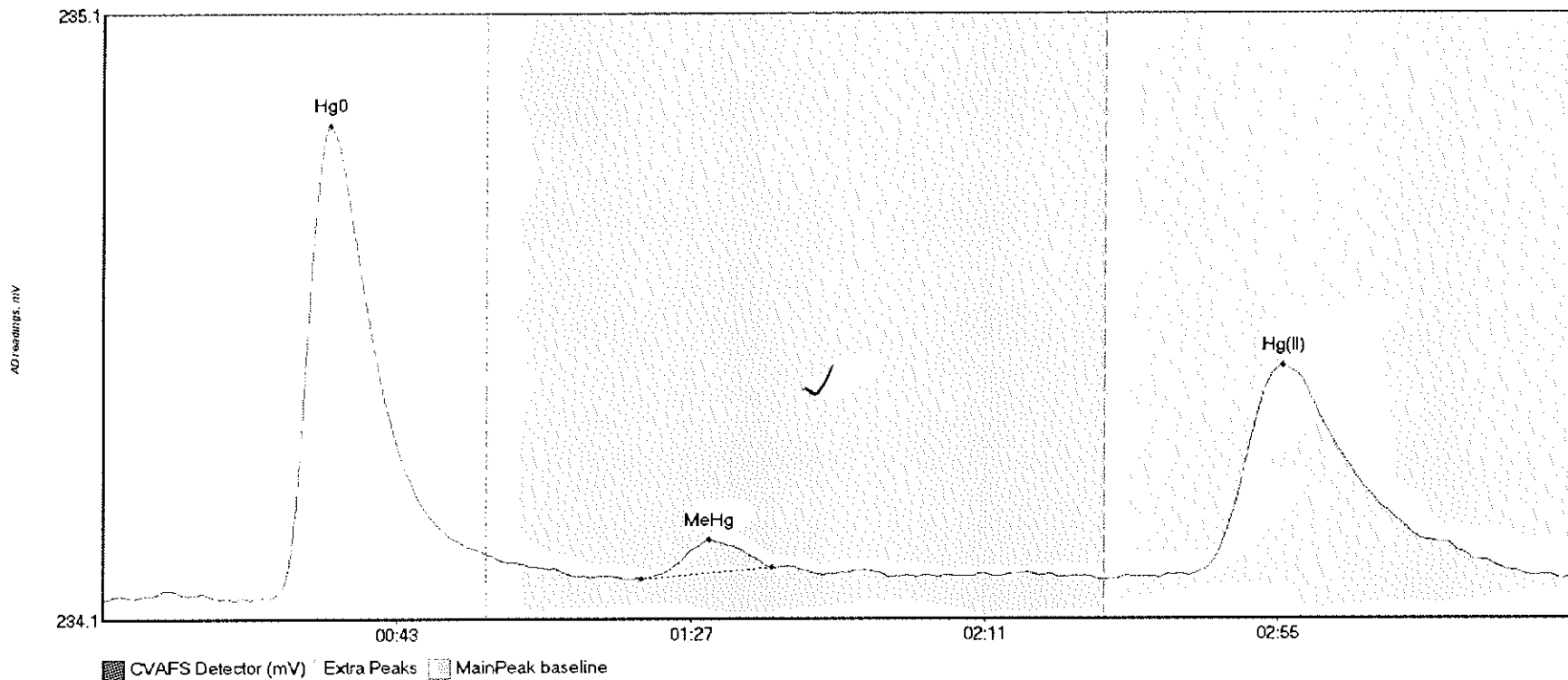
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK1 Hg	105.821	25.1	57.5	234.10	234.17	33.7	0.948	CT	234.1054	0.00	0.02	
F610422-BLK1 Me	5.095	83.6	100.2	234.14	234.16	90.6	0.061	OK	234.1054	0.00	0.02	
F610422-BLK1 Hg	61.347	163.6	213.7	234.12	234.13	176.8	0.340	OK	234.1054	0.00	0.02	

#36: F610422-BLK2



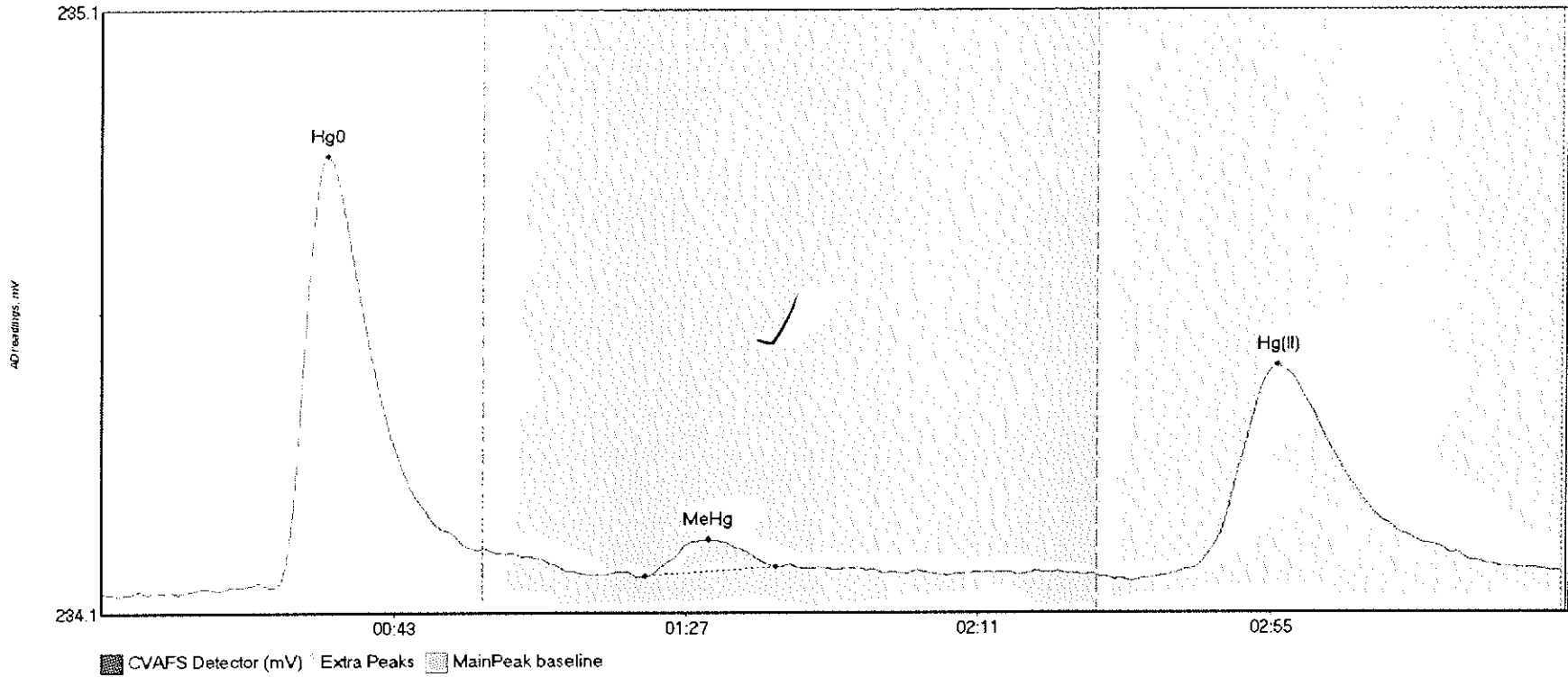
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK2 Hg	93.476	25.0	57.5	234.09	234.17	33.7	0.842	CT	234.0941	0.00	0.03	
F610422-BLK2 Me	2.572	81.7	95.9	234.13	234.17	91.4	0.070	OK	234.0941	0.00	0.03	
F610422-BLK2 Hg	73.602	163.9	219.8	234.12	234.12	177.3	0.385	CT	234.0941	0.00	0.03	

#37: F610422-BLK3



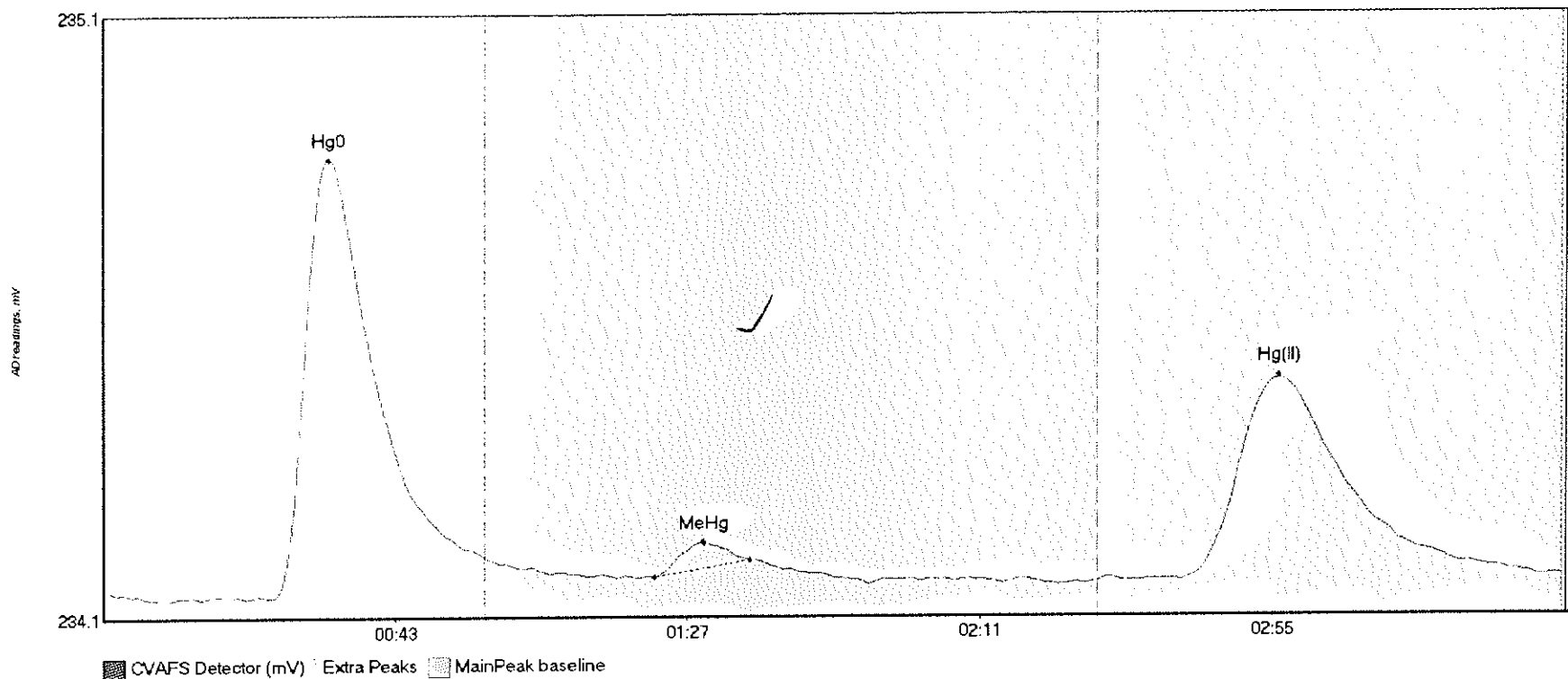
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK3 Hg	86.845	24.8	57.5	234.10	234.17	34.0	0.780	CT	234.1000	0.00	0.04	
F610422-BLK3 Me	5.195	80.6	100.2	234.13	234.15	90.7	0.065	OK	234.1000	0.00	0.04	
F610422-BLK3 Hg	67.241	150.2	214.3	234.13	234.14	176.8	0.351	OK	234.1000	0.00	0.04	

#38: \*F610422-BLK4



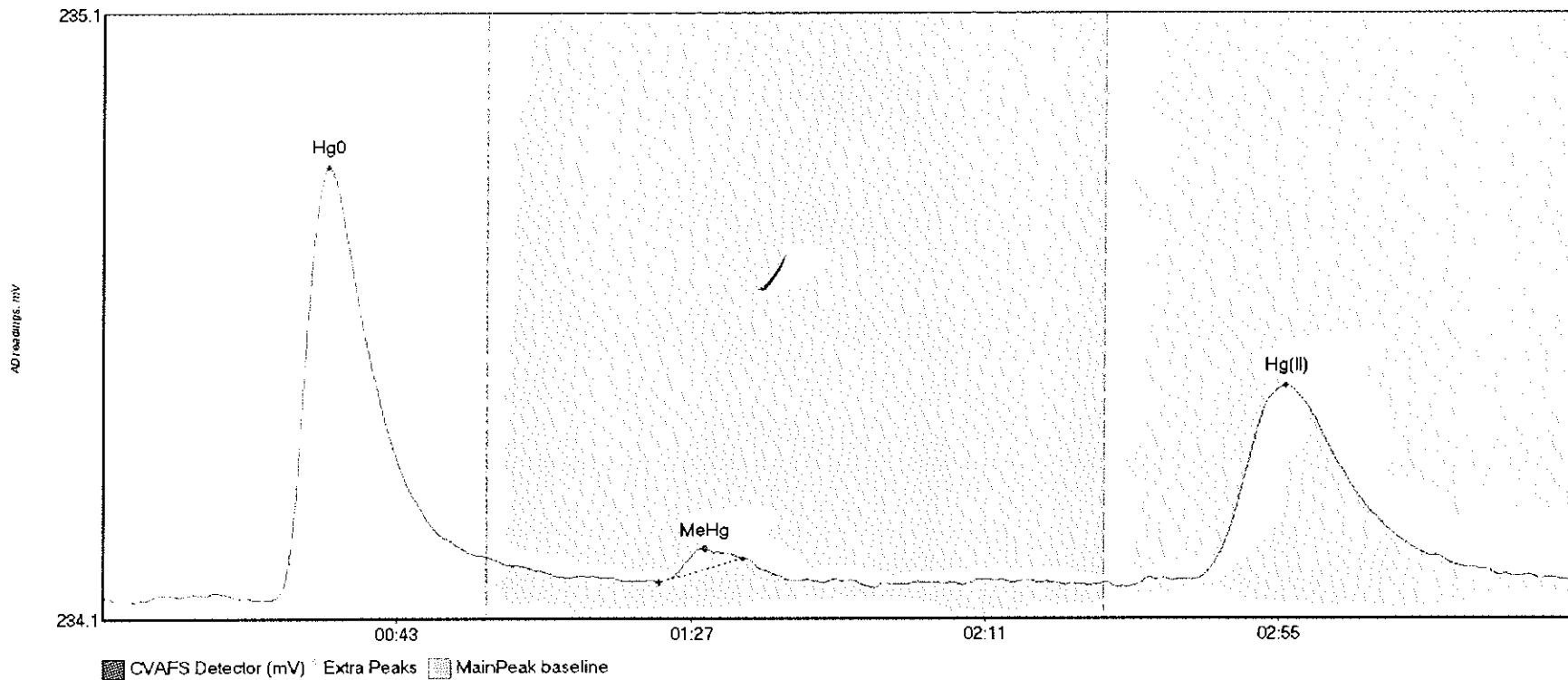
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK4 H	78.682	17.6	56.6	234.10	234.17	34.0	0.721	OK	234.0992	0.00	0.04	
*F610422-BLK4 M	6.022	81.9	101.4	234.13	234.14	91.3	0.061	OK	234.0992	0.00	0.04	
*F610422-BLK4 H	64.284	160.1	219.7	234.13	234.14	177.0	0.349	OK	234.0992	0.00	0.04	

#39: \*F610422-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK5 H	82.807	25.6	57.5	234.11	234.17	34.0	0.730	CT	234.1180	0.00	0.02	
*F610422-BLK5 M	3.364	83.1	97.5	234.14	234.17	90.6	0.058	OK	234.1180	0.00	0.02	
*F610422-BLK5 H	62.514	162.3	216.4	234.13	234.14	177.0	0.335	OK	234.1180	0.00	0.02	

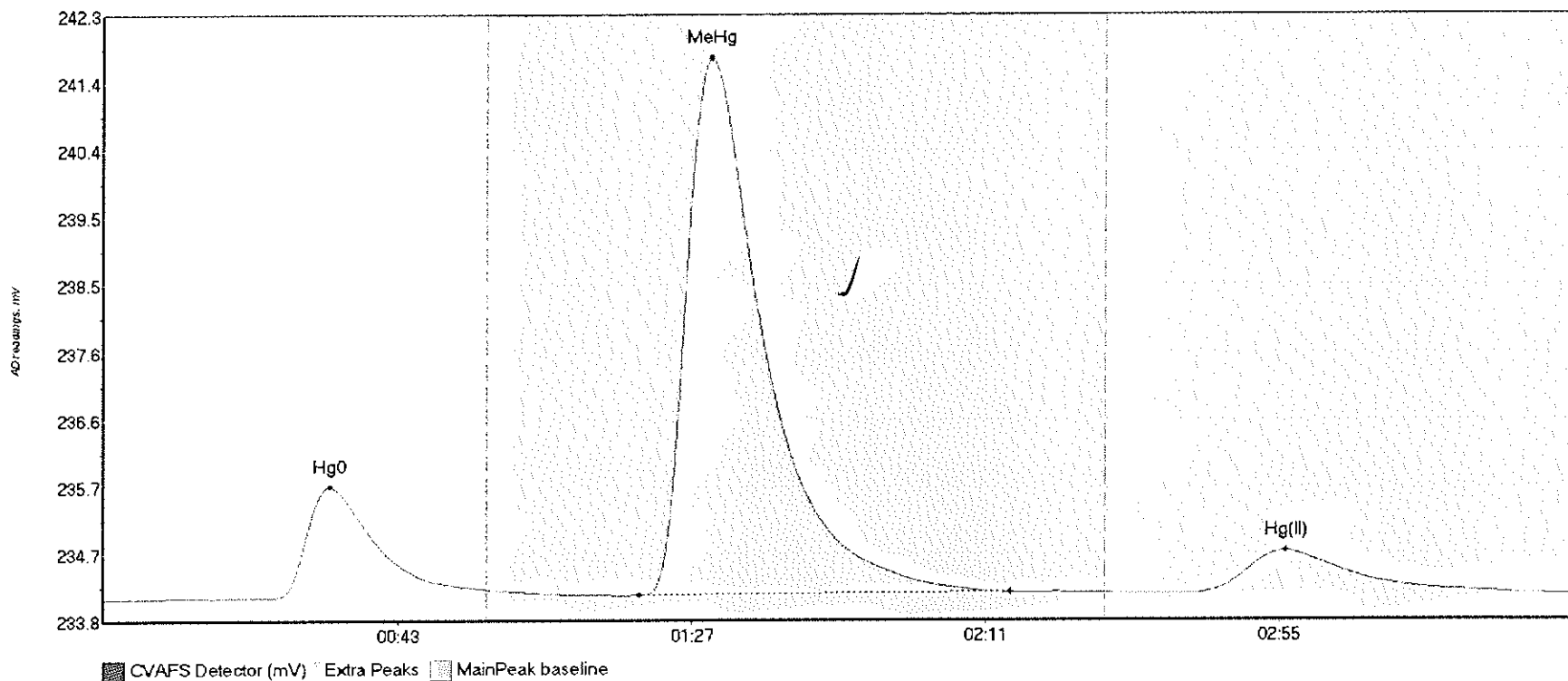
#40: \*F610422-BLK6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK6 H	79.942	24.9	57.5	234.11	234.18	33.7	0.715	CT	234.1155	0.00	0.03	
*F610422-BLK6 M	2.102	83.1	95.8	234.14	234.18	90.0	0.057	OK	234.1155	0.00	0.03	
*F610422-BLK6 H	59.289	160.4	219.8	234.14	234.14	177.1	0.322	CT	234.1155	0.00	0.03	

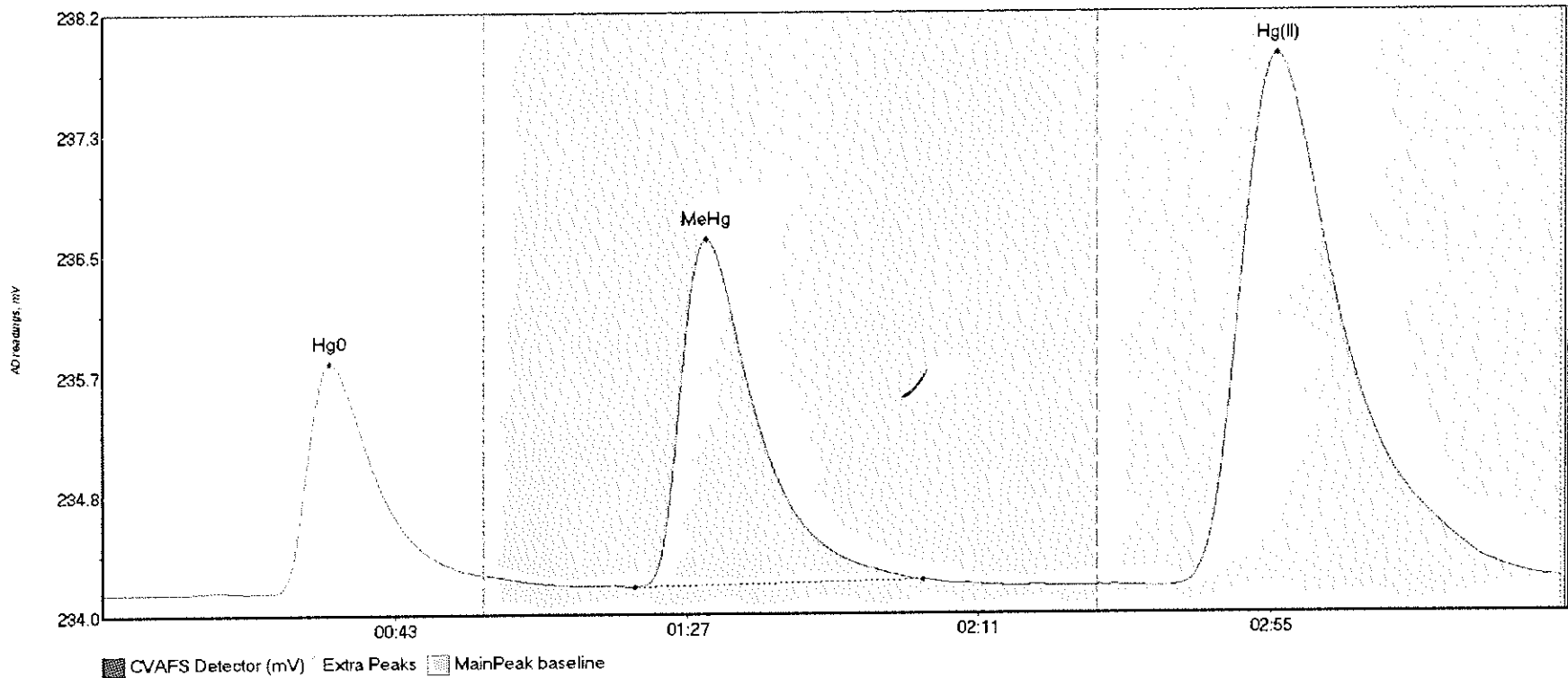


#41: F610422-DUP1



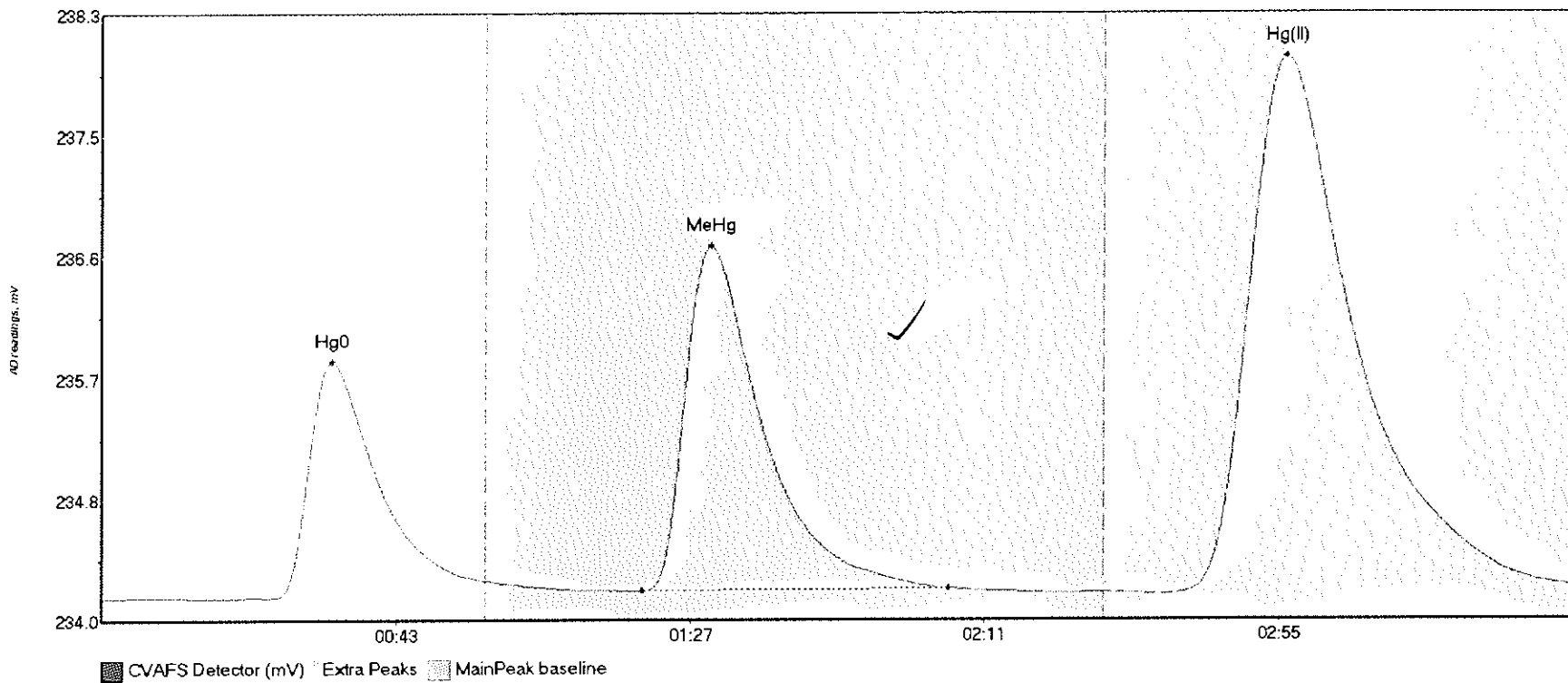
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-DUP1 Hg	170.853	4.5	57.5	234.10	234.23	33.8	1.586	CT	234.1032	0.00	0.06	
F610422-DUP1 Me	1027.946	80.2	135.8	234.16	234.19	90.9	7.554	OK	234.1032	0.00	0.06	
F610422-DUP1 Hg	108.452	162.3	212.6	234.17	234.17	177.1	0.597	OK	234.1032	0.00	0.06	

#42: F610422-MS1



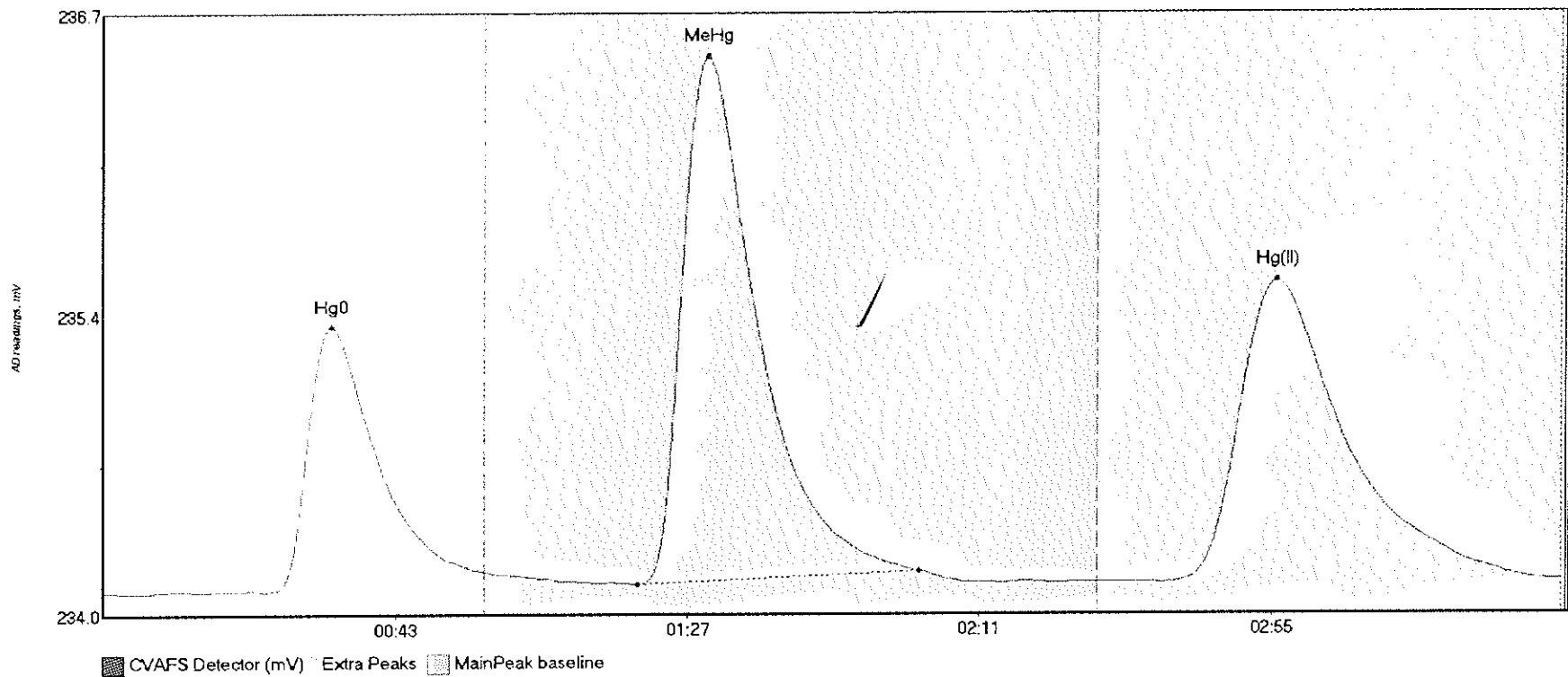
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MS1 Hg0	179.733	21.8	57.5	234.12	234.25	34.2	1.618	CT	234.1208	0.00	0.09	
F610422-MS1 MeH	321.919	80.2	123.8	234.16	234.21	90.9	2.440	OK	234.1208	0.00	0.09	
F610422-MS1 Hg(	680.888	160.1	219.8	234.16	234.21	177.0	3.728	CT	234.1208	0.00	0.09	

#43: F610422-MSD1



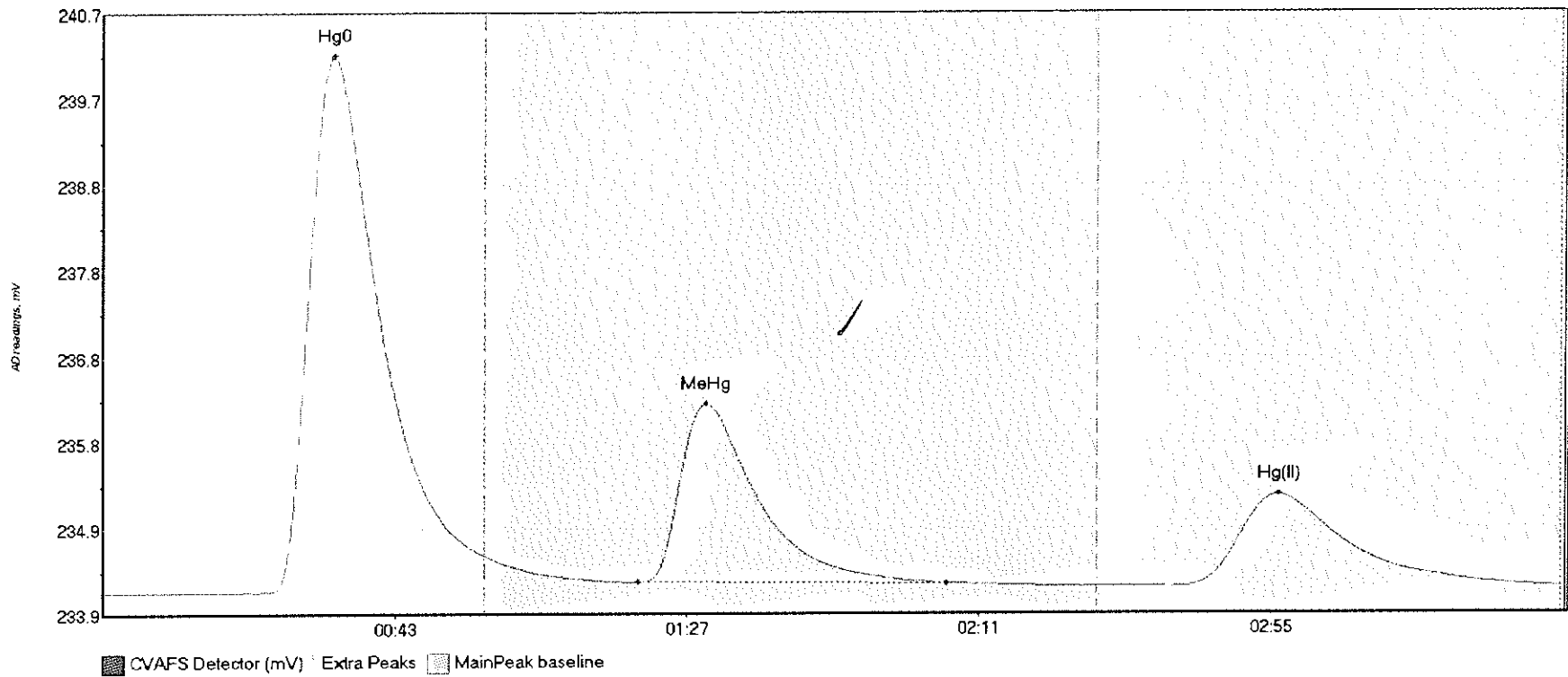
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MSD1 Hg	188.927	24.9	57.5	234.13	234.26	34.4	1.699	CT	234.1291	0.00	0.09	
F610422-MSD1 Me	331.254	80.9	126.8	234.18	234.20	91.0	2.484	OK	234.1291	0.00	0.09	
F610422-MSD1 Hg	706.162	159.7	219.8	234.16	234.22	177.0	3.862	CT	234.1291	0.00	0.09	

#44: F610422-MS2



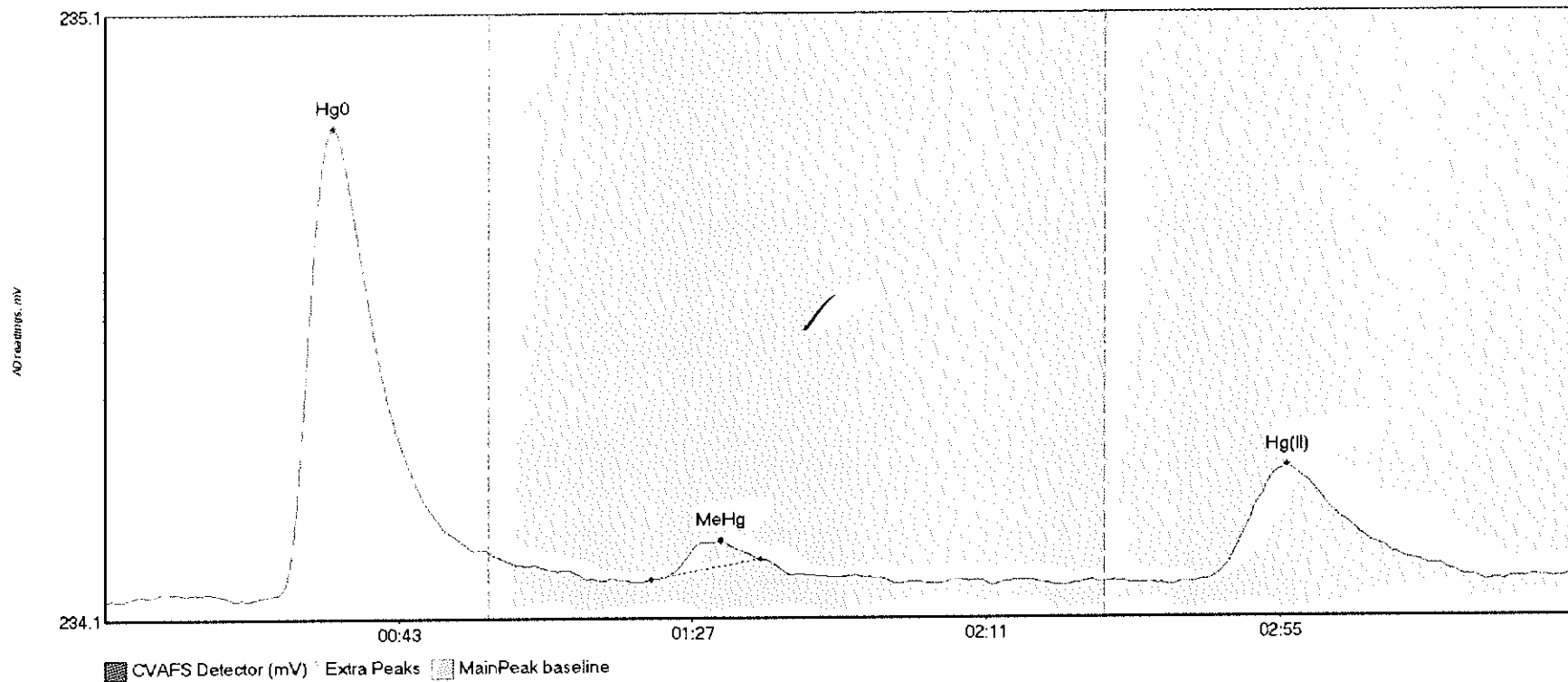
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F610422-MS2 Hg0	133.663	25.5	57.5	234.13	234.22	34.4	1.181	CT	234.1290	0.00	0.05	
F610422-MS2 MeH	306.318	80.6	123.0	234.16	234.22	91.1	2.355	OK	234.1290	0.00	0.05	
F610422-MS2 Hg(	249.553	159.9	219.0	234.17	234.18	176.9	1.347	OK	234.1290	0.00	0.05	

#45: SEQ-CCV3



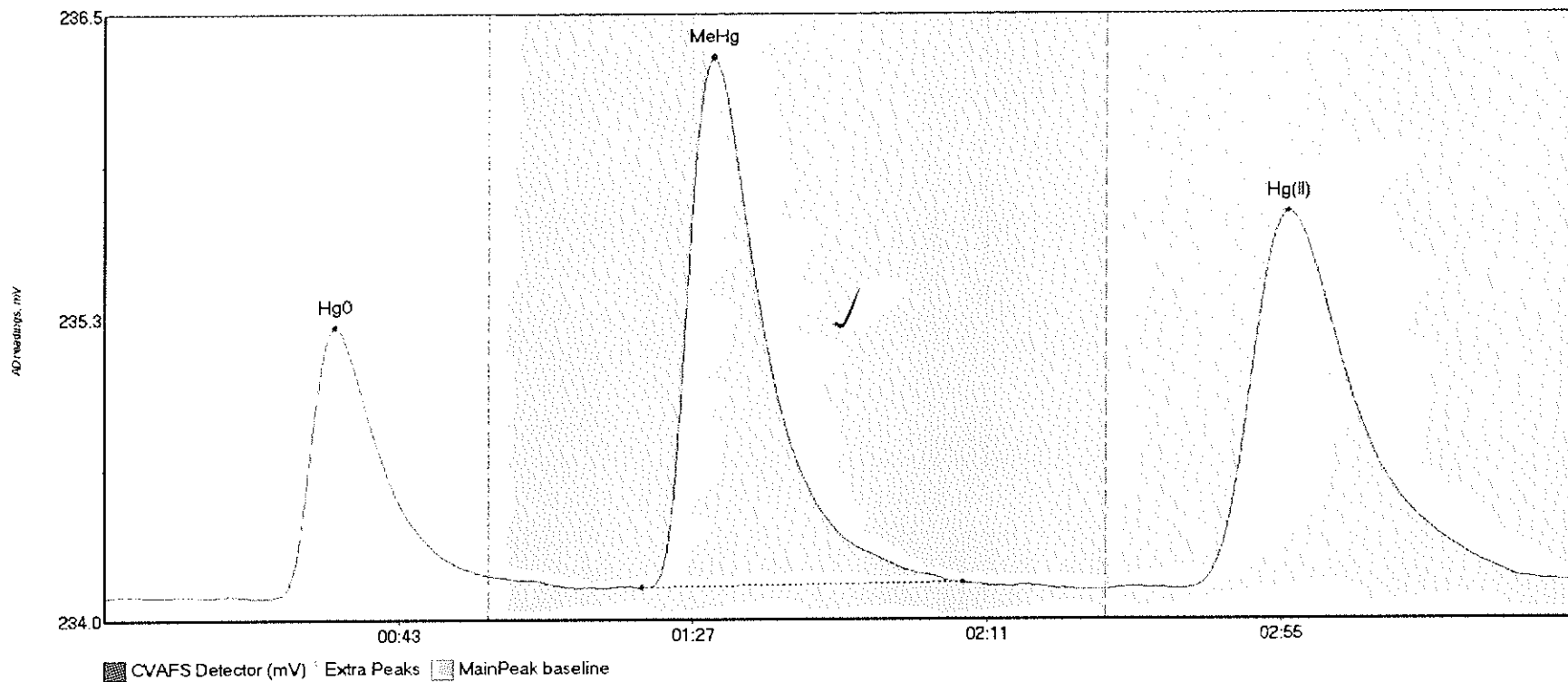
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	707.611	24.3	57.5	234.13	234.54	34.8	6.098	CT	234.1275	0.00	0.06	
SEQ-CCV3 MeHg	273.241	80.8	127.1	234.24	234.22	90.9	2.036	OK	234.1275	0.00	0.06	
SEQ-CCV3 Hg(II)	192.960	163.3	218.6	234.19	234.18	177.2	1.041	OK	234.1275	0.00	0.06	

#46: SEQ-CCB3



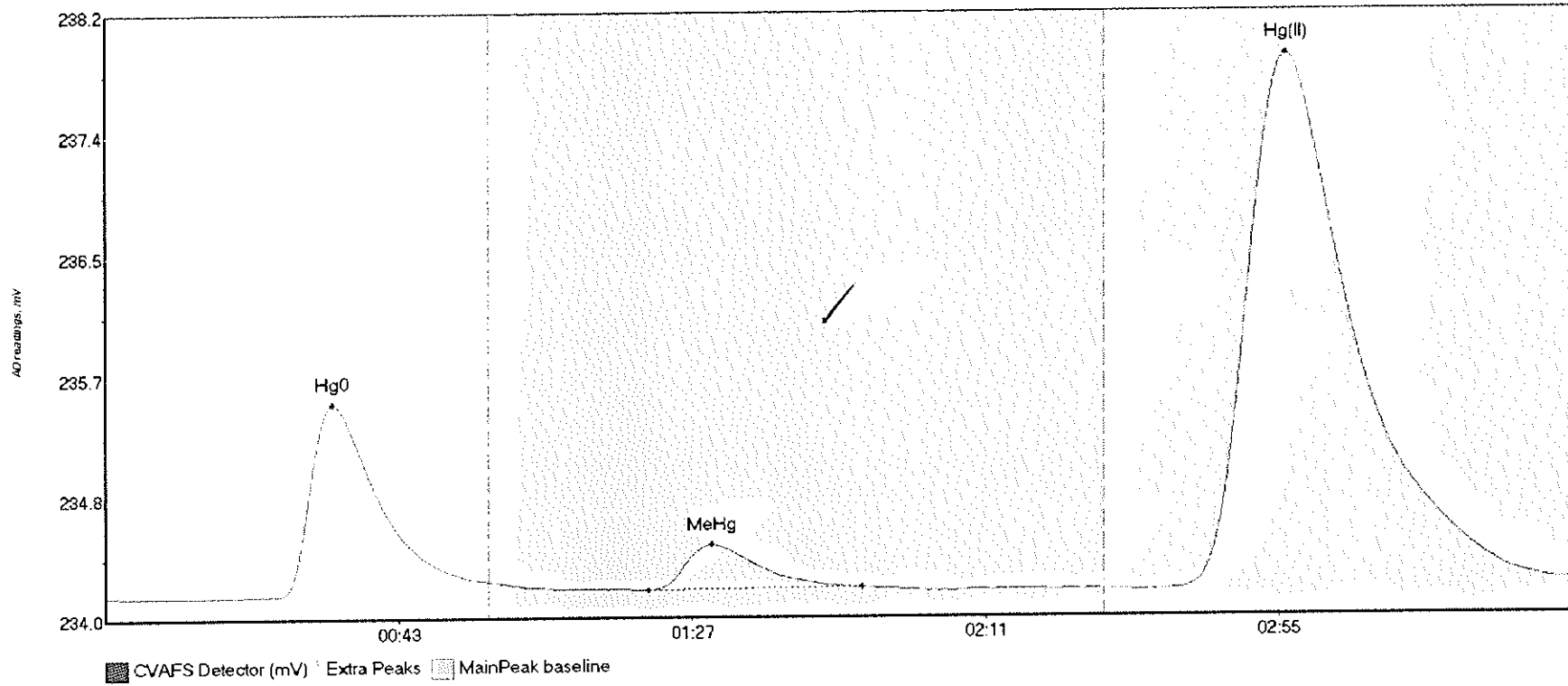
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	86.205	23.5	57.5	234.13	234.21	34.1	0.775	CT	234.1294	0.00	0.04	
SEQ-CCB3 MeHg	3.632	81.9	98.2	234.16	234.19	92.3	0.064	OK	234.1294	0.00	0.04	
SEQ-CCB3 Hg(II)	32.444	164.9	207.2	234.16	234.16	177.0	0.189	OK	234.1294	0.00	0.04	

#47: F610422-MSD2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MSD2 Hg	123.759	24.8	57.5	234.13	234.22	34.6	1.097	CT	234.1349	0.00	0.06	
F610422-MSD2 Me	288.153	80.5	128.5	234.17	234.19	91.1	2.147	OK	234.1349	0.00	0.06	
F610422-MSD2 Hg	277.949	162.0	219.5	234.17	234.20	177.1	1.525	OK	234.1349	0.00	0.06	

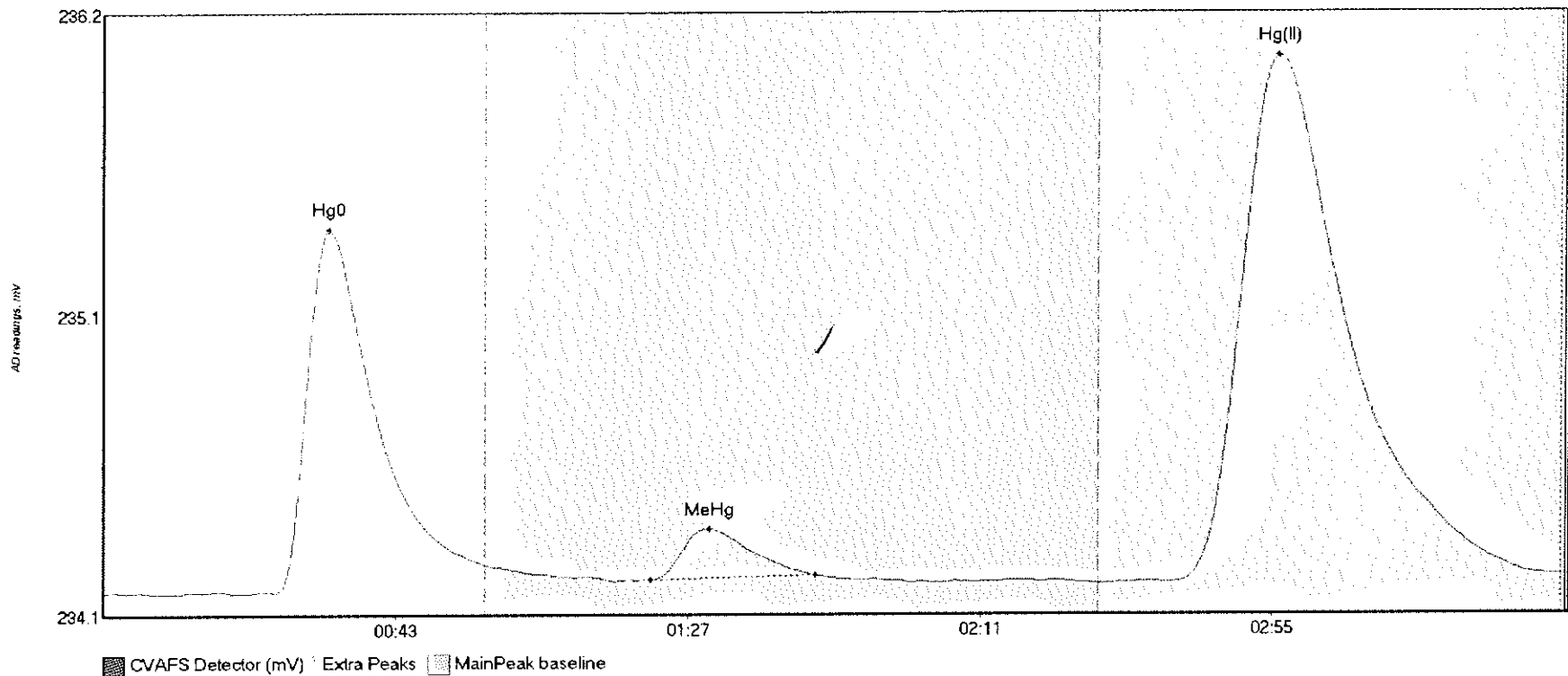
#48: 1610231-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-01 Hg0	150.386	25.8	57.5	234.15	234.24	34.2	1.344	CP	234.1458	0.00	0.09	
1610231-01 MeHg	38.831	81.4	113.4	234.18	234.19	91.0	0.319	OK	234.1458	0.00	0.09	
1610231-01 Hg(I)	682.775	159.4	218.9	234.17	234.23	177.0	3.743	OK	234.1458	0.00	0.09	

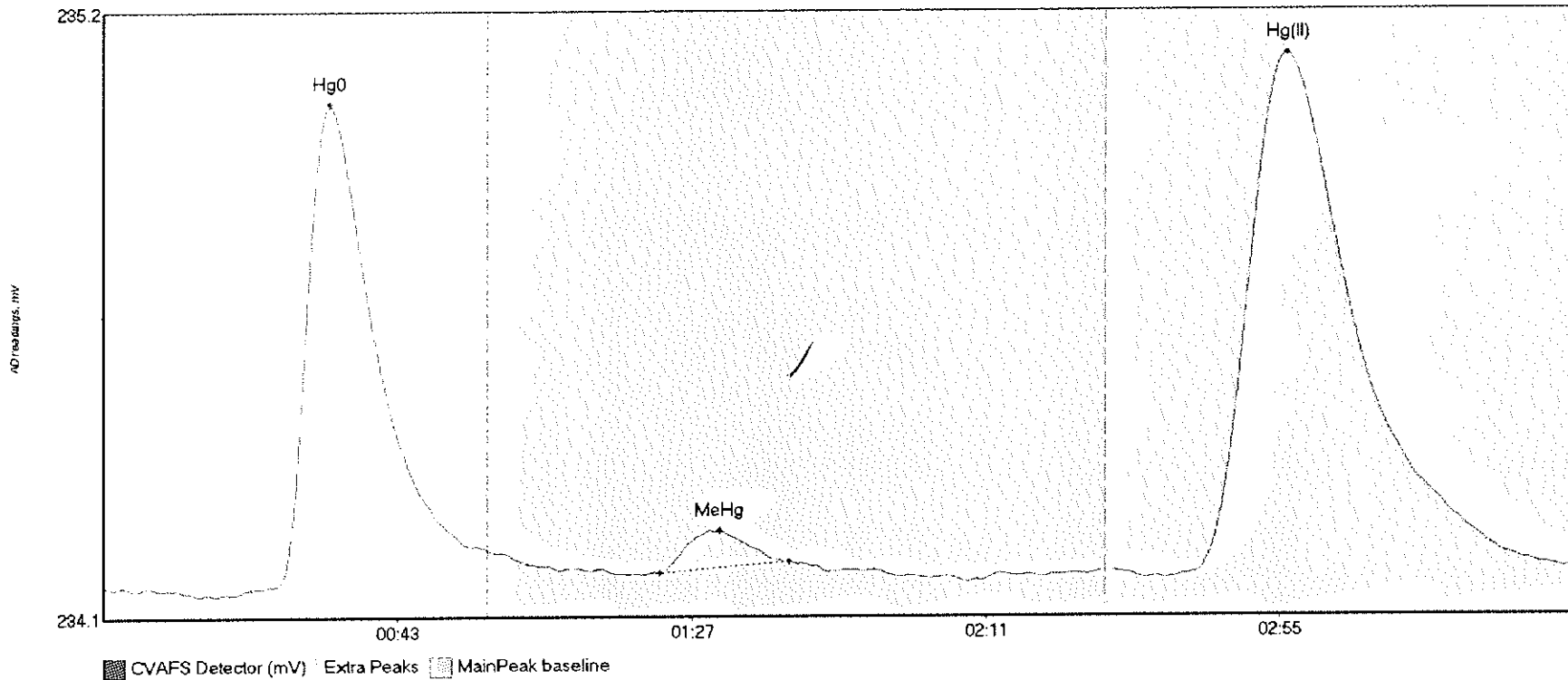


#49: 1610231-02



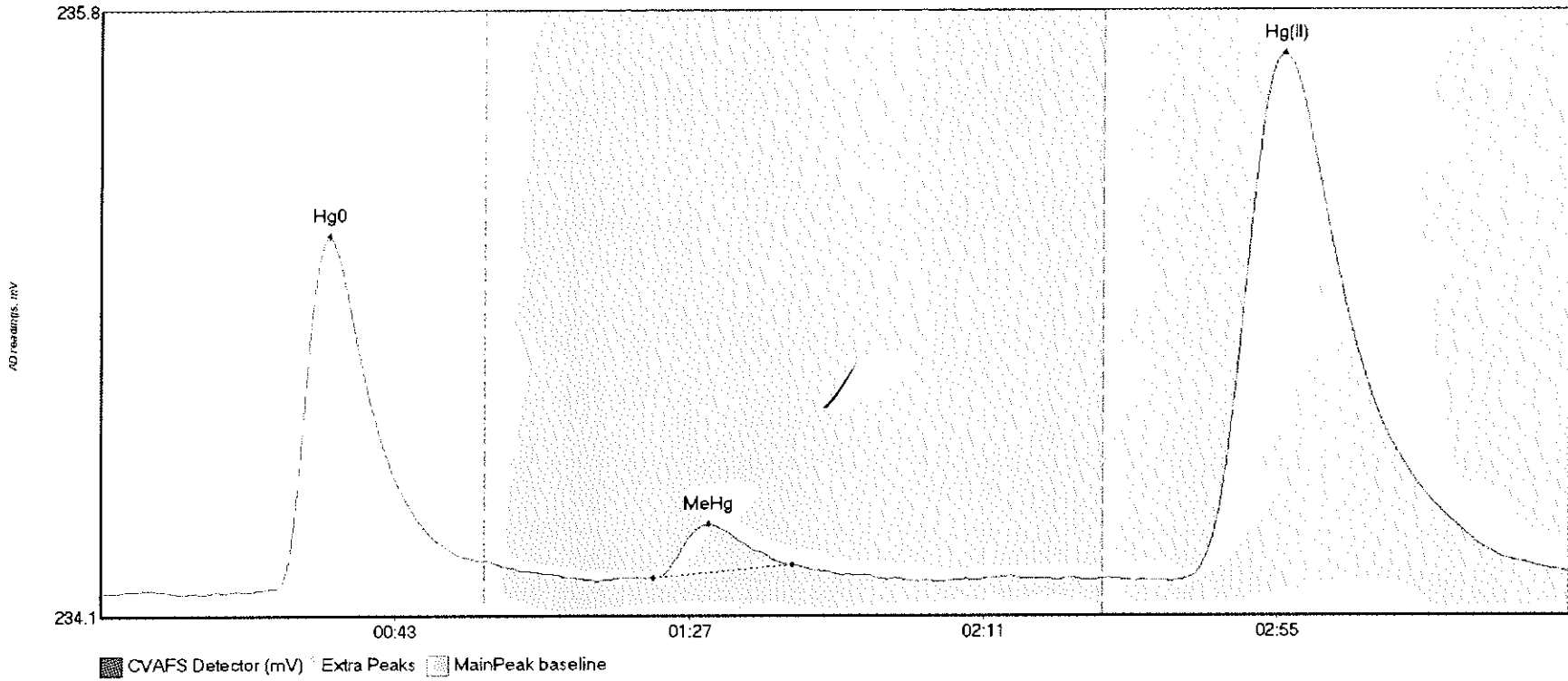
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610231-02 Hg0	141.831	25.9	57.5	234.15	234.24	34.0	1.267	CT	234.1466	0.00	0.06	
1610231-02 MeHg	20.463	82.5	107.3	234.19	234.21	91.3	0.179	OK	234.1466	0.00	0.06	
1610231-02 Hg(I)	336.017	160.5	219.8	234.18	234.20	177.1	1.840	CT	234.1466	0.00	0.06	

#50: 1610231-03



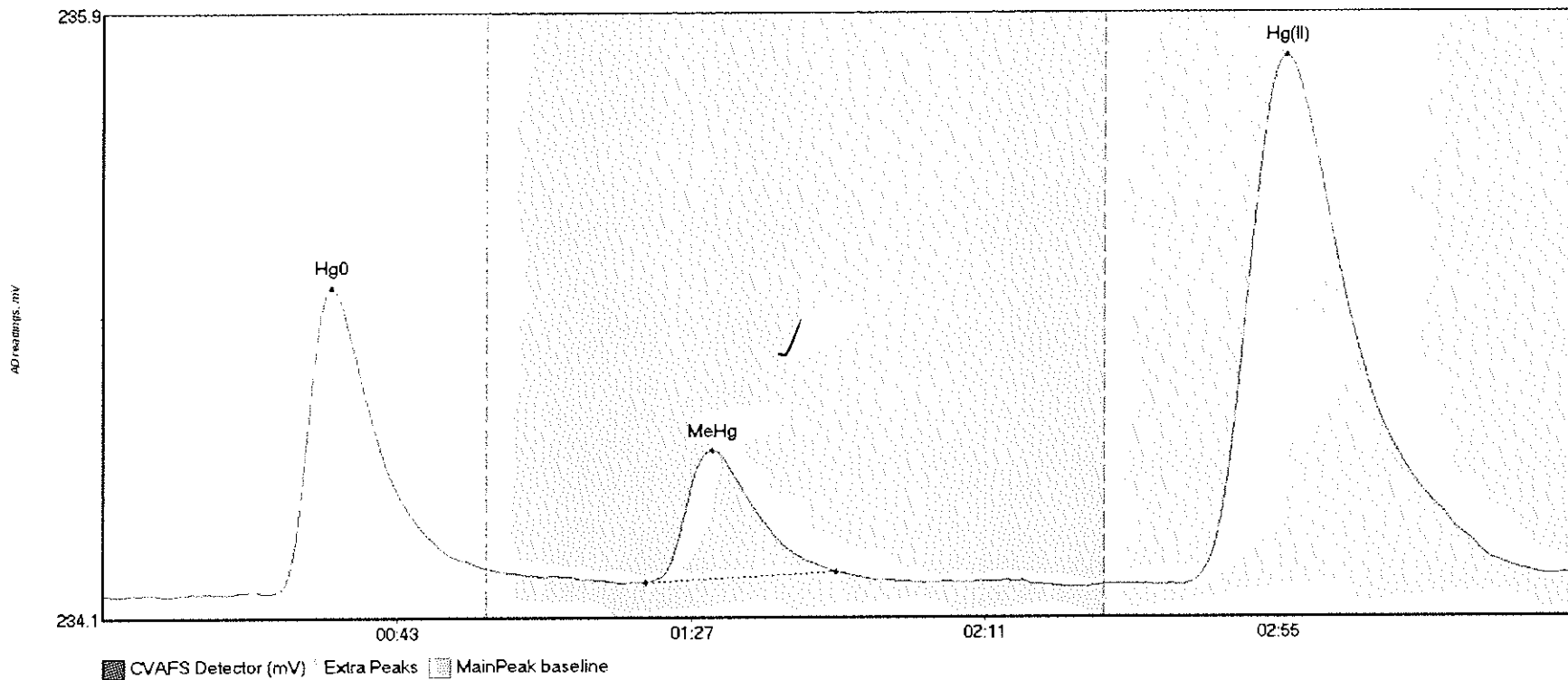
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	ElShift	Comment
1610231-03 Hg0	97.793	25.2	57.5	234.16	234.22	33.9	0.874	CT	234.1552	0.00	0.03	
1610231-03 MeHg	7.194	83.2	102.6	234.18	234.20	92.1	0.078	OK	234.1552	0.00	0.03	
1610231-03 Hg(I)	172.159	163.2	218.6	234.18	234.19	177.1	0.941	OK	234.1552	0.00	0.03	

#51: 1610231-04



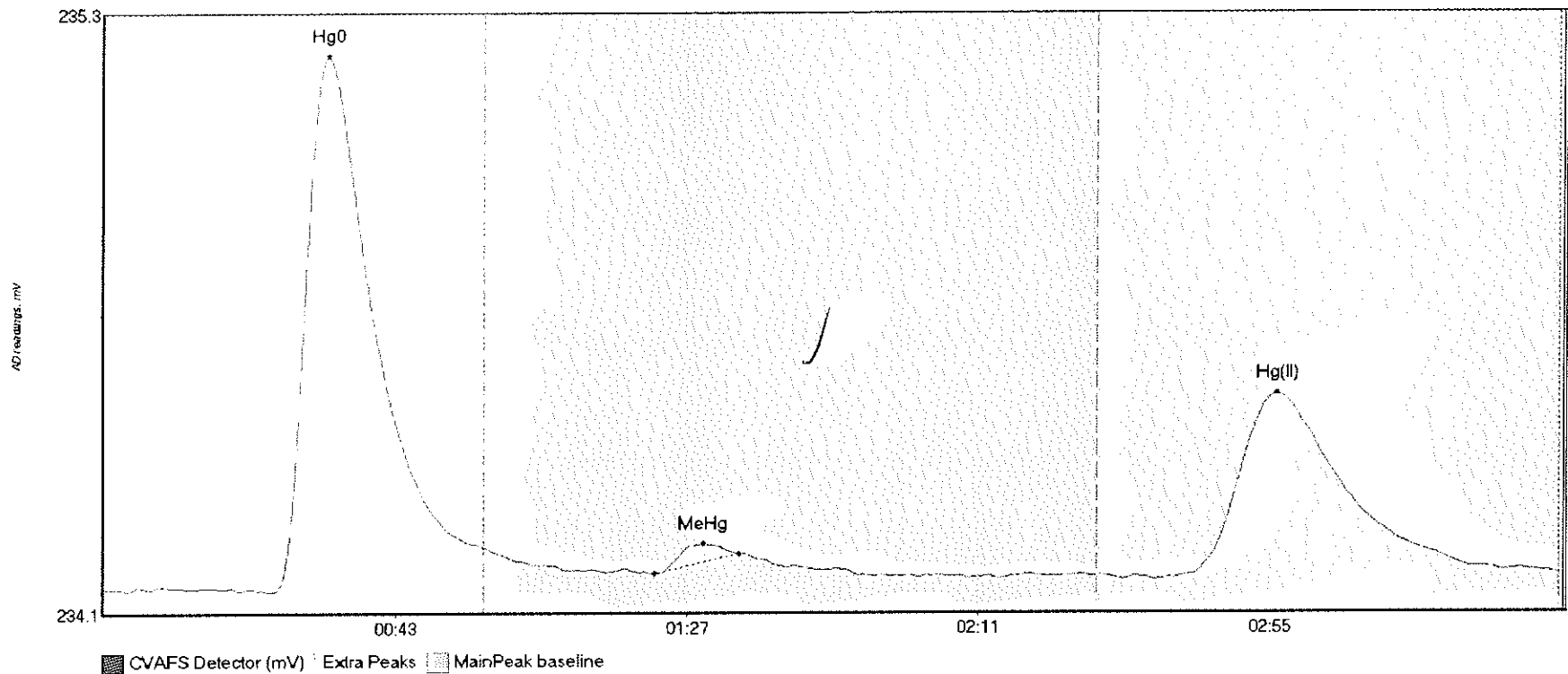
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-04 Hg0	109.890	22.2	57.0	234.15	234.24	34.1	1.008	OK	234.1448	0.00	0.06	
1610231-04 MeHg	13.972	82.6	163.4	234.19	234.22	90.9	0.152	OK	234.1448	0.00	0.06	
1610231-04 Hg(I)	274.692	160.1	219.8	234.18	234.20	177.0	1.495	CT	234.1448	0.00	0.06	

#52: 1610231-05



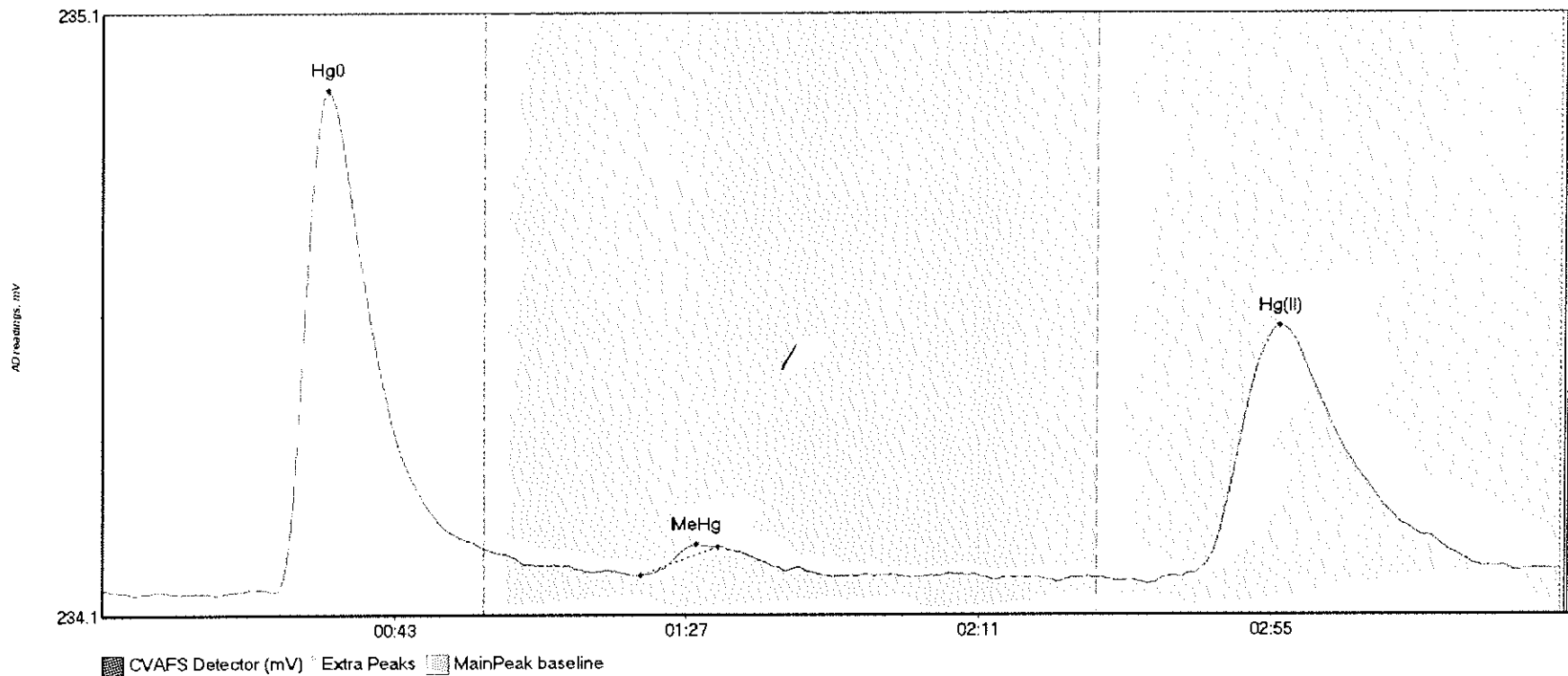
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-05 Hg0	103.699	19.4	57.5	234.16	234.23	34.1	0.931	CT	234.1531	0.00	0.06	
1610231-05 MeHg	46.119	81.2	109.9	234.19	234.22	91.1	0.401	OK	234.1531	0.00	0.06	
1610231-05 Hg(I	293.126	161.5	216.5	234.18	234.21	177.2	1.605	OK	234.1531	0.00	0.06	

#53: 1610235-01



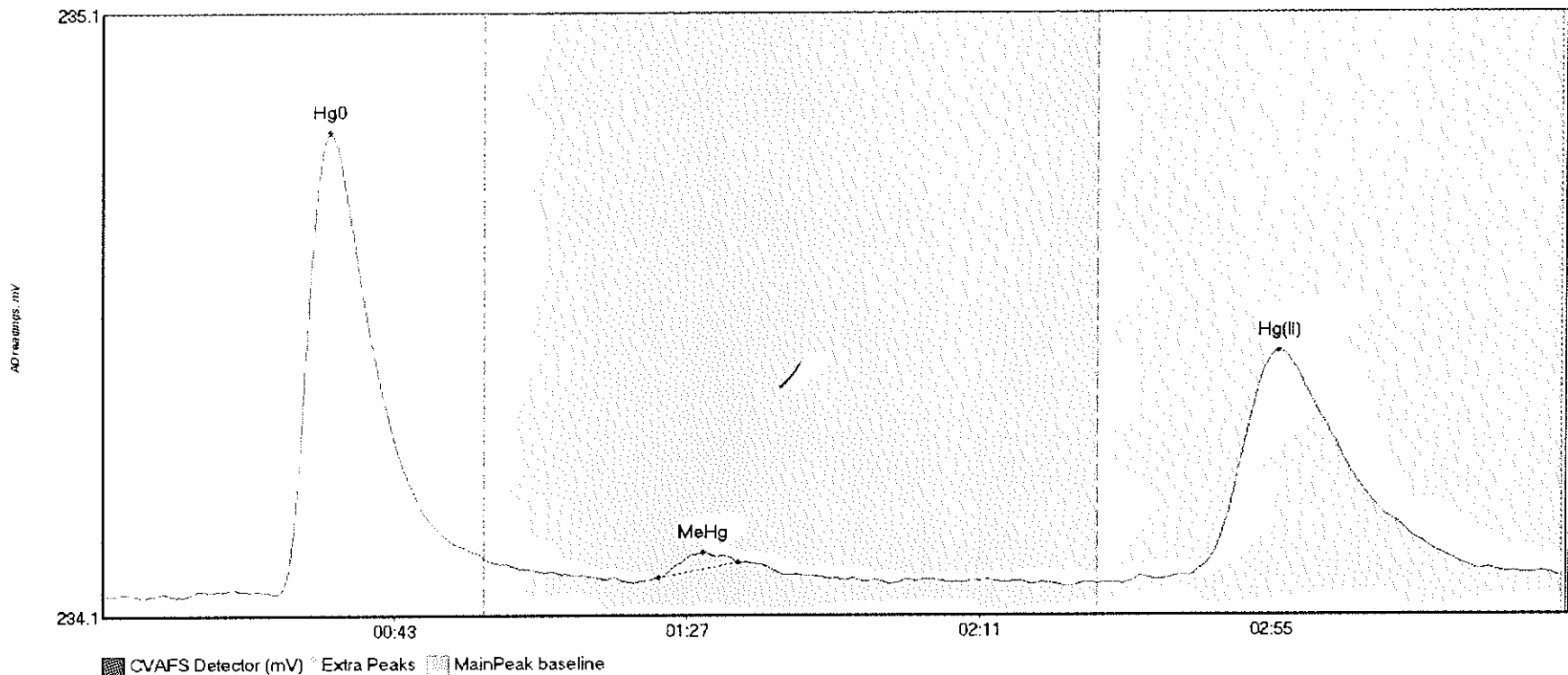
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-01 Hg0	121.856	25.0	57.5	234.16	234.25	33.8	1.095	CT	234.1658	0.00	0.03	
1610235-01 MeHg	2.714	83.1	95.9	234.20	234.24	90.5	0.062	OK	234.1658	0.00	0.03	
1610235-01 Hg(I)	67.327	164.3	219.8	234.20	234.20	177.2	0.370	CT	234.1658	0.00	0.03	

#54: 1610235-02



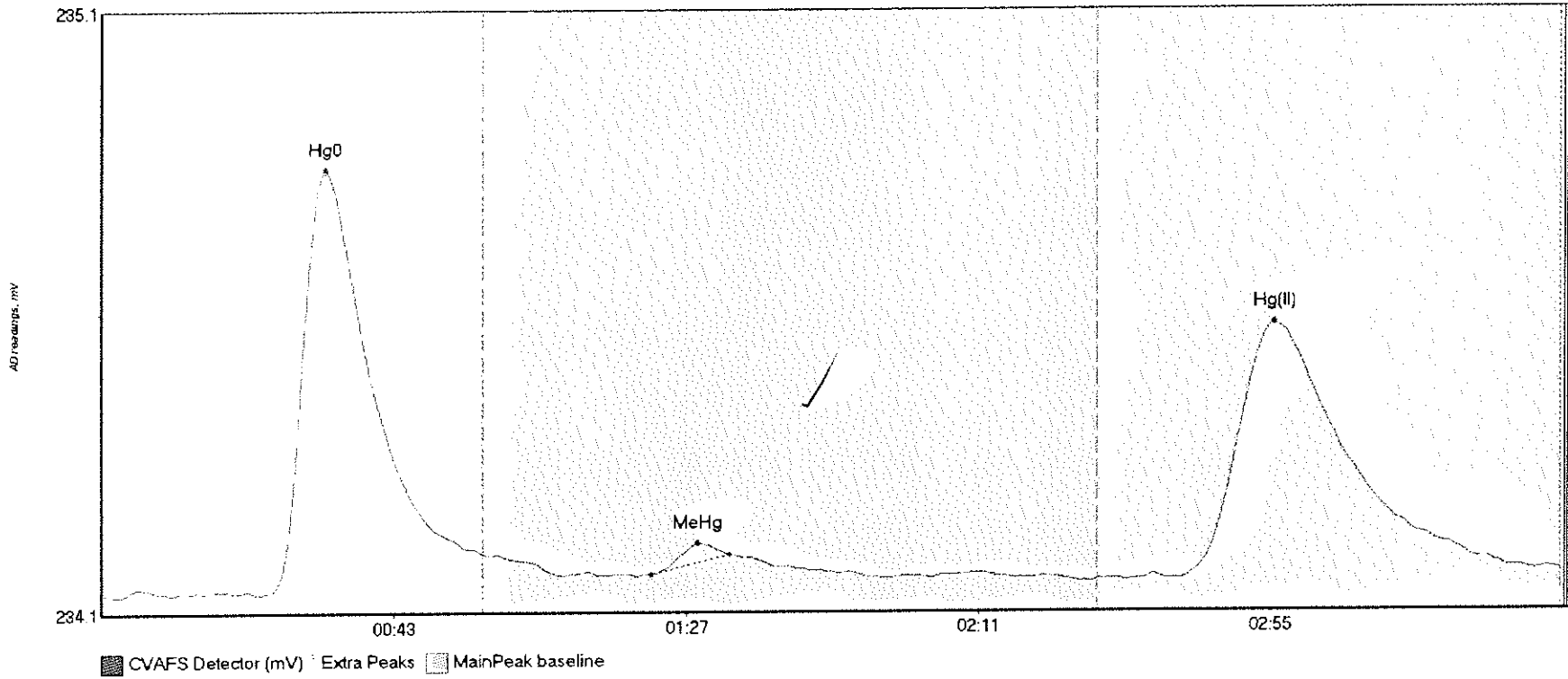
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1610235-02 Hg0	92.440	25.9	57.5	234.16	234.23	33.9	0.831	CT	234.1671	0.00	0.03	
1610235-02 MeHg	0.784	81.1	92.7	234.19	234.24	89.6	0.051	OK	234.1671	0.00	0.03	
1610235-02 Hg(I)	76.312	162.4	213.2	234.19	234.20	177.3	0.419	OK	234.1671	0.00	0.03	

#55: 1610235-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
1610235-03 Hg0	85.368	26.1	57.5	234.16	234.22	34.3	0.765	CT	234.1596	0.00	0.03	
1610235-03 MeHg	2.000	83.8	95.8	234.19	234.21	90.4	0.042	OK	234.1596	0.00	0.03	
1610235-03 Hg(I)	72.797	153.7	219.7	234.18	234.19	177.2	0.386	OK	234.1596	0.00	0.03	

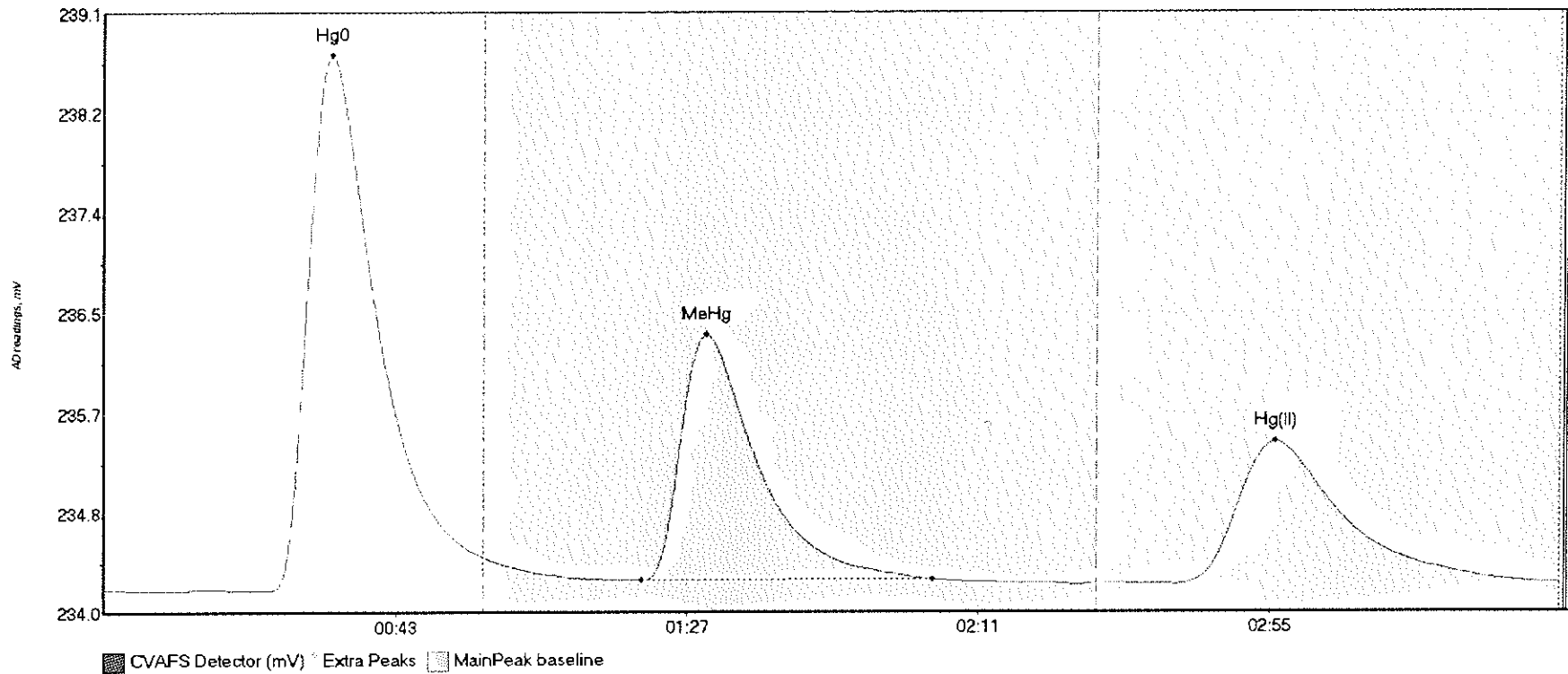
#56: 1610235-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-04 Hg0	78.443	23.4	57.5	234.16	234.22	33.7	0.705	CT	234.1578	0.00	0.04	
1610235-04 MeHg	1.808	82.7	94.4	234.19	234.22	89.8	0.052	OK	234.1578	0.00	0.04	
1610235-04 Hg(1	78.681	162.6	219.8	234.18	234.19	176.8	0.422	CT	234.1578	0.00	0.04	

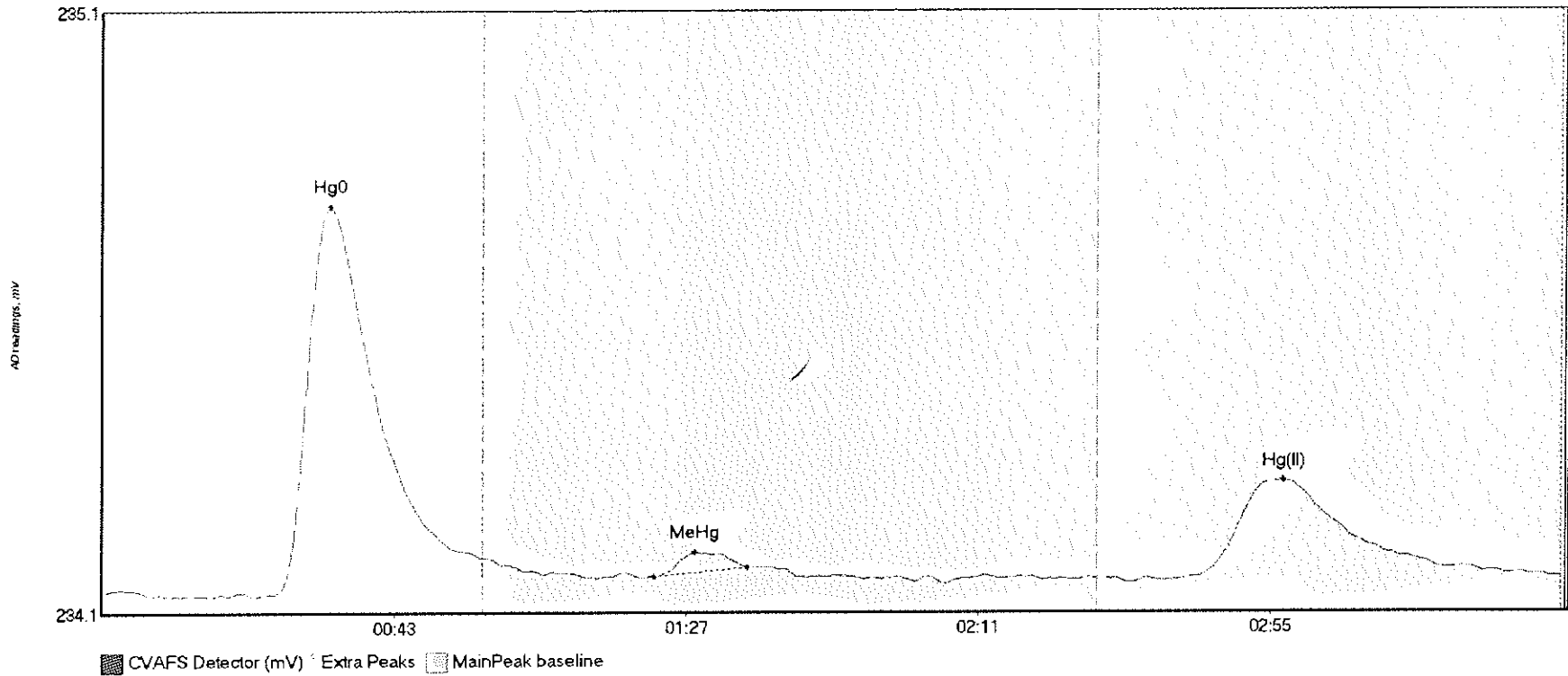


#57: SEQ-CCV4



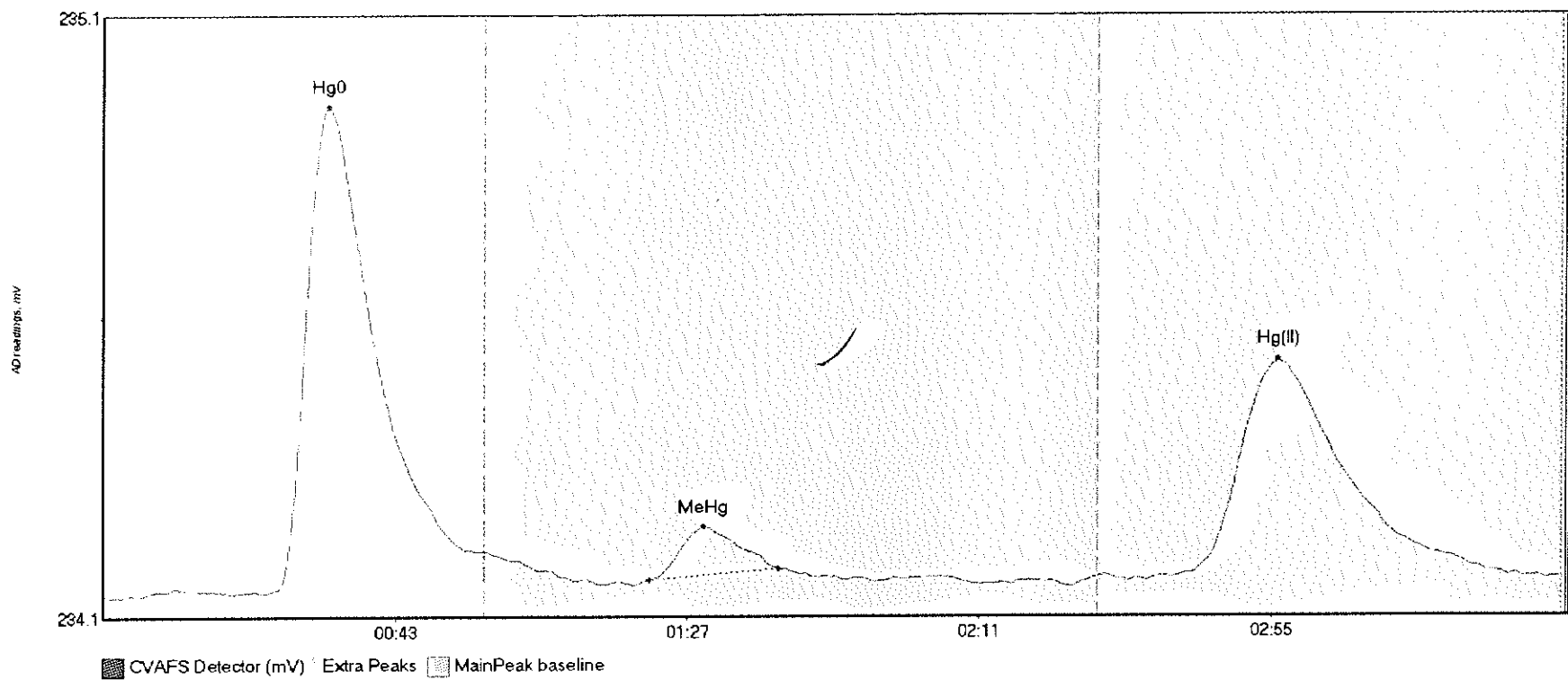
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV4 Hg0	522.614	25.2	57.5	234.17	234.45	34.3	4.554	CT	234.1718	0.00	0.06	
SEQ-CCV4 MeHg	278.781	81.2	125.1	234.25	234.26	90.9	2.095	OK	234.1718	0.00	0.06	
SEQ-CCV4 Hg(II)	222.249	162.1	218.1	234.22	234.23	176.9	1.218	OK	234.1718	0.00	0.06	

#58: SEQ-CCB4



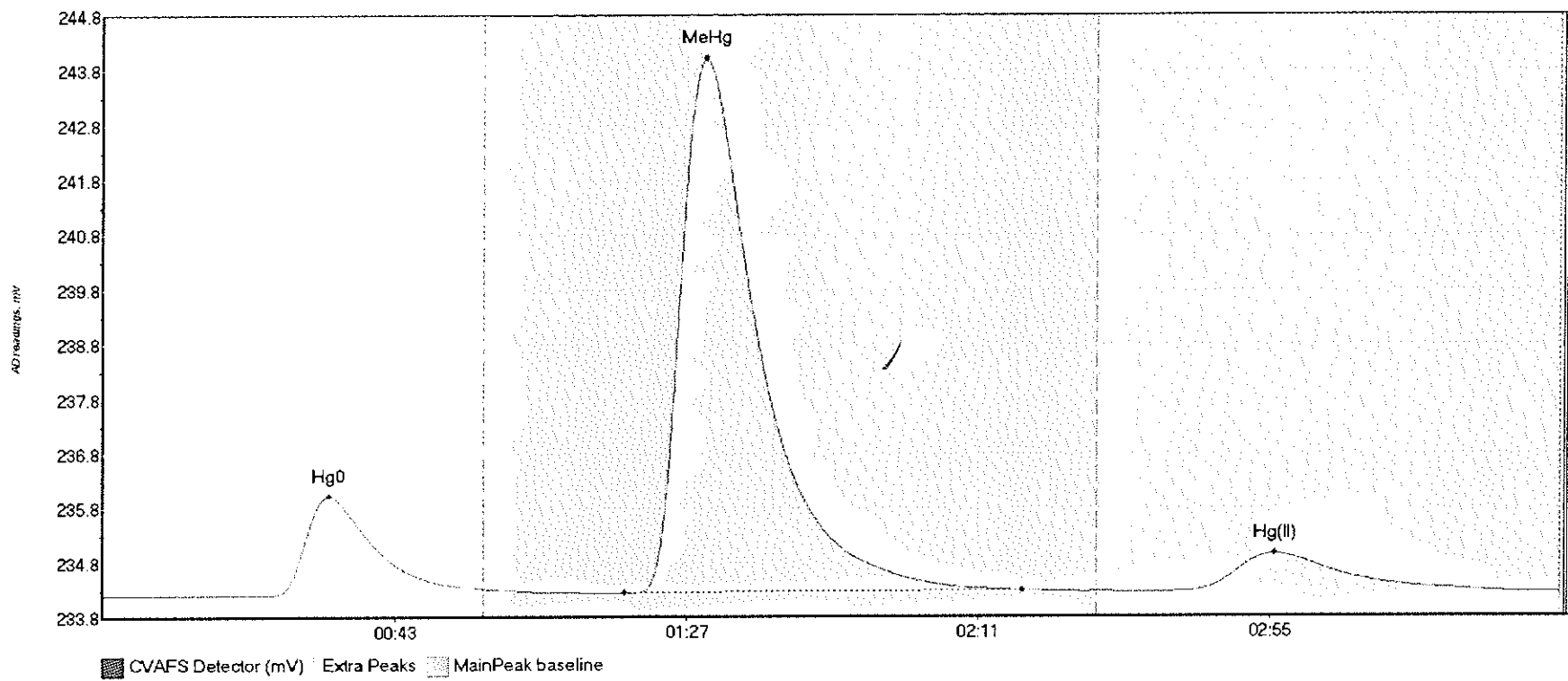
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	71.279	26.0	57.5	234.18	234.24	34.3	0.644	CT	234.1793	0.00	0.02	
SEQ-CCB4 MeHg	2.600	83.2	97.1	234.20	234.22	89.3	0.042	OK	234.1793	0.00	0.02	
SEQ-CCB4 Hg(II)	29.147	165.2	215.5	234.20	234.21	178.1	0.160	OK	234.1793	0.00	0.02	

#59: 1610235-05



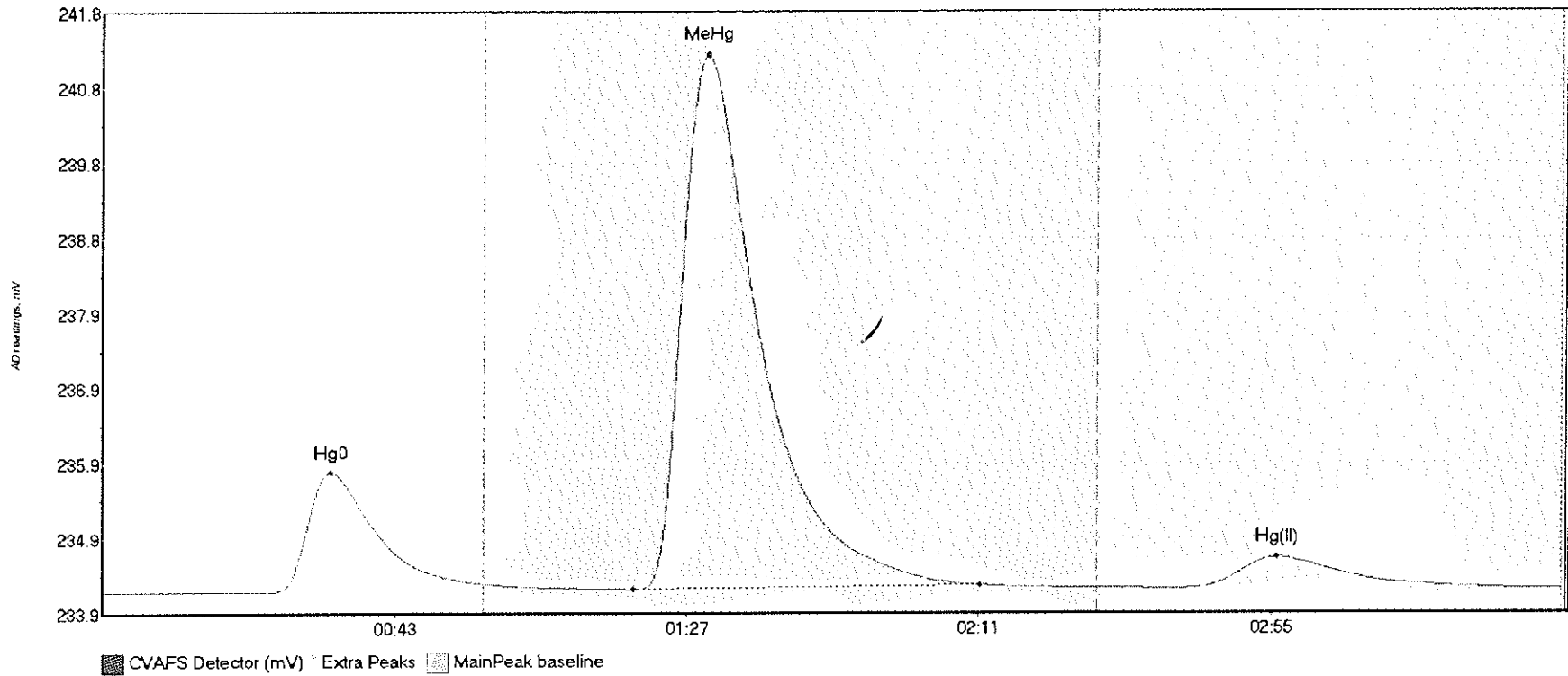
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-05 Hg0	89.927	24.2	56.4	234.18	234.25	33.9	0.809	OK	234.1753	0.00	0.03	
1610235-05 MeHg	7.905	82.3	101.8	234.20	234.22	90.4	0.089	OK	234.1753	0.00	0.03	
1610235-05 Hg(I	63.345	163.7	211.9	234.21	234.21	177.1	0.352	OK	234.1753	0.00	0.03	

#60: 1610574-01



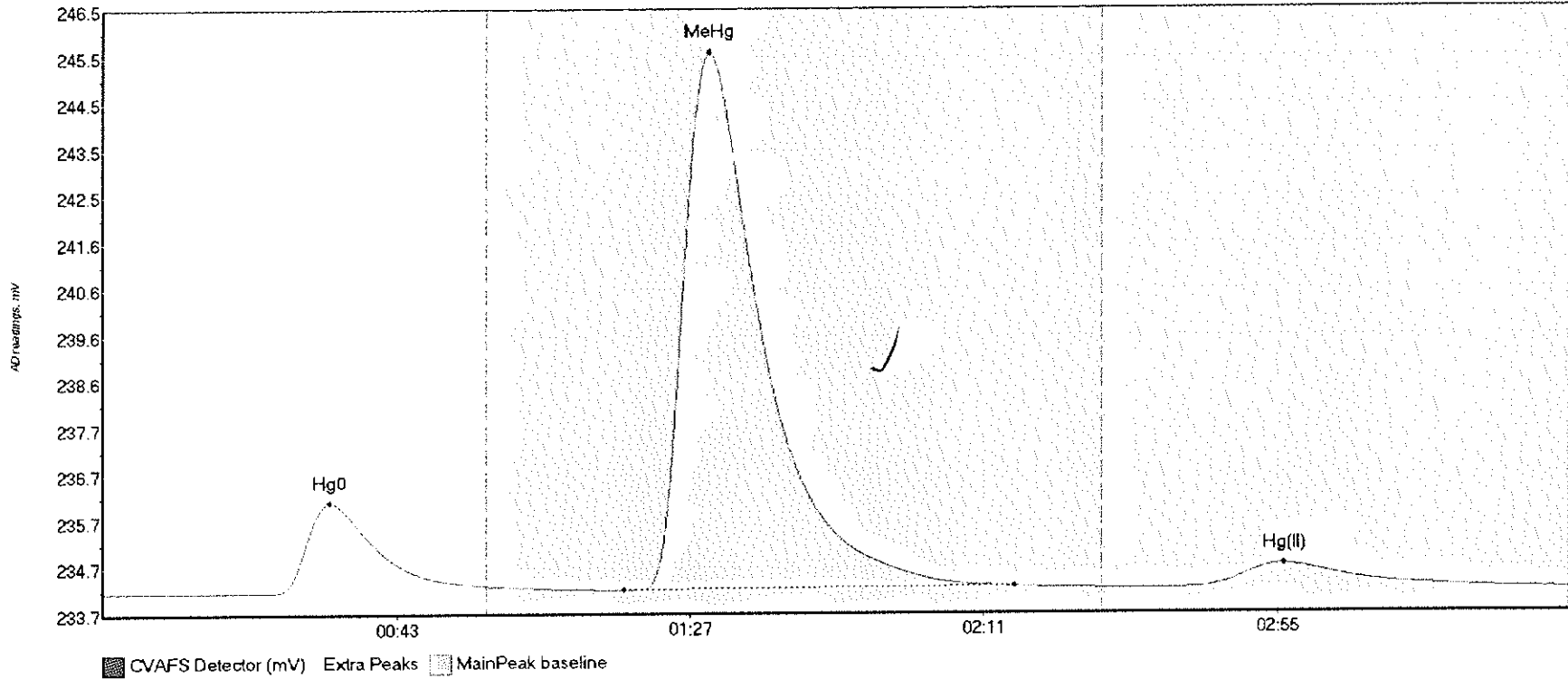
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-01 Hg0	201.765	24.5	57.5	234.18	234.30	34.0	1.814	CT	234.1835	0.60	0.04	
1610574-01 MeHg	1332.409	78.7	138.8	234.22	234.27	90.9	9.793	OK	234.1835	0.60	0.04	
1610574-01 Hg(I	126.093	162.1	212.9	234.24	234.23	176.7	0.689	OK	234.1835	0.60	0.04	

#61: 1610574-02



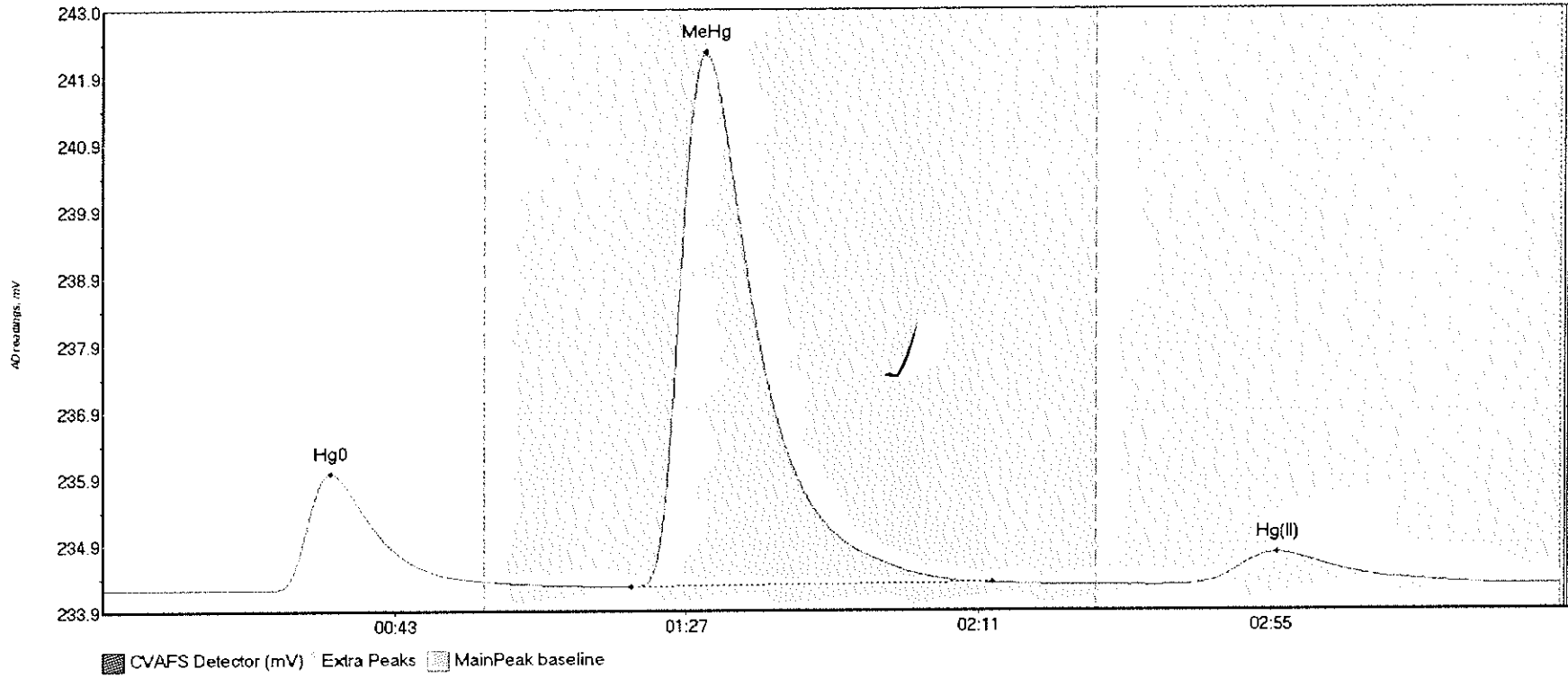
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-02 Hg0	175.896	25.2	57.5	234.19	234.30	34.4	1.574	CT	234.1929	0.00	0.04	
1610574-02 MeHg	951.096	80.0	132.3	234.23	234.28	91.1	7.019	OK	234.1929	0.00	0.04	
1610574-02 Hg(I)	73.743	162.0	212.2	234.23	234.24	176.9	0.413	OK	234.1929	0.00	0.04	

#62: 1610574-03



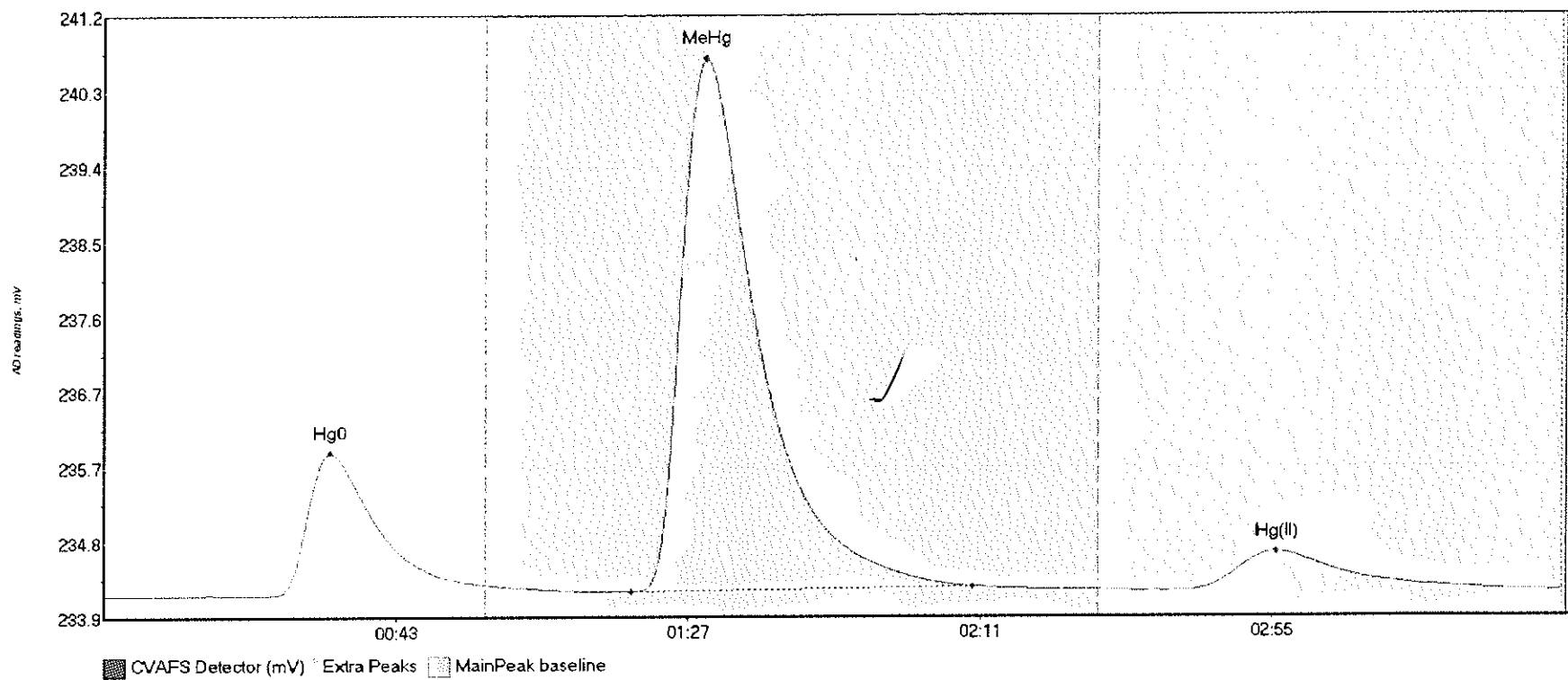
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-03 Hg0	209.161	17.9	57.5	234.19	234.33	34.0	1.908	CT	234.1899	0.00	0.05	
1610574-03 MeHg	1543.317	78.2	136.7	234.24	234.30	90.9	11.315	OK	234.1899	0.00	0.05	
1610574-03 Hg(I)	94.018	160.6	213.2	234.26	234.25	177.0	0.497	OK	234.1899	0.00	0.05	

#63: 1610574-04



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610574-04 Hg0	192.753	19.5	57.5	234.20	234.32	34.4	1.760	CT	234.1945	0.00	0.06	
1610574-04 MeHg	1096.093	79.7	134.2	234.24	234.29	91.0	8.066	OK	234.1945	0.00	0.06	
1610574-04 Hg(I)	87.192	161.1	210.7	234.25	234.25	177.1	0.479	OK	234.1945	0.00	0.06	

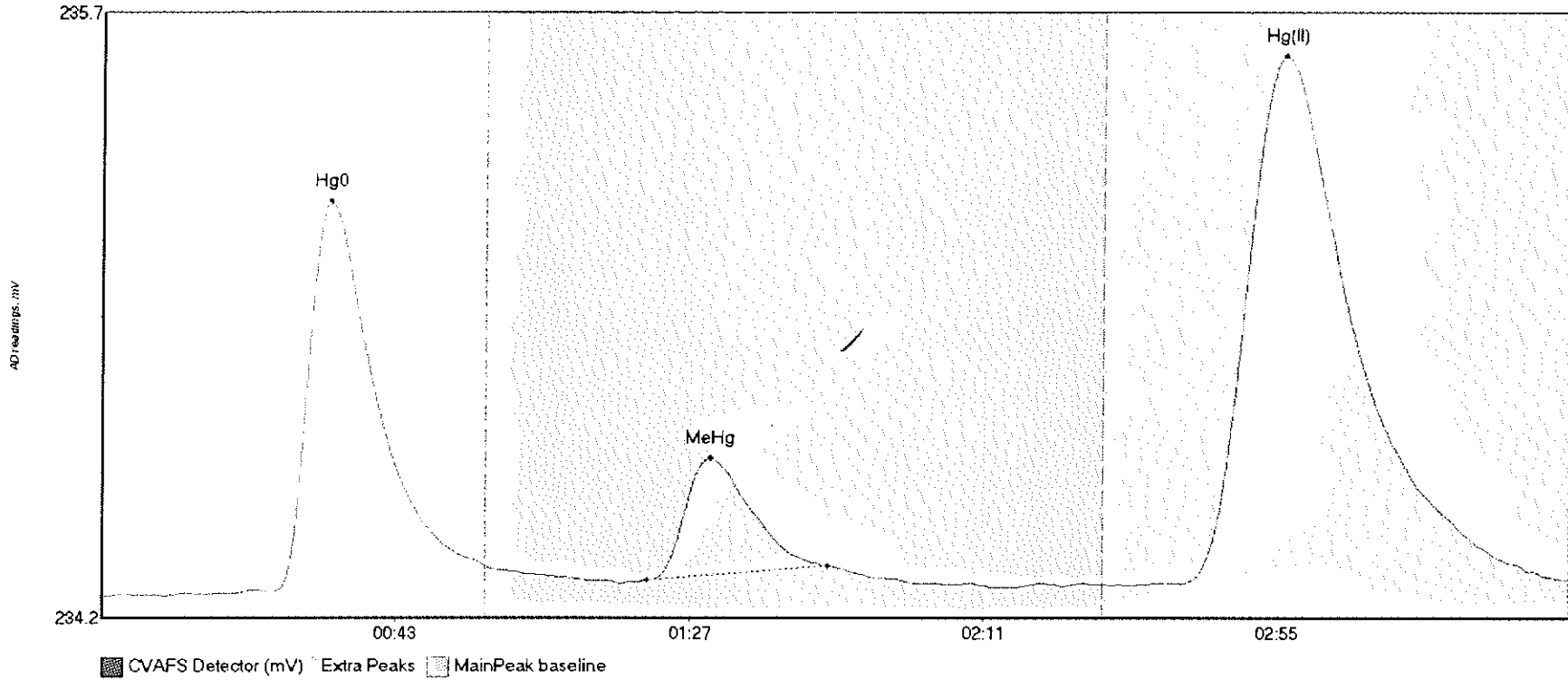
#64: 1610574-05



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-05 Hg0	191.234	24.0	57.5	234.21	234.33	34.1	1.716	CT	234.2029	0.00	0.05	
1610574-05 MeHg	869.998	79.5	130.9	234.25	234.30	90.8	6.414	OK	234.2029	0.00	0.05	
1610574-05 Hg(I	82.903	163.5	212.0	234.26	234.26	176.7	0.462	OK	234.2029	0.00	0.05	

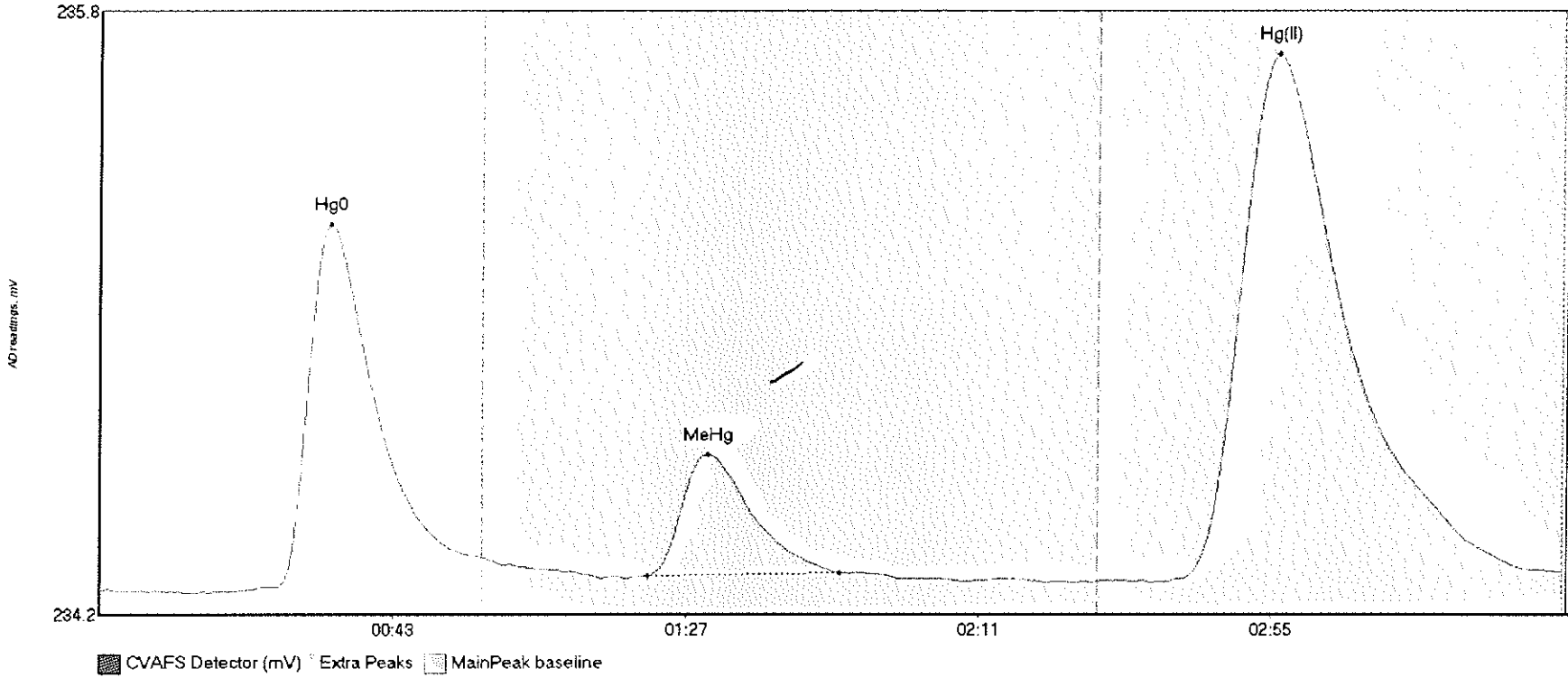


#65: 1610610-01



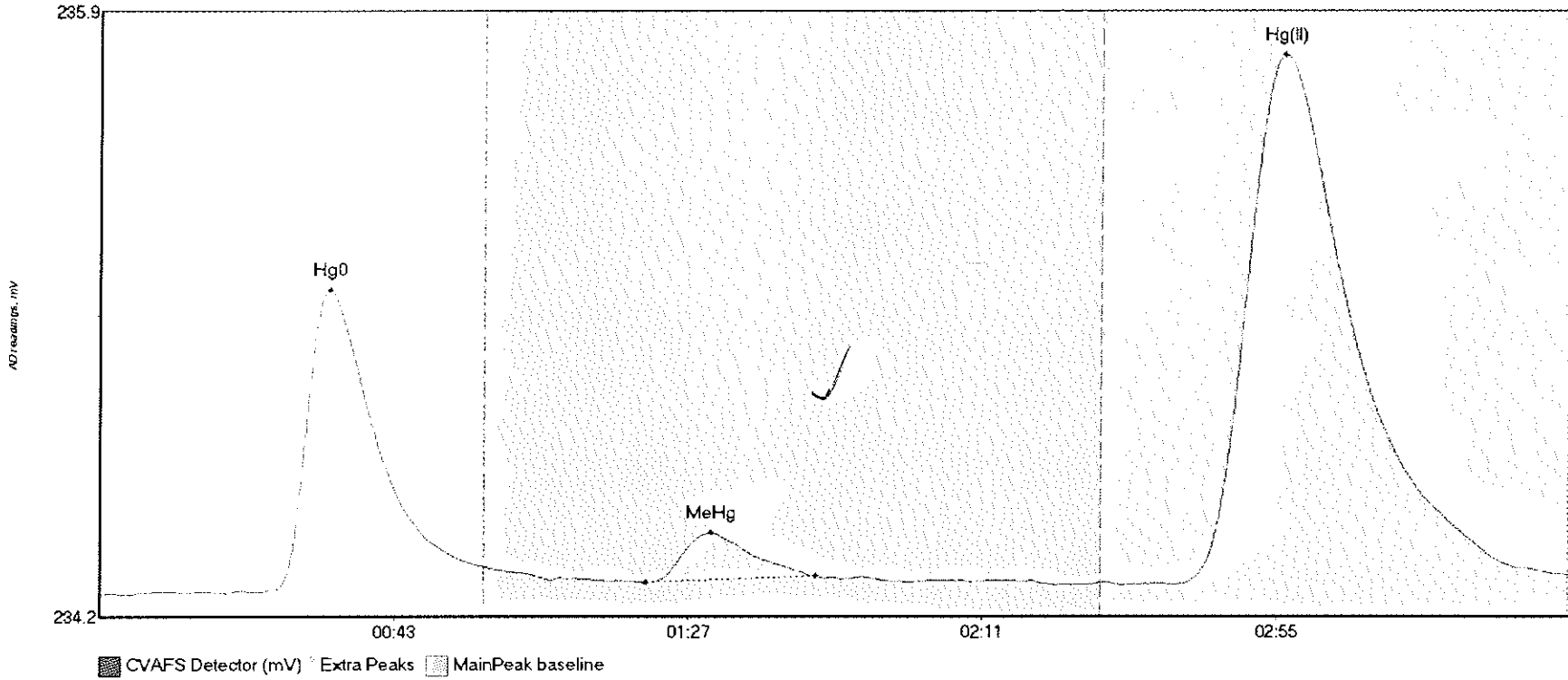
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-01 Hg0	112.851	10.2	57.5	234.21	234.29	34.3	1.033	CT	234.2123	0.00	0.04	
1610610-01 MeHg	35.052	81.6	108.8	234.25	234.29	91.0	0.321	OK	234.2123	0.00	0.04	
1610610-01 Hg(I)	257.453	161.7	219.2	234.24	234.26	177.0	1.384	OK	234.2123	0.00	0.04	

#66: 1610610-02



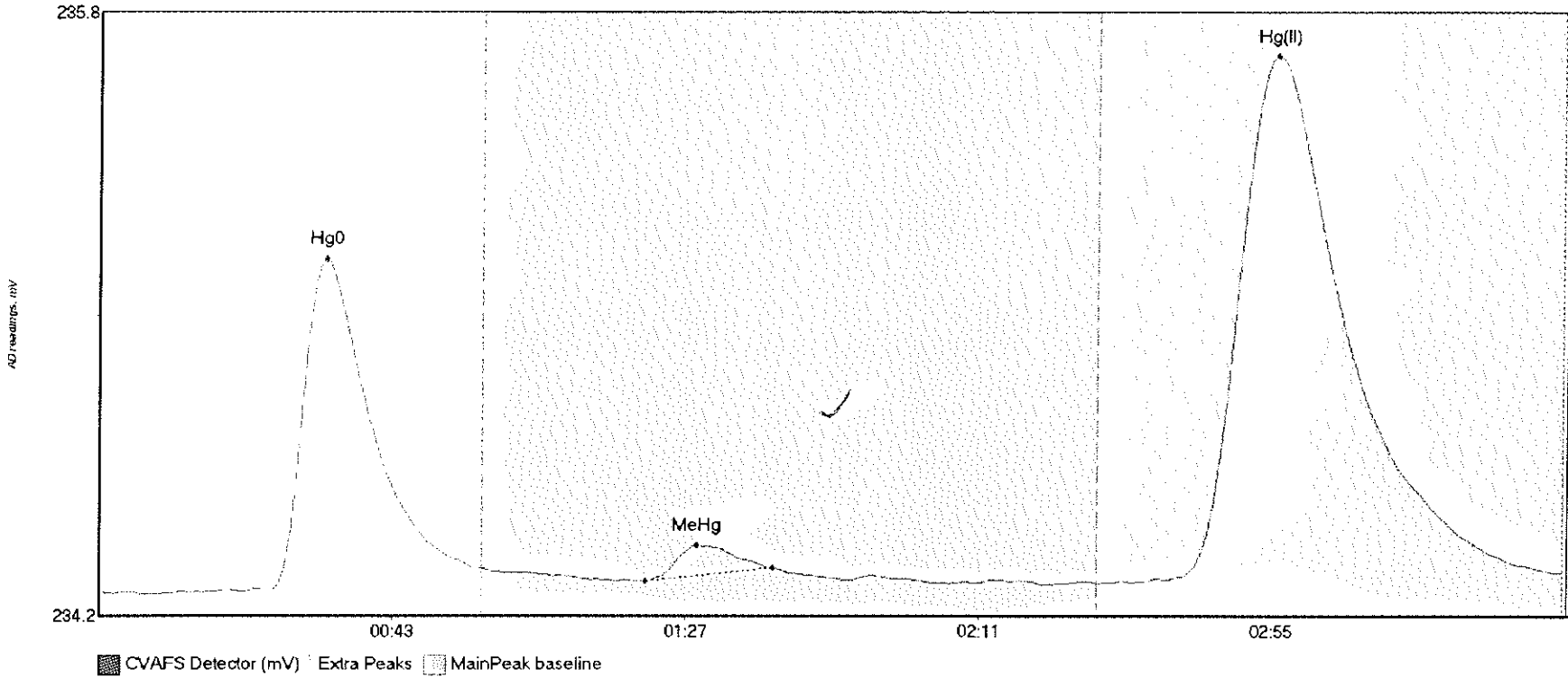
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-02 Hg0	108.116	22.3	57.5	234.22	234.31	34.6	0.999	CT	234.2247	0.00	0.05	
1610610-02 MeHg	39.422	82.3	111.1	234.26	234.27	91.3	0.331	OK	234.2247	0.00	0.05	
1610610-02 Hg(I)	264.464	159.9	219.8	234.25	234.27	177.1	1.439	CT	234.2247	0.00	0.05	

#67: 1610610-03



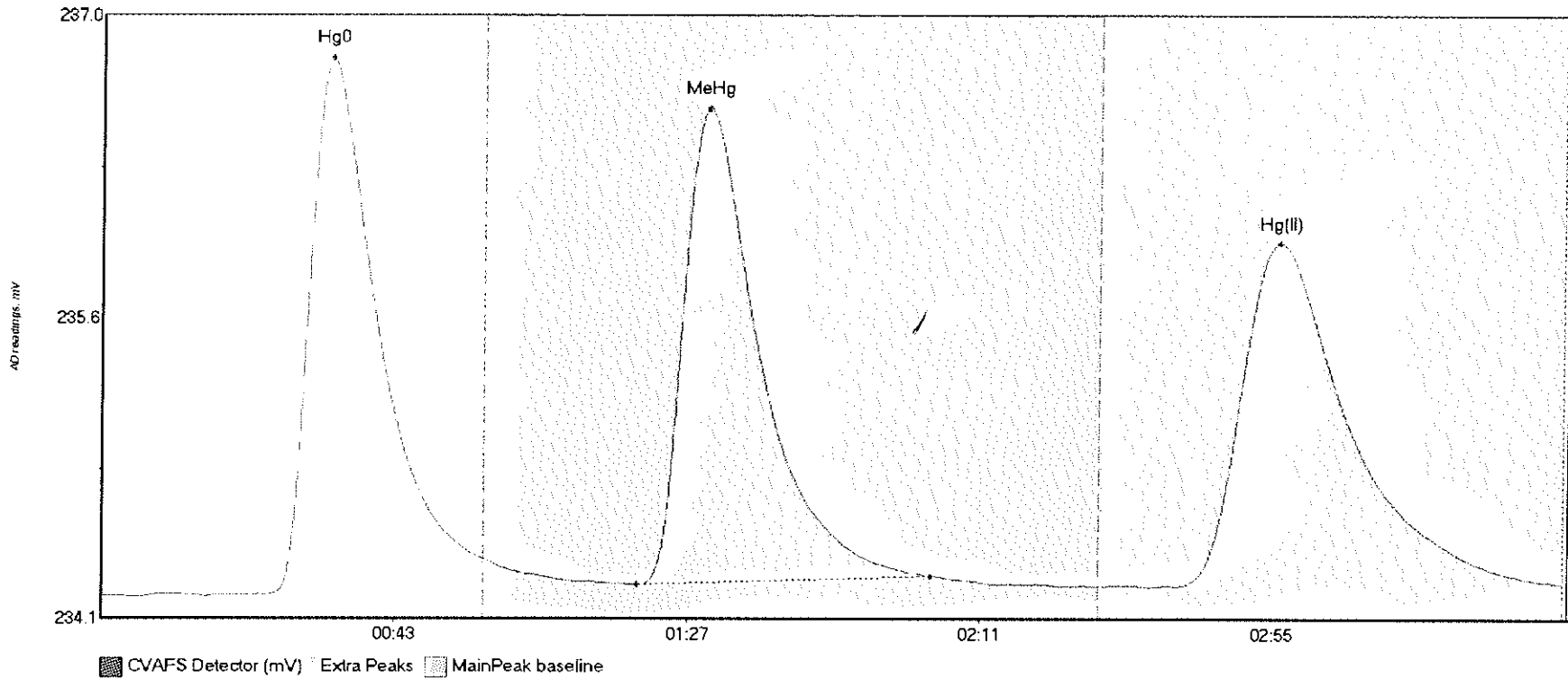
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610610-03 Hg0	96.737	19.2	57.5	234.22	234.30	34.4	0.878	CT	234.2187	0.00	0.06	
1610610-03 MeHg	15.857	81.7	167.0	234.25	234.27	91.5	0.145	OK	234.2187	0.00	0.06	
1610610-03 Hg(I)	281.499	160.8	219.8	234.25	234.28	177.1	1.533	CT	234.2187	0.00	0.06	

#68: 1610610-04



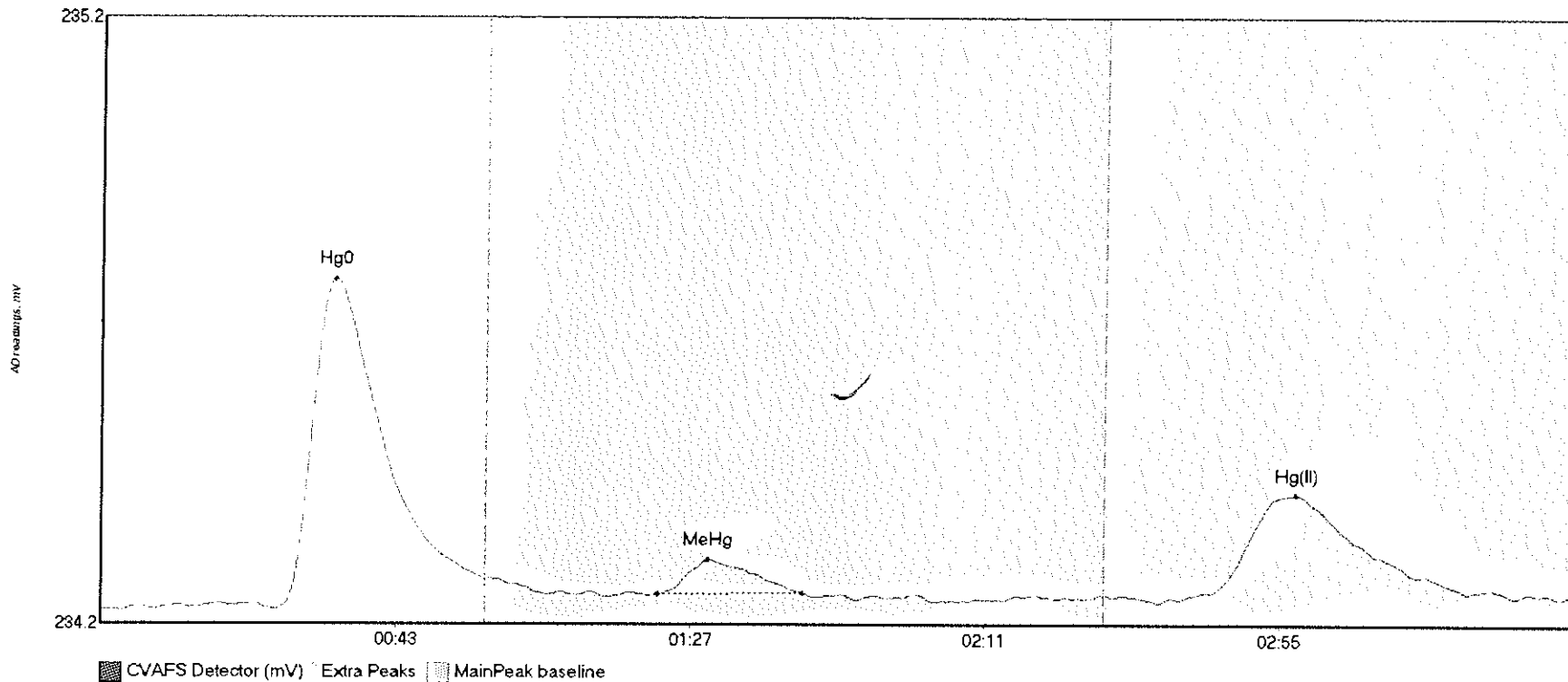
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-04 Hg0	98.932	21.9	57.5	234.24	234.30	34.1	0.887	CT	234.2337	0.00	0.05	
1610610-04 MeHg	7.714	82.0	101.1	234.26	234.30	89.7	0.094	OK	234.2337	0.00	0.05	
1610610-04 Hg(I)	257.883	156.8	219.7	234.26	234.29	176.8	1.403	OK	234.2337	0.00	0.05	

#69: SEQ-CCV5



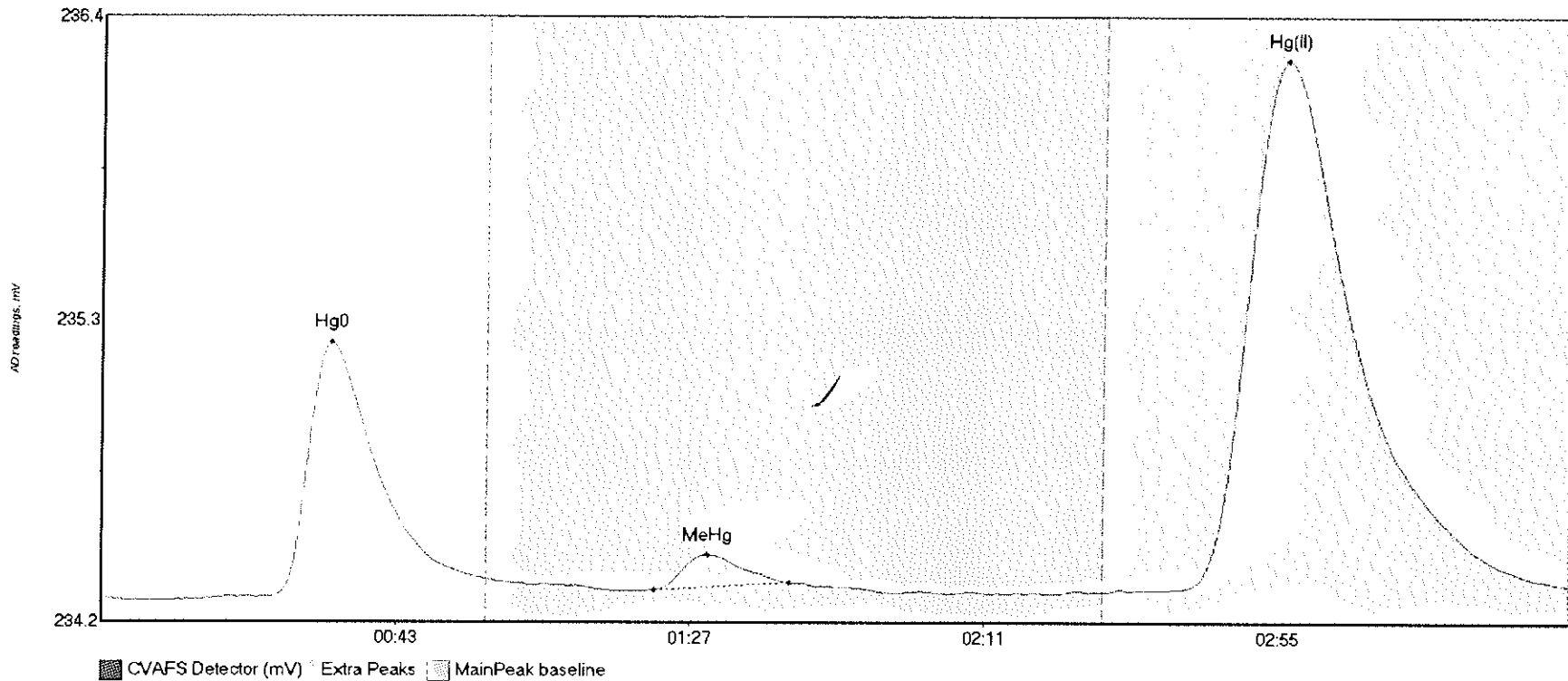
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCV5 Hg0	284.186	22.4	57.5	234.24	234.41	34.4	2.529	CT	234.2388	0.00	0.06	
SEQ-CCV5 MeHg	297.760	80.5	124.8	234.29	234.33	91.0	2.245	OK	234.2388	0.00	0.06	
SEQ-CCV5 Hg(II)	300.109	161.7	219.7	234.29	234.30	177.0	1.620	OK	234.2388	0.00	0.06	

#70: SEQ-CCB5



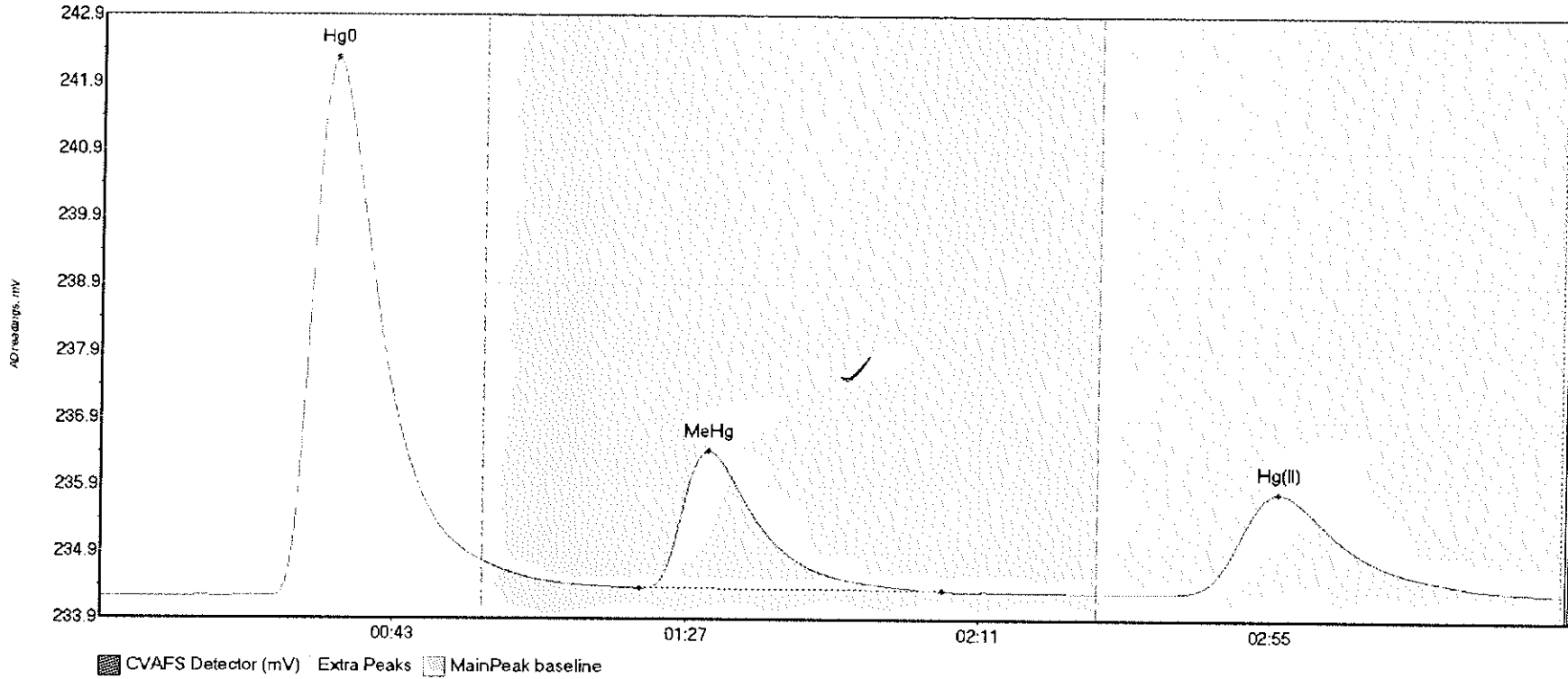
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCB5 Hg0	61.972	26.1	57.4	234.24	234.30	34.7	0.545	OK	234.2436	0.00	0.02	
SEQ-CCB5 MeHg	6.106	83.2	104.7	234.27	234.27	90.6	0.057	OK	234.2436	0.00	0.02	
SEQ-CCB5 Hg(II)	33.693	161.0	211.2	234.26	234.27	178.4	0.173	OK	234.2436	0.00	0.02	

#71: 1610617-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610617-01 Hg0	103.534	23.5	57.5	234.25	234.32	34.3	0.933	CT	234.2486	0.00	0.05	
1610617-01 MeHg	11.885	82.7	102.9	234.28	234.30	90.7	0.129	OK	234.2486	0.00	0.05	
1610617-01 Hg(I)	357.282	154.0	219.8	234.28	234.30	177.0	1.945	CT	234.2486	0.00	0.05	

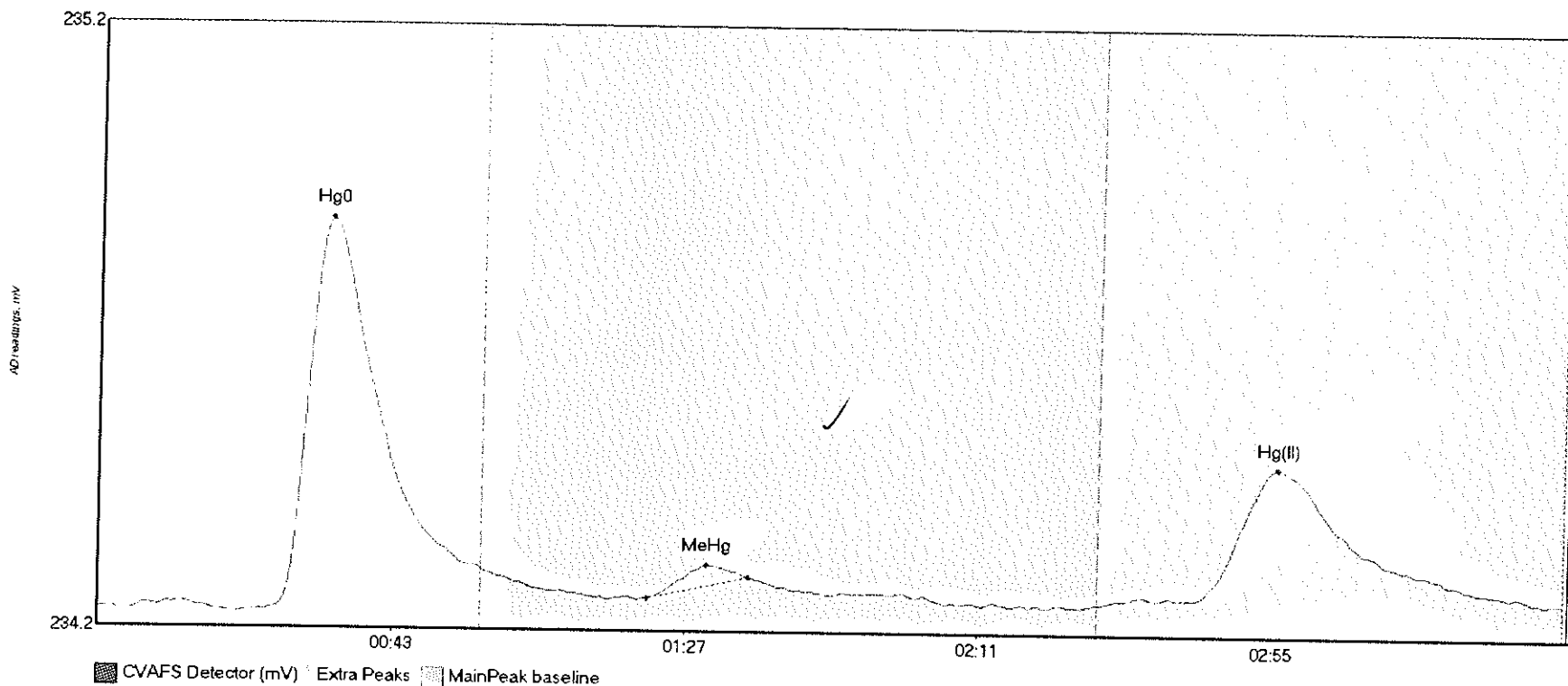
#72: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	886.183	12.3	57.5	234.24	234.78	35.2	7.968	CT	234.2449	0.00	0.08	
SEQ-CCV6 MeHg	275.085	81.0	126.6	234.38	234.35	91.3	2.039	OK	234.2449	0.00	0.08	
SEQ-CCV6 Hg(II)	275.829	160.0	219.4	234.31	234.32	177.2	1.496	OK	234.2449	0.00	0.08	



#73: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	72.222	25.0	57.5	234.25	234.32	34.5	0.648	CP	234.2555	0.00	0.03	
SEQ-CCB6 MeHg	2.764	82.3	97.4	234.28	234.31	91.1	0.095	OK	234.2555	0.00	0.03	
SEQ-CCB6 Hg(II)	44.946	150.1	217.2	234.27	234.28	176.7	0.229	OK	234.2555	0.00	0.03	

**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 6J31010
<b>Reviewer:</b> <i>[Signature]</i>	<b>Dataset ID #:</b> MMHG27001-161030-1
<b>Date:</b> 10/31/16	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F610422, F610408	<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:	
	<i>DM</i>		<i>RM</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 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 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	<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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6J31010
<b>Reviewer:</b>	0 <i>[Signature]</i>	<b>Dataset ID #:</b>	MMHG27001-161030-1
<b>Date:</b>	10/31/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422, F610408	<b>Client(s):</b>	VARIOUS

	Analyst Initials:		Reviewer Initials:	
	<i>DM</i>		<i>R</i>	
9. ICV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
10. CCV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
13. LCS/LCSD or BS/BSD RPD (< 25%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<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 type="checkbox"/>
17. Is the correct 'Source' designated for MD/MS/MSD?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: <b>F610408-DUP1 FAILED. HIGH RPD</b>				
20. Is there one set of MS/MSD per every 10 samples?	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
21. MS/MSD RPD(< 35%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
22. MS (AS) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
23. MSD (ASD) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
25. Are all samples within instrument calibration range (or at maximum aliquot size)?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: <b>VARIOUS SAMPLES BELOW CAL1</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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 6J31010
<b>Reviewer:</b> 0 <i>DM</i>	<b>Dataset ID #:</b> MMHG27001-161030-1
<b>Date:</b> 10/31/2016	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F610422, F610408	<b>Client(s):</b> VARIOUS

**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?  
 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\IDOCs
38. Date of analyst IDOC/CDOC: 6/21/16 ~~7/9/2015~~ 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: 6/24/2016 LOD within last 3 months (within 12 months for MDN)?  YES    NO    N/A
41. Date of LOQ: 6/24/2016 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: NA 11/2/16  YES    NO



Frontier Global Sciences

### MMHg27001-161031-1 solids

*Analysis Datasheet for Methyl Mercury in Soil/Tissue*

Date of Analysis: October 31, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6K01010

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	30.97 units	619.37	28.27 units	565.37	97.8 %Rec
SEQ-CAL2	1	0.20 ng/L	109.73 units	548.63	107.03 units	535.13	92.5 %Rec
SEQ-CAL3	1	1.00 ng/L	626.10 units	626.10	623.40 units	623.40	107.8 %Rec
SEQ-CAL4	1	2.00 ng/L	1139.68 units	569.84	1136.98 units	568.49	98.3 %Rec
SEQ-CAL5	1	4.00 ng/L	2400.16 units	600.04	2397.46 units	599.37	103.6 %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**  
 578.35            +/- 33.93            5.9% RSD            592.80

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	2.70 units		0.00 ng/L	#VALUE!

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.568 ng/L	±2.109
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 11-2-16

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	Run End	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2700-1	DM2	CAL	SEQ-IBL1	1	10/31/16 11:05	17457-1.RAW	11:05:27	2.70			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/31/16 11:15	17458-1.RAW	11:15:57	30.97			28.3	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/31/16 11:26	17459-1.RAW	11:26:28	109.73			107.0	0.185	0.185	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/31/16 11:36	17460-1.RAW	11:36:59	626.10			623.4	1.078	1.078	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/31/16 11:47	17461-1.RAW	11:47:29	1139.68			1137.0	1.966	1.966	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/31/16 11:58	17462-1.RAW	11:58:00	2400.16			2397.5	4.145	4.145	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	10/31/16 12:08	17463-1.RAW	12:08:31	300.40			297.7	0.515	0.515	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	10/31/16 12:19	17464-1.RAW	12:19:02	6.17			3.5	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK7	500	10/31/16 13:02	17465-1.RAW	13:02:45	6.16	1		3.5	0.006	2.993	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK8	500	10/31/16 13:13	17466-1.RAW	13:13:16	2.17	1		-0.5	-0.001	-0.459	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK9	500	10/31/16 13:23	17467-1.RAW	13:23:47	1.74	1		-1.0	-0.002	-0.831	ng/L	
Hg2700-1	DM2	SAM	1610231-01RE1	500	10/31/16 13:34	17468-1.RAW	13:34:18	49.17	1		46.5	0.079	39.607	ng/L	
Hg2700-1	DM2	SAM	1610231-02RE1	500	10/31/16 13:44	17469-1.RAW	13:44:48	28.51	1		25.8	0.043	21.746	ng/L	
Hg2700-1	DM2	SAM	1610231-03RE1	500	10/31/16 13:55	17470-1.RAW	13:55:19	5.66	1		3.0	0.004	1.993	ng/L	
Hg2700-1	DM2	SAM	1610231-04RE1	500	10/31/16 14:05	17471-1.RAW	14:05:50	24.08	1		21.4	0.036	17.913	ng/L	
Hg2700-1	DM2	SAM	1610231-05RE1	500	10/31/16 14:16	17472-1.RAW	14:16:20	75.02	1		72.3	0.124	61.951	ng/L	
Hg2700-1	DM2	SAM	1610235-01RE1	500	10/31/16 14:26	17473-1.RAW	14:26:51	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-02RE1	500	10/31/16 14:37	17474-1.RAW	14:37:22	1.99	1		-0.7	-0.002	-1.179	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/31/16 14:47	17475-1.RAW	14:47:52	211.54			208.8	0.361	0.361	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/31/16 14:58	17476-1.RAW	14:58:23	0.00			-2.7	-0.005	-0.005	ng/L	
Hg2700-1	DM2	SAM	1610235-03RE1	500	10/31/16 15:08	17477-1.RAW	15:08:54	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-04RE1	500	10/31/16 15:19	17478-1.RAW	15:19:24	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-05RE1	500	10/31/16 15:29	17479-1.RAW	15:29:55	9.42	1		6.7	0.010	5.245	ng/L	
Hg2700-1	DM2	SAM	1610610-01RE1	500	10/31/16 15:40	17480-1.RAW	15:40:26	52.26	1		49.6	0.085	42.275	ng/L	
Hg2700-1	DM2	SAM	1610610-02RE1	500	10/31/16 15:50	17481-1.RAW	15:50:56	66.85	1		64.1	0.110	54.891	ng/L	
Hg2700-1	DM2	SAM	1610610-03RE1	500	10/31/16 16:01	17482-1.RAW	16:01:27	16.92	1		14.2	0.023	11.728	ng/L	
Hg2700-1	DM2	SAM	1610610-04RE1	500	10/31/16 16:11	17483-1.RAW	16:11:58	9.82	1		7.1	0.011	5.587	ng/L	
Hg2700-1	DM2	SAM	1610617-01RE1	500	10/31/16 16:22	17484-1.RAW	16:22:28	18.03	1		15.3	0.025	12.684	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/31/16 16:32	17485-1.RAW	16:32:59	281.97			279.3	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/31/16 16:43	17486-1.RAW	16:43:30	0.00			-2.7	-0.005	-0.005	ng/L	

MethylMercury EPA1630 Operat DM BlankS 2.7002 Calib Eqn: Conc = (Area-2.700) / 578 Run Date: ##### Blank SD: 0  
 Worksl MMHG2 CalibFa 578.35 Status: OK, 1 Warning Run Time: 12:52:12 Blank RSD: 0  
 Methor 2010-01 R: 0.9995 R²: 0.999089146 CalibAnah MerHg CF SD: 33.929659483  
 Descrpt MMHG27001-161031-1 CF RSD%: 5.860664477

Sample/ID	Locabon	Rinse	Dilute	Blank	ConcHg0(p)	ConcMerHg(ppb)	ConcHg2(p)	ConcPrHg(p)	Rec%	QA	RawData	RunEnd	PeakHg0 (Raw)	PeakMerHg (R)	PeakHg2(Raw)	PeakPrHg(Raw)	Control (eff)	Flags	RunCount		
Clean											17455-1.RAW		0.594412879	0	0	0	0	cleandry	OK	1	
WS											17456-1.RAW		42.59749053	3.010256866	63.79507576	0	0	psample10	CT	1	
SEQ-1BL1	A1		2.7002	0.0688848	0.00	0.1058366					17457-1.RAW		66.16378344	2.700213068	30.36472538	0	0	psample10	CT	1	
SEQ-CAL1	A2		1	0	0.1144011	0.00	0.0325024				17458-1.RAW		11.15:57	78.16588542	30.96870265	38.30151515	0	0	psample10	CT	1
SEQ-CAL2	A4		1	2.7002	0.1429473	0.05	0.0615568	97.76			17459-1.RAW		85.37369792	109.7254274	45.74114583	0	0	psample10	CT	1	
SEQ-CAL3	A5		1	2.7002	0.261864	0.08	0.0744203	92.53			17460-1.RAW		154.1490664	626.096804	120.0716856	0	0	psample10	CT	1	
SEQ-CAL4	A6		1	2.7002	0.4675858	1.97	0.3468556	98.29			17461-1.RAW		284.6931132	1139.675563	203.3038589	0	0	psample10	CT	1	
SEQ-CAL5	A7		1	2.7002	0.7566185	4.15	0.6852536	103.63			17462-1.RAW		440.289925	2400.162288	399.0161222	0	0	psample10	CT	1	
SEQ-ICV1	A8		1	2.7002	0.7778349	0.51	0.4127026	103.08			17463-1.RAW		452.5604545	300.4030703	241.3364347	0	0	psample10	CT	1	
SEQ-ICB1	A9		1	2.7002	0.1218712	0.01	0.0584896	0.00			17464-1.RAW	12:19:02	73.18433676	6.174857955	36.52765152	0	0	psample10	CT	1	
F610422-BLK7	A10		500	2.7002	35.222857	2.993454039	39.931912				17465-1.RAW		43.44243695	6.162736742	48.88939394	0	0	psample10	CT	1	
F610422-BLK8	A11		500	2.7002	53.415166	-0.459159583	79.808767				17466-1.RAW		84.48545511	2.160103866	95.0148911	0	0	psample10	OK	1	
F610422-BLK9	A12		500	2.7002	47.926416	-0.831124125	41.474864				17467-1.RAW		58.13662405	1.738853074	50.67412405	0	0	psample10	CT	1	
1610231-01RE1	A13		500	2.7002	231.81444	40.17465142	770.25125				17468-1.RAW		270.839622	49.17017045	893.6486496	0	0	psample10	CT	1	
1610231-02RE1	A14		500	2.7002	149.76099	22.31392935	436.96329				17469-1.RAW		175.9285245	28.51070076	508.1349733	0	0	psample10	CT	1	
1610231-03RE1	A15		500	2.7002	95.781299	2.56086179	201.83499				17470-1.RAW		113.4902936	5.662357955	236.1624384	0	0	psample10	CT	1	
1610231-04RE1	A16		500	2.7002	113.52238	18.48036298	347.45474				17471-1.RAW		134.011377	24.07642045	404.6005794	0	0	psample10	CT	1	
1610231-05RE1	A17		500	2.7002	138.39877	62.51870831	346.58008				17472-1.RAW		162.7858625	75.01550663	403.5888609	0	0	psample10	CT	1	
1610235-01RE1	A18		500								17473-1.RAW		138.5206194	0	69.56671402	0	0	psample10	CT	1	
1610235-02RE1	A19		500	2.7002	77.503218	-0.611605359	67.646142				17474-1.RAW		92.34805555	1.992770092	80.94640152	0	0	psample10	CT	1	
SEQ-CCV1	A20		1	2.7002	0.9637073	0.361104374	0.4872387	72.31			17475-1.RAW		560.0595894	211.8446496	284.4943668	0	0	psample10	CT	1	
SEQ-CCB1	A21		1								17476-1.RAW		66.48123753	0	62.93475379	0	0	psample10	DK	1	
1610235-03RE1	B1		500								17477-1.RAW		75.36769493	0	70.55852273	0	0	psample10	CT	1	
1610235-04RE1	B2		500								17478-1.RAW		68.21243242	0	73.38402892	0	0	psample10	CT	1	
1610235-05RE1	B3		500	2.7002	77.223181	5.812405735	58.276218				17479-1.RAW		92.02414773	9.423413826	70.10822518	0	0	psample10	CT	1	
1610610-01RE1	B4		500	2.7002	109.0239	42.84226351	353.827				17480-1.RAW		32.8079885	52.25579325	411.0713586	0	0	psample10	CT	1	
1610610-02RE1	B5		500	2.7002	111.1226	55.45893625	375.61977				17481-1.RAW		131.2355587	66.84947917	437.1790246	0	0	psample10	CT	1	
1610610-03RE1	B6		500	2.7002	109.37814	12.29586708	415.35191				17482-1.RAW		129.2177379	16.92282357	483.1371272	0	0	psample10	CT	1	
1610610-04RE1	B7		500	2.7002	105.69195	6.15447208	363.19725				17483-1.RAW		124.953923	9.819061439	422.8099142	0	0	psample10	CT	1	
1610617-01RE1	B8		500	2.7002	115.57415	13.25208777	434.515				17484-1.RAW		136.3896565	18.02888258	505.3030483	0	0	psample10	CT	1	
SEQ-CCV2	B9		1	2.7002	0.6538544	0.462879993	0.4112808	96.70			17485-1.RAW		380.8564067	281.9734848	240.5641188	0	0	psample10	CT	1	
SEQ-CCB2	B10		1								17486-1.RAW	15:43:30	61.32159091	0	36.87220644	0	0	psample10	CT	1	

Sample/ID	Location	Rinse	Dilute	Blank	ConcHqD (µg)	ConcMeHg (ppt)	ConcHq2 (µg)	ConcPrHg (µg)	Rec%	QA	RawData	RunEnd	PeakHqQ (Raw)	PeakMeHg (R)	PeakHq2 (Raw)	PeakPrHg (Raw)	Control (µg)	Flags	RunCount	
Clean											17455-1.RAW	10:44:25	0.59412879	0	0	0	0	cleandry	OK	1
WS	A1		2.7002	0.0689066	0.00	0.105517					17456-1.RAW	10:54:56	42.59749053	3.010256896	63.79507576	0	0	psample10	CT	1
SEQ-1BL1	A2	1	0	0.1142715	0.00	0.0524428					17457-1.RAW	11:05:27	66.16378344	2.700213069	30.26472538	0	0	psample10	CT	1
SEQ-CAL1	A3	1	2.7002	0.1303368	0.05	0.061487		57.65			17458-1.RAW	11:15:57	78.16588542	30.96670265	38.30151515	0	0	psample10	CT	1
SEQ-CAL2	A4	1	2.7002	0.1427854	0.18	0.074336		92.42			17459-1.RAW	11:26:28	85.37369792	109.7254274	45.74114583	0	0	psample10	CT	1
SEQ-CAL3	A5	1	2.7002	0.2615674	1.08	0.202636		107.57			17460-1.RAW	11:36:59	154.1490664	626.096604	120.0274858	0	0	psample10	CT	1
SEQ-CAL4	A6	1	2.7002	0.4870336	1.97	0.3464627		88.75			17461-1.RAW	11:47:29	284.6951132	1146.234659	203.3038589	0	0	psample10	CT	1
SEQ-CAL5	A7	1	2.7002	0.7562457	4.14	0.5845085		103.52			17462-1.RAW	11:58:00	440.5702968	2400.162288	399.0340672	0	0	psample10	CT	1
SEQ-1CV1	A8	1	2.7002	0.7770365	0.51	0.4122351		103.10			17463-1.RAW	12:08:31	452.6082821	300.8176136	241.3864347	0	0	psample10	CT	1
SEQ-1CB1	A9	1	2.7002	0.1217332	0.01	0.0584234		0.00			17464-1.RAW	12:19:02	73.18433676	61.74857955	36.52765152	0	0	psample10	CT	1
F610422-BLK7	A10	500	2.7002	35.182961	2.990053505	39.878465					17465-1.RAW	13:02:45	43.44243695	6.162736742	48.87987689	0	0	psample10	CT	1
F610422-BLK8	A11	500	2.7002	53.354667	-0.488639515	79.718372					17466-1.RAW	13:13:16	64.48545511	2.169103886	95.0148911	0	0	psample10	OK	1
F610422-BLK9	A12	500	2.7002	47.572132	-0.819268855	41.427887					17467-1.RAW	13:23:47	58.13662405	1.751491477	50.67412405	0	0	psample10	CT	1
1610231-01RE1	A13	500	2.7002	231.55188	-40.10830355	769.37883					17468-1.RAW	13:34:18	270.839622	49.1460328	893.6486496	0	0	psample10	CT	1
1610231-02RE1	A14	500	2.7002	149.59137	22.28865549	436.46836					17469-1.RAW	13:44:48	175.9285245	28.51070076	508.1349733	0	0	psample10	CT	1
1610231-03RE1	A15	500	2.7002	98.672812	2.557961232	201.60638					17470-1.RAW	13:55:19	113.4902936	5.662357955	236.1624384	0	0	psample10	CT	1
1610231-04RE1	A16	500	2.7002	113.3938	18.45943121	346.34776					17471-1.RAW	14:05:50	134.011377	24.07642045	403.7744052	0	0	psample10	CT	1
1610231-05RE1	A17	500	2.7002	138.24202	62.96792802	346.18753					17472-1.RAW	14:16:20	162.7858625	75.61770833	403.5888609	0	0	psample10	CT	1
1610235-01RE1	A18	500									17473-1.RAW	14:26:51	138.5206194	0	0	0	0	psample10	CT	1
1610235-02RE1	A19	500	2.7002	77.415434	-0.610912624	67.569523					17474-1.RAW	14:37:22	92.34806555	1.992770092	80.94640152	0	0	psample10	CT	1
SEQ-CCV1	A20	1	2.7002	0.9626188	0.36069537	0.4869006		72.23			17475-1.RAW	14:47:52	560.0595894	211.5446496	284.6180884	0	0	psample10	CT	1
SEQ-CCB1	A21	1									17476-1.RAW	14:58:23	66.48123753	0	0	0	0	psample10	OK	1
1610235-03RE1	B1	500									17477-1.RAW	15:08:54	75.36769493	0	0	0	0	psample10	CT	1
1610235-04RE1	B2	500									17478-1.RAW	15:19:24	68.21243242	0	0	0	0	psample10	CT	1
1610235-05RE1	B3	500	2.7002	77.135714	5.805822318	58.210212					17479-1.RAW	15:29:55	92.02414773	9.423413826	70.10822518	0	0	psample10	CT	1
1610610-01RE1	B4	500	2.7002	108.90041	42.80514965	353.42351					17480-1.RAW	15:40:26	128.8079885	52.26900777	411.9681997	0	0	psample10	CT	1
1610610-02RE1	B5	500	2.7002	110.99674	55.27292578	375.19433					17481-1.RAW	15:50:56	121.2355587	66.70681818	437.1790246	0	0	psample10	CT	1
1610610-03RE1	B6	500	2.7002	109.25425	62.28194018	414.88146					17482-1.RAW	16:01:27	129.2177379	16.92282357	483.1371272	0	0	psample10	CT	1
1610610-04RE1	B7	500	2.7002	105.57223	61.47501221	362.78588					17483-1.RAW	16:11:58	124.953923	9.819081439	422.8099142	0	0	psample10	CT	1
1610617-01RE1	B8	500	2.7002	115.44325	13.23707781	434.02285					17484-1.RAW	16:22:28	136.3846565	18.02888256	505.3030463	0	0	psample10	CT	1
SEQ-CCV2	B9	1	2.7002	0.6531138	0.482336126	0.4108149		96.59			17485-1.RAW	16:32:59	380.8564067	281.9752604	240.564188	0	0	psample10	CT	1
SEQ-CCB2	B10	1									17486-1.RAW	16:43:30	61.32159091	0	0	0	0	psample10	CT	1





## ANALYSIS SEQUENCE

6K01010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K01010-IBL1	QC	1			
6K01010-CAL1	QC	2	1606090		
6K01010-CAL2	QC	3	1606091		
6K01010-CAL3	QC	4	1606092		
6K01010-CAL4	QC	5	1606093		
6K01010-CAL5	QC	6	1606094		
6K01010-ICV1	QC	7	1605079		
6K01010-ICB1	QC	8			
F610422-BLK7	QC	9			
F610422-BLK8	QC	10			
F610422-BLK9	QC	11			
1610231-01RE1	MHg-CVAFS-T-KOH	12			Added 10/31/2016 by DM2
1610231-02RE1	MHg-CVAFS-T-KOH	13			Added 10/31/2016 by DM2
1610231-03RE1	MHg-CVAFS-T-KOH	14			Added 10/31/2016 by DM2
1610231-04RE1	MHg-CVAFS-T-KOH	15			Added 10/31/2016 by DM2
1610231-05RE1	MHg-CVAFS-T-KOH	16			Added 10/31/2016 by DM2
1610235-01RE1	MHg-CVAFS-T-KOH	17			Added 10/31/2016 by DM2
1610235-02RE1	MHg-CVAFS-T-KOH	18			Added 10/31/2016 by DM2
6K01010-CCV1	QC	19	1605079		
6K01010-CCB1	QC	20			
1610235-03RE1	MHg-CVAFS-T-KOH	21			Added 10/31/2016 by DM2
1610235-04RE1	MHg-CVAFS-T-KOH	22			Added 10/31/2016 by DM2
1610235-05RE1	MHg-CVAFS-T-KOH	23			Added 10/31/2016 by DM2
1610610-01RE1	MHg-CVAFS-T-KOH	24			Added 10/31/2016 by DM2
1610610-02RE1	MHg-CVAFS-T-KOH	25			Added 10/31/2016 by DM2
1610610-03RE1	MHg-CVAFS-T-KOH	26			Added 10/31/2016 by DM2
1610610-04RE1	MHg-CVAFS-T-KOH	27			Added 10/31/2016 by DM2
1610617-01RE1	MHg-CVAFS-T-KOH	28			Added 10/31/2016 by DM2
6K01010-CCV2	QC	29	1605079		
6K01010-CCB2	QC	30			

Dan Moran  
Samples Loaded By

10/31/16  
Date

Dan Moran  
Data Processed By

11/1/16  
Date

Due Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BLK7	Blank	0.5	20					
F610422-BLK8	Blank	0.5	20					
F610422-BLK9	Blank	0.5	20					
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

**Standard ID(s):**  
 1506872  
 1605470

**Description:**  
 MHg New Primary 100 ng/mL spike  
 DORM-4

**Expiration:**  
 03-Nov-16 00:00  
 19-Mar-17 00:00  
 19-Mar-17 00:00

**Reagent ID(s):**  
 1603399  
 1605678  
 1605926  
 1605961  
 1606119

**Description:**  
 Boiling Chips for AFS prep  
 Ethylating Agent (For Methyl Mercury Analysis)  
 25% KOH/Methanol  
 Acetate Buffer  
 Methanol, HPLC Grade

**Expiration:**  
 01-Jun-17 00:00  
 28-Mar-17 00:00  
 09-Apr-17 00:00  
 11-Apr-17 00:00  
 17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-01RE1	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-02RE1	ES-13_072716_POL_WB_02	0.2871	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-03RE1	ES-13_072716_POL_WB_03	0.2928	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-04RE1	ES-13_072716_POL_WB_04	0.3144	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610231-05RE1	ES-13_072716_POL_WB_05	0.3021	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		

Page 127 of 230

Date: 11/2/2016



**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BLK7	Blank	0.5	20					500X
F610422-BLK8	Blank	0.5	20					500X
F610422-BLK9	Blank	0.5	20					500X
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

Standard ID(s):  
1506872  
1605470

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
03-Nov-16 00:00  
19-Mar-17 00:00  
19-Mar-17 00:00

Reagent ID(s):  
1603399  
1605678  
1605926  
1605961  
1606119

Description:  
Boiling Chips for AFS prep  
Ethylating Agent (For Methyl Mercury Analysis)  
25% KOH/Methanol  
Acetate Buffer  
Methanol, HPLC Grade

Expiration:  
01-Jun-17 00:00  
28-Mar-17 00:00  
09-Apr-17 00:00  
11-Apr-17 00:00  
17-Oct-19 00:00

PREPARATION BENCH SHEET

2700-1  
10/31/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion Prepared: 10/20/2016

1610235-05RE1	FRB-01_092816_POL_WB_05	0.282	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-			
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-			
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-			
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-			
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-			
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD		
1610610-01RE1	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-			
1610610-02RE1	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-			
1610610-03RE1	NMC-5242-02 8644930	0.2674	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-			
1610610-04RE1	NMC-5242-03 8644931	0.2801	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-			
1610617-01RE1	GBPE-0022-01 8644933	0.3122	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x



PREPARATION BENCH SHEET

10/31/16 DM  
2700-1

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-01RE1	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-02RE1	ES-13_072716_POL_WB_02	0.2871	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-03RE1	ES-13_072716_POL_WB_03	0.2928	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-04RE1	ES-13_072716_POL_WB_04	0.3144	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610231-05RE1	ES-13_072716_POL_WB_05	0.3021	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		

Page 132 of 230

Date: 11/2/2016

**PREPARATION BENCH SHEET**

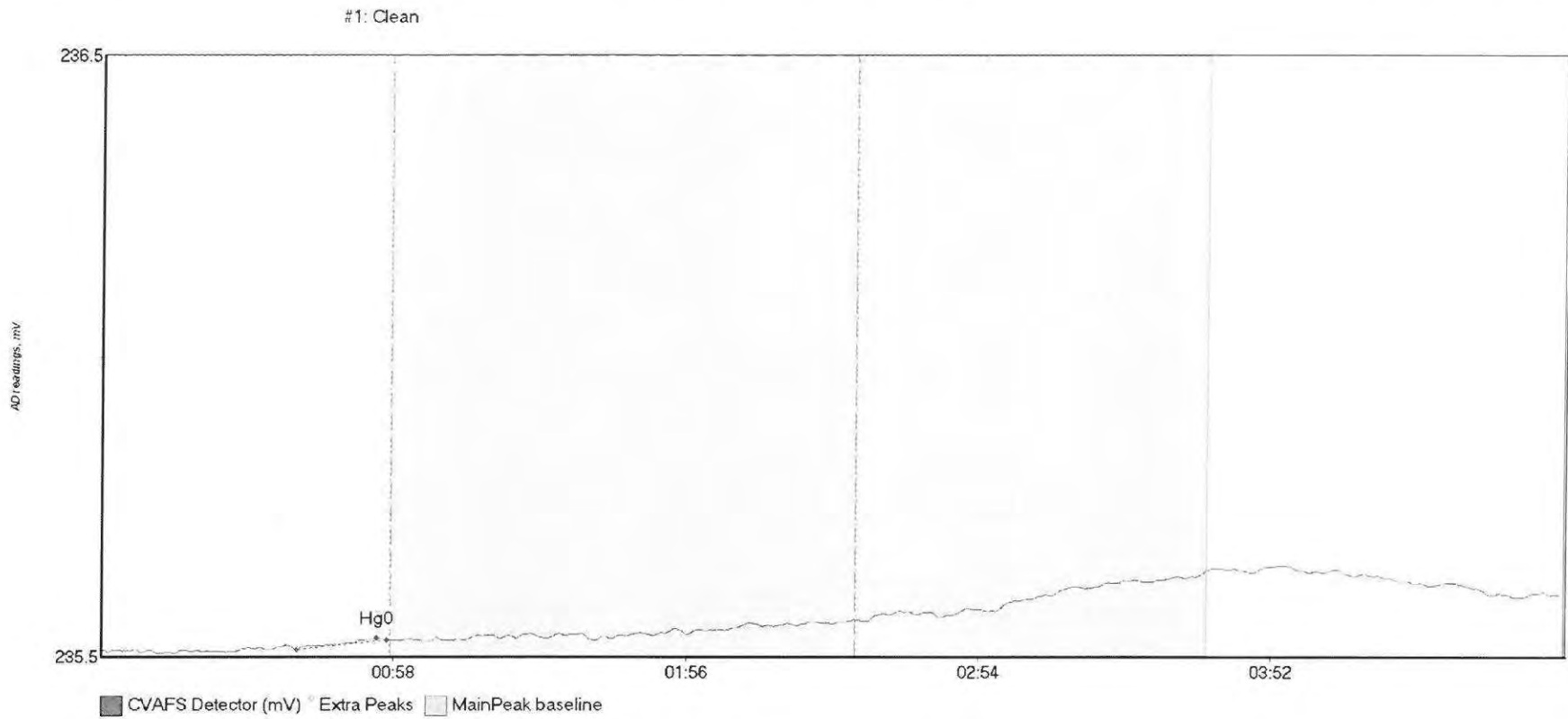
F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

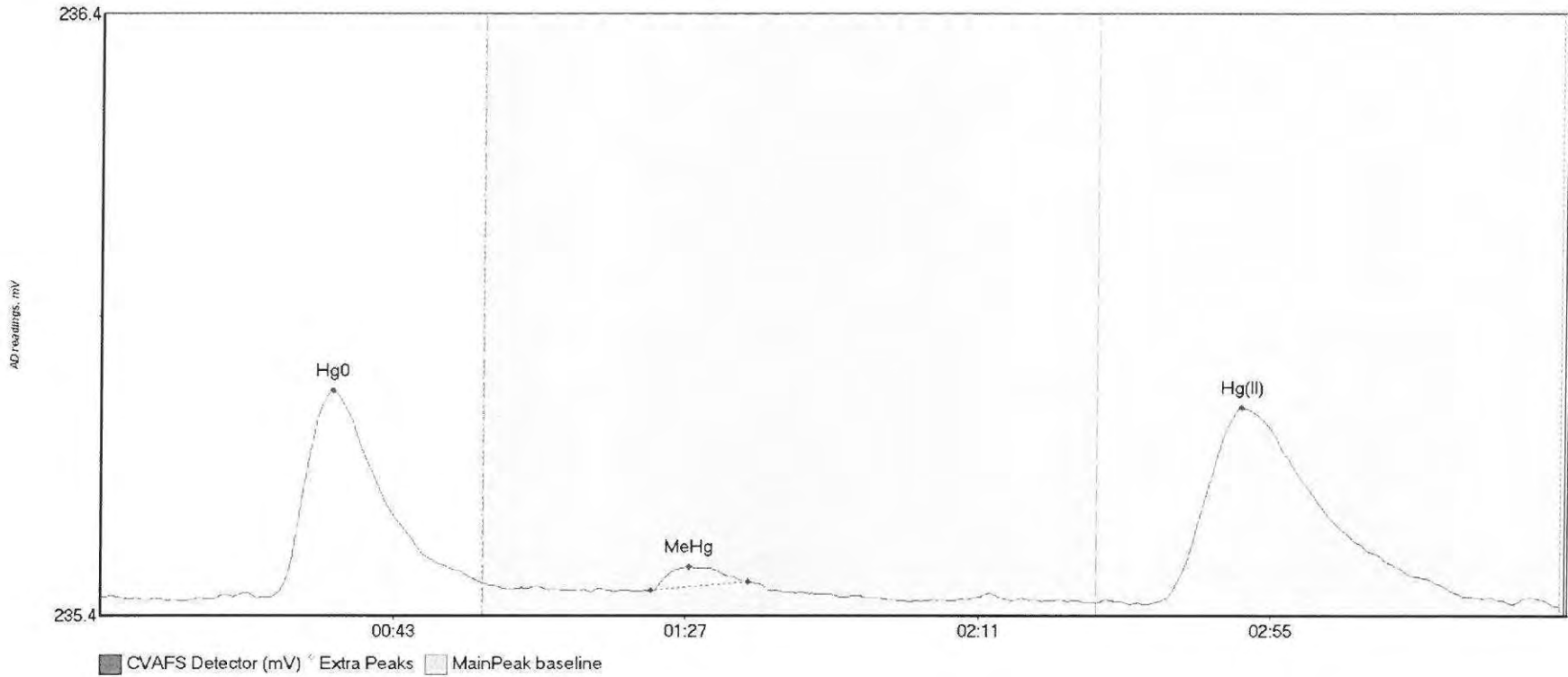
**Prepared: 10/20/2016**



All Peaks verified  
BC 11-2-16

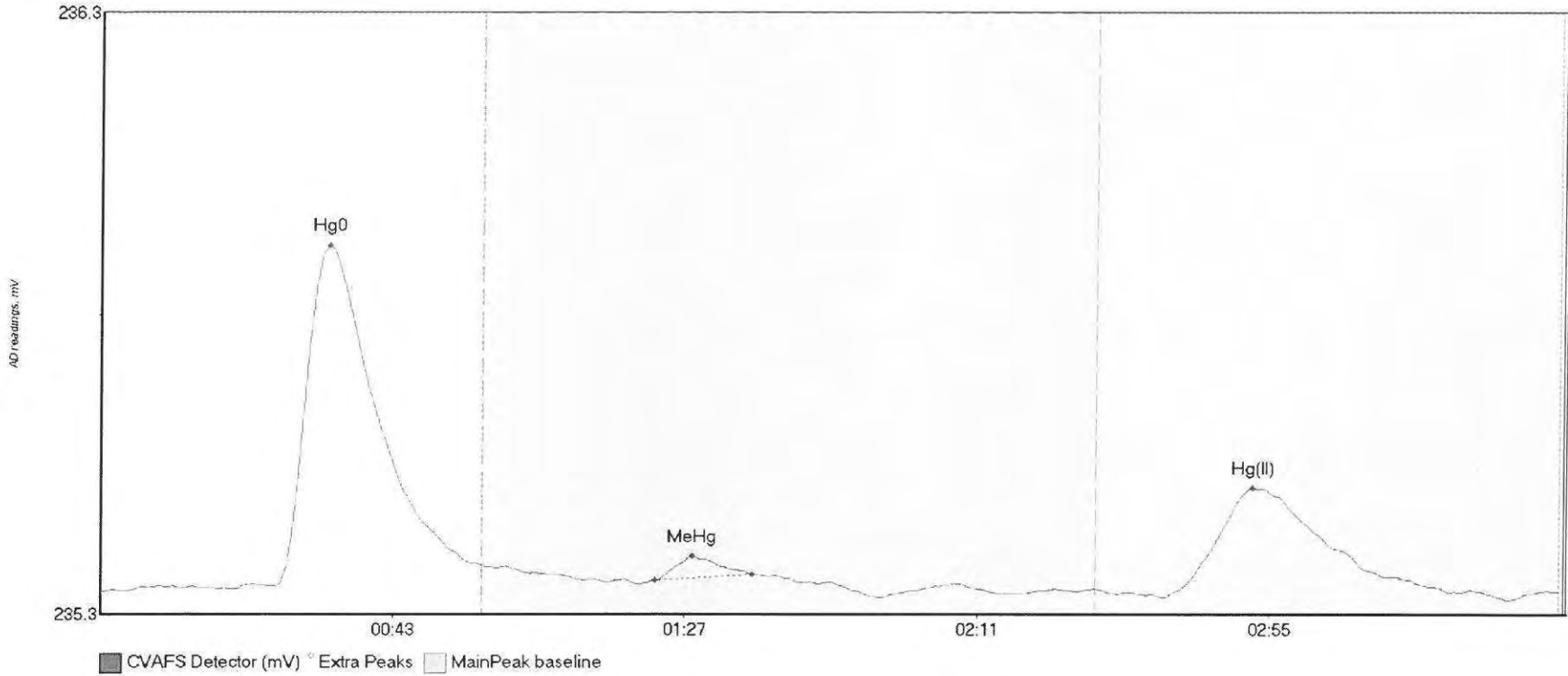
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	316
Clean	0.594	39.0	56.9	235.54	235.56	55.0	0.019	OK	235.5403	0.00	0.09		

#2: WS



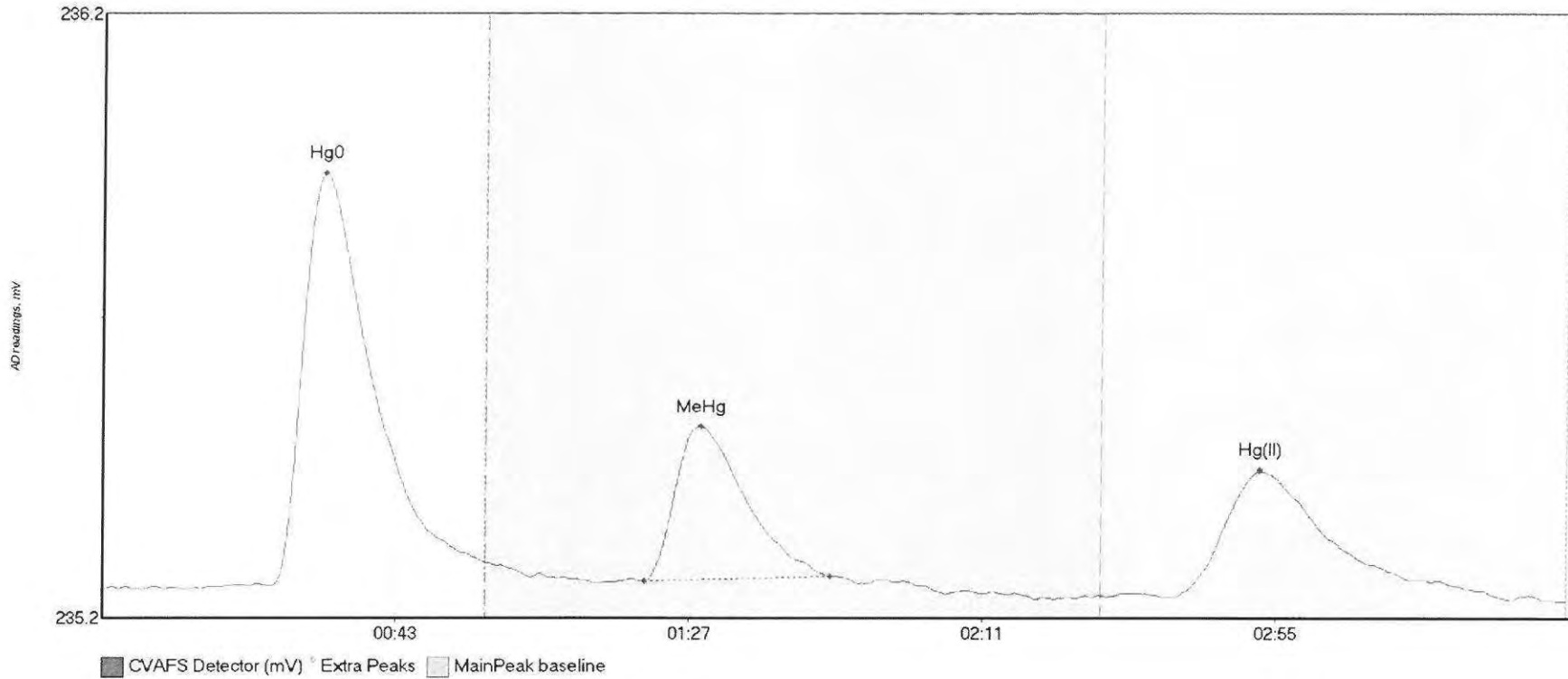
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	42.597	25.3	57.5	235.46	235.48	34.8	0.344	CT	235.4589	0.00	-0.02	
WS MeHg	3.010	82.9	97.4	235.47	235.48	88.6	0.039	OK	235.4589	0.00	-0.02	
WS Hg(II)	63.795	158.9	210.9	235.45	235.45	171.6	0.326	OK	235.4589	0.00	-0.02	

#3: SEQ-IBL1



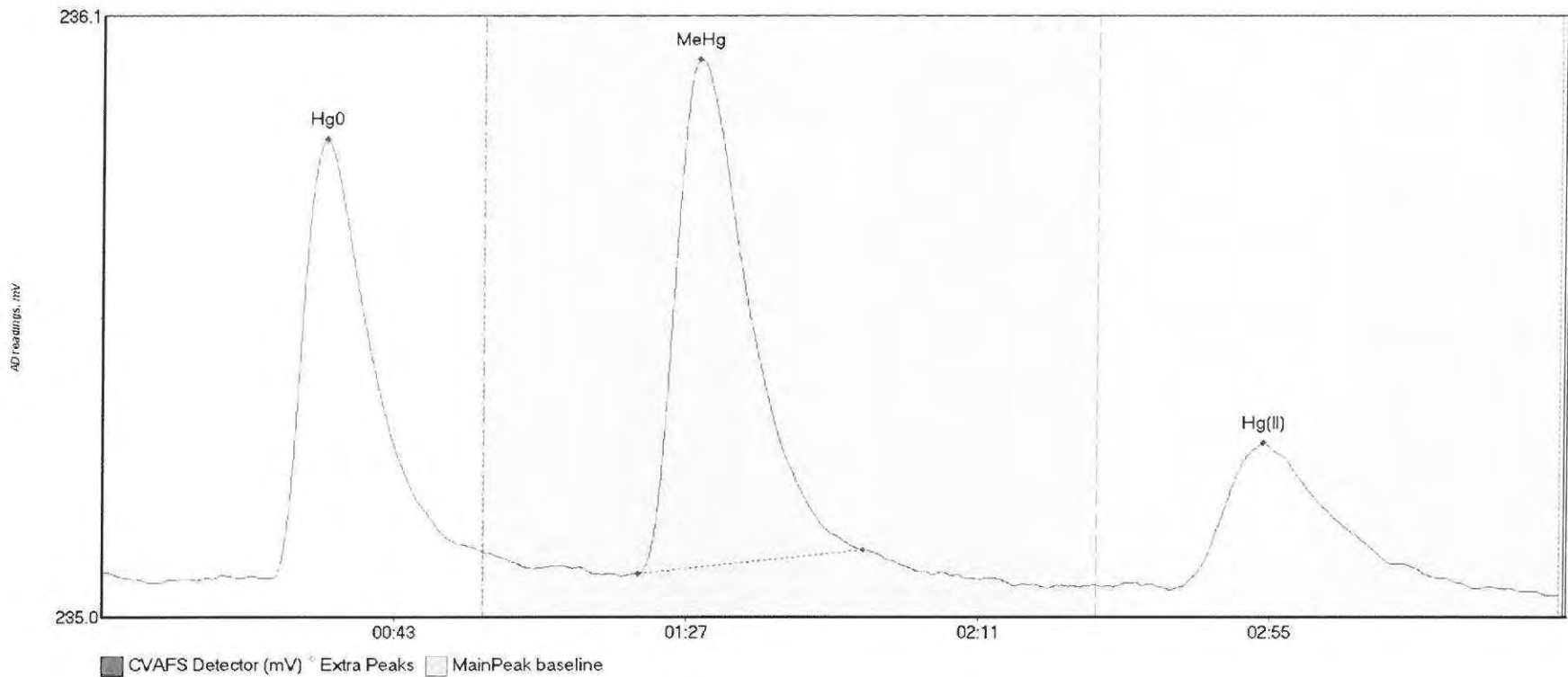
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	66.164	20.7	57.5	235.36	235.40	34.4	0.570	CT	235.3579	0.00	0.00	
SEQ-IBL1 MeHg	2.700	83.6	98.2	235.38	235.39	89.2	0.040	OK	235.3579	0.00	0.00	
SEQ-IBL1 Hg(II)	30.365	160.3	200.2	235.35	235.37	173.4	0.182	OK	235.3579	0.00	0.00	

#4: SEQ-CAL1



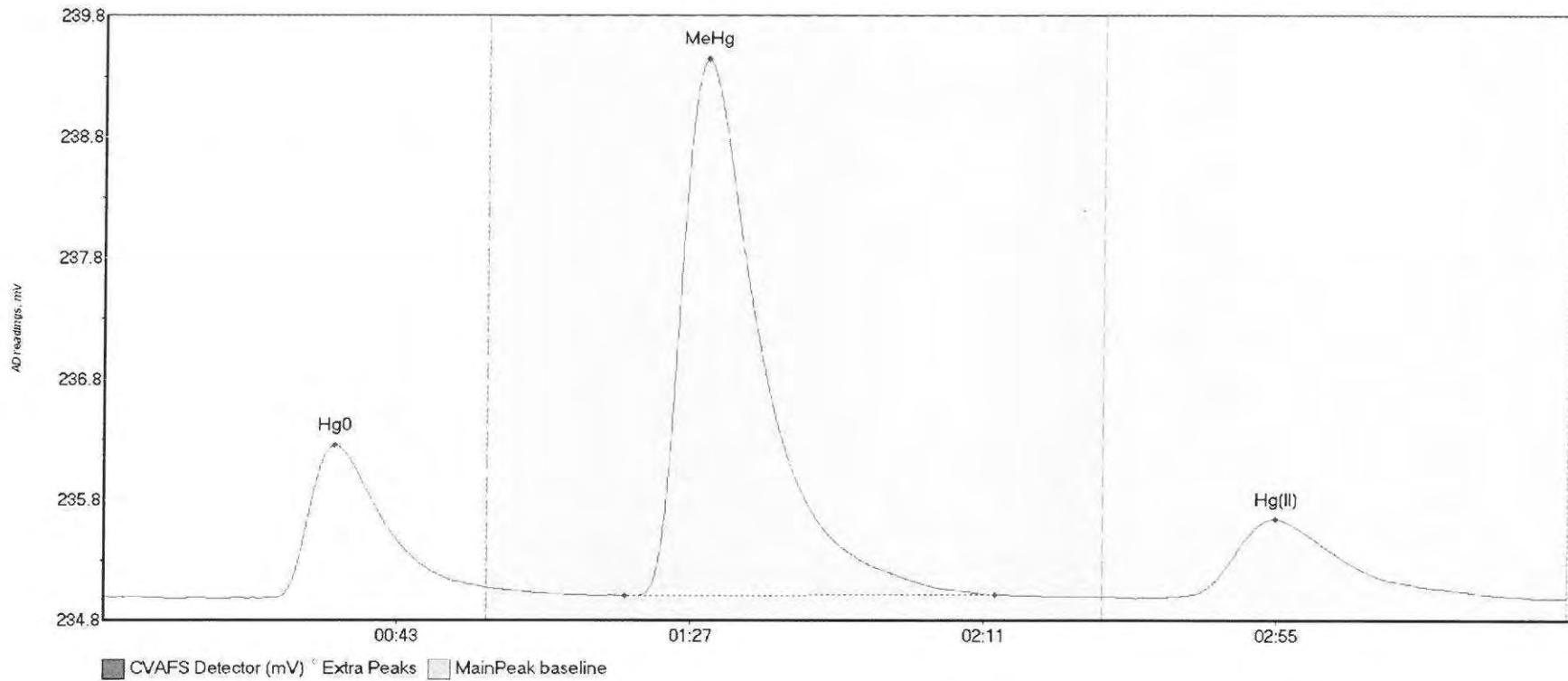
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	78.166	25.3	57.5	235.26	235.29	33.5	0.682	CT	235.2513	0.00	-0.02	
SEQ-CAL1 MeHg	30.969	81.3	109.2	235.26	235.27	89.8	0.257	OK	235.2513	0.00	-0.02	
SEQ-CAL1 Hg(II)	38.302	160.8	209.5	235.24	235.24	173.6	0.209	OK	235.2513	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	85.374	25.7	57.5	235.11	235.16	33.7	0.743	CT	235.1241	0.00	-0.04	
SEQ-CAL2 MeHg	109.725	80.7	114.6	235.12	235.16	89.8	0.872	OK	235.1241	0.00	-0.04	
SEQ-CAL2 Hg(II)	45.741	161.1	207.0	235.09	235.10	175.1	0.249	OK	235.1241	0.00	-0.04	

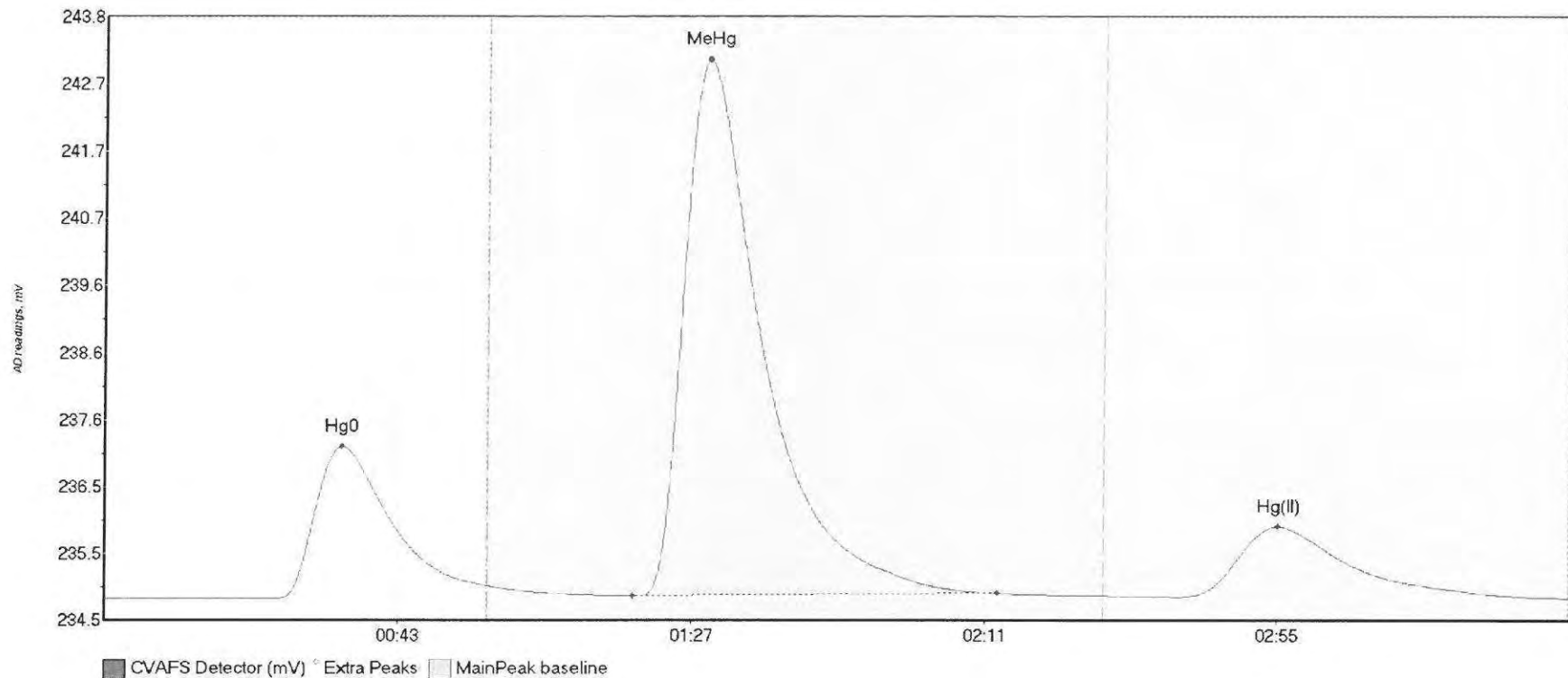
#6: SEQ-CAL3



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	154.149	24.9	57.5	234.96	235.05	34.7	1.286	CT	234.9725	0.00	-0.02	
SEQ-CAL3 MeHg	626.097	78.1	133.7	234.98	234.99	90.3	4.505	OK	234.9725	0.00	-0.02	
SEQ-CAL3 Hg(II)	120.072	158.3	211.9	234.97	234.97	175.9	0.659	OK	234.9725	0.00	-0.02	

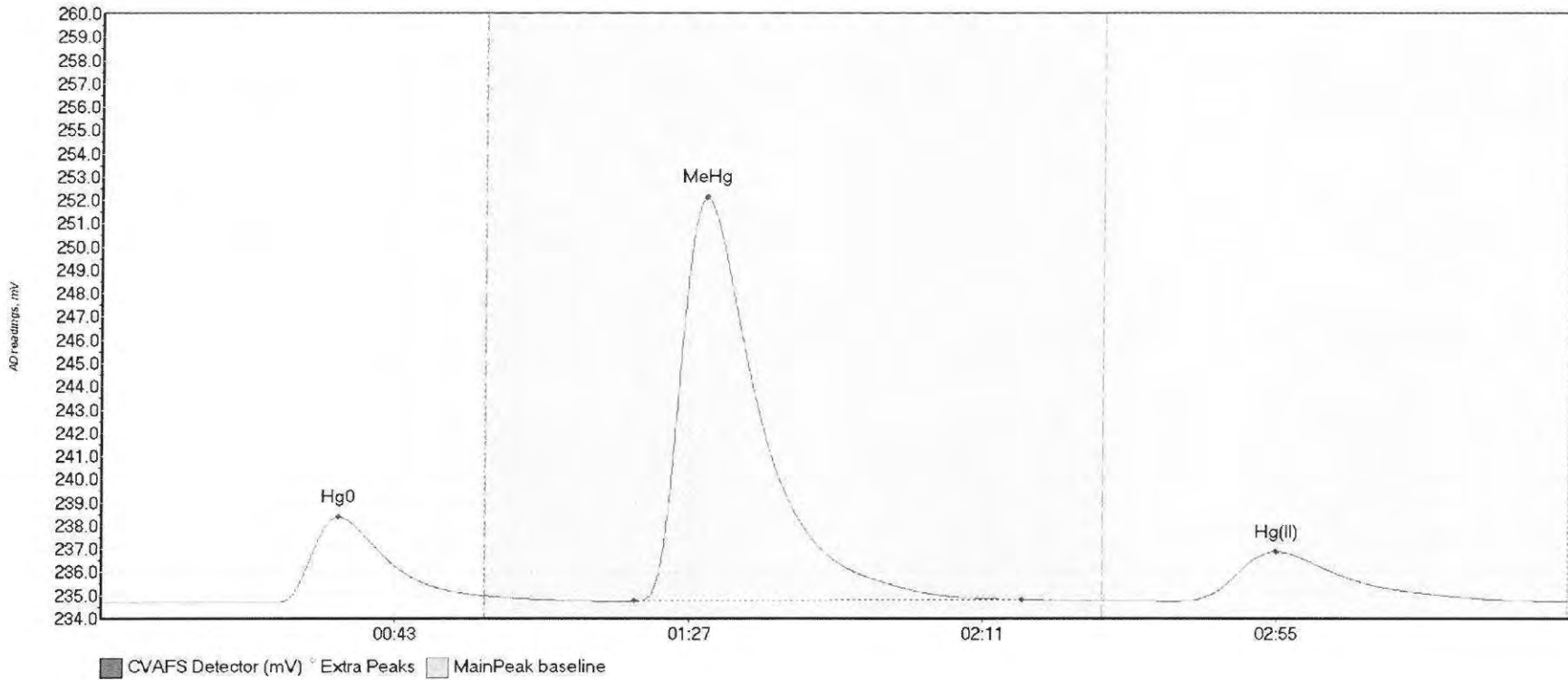


#7: SEQ-CAL4



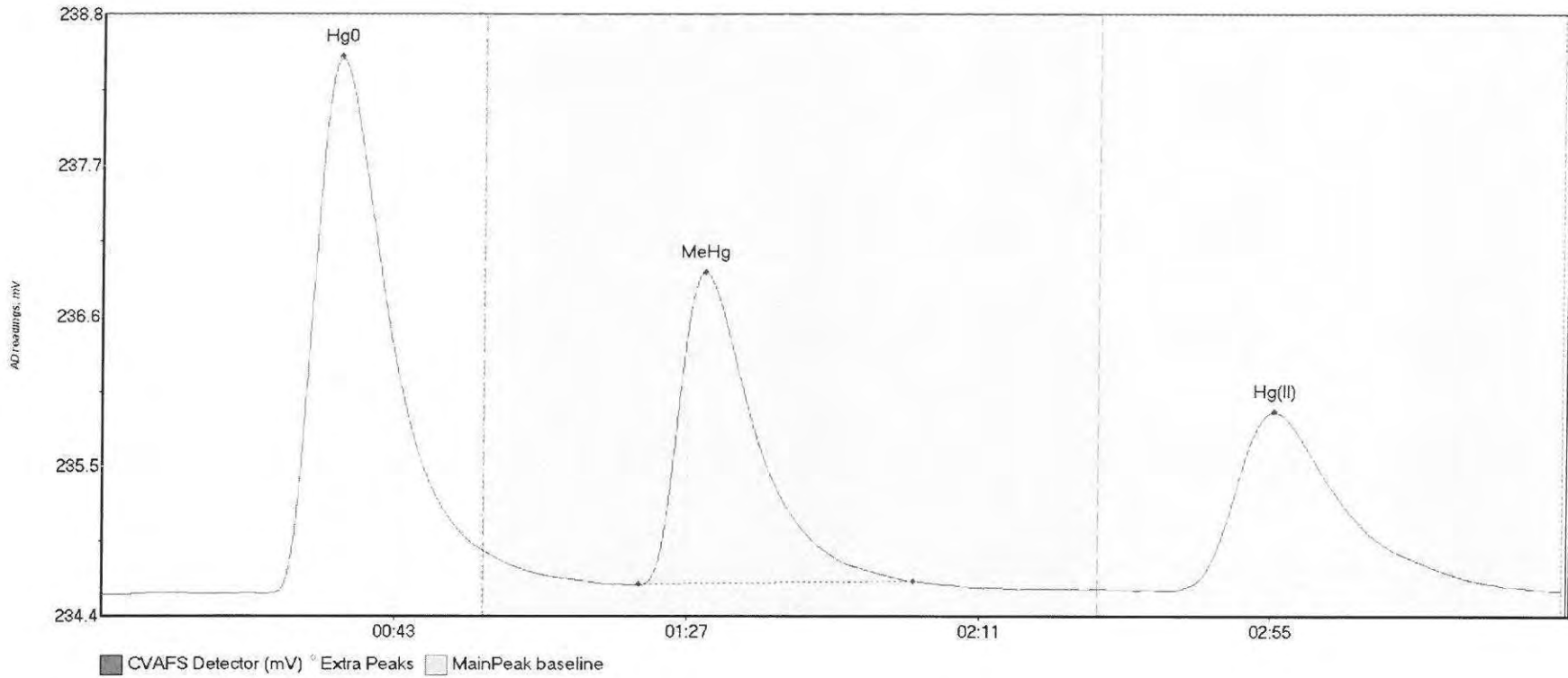
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	284.695	25.7	57.5	234.82	235.01	35.6	2.346	CT	234.8166	0.00	0.01	
SEQ-CAL4 MeHg	1139.677	79.2	133.9	234.86	234.89	90.5	8.249	OK	234.8166	0.00	0.01	
SEQ-CAL4 Hg(II)	203.304	161.4	213.8	234.84	234.84	176.2	1.092	OK	234.8166	0.00	0.01	

#8: SEQ-CAL5



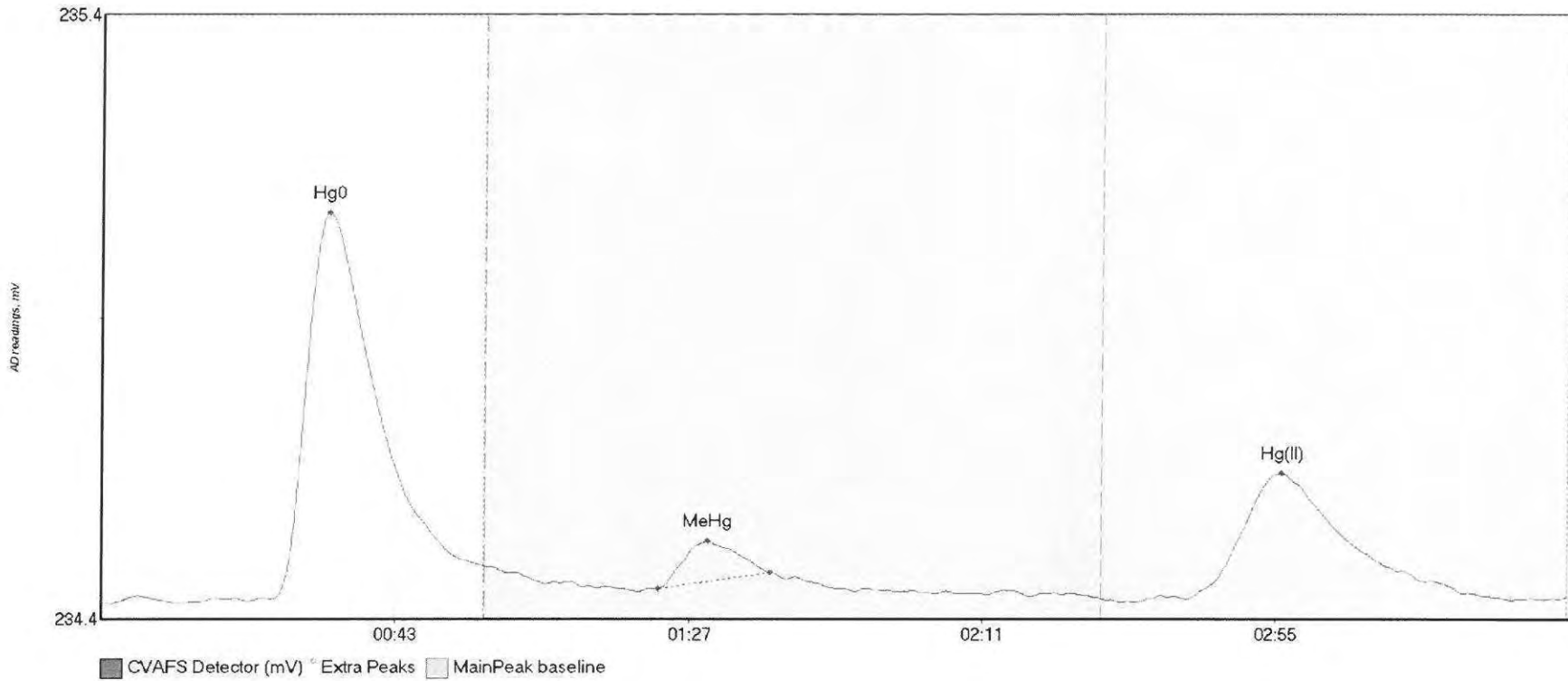
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	440.290	25.6	57.5	234.68	234.98	35.6	3.687	CT	234.6855	0.00	0.06	
SEQ-CAL5 MeHg	2400.162	79.7	137.9	234.75	234.82	90.5	17.349	OK	234.6855	0.00	0.06	
SEQ-CAL5 Hg(II)	399.016	159.8	218.2	234.76	234.74	176.1	2.122	OK	234.6855	0.00	0.06	

#9: SEQ-ICV1



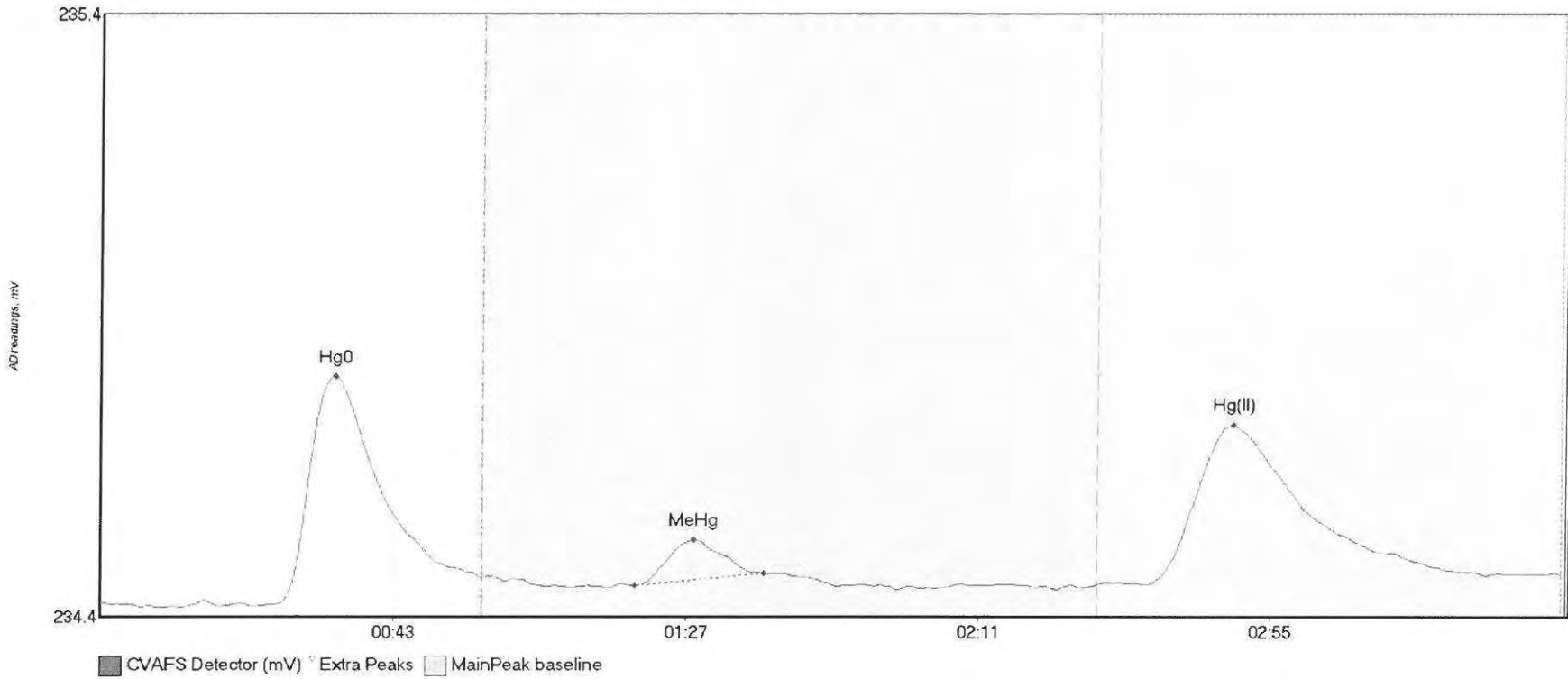
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	452.560	3.4	57.5	234.57	234.88	35.7	3.878	CT	234.5627	0.00	0.03	
SEQ-ICV1 MeHg	300.403	80.8	122.1	234.63	234.66	90.6	2.260	OK	234.5627	0.00	0.03	
SEQ-ICV1 Hg(II)	241.386	160.6	216.8	234.59	234.60	176.4	1.294	OK	234.5627	0.00	0.03	

#10: SEQ-ICB1



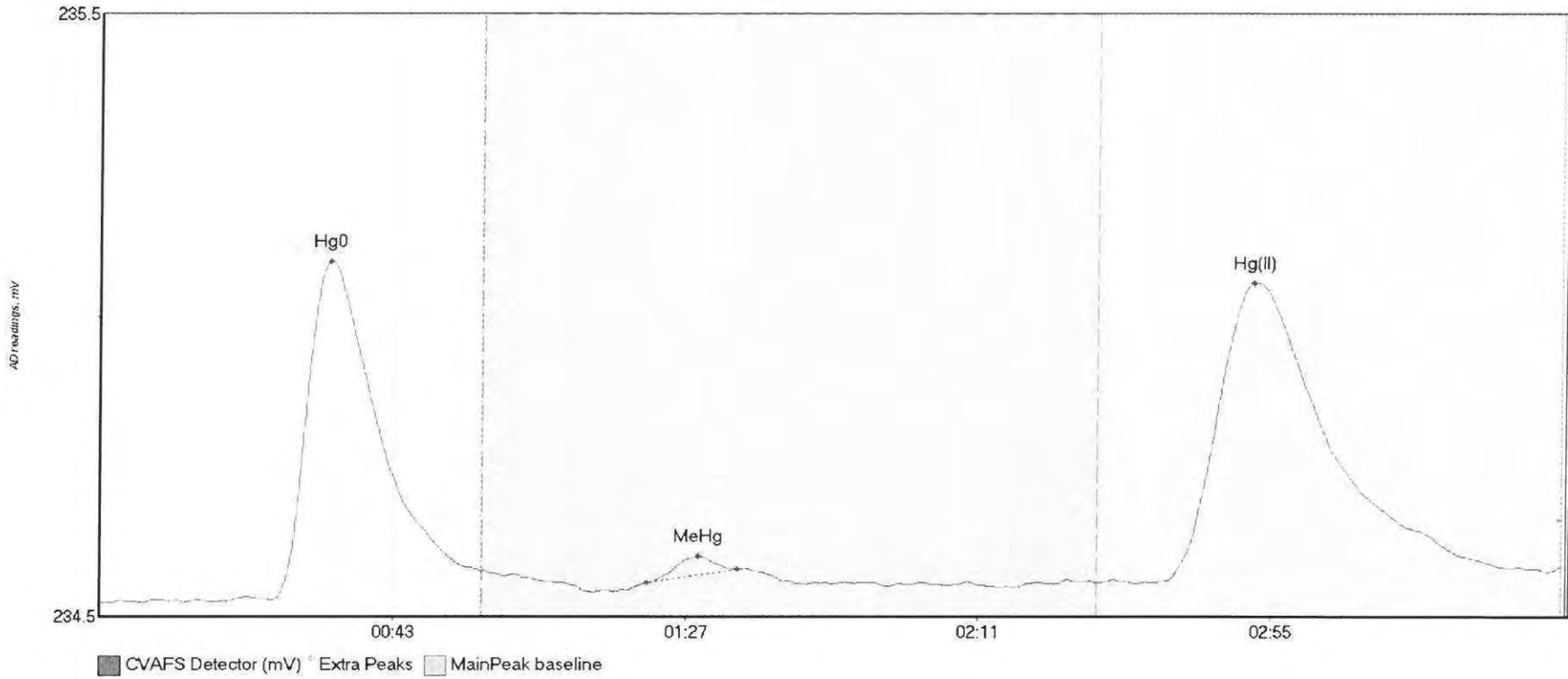
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	73.184	22.3	57.5	234.47	234.52	34.0	0.643	CT	234.4642	0.00	0.01	
SEQ-ICB1 MeHg	6.175	83.3	100.1	234.49	234.51	90.8	0.079	OK	234.4642	0.00	0.01	
SEQ-ICB1 Hg(II)	36.528	162.9	208.6	234.47	234.47	176.9	0.208	OK	234.4642	0.00	0.01	

#11: F610422-BLK7



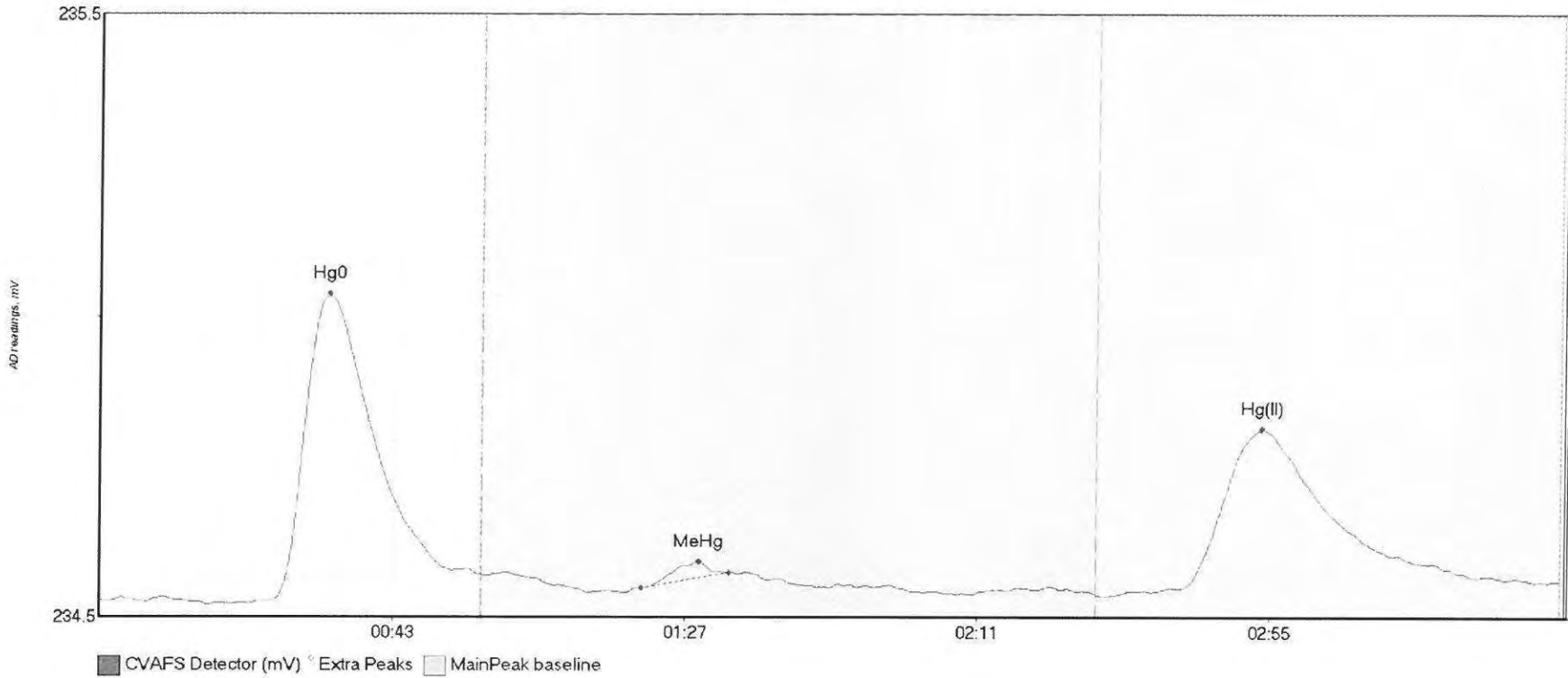
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK7 Hg	43.442	26.1	57.5	234.43	234.48	35.3	0.380	CT	234.4347	0.00	0.05	
F610422-BLK7 Me	6.163	80.3	99.7	234.46	234.48	89.1	0.076	OK	234.4347	0.00	0.05	
F610422-BLK7 Hg	48.889	157.3	208.4	234.46	234.48	170.5	0.265	OK	234.4347	0.00	0.05	

#12: F610422-BLK8



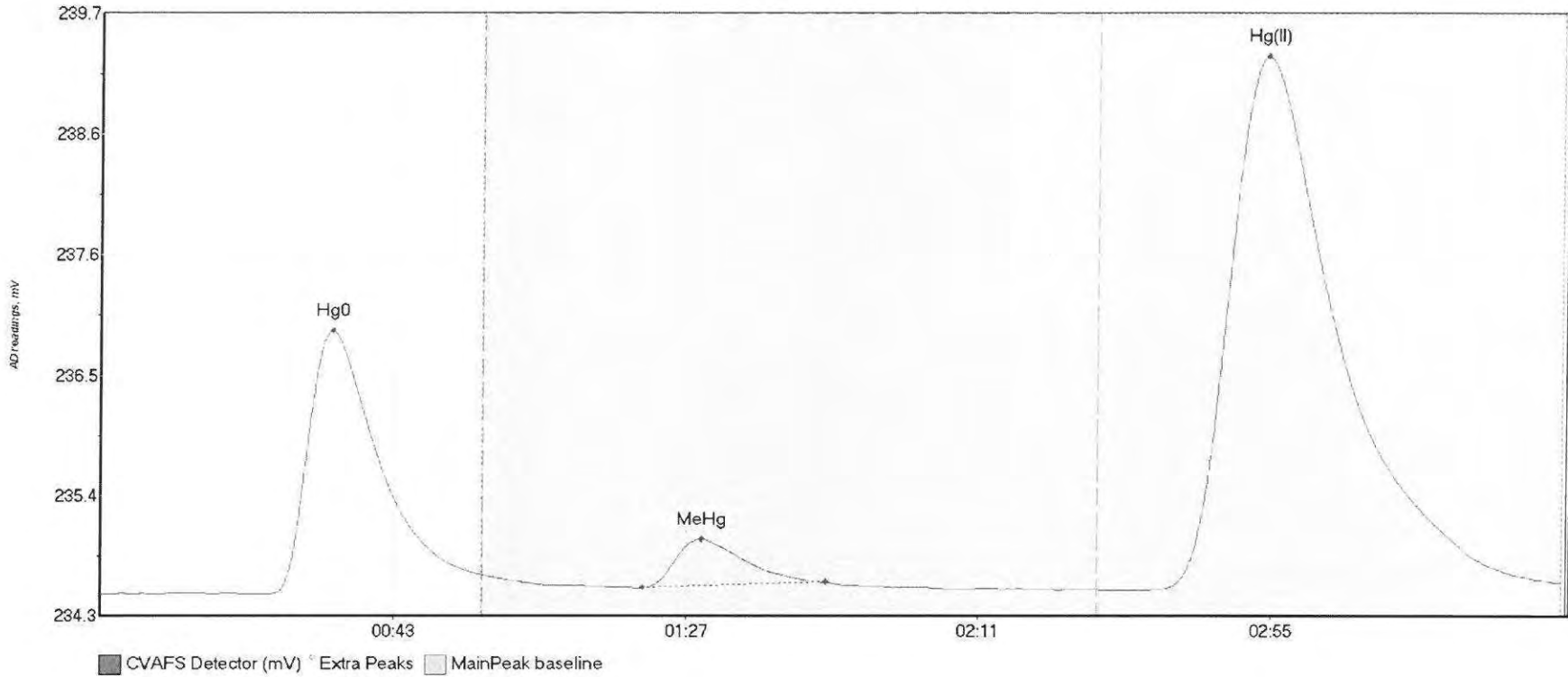
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK8 Hg	64.485	19.0	57.4	234.49	234.54	34.5	0.564	OK	234.4831	0.00	0.06	
F610422-BLK8 Me	2.169	82.1	95.7	234.52	234.54	89.9	0.044	OK	234.4831	0.00	0.06	
F610422-BLK8 Hg	95.015	160.3	217.9	234.52	234.53	173.3	0.496	OK	234.4831	0.00	0.06	

#13: F610422-BLK9



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK9 Hg	58.137	25.9	57.5	234.53	234.58	34.3	0.507	CT	234.5330	0.00	0.03	
F610422-BLK9 Me	1.739	81.5	94.6	234.55	234.58	90.0	0.044	OK	234.5330	0.00	0.03	
F610422-BLK9 Hg	50.674	153.5	217.9	234.54	234.56	174.8	0.274	OK	234.5330	0.00	0.03	

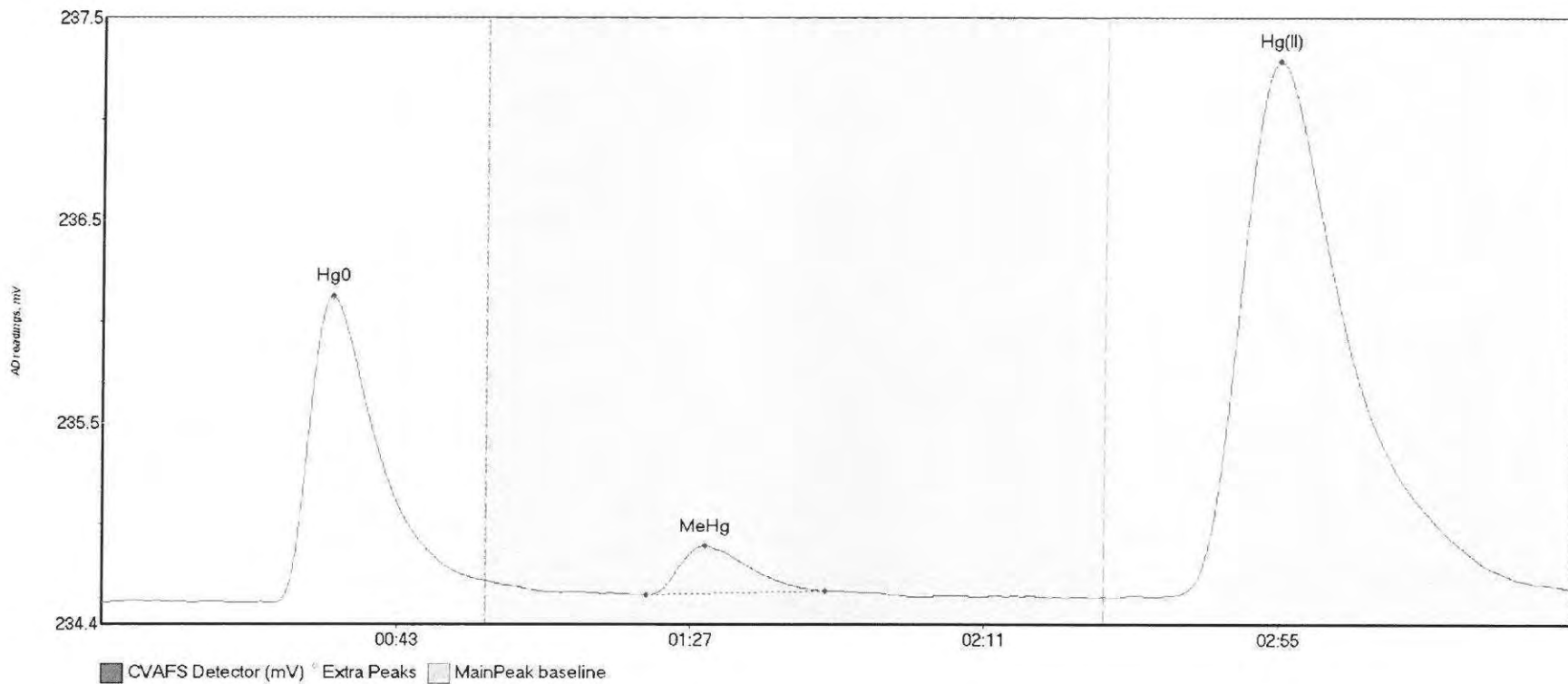
#14: 1610231-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-01RE1	H 270.840	25.1	57.5	234.55	234.71	34.8	2.336	CT	234.5463	0.00	0.10	
1610231-01RE1	M 49.170	81.5	109.0	234.60	234.65	90.3	0.429	OK	234.5463	0.00	0.10	
1610231-01RE1	H 893.649	159.0	219.8	234.58	234.64	175.3	4.725	CT	234.5463	0.00	0.10	

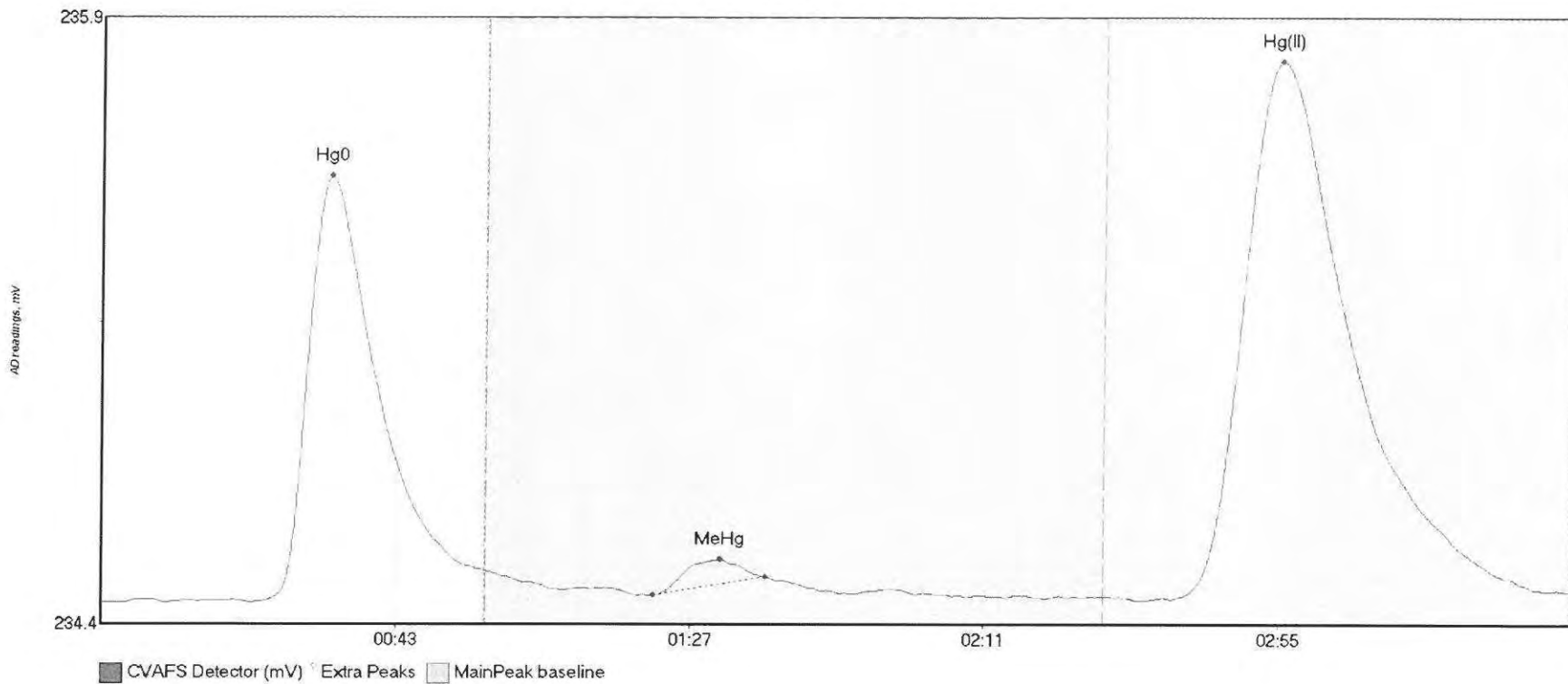


#15: 1610231-02RE1



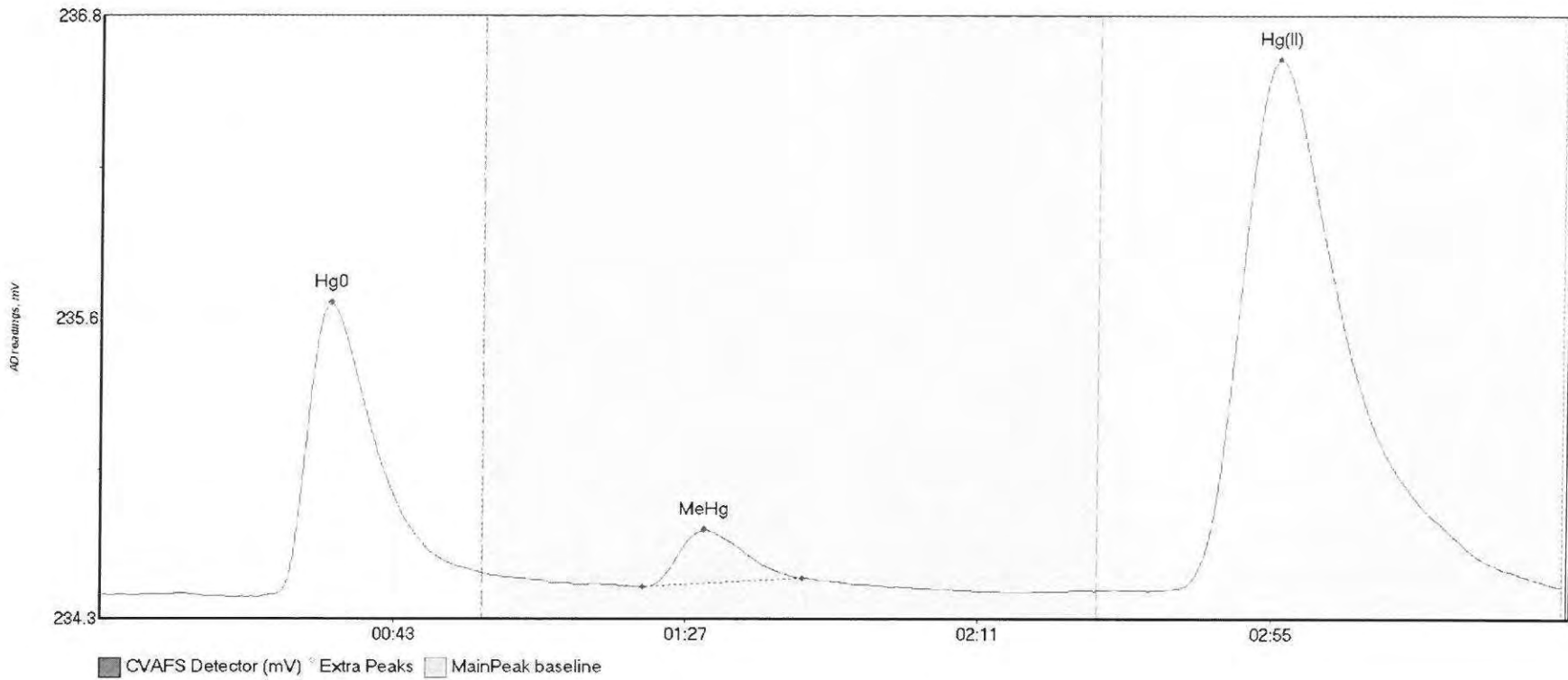
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-02RE1 H	175.929	25.7	57.5	234.53	234.65	34.3	1.560	CT	234.5321	0.00	0.07	
1610231-02RE1 M	28.511	81.5	108.2	234.57	234.59	90.2	0.250	OK	234.5321	0.00	0.07	
1610231-02RE1 H	508.135	158.1	219.8	234.56	234.60	175.8	2.730	CT	234.5321	0.00	0.07	

#16: 1610231-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-03RE1 H	113.490	24.0	57.5	234.49	234.56	34.2	1.009	CT	234.4881	0.00	0.02	
1610231-03RE1 M	5.662	82.6	99.1	234.50	234.55	92.5	0.086	OK	234.4881	0.00	0.02	
1610231-03RE1 H	236.162	159.9	219.6	234.50	234.51	176.2	1.277	OK	234.4881	0.00	0.02	

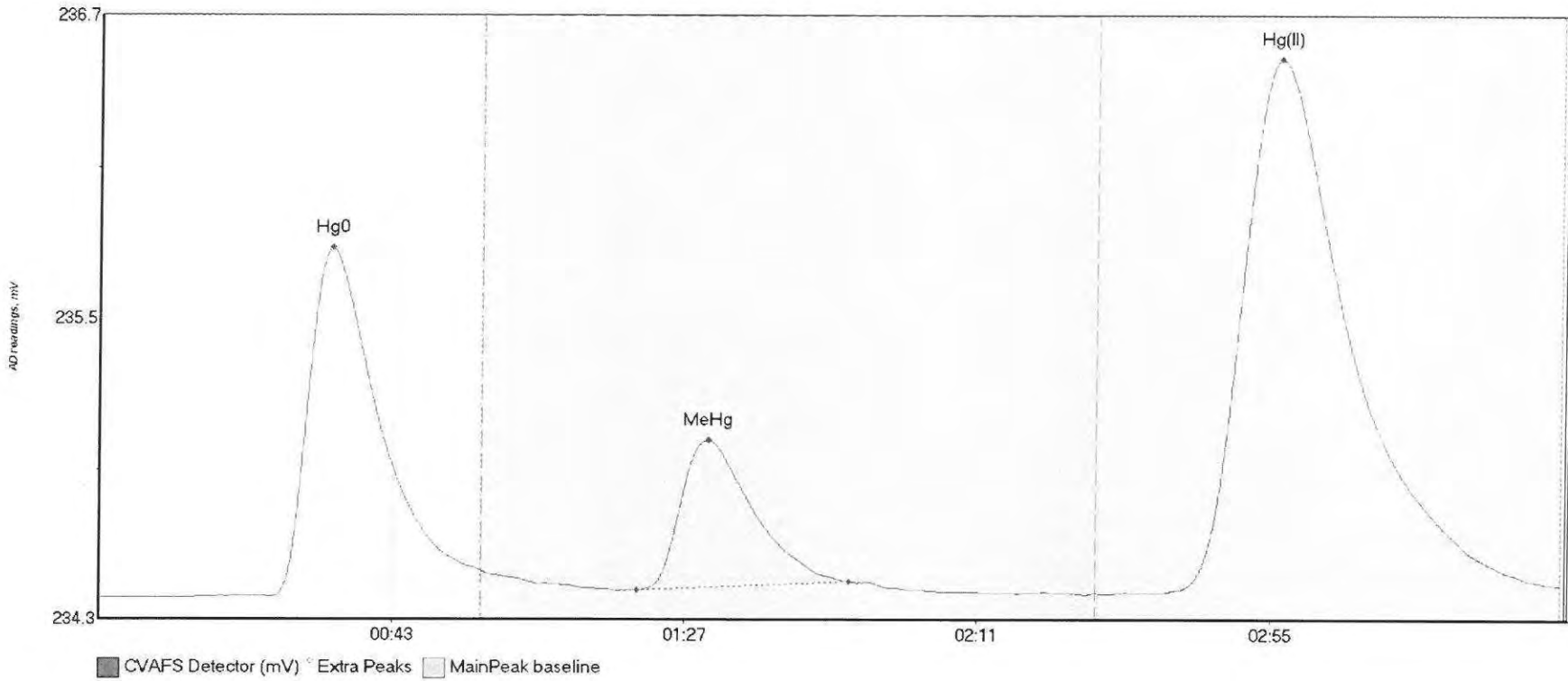
#17: 1610231-04RE1



✓

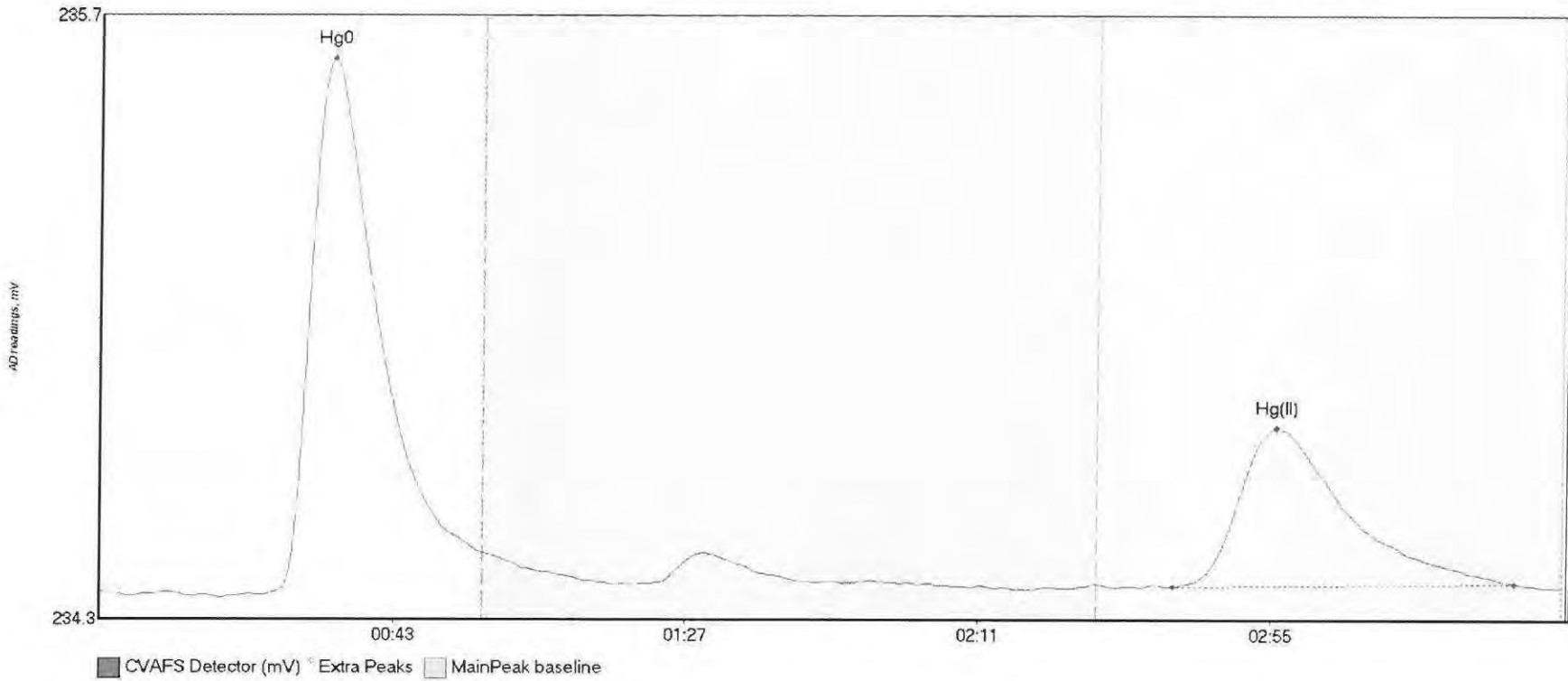
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-04RE1 H	134.011	25.4	57.5	234.43	234.52	34.4	1.194	CT	234.4327	0.00	0.03	
1610231-04RE1 M	24.076	81.6	105.5	234.46	234.50	90.8	0.235	OK	234.4327	0.00	0.03	
1610231-04RE1 H	404.601	159.3	219.8	234.45	234.46	176.9	2.176	CT	234.4327	0.00	0.03	

#18: 1610231-05RE1



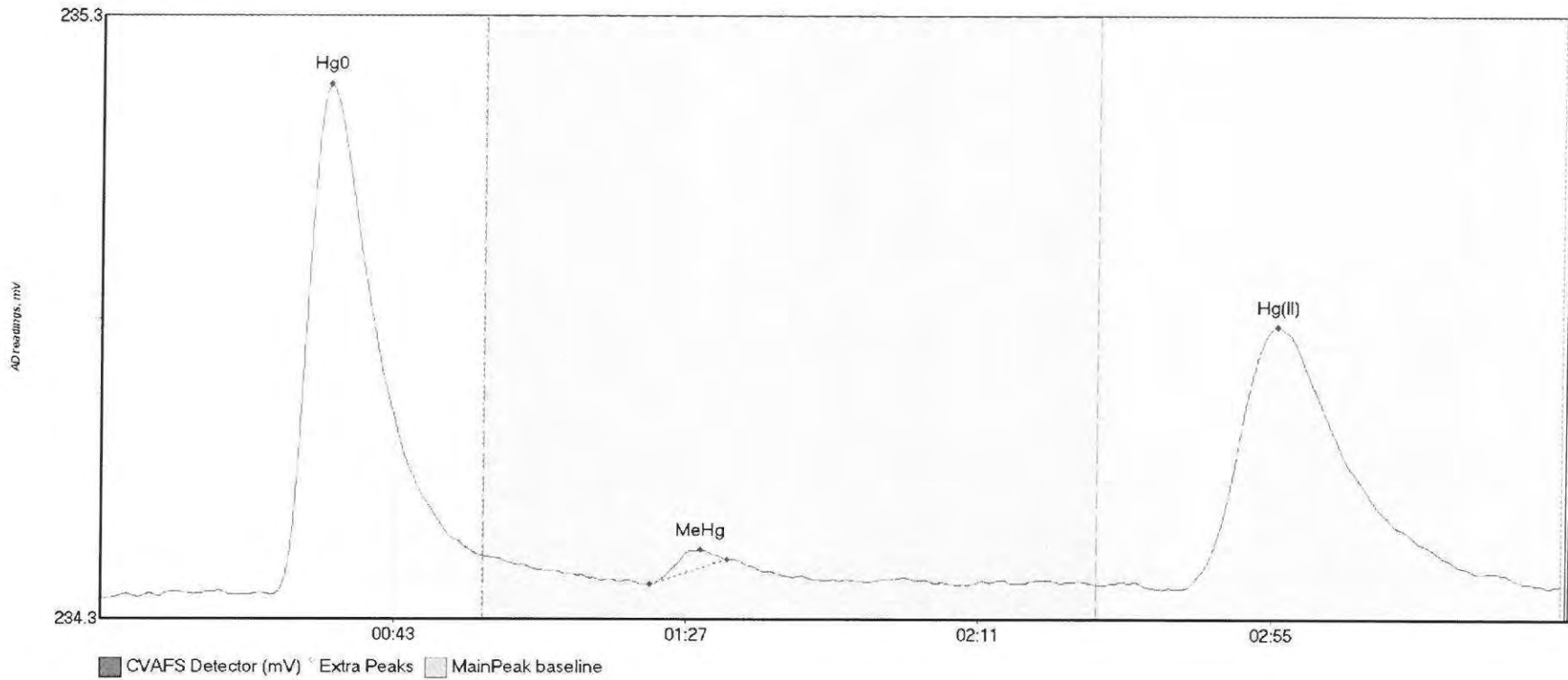
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-05RE1 H	162.786	25.7	57.5	234.39	234.49	34.8	1.418	CT	234.3835	0.00	0.05	
1610231-05RE1 M	75.016	80.9	112.7	234.41	234.45	91.4	0.612	OK	234.3835	0.00	0.05	
1610231-05RE1 H	403.589	159.3	219.8	234.40	234.43	177.2	2.172	CT	234.3835	0.00	0.05	

#19: 1610235-01RE1



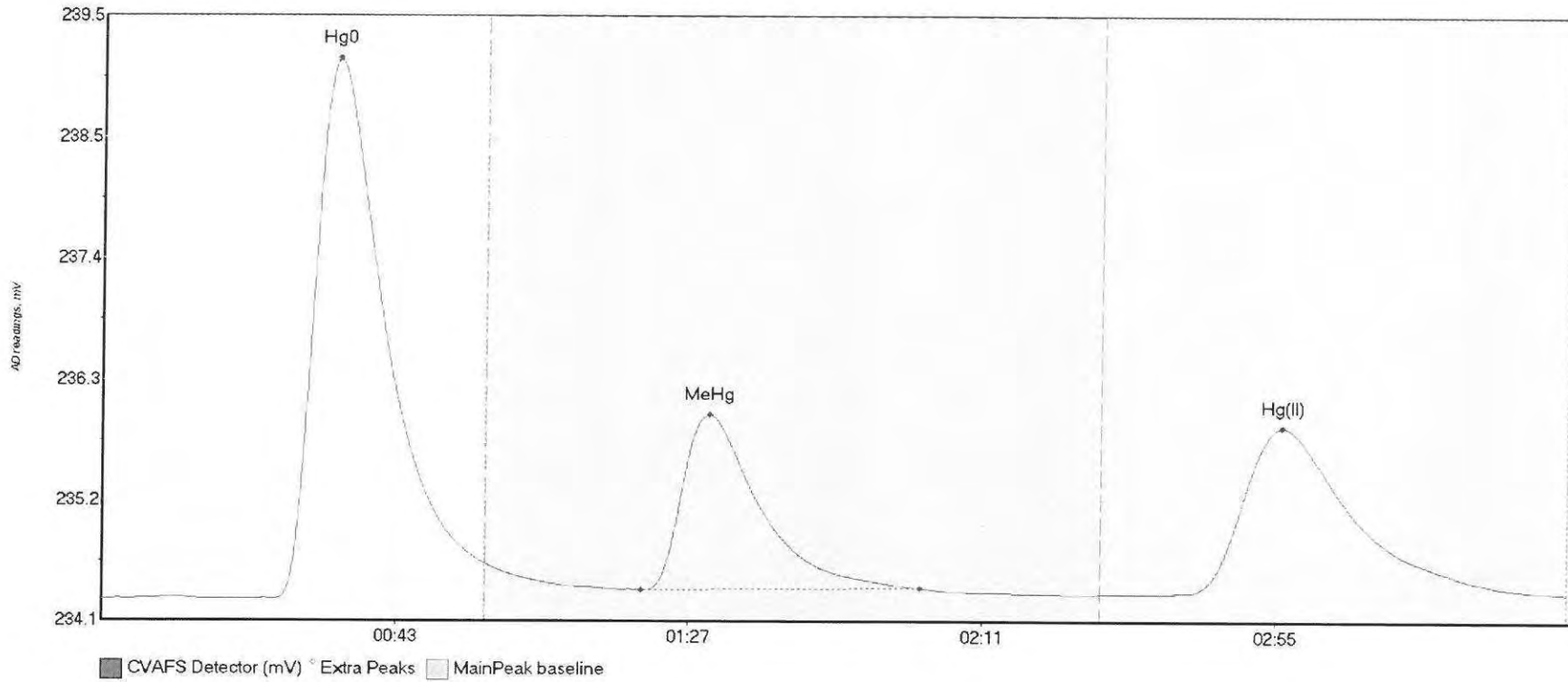
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-01RE1 H	138.521	24.5	57.5	234.34	234.44	34.8	1.260	CT	234.3497	0.00	0.01	
1610235-01RE1 H	69.567	161.3	212.8	234.36	234.37	176.7	0.374	OK	234.3497	0.00	0.01	

#20: 1610235-02RE1



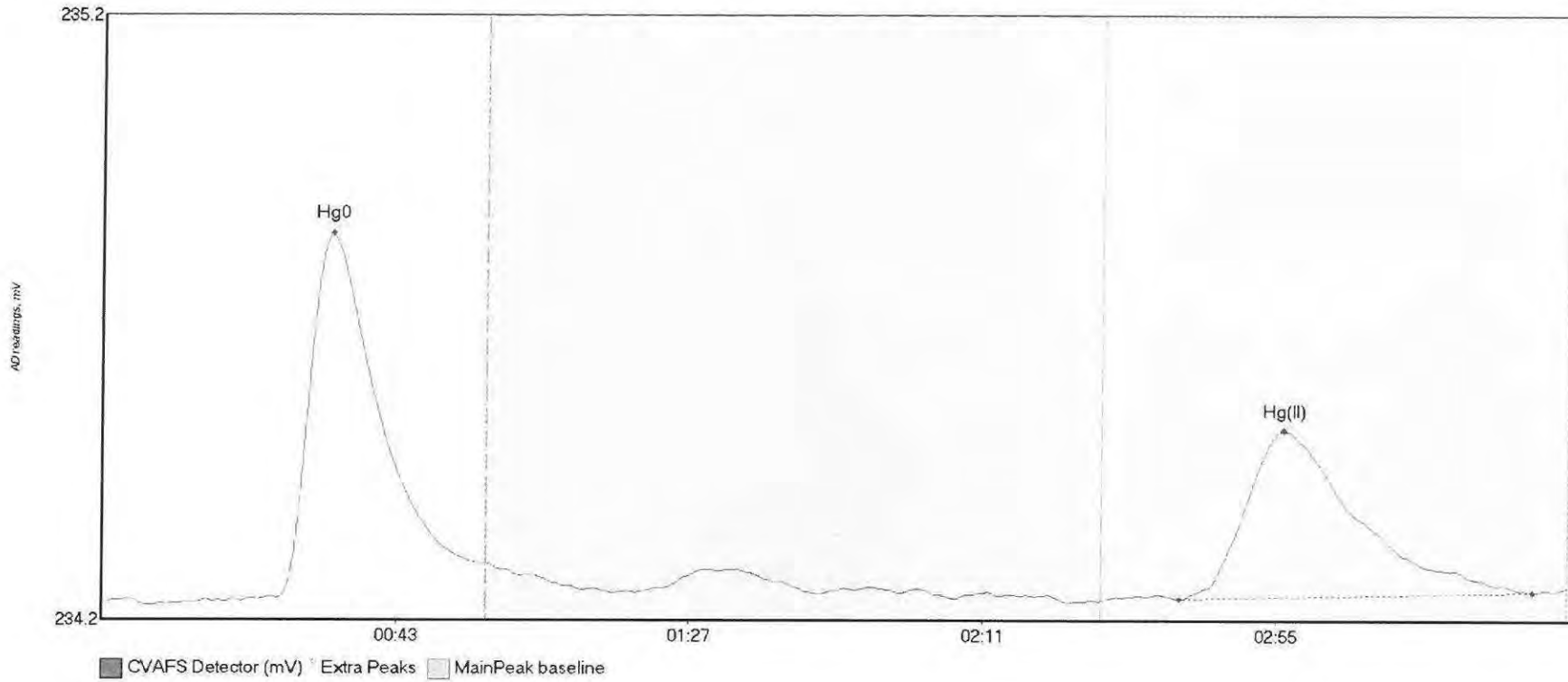
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-02RE1 H	92.348	8.9	57.5	234.30	234.37	34.2	0.847	CT	234.2989	0.00	0.02	
1610235-02RE1 M	1.993	82.6	94.2	234.32	234.36	90.2	0.057	OK	234.2989	0.00	0.02	
1610235-02RE1 H	80.946	163.0	214.5	234.32	234.33	176.7	0.435	OK	234.2989	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	560.060	26.1	57.5	234.27	234.59	35.2	4.889	CT	234.2686	0.00	0.05	
SEQ-CCV1 MeHg	211.545	81.0	122.8	234.35	234.36	91.0	1.596	OK	234.2686	0.00	0.05	
SEQ-CCV1 Hg(II)	284.494	160.5	219.8	234.32	234.32	176.9	1.510	CT	234.2686	0.00	0.05	

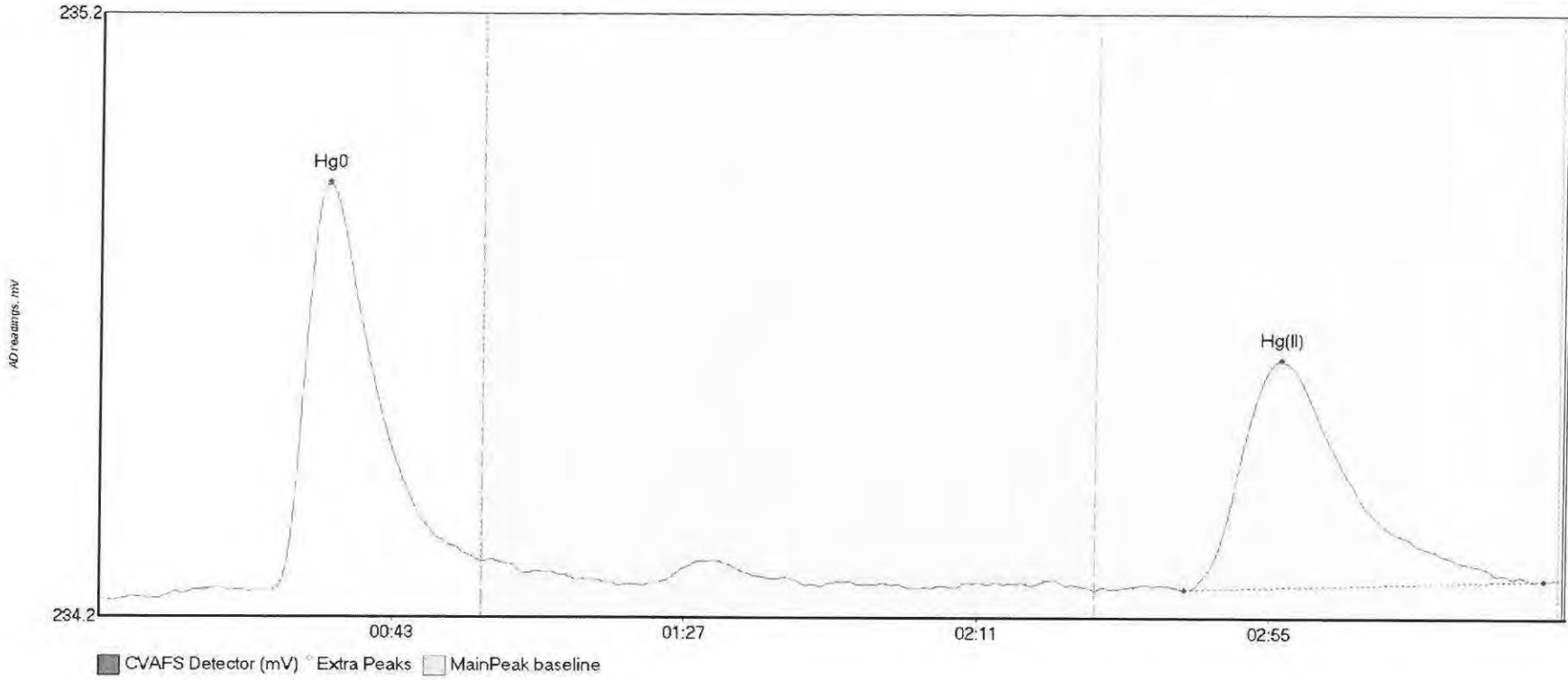
#22: SEQ-CCB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	66.481	23.5	57.4	234.24	234.30	34.4	0.603	OK	234.2358	0.00	0.02	
SEQ-CCB1 Hg(II)	52.935	161.6	214.8	234.24	234.25	177.1	0.280	OK	234.2358	0.00	0.02	

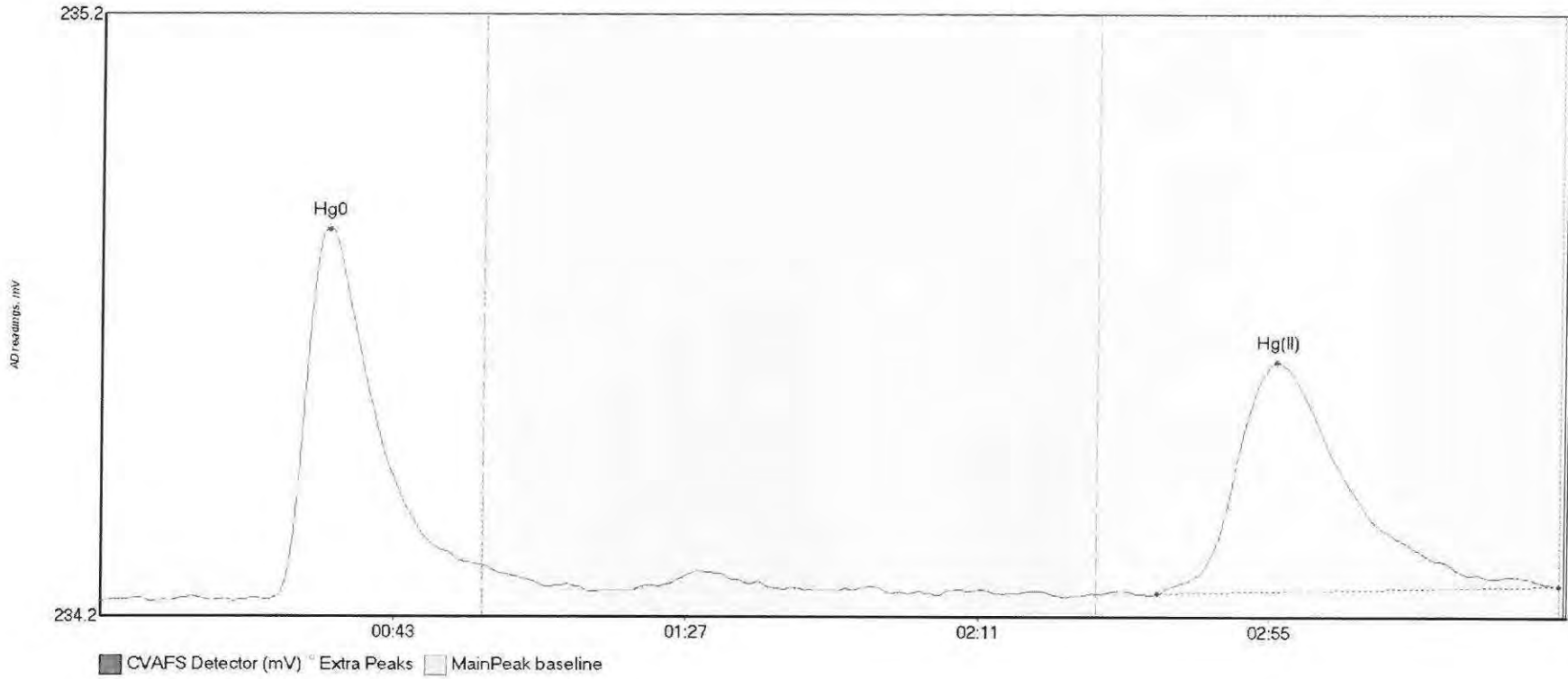


#23: 1610235-03RE1



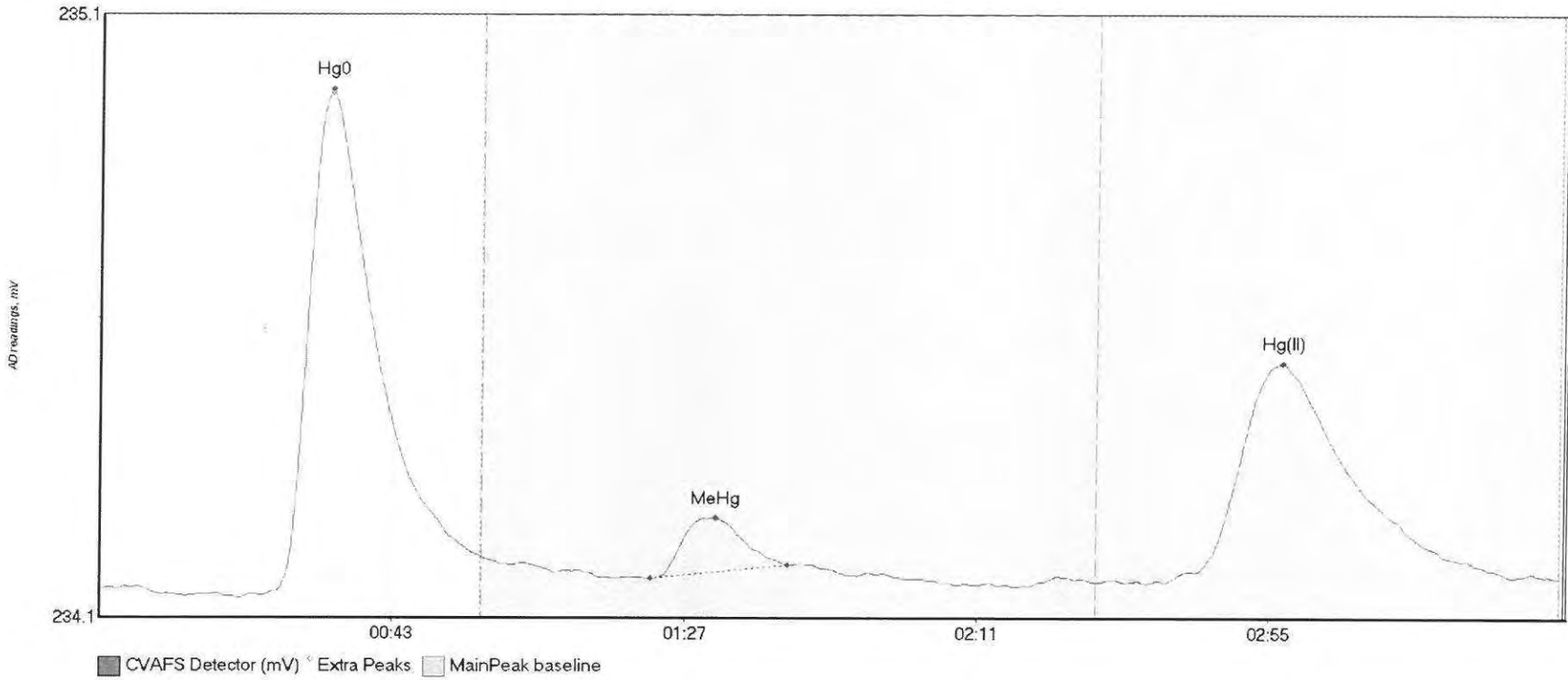
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-03RE1 H	75.368	9.0	57.5	234.20	234.26	34.4	0.687	CT	234.2005	0.00	0.03	
1610235-03RE1 H	70.559	163.3	217.8	234.22	234.23	177.6	0.382	OK	234.2005	0.00	0.03	

#24: 1610235-04RE1



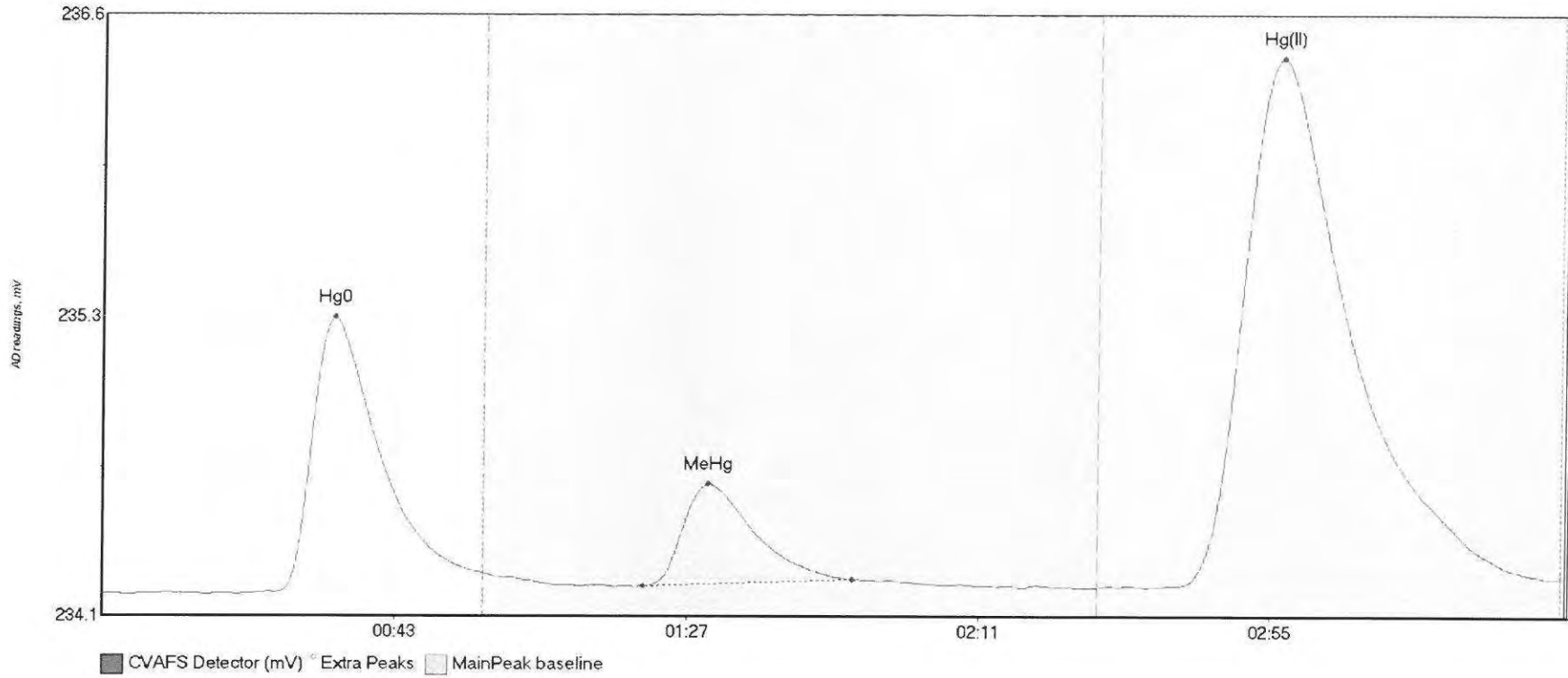
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-04RE1 H	68.212	25.1	57.5	234.19	234.25	34.1	0.618	CT	234.1910	0.00	0.03	
1610235-04RE1 H	73.384	159.2	219.8	234.20	234.22	177.1	0.386	CT	234.1910	0.00	0.03	016

#25: 1610235-05RE1



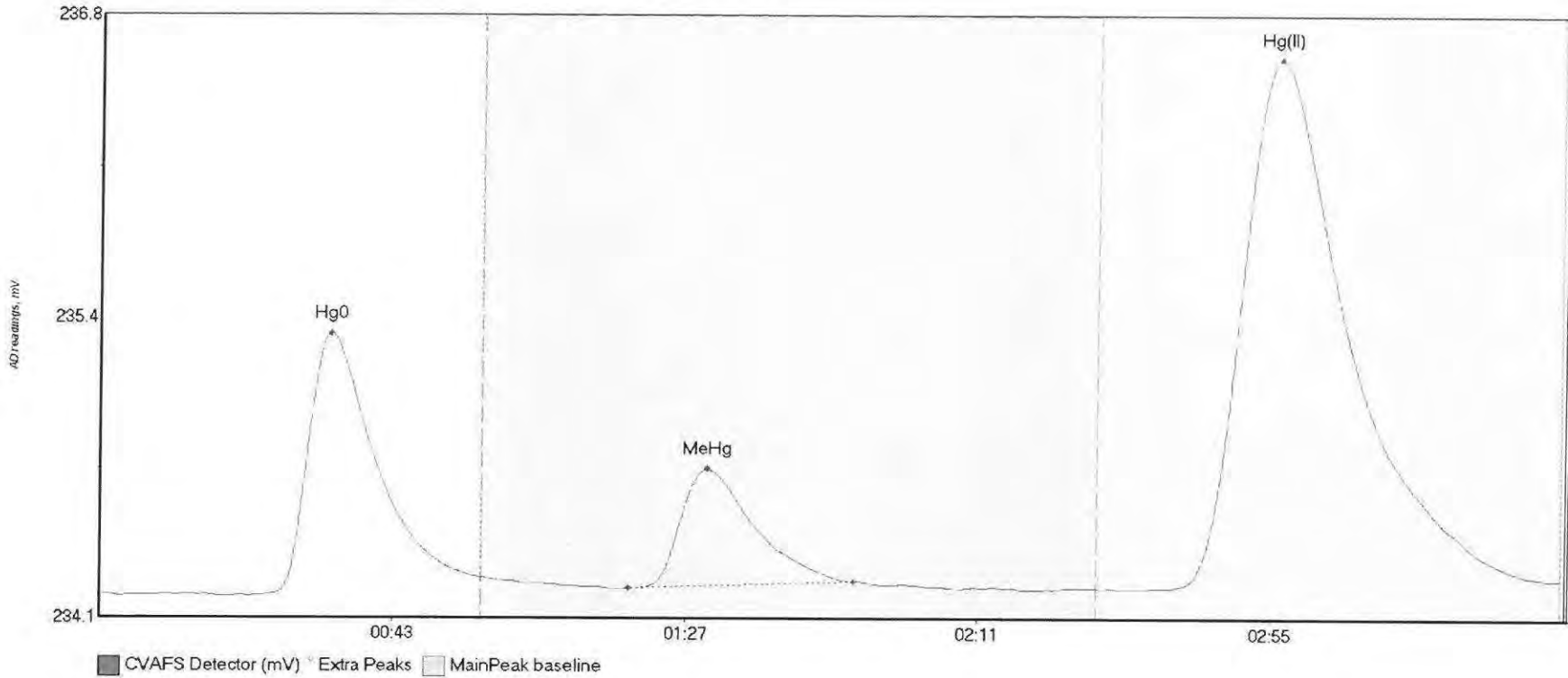
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max.	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-05RE1 H	92.024	26.4	57.5	234.18	234.24	34.7	0.828	CT	234.1868	0.00	0.02	
1610235-05RE1 M	9.423	82.9	103.5	234.20	234.23	92.6	0.101	OK	234.1868	0.00	0.02	
1610235-05RE1 H	70.108	160.3	219.8	234.20	234.20	178.0	0.365	CT	234.1868	0.00	0.02	

#26: 1610610-01RE1



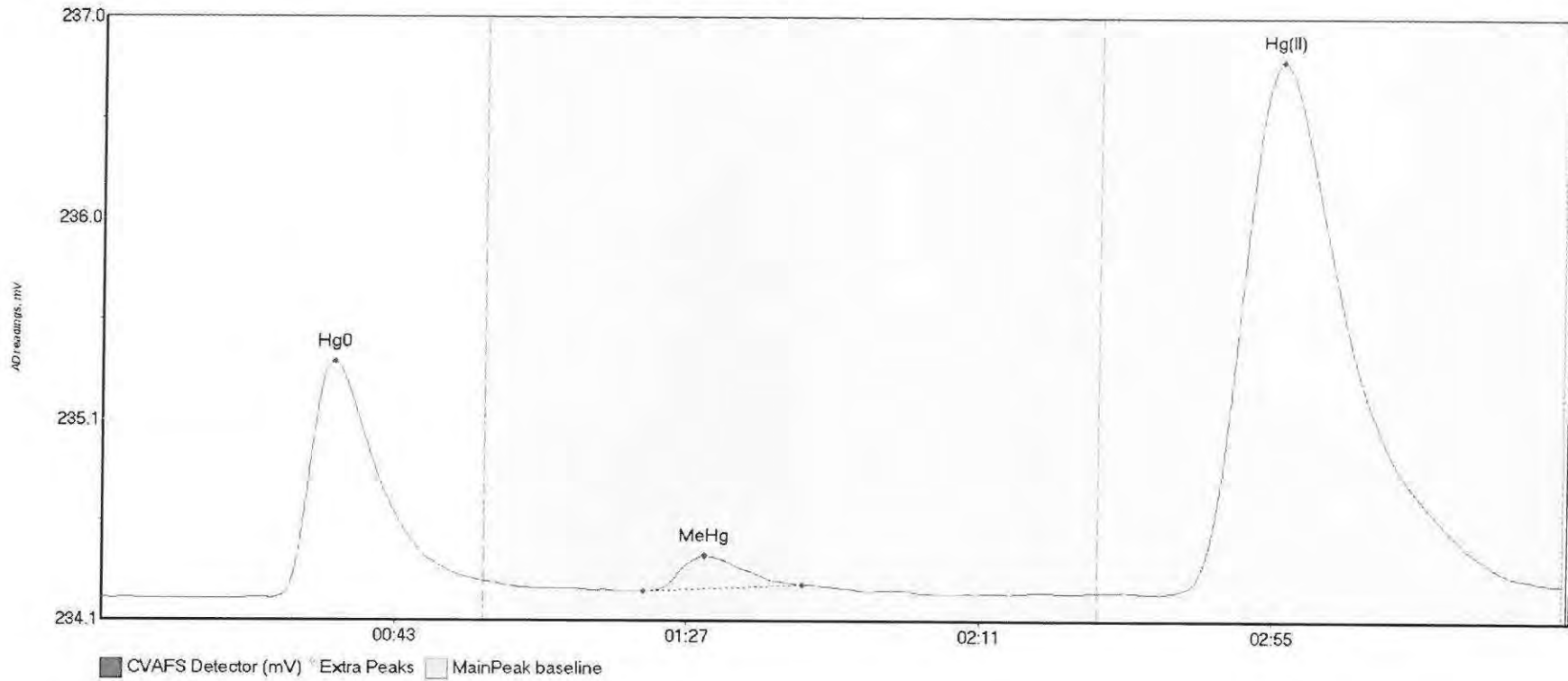
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-01RE1 H	128.808	22.1	57.5	234.17	234.26	34.8	1.166	CT	234.1748	0.00	0.06	
1610610-01RE1 M	52.256	81.5	113.0	234.21	234.23	91.2	0.432	OK	234.1748	0.00	0.06	
1610610-01RE1 H	411.971	161.5	219.8	234.21	234.24	177.6	2.231	CT	234.1748	0.00	0.06	

#27: 1610610-02RE1



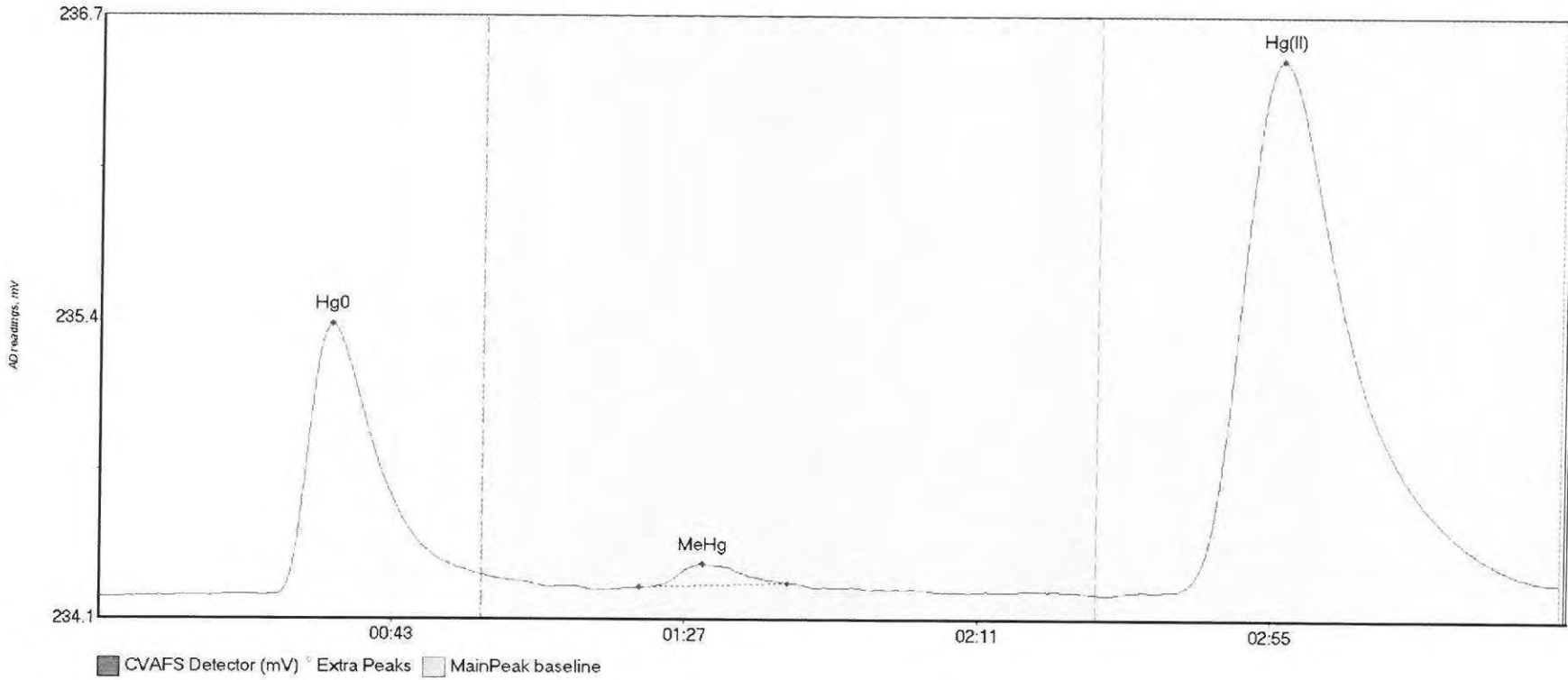
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-02RE1 H	131.236	24.4	57.5	234.18	234.26	34.6	1.171	CT	234.1805	0.00	0.07	
1610610-02RE1 M	66.849	79.4	113.5	234.21	234.24	91.1	0.536	OK	234.1805	0.00	0.07	
1610610-02RE1 H	437.179	160.8	218.2	234.21	234.25	177.2	2.367	OK	234.1805	0.00	0.07	

#28: 1610610-03RE1



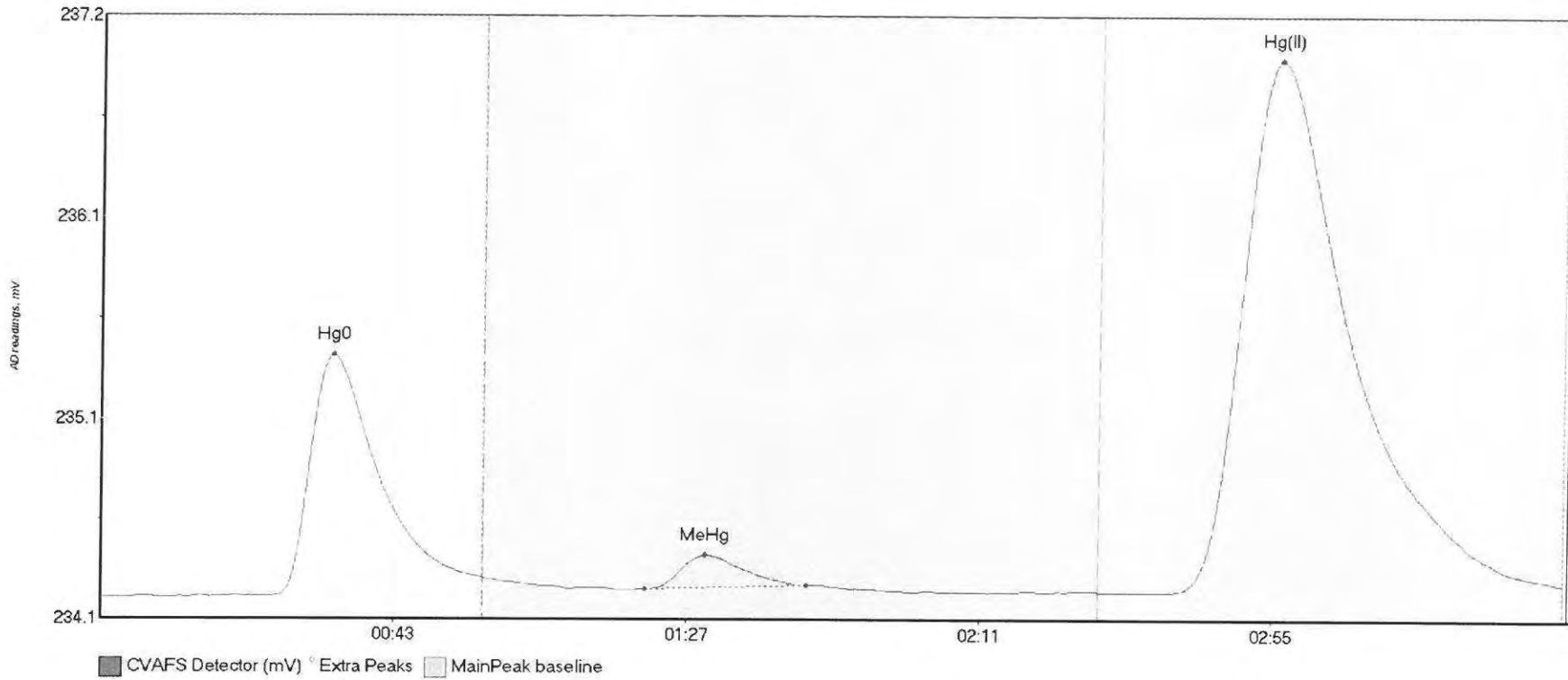
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-03RE1 H	129.218	25.4	57.5	234.18	234.27	34.8	1.150	CT	234.1851	0.00	0.07	
1610610-03RE1 M	16.923	81.6	105.3	234.22	234.25	90.6	0.173	OK	234.1851	0.00	0.07	
1610610-03RE1 H	483.137	159.3	219.8	234.21	234.26	177.1	2.588	CT	234.1851	0.00	0.07	

#29: 1610610-04RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-04RE1 H	124.954	10.6	57.5	234.19	234.28	34.9	1.156	CT	234.1861	0.00	0.06	
1610610-04RE1 M	9.819	81.2	103.5	234.23	234.25	90.7	0.100	OK	234.1861	0.00	0.06	
1610610-04RE1 H	422.810	151.7	219.8	234.20	234.25	177.3	2.273	CT	234.1861	0.00	0.06	

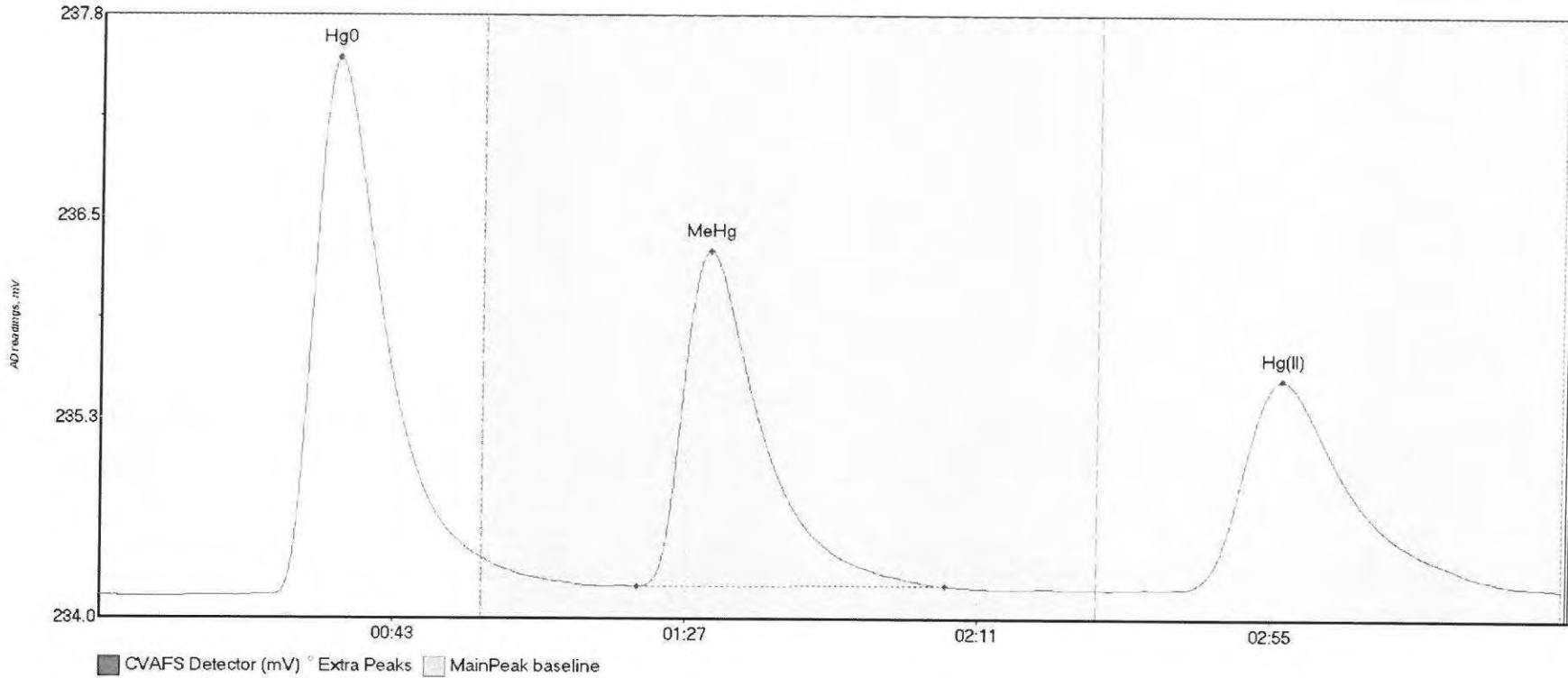
#30: 1610617-01RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610617-01RE1 H	136.385	16.3	57.5	234.19	234.28	34.8	1.237	CT	234.1828	0.00	0.07	
1610617-01RE1 M	18.029	81.8	106.0	234.23	234.24	90.7	0.176	OK	234.1828	0.00	0.07	
1610617-01RE1 H	505.303	161.0	219.8	234.21	234.25	177.0	2.720	CT	234.1828	0.00	0.07	

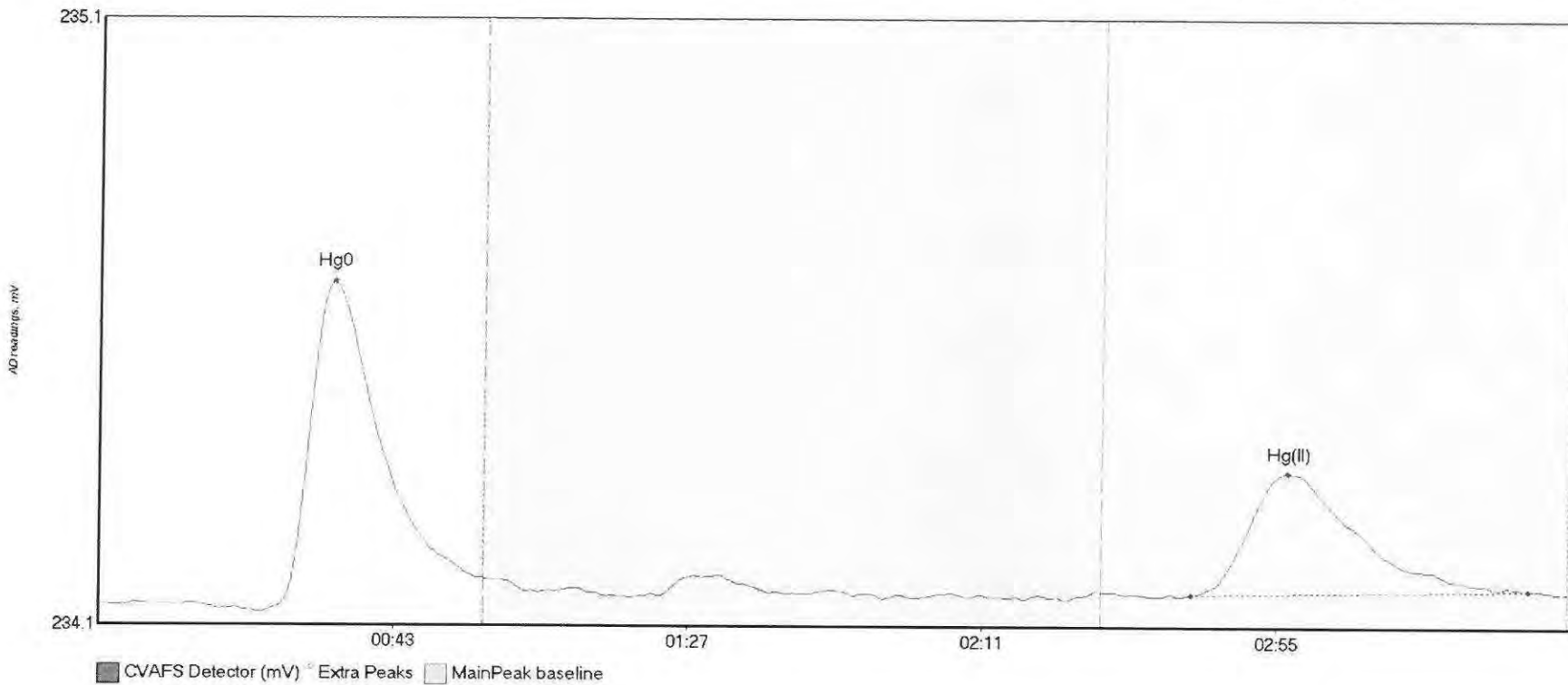


#31: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	380.856	21.9	57.5	234.19	234.43	35.5	3.340	CT	234.1898	0.00	0.05	
SEQ-CCV2 MeHg	281.973	80.9	127.2	234.25	234.25	91.4	2.086	OK	234.1898	0.00	0.05	
SEQ-CCV2 Hg(II)	240.564	161.1	219.8	234.24	234.24	177.6	1.304	CT	234.1898	0.00	0.05	

#32: SEQ-CCB2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	61.322	24.3	57.5	234.16	234.22	35.0	0.544	CF	234.1738	0.00	0.02	
SEQ-CCB2 Hg(II)	36.872	163.3	214.0	234.19	234.20	177.6	0.202	OK	234.1738	0.00	0.02	016

**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 6K01010
<b>Reviewer:</b> <i>[Signature]</i> 11/2/16	<b>Dataset ID #:</b> MMHG27001-161031-1
<b>Date:</b> 11/1/16	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F610422	<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: <i>DM</i>	Reviewer Initials: <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 checked="" type="checkbox"/> NO	<input 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 checked="" type="checkbox"/> NO	<input 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 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 <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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6K01010
<b>Reviewer:</b>	0 <i>Be...</i> 11/2/16	<b>Dataset ID #:</b>	MMHG27001-161031-1
<b>Date:</b>	11/1/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*Be...*

- |   | <input type="checkbox"/> PASS       | <input type="checkbox"/> FAIL | <input type="checkbox"/> N/A        | <input type="checkbox"/>            |
|---|-------------------------------------|-------------------------------|-------------------------------------|-------------------------------------|
| 9. ICV % Recoveries 67-133%<br>Comments: _____  | <input checked="" type="checkbox"/> | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 10. CCV % Recoveries 67-133%<br>Comments: _____   | <input checked="" type="checkbox"/> | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 11. Are the absolute value of the ICB and CCBs < PQL?<br>Comments: _____  | <input checked="" type="checkbox"/> | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%)<br>Comments: <b>NONE</b>   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 13. LCS/LCSD or BS/BSD RPD (< 25%)<br>Comments: <b>NONE</b>   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 14. Water: Average of Preparation Blanks < 0.045 ng/L and standard deviation of 0.015 ng/L?<br>Comments: _____  | <input type="checkbox"/>            | <input type="checkbox"/>      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 15. Sediment/Tissue: Individually, are the Preparation Blanks < PQL for the matrix?<br>Comments: _____  | <input checked="" type="checkbox"/> | <input type="checkbox"/>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|   | <input checked="" type="checkbox"/> | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 16. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)  | <input type="checkbox"/>            | <input type="checkbox"/>      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 17. Is the correct 'Source' designated for MD/MS/MSD?   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 18. For digested preps: was there a spike witness signature & date on the prep bench sheet?   | <input type="checkbox"/>            | <input type="checkbox"/>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 19. MD RPD/MT RSD(< 35%)<br>Comments: <b>NONE</b>   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 20. Is there one set of MS/MSD per every 10 samples?<br>Comments: <b>NONE</b>   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 21. MS/MSD RPD(< 35%)<br>Comments: <b>NONE</b>  | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 22. MS (AS) % Recoveries (65-130%)<br>Comments: <b>NONE</b>   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 23. MSD (ASD) % Recoveries (65-130%)<br>Comments: <b>NONE</b>   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630)   | <input type="checkbox"/>            | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 25. Are all samples within instrument calibration range (or at maximum aliquot size)?<br>Comments: _____  | <input checked="" type="checkbox"/> | <input type="checkbox"/>      |                                     | <input checked="" type="checkbox"/> |
| 26. For instrumental dilutions, is the dilution factor in excel correct?<br>Is the sample volume, diluents, and final volume of the dilution noted on benchsheet? | <input checked="" type="checkbox"/> | <input type="checkbox"/>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
|   | <input checked="" type="checkbox"/> | <input type="checkbox"/>      | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 27. Dissolved < Total metals (if applicable)<br>Comments: _____   | <input type="checkbox"/>            | <input type="checkbox"/>      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| 28. Effluent < Influent metals (visually confirm if needed)<br>Comments: _____  | <input type="checkbox"/>            | <input type="checkbox"/>      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6K01010
<b>Reviewer:</b>	0 <i>[Signature]</i> 11/2/16	<b>Dataset ID #:</b>	MMHG27001-161031-1
<b>Date:</b>	11/1/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422	<b>Client(s):</b>	VARIOUS

**Analyst Initials:** DM      **Reviewer Initials:** BL

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: 6/21/16 <sup>7/9/2015</sup> 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: 6/24/2016 LOD within last 3 months (within 12 months for MDN)?  YES    NO    N/A
41. Date of LOQ: 6/24/2016 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



Frontier Global Sciences

THg26002-161110-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 10, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K10018, 6K10017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	116.97 units	233.95	105.93 units	211.87	104.1 %Rec
SEQ-CAL2	1	1.00 ng/L	213.06 units	213.06	202.02 units	202.02	99.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1027.62 units	205.52	1016.58 units	203.32	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3897.25 units	194.86	3886.21 units	194.31	95.5 %Rec
SEQ-CAL5	1	40.00 ng/L	8261.28 units	206.53	8250.24 units	206.26	101.3 %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  
 203.55            +/- 6.41            3.1% RSD            210.78

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.04 units	±2.85	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.420 ng/L	±2.584
BLK	2	3	2.349 ng/L	±1.647
BLK	3	3	3.028 ng/L	±2.564
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   11/10/16

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	11/10/2016 8:02:45	65431-1.RAW	8:02:45 AM	9.55			-1.5	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/10/2016 8:06:54	65432-1.RAW	8:06:54 AM	14.32			3.3	0.016	0.016	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/10/2016 8:11:02	65433-1.RAW	8:11:02 AM	9.24			-1.8	-0.009	-0.009	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/10/2016 8:15:11	65434-1.RAW	8:15:11 AM	116.97			105.9	0.520	0.520	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/10/2016 8:19:19	65435-1.RAW	8:19:19 AM	213.06			202.0	0.992	0.992	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/10/2016 8:23:27	65436-1.RAW	8:23:27 AM	1027.62			1016.6	4.994	4.994	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/10/2016 8:27:36	65437-1.RAW	8:27:36 AM	3897.25			3886.2	19.092	19.092	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/10/2016 8:31:44	65438-1.RAW	8:31:44 AM	8261.28			8250.2	40.531	40.531	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/10/2016 8:35:54	65439-1.RAW	8:35:54 AM	1011.29			1000.3	4.914	4.914	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK1	20	11/10/2016 8:41:32	65440-1.RAW	8:41:32 AM	75.69	1		64.7	0.318	6.353	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK2	20	11/10/2016 8:45:41	65441-1.RAW	8:45:41 AM	35.79	1		24.7	0.122	2.432	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK3	20	11/10/2016 8:49:49	65442-1.RAW	8:49:49 AM	26.06	1		15.0	0.074	1.476	ng/L	
Hg2600-2	DM2	SAM	F610509-BS1	20	11/10/2016 8:53:57	65443-1.RAW	8:53:57 AM	1052.88	1		1041.8	4.947	98.943	ng/L	
Hg2600-2	DM2	SAM	F610509-BSD1	20	11/10/2016 8:58:06	65444-1.RAW	8:58:06 AM	1070.02	1		1059.0	5.031	100.629	ng/L	
Hg2600-2	DM2	SAM	F610509-BS2	500	11/10/2016 9:02:14	65445-1.RAW	9:02:14 AM	918.96	1		907.9	4.454	2226.751	ng/L	
Hg2600-2	DM2	SAM	1610234-16	100	11/10/2016 9:06:23	65446-1.RAW	9:06:23 AM	248.86	1		237.8	1.134	113.417	ng/L	
Hg2600-2	DM2	SAM	1610234-17	100	11/10/2016 9:10:31	65447-1.RAW	9:10:31 AM	262.12	1		251.1	1.199	119.929	ng/L	
Hg2600-2	DM2	SAM	1610234-18	100	11/10/2016 9:14:40	65448-1.RAW	9:14:40 AM	336.90	1		325.9	1.567	156.664	ng/L	
Hg2600-2	DM2	SAM	1610234-19	100	11/10/2016 9:18:48	65449-1.RAW	9:18:48 AM	172.80	1		161.8	0.760	76.049	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/10/2016 9:22:57	65450-1.RAW	9:22:57 AM	982.22			971.2	4.771	4.771	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/10/2016 9:27:05	65451-1.RAW	9:27:05 AM	20.52			9.5	0.047	0.047	ng/L	
Hg2600-2	DM2	SAM	1610234-20	100	11/10/2016 9:31:13	65452-1.RAW	9:31:13 AM	257.22	1		246.2	1.175	117.522	ng/L	
Hg2600-2	DM2	SAM	1610235-01	100	11/10/2016 9:35:22	65453-1.RAW	9:35:22 AM	85.94	1		74.9	0.334	33.376	ng/L	
Hg2600-2	DM2	SAM	1610235-02	100	11/10/2016 9:39:30	65454-1.RAW	9:39:30 AM	113.68	1		102.6	0.470	47.003	ng/L	
Hg2600-2	DM2	SAM	1610235-03	100	11/10/2016 9:43:39	65455-1.RAW	9:43:39 AM	60.69	1		49.7	0.210	20.973	ng/L	
Hg2600-2	DM2	SAM	1610235-04	100	11/10/2016 9:47:47	65456-1.RAW	9:47:47 AM	132.06	1		121.0	0.560	56.035	ng/L	
Hg2600-2	DM2	SAM	1610235-05	100	11/10/2016 9:51:55	65457-1.RAW	9:51:55 AM	74.80	1		63.8	0.279	27.905	ng/L	
Hg2600-2	DM2	SAM	1610236-01	100	11/10/2016 9:56:04	65458-1.RAW	9:56:04 AM	197.24	1		186.2	0.881	88.056	ng/L	
Hg2600-2	DM2	SAM	1610236-02	100	11/10/2016 10:00:12	65459-1.RAW	10:00:12 AM	215.19	1		204.1	0.969	96.872	ng/L	
Hg2600-2	DM2	SAM	1610236-03	20	11/10/2016 10:13:52	65460-2.RAW	10:13:52 AM	1077.96	1		1066.9	5.070	101.409	ng/L	
Hg2600-2	DM2	SAM	1610236-04	20	11/10/2016 10:18:01	65461-1.RAW	10:18:01 AM	977.10	1		966.1	4.575	91.499	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/10/2016 10:22:09	65462-1.RAW	10:22:09 AM	952.48			941.4	4.625	4.625	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/10/2016 10:26:17	65463-1.RAW	10:26:17 AM	22.58			11.5	0.057	0.057	ng/L	
Hg2600-2	DM2	SAM	1610236-05	20	11/10/2016 10:30:26	65464-1.RAW	10:30:26 AM	968.77	1		957.7	4.534	90.681	ng/L	
Hg2600-2	DM2	SAM	1610236-06	20	11/10/2016 10:34:34	65465-1.RAW	10:34:34 AM	1171.28	1		1160.2	5.529	110.578	ng/L	
Hg2600-2	DM2	SAM	1610236-07	20	11/10/2016 10:38:43	65466-1.RAW	10:38:43 AM	762.76	1		751.7	3.522	70.439	ng/L	
Hg2600-2	DM2	SAM	1610236-08	20	11/10/2016 10:42:51	65467-1.RAW	10:42:51 AM	1113.32	1		1102.3	5.244	104.883	ng/L	
Hg2600-2	DM2	SAM	1610236-09	20	11/10/2016 10:46:59	65468-1.RAW	10:46:59 AM	1111.16	1		1100.1	5.234	104.671	ng/L	
Hg2600-2	DM2	SAM	1610236-10	20	11/10/2016 10:51:08	65469-1.RAW	10:51:08 AM	1083.48	1		1072.4	5.098	101.951	ng/L	
Hg2600-2	DM2	SAM	1610234-19RE1	20	11/10/2016 10:55:16	65470-1.RAW	10:55:16 AM	720.20	1		709.2	3.313	66.258	ng/L	
Hg2600-2	DM2	SAM	1610235-01RE1	20	11/10/2016 10:59:25	65471-1.RAW	10:59:25 AM	326.22	1		315.2	1.377	27.548	ng/L	
Hg2600-2	DM2	SAM	1610235-02RE1	20	11/10/2016 11:03:33	65472-1.RAW	11:03:33 AM	424.48	1		413.4	1.860	37.202	ng/L	
Hg2600-2	DM2	SAM	1610235-03RE1	20	11/10/2016 11:07:42	65473-1.RAW	11:07:42 AM	221.82	1		210.8	0.864	17.290	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/10/2016 11:11:50	65474-1.RAW	11:11:50 AM	969.26			958.2	4.707	4.707	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/10/2016 11:15:58	65475-1.RAW	11:15:58 AM	34.34			23.3	0.114	0.114	ng/L	
Hg2600-2	DM2	SAM	1610235-04RE1	20	11/10/2016 11:20:07	65476-1.RAW	11:20:07 AM	532.70	1		521.7	2.392	47.835	ng/L	
Hg2600-2	DM2	SAM	1610235-05RE1	20	11/10/2016 11:24:15	65477-1.RAW	11:24:15 AM	296.98	1		285.9	1.234	24.675	ng/L	
Hg2600-2	DM2	SAM	1610236-01RE1	20	11/10/2016 11:28:24	65478-1.RAW	11:28:24 AM	820.04	1		809.0	3.803	76.067	ng/L	
Hg2600-2	DM2	SAM	1610236-02RE1	20	11/10/2016 11:32:32	65479-1.RAW	11:32:32 AM	921.07	1		910.0	4.300	85.994	ng/L	
Hg2600-2	DM2	SAM	F610509-DUP1	100	11/10/2016 11:36:41	65480-1.RAW	11:36:41 AM	229.84	1		218.8	1.041	104.073	ng/L	
Hg2600-2	DM2	SAM	F610509-MS1	500	11/10/2016 11:40:49	65481-1.RAW	11:40:49 AM	1869.32	1		1858.3	9.122	4561.166	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD1	500	11/10/2016 11:44:57	65482-1.RAW	11:44:57 AM	1849.00	1		1838.0	9.023	4511.266	ng/L	
Hg2600-2	DM2	SAM	F610509-MS2	500	11/10/2016 11:49:07	65483-1.RAW	11:49:07 AM	1939.11	1		1928.1	9.465	4732.606	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD2	500	11/10/2016 11:53:15	65484-1.RAW	11:53:15 AM	1991.80	1		1980.8	9.724	4862.016	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK1	20	11/10/2016 11:57:24	65485-1.RAW	11:57:24 AM	54.01	2		43.0	0.211	4.223	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/10/2016 12:01:32	65486-1.RAW	12:01:32 PM	949.16			938.1	4.609	4.609	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/10/2016 12:05:40	65487-1.RAW	12:05:40 PM	33.79			22.8	0.112	0.112	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	F610510-BLK2	20	11/10/2016 12:09:49	65488-1.RAW	12:09:49 PM	28.24	2		17.2	0.085	1.690	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK3	20	11/10/2016 12:13:58	65489-1.RAW	12:13:58 PM	22.57	2		11.5	0.057	1.133	ng/L	
Hg2600-2	DM2	SAM	F610510-BS1	20	11/10/2016 12:18:06	65490-1.RAW	12:18:06 PM	993.01	2		982.0	4.707	94.134	ng/L	
Hg2600-2	DM2	SAM	F610510-BSD1	20	11/10/2016 12:22:14	65491-1.RAW	12:22:14 PM	1078.26	2		1067.2	5.126	102.510	ng/L	
Hg2600-2	DM2	SAM	F610510-BS2	500	11/10/2016 12:26:23	65492-1.RAW	12:26:23 PM	864.93	2		853.9	4.190	2095.112	ng/L	
Hg2600-2	DM2	SAM	1610232-26RE1	100	11/10/2016 12:30:31	65493-1.RAW	12:30:31 PM	2112.51	2		2101.5	10.300	1030.042	ng/L	
Hg2600-2	DM2	SAM	1610236-11	20	11/10/2016 12:34:40	65494-1.RAW	12:34:40 PM	1017.46	2		1006.4	4.827	96.536	ng/L	
Hg2600-2	DM2	SAM	1610236-12	20	11/10/2016 12:38:49	65495-1.RAW	12:38:49 PM	1001.21	2		990.2	4.747	94.939	ng/L	
Hg2600-2	DM2	SAM	1610236-13	20	11/10/2016 12:42:58	65496-1.RAW	12:42:58 PM	999.53	2		988.5	4.739	94.774	ng/L	
Hg2600-2	DM2	SAM	1610236-14	20	11/10/2016 12:47:06	65497-1.RAW	12:47:06 PM	921.27	2		910.2	4.354	87.085	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/10/2016 12:51:14	65498-1.RAW	12:51:14 PM	963.2184419			952.2	4.678	4.678	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/10/2016 12:55:23	65499-1.RAW	12:55:23 PM	35.11			24.1	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1610236-15	20	11/10/2016 12:59:31	65500-1.RAW	12:59:31 PM	1263.04	2		1252.0	6.033	120.665	ng/L	
Hg2600-2	DM2	SAM	1610236-16	20	11/10/2016 13:03:40	65501-1.RAW	1:03:40 PM	938.87	2		927.8	4.441	88.815	ng/L	
Hg2600-2	DM2	SAM	1610236-17	20	11/10/2016 13:07:48	65502-1.RAW	1:07:48 PM	836.21	2		825.2	3.936	78.728	ng/L	
Hg2600-2	DM2	SAM	1610236-18	20	11/10/2016 13:11:57	65503-1.RAW	1:11:57 PM	1244.98	2		1233.9	5.945	118.891	ng/L	
Hg2600-2	DM2	SAM	1610236-19	20	11/10/2016 13:16:05	65504-1.RAW	1:16:05 PM	1045.03	2		1034.0	4.962	99.245	ng/L	
Hg2600-2	DM2	SAM	1610236-20	20	11/10/2016 13:20:13	65505-1.RAW	1:20:13 PM	887.46	2		876.4	4.188	83.763	ng/L	
Hg2600-2	DM2	SAM	1610238-01	20	11/10/2016 13:24:22	65506-1.RAW	1:24:22 PM	4134.58	2		4123.5	20.140	402.805	ng/L	
Hg2600-2	DM2	SAM	1610238-02	20	11/10/2016 13:28:30	65507-1.RAW	1:28:30 PM	469.89	2		458.9	2.137	42.735	ng/L	
Hg2600-2	DM2	SAM	1610238-03	20	11/10/2016 13:32:39	65508-1.RAW	1:32:39 PM	53.93	2		42.9	0.093	1.865	ng/L	
Hg2600-2	DM2	SAM	1610238-04	20	11/10/2016 13:36:47	65509-1.RAW	1:36:47 PM	64.85	2		53.8	0.147	2.939	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/10/2016 13:40:56	65510-1.RAW	1:40:56 PM	935.61			924.6	4.542	4.542	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/10/2016 13:45:04	65511-1.RAW	1:45:04 PM	48.10			37.1	0.182	0.182	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP1	100	11/10/2016 13:49:12	65512-1.RAW	1:49:12 PM	2732.85	2		2721.8	13.348	1334.795	ng/L	
Hg2600-2	DM2	SAM	F610510-MS1	500	11/10/2016 13:53:21	65513-1.RAW	1:53:21 PM	2268.80	2		2257.8	11.087	5543.497	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD1	500	11/10/2016 13:57:29	65514-1.RAW	1:57:29 PM	2230.51	2		2219.5	10.899	5449.451	ng/L	
Hg2600-2	DM2	SAM	F610510-MS2	500	11/10/2016 14:01:38	65515-1.RAW	2:01:38 PM	1744.44	2		1733.4	8.511	4255.493	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD2	500	11/10/2016 14:05:46	65516-1.RAW	2:05:46 PM	1778.12	2		1767.1	8.676	4338.209	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK1	20	11/10/2016 14:09:54	65517-1.RAW	2:09:54 PM	71.75	3		60.7	0.298	5.965	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK2	20	11/10/2016 14:14:03	65518-1.RAW	2:14:03 PM	30.21	3		19.2	0.094	1.884	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK3	20	11/10/2016 14:18:11	65519-1.RAW	2:18:11 PM	23.61	3		12.6	0.062	1.236	ng/L	
Hg2600-2	DM2	SAM	F611274-BS1	20	11/10/2016 14:22:20	65520-1.RAW	2:22:20 PM	3819.97	3		3808.9	18.561	371.215	ng/L	
Hg2600-2	DM2	SAM	F611274-BSD1	20	11/10/2016 14:26:28	65521-1.RAW	2:26:28 PM	4212.05	3		4201.0	20.487	409.737	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/10/2016 14:30:37	65522-1.RAW	2:30:37 PM	1024.98			1013.9	4.981	4.981	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/10/2016 14:34:45	65523-1.RAW	2:34:45 PM	47.48			36.4	0.179	0.179	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV1	1	11/10/2016 14:38:54	65524-1.RAW	2:38:54 PM	132.52			121.5	0.597	0.597	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV2	1	11/10/2016 14:43:02	65525-1.RAW	2:43:02 PM	72.20			61.2	0.300	0.300	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP2	100	11/10/2016 14:47:11	65526-1.RAW	2:47:11 PM	2036.71	2		2025.7	9.928	992.805	ng/L	
Hg2600-2	DM2	SAM	1609620-01	20	11/10/2016 14:51:19	65527-1.RAW	2:51:19 PM	167.70	3		156.7	0.618	12.364	ng/L	
Hg2600-2	DM2	SAM	1609620-02	20	11/10/2016 14:55:27	65528-1.RAW	2:55:27 PM	249.25	3		238.2	1.019	20.377	ng/L	
Hg2600-2	DM2	SAM	1609620-03	20	11/10/2016 14:59:36	65529-1.RAW	2:59:36 PM	155.33	3		144.3	0.557	11.149	ng/L	
Hg2600-2	DM2	SAM	1609620-07	100	11/10/2016 15:03:44	65530-1.RAW	3:03:44 PM	1276.99	3		1266.0	6.189	618.895	ng/L	
Hg2600-2	DM2	SAM	1609620-08	100	11/10/2016 15:07:53	65531-1.RAW	3:07:53 PM	863.58	3		852.5	4.158	415.801	ng/L	
Hg2600-2	DM2	SAM	1609620-09	100	11/10/2016 15:12:01	65532-1.RAW	3:12:01 PM	765.08	3		754.0	3.674	367.411	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP1	20	11/10/2016 15:16:10	65533-1.RAW	3:16:10 PM	317.42	3		306.4	1.354	27.075	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/10/2016 15:20:18	65534-1.RAW	3:20:18 PM	949.40			938.4	4.610	4.610	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/10/2016 15:24:27	65535-1.RAW	3:24:27 PM	32.50			21.5	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	F611274-MS1	20	11/10/2016 15:28:35	65536-1.RAW	3:28:35 PM	1241.91	3		1230.9	5.895	117.910	ng/L	
Hg2600-2	DM2	SAM	F611274-MSD1	20	11/10/2016 15:32:43	65537-1.RAW	3:32:43 PM	1234.95	3		1223.9	5.861	117.226	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP2	20	11/10/2016 15:37:16	65538-1.RAW	3:37:16 PM	157.92	3		146.9	0.570	11.404	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/10/2016 15:41:24	65539-1.RAW	3:41:24 PM	931.84			920.8	4.524	4.524	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/10/2016 15:45:33	65540-1.RAW	3:45:33 PM	31.63			20.6	0.101	0.101	ng/L	



TotalMercury EPA1631  
 Operati DM  
 BlankSi 11.038  
 Calib Eqn: Conc = (Area-11.03  
 Run Date: #####  
 Blank SD: 2.847022414  
 Works: THG260  
 CalibFa 203.55  
 Status: QC Warnings:4/QC E  
 Run Time: 15:33:07  
 Blank RSD%: 25.79243936  
 Method #### R: 0.9996  
 R²: 0.9992  
 CF SD: 6.409000594  
 CF RSD%: 3.148548865  
 Descrip THG26002-161110-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.77					65426-1.RAW	7:43:20	359.88	Clean	OK	1
clean				0.00	0.01					65427-1.RAW	7:46:12	1.21	Clean	OK	1
ws				11.04	0.01					65428-1.RAW	7:50:20	12.29	Sample	OK	1
ws				11.04	0.00					65429-1.RAW	7:54:28	10.84	Sample	OK	1
ws				11.04	0.00					65430-1.RAW	7:58:37	11.72	Sample	OK	1
SEQ-IBL1	A1			0.00	0.05					65431-1.RAW	8:02:45	9.55	Sample	OK	1
SEQ-IBL2	A2			0.00	0.07					65432-1.RAW	8:06:54	14.32	Sample	OK	1
SEQ-IBL3	A3			0.00	0.05					65433-1.RAW	8:11:02	9.24	Sample	OK	1
SEQ-CAL1	A4			11.04	0.52			104.09		65434-1.RAW	8:15:11	116.97	Sample	OK	1
SEQ-CAL2	A5			11.04	0.99			99.25		65435-1.RAW	8:19:19	213.06	Sample	OK	1
SEQ-CAL3	A6			11.04	4.99			99.88		65436-1.RAW	8:23:27	1027.62	Sample	OK	1
SEQ-CAL4	A7			11.04	19.09			95.46		65437-1.RAW	8:27:36	3897.25	Sample	OK	1
SEQ-CAL5	A8			11.04	40.53			101.33		65438-1.RAW	8:31:44	8261.28	Sample	OK	1
SEQ-ICV1	A9			11.04	4.91			98.28		65439-1.RAW	8:35:54	1011.29	Sample	OK	1
F610509-BLK1	A10		20	11.04	6.35					65440-1.RAW	8:41:32	75.69	Sample	OK	1
F610509-BLK2	A11		20	11.04	2.43					65441-1.RAW	8:45:41	35.79	Sample	OK	1
F610509-BLK3	A12		20	11.04	1.48					65442-1.RAW	8:49:49	26.06	Sample	OK	1
F610509-BS1	A13		20	11.04	102.36					65443-1.RAW	8:53:57	1052.86	Sample	OK	1
F610509-BSD1	A14		20	11.04	104.05					65444-1.RAW	8:58:06	1070.02	Sample	OK	1
F610509-BS2	A15		500	11.04	2230.17					65445-1.RAW	9:02:14	918.96	Sample	OK	1
1610234-16	A16		100	11.04	116.84					65446-1.RAW	9:06:23	248.86	Sample	OK	1
1610234-17	A17		100	11.04	123.35					65447-1.RAW	9:10:31	262.12	Sample	OK	1
1610234-18	A18		100	11.04	160.08					65448-1.RAW	9:14:40	336.90	Sample	OK	1
1610234-19	A19		100	11.04	79.47					65449-1.RAW	9:18:48	172.80	Sample	OK	1
SEQ-CCV1	A20		1	11.04	4.77			95.42		65450-1.RAW	9:22:57	982.22	Sample	OK	1
SEQ-CCB1	A21		1	11.04	0.05			0.00		65451-1.RAW	9:27:05	20.52	Sample	OK	1
1610234-20	B1		100	11.04	120.94					65452-1.RAW	9:31:13	257.22	Sample	OK	1
1610235-01	B2		100	11.04	36.80					65453-1.RAW	9:35:22	85.94	Sample	OK	1
1610235-02	B3		100	11.04	50.42					65454-1.RAW	9:39:30	113.68	Sample	OK	1
1610235-03	B4		100	11.04	24.39					65455-1.RAW	9:43:39	60.69	Sample	OK	1
1610235-04	B5		100	11.04	59.46					65456-1.RAW	9:47:47	132.06	Sample	OK	1
1610235-05	B6		100	11.04	31.33					65457-1.RAW	9:51:55	74.80	Sample	OK	1
1610236-01	B7		100	11.04	91.48					65458-1.RAW	9:56:04	197.24	Sample	OK	1
1610236-02	B8		100	11.04	100.29					65459-1.RAW	10:00:12	215.19	Sample	OK	1
1610236-03	B9		20	11.04	104.83					65460-2.RAW	10:13:52	1077.96	Sample	OK	1
1610236-04	B10		20	11.04	94.92					65461-1.RAW	10:18:01	977.10	Sample	OK	1
SEQ-CCV2	B11		1	11.04	4.63			92.50		65462-1.RAW	10:22:09	952.48	Sample	OK	1
SEQ-CCB2	B12		1	11.04	0.06			0.00		65463-1.RAW	10:26:17	22.58	Sample	OK	1
1610236-05	B13		20	11.04	94.10					65464-1.RAW	10:30:26	968.77	Sample	OK	1
1610236-06	B14		20	11.04	114.00					65465-1.RAW	10:34:34	1171.28	Sample	OK	1
1610236-07	B15		20	11.04	73.86					65466-1.RAW	10:38:43	762.76	Sample	OK	1
1610236-08	B16		20	11.04	108.30					65467-1.RAW	10:42:51	1113.32	Sample	OK	1
1610236-09	B17		20	11.04	108.09					65468-1.RAW	10:46:59	1111.16	Sample	OK	1

1610236-10	B18	20	11.04	105.37		65469-1.RAW	10:51:08	1083.48	Sample	OK	1
1610234-19RE1	B19	20	11.04	69.68		65470-1.RAW	10:55:16	720.20	Sample	OK	1
1610235-01RE1	B20	20	11.04	30.97		65471-1.RAW	10:59:25	326.22	Sample	OK	1
1610235-02RE1	B21	20	11.04	40.62		65472-1.RAW	11:03:33	424.48	Sample	OK	1
1610235-03RE1	C1	20	11.04	20.71		65473-1.RAW	11:07:42	221.82	Sample	OK	1
SEQ-CCV3	C2	1	11.04	4.71	94.15	65474-1.RAW	11:11:50	969.26	Sample	OK	1
SEQ-CCB3	C3	1	11.04	0.11	0.00	65475-1.RAW	11:15:58	34.34	Sample	OK	1
1610235-04RE1	C4	20	11.04	51.26		65476-1.RAW	11:20:07	532.70	Sample	OK	1
1610235-05RE1	C5	20	11.04	28.09		65477-1.RAW	11:24:15	296.98	Sample	OK	1
1610236-01RE1	C6	20	11.04	79.49		65478-1.RAW	11:28:24	820.04	Sample	OK	1
1610236-02RE1	C7	20	11.04	89.41		65479-1.RAW	11:32:32	921.07	Sample	OK	1
F610509-DUP1	C8	100	11.04	107.49		65480-1.RAW	11:36:41	229.84	Sample	OK	1
F610509-MS1	C9	500	11.04	4564.59	4207.27	65481-1.RAW	11:40:49	1869.32	Sample	OK	1
F610509-MSD1	C10	500	11.04	4514.69		65482-1.RAW	11:44:57	1849.00	Sample	OK	1
F610509-MS2	C11	500	11.04	4736.03	104.86	65483-1.RAW	11:49:07	1939.11	Sample	OK	1
F610509-MSD2	C12	500	11.04	4865.44		65484-1.RAW	11:53:15	1991.80	Sample	OK	1
F610510-BLK1	C13	20	11.04	4.22		65485-1.RAW	11:57:24	54.01	Sample	OK	1
SEQ-CCV4	C14	1	11.04	4.61	92.17	65486-1.RAW	12:01:32	949.16	Sample	OK	1
SEQ-CCB4	C15	1	11.04	0.11	0.00	65487-1.RAW	12:05:40	33.79	Sample	OK	1
F610510-BLK2	C16	20	11.04	1.69		65488-1.RAW	12:09:49	28.24	Sample	OK	1
F610510-BLK3	C17	20	11.04	1.13		65489-1.RAW	12:13:58	22.57	Sample	OK	1
F610510-BS1	C18	20	11.04	96.48		65490-1.RAW	12:18:06	993.01	Sample	OK	1
F610510-BSD1	C19	20	11.04	104.86		65491-1.RAW	12:22:14	1078.26	Sample	OK	1
F610510-BS2	C20	500	11.04	2097.46		65492-1.RAW	12:26:23	864.93	Sample	OK	1
1610232-26RE1	C21	100	11.04	1032.39		65493-1.RAW	12:30:31	2112.51	Sample	OK	1
1610236-11	A1	20	11.04	98.88		65494-1.RAW	12:34:40	1017.46	Sample	OK	1
1610236-12	A2	20	11.04	97.29		65495-1.RAW	12:38:49	1001.21	Sample	OK	1
1610236-13	A3	20	11.04	97.12		65496-1.RAW	12:42:58	999.53	Sample	OK	1
1610236-14	A4	20	11.04	89.43		65497-1.RAW	12:47:06	921.27	Sample	OK	1
SEQ-CCV5	A5	1	11.04	4.68	93.56	65498-1.RAW	12:51:14	963.22	Sample	OK	1
SEQ-CCB5	A6	1	11.04	0.12	0.00	65499-1.RAW	12:55:23	35.11	Sample	OK	1
1610236-15	A7	20	11.04	123.01		65500-1.RAW	12:59:31	1263.04	Sample	OK	1
1610236-16	A8	20	11.04	91.16		65501-1.RAW	13:03:40	938.87	Sample	OK	1
1610236-17	A9	20	11.04	81.08		65502-1.RAW	13:07:48	836.21	Sample	OK	1
1610236-18	A10	20	11.04	121.24		65503-1.RAW	13:11:57	1244.98	Sample	OK	1
1610236-19	A11	20	11.04	101.59		65504-1.RAW	13:16:05	1045.03	Sample	OK	1
1610236-20	A12	20	11.04	86.11		65505-1.RAW	13:20:13	887.46	Sample	OK	1
1610238-01	A13	20	11.04	405.15		65506-1.RAW	13:24:22	4134.58	Sample	OK	1
1610238-02	A14	20	11.04	45.08		65507-1.RAW	13:28:30	469.89	Sample	OK	1
1610238-03	A15	20	11.04	4.21		65508-1.RAW	13:32:39	53.93	Sample	OK	1
1610238-04	A16	20	11.04	5.29		65509-1.RAW	13:36:47	64.85	Sample	OK	1
SEQ-CCV6	A17	1	11.04	4.54	90.84	65510-1.RAW	13:40:56	935.61	Sample	OK	1
SEQ-CCB6	A18	1	11.04	0.18	0.00	65511-1.RAW	13:45:04	48.10	Sample	OK	1
F610510-DUP1	A19	100	11.04	1337.14		65512-1.RAW	13:49:12	2732.85	Sample	OK	1
F610510-MS1	A20	500	11.04	5545.85	414.44	65513-1.RAW	13:53:21	2268.80	Sample	OK	1
F610510-MSD1	A21	500	11.04	5451.80		65514-1.RAW	13:57:29	2230.51	Sample	OK	1
F610510-MS2	B1	500	11.04	4257.84	78.07	65515-1.RAW	14:01:38	1744.44	Sample	OK	1
F610510-MSD2	B2	500	11.04	4340.56		65516-1.RAW	14:05:46	1778.12	Sample	OK	1

F611274-BLK1	B3	20	11.04	5.97		65517-1.RAW	14:09:54	71.75	Sample	OK	1
F611274-BLK2	B4	20	11.04	1.88		65518-1.RAW	14:14:03	30.21	Sample	OK	1
F611274-BLK3	B5	20	11.04	1.24		65519-1.RAW	14:18:11	23.61	Sample	OK	1
F611274-BS1	B6	20	11.04	374.24		65520-1.RAW	14:22:20	3819.97	Sample	OK	1
F611274-BSD1	B7	20	11.04	412.77		65521-1.RAW	14:26:28	4212.05	Sample	OK	1
SEQ-CCV7	B8	1	11.04	4.98	99.62	65522-1.RAW	14:30:37	1024.98	Sample	OK	1
SEQ-CCB7	B9	1	11.04	0.18	0.00	65523-1.RAW	14:34:45	47.48	Sample	OK	1
SEQ-LCV1	B10	1	11.04	0.60		65524-1.RAW	14:38:54	132.52	Sample	OK	1
SEQ-LCV2	B11	1	11.04	0.30		65525-1.RAW	14:43:02	72.20	Sample	OK	1
F610510-DUP2	B12	100	11.04	995.15		65526-1.RAW	14:47:11	2036.71	Sample	OK	1
1609620-01	B13	20	11.04	15.39		65527-1.RAW	14:51:19	167.70	Sample	OK	1
1609620-02	B14	20	11.04	23.41		65528-1.RAW	14:55:27	249.25	Sample	OK	1
1609620-03	B15	20	11.04	14.18		65529-1.RAW	14:59:36	155.33	Sample	OK	1
1609620-07	B16	100	11.04	621.92		65530-1.RAW	15:03:44	1276.99	Sample	OK	1
1609620-08	B17	100	11.04	418.83		65531-1.RAW	15:07:53	863.58	Sample	OK	1
1609620-09	B18	100	11.04	370.44		65532-1.RAW	15:12:01	765.08	Sample	OK	1
F611274-DUP1	B19	20	11.04	30.10		65533-1.RAW	15:16:10	317.42	Sample	OK	1
SEQ-CCV8	B20	1	11.04	4.61	92.20	65534-1.RAW	15:20:18	949.40	Sample	OK	1
SEQ-CCB8	B21	1	11.04	0.11	0.00	65535-1.RAW	15:24:27	32.50	Sample	OK	1
F611274-MS1	C1	20	11.04	120.94	10940.31	65536-1.RAW	15:28:35	1241.91	Sample	OK	1
F611274-MSD1	C2	20	11.04	120.25		65537-1.RAW	15:32:43	1234.95	Sample	OK	1
F611274-DUP2	C3	20	11.04	14.43		65538-1.RAW	15:37:16	157.92	Sample	OK	1
SEQ-CCV9	C4	1	11.04	4.52	90.47	65539-1.RAW	15:41:24	931.84	Sample	OK	1
SEQ-CCB9	C5	1	11.04	0.10	0.00	65540-1.RAW	15:45:33	31.63	Sample	OK	1

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10018-IBL1	QC	1			
6K10018-IBL2	QC	2			
6K10018-IBL3	QC	3			
6K10018-CAL1	QC	4	1605412		
6K10018-CAL2	QC	5	1605413		
6K10018-CAL3	QC	6	1605414		
6K10018-CAL4	QC	7	1605415		
6K10018-CAL5	QC	8	1605416		
6K10018-ICV1	QC	9	1605791		
F610509-BLK1	QC	10			
F610509-BLK2	QC	11			
F610509-BLK3	QC	12			
F610509-BS1	QC	13			
F610509-BSD1	QC	14			
F610509-BS2	QC	15			
1610234-16	Hg-CVAFS-T-7030	16			
1610234-17	Hg-CVAFS-T-7030	17			
1610234-18	Hg-CVAFS-T-7030	18			
1610234-19	Hg-CVAFS-T-7030	19			
6K10018-CCV1	QC	20	1605791		
6K10018-CCB1	QC	21			
1610234-20	Hg-CVAFS-T-7030	22			
1610235-01	Hg-CVAFS-T-7030	23			
1610235-02	Hg-CVAFS-T-7030	24			
1610235-03	Hg-CVAFS-T-7030	25			
1610235-04	Hg-CVAFS-T-7030	26			
1610235-05	Hg-CVAFS-T-7030	27			
1610236-01	Hg-CVAFS-T-7030	28			
1610236-02	Hg-CVAFS-T-7030	29			
1610236-03	Hg-CVAFS-T-7030	30			
1610236-04	Hg-CVAFS-T-7030	31			
6K10018-CCV2	QC	32	1605791		
6K10018-CCB2	QC	33			
1610236-05	Hg-CVAFS-T-7030	34			
1610236-06	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-07	Hg-CVAFS-T-7030	36			
1610236-08	Hg-CVAFS-T-7030	37			
1610236-09	Hg-CVAFS-T-7030	38			
1610236-10	Hg-CVAFS-T-7030	39			
1610234-19RE1	Hg-CVAFS-T-7030	40			Added 11/10/2016 by DM2
1610235-01RE1	Hg-CVAFS-T-7030	41			Added 11/10/2016 by DM2
1610235-02RE1	Hg-CVAFS-T-7030	42			Added 11/10/2016 by DM2
1610235-03RE1	Hg-CVAFS-T-7030	43			Added 11/10/2016 by DM2
6K10018-CCV3	QC	44	1605791		
6K10018-CCB3	QC	45			
1610235-04RE1	Hg-CVAFS-T-7030	46			Added 11/10/2016 by DM2
1610235-05RE1	Hg-CVAFS-T-7030	47			Added 11/10/2016 by DM2
1610236-01RE1	Hg-CVAFS-T-7030	48			Added 11/10/2016 by DM2
1610236-02RE1	Hg-CVAFS-T-7030	49			Added 11/10/2016 by DM2
F610509-DUP1	QC	50			
F610509-MS1	QC	51			
F610509-MSD1	QC	52			
F610509-MS2	QC	53			
F610509-MSD2	QC	54			
F610510-BLK1	QC	55			
6K10018-CCV4	QC	56	1605791		
6K10018-CCB4	QC	57			
F610510-BLK2	QC	58			
F610510-BLK3	QC	59			
F610510-BS1	QC	60			
F610510-BSD1	QC	61			
F610510-BS2	QC	62			
1610232-26RE1	Hg-CVAFS-T-7030	63			Re-extract added 11/2/2016 by RN
1610236-11	Hg-CVAFS-T-7030	64			
1610236-12	Hg-CVAFS-T-7030	65			
1610236-13	Hg-CVAFS-T-7030	66			
1610236-14	Hg-CVAFS-T-7030	67			
6K10018-CCV5	QC	68	1605791		
6K10018-CCB5	QC	69			
1610236-15	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 176 of 230

**ANALYSIS SEQUENCE**

**6K10018**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/10/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-16	Hg-CVAFS-T-7030	71			
1610236-17	Hg-CVAFS-T-7030	72			
1610236-18	Hg-CVAFS-T-7030	73			
1610236-19	Hg-CVAFS-T-7030	74			
1610236-20	Hg-CVAFS-T-7030	75			
1610238-01	Hg-CVAFS-T-7030	76			
1610238-02	Hg-CVAFS-T-7030	77			
1610238-03	Hg-CVAFS-T-7030	78			
1610238-04	Hg-CVAFS-T-7030	79			
6K10018-CCV6	QC	80	1605791		
6K10018-CCB6	QC	81			
F610510-DUP1	QC	82			
F610510-MS1	QC	83			
F610510-MSD1	QC	84			
F610510-MS2	QC	85			
F610510-MSD2	QC	86			
6K10018-CCV7	QC	87	1605791		
6K10018-CCB7	QC	88			
F610510-DUP2	QC	89			
6K10018-CCV8	QC	90	1605791		
6K10018-CCB8	QC	91			
6K10018-CCV9	QC	92	1605791		
6K10018-CCB9	QC	93			

Don Moran      11/10/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

# Failing Data Report - 6K10018

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. Pearson  
Analyst Reviewed By

11/10/16  
Date

Ry M. 11/20/16  
Peer Reviewed By Date

## ANALYSIS SEQUENCE

6K10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10017-IBL1	QC	1			
6K10017-IBL2	QC	2			
6K10017-IBL3	QC	3			
6K10017-CAL1	QC	4	1605412		
6K10017-CAL2	QC	5	1605413		
6K10017-CAL3	QC	6	1605414		
6K10017-CAL4	QC	7	1605415		
6K10017-CAL5	QC	8	1605416		
6K10017-ICV1	QC	9	1605791		
6K10017-CCV1	QC	10	1605791		
6K10017-CCB1	QC	11			
6K10017-CCV2	QC	12	1605791		
6K10017-CCB2	QC	13			
6K10017-CCV3	QC	14	1605791		
6K10017-CCB3	QC	15			
6K10017-CCV4	QC	16	1605791		
6K10017-CCB4	QC	17			
6K10017-CCV5	QC	18	1605791		
6K10017-CCB5	QC	19			
6K10017-CCV6	QC	20	1605791		
6K10017-CCB6	QC	21			
F611274-BLK1	QC	22			
F611274-BLK2	QC	23			
F611274-BLK3	QC	24			
F611274-BS1	QC	25			
F611274-BSD1	QC	26			
6K10017-CCV7	QC	27	1605791		
6K10017-CCB7	QC	28			
6K10017-LCV1	QC	29	1606488		
6K10017-LCV2	QC	30	1606489		
1609620-01	Hg-CVAFS-S-SSE-F6	31			
1609620-02	Hg-CVAFS-S-SSE-F6	32			
1609620-03	Hg-CVAFS-S-SSE-F6	33			
1609620-07	Hg-CVAFS-S-SSE-F6	34			
1609620-08	Hg-CVAFS-S-SSE-F6	35			

Due Date: 10/21/2016



# ANALYSIS SEQUENCE

6K10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F6	36			
F611274-DUP1	QC	37			
6K10017-CCV8	QC	38	1605791		
6K10017-CCB8	QC	39			
F611274-MS1	QC	40			
F611274-MSD1	QC	41			
F611274-DUP2	QC	42			
6K10017-CCV9	QC	43	1605791		
6K10017-CCB9	QC	44			

Don Matam                      11/10/16  
Samples Loaded By                      Date

Don Matam                      11/10/16  
Data Processed By                      Date

**Failing Data Report - 6K10017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F611274-DUP1	Hg-CVAFS-S-SSE-F6	61.49	22.7	25.12	25.12		ng/g				84.0	25.00	PASS-OVER	FAIL-DUP	QR. 07

Don Mason                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      11/21/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F611274

**Euofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion**

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					
F611274-BLK2	Blank	0.25	500					
F611274-BLK3	Blank	0.25	500					
F611274-BS1	LCS	0.25	500	1605712	200			
F611274-BSD1	LCS Dup	0.25	500	1605712	200			
F611274-DUP1	Duplicate [1609620-03]	0.256	500					
F611274-DUP2	Duplicate [1609620-03]	0.258	500					
F611274-MS1	Matrix Spike [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL
F611274-MSD1	Matrix Spike Dup [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605349	3:1 HNO3/HF	12-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606529	5% BrCl	19-Apr-17 00:00

PREPARATION BENCH SHEET

F611274

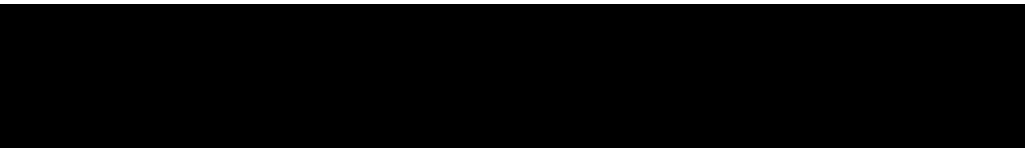
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		
1609620-07	Hg0	0.263	500	-	-	-		
1609620-08	HgS	0.256	500	-	-	-		
1609620-09	Hg2Cl2	0.263	500	-	-	-		



**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					
F610510-BLK2	Blank	0.25	20					
F610510-BLK3	Blank	0.25	20					
F610510-BS1	Blank Spike	0.25	20	1605270	20			
F610510-BS2	DORM-4	0.1255	20	1605470	126			
F610510-BSD1	Blank Spike	0.25	20	1605270	20			
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					
F610510-DUP2	Duplicate [1610232-26RE1]	0.2515	20					
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016	
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-		
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-		
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-		
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-		
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					
F610509-BLK2	Blank	0.25	20					
F610509-BLK3	Blank	0.25	20					
F610509-BS1	Blank Spike	0.25	20	1605270	20			
F610509-BS2	DORM-4	0.1256	20	1605470	126			
F610509-BSD1	Blank Spike	0.25	20	1605270	20			
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00



**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-		
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-		
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-		
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-		
1610234-19RE1	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-		
1610235-05RE1	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-		
1610236-01RE1	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-		

Page 188 of 230

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610509

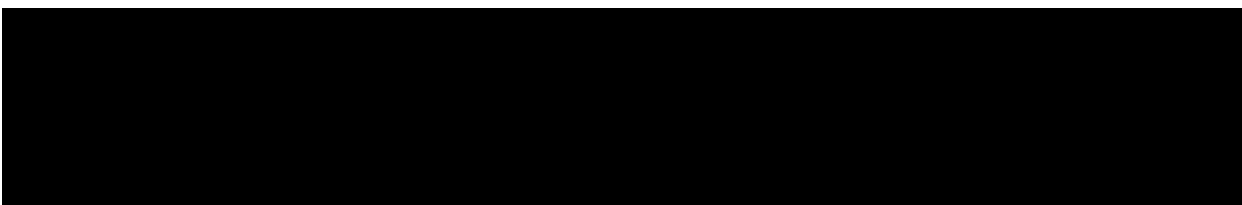
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

1610236-02REI	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-		
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-		
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-		
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-		
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-		
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-		
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-		
1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-		



PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F611274

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					20X
F611274-BLK2	Blank	0.25	500					20X
F611274-BLK3	Blank	0.25	500					20X
F611274-BS1	LCS	0.25	500	1605712	200			20X
F611274-BSD1	LCS Dup	0.25	500	1605712	200			20X
F611274-DUP1	Duplicate [1609620-03]	0.256	500					20X
F611274-MS1	Matrix Spike 1609620.02	0.25	500	1605272	25			20X
F611274-MSD1	Matrix Spike Dup 1609620.02	0.25	500	1605272	25			20X

Standard ID(s): 1605712  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 03-Apr-17 00:00

Reagent ID(s): 1603399, 1605349, 1606137, 1606529  
 Description: Boiling Chips for AFS prep, 3:1 HNO3/HF, Omnitrace Hydrochloric Acid, 5% BrCl  
 Expiration: 01-Jun-17 00:00, 12-Mar-17 00:00, 13-Oct-19 00:00, 19-Apr-17 00:00

DUP2 - 20X

Source 1609620.03

1602941

1605636

1605635

1606370

PREPARATION BENCH SHEET

200.2  
11/10/16 DM

F611274

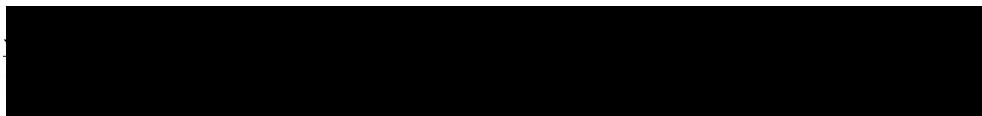
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		20X
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		20X
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		20X
1609620-07	Hg0	0.263	500	-	-	-		100X
1609620-08	HgS	0.256	500	-	-	-		100X
1609620-09	Hg2Cl2	0.263	500	-	-	-		100X



# Oven Bomb Digestions

Lab Tech(s): AMB Spiked By: AMB TM Batch #: N/A Hg Batch #: F611274  
 Balance #: 19 for blanks Oven SN: OVN-0202 Therm. SN: 2040514271  
 Temp. (°C): 128.8 (w/o CF) 128.8 (w/ CF) Date In: 11/8/16 Time In: 1900  
 Date Out: 11/9/16 Time Out: 0700 Final Vol. (mL): 40

Spike Name	Volume (µL)	LIMS #	Combined LIMS #
Thg-1000mg	200	1605712	
<del>AMB 11-7-16</del>			

Pipette / Dispenser MW11679 Cal Date  
~~AW100610 AMB. 11-7-16 11-7-16~~  
0842293 11-01-16  
NU11049 11-7-16  
02Z159 11-4-16  
09M67809 11-9-16 8-23-16  
~~02K27494 AMB 8-3-16~~  
AMB 11-9-16

**EFGS-111 130±5°C 12 hours**  
 (below applies to entire batch)  
 4 mL split removed and 5% BrCl added?   
 LIMS #: 160529  
 Added 25 mL of HF/HNO<sub>3</sub> solution?   
 LIMS #: 1605349  
 Added 3 mL conc. HCl?   
 LIMS #: 1606137

**EFGS-084 130±5°C 18 hours**  
 (below applies to entire batch)  
 Added 10 mL conc. HCl?   
 LIMS #: AMB 11-7-16  
 Added 7 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Boil Down	Step 1	25 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:
	Step 2	25 mL conc. HNO <sub>3</sub> added? <u>AMB 11-7-16</u> <input type="checkbox"/> LIMS #:
	Step 3	5 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:

**EFGS-141 160±5°C 18 hours**  
 (below applies to entire batch)  
 Added 7.5 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Splice witness: PL 11/7/16

#	Sample/ Batch ID	Bomb #	Sample (g)	Notes
1	F611274-BLK1	N282	0.2865	
2	F611274-BLK2	D39	0.2589	
3	F611274-BLK3	N122	0.2681	
4	F611274-BS1	N29	0.2963	
5	F611274-BSD1	A63	0.2720	
6	F611274-DUPI	N27	0.256	source: 1609620-03
7	1609620-01	N94	0.260	
8	1609620-02	TM089	0.258	
9	1609620-03	N152	0.258	
10	1609620-07	N234	0.263	
11	1609620-08	N106	0.256	
12	1609620-09	TM097	0.263	

Additional Comments:  
 Boiling chips: 1603399 Glass vials: 00064588  
 - SSE FG -  
 Centrifuge tubes: 1252617 Pink Tape  
0026

PREPARATION BENCH SHEET

2600-2

F610510

11/10/16 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					20x
F610510-BLK2	Blank	0.25	20					20x
F610510-BLK3	Blank	0.25	20					20x
F610510-BS1	Blank Spike	0.25	20	1605270	20			20x
F610510-BS2	DORM-4	0.1255	20	1605470	126			500x
F610510-BSD1	Blank Spike	0.25	20	1605270	20			20x
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					100x
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			500x
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			500x
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			500x
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606500	5% BrCl	19-Apr-17 00:00

DUP2 - AD 100x  
Source 1610232-26RE1

1602941  
1605636  
1605635  
1606370

PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F610510

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016 t	100X
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-	20X	
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-	20X	
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-	20X	
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-	20X	
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		20X
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		20X
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		20X
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		20X
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		20X
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	20X
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		20X
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		20X
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		20X
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		20X

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**



Technician: Dwyer Batch#: F610510 Date: 11/8/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:35 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:35 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11609 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: 022159  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: G.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 type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F610510 Blank1	0.2911	23	1610238-01	0.2917	DOM-4 B50 1605470
2	F610510 Blank2	0.2551	24	1610238-02	0.2941	
3	F610510 Blank3	0.2916	25	1610238-03	0.2869	
4	F610510 B51	0.2607	26	1610238-04	0.2985	
5	F610510 B501	0.2518	27	1610238		<b>Comments</b> B51 B501 = 100 µg/mL = 20 µL 1605270 Dup1 MS1 MS01 = 1610232-26 w/ 11/8/16-26 MS2 MS02 1610236-20 = MS02 = 0.2963 g 11/8/16 1610236-15 = 0.2885 g 11/8/16
6	F610510 B52	0.1255	28			
7	F610510 Dup	0.2701	29			
8	F610510 MS1	0.2835	30			
9	F610510 MS01	0.2696	31			
10	F610510 MS2	0.2814	32			
11	F610510 MS02	0.2703	33			
12	1610232-26 RZ1	0.2515	34			
13	1610236-11	0.2990	35			
14	1610236-12	0.2876	36			
15	1610236-13	0.2792	37			
16	1610236-14	0.2611	38			
17	1610236-15	0.2885	39			
18	1610236-16	0.2870	40			
19	1610236-17	0.2754	41			
20	1610236-18	0.2880	42			
21	1610236-19	0.2700	43			
22	1610236-20	0.2571	44			

2600-2

11/10/16 DM

## PREPARATION BENCH SHEET

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					20X
F610509-BLK2	Blank	0.25	20					20X
F610509-BLK3	Blank	0.25	20					20X
F610509-BS1	Blank Spike	0.25	20	1605270	20			20X
F610509-BS2	DORM-4	0.1256	20	1605470	126			500X
F610509-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					100X
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			500X
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			500X
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			500X
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			500X

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

1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

1603399  
 1606221  
 1606500

Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

K05030

1602941

K05036

1605035

PREPARATION BENCH SHEET

200.2

11/10/16 DM

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-	100x	
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-	100x	
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-	100x	
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	100x → 20x	
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-	100x	
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	100x → 20x	
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	100x → 20x	
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	100x → 20x	
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	100x → 20x	
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	100x → 20x	
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	100x → 20x	
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	100x → 20x	
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-	100x 20x	
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-	100x 20x	
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-	100x 20x	
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-	100x 20x	
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-	100x 20x	
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-	100x 20x	
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-	100x 20x	
							20x	

Page 198 of 230

Date: 11/2/2016

PREPARATION BENCH SHEET

2600-2

11/10/16 dm

F610509

Eurofins Frontier Global Sciences, Inc.

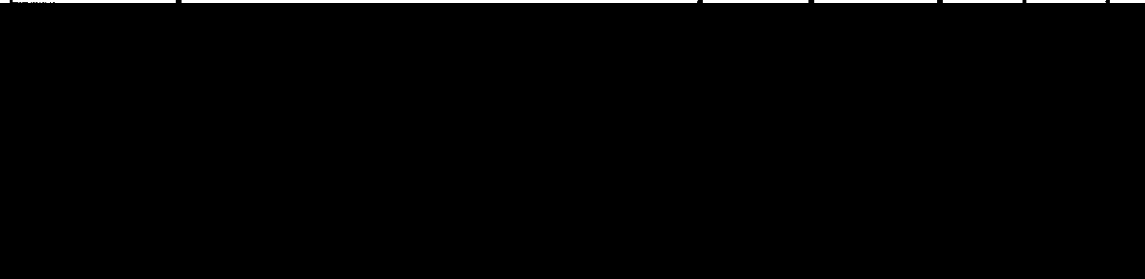
Matrix: Tissue

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

Prepared: 11/8/2016

1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-	<del>100X</del>	
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20X



Technician: DW Batch#: F610509 Date: 11-8-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:30 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:30 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU 11619 Calibration Date: 11-7-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: Dispenser # 022159 ATYEX  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: 9, 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	F610509 Blank1	0.2510	23	1610236-02	0.2886	B52 DOPH-4
2	F610509 Blank2	0.2913	24	1610236-03	0.2789	1605470
3	F610509 Blank3	0.2618	25	1610236-04	0.2873	
4	F610509 B51	0.2762	26	1610236-05	0.2790	
5	F610509 B501	0.2547	27	1610236-06	0.2901	Comments
6	F610509 B52	0.1256	28	1610236-07	0.2780	B51 B501
7	F610509 Dup1	0.2738	29	1610236-08	0.2623	= 100% Hg
8	F610509 M51	0.2948	30	1610236-09	0.2976	= 20% Hg
9	F610509 M501	0.2911	31	1610236-10	0.2960	1605270
10	F610509 M52	0.2952	32			Dup1 M51/M501
11	F610509 M502	0.2982	33			sample
12	1610234-16	0.2831	34			1610234-16
13	1610234-17	0.2794	35			M52 M502
14	1610234-18	0.2811	36			= 1610236-03
15	1610234-19	0.2681	37			11/8/16 DW
16	1610234-20	0.2789	38			1610235-04
17	1610235-21	0.2894	39			= 0.3006 g
18	1610235-02	0.3024	40			11/8/16 DW
19	1610235-03	0.2996	41			1610236-02
20	1610235-04	0.3006	42			= 0.2886 g
21	1610235-05	0.2708	43			
22	1610236-01	0.2786	44			

Reviewed  
 11/9/16 DM

**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>6K10018, 6K10017</u>
Reviewer: <u>[Signature]</u>	Dataset ID(s): <u>THG26002-161110-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F611274, F6105010, F610509</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 checked="" 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: RA

- |  |   |  |                                     |                                     |
|--|---|--|-------------------------------------|-------------------------------------|
| <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-yymmdd-1 or THg26002-yymmdd-1</p> | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO            | <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 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 checked="" 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/LIMS)</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 CCB 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)

Analyst:	DON MORAN	Sequence(s) #:	6K10018, 6K10017
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26002-161110-1
Date:	11/10/2016	WO (s) #:	VARIOUS
Batch #(s):	F611274, F6105010, F610509		0

Analyst Initials *DM*

Reviewer Initials *A*

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 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:  | <i>F611274-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 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 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 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>	6K10018, 6K10017
<b>Reviewer:</b>	0 <i>[Signature]</i>	<b>Dataset ID(s):</b>	THG26002-161110-1
<b>Date:</b>	11/10/2016	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F611274, F6105010, F610509		0

Analyst Initials DM                      Reviewer Initials AK

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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   |   |
| 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 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\IDOCs

- |  |   |                             |                                     |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 12/16/2015 _____ 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: _____ 7/8/2016 _____ LOD within last 3 months?                                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/8/2016 _____ LOQ within last 3 months?                                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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

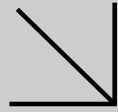






Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-2553**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610235

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/19/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610235  
Work Order Number: 16-11-2553

1	16-11-2553 Level IV Case Narrative. . . . .	3
2	Work Order Narrative. . . . .	4
3	Sample Summary. . . . .	5
4	Client Sample Data. . . . .	6
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	6
5	Quality Control Sample Data. . . . .	7
	5.1 Sample Duplicate. . . . .	7
6	Glossary of Terms and Qualifiers. . . . .	8
7	Chain-of-Custody/Sample Receipt Form. . . . .	9
8	16-11-2553 Level IV Data Package. . . . .	15

## Case Narrative

Client Project Name: 1610235  
Work Order Number: 16-11-2553

### **CONDITION UPON RECEIPT:**

Eurofins Calscience, Inc. received 5 tissue samples on November 30, 2016. A total of 5 containers were received in good condition at a temperature of -3.6°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
FRB-01_092816_POL_WB_01	16-11-2553-1	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_02	16-11-2553-2	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_03	16-11-2553-3	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_04	16-11-2553-4	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_05	16-11-2553-5	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM

### **DATA SUMMARY:**

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

Not enough sample mass was received for sample -4 to perform the requested analysis; therefore, analytical testing was performed on samples -1 through -3 and -5 only.

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -3 and -5 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/07/16 in batch # 161207B27 / 161207D27.

### **Sample and QC:**

A sample from another work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/30/16. They were assigned to Work Order 16-11-2553.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2553
11720 North Creek Parkway North, Suite 4	Project Name:	1610235
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/30/16 11:10
	Number of Containers:	5

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
FRB-01_092816_POL_WB_01	16-11-2553-1	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_02	16-11-2553-2	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_03	16-11-2553-3	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_04	16-11-2553-4	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_05	16-11-2553-5	09/28/16 13:40	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/30/16  
Work Order: 16-11-2553  
Preparation: N/A  
Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
Units: %

Project: 1610235

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_POL_WB_01	16-11-2553-1-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.0	0.10		1.00		
FRB-01_092816_POL_WB_02	16-11-2553-2-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.5	0.10		1.00		
FRB-01_092816_POL_WB_03	16-11-2553-3-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		
FRB-01_092816_POL_WB_05	16-11-2553-5-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		
Method Blank	099-14-104-152	N/A	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2553  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610235

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-11-2556-41	Sample	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27
16-11-2556-41	Sample Duplicate	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	3.120	2.960	5	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Glossary of Terms and Qualifiers

Work Order: 16-11-2553

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610235

16-11-2553

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Due: 02-Nov-16 19:00

Comments

1 Sample ID: 1457 FRB-01\_092816\_POL\_WB\_01

EFGS Lab ID: 1610235-01

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

2 Sample ID: 1458 FRB-01\_092816\_POL\_WB\_02

EFGS Lab ID: 1610235-02

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

3 Sample ID: 1459 FRB-01\_092816\_POL\_WB\_03

EFGS Lab ID: 1610235-03

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

4 Sample ID: 1460 FRB-01\_092816\_POL\_WB\_04

EFGS Lab ID: 1610235-04

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

*[Signature]*  
11/29/16  
Date

Received By

Date

Released By

*[Signature]*  
11/29/16  
Date  
(uPS)

Received By

Date

**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1610235

2553

Analysis

Due: 02-Nov-16 19:00

Comments

5 Sample ID: 1461 FRB-01\_092816\_POL\_WB\_05

EFGS Lab ID: 1610235-05

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

Released By	<i>[Signature]</i>	Date	11/29/16	Received By	<i>[Signature]</i>	Date	11/30/16	1110
Released By	<i>Lesmar Forte</i>	Date	11/29/16	Received By	<i>[Signature]</i>	Date	11/30/16	

(ups)

0511

FRONT DESK  
4425 885 - 1995  
FRONTIER GLOBAL SCIENCES  
11720 N OREEK PKWY N  
BOTHELL WA 98011 - 8244


27 LBS

DWTT: 24.13.14

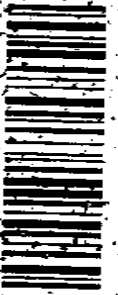
1 OF 1

SHIP TO:

SAMPLE RECEIVING  
(714) 896 - 5494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841 - 1427



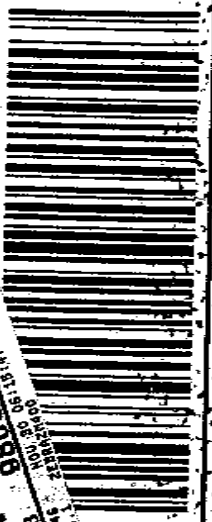
**CA 927 9-09**



**UPS NEXT DAY AIR**

**1**

TRACKING #: 1Z 86W 850 0T 4818 9805



BILLING: P/P

PAID NO.: OVERHEAD  
REF 2: SUBORDINATE

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9856 501115  
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 9086 9  
 9001 - 0211  
 2's  
 GARDEN GROVE CA 92841  
 7440 LINCOLN WAY  
 EUROFINS CALSCIENCE

**SAMPLE RECEIPT CHECKLIST**

COOLER / OF /

CLIENT: EFGS, INC.

DATE: 11 / 30 / 2016

**TEMPERATURE:** (Criteria: 0.0°C - 6.0°C, not frozen except sediment/issue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.6 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 836

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1053

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A  
 Proper preservation chemical(s) noted on COC and/or sample container .....  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals .....  Yes  No  N/A  
 Container(s) for certain analysis free of headspace .....  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A  
 (Trip Blank Lot Number: \_\_\_\_\_)

**CONTAINER TYPE:**  
 Aqueous:  VOA  VOAh  VOAna,  100PJ  100PJna,  125AGB  125AGBh  125AGBp  125PB  
 125PBzina  250AGB  250CCB  250CCGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna,  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  Encores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (TISSUE):  2oz PT  \_\_\_\_\_  
 Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag  
 Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO<sub>3</sub>, **na** = NaOH, **na<sub>2</sub>** = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, **p** = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053  
 Reviewed by: 1017  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, zina = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

**Kathleen Burney**

---

**From:** Amy Goodall  
**Sent:** Wednesday, December 14, 2016 4:09 PM  
**To:** Kathleen Burney; Carla Hollowell  
**Subject:** RE: 1610235 / ECI 16-11-2553  
**Attachments:** 1610235 submittal form REV1.pdf

Hi Kathy and Carla,

For this work order, can you revised the final Level II and IV reports? Can you remove the first 4 digits from the sample IDs? I've attached a revised submittal form with the corrected IDs for you. Can you also include in the narrative that there wasn't enough volume for analysis for samples 1610235-04?

Please let me know if you have any questions.

Thank you,  
Amy

Amy Goodall

**Holiday Business Hours:**

For Christmas, the laboratory will be closed from December 23 - December 26, 2016.

For New Year's, the laboratory will be closed on January 2, 2017

Direct: 425-686-3557  
Main: 425-686-1996, ext. 1507  
[AmyGoodall@eurofinsus.com](mailto:AmyGoodall@eurofinsus.com)  
[www.eurofins.com](http://www.eurofins.com)



---

**From:** Kathleen Burney  
**Sent:** Tuesday, December 13, 2016 5:53 PM  
**To:** Amy Goodall  
**Cc:** Carla Hollowell  
**Subject:** 1610235 / ECI 16-11-2553

Analytical report attached. The EDDs and Level IV package will follow.

- **Please note: No tissue was received for sample #4; lipid analysis could not be run.**

Please let me know if you need anything else. Thank you.

**SUBCONTRACT ORDER**

**Eurofins Frontier Global Sciences, Inc.**

**1610235**

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 400  
 Bothell, WA 98011  
 Phone: (425) 686-1996  
 Fax: (425) 686-3096  
 Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc  
 7440 Lincoln Way  
 Garden Grove, CA 92841  
 Phone :7148955494  
 Fax: x

Analysis	Due	Expires	Laboratory ID	Comments
<b>Sample ID: 1610235-01</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-02</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-03</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-04</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-05</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				

Return to Contents

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

# QUALITY CONTROL CHECKLIST

WORK ORDER NUMBER: 16-11-2553

METHOD: % lipid. Section Reviewed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____ Date: ___/___/___
PREPARATION CONDITIONS	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Sample Aliquots Used				
Correct Reagents Used				
Correct Final Prep Volumes				
Correct Preparation Procedure				

ANALYST				Section Reviewed by: 1) <u>684</u> Date: <u>12/13/16</u> 2) _____ Date: ___/___/___ 3) _____ Date: ___/___/___			
INSTRUMENT CONDITIONS	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/	/	/	/	/	/	
Valid Initial Calibration Curve	/	/	/	/	/	/	
Valid Cont. Calibration Std.	/	/	/	/	/	/	
Other Calibration Criteria Met	/	/	/	/	/	/	
SAMPLE ANALYSIS	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/	/	/	/	/	/	
Instr. Signals within Quant. Range	/	/	/	/	/	/	
Reporting Limits Met	/	/	/	/	/	/	
REPORTING	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/	/	/	/	/	/	
Correct Batch #'s Reported	/	/	/	/	/	/	
Dilutions Reported	/	/	/	/	/	/	
Interferences Reported	/	/	/	/	/	/	
Out of Control Forms Completed	/	/	/	/	/	/	

GROUP LEADER				Section Reviewed by: <u>142</u> Date: <u>12/13/16</u>			
PROJECT REQUIREMENTS	Yes	No	N/A	Comments (If No, why, and further action required)			
Analyses by CEL Standard Methods	↓						
Normal CEL RLs	↓						
Normal CEL QC	↓						
Normal CEL Deliverables	↓						
QUALITY CONTROL	Yes	No	N/A	Comments (If No, why, and further action required)			
Acceptable Method Blanks (MB)	✓						
Acceptable Field Blanks (FB, EB, TB)	↓						
Acceptable Matrix Spikes (MS/MSD)	↓						
Acceptable Lab Ctrl. Samples (LCS)	↓						
Other Required QC Performed	↓						
Out of Controls Addressed/Documented	↓						
REPORTING	Yes	No	N/A	Comments (If No, why, and further action required)			
Correct Date Prepared	↓						
Correct Date Analyzed	↓						
Correct Units	↓						
Analyst Review Performed (Init./Date)	↓						
Out of Control Forms Acceptable	↓						
RESULTS CHECK	Yes	No	N/A	Comments (If No, why, and further action required)			
Does the Data Make Sense	✓						

GENERAL COMMENTS: \_\_\_\_\_

Page 219 of 230

Page 15 of 26



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2553  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 1 CLIENT SAMPLE NUMBER: 1457 FRB-01\_092816\_POL\_WB\_01

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC DF CONC RL QUAL  
1.98 1.00 1.98 0.10

% Lipids



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2553  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 2 CLIENT SAMPLE NUMBER: 1458 FRB-01\_092816\_POL\_WB\_02

LCS/MB BATCH: 161207B27 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
--------------------	-----------	-------------	-----------	-------------

% Lipids 1.50 1.00 1.50 0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2553  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 3 CLIENT SAMPLE NUMBER: 1459 FRB-01\_092816\_POL\_WB\_03

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

ON COL CONC

DF

CONC

RL

QUAL

% Lipids 1.38 1.00 1.38 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2553  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 5 CLIENT SAMPLE NUMBER: 1461 FRB-01\_092816\_POL\_WB\_05

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.36	1.00	1.36	0.10	



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY: 142  
D/T REVIEWED: 2016-12-13 16:52

DATA FILE:

# MB                      CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161207B27                      SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH:                                      FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: %    ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

ON COL CONC

DF

CONC

RL

QUAL

% Lipids    0.0100                      1.00                      ND                      0.10

**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-152  
**MB BATCH ID:** 161207B27  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:** 142  
**D/T REVIEWED:** 2016-12-13 16:52  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-11-2553**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	1457 FRB-01	092816_POL_WB_01	2016-12-07 00:00	
2	1458 FRB-01	092816_POL_WB_02	2016-12-07 00:00	
3	1459 FRB-01	092816_POL_WB_03	2016-12-07 00:00	
5	1461 FRB-01	092816_POL_WB_05	2016-12-07 00:00	



## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-11-2556-41  
**DUP BATCH:** 161207D27  
**INSTRUMENTS:**  
    **SAMPLE:** N/A  
    **DUP SAMPLE:** N/A

**EXTRACTION:** N/A  
**D/T EXTRACTED:**  
    **SAMPLE:** 2016-12-07 00:00  
    **DUP SAMPLE:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED**  
    **SAMPLE:** 2016-12-07 00:00  
    **DUP SAMPLE:** 2016-12-07 00:00  
**REVIEWED BY:** 142  
**D/T REVIEWED** 2016-12-13 16:58

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.120	2.960	5	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/07/16 Initials: BSJ

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
62	500	500.00	498.00 - 502.00	<input checked="" type="radio"/> Y	N
	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	N
26	1	0.9997	0.99900 - 1.00100	<input checked="" type="radio"/> Y	IO Lab
	100	99.9968	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	1	99.997	98.00 - 102.00	<input checked="" type="radio"/> Y	IO Lab
	500	499.93	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
53	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9993	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
53	100	99.9984	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
20	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
57	500	500.04	498.00 - 502.00	<input checked="" type="radio"/> Y	Extractions
	100	100.0	98.0 - 102.0	<input checked="" type="radio"/> Y	N
52	1000	1000.0	998.0 - 1002.0	<input checked="" type="radio"/> Y	Extractions
	2000	2000.0	1998.0 - 2002.0	<input checked="" type="radio"/> Y	N
14	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
63	100	99.9947	99.9000 - 100.1000	<input checked="" type="radio"/> Y	BOD Room
	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	N
64	1	0.9999	0.9990 - 1.0010	<input checked="" type="radio"/> Y	BOD Room
	100	99.99	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
34	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	10.01	9.8 - 10.2	<input checked="" type="radio"/> Y	N
30	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	Oil & Grease Room
	0.002	0.00196	0.0018 - 0.0022	<input checked="" type="radio"/> Y	N
30	1	0.99965	0.9990 - 1.0010	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.99452	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
30	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N



Lipid Content Raw Data Calculator

12/7/2016

	ID # A	Tissue Sampls (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
		M1	V1	V2	M2	M3	M3 - M2	C
B-3	MB 161207B27	1.00	1	1	1.8858	1.8859	0.0001	0.01%
41	16-11-2444-41	0.66	1	1	1.9101	1.9298	0.0197	2.98%
42	16-11-2444-42	0.48	1	1	1.9012	1.9224	0.0212	4.42%
43	16-11-2444-43	0.77	1	1	1.9022	1.9287	0.0265	3.44%
44	16-11-2444-44	0.50	1	1	1.9090	1.9284	0.0194	3.88%
45	16-11-2444-45	0.06	1	1	1.8665	1.8680	0.0015	2.50%
46	16-11-2553-1	1.23	1	1	1.8652	1.8895	0.0243	1.98%
47	16-11-2553-2	0.78	1	1	1.8701	1.8818	0.0117	1.50%
48	16-11-2553-3	0.68	1	1	1.8782	1.8876	0.0094	1.38%
49	16-11-2553-5	0.58	1	1	1.8889	1.8968	0.0079	1.36%
50	16-11-2556-41	1.97	1	1	1.8714	1.9328	0.0614	3.12%
51	16-11-2556-42	1.43	1	1	1.8807	1.9336	0.0529	3.70%
DUP	D16-11-2556-41	2.06	1	1	1.8862	1.9472	0.0610	2.96%
L-3	LCS-161207L27	0.12	1	1	1.8786	1.9969	0.1183	98.6%

Samples ID#	Lipid Content (%)	RPD
16-11-2556-41	3.12%	-5%
161207D27		
Dup 16-11-2556-41	2.96%	



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	4) Sand        507-19-19	1) Filter        507-41-04	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS
Tissue	MB: 161207B27 Sample Duplicate: 161207D27	

CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2556-41A	3.12	5	0-10	
Duplicate 1 -41A	2.96			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/07/16	MB	1.00	34	1	1	1.8858	1.8859	0.0001	0.01	684	
	16-11-2444-41A	0.66				1.9101	1.9298	0.0197	2.98		
	-42	0.48				1.9012	1.9224	0.0212	4.42		
	-43	0.77				1.9022	1.9287	0.0265	3.44		
	-44	0.50				1.9090	1.9284	0.0194	3.88		
	-45A	0.06				1.8665	1.8680	0.0015	2.50		
	16-11-2553-1A	1.23				1.8652	1.8895	0.0243	1.98		
	-2	0.78				1.8701	1.8818	0.0117	1.50		
	-3	0.68				1.8782	1.8876	0.0094	1.38		
	-5A	0.58				1.8889	1.8968	0.0079	1.36		
	16-11-2556-41A	1.97				1.8714	1.9328	0.0614	3.12		
	1 -42A	1.43				1.8807	1.9336	0.0529	3.70		
07/16	Duplicate 16-11-2556-41A	2.06	34	1	1	1.8862	1.9472	0.0610	2.96	684	

Analysis Method (EPA Method):  608  8061  8082  8143  8310  TO-13  TO-4  4180/14

8270 ( Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL)

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID# Measuring Sample: 687 Start Extraction: 5:40 Blow Down: 6:00 Clean Up:

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: 26 Filter ID#: 507-47-44 ASE ID#: Soxtherm ID#: 1-8 Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 12/07/16 9:00 Ext. End Date/Time: 12/07/16 11:30

Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

Surrogate Std ID# & Volume Added (mL): Drying Agent(s) ID#: 507-22-03

Spike Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-44-06 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161207B27

Cell ID#:	Sample W (g) / V (mL)	Clean Up Performed	Comments
MB	Initial Final	<input type="checkbox"/>	
LCS	1.00	<input type="checkbox"/>	
LCSD		<input type="checkbox"/>	
MS		<input type="checkbox"/>	
MSD DUP	16-11-2558-41A 2.06	<input type="checkbox"/>	
	16-11-2444-41A 0.66	<input type="checkbox"/>	
	-42A 0.48	<input type="checkbox"/>	
	-43A 0.77	<input type="checkbox"/>	
	-44A 0.50	<input type="checkbox"/>	
	-45A 0.06	<input type="checkbox"/>	
	16-11-2553-1A 1.23	<input type="checkbox"/>	
	-2A 0.78	<input type="checkbox"/>	
	-3A 0.68	<input type="checkbox"/>	
	-5A 0.58	<input type="checkbox"/>	
	16-11-2556-41A 1.97	<input type="checkbox"/>	
	-42A 1.43	<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Peer Reviewed by:

Peer Reviewed Date:

Revision Date: 10/20/16



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_092816_POL_WB_01	1610235-01	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_02	1610235-02	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_03	1610235-03	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_04	1610235-04	Tissue	28-Sep-16 13:40	05-Oct-16 09:30
FRB-01_092816_POL_WB_05	1610235-05	Tissue	28-Sep-16 13:40	05-Oct-16 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.*

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:55

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/20/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

Samples were prepared and analyzed for methyl mercury by cold vapor gas chromatography atomic fluorescence spectrometry (CV-GC-AFS) in accordance with EPA 1631 (EFGS-070).

## ANALYTICAL AND QUALITY CONTROL ISSUES

Samples were prepped in batch F610509 for total Mercury and batch F610422 for Methyl Mercury. No samples from this work order were used for the batch QC source.

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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Eurofins Frontier Global Sciences, Inc.

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---

Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:55

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: 1610235

Client: AMC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/7/16 Labeled By: CSP

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

Received By: LM

Label Verified By: Bow

# of Coolers Received: 3 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>-6.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LM</u>
Cooler 1: <u>-46 °C</u>	w/CF: <u>-46.1 °C</u>	Cooler 4: <u>°C</u>	w/CF: <u>°C</u>
Cooler 2: <u>-47 °C</u>	w/CF: <u>47.1 °C</u>	Cooler 5: <u>°C</u>	w/CF: <u>°C</u>
Cooler 3: <u>-47 °C</u>	w/CF: <u>-47.1 °C</u>	Cooler 6: <u>°C</u>	w/CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>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>Y</u>	

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

1: 8756 4740 9231 2: 7842 6248 7980 3: 7842 6248 7991



1610235

WB 01  
1435

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1456	9/28/2016	13:00	FRB-01_092816_MUM_WB_MS_	MS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1457	9/28/2016	13:40	FRB-01_092816_POL_WB_01	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1458	9/28/2016	13:40	FRB-01_092816_POL_WB_02	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1459	9/28/2016	13:40	FRB-01_092816_POL_WB_03	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1460	9/28/2016	13:40	FRB-01_092816_POL_WB_04	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1461	9/28/2016	13:40	FRB-01_092816_POL_WB_05	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1479	9/28/2016	13:00	FRB-01_092816_RAS_WB_01	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1480	9/28/2016	13:00	FRB-01_092816_RAS_WB_02	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1481	9/28/2016	13:00	FRB-01_092816_RAS_WB_03	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1482	9/28/2016	13:00	FRB-01_092816_RAS_WB_04	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1483	9/28/2016	13:00	FRB-01_092816_RAS_WB_05	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 27 of 30

DKK  
10/6/16

Yes Seal  
-46.1°C, -47.1°C, -47.1°C  
FedEx 4740 9231  
8756

*[Signature]*  
Lars M. Hest  
15765  
10/5/16 9:30

1610235

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
--------	-------------	-------------	-----------------	---------	-----------	----------	--------------------------	--------------	--------------	----------

QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: J. Desjarlais IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16.00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FED EX TRACKING: 8756 47 40 923 1

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_01**  
**1610235-01**

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)	ND	0.4	1.7	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
-----------------------------	----	-----	-----	------	-----	---------	-----------	---------	-----------	-------------------------	---

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

Mercury	1.90	0.077	0.691	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	
---------	------	-------	-------	------	----	---------	-----------	---------	-----------	-----------	--

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_02**  
**1610235-02**

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)	ND	0.4	1.7	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	2.46	0.074	0.661	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_03**  
**1610235-03**

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)	ND	0.5	1.9	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	1.15	0.075	0.668	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_04**  
**1610235-04**

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)	ND	0.5	2.0	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	U
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	3.18	0.075	0.665	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	
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Amy Goodall, Project Manager



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Project Number: 3616166052  
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Reported:  
14-Jan-17 12:55

**FRB-01\_092816\_POL\_WB\_05**  
**1610235-05**

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)	0.4	0.4	1.8	ng/g	500	F610422	20-Oct-16	6K01010	31-Oct-16	EPA 1630 Mod/FGS-070	J
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
Mercury	1.82	0.083	0.739	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6J31010 - F610408</b>											
<b>Cal Standard (6J31010-CAL1)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		96.3				
<b>Cal Standard (6J31010-CAL2)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		101				
<b>Cal Standard (6J31010-CAL3)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	1.0	-		ng/L	1.0010		99.2				
<b>Cal Standard (6J31010-CAL4)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	1.9	-		ng/L	2.0020		92.4				
<b>Cal Standard (6J31010-CAL5)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	4.4	-		ng/L	4.0040		111				
<b>Calibration Blank (6J31010-CCB1)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.008	-		ng/L							U
<b>Calibration Blank (6J31010-CCB2)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.01	-		ng/L							U
<b>Calibration Blank (6J31010-CCB3)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U
<b>Calibration Blank (6J31010-CCB4)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U
<b>Calibration Blank (6J31010-CCB5)</b>					Prepared & Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	-0.02	-		ng/L							U

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Reported:  
14-Jan-17 12:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6J31010 - F610408

<b>Calibration Blank (6J31010-CCB6)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	-0.02	-		ng/L								U
<b>Calibration Check (6J31010-CCV1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		91.0	67-133				
<b>Calibration Check (6J31010-CCV2)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		82.6	67-133				
<b>Calibration Check (6J31010-CCV3)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		84.8	67-133				
<b>Calibration Check (6J31010-CCV4)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		86.6	67-133				
<b>Calibration Check (6J31010-CCV5)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		92.9	67-133				
<b>Calibration Check (6J31010-CCV6)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		85.4	67-133				
<b>Instrument Blank (6J31010-IBL1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	ND	0.001	0.004	ng/L								U
<b>Initial Cal Blank (6J31010-ICB1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.006	-		ng/L								
<b>Initial Cal Check (6J31010-ICV1)</b>												Prepared & Analyzed: 30-Oct-16
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		93.5	67-133				

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Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K01010 - F610422</b>											
<b>Cal Standard (6K01010-CAL1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.05	-		ng/L	0.050050		97.7				
<b>Cal Standard (6K01010-CAL2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.2	-		ng/L	0.20020		92.4				
<b>Cal Standard (6K01010-CAL3)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	1.1	-		ng/L	1.0010		108				
<b>Cal Standard (6K01010-CAL4)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	2.0	-		ng/L	2.0020		98.2				
<b>Cal Standard (6K01010-CAL5)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	4.1	-		ng/L	4.0040		104				
<b>Calibration Blank (6K01010-CCB1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	-0.005	-		ng/L							U
<b>Calibration Blank (6K01010-CCB2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	-0.005	-		ng/L							U
<b>Calibration Check (6K01010-CCV1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.4	-		ng/L	0.50049		72.2	67-133			
<b>Calibration Check (6K01010-CCV2)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	0.5	-		ng/L	0.50049		96.5	67-133			
<b>Instrument Blank (6K01010-IBL1)</b>					Prepared: 01-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.001	0.004	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 6K01010 - F610422**

**Initial Cal Blank (6K01010-ICB1)**

Prepared: 01-Oct-16 Analyzed: 31-Oct-16

Methyl Mercury (as Mercury) 0.006 - ng/L

**Initial Cal Check (6K01010-ICV1)**

Prepared: 01-Oct-16 Analyzed: 31-Oct-16

Methyl Mercury (as Mercury) 0.5 - ng/L 0.50049 103 67-133

**Batch 6K10018 - F610510**

**Cal Standard (6K10018-CAL1)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.520 - ng/L 0.50100 104

**Cal Standard (6K10018-CAL2)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.992 - ng/L 1.0020 99.0

**Cal Standard (6K10018-CAL3)**

Prepared & Analyzed: 10-Nov-16

Mercury 4.994 - ng/L 5.0100 99.7

**Cal Standard (6K10018-CAL4)**

Prepared & Analyzed: 10-Nov-16

Mercury 19.09 - ng/L 20.040 95.3

**Cal Standard (6K10018-CAL5)**

Prepared & Analyzed: 10-Nov-16

Mercury 40.53 - ng/L 40.080 101

**Calibration Blank (6K10018-CCB1)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.047 - ng/L

**Calibration Blank (6K10018-CCB2)**

Prepared & Analyzed: 10-Nov-16

Mercury 0.057 - ng/L

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14-Jan-17 12:55

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Calibration Blank (6K10018-CCB3)</b>											
Mercury	0.114	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB4)</b>											
Mercury	0.112	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB5)</b>											
Mercury	0.118	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB6)</b>											
Mercury	0.182	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB7)</b>											
Mercury	0.179	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB8)</b>											
Mercury	0.105	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Blank (6K10018-CCB9)</b>											
Mercury	0.101	-		ng/L							Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV1)</b>											
Mercury	4.771	-		ng/L	5.0000		95.4	77-123			Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV2)</b>											
Mercury	4.625	-		ng/L	5.0000		92.5	77-123			Prepared & Analyzed: 10-Nov-16
<b>Calibration Check (6K10018-CCV3)</b>											
Mercury	4.707	-		ng/L	5.0000		94.1	77-123			Prepared & Analyzed: 10-Nov-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 6K10018 - F610510

<b>Calibration Check (6K10018-CCV4)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.609	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV5)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.678	-		ng/L	5.0000		93.6	77-123			
<b>Calibration Check (6K10018-CCV6)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.542	-		ng/L	5.0000		90.8	77-123			
<b>Calibration Check (6K10018-CCV7)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.981	-		ng/L	5.0000		99.6	77-123			
<b>Calibration Check (6K10018-CCV8)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.610	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV9)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.524	-		ng/L	5.0000		90.5	77-123			
<b>Instrument Blank (6K10018-IBL1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K10018-ICV1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			

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**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610422 - EFGS-010 KOH/Methanol Hg Digestion</b>											
<b>Blank (F610422-BLK1)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK2)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK3)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	2.0	ng/g							U
<b>Blank (F610422-BLK4)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
<b>Blank (F610422-BLK5)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							F-03, U
<b>Blank (F610422-BLK6)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	ND	0.5	1.9	ng/g							FB, U
<b>Blank (F610422-BLK7)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F610422-BLK8)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>Blank (F610422-BLK9)</b>					Prepared: 20-Oct-16 Analyzed: 31-Oct-16						
Methyl Mercury (as Mercury)	ND	0.3	1.0	ng/g							U
<b>LCS (F610422-BS1)</b>					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	241.2	2.0	7.8	ng/g	330.15		73.1	70-130			

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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 F610422 - EFGS-010 KOH/Methanol Hg Digestion**

<b>LCS Dup (F610422-BSD1)</b>											
					Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	241.4	2.0	7.8	ng/g	330.02		73.2	70-130	0.122	25	
<b>Duplicate (F610422-DUP1)</b>											
					Source: 1610574-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	324.4	2.4	9.7	ng/g		366.5			12.2	35	
<b>Matrix Spike (F610422-MS1)</b>											
					Source: 1610231-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	45.6	1.1	4.4	ng/g	44.449	4.0	93.7	65-130			
<b>Matrix Spike (F610422-MS2)</b>											
					Source: 1610610-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	34.2	0.9	3.5	ng/g	35.123	3.2	88.4	65-130			
<b>Matrix Spike Dup (F610422-MSD1)</b>											
					Source: 1610231-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	43.8	1.0	4.1	ng/g	41.449	4.0	96.1	65-130	2.55	35	
<b>Matrix Spike Dup (F610422-MSD2)</b>											
					Source: 1610610-01 Prepared: 20-Oct-16 Analyzed: 30-Oct-16						
Methyl Mercury (as Mercury)	31.0	0.9	3.4	ng/g	33.875	3.2	82.1	65-130	7.41	35	

**Batch F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F610509-BLK1)</b>											
					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.508	0.090	0.800	ng/g							J
<b>Blank (F610509-BLK2)</b>											
					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.195	0.090	0.800	ng/g							J
<b>Blank (F610509-BLK3)</b>											
					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.118	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 F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS (F610509-BS1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	7.915	0.090	0.800	ng/g	8.0160		98.7	75-125			
<b>LCS (F610509-BS2)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	354.6	4.46	39.8	ng/g	383.72		92.4	75-125			
<b>LCS Dup (F610509-BSD1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	8.050	0.090	0.800	ng/g	8.0160		100	75-125	1.69	24	
<b>Duplicate (F610509-DUP1)</b>					Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	7.602	0.409	3.65	ng/g		8.012			5.26	24	
<b>Matrix Spike (F610509-MS1)</b>					Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	309.4	1.90	17.0	ng/g	339.21	8.012	88.9	71-125			
<b>Matrix Spike (F610509-MS2)</b>					Source: 1610236-03 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	320.6	1.90	16.9	ng/g	338.75	7.272	92.5	71-125			
<b>Matrix Spike Dup (F610509-MSD1)</b>					Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	309.9	1.92	17.2	ng/g	343.52	8.012	87.9	71-125	1.10	24	
<b>Matrix Spike Dup (F610509-MSD2)</b>					Source: 1610236-03 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	326.1	1.88	16.8	ng/g	335.35	7.272	95.1	71-125	2.74	24	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:55

### Notes and Definitions

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- 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.
- 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





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-1BL1	1	10/30/16 10:20	17384-1.RAW	10:20:12	15.35			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/30/16 10:30	17385-1.RAW	10:30:43	44.62			29.3	0.048	0.048	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/30/16 10:41	17386-1.RAW	10:41:14	137.85			122.5	0.202	0.202	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/30/16 10:51	17387-1.RAW	10:51:44	618.71			603.4	0.993	0.993	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/30/16 11:02	17388-1.RAW	11:02:15	1139.78			1124.4	1.851	1.851	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/30/16 11:12	17389-1.RAW	11:12:46	2712.82			2697.5	4.440	4.440	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CV1	1	10/30/16 11:23	17390-1.RAW	11:23:16	299.62			284.3	0.468	0.468	ng/L	
Hg2700-1	DM2	CAL	SEQ-1CB1	1	10/30/16 11:33	17391-1.RAW	11:33:47	18.76			3.4	0.006	0.006	ng/L	
Hg2700-1	DM2	SAM	F610408-BS1	2000	10/30/16 11:44	17392-1.RAW	11:44:18	955.34	1		940.0	1.548	3095.490	ng/L	
Hg2700-1	DM2	SAM	F610408-BSD1	2000	10/30/16 11:54	17393-1.RAW	11:54:49	1084.61	1		1069.3	1.761	3521.003	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK1	500	10/30/16 12:05	17394-1.RAW	12:05:20	16.25	1		0.9	0.001	0.740	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK2	500	10/30/16 12:15	17395-1.RAW	12:15:50	14.55	1		-0.8	-0.001	-0.656	ng/L	
Hg2700-1	DM2	BLK	F610408-BLK3	500	10/30/16 12:26	17396-1.RAW	12:26:21	10.49	1		-4.9	-0.008	-4.001	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK4	500	10/30/16 12:36	17397-1.RAW	12:36:52	10.99	1		-4.4	-0.005	-2.278	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK5	500	10/30/16 12:47	17398-1.RAW	12:47:22	7.33	1		-8.0	-0.011	-5.295	ng/L	
Hg2700-1	DM2	SAM	*F610408-BLK6	500	10/30/16 12:57	17399-1.RAW	12:57:53	8.47	1		-6.9	-0.009	-4.355	ng/L	
Hg2700-1	DM2	SAM	F610408-DUP1	500	10/30/16 13:08	17400-1.RAW	13:08:24	92.26	1		76.9	0.129	64.599	ng/L	
Hg2700-1	DM2	SAM	F610408-MS1	500	10/30/16 13:18	17401-1.RAW	13:18:54	561.13	1		545.8	0.901	450.447	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/30/16 13:29	17402-1.RAW	13:29:25	292.17			276.8	0.456	0.456	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/30/16 13:39	17403-1.RAW	13:39:56	10.45			-4.9	-0.008	-0.008	ng/L	
Hg2700-1	DM2	SAM	F610408-MSD1	500	10/30/16 13:50	17404-1.RAW	13:50:26	467.73	1		452.4	0.747	373.586	ng/L	
Hg2700-1	DM2	SAM	1610136-01	500	10/30/16 14:00	17405-1.RAW	14:00:57	21.81	1		6.5	0.013	6.624	ng/L	
Hg2700-1	DM2	SAM	1610338-01	500	10/30/16 14:11	17406-1.RAW	14:11:28	20.40	1		5.1	0.011	5.465	ng/L	
Hg2700-1	DM2	SAM	1610419-01	500	10/30/16 14:21	17407-1.RAW	14:21:58	52.06	1		36.7	0.063	31.514	ng/L	
Hg2700-1	DM2	SAM	1610419-02	500	10/30/16 14:32	17408-1.RAW	14:32:29	129.96	1		114.6	0.191	95.623	ng/L	
Hg2700-1	DM2	SAM	1610419-03	500	10/30/16 14:43	17409-1.RAW	14:43:00	76.29	1		60.9	0.103	51.455	ng/L	
Hg2700-1	DM2	SAM	1610419-04	500	10/30/16 14:53	17410-1.RAW	14:53:30	45.93	1		30.6	0.053	26.468	ng/L	
Hg2700-1	DM2	SAM	1610509-01	500	10/30/16 15:04	17411-1.RAW	15:04:01	27.50	1		12.1	0.023	11.302	ng/L	
Hg2700-1	DM2	SAM	F610422-BS1	2000	10/30/16 15:14	17412-1.RAW	15:14:32	950.97	2		935.6	1.544	3088.893	ng/L	
Hg2700-1	DM2	SAM	F610422-BSD1	2000	10/30/16 15:25	17413-1.RAW	15:25:03	948.44	2		933.1	1.540	3080.583	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/30/16 15:35	17414-1.RAW	15:35:33	266.45			251.1	0.413	0.413	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/30/16 15:46	17415-1.RAW	15:46:04	6.58			-8.8	-0.014	-0.014	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK1	500	10/30/16 15:56	17416-1.RAW	15:56:35	5.09	2		-10.3	-0.017	-8.438	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK2	500	10/30/16 16:07	17417-1.RAW	16:07:05	2.57	2		-12.8	-0.021	-10.514	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK3	500	10/30/16 16:17	17418-1.RAW	16:17:36	5.19	2		-10.2	-0.017	-8.356	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK4	500	10/30/16 16:28	17419-1.RAW	16:28:07	6.02	2		-9.3	0.003	1.427	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK5	500	10/30/16 16:38	17420-1.RAW	16:38:38	3.36	2		-12.0	-0.002	-0.760	ng/L	
Hg2700-1	DM2	SAM	*F610422-BLK6	500	10/30/16 16:49	17421-1.RAW	16:49:09	2.10	2		-13.2	-0.004	-1.798	ng/L	
Hg2700-1	DM2	SAM	F610422-DUP1	2500	10/30/16 16:59	17422-1.RAW	16:59:39	1027.95	2		1012.6	1.670	4175.576	ng/L	
Hg2700-1	DM2	SAM	F610422-MS1	1000	10/30/16 17:10	17423-1.RAW	17:10:10	321.92	2		306.6	0.514	513.673	ng/L	
Hg2700-1	DM2	SAM	F610422-MSD1	1000	10/30/16 17:20	17424-1.RAW	17:20:41	331.25	2		315.9	0.529	529.037	ng/L	
Hg2700-1	DM2	SAM	F610422-MS2	1000	10/30/16 17:31	17425-1.RAW	17:31:11	306.32	2		291.0	0.488	487.997	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV3	1	10/30/16 17:41	17426-1.RAW	17:41:42	273.24			257.9	0.424	0.424	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB3	1	10/30/16 17:52	17427-1.RAW	17:52:13	3.63			-11.7	-0.019	-0.019	ng/L	
Hg2700-1	DM2	SAM	F610422-MSD2	1000	10/30/16 18:02	17428-1.RAW	18:02:43	288.15	2		272.8	0.458	458.099	ng/L	
Hg2700-1	DM2	SAM	1610231-01	1000	10/30/16 18:13	17429-1.RAW	18:13:14	38.83	2		23.5	0.048	47.752	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	SAM	1610231-02	1000	10/30/16 18:23	17430-1.RAW	18:23:45	20.46	2		5.1	0.018	17.520	ng/L	
Hg2700-1	DM2	SAM	1610231-03	1000	10/30/16 18:34	17431-1.RAW	18:34:15	7.19	2		-8.2	-0.004	-4.319	ng/L	
Hg2700-1	DM2	SAM	1610231-04	1000	10/30/16 18:44	17432-1.RAW	18:44:46	13.97	2		-1.4	0.007	6.837	ng/L	
Hg2700-1	DM2	SAM	1610231-05	1000	10/30/16 18:55	17433-1.RAW	18:55:17	46.12	2		30.8	0.060	59.746	ng/L	
Hg2700-1	DM2	SAM	1610235-01	1000	10/30/16 19:05	17434-1.RAW	19:05:47	2.71	2		-12.6	-0.012	-11.693	ng/L	
Hg2700-1	DM2	SAM	1610235-02	1000	10/30/16 19:16	17435-1.RAW	19:16:18	0.78	2		-14.6	-0.015	-14.869	ng/L	
Hg2700-1	DM2	SAM	1610235-03	1000	10/30/16 19:26	17436-1.RAW	19:26:49	2.00	2		-13.3	-0.013	-12.867	ng/L	
Hg2700-1	DM2	SAM	1610235-04	1000	10/30/16 19:37	17437-1.RAW	19:37:19	1.81	2		-13.5	-0.013	-13.184	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV4	1	10/30/16 19:47	17438-1.RAW	19:47:50	278.78			263.4	0.434	0.434	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB4	1	10/30/16 19:58	17439-1.RAW	19:58:21	2.60			-12.7	-0.021	-0.021	ng/L	
Hg2700-1	DM2	SAM	1610235-05	1000	10/30/16 20:08	17440-1.RAW	20:08:51	7.90	2		-7.4	-0.003	-3.149	ng/L	
Hg2700-1	DM2	SAM	1610574-01	2500	10/30/16 20:19	17441-1.RAW	20:19:22	1332.41	2		1317.1	2.171	5428.326	ng/L	
Hg2700-1	DM2	SAM	1610574-02	2500	10/30/16 20:29	17442-1.RAW	20:29:53	951.10	2		935.7	1.544	3859.365	ng/L	
Hg2700-1	DM2	SAM	1610574-03	2500	10/30/16 20:40	17443-1.RAW	20:40:23	1543.32	2		1528.0	2.518	6296.138	ng/L	
Hg2700-1	DM2	SAM	1610574-04	2500	10/30/16 20:50	17444-1.RAW	20:50:54	1096.09	2		1080.7	1.782	4455.972	ng/L	
Hg2700-1	DM2	SAM	1610574-05	2500	10/30/16 21:01	17445-1.RAW	21:01:25	870.00	2		854.6	1.410	3525.675	ng/L	
Hg2700-1	DM2	SAM	1610610-01	1000	10/30/16 21:11	17446-1.RAW	21:11:56	35.05	2		19.7	0.042	41.531	ng/L	
Hg2700-1	DM2	SAM	1610610-02	1000	10/30/16 21:22	17447-1.RAW	21:22:27	39.42	2		24.1	0.049	48.723	ng/L	
Hg2700-1	DM2	SAM	1610610-03	1000	10/30/16 21:32	17448-1.RAW	21:32:58	15.86	2		0.5	0.010	9.939	ng/L	
Hg2700-1	DM2	SAM	1610610-04	1000	10/30/16 21:43	17449-1.RAW	21:43:28	7.71	2		-7.6	-0.003	-3.464	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV5	1	10/30/16 21:53	17450-1.RAW	21:53:59	297.76			282.4	0.465	0.465	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB5	1	10/30/16 22:04	17451-1.RAW	22:04:30	6.11			-9.2	-0.015	-0.015	ng/L	
Hg2700-1	DM2	SAM	1610617-01	1000	10/30/16 22:15	17452-1.RAW	22:15:00	11.88	2		-3.5	0.003	3.402	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV6	1	10/30/16 22:25	17453-1.RAW	22:25:31	275.08			259.7	0.427	0.427	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB6	1	10/30/16 22:36	17454-1.RAW	22:36:02	2.76			-12.6	-0.021	-0.021	ng/L	

Methylmercury Operat DM Blanks 15.349 Calib Eqn: Conc = (Area-15.349) / 607.6 Run Date: ##### Blank SD: 0  
 EPA1630 Worksl MMHG2 CalibFz 607.69 Status: OK, 1 Warning Run Time: 9:53:39 Blank RSE 0  
 Method 2010-01 R: 0.9965 R1: 0.993077999 Calib Analr Meric CF SD: 41.96551496  
 Descrip MMHG27001-161030-2 CF RSD%: 6.906186246

Sample/ID	Locator	Rinse	Dilute	Blank	ConcHo0(n)	ConcMeHg(ppb)	ConcHo2(n)	ConcPrHo(r)	Rec%	QA	RawData	RunEnd	PeakHo0	PeakMeHg	R	PeakHo2	PeakPrHo	Control	Flag	RunCount	
Clean					0.00	0.00	0.00														
WYS	A1	1	15.349	0.1968323	0.000301756	0.0623979					17382-1.RAW	9:58:10	0.14	0.87	0.03			0.00	cleanDry	CT	1
SEQ-1B11	A2	1	0	0.3574335	0.025257229	0.0923204					17383-1.RAW	10:09:42	134.962617	15.5320549	53.267553			0	psample10	CT	1
SEQ-CAL1	A3	1	15.349	0.3322874	0.048189944	0.0969669			96.37		17384-1.RAW	10:20:12	217.210396	15.3485795	56.1026042			0	psample10	CT	1
SEQ-CAL2	A4	1	15.349	0.3235066	0.201705579	0.0975286			100.85		17385-1.RAW	10:30:43	217.277899	44.6310133	63.7660223			0	psample10	CT	1
SEQ-CAL3	A5	1	15.349	0.4570575	0.392876297	0.2207962			99.29		17386-1.RAW	10:41:14	211.941895	137.924053	74.6162879			0	psample10	CT	1
SEQ-CAL4	A6	1	15.349	0.6450772	1.850322461	0.3428981			92.52		17387-1.RAW	10:51:44	293.100328	618.724157	149.526563			0	psample10	CT	1
SEQ-CAL5	A7	1	15.349	0.6775264	4.438807744	0.6895628			110.97		17388-1.RAW	11:02:15	407.358558	1139.7795	224.333641			0	psample10	CT	1
SEQ-ICV1	A8	1	15.349	1.0397957	0.467793676	0.3999663			93.67		17389-1.RAW	11:12:46	427.074133	2712.82121	434.392198			0	psample10	CT	1
SEQ-ICB1	A9	1	15.349	0.2654341	0.004928735	0.0701389			0.00		17390-1.RAW	11:23:16	647.226841	299.623722	258.406031			0	psample10	CT	1
F610408-BS1	A10	2000	15.349	842.87089	3093.63658	680.52423					17391-1.RAW	11:33:47	179.027024	18.3428447	57.9717093			0	psample10	CT	1
F610408-BS01	A11	2000	15.349	839.92762	3519.074388	759.72633					17392-1.RAW	11:44:18	271.452587	955.340167	222.1241			0	psample10	CT	1
F610408-BLK1	A12	500	15.349	125.62598	0.740363002	49.448365					17393-1.RAW	11:54:49	270.558384	1084.60978	245.109445			0	psample10	CT	1
F610408-BLK2	A13	500	15.349	118.11977	-0.65814385	55.817717					17394-1.RAW	12:05:20	168.03312	16.3465085	75.4476799			0	psample10	CT	1
F610408-BLK3	A14	500	15.349	108.57902	4.00781171	47.554701					17395-1.RAW	12:15:50	158.910156	14.5516098	83.1889205			0	psample10	CT	1
*F610408-BLK4	A15	500	15.349	104.01745	-3.582767228	49.643854					17396-1.RAW	12:26:21	147.314425	10.4775566	73.1461411			0	psample10	CT	1
*F610408-BLK5	A16	500	15.349	95.384502	-6.59936868	43.225182					17397-1.RAW	12:36:52	141.730347	10.9942235	75.6852746			0	psample10	CT	1
*F610408-BLK6	A17	500	15.349	96.427453	5.224863662	45.817607					17398-1.RAW	12:47:22	131.277957	7.32787918	67.8840909			0	psample10	CT	1
F610408-DUP1	A18	500	15.349	243.72757	63.28245601	43.849728					17399-1.RAW	12:57:53	134.976326	8.9964375	71.0348958			0	psample10	CT	1
F610408-MS1	A19	500	15.349	265.02946	449.0622387	66.223375			44906.22		17400-1.RAW	13:08:24	311.572497	92.261482	68.6431581			0	psample10	CT	1
SEQ-CCV1	A20	1	15.349	0.981058	0.455224372	0.4213319			91.16		17401-1.RAW	13:19:25	611.532254	291.966032	271.389742			0	psample10	CT	1
SEQ-CCB1	A21	1	15.349	0.2272631	0.008067478	0.0565485			0.00		17402-1.RAW	13:29:56	153.454025	10.4461174	49.7129025			0	psample10	CT	1
F610408-MS01	B1	500	15.349	254.10853	372.2144323	53.947369					17403-1.RAW	13:50:26	374.189393	467.734016	80.9157197			0	psample10	CT	1
1610136-01	B2	500	15.349	153.39947	5.317262209	251.26153					17404-1.RAW	14:00:57	201.679333	21.8112216	320.729181			0	psample10	CT	1
1610138-01	B3	500	15.349	128.15594	6.760543078	201.766					17405-1.RAW	14:11:28	171.112209	26.0058712	260.575291			0	psample10	CT	1
1610141-01	B4	500	15.349	231.17213	30.20832132	35.562208					17406-1.RAW	14:21:58	796.31275	52.0635417	58.5705906			0	psample10	CT	1
1610141-02	B5	500	15.349	224.01172	94.30103861	35.321411					17407-1.RAW	14:32:29	287.610063	129.961127	59.4932329			0	psample10	CT	1
1610141-03	B6	500	15.349	195.00673	50.14091225	35.663302					17408-1.RAW	14:43:00	252.35772	76.28993939	68.6934659			0	psample10	CT	1
1610141-04	B7	500	15.349	188.43147	25.1576406	40.58145					17409-1.RAW	14:53:30	244.30616	45.925	64.670928			0	psample10	CT	1
1610509-01	B8	500	15.349	134.19945	9.994905441	151.18411					17410-1.RAW	15:04:01	178.453221	27.4962778	198.091688			0	psample10	CT	1
F610422-BS1	B9	2000	15.349	723.54801	3079.245086	638.65632					17411-1.RAW	15:14:32	235.195757	950.968851	208.402652			0	psample10	CT	1
F610422-BS01	B10	2000	15.349	720.4464	3070.93684	659.31095					17412-1.RAW	15:25:03	234.254342	945.444413	215.678504			0	psample10	CT	1
SEQ-CCV2	B11	1	15.349	0.9171374	0.413199465	0.2537247			82.74		17413-1.RAW	15:35:33	572.688022	266.447727	230.305256			0	psample10	CT	1
SEQ-CCB2	B12	1	15.349	0.1653762	-0.014464007	0.0450256			0.00		17414-1.RAW	15:46:04	115.846875	6.55861742	42.7105114			0	psample10	CT	1
F610422-BLK1	B13	500	15.349	74.438696	-8.436673545	37.846518					17415-1.RAW	15:56:35	105.820654	5.09483902	61.3469223			0	psample10	CT	1
F610422-BLK2	B14	500	15.349	64.281711	-10.51205085	47.930121					17416-1.RAW	16:07:05	93.475966	2.57244822	73.6024219			0	psample10	CT	1
F610422-BLK3	B15	500	15.349	58.625507	-8.35460929	42.695867					17417-1.RAW	16:17:36	86.8445519	5.1945786	67.240767			0	psample10	CT	1
*F610422-BLK4	B16	500	15.349	52.109706	-7.678862229	40.262583					17418-1.RAW	16:28:07	78.6822466	6.02192235	64.783503			0	psample10	OK	1
*F610422-BLK5	B17	500	15.349	55.503175	-9.861114579	38.806391					17419-1.RAW	16:38:38	82.8066288	3.36358902	62.5135417			0	psample10	CT	1
*F610422-BLK6	B18	500	15.349	53.146462	-10.86091916	36.153497					17420-1.RAW	16:49:09	79.9423059	2.1484375	59.2892433			0	psample10	CT	1
F610422-DUP1	B19	2500	15.349	639.73083	4165.735396	383.01719					17421-1.RAW	16:59:39	170.853047	1027.9465	108.451657			0	psample10	CT	1
F610422-MS1	B20	1000	15.349	270.50504	504.4813652	1095.187			50448.13		17422-1.RAW	17:10:10	179.733106	321.919176	680.887796			0	psample10	CT	1
F610422-MS01	B21	1000	15.349	285.63495	519.8421967	1156.7774					17423-1.RAW	17:20:41	188.92747	331.25393	706.162053			0	psample10	CT	1
F610422-MS2	B22	1000	15.349	194.69355	478.8092646	385.39624					17424-1.RAW	17:31:11	133.662879	306.318442	249.553078			0	psample10	CT	1
SEQ-CCV3	C2	1	15.349	1.1391162	0.424378468	0.292271			23940.46		17425-1.RAW	17:41:42	707.611258	273.741146	192.960133			0	psample10	CT	1
SEQ-CCB3	C3	1	15.349	0.1169056	-0.019113207	0.0281308			0.00		17426-1.RAW	17:52:13	86.3915483	3.73386845	32.443068			0	psample10	CT	1
F610422-MS02	C4	1000	15.349	178.39642	448.0361725	432.1257					17427-1.RAW	18:02:43	123.759207	287.617803	277.9498096			0	psample10	CT	1
1610231-01	C5	1000	15.349	272.21219	38.56654809	1098.2126					17428-1.RAW	18:13:14	150.385006	38.7553993	682.72642			0	psample10	CT	1
1610231-02	C6	1000	15.349	208.13422	8.41613005	530.97164					17429-1.RAW	18:23:45	141.830705	20.4631155	338.017229			0	psample10	CT	1
1610231-03	C7	1000	15.349	135.66672	-13.4193386	258.04112					17430-1.RAW	18:34:15	97.7926033	7.19382102	172.158854			0	psample10	CT	1
1610231-04	C8	1000	15.349	155.57416	-5.265073958	426.75643					17431-1.RAW	18:44:46	109.890242	13.9722064	274.692294			0	psample10	CT	1
1610231-05	C9	1000	15.349																		



## ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6J31010-IBL1	QC	1			
6J31010-CAL1	QC	2	1606090		
6J31010-CAL2	QC	3	1606091		
6J31010-CAL3	QC	4	1606092		
6J31010-CAL4	QC	5	1606093		
6J31010-CAL5	QC	6	1606094		
6J31010-ICV1	QC	7	1605079		
6J31010-ICB1	QC	8			
F610408-BS1	QC	9			
F610408-BSD1	QC	10			
F610408-BLK1	QC	11			
F610408-BLK2	QC	12			
F610408-BLK3	QC	13			
F610408-BLK4	QC	14			
F610408-BLK5	QC	15			
F610408-BLK6	QC	16			
F610408-DUP1	QC	17			
F610408-MS1	QC	18			
6J31010-CCV1	QC	19	1605079		
6J31010-CCB1	QC	20			
F610408-MSD1	QC	21			
1610136-01	MHg-CVAFS-T-KOH	22			Scan all data for level IV report
1610338-01	MHg-CVAFS-T-KOH	23			Scan all data for level IV report
1610419-01	MHg-CVAFS-T-KOH	24			
1610419-02	MHg-CVAFS-T-KOH	25			
1610419-03	MHg-CVAFS-T-KOH	26			
1610419-04	MHg-CVAFS-T-KOH	27			
1610509-01	MHg-CVAFS-T-KOH	28			Scan all data for level IV report
F610422-BS1	QC	29			
F610422-BSD1	QC	30			
6J31010-CCV2	QC	31	1605079		
6J31010-CCB2	QC	32			
F610422-BLK1	QC	33			
F610422-BLK2	QC	34			
F610422-BLK3	QC	35			

Due Date: 10/28/2016

Page 28 of 230

Page 1 of 3

## ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F610422-BLK4	QC	36			
F610422-BLK5	QC	37			
F610422-BLK6	QC	38			
F610422-DUP1	QC	39			
F610422-MS1	QC	40			
F610422-MSD1	QC	41			
F610422-MS2	QC	42			
6J31010-CCV3	QC	43	1605079		
6J31010-CCB3	QC	44			
F610422-MSD2	QC	45			
1610231-01	MHg-CVAFS-T-KOH	46			
1610231-02	MHg-CVAFS-T-KOH	47			
1610231-03	MHg-CVAFS-T-KOH	48			
1610231-04	MHg-CVAFS-T-KOH	49			
1610231-05	MHg-CVAFS-T-KOH	50			
1610235-01	MHg-CVAFS-T-KOH	51			
1610235-02	MHg-CVAFS-T-KOH	52			
1610235-03	MHg-CVAFS-T-KOH	53			
1610235-04	MHg-CVAFS-T-KOH	54			
6J31010-CCV4	QC	55	1605079		
6J31010-CCB4	QC	56			
1610235-05	MHg-CVAFS-T-KOH	57			
1610574-01	MHg-CVAFS-T-KOH	58			
1610574-02	MHg-CVAFS-T-KOH	59			
1610574-03	MHg-CVAFS-T-KOH	60			
1610574-04	MHg-CVAFS-T-KOH	61			
1610574-05	MHg-CVAFS-T-KOH	62			
1610610-01	MHg-CVAFS-T-KOH	63			
1610610-02	MHg-CVAFS-T-KOH	64			
1610610-03	MHg-CVAFS-T-KOH	65			
1610610-04	MHg-CVAFS-T-KOH	66			
6J31010-CCV5	QC	67	1605079		
6J31010-CCB5	QC	68			
1610617-01	MHg-CVAFS-T-KOH	69			
6J31010-CCV6	QC	70	1605079		

Due Date: 10/28/2016

Page 29 of 230

Page 2 of 3



ANALYSIS SEQUENCE

6J31010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/30/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6J31010-CCB6	QC	71			

DM Mjorem      10/30/16  
Samples Loaded By      Date

DM Mjorem      10/31/16  
Data Processed By      Date

**Failing Data Report - 6J31010**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610408-DUP1	MHg-CVAFS-T-KOH	5.0	1.9	2.4	2.4		ng/g				71.9	35.00	PASS-OVER	FAIL-DUP	QR.07

Don Moran                      10/31/16  
 Analyst Reviewed By                      Date

[Signature]                      11/2/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

<u>Standard ID(s):</u>	<u>Description:</u>
1506872	MHg New Primary 100 ng/mL spike
1605470	DORM-4

<u>Expiration:</u>
03-Nov-16 00:00
19-Mar-17 00:00
19-Mar-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605678	Ethylating Agent (For Methyl Mercury Analysis)	28-Mar-17 00:00
1605926	25% KOH/Methanol	09-Apr-17 00:00
1605961	Acetate Buffer	11-Apr-17 00:00
1606119	Methanol, HPLC Grade	17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-		
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-		
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-		
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-		
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-		
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD	
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-		
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-		
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-		

Page 33 of 230

Date: 11/2/2016

PREPARATION BENCH SHEET

F610422

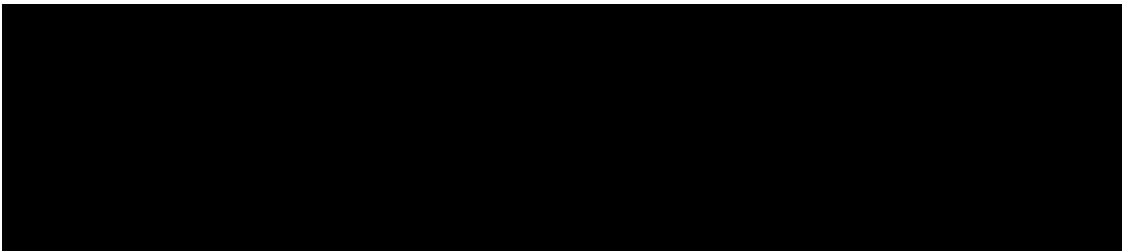
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-		
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**PREPARATION BENCH SHEET**

F610408

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/19/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610408-BLK1	Blank	0.25	20					
F610408-BLK2	Blank	0.25	20					
F610408-BLK3	Blank	0.25	20					
F610408-BLK4	FB for 1610136,1610338,1610509	0.265	20					
F610408-BLK5	Pre homogen blank 1610419	0.253	20					
F610408-BLK6	Post homogen blank 1610419	0.262	20					
F610408-BS1	LCS	0.252	20	1605470	252			
F610408-BSD1	LCS Dup	0.262	20	1605470	262			
F610408-DUP1	Duplicate [1610419-01]	0.257	20					
F610408-MS1	Matrix Spike [1610419-01]	0.254	20	1506872	100			
F610408-MSD1	Matrix Spike Dup [1610419-01]	0.266	20	1506872	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1506872	MHg New Primary 100 ng/mL spike	03-Nov-16 00:00	1605678	Ethylating Agent (For Methyl Mercury Analysis)	28-Mar-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1605926	25% KOH/Methanol	09-Apr-17 00:00
		19-Mar-17 00:00	1605961	Acetate Buffer	11-Apr-17 00:00
			1606119	Methanol, HPLC Grade	17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610408

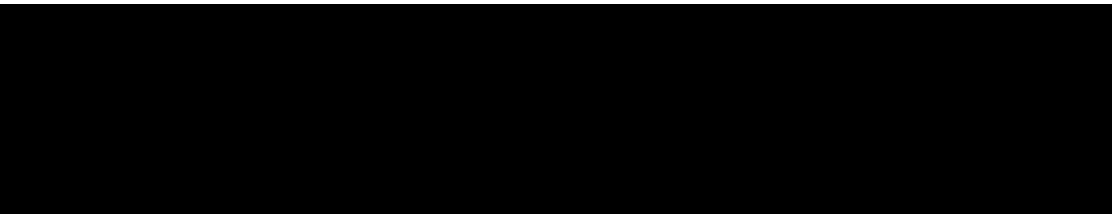
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/19/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610136-01	OL-2488-01	0.256	20	-	-	-	Scan all data for level IV report	
1610338-01	OL-2492-01	0.255	20	-	-	-	Scan all data for level IV report	
1610419-01	S-161003-01459 36132 31-40 Shrimp Tri Union	0.266	20	-	-	-		
1610419-02	S-161003-01461 36132 31-40 Shrimp Mazzetta	0.265	20	-	-	-		
1610419-03	NE 206 25549 S-160906-00426 Ore Cal	0.255	20	-	-	-	Shrimp	
1610419-04	SE 185 25549 S-160906-00428 Ore Cal	0.274	20	-	-	-	Shrimp	
1610509-01	OL-2497-01	0.253	20	-	-	-	Scan all data for level IV report	



PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					500X
F610422-BLK2	Blank	0.25	20					500X
F610422-BLK3	Blank	0.25	20					500X
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					500X
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					500X
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					500X
F610422-BS1	LCS	0.2561	20	1605470	256			2000X
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			2000X
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					2500X
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			1000X
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			1000X
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			1000X
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1506872	MHg New Primary 100 ng/mL spike	03-Nov-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1605926	25% KOH/Methanol	09-Apr-17 00:00
		19-Mar-17 00:00	1606119	Methanol, HPLC Grade	17-Oct-19 00:00

1605676

1605961



PREPARATION BENCH SHEET

F610422

Eurofins Frontier Global Sciences, Inc.

27007  
10/30/16 DM

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	1000X
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		1000X
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		1000X
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		1000X
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		1000X
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		1000X
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		1000X
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		1000X
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		1000X
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		1000X
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-		2500X
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-		2500X
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-		2500X
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-		2500X
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-		2500X
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD	1000X
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-		1000X
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-		1000X
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-		1000X

Page 38 of 230

Date: 11/2/2016

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-	1000x
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AMB

F610422

10-25-16

**EFGS-010** Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.

**EFGS-011** Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.

**EFGS-045** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).

**EFGS-066** Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_

Vial Type:  Glass  Teflon

Balance#: 19 <sup>AMB 10-25-16</sup> Calibrated?  Yes  No Therm.#: 14545 Calibrated?  Yes  No

Time in: 18:15 Actual Temp. (raw): 71.0 °C w/ CF: 70.8 °C

Time out: 18:55 Actual Temp. (raw): 75.0 °C w/ CF: 74.7 °C

Final vol.: 20 mL (LIMS ID: 1606119) Spike vol.: 100 µL (LIMS ID: 1506872)

Spike Witness: M 10/25/16 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: NU09653 Calibration Date: 10-24-16

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

Pipette SN#: NU01152 Calibration Date: 10-25-16

70/30 LIMS ID: N/A

Dispenser #: 02N48426 Calibrated?  Yes  No

Other Acid LIMS ID: 25% KOH/Methanol: 1605926

Other Reagent/LIMS IDs: N/A

Centrifuge Tube lot # 00065550

Boiling Chip lot # 1603399

\*Hotblock Position: 08 N8

Glass vial

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	F610422-BLK1	0.2803	23	1610574-03	0.2785	DORMA
2	F610422-BLK2	0.2792	24	1610574-04	0.2740	1605470
3	F610422-BLK3	0.2563	25	1610574-05	0.2643	BS1, BSD1
4	F610422-BS1	0.2561	26	1610610-01	0.2588	Comments
5 *	F610422-BSD1	0.5520	27	F610422-MS2	0.2850	F610422-
6	F610422-BLK4	0.2645	28	F610422-MSD2	0.2955	DUP1:
7	F610422-BLK5	0.2680	29	1610610-02	0.2589	1610574-01
8	1610231-01	0.2399	30	1610610-03	0.2674	F610422-
9	F610422-MS1	0.2252	31	1610610-04	0.2801	MS1, MSD1:
10	F610422-MSD1	0.2415	32	1610617-01	0.3122	1610231-01
11	1601231-02	0.2871	33	F610422-BLK6	0.2629	F610422-
12	1601231-03	0.2928	34			MS2, MSD2:
13	1610231-04	0.3144	35			1610610-01
14	1610231-05	0.3021	36			F610422-BLK4:
15	1610235-01	0.2879	37			Prep (Pre) blank
16	1610235-02	0.2912	38			1610574
17	1610235-03	0.2665	39			F610422-BLK5:
18	1610235-04	0.2553	40			Prep (Post) blank
19	1610235-05	0.2820	41			F610422-BSD1
20	1610757-01	0.2962	42			Sample size:
21	F610422-07	0.2574	43			0.2552g
22	1610574-02	0.2647	44			AMB 10-25-16

AMB 10-25-16

20) 1610574-01 21) F610422-DUP  
AMB 10-25-16

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610408

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610408-BLK1	Blank	0.25	20					500X
F610408-BLK2	Blank	0.25	20					500X
F610408-BLK3	Blank	0.25	20					500X
F610408-BLK4	FB for 1610136,1610338,1610509	0.265	20					500X
F610408-BLK5	Pre homogen blank 1610419	0.253	20					500X
F610408-BLK6	Post homogen blank 1610419	0.262	20					500X
F610408-BS1	LCS	0.252	20	1605470	252			2000X
F610408-BSD1	LCS Dup	0.262	20	1605470	262			2000X
F610408-DUP1	Duplicate [1610419-01]	0.257	20					500X
F610408-MS1	Matrix Spike [1610419-01]	0.254	20	1506872	100			500X
F610408-MSD1	Matrix Spike Dup [1610419-01]	0.266	20	1506872	100			500X

Standard ID(s):  
1506872  
1605470

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
03-Nov-16 00:00  
19-Mar-17 00:00  
19-Mar-17 00:00

Reagent ID(s):  
1605926  
1606119

Description:  
25% KOH/Methanol  
Methanol, HPLC Grade

Expiration:  
09-Apr-17 00:00  
17-Oct-19 00:00

1605678

1605961

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610408

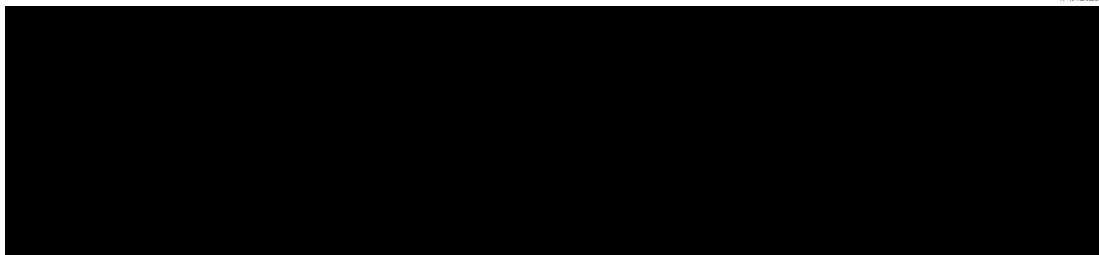
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/19/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610136-01	OL-2488-01	0.256	20	-	-	-	Scan all data for level IV report	500X
1610338-01	OL-2492-01	0.255	20	-	-	-	Scan all data for level IV report	500X
1610419-01	S-161003-01459 36132 31-40 Shrimp Tri Union	0.266	20	-	-	-		500X
1610419-02	S-161003-01461 36132 31-40 Shrimp Mazzetta	0.265	20	-	-	-		500X
1610419-03	NE 206 25549 S-160906-00426 Ore Cal	0.255	20	-	-	-	Shrimp	500X
1610419-04	SE 185 25549 S-160906-00428 Ore Cal	0.274	20	-	-	-	Shrimp	500X
1610509-01	OL-2497-01	0.253	20	-	-	-	Scan all data for level IV report	500X



Technician: MPM/AMB Batch#: F610408 Date: 10/19/16

- EFGS-010** Tissues - Methyl Mercury - KOH/Methanol: **Hot plate 75±5°C for 2-4 hours.**
  - EFGS-011** Tissues - Total Mercury - 70:30: **Hot plate 75±5°C for two hours.**
  - EFGS-045** Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: **Heat Block 45°C (nitrogen purge for 30 minutes).**
  - EFGS-066** Solids - Total Mercury - Cold AR: **18-25°C for over four hours.**
- Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No  
 Time in: 1740 Actual Temp. (raw): 73.0 °C w/ CF: 72.5 °C  
 Time out: 2040 Actual Temp. (raw): timer °C w/ CF: timer °C

Final vol.: 20 mL (LIMS ID: 1606119) Spike vol.: 100 µL (LIMS ID: 1506872)  
 Spike Witness: PL 10/19/16 (initial and date) Spiked by AMB 10/19/16

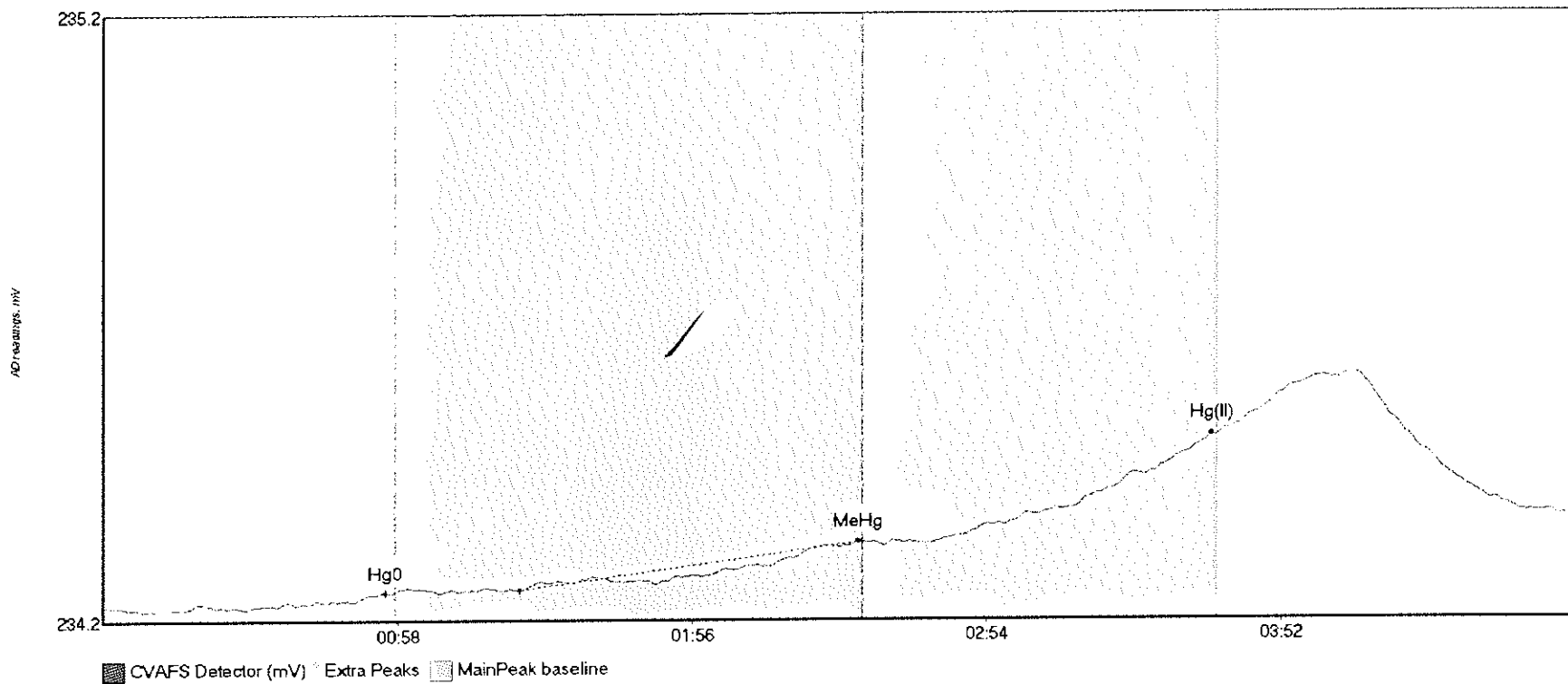
HCl LIMS ID: N/A Pipette SN#: NU09653 Calibration Date: 10-18-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: NU01152 Calibration Date: 10-18-16  
 70/30 LIMS ID: N/A Dispenser #: 02N48426 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1605926 Dispenser #: N/A  
 Glass Vial # 00065550 Boiling Chip lot # 1603399 \*Hotblock Position: H5

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	F610408-BIK1	0.254	23			BSI/BSDI
2	F610408-BIK2	0.259	24			DORM-4
3	F610408-BIK3	0.255	25			1605470
4	F610408-BIK4	0.265	26			<b>Comments</b>
5	F610408-BIK5	0.253	27			BIK4 Filter Blank
6	F610408-BIK6	0.262	28			1610136, 1610338,
7	F610408-BSI	0.252	29			1610509 MPM 10/19/16
8	F610408-BSDI	0.262	30			BIK5 Pre Blank
9	1610136-01	0.256	31			BIK6 Post Blank
10	1610338-01	0.255	32			1610419 (Homogenizati
11	1610419-01	0.266	33			AM B (blanks) Blanks)
12	F610408-DUP(1610419-01)	0.257	34			MPM 10/19/16
13	F610408-MSI(1610419-01)	0.254	35			
14	F610408-MSD(1610419-01)	0.266	36			
15	1610419-02	0.265	37			
16	1610419-03	0.255	38			
17	1610419-04	0.274	39			
18	1610509-01	0.253	40			
19			41			
20			42			
21			43			
22			44			

AMB 10/19/16

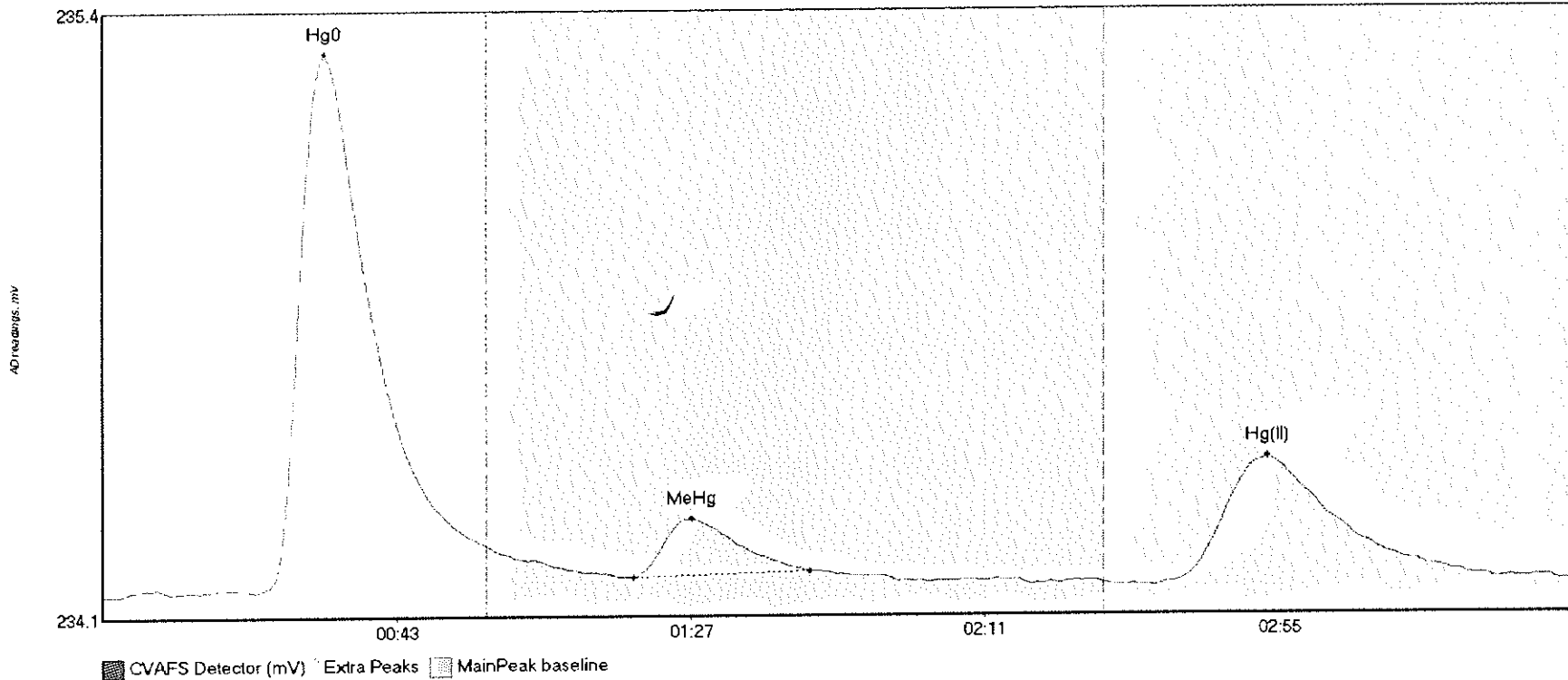
AMB 10-18-16

#1: Clean



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
Clean Hg0	0.139	40.6	57.0	234.20	234.22	55.7	0.020	OK	234.1932	0.00	0.15	
Clean MeHg	0.866	82.3	150.0	234.22	234.30	149.2	0.080	CT	234.1932	0.00	0.15	
Clean Hg(II)	0.028	165.0	219.6	234.30	234.47	219.0	0.175	OK	234.1932	0.00	0.15	

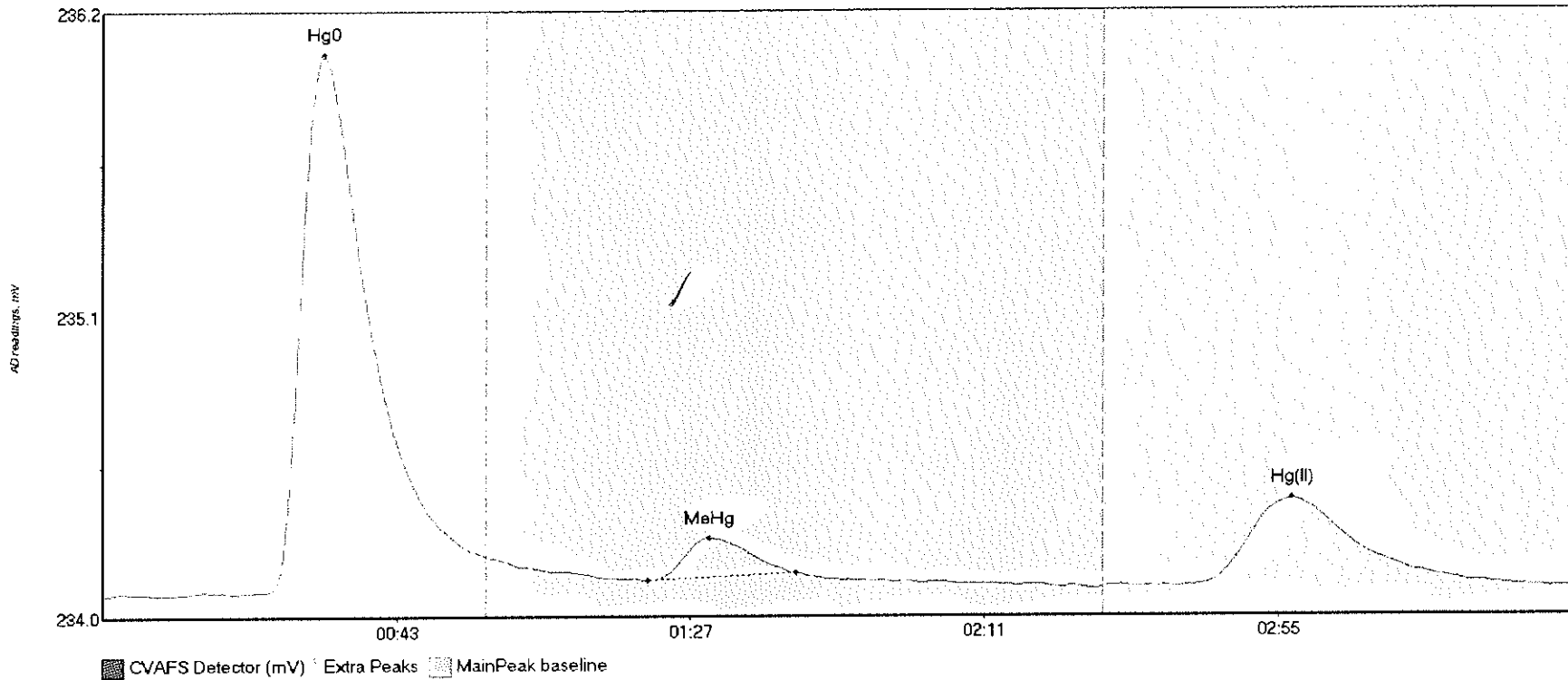
#2: WS



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BJDev	BJShift	Comment
WS Hg0	134.963	10.8	57.5	234.15	234.26	33.1	1.184	CT	234.1479	0.00	0.03	
WS MeHg	15.532	79.5	105.7	234.19	234.20	88.2	0.128	OK	234.1479	0.00	0.03	
WS Hg(II)	53.268	159.8	219.8	234.17	234.17	174.2	0.273	CT	234.1479	0.00	0.03	

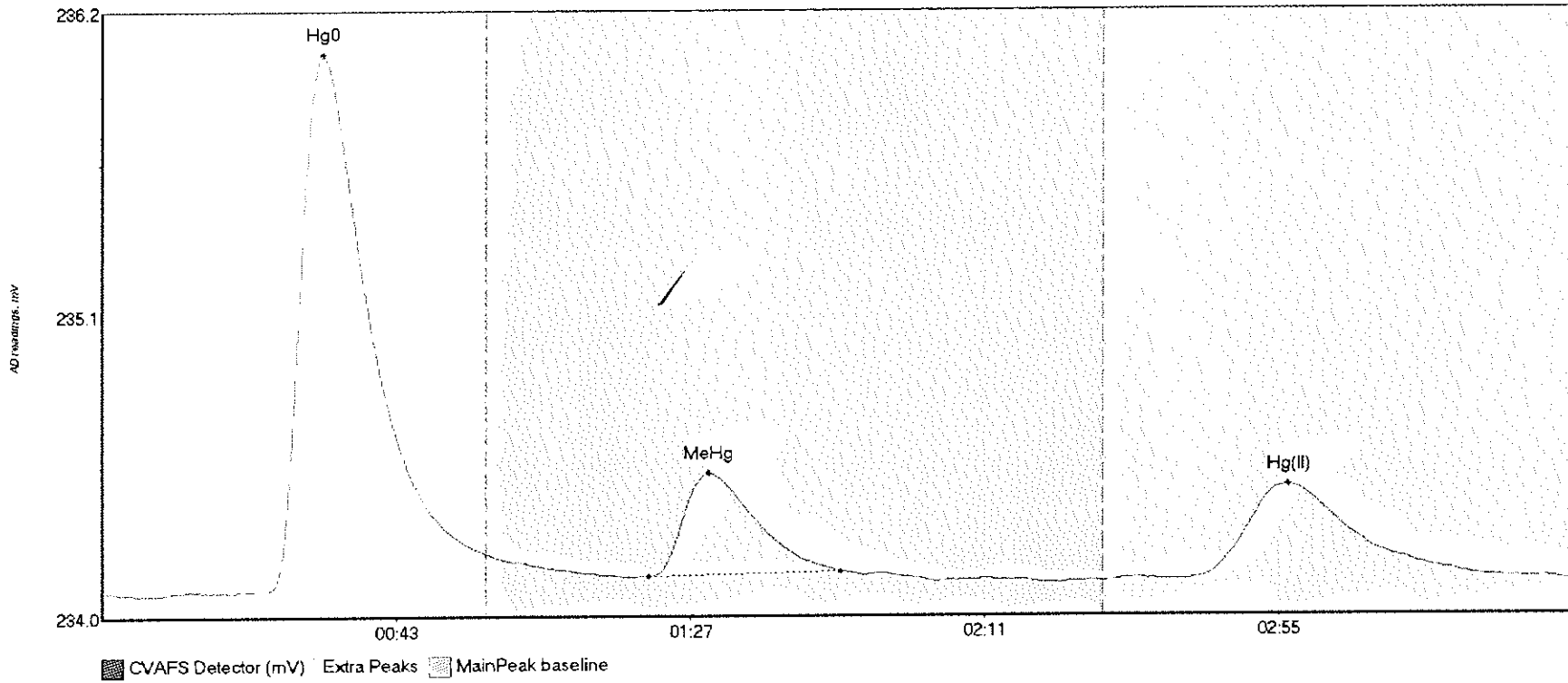


#3: SEQ-IBL1



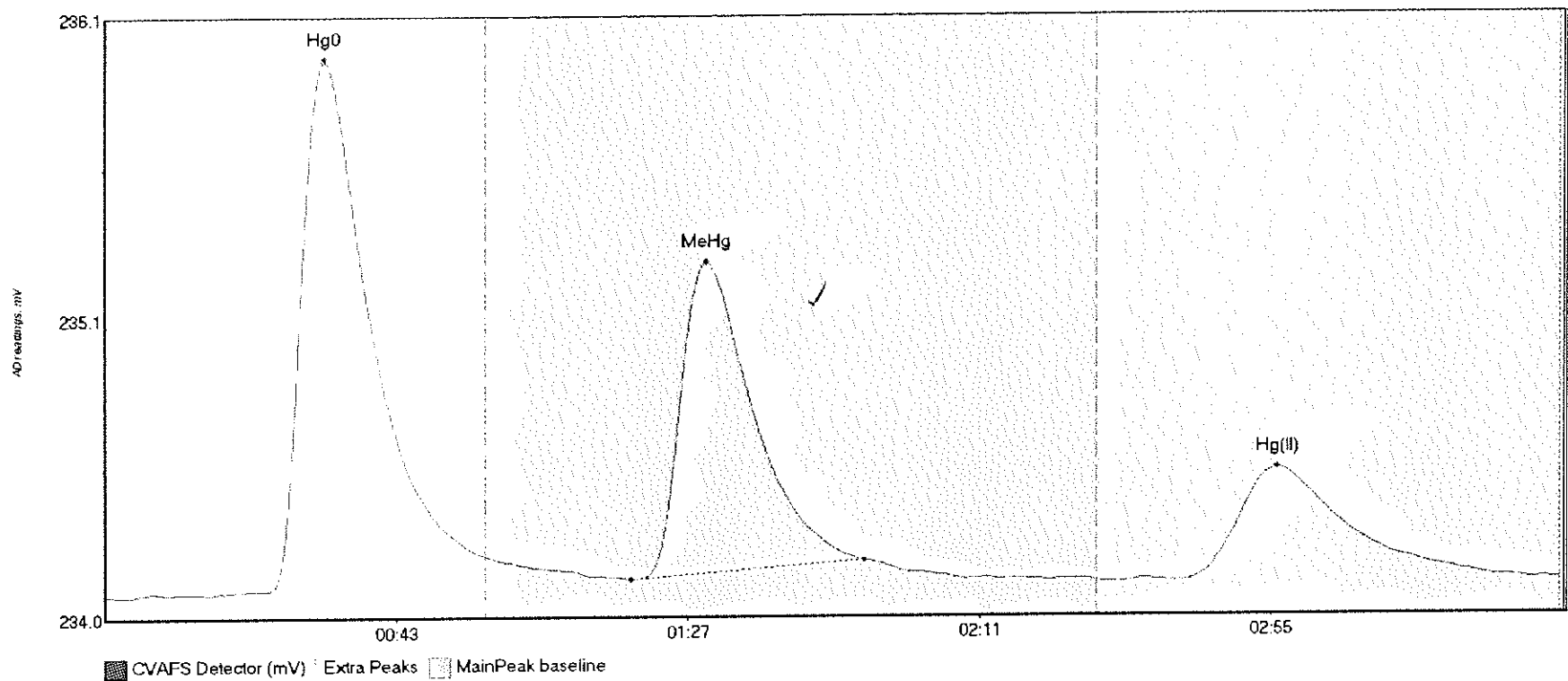
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	217.210	20.3	57.5	234.12	234.26	33.1	1.950	CT	234.1189	0.00	0.02	
SEQ-IBL1 MeHg	15.349	81.8	103.7	234.17	234.19	90.9	0.153	OK	234.1189	0.00	0.02	
SEQ-IBL1 Hg(II)	56.103	163.2	210.7	234.15	234.15	178.0	0.311	OK	234.1189	0.00	0.02	

#4: SEQ-CAL1



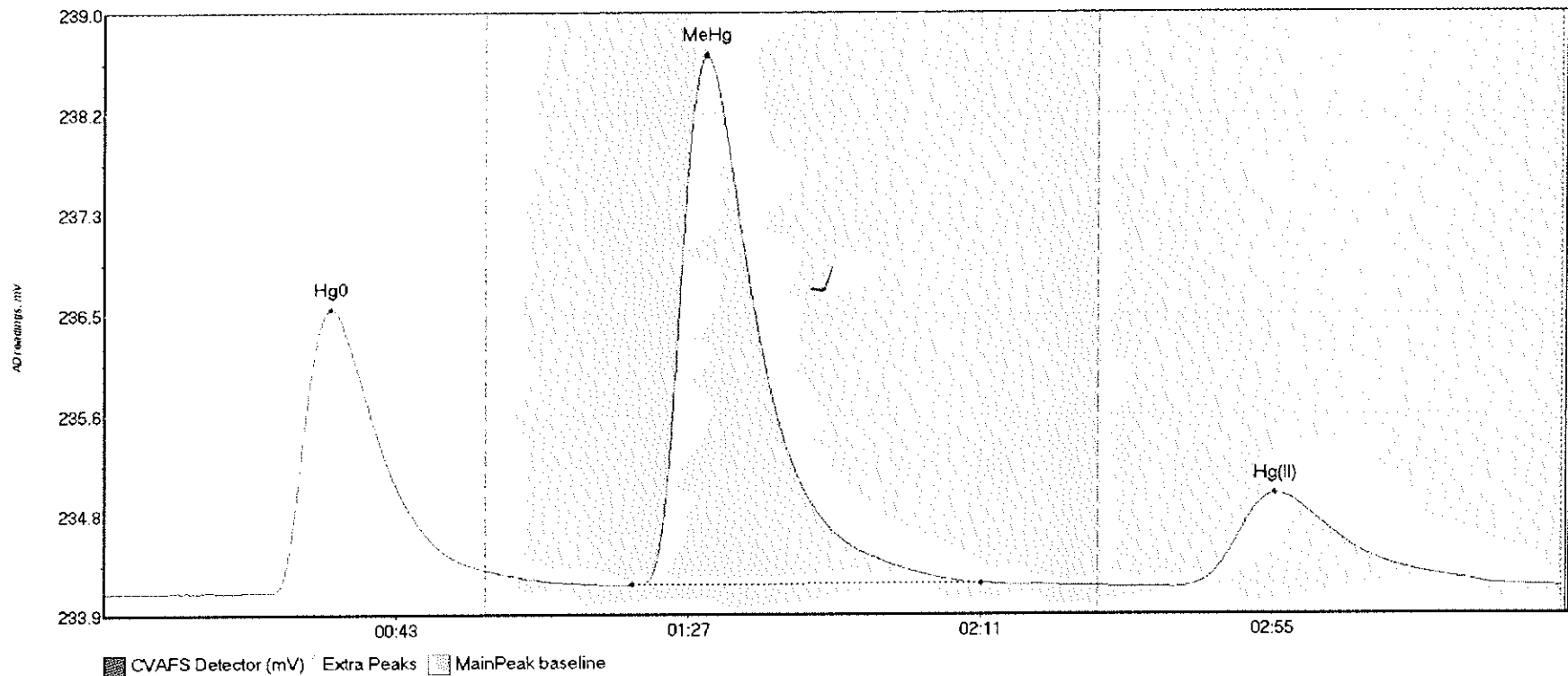
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	217.278	23.6	57.5	234.10	234.23	33.1	1.909	CT	234.0996	0.00	0.04	
SEQ-CAL1 MeHg	44.622	81.7	110.5	234.15	234.17	90.8	0.370	OK	234.0996	0.00	0.04	
SEQ-CAL1 Hg(II)	63.778	162.0	219.7	234.14	234.14	177.4	0.336	OK	234.0996	0.00	0.04	

#5: SEQ-CAL2



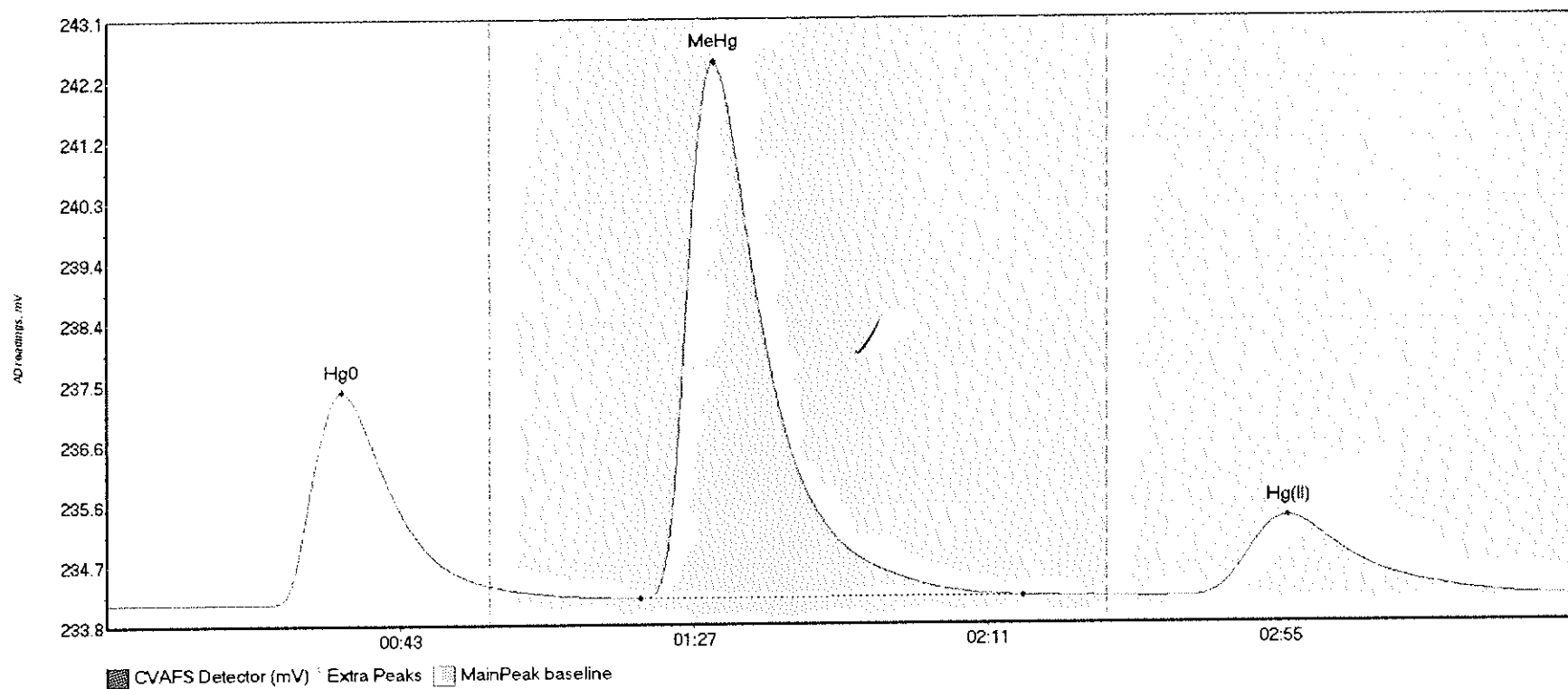
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	211.942	15.7	57.5	234.09	234.22	33.2	1.674	CT	234.0904	0.00	0.05	
SEQ-CAL2 MeHg	137.853	79.5	114.6	234.14	234.21	90.9	1.114	OK	234.0904	0.00	0.05	
SEQ-CAL2 Hg(II)	74.616	163.1	218.9	234.13	234.14	177.0	0.396	OK	234.0904	0.00	0.05	

#6: SEQ-CAL3



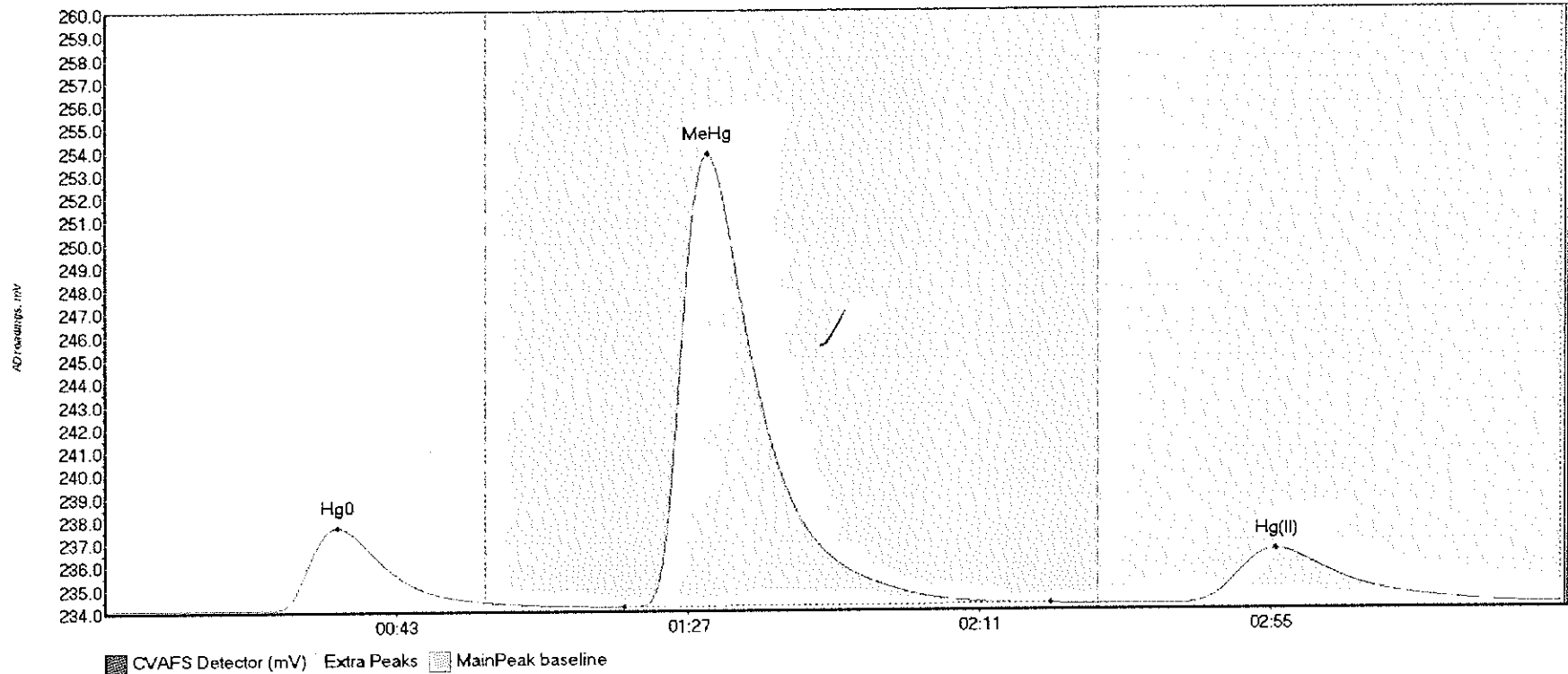
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	293.163	18.9	57.5	234.10	234.29	34.3	2.421	CT	234.0987	0.00	0.05	
SEQ-CAL3 MeHg	618.714	79.6	132.1	234.17	234.18	90.8	4.498	OK	234.0987	0.00	0.05	
SEQ-CAL3 Hg(II)	149.527	161.5	216.2	234.15	234.16	176.5	0.797	OK	234.0987	0.00	0.05	

#7: SEQ-CAL4



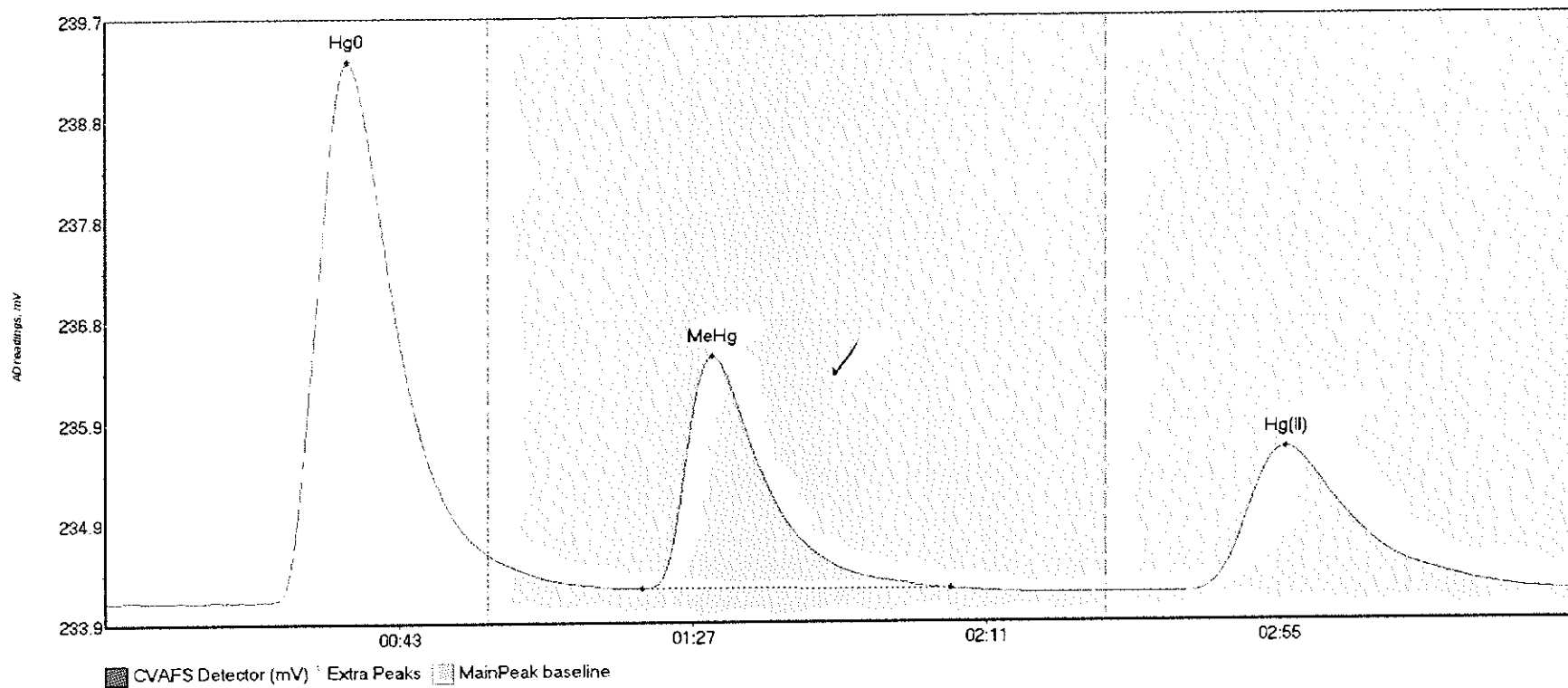
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL4 Hg0	407.359	19.2	57.5	234.12	234.39	35.3	3.262	CT	234.1137	0.00	0.07	
SEQ-CAL4 MeHg	1139.779	80.0	137.3	234.19	234.21	91.0	8.234	OK	234.1137	0.00	0.07	
SEQ-CAL4 Hg(II)	224.334	161.5	215.5	234.19	234.20	177.2	1.223	OK	234.1137	0.00	0.07	

#8 SEQ-CAL5



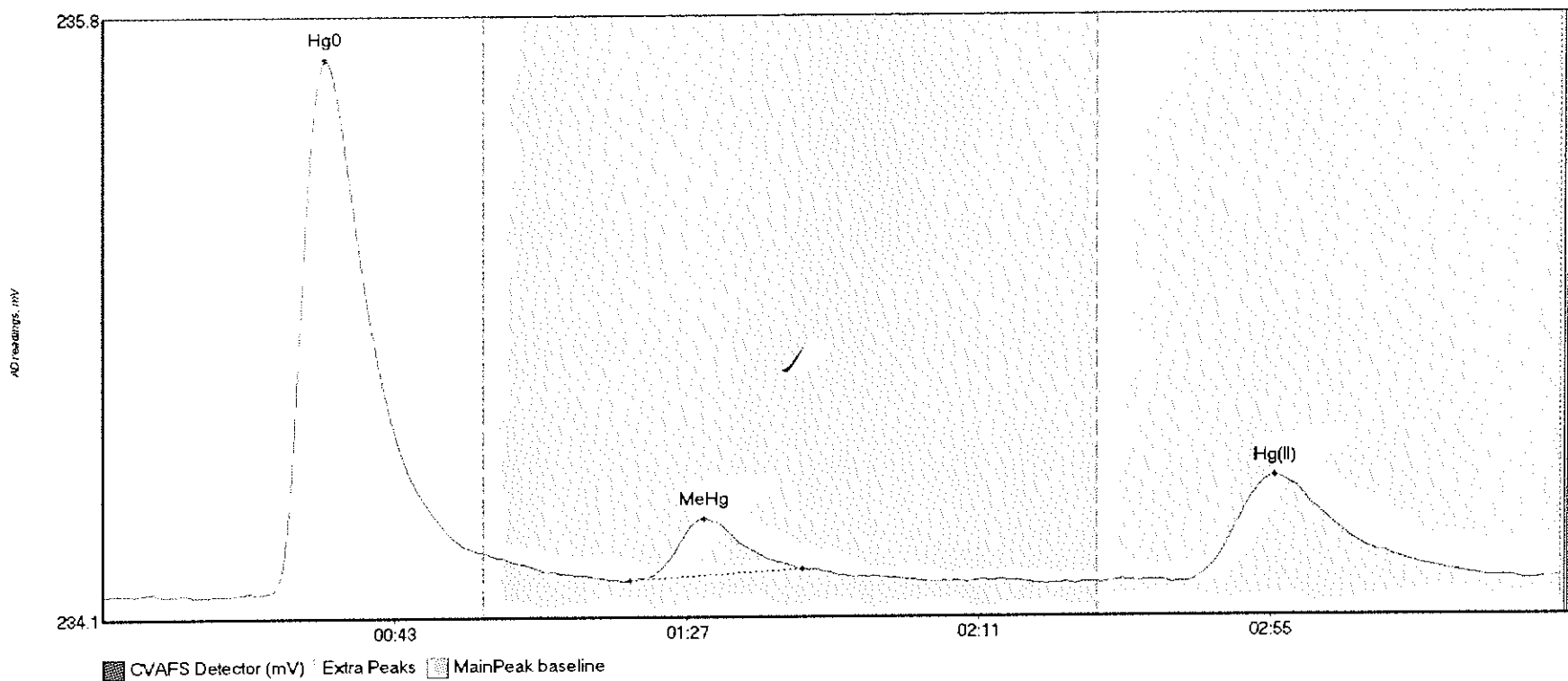
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-CAL5 Hg0	427.074	9.8	57.5	234.12	234.41	35.1	3.567	CT	234.1148	0.00	0.12	
SEQ-CAL5 MeHg	2712.821	78.3	142.8	234.20	234.27	90.9	19.602	OK	234.1148	0.00	0.12	
SEQ-CAL5 Hg(II)	434.392	160.6	216.4	234.24	234.24	176.9	2.341	OK	234.1148	0.00	0.12	

#9: SEQ-ICV1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-ICV1 Hg0	647.227	21.6	57.5	234.13	234.57	36.2	5.174	CT	234.1294	0.00	0.07	
SEQ-ICV1 MeHg	299.624	80.4	126.7	234.25	234.24	91.0	2.227	OK	234.1294	0.00	0.07	
SEQ-ICV1 Hg(II)	258.406	161.0	219.7	234.20	234.20	177.1	1.384	OK	234.1294	0.00	0.07	

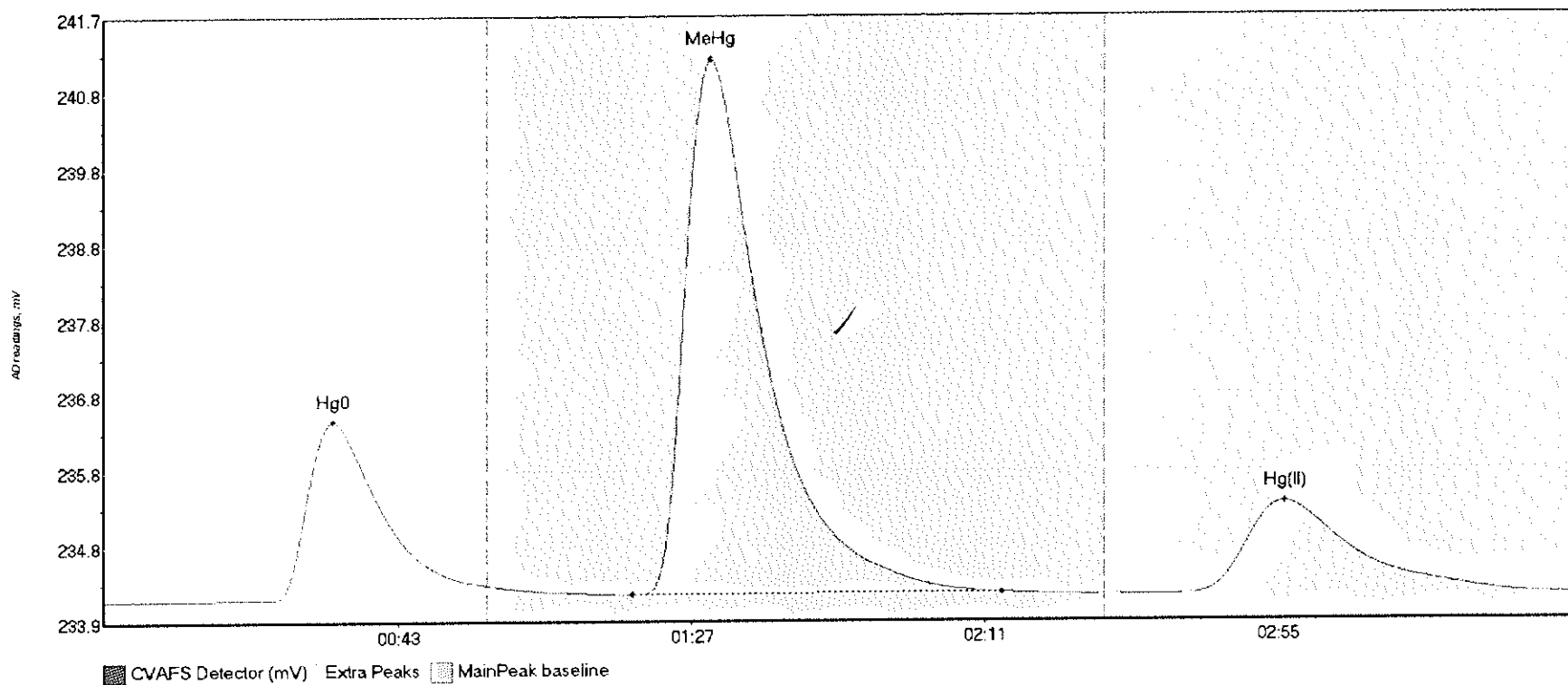
#10: SEQ-ICB1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
SEQ-ICB1 Hg0	179.145	23.5	57.5	234.14	234.26	33.5	1.578	CT	234.1397	0.00	0.05	
SEQ-ICB1 MeHg	18.760	79.5	105.4	234.18	234.21	90.6	0.183	OK	234.1397	0.00	0.05	
SEQ-ICB1 Hg(II)	57.972	163.1	215.1	234.17	234.18	176.7	0.312	OK	234.1397	0.00	0.05	

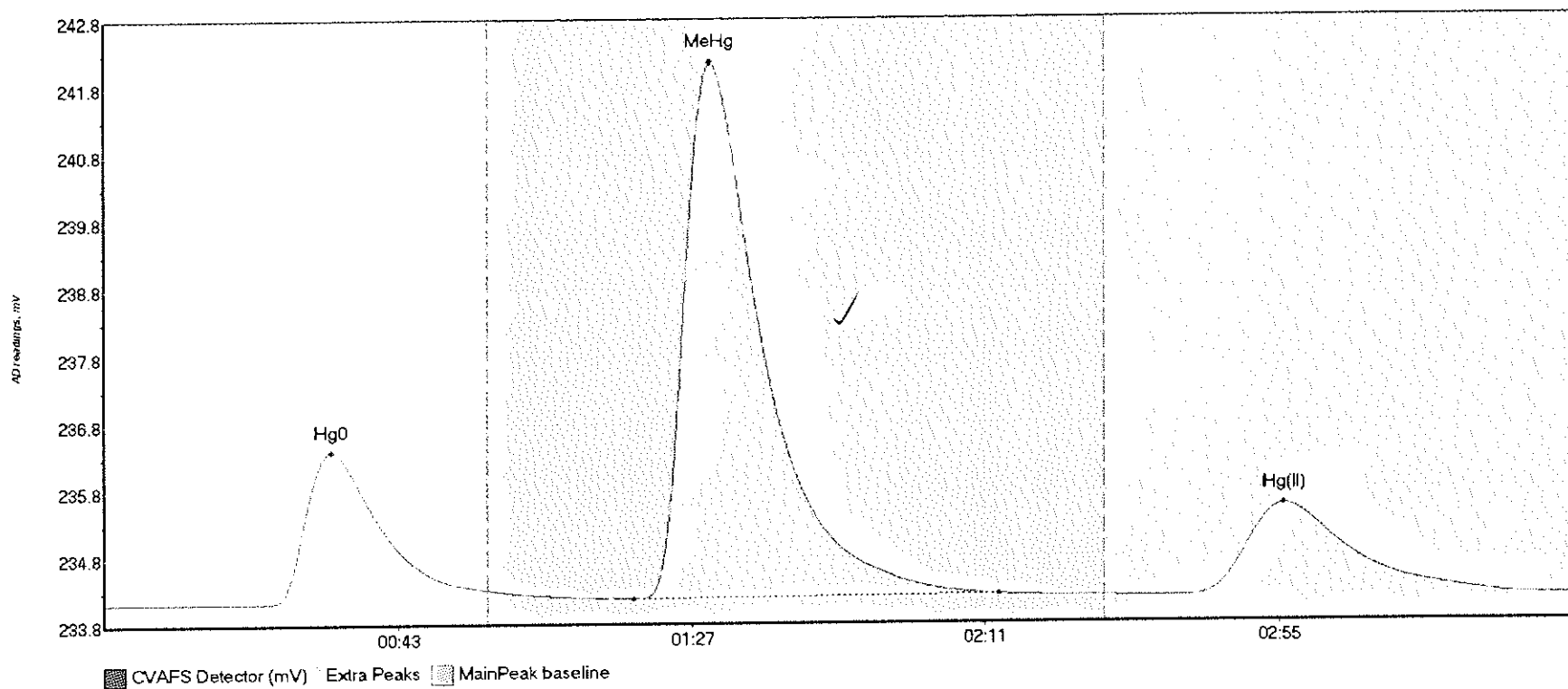


#11: F610408-BS1



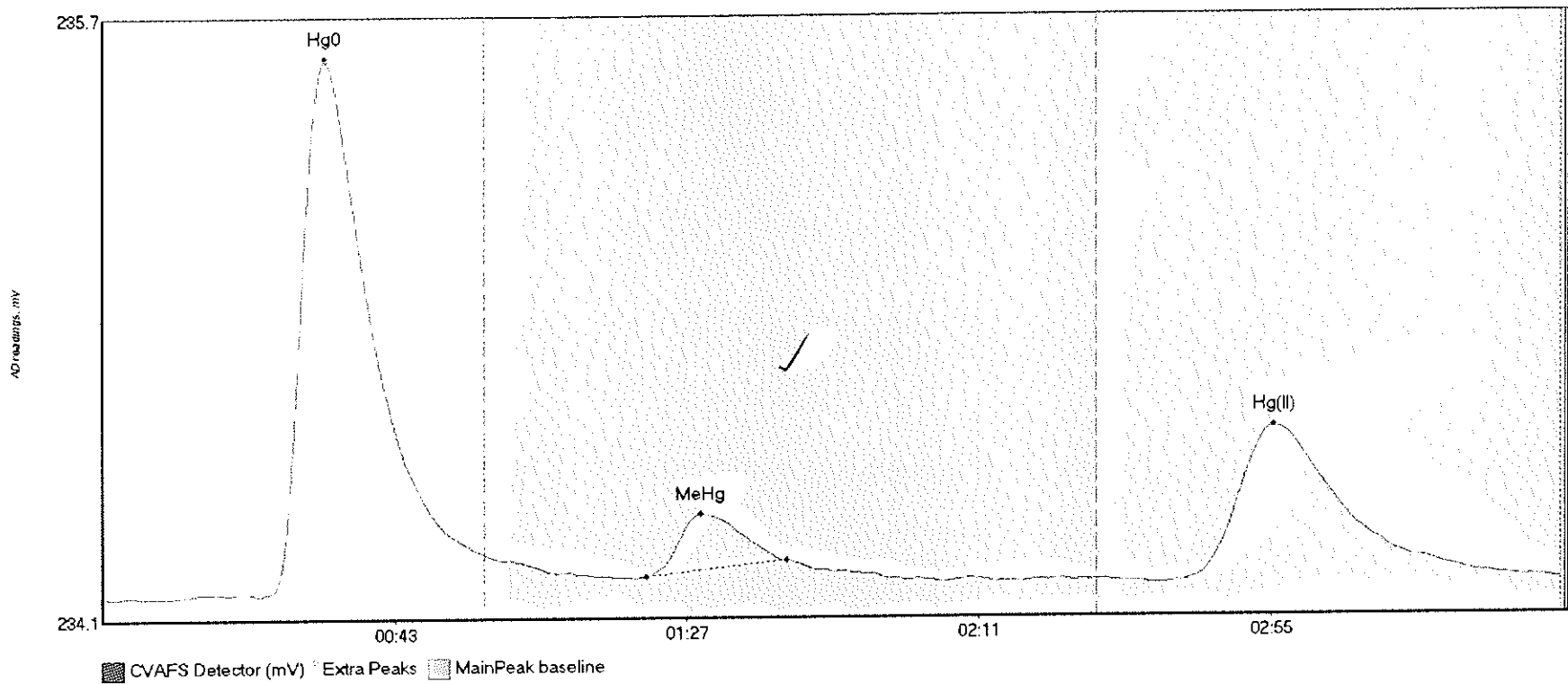
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BS1 Hg0	271.453	14.9	57.5	234.14	234.33	34.3	2.334	CT	234.1385	0.00	0.05	
F610408-BS1 MeH	955.342	79.1	134.6	234.21	234.22	90.9	6.967	OK	234.1385	0.00	0.05	
F610408-BS1 Hg(I)	222.124	162.6	215.6	234.20	234.20	177.0	1.195	OK	234.1385	0.00	0.05	

#12: F610408-BSD1



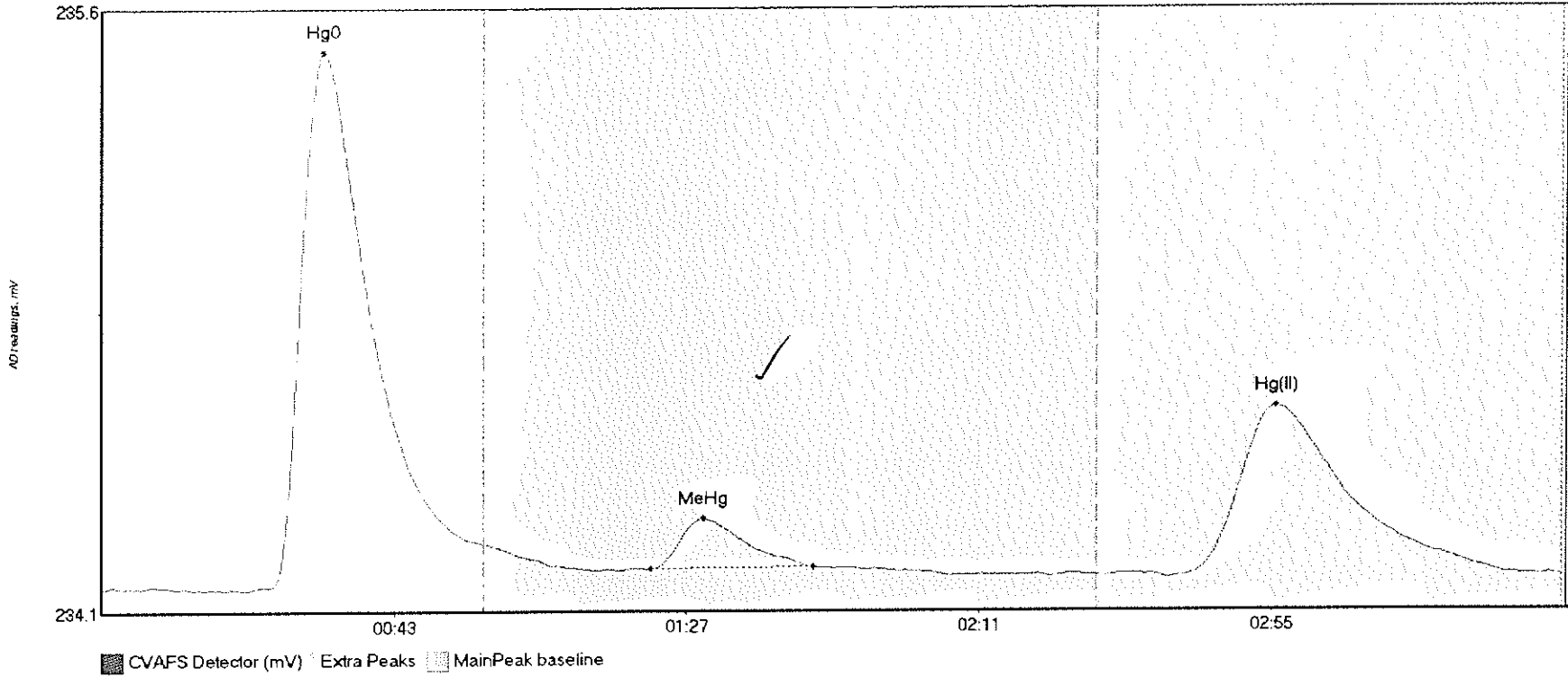
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BSD1 Hg	270.558	24.4	57.5	234.13	234.31	34.0	2.263	CT	234.1267	0.00	0.06	
F610408-BSD1 Me	1084.610	79.3	134.1	234.18	234.23	90.8	7.992	OK	234.1267	0.00	0.06	
F610408-BSD1 Hg	246.332	161.1	215.6	234.19	234.19	176.8	1.358	OK	234.1267	0.00	0.06	

#13: F610408-BLK1



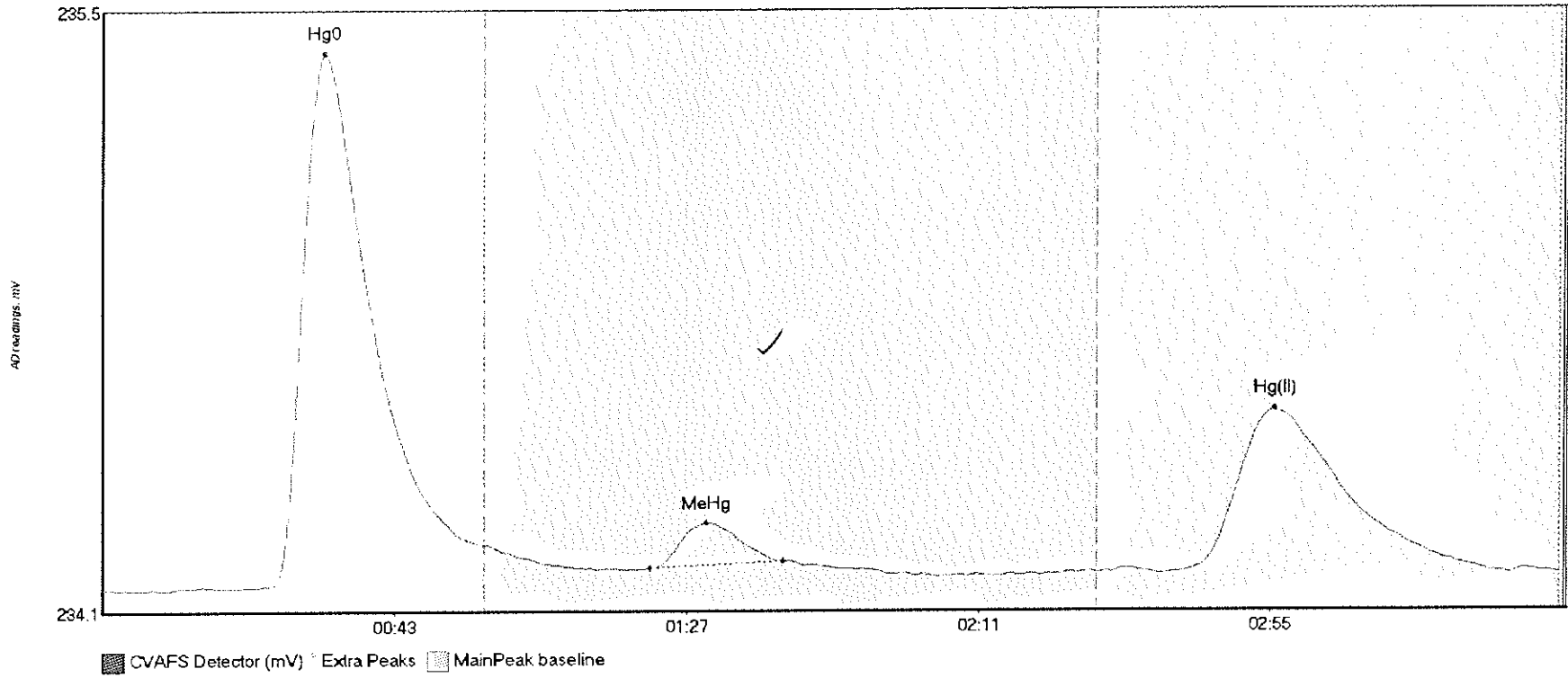
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK1 Hg	168.033	23.5	57.5	234.12	234.23	33.4	1.474	CT	234.1198	0.00	0.04	
F610408-BLK1 Me	16.249	82.0	103.0	234.17	234.21	90.1	0.172	OK	234.1198	0.00	0.04	
F610408-BLK1 Hg	75.448	162.6	214.3	234.15	234.16	176.5	0.425	OK	234.1198	0.00	0.04	

#14: F610408-BLK2



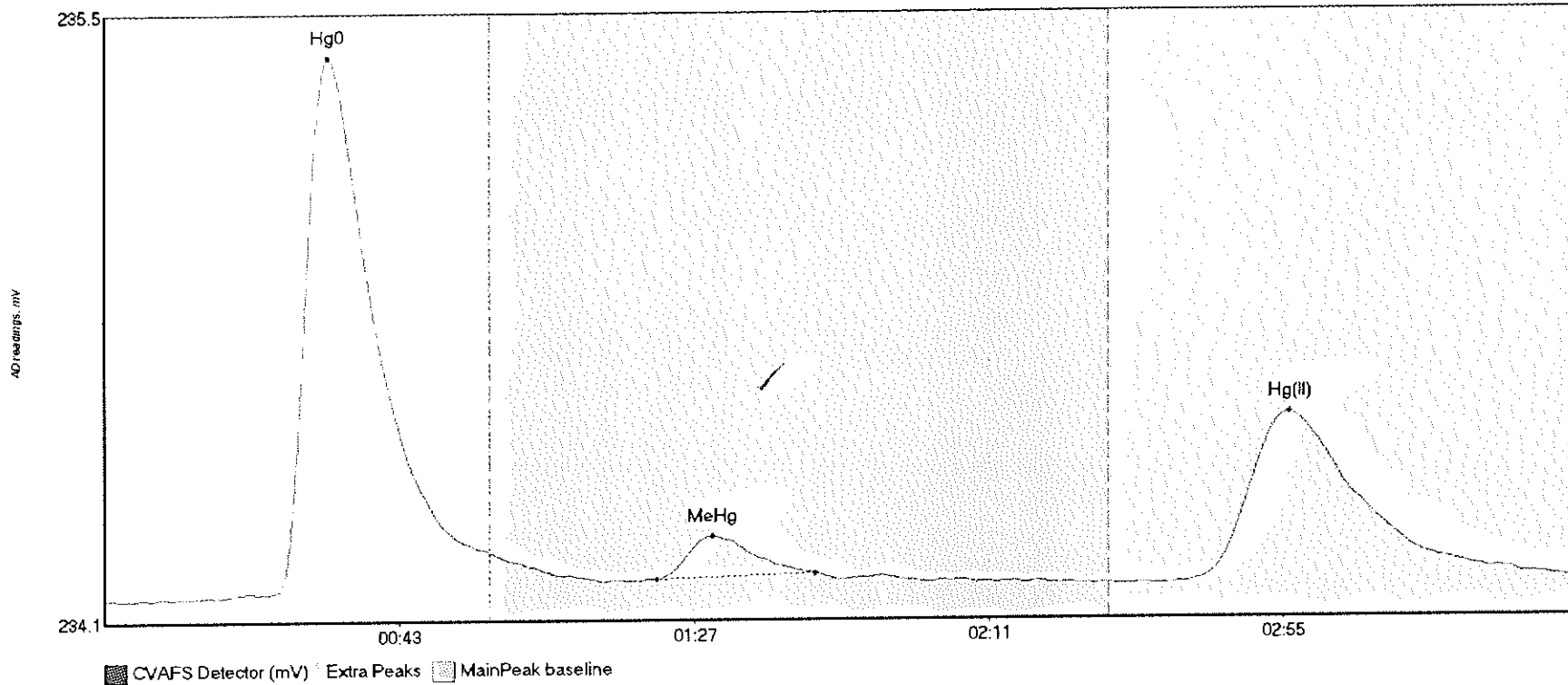
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK2 Hg	158.910	25.1	57.5	234.12	234.23	33.5	1.414	CT	234.1180	0.00	0.03	
F610408-BLK2 Me	14.552	82.7	107.0	234.17	234.17	90.6	0.133	OK	234.1180	0.00	0.03	
F610408-BLK2 Hg	82.920	161.8	211.1	234.15	234.15	176.7	0.450	OK	234.1180	0.00	0.03	

#15: F610408-BLK3



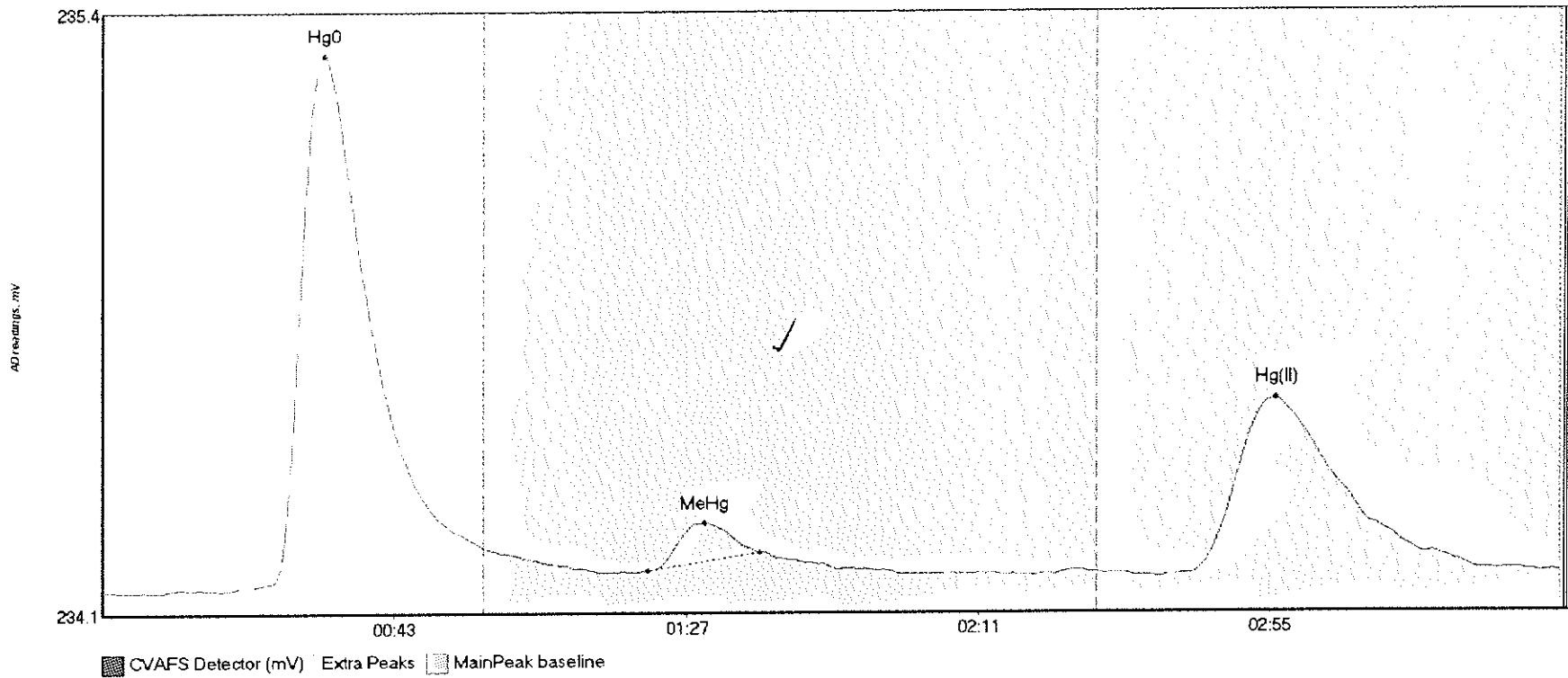
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-BLK3 Hg	147.314	23.2	57.5	234.12	234.22	33.5	1.314	CP	234.1146	0.00	0.04	
F610408-BLK3 Me	10.486	82.5	102.6	234.16	234.18	91.0	0.112	OK	234.1146	0.00	0.04	
F610408-BLK3 Hg	73.146	160.9	209.9	234.15	234.16	176.7	0.400	OK	234.1146	0.00	0.04	

#16: \*F610408-BLK4



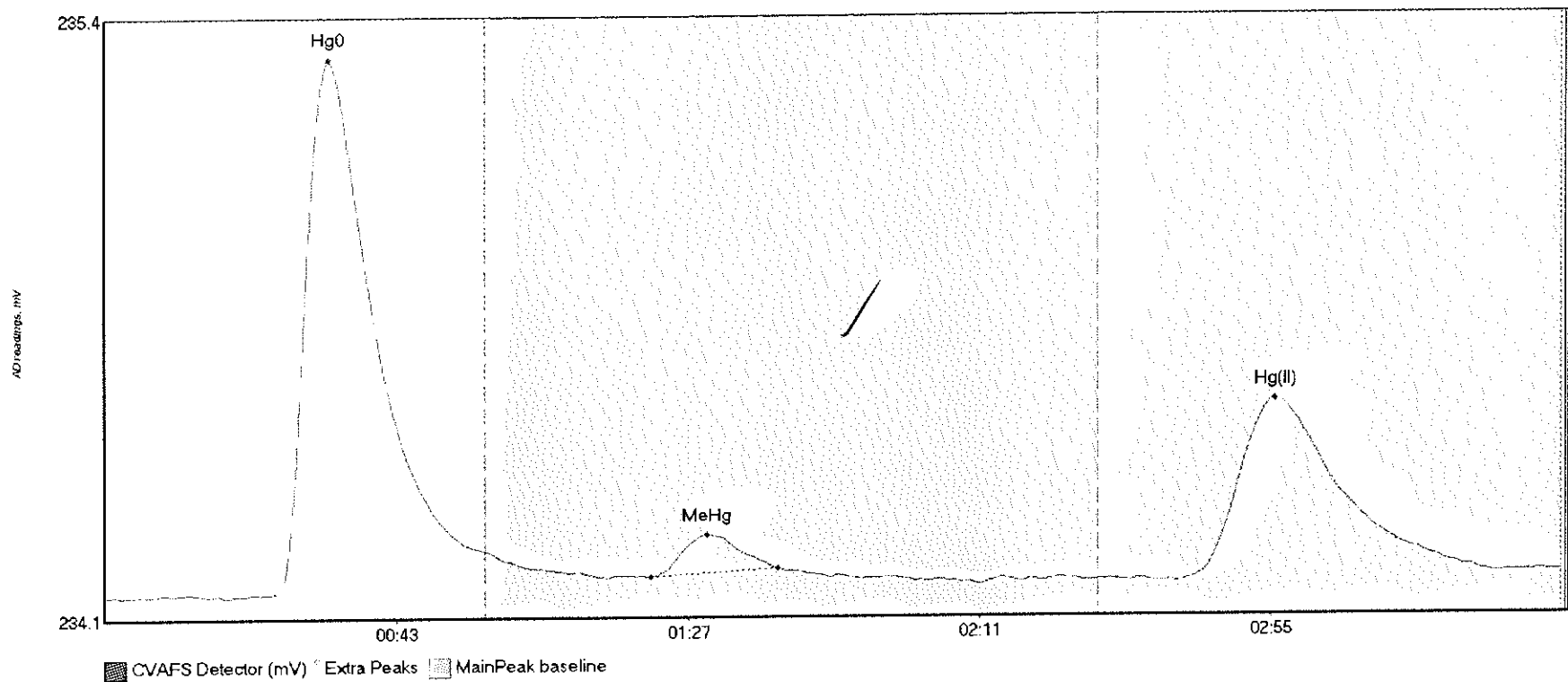
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK4 H	141.770	17.5	57.5	234.12	234.22	33.5	1.284	CT	234.1129	0.00	0.04	
*F610408-BLK4 M	10.994	82.3	106.2	234.15	234.17	90.8	0.104	OK	234.1129	0.00	0.04	
*F610408-BLK4 H	75.685	162.0	219.0	234.15	234.15	177.0	0.400	OK	234.1129	0.00	0.04	

#17: \*F610408-BLK5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK5 H	131.278	19.1	57.5	234.11	234.20	33.4	1.160	CT	234.1108	0.00	0.04	
*F610408-BLK5 M	7.328	82.2	99.0	234.15	234.19	90.8	0.104	OK	234.1108	0.00	0.04	
*F610408-BLK5 H	67.884	164.0	214.7	234.15	234.15	177.1	0.380	OK	234.1108	0.00	0.04	

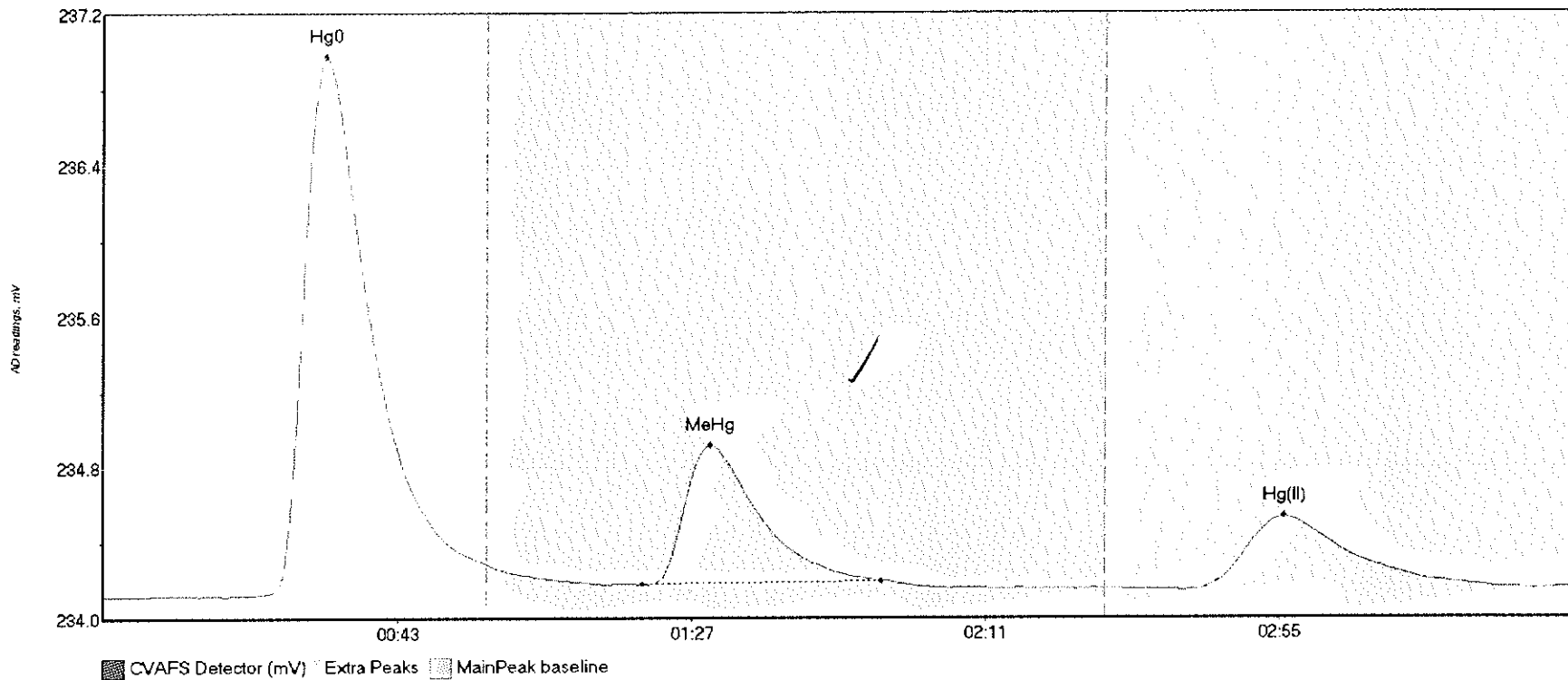
#18: \*F610408-BLK6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610408-BLK6 H	134.976	25.2	57.5	234.12	234.21	33.7	1.195	CT	234.1142	0.00	0.05	
*F610408-BLK6 M	8.470	82.3	101.6	234.15	234.17	90.9	0.094	OK	234.1142	0.00	0.05	
*F610408-BLK6 H	71.025	161.6	210.4	234.14	234.16	176.8	0.407	OK	234.1142	0.00	0.05	

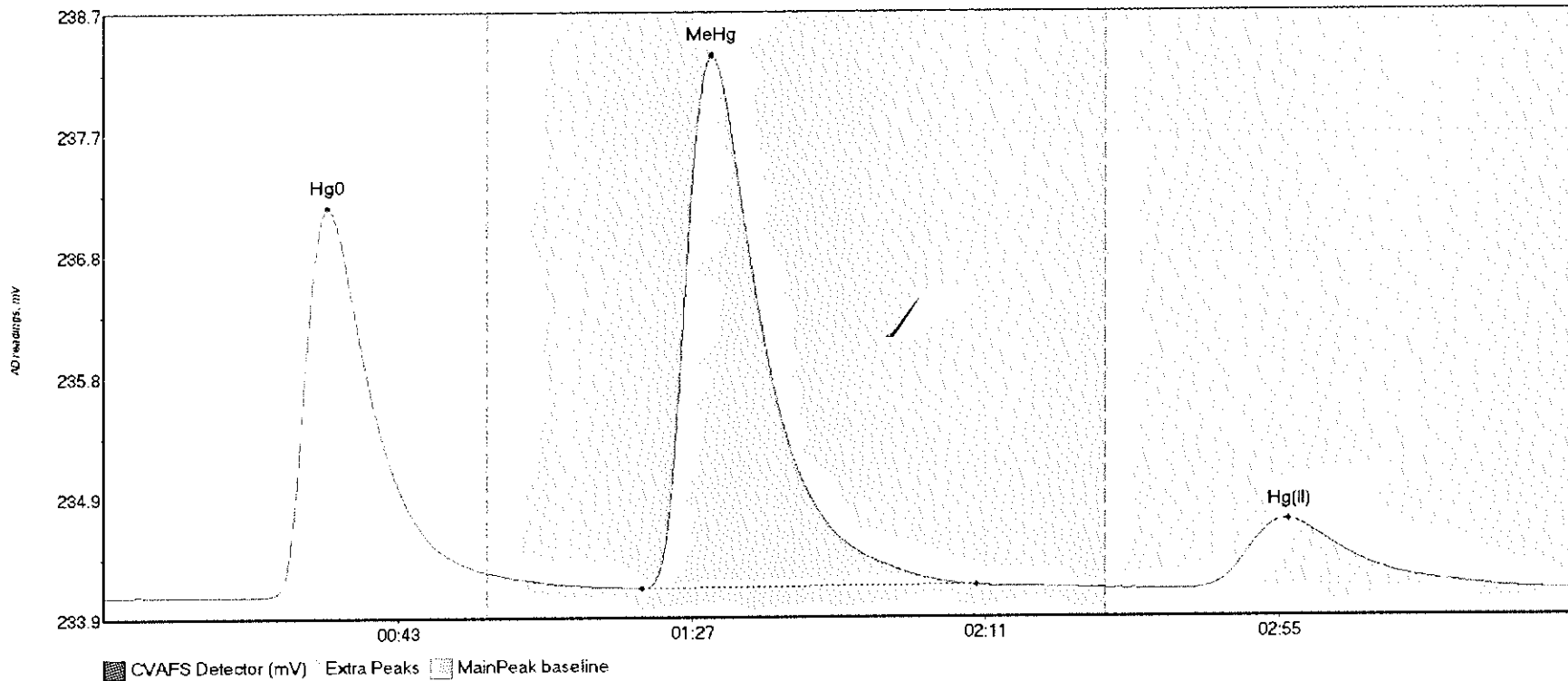


#19: F610408-DUP1



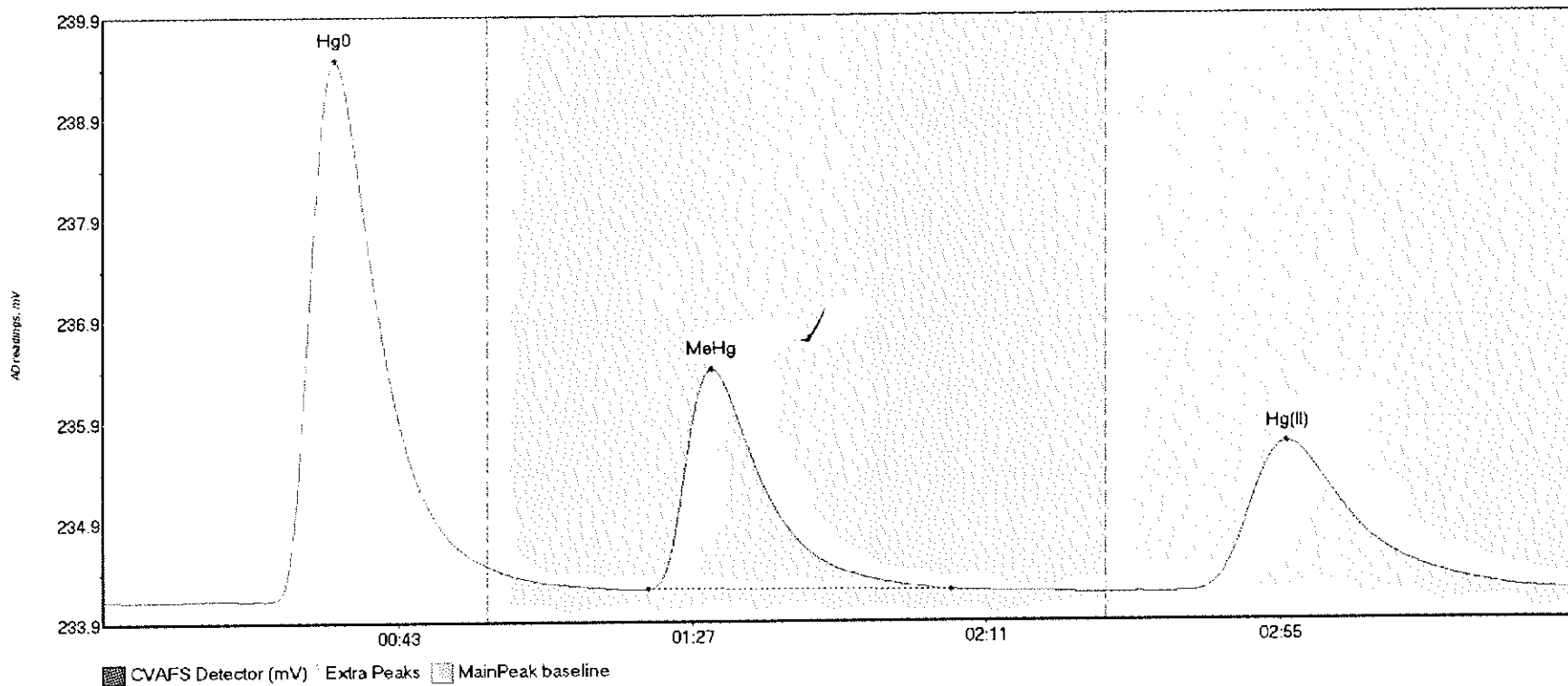
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-DUP1 Hg	311.572	21.7	57.5	234.12	234.28	33.2	2.814	CT	234.1156	0.00	0.04	
F610408-DUP1 Me	92.261	80.6	116.4	234.17	234.19	90.8	0.731	OK	234.1156	0.00	0.04	
F610408-DUP1 Hg	68.643	162.7	213.5	234.15	234.15	176.8	0.360	OK	234.1156	0.00	0.04	

#20: F610408-MS1



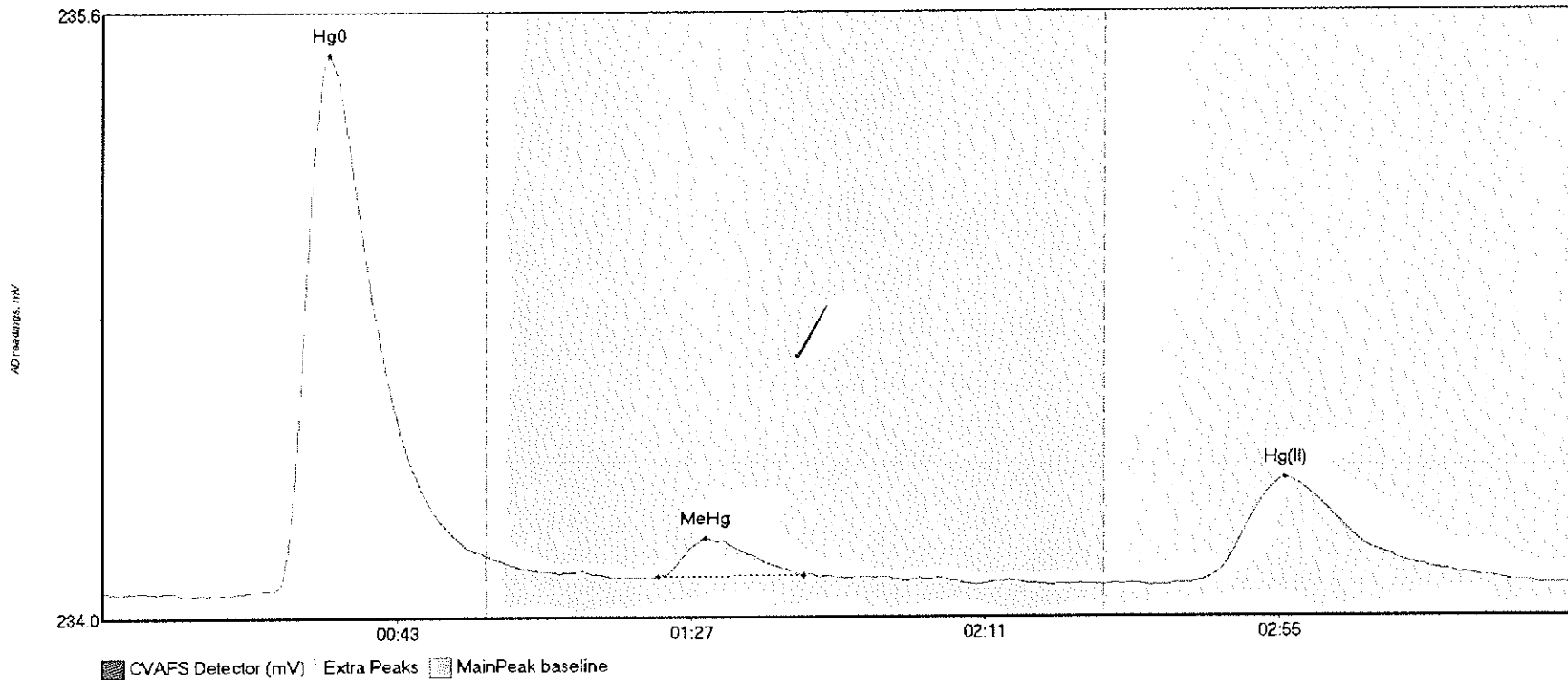
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-MS1 Hg0	337.463	23.7	57.5	234.11	234.30	33.5	3.036	CT	234.1108	0.00	0.04	
F610408-MS1 MeH	561.134	80.6	130.7	234.17	234.19	90.9	4.157	OK	234.1108	0.00	0.04	
F610408-MS1 Hg(I)	95.836	163.1	210.6	234.16	234.16	177.4	0.535	OK	234.1108	0.00	0.04	

#21: SEQ-CCV1



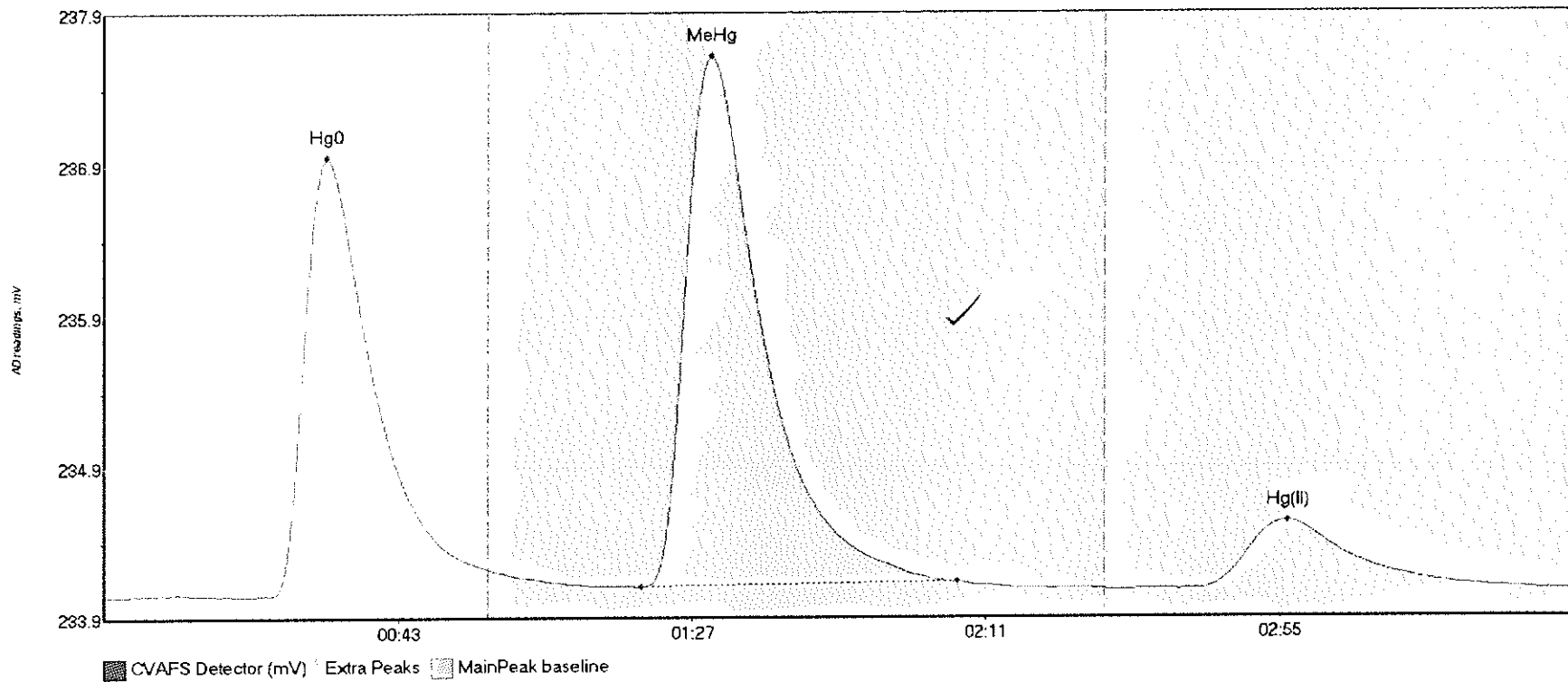
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	611.532	24.2	57.5	234.10	234.43	34.4	5.323	CT	234.1055	0.00	0.07	
SEQ-CCV1 MeHg	292.173	81.4	126.9	234.21	234.19	90.9	2.174	OK	234.1055	0.00	0.07	
SEQ-CCV1 Hg(II)	271.390	162.0	219.8	234.16	234.17	177.0	1.475	CT	234.1055	0.00	0.07	

#22: SEQ-CCB1



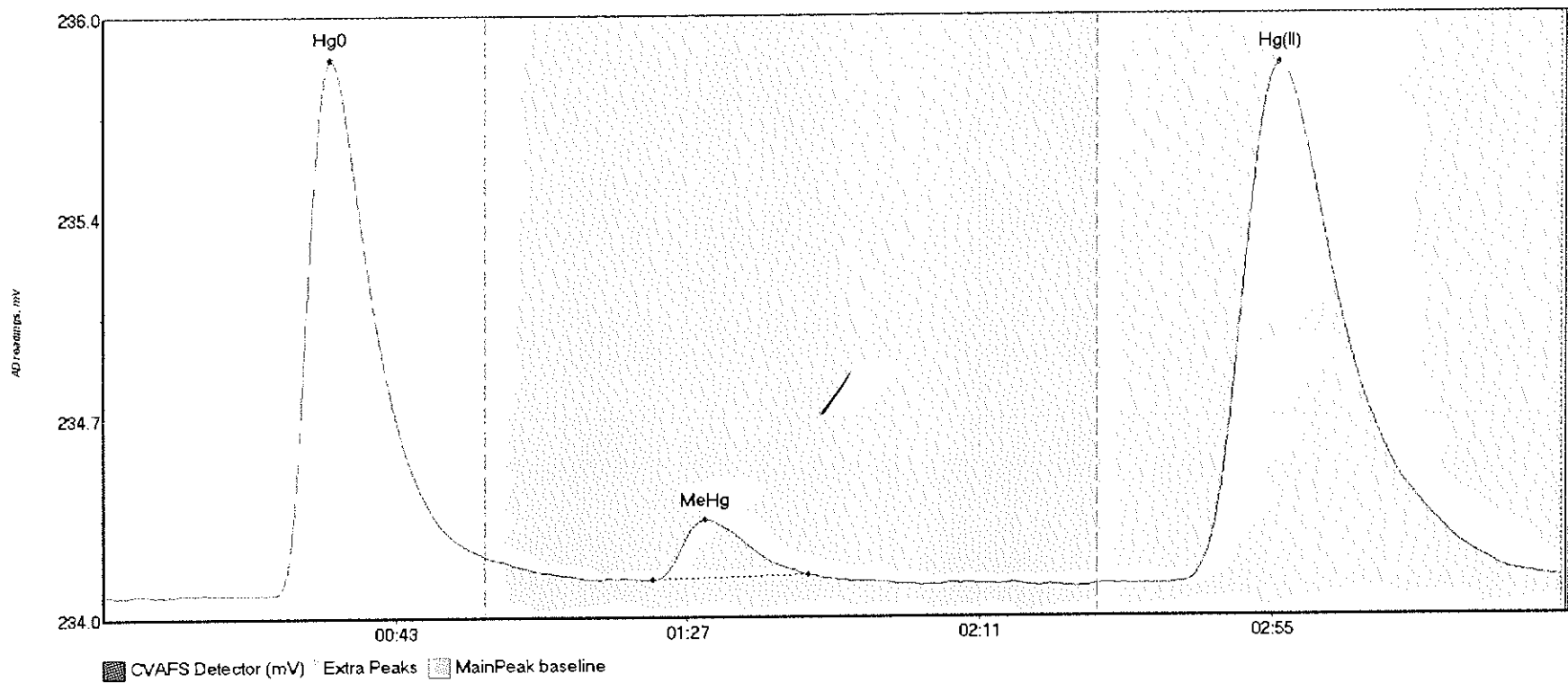
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	153.454	25.6	57.5	234.10	234.19	33.9	1.349	CT	234.1001	0.00	0.02	
SEQ-CCB1 MeHg	10.446	83.1	104.9	234.14	234.14	90.2	0.097	OK	234.1001	0.00	0.02	
SEQ-CCB1 Hg(II)	49.713	162.4	215.4	234.12	234.12	176.9	0.266	OK	234.1001	0.00	0.02	

#23: F610408-MSD1



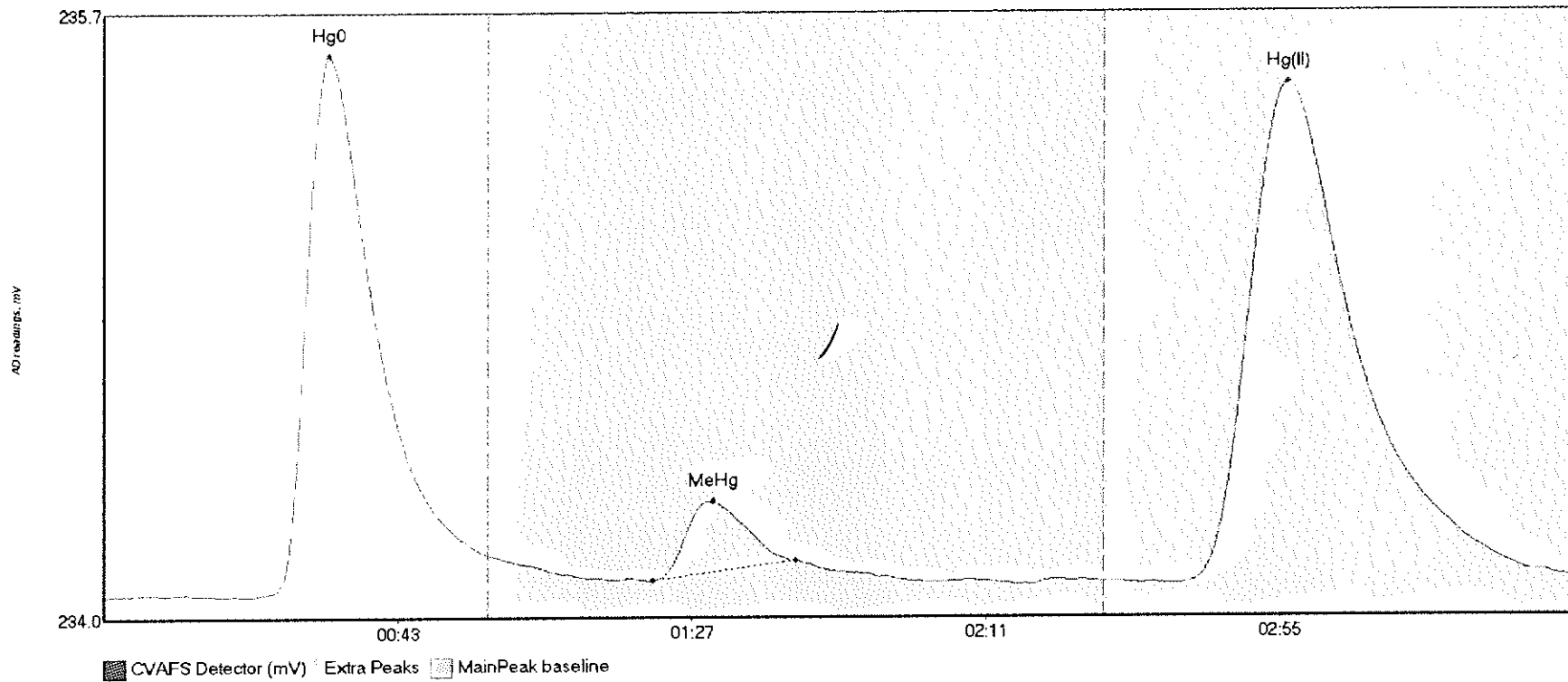
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610408-MSD1 Hg	324.189	21.1	57.5	234.08	234.25	33.3	2.898	CT	234.0803	0.00	0.04	
F610408-MSD1 Me	467.734	80.4	127.7	234.14	234.17	90.9	3.503	OK	234.0803	0.00	0.04	
F610408-MSD1 Hg	80.916	164.1	215.5	234.12	234.12	177.2	0.444	OK	234.0803	0.00	0.04	

#24: 1610136-01



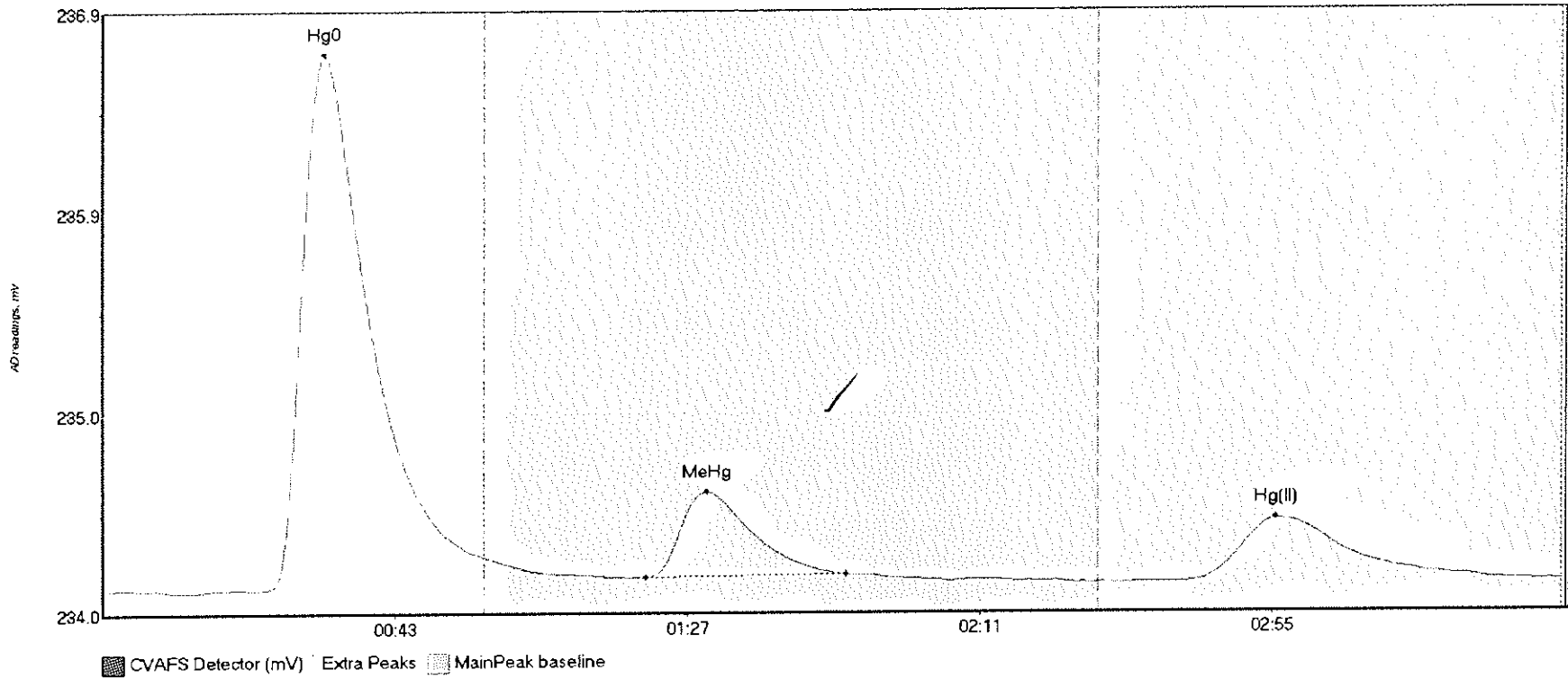
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	StDev	Shift	Comment
1610136-01 Hg0	201.679	23.5	57.5	234.08	234.21	34.2	1.811	CP	234.0746	0.00	0.05	
1610136-01 MeHg	21.811	82.9	106.2	234.12	234.14	90.8	0.205	OK	234.0746	0.00	0.05	
1610136-01 Hg(I)	320.739	160.0	219.8	234.11	234.13	177.2	1.759	CP	234.0746	0.00	0.05	

#25: 1610338-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610338-01 Hg0	171.112	23.1	57.5	234.07	234.18	33.7	1.525	CT	234.0659	0.00	0.05	
1610338-01 MeHg	20.403	82.2	103.6	234.11	234.16	91.3	0.225	OK	234.0659	0.00	0.05	
1610338-01 Hg(I)	260.575	161.0	219.8	234.10	234.12	177.2	1.418	CT	234.0659	0.00	0.05	

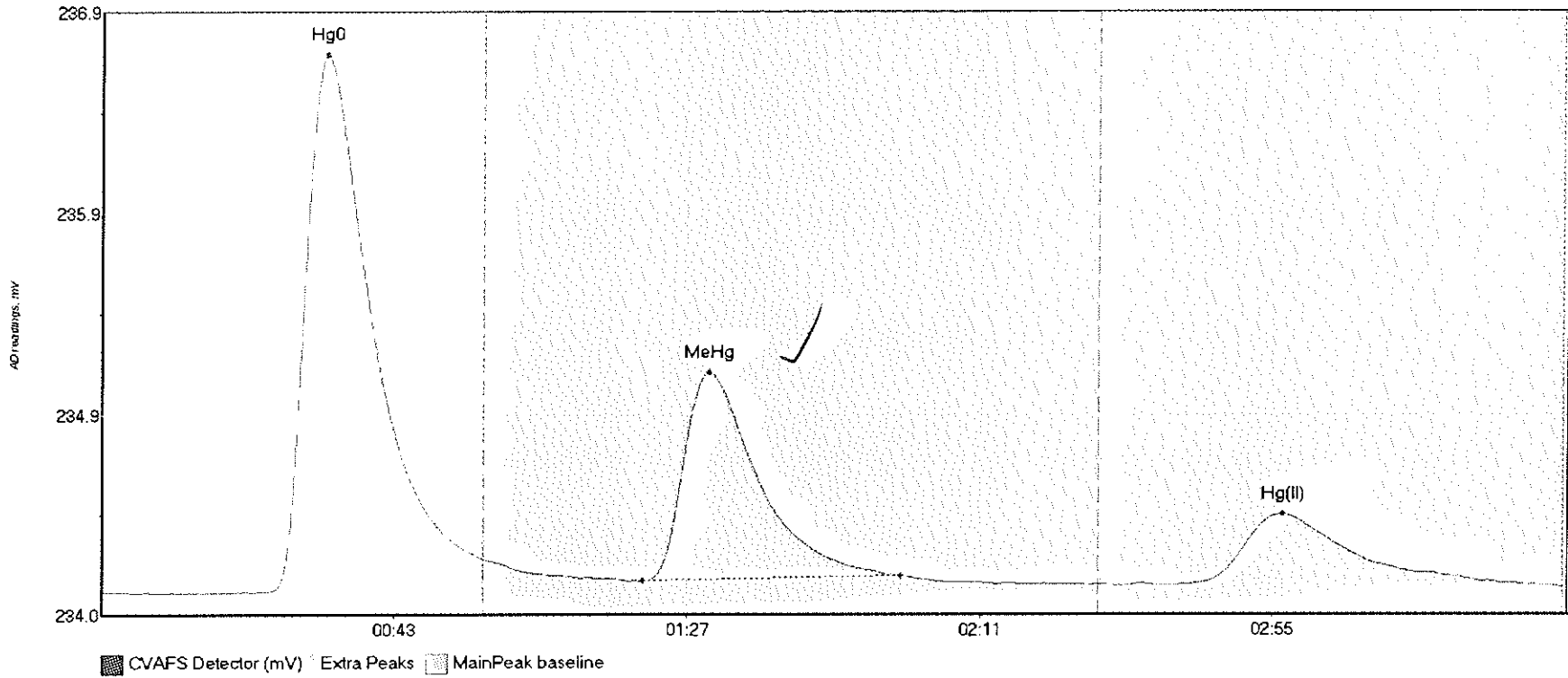
#26: 1610419-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-01 Hg0	296.313	23.5	57.5	234.07	234.23	33.5	2.662	CT	234.0697	0.00	0.04	
1610419-01 MeHg	52.057	81.7	111.9	234.13	234.14	91.0	0.429	OK	234.0697	0.00	0.04	
1610419-01 Hg(I)	58.571	162.6	216.9	234.10	234.11	176.6	0.314	OK	234.0697	0.00	0.04	

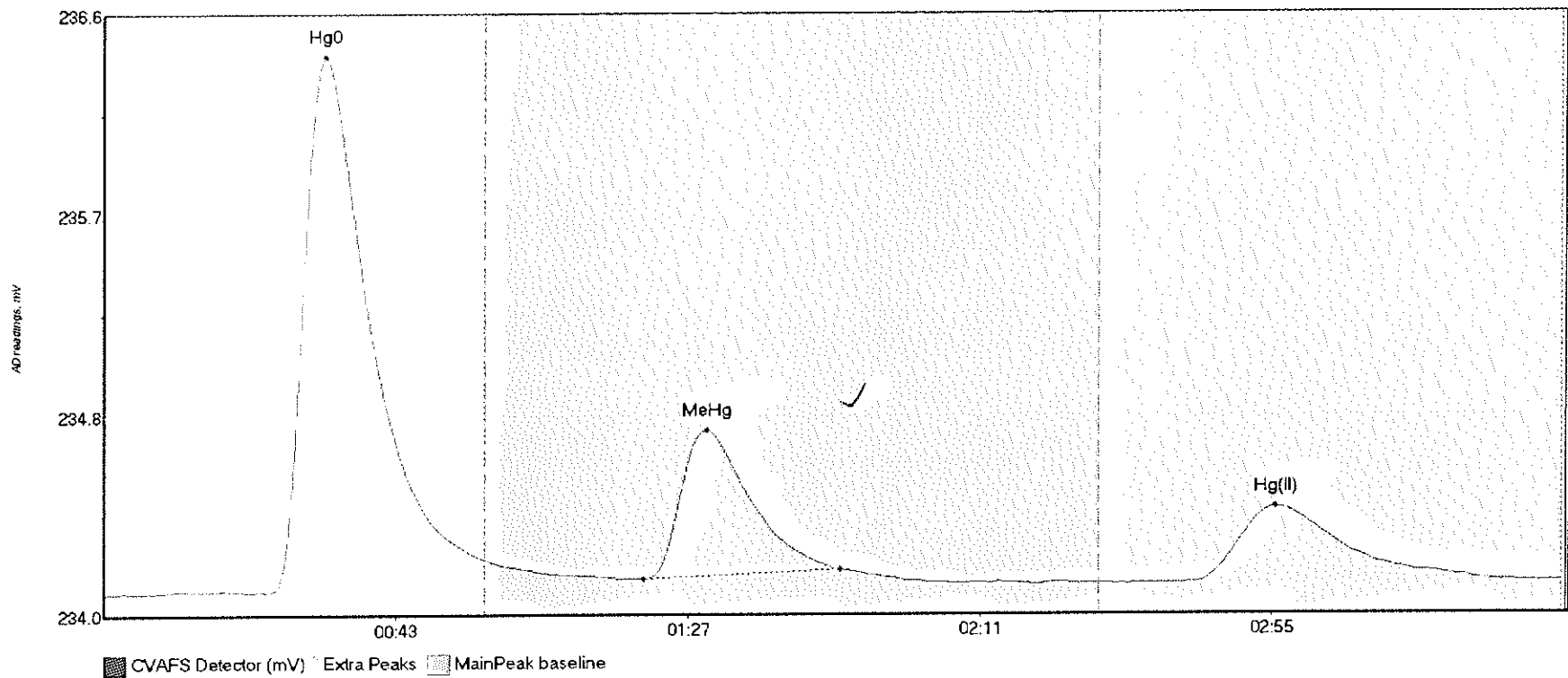


#27: 1610419-02



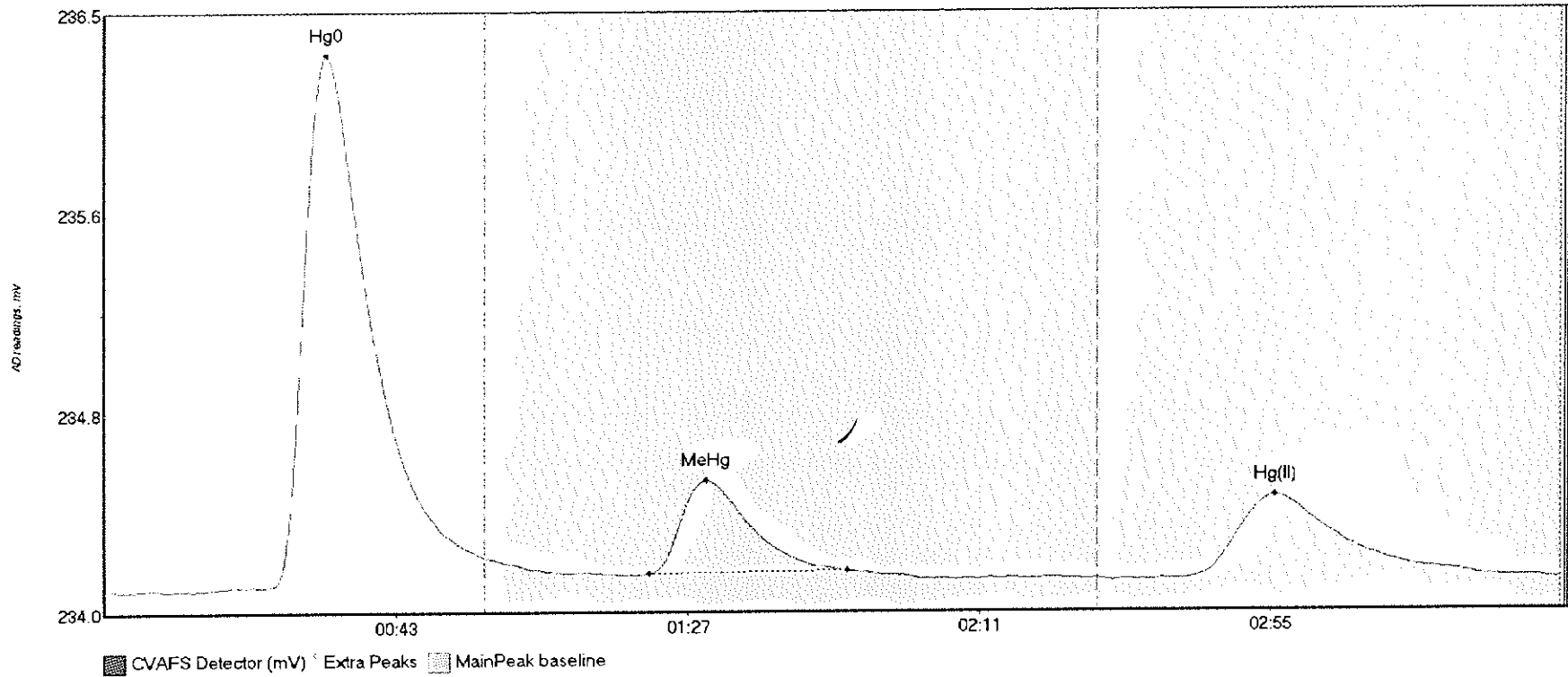
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-02 Hg0	287.610	24.6	57.5	234.08	234.24	33.9	2.590	CT	234.0800	0.00	0.02	
1610419-02 MeHg	129.961	81.3	120.2	234.13	234.15	91.3	1.008	OK	234.0800	0.00	0.02	
1610419-02 Hg(I	59.493	163.3	210.6	234.12	234.12	177.6	0.337	OK	234.0800	0.00	0.02	

#28: 1610419-03



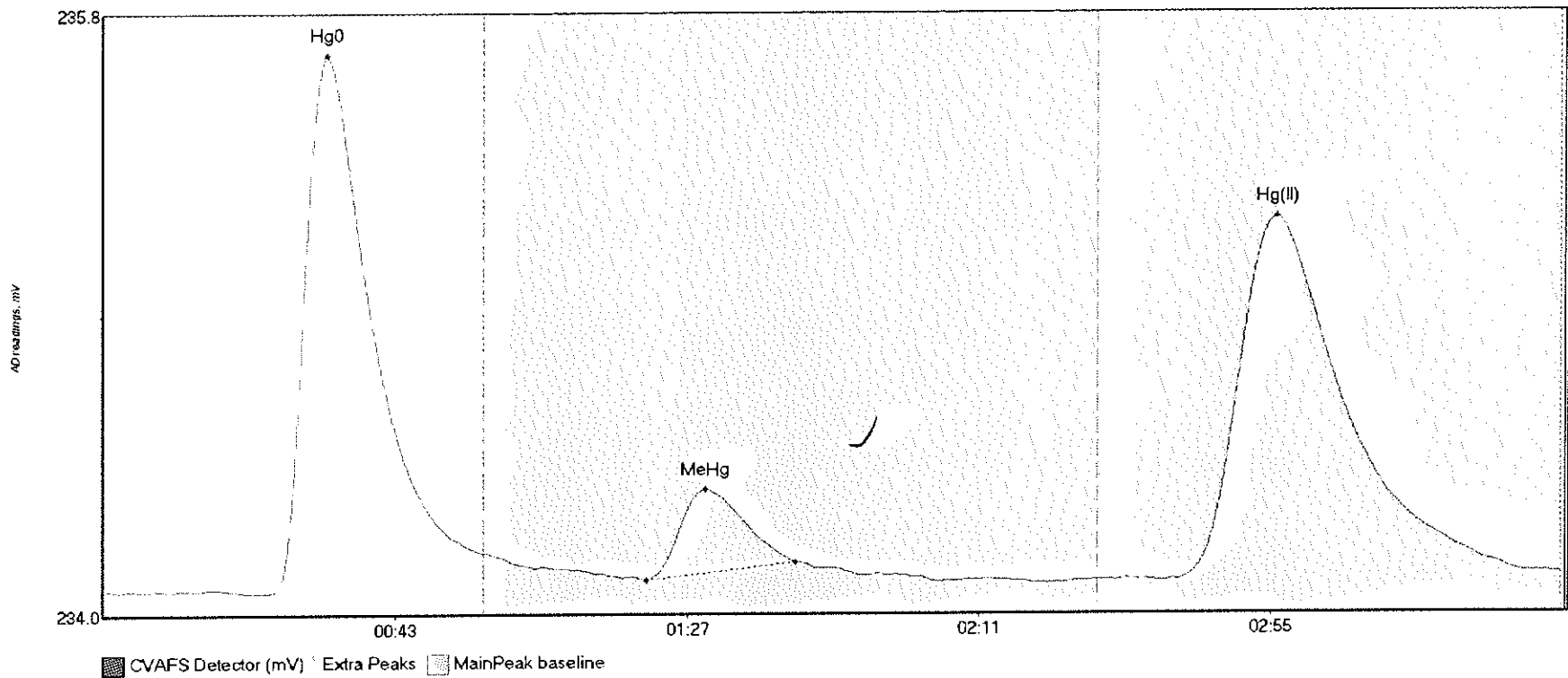
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-03 Hg0	252.358	7.4	57.5	234.07	234.21	33.4	2.328	CT	234.0693	0.00	0.05	
1610419-03 MeHg	76.289	81.3	111.0	234.13	234.17	90.9	0.649	OK	234.0693	0.00	0.05	
1610419-03 Hg(I)	58.692	164.1	216.7	234.12	234.12	176.6	0.325	OK	234.0693	0.00	0.05	

#29: 1610419-04



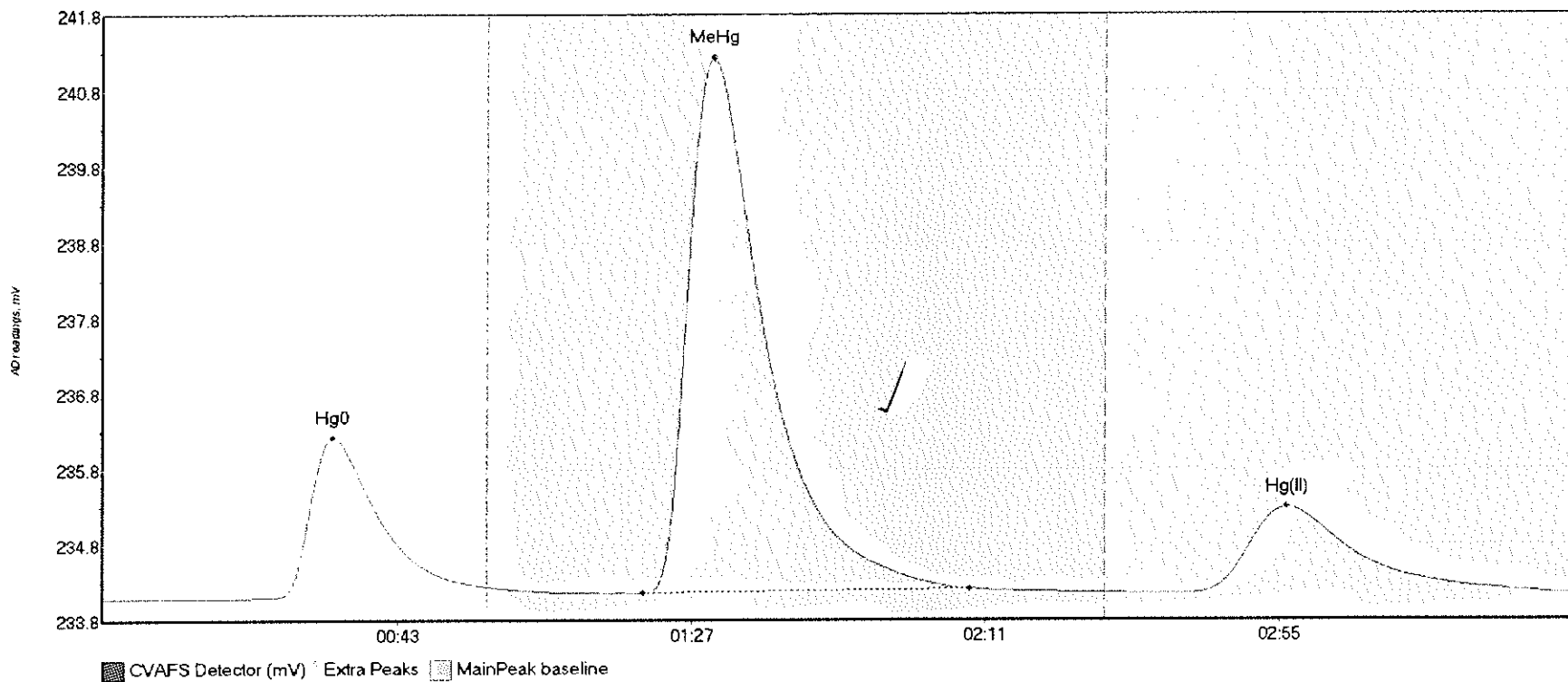
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610419-04 Hg0	244.366	17.1	57.5	234.08	234.21	33.5	2.218	CT	234.0801	0.00	0.03	
1610419-04 MeHg	45.925	82.1	112.2	234.14	234.15	90.8	0.390	OK	234.0801	0.00	0.03	
1610419-04 Hg(I	64.671	162.6	219.1	234.11	234.11	176.8	0.346	OK	234.0801	0.00	0.03	

#30: 1610509-01



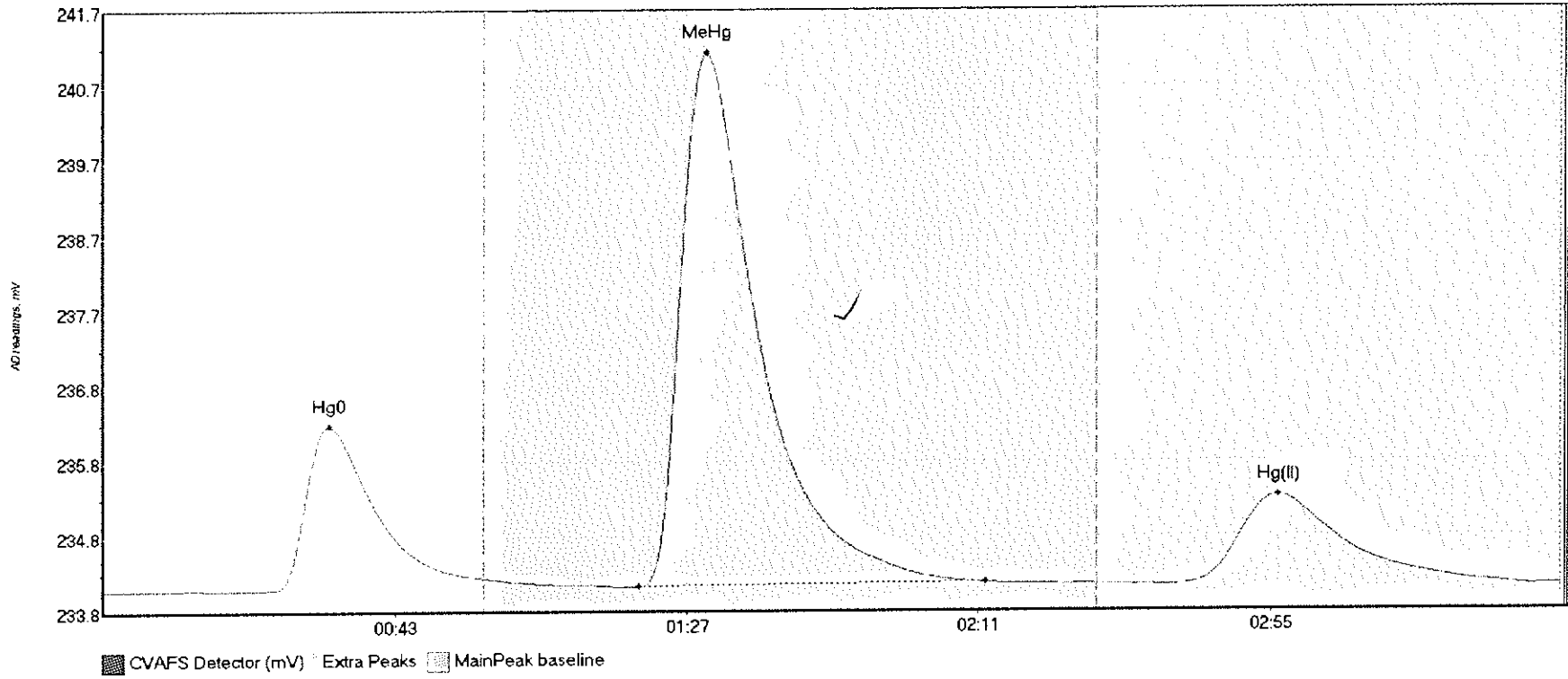
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610509-01 Hg0	178.453	25.1	57.5	234.08	234.20	33.7	1.610	CT	234.0884	0.00	0.05	
1610509-01 MeHg	27.496	81.9	104.3	234.12	234.17	90.8	0.273	OK	234.0884	0.00	0.05	
1610509-01 Hg(I)	199.078	162.2	219.2	234.12	234.14	177.0	1.088	OK	234.0884	0.00	0.05	

#31: F610422-BS1



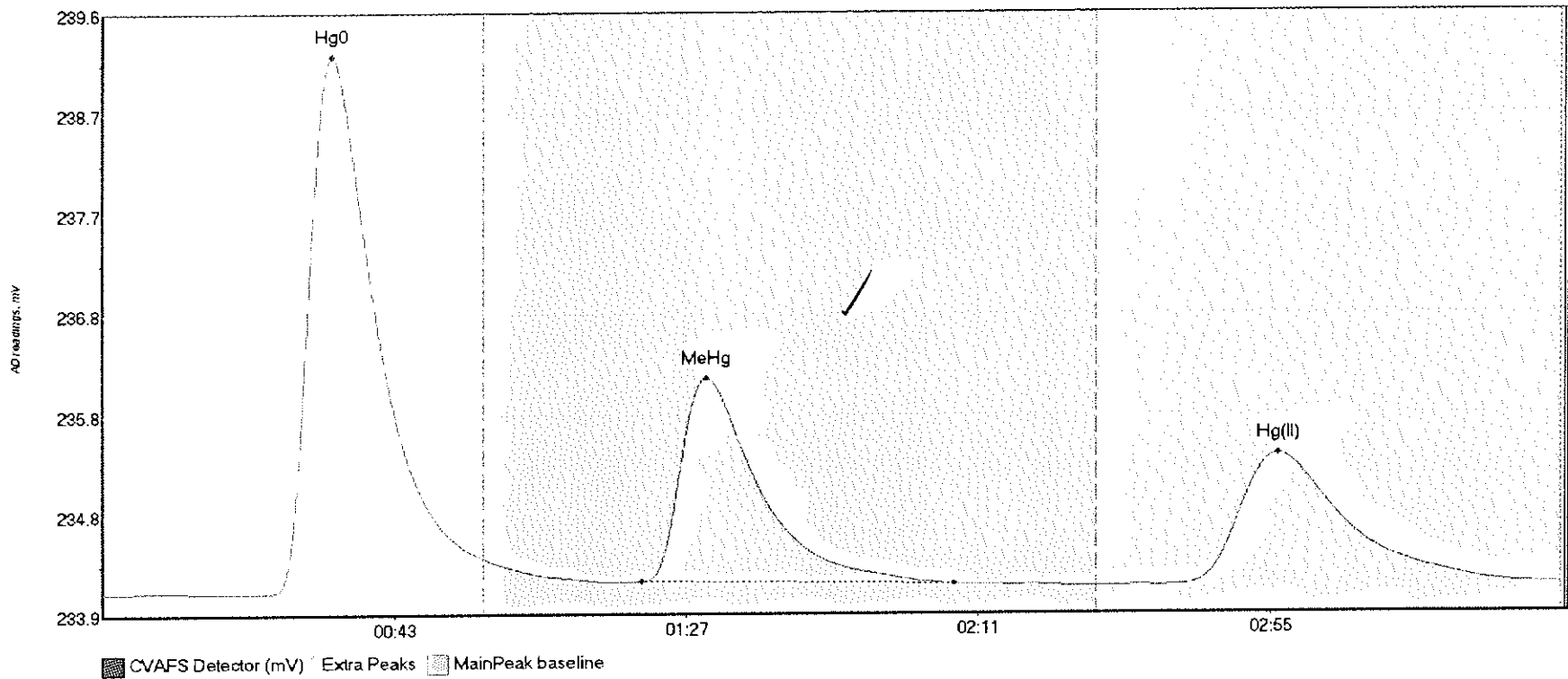
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BS1 Hg0	235.197	21.1	57.5	234.08	234.23	34.3	2.128	CT	234.0835	0.00	0.06	
F610422-BS1 MeH	950.969	80.8	129.7	234.14	234.21	91.3	7.064	OK	234.0835	0.00	0.06	
F610422-BS1 Hg(	209.403	162.3	218.7	234.14	234.14	177.2	1.133	OK	234.0835	0.00	0.06	

#32: F610422-BSD1



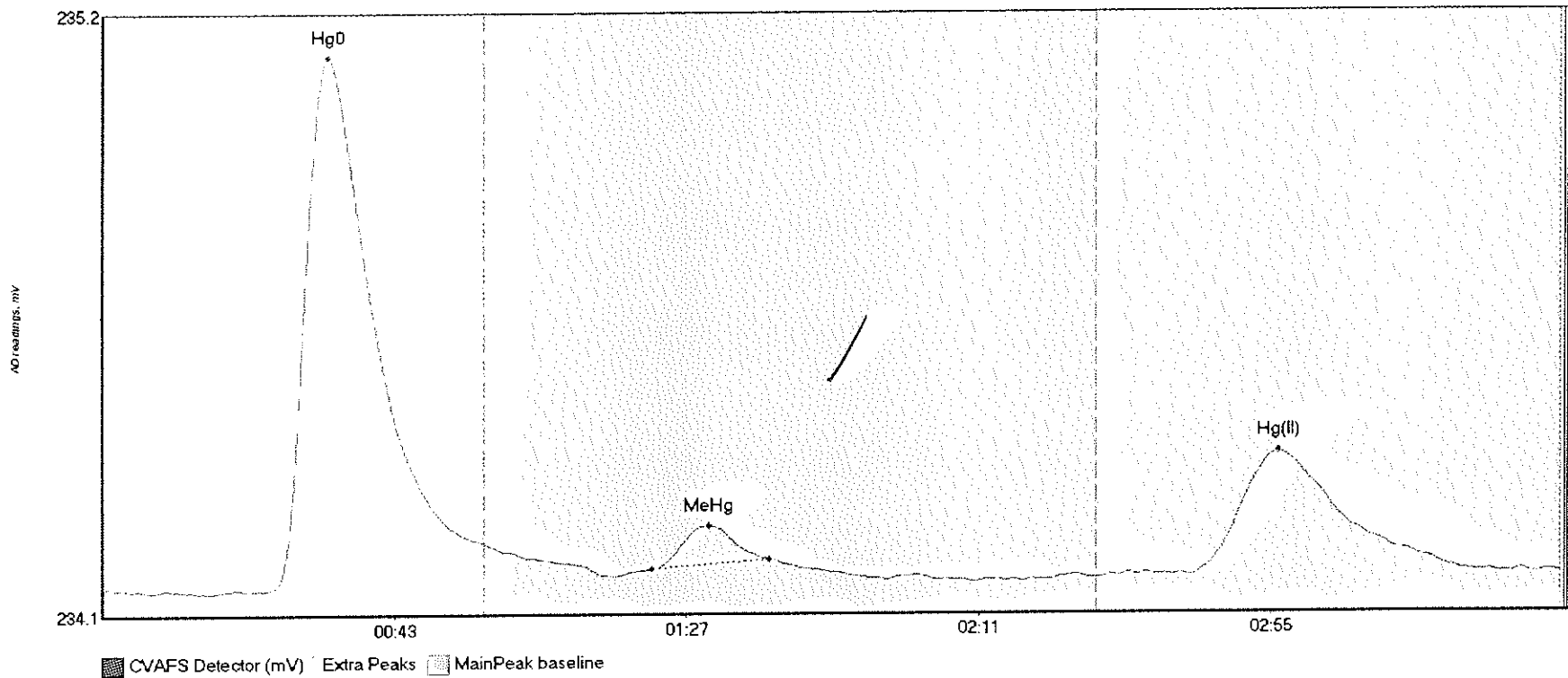
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BSD1 Hg	234.254	8.4	57.5	234.09	234.25	34.1	2.167	CT	234.0900	0.00	0.06	
F610422-BSD1 Me	948.444	80.7	133.2	234.14	234.18	91.0	6.992	OK	234.0900	0.00	0.06	
F610422-BSD1 Hg	215.642	161.5	215.6	234.15	234.14	177.2	1.168	OK	234.0900	0.00	0.06	

#33: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	572.688	24.6	57.5	234.09	234.42	34.6	5.145	CT	234.0940	0.00	0.07	
SEQ-CCV2 MeHg	266.448	81.3	128.5	234.19	234.16	91.0	1.957	OK	234.0940	0.00	0.07	
SEQ-CCV2 Hg(II)	230.305	162.2	217.1	234.15	234.16	177.2	1.258	OK	234.0940	0.00	0.07	

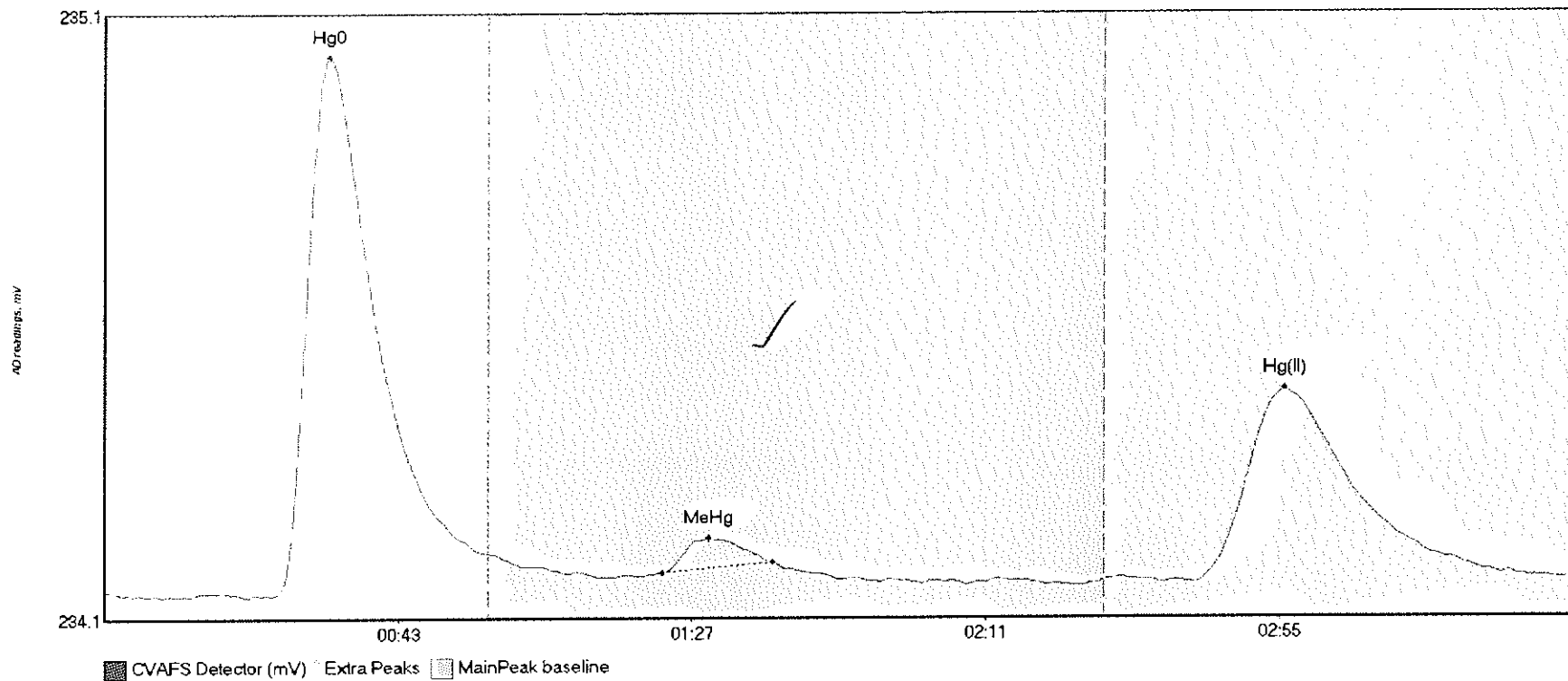
#34: SEQ-CCB2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	ElShift	Comment
SEQ-CCB2 Hg0	115.847	25.1	57.5	234.10	234.19	34.0	1.044	CT	234.1059	0.00	0.03	
SEQ-CCB2 MeHg	6.583	82.9	100.5	234.14	234.16	91.5	0.086	OK	234.1059	0.00	0.03	
SEQ-CCB2 Hg(II)	42.711	163.9	216.2	234.13	234.13	177.2	0.241	OK	234.1059	0.00	0.03	

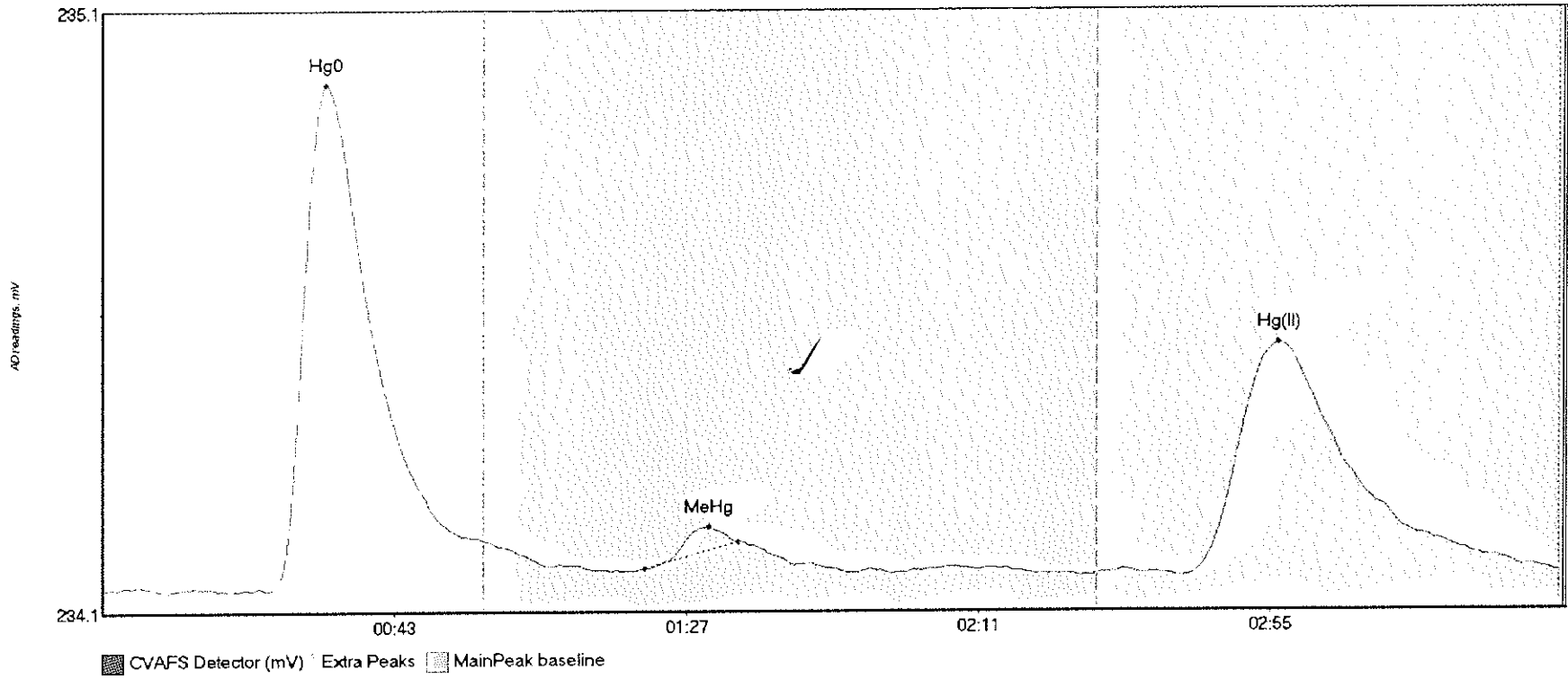


#35: F610422-BLK1



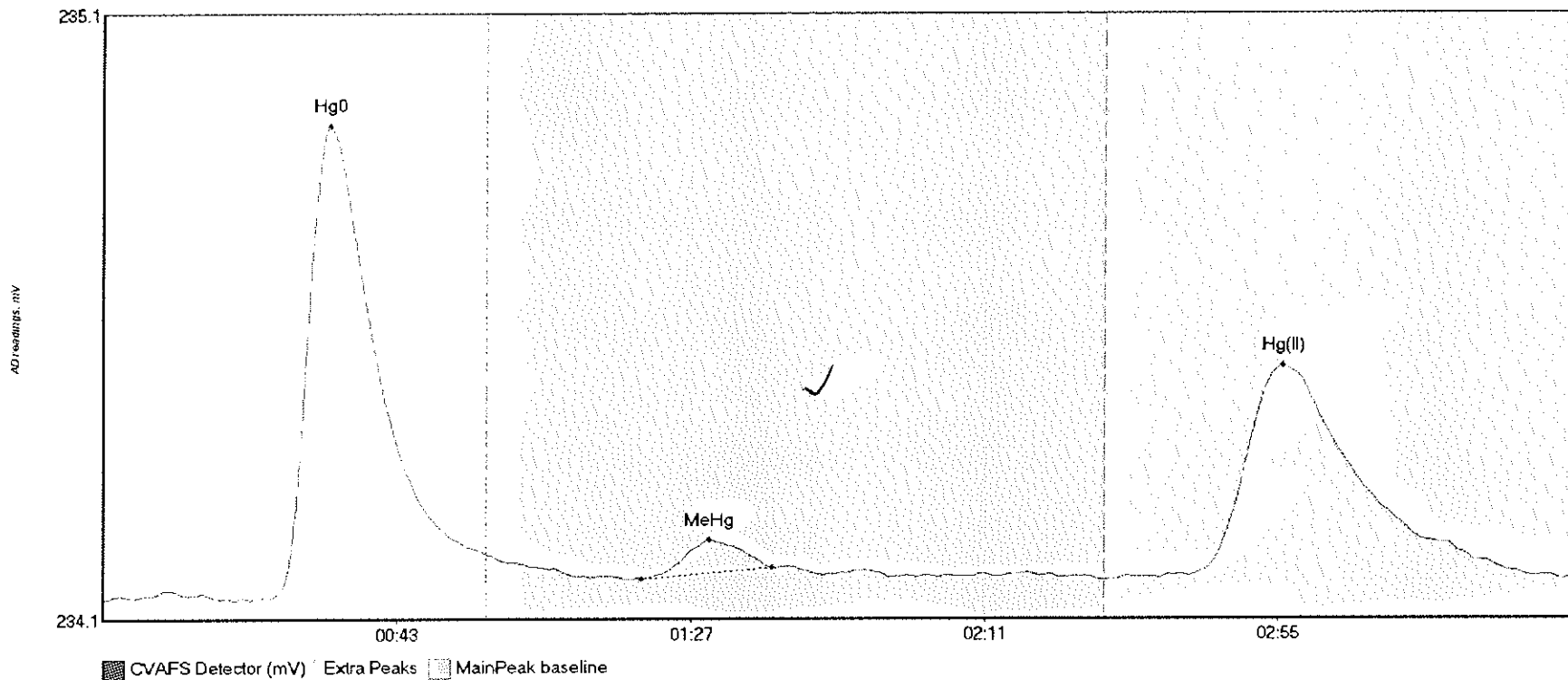
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK1 Hg	105.821	25.1	57.5	234.10	234.17	33.7	0.948	CT	234.1054	0.00	0.02	
F610422-BLK1 Me	5.095	83.6	100.2	234.14	234.16	90.6	0.061	OK	234.1054	0.00	0.02	
F610422-BLK1 Hg	61.347	163.6	213.7	234.12	234.13	176.8	0.340	OK	234.1054	0.00	0.02	

#36: F610422-BLK2



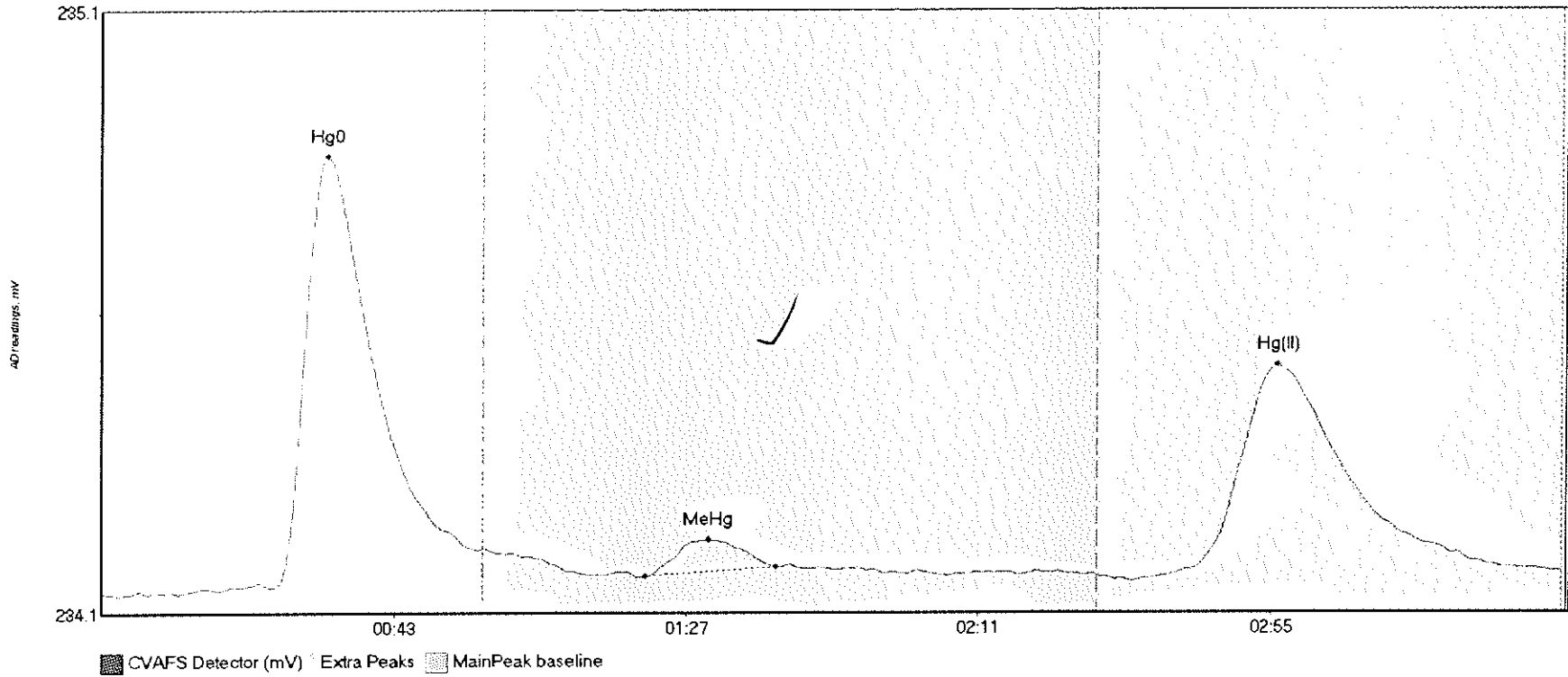
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK2 Hg	93.476	25.0	57.5	234.09	234.17	33.7	0.842	CT	234.0941	0.00	0.03	
F610422-BLK2 Me	2.572	81.7	95.9	234.13	234.17	91.4	0.070	OK	234.0941	0.00	0.03	
F610422-BLK2 Hg	73.602	163.9	219.8	234.12	234.12	177.3	0.385	CT	234.0941	0.00	0.03	

#37: F610422-BLK3



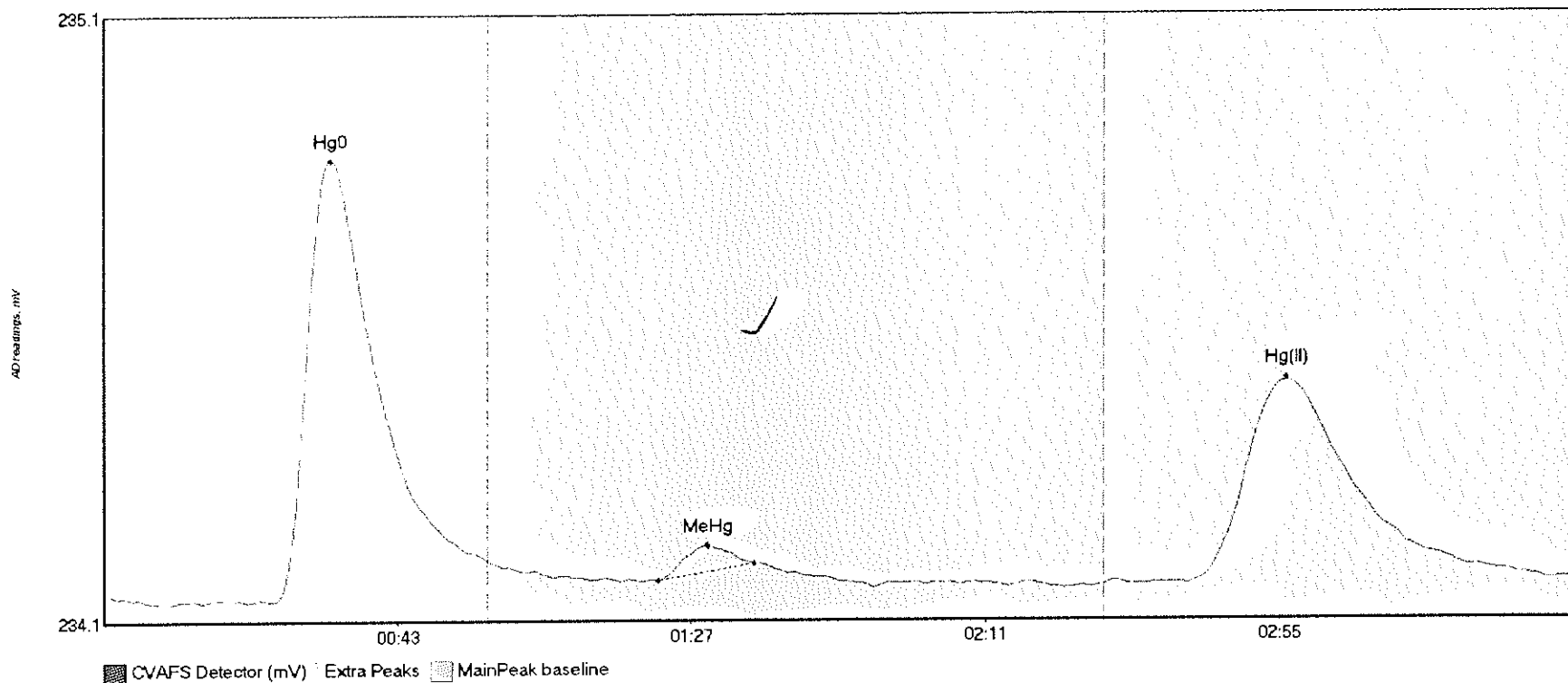
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK3 Hg	86.845	24.8	57.5	234.10	234.17	34.0	0.780	CT	234.1000	0.00	0.04	
F610422-BLK3 Me	5.195	80.6	100.2	234.13	234.15	90.7	0.065	OK	234.1000	0.00	0.04	
F610422-BLK3 Hg	67.241	150.2	214.3	234.13	234.14	176.8	0.351	OK	234.1000	0.00	0.04	

#38: \*F610422-BLK4



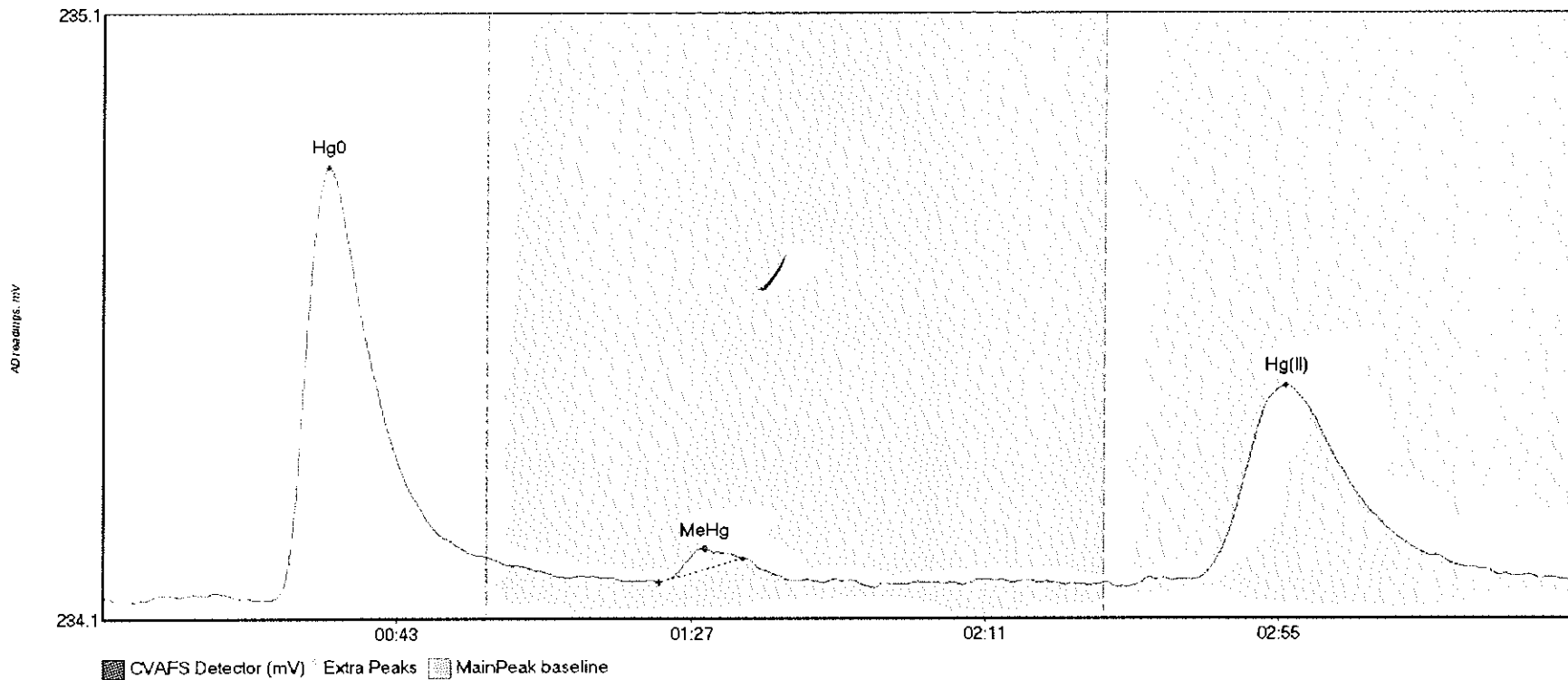
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK4 H	78.682	17.6	56.6	234.10	234.17	34.0	0.721	OK	234.0992	0.00	0.04	
*F610422-BLK4 M	6.022	81.9	101.4	234.13	234.14	91.3	0.061	OK	234.0992	0.00	0.04	
*F610422-BLK4 H	64.284	160.1	219.7	234.13	234.14	177.0	0.349	OK	234.0992	0.00	0.04	

#39: \*F610422-BLK5



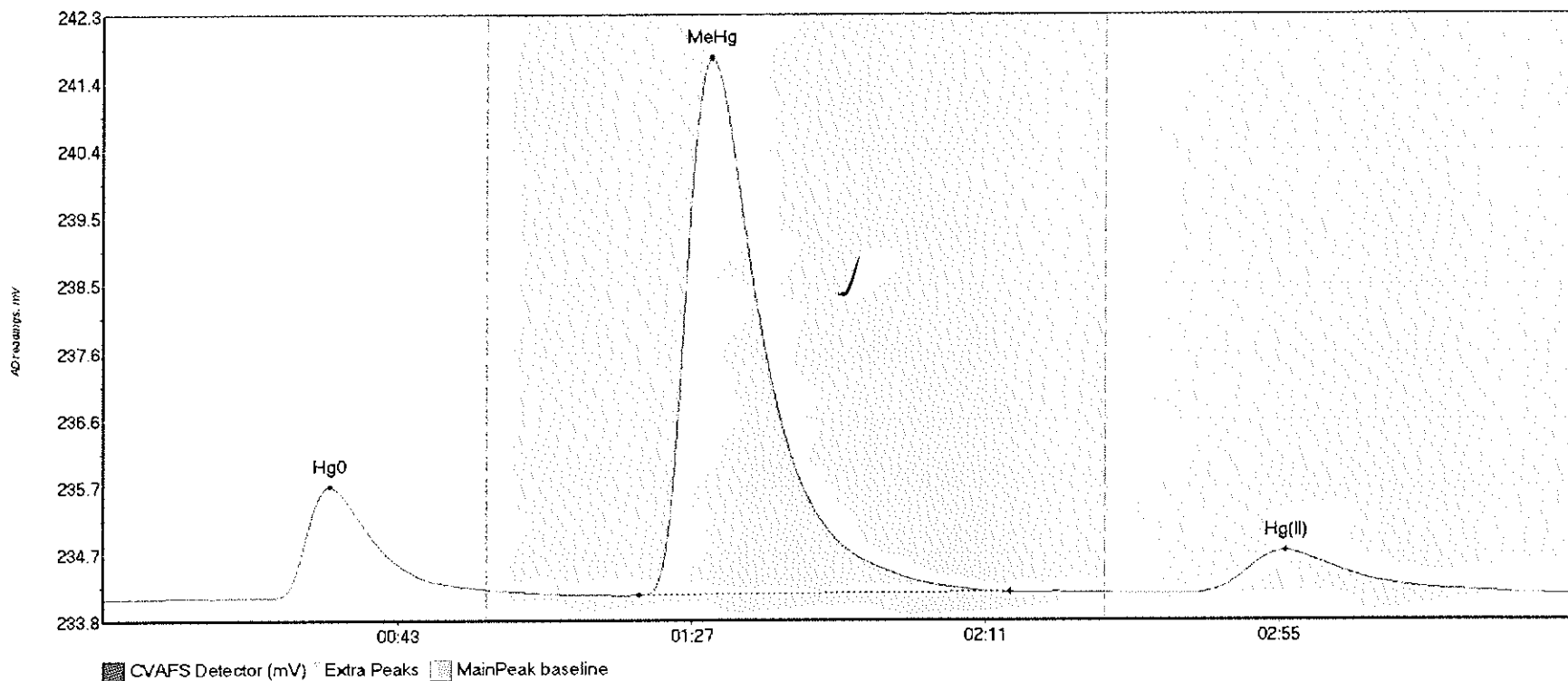
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK5 H	82.807	25.6	57.5	234.11	234.17	34.0	0.730	CF	234.1180	0.00	0.02	
*F610422-BLK5 M	3.364	83.1	97.5	234.14	234.17	90.6	0.058	OK	234.1180	0.00	0.02	
*F610422-BLK5 H	62.514	162.3	216.4	234.13	234.14	177.0	0.335	OK	234.1180	0.00	0.02	

#40: \*F610422-BLK6



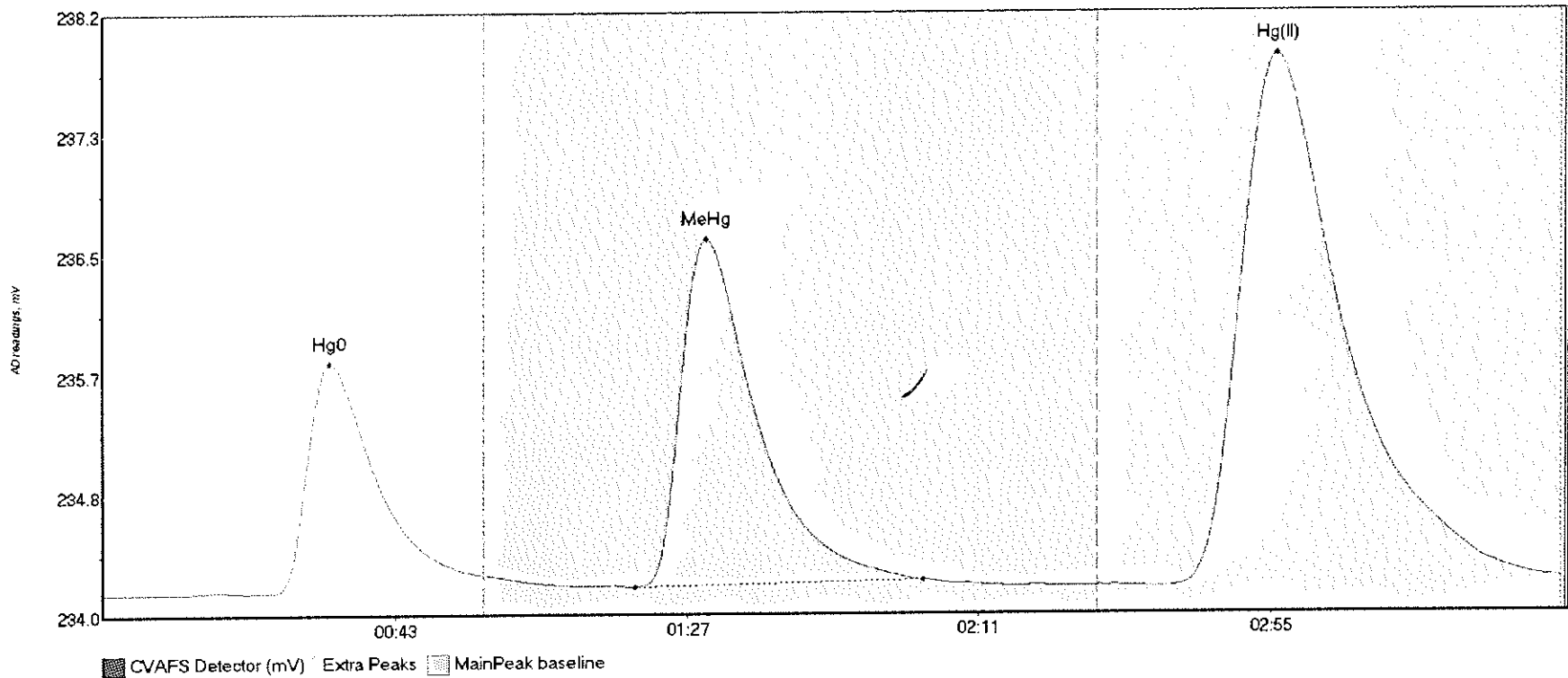
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
*F610422-BLK6 H	79.942	24.9	57.5	234.11	234.18	33.7	0.715	CT	234.1155	0.00	0.03	
*F610422-BLK6 M	2.102	83.1	95.8	234.14	234.18	90.0	0.057	OK	234.1155	0.00	0.03	
*F610422-BLK6 H	59.289	160.4	219.8	234.14	234.14	177.1	0.322	CT	234.1155	0.00	0.03	

#41: F610422-DUP1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-DUP1 Hg	170.853	4.5	57.5	234.10	234.23	33.8	1.586	CT	234.1032	0.00	0.06	
F610422-DUP1 Me	1027.946	80.2	135.8	234.16	234.19	90.9	7.554	OK	234.1032	0.00	0.06	
F610422-DUP1 Hg	108.452	162.3	212.6	234.17	234.17	177.1	0.597	OK	234.1032	0.00	0.06	

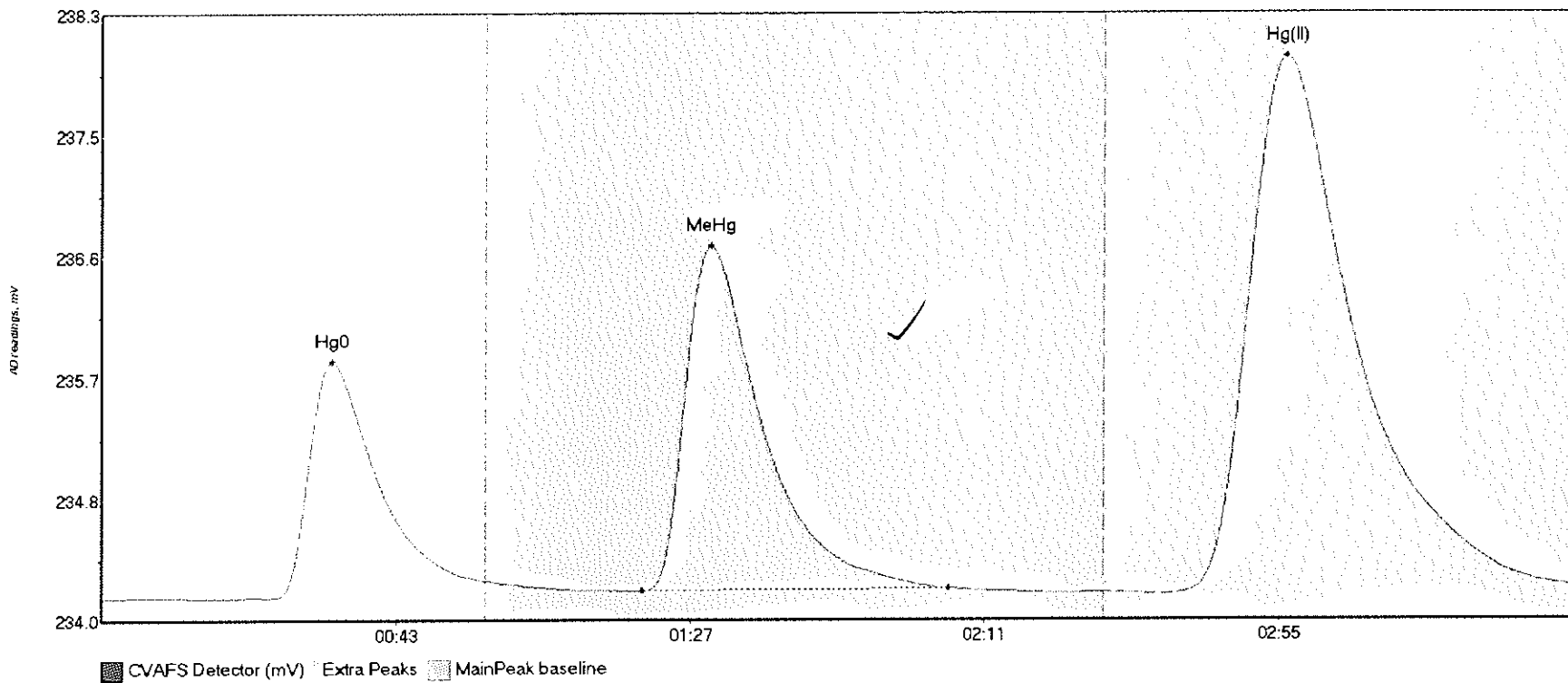
#42: F610422-MS1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MS1 Hg0	179.733	21.8	57.5	234.12	234.25	34.2	1.618	CT	234.1208	0.00	0.09	
F610422-MS1 MeH	321.919	80.2	123.8	234.16	234.21	90.9	2.440	OK	234.1208	0.00	0.09	
F610422-MS1 Hg(I)	680.888	160.1	219.8	234.16	234.21	177.0	3.728	CT	234.1208	0.00	0.09	

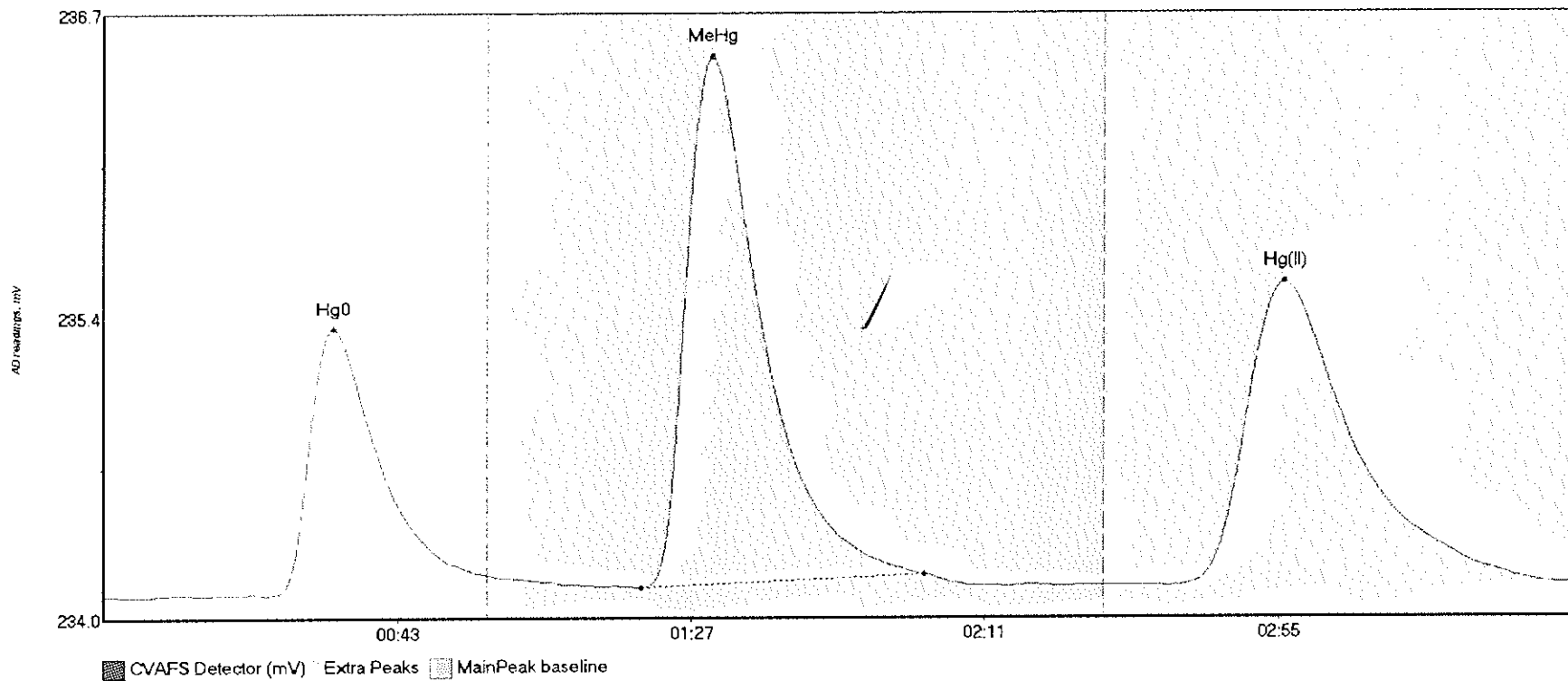


#43: F610422-MSD1



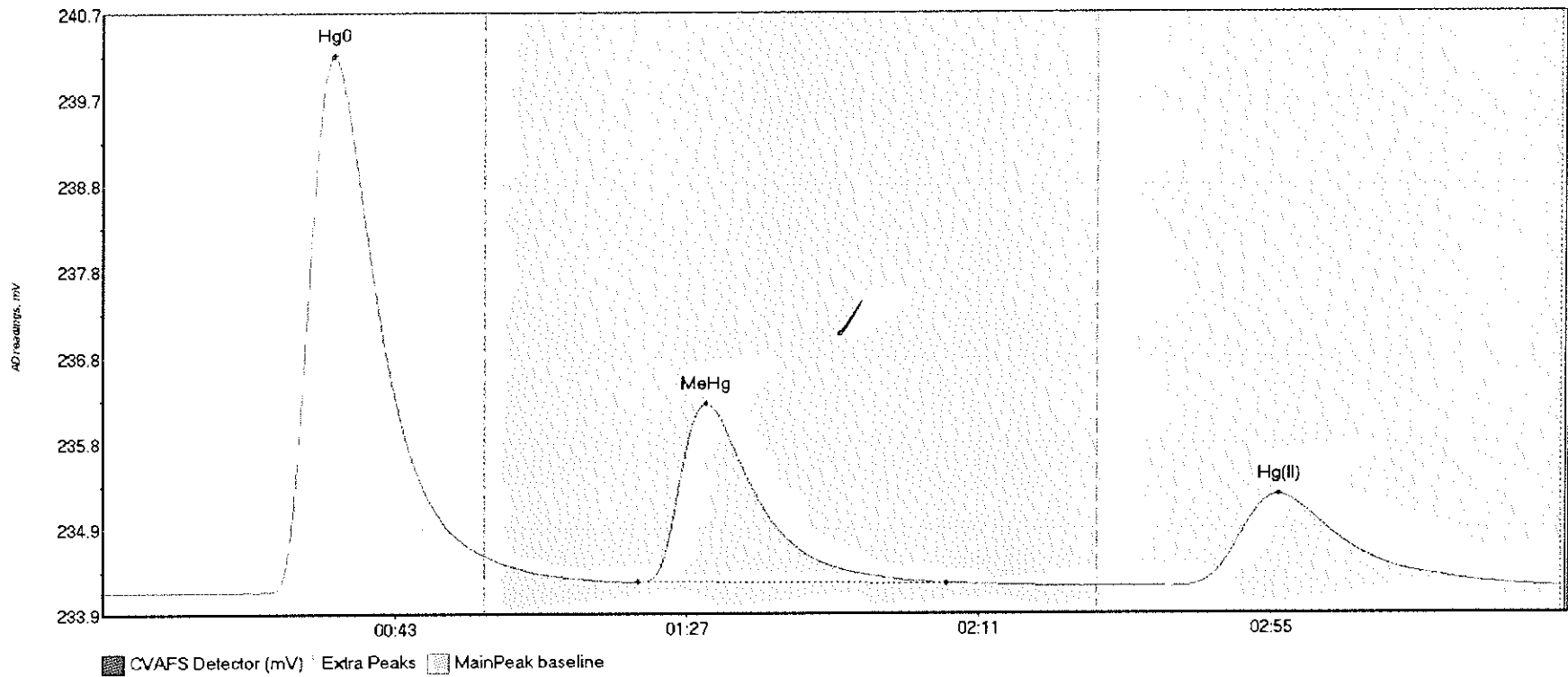
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MSD1 Hg	188.927	24.9	57.5	234.13	234.26	34.4	1.699	CT	234.1291	0.00	0.09	
F610422-MSD1 Me	331.254	80.9	126.8	234.18	234.20	91.0	2.484	OK	234.1291	0.00	0.09	
F610422-MSD1 Hg	706.162	159.7	219.8	234.16	234.22	177.0	3.862	CT	234.1291	0.00	0.09	

#44: F610422-MS2



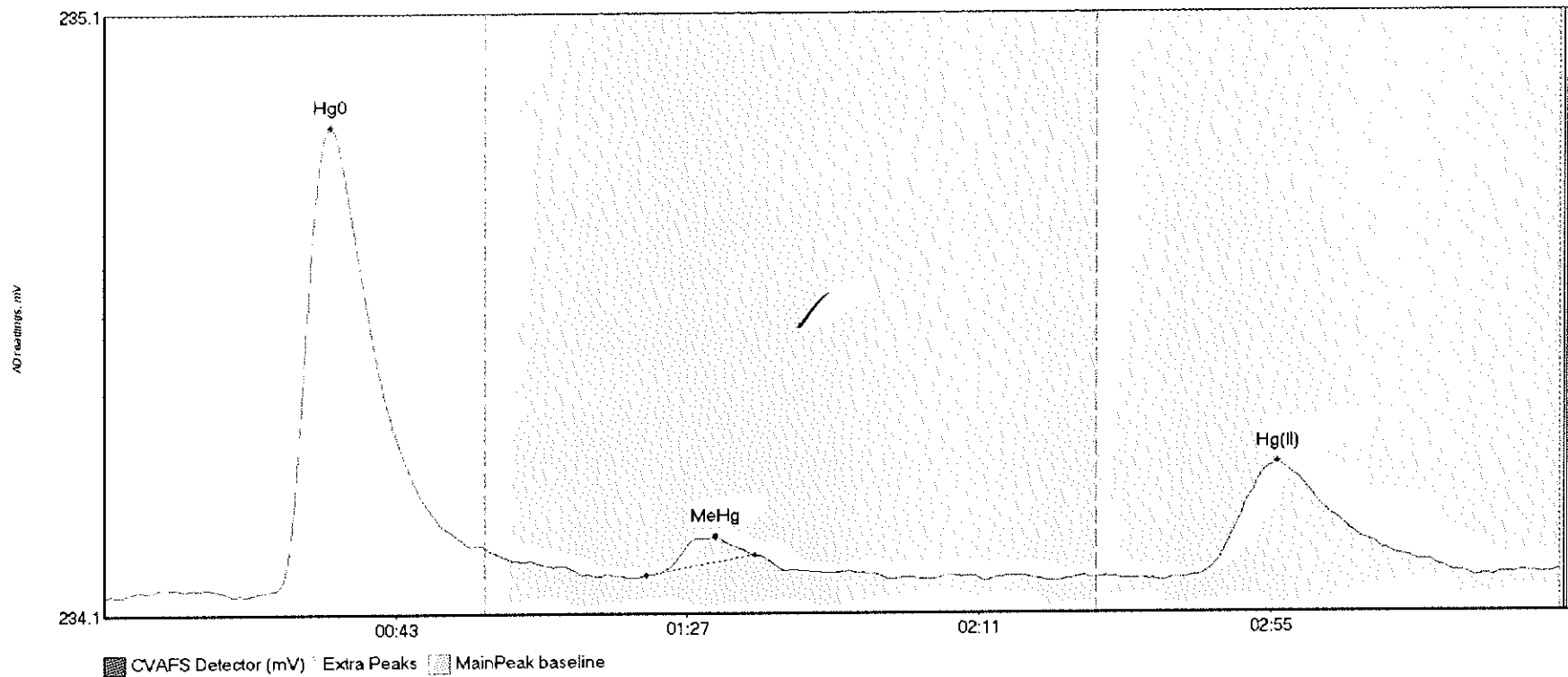
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
F610422-MS2 Hg0	133.663	25.5	57.5	234.13	234.22	34.4	1.181	CT	234.1290	0.00	0.05	
F610422-MS2 MeH	306.318	80.6	123.0	234.16	234.22	91.1	2.355	OK	234.1290	0.00	0.05	
F610422-MS2 Hg(	249.553	159.9	219.0	234.17	234.18	176.9	1.347	OK	234.1290	0.00	0.05	

#45: SEQ-CCV3



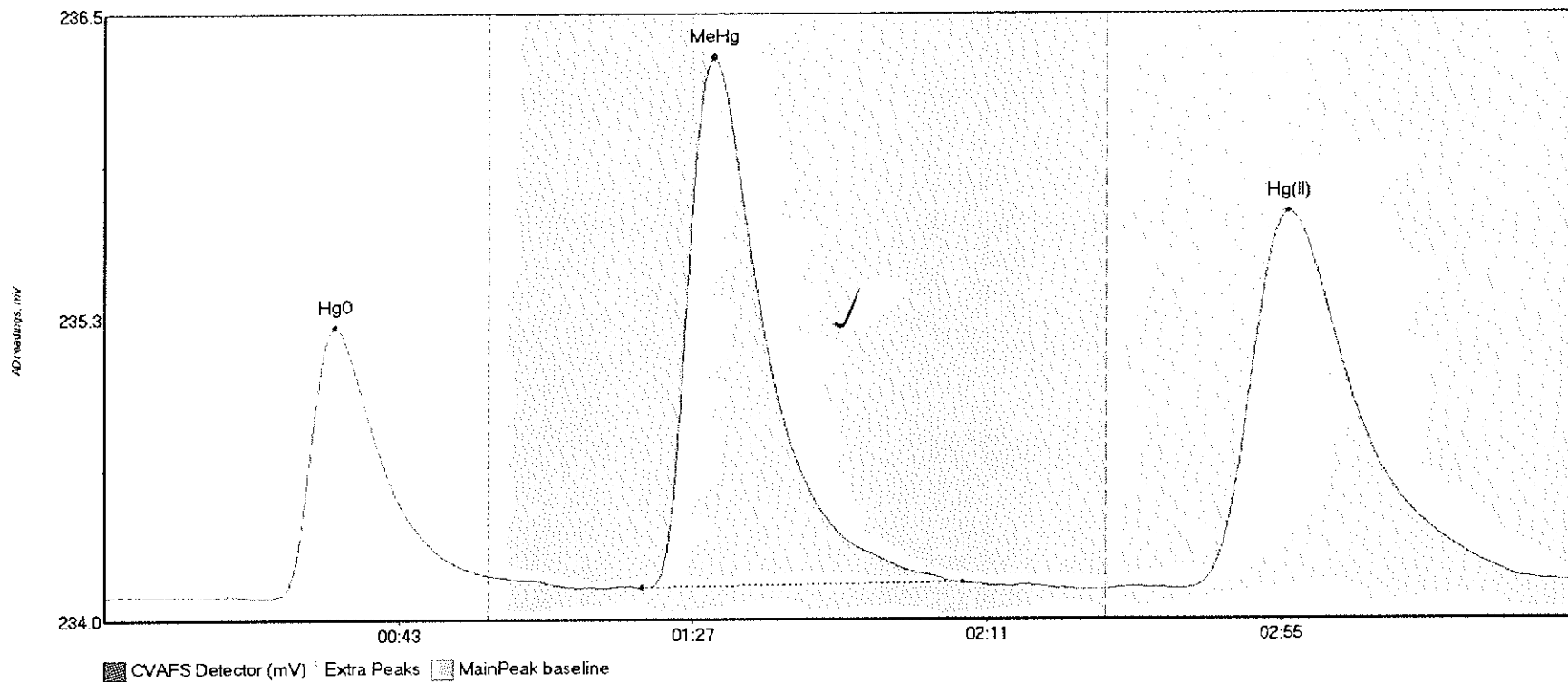
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV3 Hg0	707.611	24.3	57.5	234.13	234.54	34.8	6.098	CT	234.1275	0.00	0.06	
SEQ-CCV3 MeHg	273.241	80.8	127.1	234.24	234.22	90.9	2.036	OK	234.1275	0.00	0.06	
SEQ-CCV3 Hg(II)	192.960	163.3	218.6	234.19	234.18	177.2	1.041	OK	234.1275	0.00	0.06	

#46: SEQ-CCB3



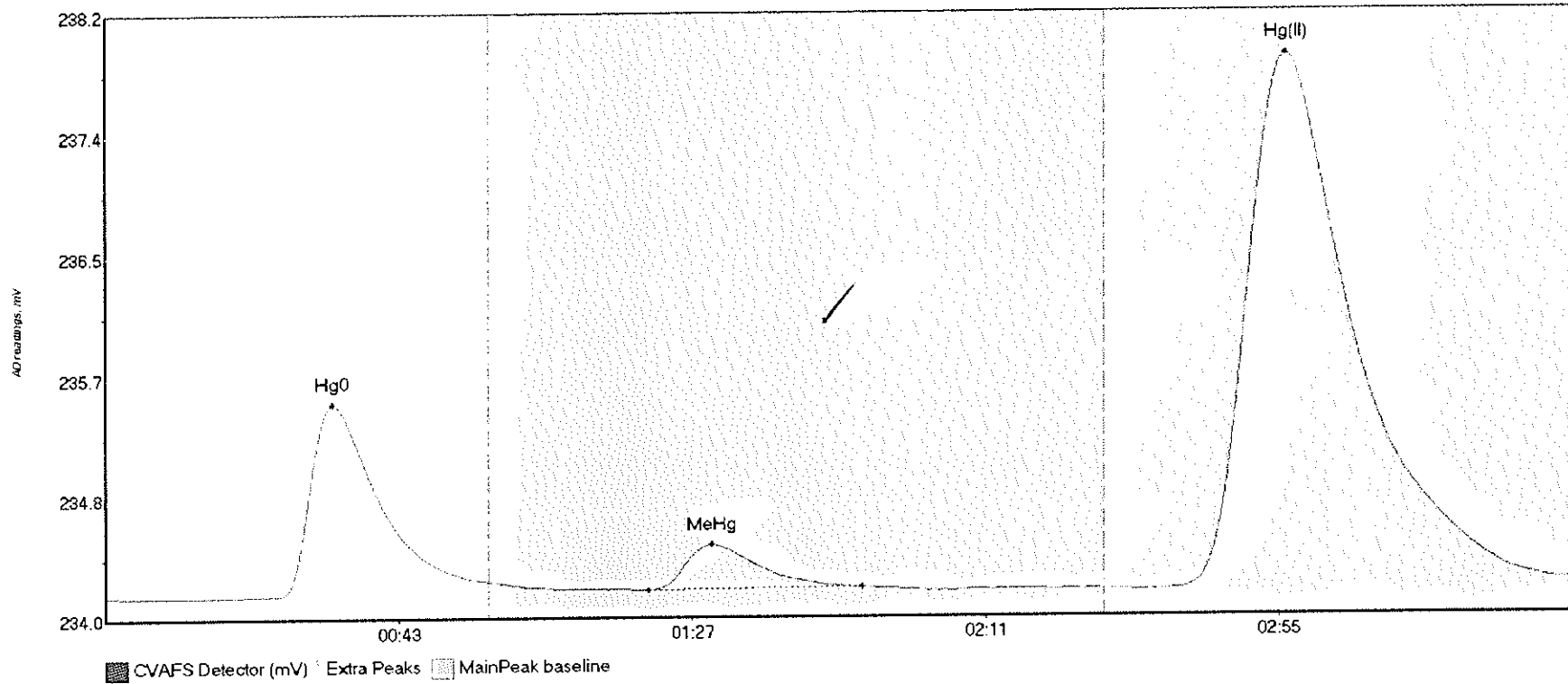
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB3 Hg0	86.205	23.5	57.5	234.13	234.21	34.1	0.775	CT	234.1294	0.00	0.04	
SEQ-CCB3 MeHg	3.632	81.9	98.2	234.16	234.19	92.3	0.064	OK	234.1294	0.00	0.04	
SEQ-CCB3 Hg(II)	32.444	164.9	207.2	234.16	234.16	177.0	0.189	OK	234.1294	0.00	0.04	

#47: F610422-MSD2



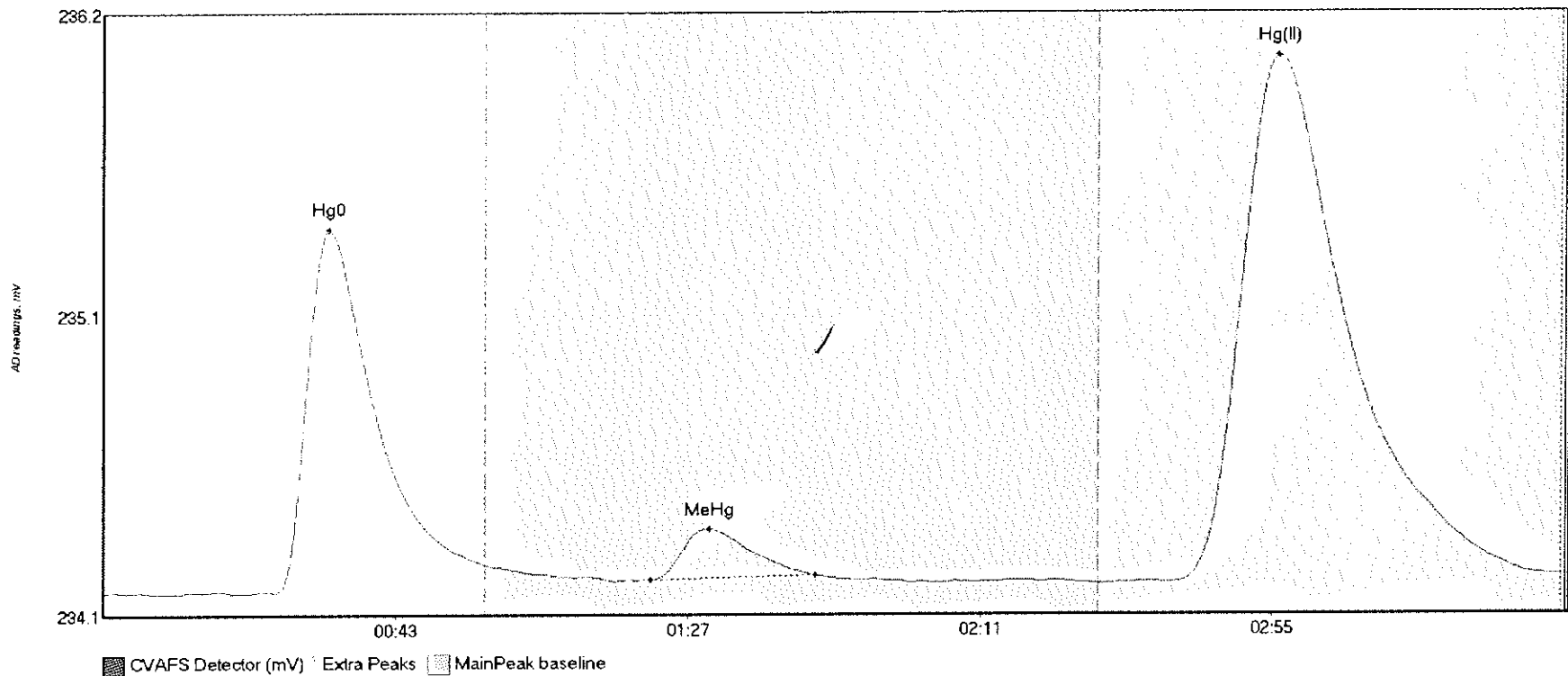
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-MSD2 Hg	123.759	24.8	57.5	234.13	234.22	34.6	1.097	CT	234.1349	0.00	0.06	
F610422-MSD2 Me	288.153	80.5	128.5	234.17	234.19	91.1	2.147	OK	234.1349	0.00	0.06	
F610422-MSD2 Hg	277.949	162.0	219.5	234.17	234.20	177.1	1.525	OK	234.1349	0.00	0.06	

#48: 1610231-01



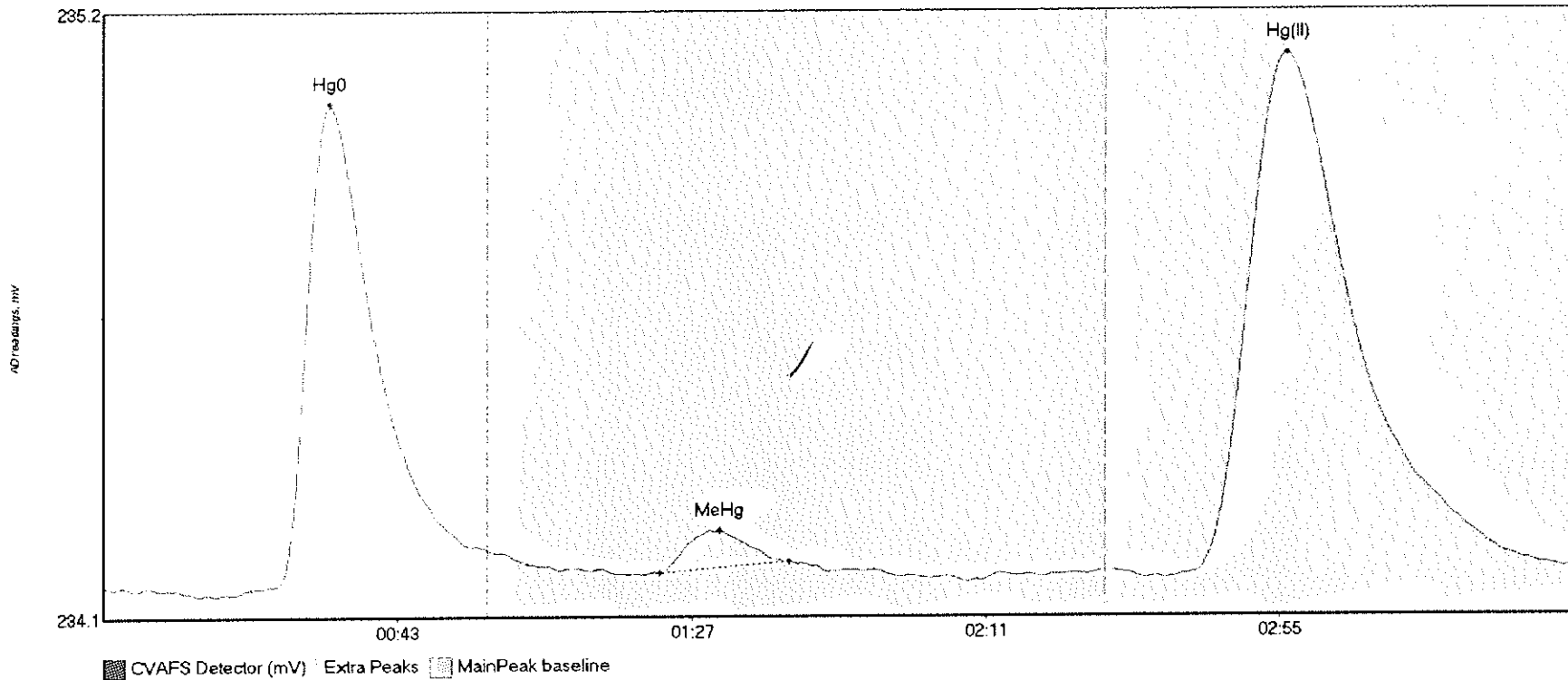
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-01 Hg0	150.386	25.8	57.5	234.15	234.24	34.2	1.344	CP	234.1458	0.00	0.09	
1610231-01 MeHg	38.831	81.4	113.4	234.18	234.19	91.0	0.319	OK	234.1458	0.00	0.09	
1610231-01 Hg(I)	682.775	159.4	218.9	234.17	234.23	177.0	3.743	OK	234.1458	0.00	0.09	

#49: 1610231-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610231-02 Hg0	141.831	25.9	57.5	234.15	234.24	34.0	1.267	CT	234.1466	0.00	0.06	
1610231-02 MeHg	20.463	82.5	107.3	234.19	234.21	91.3	0.179	OK	234.1466	0.00	0.06	
1610231-02 Hg(I)	336.017	160.5	219.8	234.18	234.20	177.1	1.840	CT	234.1466	0.00	0.06	

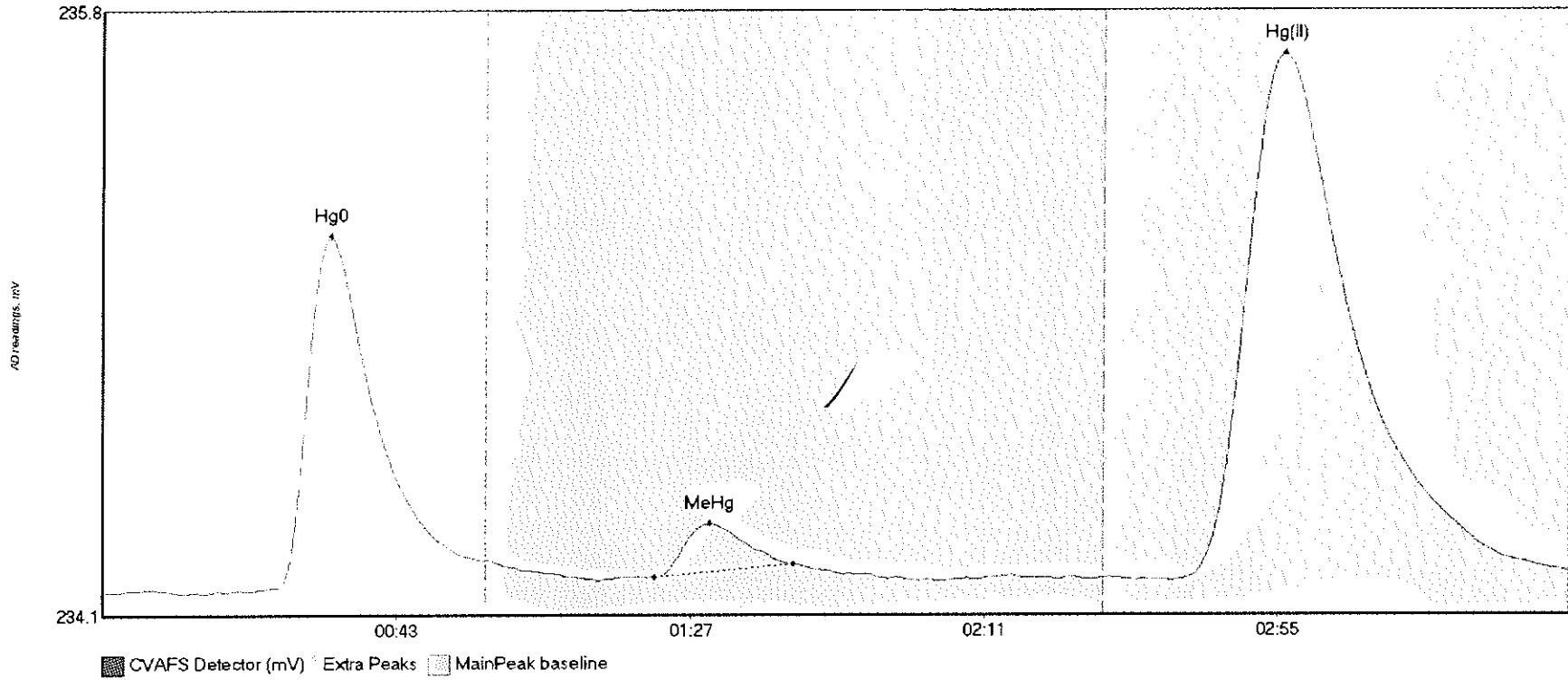
#50: 1610231-03



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	ElShift	Comment
1610231-03 Hg0	97.793	25.2	57.5	234.16	234.22	33.9	0.874	CT	234.1552	0.00	0.03	
1610231-03 MeHg	7.194	83.2	102.6	234.18	234.20	92.1	0.078	OK	234.1552	0.00	0.03	
1610231-03 Hg(I)	172.159	163.2	218.6	234.18	234.19	177.1	0.941	OK	234.1552	0.00	0.03	

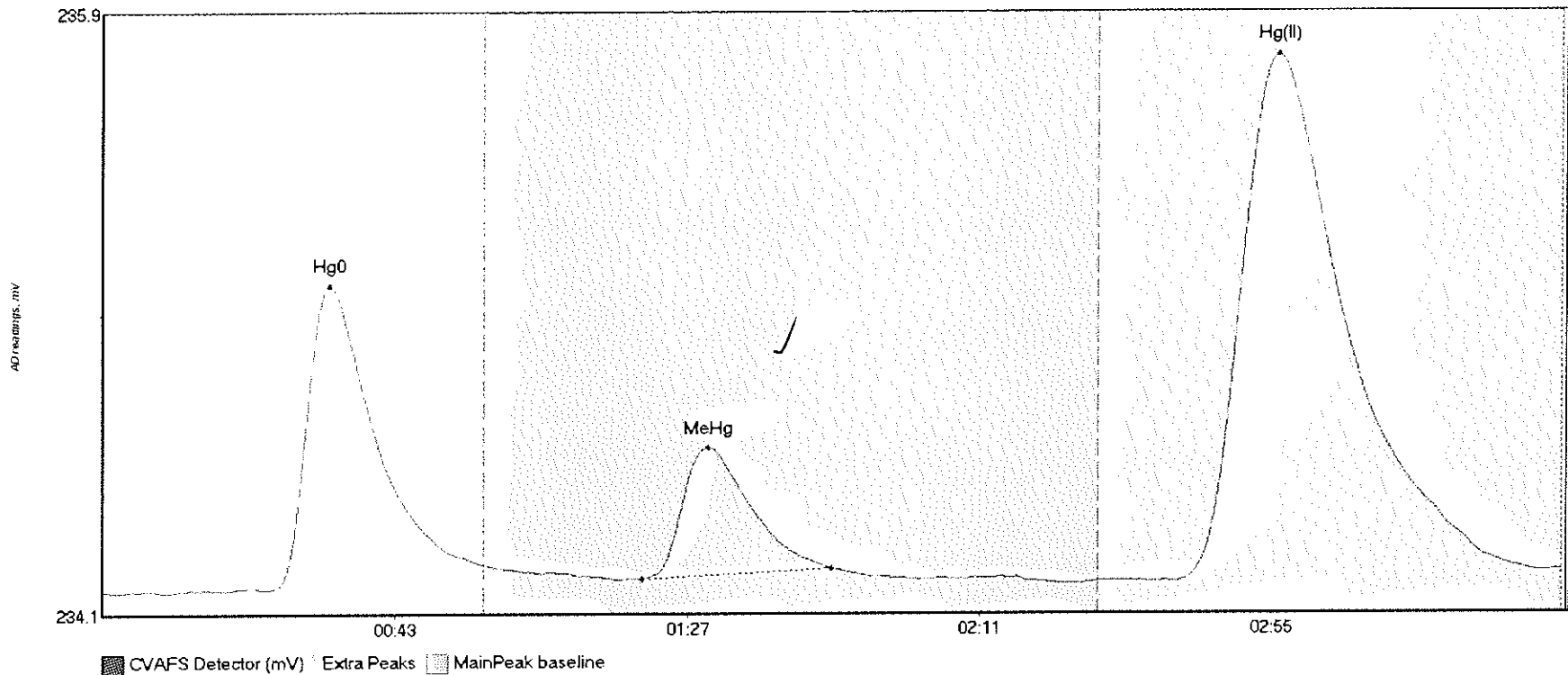


#51: 1610231-04



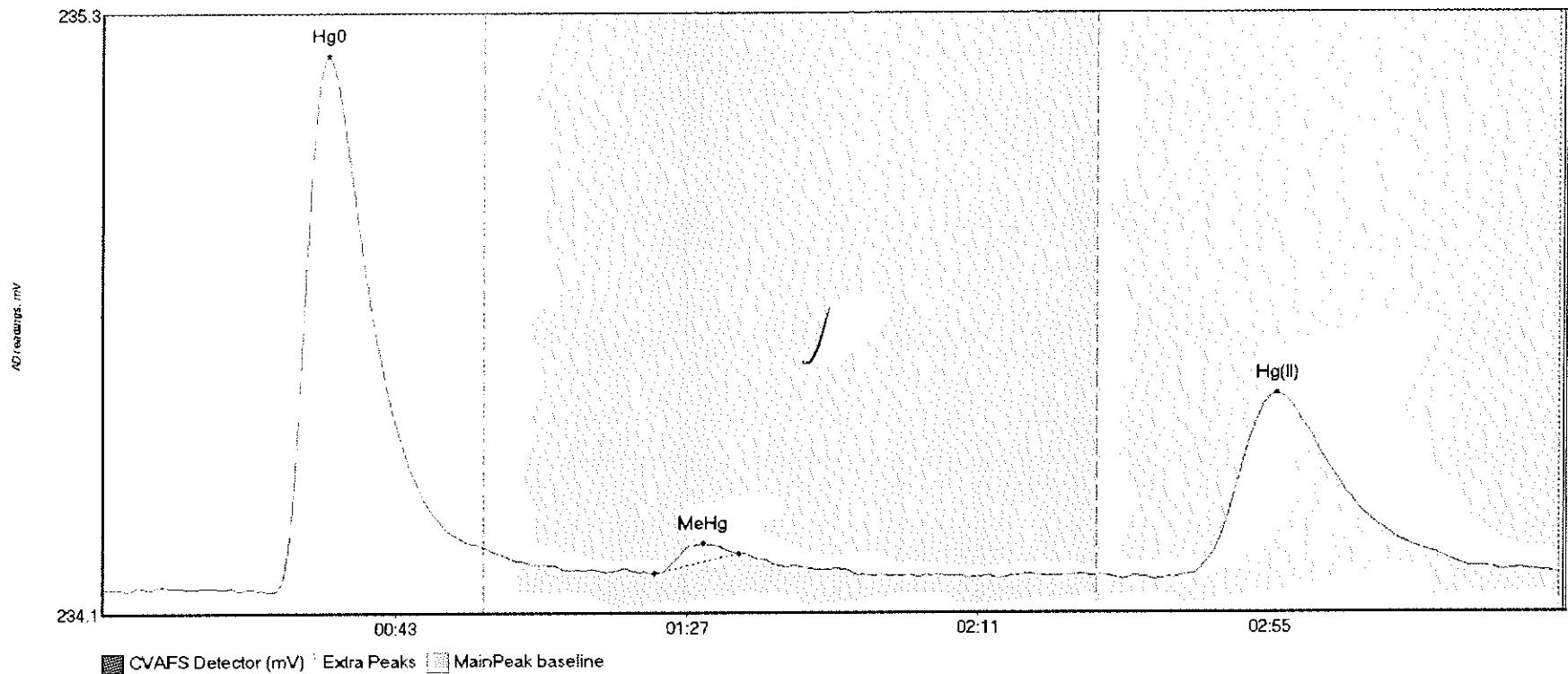
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-04 Hg0	109.890	22.2	57.0	234.15	234.24	34.1	1.008	OK	234.1448	0.00	0.06	
1610231-04 MeHg	13.972	82.6	163.4	234.19	234.22	90.9	0.152	OK	234.1448	0.00	0.06	
1610231-04 Hg(I)	274.692	160.1	219.8	234.18	234.20	177.0	1.495	CT	234.1448	0.00	0.06	

#52: 1610231-05



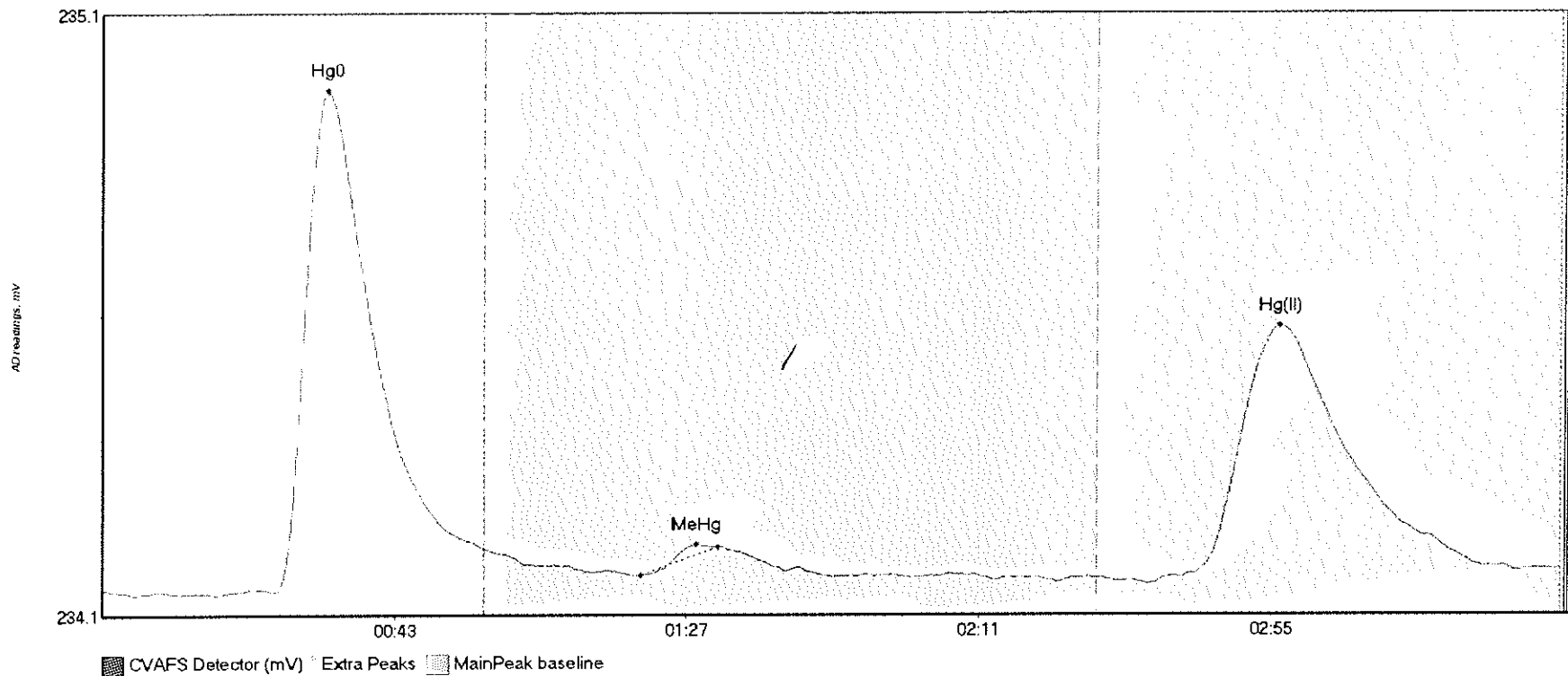
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1610231-05 Hg0	103.699	19.4	57.5	234.16	234.23	34.1	0.931	CT	234.1531	0.00	0.06	
1610231-05 MeHg	46.119	81.2	109.9	234.19	234.22	91.1	0.401	OK	234.1531	0.00	0.06	
1610231-05 Hg(I	293.126	161.5	216.5	234.18	234.21	177.2	1.605	OK	234.1531	0.00	0.06	

#53: 1610235-01



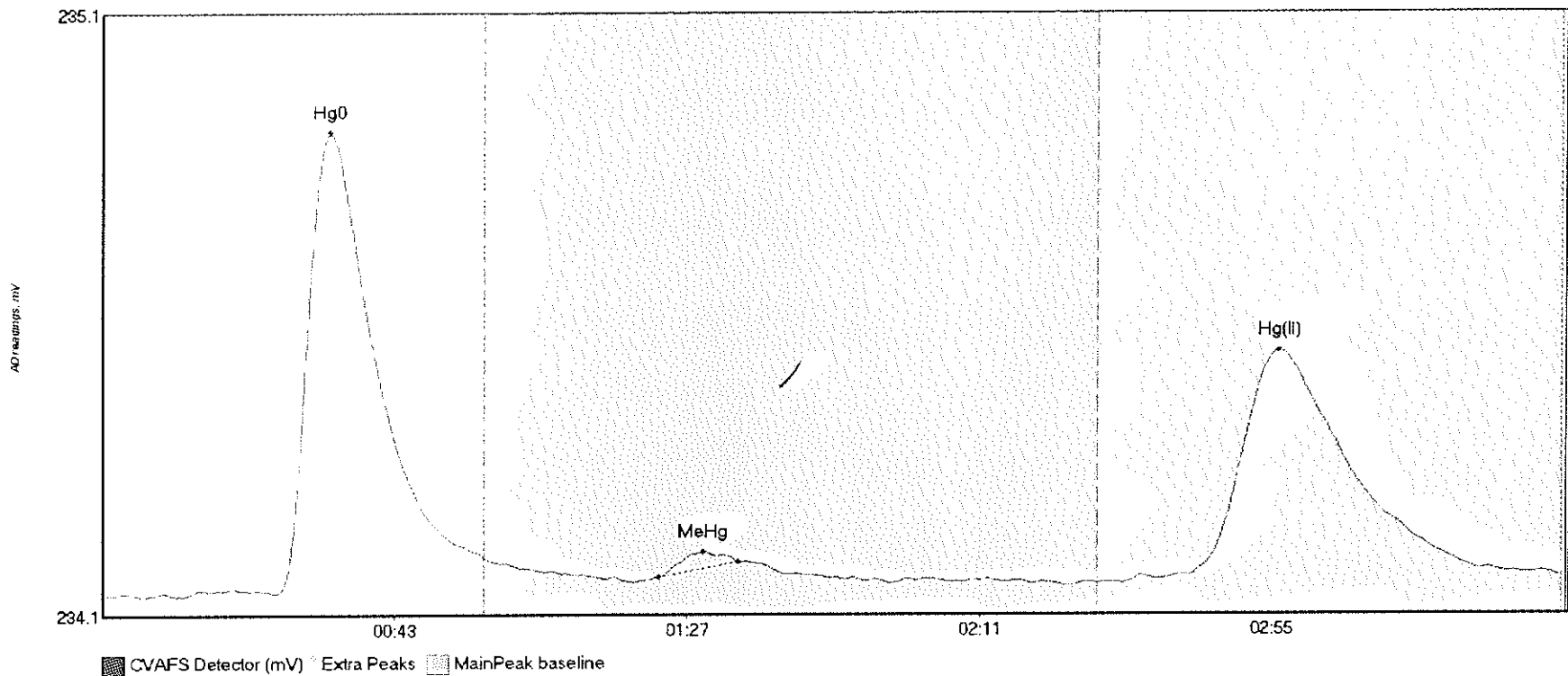
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-01 Hg0	121.856	25.0	57.5	234.16	234.25	33.8	1.095	CT	234.1658	0.00	0.03	
1610235-01 MeHg	2.714	83.1	95.9	234.20	234.24	90.5	0.062	OK	234.1658	0.00	0.03	
1610235-01 Hg(I)	67.327	164.3	219.8	234.20	234.20	177.2	0.370	CT	234.1658	0.00	0.03	

#54: 1610235-02



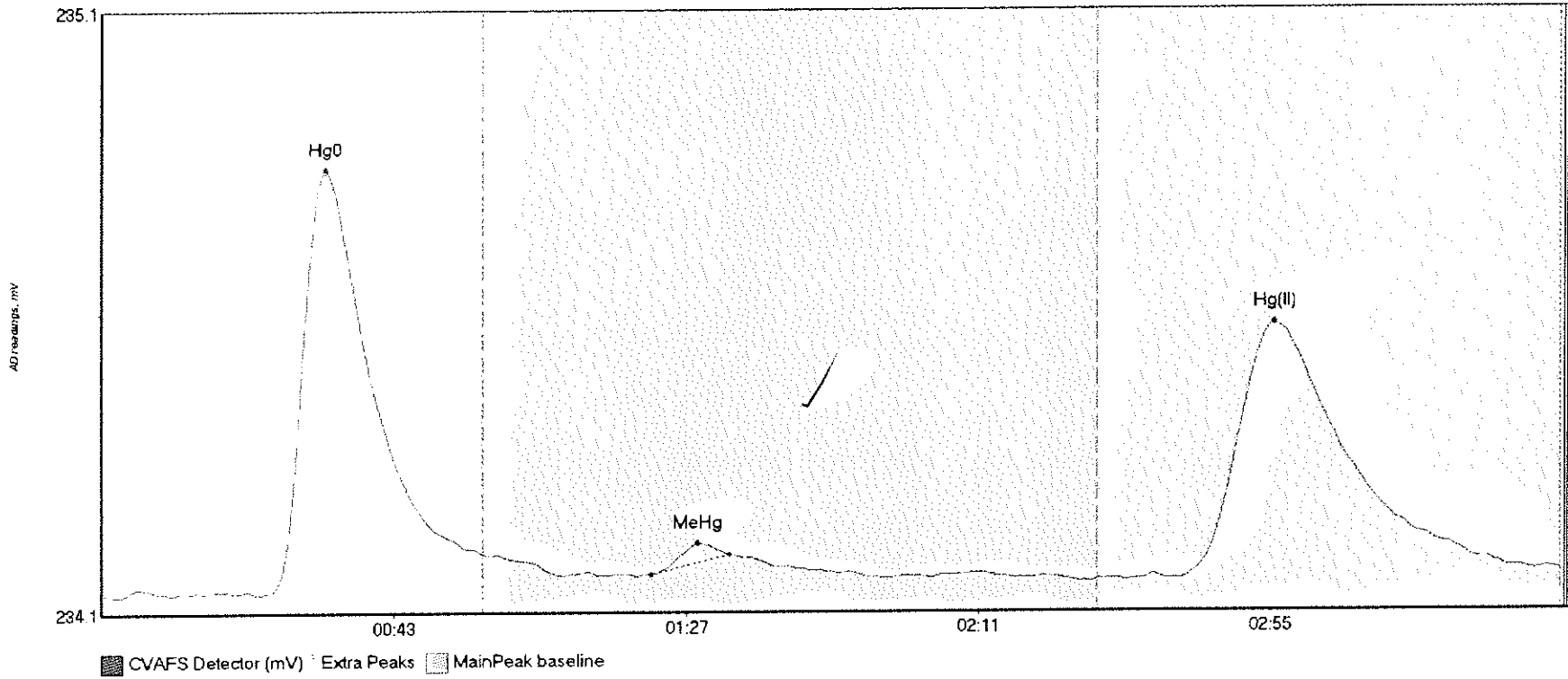
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	B1Dev	B1Shift	Comment
1610235-02 Hg0	92.440	25.9	57.5	234.16	234.23	33.9	0.831	CT	234.1671	0.00	0.03	
1610235-02 MeHg	0.784	81.1	92.7	234.19	234.24	89.6	0.051	OK	234.1671	0.00	0.03	
1610235-02 Hg(I)	76.312	162.4	213.2	234.19	234.20	177.3	0.419	OK	234.1671	0.00	0.03	

#55: 1610235-03



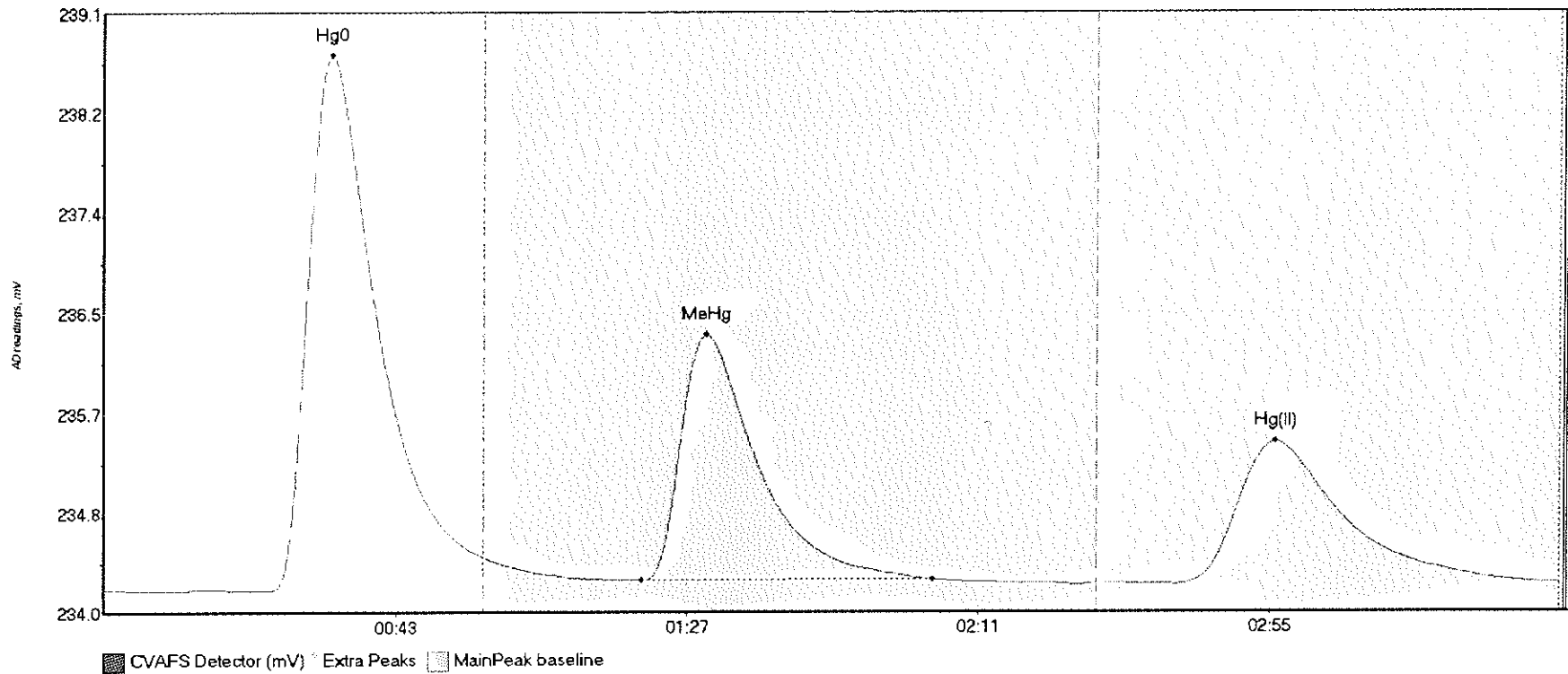
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BlShift	Comment
1610235-03 Hg0	85.368	26.1	57.5	234.16	234.22	34.3	0.765	CT	234.1596	0.00	0.03	
1610235-03 MeHg	2.000	83.8	95.8	234.19	234.21	90.4	0.042	OK	234.1596	0.00	0.03	
1610235-03 Hg(1)	72.797	153.7	219.7	234.18	234.19	177.2	0.386	OK	234.1596	0.00	0.03	

#56: 1610235-04



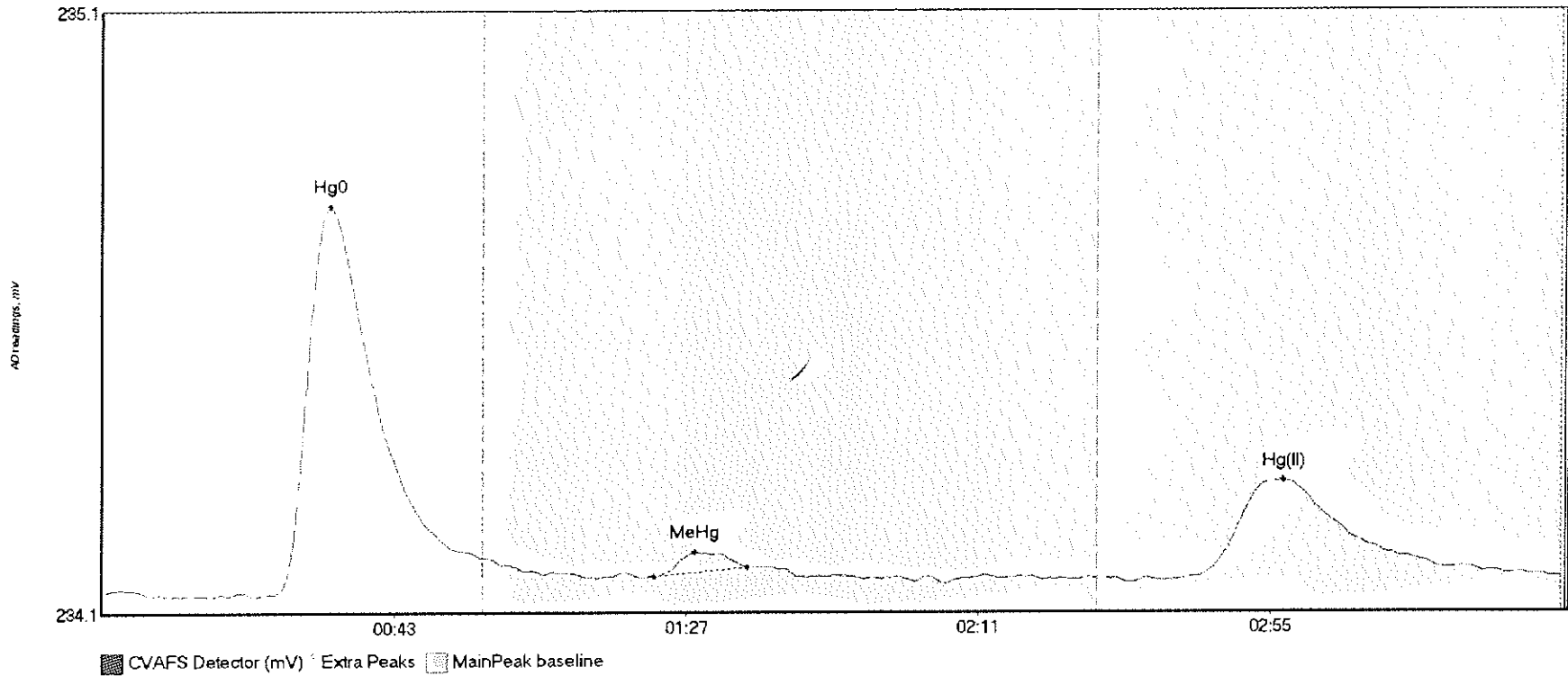
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-04 Hg0	78.443	23.4	57.5	234.16	234.22	33.7	0.705	CT	234.1578	0.00	0.04	
1610235-04 MeHg	1.808	82.7	94.4	234.19	234.22	89.8	0.052	OK	234.1578	0.00	0.04	
1610235-04 Hg(1	78.681	162.6	219.8	234.18	234.19	176.8	0.422	CT	234.1578	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	522.614	25.2	57.5	234.17	234.45	34.3	4.554	CT	234.1718	0.00	0.06	
SEQ-CCV4 MeHg	278.781	81.2	125.1	234.25	234.26	90.9	2.095	OK	234.1718	0.00	0.06	
SEQ-CCV4 Hg(II)	222.249	162.1	218.1	234.22	234.23	176.9	1.218	OK	234.1718	0.00	0.06	

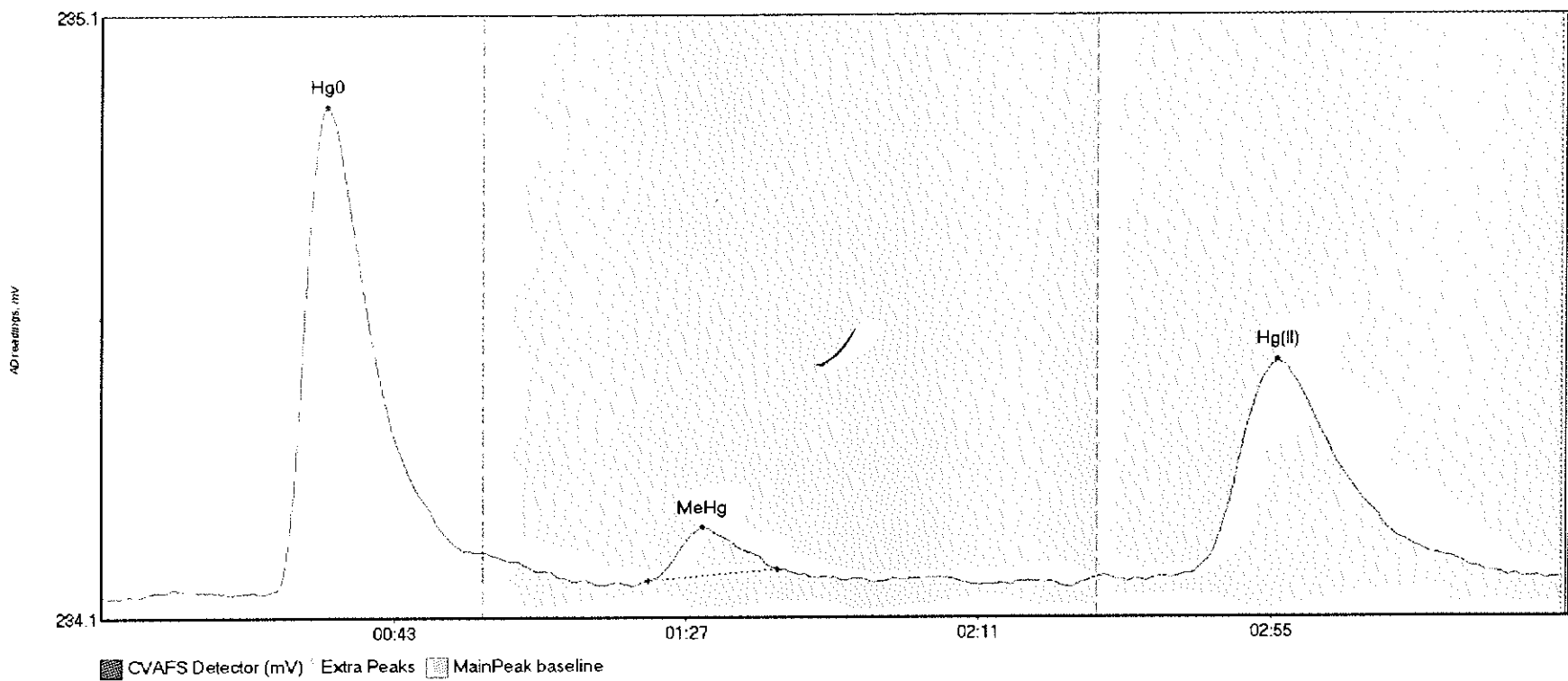
#58: SEQ-CCB4



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB4 Hg0	71.279	26.0	57.5	234.18	234.24	34.3	0.644	CT	234.1793	0.00	0.02	
SEQ-CCB4 MeHg	2.600	83.2	97.1	234.20	234.22	89.3	0.042	OK	234.1793	0.00	0.02	
SEQ-CCB4 Hg(II)	29.147	165.2	215.5	234.20	234.21	178.1	0.160	OK	234.1793	0.00	0.02	

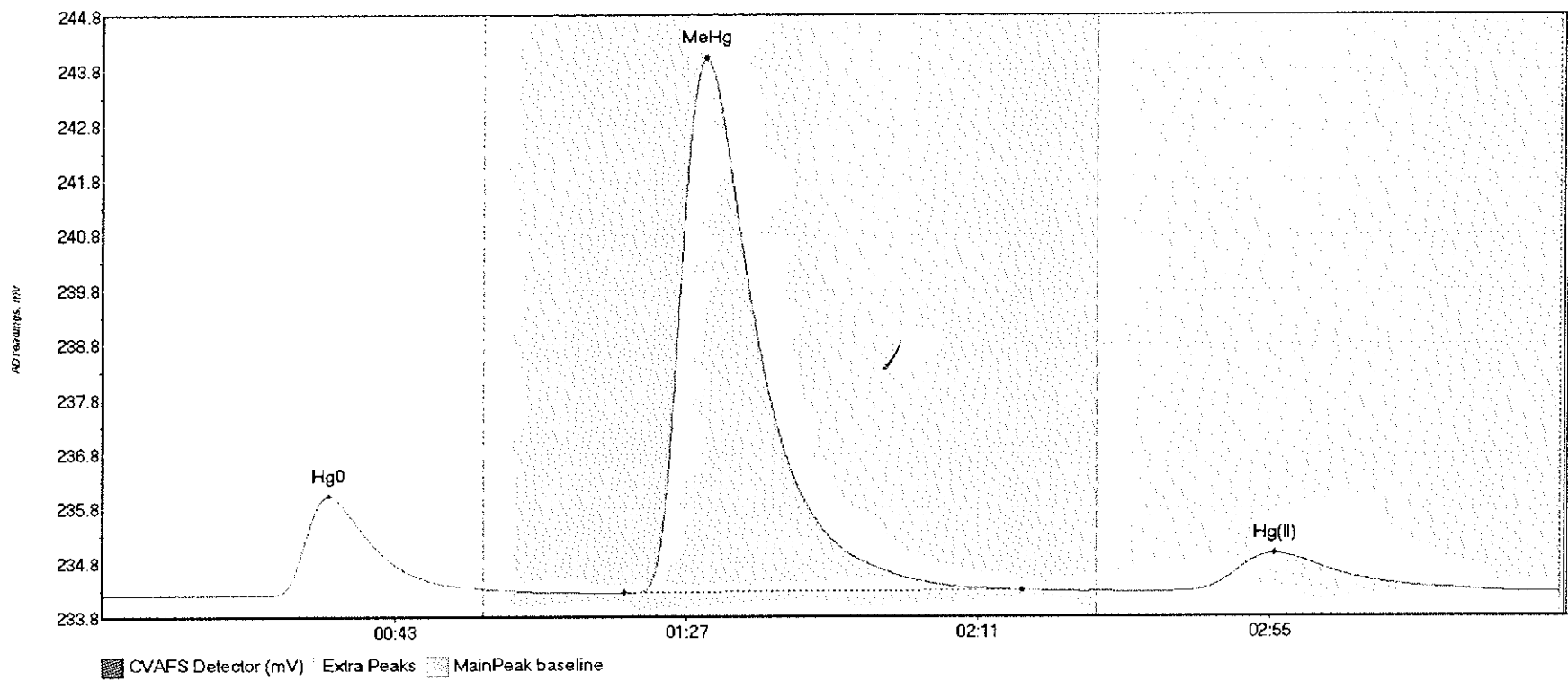


#59: 1610235-05



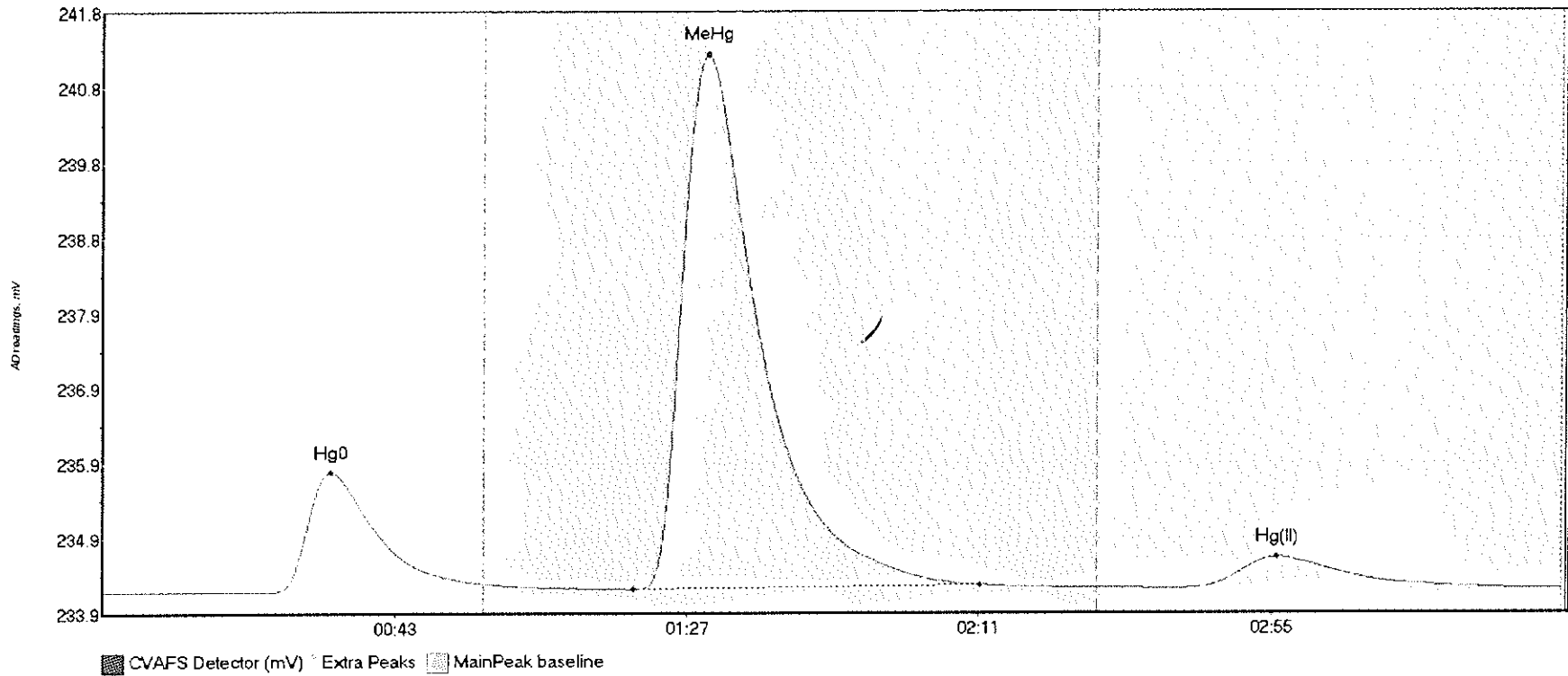
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-05 Hg0	89.927	24.2	56.4	234.18	234.25	33.9	0.809	OK	234.1753	0.00	0.03	
1610235-05 MeHg	7.905	82.3	101.8	234.20	234.22	90.4	0.089	OK	234.1753	0.00	0.03	
1610235-05 Hg(I	63.345	163.7	211.9	234.21	234.21	177.1	0.352	OK	234.1753	0.00	0.03	

#60: 1610574-01



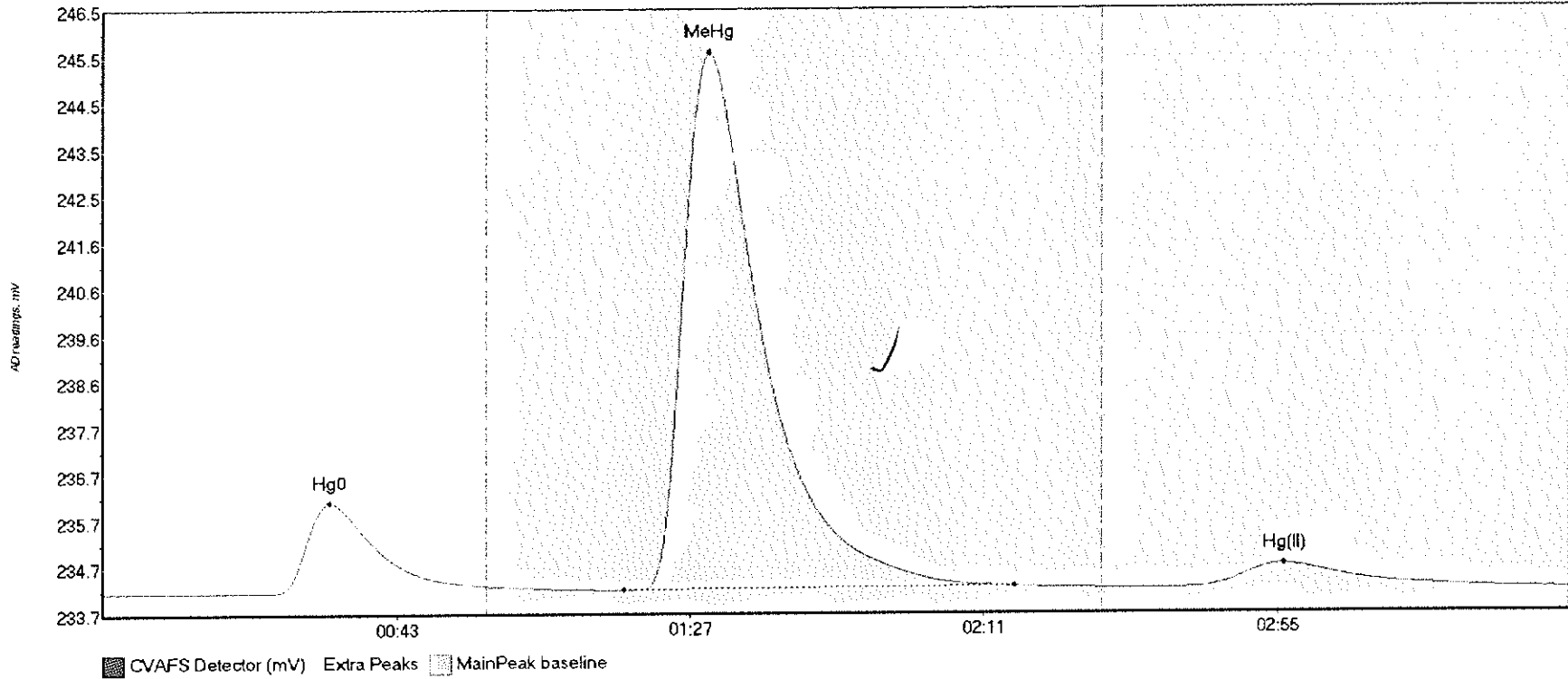
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-01 Hg <sup>0</sup>	201.765	24.5	57.5	234.18	234.30	34.0	1.814	CT	234.1835	0.60	0.04	
1610574-01 MeHg	1332.409	78.7	138.8	234.22	234.27	90.9	9.793	OK	234.1835	0.60	0.04	
1610574-01 Hg(I)	126.093	162.1	212.9	234.24	234.23	176.7	0.689	OK	234.1835	0.60	0.04	

#61: 1610574-02



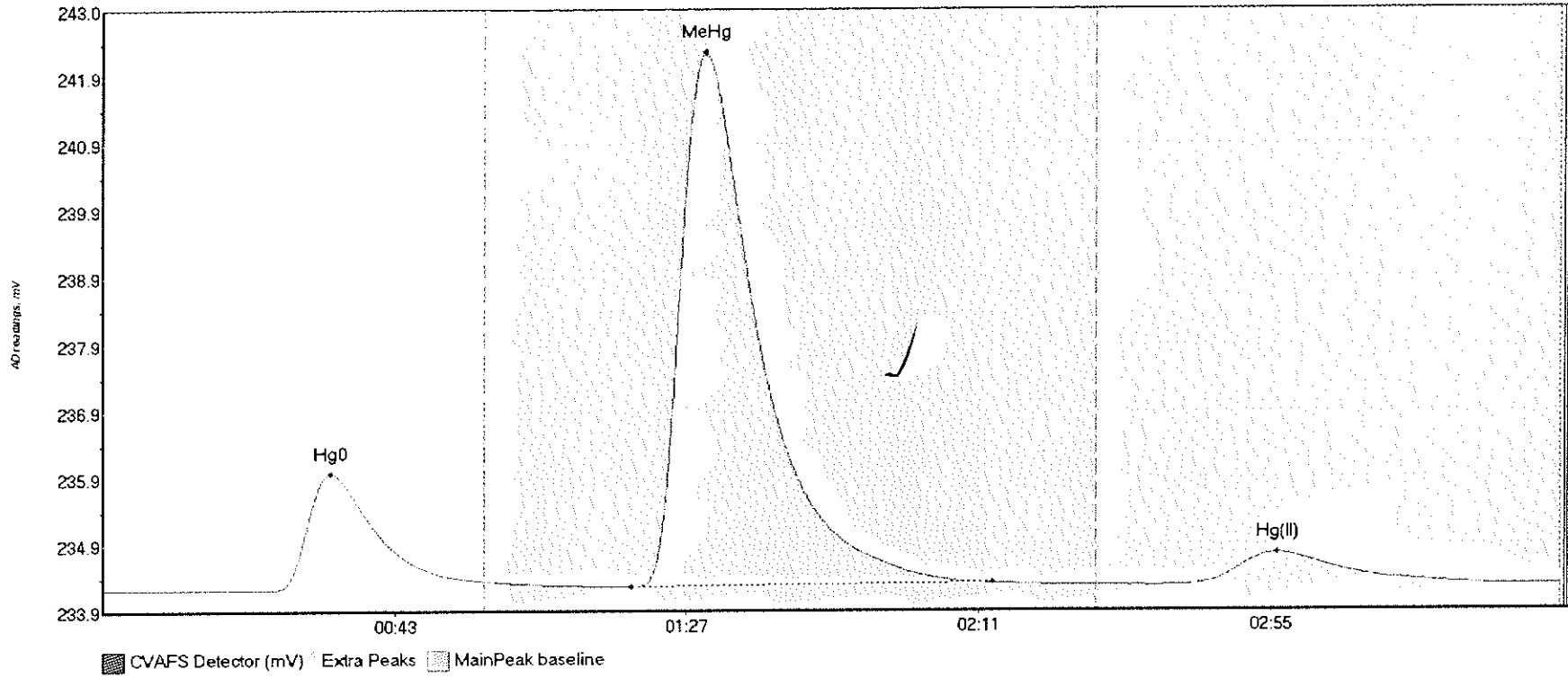
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-02 Hg0	175.896	25.2	57.5	234.19	234.30	34.4	1.574	CT	234.1929	0.00	0.04	
1610574-02 MeHg	951.096	80.0	132.3	234.23	234.28	91.1	7.019	OK	234.1929	0.00	0.04	
1610574-02 Hg(I)	73.743	162.0	212.2	234.23	234.24	176.9	0.413	OK	234.1929	0.00	0.04	

#62: 1610574-03



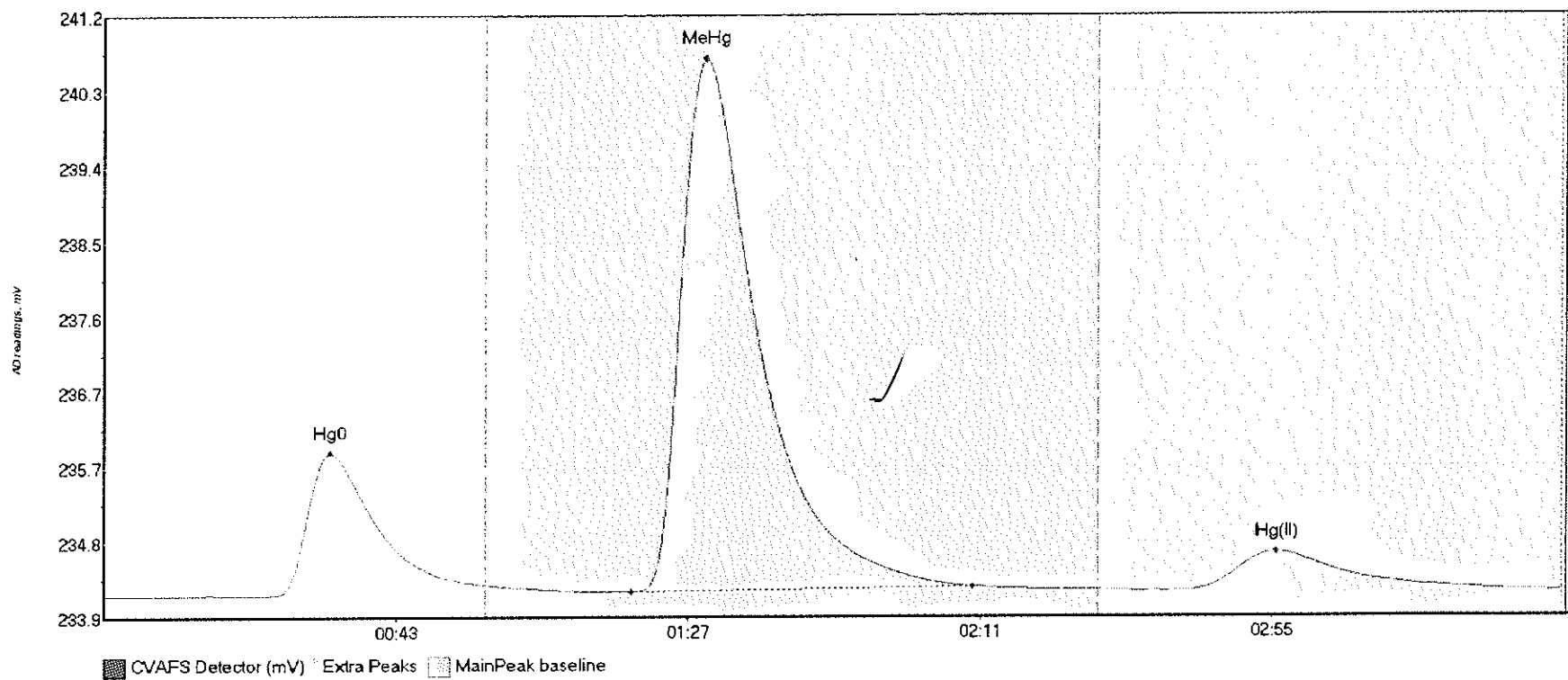
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-03 Hg0	209.161	17.9	57.5	234.19	234.33	34.0	1.908	CT	234.1899	0.00	0.05	
1610574-03 MeHg	1543.317	78.2	136.7	234.24	234.30	90.9	11.315	OK	234.1899	0.00	0.05	
1610574-03 Hg(I)	94.018	160.6	213.2	234.26	234.25	177.0	0.497	OK	234.1899	0.00	0.05	

#63: 1610574-04



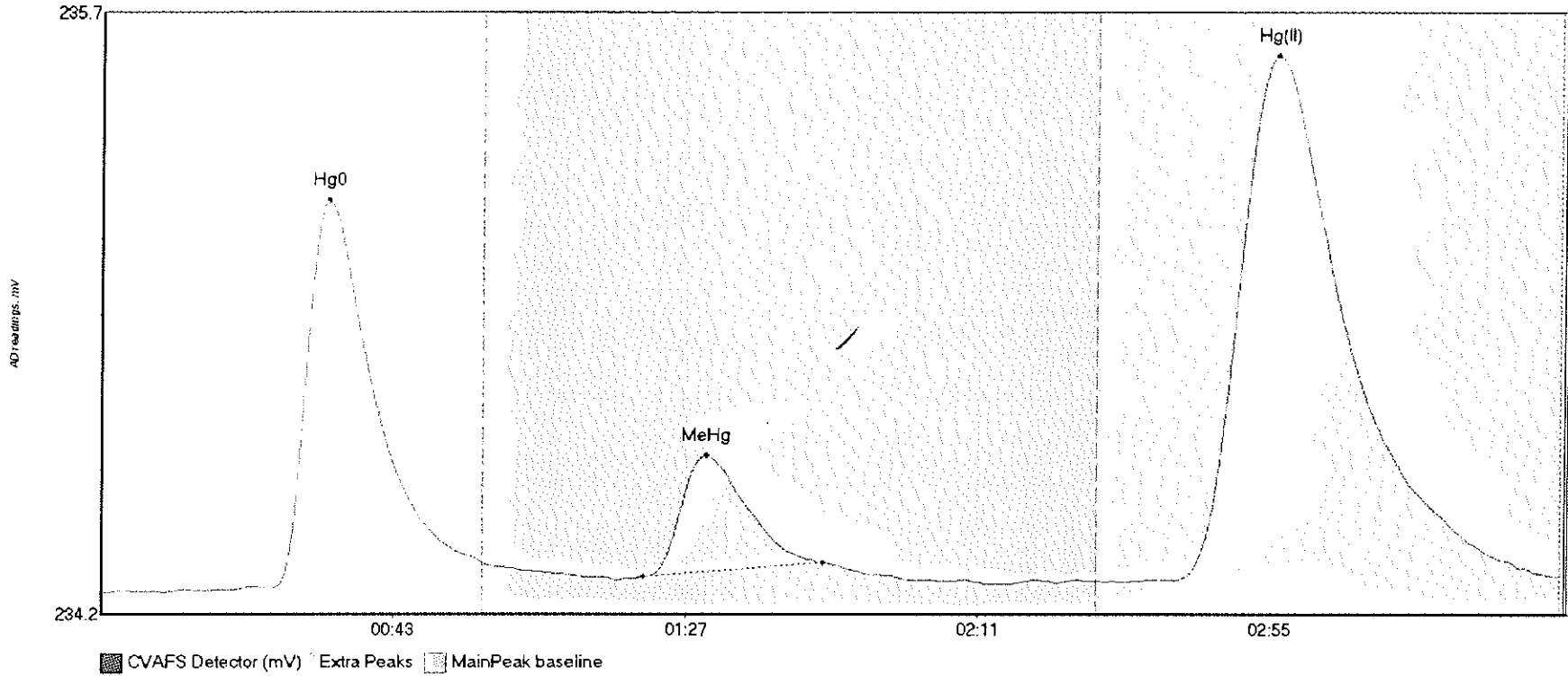
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610574-04 Hg0	192.753	19.5	57.5	234.20	234.32	34.4	1.760	CT	234.1945	0.00	0.06	
1610574-04 MeHg	1096.093	79.7	134.2	234.24	234.29	91.0	8.066	OK	234.1945	0.00	0.06	
1610574-04 Hg(I)	87.192	161.1	210.7	234.25	234.25	177.1	0.479	OK	234.1945	0.00	0.06	

#64: 1610574-05



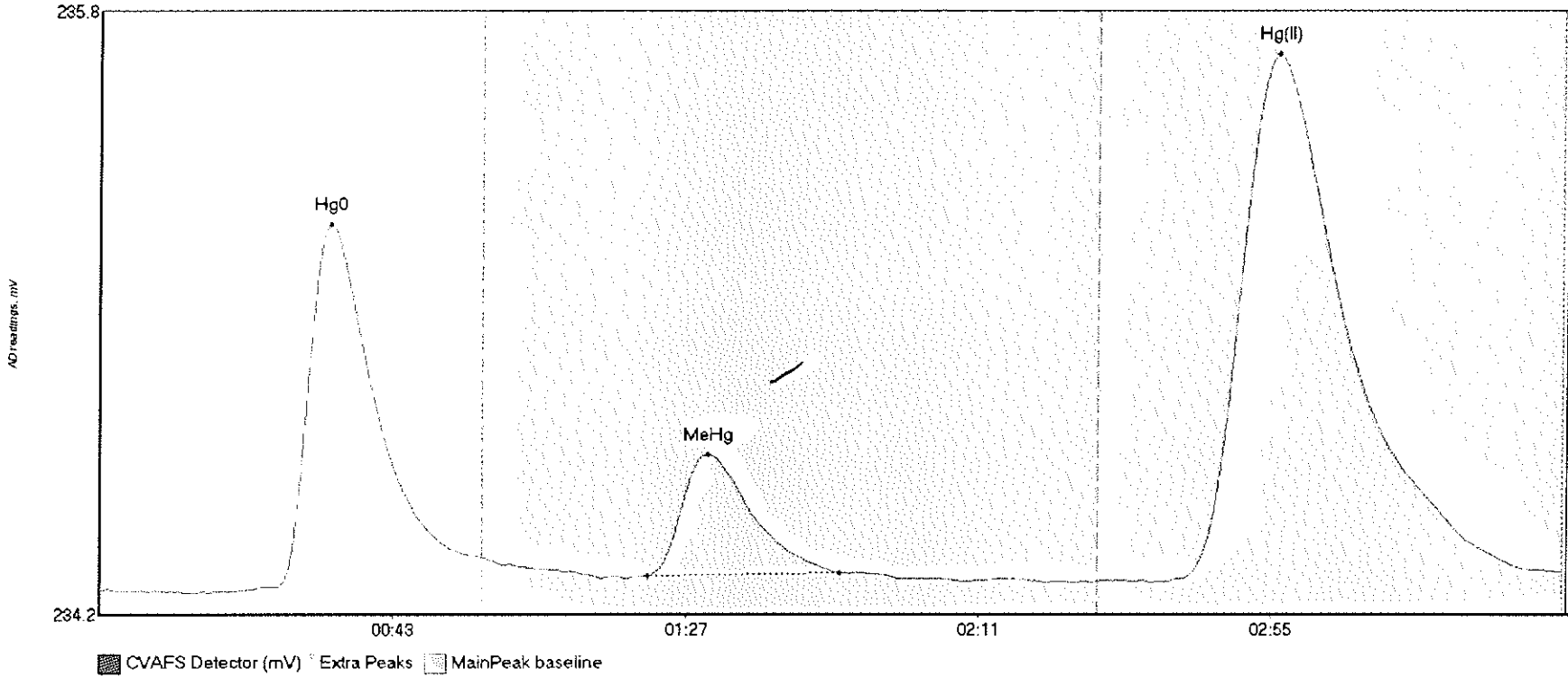
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610574-05 Hg0	191.234	24.0	57.5	234.21	234.33	34.1	1.716	CT	234.2029	0.00	0.05	
1610574-05 MeHg	869.998	79.5	130.9	234.25	234.30	90.8	6.414	OK	234.2029	0.00	0.05	
1610574-05 Hg(I	82.903	163.5	212.0	234.26	234.26	176.7	0.462	OK	234.2029	0.00	0.05	

#65: 1610610-01



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-01 Hg0	112.851	10.2	57.5	234.21	234.29	34.3	1.033	CT	234.2123	0.00	0.04	
1610610-01 MeHg	35.052	81.6	108.8	234.25	234.29	91.0	0.321	OK	234.2123	0.00	0.04	
1610610-01 Hg(I)	257.453	161.7	219.2	234.24	234.26	177.0	1.384	OK	234.2123	0.00	0.04	

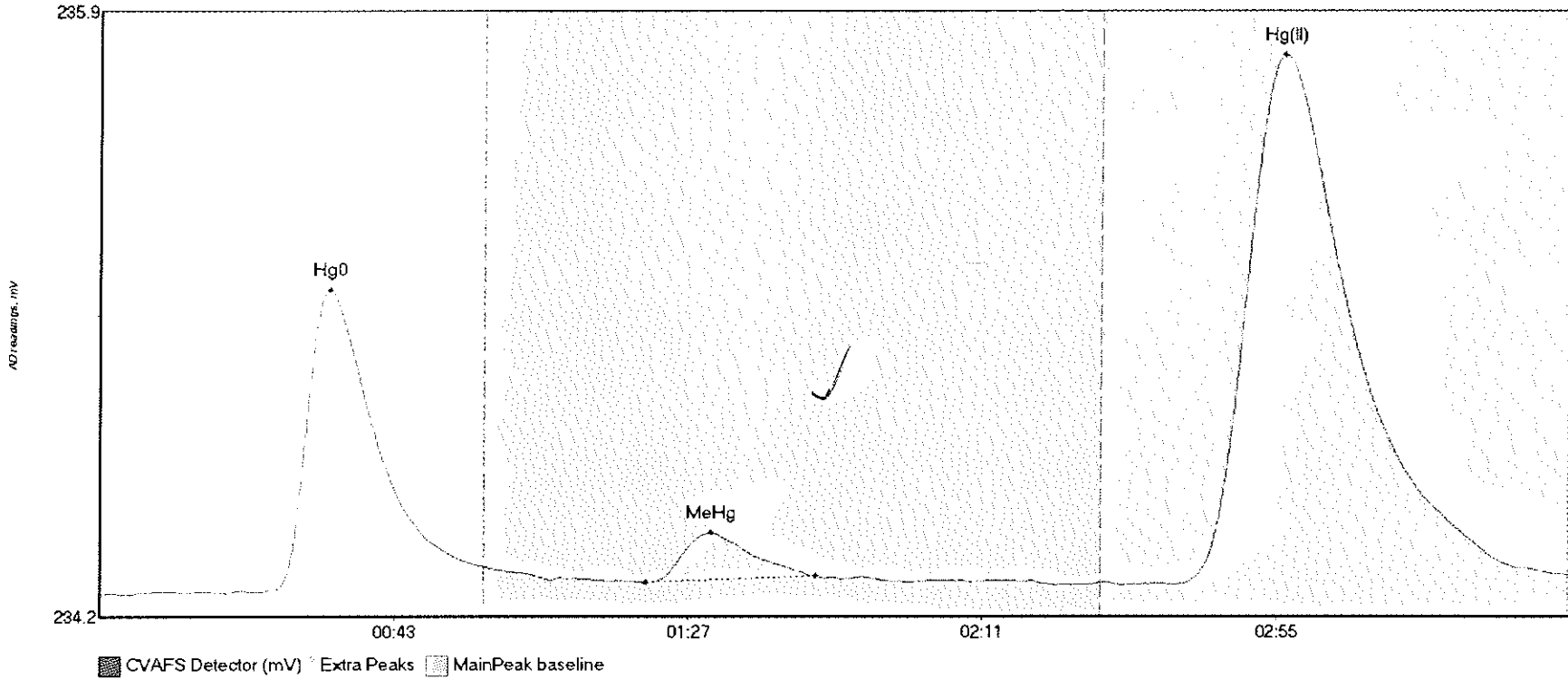
#66: 1610610-02



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-02 Hg0	108.116	22.3	57.5	234.22	234.31	34.6	0.999	CT	234.2247	0.00	0.05	
1610610-02 MeHg	39.422	82.3	111.1	234.26	234.27	91.3	0.331	OK	234.2247	0.00	0.05	
1610610-02 Hg(I)	264.464	159.9	219.8	234.25	234.27	177.1	1.439	CT	234.2247	0.00	0.05	

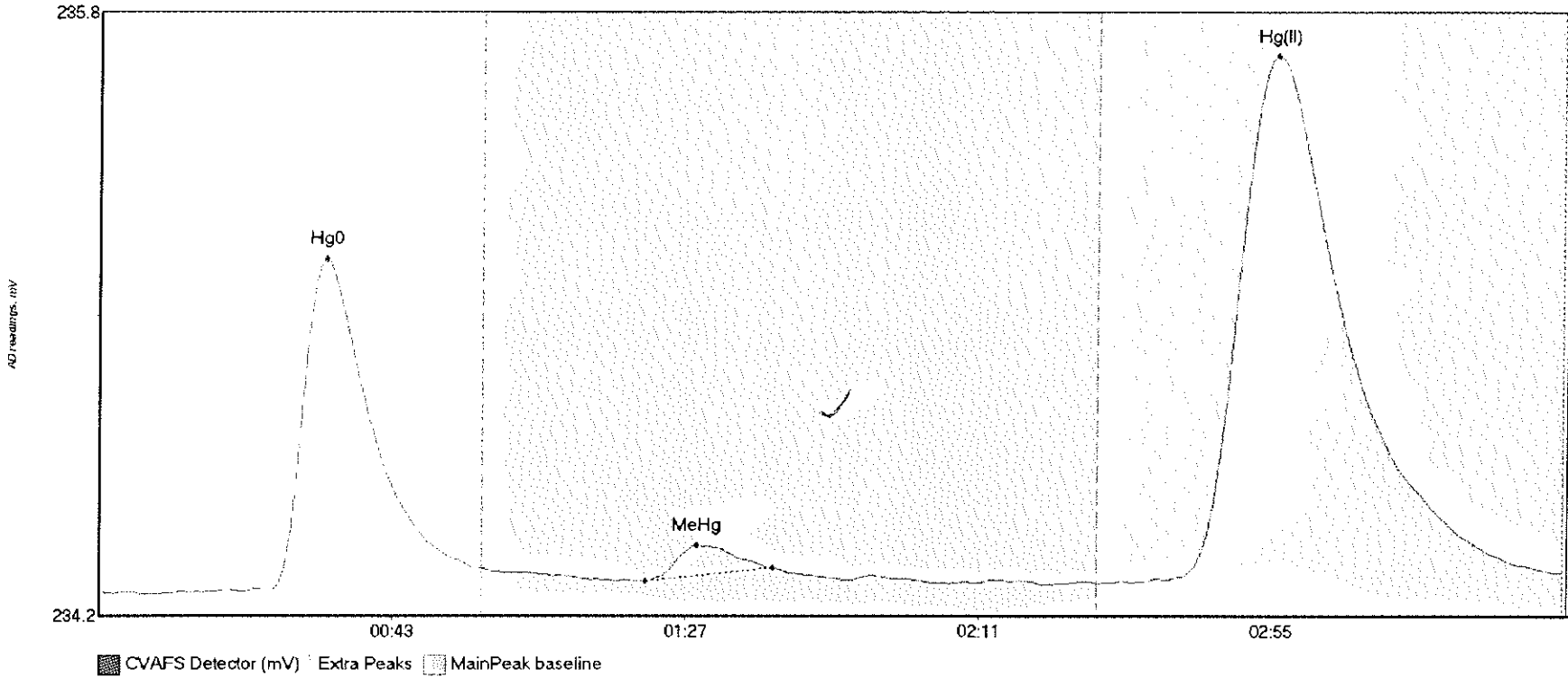


#67: 1610610-03



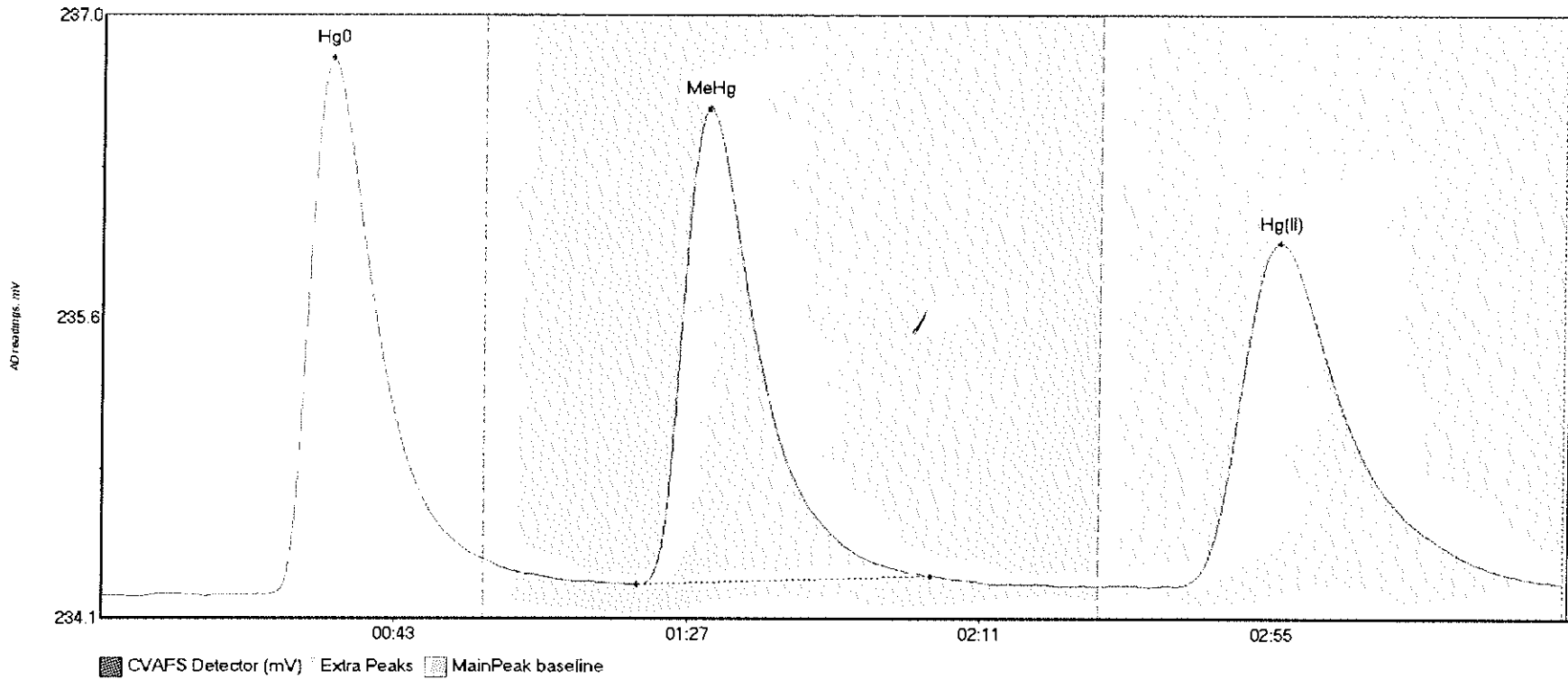
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
1610610-03 Hg0	96.737	19.2	57.5	234.22	234.30	34.4	0.878	CT	234.2187	0.00	0.06	
1610610-03 MeHg	15.857	81.7	167.0	234.25	234.27	91.5	0.145	OK	234.2187	0.00	0.06	
1610610-03 Hg(I)	281.499	160.8	219.8	234.25	234.28	177.1	1.533	CT	234.2187	0.00	0.06	

#68: 1610610-04



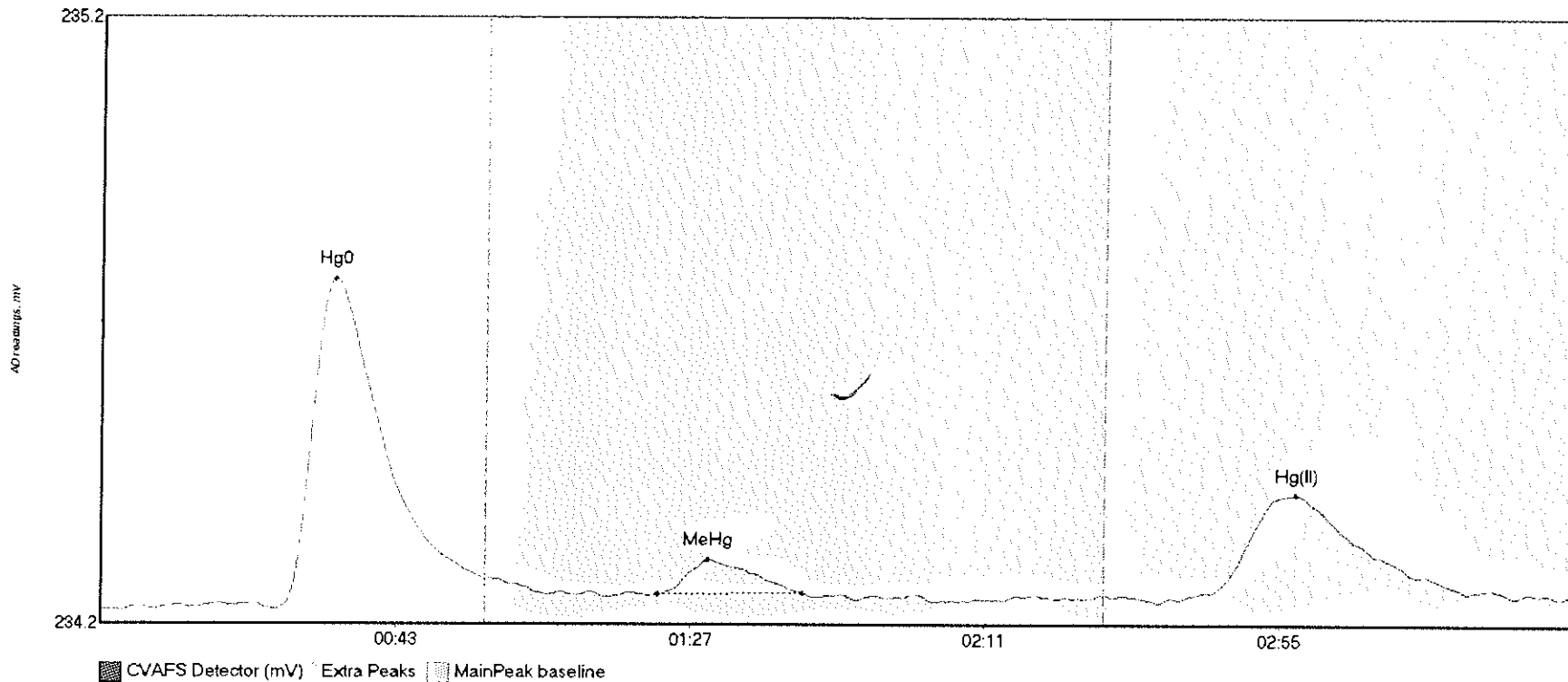
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-04 Hg0	98.932	21.9	57.5	234.24	234.30	34.1	0.887	CT	234.2337	0.00	0.05	
1610610-04 MeHg	7.714	82.0	101.1	234.26	234.30	89.7	0.094	OK	234.2337	0.00	0.05	
1610610-04 Hg(I)	257.883	156.8	219.7	234.26	234.29	176.8	1.403	OK	234.2337	0.00	0.05	

#69: SEQ-CCV5



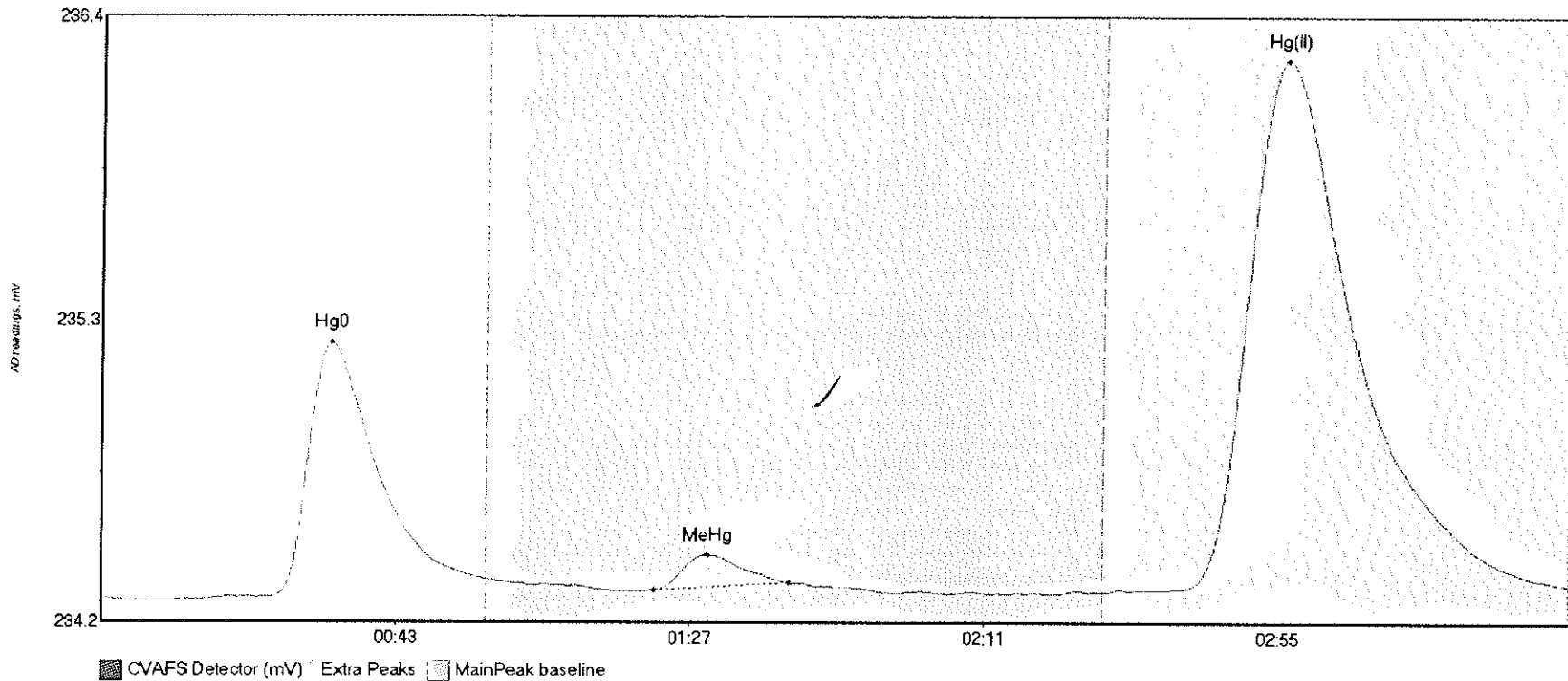
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCV5 Hg0	284.186	22.4	57.5	234.24	234.41	34.4	2.529	CT	234.2388	0.00	0.06	
SEQ-CCV5 MeHg	297.760	80.5	124.8	234.29	234.33	91.0	2.245	OK	234.2388	0.00	0.06	
SEQ-CCV5 Hg(II)	300.109	161.7	219.7	234.29	234.30	177.0	1.620	OK	234.2388	0.00	0.06	

#70: SEQ-CCB5



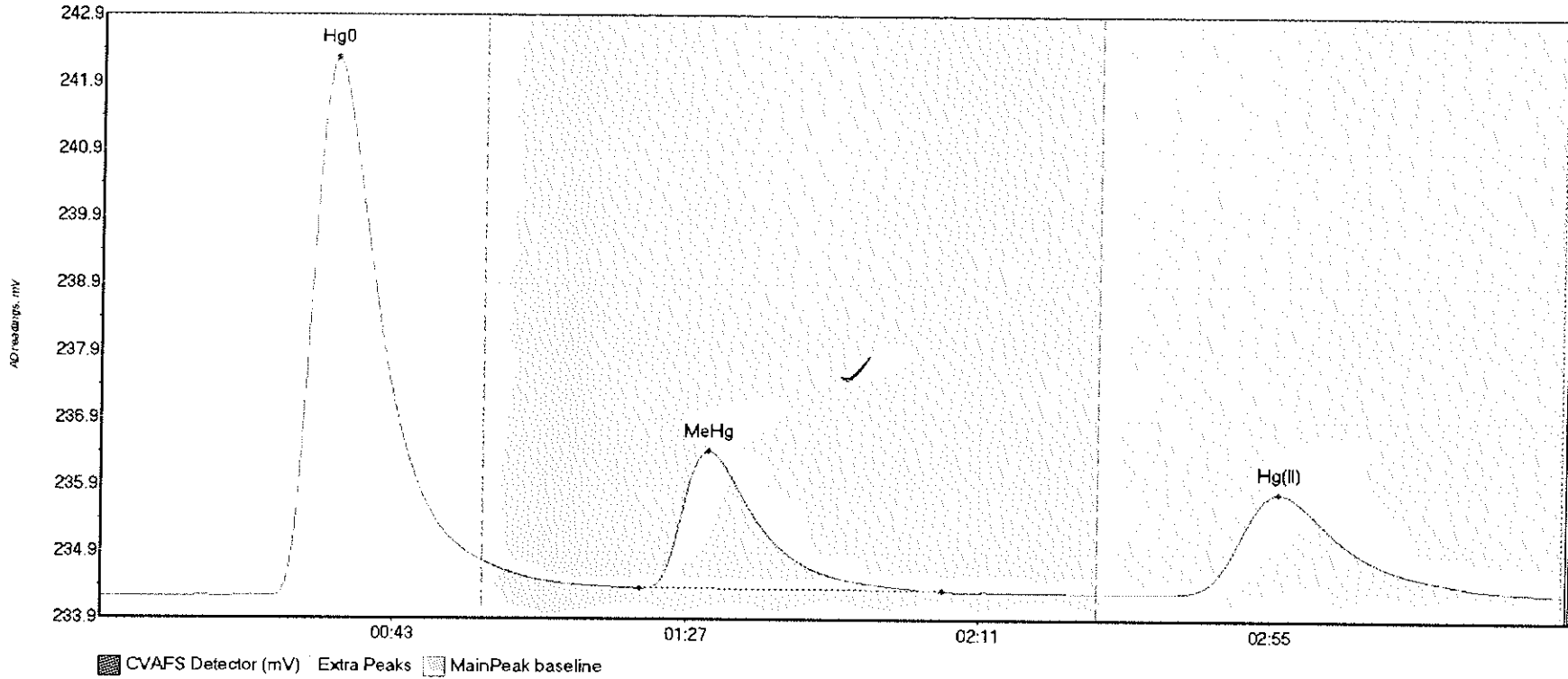
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BiDev	BiShift	Comment
SEQ-CCB5 Hg0	61.972	26.1	57.4	234.24	234.30	34.7	0.545	OK	234.2436	0.00	0.02	
SEQ-CCB5 MeHg	6.106	83.2	104.7	234.27	234.27	90.6	0.057	OK	234.2436	0.00	0.02	
SEQ-CCB5 Hg(II)	33.693	161.0	211.2	234.26	234.27	178.4	0.173	OK	234.2436	0.00	0.02	

#71: 1610617-01



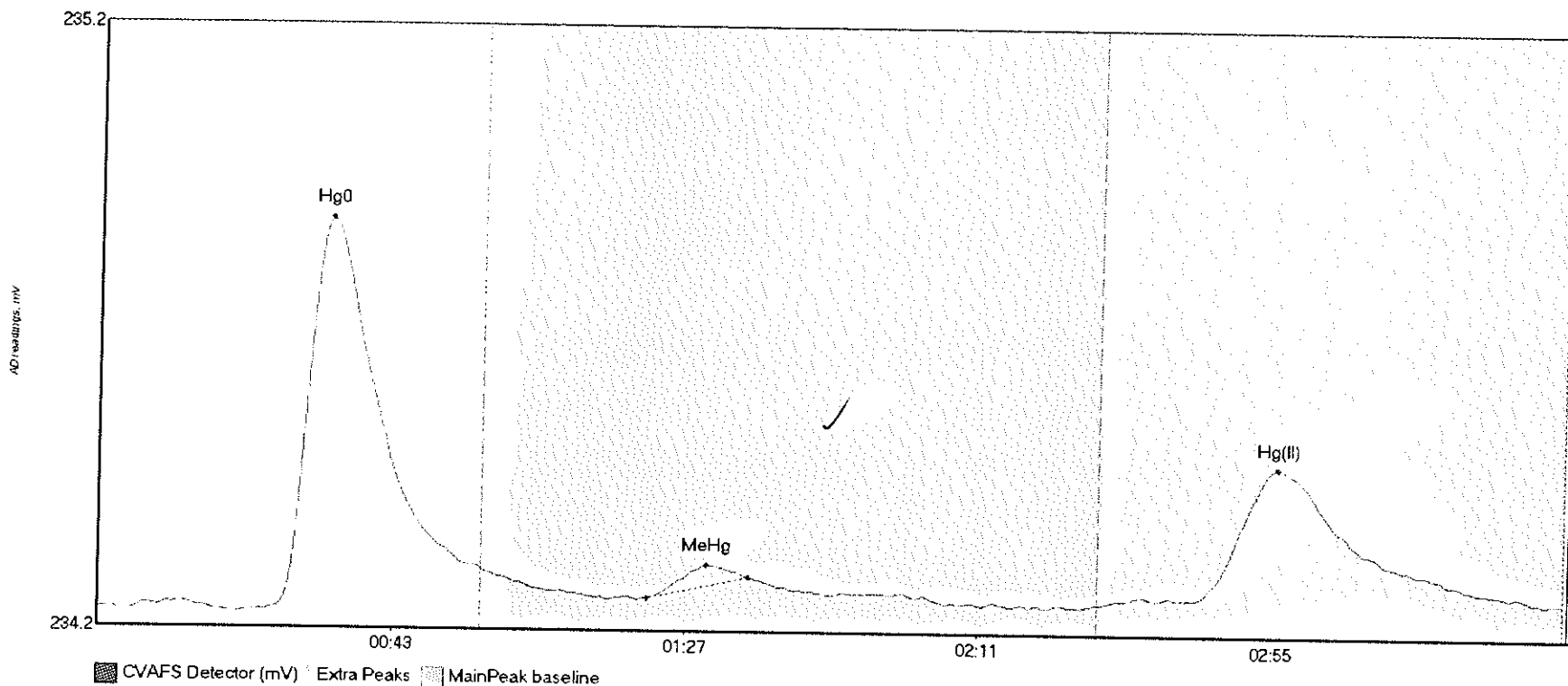
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610617-01 Hg0	103.534	23.5	57.5	234.25	234.32	34.3	0.933	CT	234.2486	0.00	0.05	
1610617-01 MeHg	11.885	82.7	102.9	234.28	234.30	90.7	0.129	CK	234.2486	0.00	0.05	
1610617-01 Hg(I)	357.282	154.0	219.8	234.28	234.30	177.0	1.945	CT	234.2486	0.00	0.05	

#72: SEQ-CCV6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV6 Hg0	886.183	12.3	57.5	234.24	234.78	35.2	7.968	CT	234.2449	0.00	0.08	
SEQ-CCV6 MeHg	275.085	81.0	126.6	234.38	234.35	91.3	2.039	OK	234.2449	0.00	0.08	
SEQ-CCV6 Hg(II)	275.829	160.0	219.4	234.31	234.32	177.2	1.496	OK	234.2449	0.00	0.08	

#73: SEQ-CCB6



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB6 Hg0	72.222	25.0	57.5	234.25	234.32	34.5	0.648	CP	234.2555	0.00	0.03	
SEQ-CCB6 MeHg	2.764	82.3	97.4	234.28	234.31	91.1	0.055	OK	234.2555	0.00	0.03	
SEQ-CCB6 Hg(II)	44.946	150.1	217.2	234.27	234.28	176.7	0.229	OK	234.2555	0.00	0.03	

**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 6J31010
<b>Reviewer:</b> <i>[Signature]</i>	<b>Dataset ID #:</b> MMHG27001-161030-1
<b>Date:</b> 10/31/16	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F610422, F610408	<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:
	<i>DM</i>	<i>RM</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 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 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 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 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 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 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 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 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 type="checkbox"/>
(l) Original prep bench sheet added to data package?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input 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 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 type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/>
(a) Have the QC requirements been met for all WO#s?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/>
5. 20 or fewer samples in batch?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input 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 type="checkbox"/>
(b) 1 CCV and 1 CCB every 10 analytical runs?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	<input 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 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 type="checkbox"/>
Comments:		
8. RSD CF (≤ 15%)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	<input type="checkbox"/>
Comments:		



**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6J31010
<b>Reviewer:</b>	0 <i>[Signature]</i>	<b>Dataset ID #:</b>	MMHG27001-161030-1
<b>Date:</b>	10/31/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422, F610408	<b>Client(s):</b>	VARIOUS

	Analyst Initials:		Reviewer Initials:	
	<i>DM</i>		<i>R</i>	
9. ICV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
10. CCV % Recoveries 67-133%	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
12. LCS/LCSD/CRM/BS/BSD % Recoveries (70-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
13. LCS/LCSD or BS/BSD RPD (< 25%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<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 type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: <b>F610408-DUP1 FAILED. HIGH RPD</b>				
20. Is there one set of MS/MSD per every 10 samples?	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
21. MS/MSD RPD(< 35%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
22. MS (AS) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: _____				
23. MSD (ASD) % Recoveries (65-130%)	<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input type="checkbox"/>	<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 type="checkbox"/>	<input checked="" type="checkbox"/>
25. Are all samples within instrument calibration range (or at maximum aliquot size)?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments: <b>VARIOUS SAMPLES BELOW CAL1</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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6J31010
<b>Reviewer:</b>	0 <i>DM</i>	<b>Dataset ID #:</b>	MMHG27001-161030-1
<b>Date:</b>	10/31/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422, F610408	<b>Client(s):</b>	VARIOUS

**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?  
 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\IDOCs
38. Date of analyst IDOC/CDOC: 6/21/16 ~~7/9/2015~~ 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: 6/24/2016 LOD within last 3 months (within 12 months for MDN)?  YES  NO  N/A
41. Date of LOQ: 6/24/2016 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: *NA 11/2/16*  YES  NO



Frontier Global Sciences

### MMHg27001-161031-1 solids

Analysis Datasheet for Methyl Mercury in Soil/Tissue

Date of Analysis: October 31, 2016

Instrument #: Hg2700-1

LIMS Sequence #: 6K01010

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	30.97 units	619.37	28.27 units	565.37	97.8 %Rec
SEQ-CAL2	1	0.20 ng/L	109.73 units	548.63	107.03 units	535.13	92.5 %Rec
SEQ-CAL3	1	1.00 ng/L	626.10 units	626.10	623.40 units	623.40	107.8 %Rec
SEQ-CAL4	1	2.00 ng/L	1139.68 units	569.84	1136.98 units	568.49	98.3 %Rec
SEQ-CAL5	1	4.00 ng/L	2400.16 units	600.04	2397.46 units	599.37	103.6 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF** 578.35    
**Corr. St Dev RF** +/- 33.93    
**Corr. RSD CF** 5.9% RSD    
**Uncorr. Mean RF** 592.80

#### Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	1	2.70 units		0.00 ng/L	#VALUE!

QUALITY ASSURANCE

PEER-REVIEWED

INITIALS: BC 11-2-16

#### Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.568 ng/L	±2.109
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 Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2700-1	DM2	CAL	SEQ-IBL1	1	10/31/16 11:05	17457-1.RAW	11:05:27	2.70			0.0	0.000	0.000	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL1	1	10/31/16 11:15	17458-1.RAW	11:15:57	30.97			28.3	0.049	0.049	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL2	1	10/31/16 11:26	17459-1.RAW	11:26:28	109.73			107.0	0.185	0.185	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL3	1	10/31/16 11:36	17460-1.RAW	11:36:59	626.10			623.4	1.078	1.078	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL4	1	10/31/16 11:47	17461-1.RAW	11:47:29	1139.68			1137.0	1.966	1.966	ng/L	
Hg2700-1	DM2	CAL	SEQ-CAL5	1	10/31/16 11:58	17462-1.RAW	11:58:00	2400.16			2397.5	4.145	4.145	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICV1	1	10/31/16 12:08	17463-1.RAW	12:08:31	300.40			297.7	0.515	0.515	ng/L	
Hg2700-1	DM2	CAL	SEQ-ICB1	1	10/31/16 12:19	17464-1.RAW	12:19:02	6.17			3.5	0.006	0.006	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK7	500	10/31/16 13:02	17465-1.RAW	13:02:45	6.16	1		3.5	0.006	2.993	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK8	500	10/31/16 13:13	17466-1.RAW	13:13:16	2.17	1		-0.5	-0.001	-0.459	ng/L	
Hg2700-1	DM2	BLK	F610422-BLK9	500	10/31/16 13:23	17467-1.RAW	13:23:47	1.74	1		-1.0	-0.002	-0.831	ng/L	
Hg2700-1	DM2	SAM	1610231-01RE1	500	10/31/16 13:34	17468-1.RAW	13:34:18	49.17	1		46.5	0.079	39.607	ng/L	
Hg2700-1	DM2	SAM	1610231-02RE1	500	10/31/16 13:44	17469-1.RAW	13:44:48	28.51	1		25.8	0.043	21.746	ng/L	
Hg2700-1	DM2	SAM	1610231-03RE1	500	10/31/16 13:55	17470-1.RAW	13:55:19	5.66	1		3.0	0.004	1.993	ng/L	
Hg2700-1	DM2	SAM	1610231-04RE1	500	10/31/16 14:05	17471-1.RAW	14:05:50	24.08	1		21.4	0.036	17.913	ng/L	
Hg2700-1	DM2	SAM	1610231-05RE1	500	10/31/16 14:16	17472-1.RAW	14:16:20	75.02	1		72.3	0.124	61.951	ng/L	
Hg2700-1	DM2	SAM	1610235-01RE1	500	10/31/16 14:26	17473-1.RAW	14:26:51	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-02RE1	500	10/31/16 14:37	17474-1.RAW	14:37:22	1.99	1		-0.7	-0.002	-1.179	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV1	1	10/31/16 14:47	17475-1.RAW	14:47:52	211.54			208.8	0.361	0.361	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB1	1	10/31/16 14:58	17476-1.RAW	14:58:23	0.00			-2.7	-0.005	-0.005	ng/L	
Hg2700-1	DM2	SAM	1610235-03RE1	500	10/31/16 15:08	17477-1.RAW	15:08:54	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-04RE1	500	10/31/16 15:19	17478-1.RAW	15:19:24	0.00	1		-2.7	-0.006	-2.902	ng/L	
Hg2700-1	DM2	SAM	1610235-05RE1	500	10/31/16 15:29	17479-1.RAW	15:29:55	9.42	1		6.7	0.010	5.245	ng/L	
Hg2700-1	DM2	SAM	1610610-01RE1	500	10/31/16 15:40	17480-1.RAW	15:40:26	52.26	1		49.6	0.085	42.275	ng/L	
Hg2700-1	DM2	SAM	1610610-02RE1	500	10/31/16 15:50	17481-1.RAW	15:50:56	66.85	1		64.1	0.110	54.891	ng/L	
Hg2700-1	DM2	SAM	1610610-03RE1	500	10/31/16 16:01	17482-1.RAW	16:01:27	16.92	1		14.2	0.023	11.728	ng/L	
Hg2700-1	DM2	SAM	1610610-04RE1	500	10/31/16 16:11	17483-1.RAW	16:11:58	9.82	1		7.1	0.011	5.587	ng/L	
Hg2700-1	DM2	SAM	1610617-01RE1	500	10/31/16 16:22	17484-1.RAW	16:22:28	18.03	1		15.3	0.025	12.684	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCV2	1	10/31/16 16:32	17485-1.RAW	16:32:59	281.97			279.3	0.483	0.483	ng/L	
Hg2700-1	DM2	CAL	SEQ-CCB2	1	10/31/16 16:43	17486-1.RAW	16:43:30	0.00			-2.7	-0.005	-0.005	ng/L	

Methylmercury  
EPA1630

Operat DM BlankS 2.7002 Calib Eqn: Conc = (Area-2.700) / 578 Run Date: ##### Blank SD: 0  
 Worksl MMHG2 CalibFa 578.35 Status: OK, 1 Warning Run Time: 12:52:12 Blank RSD: 0  
 Methor 2010-01 R: 0.9995 R²: 0.999089146 CalibAnah MerHg CF SD: 33.92965483  
 Descrpt MMHG27001-161031-1 CF RSD%: 5.86066477

Sample/ID	Location	Rinse	Dilute	Blank	ConcHg0(p)	ConcMerHg(ppb)	ConcHg2(p)	ConcPPhg(p)	Rec%	QA	RawData	RunEnd	PeakHg0 (Raw)	PeakMerHg (R)	PeakHg2(Raw)	PeakPPhg(Raw)	Control (eff)	Flags	RunCount		
Clean											17455-1.RAW		0.594412879	0	0	0	0	cleandry	OK	1	
WS											17456-1.RAW		42.59749053	3.010256866	63.79507576	0	0	psample10	CT	1	
SEQ-1BL1	A1		2.7002	0.0688848	0.00	0.1058366					17457-1.RAW		66.16378344	2.700213068	30.36472538	0	0	psample10	CT	1	
SEQ-CAL1	A2		1	0	0.1144011	0.00	0.0325024				17458-1.RAW		11.15:57	78.16588542	30.96870265	38.30151515	0	0	psample10	CT	1
SEQ-CAL2	A4		1	2.7002	0.1429473	0.05	0.0615568	97.76			17459-1.RAW		85.37369792	109.7254274	45.74114583	0	0	psample10	CT	1	
SEQ-CAL3	A5		1	2.7002	0.261864	1.08	0.2029422	92.53			17460-1.RAW		154.1490664	626.096804	120.0716856	0	0	psample10	CT	1	
SEQ-CAL4	A6		1	2.7002	0.4675858	1.97	0.3468556	107.79			17461-1.RAW		284.6931132	1139.675563	203.3038589	0	0	psample10	CT	1	
SEQ-CAL5	A7		1	2.7002	0.7566185	4.15	0.6852536	103.63			17462-1.RAW		440.289925	2400.162288	399.0161222	0	0	psample10	CT	1	
SEQ-ICV1	A8		1	2.7002	0.7778349	0.51	0.4127026	103.08			17463-1.RAW		452.5604545	300.4030703	241.3364347	0	0	psample10	CT	1	
SEQ-ICB1	A9		1	2.7002	0.1218712	0.01	0.0584896	0.00			17464-1.RAW	12:19:02	73.18433676	6.174857955	36.52765152	0	0	psample10	CT	1	
F610422-BLK7	A10		500	2.7002	35.222857	2.993454039	39.931912				17465-1.RAW		43.44243695	6.162736742	48.88939394	0	0	psample10	CT	1	
F610422-BLK8	A11		500	2.7002	53.415166	-0.459159583	79.808767				17466-1.RAW		84.48545511	2.160103866	95.0148911	0	0	psample10	OK	1	
F610422-BLK9	A12		500	2.7002	47.926416	-0.831124125	41.474864				17467-1.RAW		58.13662405	1.738853074	50.67412405	0	0	psample10	CT	1	
1610231-01RE1	A13		500	2.7002	231.81444	40.17465142	770.25125				17468-1.RAW		270.839622	49.17017045	893.6486496	0	0	psample10	CT	1	
1610231-02RE1	A14		500	2.7002	149.76099	22.31392935	436.96329				17469-1.RAW		175.9285245	28.51070076	508.1349733	0	0	psample10	CT	1	
1610231-03RE1	A15		500	2.7002	95.781299	2.56086179	201.83499				17470-1.RAW		113.4902936	5.662357955	236.1624384	0	0	psample10	CT	1	
1610231-04RE1	A16		500	2.7002	113.52238	18.48036298	347.45474				17471-1.RAW		134.011377	24.07642045	404.6005794	0	0	psample10	CT	1	
1610231-05RE1	A17		500	2.7002	138.39877	62.51870831	346.58008				17472-1.RAW		162.7858625	75.01550663	403.5888609	0	0	psample10	CT	1	
1610235-01RE1	A18		500								17473-1.RAW		138.5206194	0	69.56671402	0	0	psample10	CT	1	
1610235-02RE1	A19		500	2.7002	77.503218	-0.611605359	67.646142				17474-1.RAW		92.34805555	1.992770092	80.94640152	0	0	psample10	CT	1	
SEQ-CCV1	A20		1	2.7002	0.9637073	0.361104374	0.4872387	72.31			17475-1.RAW		560.0595894	211.8446496	284.4943668	0	0	psample10	CT	1	
SEQ-CCB1	A21		1								17476-1.RAW		66.48123753	0	62.93475379	0	0	psample10	DK	1	
1610235-03RE1	B1		500								17477-1.RAW		75.36769493	0	70.55852273	0	0	psample10	CT	1	
1610235-04RE1	B2		500								17478-1.RAW		68.21243242	0	73.38402892	0	0	psample10	CT	1	
1610235-05RE1	B3		500	2.7002	77.223181	5.812405735	58.276218				17479-1.RAW		92.02414773	9.423413826	70.10822518	0	0	psample10	CT	1	
1610610-01RE1	B4		500	2.7002	109.0239	42.84226351	353.827				17480-1.RAW		32.8079885	52.25579325	411.0713586	0	0	psample10	CT	1	
1610610-02RE1	B5		500	2.7002	111.1226	55.45893625	375.61977				17481-1.RAW		131.2355587	66.84947917	437.1790246	0	0	psample10	CT	1	
1610610-03RE1	B6		500	2.7002	109.37814	12.29586708	415.35191				17482-1.RAW		129.2177379	16.92282357	483.1371272	0	0	psample10	CT	1	
1610610-04RE1	B7		500	2.7002	105.69195	6.15447208	363.19725				17483-1.RAW		124.953923	9.819061439	422.8099142	0	0	psample10	CT	1	
1610617-01RE1	B8		500	2.7002	115.57415	13.25208777	434.515				17484-1.RAW		136.3896565	18.02888258	505.3030483	0	0	psample10	CT	1	
SEQ-CCV2	B9		1	2.7002	0.6538544	0.462879993	0.4112808	96.70			17485-1.RAW		380.8564067	281.9734848	240.5641188	0	0	psample10	CT	1	
SEQ-CCB2	B10		1								17486-1.RAW	15:43:30	61.32159091	0	36.87220644	0	0	psample10	CT	1	

Sample/ID	Location	Rinse	Dilute	Blank	ConcHqD(µg)	ConcMeHg(ppb)	ConcHq2(µg)	ConcPrHg(µg)	Rec%	QA	RawData	RunEnd	PeakHqQ (Raw)	PeakMeHg (R)	PeakHq2(Raw)	PeakPrHg(Raw)	Control (µg)	Flags	RunCount	
Clean											17455-1.RAW	10:44:25	0.59412879	0	0	0	0	cleandry	OK	1
WS	A1		2.7002	0.0689066	0.00	0.105517					17456-1.RAW	10:54:56	42.59749053	3.010256896	63.79507576	0	0	psample10	CT	1
SEQ-1BL1	A2	1	0	0.1142715	0.00	0.0524428					17457-1.RAW	11:05:27	66.16378344	2.700213069	30.26472538	0	0	psample10	CT	1
SEQ-CAL1	A3	1	2.7002	0.1303368	0.05	0.061487			97.65		17458-1.RAW	11:15:57	78.16588542	30.96670265	38.30151515	0	0	psample10	CT	1
SEQ-CAL2	A4	1	2.7002	0.1427854	0.18	0.074336			92.42		17459-1.RAW	11:26:28	85.37369792	109.7254274	45.74114583	0	0	psample10	CT	1
SEQ-CAL3	A5	1	2.7002	0.2615674	1.08	0.202636			107.57		17460-1.RAW	11:36:59	154.1490664	626.096604	120.0274858	0	0	psample10	CT	1
SEQ-CAL4	A6	1	2.7002	0.4870336	1.97	0.3464627			98.75		17461-1.RAW	11:47:29	284.6951132	1146.234659	203.3038589	0	0	psample10	CT	1
SEQ-CAL5	A7	1	2.7002	0.7562457	4.14	0.5845085			103.52		17462-1.RAW	11:58:00	440.5702968	2400.162288	399.0340672	0	0	psample10	CT	1
SEQ-ICV1	A8	1	2.7002	0.7770365	0.51	0.4122351			103.10		17463-1.RAW	12:08:31	452.6082821	300.8176136	241.3864347	0	0	psample10	CT	1
SEQ-ICB1	A9	1	2.7002	0.1217332	0.01	0.0584234			0.00		17464-1.RAW	12:19:02	73.18433676	61.74857955	36.52765152	0	0	psample10	CT	1
F610422-BLK7	A10	500	2.7002	35.182961	2.990053505	39.878465					17465-1.RAW	13:02:45	43.44243695	6.162736742	48.87987689	0	0	psample10	CT	1
F610422-BLK8	A11	500	2.7002	53.354667	-0.488639515	79.718372					17466-1.RAW	13:13:16	64.48545511	2.169103886	95.0148911	0	0	psample10	OK	1
F610422-BLK9	A12	500	2.7002	47.872132	-0.819268855	41.427887					17467-1.RAW	13:23:47	58.13662405	1.751491477	50.67412405	0	0	psample10	CT	1
1610231-01RE1	A13	500	2.7002	231.55188	-40.10830355	769.37883					17468-1.RAW	13:34:18	270.839622	49.1460328	893.6486496	0	0	psample10	CT	1
1610231-02RE1	A14	500	2.7002	149.59137	22.28865549	436.46836					17469-1.RAW	13:44:48	175.9285245	28.51070076	508.1349733	0	0	psample10	CT	1
1610231-03RE1	A15	500	2.7002	98.672812	2.557961232	201.60638					17470-1.RAW	13:55:19	113.4902936	5.662357955	236.1624384	0	0	psample10	CT	1
1610231-04RE1	A16	500	2.7002	113.3938	18.45943121	346.34776					17471-1.RAW	14:05:50	134.011377	24.07642045	403.7744052	0	0	psample10	CT	1
1610231-05RE1	A17	500	2.7002	138.24202	62.96792802	346.18753					17472-1.RAW	14:16:20	162.7858625	75.61770833	403.5888609	0	0	psample10	CT	1
1610235-01RE1	A18	500									17473-1.RAW	14:26:51	138.5206194	0	0	0	0	psample10	CT	1
1610235-02RE1	A19	500	2.7002	77.415434	-0.610912624	67.569523					17474-1.RAW	14:37:22	92.34806555	1.992770092	80.94640152	0	0	psample10	CT	1
SEQ-CCV1	A20	1	2.7002	0.9626188	0.36069537	0.4869006			72.23		17475-1.RAW	14:47:52	560.0595894	211.5446496	284.6180884	0	0	psample10	CT	1
SEQ-CCB1	A21	1									17476-1.RAW	14:58:23	66.48123753	0	0	0	0	psample10	OK	1
1610235-03RE1	B1	500									17477-1.RAW	15:08:54	75.36769493	0	0	0	0	psample10	CT	1
1610235-04RE1	B2	500									17478-1.RAW	15:19:24	68.21243242	0	0	0	0	psample10	CT	1
1610235-05RE1	B3	500	2.7002	77.135714	5.805822318	58.210212					17479-1.RAW	15:29:55	92.02414773	9.423413826	70.10822518	0	0	psample10	CT	1
1610610-01RE1	B4	500	2.7002	108.90041	42.80514965	353.42351					17480-1.RAW	15:40:26	128.8079885	52.26900777	411.9681997	0	0	psample10	CT	1
1610610-02RE1	B5	500	2.7002	110.99674	55.27292578	375.19433					17481-1.RAW	15:50:56	121.2355587	66.70681818	437.1790246	0	0	psample10	CT	1
1610610-03RE1	B6	500	2.7002	109.25425	62.28194018	414.88146					17482-1.RAW	16:01:27	129.2177379	16.92282357	483.1371272	0	0	psample10	CT	1
1610610-04RE1	B7	500	2.7002	105.57223	61.47501221	362.78588					17483-1.RAW	16:11:58	124.953923	9.819081439	422.8099142	0	0	psample10	CT	1
1610617-01RE1	B8	500	2.7002	115.44325	13.23707781	434.02285					17484-1.RAW	16:22:28	136.3846565	18.02888256	505.3030463	0	0	psample10	CT	1
SEQ-CCV2	B9	1	2.7002	0.6531138	0.482336126	0.4108149			96.59		17485-1.RAW	16:32:59	380.8564067	281.9752604	240.564188	0	0	psample10	CT	1
SEQ-CCB2	B10	1									17486-1.RAW	16:43:30	61.32159091	0	0	0	0	psample10	CT	1



## ANALYSIS SEQUENCE

6K01010

Instrument: Hg2700-1

Calibration ID: UNASSIGNED

Analyzed: 10/1/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K01010-IBL1	QC	1			
6K01010-CAL1	QC	2	1606090		
6K01010-CAL2	QC	3	1606091		
6K01010-CAL3	QC	4	1606092		
6K01010-CAL4	QC	5	1606093		
6K01010-CAL5	QC	6	1606094		
6K01010-ICV1	QC	7	1605079		
6K01010-ICB1	QC	8			
F610422-BLK7	QC	9			
F610422-BLK8	QC	10			
F610422-BLK9	QC	11			
1610231-01RE1	MHg-CVAFS-T-KOH	12			Added 10/31/2016 by DM2
1610231-02RE1	MHg-CVAFS-T-KOH	13			Added 10/31/2016 by DM2
1610231-03RE1	MHg-CVAFS-T-KOH	14			Added 10/31/2016 by DM2
1610231-04RE1	MHg-CVAFS-T-KOH	15			Added 10/31/2016 by DM2
1610231-05RE1	MHg-CVAFS-T-KOH	16			Added 10/31/2016 by DM2
1610235-01RE1	MHg-CVAFS-T-KOH	17			Added 10/31/2016 by DM2
1610235-02RE1	MHg-CVAFS-T-KOH	18			Added 10/31/2016 by DM2
6K01010-CCV1	QC	19	1605079		
6K01010-CCB1	QC	20			
1610235-03RE1	MHg-CVAFS-T-KOH	21			Added 10/31/2016 by DM2
1610235-04RE1	MHg-CVAFS-T-KOH	22			Added 10/31/2016 by DM2
1610235-05RE1	MHg-CVAFS-T-KOH	23			Added 10/31/2016 by DM2
1610610-01RE1	MHg-CVAFS-T-KOH	24			Added 10/31/2016 by DM2
1610610-02RE1	MHg-CVAFS-T-KOH	25			Added 10/31/2016 by DM2
1610610-03RE1	MHg-CVAFS-T-KOH	26			Added 10/31/2016 by DM2
1610610-04RE1	MHg-CVAFS-T-KOH	27			Added 10/31/2016 by DM2
1610617-01RE1	MHg-CVAFS-T-KOH	28			Added 10/31/2016 by DM2
6K01010-CCV2	QC	29	1605079		
6K01010-CCB2	QC	30			

Dan Moran  
Samples Loaded By

10/31/16  
Date

Dan Moran  
Data Processed By

11/1/16  
Date

Due Date: 11/2/2016



**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BLK7	Blank	0.5	20					
F610422-BLK8	Blank	0.5	20					
F610422-BLK9	Blank	0.5	20					
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

**Standard ID(s):**  
 1506872  
 1605470

**Description:**  
 MHg New Primary 100 ng/mL spike  
 DORM-4

**Expiration:**  
 03-Nov-16 00:00  
 19-Mar-17 00:00  
 19-Mar-17 00:00

**Reagent ID(s):**  
 1603399  
 1605678  
 1605926  
 1605961  
 1606119

**Description:**  
 Boiling Chips for AFS prep  
 Ethylating Agent (For Methyl Mercury Analysis)  
 25% KOH/Methanol  
 Acetate Buffer  
 Methanol, HPLC Grade

**Expiration:**  
 01-Jun-17 00:00  
 28-Mar-17 00:00  
 09-Apr-17 00:00  
 11-Apr-17 00:00  
 17-Oct-19 00:00

**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-01RE1	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-02RE1	ES-13_072716_POL_WB_02	0.2871	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-03RE1	ES-13_072716_POL_WB_03	0.2928	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-04RE1	ES-13_072716_POL_WB_04	0.3144	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610231-05RE1	ES-13_072716_POL_WB_05	0.3021	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		

Page 127 of 230

Date: 11/2/2016



**PREPARATION BENCH SHEET**

F610422

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

PREPARATION BENCH SHEET

2700-1  
10/30/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610422-BLK1	Blank	0.25	20					
F610422-BLK2	Blank	0.25	20					
F610422-BLK3	Blank	0.25	20					
F610422-BLK4	Pre Homogen. Blank for 1610574	0.2645	20					
F610422-BLK5	Post Homogen. Blank for 1610574	0.268	20					
F610422-BLK6	Prep Blank for 1610231,235	0.2629	20					
F610422-BLK7	Blank	0.5	20					500X
F610422-BLK8	Blank	0.5	20					500X
F610422-BLK9	Blank	0.5	20					500X
F610422-BS1	LCS	0.2561	20	1605470	256			
F610422-BSD1	LCS Dup	0.2552	20	1605470	255			
F610422-DUP1	Duplicate [1610574-01]	0.2574	20					
F610422-MS1	Matrix Spike [1610231-01]	0.2252	20	1506872	100			
F610422-MS2	Matrix Spike [1610610-01]	0.285	20	1506872	100			
F610422-MSD1	Matrix Spike Dup [1610231-01]	0.2415	20	1506872	100			
F610422-MSD2	Matrix Spike Dup [1610610-01]	0.2955	20	1506872	100			

Standard ID(s):  
1506872  
1605470

Description:  
MHg New Primary 100 ng/mL spike  
DORM-4

Expiration:  
03-Nov-16 00:00  
19-Mar-17 00:00  
19-Mar-17 00:00

Reagent ID(s):  
1603399  
1605678  
1605926  
1605961  
1606119

Description:  
Boiling Chips for AFS prep  
Ethylating Agent (For Methyl Mercury Analysis)  
25% KOH/Methanol  
Acetate Buffer  
Methanol, HPLC Grade

Expiration:  
01-Jun-17 00:00  
28-Mar-17 00:00  
09-Apr-17 00:00  
11-Apr-17 00:00  
17-Oct-19 00:00

PREPARATION BENCH SHEET

2700-1  
10/31/16 DM

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion Prepared: 10/20/2016

1610235-05RE1	FRB-01_092816_POL_WB_05	0.282	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610574-01	160906-00563 NE 785 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2962	20	-	-	-			
1610574-02	160906-00564 SE 1008 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2647	20	-	-	-			
1610574-03	160906-00565 SD 1028 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2785	20	-	-	-			
1610574-04	160906-00566 LA 1001 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.274	20	-	-	-			
1610574-05	160906-00567 MW 784 335238 Canned Albacore Tuna FY17 M09 Bumble Bee	0.2643	20	-	-	-			
1610610-01	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD		
1610610-01RE1	NMC-5242-01 8644926-8644928	0.2588	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-02	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-			
1610610-02RE1	NMC-5242-01 DUP 8644929	0.2589	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-03	NMC-5242-02 8644930	0.2674	20	-	-	-			
1610610-03RE1	NMC-5242-02 8644930	0.2674	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610610-04	NMC-5242-03 8644931	0.2801	20	-	-	-			
1610610-04RE1	NMC-5242-03 8644931	0.2801	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x
1610617-01	GBPE-0022-01 8644933	0.3122	20	-	-	-			
1610617-01RE1	GBPE-0022-01 8644933	0.3122	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2	500x

PREPARATION BENCH SHEET

10/31/16 DM  
2700-1

F610422

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: Hg Aquatic/Solids - EFGS-010 KOH/Methanol Hg Digestion

Prepared: 10/20/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610231-01	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD	
1610231-01RE1	ES-13_072716_POL_WB_01	0.2399	20	QC	-	-	MS/MSD Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-02	ES-13_072716_POL_WB_02	0.2871	20	-	-	-		
1610231-02RE1	ES-13_072716_POL_WB_02	0.2871	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-03	ES-13_072716_POL_WB_03	0.2928	20	-	-	-		
1610231-03RE1	ES-13_072716_POL_WB_03	0.2928	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-04	ES-13_072716_POL_WB_04	0.3144	20	-	-	-		
1610231-04RE1	ES-13_072716_POL_WB_04	0.3144	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610231-05	ES-13_072716_POL_WB_05	0.3021	20	-	-	-		
1610231-05RE1	ES-13_072716_POL_WB_05	0.3021	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-01	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2879	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-02	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.2912	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2 500X
1610235-03	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2665	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.2553	20	-	-	-	Added 10/31/2016 by DM2	Added 10/31/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.282	20	-	-	-		

Page 132 of 230

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610422

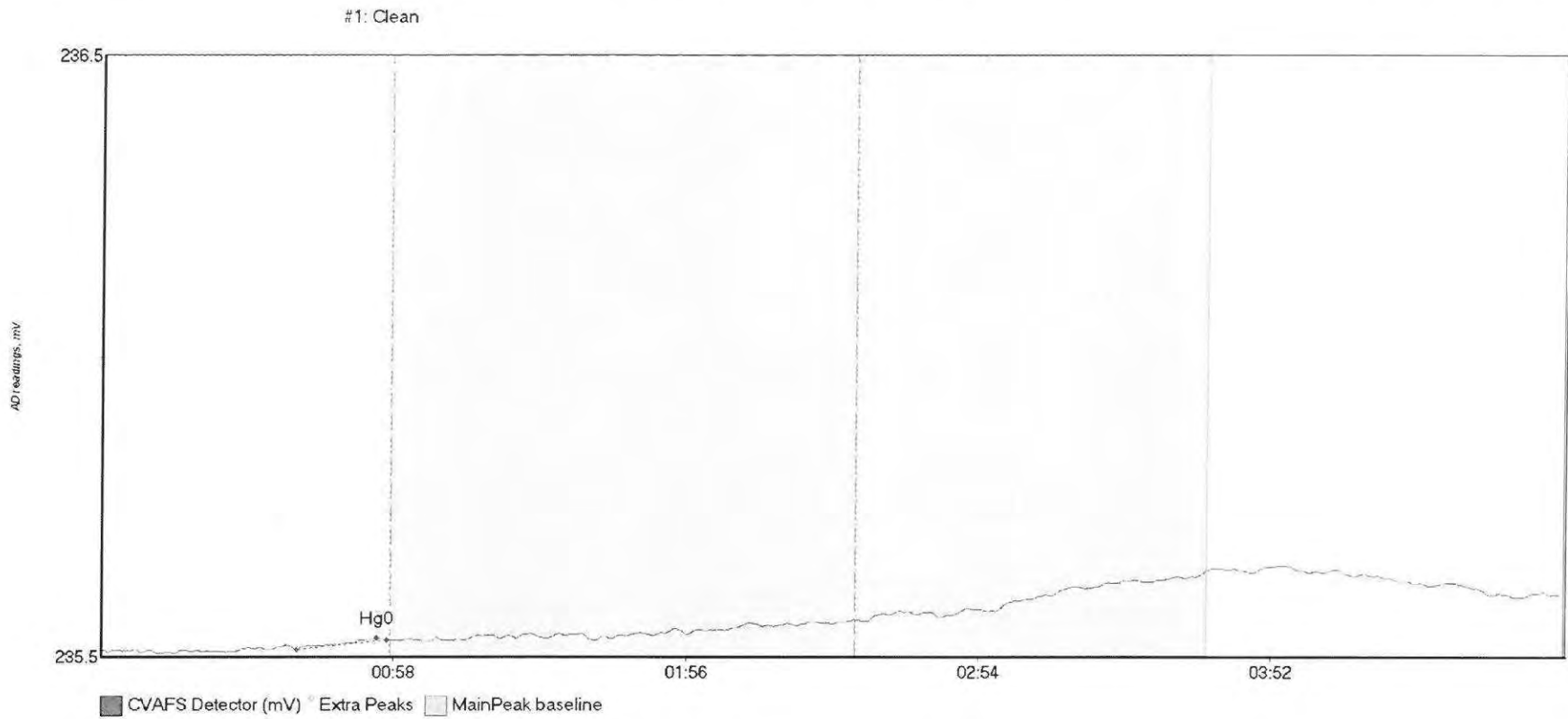
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 10/20/2016**

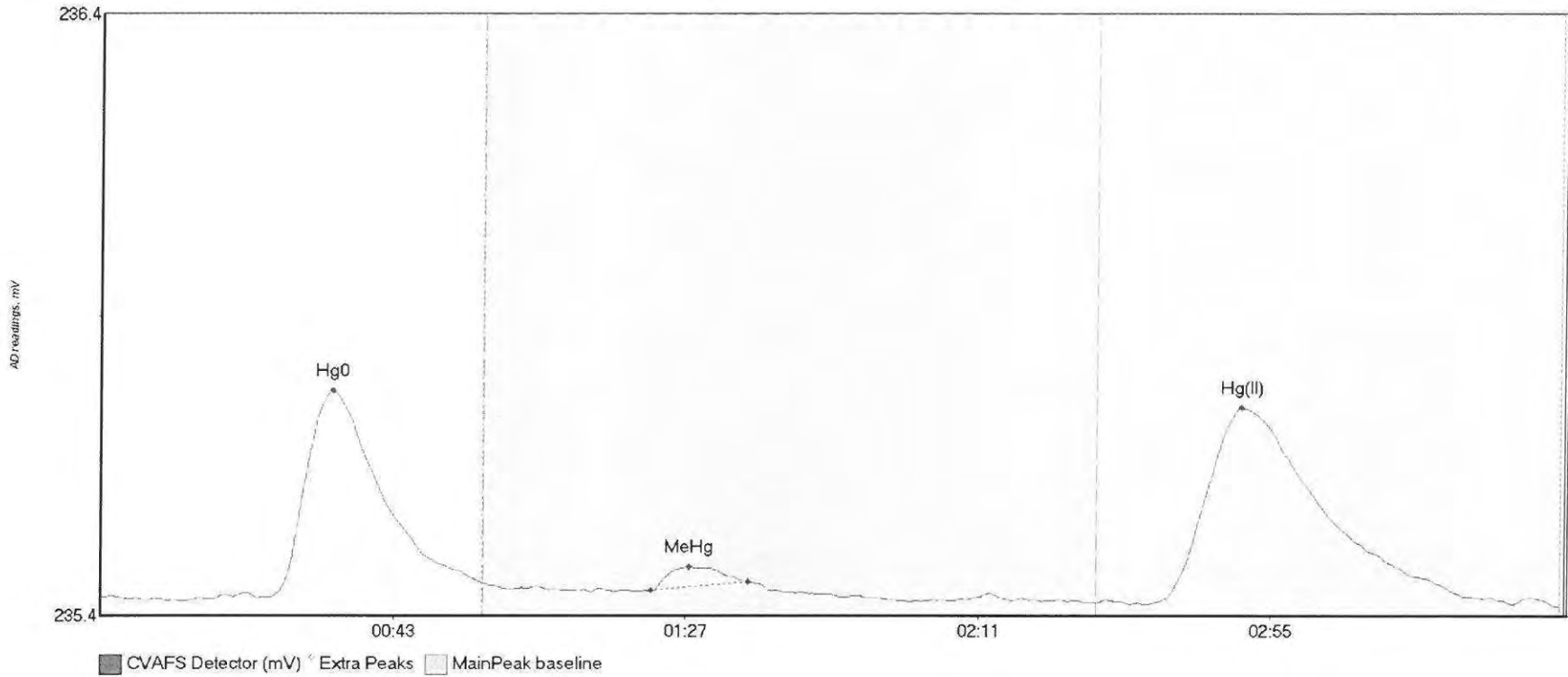




All Peaks verified  
BC 11-2-16

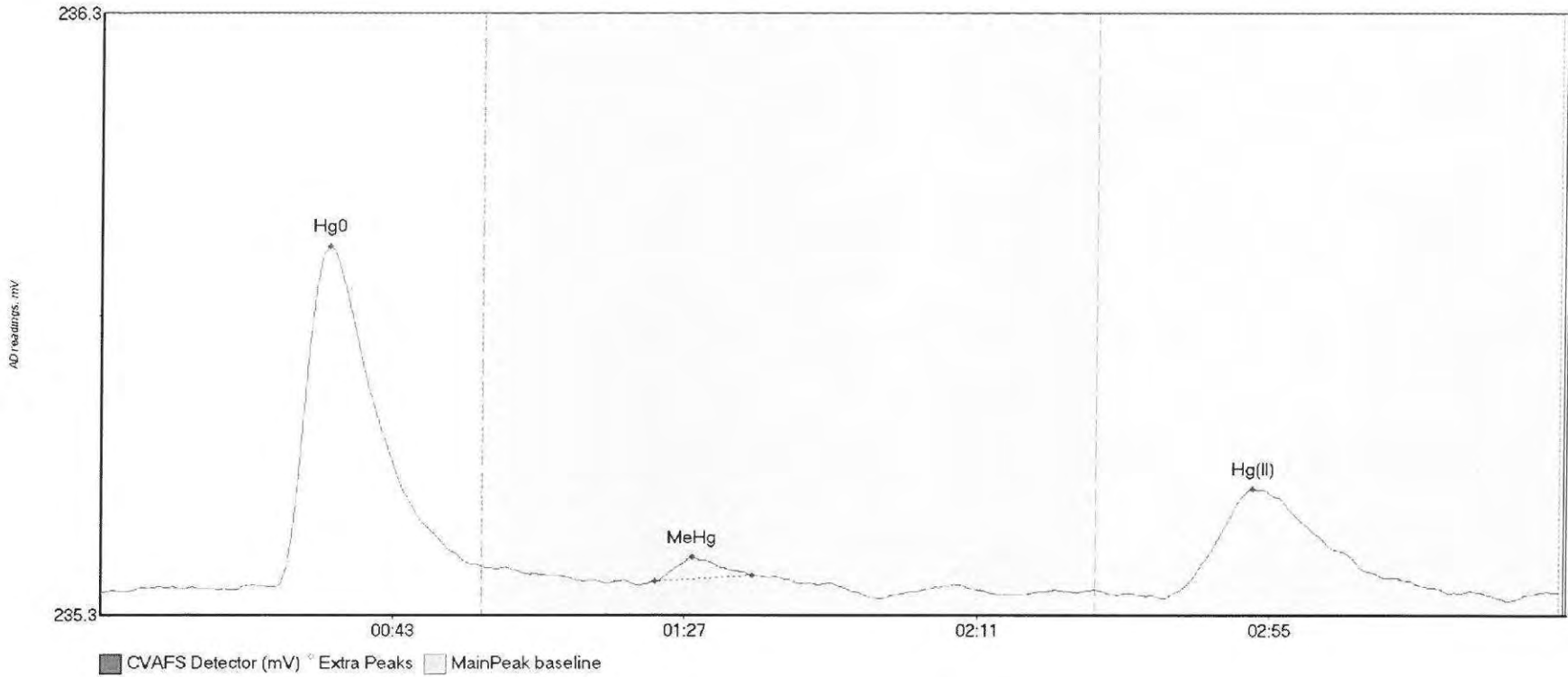
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment	316
Clean	0.594	39.0	56.9	235.54	235.56	55.0	0.019	OK	235.5403	0.00	0.09		

#2: WS



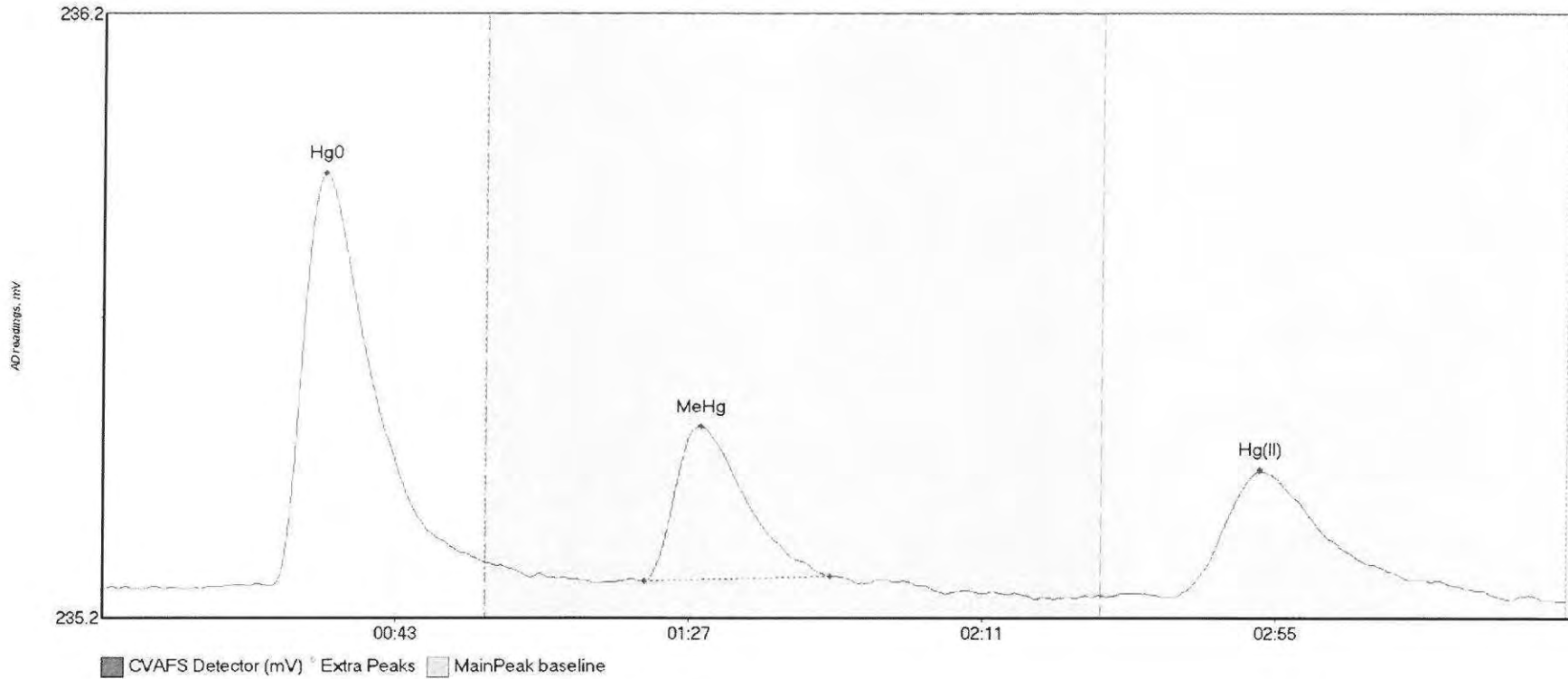
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
WS Hg0	42.597	25.3	57.5	235.46	235.48	34.8	0.344	CT	235.4589	0.00	-0.02	
WS MeHg	3.010	82.9	97.4	235.47	235.48	88.6	0.039	OK	235.4589	0.00	-0.02	
WS Hg(II)	63.795	158.9	210.9	235.45	235.45	171.6	0.326	OK	235.4589	0.00	-0.02	

#3: SEQ-IBL1



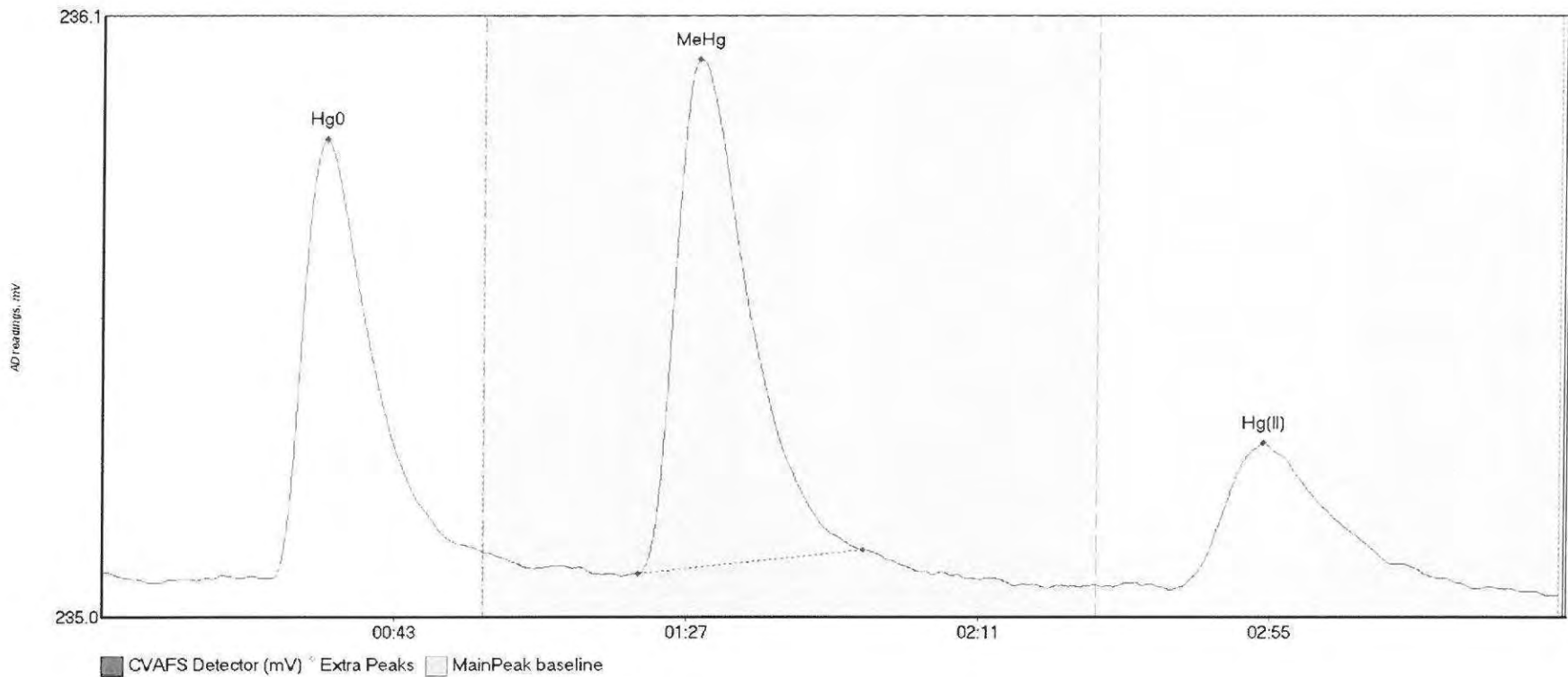
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-IBL1 Hg0	66.164	20.7	57.5	235.36	235.40	34.4	0.570	CT	235.3579	0.00	0.00	
SEQ-IBL1 MeHg	2.700	83.6	98.2	235.38	235.39	89.2	0.040	OK	235.3579	0.00	0.00	
SEQ-IBL1 Hg(II)	30.365	160.3	200.2	235.35	235.37	173.4	0.182	OK	235.3579	0.00	0.00	

#4: SEQ-CAL1



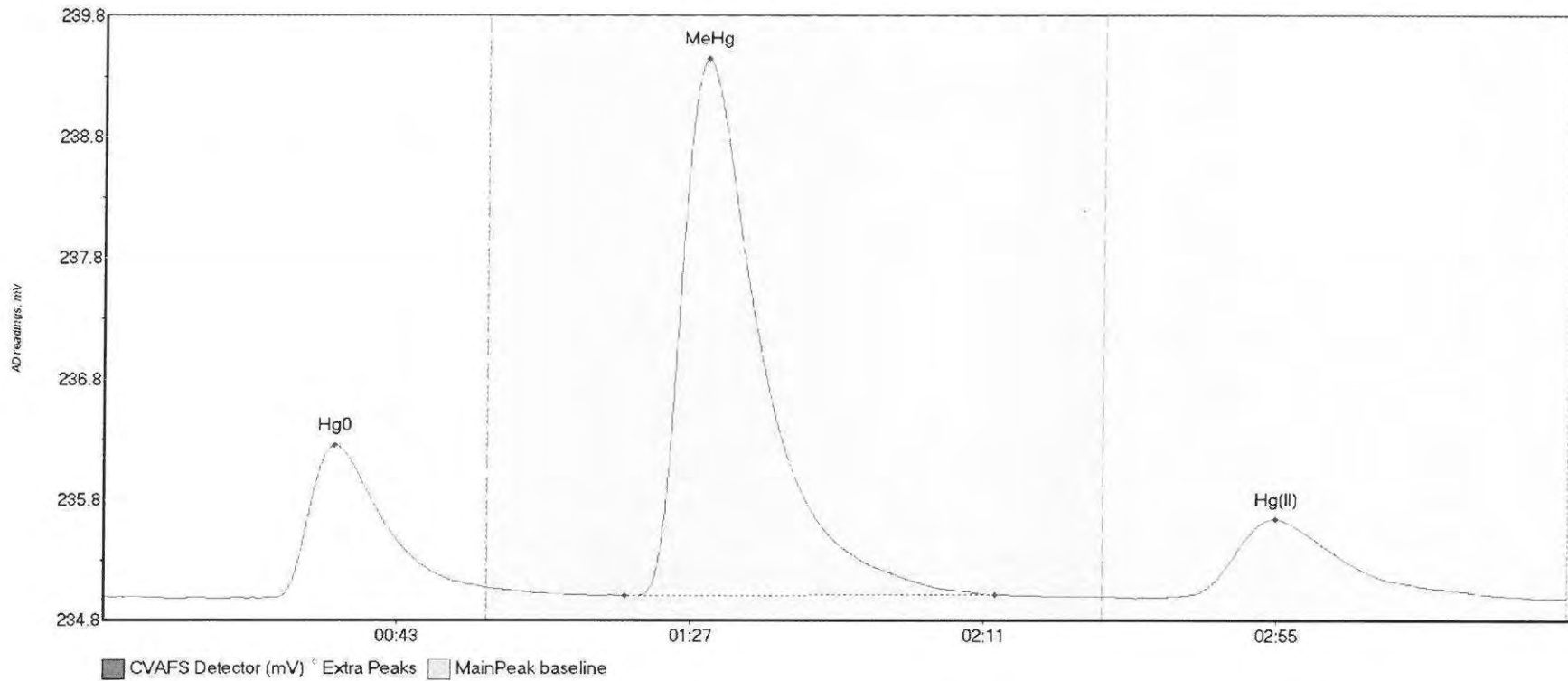
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL1 Hg0	78.166	25.3	57.5	235.26	235.29	33.5	0.682	CT	235.2513	0.00	-0.02	
SEQ-CAL1 MeHg	30.969	81.3	109.2	235.26	235.27	89.8	0.257	OK	235.2513	0.00	-0.02	
SEQ-CAL1 Hg(II)	38.302	160.8	209.5	235.24	235.24	173.6	0.209	OK	235.2513	0.00	-0.02	

#5: SEQ-CAL2



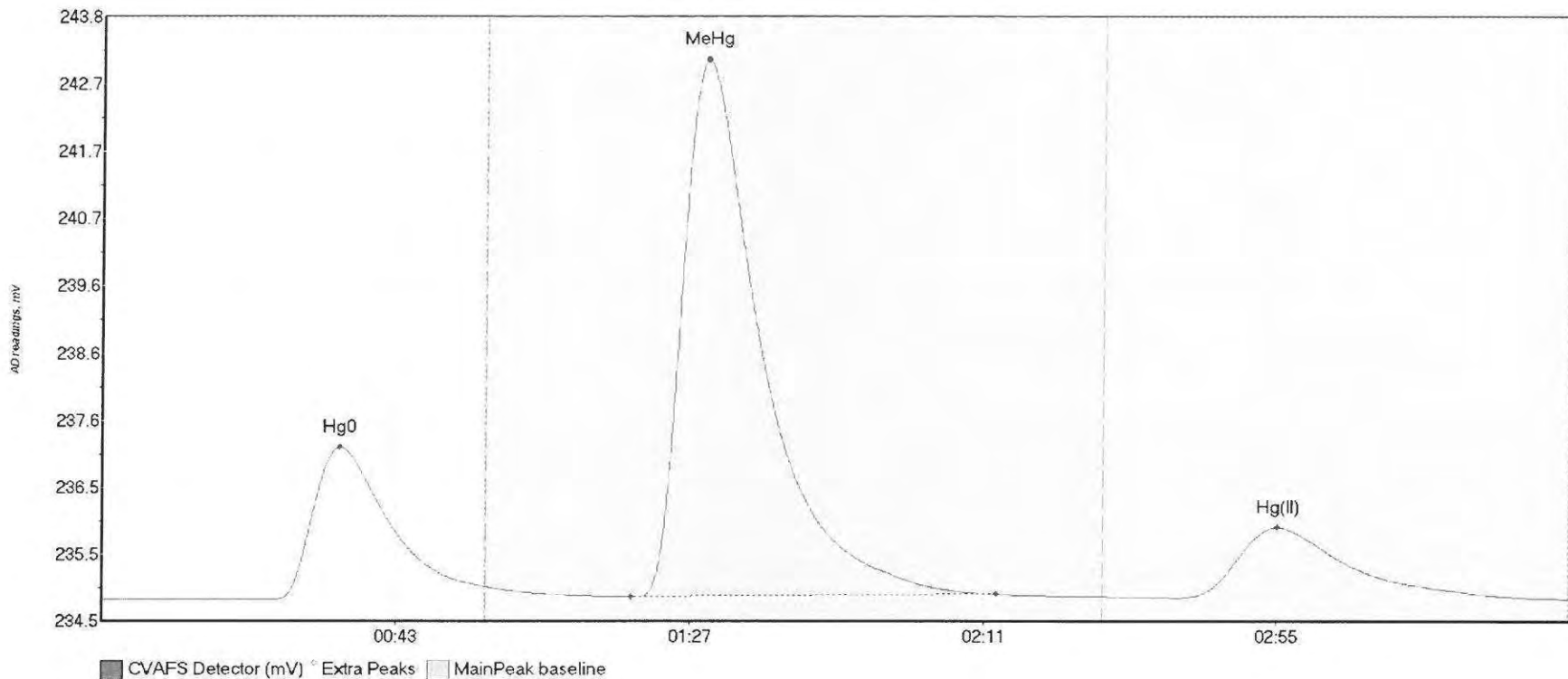
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL2 Hg0	85.374	25.7	57.5	235.11	235.16	33.7	0.743	CT	235.1241	0.00	-0.04	
SEQ-CAL2 MeHg	109.725	80.7	114.6	235.12	235.16	89.8	0.872	OK	235.1241	0.00	-0.04	
SEQ-CAL2 Hg(II)	45.741	161.1	207.0	235.09	235.10	175.1	0.249	OK	235.1241	0.00	-0.04	

#6: SEQ-CAL3



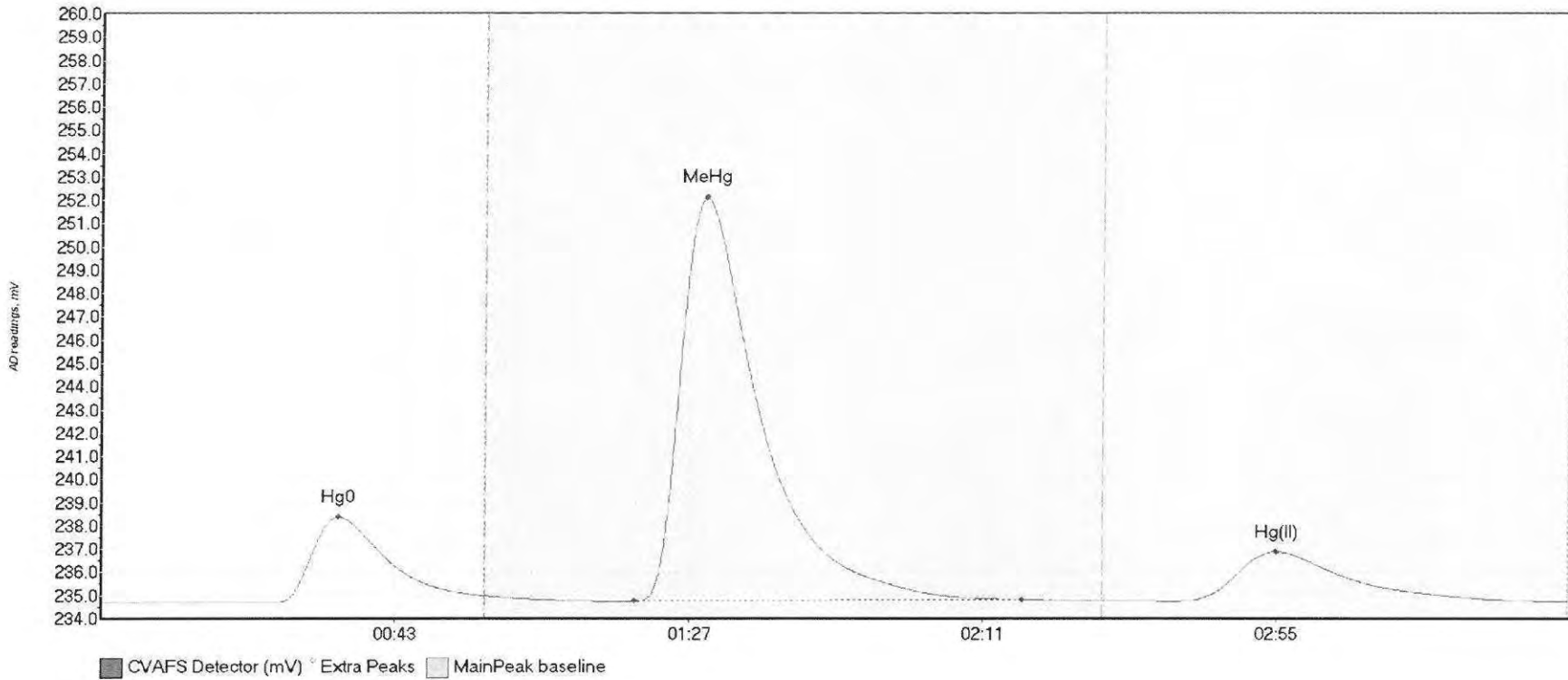
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL3 Hg0	154.149	24.9	57.5	234.96	235.05	34.7	1.286	CT	234.9725	0.00	-0.02	
SEQ-CAL3 MeHg	626.097	78.1	133.7	234.98	234.99	90.3	4.505	OK	234.9725	0.00	-0.02	
SEQ-CAL3 Hg(II)	120.072	158.3	211.9	234.97	234.97	175.9	0.659	OK	234.9725	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	284.695	25.7	57.5	234.82	235.01	35.6	2.346	CT	234.8166	0.00	0.01	
SEQ-CAL4 MeHg	1139.677	79.2	133.9	234.86	234.89	90.5	8.249	OK	234.8166	0.00	0.01	
SEQ-CAL4 Hg(II)	203.304	161.4	213.8	234.84	234.84	176.2	1.092	OK	234.8166	0.00	0.01	

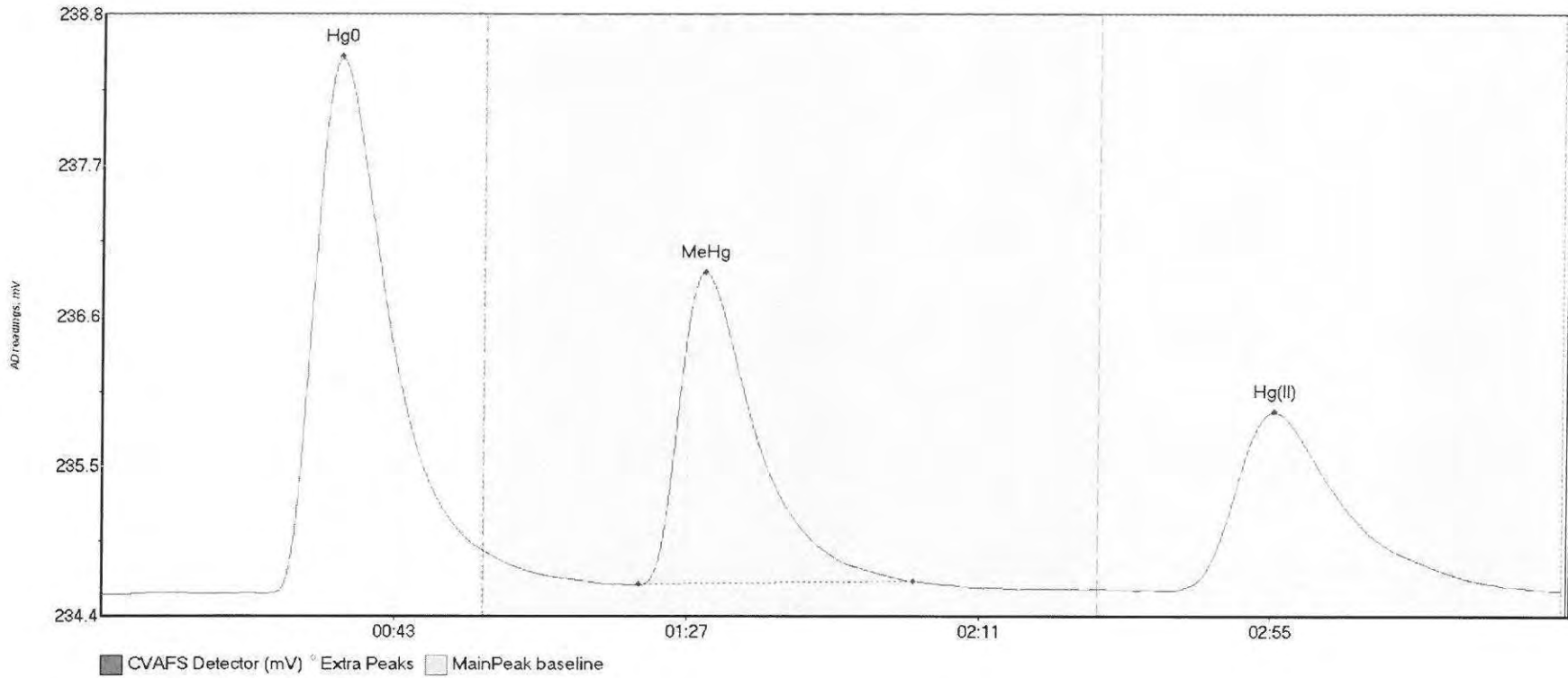
#8: SEQ-CAL5



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CAL5 Hg0	440.290	25.6	57.5	234.68	234.98	35.6	3.687	CT	234.6855	0.00	0.06	
SEQ-CAL5 MeHg	2400.162	79.7	137.9	234.75	234.82	90.5	17.349	OK	234.6855	0.00	0.06	
SEQ-CAL5 Hg(II)	399.016	159.8	218.2	234.76	234.74	176.1	2.122	OK	234.6855	0.00	0.06	

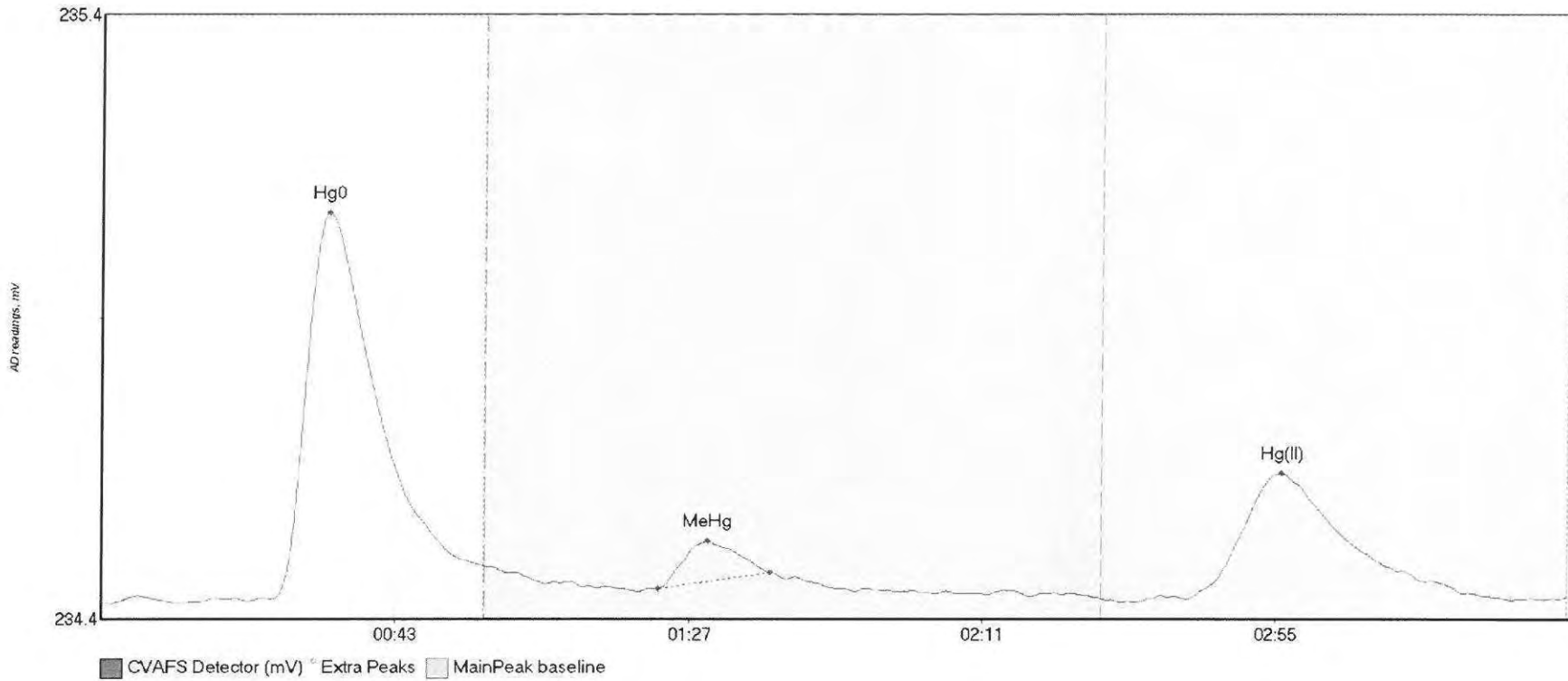


#9: SEQ-ICV1



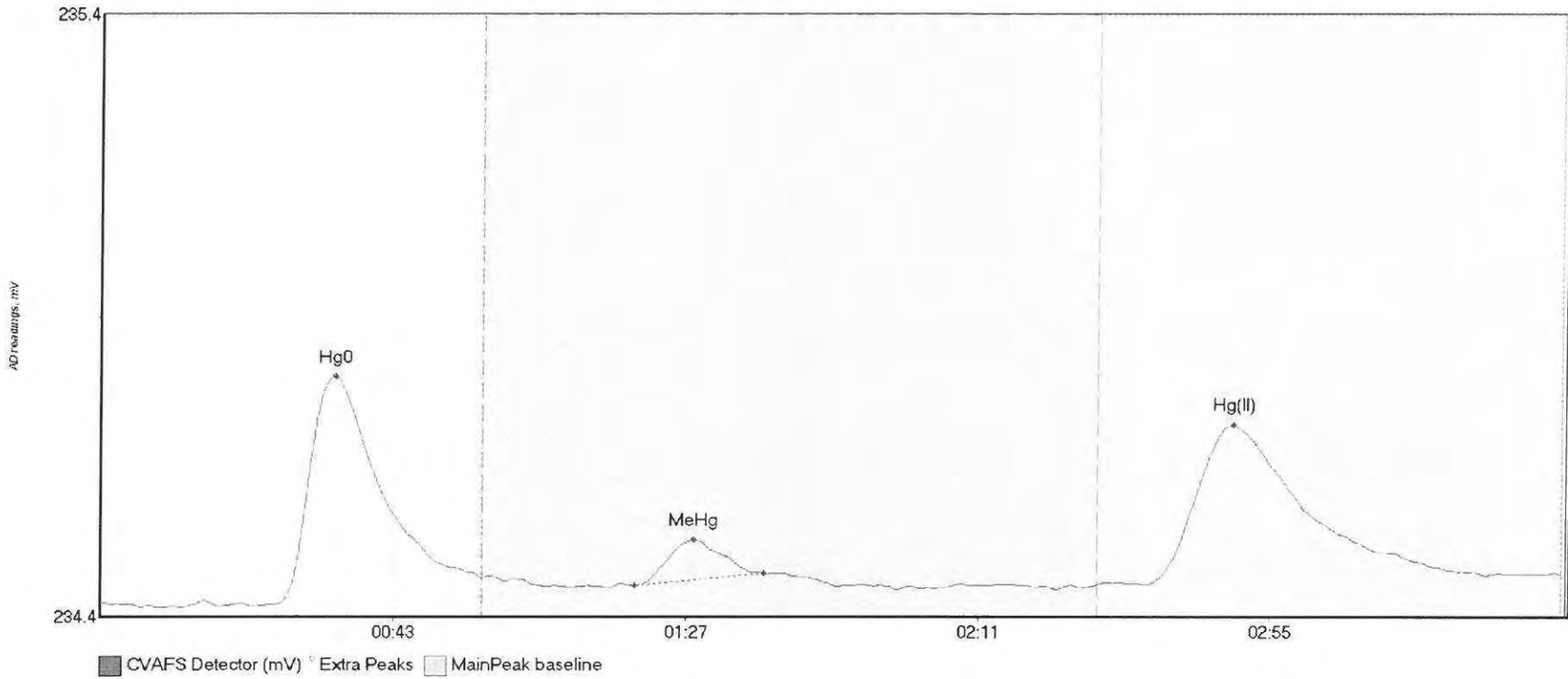
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICV1 Hg0	452.560	3.4	57.5	234.57	234.88	35.7	3.878	CT	234.5627	0.00	0.03	
SEQ-ICV1 MeHg	300.403	80.8	122.1	234.63	234.66	90.6	2.260	OK	234.5627	0.00	0.03	
SEQ-ICV1 Hg(II)	241.386	160.6	216.8	234.59	234.60	176.4	1.294	OK	234.5627	0.00	0.03	

#10: SEQ-ICB1



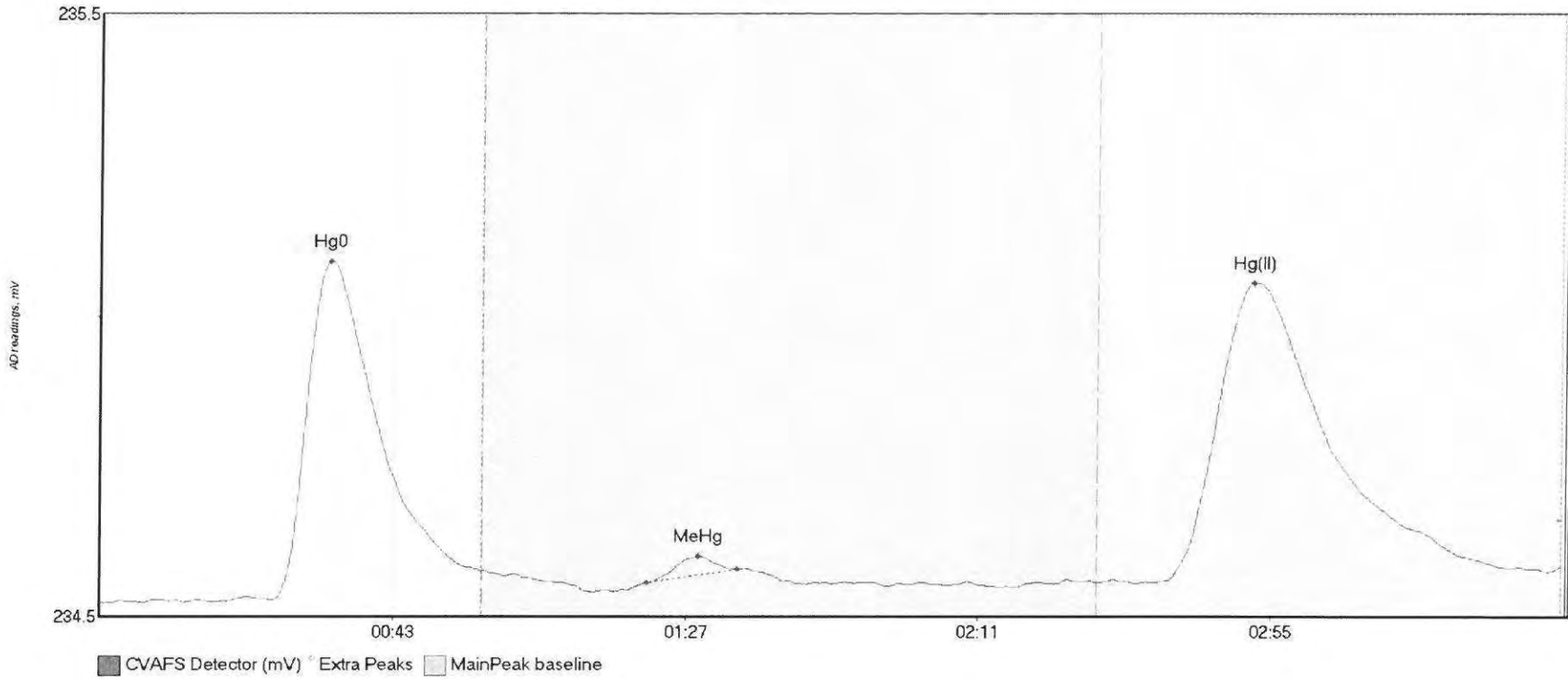
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-ICB1 Hg0	73.184	22.3	57.5	234.47	234.52	34.0	0.643	CT	234.4642	0.00	0.01	
SEQ-ICB1 MeHg	6.175	83.3	100.1	234.49	234.51	90.8	0.079	OK	234.4642	0.00	0.01	
SEQ-ICB1 Hg(II)	36.528	162.9	208.6	234.47	234.47	176.9	0.208	OK	234.4642	0.00	0.01	

#11: F610422-BLK7



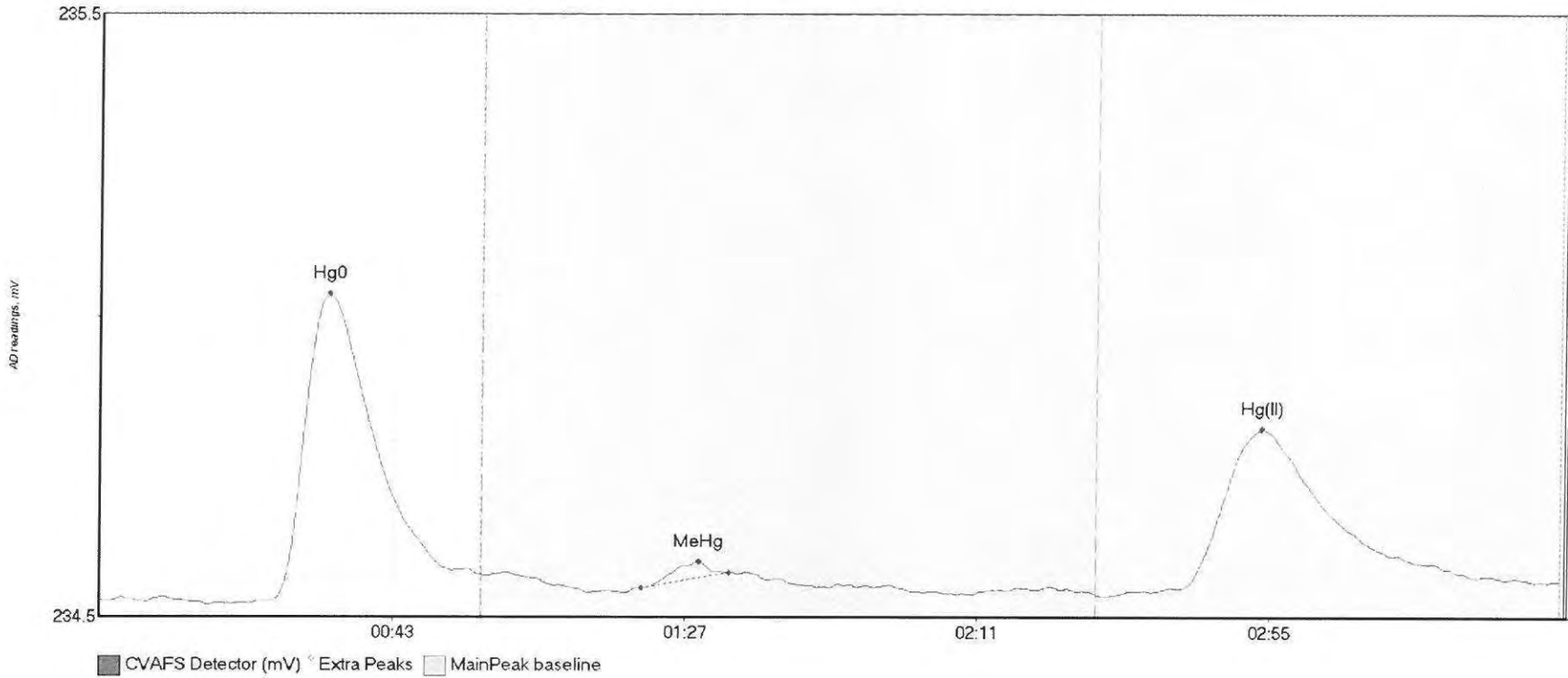
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK7 Hg	43.442	26.1	57.5	234.43	234.48	35.3	0.380	CT	234.4347	0.00	0.05	
F610422-BLK7 Me	6.163	80.3	99.7	234.46	234.48	89.1	0.076	OK	234.4347	0.00	0.05	
F610422-BLK7 Hg	48.889	157.3	208.4	234.46	234.48	170.5	0.265	OK	234.4347	0.00	0.05	

#12: F610422-BLK8



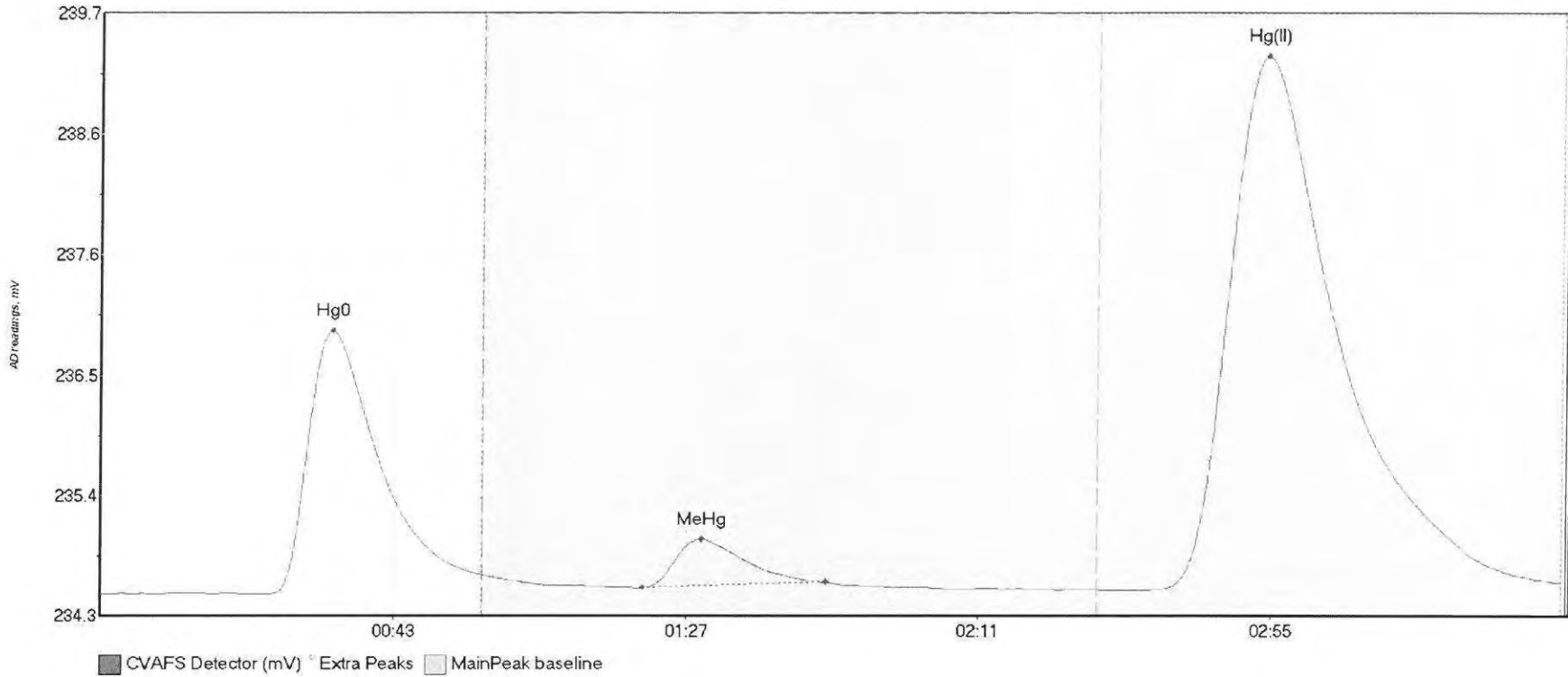
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK8 Hg	64.485	19.0	57.4	234.49	234.54	34.5	0.564	OK	234.4831	0.00	0.06	
F610422-BLK8 Me	2.169	82.1	95.7	234.52	234.54	89.9	0.044	OK	234.4831	0.00	0.06	
F610422-BLK8 Hg	95.015	160.3	217.9	234.52	234.53	173.3	0.496	OK	234.4831	0.00	0.06	

#13: F610422-BLK9



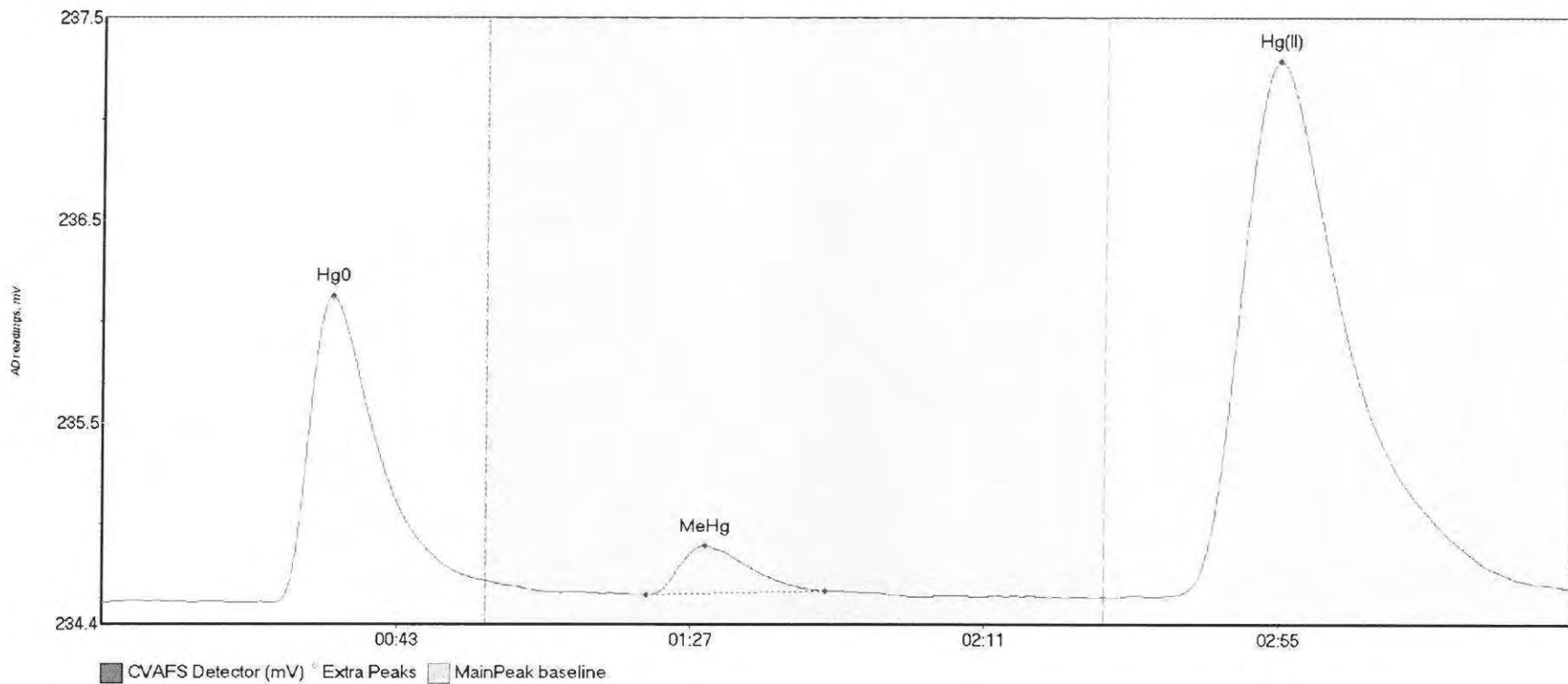
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
F610422-BLK9 Hg	58.137	25.9	57.5	234.53	234.58	34.3	0.507	CT	234.5330	0.00	0.03	
F610422-BLK9 Me	1.739	81.5	94.6	234.55	234.58	90.0	0.044	OK	234.5330	0.00	0.03	
F610422-BLK9 Hg	50.674	153.5	217.9	234.54	234.56	174.8	0.274	OK	234.5330	0.00	0.03	

#14: 1610231-01RE1



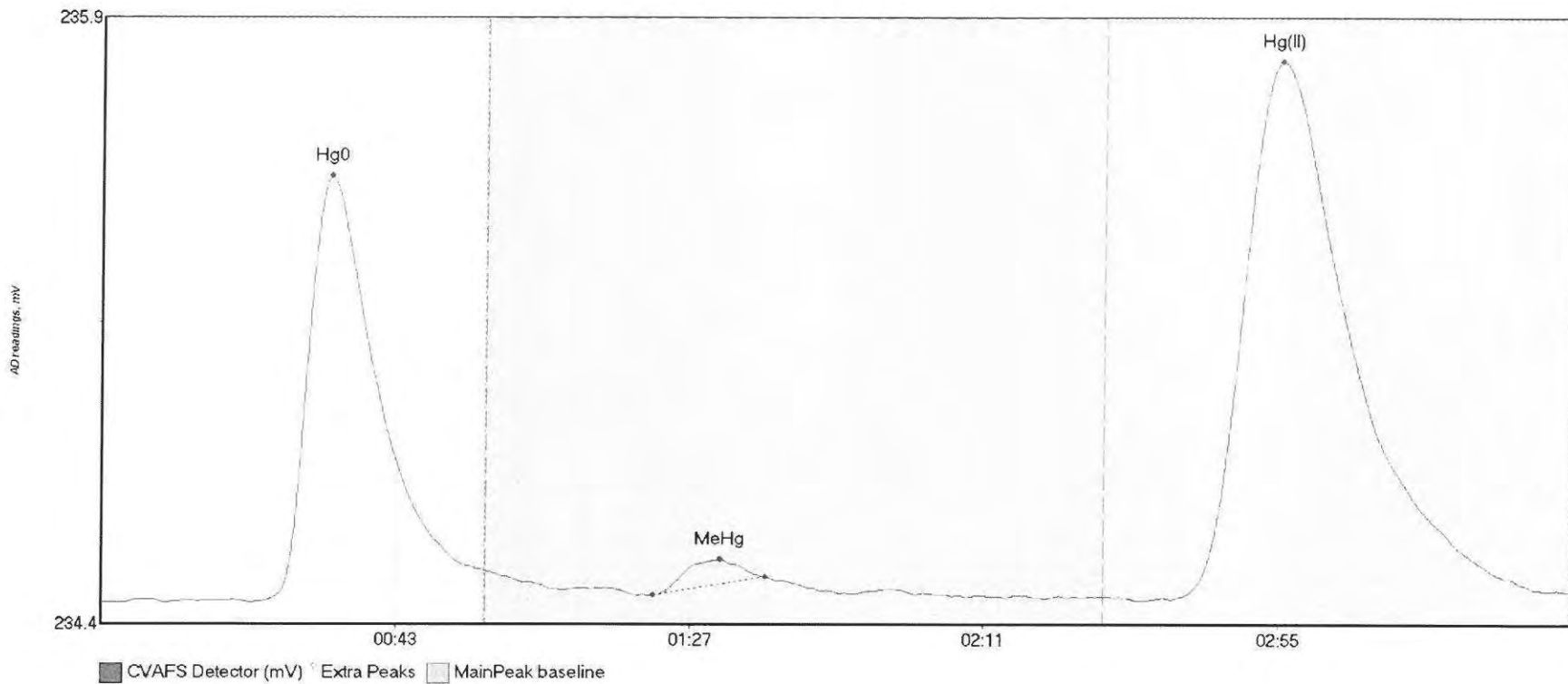
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-01RE1	H 270.840	25.1	57.5	234.55	234.71	34.8	2.336	CT	234.5463	0.00	0.10	
1610231-01RE1	M 49.170	81.5	109.0	234.60	234.65	90.3	0.429	OK	234.5463	0.00	0.10	
1610231-01RE1	H 893.649	159.0	219.8	234.58	234.64	175.3	4.725	CT	234.5463	0.00	0.10	

#15: 1610231-02RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-02RE1 H	175.929	25.7	57.5	234.53	234.65	34.3	1.560	CT	234.5321	0.00	0.07	
1610231-02RE1 M	28.511	81.5	108.2	234.57	234.59	90.2	0.250	OK	234.5321	0.00	0.07	
1610231-02RE1 H	508.135	158.1	219.8	234.56	234.60	175.8	2.730	CT	234.5321	0.00	0.07	

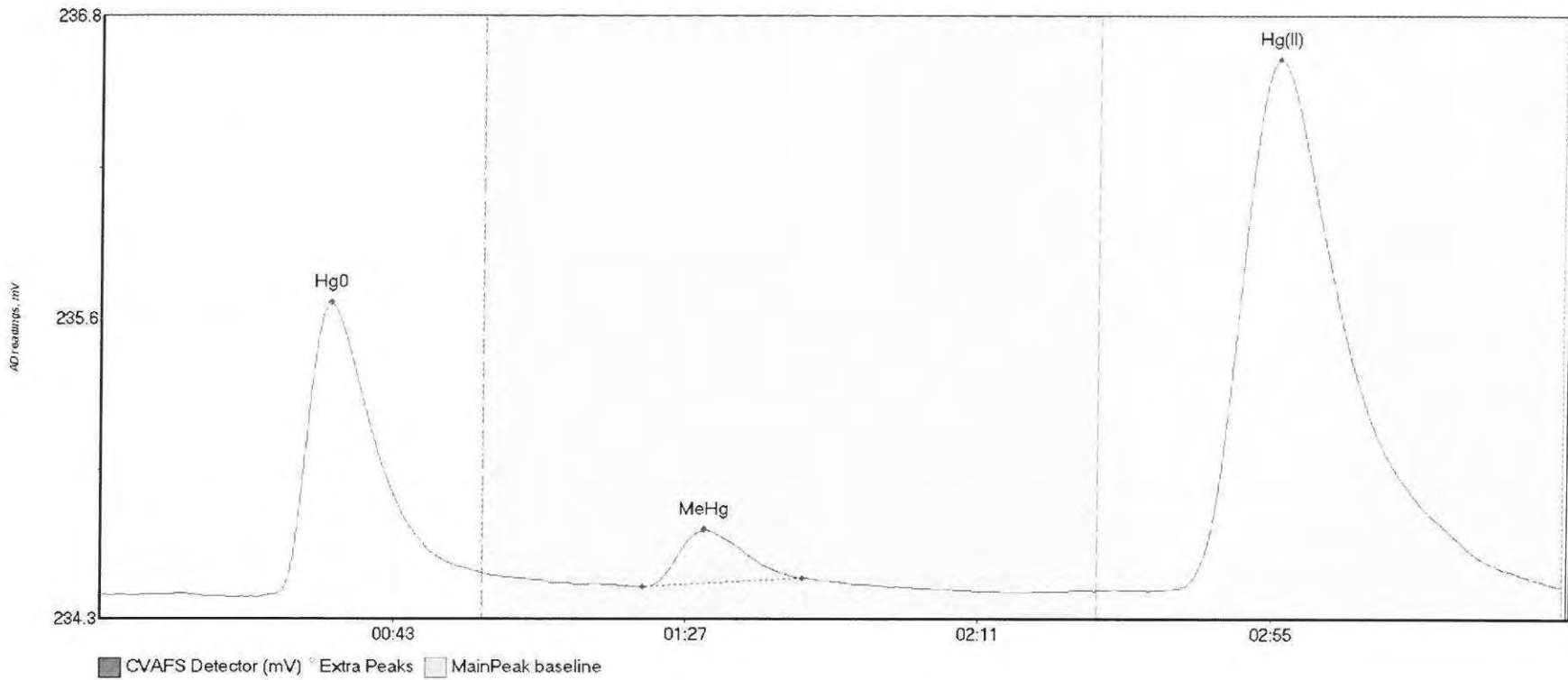
#16: 1610231-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-03RE1 H	113.490	24.0	57.5	234.49	234.56	34.2	1.009	CT	234.4881	0.00	0.02	
1610231-03RE1 M	5.662	82.6	99.1	234.50	234.55	92.5	0.086	OK	234.4881	0.00	0.02	
1610231-03RE1 H	236.162	159.9	219.6	234.50	234.51	176.2	1.277	OK	234.4881	0.00	0.02	

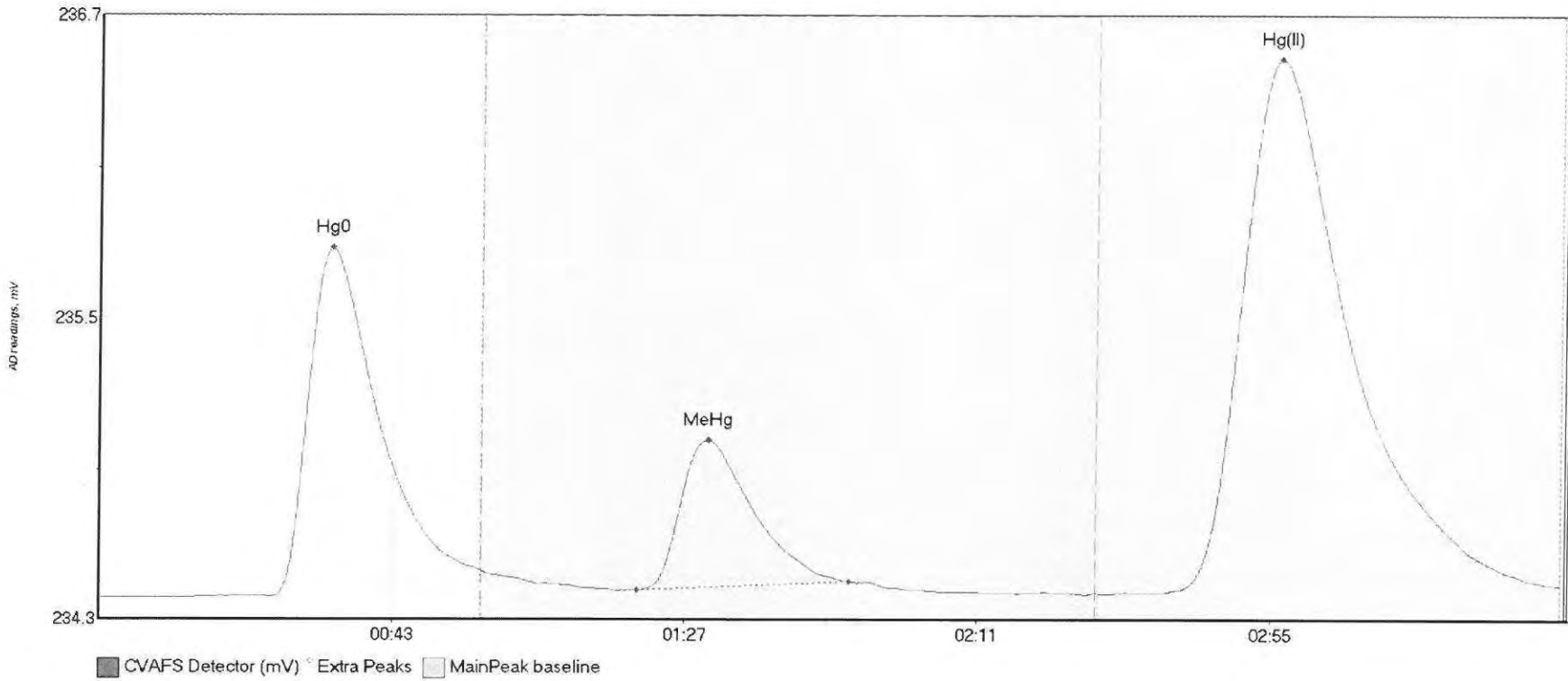


#17: 1610231-04RE1



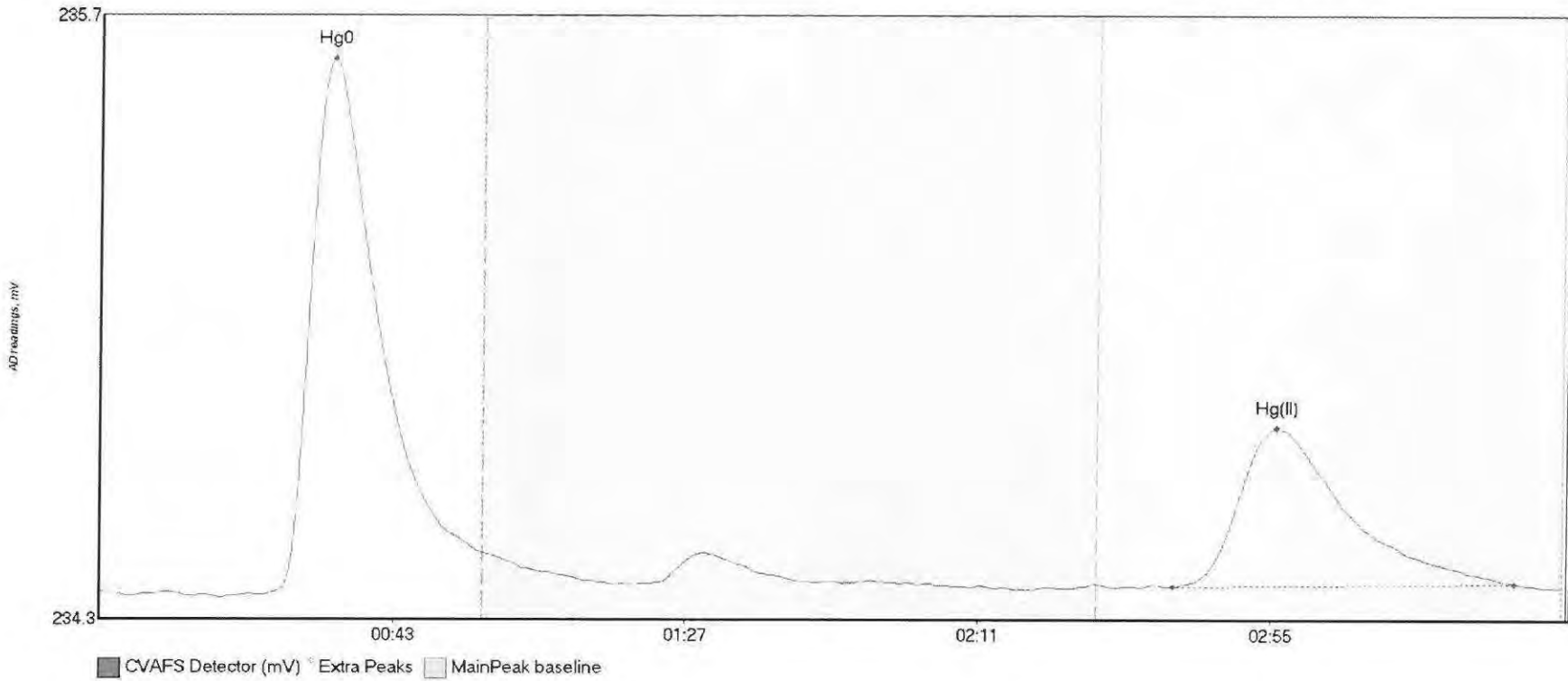
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-04RE1 H	134.011	25.4	57.5	234.43	234.52	34.4	1.194	CT	234.4327	0.00	0.03	
1610231-04RE1 M	24.076	81.6	105.5	234.46	234.50	90.8	0.235	OK	234.4327	0.00	0.03	
1610231-04RE1 H	404.601	159.3	219.8	234.45	234.46	176.9	2.176	CT	234.4327	0.00	0.03	

#18: 1610231-05RE1



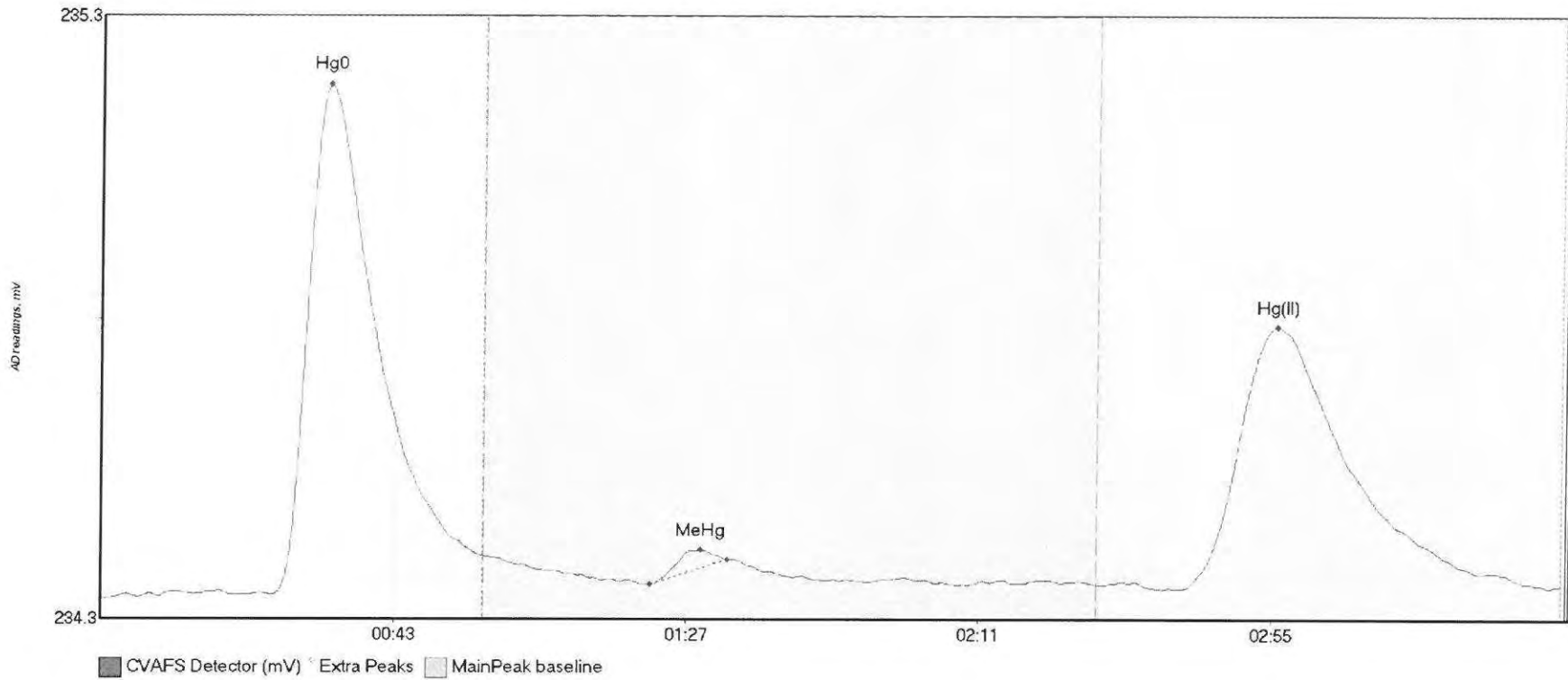
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610231-05RE1 H	162.786	25.7	57.5	234.39	234.49	34.8	1.418	CT	234.3835	0.00	0.05	
1610231-05RE1 M	75.016	80.9	112.7	234.41	234.45	91.4	0.612	OK	234.3835	0.00	0.05	
1610231-05RE1 H	403.589	159.3	219.8	234.40	234.43	177.2	2.172	CT	234.3835	0.00	0.05	

#19: 1610235-01RE1



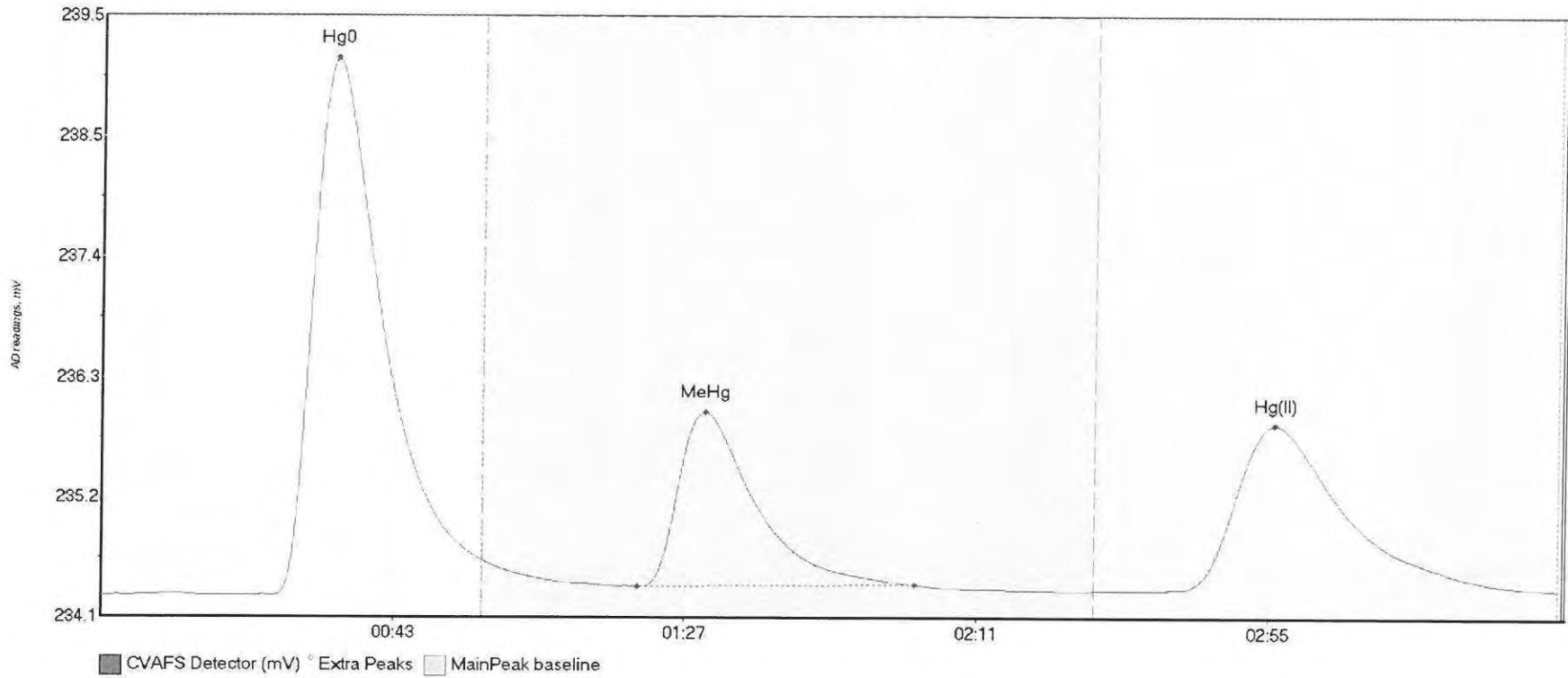
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-01RE1 H	138.521	24.5	57.5	234.34	234.44	34.8	1.260	CT	234.3497	0.00	0.01	
1610235-01RE1 H	69.567	161.3	212.8	234.36	234.37	176.7	0.374	OK	234.3497	0.00	0.01	

#20: 1610235-02RE1



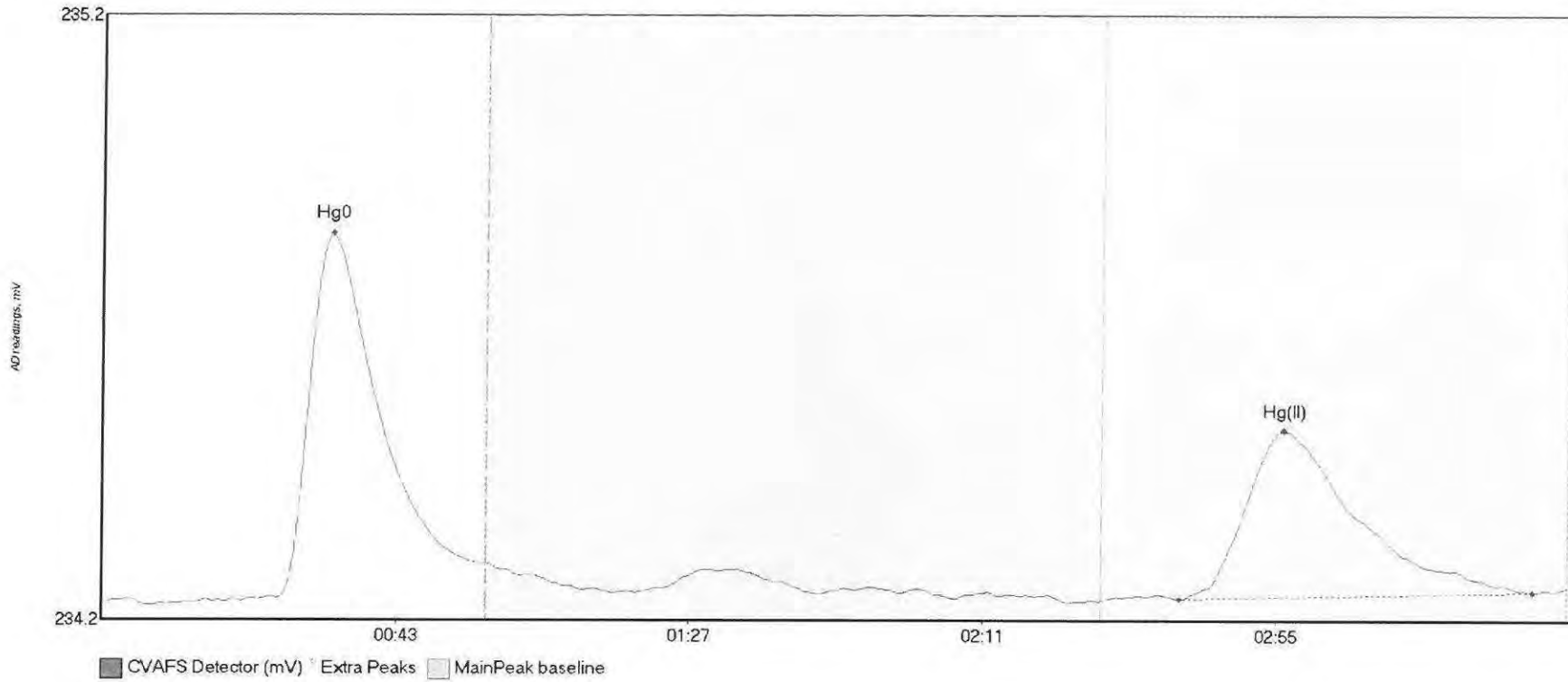
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-02RE1 H	92.348	8.9	57.5	234.30	234.37	34.2	0.847	CT	234.2989	0.00	0.02	
1610235-02RE1 M	1.993	82.6	94.2	234.32	234.36	90.2	0.057	OK	234.2989	0.00	0.02	
1610235-02RE1 H	80.946	163.0	214.5	234.32	234.33	176.7	0.435	OK	234.2989	0.00	0.02	

#21: SEQ-CCV1



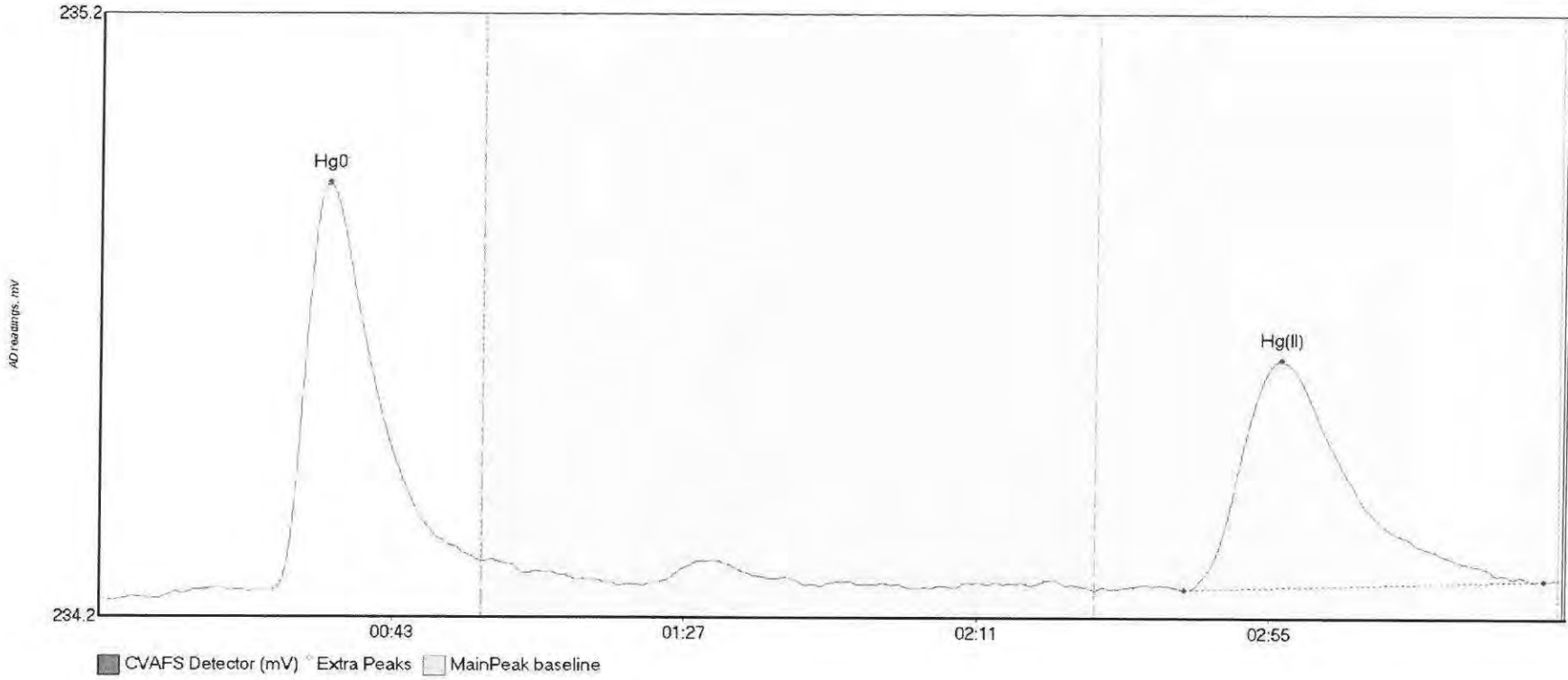
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV1 Hg0	560.060	26.1	57.5	234.27	234.59	35.2	4.889	CT	234.2686	0.00	0.05	
SEQ-CCV1 MeHg	211.545	81.0	122.8	234.35	234.36	91.0	1.596	OK	234.2686	0.00	0.05	
SEQ-CCV1 Hg(II)	284.494	160.5	219.8	234.32	234.32	176.9	1.510	CT	234.2686	0.00	0.05	

#22: SEQ-CCB1



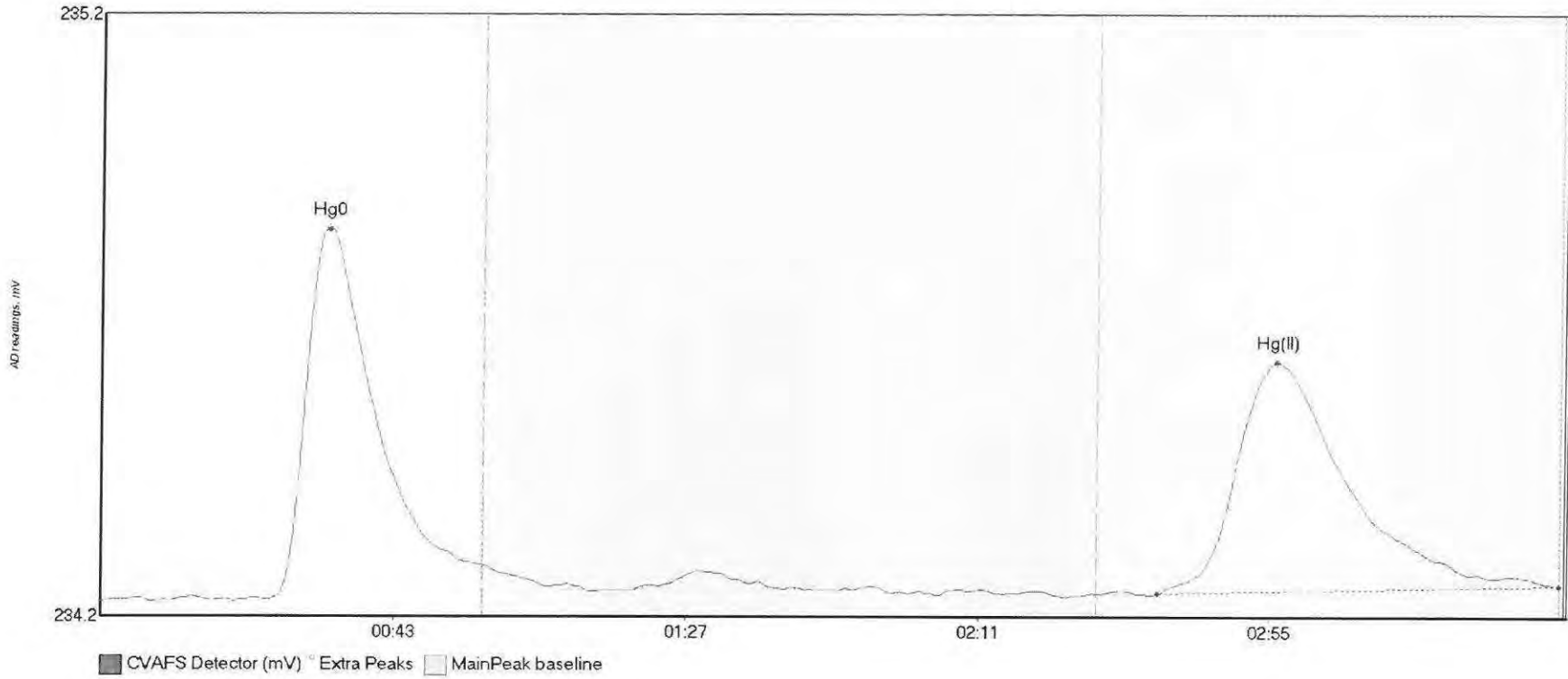
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB1 Hg0	66.481	23.5	57.4	234.24	234.30	34.4	0.603	OK	234.2358	0.00	0.02	
SEQ-CCB1 Hg(II)	52.935	161.6	214.8	234.24	234.25	177.1	0.280	OK	234.2358	0.00	0.02	

#23: 1610235-03RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-03RE1 H	75.368	9.0	57.5	234.20	234.26	34.4	0.687	CT	234.2005	0.00	0.03	
1610235-03RE1 H	70.559	163.3	217.8	234.22	234.23	177.6	0.382	OK	234.2005	0.00	0.03	

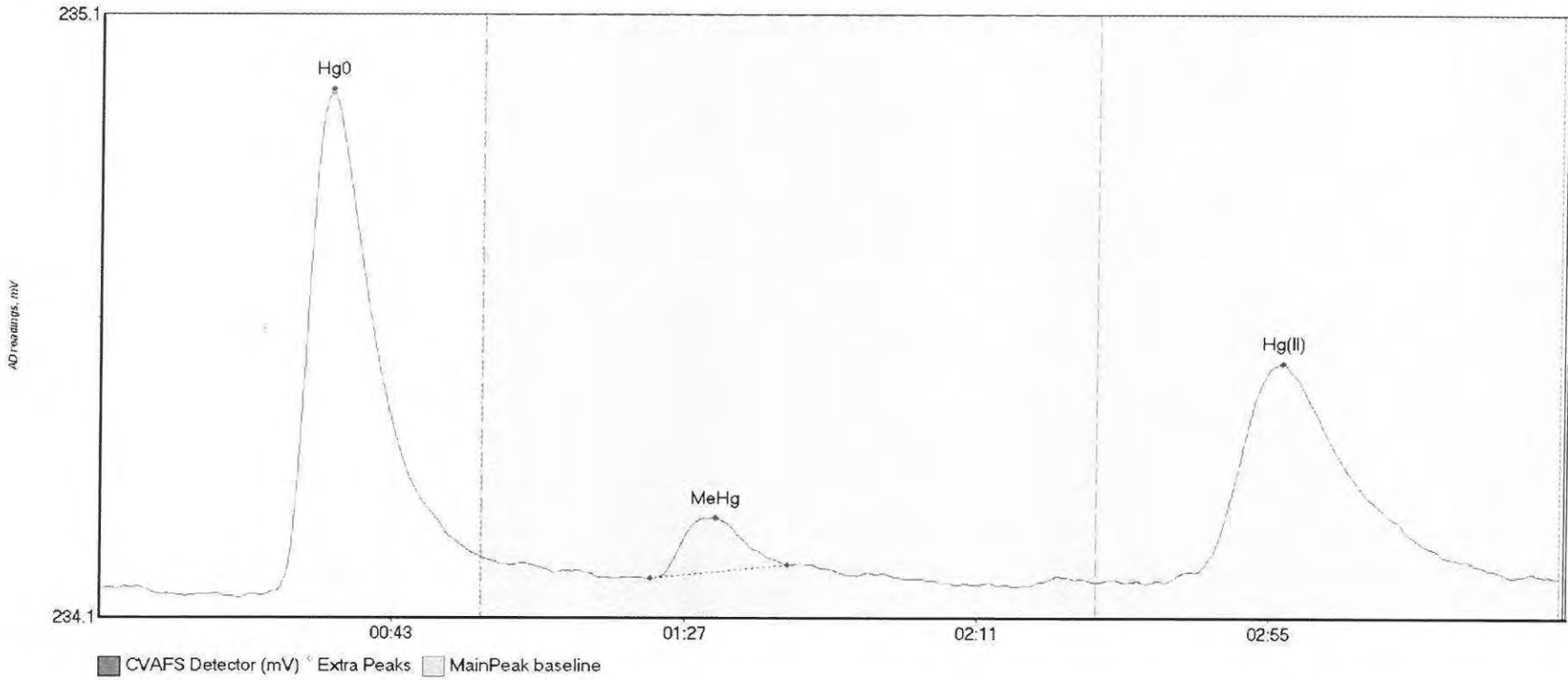
#24: 1610235-04RE1



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-04RE1 H	68.212	25.1	57.5	234.19	234.25	34.1	0.618	CT	234.1910	0.00	0.03	
1610235-04RE1 H	73.384	159.2	219.8	234.20	234.22	177.1	0.386	CT	234.1910	0.00	0.03	016

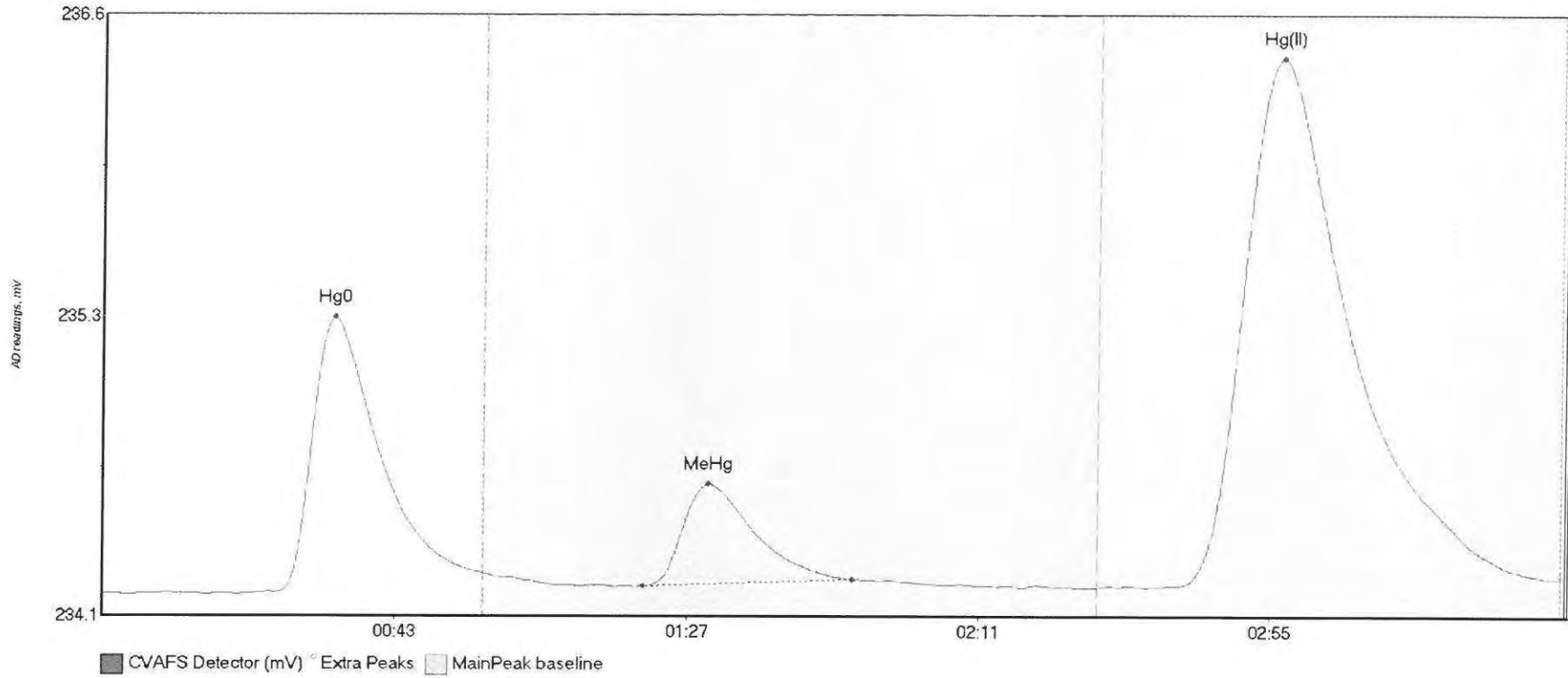


#25: 1610235-05RE1



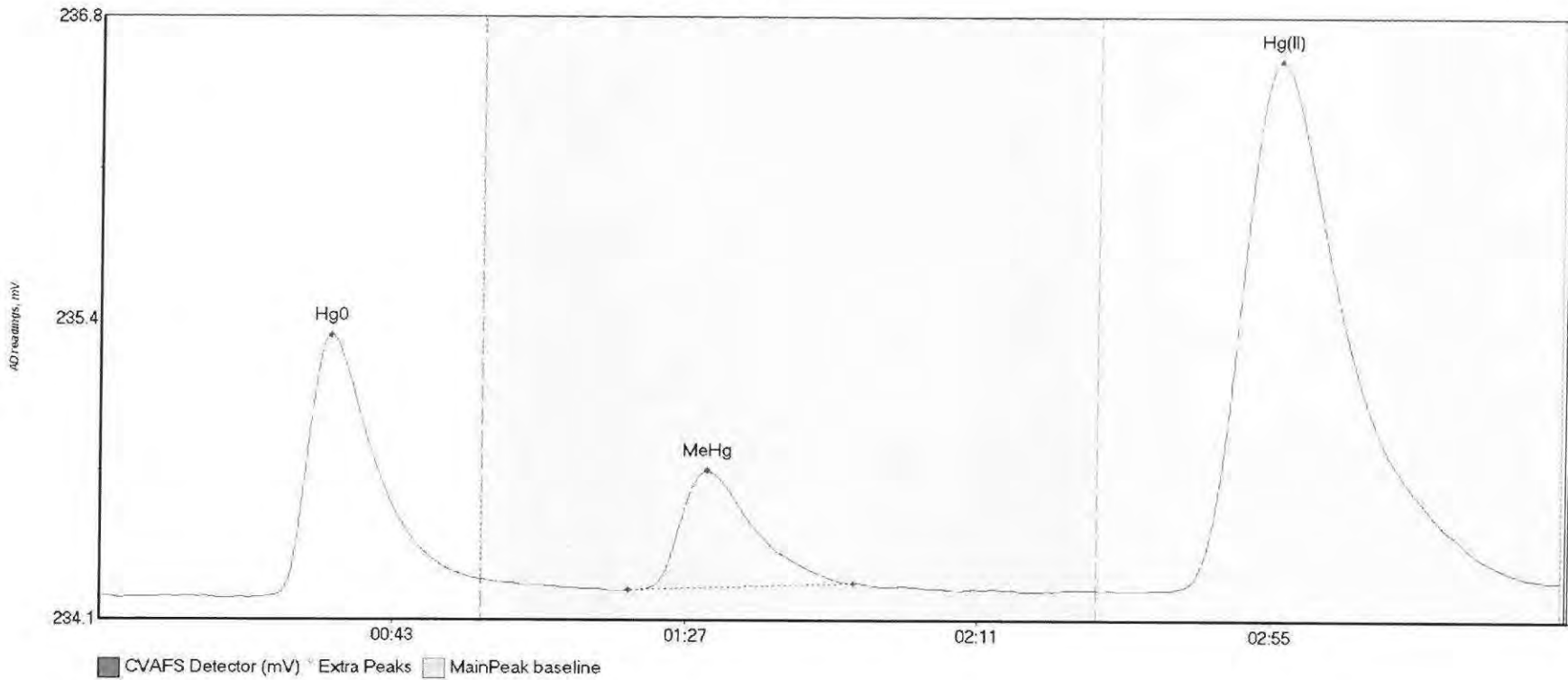
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max.	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610235-05RE1 H	92.024	26.4	57.5	234.18	234.24	34.7	0.828	CT	234.1868	0.00	0.02	
1610235-05RE1 M	9.423	82.9	103.5	234.20	234.23	92.6	0.101	OK	234.1868	0.00	0.02	
1610235-05RE1 H	70.108	160.3	219.8	234.20	234.20	178.0	0.365	CT	234.1868	0.00	0.02	

#26: 1610610-01RE1



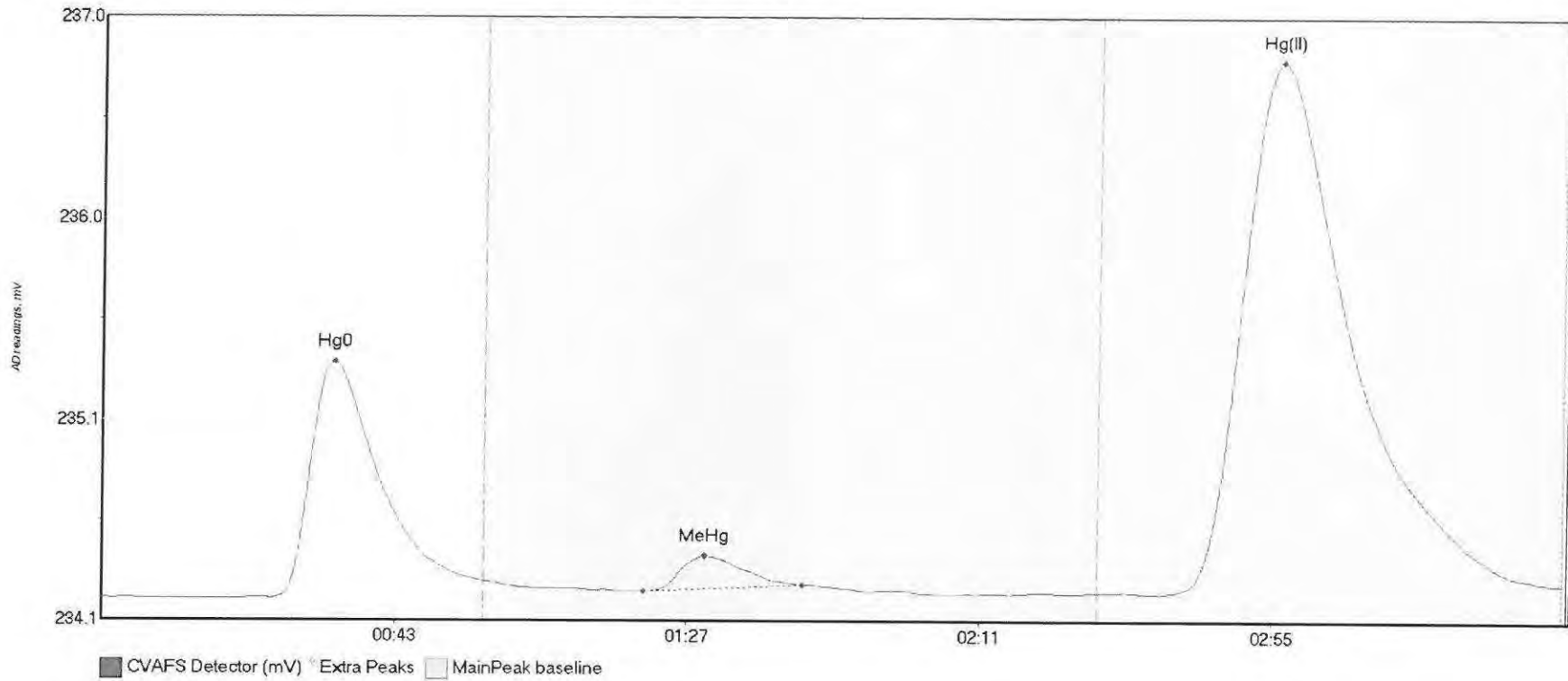
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-01RE1 H	128.808	22.1	57.5	234.17	234.26	34.8	1.166	CT	234.1748	0.00	0.06	
1610610-01RE1 M	52.256	81.5	113.0	234.21	234.23	91.2	0.432	OK	234.1748	0.00	0.06	
1610610-01RE1 H	411.971	161.5	219.8	234.21	234.24	177.6	2.231	CT	234.1748	0.00	0.06	

#27: 1610610-02RE1



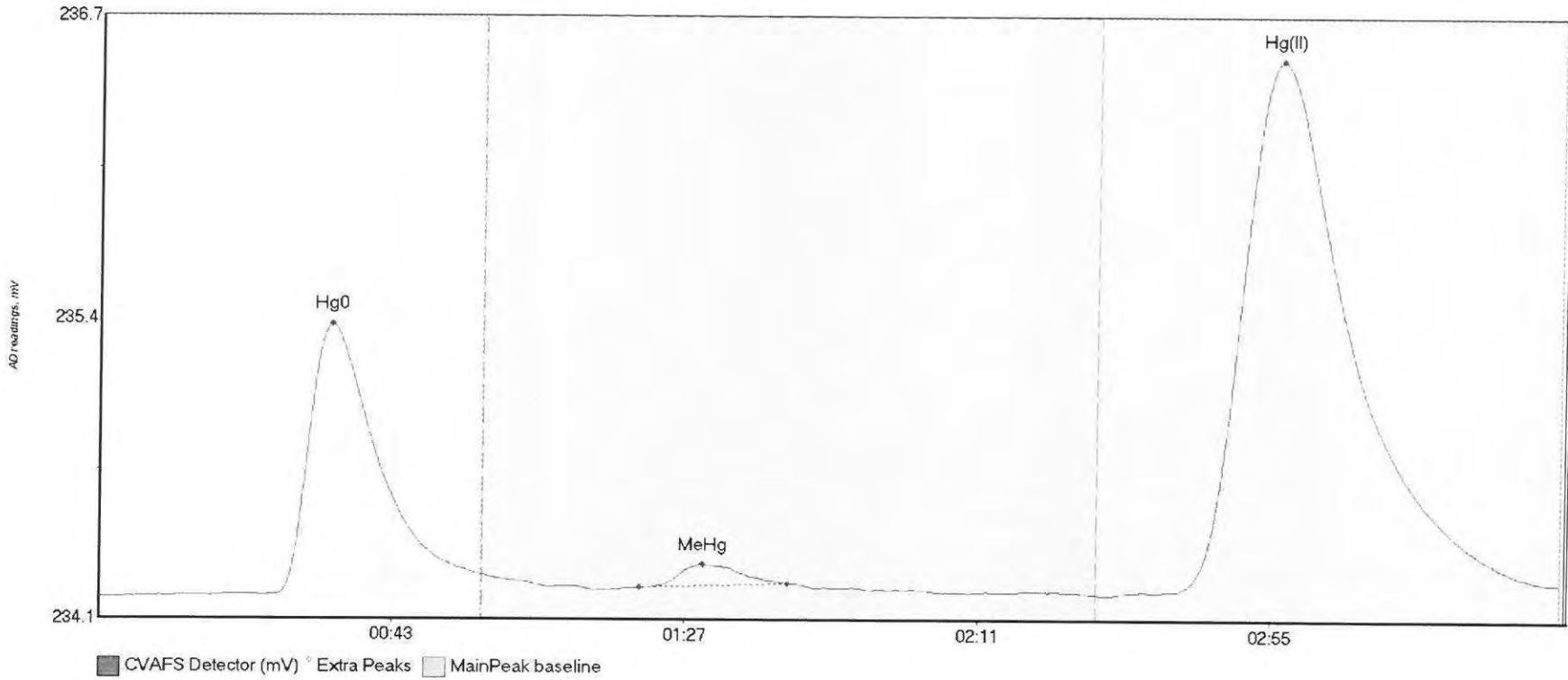
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-02RE1 H	131.236	24.4	57.5	234.18	234.26	34.6	1.171	CT	234.1805	0.00	0.07	
1610610-02RE1 M	66.849	79.4	113.5	234.21	234.24	91.1	0.536	OK	234.1805	0.00	0.07	
1610610-02RE1 H	437.179	160.8	218.2	234.21	234.25	177.2	2.367	OK	234.1805	0.00	0.07	

#28: 1610610-03RE1



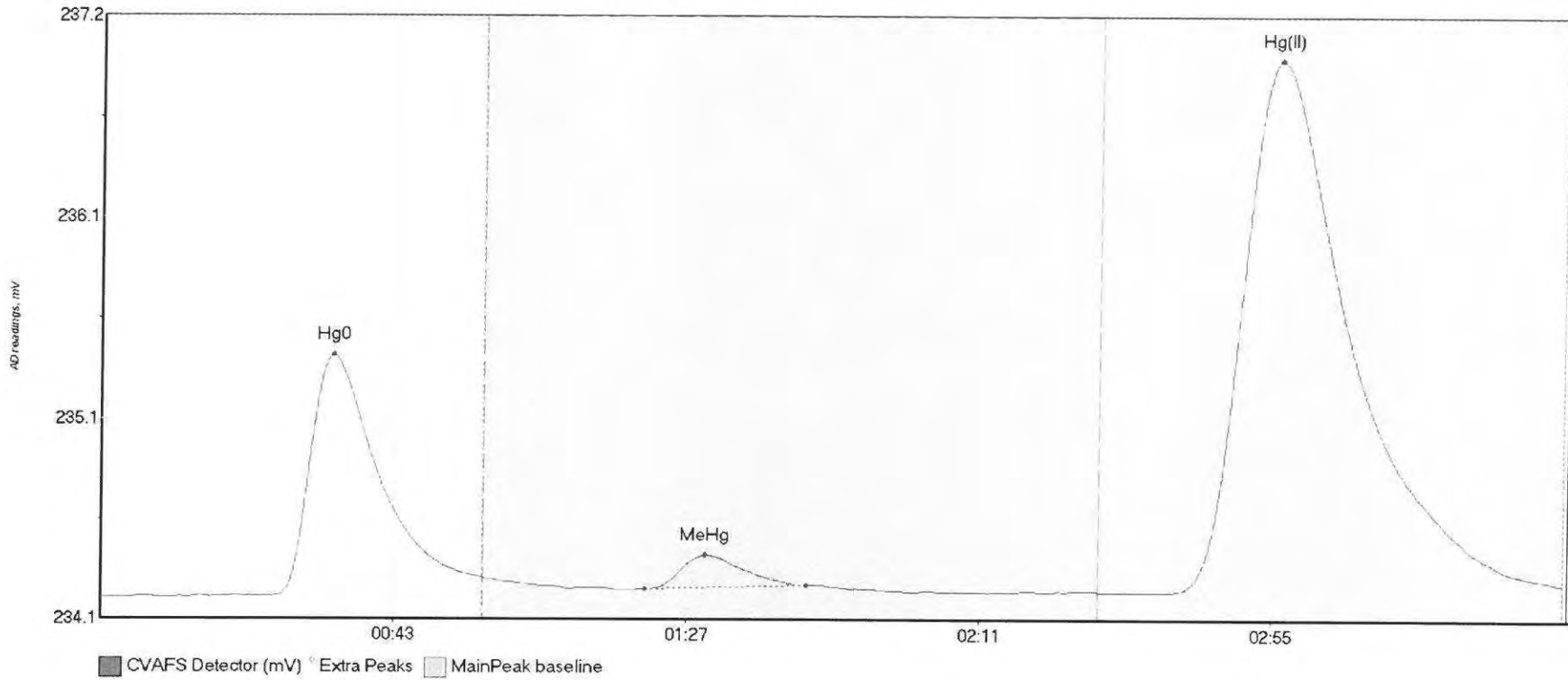
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-03RE1 H	129.218	25.4	57.5	234.18	234.27	34.8	1.150	CT	234.1851	0.00	0.07	
1610610-03RE1 M	16.923	81.6	105.3	234.22	234.25	90.6	0.173	OK	234.1851	0.00	0.07	
1610610-03RE1 H	483.137	159.3	219.8	234.21	234.26	177.1	2.588	CT	234.1851	0.00	0.07	

#29: 1610610-04RE1



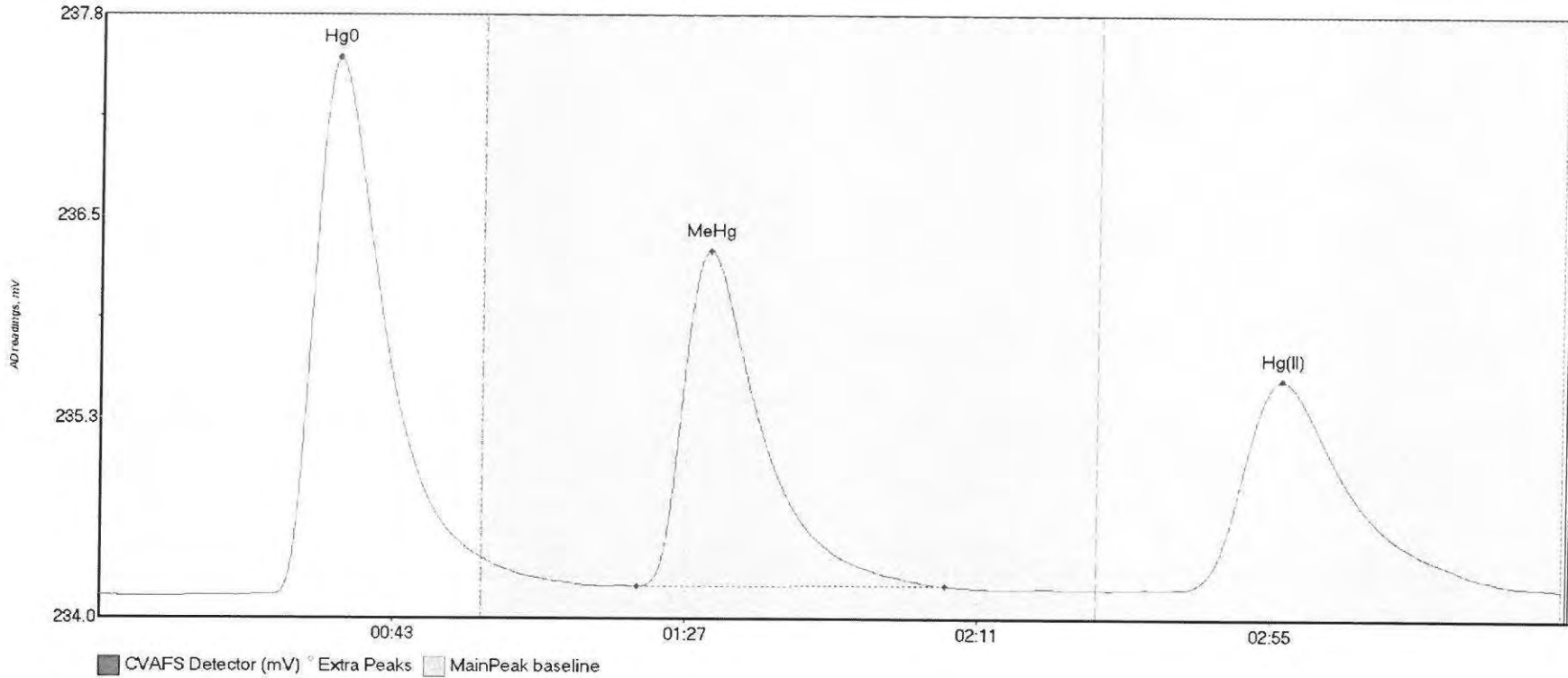
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610610-04RE1 H	124.954	10.6	57.5	234.19	234.28	34.9	1.156	CT	234.1861	0.00	0.06	
1610610-04RE1 M	9.819	81.2	103.5	234.23	234.25	90.7	0.100	OK	234.1861	0.00	0.06	
1610610-04RE1 H	422.810	151.7	219.8	234.20	234.25	177.3	2.273	CT	234.1861	0.00	0.06	

#30: 1610617-01RE1



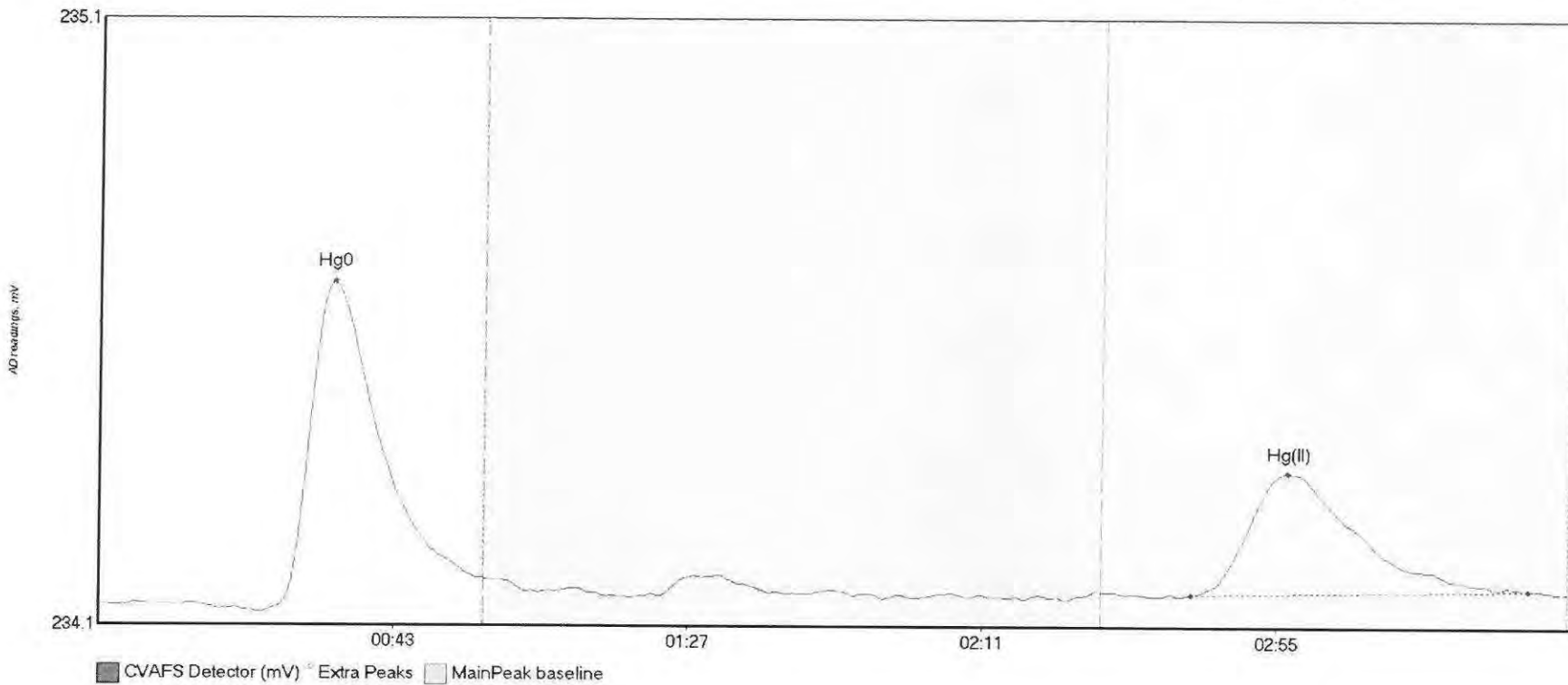
Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
1610617-01RE1 H	136.385	16.3	57.5	234.19	234.28	34.8	1.237	CT	234.1828	0.00	0.07	
1610617-01RE1 M	18.029	81.8	106.0	234.23	234.24	90.7	0.176	OK	234.1828	0.00	0.07	
1610617-01RE1 H	505.303	161.0	219.8	234.21	234.25	177.0	2.720	CT	234.1828	0.00	0.07	

#31: SEQ-CCV2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCV2 Hg0	380.856	21.9	57.5	234.19	234.43	35.5	3.340	CT	234.1898	0.00	0.05	
SEQ-CCV2 MeHg	281.973	80.9	127.2	234.25	234.25	91.4	2.086	OK	234.1898	0.00	0.05	
SEQ-CCV2 Hg(II)	240.564	161.1	219.8	234.24	234.24	177.6	1.304	CT	234.1898	0.00	0.05	

#32: SEQ-CCB2



Name	Area	Start Time	EndTime	StartValue	EndValue	Peak Max	PeakHeight	Flags	Baseline	BlDev	BlShift	Comment
SEQ-CCB2 Hg0	61.322	24.3	57.5	234.16	234.22	35.0	0.544	CF	234.1738	0.00	0.02	
SEQ-CCB2 Hg(II)	36.872	163.3	214.0	234.19	234.20	177.6	0.202	OK	234.1738	0.00	0.02	016



**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2015 Rev 5 (08/06/2015)**

<b>Analyst:</b> DON MORAN	<b>Sequence #:</b> 6K01010
<b>Reviewer:</b> <i>[Signature]</i> 11/2/16	<b>Dataset ID #:</b> MMHG27001-161031-1
<b>Date:</b> 11/1/16	<b>WO #:</b> VARIOUS
<b>Batch #(s):</b> F610422	<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: <i>DM</i>	Reviewer Initials: <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 checked="" type="checkbox"/> NO	<input 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 checked="" type="checkbox"/> NO	<input 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 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 <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 (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6K01010
<b>Reviewer:</b>	0 <i>B. [Signature]</i> 11/2/16	<b>Dataset ID #:</b>	MMHG27001-161031-1
<b>Date:</b>	11/1/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422	<b>Client(s):</b>	VARIOUS

**Analyst Initials:**

*DM*

**Reviewer Initials:**

*B. [Signature]*

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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 type="checkbox"/> PASS            | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>     |
| Comments: <b>NONE</b>  |  |                               |   |
| 13. LCS/LCSD or BS/BSD RPD (< 25%)   | <input type="checkbox"/> PASS            | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>     |
| Comments: <b>NONE</b>  |  |                               |   |
| 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 |
| 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            |
| 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 |
| 17. Is the correct 'Source' designated for MD/MS/MSD?  | <input 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 type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input type="checkbox"/> N/A            |
| 19. MD RPD/MT RSD(< 35%)   | <input type="checkbox"/> PASS            | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>     |
| Comments: <b>NONE</b>  |  |                               |   |
| 20. Is there one set of MS/MSD per every 10 samples?   | <input type="checkbox"/> PASS            | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>     |
| Comments: <b>NONE</b>  |  |                               |   |
| 21. MS/MSD RPD(< 35%)  | <input type="checkbox"/> PASS            | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>     |
| Comments: <b>NONE</b>  |  |                               |   |
| 22. MS (AS) % Recoveries (65-130%)   | <input type="checkbox"/> PASS            | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>     |
| Comments: <b>NONE</b>  |  |                               |   |
| 23. MSD (ASD) % Recoveries (65-130%)   | <input type="checkbox"/> PASS            | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>     |
| Comments: <b>NONE</b>  |  |                               |   |
| 24. Spiked 1-5X ambient or 1-5X PQL (whichever is higher) (from EPA 1630)                    | <input 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            |
| 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            |
| 27. Dissolved < Total metals (if applicable)   | <input type="checkbox"/> PASS            | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A |
| Comments: _____  |  |                               |   |
| 28. Effluent < Influent metals (visually confirm if needed)                                  | <input type="checkbox"/> PASS            | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A |
| Comments: _____  |  |                               |   |

**Peer Review Check List for MHg for CV-GC-AFS (FGS-070) 2013 Rev 4 (08/22/2013)**

<b>Analyst:</b>	DON MORAN	<b>Sequence #:</b>	6K01010
<b>Reviewer:</b>	0 <i>[Signature]</i> 11/2/16	<b>Dataset ID #:</b>	MMHG27001-161031-1
<b>Date:</b>	11/1/2016	<b>WO #:</b>	VARIOUS
<b>Batch #(s):</b>	F610422	<b>Client(s):</b>	VARIOUS

**Analyst Initials:** DM      **Reviewer Initials:** BL

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: 6/21/16 <sup>7/9/2015</sup> 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: 6/24/2016 LOD within last 3 months (within 12 months for MDN)?  YES    NO    N/A
41. Date of LOQ: 6/24/2016 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



Frontier Global Sciences

THg26002-161110-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 10, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K10018, 6K10017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	116.97 units	233.95	105.93 units	211.87	104.1 %Rec
SEQ-CAL2	1	1.00 ng/L	213.06 units	213.06	202.02 units	202.02	99.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1027.62 units	205.52	1016.58 units	203.32	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3897.25 units	194.86	3886.21 units	194.31	95.5 %Rec
SEQ-CAL5	1	40.00 ng/L	8261.28 units	206.53	8250.24 units	206.26	101.3 %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  
 203.55            +/- 6.41            3.1% RSD            210.78

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.04 units	±2.85	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.420 ng/L	±2.584
BLK	2	3	2.349 ng/L	±1.647
BLK	3	3	3.028 ng/L	±2.564
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   11/10/16

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	11/10/2016 8:02:45	65431-1.RAW	8:02:45 AM	9.55			-1.5	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/10/2016 8:06:54	65432-1.RAW	8:06:54 AM	14.32			3.3	0.016	0.016	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/10/2016 8:11:02	65433-1.RAW	8:11:02 AM	9.24			-1.8	-0.009	-0.009	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/10/2016 8:15:11	65434-1.RAW	8:15:11 AM	116.97			105.9	0.520	0.520	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/10/2016 8:19:19	65435-1.RAW	8:19:19 AM	213.06			202.0	0.992	0.992	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/10/2016 8:23:27	65436-1.RAW	8:23:27 AM	1027.62			1016.6	4.994	4.994	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/10/2016 8:27:36	65437-1.RAW	8:27:36 AM	3897.25			3886.2	19.092	19.092	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/10/2016 8:31:44	65438-1.RAW	8:31:44 AM	8261.28			8250.2	40.531	40.531	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/10/2016 8:35:54	65439-1.RAW	8:35:54 AM	1011.29			1000.3	4.914	4.914	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK1	20	11/10/2016 8:41:32	65440-1.RAW	8:41:32 AM	75.69	1		64.7	0.318	6.353	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK2	20	11/10/2016 8:45:41	65441-1.RAW	8:45:41 AM	35.79	1		24.7	0.122	2.432	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK3	20	11/10/2016 8:49:49	65442-1.RAW	8:49:49 AM	26.06	1		15.0	0.074	1.476	ng/L	
Hg2600-2	DM2	SAM	F610509-BS1	20	11/10/2016 8:53:57	65443-1.RAW	8:53:57 AM	1052.88	1		1041.8	4.947	98.943	ng/L	
Hg2600-2	DM2	SAM	F610509-BSD1	20	11/10/2016 8:58:06	65444-1.RAW	8:58:06 AM	1070.02	1		1059.0	5.031	100.629	ng/L	
Hg2600-2	DM2	SAM	F610509-BS2	500	11/10/2016 9:02:14	65445-1.RAW	9:02:14 AM	918.96	1		907.9	4.454	2226.751	ng/L	
Hg2600-2	DM2	SAM	1610234-16	100	11/10/2016 9:06:23	65446-1.RAW	9:06:23 AM	248.86	1		237.8	1.134	113.417	ng/L	
Hg2600-2	DM2	SAM	1610234-17	100	11/10/2016 9:10:31	65447-1.RAW	9:10:31 AM	262.12	1		251.1	1.199	119.929	ng/L	
Hg2600-2	DM2	SAM	1610234-18	100	11/10/2016 9:14:40	65448-1.RAW	9:14:40 AM	336.90	1		325.9	1.567	156.664	ng/L	
Hg2600-2	DM2	SAM	1610234-19	100	11/10/2016 9:18:48	65449-1.RAW	9:18:48 AM	172.80	1		161.8	0.760	76.049	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/10/2016 9:22:57	65450-1.RAW	9:22:57 AM	982.22			971.2	4.771	4.771	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/10/2016 9:27:05	65451-1.RAW	9:27:05 AM	20.52			9.5	0.047	0.047	ng/L	
Hg2600-2	DM2	SAM	1610234-20	100	11/10/2016 9:31:13	65452-1.RAW	9:31:13 AM	257.22	1		246.2	1.175	117.522	ng/L	
Hg2600-2	DM2	SAM	1610235-01	100	11/10/2016 9:35:22	65453-1.RAW	9:35:22 AM	85.94	1		74.9	0.334	33.376	ng/L	
Hg2600-2	DM2	SAM	1610235-02	100	11/10/2016 9:39:30	65454-1.RAW	9:39:30 AM	113.68	1		102.6	0.470	47.003	ng/L	
Hg2600-2	DM2	SAM	1610235-03	100	11/10/2016 9:43:39	65455-1.RAW	9:43:39 AM	60.69	1		49.7	0.210	20.973	ng/L	
Hg2600-2	DM2	SAM	1610235-04	100	11/10/2016 9:47:47	65456-1.RAW	9:47:47 AM	132.06	1		121.0	0.560	56.035	ng/L	
Hg2600-2	DM2	SAM	1610235-05	100	11/10/2016 9:51:55	65457-1.RAW	9:51:55 AM	74.80	1		63.8	0.279	27.905	ng/L	
Hg2600-2	DM2	SAM	1610236-01	100	11/10/2016 9:56:04	65458-1.RAW	9:56:04 AM	197.24	1		186.2	0.881	88.056	ng/L	
Hg2600-2	DM2	SAM	1610236-02	100	11/10/2016 10:00:12	65459-1.RAW	10:00:12 AM	215.19	1		204.1	0.969	96.872	ng/L	
Hg2600-2	DM2	SAM	1610236-03	20	11/10/2016 10:13:52	65460-2.RAW	10:13:52 AM	1077.96	1		1066.9	5.070	101.409	ng/L	
Hg2600-2	DM2	SAM	1610236-04	20	11/10/2016 10:18:01	65461-1.RAW	10:18:01 AM	977.10	1		966.1	4.575	91.499	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/10/2016 10:22:09	65462-1.RAW	10:22:09 AM	952.48			941.4	4.625	4.625	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/10/2016 10:26:17	65463-1.RAW	10:26:17 AM	22.58			11.5	0.057	0.057	ng/L	
Hg2600-2	DM2	SAM	1610236-05	20	11/10/2016 10:30:26	65464-1.RAW	10:30:26 AM	968.77	1		957.7	4.534	90.681	ng/L	
Hg2600-2	DM2	SAM	1610236-06	20	11/10/2016 10:34:34	65465-1.RAW	10:34:34 AM	1171.28	1		1160.2	5.529	110.578	ng/L	
Hg2600-2	DM2	SAM	1610236-07	20	11/10/2016 10:38:43	65466-1.RAW	10:38:43 AM	762.76	1		751.7	3.522	70.439	ng/L	
Hg2600-2	DM2	SAM	1610236-08	20	11/10/2016 10:42:51	65467-1.RAW	10:42:51 AM	1113.32	1		1102.3	5.244	104.883	ng/L	
Hg2600-2	DM2	SAM	1610236-09	20	11/10/2016 10:46:59	65468-1.RAW	10:46:59 AM	1111.16	1		1100.1	5.234	104.671	ng/L	
Hg2600-2	DM2	SAM	1610236-10	20	11/10/2016 10:51:08	65469-1.RAW	10:51:08 AM	1083.48	1		1072.4	5.098	101.951	ng/L	
Hg2600-2	DM2	SAM	1610234-19RE1	20	11/10/2016 10:55:16	65470-1.RAW	10:55:16 AM	720.20	1		709.2	3.313	66.258	ng/L	
Hg2600-2	DM2	SAM	1610235-01RE1	20	11/10/2016 10:59:25	65471-1.RAW	10:59:25 AM	326.22	1		315.2	1.377	27.548	ng/L	
Hg2600-2	DM2	SAM	1610235-02RE1	20	11/10/2016 11:03:33	65472-1.RAW	11:03:33 AM	424.48	1		413.4	1.860	37.202	ng/L	
Hg2600-2	DM2	SAM	1610235-03RE1	20	11/10/2016 11:07:42	65473-1.RAW	11:07:42 AM	221.82	1		210.8	0.864	17.290	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/10/2016 11:11:50	65474-1.RAW	11:11:50 AM	969.26			958.2	4.707	4.707	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/10/2016 11:15:58	65475-1.RAW	11:15:58 AM	34.34			23.3	0.114	0.114	ng/L	
Hg2600-2	DM2	SAM	1610235-04RE1	20	11/10/2016 11:20:07	65476-1.RAW	11:20:07 AM	532.70	1		521.7	2.392	47.835	ng/L	
Hg2600-2	DM2	SAM	1610235-05RE1	20	11/10/2016 11:24:15	65477-1.RAW	11:24:15 AM	296.98	1		285.9	1.234	24.675	ng/L	
Hg2600-2	DM2	SAM	1610236-01RE1	20	11/10/2016 11:28:24	65478-1.RAW	11:28:24 AM	820.04	1		809.0	3.803	76.067	ng/L	
Hg2600-2	DM2	SAM	1610236-02RE1	20	11/10/2016 11:32:32	65479-1.RAW	11:32:32 AM	921.07	1		910.0	4.300	85.994	ng/L	
Hg2600-2	DM2	SAM	F610509-DUP1	100	11/10/2016 11:36:41	65480-1.RAW	11:36:41 AM	229.84	1		218.8	1.041	104.073	ng/L	
Hg2600-2	DM2	SAM	F610509-MS1	500	11/10/2016 11:40:49	65481-1.RAW	11:40:49 AM	1869.32	1		1858.3	9.122	4561.166	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD1	500	11/10/2016 11:44:57	65482-1.RAW	11:44:57 AM	1849.00	1		1838.0	9.023	4511.266	ng/L	
Hg2600-2	DM2	SAM	F610509-MS2	500	11/10/2016 11:49:07	65483-1.RAW	11:49:07 AM	1939.11	1		1928.1	9.465	4732.606	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD2	500	11/10/2016 11:53:15	65484-1.RAW	11:53:15 AM	1991.80	1		1980.8	9.724	4862.016	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK1	20	11/10/2016 11:57:24	65485-1.RAW	11:57:24 AM	54.01	2		43.0	0.211	4.223	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/10/2016 12:01:32	65486-1.RAW	12:01:32 PM	949.16			938.1	4.609	4.609	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/10/2016 12:05:40	65487-1.RAW	12:05:40 PM	33.79			22.8	0.112	0.112	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	F610510-BLK2	20	11/10/2016 12:09:49	65488-1.RAW	12:09:49 PM	28.24	2		17.2	0.085	1.690	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK3	20	11/10/2016 12:13:58	65489-1.RAW	12:13:58 PM	22.57	2		11.5	0.057	1.133	ng/L	
Hg2600-2	DM2	SAM	F610510-BS1	20	11/10/2016 12:18:06	65490-1.RAW	12:18:06 PM	993.01	2		982.0	4.707	94.134	ng/L	
Hg2600-2	DM2	SAM	F610510-BSD1	20	11/10/2016 12:22:14	65491-1.RAW	12:22:14 PM	1078.26	2		1067.2	5.126	102.510	ng/L	
Hg2600-2	DM2	SAM	F610510-BS2	500	11/10/2016 12:26:23	65492-1.RAW	12:26:23 PM	864.93	2		853.9	4.190	2095.112	ng/L	
Hg2600-2	DM2	SAM	1610232-26RE1	100	11/10/2016 12:30:31	65493-1.RAW	12:30:31 PM	2112.51	2		2101.5	10.300	1030.042	ng/L	
Hg2600-2	DM2	SAM	1610236-11	20	11/10/2016 12:34:40	65494-1.RAW	12:34:40 PM	1017.46	2		1006.4	4.827	96.536	ng/L	
Hg2600-2	DM2	SAM	1610236-12	20	11/10/2016 12:38:49	65495-1.RAW	12:38:49 PM	1001.21	2		990.2	4.747	94.939	ng/L	
Hg2600-2	DM2	SAM	1610236-13	20	11/10/2016 12:42:58	65496-1.RAW	12:42:58 PM	999.53	2		988.5	4.739	94.774	ng/L	
Hg2600-2	DM2	SAM	1610236-14	20	11/10/2016 12:47:06	65497-1.RAW	12:47:06 PM	921.27	2		910.2	4.354	87.085	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/10/2016 12:51:14	65498-1.RAW	12:51:14 PM	963.2184419			952.2	4.678	4.678	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/10/2016 12:55:23	65499-1.RAW	12:55:23 PM	35.11			24.1	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1610236-15	20	11/10/2016 12:59:31	65500-1.RAW	12:59:31 PM	1263.04	2		1252.0	6.033	120.665	ng/L	
Hg2600-2	DM2	SAM	1610236-16	20	11/10/2016 13:03:40	65501-1.RAW	1:03:40 PM	938.87	2		927.8	4.441	88.815	ng/L	
Hg2600-2	DM2	SAM	1610236-17	20	11/10/2016 13:07:48	65502-1.RAW	1:07:48 PM	836.21	2		825.2	3.936	78.728	ng/L	
Hg2600-2	DM2	SAM	1610236-18	20	11/10/2016 13:11:57	65503-1.RAW	1:11:57 PM	1244.98	2		1233.9	5.945	118.891	ng/L	
Hg2600-2	DM2	SAM	1610236-19	20	11/10/2016 13:16:05	65504-1.RAW	1:16:05 PM	1045.03	2		1034.0	4.962	99.245	ng/L	
Hg2600-2	DM2	SAM	1610236-20	20	11/10/2016 13:20:13	65505-1.RAW	1:20:13 PM	887.46	2		876.4	4.188	83.763	ng/L	
Hg2600-2	DM2	SAM	1610238-01	20	11/10/2016 13:24:22	65506-1.RAW	1:24:22 PM	4134.58	2		4123.5	20.140	402.805	ng/L	
Hg2600-2	DM2	SAM	1610238-02	20	11/10/2016 13:28:30	65507-1.RAW	1:28:30 PM	469.89	2		458.9	2.137	42.735	ng/L	
Hg2600-2	DM2	SAM	1610238-03	20	11/10/2016 13:32:39	65508-1.RAW	1:32:39 PM	53.93	2		42.9	0.093	1.865	ng/L	
Hg2600-2	DM2	SAM	1610238-04	20	11/10/2016 13:36:47	65509-1.RAW	1:36:47 PM	64.85	2		53.8	0.147	2.939	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/10/2016 13:40:56	65510-1.RAW	1:40:56 PM	935.61			924.6	4.542	4.542	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/10/2016 13:45:04	65511-1.RAW	1:45:04 PM	48.10			37.1	0.182	0.182	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP1	100	11/10/2016 13:49:12	65512-1.RAW	1:49:12 PM	2732.85	2		2721.8	13.348	1334.795	ng/L	
Hg2600-2	DM2	SAM	F610510-MS1	500	11/10/2016 13:53:21	65513-1.RAW	1:53:21 PM	2268.80	2		2257.8	11.087	5543.497	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD1	500	11/10/2016 13:57:29	65514-1.RAW	1:57:29 PM	2230.51	2		2219.5	10.899	5449.451	ng/L	
Hg2600-2	DM2	SAM	F610510-MS2	500	11/10/2016 14:01:38	65515-1.RAW	2:01:38 PM	1744.44	2		1733.4	8.511	4255.493	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD2	500	11/10/2016 14:05:46	65516-1.RAW	2:05:46 PM	1778.12	2		1767.1	8.676	4338.209	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK1	20	11/10/2016 14:09:54	65517-1.RAW	2:09:54 PM	71.75	3		60.7	0.298	5.965	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK2	20	11/10/2016 14:14:03	65518-1.RAW	2:14:03 PM	30.21	3		19.2	0.094	1.884	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK3	20	11/10/2016 14:18:11	65519-1.RAW	2:18:11 PM	23.61	3		12.6	0.062	1.236	ng/L	
Hg2600-2	DM2	SAM	F611274-BS1	20	11/10/2016 14:22:20	65520-1.RAW	2:22:20 PM	3819.97	3		3808.9	18.561	371.215	ng/L	
Hg2600-2	DM2	SAM	F611274-BSD1	20	11/10/2016 14:26:28	65521-1.RAW	2:26:28 PM	4212.05	3		4201.0	20.487	409.737	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/10/2016 14:30:37	65522-1.RAW	2:30:37 PM	1024.98			1013.9	4.981	4.981	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/10/2016 14:34:45	65523-1.RAW	2:34:45 PM	47.48			36.4	0.179	0.179	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV1	1	11/10/2016 14:38:54	65524-1.RAW	2:38:54 PM	132.52			121.5	0.597	0.597	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV2	1	11/10/2016 14:43:02	65525-1.RAW	2:43:02 PM	72.20			61.2	0.300	0.300	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP2	100	11/10/2016 14:47:11	65526-1.RAW	2:47:11 PM	2036.71	2		2025.7	9.928	992.805	ng/L	
Hg2600-2	DM2	SAM	1609620-01	20	11/10/2016 14:51:19	65527-1.RAW	2:51:19 PM	167.70	3		156.7	0.618	12.364	ng/L	
Hg2600-2	DM2	SAM	1609620-02	20	11/10/2016 14:55:27	65528-1.RAW	2:55:27 PM	249.25	3		238.2	1.019	20.377	ng/L	
Hg2600-2	DM2	SAM	1609620-03	20	11/10/2016 14:59:36	65529-1.RAW	2:59:36 PM	155.33	3		144.3	0.557	11.149	ng/L	
Hg2600-2	DM2	SAM	1609620-07	100	11/10/2016 15:03:44	65530-1.RAW	3:03:44 PM	1276.99	3		1266.0	6.189	618.895	ng/L	
Hg2600-2	DM2	SAM	1609620-08	100	11/10/2016 15:07:53	65531-1.RAW	3:07:53 PM	863.58	3		852.5	4.158	415.801	ng/L	
Hg2600-2	DM2	SAM	1609620-09	100	11/10/2016 15:12:01	65532-1.RAW	3:12:01 PM	765.08	3		754.0	3.674	367.411	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP1	20	11/10/2016 15:16:10	65533-1.RAW	3:16:10 PM	317.42	3		306.4	1.354	27.075	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/10/2016 15:20:18	65534-1.RAW	3:20:18 PM	949.40			938.4	4.610	4.610	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/10/2016 15:24:27	65535-1.RAW	3:24:27 PM	32.50			21.5	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	F611274-MS1	20	11/10/2016 15:28:35	65536-1.RAW	3:28:35 PM	1241.91	3		1230.9	5.895	117.910	ng/L	
Hg2600-2	DM2	SAM	F611274-MSD1	20	11/10/2016 15:32:43	65537-1.RAW	3:32:43 PM	1234.95	3		1223.9	5.861	117.226	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP2	20	11/10/2016 15:37:16	65538-1.RAW	3:37:16 PM	157.92	3		146.9	0.570	11.404	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/10/2016 15:41:24	65539-1.RAW	3:41:24 PM	931.84			920.8	4.524	4.524	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/10/2016 15:45:33	65540-1.RAW	3:45:33 PM	31.63			20.6	0.101	0.101	ng/L	

TotalMercury EPA1631  
 Operati DM  
 BlankSi 11.038  
 Calib Eqn: Conc = (Area-11.03  
 Run Date: #####  
 Blank SD: 2.847022414  
 Works: THG260  
 CalibFa 203.55  
 Status: QC Warnings:4/QC E  
 Run Time: 15:33:07  
 Blank RSD%: 25.79243936  
 Method #### R: 0.9996  
 R²: 0.9992  
 CF SD: 6.409000594  
 CF RSD%: 3.148548865  
 Descrip THG26002-161110-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.77					65426-1.RAW	7:43:20	359.88	Clean	OK	1
clean				0.00	0.01					65427-1.RAW	7:46:12	1.21	Clean	OK	1
ws				11.04	0.01					65428-1.RAW	7:50:20	12.29	Sample	OK	1
ws				11.04	0.00					65429-1.RAW	7:54:28	10.84	Sample	OK	1
ws				11.04	0.00					65430-1.RAW	7:58:37	11.72	Sample	OK	1
SEQ-IBL1	A1			0.00	0.05					65431-1.RAW	8:02:45	9.55	Sample	OK	1
SEQ-IBL2	A2			0.00	0.07					65432-1.RAW	8:06:54	14.32	Sample	OK	1
SEQ-IBL3	A3			0.00	0.05					65433-1.RAW	8:11:02	9.24	Sample	OK	1
SEQ-CAL1	A4			11.04	0.52			104.09		65434-1.RAW	8:15:11	116.97	Sample	OK	1
SEQ-CAL2	A5			11.04	0.99			99.25		65435-1.RAW	8:19:19	213.06	Sample	OK	1
SEQ-CAL3	A6			11.04	4.99			99.88		65436-1.RAW	8:23:27	1027.62	Sample	OK	1
SEQ-CAL4	A7			11.04	19.09			95.46		65437-1.RAW	8:27:36	3897.25	Sample	OK	1
SEQ-CAL5	A8			11.04	40.53			101.33		65438-1.RAW	8:31:44	8261.28	Sample	OK	1
SEQ-ICV1	A9			11.04	4.91			98.28		65439-1.RAW	8:35:54	1011.29	Sample	OK	1
F610509-BLK1	A10		20	11.04	6.35					65440-1.RAW	8:41:32	75.69	Sample	OK	1
F610509-BLK2	A11		20	11.04	2.43					65441-1.RAW	8:45:41	35.79	Sample	OK	1
F610509-BLK3	A12		20	11.04	1.48					65442-1.RAW	8:49:49	26.06	Sample	OK	1
F610509-BS1	A13		20	11.04	102.36					65443-1.RAW	8:53:57	1052.86	Sample	OK	1
F610509-BSD1	A14		20	11.04	104.05					65444-1.RAW	8:58:06	1070.02	Sample	OK	1
F610509-BS2	A15		500	11.04	2230.17					65445-1.RAW	9:02:14	918.96	Sample	OK	1
1610234-16	A16		100	11.04	116.84					65446-1.RAW	9:06:23	248.86	Sample	OK	1
1610234-17	A17		100	11.04	123.35					65447-1.RAW	9:10:31	262.12	Sample	OK	1
1610234-18	A18		100	11.04	160.08					65448-1.RAW	9:14:40	336.90	Sample	OK	1
1610234-19	A19		100	11.04	79.47					65449-1.RAW	9:18:48	172.80	Sample	OK	1
SEQ-CCV1	A20		1	11.04	4.77			95.42		65450-1.RAW	9:22:57	982.22	Sample	OK	1
SEQ-CCB1	A21		1	11.04	0.05			0.00		65451-1.RAW	9:27:05	20.52	Sample	OK	1
1610234-20	B1		100	11.04	120.94					65452-1.RAW	9:31:13	257.22	Sample	OK	1
1610235-01	B2		100	11.04	36.80					65453-1.RAW	9:35:22	85.94	Sample	OK	1
1610235-02	B3		100	11.04	50.42					65454-1.RAW	9:39:30	113.68	Sample	OK	1
1610235-03	B4		100	11.04	24.39					65455-1.RAW	9:43:39	60.69	Sample	OK	1
1610235-04	B5		100	11.04	59.46					65456-1.RAW	9:47:47	132.06	Sample	OK	1
1610235-05	B6		100	11.04	31.33					65457-1.RAW	9:51:55	74.80	Sample	OK	1
1610236-01	B7		100	11.04	91.48					65458-1.RAW	9:56:04	197.24	Sample	OK	1
1610236-02	B8		100	11.04	100.29					65459-1.RAW	10:00:12	215.19	Sample	OK	1
1610236-03	B9		20	11.04	104.83					65460-2.RAW	10:13:52	1077.96	Sample	OK	1
1610236-04	B10		20	11.04	94.92					65461-1.RAW	10:18:01	977.10	Sample	OK	1
SEQ-CCV2	B11		1	11.04	4.63			92.50		65462-1.RAW	10:22:09	952.48	Sample	OK	1
SEQ-CCB2	B12		1	11.04	0.06			0.00		65463-1.RAW	10:26:17	22.58	Sample	OK	1
1610236-05	B13		20	11.04	94.10					65464-1.RAW	10:30:26	968.77	Sample	OK	1
1610236-06	B14		20	11.04	114.00					65465-1.RAW	10:34:34	1171.28	Sample	OK	1
1610236-07	B15		20	11.04	73.86					65466-1.RAW	10:38:43	762.76	Sample	OK	1
1610236-08	B16		20	11.04	108.30					65467-1.RAW	10:42:51	1113.32	Sample	OK	1
1610236-09	B17		20	11.04	108.09					65468-1.RAW	10:46:59	1111.16	Sample	OK	1

1610236-10	B18	20	11.04	105.37		65469-1.RAW	10:51:08	1083.48	Sample	OK	1
1610234-19RE1	B19	20	11.04	69.68		65470-1.RAW	10:55:16	720.20	Sample	OK	1
1610235-01RE1	B20	20	11.04	30.97		65471-1.RAW	10:59:25	326.22	Sample	OK	1
1610235-02RE1	B21	20	11.04	40.62		65472-1.RAW	11:03:33	424.48	Sample	OK	1
1610235-03RE1	C1	20	11.04	20.71		65473-1.RAW	11:07:42	221.82	Sample	OK	1
SEQ-CCV3	C2	1	11.04	4.71	94.15	65474-1.RAW	11:11:50	969.26	Sample	OK	1
SEQ-CCB3	C3	1	11.04	0.11	0.00	65475-1.RAW	11:15:58	34.34	Sample	OK	1
1610235-04RE1	C4	20	11.04	51.26		65476-1.RAW	11:20:07	532.70	Sample	OK	1
1610235-05RE1	C5	20	11.04	28.09		65477-1.RAW	11:24:15	296.98	Sample	OK	1
1610236-01RE1	C6	20	11.04	79.49		65478-1.RAW	11:28:24	820.04	Sample	OK	1
1610236-02RE1	C7	20	11.04	89.41		65479-1.RAW	11:32:32	921.07	Sample	OK	1
F610509-DUP1	C8	100	11.04	107.49		65480-1.RAW	11:36:41	229.84	Sample	OK	1
F610509-MS1	C9	500	11.04	4564.59	4207.27	65481-1.RAW	11:40:49	1869.32	Sample	OK	1
F610509-MSD1	C10	500	11.04	4514.69		65482-1.RAW	11:44:57	1849.00	Sample	OK	1
F610509-MS2	C11	500	11.04	4736.03	104.86	65483-1.RAW	11:49:07	1939.11	Sample	OK	1
F610509-MSD2	C12	500	11.04	4865.44		65484-1.RAW	11:53:15	1991.80	Sample	OK	1
F610510-BLK1	C13	20	11.04	4.22		65485-1.RAW	11:57:24	54.01	Sample	OK	1
SEQ-CCV4	C14	1	11.04	4.61	92.17	65486-1.RAW	12:01:32	949.16	Sample	OK	1
SEQ-CCB4	C15	1	11.04	0.11	0.00	65487-1.RAW	12:05:40	33.79	Sample	OK	1
F610510-BLK2	C16	20	11.04	1.69		65488-1.RAW	12:09:49	28.24	Sample	OK	1
F610510-BLK3	C17	20	11.04	1.13		65489-1.RAW	12:13:58	22.57	Sample	OK	1
F610510-BS1	C18	20	11.04	96.48		65490-1.RAW	12:18:06	993.01	Sample	OK	1
F610510-BSD1	C19	20	11.04	104.86		65491-1.RAW	12:22:14	1078.26	Sample	OK	1
F610510-BS2	C20	500	11.04	2097.46		65492-1.RAW	12:26:23	864.93	Sample	OK	1
1610232-26RE1	C21	100	11.04	1032.39		65493-1.RAW	12:30:31	2112.51	Sample	OK	1
1610236-11	A1	20	11.04	98.88		65494-1.RAW	12:34:40	1017.46	Sample	OK	1
1610236-12	A2	20	11.04	97.29		65495-1.RAW	12:38:49	1001.21	Sample	OK	1
1610236-13	A3	20	11.04	97.12		65496-1.RAW	12:42:58	999.53	Sample	OK	1
1610236-14	A4	20	11.04	89.43		65497-1.RAW	12:47:06	921.27	Sample	OK	1
SEQ-CCV5	A5	1	11.04	4.68	93.56	65498-1.RAW	12:51:14	963.22	Sample	OK	1
SEQ-CCB5	A6	1	11.04	0.12	0.00	65499-1.RAW	12:55:23	35.11	Sample	OK	1
1610236-15	A7	20	11.04	123.01		65500-1.RAW	12:59:31	1263.04	Sample	OK	1
1610236-16	A8	20	11.04	91.16		65501-1.RAW	13:03:40	938.87	Sample	OK	1
1610236-17	A9	20	11.04	81.08		65502-1.RAW	13:07:48	836.21	Sample	OK	1
1610236-18	A10	20	11.04	121.24		65503-1.RAW	13:11:57	1244.98	Sample	OK	1
1610236-19	A11	20	11.04	101.59		65504-1.RAW	13:16:05	1045.03	Sample	OK	1
1610236-20	A12	20	11.04	86.11		65505-1.RAW	13:20:13	887.46	Sample	OK	1
1610238-01	A13	20	11.04	405.15		65506-1.RAW	13:24:22	4134.58	Sample	OK	1
1610238-02	A14	20	11.04	45.08		65507-1.RAW	13:28:30	469.89	Sample	OK	1
1610238-03	A15	20	11.04	4.21		65508-1.RAW	13:32:39	53.93	Sample	OK	1
1610238-04	A16	20	11.04	5.29		65509-1.RAW	13:36:47	64.85	Sample	OK	1
SEQ-CCV6	A17	1	11.04	4.54	90.84	65510-1.RAW	13:40:56	935.61	Sample	OK	1
SEQ-CCB6	A18	1	11.04	0.18	0.00	65511-1.RAW	13:45:04	48.10	Sample	OK	1
F610510-DUP1	A19	100	11.04	1337.14		65512-1.RAW	13:49:12	2732.85	Sample	OK	1
F610510-MS1	A20	500	11.04	5545.85	414.44	65513-1.RAW	13:53:21	2268.80	Sample	OK	1
F610510-MSD1	A21	500	11.04	5451.80		65514-1.RAW	13:57:29	2230.51	Sample	OK	1
F610510-MS2	B1	500	11.04	4257.84	78.07	65515-1.RAW	14:01:38	1744.44	Sample	OK	1
F610510-MSD2	B2	500	11.04	4340.56		65516-1.RAW	14:05:46	1778.12	Sample	OK	1



F611274-BLK1	B3	20	11.04	5.97		65517-1.RAW	14:09:54	71.75	Sample	OK	1
F611274-BLK2	B4	20	11.04	1.88		65518-1.RAW	14:14:03	30.21	Sample	OK	1
F611274-BLK3	B5	20	11.04	1.24		65519-1.RAW	14:18:11	23.61	Sample	OK	1
F611274-BS1	B6	20	11.04	374.24		65520-1.RAW	14:22:20	3819.97	Sample	OK	1
F611274-BSD1	B7	20	11.04	412.77		65521-1.RAW	14:26:28	4212.05	Sample	OK	1
SEQ-CCV7	B8	1	11.04	4.98	99.62	65522-1.RAW	14:30:37	1024.98	Sample	OK	1
SEQ-CCB7	B9	1	11.04	0.18	0.00	65523-1.RAW	14:34:45	47.48	Sample	OK	1
SEQ-LCV1	B10	1	11.04	0.60		65524-1.RAW	14:38:54	132.52	Sample	OK	1
SEQ-LCV2	B11	1	11.04	0.30		65525-1.RAW	14:43:02	72.20	Sample	OK	1
F610510-DUP2	B12	100	11.04	995.15		65526-1.RAW	14:47:11	2036.71	Sample	OK	1
1609620-01	B13	20	11.04	15.39		65527-1.RAW	14:51:19	167.70	Sample	OK	1
1609620-02	B14	20	11.04	23.41		65528-1.RAW	14:55:27	249.25	Sample	OK	1
1609620-03	B15	20	11.04	14.18		65529-1.RAW	14:59:36	155.33	Sample	OK	1
1609620-07	B16	100	11.04	621.92		65530-1.RAW	15:03:44	1276.99	Sample	OK	1
1609620-08	B17	100	11.04	418.83		65531-1.RAW	15:07:53	863.58	Sample	OK	1
1609620-09	B18	100	11.04	370.44		65532-1.RAW	15:12:01	765.08	Sample	OK	1
F611274-DUP1	B19	20	11.04	30.10		65533-1.RAW	15:16:10	317.42	Sample	OK	1
SEQ-CCV8	B20	1	11.04	4.61	92.20	65534-1.RAW	15:20:18	949.40	Sample	OK	1
SEQ-CCB8	B21	1	11.04	0.11	0.00	65535-1.RAW	15:24:27	32.50	Sample	OK	1
F611274-MS1	C1	20	11.04	120.94	10940.31	65536-1.RAW	15:28:35	1241.91	Sample	OK	1
F611274-MSD1	C2	20	11.04	120.25		65537-1.RAW	15:32:43	1234.95	Sample	OK	1
F611274-DUP2	C3	20	11.04	14.43		65538-1.RAW	15:37:16	157.92	Sample	OK	1
SEQ-CCV9	C4	1	11.04	4.52	90.47	65539-1.RAW	15:41:24	931.84	Sample	OK	1
SEQ-CCB9	C5	1	11.04	0.10	0.00	65540-1.RAW	15:45:33	31.63	Sample	OK	1

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10018-IBL1	QC	1			
6K10018-IBL2	QC	2			
6K10018-IBL3	QC	3			
6K10018-CAL1	QC	4	1605412		
6K10018-CAL2	QC	5	1605413		
6K10018-CAL3	QC	6	1605414		
6K10018-CAL4	QC	7	1605415		
6K10018-CAL5	QC	8	1605416		
6K10018-ICV1	QC	9	1605791		
F610509-BLK1	QC	10			
F610509-BLK2	QC	11			
F610509-BLK3	QC	12			
F610509-BS1	QC	13			
F610509-BSD1	QC	14			
F610509-BS2	QC	15			
1610234-16	Hg-CVAFS-T-7030	16			
1610234-17	Hg-CVAFS-T-7030	17			
1610234-18	Hg-CVAFS-T-7030	18			
1610234-19	Hg-CVAFS-T-7030	19			
6K10018-CCV1	QC	20	1605791		
6K10018-CCB1	QC	21			
1610234-20	Hg-CVAFS-T-7030	22			
1610235-01	Hg-CVAFS-T-7030	23			
1610235-02	Hg-CVAFS-T-7030	24			
1610235-03	Hg-CVAFS-T-7030	25			
1610235-04	Hg-CVAFS-T-7030	26			
1610235-05	Hg-CVAFS-T-7030	27			
1610236-01	Hg-CVAFS-T-7030	28			
1610236-02	Hg-CVAFS-T-7030	29			
1610236-03	Hg-CVAFS-T-7030	30			
1610236-04	Hg-CVAFS-T-7030	31			
6K10018-CCV2	QC	32	1605791		
6K10018-CCB2	QC	33			
1610236-05	Hg-CVAFS-T-7030	34			
1610236-06	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

Page 175 of 230

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-07	Hg-CVAFS-T-7030	36			
1610236-08	Hg-CVAFS-T-7030	37			
1610236-09	Hg-CVAFS-T-7030	38			
1610236-10	Hg-CVAFS-T-7030	39			
1610234-19RE1	Hg-CVAFS-T-7030	40			Added 11/10/2016 by DM2
1610235-01RE1	Hg-CVAFS-T-7030	41			Added 11/10/2016 by DM2
1610235-02RE1	Hg-CVAFS-T-7030	42			Added 11/10/2016 by DM2
1610235-03RE1	Hg-CVAFS-T-7030	43			Added 11/10/2016 by DM2
6K10018-CCV3	QC	44	1605791		
6K10018-CCB3	QC	45			
1610235-04RE1	Hg-CVAFS-T-7030	46			Added 11/10/2016 by DM2
1610235-05RE1	Hg-CVAFS-T-7030	47			Added 11/10/2016 by DM2
1610236-01RE1	Hg-CVAFS-T-7030	48			Added 11/10/2016 by DM2
1610236-02RE1	Hg-CVAFS-T-7030	49			Added 11/10/2016 by DM2
F610509-DUP1	QC	50			
F610509-MS1	QC	51			
F610509-MSD1	QC	52			
F610509-MS2	QC	53			
F610509-MSD2	QC	54			
F610510-BLK1	QC	55			
6K10018-CCV4	QC	56	1605791		
6K10018-CCB4	QC	57			
F610510-BLK2	QC	58			
F610510-BLK3	QC	59			
F610510-BS1	QC	60			
F610510-BSD1	QC	61			
F610510-BS2	QC	62			
1610232-26RE1	Hg-CVAFS-T-7030	63			Re-extract added 11/2/2016 by RN
1610236-11	Hg-CVAFS-T-7030	64			
1610236-12	Hg-CVAFS-T-7030	65			
1610236-13	Hg-CVAFS-T-7030	66			
1610236-14	Hg-CVAFS-T-7030	67			
6K10018-CCV5	QC	68	1605791		
6K10018-CCB5	QC	69			
1610236-15	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 176 of 230

**ANALYSIS SEQUENCE**

**6K10018**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/10/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-16	Hg-CVAFS-T-7030	71			
1610236-17	Hg-CVAFS-T-7030	72			
1610236-18	Hg-CVAFS-T-7030	73			
1610236-19	Hg-CVAFS-T-7030	74			
1610236-20	Hg-CVAFS-T-7030	75			
1610238-01	Hg-CVAFS-T-7030	76			
1610238-02	Hg-CVAFS-T-7030	77			
1610238-03	Hg-CVAFS-T-7030	78			
1610238-04	Hg-CVAFS-T-7030	79			
6K10018-CCV6	QC	80	1605791		
6K10018-CCB6	QC	81			
F610510-DUP1	QC	82			
F610510-MS1	QC	83			
F610510-MSD1	QC	84			
F610510-MS2	QC	85			
F610510-MSD2	QC	86			
6K10018-CCV7	QC	87	1605791		
6K10018-CCB7	QC	88			
F610510-DUP2	QC	89			
6K10018-CCV8	QC	90	1605791		
6K10018-CCB8	QC	91			
6K10018-CCV9	QC	92	1605791		
6K10018-CCB9	QC	93			

Don Moran      11/10/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

# Failing Data Report - 6K10018

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. Pearson  
Analyst Reviewed By

11/10/16  
Date

Ry M. 11/20/16  
Peer Reviewed By Date

## ANALYSIS SEQUENCE

6K10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10017-IBL1	QC	1			
6K10017-IBL2	QC	2			
6K10017-IBL3	QC	3			
6K10017-CAL1	QC	4	1605412		
6K10017-CAL2	QC	5	1605413		
6K10017-CAL3	QC	6	1605414		
6K10017-CAL4	QC	7	1605415		
6K10017-CAL5	QC	8	1605416		
6K10017-ICV1	QC	9	1605791		
6K10017-CCV1	QC	10	1605791		
6K10017-CCB1	QC	11			
6K10017-CCV2	QC	12	1605791		
6K10017-CCB2	QC	13			
6K10017-CCV3	QC	14	1605791		
6K10017-CCB3	QC	15			
6K10017-CCV4	QC	16	1605791		
6K10017-CCB4	QC	17			
6K10017-CCV5	QC	18	1605791		
6K10017-CCB5	QC	19			
6K10017-CCV6	QC	20	1605791		
6K10017-CCB6	QC	21			
F611274-BLK1	QC	22			
F611274-BLK2	QC	23			
F611274-BLK3	QC	24			
F611274-BS1	QC	25			
F611274-BSD1	QC	26			
6K10017-CCV7	QC	27	1605791		
6K10017-CCB7	QC	28			
6K10017-LCV1	QC	29	1606488		
6K10017-LCV2	QC	30	1606489		
1609620-01	Hg-CVAFS-S-SSE-F6	31			
1609620-02	Hg-CVAFS-S-SSE-F6	32			
1609620-03	Hg-CVAFS-S-SSE-F6	33			
1609620-07	Hg-CVAFS-S-SSE-F6	34			
1609620-08	Hg-CVAFS-S-SSE-F6	35			

Due Date: 10/21/2016

ANALYSIS SEQUENCE

6K10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F6	36			
F611274-DUP1	QC	37			
6K10017-CCV8	QC	38	1605791		
6K10017-CCB8	QC	39			
F611274-MS1	QC	40			
F611274-MSD1	QC	41			
F611274-DUP2	QC	42			
6K10017-CCV9	QC	43	1605791		
6K10017-CCB9	QC	44			

Don Matam                      11/10/16  
Samples Loaded By                      Date

Don Matam                      11/10/16  
Data Processed By                      Date

**Failing Data Report - 6K10017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F611274-DUP1	Hg-CVAFS-S-SSE-F6	61.49	22.7	25.12	25.12		ng/g				84.0	25.00	PASS-OVER	FAIL-DUP	QR. 07

Don Mason                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      11/21/16  
 Peer Reviewed By                      Date



**PREPARATION BENCH SHEET**

F611274

**Euofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion**

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					
F611274-BLK2	Blank	0.25	500					
F611274-BLK3	Blank	0.25	500					
F611274-BS1	LCS	0.25	500	1605712	200			
F611274-BSD1	LCS Dup	0.25	500	1605712	200			
F611274-DUP1	Duplicate [1609620-03]	0.256	500					
F611274-DUP2	Duplicate [1609620-03]	0.258	500					
F611274-MS1	Matrix Spike [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL
F611274-MSD1	Matrix Spike Dup [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605349	3:1 HNO3/HF	12-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606529	5% BrCl	19-Apr-17 00:00

PREPARATION BENCH SHEET

F611274

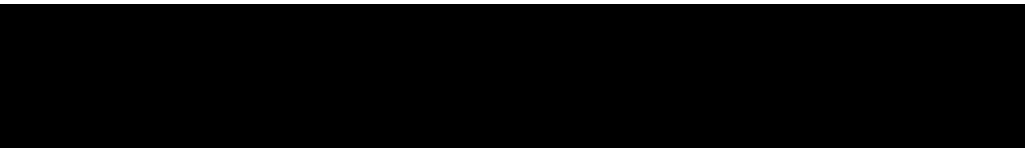
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		
1609620-07	Hg0	0.263	500	-	-	-		
1609620-08	HgS	0.256	500	-	-	-		
1609620-09	Hg2Cl2	0.263	500	-	-	-		



**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					
F610510-BLK2	Blank	0.25	20					
F610510-BLK3	Blank	0.25	20					
F610510-BS1	Blank Spike	0.25	20	1605270	20			
F610510-BS2	DORM-4	0.1255	20	1605470	126			
F610510-BSD1	Blank Spike	0.25	20	1605270	20			
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					
F610510-DUP2	Duplicate [1610232-26RE1]	0.2515	20					
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016	
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-		
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-		
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-		
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-		
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					
F610509-BLK2	Blank	0.25	20					
F610509-BLK3	Blank	0.25	20					
F610509-BS1	Blank Spike	0.25	20	1605270	20			
F610509-BS2	DORM-4	0.1256	20	1605470	126			
F610509-BSD1	Blank Spike	0.25	20	1605270	20			
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-		
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-		
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-		
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-		
1610234-19RE1	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-		
1610235-05RE1	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-		
1610236-01RE1	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-		

Page 188 of 230

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610509

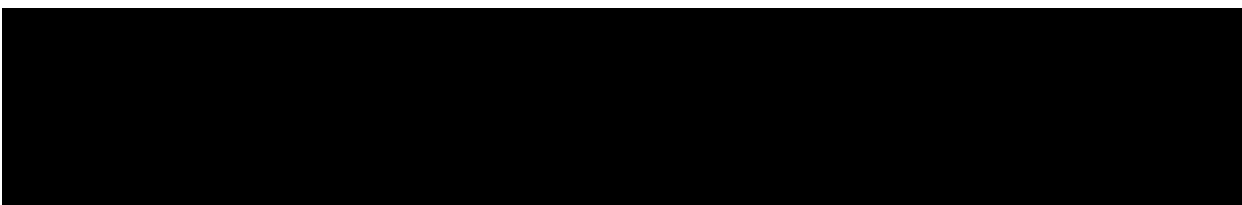
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

1610236-02REI	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-		
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-		
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-		
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-		
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-		
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-		
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-		
1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-		





PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F611274

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					20X
F611274-BLK2	Blank	0.25	500					20X
F611274-BLK3	Blank	0.25	500					20X
F611274-BS1	LCS	0.25	500	1605712	200			20X
F611274-BSD1	LCS Dup	0.25	500	1605712	200			20X
F611274-DUP1	Duplicate [1609620-03]	0.256	500					20X
F611274-MS1	Matrix Spike 1609620.02	0.25	500	1605272	25			20X
F611274-MSD1	Matrix Spike Dup 1609620.02	0.25	500	1605272	25			20X

Standard ID(s): 1605712  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 03-Apr-17 00:00

Reagent ID(s): 1603399, 1605349, 1606137, 1606529  
 Description: Boiling Chips for AFS prep, 3:1 HNO3/HF, Omnitrace Hydrochloric Acid, 5% BrCl  
 Expiration: 01-Jun-17 00:00, 12-Mar-17 00:00, 13-Oct-19 00:00, 19-Apr-17 00:00

DUP2 - 20X

Source 1609620.03

1602941

1605636

1605635

1606370

PREPARATION BENCH SHEET

200.2  
11/10/16 DM

F611274

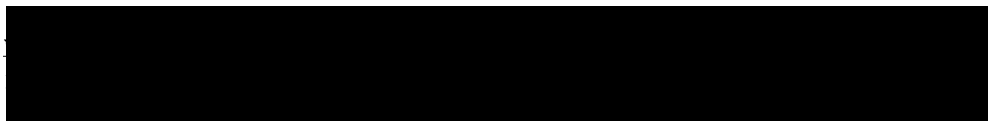
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		20X
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		20X
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		20X
1609620-07	Hg0	0.263	500	-	-	-		100X
1609620-08	HgS	0.256	500	-	-	-		100X
1609620-09	Hg2Cl2	0.263	500	-	-	-		100X



# Oven Bomb Digestions

Lab Tech(s): AMB Spiked By: AMB TM Batch #: N/A Hg Batch #: F611274  
 Balance #: 19 for blanks Oven SN: OVN-0202 Therm. SN: 2040514271  
 Temp. (°C): 128.8 (w/o CF) 128.8 (w/ CF) Date In: 11/8/16 Time In: 1900  
 Date Out: 11/9/16 Time Out: 0700 Final Vol. (mL): 40

Spike Name	Volume (µL)	LIMS #	Combined LIMS #
Thg-1000mg	200	1605712	
<del>AMB 11-7-16</del>			

Pipette / Dispenser MW11679 Cal Date  
~~AW100610~~ AMB 11-7-16 11-7-16  
0842293 11-01-16  
NU11049 11-7-16  
02Z159 11-4-16  
09M67809 11-9-16 8-23-16  
~~02K27494~~ AMB 8-24-16 8-3-16  
AMB 11-9-16

**EFGS-111 130±5°C 12 hours**  
 (below applies to entire batch)  
 4 mL split removed and 5% BrCl added?   
 LIMS #: 160529  
 Added 25 mL of HF/HNO<sub>3</sub> solution?   
 LIMS #: 1605349  
 Added 3 mL conc. HCl?   
 LIMS #: 1606137

**EFGS-084 130±5°C 18 hours**  
 (below applies to entire batch)  
 Added 10 mL conc. HCl?   
 LIMS #: AMB 11-7-16  
 Added 7 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Boil Down	Step 1	25 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:
	Step 2	25 mL conc. HNO <sub>3</sub> added? <u>AMB 11-7-16</u> <input type="checkbox"/> LIMS #:
	Step 3	5 mL conc. HNO <sub>3</sub> added? <input type="checkbox"/> LIMS #:

**EFGS-141 160±5°C 18 hours**  
 (below applies to entire batch)  
 Added 7.5 mL conc. HNO<sub>3</sub>?   
 LIMS #: AMB 11-7-16

Splice witness: PL 11/7/16

#	Sample/ Batch ID	Bomb #	Sample (g)	Notes
1	F611274-BLK1	N282	0.2865	
2	F611274-BLK2	D39	0.2589	
3	F611274-BLK3	N122	0.2681	
4	F611274-BS1	N29	0.2963	
5	F611274-BSD1	A63	0.2720	
6	F611274-DUPI	N27	0.256	source: 1609620-03
7	1609620-01	N94	0.260	
8	1609620-02	TM089	0.258	
9	1609620-03	N152	0.258	
10	1609620-07	N234	0.263	
11	1609620-08	N106	0.256	
12	1609620-09	TM097	0.263	

Additional Comments:  
 Boiling chips: 1603399 Glass vials: 00064588  
 - SSE FG -  
 Centrifuge tubes: 1252617 Pink Tape  
0026

PREPARATION BENCH SHEET

2600-2

F610510

11/10/16 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					20x
F610510-BLK2	Blank	0.25	20					20x
F610510-BLK3	Blank	0.25	20					20x
F610510-BS1	Blank Spike	0.25	20	1605270	20			20x
F610510-BS2	DORM-4	0.1255	20	1605470	126			500x
F610510-BSD1	Blank Spike	0.25	20	1605270	20			20x
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					100x
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			500x
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			500x
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			500x
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			500x

Standard ID(s): Description:  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): Description:  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606500 5% BrCl

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - AD 100x  
 SOURCE 1610232-26RE1

1602941  
 1605636  
 1605635  
 1606370

PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F610510

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016 t	100X
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-	20X	
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-	20X	
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-	20X	
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-	20X	
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		20X
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		20X
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		20X
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		20X
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		20X
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	20X
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		20X
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		20X
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		20X
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		20X

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Technician: Dwyer Batch#: F610510 Date: 11/8/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:35 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:35 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11609 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: 022159  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: G.2

Vial #	Sample ID Number	Sample Size		Vial #	Sample ID Number	Sample Size		CRM LIMS ID
		<input type="checkbox"/> mL	<input checked="" type="checkbox"/> g			<input type="checkbox"/> mL	<input type="checkbox"/> g	
1	F610510 Blank1	0.2911		23	1610238-01	0.2917		DOM-4 B50 1605470
2	F610510 Blank2	0.2551		24	1610238-02	0.2941		
3	F610510 Blank3	0.2916		25	1610238-03	0.2869		
4	F610510 B51	0.2607		26	1610238-04	0.2985		
5	F610510 B501	0.2518		27	1610238			Comments B51 B501 = 100 µg/mL = 20 µL 1605270 Dup1 MS1 MS01 = 1610232-26 w/ 11/8/16-26 MS2 MS02 1610236-20 = MS02 = 0.2963 g 11/8/16 0.4 1610236-15 = 0.2885 g 11/8/16 0.4
6	F610510 B52	0.1255		28				
7	F610510 Dup	0.2701		29				
8	F610510 MS1	0.2835		30				
9	F610510 MS01	0.2696		31				
10	F610510 MS2	0.2814		32				
11	F610510 MS02	0.2703		33				
12	1610232-26 RZ1	0.2515		34				
13	1610236-11	0.2990		35				
14	1610236-12	0.2876		36				
15	1610236-13	0.2792		37				
16	1610236-14	0.2611		38				
17	1610236-15	0.2885		39				
18	1610236-16	0.2870		40				
19	1610236-17	0.2754		41				
20	1610236-18	0.2880		42				
21	1610236-19	0.2700		43				
22	1610236-20	0.2571		44				

Reviewed

11/9/16  
DM

2600-2

11/10/16 DM

## PREPARATION BENCH SHEET

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					20X
F610509-BLK2	Blank	0.25	20					20X
F610509-BLK3	Blank	0.25	20					20X
F610509-BS1	Blank Spike	0.25	20	1605270	20			20X
F610509-BS2	DORM-4	0.1256	20	1605470	126			500X
F610509-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					100X
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			500X
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			500X
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			500X
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			500X

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

1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

1603399  
 1606221  
 1606500

Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

K0537D

1602941

K0503L

1605035



PREPARATION BENCH SHEET

200.2

11/10/16 DM

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-	100x	
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-	100x	
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-	100x	
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	100x → 20x	
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-	100x	
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	100x → 20x	
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	100x → 20x	
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	100x → 20x	
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	100x → 20x	
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	100x → 20x	
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	100x → 20x	
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	100x → 20x	
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-	100x 20x	
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-	100x 20x	
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-	100x 20x	
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-	100x 20x	
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-	100x 20x	
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-	100x 20x	
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-	100x 20x	
							20x	

Page 198 of 230

Date: 11/2/2016

PREPARATION BENCH SHEET

2600-2

11/10/16 dm

F610509

Eurofins Frontier Global Sciences, Inc.

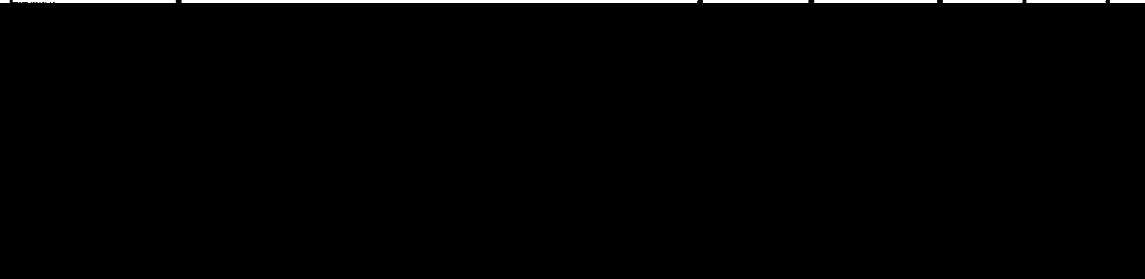
Matrix: Tissue

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

Prepared: 11/8/2016

1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-	<del>100X</del>	
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20X



Technician: DW Batch#: F610509 Date: 11-8-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:30 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:30 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU 11619 Calibration Date: 11-7-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: Dispenser # 022159 ATYEX  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: 9, 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	F610509 Blank1	0.2510	23	1610236-02	0.2886	B52 DOPH-4
2	F610509 Blank2	0.2913	24	1610236-03	0.2789	1605470
3	F610509 Blank3	0.2618	25	1610236-04	0.2873	
4	F610509 B51	0.2762	26	1610236-05	0.2790	
5	F610509 B501	0.2547	27	1610236-06	0.2901	Comments
6	F610509 B52	0.1256	28	1610236-07	0.2780	B51 B501
7	F610509 Dup1	0.2738	29	1610236-08	0.2623	= 100% Hg
8	F610509 M51	0.2948	30	1610236-09	0.2976	= 20% Hg
9	F610509 M501	0.2911	31	1610236-10	0.2960	1605270
10	F610509 M52	0.2952	32			Dup1 M51/M501
11	F610509 M502	0.2982	33			sample
12	1610234-16	0.2831	34			1610234-16
13	1610234-17	0.2794	35			M52 M502
14	1610234-18	0.2811	36			= 1610236-03
15	1610234-19	0.2681	37			11/8/16 DW
16	1610234-20	0.2789	38			1610235-04
17	1610235-21	0.2894	39			= 0.3006 g
18	1610235-02	0.3024	40			11/8/16 DW
19	1610235-03	0.2996	41			1610236-02
20	1610235-04	0.3006	42			= 0.2886 g
21	1610235-05	0.2708	43			
22	1610236-01	0.2786	44			

Reviewed  
 11/9/16 DM

**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>6K10018, 6K10017</u>
Reviewer: <u><i>[Signature]</i></u>	Dataset ID(s): <u>THG26002-161110-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F611274, F6105010, F610509</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 checked="" 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

- |   |   |   |
|---|---|---|
| <p>1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?)</p>  | <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p>   | <p><input checked="" type="checkbox"/></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><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input type="checkbox"/> YES    <input type="checkbox"/> NO    <input type="checkbox"/> N/A</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO    <input type="checkbox"/> N/A</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO    <input type="checkbox"/> N/A</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO    <input type="checkbox"/> N/A</p> <p><input type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> | <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> |
| <p>3. High QA?                      WO#(s)/Client(s): _____</p>   | <p><input type="checkbox"/> YES    <input checked="" type="checkbox"/> NO</p>   | <p><input checked="" type="checkbox"/></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><input type="checkbox"/> YES    <input checked="" type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p>   | <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></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</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p> <p><input checked="" type="checkbox"/> YES    <input type="checkbox"/> NO</p>   | <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>   |

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

Analyst:	DON MORAN	Sequence(s) #:	6K10018, 6K10017
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26002-161110-1
Date:	11/10/2016	WO (s) #:	VARIOUS
Batch #(s):	F611274, F6105010, F610509		0

Analyst Initials *DM*

Reviewer Initials *A*

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 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:  | <i>F611274-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 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 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 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>	6K10018, 6K10017
<b>Reviewer:</b>	0 <i>[Signature]</i>	<b>Dataset ID(s):</b>	THG26002-161110-1
<b>Date:</b>	11/10/2016	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F611274, F6105010, F610509		0

Analyst Initials DM                      Reviewer Initials AK

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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   |   |
| 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 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\IDOCs

- |  |   |                             |                                     |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 12/16/2015 _____ 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: _____ 7/8/2016 _____ LOD within last 3 months?                                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/8/2016 _____ LOQ within last 3 months?                                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

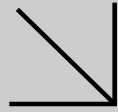
**Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**





Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-2553**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610235

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/19/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



# Contents

Client Project Name: 1610235  
Work Order Number: 16-11-2553

1	16-11-2553 Level IV Case Narrative. . . . .	3
2	Work Order Narrative. . . . .	4
3	Sample Summary. . . . .	5
4	Client Sample Data. . . . .	6
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	6
5	Quality Control Sample Data. . . . .	7
	5.1 Sample Duplicate. . . . .	7
6	Glossary of Terms and Qualifiers. . . . .	8
7	Chain-of-Custody/Sample Receipt Form. . . . .	9
8	16-11-2553 Level IV Data Package. . . . .	15

## Case Narrative

Client Project Name: 1610235  
Work Order Number: 16-11-2553

### **CONDITION UPON RECEIPT:**

Eurofins Calscience, Inc. received 5 tissue samples on November 30, 2016. A total of 5 containers were received in good condition at a temperature of -3.6°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
FRB-01_092816_POL_WB_01	16-11-2553-1	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_02	16-11-2553-2	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_03	16-11-2553-3	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_04	16-11-2553-4	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_POL_WB_05	16-11-2553-5	9/28/2016 13:40:00 PM	11/30/2016 11:10:00 PM

### **DATA SUMMARY:**

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

Not enough sample mass was received for sample -4 to perform the requested analysis; therefore, analytical testing was performed on samples -1 through -3 and -5 only.

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -3 and -5 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/07/16 in batch # 161207B27 / 161207D27.

### **Sample and QC:**

A sample from another work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/30/16. They were assigned to Work Order 16-11-2553.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2553
11720 North Creek Parkway North, Suite 4	Project Name:	1610235
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/30/16 11:10
	Number of Containers:	5

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
FRB-01_092816_POL_WB_01	16-11-2553-1	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_02	16-11-2553-2	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_03	16-11-2553-3	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_04	16-11-2553-4	09/28/16 13:40	1	Tissue
FRB-01_092816_POL_WB_05	16-11-2553-5	09/28/16 13:40	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/30/16  
Work Order: 16-11-2553  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1610235

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_POL_WB_01	16-11-2553-1-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.0	0.10		1.00		
FRB-01_092816_POL_WB_02	16-11-2553-2-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.5	0.10		1.00		
FRB-01_092816_POL_WB_03	16-11-2553-3-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		
FRB-01_092816_POL_WB_05	16-11-2553-5-A	09/28/16 13:40	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		
Method Blank	099-14-104-152	N/A	Tissue	N/A	12/07/16	12/07/16 00:00	161207B27
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2553  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610235

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
16-11-2556-41	Sample	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27
16-11-2556-41	Sample Duplicate	Tissue	N/A	12/07/16 00:00	12/07/16 00:00	161207D27

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	3.120	2.960	5	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-2553

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610235

16-11-2553

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Due: 02-Nov-16 19:00

Comments

1 Sample ID: 1457 FRB-01\_092816\_POL\_WB\_01

EFGS Lab ID: 1610235-01

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

2 Sample ID: 1458 FRB-01\_092816\_POL\_WB\_02

EFGS Lab ID: 1610235-02

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

3 Sample ID: 1459 FRB-01\_092816\_POL\_WB\_03

EFGS Lab ID: 1610235-03

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

4 Sample ID: 1460 FRB-01\_092816\_POL\_WB\_04

EFGS Lab ID: 1610235-04

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50\_60 ml PP Jar (B)

Released By

Date

Received By

Date

*[Signature]*

11/29/16

*[Signature]*

11/30/16



**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1610235

2553

Analysis

Due: 02-Nov-16 19:00

Comments

5 Sample ID: 1461 FRB-01\_092816\_POL\_WB\_05

EFGS Lab ID: 1610235-05

Sampled: 28-Sep-16 13:40

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

50 60 ml PP Jar (B)

Released By

WZK 11/29/16

Received By

ey 11/30/16

Released By

Lesmar Foote 11/29/16  
(ups)

Received By

1110



2511

FRONT DESK  
4425 885 - 1995  
FRONTIER GLOBAL SCIENCES  
17720 N OREEK PKWY N  
BOTHELL WA 98011 - 8244

27 LBS

DWTT: 24, 13, 14

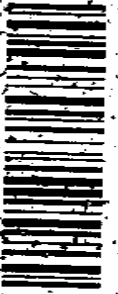

1 OF 1

**SHIP TO:**

SAMPLE RECEIVING  
(714) 896 - 5494  
EUROPINS CALSCIENCE, INC.  
7440 LINCOLN WAY

GARDEN GROVE CA 92841 - 1427

CA 927 9-09

**UPS NEXT DAY AIR**

**1**

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11:32 AM 03/01/14  
 9086 9086  
 9001 - 0211  
 ATTN: S. S.  
 GARDEN GROVE CA 92841  
 7440 LINCOLN WAY  
 EUROPEAN CALSCIENCE

1000 07 0106



**SAMPLE RECEIPT CHECKLIST**

COOLER / OF /

CLIENT: EFGS, INC.

DATE: 11 / 30 / 2016

**TEMPERATURE:** (Criteria: 0.0°C - 6.0°C, not frozen except sediment/issue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 3.6 °C (w/ CF): 3.6 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 836

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 836  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 1053

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples .....  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A  
 Proper preservation chemical(s) noted on COC and/or sample container .....  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals .....  Yes  No  N/A  
 Container(s) for certain analysis free of headspace .....  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A  
 (Trip Blank Lot Number: \_\_\_\_\_)

**CONTAINER TYPE:**  
 Aqueous:  VOA  VOAh  VOAna,  100PJ  100PJna,  125AGB  125AGBh  125AGBp  125PB  
 125PBzina  250AGB  250CCB  250CCGBs  250PB  250PBn  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna,  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  Encores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (TISSUE):  2oz PT  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>,  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, zina = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH  
 Labeled/Checked by: 1053  
 Reviewed by: 1017

## Kathleen Burney

---

**From:** Amy Goodall  
**Sent:** Wednesday, December 14, 2016 4:09 PM  
**To:** Kathleen Burney; Carla Hollowell  
**Subject:** RE: 1610235 / ECI 16-11-2553  
**Attachments:** 1610235 submittal form REV1.pdf

Hi Kathy and Carla,

For this work order, can you revised the final Level II and IV reports? Can you remove the first 4 digits from the sample IDs? I've attached a revised submittal form with the corrected IDs for you. Can you also include in the narrative that there wasn't enough volume for analysis for samples 1610235-04?

Please let me know if you have any questions.

Thank you,  
Amy

Amy Goodall

### Holiday Business Hours:

For Christmas, the laboratory will be closed from December 23 - December 26, 2016.

For New Year's, the laboratory will be closed on January 2, 2017

Direct: 425-686-3557  
 Main: 425-686-1996, ext. 1507  
[AmyGoodall@eurofinsus.com](mailto:AmyGoodall@eurofinsus.com)  
[www.eurofins.com](http://www.eurofins.com)




---

**From:** Kathleen Burney  
**Sent:** Tuesday, December 13, 2016 5:53 PM  
**To:** Amy Goodall  
**Cc:** Carla Hollowell  
**Subject:** 1610235 / ECI 16-11-2553

Analytical report attached. The EDDs and Level IV package will follow.

- **Please note: No tissue was received for sample #4; lipid analysis could not be run.**

Please let me know if you need anything else. Thank you.

**SUBCONTRACT ORDER**

**Eurofins Frontier Global Sciences, Inc.**

**1610235**

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 400  
 Bothell, WA 98011  
 Phone: (425) 686-1996  
 Fax: (425) 686-3096  
 Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc  
 7440 Lincoln Way  
 Garden Grove, CA 92841  
 Phone :7148955494  
 Fax: x

Analysis	Due	Expires	Laboratory ID	Comments
<b>Sample ID: 1610235-01</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-02</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-03</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-04</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				
<b>Sample ID: 1610235-05</b>	<b>Tissue</b>	<b>Sampled: 28-Sep-16 13:40</b>		
Misc. Subcontract 1	02-Nov-16 19:00	26-Oct-16 10:40		Lipids Analysis
<i>Containers Supplied:</i> 50_60 ml PP Jar (B)				

Return to Contents

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

Released By \_\_\_\_\_ Date \_\_\_\_\_ Received By \_\_\_\_\_ Date \_\_\_\_\_

# QUALITY CONTROL CHECKLIST

WORK ORDER NUMBER: 16-11-2553

METHOD: % lipid. Section Reviewed by: \_\_\_\_\_ Date: \_\_\_/\_\_\_/\_\_\_

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____	Date: ___/___/___
PREPARATION CONDITIONS	Yes	No	N/A	Comments (If No, why, and further action required)	
Correct Sample Aliquots Used					
Correct Reagents Used					
Correct Final Prep Volumes					
Correct Preparation Procedure					

ANALYST				Section Reviewed by: 1) <u>684</u> Date: <u>12/13/16</u>		2) _____ Date: ___/___/___		3) _____ Date: ___/___/___		
INSTRUMENT CONDITIONS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/	/	/	/	/	/	/	/	/	
Valid Initial Calibration Curve	/	/	/	/	/	/	/	/	/	
Valid Cont. Calibration Std.	/	/	/	/	/	/	/	/	/	
Other Calibration Criteria Met	/	/	/	/	/	/	/	/	/	
SAMPLE ANALYSIS	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/	/	/	/	/	/	/	/	/	
Instr. Signals within Quant. Range	/	/	/	/	/	/	/	/	/	
Reporting Limits Met	/	/	/	/	/	/	/	/	/	
REPORTING	Yes	No	N/A	Yes	No	N/A	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/	/	/	/	/	/	/	/	/	
Correct Batch #'s Reported	/	/	/	/	/	/	/	/	/	
Dilutions Reported	/	/	/	/	/	/	/	/	/	
Interferences Reported	/	/	/	/	/	/	/	/	/	
Out of Control Forms Completed	/	/	/	/	/	/	/	/	/	

GROUP LEADER				Section Reviewed by: <u>142</u> Date: <u>12/13/16</u>	
PROJECT REQUIREMENTS	Yes	No	N/A	Comments (If No, why, and further action required)	
Analyses by CEL Standard Methods	↓				
Normal CEL RLs					
Normal CEL QC					
Normal CEL Deliverables					
QUALITY CONTROL	Yes	No	N/A	Comments (If No, why, and further action required)	
Acceptable Method Blanks (MB)	✓				
Acceptable Field Blanks (FB, EB, TB)					
Acceptable Matrix Spikes (MS/MSD)					
Acceptable Lab Ctrl. Samples (LCS)					
Other Required QC Performed					
Out of Controls Addressed/Documented					
REPORTING	Yes	No	N/A	Comments (If No, why, and further action required)	
Correct Date Prepared	↓				
Correct Date Analyzed					
Correct Units					
Analyst Review Performed (Init./Date)					
Out of Control Forms Acceptable	↓				
RESULTS CHECK	Yes	No	N/A	Comments (If No, why, and further action required)	
Does the Data Make Sense	✓				

GENERAL COMMENTS: \_\_\_\_\_

Page 219 of 230

Page 15 of 26

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2553  
INSTRUMENT: N/A  
EXTRACTION: N/A  
DT EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
DT ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 1 CLIENT SAMPLE NUMBER: 1457 FRB-01\_092816\_POL\_WB\_01

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

ON COL CONC 1.98 DF 1.00 CONC 1.98 RL 0.10

QUAL



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2553  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 2**      **CLIENT SAMPLE NUMBER:** 1458 FRB-01\_092816\_POL\_WB\_02

**LCS/MB BATCH:** 161207B27      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161207D27      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

1.50      1.00      1.50      0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2553  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 3 CLIENT SAMPLE NUMBER: 1459 FRB-01\_092816\_POL\_WB\_03

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 1.38 1.00 1.38 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2553  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 5 CLIENT SAMPLE NUMBER: 1461 FRB-01\_092816\_POL\_WB\_05

LCS/MB BATCH: 161207B27 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161207D27 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.36	1.00	1.36	0.10	



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-07 00:00  
REVIEWED BY: 142  
D/T REVIEWED: 2016-12-13 16:52

DATA FILE:

# MB                      CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161207B27                      SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH:                                      FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: %    ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.0100	1.00	ND	0.10	

**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-152  
**MB BATCH ID:** 161207B27  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-07 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-07 00:00  
**REVIEWED BY:** 142  
**D/T REVIEWED:** 2016-12-13 16:52  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-11-2553**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	1457 FRB-01	092816_POL_WB_01	2016-12-07 00:00	
2	1458 FRB-01	092816_POL_WB_02	2016-12-07 00:00	
3	1459 FRB-01	092816_POL_WB_03	2016-12-07 00:00	
5	1461 FRB-01	092816_POL_WB_05	2016-12-07 00:00	



## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-11-2556-41  
**DUP BATCH:** 161207D27  
**INSTRUMENTS:**  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
SAMPLE: 2016-12-07 00:00  
DUP SAMPLE: 2016-12-07 00:00

ANALYZED BY: 1,065  
D/T ANALYZED  
SAMPLE: 2016-12-07 00:00  
DUP SAMPLE: 2016-12-07 00:00  
REVIEWED BY: 142  
D/T REVIEWED 2016-12-13 16:58

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.120	2.960	5	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/07/16 Initials: BSJ

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
62	500	500.00	498.00 - 502.00	<input checked="" type="radio"/> Y	N
	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	N
26	1	0.9997	0.99900 - 1.00100	<input checked="" type="radio"/> Y	IO Lab
	100	99.9968	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	1	99.997	98.00 - 102.00	<input checked="" type="radio"/> Y	IO Lab
	500	499.93	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
53	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9993	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
20	100	99.9984	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
	500	499.99	498.00 - 502.00	<input checked="" type="radio"/> Y	N
57	1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
52	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	2000	2000.0	1998.0 - 2002.0	<input checked="" type="radio"/> Y	N
14	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
63	100	99.9947	99.9000 - 100.1000	<input checked="" type="radio"/> Y	BOD Room
	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	N
64	1	0.9999	0.9990 - 1.0010	<input checked="" type="radio"/> Y	BOD Room
	100	99.99	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
34	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	10.01	9.8 - 10.2	<input checked="" type="radio"/> Y	N
30	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	1	0.00196	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
30	1	0.99965	0.9990 - 1.0010	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.99452	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
30	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N

Lipid Content Raw Data Calculator

12/7/2016

	ID # A	Tissue Sampls (g)	Extraction Volume (ml)		Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
			Collected	Analyzed	Initial	Final		
		M1	V1	V2	M2	M3	M3 - M2	C
B-3	MB 161207B27	1.00	1	1	1.8858	1.8859	0.0001	0.01%
41	16-11-2444-41	0.66	1	1	1.9101	1.9298	0.0197	2.98%
42	16-11-2444-42	0.48	1	1	1.9012	1.9224	0.0212	4.42%
43	16-11-2444-43	0.77	1	1	1.9022	1.9287	0.0265	3.44%
44	16-11-2444-44	0.50	1	1	1.9090	1.9284	0.0194	3.88%
45	16-11-2444-45	0.06	1	1	1.8665	1.8680	0.0015	2.50%
46	16-11-2553-1	1.23	1	1	1.8652	1.8895	0.0243	1.98%
47	16-11-2553-2	0.78	1	1	1.8701	1.8818	0.0117	1.50%
48	16-11-2553-3	0.68	1	1	1.8782	1.8876	0.0094	1.38%
49	16-11-2553-5	0.58	1	1	1.8889	1.8968	0.0079	1.36%
50	16-11-2556-41	1.97	1	1	1.8714	1.9328	0.0614	3.12%
51	16-11-2556-42	1.43	1	1	1.8807	1.9336	0.0529	3.70%
DUP	D16-11-2556-41	2.06	1	1	1.8862	1.9472	0.0610	2.96%
L-3	LCS-161207L27	0.12	1	1	1.8786	1.9969	0.1183	98.6%

Samples ID#	Lipid Content (%)	RPD
16-11-2556-41	3.12%	-5%
161207D27		
Dup 16-11-2556-41	2.96%	



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	4) Sand 507-19-19	1) Filter 507-41-04	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS		
Tissue	MB: 161207B27 Sample Duplicate: 161207D27			
CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-11-2556-41A	3.12	5	0-10	
Duplicate 1 -41A	2.96			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/07/16	MB	1.00	34	1	1	1.8858	1.8859	0.0001	0.01	684	
	16-11-2444-41A	0.66				1.9101	1.9298	0.0197	2.98		
	-42	0.48				1.9012	1.9224	0.0212	4.42		
	-43	0.77				1.9022	1.9287	0.0265	3.44		
	-44	0.50				1.9090	1.9284	0.0194	3.88		
	-45 A	0.06				1.8665	1.8680	0.0015	2.50		
	16-11-2553-1A	1.23				1.8652	1.8895	0.0243	1.98		
	-2	0.78				1.8701	1.8818	0.0117	1.50		
	-3	0.68				1.8782	1.8876	0.0094	1.38		
	-5 A	0.58				1.8889	1.8968	0.0079	1.36		
	16-11-2556-41A	1.97				1.8714	1.9328	0.0614	3.12		
	1 -42 A	1.43				1.8807	1.9336	0.0529	3.70		
12/07/16	Duplicate 16-11-2556-41A	2.06	34	1	1	1.8862	1.9472	0.0610	2.96	684	



Analysis Method (EPA Method):  608  8061  8082  8143  8310  TO-13  TO-4  4180

8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID# Measuring Sample: 687 Start Extraction: 5:40 Blow Down: 6:00 Clean Up:

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: 26 Filter ID#: 567-47-44 ASE ID#:  Soxtherm ID#: 1-8 Orbit Shaker ID#:  Sonicator ID#:

Ext. Start Date/Time: 12/07/16 9:00 Ext. End Date/Time: 12/07/16 11:30

Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (mL):

Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 567-44-06 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161207B27

Cell ID#:	Sample W (g) / V (mL)	Clean Up Performed	Comments
MB	Initial 1.00	Final 1	
LCS			
LCSD			
MS			
MSD DUP	16-11-2558-41A 2.06	<input type="checkbox"/>	
	16-11-2444-41A 0.66	<input type="checkbox"/>	
	-42A 0.48	<input type="checkbox"/>	
	-43A 0.77	<input type="checkbox"/>	
	-44A 0.50	<input type="checkbox"/>	
	-45A 0.06	<input type="checkbox"/>	
	16-11-2553-1A 1.23	<input type="checkbox"/>	
	-2A 0.78	<input type="checkbox"/>	
	-3A 0.68	<input type="checkbox"/>	
	-5A 0.58	<input type="checkbox"/>	
	16-11-2556-41A 1.97	<input type="checkbox"/>	
	-42A 1.43	<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Peer Reviewed by:

Peer Reviewed Date:

Revision Date: 10/20/16



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_092816_RAS_WB_01	1610236-01	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_02	1610236-02	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_03	1610236-03	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_04	1610236-04	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_05	1610236-05	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_06	1610236-06	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_07	1610236-07	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_08	1610236-08	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_09	1610236-09	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_10	1610236-10	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_11	1610236-11	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_12	1610236-12	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_13	1610236-13	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_14	1610236-14	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_15	1610236-15	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_16	1610236-16	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_17	1610236-17	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_18	1610236-18	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_19	1610236-19	Tissue	28-Sep-16 13:00	05-Oct-16 09:30
FRB-01_092816_RAS_WB_20	1610236-20	Tissue	28-Sep-16 13:00	05-Oct-16 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.

Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King**Reported:**  
14-Jan-17 12:58

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## REVISED REPORT (12/16/16)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631E.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -47.1 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 1631B.

## ANALYTICAL AND QUALITY CONTROL ISSUES

Samples were prepped in two batches for total Mercury; F610509 and F610510. Sample 1610236-03 was used for the source QC in batch F610509 and sample 1610236-20 was used as the source QC in batch F610510.

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

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

As an additional measure of the accuracy of the methods used and to check for matrix interference, matrix spikes (MS) and matrix spike duplicates (MSD) were digested and analyzed. All of the matrix spike recoveries fell within the established acceptance criteria with the

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---

Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

exception of any items flagged and described in the notes and definitions section of the report.

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

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---

Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1610236

Client: AMCC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/7/16 Labeled By: BSW

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

Received By: LPM

Label Verified By: CSF

# of Coolers Received: 3 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: (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>-6.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LPM</u>
Cooler 1: <u>-46 °C</u>	w/ CF: <u>-46.1 °C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>-47 °C</u>	w/ CF: <u>-47.1 °C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: <u>-47 °C</u>	w/ CF: <u>-47.1 °C</u>	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>MA</u>	

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

1: 8756 4740 9231 2: 7842 6248 7980 3: 7842 6248 7991

1610236

WB 01  
1435

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1456	9/28/2016	13:00	FRB-01_092816_MUM_WB_MS_	MS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1457	9/28/2016	13:40	FRB-01_092816_POL_WB_01	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1458	9/28/2016	13:40	FRB-01_092816_POL_WB_02	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1459	9/28/2016	13:40	FRB-01_092816_POL_WB_03	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1460	9/28/2016	13:40	FRB-01_092816_POL_WB_04	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1461	9/28/2016	13:40	FRB-01_092816_POL_WB_05	FS	1	2 oz	Polyethylene	Freeze	TIS Hg (1631e)/ MeHg (1630)/ Lipids (1993a)	T
1479	9/28/2016	13:00	FRB-01_092816_RAS_WB_01	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1480	9/28/2016	13:00	FRB-01_092816_RAS_WB_02	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1481	9/28/2016	13:00	FRB-01_092816_RAS_WB_03	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1482	9/28/2016	13:00	FRB-01_092816_RAS_WB_04	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1483	9/28/2016	13:00	FRB-01_092816_RAS_WB_05	FS	1	1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 27 of 30

DUK  
10/6/16

1610236

<i>Samp #</i>	<i>Sample Date</i>	<i>Sample Time</i>	<i>Field Sample ID</i>	<i>QC Code</i>	<i>Qty Total</i>	<i>Qty Each</i>	<i>Bottle Size and Material</i>	<i>Preservative</i>	<i>Media Method</i>	<i>Fraction</i>
1484	9/28/2016	13:00	FRB-01_092816_RAS_WB_06		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1485	9/28/2016	13:00	FRB-01_092816_RAS_WB_07		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1486	9/28/2016	13:00	FRB-01_092816_RAS_WB_08		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1487	9/28/2016	13:00	FRB-01_092816_RAS_WB_09		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1488	9/28/2016	13:00	FRB-01_092816_RAS_WB_10		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1489	9/28/2016	13:00	FRB-01_092816_RAS_WB_11		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1490	9/28/2016	13:00	FRB-01_092816_RAS_WB_12		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1491	9/28/2016	13:00	FRB-01_092816_RAS_WB_13		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1492	9/28/2016	13:00	FRB-01_092816_RAS_WB_14		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1493	9/28/2016	13:00	FRB-01_092816_RAS_WB_15		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1494	9/28/2016	13:00	FRB-01_092816_RAS_WB_16		1					
				FS		1	Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T

Tuesday, October 04, 2016

Page 28 of 30



1610236

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1495	9/28/2016	13:00	FRB-01_092816_RAS_WB_17	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1496	9/28/2016	13:00	FRB-01_092816_RAS_WB_18	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1497	9/28/2016	13:00	FRB-01_092816_RAS_WB_19	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1498	9/28/2016	13:00	FRB-01_092816_RAS_WB_20	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1499	9/28/2016	13:00	FRB-01_092816_RAS_WB_MD	MSD	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1589	9/28/2016	12:35	FRB-01_092816_SED_03	FS	1	2 oz	Plastic	4 deg C	SED Total Hg (1631e)/Total MeHg (1630)	T
1650	9/23/2016	12:03	OB-05_092316_BAIT_01	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)	T
1655	10/4/2016	12:00	9LIVES_100416_FISH_BAIT	FS	1	5.5 oz	Can	4 deg C	TIS Total Hg (1631e)	T
1656	10/4/2016	12:00	PURINA_100416_FISH_BAIT	FS	1	2 oz	Amber Glass	4 deg C	TIS Total Hg (1631e)	T
1657	10/4/2016	12:00	FANCYF_100416_FISH_BAIT	FS	1	3 oz	Can	4 deg C	TIS Total Hg (1631e)	T
1658	8/3/2016	12:00	HORSESHOE_080316_FISH_BAIT	FS	1		Ziplocbag	4 deg C	TIS Total Hg (1631e)	T

WB-20  
1498

USE for MS/MSD

HOMENIZER  
w/ volume from  
MS/MSD

Tuesday, October 04, 2016

Page 29 of 30

DMK  
10/6/16

1610236

Sample #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
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QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: J. Desjarlais IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16:00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FED EX TRACKING: 8756 47 40 9231

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_01**  
**1610236-01**

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

Mercury	5.46	0.080	0.718	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	
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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_02**  
**1610236-02**

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	5.96	0.078	0.693	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



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511 Congress Street  
Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_03**  
**1610236-03**

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	7.27	0.080	0.717	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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511 Congress Street  
Portland ME, 04101

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Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_04**  
**1610236-04**

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	6.37	0.078	0.696	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_05**  
**1610236-05**

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	6.50	0.080	0.717	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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**FRB-01\_092816\_RAS\_WB\_06**  
**1610236-06**

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	7.62	0.077	0.689	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_07**  
**1610236-07**

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	5.07	0.081	0.719	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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511 Congress Street  
Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_08**  
**1610236-08**

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	8.00	0.085	0.762	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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511 Congress Street  
Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_09**  
**1610236-09**

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	7.03	0.075	0.672	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_10**  
**1610236-10**

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	6.89	0.076	0.676	ng/g	20	F610509	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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**Reported:**  
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**FRB-01\_092816\_RAS\_WB\_11**  
**1610236-11**

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	6.46	0.075	0.669	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_12**  
**1610236-12**

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	6.60	0.078	0.695	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_13**  
**1610236-13**

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	6.79	0.080	0.716	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_14**  
**1610236-14**

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	6.67	0.086	0.766	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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**FRB-01\_092816\_RAS\_WB\_15**  
**1610236-15**

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	8.37	0.078	0.693	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Portland ME, 04101

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Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_16**  
**1610236-16**

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	6.19	0.078	0.697	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_17**  
**1610236-17**

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	5.72	0.081	0.726	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_18**  
**1610236-18**

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	8.26	0.078	0.694	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_19**  
**1610236-19**

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	7.35	0.083	0.741	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**FRB-01\_092816\_RAS\_WB\_20**  
**1610236-20**

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	6.52	0.087	0.778	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Cal Standard (6K10018-CAL1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.520	-		ng/L	0.50100		104				
<b>Cal Standard (6K10018-CAL2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.992	-		ng/L	1.0020		99.0				
<b>Cal Standard (6K10018-CAL3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.994	-		ng/L	5.0100		99.7				
<b>Cal Standard (6K10018-CAL4)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	19.09	-		ng/L	20.040		95.3				
<b>Cal Standard (6K10018-CAL5)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	40.53	-		ng/L	40.080		101				
<b>Calibration Blank (6K10018-CCB1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.047	-		ng/L							
<b>Calibration Blank (6K10018-CCB2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.057	-		ng/L							
<b>Calibration Blank (6K10018-CCB3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.114	-		ng/L							
<b>Calibration Blank (6K10018-CCB4)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.112	-		ng/L							
<b>Calibration Blank (6K10018-CCB5)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.118	-		ng/L							

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Calibration Blank (6K10018-CCB6)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.182	-		ng/L							
<b>Calibration Blank (6K10018-CCB7)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.179	-		ng/L							
<b>Calibration Blank (6K10018-CCB8)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.105	-		ng/L							
<b>Calibration Blank (6K10018-CCB9)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.101	-		ng/L							
<b>Calibration Check (6K10018-CCV1)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.771	-		ng/L	5.0000		95.4	77-123			
<b>Calibration Check (6K10018-CCV2)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.625	-		ng/L	5.0000		92.5	77-123			
<b>Calibration Check (6K10018-CCV3)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.707	-		ng/L	5.0000		94.1	77-123			
<b>Calibration Check (6K10018-CCV4)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.609	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV5)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.678	-		ng/L	5.0000		93.6	77-123			
<b>Calibration Check (6K10018-CCV6)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.542	-		ng/L	5.0000		90.8	77-123			

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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Calibration Check (6K10018-CCV7)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.981	-		ng/L	5.0000		99.6	77-123			
<b>Calibration Check (6K10018-CCV8)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.610	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV9)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.524	-		ng/L	5.0000		90.5	77-123			
<b>Instrument Blank (6K10018-IBL1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K10018-IBL3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K10018-ICV1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.914	-		ng/L	5.0000		98.3	77-123			
<b>Batch F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610509-BLK1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.508	0.090	0.800	ng/g							J
<b>Blank (F610509-BLK2)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.195	0.090	0.800	ng/g							J

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F610509 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F610509-BLK3)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.118	0.090	0.800	ng/g							J
<b>LCS (F610509-BS1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	7.915	0.090	0.800	ng/g	8.0160		98.7	75-125			
<b>LCS (F610509-BS2)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	354.6	4.46	39.8	ng/g	383.72		92.4	75-125			
<b>LCS Dup (F610509-BSD1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	8.050	0.090	0.800	ng/g	8.0160		100	75-125	1.69	24	
<b>Duplicate (F610509-DUP1)</b>					Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	7.602	0.409	3.65	ng/g		8.012			5.26	24	
<b>Matrix Spike (F610509-MS1)</b>					Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	309.4	1.90	17.0	ng/g	339.21	8.012	88.9	71-125			
<b>Matrix Spike (F610509-MS2)</b>					Source: 1610236-03 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	320.6	1.90	16.9	ng/g	338.75	7.272	92.5	71-125			
<b>Matrix Spike Dup (F610509-MSD1)</b>					Source: 1610234-16 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	309.9	1.92	17.2	ng/g	343.52	8.012	87.9	71-125	1.10	24	
<b>Matrix Spike Dup (F610509-MSD2)</b>					Source: 1610236-03 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	326.1	1.88	16.8	ng/g	335.35	7.272	95.1	71-125	2.74	24	

Batch F610510 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F610510-BLK1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.338	0.090	0.800	ng/g							J

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610510 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610510-BLK2)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	0.135	0.090	0.800	ng/g							J
<b>Blank (F610510-BLK3)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	0.091	0.090	0.800	ng/g							J
<b>LCS (F610510-BS1)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	7.531	0.090	0.800	ng/g	8.0160		93.9	75-125			
<b>LCS (F610510-BS2)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	333.9	4.46	39.8	ng/g	384.02		86.9	75-125			
<b>LCS Dup (F610510-BSD1)</b> Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	8.201	0.090	0.800	ng/g	8.0160		102	75-125	8.52	24	
<b>Duplicate (F610510-DUP1)</b> Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	98.84	0.415	3.70	ng/g		81.91			18.7	24	
<b>Duplicate (F610510-DUP2)</b> Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	78.95	0.445	3.98	ng/g		81.91			3.68	24	AD
<b>Matrix Spike (F610510-MS1)</b> Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	391.1	1.98	17.6	ng/g	352.73	81.91	87.6	71-125			
<b>Matrix Spike (F610510-MS2)</b> Source: 1610236-20 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	302.5	1.99	17.8	ng/g	355.37	6.516	83.3	71-125			
<b>Matrix Spike Dup (F610510-MSD1)</b> Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16											
Mercury	404.3	2.08	18.5	ng/g	370.92	81.91	86.9	71-125	0.851	24	

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Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

Reported:  
14-Jan-17 12:58

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F610510 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F610510-MSD2)

Source: 1610236-20

Prepared: 08-Nov-16 Analyzed: 10-Nov-16

Mercury	298.9	1.93	17.2	ng/g	344.47	6.516	84.9	71-125	1.90	24	
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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: 3616166052  
Project Manager: Denise King

**Reported:**  
14-Jan-17 12:58

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- 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

THg26002-161110-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 10, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K10018, 6K10017

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	116.97 units	233.95	105.93 units	211.87	104.1 %Rec
SEQ-CAL2	1	1.00 ng/L	213.06 units	213.06	202.02 units	202.02	99.2 %Rec
SEQ-CAL3	1	5.00 ng/L	1027.62 units	205.52	1016.58 units	203.32	99.9 %Rec
SEQ-CAL4	1	20.00 ng/L	3897.25 units	194.86	3886.21 units	194.31	95.5 %Rec
SEQ-CAL5	1	40.00 ng/L	8261.28 units	206.53	8250.24 units	206.26	101.3 %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**  
 203.55            +/- 6.41            3.1% RSD            210.78

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.04 units	±2.85	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.420 ng/L	±2.584
BLK	2	3	2.349 ng/L	±1.647
BLK	3	3	3.028 ng/L	±2.564
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  11/10/16

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	11/10/2016 8:02:45	65431-1.RAW	8:02:45 AM	9.55			-1.5	-0.007	-0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/10/2016 8:06:54	65432-1.RAW	8:06:54 AM	14.32			3.3	0.016	0.016	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/10/2016 8:11:02	65433-1.RAW	8:11:02 AM	9.24			-1.8	-0.009	-0.009	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/10/2016 8:15:11	65434-1.RAW	8:15:11 AM	116.97			105.9	0.520	0.520	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/10/2016 8:19:19	65435-1.RAW	8:19:19 AM	213.06			202.0	0.992	0.992	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/10/2016 8:23:27	65436-1.RAW	8:23:27 AM	1027.62			1016.6	4.994	4.994	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/10/2016 8:27:36	65437-1.RAW	8:27:36 AM	3897.25			3886.2	19.092	19.092	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/10/2016 8:31:44	65438-1.RAW	8:31:44 AM	8261.28			8250.2	40.531	40.531	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/10/2016 8:35:54	65439-1.RAW	8:35:54 AM	1011.29			1000.3	4.914	4.914	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK1	20	11/10/2016 8:41:32	65440-1.RAW	8:41:32 AM	75.69	1		64.7	0.318	6.353	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK2	20	11/10/2016 8:45:41	65441-1.RAW	8:45:41 AM	35.79	1		24.7	0.122	2.432	ng/L	
Hg2600-2	DM2	BLK	F610509-BLK3	20	11/10/2016 8:49:49	65442-1.RAW	8:49:49 AM	26.06	1		15.0	0.074	1.476	ng/L	
Hg2600-2	DM2	SAM	F610509-BS1	20	11/10/2016 8:53:57	65443-1.RAW	8:53:57 AM	1052.88	1		1041.8	4.947	98.943	ng/L	
Hg2600-2	DM2	SAM	F610509-BSD1	20	11/10/2016 8:58:06	65444-1.RAW	8:58:06 AM	1070.02	1		1059.0	5.031	100.629	ng/L	
Hg2600-2	DM2	SAM	F610509-BS2	500	11/10/2016 9:02:14	65445-1.RAW	9:02:14 AM	918.96	1		907.9	4.454	2226.751	ng/L	
Hg2600-2	DM2	SAM	1610234-16	100	11/10/2016 9:06:23	65446-1.RAW	9:06:23 AM	248.86	1		237.8	1.134	113.417	ng/L	
Hg2600-2	DM2	SAM	1610234-17	100	11/10/2016 9:10:31	65447-1.RAW	9:10:31 AM	262.12	1		251.1	1.199	119.929	ng/L	
Hg2600-2	DM2	SAM	1610234-18	100	11/10/2016 9:14:40	65448-1.RAW	9:14:40 AM	336.90	1		325.9	1.567	156.664	ng/L	
Hg2600-2	DM2	SAM	1610234-19	100	11/10/2016 9:18:48	65449-1.RAW	9:18:48 AM	172.80	1		161.8	0.760	76.049	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/10/2016 9:22:57	65450-1.RAW	9:22:57 AM	982.22			971.2	4.771	4.771	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/10/2016 9:27:05	65451-1.RAW	9:27:05 AM	20.52			9.5	0.047	0.047	ng/L	
Hg2600-2	DM2	SAM	1610234-20	100	11/10/2016 9:31:13	65452-1.RAW	9:31:13 AM	257.22	1		246.2	1.175	117.522	ng/L	
Hg2600-2	DM2	SAM	1610235-01	100	11/10/2016 9:35:22	65453-1.RAW	9:35:22 AM	85.94	1		74.9	0.334	33.376	ng/L	
Hg2600-2	DM2	SAM	1610235-02	100	11/10/2016 9:39:30	65454-1.RAW	9:39:30 AM	113.68	1		102.6	0.470	47.003	ng/L	
Hg2600-2	DM2	SAM	1610235-03	100	11/10/2016 9:43:39	65455-1.RAW	9:43:39 AM	60.69	1		49.7	0.210	20.973	ng/L	
Hg2600-2	DM2	SAM	1610235-04	100	11/10/2016 9:47:47	65456-1.RAW	9:47:47 AM	132.06	1		121.0	0.560	56.035	ng/L	
Hg2600-2	DM2	SAM	1610235-05	100	11/10/2016 9:51:55	65457-1.RAW	9:51:55 AM	74.80	1		63.8	0.279	27.905	ng/L	
Hg2600-2	DM2	SAM	1610236-01	100	11/10/2016 9:56:04	65458-1.RAW	9:56:04 AM	197.24	1		186.2	0.881	88.056	ng/L	
Hg2600-2	DM2	SAM	1610236-02	100	11/10/2016 10:00:12	65459-1.RAW	10:00:12 AM	215.19	1		204.1	0.969	96.872	ng/L	
Hg2600-2	DM2	SAM	1610236-03	20	11/10/2016 10:13:52	65460-2.RAW	10:13:52 AM	1077.96	1		1066.9	5.070	101.409	ng/L	
Hg2600-2	DM2	SAM	1610236-04	20	11/10/2016 10:18:01	65461-1.RAW	10:18:01 AM	977.10	1		966.1	4.575	91.499	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/10/2016 10:22:09	65462-1.RAW	10:22:09 AM	952.48			941.4	4.625	4.625	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/10/2016 10:26:17	65463-1.RAW	10:26:17 AM	22.58			11.5	0.057	0.057	ng/L	
Hg2600-2	DM2	SAM	1610236-05	20	11/10/2016 10:30:26	65464-1.RAW	10:30:26 AM	968.77	1		957.7	4.534	90.681	ng/L	
Hg2600-2	DM2	SAM	1610236-06	20	11/10/2016 10:34:34	65465-1.RAW	10:34:34 AM	1171.28	1		1160.2	5.529	110.578	ng/L	
Hg2600-2	DM2	SAM	1610236-07	20	11/10/2016 10:38:43	65466-1.RAW	10:38:43 AM	762.76	1		751.7	3.522	70.439	ng/L	
Hg2600-2	DM2	SAM	1610236-08	20	11/10/2016 10:42:51	65467-1.RAW	10:42:51 AM	1113.32	1		1102.3	5.244	104.883	ng/L	
Hg2600-2	DM2	SAM	1610236-09	20	11/10/2016 10:46:59	65468-1.RAW	10:46:59 AM	1111.16	1		1100.1	5.234	104.671	ng/L	
Hg2600-2	DM2	SAM	1610236-10	20	11/10/2016 10:51:08	65469-1.RAW	10:51:08 AM	1083.48	1		1072.4	5.098	101.951	ng/L	
Hg2600-2	DM2	SAM	1610234-19RE1	20	11/10/2016 10:55:16	65470-1.RAW	10:55:16 AM	720.20	1		709.2	3.313	66.258	ng/L	
Hg2600-2	DM2	SAM	1610235-01RE1	20	11/10/2016 10:59:25	65471-1.RAW	10:59:25 AM	326.22	1		315.2	1.377	27.548	ng/L	
Hg2600-2	DM2	SAM	1610235-02RE1	20	11/10/2016 11:03:33	65472-1.RAW	11:03:33 AM	424.48	1		413.4	1.860	37.202	ng/L	
Hg2600-2	DM2	SAM	1610235-03RE1	20	11/10/2016 11:07:42	65473-1.RAW	11:07:42 AM	221.82	1		210.8	0.864	17.290	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/10/2016 11:11:50	65474-1.RAW	11:11:50 AM	969.26			958.2	4.707	4.707	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/10/2016 11:15:58	65475-1.RAW	11:15:58 AM	34.34			23.3	0.114	0.114	ng/L	
Hg2600-2	DM2	SAM	1610235-04RE1	20	11/10/2016 11:20:07	65476-1.RAW	11:20:07 AM	532.70	1		521.7	2.392	47.835	ng/L	
Hg2600-2	DM2	SAM	1610235-05RE1	20	11/10/2016 11:24:15	65477-1.RAW	11:24:15 AM	296.98	1		285.9	1.234	24.675	ng/L	
Hg2600-2	DM2	SAM	1610236-01RE1	20	11/10/2016 11:28:24	65478-1.RAW	11:28:24 AM	820.04	1		809.0	3.803	76.067	ng/L	
Hg2600-2	DM2	SAM	1610236-02RE1	20	11/10/2016 11:32:32	65479-1.RAW	11:32:32 AM	921.07	1		910.0	4.300	85.994	ng/L	
Hg2600-2	DM2	SAM	F610509-DUP1	100	11/10/2016 11:36:41	65480-1.RAW	11:36:41 AM	229.84	1		218.8	1.041	104.073	ng/L	
Hg2600-2	DM2	SAM	F610509-MS1	500	11/10/2016 11:40:49	65481-1.RAW	11:40:49 AM	1869.32	1		1858.3	9.122	4561.166	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD1	500	11/10/2016 11:44:57	65482-1.RAW	11:44:57 AM	1849.00	1		1838.0	9.023	4511.266	ng/L	
Hg2600-2	DM2	SAM	F610509-MS2	500	11/10/2016 11:49:07	65483-1.RAW	11:49:07 AM	1939.11	1		1928.1	9.465	4732.606	ng/L	
Hg2600-2	DM2	SAM	F610509-MSD2	500	11/10/2016 11:53:15	65484-1.RAW	11:53:15 AM	1991.80	1		1980.8	9.724	4862.016	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK1	20	11/10/2016 11:57:24	65485-1.RAW	11:57:24 AM	54.01	2		43.0	0.211	4.223	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/10/2016 12:01:32	65486-1.RAW	12:01:32 PM	949.16			938.1	4.609	4.609	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/10/2016 12:05:40	65487-1.RAW	12:05:40 PM	33.79			22.8	0.112	0.112	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	F610510-BLK2	20	11/10/2016 12:09:49	65488-1.RAW	12:09:49 PM	28.24	2		17.2	0.085	1.690	ng/L	
Hg2600-2	DM2	BLK	F610510-BLK3	20	11/10/2016 12:13:58	65489-1.RAW	12:13:58 PM	22.57	2		11.5	0.057	1.133	ng/L	
Hg2600-2	DM2	SAM	F610510-BS1	20	11/10/2016 12:18:06	65490-1.RAW	12:18:06 PM	993.01	2		982.0	4.707	94.134	ng/L	
Hg2600-2	DM2	SAM	F610510-BSD1	20	11/10/2016 12:22:14	65491-1.RAW	12:22:14 PM	1078.26	2		1067.2	5.126	102.510	ng/L	
Hg2600-2	DM2	SAM	F610510-BS2	500	11/10/2016 12:26:23	65492-1.RAW	12:26:23 PM	864.93	2		853.9	4.190	2095.112	ng/L	
Hg2600-2	DM2	SAM	1610232-26RE1	100	11/10/2016 12:30:31	65493-1.RAW	12:30:31 PM	2112.51	2		2101.5	10.300	1030.042	ng/L	
Hg2600-2	DM2	SAM	1610236-11	20	11/10/2016 12:34:40	65494-1.RAW	12:34:40 PM	1017.46	2		1006.4	4.827	96.536	ng/L	
Hg2600-2	DM2	SAM	1610236-12	20	11/10/2016 12:38:49	65495-1.RAW	12:38:49 PM	1001.21	2		990.2	4.747	94.939	ng/L	
Hg2600-2	DM2	SAM	1610236-13	20	11/10/2016 12:42:58	65496-1.RAW	12:42:58 PM	999.53	2		988.5	4.739	94.774	ng/L	
Hg2600-2	DM2	SAM	1610236-14	20	11/10/2016 12:47:06	65497-1.RAW	12:47:06 PM	921.27	2		910.2	4.354	87.085	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/10/2016 12:51:14	65498-1.RAW	12:51:14 PM	963.2184419			952.2	4.678	4.678	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/10/2016 12:55:23	65499-1.RAW	12:55:23 PM	35.11			24.1	0.118	0.118	ng/L	
Hg2600-2	DM2	SAM	1610236-15	20	11/10/2016 12:59:31	65500-1.RAW	12:59:31 PM	1263.04	2		1252.0	6.033	120.665	ng/L	
Hg2600-2	DM2	SAM	1610236-16	20	11/10/2016 13:03:40	65501-1.RAW	1:03:40 PM	938.87	2		927.8	4.441	88.815	ng/L	
Hg2600-2	DM2	SAM	1610236-17	20	11/10/2016 13:07:48	65502-1.RAW	1:07:48 PM	836.21	2		825.2	3.936	78.728	ng/L	
Hg2600-2	DM2	SAM	1610236-18	20	11/10/2016 13:11:57	65503-1.RAW	1:11:57 PM	1244.98	2		1233.9	5.945	118.891	ng/L	
Hg2600-2	DM2	SAM	1610236-19	20	11/10/2016 13:16:05	65504-1.RAW	1:16:05 PM	1045.03	2		1034.0	4.962	99.245	ng/L	
Hg2600-2	DM2	SAM	1610236-20	20	11/10/2016 13:20:13	65505-1.RAW	1:20:13 PM	887.46	2		876.4	4.188	83.763	ng/L	
Hg2600-2	DM2	SAM	1610238-01	20	11/10/2016 13:24:22	65506-1.RAW	1:24:22 PM	4134.58	2		4123.5	20.140	402.805	ng/L	
Hg2600-2	DM2	SAM	1610238-02	20	11/10/2016 13:28:30	65507-1.RAW	1:28:30 PM	469.89	2		458.9	2.137	42.735	ng/L	
Hg2600-2	DM2	SAM	1610238-03	20	11/10/2016 13:32:39	65508-1.RAW	1:32:39 PM	53.93	2		42.9	0.093	1.865	ng/L	
Hg2600-2	DM2	SAM	1610238-04	20	11/10/2016 13:36:47	65509-1.RAW	1:36:47 PM	64.85	2		53.8	0.147	2.939	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/10/2016 13:40:56	65510-1.RAW	1:40:56 PM	935.61			924.6	4.542	4.542	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/10/2016 13:45:04	65511-1.RAW	1:45:04 PM	48.10			37.1	0.182	0.182	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP1	100	11/10/2016 13:49:12	65512-1.RAW	1:49:12 PM	2732.85	2		2721.8	13.348	1334.795	ng/L	
Hg2600-2	DM2	SAM	F610510-MS1	500	11/10/2016 13:53:21	65513-1.RAW	1:53:21 PM	2268.80	2		2257.8	11.087	5543.497	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD1	500	11/10/2016 13:57:29	65514-1.RAW	1:57:29 PM	2230.51	2		2219.5	10.899	5449.451	ng/L	
Hg2600-2	DM2	SAM	F610510-MS2	500	11/10/2016 14:01:38	65515-1.RAW	2:01:38 PM	1744.44	2		1733.4	8.511	4255.493	ng/L	
Hg2600-2	DM2	SAM	F610510-MSD2	500	11/10/2016 14:05:46	65516-1.RAW	2:05:46 PM	1778.12	2		1767.1	8.676	4338.209	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK1	20	11/10/2016 14:09:54	65517-1.RAW	2:09:54 PM	71.75	3		60.7	0.298	5.965	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK2	20	11/10/2016 14:14:03	65518-1.RAW	2:14:03 PM	30.21	3		19.2	0.094	1.884	ng/L	
Hg2600-2	DM2	BLK	F611274-BLK3	20	11/10/2016 14:18:11	65519-1.RAW	2:18:11 PM	23.61	3		12.6	0.062	1.236	ng/L	
Hg2600-2	DM2	SAM	F611274-BS1	20	11/10/2016 14:22:20	65520-1.RAW	2:22:20 PM	3819.97	3		3808.9	18.561	371.215	ng/L	
Hg2600-2	DM2	SAM	F611274-BSD1	20	11/10/2016 14:26:28	65521-1.RAW	2:26:28 PM	4212.05	3		4201.0	20.487	409.737	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/10/2016 14:30:37	65522-1.RAW	2:30:37 PM	1024.98			1013.9	4.981	4.981	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/10/2016 14:34:45	65523-1.RAW	2:34:45 PM	47.48			36.4	0.179	0.179	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV1	1	11/10/2016 14:38:54	65524-1.RAW	2:38:54 PM	132.52			121.5	0.597	0.597	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV2	1	11/10/2016 14:43:02	65525-1.RAW	2:43:02 PM	72.20			61.2	0.300	0.300	ng/L	
Hg2600-2	DM2	SAM	F610510-DUP2	100	11/10/2016 14:47:11	65526-1.RAW	2:47:11 PM	2036.71	2		2025.7	9.928	992.805	ng/L	
Hg2600-2	DM2	SAM	1609620-01	20	11/10/2016 14:51:19	65527-1.RAW	2:51:19 PM	167.70	3		156.7	0.618	12.364	ng/L	
Hg2600-2	DM2	SAM	1609620-02	20	11/10/2016 14:55:27	65528-1.RAW	2:55:27 PM	249.25	3		238.2	1.019	20.377	ng/L	
Hg2600-2	DM2	SAM	1609620-03	20	11/10/2016 14:59:36	65529-1.RAW	2:59:36 PM	155.33	3		144.3	0.557	11.149	ng/L	
Hg2600-2	DM2	SAM	1609620-07	100	11/10/2016 15:03:44	65530-1.RAW	3:03:44 PM	1276.99	3		1266.0	6.189	618.895	ng/L	
Hg2600-2	DM2	SAM	1609620-08	100	11/10/2016 15:07:53	65531-1.RAW	3:07:53 PM	863.58	3		852.5	4.158	415.801	ng/L	
Hg2600-2	DM2	SAM	1609620-09	100	11/10/2016 15:12:01	65532-1.RAW	3:12:01 PM	765.08	3		754.0	3.674	367.411	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP1	20	11/10/2016 15:16:10	65533-1.RAW	3:16:10 PM	317.42	3		306.4	1.354	27.075	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/10/2016 15:20:18	65534-1.RAW	3:20:18 PM	949.40			938.4	4.610	4.610	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/10/2016 15:24:27	65535-1.RAW	3:24:27 PM	32.50			21.5	0.105	0.105	ng/L	
Hg2600-2	DM2	SAM	F611274-MS1	20	11/10/2016 15:28:35	65536-1.RAW	3:28:35 PM	1241.91	3		1230.9	5.895	117.910	ng/L	
Hg2600-2	DM2	SAM	F611274-MSD1	20	11/10/2016 15:32:43	65537-1.RAW	3:32:43 PM	1234.95	3		1223.9	5.861	117.226	ng/L	
Hg2600-2	DM2	SAM	F611274-DUP2	20	11/10/2016 15:37:16	65538-1.RAW	3:37:16 PM	157.92	3		146.9	0.570	11.404	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/10/2016 15:41:24	65539-1.RAW	3:41:24 PM	931.84			920.8	4.524	4.524	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/10/2016 15:45:33	65540-1.RAW	3:45:33 PM	31.63			20.6	0.101	0.101	ng/L	



TotalMercury EPA1631  
 Operati DM  
 BlankSi 11.038  
 Calib Eqn: Conc = (Area-11.03  
 Run Date: #####  
 Blank SD: 2.847022414  
 Works: THG260  
 CalibFa 203.55  
 Status: QC Warnings:4/QC E  
 Run Time: 15:33:07  
 Blank RSD%: 25.79243936  
 Method #### R: 0.9996  
 R²: 0.9992  
 CF SD: 6.409000594  
 CF RSD%: 3.148548865  
 Descrip THG26002-161110-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	1.77					65426-1.RAW	7:43:20	359.88	Clean	OK	1
clean				0.00	0.01					65427-1.RAW	7:46:12	1.21	Clean	OK	1
ws				11.04	0.01					65428-1.RAW	7:50:20	12.29	Sample	OK	1
ws				11.04	0.00					65429-1.RAW	7:54:28	10.84	Sample	OK	1
ws				11.04	0.00					65430-1.RAW	7:58:37	11.72	Sample	OK	1
SEQ-IBL1	A1			0.00	0.05					65431-1.RAW	8:02:45	9.55	Sample	OK	1
SEQ-IBL2	A2			0.00	0.07					65432-1.RAW	8:06:54	14.32	Sample	OK	1
SEQ-IBL3	A3			0.00	0.05					65433-1.RAW	8:11:02	9.24	Sample	OK	1
SEQ-CAL1	A4			11.04	0.52			104.09		65434-1.RAW	8:15:11	116.97	Sample	OK	1
SEQ-CAL2	A5			11.04	0.99			99.25		65435-1.RAW	8:19:19	213.06	Sample	OK	1
SEQ-CAL3	A6			11.04	4.99			99.88		65436-1.RAW	8:23:27	1027.62	Sample	OK	1
SEQ-CAL4	A7			11.04	19.09			95.46		65437-1.RAW	8:27:36	3897.25	Sample	OK	1
SEQ-CAL5	A8			11.04	40.53			101.33		65438-1.RAW	8:31:44	8261.28	Sample	OK	1
SEQ-ICV1	A9			11.04	4.91			98.28		65439-1.RAW	8:35:54	1011.29	Sample	OK	1
F610509-BLK1	A10		20	11.04	6.35					65440-1.RAW	8:41:32	75.69	Sample	OK	1
F610509-BLK2	A11		20	11.04	2.43					65441-1.RAW	8:45:41	35.79	Sample	OK	1
F610509-BLK3	A12		20	11.04	1.48					65442-1.RAW	8:49:49	26.06	Sample	OK	1
F610509-BS1	A13		20	11.04	102.36					65443-1.RAW	8:53:57	1052.86	Sample	OK	1
F610509-BSD1	A14		20	11.04	104.05					65444-1.RAW	8:58:06	1070.02	Sample	OK	1
F610509-BS2	A15		500	11.04	2230.17					65445-1.RAW	9:02:14	918.96	Sample	OK	1
1610234-16	A16		100	11.04	116.84					65446-1.RAW	9:06:23	248.86	Sample	OK	1
1610234-17	A17		100	11.04	123.35					65447-1.RAW	9:10:31	262.12	Sample	OK	1
1610234-18	A18		100	11.04	160.08					65448-1.RAW	9:14:40	336.90	Sample	OK	1
1610234-19	A19		100	11.04	79.47					65449-1.RAW	9:18:48	172.80	Sample	OK	1
SEQ-CCV1	A20		1	11.04	4.77			95.42		65450-1.RAW	9:22:57	982.22	Sample	OK	1
SEQ-CCB1	A21		1	11.04	0.05			0.00		65451-1.RAW	9:27:05	20.52	Sample	OK	1
1610234-20	B1		100	11.04	120.94					65452-1.RAW	9:31:13	257.22	Sample	OK	1
1610235-01	B2		100	11.04	36.80					65453-1.RAW	9:35:22	85.94	Sample	OK	1
1610235-02	B3		100	11.04	50.42					65454-1.RAW	9:39:30	113.68	Sample	OK	1
1610235-03	B4		100	11.04	24.39					65455-1.RAW	9:43:39	60.69	Sample	OK	1
1610235-04	B5		100	11.04	59.46					65456-1.RAW	9:47:47	132.06	Sample	OK	1
1610235-05	B6		100	11.04	31.33					65457-1.RAW	9:51:55	74.80	Sample	OK	1
1610236-01	B7		100	11.04	91.48					65458-1.RAW	9:56:04	197.24	Sample	OK	1
1610236-02	B8		100	11.04	100.29					65459-1.RAW	10:00:12	215.19	Sample	OK	1
1610236-03	B9		20	11.04	104.83					65460-2.RAW	10:13:52	1077.96	Sample	OK	1
1610236-04	B10		20	11.04	94.92					65461-1.RAW	10:18:01	977.10	Sample	OK	1
SEQ-CCV2	B11		1	11.04	4.63			92.50		65462-1.RAW	10:22:09	952.48	Sample	OK	1
SEQ-CCB2	B12		1	11.04	0.06			0.00		65463-1.RAW	10:26:17	22.58	Sample	OK	1
1610236-05	B13		20	11.04	94.10					65464-1.RAW	10:30:26	968.77	Sample	OK	1
1610236-06	B14		20	11.04	114.00					65465-1.RAW	10:34:34	1171.28	Sample	OK	1
1610236-07	B15		20	11.04	73.86					65466-1.RAW	10:38:43	762.76	Sample	OK	1
1610236-08	B16		20	11.04	108.30					65467-1.RAW	10:42:51	1113.32	Sample	OK	1
1610236-09	B17		20	11.04	108.09					65468-1.RAW	10:46:59	1111.16	Sample	OK	1

1610236-10	B18	20	11.04	105.37		65469-1.RAW	10:51:08	1083.48	Sample	OK	1
1610234-19RE1	B19	20	11.04	69.68		65470-1.RAW	10:55:16	720.20	Sample	OK	1
1610235-01RE1	B20	20	11.04	30.97		65471-1.RAW	10:59:25	326.22	Sample	OK	1
1610235-02RE1	B21	20	11.04	40.62		65472-1.RAW	11:03:33	424.48	Sample	OK	1
1610235-03RE1	C1	20	11.04	20.71		65473-1.RAW	11:07:42	221.82	Sample	OK	1
SEQ-CCV3	C2	1	11.04	4.71	94.15	65474-1.RAW	11:11:50	969.26	Sample	OK	1
SEQ-CCB3	C3	1	11.04	0.11	0.00	65475-1.RAW	11:15:58	34.34	Sample	OK	1
1610235-04RE1	C4	20	11.04	51.26		65476-1.RAW	11:20:07	532.70	Sample	OK	1
1610235-05RE1	C5	20	11.04	28.09		65477-1.RAW	11:24:15	296.98	Sample	OK	1
1610236-01RE1	C6	20	11.04	79.49		65478-1.RAW	11:28:24	820.04	Sample	OK	1
1610236-02RE1	C7	20	11.04	89.41		65479-1.RAW	11:32:32	921.07	Sample	OK	1
F610509-DUP1	C8	100	11.04	107.49		65480-1.RAW	11:36:41	229.84	Sample	OK	1
F610509-MS1	C9	500	11.04	4564.59	4207.27	65481-1.RAW	11:40:49	1869.32	Sample	OK	1
F610509-MSD1	C10	500	11.04	4514.69		65482-1.RAW	11:44:57	1849.00	Sample	OK	1
F610509-MS2	C11	500	11.04	4736.03	104.86	65483-1.RAW	11:49:07	1939.11	Sample	OK	1
F610509-MSD2	C12	500	11.04	4865.44		65484-1.RAW	11:53:15	1991.80	Sample	OK	1
F610510-BLK1	C13	20	11.04	4.22		65485-1.RAW	11:57:24	54.01	Sample	OK	1
SEQ-CCV4	C14	1	11.04	4.61	92.17	65486-1.RAW	12:01:32	949.16	Sample	OK	1
SEQ-CCB4	C15	1	11.04	0.11	0.00	65487-1.RAW	12:05:40	33.79	Sample	OK	1
F610510-BLK2	C16	20	11.04	1.69		65488-1.RAW	12:09:49	28.24	Sample	OK	1
F610510-BLK3	C17	20	11.04	1.13		65489-1.RAW	12:13:58	22.57	Sample	OK	1
F610510-BS1	C18	20	11.04	96.48		65490-1.RAW	12:18:06	993.01	Sample	OK	1
F610510-BSD1	C19	20	11.04	104.86		65491-1.RAW	12:22:14	1078.26	Sample	OK	1
F610510-BS2	C20	500	11.04	2097.46		65492-1.RAW	12:26:23	864.93	Sample	OK	1
1610232-26RE1	C21	100	11.04	1032.39		65493-1.RAW	12:30:31	2112.51	Sample	OK	1
1610236-11	A1	20	11.04	98.88		65494-1.RAW	12:34:40	1017.46	Sample	OK	1
1610236-12	A2	20	11.04	97.29		65495-1.RAW	12:38:49	1001.21	Sample	OK	1
1610236-13	A3	20	11.04	97.12		65496-1.RAW	12:42:58	999.53	Sample	OK	1
1610236-14	A4	20	11.04	89.43		65497-1.RAW	12:47:06	921.27	Sample	OK	1
SEQ-CCV5	A5	1	11.04	4.68	93.56	65498-1.RAW	12:51:14	963.22	Sample	OK	1
SEQ-CCB5	A6	1	11.04	0.12	0.00	65499-1.RAW	12:55:23	35.11	Sample	OK	1
1610236-15	A7	20	11.04	123.01		65500-1.RAW	12:59:31	1263.04	Sample	OK	1
1610236-16	A8	20	11.04	91.16		65501-1.RAW	13:03:40	938.87	Sample	OK	1
1610236-17	A9	20	11.04	81.08		65502-1.RAW	13:07:48	836.21	Sample	OK	1
1610236-18	A10	20	11.04	121.24		65503-1.RAW	13:11:57	1244.98	Sample	OK	1
1610236-19	A11	20	11.04	101.59		65504-1.RAW	13:16:05	1045.03	Sample	OK	1
1610236-20	A12	20	11.04	86.11		65505-1.RAW	13:20:13	887.46	Sample	OK	1
1610238-01	A13	20	11.04	405.15		65506-1.RAW	13:24:22	4134.58	Sample	OK	1
1610238-02	A14	20	11.04	45.08		65507-1.RAW	13:28:30	469.89	Sample	OK	1
1610238-03	A15	20	11.04	4.21		65508-1.RAW	13:32:39	53.93	Sample	OK	1
1610238-04	A16	20	11.04	5.29		65509-1.RAW	13:36:47	64.85	Sample	OK	1
SEQ-CCV6	A17	1	11.04	4.54	90.84	65510-1.RAW	13:40:56	935.61	Sample	OK	1
SEQ-CCB6	A18	1	11.04	0.18	0.00	65511-1.RAW	13:45:04	48.10	Sample	OK	1
F610510-DUP1	A19	100	11.04	1337.14		65512-1.RAW	13:49:12	2732.85	Sample	OK	1
F610510-MS1	A20	500	11.04	5545.85	414.44	65513-1.RAW	13:53:21	2268.80	Sample	OK	1
F610510-MSD1	A21	500	11.04	5451.80		65514-1.RAW	13:57:29	2230.51	Sample	OK	1
F610510-MS2	B1	500	11.04	4257.84	78.07	65515-1.RAW	14:01:38	1744.44	Sample	OK	1
F610510-MSD2	B2	500	11.04	4340.56		65516-1.RAW	14:05:46	1778.12	Sample	OK	1

F611274-BLK1	B3	20	11.04	5.97		65517-1.RAW	14:09:54	71.75	Sample	OK	1
F611274-BLK2	B4	20	11.04	1.88		65518-1.RAW	14:14:03	30.21	Sample	OK	1
F611274-BLK3	B5	20	11.04	1.24		65519-1.RAW	14:18:11	23.61	Sample	OK	1
F611274-BS1	B6	20	11.04	374.24		65520-1.RAW	14:22:20	3819.97	Sample	OK	1
F611274-BSD1	B7	20	11.04	412.77		65521-1.RAW	14:26:28	4212.05	Sample	OK	1
SEQ-CCV7	B8	1	11.04	4.98	99.62	65522-1.RAW	14:30:37	1024.98	Sample	OK	1
SEQ-CCB7	B9	1	11.04	0.18	0.00	65523-1.RAW	14:34:45	47.48	Sample	OK	1
SEQ-LCV1	B10	1	11.04	0.60		65524-1.RAW	14:38:54	132.52	Sample	OK	1
SEQ-LCV2	B11	1	11.04	0.30		65525-1.RAW	14:43:02	72.20	Sample	OK	1
F610510-DUP2	B12	100	11.04	995.15		65526-1.RAW	14:47:11	2036.71	Sample	OK	1
1609620-01	B13	20	11.04	15.39		65527-1.RAW	14:51:19	167.70	Sample	OK	1
1609620-02	B14	20	11.04	23.41		65528-1.RAW	14:55:27	249.25	Sample	OK	1
1609620-03	B15	20	11.04	14.18		65529-1.RAW	14:59:36	155.33	Sample	OK	1
1609620-07	B16	100	11.04	621.92		65530-1.RAW	15:03:44	1276.99	Sample	OK	1
1609620-08	B17	100	11.04	418.83		65531-1.RAW	15:07:53	863.58	Sample	OK	1
1609620-09	B18	100	11.04	370.44		65532-1.RAW	15:12:01	765.08	Sample	OK	1
F611274-DUP1	B19	20	11.04	30.10		65533-1.RAW	15:16:10	317.42	Sample	OK	1
SEQ-CCV8	B20	1	11.04	4.61	92.20	65534-1.RAW	15:20:18	949.40	Sample	OK	1
SEQ-CCB8	B21	1	11.04	0.11	0.00	65535-1.RAW	15:24:27	32.50	Sample	OK	1
F611274-MS1	C1	20	11.04	120.94	10940.31	65536-1.RAW	15:28:35	1241.91	Sample	OK	1
F611274-MSD1	C2	20	11.04	120.25		65537-1.RAW	15:32:43	1234.95	Sample	OK	1
F611274-DUP2	C3	20	11.04	14.43		65538-1.RAW	15:37:16	157.92	Sample	OK	1
SEQ-CCV9	C4	1	11.04	4.52	90.47	65539-1.RAW	15:41:24	931.84	Sample	OK	1
SEQ-CCB9	C5	1	11.04	0.10	0.00	65540-1.RAW	15:45:33	31.63	Sample	OK	1

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10018-IBL1	QC	1			
6K10018-IBL2	QC	2			
6K10018-IBL3	QC	3			
6K10018-CAL1	QC	4	1605412		
6K10018-CAL2	QC	5	1605413		
6K10018-CAL3	QC	6	1605414		
6K10018-CAL4	QC	7	1605415		
6K10018-CAL5	QC	8	1605416		
6K10018-ICV1	QC	9	1605791		
F610509-BLK1	QC	10			
F610509-BLK2	QC	11			
F610509-BLK3	QC	12			
F610509-BS1	QC	13			
F610509-BSD1	QC	14			
F610509-BS2	QC	15			
1610234-16	Hg-CVAFS-T-7030	16			
1610234-17	Hg-CVAFS-T-7030	17			
1610234-18	Hg-CVAFS-T-7030	18			
1610234-19	Hg-CVAFS-T-7030	19			
6K10018-CCV1	QC	20	1605791		
6K10018-CCB1	QC	21			
1610234-20	Hg-CVAFS-T-7030	22			
1610235-01	Hg-CVAFS-T-7030	23			
1610235-02	Hg-CVAFS-T-7030	24			
1610235-03	Hg-CVAFS-T-7030	25			
1610235-04	Hg-CVAFS-T-7030	26			
1610235-05	Hg-CVAFS-T-7030	27			
1610236-01	Hg-CVAFS-T-7030	28			
1610236-02	Hg-CVAFS-T-7030	29			
1610236-03	Hg-CVAFS-T-7030	30			
1610236-04	Hg-CVAFS-T-7030	31			
6K10018-CCV2	QC	32	1605791		
6K10018-CCB2	QC	33			
1610236-05	Hg-CVAFS-T-7030	34			
1610236-06	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

## ANALYSIS SEQUENCE

6K10018

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-07	Hg-CVAFS-T-7030	36			
1610236-08	Hg-CVAFS-T-7030	37			
1610236-09	Hg-CVAFS-T-7030	38			
1610236-10	Hg-CVAFS-T-7030	39			
1610234-19RE1	Hg-CVAFS-T-7030	40			Added 11/10/2016 by DM2
1610235-01RE1	Hg-CVAFS-T-7030	41			Added 11/10/2016 by DM2
1610235-02RE1	Hg-CVAFS-T-7030	42			Added 11/10/2016 by DM2
1610235-03RE1	Hg-CVAFS-T-7030	43			Added 11/10/2016 by DM2
6K10018-CCV3	QC	44	1605791		
6K10018-CCB3	QC	45			
1610235-04RE1	Hg-CVAFS-T-7030	46			Added 11/10/2016 by DM2
1610235-05RE1	Hg-CVAFS-T-7030	47			Added 11/10/2016 by DM2
1610236-01RE1	Hg-CVAFS-T-7030	48			Added 11/10/2016 by DM2
1610236-02RE1	Hg-CVAFS-T-7030	49			Added 11/10/2016 by DM2
F610509-DUP1	QC	50			
F610509-MS1	QC	51			
F610509-MSD1	QC	52			
F610509-MS2	QC	53			
F610509-MSD2	QC	54			
F610510-BLK1	QC	55			
6K10018-CCV4	QC	56	1605791		
6K10018-CCB4	QC	57			
F610510-BLK2	QC	58			
F610510-BLK3	QC	59			
F610510-BS1	QC	60			
F610510-BSD1	QC	61			
F610510-BS2	QC	62			
1610232-26RE1	Hg-CVAFS-T-7030	63			Re-extract added 11/2/2016 by RN
1610236-11	Hg-CVAFS-T-7030	64			
1610236-12	Hg-CVAFS-T-7030	65			
1610236-13	Hg-CVAFS-T-7030	66			
1610236-14	Hg-CVAFS-T-7030	67			
6K10018-CCV5	QC	68	1605791		
6K10018-CCB5	QC	69			
1610236-15	Hg-CVAFS-T-7030	70			

Due Date: 11/2/2016

Page 44 of 117

**ANALYSIS SEQUENCE**

**6K10018**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/10/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610236-16	Hg-CVAFS-T-7030	71			
1610236-17	Hg-CVAFS-T-7030	72			
1610236-18	Hg-CVAFS-T-7030	73			
1610236-19	Hg-CVAFS-T-7030	74			
1610236-20	Hg-CVAFS-T-7030	75			
1610238-01	Hg-CVAFS-T-7030	76			
1610238-02	Hg-CVAFS-T-7030	77			
1610238-03	Hg-CVAFS-T-7030	78			
1610238-04	Hg-CVAFS-T-7030	79			
6K10018-CCV6	QC	80	1605791		
6K10018-CCB6	QC	81			
F610510-DUP1	QC	82			
F610510-MS1	QC	83			
F610510-MSD1	QC	84			
F610510-MS2	QC	85			
F610510-MSD2	QC	86			
6K10018-CCV7	QC	87	1605791		
6K10018-CCB7	QC	88			
F610510-DUP2	QC	89			
6K10018-CCV8	QC	90	1605791		
6K10018-CCB8	QC	91			
6K10018-CCV9	QC	92	1605791		
6K10018-CCB9	QC	93			

Don Moran      11/10/16  
 Samples Loaded By      Date

Don Moran      11/10/16  
 Data Processed By      Date

# Failing Data Report - 6K10018

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. Pearson  
Analyst Reviewed By

11/10/16  
Date

Ry M 11/20/16  
Peer Reviewed By Date

## ANALYSIS SEQUENCE

6K10017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/10/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10017-IBL1	QC	1			
6K10017-IBL2	QC	2			
6K10017-IBL3	QC	3			
6K10017-CAL1	QC	4	1605412		
6K10017-CAL2	QC	5	1605413		
6K10017-CAL3	QC	6	1605414		
6K10017-CAL4	QC	7	1605415		
6K10017-CAL5	QC	8	1605416		
6K10017-ICV1	QC	9	1605791		
6K10017-CCV1	QC	10	1605791		
6K10017-CCB1	QC	11			
6K10017-CCV2	QC	12	1605791		
6K10017-CCB2	QC	13			
6K10017-CCV3	QC	14	1605791		
6K10017-CCB3	QC	15			
6K10017-CCV4	QC	16	1605791		
6K10017-CCB4	QC	17			
6K10017-CCV5	QC	18	1605791		
6K10017-CCB5	QC	19			
6K10017-CCV6	QC	20	1605791		
6K10017-CCB6	QC	21			
F611274-BLK1	QC	22			
F611274-BLK2	QC	23			
F611274-BLK3	QC	24			
F611274-BS1	QC	25			
F611274-BSD1	QC	26			
6K10017-CCV7	QC	27	1605791		
6K10017-CCB7	QC	28			
6K10017-LCV1	QC	29	1606488		
6K10017-LCV2	QC	30	1606489		
1609620-01	Hg-CVAFS-S-SSE-F6	31			
1609620-02	Hg-CVAFS-S-SSE-F6	32			
1609620-03	Hg-CVAFS-S-SSE-F6	33			
1609620-07	Hg-CVAFS-S-SSE-F6	34			
1609620-08	Hg-CVAFS-S-SSE-F6	35			

Due Date: 10/21/2016



**ANALYSIS SEQUENCE**

**6K10017**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/10/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F6	36			
F611274-DUP1	QC	37			
6K10017-CCV8	QC	38	1605791		
6K10017-CCB8	QC	39			
F611274-MS1	QC	40			
F611274-MSD1	QC	41			
F611274-DUP2	QC	42			
6K10017-CCV9	QC	43	1605791		
6K10017-CCB9	QC	44			

Don Matam                      11/10/16  
 Samples Loaded By                      Date

Don Matam                      11/10/16  
 Data Processed By                      Date

**Failing Data Report - 6K10017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F611274-DUP1	Hg-CVAFS-S-SSE-F6	61.49	22.7	25.12	25.12		ng/g				84.0	25.00	PASS-OVER	FAIL-DUP	QR. 07

Don Mason                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      11/21/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F611274

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion**

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					
F611274-BLK2	Blank	0.25	500					
F611274-BLK3	Blank	0.25	500					
F611274-BS1	LCS	0.25	500	1605712	200			
F611274-BSD1	LCS Dup	0.25	500	1605712	200			
F611274-DUP1	Duplicate [1609620-03]	0.256	500					
F611274-DUP2	Duplicate [1609620-03]	0.258	500					
F611274-MS1	Matrix Spike [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL
F611274-MSD1	Matrix Spike Dup [1609620-02]	0.00129	2.5	1605272	25			[Spk] 0.258g->500mL; 500mL->500mL; Spiked 2.5mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605349	3:1 HNO3/HF	12-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606529	5% BrCl	19-Apr-17 00:00

PREPARATION BENCH SHEET

F611274

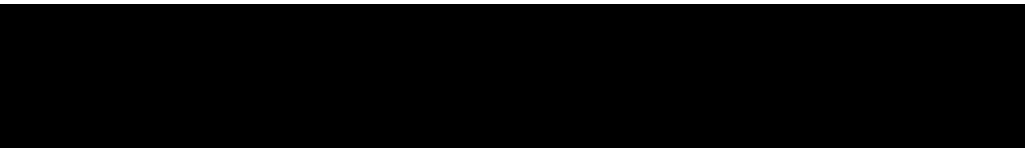
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		
1609620-07	Hg0	0.263	500	-	-	-		
1609620-08	HgS	0.256	500	-	-	-		
1609620-09	Hg2Cl2	0.263	500	-	-	-		



**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					
F610510-BLK2	Blank	0.25	20					
F610510-BLK3	Blank	0.25	20					
F610510-BS1	Blank Spike	0.25	20	1605270	20			
F610510-BS2	DORM-4	0.1255	20	1605470	126			
F610510-BSD1	Blank Spike	0.25	20	1605270	20			
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					
F610510-DUP2	Duplicate [1610232-26RE1]	0.2515	20					
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610510

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016	
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-		
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-		
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-		
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-		
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					
F610509-BLK2	Blank	0.25	20					
F610509-BLK3	Blank	0.25	20					
F610509-BS1	Blank Spike	0.25	20	1605270	20			
F610509-BS2	DORM-4	0.1256	20	1605470	126			
F610509-BSD1	Blank Spike	0.25	20	1605270	20			
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00



**PREPARATION BENCH SHEET**

F610509

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-		
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-		
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-		
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-		
1610234-19RE1	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-		
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-		
1610235-01RE1	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-		
1610235-02RE1	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-		
1610235-03RE1	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-		
1610235-04RE1	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-		
1610235-05RE1	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-		
1610236-01RE1	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-		

Page 56 of 117

Date: 11/2/2016

**PREPARATION BENCH SHEET**

F610509

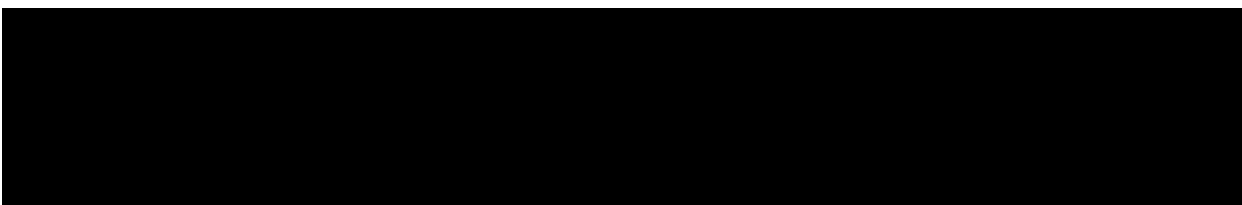
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

1610236-02REI	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	Added 11/10/2016 by DM2	Added 11/10/2016 by DM2
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-		
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-		
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-		
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-		
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-		
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-		
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-		
1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-		



PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F611274

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611274-BLK1	Blank	0.25	500					20X
F611274-BLK2	Blank	0.25	500					20X
F611274-BLK3	Blank	0.25	500					20X
F611274-BS1	LCS	0.25	500	1605712	200			20X
F611274-BSD1	LCS Dup	0.25	500	1605712	200			20X
F611274-DUP1	Duplicate [1609620-03]	0.256	500					20X
F611274-MS1	Matrix Spike 1609620.02	0.25	500	1605272	25			20X
F611274-MSD1	Matrix Spike Dup 1609620.02	0.25	500	1605272	25			20X

Standard ID(s): 1605712  
 Description: THg 1,000ng/mL Secondary Spiking Standard  
 Expiration: 03-Apr-17 00:00

Reagent ID(s): 1603399, 1605349, 1606137, 1606529  
 Description: Boiling Chips for AFS prep, 3:1 HNO3/HF, Omnitrace Hydrochloric Acid, 5% BrCl  
 Expiration: 01-Jun-17 00:00, 12-Mar-17 00:00, 13-Oct-19 00:00, 19-Apr-17 00:00

DUP2 - 20X

Source 1609620.03

1602941

1605636

1605635

1606370

PREPARATION BENCH SHEET

200.2  
11/10/16 DM

F611274

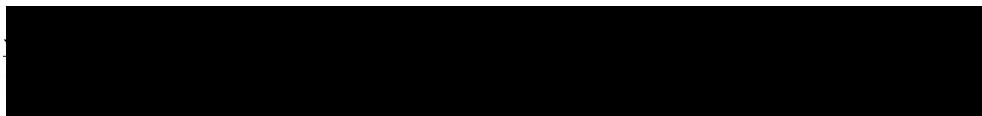
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-111 HF/Aqua Regia Oven Bomb Digestion

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	500	-	-	-		20X
1609620-02	Sand-Na25-2-bottom	0.258	500	-	-	-		20X
1609620-03	Sand-Na25-3-bottom	0.258	500	-	-	-		20X
1609620-07	Hg0	0.263	500	-	-	-		100X
1609620-08	HgS	0.256	500	-	-	-		100X
1609620-09	Hg2Cl2	0.263	500	-	-	-		100X



# Oven Bomb Digestions

Lab Tech(s): AMB Spiked By: AMB TM Batch #: N/A Hg Batch #: F611274  
 Balance #: 19 for blanks Oven SN: OVN-0202 Therm. SN: 2040514271  
 Temp. (°C): 128.8 (w/o CF) 128.8 (w/ CF) Date In: 11/8/16 Time In: 1900  
 Date Out: 11/9/16 Time Out: 0700 Final Vol. (mL): 40

Spike Name	Volume (µL)	LIMS #	Combined LIMS #
<u>Thg-1000mg</u>	<u>200</u>	<u>1605712</u>	<u>→</u>
<u>AMB 11-7-16</u>			

Pipette / Dispenser MW11619 Cal Date 11-7-16  
~~AW00610 AMB 11-7-16 11-7-16~~  
0842293 11-01-16  
NU01049 11-7-16  
02Z159 11-4-16  
09M67809 11-9-16 8-23-16  
~~02K27494 AMB 8-24-16 8-3-16~~  
AMB 11-9-16

**EFGS-111 130±5°C 12 hours**  
 (below applies to entire batch)  
 4 mL split removed and 5% BrCl added? Y   
 LIMS #: 160529  
 Added 25 mL of HF/HNO<sub>3</sub> solution? Y   
 LIMS #: 1605349  
 Added 3 mL conc. HCl? Y   
 LIMS #: 1606137

**EFGS-084 130±5°C 18 hours**  
 (below applies to entire batch)  
 Added 10 mL conc. HCl? Y   
 LIMS #: AMB 11-7-16  
 Added 7 mL conc. HNO<sub>3</sub>? Y   
 LIMS #:

Boil Down	Step 1	25 mL conc. HNO <sub>3</sub> added? <u>Y</u> <input type="checkbox"/> LIMS #:
	Step 2	25 mL conc. HNO <sub>3</sub> added? <u>AMB 11-7-16</u> <u>Y</u> <input type="checkbox"/> LIMS #:
	Step 3	5 mL conc. HNO <sub>3</sub> added? <u>Y</u> <input type="checkbox"/> LIMS #:

**EFGS-141 160±5°C 18 hours**  
 (below applies to entire batch)  
 Added 7.5 mL conc. HNO<sub>3</sub>? Y   
 LIMS #: AMB 11-7-16

Splice witness: PL 11/7/16

#	Sample/ Batch ID	Bomb #	Sample (g)	Notes
1	F611274-BLK1	N282	0.2865	
2	F611274-BLK2	D39	0.2589	
3	F611274-BLK3	N122	0.2681	
4	F611274-BS1	N29	0.2963	
5	F611274-BSD1	A63	0.2720	
6	F611274-DUPI	N27	0.256	source: 1609620-03
7	1609620-01	N94	0.260	
8	1609620-02	TM089	0.258	
9	1609620-03	N152	0.258	
10	1609620-07	N234	0.263	
11	1609620-08	N106	0.256	
12	1609620-09	TM097	0.263	

Additional Comments:  
 Boiling chips: 1603399 Glass vials: 00064588  
 - SSE FG -  
 Centrifuge tubes: 1252617 Pink Tape  
0026

PREPARATION BENCH SHEET

2600-2

F610510

11/10/16 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610510-BLK1	Blank	0.25	20					20X
F610510-BLK2	Blank	0.25	20					20X
F610510-BLK3	Blank	0.25	20					20X
F610510-BS1	Blank Spike	0.25	20	1605270	20			20X
F610510-BS2	DORM-4	0.1255	20	1605470	126			500X
F610510-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610510-DUP1	Duplicate [1610232-26RE1]	0.2701	20					100X
F610510-MS1	Matrix Spike [1610232-26RE1]	0.2835	20	1605712	100			500X
F610510-MS2	Matrix Spike [1610236-20]	0.2814	20	1605712	100			500X
F610510-MSD1	Matrix Spike Dup [1610232-26RE1]	0.2696	20	1605712	100			500X
F610510-MSD2	Matrix Spike Dup [1610236-20]	0.2903	20	1605712	100			500X

Standard ID(s): Description:  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): Description:  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606500 5% BrCl

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - AD 100X  
 SOURCE 1610232-26RE1

1602941  
 1605636  
 1605635  
 1606370

PREPARATION BENCH SHEET

2000-2

11/10/16 DM

F610510

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-26RE1	OB-01_092116_RAS_WB_05	0.2515	20	QC	-	-	MS/MSD Re-extract added 11/2/2016 t	100X
1610236-11	FRB-01_092816_RAS_WB_11	0.299	20	-	-	-	20X	
1610236-12	FRB-01_092816_RAS_WB_12	0.2876	20	-	-	-	20X	
1610236-13	FRB-01_092816_RAS_WB_13	0.2792	20	-	-	-	20X	
1610236-14	FRB-01_092816_RAS_WB_14	0.2611	20	-	-	-	20X	
1610236-15	FRB-01_092816_RAS_WB_15	0.2885	20	-	-	-		20X
1610236-16	FRB-01_092816_RAS_WB_16	0.287	20	-	-	-		20X
1610236-17	FRB-01_092816_RAS_WB_17	0.2754	20	-	-	-		20X
1610236-18	FRB-01_092816_RAS_WB_18	0.288	20	-	-	-		20X
1610236-19	FRB-01_092816_RAS_WB_19	0.27	20	-	-	-		20X
1610236-20	FRB-01_092816_RAS_WB_20	0.2571	20	QC	-	-	MS/MSD	20X
1610238-01	OB-05_092316_BAIT_01	0.2917	20	-	-	-		20X
1610238-02	9LIVES_100416_FISH_BAIT	0.2941	20	-	-	-		20X
1610238-03	PURINA_100416_FISH_BAIT	0.2869	20	-	-	-		20X
1610238-04	FANCYF_100416_FISH_BAIT	0.2985	20	-	-	-		20X

**PREPARATION BENCH SHEET**

**F610510**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**



Technician: Dwyer Batch#: F610510 Date: 11/8/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:35 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C

Time out: 13:35 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)

Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MU11609 Calibration Date: 11/7/16

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

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

70/30 LIMS ID: 1606221

Dispenser #: 02K27494 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Other Reagent/LIMS IDs: 022159 11/8/16

Centrifuge Tube lot # 00063469

Boiling Chip lot # 1603399 \*Hotblock Position: 6.2

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 type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F610510 Blank1	0.2911	23	1610238-01	0.2917	DOM-4 B50 1605470
2	F610510 Blank2	0.2551	24	1610238-02	0.2941	
3	F610510 Blank3	0.2916	25	1610238-03	0.2869	<b>Comments</b> B51 B501 = 100 µg/mL = 20 µL 1605270
4	F610510 B51	0.2607	26	1610238-04	0.2985	
5	F610510 B501	0.2518	27	1610238		
6	F610510 B52	0.1255	28			
7	F610510 Dup	0.2701	29			Dup1 MS1 MS01 = 16103232-26 w/ 11/8/16-26
8	F610510 MS1	0.2835	30			
9	F610510 MS01	0.2696	31			MS2 MS02 1610236-20 = MS02 = 0.2963 g 11/8/16 1610236-15 = 0.2885 g 11/8/16
10	F610510 MS2	0.2814	32			
11	F610510 MS02	0.2703	33			
12	1610232-26 RZ1	0.2515	34			
13	1610236-11	0.2990	35			
14	1610236-12	0.2876	36			
15	1610236-13	0.2792	37			
16	1610236-14	0.2611	38			
17	1610236-15	0.2885	39			
18	1610236-16	0.2870	40			
19	1610236-17	0.2754	41			
20	1610236-18	0.2880	42			
21	1610236-19	0.2700	43			
22	1610236-20	0.2571	44			

Reviewed

11/9/16  
DM

2600-2

11/10/16 DM

## PREPARATION BENCH SHEET

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F610509-BLK1	Blank	0.25	20					20X
F610509-BLK2	Blank	0.25	20					20X
F610509-BLK3	Blank	0.25	20					20X
F610509-BS1	Blank Spike	0.25	20	1605270	20			20X
F610509-BS2	DORM-4	0.1256	20	1605470	126			500X
F610509-BSD1	Blank Spike	0.25	20	1605270	20			20X
F610509-DUP1	Duplicate [1610234-16]	0.2738	20					100X
F610509-MS1	Matrix Spike [1610234-16]	0.2948	20	1605712	100			500X
F610509-MS2	Matrix Spike [1610236-03]	0.2952	20	1605712	100			500X
F610509-MSD1	Matrix Spike Dup [1610234-16]	0.2911	20	1605712	100			500X
F610509-MSD2	Matrix Spike Dup [1610236-03]	0.2982	20	1605712	100			500X

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

1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

1603399  
 1606221  
 1606500

Boiling Chips for AFS prep  
 70/30 Digestion Acid  
 5% BrCl

01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

K0537D

1602941

K0503L

1605035

PREPARATION BENCH SHEET

200.2

11/10/16 DM

F610509

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610234-16	FRB-01_092816_MUM_WB_16	0.2831	20	-	-	-	100x	
1610234-17	FRB-01_092816_MUM_WB_17	0.2794	20	-	-	-	100x	
1610234-18	FRB-01_092816_MUM_WB_18	0.2811	20	-	-	-	100x	
1610234-19	FRB-01_092816_MUM_WB_19	0.2681	20	-	-	-	100x → 20x	
1610234-20	FRB-01_092816_MUM_WB_20	0.2789	20	-	-	-	100x	
1610235-01	FRB-01_092816_POL_WB_01	0.2894	20	-	-	-	100x → 20x	
1610235-02	FRB-01_092816_POL_WB_02	0.3024	20	-	-	-	100x → 20x	
1610235-03	FRB-01_092816_POL_WB_03	0.2996	20	-	-	-	100x → 20x	
1610235-04	FRB-01_092816_POL_WB_04	0.3006	20	-	-	-	100x → 20x	
1610235-05	FRB-01_092816_POL_WB_05	0.2708	20	-	-	-	100x → 20x	
1610236-01	FRB-01_092816_RAS_WB_01	0.2786	20	-	-	-	100x → 20x	
1610236-02	FRB-01_092816_RAS_WB_02	0.2886	20	-	-	-	100x → 20x	
1610236-03	FRB-01_092816_RAS_WB_03	0.2789	20	-	-	-	100x 20x	
1610236-04	FRB-01_092816_RAS_WB_04	0.2873	20	-	-	-	100x 20x	
1610236-05	FRB-01_092816_RAS_WB_05	0.279	20	-	-	-	100x 20x	
1610236-06	FRB-01_092816_RAS_WB_06	0.2901	20	-	-	-	100x 20x	
1610236-07	FRB-01_092816_RAS_WB_07	0.278	20	-	-	-	100x 20x	
1610236-08	FRB-01_092816_RAS_WB_08	0.2623	20	-	-	-	100x 20x	
1610236-09	FRB-01_092816_RAS_WB_09	0.2976	20	-	-	-	100x 20x	
							20x	

Page 66 of 117

Date: 11/2/2016

PREPARATION BENCH SHEET

2600-2

11/10/16 dm

F610509

Eurofins Frontier Global Sciences, Inc.

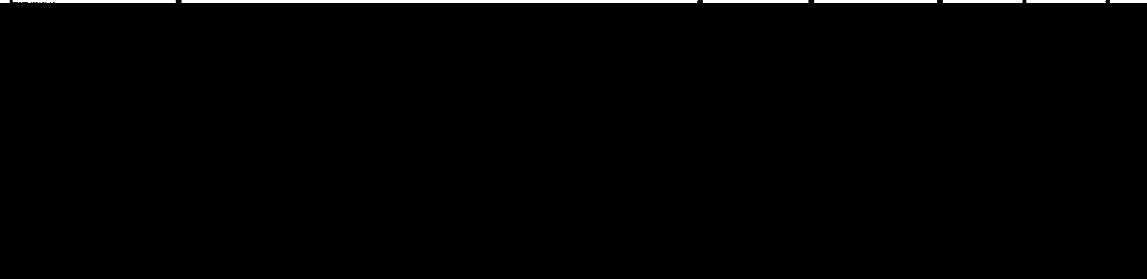
Matrix: Tissue

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

Prepared: 11/8/2016

1610236-10	FRB-01_092816_RAS_WB_10	0.296	20	-	-	-	<del>100X</del>	
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20X



Technician: D. W. [unclear] Batch#: F610509 Date: 11-8-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: **Hot plate 75±5°C for 2-4 hours.**
- EFGS-011 Tissues - Total Mercury - 70:30: **Hot plate 75±5°C for two hours.**
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: **Heat Block 45°C (nitrogen purge for 30 minutes).**
- EFGS-066 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: 11:30 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:30 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C

Final vol.: 20 mL (LIMS ID: 1606500) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/8/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU 11619 Calibration Date: 11-7-16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: Dispenser # 022159 ATYEX  
 Centrifuge Tube lot # 00063469 Boiling Chip lot # 1603399 \*Hotblock Position: 9, 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	F610509 Blank1	0.2510	23	1610236-02	0.2886	B52 DOPH-4
2	F610509 Blank2	0.2913	24	1610236-03	0.2789	1605470
3	F610509 Blank3	0.2618	25	1610236-04	0.2873	
4	F610509 B51	0.2762	26	1610236-05	0.2790	
5	F610509 B501	0.2547	27	1610236-06	0.2901	<b>Comments</b> B51 B501
6	F610509 B52	0.1256	28	1610236-07	0.2780	= 100% HCl
7	F610509 Dup1	0.2738	29	1610236-08	0.2623	= 20% HCl
8	F610509 MS1	0.2948	30	1610236-09	0.2976	1605270
9	F610509 MS01	0.2911	31	1610236-10	0.2960	Dup1 MS1/MS01
10	F610509 MS2	0.2952	32			sample
11	F610509 MS02	0.2982	33			1610234-16
12	1610234-16	0.2831	34			MS2 MS02
13	1610234-17	0.2794	35			= 1610236-03
14	1610234-18	0.2811	36			11/8/16 D4
15	1610234-19	0.2681	37			D4
16	1610234-20	0.2789	38			1610235-04
17	1610235-21	0.2894	39			= 0.3006 g
18	1610235-02	0.3024	40			11/8/16 D4
19	1610235-03	0.2996	41			1610236-02
20	1610235-04	0.3006	42			= 0.2886 g
21	1610235-05	0.2708	43			
22	1610236-01	0.2786	44			

Reviewed  
 11/9/16 DM

**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>6K10018, 6K10017</u>
Reviewer: <u>[Signature]</u>	Dataset ID(s): <u>THG26002-161110-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F611274, F6105010, F610509</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 checked="" 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: RA

- |   |  |                                     |
|---|--|-------------------------------------|
| 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)

Analyst:	DON MORAN	Sequence(s) #:	6K10018, 6K10017
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26002-161110-1
Date:	11/10/2016	WO (s) #:	VARIOUS
Batch #(s):	F611274, F6105010, F610509		0

Analyst Initials *DM*

Reviewer Initials *A*

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 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:  | <i>F611274-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 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 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 type="checkbox"/>            |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments:  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments:  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst: <u>DON MORAN</u>	Sequence(s) #: <u>6K10018, 6K10017</u>
Reviewer: <u>0</u>	Dataset ID(s): <u>THG26002-161110-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F611274, F6105010, F610509</u>	<u>0</u>

Analyst Initials DM

Reviewer Initials A

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 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   |   |
| 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 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\IDOCs

- |  |   |                             |                                     |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 12/16/2015 _____ 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: _____ 7/8/2016 _____ LOD within last 3 months?                                | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/8/2016 _____ 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: <u>DON MORAN</u>	Sequence(s) #: <u>6K10018, 6K10017</u>
Reviewer: <u>DM</u>	Dataset ID(s): <u>THG26002-161110-1</u>
Date: <u>11/10/2016</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F611274, F6105010, F610509</u>	<u>0</u>

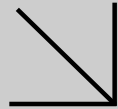
40. Peer Reviewer's comments (use Peer Review Checklist Additional Comments form if necessary):


Additional Page (s)?  YES



Supplemental Report 2

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-11-2555**

*The difference is service*



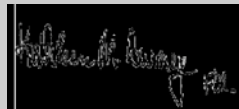
AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1610236

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 12/19/2016 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1610236  
Work Order Number: 16-11-2555

1	16-11-2555 Level IV Case Narrative. . . . .	3
2	Work Order Narrative. . . . .	5
3	Sample Summary. . . . .	6
4	Client Sample Data. . . . .	7
	4.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	7
5	Quality Control Sample Data. . . . .	10
	5.1 Sample Duplicate. . . . .	10
6	Glossary of Terms and Qualifiers. . . . .	11
7	Chain-of-Custody/Sample Receipt Form. . . . .	12
8	16-11-2555 Level IV Data Package. . . . .	18

## Case Narrative

Client Project Name: 1610236  
Work Order Number: 16-11-2555

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 20 tissue samples on November 30, 2016. A total of 22 containers were received in good condition at a temperature of -3.6°C, which was within the recommended temperature criteria of 0°C – 6°C.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
FRB-01_092816_RAS_WB_01	16-11-2555-1	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_02	16-11-2555-2	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_03	16-11-2555-3	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_04	16-11-2555-4	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_05	16-11-2555-5	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_06	16-11-2555-6	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_07	16-11-2555-7	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_08	16-11-2555-8	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_09	16-11-2555-9	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_10	16-11-2555-10	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_11	16-11-2555-11	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_12	16-11-2555-12	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_13	16-11-2555-13	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_14	16-11-2555-14	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_15	16-11-2555-15	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_16	16-11-2555-16	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_17	16-11-2555-17	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_18	16-11-2555-18	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_19	16-11-2555-19	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM
FRB-01_092816_RAS_WB_20	16-11-2555-20	9/28/2016 13:00:00 PM	11/30/2016 11:10:00 PM


  
Return to Contents

### DATA SUMMARY:

As per the chain-of-custody (COC), the sample was analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a).

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

## Case Narrative

---

Client Project Name: 1610236  
Work Order Number: 16-11-2555

### % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):

Samples -1 through -20 were analyzed for % Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/08/16 in batch # 161208B14 / 161208D14.

### Sample and QC:

Sample -8 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 11/30/16. They were assigned to Work Order 16-11-2555.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-11-2555
11720 North Creek Parkway North, Suite 4	Project Name:	1610236
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	11/30/16 11:10
	Number of Containers:	22

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
FRB-01_092816_RAS_WB_01	16-11-2555-1	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_02	16-11-2555-2	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_03	16-11-2555-3	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_04	16-11-2555-4	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_05	16-11-2555-5	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_06	16-11-2555-6	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_07	16-11-2555-7	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_08	16-11-2555-8	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_09	16-11-2555-9	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_10	16-11-2555-10	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_11	16-11-2555-11	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_12	16-11-2555-12	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_13	16-11-2555-13	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_14	16-11-2555-14	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_15	16-11-2555-15	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_16	16-11-2555-16	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_17	16-11-2555-17	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_18	16-11-2555-18	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_19	16-11-2555-19	09/28/16 13:00	1	Tissue
FRB-01_092816_RAS_WB_20	16-11-2555-20	09/28/16 13:00	3	Tissue


 Return to Contents

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2555  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610236

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_RAS_WB_01	16-11-2555-1-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.7	0.10		1.00		
FRB-01_092816_RAS_WB_02	16-11-2555-2-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.2	0.10		1.00		
FRB-01_092816_RAS_WB_03	16-11-2555-3-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.2	0.10		1.00		
FRB-01_092816_RAS_WB_04	16-11-2555-4-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.8	0.10		1.00		
FRB-01_092816_RAS_WB_05	16-11-2555-5-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.9	0.10		1.00		
FRB-01_092816_RAS_WB_06	16-11-2555-6-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.3	0.10		1.00		
FRB-01_092816_RAS_WB_07	16-11-2555-7-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.0	0.10		1.00		
FRB-01_092816_RAS_WB_08	16-11-2555-8-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.9	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2555  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1610236

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_RAS_WB_09	16-11-2555-9-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
FRB-01_092816_RAS_WB_10	16-11-2555-10-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.5	0.10		1.00		
FRB-01_092816_RAS_WB_11	16-11-2555-11-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.4	0.10		1.00		
FRB-01_092816_RAS_WB_12	16-11-2555-12-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.5	0.10		1.00		
FRB-01_092816_RAS_WB_13	16-11-2555-13-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.0	0.10		1.00		
FRB-01_092816_RAS_WB_14	16-11-2555-14-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.3	0.10		1.00		
FRB-01_092816_RAS_WB_15	16-11-2555-15-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.7	0.10		1.00		
FRB-01_092816_RAS_WB_16	16-11-2555-16-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.7	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 11/30/16  
Work Order: 16-11-2555  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1610236

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_092816_RAS_WB_17	16-11-2555-17-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.1	0.10		1.00		
FRB-01_092816_RAS_WB_18	16-11-2555-18-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		4.4	0.10		1.00		
FRB-01_092816_RAS_WB_19	16-11-2555-19-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.5	0.10		1.00		
FRB-01_092816_RAS_WB_20	16-11-2555-20-A	09/28/16 13:00	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		3.8	0.10		1.00		
Method Blank	099-14-104-154	N/A	Tissue	N/A	12/08/16	12/08/16 00:00	161208B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 11/30/16  
 Work Order: 16-11-2555  
 Preparation: N/A  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1610236

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
FRB-01_092816_RAS_WB_08	Sample	Tissue	N/A	12/08/16 00:00	12/08/16 00:00	161208D14
FRB-01_092816_RAS_WB_08	Sample Duplicate	Tissue	N/A	12/08/16 00:00	12/08/16 00:00	161208D14

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	3.900	4.090	5	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-11-2555

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1610236

**16-11-2555**

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

**Analysis**

Due: 02-Nov-16 19:00

**Comments**

1 Sample ID: 1479 FRB-01\_092816\_RAS\_WB\_01

EFGS Lab ID: 1610236-01

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

2 Sample ID: 1480 FRB-01\_092816\_RAS\_WB\_02

EFGS Lab ID: 1610236-02

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

3 Sample ID: 1481 FRB-01\_092816\_RAS\_WB\_03

EFGS Lab ID: 1610236-03

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

4 Sample ID: 1482 FRB-01\_092816\_RAS\_WB\_04

EFGS Lab ID: 1610236-04

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

Released By

*[Signature]* 11/29/16

Date

Received By

*[Signature]*

Date

Released By

*[Signature]* 11/29/16

Date

Received By

*[Signature]*

Date

1110

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610236

2365

Analysis

Due: 02-Nov-16 19:00

Comments

5 Sample ID: 1483 FRB-01\_092816\_RAS\_WB\_05

EFGS Lab ID: 1610236-05

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

6 Sample ID: 1484 FRB-01\_092816\_RAS\_WB\_06

EFGS Lab ID: 1610236-06

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

7 Sample ID: 1485 FRB-01\_092816\_RAS\_WB\_07

EFGS Lab ID: 1610236-07

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

8 Sample ID: 1486 FRB-01\_092816\_RAS\_WB\_08

EFGS Lab ID: 1610236-08

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

9 Sample ID: 1487 FRB-01\_092816\_RAS\_WB\_09

EFGS Lab ID: 1610236-09

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

10 Sample ID: 1488 FRB-01\_092816\_RAS\_WB\_10

EFGS Lab ID: 1610236-10

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

*[Signature]*

Date

Received By

Date

*[Signature]*

*[Signature]*

Date

*[Signature]*

*[Signature]*

*[Signature]*

Date

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1610236

2555

Analysis

Due: 02-Nov-16 19:00

Comments

1/1 Sample ID: 1489 FRB-01\_092816\_RAS\_WB\_11

EFGS Lab ID: 1610236-11

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

1/2 Sample ID: 1490 FRB-01\_092816\_RAS\_WB\_12

EFGS Lab ID: 1610236-12

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

1/3 Sample ID: 1491 FRB-01\_092816\_RAS\_WB\_13

EFGS Lab ID: 1610236-13

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

1/4 Sample ID: 1492 FRB-01\_092816\_RAS\_WB\_14

EFGS Lab ID: 1610236-14

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

1/5 Sample ID: 1493 FRB-01\_092816\_RAS\_WB\_15

EFGS Lab ID: 1610236-15

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

1/6 Sample ID: 1494 FRB-01\_092816\_RAS\_WB\_16

EFGS Lab ID: 1610236-16

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34\_Plastic Bag (B)

Released By

*[Signature]*

Date

Received By

Date

Released By

*[Signature]*

Date

Received By

Date

**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1610236

2555

Analysis

Due: 02-Nov-16 19:00

Comments

17 Sample ID: 1495 FRB-01\_092816\_RAS\_WB\_17

EFGS Lab ID: 1610236-17

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

18 Sample ID: 1496 FRB-01\_092816\_RAS\_WB\_18

EFGS Lab ID: 1610236-18

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

19 Sample ID: 1497 FRB-01\_092816\_RAS\_WB\_19

EFGS Lab ID: 1610236-19

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

20 Sample ID: 1498 FRB-01\_092816\_RAS\_WB\_20

EFGS Lab ID: 1610236-20  
MS/MSD

Sampled: 28-Sep-16 13:00

Misc. Subcontract 1

Lipids Analysis

Containers Supplied:

34 Plastic Bag (B)

Released By

Date

Received By

Date

*[Signature]*  
Released By

*11/29/16*  
Date

*[Signature]*  
Received By

*11/30/16*  
Date



2555

FRONT DESK  
(425) 888-1896  
FRONTIER GLOBAL SCIENCES  
17220 N CREEK Pkwy N  
BOTHELL WA 98011-8244

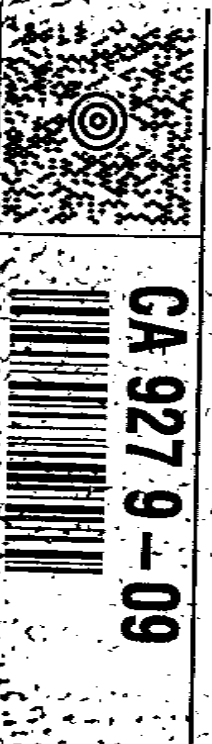
27 LBS

1 OF 1

DWGT: 24.13.14

SHIP TO:

SAMPLE RECEIVING  
(714) 896-6494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841-1427



CA 927 9-09

UPS NEXT DAY AIR

TRACKING #: 1Z 88W 950 DT 4918 9805



BILLING: P/P

Dest. No.: OVERHEAD  
REF 2: Subcontractor

SHIP TO  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841-1427

EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841-1427

SEE NOTICE ON SERVICE regarding UPS Terms, and scope of limitation of liability. Where terms, conditions, restrictions, or exclusions from our UPS, Member and/or Network Services extend beyond, including to, any other source, they apply to the shipment.

SAMPLE RECEIPT CHECKLIST

COOLER / OF /

CLIENT: EFGS, INC.

DATE: 11 / 30 / 2016

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): 3.6 °C (w/CF): 3.6 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 836

CUSTODY SEAL:

Cooler  Present and Intact

Present but Not Intact

Not Present

N/A

Checked by: 836

Sample(s)  Present and Intact

Present but Not Intact

Not Present

N/A

Checked by: 1053

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples

Yes  No  N/A

COC document(s) received complete

Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC

Sample container label(s) consistent with COC

Sample container(s) intact and in good condition

Proper containers for analyses requested

Sufficient volume/mass for analyses requested

Samples received within holding time

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen

Proper preservation chemical(s) noted on COC and/or sample container

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Container(s) for certain analysis free of headspace

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation

CONTAINER TYPE: (Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB

125PBzina  250AGB  250CCB  250CCGBs  250PB  250PBh  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_

Solid:  40zCGJ  80zCGJ  160zCGJ  Sleeve (\_\_\_\_)  Encores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (TISSUE):  Z  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 1053

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, zina = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 1017

\* (20) Receive d 3 containers

# QUALITY CONTROL CHECKLIST

WORK ORDER NUMBER: 16-11-2533

METHOD: % lipid.

SAMPLE PREPARATION (To be filled out either by Preparation Technician or Analyst)				Section Reviewed by: _____ Date: ____/____/____
PREPARATION CONDITIONS:	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Sample Aliquots Used	/			
Correct Reagents Used	/			
Correct Final Prep Volumes	/			
Correct Preparation Procedure	/			

ANALYST				Section Reviewed by: 1) <u>684</u> Date: <u>12/13/16</u> 2) _____ Date: ____/____/____ 3) _____ Date: ____/____/____
INSTRUMENT CONDITIONS:	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Instr. Config./Detector	/	/	/	
Valid Initial Calibration Curve	/	/	/	
Valid Cont. Calibration Std.	/	/	/	
Other Calibration Criteria Met	/	/	/	
SAMPLE ANALYSIS:	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Injection Volumes	/	/	/	
Instr. Signals within Quant. Range	/	/	/	
Reporting Limits Met	/	/	/	
REPORTING:	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Matrix	/	/	/	
Correct Batch #'s Reported	/	/	/	
Dilutions Reported	/	/	/	
Interferences Reported	/	/	/	
Out of Control Forms Completed	/	/	/	

GROUP LEADER				Section Reviewed by: <u>142</u> Date: <u>12/13/16</u>
PROJECT REQUIREMENTS:	Yes	No	N/A	Comments (If No, why, and further action required)
Analyses by CEL Standard Methods	/			
Normal CEL RLs	/			
Normal CEL QC	/			
Normal CEL Deliverables	/			
QUALITY CONTROL:	Yes	No	N/A	Comments (If No, why, and further action required)
Acceptable Method Blanks (MB)	/			
Acceptable Field Blanks (FB, EB, TB)				
Acceptable Matrix Spikes (MS/MSD)				
Acceptable Lab Ctrl. Samples (LCS)				
Other Required QC Performed				
Out of Controls Addressed/Documented				
REPORTING:	Yes	No	N/A	Comments (If No, why, and further action required)
Correct Date Prepared	/			
Correct Date Analyzed	/			
Correct Units	/			
Analyst Review Performed (Init./Date)	/			
Out of Control Forms Acceptable	/			
CHECKS:	Yes	No	N/A	Comments (If No, why, and further action required)
Does the Data Make Sense	/			

GENERAL COMMENTS: \_\_\_\_\_

Page 90 of 117

Page 18 of 45

RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	0.0200	1.00	ND	0.10	



RAW DATA SHEET  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 1 CLIENT SAMPLE NUMBER: 1479 FRB-01\_092816\_RAS\_WB\_01

LCS/MB BATCH: 161208B14 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
3.73	1.00	3.73	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00  
DATA FILE:

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 2 CLIENT SAMPLE NUMBER: 1480 FRB-01\_092816\_RAS\_WB\_02

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.23	1.00	3.23	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2555  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

**# 3**      **CLIENT SAMPLE NUMBER:** 1481 FRB-01\_092816\_RAS\_WB\_03

**LCS/MB BATCH:** 161208B14      **SAMPLE VOLUME /WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161208D14      **FINAL VOLUME /WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:

COMPOUND

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	3.15	1.00	3.15	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 4 CLIENT SAMPLE NUMBER: 1482 FRB-01\_092816\_RAS\_WB\_04

LCS/MB BATCH: 161208B14 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	2.76	1.00	2.76	0.10	





RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00  
DATA FILE:

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 5 CLIENT SAMPLE NUMBER: 1483 FRB-01\_092816\_RAS\_WB\_05

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.92	1.00	3.92	0.10	



RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00  
DATA FILE:

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 6 CLIENT SAMPLE NUMBER: 1484 FRB-01\_092816\_RAS\_WB\_06

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.28	1.00	4.28	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2555  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

# 7 **CLIENT SAMPLE NUMBER:** 1485 FRB-01\_092816\_RAS\_WB\_07

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.98	1.00	3.98	0.10	



RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 8 CLIENT SAMPLE NUMBER: 1486 FRB-01\_092816\_RAS\_WB\_08

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
3.90	1.00	3.90	0.10	



RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 9 CLIENT SAMPLE NUMBER: 1487 FRB-01\_092816\_RAS\_WB\_09

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.40	1.00	4.40	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 10 CLIENT SAMPLE NUMBER: 1488 FRB-01\_092816\_RAS\_WB\_10

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.52	1.00	4.52	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2555  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

# 11 **CLIENT SAMPLE NUMBER:** 1489 FRB-01\_092816\_RAS\_WB\_11

**LCS/MB BATCH:** 161208B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161208D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.42	1.00	2.42	0.10	



RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 12 CLIENT SAMPLE NUMBER: 1490 FRB-01\_092816\_RAS\_WB\_12

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
3.50	1.00	3.50	0.10	





**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2555  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

# 13 **CLIENT SAMPLE NUMBER:** 1491 FRB-01\_092816\_RAS\_WB\_13

LCS/MB BATCH: 161208B14 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND:

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.96	1.00	2.96	0.10	



RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 14 CLIENT SAMPLE NUMBER: 1492 FRB-01\_092816\_RAS\_WB\_14

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.33	1.00	4.33	0.10	



# RAW DATA SHEET FOR METHOD: MeCI2 Ext. (NOAA 1993a)

**WORK ORDER:** 16-11-2555  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

# 15 **CLIENT SAMPLE NUMBER:** 1493 FRB-01\_092816\_RAS\_WB\_15

LCS/MB BATCH: 161208B14 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.74	1.00	4.74	0.10	



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 16 CLIENT SAMPLE NUMBER: 1494 FRB-01\_092816\_RAS\_WB\_16

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND

% Lipids

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.71	1.00	3.71	0.10	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2555  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00  
**DATA FILE:**

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**# 17** **CLIENT SAMPLE NUMBER:** 1495 FRB-01\_092816\_RAS\_WB\_17

**LCS/MB BATCH:** 161208B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161208D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.08	1.00	4.08	0.10	



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 18 CLIENT SAMPLE NUMBER: 1496 FRB-01\_092816\_RAS\_WB\_18

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	4.37	1.00	4.37	0.10	



**RAW DATA SHEET  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-11-2555  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2016-12-08 00:00

**ANALYZED BY:** 1,065  
**D/T ANALYZED:** 2016-12-08 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

**# 19**      **CLIENT SAMPLE NUMBER:** 1497 FRB-01\_092816\_RAS\_WB\_19

**LCS/MB BATCH:** 161208B14      **SAMPLE VOLUME /WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161208D14      **FINAL VOLUME /WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:  
COMPOUND

	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	2.47	1.00	2.47	0.10	



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-11-2555  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 20 CLIENT SAMPLE NUMBER: 1498 FRB-01\_092816\_RAS\_WB\_20

LCS/MB BATCH: 161208B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161208D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PE: 1.00

COMMENT:

COMPOUND

% Lipids

<u>COMPOUND</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
% Lipids	3.84	1.00	3.84	0.10	





**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeCI2 Ext. (NOAA 1993a)**

MB SAMPLE ID: 099-14-104-154  
MB BATCH ID: 161208B14  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:  
MATRIX: Tissue

DATA FILE:

**CLIENT WORK ORDER: 16-11-2555**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	1479 FRB-01_092816_RAS_WB_01	2016-12-08 00:00		
2	1480 FRB-01_092816_RAS_WB_02	2016-12-08 00:00		
3	1481 FRB-01_092816_RAS_WB_03	2016-12-08 00:00		
4	1482 FRB-01_092816_RAS_WB_04	2016-12-08 00:00		
5	1483 FRB-01_092816_RAS_WB_05	2016-12-08 00:00		
6	1484 FRB-01_092816_RAS_WB_06	2016-12-08 00:00		
7	1485 FRB-01_092816_RAS_WB_07	2016-12-08 00:00		
8	1486 FRB-01_092816_RAS_WB_08	2016-12-08 00:00		
9	1487 FRB-01_092816_RAS_WB_09	2016-12-08 00:00		
10	1488 FRB-01_092816_RAS_WB_10	2016-12-08 00:00		
11	1489 FRB-01_092816_RAS_WB_11	2016-12-08 00:00		
12	1490 FRB-01_092816_RAS_WB_12	2016-12-08 00:00		
13	1491 FRB-01_092816_RAS_WB_13	2016-12-08 00:00		
14	1492 FRB-01_092816_RAS_WB_14	2016-12-08 00:00		
15	1493 FRB-01_092816_RAS_WB_15	2016-12-08 00:00		
16	1494 FRB-01_092816_RAS_WB_16	2016-12-08 00:00		
17	1495 FRB-01_092816_RAS_WB_17	2016-12-08 00:00		
18	1496 FRB-01_092816_RAS_WB_18	2016-12-08 00:00		
19	1497 FRB-01_092816_RAS_WB_19	2016-12-08 00:00		
20	1498 FRB-01_092816_RAS_WB_20	2016-12-08 00:00		

### DUPLICATE REPORT FOR METHOD: MeC12 Ext. (NOAA 1993a)

DUP SAMPLE ID: 16-11-2555-8  
DUP BATCH: 161208D14  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A

D/T EXTRACTED:  
SAMPLE: 2016-12-08 00:00  
DUP SAMPLE: 2016-12-08 00:00

ANALYZED BY: 1,065  
D/T ANALYZED:  
SAMPLE: 2016-12-08 00:00  
DUP SAMPLE: 2016-12-08 00:00  
REVIEWED BY:  
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	3.900	4.090	5	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>	<u>SDP</u>

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/08/16 Initials: bst

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	Y	IO Lab
	100	99.98	98.00 - 102.00	Y	
	500	499.95	498.00 - 502.00	Y	
62	0.002	0.0021	0.00180 - 0.00220	Y	IO Lab
	1	0.9997	0.99900 - 1.00100	Y	
	100	99.9967	99.90000 - 100.10000	Y	
26	1	0.99	0.98 - 1.02	Y	IO Lab
	100	99.98	98.00 - 102.00	Y	
55	1	1.01	0.98 - 1.02	Y	IO Lab
	100	99.98	98.00 - 102.00	Y	
	500	499.94	498.00 - 502.00	Y	
11	1	0.99	0.98 - 1.02	Y	IO Lab
	100	99.97	98.00 - 102.00	Y	
66	0.002	0.0021	0.00180 - 0.00220	Y	Metals
	1	0.9997	0.99900 - 1.00100	Y	
	100	99.9987	99.90000 - 100.10000	Y	
53	0.1	0.10	0.09 - 0.11	Y	Extractions
	1	1.01	0.98 - 1.02	Y	
	100	100.01	98.00 - 102.00	Y	
	500	499.99	498 - 502	Y	
20	1	0.99	0.98 - 1.02	Y	Extractions
	100	99.98	98.00 - 102.00	Y	
	500	499.47	498.00 - 502.00	Y	
57	100	100.0	98.0 - 102.0	Y	Extractions
	1000	1000.0	998.0 - 1002.0	Y	
	2000	2000.0	1998.0 - 2002.0	Y	
52	0.002	0.0018	0.0018 - 0.0022	Y	Extractions
	1	0.9996	0.9990 - 1.0010	Y	
	100	99.9946	99.9000 - 100.1000	Y	
14	0.002	0.0018	0.0018 - 0.0022	Y	BOD Room
	1	0.9992	0.9990 - 1.0010	Y	
	100	99.9922	99.9000 - 100.1000	Y	
63	0.1	0.10	0.09 - 0.11	Y	BOD Room
	100	99.99	98.00 - 102.00	Y	
64	1	1.01	0.98 - 1.02	Y	Metals Clean Room
	10	10.02	9.8 - 10.2	Y	
	100	100.03	98.00 - 102.00	Y	
34	0.002	0.00203	0.0018 - 0.0022	Y	Oil & Grease Room
	1	0.99966	0.9990 - 1.0010	Y	
	100	99.99476	99.9000 - 100.1000	Y	
30	1	1.00	0.98 - 1.02	Y	Oil & Grease Room
	100	99.98	98.00 - 102.00	Y	

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  Lipids  
 8270  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL)

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID#: Measuring Sample- 680 Start Extraction- 680 Blow Down- 680 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: 20 Filter ID#: 507-41-04 ASE ID#: Soxtherm ID#: 1-8 Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 12/08/16 9:00 Ext. End Date/Time: 12/08/16 11:30

Sand or Wipe ID#: 507-19-19 Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (mL):

Spike Std ID# & Volume Added (mL):

Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-44-06 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161208B14

Cell ID#	Sample W (g) / V (mL)		Clean Up Performed	Comments
	Initial	Final		
MB	1.00	1	<input type="checkbox"/>	
LCS			<input type="checkbox"/>	
LCSD			<input type="checkbox"/>	
MS			<input type="checkbox"/>	
MSD Dup	16-11-2555-8A	0.54	<input type="checkbox"/>	
	16-11-2555-1A	0.55	<input type="checkbox"/>	
	-2A	0.57	<input type="checkbox"/>	
	-3A	0.40	<input type="checkbox"/>	
	-4A	0.50	<input type="checkbox"/>	
	-5A	0.89	<input type="checkbox"/>	
	-6A	1.34	<input type="checkbox"/>	
	-7A	0.96	<input type="checkbox"/>	
	-8A	0.61	<input type="checkbox"/>	
	-9A	0.68	<input type="checkbox"/>	
	-10A	0.60	<input type="checkbox"/>	
	-11A	0.33	<input type="checkbox"/>	
	-12A	1.04	<input type="checkbox"/>	
	-13A	0.54	<input type="checkbox"/>	
	-14A	0.79	<input type="checkbox"/>	
	-15A	0.99	<input type="checkbox"/>	
	-16A	0.82	<input type="checkbox"/>	
	-17A	1.16	<input type="checkbox"/>	
	-18A	1.17	<input type="checkbox"/>	
	-19A	0.55	<input type="checkbox"/>	
	-20A	0.74	<input type="checkbox"/>	



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
(1) CH <sub>2</sub> Cl <sub>2</sub> 507-44-06	(4) Sand 507-19-19	(1) Filter 507-41-04	
(2) C <sub>6</sub> H <sub>14</sub>			
(3) Na <sub>2</sub> SO <sub>4</sub>			

MATRIX	BATCH NUMBER	COMMENTS
	MB: 161208B1U	
Tissue	Sample Duplicate: 161208D1U	

CELL ID #	CONTROL	RPD	LIMIT	COMMENTS
16-11-2555-8A		5	0-10	

Instructions:  
 1. Cell ID consists of Work Order Number and Container ID.  
 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100

DATE	CELL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL) (V2)	WEIGHING DISH MASS (g)	INITIAL MASS (M2)	FINAL MASS (M3)	LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
12/08/16	16-11-2555-1A	1.00	34	1	1	1.8859	1.8861	0.0002	0.02	684	
-2		0.57				1.9007	1.9191	0.0184	3.23		
-3		0.40				1.8835	1.8961	0.0126	3.15		
-4		0.50				1.8990	1.9128	0.0138	2.76		
-5		0.89				1.8946	1.9295	0.0349	3.92		
-6		1.34				1.8753	1.9326	0.0573	4.28		
-7		0.96				1.8876	1.9258	0.0382	3.98		
-8		0.61				1.8992	1.9230	0.0238	3.90		
-9		0.88				1.8737	1.9036	0.0299	4.40		
-10		0.60				1.8870	1.9141	0.0271	4.52		
-11		0.33				1.8798	1.8878	0.0080	2.42		
-12		1.04				1.8910	1.9274	0.0364	3.50		
-13		0.54				1.8989	1.9149	0.0160	2.96		
-14		0.79				1.8678	1.9020	0.0342	4.33		
-15		0.99				1.8832	1.9301	0.0469	4.74		
-16		0.82				1.8729	1.9033	0.0304	3.71		
-17		1.16				1.8617	1.9090	0.0473	4.08		
-18		1.17				1.8514	1.9025	0.0511	4.37		
-19		0.55				1.8548	1.8684	0.0136	2.47		
-20		0.74				1.8649	1.8933	0.0284	3.84		
Duplicate	16-11-2555-8A	0.54				1.8879	1.9100	0.0221	4.09		

5%	Lipid Content (%)	Dup 16-11-2555-8	4.09%
		161208D14	
		16-11-2555-8	3.90%
RPD	Lipid Content (%)	Samples ID#	

ID # A	Tissue Sample (g)	M1	V1	V2	Weight Dish Mass (g)		Lipid Mass (g)	Lipid Content (%)
					Initial	Final		
0-1	M8 161208B14	1.00	1	1	1.8859	1.8861	0.0002	0.02%
1	16-11-2555-1	0.55	1	1	1.8755	1.8960	0.0205	3.73%
2	16-11-2555-2	0.57	1	1	1.9007	1.9191	0.0184	3.23%
3	16-11-2555-3	0.40	1	1	1.8835	1.9961	0.0126	3.15%
4	16-11-2555-4	0.50	1	1	1.8990	1.9128	0.0138	2.76%
5	16-11-2555-5	0.89	1	1	1.8946	1.9295	0.0349	3.92%
6	16-11-2555-6	1.34	1	1	1.8753	1.9326	0.0573	4.28%
7	16-11-2555-7	0.96	1	1	1.8876	1.9258	0.0382	3.98%
8	16-11-2555-8	0.61	1	1	1.8992	1.9230	0.0238	3.90%
9	16-11-2555-9	0.68	1	1	1.8737	1.9036	0.0299	4.40%
10	16-11-2555-10	0.60	1	1	1.8870	1.9141	0.0271	4.52%
11	16-11-2555-11	0.33	1	1	1.8798	1.8878	0.0080	2.42%
12	16-11-2555-12	1.04	1	1	1.8910	1.9274	0.0364	3.50%
13	16-11-2555-13	0.54	1	1	1.8989	1.9149	0.0160	2.96%
14	16-11-2555-14	0.79	1	1	1.8678	1.9020	0.0342	4.33%
15	16-11-2555-15	0.99	1	1	1.8832	1.9301	0.0469	4.74%
16	16-11-2555-16	0.82	1	1	1.8729	1.9033	0.0304	3.71%
17	16-11-2555-17	1.16	1	1	1.8617	1.9090	0.0473	4.08%
18	16-11-2555-18	1.17	1	1	1.8514	1.9025	0.0511	4.37%
19	16-11-2555-19	0.55	1	1	1.8548	1.8684	0.0136	2.47%
20	16-11-2555-20	0.74	1	1	1.8649	1.8933	0.0284	3.84%
DUP-1	D 16-11-2555-8	0.54	1	1	1.8879	1.9100	0.0221	4.09%
L	LCS-161208L14	0.11	1	1	1.8624	1.9739	0.1115	101.4%

12/8/2016

Lipid Content Raw Data Calculator





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

14 January 2017

Denise King  
AMEC Foster Wheeler  
511 Congress Street  
Portland, ME 04101

RE: Penobscot Tissues Hg and Methyl Hg 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall  
Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

**Reported:**  
14-Jan-17 13:02

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OB-05_092316_BAIT_01	1610238-01	Tissue	23-Sep-16 12:03	05-Oct-16 09:30
9LIVES_100416_FISH_BAIT	1610238-02	Tissue	04-Oct-16 12:00	05-Oct-16 09:30
PURINA_100416_FISH_BAIT	1610238-03	Tissue	04-Oct-16 12:00	05-Oct-16 09:30
FANCYF_100416_FISH_BAIT	1610238-04	Tissue	04-Oct-16 12:00	05-Oct-16 09:30

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King**Reported:**  
14-Jan-17 13:02

## REVISED REPORT (1/14/17)

The original narrative incorrectly lists the analytical method for total mercury as EPA 1631E, instead of the EPA 1631B. This has been corrected in the revised report.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/5/2016 9:30:00 AM . The samples were received intact, on-ice within a sealed cooler at -46.1 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 1631B.

## 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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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1610238

Client: AMBC Foster Wheeler

Date & Time Received: 10/5/16 9:30

Date Labeled: 10/7/16 Labeled By: BCW

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

Received By: LM

Label Verified By: CSF

# of Coolers Received: 3 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: (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>-6.1 °C</u>	Date/time: <u>10/5/16 9:30</u>	By: <u>LM</u>
Cooler 1: <u>-46 °C</u>	w/ CF: <u>-46.1 °C</u>	Cooler 4: _____ °C	w/ CF: _____ °C
Cooler 2: <u>-47 °C</u>	w/ CF: <u>-47.1 °C</u>	Cooler 5: _____ °C	w/ CF: _____ °C
Cooler 3: <u>-47 °C</u>	w/ CF: <u>-47.1 °C</u>	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>NA</u>	
Correct preservative used for requested analyses:	<u>NA</u>	

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

1: 8756 4740 9231      2: 7842 6248 7980      3: 7842 6248 7991

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1610238

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
1495	9/28/2016	13:00	FRB-01_092816_RAS_WB_17	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1496	9/28/2016	13:00	FRB-01_092816_RAS_WB_18	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1497	9/28/2016	13:00	FRB-01_092816_RAS_WB_19	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1498	9/28/2016	13:00	FRB-01_092816_RAS_WB_20	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1499	9/28/2016	13:00	FRB-01_092816_RAS_WB_MD_	MSD	1		Ziploc Bag	Freeze	TIS Hg (1631e)/ Lipids (1993a)	T
1589	9/28/2016	12:35	FRB-01_092816_SED_03	FS	1	2 oz	Plastic	4 deg C	SED Total Hg (1631e)/Total MeHg (1630)	T
1650	9/23/2016	12:03	OB-05_092316_BAIT_01	FS	1		Ziploc Bag	Freeze	TIS Hg (1631e)	T
1655	10/4/2016	12:00	9LIVES_100416_FISH_BAIT	FS	1	5.5 oz	Can	4 deg C	TIS Total Hg (1631e)	T
1656	10/4/2016	12:00	PURINA_100416_FISH_BAIT	FS	1	2 oz	Amber Glass	4 deg C	TIS Total Hg (1631e)	T
1657	10/4/2016	12:00	FANCYF_100416_FISH_BAIT	FS	1	3 oz	Can	4 deg C	TIS Total Hg (1631e)	T
1658	8/3/2016	12:00	HORSESHOE_080316_FISH_BAIT	FS	1		Ziplocbag	4 deg C	TIS Total Hg (1631e)	T

WB-20  
1498

use for MS/MSD

Homogenize w/ volume from MS/MSD

Tuesday, October 04, 2016

Page 29 of 30

DMK  
10/6/16

1610238

Samp #	Sample Date	Sample Time	Field Sample ID	QC Code	Qty Total	Qty Each	Bottle Size and Material	Preservative	Media Method	Fraction
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QC Codes: FS = Field Sample, EB = Equipment Rinsate Blank, MS - Matrix Spike, MSD = Matrix Spike Duplicate

Relinquished: J. Desjarlais IAN DESJARLAIS Date: 10 / 04 / 16 Time: 16.00

Received: \_\_\_\_\_ Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ Time: \_\_\_\_\_

FED EX TRACKING: 8756 47 40 923 1

1 of 3 coolers

DRY ICE



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

**Reported:**  
14-Jan-17 13:02

**OB-05\_092316\_BAIT\_01**  
**1610238-01**

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	27.6	0.077	0.686	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	
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Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

**Reported:**  
14-Jan-17 13:02

**9LIVES\_100416\_FISH\_BAIT**  
**1610238-02**

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	2.91	0.076	0.680	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

**Reported:**  
14-Jan-17 13:02

**PURINA\_100416\_FISH\_BAIT**  
**1610238-03**

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	0.130	0.078	0.697	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	J

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

**Reported:**  
14-Jan-17 13:02

**FANCYF\_100416\_FISH\_BAIT**  
**1610238-04**

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	0.197	0.075	0.670	ng/g	20	F610510	08-Nov-16	6K10018	10-Nov-16	EPA 1631B	J

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Amy Goodall, Project Manager





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

Reported:  
14-Jan-17 13:02

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Cal Standard (6K10018-CAL1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.520	-		ng/L	0.50100		104				
<b>Cal Standard (6K10018-CAL2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.992	-		ng/L	1.0020		99.0				
<b>Cal Standard (6K10018-CAL3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	4.994	-		ng/L	5.0100		99.7				
<b>Cal Standard (6K10018-CAL4)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	19.09	-		ng/L	20.040		95.3				
<b>Cal Standard (6K10018-CAL5)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	40.53	-		ng/L	40.080		101				
<b>Calibration Blank (6K10018-CCB1)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.047	-		ng/L							
<b>Calibration Blank (6K10018-CCB2)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.057	-		ng/L							
<b>Calibration Blank (6K10018-CCB3)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.114	-		ng/L							
<b>Calibration Blank (6K10018-CCB4)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.112	-		ng/L							
<b>Calibration Blank (6K10018-CCB5)</b>					Prepared & Analyzed: 10-Nov-16						
Mercury	0.118	-		ng/L							

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Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

Reported:  
14-Jan-17 13:02

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K10018 - F610510</b>											
<b>Calibration Blank (6K10018-CCB6)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.182	-		ng/L							
<b>Calibration Blank (6K10018-CCB7)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.179	-		ng/L							
<b>Calibration Blank (6K10018-CCB8)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.105	-		ng/L							
<b>Calibration Blank (6K10018-CCB9)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	0.101	-		ng/L							
<b>Calibration Check (6K10018-CCV1)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.771	-		ng/L	5.0000		95.4	77-123			
<b>Calibration Check (6K10018-CCV2)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.625	-		ng/L	5.0000		92.5	77-123			
<b>Calibration Check (6K10018-CCV3)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.707	-		ng/L	5.0000		94.1	77-123			
<b>Calibration Check (6K10018-CCV4)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.609	-		ng/L	5.0000		92.2	77-123			
<b>Calibration Check (6K10018-CCV5)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.678	-		ng/L	5.0000		93.6	77-123			
<b>Calibration Check (6K10018-CCV6)</b> Prepared & Analyzed: 10-Nov-16											
Mercury	4.542	-		ng/L	5.0000		90.8	77-123			

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Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

Reported:  
14-Jan-17 13:02

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 6K10018 - F610510

Calibration Check (6K10018-CCV7) Prepared & Analyzed: 10-Nov-16

Mercury	4.981	-		ng/L	5.0000		99.6	77-123			
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Calibration Check (6K10018-CCV8) Prepared & Analyzed: 10-Nov-16

Mercury	4.610	-		ng/L	5.0000		92.2	77-123			
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Calibration Check (6K10018-CCV9) Prepared & Analyzed: 10-Nov-16

Mercury	4.524	-		ng/L	5.0000		90.5	77-123			
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Instrument Blank (6K10018-IBL1) Prepared & Analyzed: 10-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K10018-IBL2) Prepared & Analyzed: 10-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (6K10018-IBL3) Prepared & Analyzed: 10-Nov-16

Mercury	ND	0.004	0.040	ng/L							U
---------	----	-------	-------	------	--	--	--	--	--	--	---

Initial Cal Check (6K10018-ICV1) Prepared & Analyzed: 10-Nov-16

Mercury	4.914	-		ng/L	5.0000		98.3	77-123			
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Batch F610510 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F610510-BLK1) Prepared: 08-Nov-16 Analyzed: 10-Nov-16

Mercury	0.338	0.090	0.800	ng/g							J
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Blank (F610510-BLK2) Prepared: 08-Nov-16 Analyzed: 10-Nov-16

Mercury	0.135	0.090	0.800	ng/g							J
---------	-------	-------	-------	------	--	--	--	--	--	--	---

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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

Reported:  
14-Jan-17 13:02

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F610510 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F610510-BLK3)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	0.091	0.090	0.800	ng/g							J
<b>LCS (F610510-BS1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	7.531	0.090	0.800	ng/g	8.0160		93.9	75-125			
<b>LCS (F610510-BS2)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	333.9	4.46	39.8	ng/g	384.02		86.9	75-125			
<b>LCS Dup (F610510-BSD1)</b>					Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	8.201	0.090	0.800	ng/g	8.0160		102	75-125	8.52	24	
<b>Duplicate (F610510-DUP1)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	98.84	0.415	3.70	ng/g		81.91			18.7	24	
<b>Duplicate (F610510-DUP2)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	78.95	0.445	3.98	ng/g		81.91			3.68	24	AD
<b>Matrix Spike (F610510-MS1)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	391.1	1.98	17.6	ng/g	352.73	81.91	87.6	71-125			
<b>Matrix Spike (F610510-MS2)</b>					Source: 1610236-20 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	302.5	1.99	17.8	ng/g	355.37	6.516	83.3	71-125			
<b>Matrix Spike Dup (F610510-MSD1)</b>					Source: 1610232-26RE1 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	404.3	2.08	18.5	ng/g	370.92	81.91	86.9	71-125	0.851	24	
<b>Matrix Spike Dup (F610510-MSD2)</b>					Source: 1610236-20 Prepared: 08-Nov-16 Analyzed: 10-Nov-16						
Mercury	298.9	1.93	17.2	ng/g	344.47	6.516	84.9	71-125	1.90	24	

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues Hg and Methyl Hg 2016  
Project Number: Penobscot Tissues Hg and Methyl Hg 2016  
Project Manager: Denise King

**Reported:**  
14-Jan-17 13:02

**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.
- 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

THg26003-161109-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 09, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K10008, 6K10005, 6K10006, 6K10007

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	64.24 units	128.47	61.57 units	123.14	104.6 %Rec
SEQ-CAL2	1	1.00 ng/L	122.17 units	122.17	119.50 units	119.50	101.6 %Rec
SEQ-CAL3	1	5.00 ng/L	582.32 units	116.46	579.65 units	115.93	98.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2306.34 units	115.32	2303.68 units	115.18	97.9 %Rec
SEQ-CAL5	1	40.00 ng/L	4587.17 units	114.68	4584.50 units	114.61	97.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF**    **Corr. St Dev RF**    **Corr. RSD CF**    **Uncorr. Mean RF**  
 117.67            +/- 3.60            3.1% RSD            119.42

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	2.67 units	±0.35	0.02 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.667 ng/L	±0.766
BLK	2	3	1.558 ng/L	±0.092
BLK	3	3	4.768 ng/L	±0.930
BLK	4	3	30.407 ng/L	±3.464
BLK	5	3	24.875 ng/L	±5.179
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE

PEER - REVIEWED

INITIALS:   R     11/11/16

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	11/9/2016 8:15:38	55245-1.RAW	8:15:38 AM	2.83			0.2	0.001	0.001	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/9/2016 8:19:47	55246-1.RAW	8:19:47 AM	2.27			-0.4	-0.003	-0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/9/2016 8:23:55	55247-1.RAW	8:23:55 AM	2.90			0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/9/2016 8:28:04	55248-1.RAW	8:28:04 AM	64.24			61.6	0.523	0.523	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/9/2016 8:32:12	55249-1.RAW	8:32:12 AM	122.17			119.5	1.016	1.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/9/2016 8:36:20	55250-1.RAW	8:36:20 AM	582.32			579.6	4.926	4.926	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/9/2016 8:40:29	55251-1.RAW	8:40:29 AM	2306.34			2303.7	19.577	19.577	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/9/2016 8:44:37	55252-1.RAW	8:44:37 AM	4587.17			4584.5	38.959	38.959	ng/L	
Hg2600-3	DM2	CAL	SEQ-JCV1	1	11/9/2016 8:48:46	55253-1.RAW	8:48:46 AM	560.83			558.2	4.743	4.743	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK1	20	11/9/2016 8:52:54	55254-1.RAW	8:52:54 AM	17.64	1		15.0	0.127	2.544	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK2	20	11/9/2016 8:57:03	55255-1.RAW	8:57:03 AM	10.45	1		7.8	0.066	1.324	ng/L	
Hg2600-3	DM2	BLK	F610492-BLK3	20	11/9/2016 9:01:11	55256-1.RAW	9:01:11 AM	9.33	1		6.7	0.057	1.133	ng/L	
Hg2600-3	DM2	SAM	F610492-BS1	20	11/9/2016 9:05:20	55257-1.RAW	9:05:20 AM	612.84	1		610.2	5.102	102.039	ng/L	
Hg2600-3	DM2	SAM	F610492-BSD1	20	11/9/2016 9:09:28	55258-1.RAW	9:09:28 AM	631.56	1		628.9	5.261	105.220	ng/L	
Hg2600-3	DM2	SAM	F610492-BS2	500	11/9/2016 9:13:36	55259-1.RAW	9:13:36 AM	482.41	1		479.7	4.074	2036.757	ng/L	
Hg2600-3	DM2	SAM	1610232-27	500	11/9/2016 9:17:45	55260-1.RAW	9:17:45 AM	511.01	1		508.3	4.317	2158.274	ng/L	
Hg2600-3	DM2	SAM	1610232-28	500	11/9/2016 9:21:53	55261-1.RAW	9:21:53 AM	440.55	1		437.9	3.718	1858.902	ng/L	
Hg2600-3	DM2	SAM	1610232-29	500	11/9/2016 9:26:02	55262-1.RAW	9:26:02 AM	240.38	1		237.7	2.017	1008.377	ng/L	
Hg2600-3	DM2	SAM	1610232-30	500	11/9/2016 9:30:10	55263-1.RAW	9:30:10 AM	290.98	1		288.3	2.447	1223.368	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/9/2016 9:34:19	55264-1.RAW	9:34:19 AM	607.30			604.6	5.138	5.138	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/9/2016 9:38:27	55265-1.RAW	9:38:27 AM	9.18			6.5	0.055	0.055	ng/L	
Hg2600-3	DM2	SAM	1610232-31	500	11/9/2016 9:42:35	55266-1.RAW	9:42:35 AM	295.04	1		292.4	2.481	1240.631	ng/L	
Hg2600-3	DM2	SAM	1610232-32	500	11/9/2016 9:46:44	55267-1.RAW	9:46:44 AM	302.33	1		299.7	2.543	1271.624	ng/L	
Hg2600-3	DM2	SAM	1610232-33	500	11/9/2016 9:50:52	55268-1.RAW	9:50:52 AM	345.70	1		343.0	2.912	1455.875	ng/L	
Hg2600-3	DM2	SAM	1610232-34	500	11/9/2016 9:55:01	55269-1.RAW	9:55:01 AM	242.31	1		239.6	2.033	1016.573	ng/L	
Hg2600-3	DM2	SAM	1610232-35	500	11/9/2016 9:59:09	55270-1.RAW	9:59:09 AM	108.41	1		105.7	0.895	447.656	ng/L	
Hg2600-3	DM2	SAM	1610232-36	500	11/9/2016 10:03:18	55271-1.RAW	10:03:18 AM	106.87	1		104.2	0.882	441.116	ng/L	
Hg2600-3	DM2	SAM	1610232-37	500	11/9/2016 10:07:26	55272-1.RAW	10:07:26 AM	326.82	1		324.1	2.751	1375.647	ng/L	
Hg2600-3	DM2	SAM	1610232-38	500	11/9/2016 10:11:35	55273-1.RAW	10:11:35 AM	328.48	1		325.8	2.765	1382.714	ng/L	
Hg2600-3	DM2	SAM	1610232-39	500	11/9/2016 10:15:43	55274-1.RAW	10:15:43 AM	142.09	1		139.4	1.181	590.750	ng/L	
Hg2600-3	DM2	SAM	1610232-40	500	11/9/2016 10:19:52	55275-1.RAW	10:19:52 AM	179.89	1		177.2	1.503	751.350	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/9/2016 10:24:00	55276-1.RAW	10:24:00 AM	563.66			561.0	4.767	4.767	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/9/2016 10:28:08	55277-1.RAW	10:28:08 AM	6.46			3.8	0.032	0.032	ng/L	
Hg2600-3	DM2	SAM	1610232-41	500	11/9/2016 10:32:16	55278-1.RAW	10:32:16 AM	259.24	1		256.6	2.177	1088.501	ng/L	
Hg2600-3	DM2	SAM	1610232-42	500	11/9/2016 10:36:24	55279-1.RAW	10:36:24 AM	628.33	1		625.7	5.314	2656.808	ng/L	
Hg2600-3	DM2	SAM	1610233-01	500	11/9/2016 10:40:32	55280-1.RAW	10:40:32 AM	117.97	1		115.3	0.977	488.258	ng/L	
Hg2600-3	DM2	SAM	1610234-01	500	11/9/2016 10:44:40	55281-1.RAW	10:44:40 AM	28.53	1		25.9	0.216	108.237	ng/L	
Hg2600-3	DM2	SAM	1610234-02	500	11/9/2016 10:48:49	55282-1.RAW	10:48:49 AM	39.87	1		37.2	0.313	156.419	ng/L	
Hg2600-3	DM2	SAM	1610234-03	500	11/9/2016 10:52:57	55283-1.RAW	10:52:57 AM	32.04	1		29.4	0.246	123.128	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP1	500	11/9/2016 10:57:05	55284-1.RAW	10:57:05 AM	107.32	1		104.7	0.886	443.029	ng/L	
Hg2600-3	DM2	SAM	F610492-MS1	500	11/9/2016 11:01:14	55285-1.RAW	11:01:14 AM	1186.50	1		1183.8	10.057	5028.478	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD1	500	11/9/2016 11:05:22	55286-1.RAW	11:05:22 AM	1186.46	1		1183.8	10.057	5028.281	ng/L	
Hg2600-3	DM2	SAM	F610492-MS2	500	11/9/2016 11:09:31	55287-1.RAW	11:09:31 AM	1118.68	1		1116.0	9.481	4740.298	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/9/2016 11:13:39	55288-1.RAW	11:13:39 AM	555.90			553.2	4.701	4.701	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/9/2016 11:17:47	55289-1.RAW	11:17:47 AM	7.03			4.4	0.037	0.037	ng/L	
Hg2600-3	DM2	SAM	F610492-MSD2	500	11/9/2016 11:21:56	55290-1.RAW	11:21:56 AM	1064.88	1		1062.2	9.023	4511.692	ng/L	
Hg2600-3	DM2	SAM	1610232-35RE1	100	11/9/2016 11:26:04	55291-1.RAW	11:26:04 AM	500.24	1		497.6	4.212	421.176	ng/L	
Hg2600-3	DM2	SAM	1610232-36RE1	100	11/9/2016 11:30:13	55292-1.RAW	11:30:13 AM	522.84	1		520.2	4.404	440.379	ng/L	
Hg2600-3	DM2	SAM	1610233-01RE1	100	11/9/2016 11:34:21	55293-1.RAW	11:34:21 AM	548.06	1		545.4	4.618	461.814	ng/L	
Hg2600-3	DM2	SAM	1610234-01RE1	20	11/9/2016 11:38:30	55294-1.RAW	11:38:30 AM	501.58	1		498.9	4.156	83.128	ng/L	
Hg2600-3	DM2	SAM	1610234-02RE1	20	11/9/2016 11:42:38	55295-1.RAW	11:42:38 AM	757.46	1		754.8	6.331	126.618	ng/L	
Hg2600-3	DM2	SAM	1610234-03RE1	20	11/9/2016 11:46:46	55296-1.RAW	11:46:46 AM	547.63	1		545.0	4.548	90.955	ng/L	
Hg2600-3	DM2	SAM	F610492-DUP2	100	11/9/2016 11:50:55	55297-1.RAW	11:50:55 AM	527.20	1		524.5	4.441	444.082	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK1	20	11/9/2016 11:55:03	55298-1.RAW	11:55:03 AM	12.40	2		9.7	0.083	1.654	ng/L	
Hg2600-3	DM2	BLK	F610522-BLK2	20	11/9/2016 11:59:12	55299-1.RAW	11:59:12 AM	11.32	2		8.7	0.074	1.471	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/9/2016 12:03:20	55300-1.RAW	12:03:20 PM	566.05			563.4	4.788	4.788	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/9/2016 12:07:28	55301-1.RAW	12:07:28 PM	5.92			3.3	0.028	0.028	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	BLK	F610522-BLK3	20	11/9/2016 12:11:37	55302-1.RAW	12:11:37 PM	11.78	2		9.1	0.077	1.549	ng/L	
Hg2600-3	DM2	SAM	F610522-BS1	20	11/9/2016 12:15:45	55303-1.RAW	12:15:45 PM	595.53	2		592.9	4.960	99.205	ng/L	
Hg2600-3	DM2	SAM	F610522-BSD1	20	11/9/2016 12:19:54	55304-1.RAW	12:19:54 PM	591.35	2		588.7	4.925	98.495	ng/L	
Hg2600-3	DM2	SAM	1609620-01	2500	11/9/2016 12:24:02	55305-1.RAW	12:24:02 PM	130.11	2		127.4	1.082	2705.955	ng/L	
Hg2600-3	DM2	SAM	1609620-02	2500	11/9/2016 12:28:10	55306-1.RAW	12:28:10 PM	112.07	2		109.4	0.929	2322.775	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 12:32:19	55307-1.RAW	12:32:19 PM	175.47	2		172.8	1.468	3669.731	ng/L	
Hg2600-3	DM2	SAM	1609620-07	250000	11/9/2016 12:36:27	55308-1.RAW	12:36:27 PM	6.52	2		3.9	0.033	8193.902	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 12:40:36	55309-1.RAW	12:40:36 PM	2505.68	2		2503.0	21.271	5317666.312	ng/L	
Hg2600-3	DM2	SAM	1609620-09	250000	11/9/2016 12:44:44	55310-1.RAW	12:44:44 PM	34.94	2		32.3	0.274	68559.010	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP1	2500	11/9/2016 12:48:53	55311-1.RAW	12:48:53 PM	602.10	2		599.4	5.093	12733.430	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/9/2016 12:53:01	55312-1.RAW	12:53:01 PM	12.56371495			9.9	0.084	0.084	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/9/2016 12:57:09	55313-1.RAW	12:57:09 PM	175.36			172.7	1.468	1.468	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/9/2016 13:02:31	55314-1.RAW	1:02:31 PM	576.74			574.1	4.879	4.879	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/9/2016 13:06:40	55315-1.RAW	1:06:40 PM	8.83			6.2	0.052	0.052	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/9/2016 13:10:48	55316-1.RAW	1:10:48 PM	557.84			555.2	4.718	4.718	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/9/2016 13:14:57	55317-1.RAW	1:14:57 PM	9.47			6.8	0.058	0.058	ng/L	
Hg2600-3	DM2	SAM	F610522-MS1	2500	11/9/2016 13:19:05	55318-1.RAW	1:19:05 PM	754.02	2		751.4	6.384	15961.037	ng/L	
Hg2600-3	DM2	SAM	F610522-MSD1	2500	11/9/2016 13:23:13	55319-1.RAW	1:23:13 PM	744.28	2		741.6	6.302	15754.093	ng/L	
Hg2600-3	DM2	SAM	1609620-02RE1	500	11/9/2016 13:27:22	55320-1.RAW	1:27:22 PM	537.57	2		534.9	4.542	2271.242	ng/L	
Hg2600-3	DM2	SAM	1609620-07RE1	500	11/9/2016 13:31:30	55321-1.RAW	1:31:30 PM	638.60	2		635.9	5.401	2700.549	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	2500	11/9/2016 13:35:39	55322-1.RAW	1:35:39 PM	2641.63	2		2639.0	22.425	56063.466	ng/L	
Hg2600-3	DM2	SAM	F610522-DUP2	2500	11/9/2016 13:39:47	55323-1.RAW	1:39:47 PM	184.12	2		181.5	1.541	3853.456	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK1	50	11/9/2016 13:43:55	55324-1.RAW	1:43:55 PM	16.35	3		13.7	0.116	5.815	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK2	50	11/9/2016 13:48:04	55325-1.RAW	1:48:04 PM	12.18	3		9.5	0.081	4.041	ng/L	
Hg2600-3	DM2	BLK	F610521-BLK3	50	11/9/2016 13:52:12	55326-1.RAW	1:52:12 PM	13.14	3		10.5	0.089	4.449	ng/L	
Hg2600-3	DM2	SAM	F610521-BS1	50	11/9/2016 13:56:21	55327-1.RAW	1:56:21 PM	1876.64	3		1874.0	15.830	791.487	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/9/2016 14:00:29	55328-1.RAW	2:00:29 PM	556.22			553.6	4.704	4.704	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/9/2016 14:04:38	55329-1.RAW	2:04:38 PM	9.41			6.7	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F610521-BSD1	50	11/9/2016 14:08:48	55330-1.RAW	2:08:48 PM	1836.32	3		1833.7	15.487	774.355	ng/L	
Hg2600-3	DM2	SAM	1609620-01	1000	11/9/2016 14:12:54	55331-1.RAW	2:12:54 PM	519.01	3		516.3	4.383	4383.153	ng/L	
Hg2600-3	DM2	SAM	1609620-02	1000	11/9/2016 14:17:03	55332-1.RAW	2:17:03 PM	483.50	3		480.8	4.081	4081.366	ng/L	
Hg2600-3	DM2	SAM	1609620-03	2500	11/9/2016 14:21:11	55333-1.RAW	2:21:11 PM	162.09	3		159.4	1.353	3382.278	ng/L	
Hg2600-3	DM2	SAM	1609620-07	500	11/9/2016 14:25:20	55334-1.RAW	2:25:20 PM	744.64	3		742.0	6.296	3147.903	ng/L	
Hg2600-3	DM2	SAM	1609620-08	250000	11/9/2016 14:29:28	55335-1.RAW	2:29:28 PM	117.23	3		114.6	0.974	243396.464	ng/L	
Hg2600-3	DM2	SAM	1609620-09	500	11/9/2016 14:33:37	55336-1.RAW	2:33:37 PM	135227.20	3		135224.5	1149.134	574566.924	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:42:04	55337-1.RAW	2:42:04 PM	65.99	x		63.3	0.538	0.000	ng/L	
Hg2600-3	DM2	SAM	CLEAN		11/9/2016 14:44:55	55338-1.RAW	2:44:55 PM	43.28	x		40.6	0.345	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:49:03	55339-1.RAW	2:49:03 PM	73.89	x		71.2	0.605	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		11/9/2016 14:53:12	55340-1.RAW	2:53:12 PM	45.04	x		42.4	0.360	0.000	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP1	2500	11/9/2016 14:57:20	55341-1.RAW	2:57:20 PM	313.44	3		310.8	2.639	6597.639	ng/L	
Hg2600-3	DM2	SAM	F610521-MS1	1000	11/9/2016 15:01:29	55342-1.RAW	3:01:29 PM	2885.17	3		2882.5	24.491	24490.876	ng/L	
Hg2600-3	DM2	SAM	F610521-MSD1	1000	11/9/2016 15:05:37	55343-1.RAW	3:05:37 PM	2892.02	3		2889.4	24.549	24549.097	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/9/2016 15:09:45	55344-1.RAW	3:09:45 PM	607.62			605.0	5.141	5.141	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/9/2016 15:13:54	55345-1.RAW	3:13:54 PM	42.28			39.6	0.337	0.337	ng/L	
Hg2600-3	DM2	SAM	1609620-08RE1	10000	11/9/2016 15:18:02	55346-1.RAW	3:18:02 PM	2756.52	3		2753.9	23.402	234018.516	ng/L	
Hg2600-3	DM2	SAM	1609620-09RE1	250000	11/9/2016 15:22:11	55347-1.RAW	3:22:11 PM	380.23	3		377.6	3.209	802130.963	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK1	100	11/9/2016 15:26:19	55348-1.RAW	3:26:19 PM	43.07	4		40.4	0.343	34.332	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK2	100	11/9/2016 15:30:27	55349-1.RAW	3:30:27 PM	36.92	4		34.3	0.291	29.110	ng/L	
Hg2600-3	DM2	BLK	F611244-BLK3	100	11/9/2016 15:34:36	55350-1.RAW	3:34:36 PM	35.35	4		32.7	0.278	27.777	ng/L	
Hg2600-3	DM2	SAM	*F611244-BLK4	100	11/9/2016 15:38:44	55351-1.RAW	3:38:44 PM	37.08	4	x	34.4	0.292	29.244	ng/L	
Hg2600-3	DM2	SAM	F611244-BS1	100	11/9/2016 15:42:53	55352-1.RAW	3:42:53 PM	587.75	4		585.1	4.668	466.802	ng/L	
Hg2600-3	DM2	SAM	F611244-BS2	100	11/9/2016 15:47:01	55353-1.RAW	3:47:01 PM	565.03	4		562.4	4.475	447.495	ng/L	
Hg2600-3	DM2	SAM	F611244-BS3	500	11/9/2016 15:51:10	55354-1.RAW	3:51:10 PM	1125.58	4		1122.9	9.482	4740.893	ng/L	
Hg2600-3	DM2	SAM	F611244-BS4	500	11/9/2016 15:55:18	55355-1.RAW	3:55:18 PM	1071.22	4		1068.6	9.020	4509.899	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	11/9/2016 15:59:26	55356-1.RAW	3:59:26 PM	582.59			579.9	4.928	4.928	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/9/2016 16:03:35	55357-1.RAW	4:03:35 PM	26.55			23.9	0.203	0.203	ng/L	
Hg2600-3	DM2	SAM	F610521-DUP2	2500	11/9/2016 16:07:43	55358-1.RAW	4:07:43 PM	178.23	3		175.6	1.490	3725.082	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK1	100	11/9/2016 16:11:52	55359-1.RAW	4:11:52 PM	27.30	5		24.6	0.209	20.937	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK2	100	11/9/2016 16:16:00	55360-1.RAW	4:16:00 PM	29.67	5		27.0	0.229	22.946	ng/L	
Hg2600-3	DM2	BLK	F611245-BLK3	100	11/9/2016 16:20:08	55361-1.RAW	4:20:08 PM	38.84	5		36.2	0.307	30.741	ng/L	
Hg2600-3	DM2	SAM	*F611245-BLK4	100	11/9/2016 16:24:17	55362-1.RAW	4:24:17 PM	27.08	5	x	24.4	0.207	20.743	ng/L	
Hg2600-3	DM2	SAM	F611245-BS1	100	11/9/2016 16:28:25	55363-1.RAW	4:28:25 PM	567.36	5		564.7	4.550	455.007	ng/L	
Hg2600-3	DM2	SAM	F611245-BS2	100	11/9/2016 16:32:34	55364-1.RAW	4:32:34 PM	566.59	5		563.9	4.544	454.352	ng/L	
Hg2600-3	DM2	SAM	F611245-BS3	500	11/9/2016 16:36:42	55365-1.RAW	4:36:42 PM	1114.12	5		1111.5	9.395	4697.734	ng/L	
Hg2600-3	DM2	SAM	F611245-BS4	500	11/9/2016 16:40:51	55366-1.RAW	4:40:51 PM	1069.27	5		1066.6	9.014	4507.139	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	CAL	SEQ-CCVB	1	11/9/2016 16:44:59	55367-1.RAW	4:44:59 PM	592.46			589.8	5.012	5.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	11/9/2016 16:49:07	55368-1.RAW	4:49:07 PM	20.31			17.6	0.150	0.150	ng/L	

TotalMercury EPA1631  
 Operab DM  
 BlankS: 2.6664  
 Calib Eqn:  
 Conc = (Area-2.666 Run Date: 11/9/2016 Blank SD: 0.349034759  
 Worksh THg260( CalibFa 117.67 Status: QC Warnings:4/QC E Run Time: 12:58:22 Blank RSD%: 13.0898751  
 Method #### R: 1 R<sup>2</sup>: 1 CF SD: 3.600437568  
 Descrip THg26003-161109-1 CF RSD%: 3.059665855

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount	Comment
Clean				0.00	4.38					55240-1.RAW	7:56:13	515.19	Clean	OK	1	
clean										55241-1.RAW	7:59:04	0.00	Clean	NP	1	
ws				2.67	0.00					55242-1.RAW	8:03:13	2.37	Sample	OK	1	
ws				2.67	0.01					55243-1.RAW	8:07:21	3.42	Sample	OK	1	
ws										55244-1.RAW	8:11:30	0.00	Sample	NP	1	
SEQ-IBL1	A1		1	0.00	0.02					55245-1.RAW	8:15:38	2.83	Sample	OK	1	
SEQ-IBL2	A2		1	0.00	0.02					55246-1.RAW	8:19:47	2.27	Sample	OK	1	
SEQ-IBL3	A3		1	0.00	0.02					55247-1.RAW	8:23:55	2.90	Sample	OK	1	
SEQ-CAL1	A4		1	2.67	0.52			104.65		55248-1.RAW	8:28:04	64.24	Sample	OK	1	
SEQ-CAL2	A5		1	2.67	1.02			101.55		55249-1.RAW	8:32:12	122.17	Sample	OK	1	
SEQ-CAL3	A6		1	2.67	4.93			98.52		55250-1.RAW	8:36:20	582.32	Sample	OK	1	
SEQ-CAL4	A7		1	2.67	19.58			97.88		55251-1.RAW	8:40:29	2306.34	Sample	OK	1	
SEQ-CAL5	A8		1	2.67	38.96			97.40		55252-1.RAW	8:44:37	4587.17	Sample	FB	1	
SEQ-ICV1	A9		1	2.67	4.74			94.87		55253-1.RAW	8:48:46	560.83	Sample	OK	1	
F610492-BLK1	A10		20	2.67	2.54					55254-1.RAW	8:52:54	17.64	Sample	OK	1	
F610492-BLK2	A11		20	2.67	1.32					55255-1.RAW	8:57:03	10.45	Sample	OK	1	
F610492-BLK3	A12		20	2.67	1.13					55256-1.RAW	9:01:11	9.33	Sample	OK	1	
F610492-BS1	B1		20	2.67	103.71					55257-1.RAW	9:05:20	612.84	Sample	OK	1	
F610492-BSD1	B2		20	2.67	106.89					55258-1.RAW	9:09:28	631.56	Sample	OK	1	
F610492-BS2	B3		500	2.67	2038.42					55259-1.RAW	9:13:36	482.41	Sample	OK	1	
1610232-27	B4		500	2.67	2159.94					55260-1.RAW	9:17:45	511.01	Sample	OK	1	
1610232-28	B5		500	2.67	1860.57					55261-1.RAW	9:21:53	440.55	Sample	OK	1	
1610232-29	B6		500	2.67	1010.04					55262-1.RAW	9:26:02	240.38	Sample	OK	1	
1610232-30	B7		500	2.67	1225.03					55263-1.RAW	9:30:10	290.98	Sample	OK	1	
SEQ-CCV1	B8		1	2.67	5.14			102.76		55264-1.RAW	9:34:19	607.30	Sample	OK	1	
SEQ-CCB1	B9		1	2.67	0.06			0.00		55265-1.RAW	9:38:27	9.18	Sample	OK	1	
1610232-31	B10		500	2.67	1242.30					55266-1.RAW	9:42:35	295.04	Sample	OK	1	
1610232-32	B11		500	2.67	1273.29					55267-1.RAW	9:46:44	302.33	Sample	OK	1	
1610232-33	B12		500	2.67	1457.54					55268-1.RAW	9:50:52	345.70	Sample	OK	1	
1610232-34	C1		500	2.67	1018.24					55269-1.RAW	9:55:01	242.31	Sample	OK	1	
1610232-35	C2		500	2.67	449.32					55270-1.RAW	9:59:09	108.41	Sample	OK	1	
1610232-36	C3		500	2.67	442.78					55271-1.RAW	10:03:18	106.87	Sample	OK	1	
1610232-37	C4		500	2.67	1377.31					55272-1.RAW	10:07:26	326.82	Sample	OK	1	
1610232-38	C5		500	2.67	1384.38					55273-1.RAW	10:11:35	328.48	Sample	OK	1	
1610232-39	C6		500	2.67	592.42					55274-1.RAW	10:15:43	142.09	Sample	OK	1	
1610232-40	C7		500	2.67	753.02					55275-1.RAW	10:19:52	179.89	Sample	OK	1	
SEQ-CCV2	C8		1	2.67	4.77			95.35		55276-1.RAW	10:24:00	563.66	Sample	OK	1	
SEQ-CCB2	C9		1	2.67	0.03			0.00		55277-1.RAW	10:28:08	6.46	Sample	OK	1	
1610232-41	C10		500	2.67	1090.17					55278-1.RAW	10:32:16	259.24	Sample	OK	1	
1610232-42	C11		500	2.67	2658.47					55279-1.RAW	10:36:24	628.33	Sample	OK	1	
1610233-01	C12		500	2.67	489.93					55280-1.RAW	10:40:32	117.97	Sample	OK	1	
1610234-01	D1		500	2.67	109.90					55281-1.RAW	10:44:40	28.53	Sample	OK	1	
1610234-02	D2		500	2.67	158.09					55282-1.RAW	10:48:49	39.87	Sample	OK	1	
1610234-03	D3		500	2.67	124.80					55283-1.RAW	10:52:57	32.04	Sample	OK	1	
F610492-DUP1	D4		500	2.67	444.70					55284-1.RAW	10:57:05	107.32	Sample	OK	1	
F610492-MS1	D5		500	2.67	5030.15			1128.60		55285-1.RAW	11:01:14	1186.50	Sample	OK	1	
F610492-MSD1	D6		500	2.67	5029.95					55286-1.RAW	11:05:22	1186.46	Sample	OK	1	
F610492-MS2	D7		500	2.67	4741.97			94.24		55287-1.RAW	11:09:31	1118.68	Sample	OK	1	
SEQ-CCV3	D8		1	2.67	4.70			94.03		55288-1.RAW	11:13:39	555.90	Sample	OK	1	
SEQ-CCB3	D9		1	2.67	0.04			0.00		55289-1.RAW	11:17:47	7.03	Sample	OK	1	

F610492-MSD2	D10	500	2.67	4513.36		55290-1.RAW	11:21:56	1064.88	Sample	OK	1
1610232-35RE1	D11	100	2.67	422.84		55291-1.RAW	11:26:04	500.24	Sample	OK	1
1610232-36RE1	D12	100	2.67	442.05		55292-1.RAW	11:30:13	522.84	Sample	OK	1
1610233-01RE1	A1	100	2.67	463.48		55293-1.RAW	11:34:21	548.06	Sample	OK	1
1610234-01RE1	A2	20	2.67	84.80		55294-1.RAW	11:38:30	501.58	Sample	OK	1
1610234-02RE1	A3	20	2.67	128.29		55295-1.RAW	11:42:38	757.46	Sample	OK	1
1610234-03RE1	A4	20	2.67	92.62		55296-1.RAW	11:46:46	547.63	Sample	OK	1
F610492-DUP2	A5	100	2.67	445.75		55297-1.RAW	11:50:55	527.20	Sample	OK	1
F610522-BLK1	A6	20	2.67	1.65		55298-1.RAW	11:55:03	12.40	Sample	OK	1
F610522-BLK2	A7	20	2.67	1.47		55299-1.RAW	11:59:12	11.32	Sample	OK	1
SEQ-CCV4	A8	1	2.67	4.79	95.75	55300-1.RAW	12:03:20	566.05	Sample	OK	1
SEQ-CCB4	A9	1	2.67	0.03	0.00	55301-1.RAW	12:07:28	5.92	Sample	OK	1
F610522-BLK3	A10	20	2.67	1.55		55302-1.RAW	12:11:37	11.78	Sample	OK	1
F610522-BS1	A11	20	2.67	100.76		55303-1.RAW	12:15:45	595.53	Sample	OK	1
F610522-BSD1	A12	20	2.67	100.05		55304-1.RAW	12:19:54	591.35	Sample	OK	1
1609620-01	B1	2500	2.67	2707.51		55305-1.RAW	12:24:02	130.11	Sample	OK	1
1609620-02	B2	2500	2.67	2324.33		55306-1.RAW	12:28:10	112.07	Sample	OK	1
1609620-03	B3	2500	2.67	3671.29		55307-1.RAW	12:32:19	175.47	Sample	OK	1
1609620-07	B4	250000	2.67	8195.46		55308-1.RAW	12:36:27	6.52	Sample	OK	1
1609620-08	B5	250000	2.67	5317667.87		55309-1.RAW	12:40:36	2505.68	Sample	OK	1
1609620-09	B6	250000	2.67	68560.57		55310-1.RAW	12:44:44	34.94	Sample	OK	1
F610522-DUP1	B7	2500	2.67	12734.99		55311-1.RAW	12:48:53	602.10	Sample	OK	1
SEQ-CCV5	B8	1	2.67	0.08	1.68	55312-1.RAW	12:53:01	12.56	Sample	OK	1
SEQ-CCB5	B9	1	2.67	1.47	0.00	55313-1.RAW	12:57:09	175.36	Sample	OK	1
SEQ-CCV6	D1	1	2.67	4.88	97.57	55314-1.RAW	13:02:31	576.74	Sample	OK	1
SEQ-CCB6	D2	1	2.67	0.05	0.00	55315-1.RAW	13:06:40	8.83	Sample	OK	1
SEQ-CCV7	D3	1	2.67	4.72	94.36	55316-1.RAW	13:10:48	557.84	Sample	OK	1
SEQ-CCB7	D4	1	2.67	0.06	0.00	55317-1.RAW	13:14:57	9.47	Sample	OK	1
F610522-MS1	B12	2500	2.67	15962.60	#####	55318-1.RAW	13:19:05	754.02	Sample	OK	1
F610522-MSD1	C1	2500	2.67	15755.65		55319-1.RAW	13:23:13	744.28	Sample	OK	1
1609620-02RE1	C2	500	2.67	2272.80		55320-1.RAW	13:27:22	537.57	Sample	OK	1
1609620-07RE1	C3	500	2.67	2702.11		55321-1.RAW	13:31:30	638.60	Sample	OK	1
1609620-09RE1	C4	2500	2.67	56065.02		55322-1.RAW	13:35:39	2641.63	Sample	OK	1
F610522-DUP2	C5	2500	2.67	3855.01		55323-1.RAW	13:39:47	184.12	Sample	OK	1
F610521-BLK1	C6	50	2.67	5.82		55324-1.RAW	13:43:55	16.35	Sample	OK	1
F610521-BLK2	C7	50	2.67	4.04		55325-1.RAW	13:48:04	12.18	Sample	OK	1
F610521-BLK3	C8	50	2.67	4.45		55326-1.RAW	13:52:12	13.14	Sample	OK	1
F610521-BS1	C9	50	2.67	796.26		55327-1.RAW	13:56:21	1876.64	Sample	OK	1
SEQ-CCV8	C10	1	2.67	4.70	94.08	55328-1.RAW	14:00:29	556.22	Sample	OK	1
SEQ-CCB8	C11	1	2.67	0.06	0.00	55329-1.RAW	14:04:38	9.41	Sample	OK	1
F610521-BSD1	C12	50	2.67	779.12		55330-1.RAW	14:08:46	1836.32	Sample	OK	1
1609620-01	D1	1000	2.67	4387.92		55331-1.RAW	14:12:54	519.01	Sample	OK	1
1609620-02	D2	1000	2.67	4086.13		55332-1.RAW	14:17:03	483.50	Sample	OK	1
1609620-03	D3	2500	2.67	3387.05		55333-1.RAW	14:21:11	162.09	Sample	OK	1
1609620-07	D4	500	2.67	3152.67		55334-1.RAW	14:25:20	744.64	Sample	OK	1
1609620-08	D5	250000	2.67	243401.23		55335-1.RAW	14:29:28	117.23	Sample	OK	1
1609620-09	D6	500	2.67	574571.69		55336-1.RAW	14:33:37	135227.20	Sample	OLFB	1
CLEAN			0.00	0.56		55337-1.RAW	14:42:04	65.99	Clean	OK	1
CLEAN			0.00	0.37		55338-1.RAW	14:44:55	43.28	Clean	OK	1
WS			2.67	0.61		55339-1.RAW	14:49:03	73.89	Sample	OK	1
WS			2.67	0.36		55340-1.RAW	14:53:12	45.04	Sample	OK	1
F610521-DUP1	D7	2500	2.67	6602.41		55341-1.RAW	14:57:20	313.44	Sample	OK	1
F610521-MS1	D8	1000	2.67	24495.64	370.95	55342-1.RAW	15:01:29	2885.17	Sample	OK	1
F610521-MSD1	D9	1000	2.67	24553.87		55343-1.RAW	15:05:37	2892.02	Sample	FB	1
SEQ-CCV9	D10	1	2.67	5.14	102.82	55344-1.RAW	15:09:45	607.62	Sample	OK	1

WRONG LOCATION  
WRONG LOCATION

SEQ-CCB9	D11	1	2.67	0.34	0.00	55345-1.RAW	15:13:54	42.28	Sample	OK	1
1609620-08RE1	D12	10000	2.67	234023.28		55346-1.RAW	15:18:02	2756.52	Sample	OK	1
1609620-09RE1	A1	250000	2.67	802135.73		55347-1.RAW	15:22:11	380.23	Sample	OK	1
F611244-BLK1	A2	100	2.67	34.33		55348-1.RAW	15:26:19	43.07	Sample	OK	1
F611244-BLK2	A3	100	2.67	29.11		55349-1.RAW	15:30:27	36.92	Sample	OK	1
F611244-BLK3	A4	100	2.67	27.78		55350-1.RAW	15:34:36	35.35	Sample	OK	1
*F611244-BLK4	A5	100	2.67	29.24		55351-1.RAW	15:38:44	37.08	Sample	OK	1
F611244-BS1	A6	100	2.67	497.21		55352-1.RAW	15:42:53	587.75	Sample	OK	1
F611244-BS2	A7	100	2.67	477.90		55353-1.RAW	15:47:01	565.03	Sample	OK	1
F611244-BS3	A8	500	2.67	4771.30		55354-1.RAW	15:51:10	1125.58	Sample	OK	1
F611244-BS4	A9	500	2.67	4540.31		55355-1.RAW	15:55:18	1071.22	Sample	OK	1
SEQ-CCVA	A10	1	2.67	4.93		55356-1.RAW	15:59:26	582.59	Sample	OK	1
SEQ-CCBA	A11	1	2.67	0.20		55357-1.RAW	16:03:35	26.55	Sample	OK	1
F610521-DUP2	A12	2500	2.67	3729.85		55358-1.RAW	16:07:43	178.23	Sample	OK	1
F611245-BLK1	B1	100	2.67	20.94		55359-1.RAW	16:11:52	27.30	Sample	OK	1
F611245-BLK2	B2	100	2.67	22.95		55360-1.RAW	16:16:00	29.67	Sample	OK	1
F611245-BLK3	B3	100	2.67	30.74		55361-1.RAW	16:20:08	38.84	Sample	OK	1
*F611245-BLK4	B4	100	2.67	20.74		55362-1.RAW	16:24:17	27.08	Sample	OK	1
F611245-BS1	B5	100	2.67	479.88		55363-1.RAW	16:28:25	587.36	Sample	OK	1
F611245-BS2	B6	100	2.67	479.23		55364-1.RAW	16:32:34	566.59	Sample	OK	1
F611245-BS3	B7	500	2.67	4722.61		55365-1.RAW	16:36:42	1114.12	Sample	OK	1
F611245-BS4	B8	500	2.67	4532.01		55366-1.RAW	16:40:51	1069.27	Sample	OK	1
SEQ-CCVB	B9	1	2.67	5.01		55367-1.RAW	16:44:59	592.46	Sample	OK	1
SEQ-CCBB	B10	1	2.67	0.15		55368-1.RAW	16:49:07	20.31	Sample	OK	1

ANALYSIS SEQUENCE

6K10007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10007-IBL1	QC	1			
6K10007-IBL2	QC	2			
6K10007-IBL3	QC	3			
6K10007-CAL1	QC	4	1605412		
6K10007-CAL2	QC	5	1605413		
6K10007-CAL3	QC	6	1605414		
6K10007-CAL4	QC	7	1605415		
6K10007-CAL5	QC	8	1605416		
6K10007-1CV1	QC	9	1605791		
6K10007-CCV1	QC	10	1605791		
6K10007-CCB1	QC	11			
6K10007-CCV2	QC	12	1605791		
6K10007-CCB2	QC	13			
6K10007-CCV3	QC	14	1605791		
6K10007-CCB3	QC	15			
6K10007-CCV4	QC	16	1605791		
6K10007-CCB4	QC	17			
6K10007-CCV5	QC	18	1605791		
6K10007-CCB5	QC	19			
6K10007-CCV6	QC	20	1605791		
6K10007-CCB6	QC	21			
6K10007-CCV7	QC	22	1605791		
6K10007-CCB7	QC	23			
6K10521-BLK1	QC	24			
6K10521-BLK2	QC	25			
6K10521-BLK3	QC	26			
6K10521-BL1	QC	27			
6K10007-CCV8	QC	28	1605791		
6K10007-CCB8	QC	29			
6K10521-BSD1	QC	30			
1609620-01	Hg-CVAFS-S-SSE-F4	31			
1609620-02	Hg-CVAFS-S-SSE-F4	32			
1609620-03	Hg-CVAFS-S-SSE-F4	33			
1609620-07	Hg-CVAFS-S-SSE-F4	34			
1609620-08	Hg-CVAFS-S-SSE-F4	35			

Due Date: 10/21/2016

ANALYSIS SEQUENCE

6K10007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1609620-09	Hg-CVAFS-S-SSE-F4	36			
F610521-DUP1	QC	37			
F610521-MSI	QC	38			
F610521-MSD1	QC	39			
6K10007-CCV9	QC	40	1605791		
6K10007-CCB9	QC	41			
1609620-08RE1	Hg-CVAFS-S-SSE-F4	42			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F4	43			Added 11/9/2016 by DM2
6K10007-CCVA	QC	44	1605791		
6K10007-CCBA	QC	45			
F610521-DUP2	QC	46			
6K10007-CCVB	QC	47	1605791		
6K10007-CCBB	QC	48			

Samples Loaded By Den Nooren Date 11/9/16

Data Processed By Den Nooren Date 11/10/16

**Failing Data Report - 6K10007**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1609620-09	Hg-CVAFS-S-SSE-F4	273000	238				ng/g						FAIL-OVER	PASS	E
6K10007-CCV5	Hg-CVAFS-S-SSE-F4	0.08	2.496			5.0000	ng/L	1.68	75.00	125.00			PASS-OVER	FAIL-CCV	Wrong Location
F610521-DUP1	Hg-CVAFS-S-SSE-F4	3746	1420	1905	1905		ng/g				65.1	25.00	PASS-OVER	FAIL-DUP	QR-07

DM Matern                      11/10/16  
 Analyst Reviewed By                      Date

\_\_\_\_\_  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K10006

Instrument: Hg2600-3

Page 26 of 62

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10006-IBL1	QC	1			
6K10006-IBL2	QC	2			
6K10006-IBL3	QC	3			
6K10006-CAL1	QC	4	1605412		
6K10006-CAL2	QC	5	1605413		
6K10006-CAL3	QC	6	1605414		
6K10006-CAL4	QC	7	1605415		
6K10006-CAL5	QC	8	1605416		
6K10006-ICV1	QC	9	1605791		
6K10006-CCV1	QC	10	1605791		
6K10006-CCB1	QC	11			
6K10006-CCV2	QC	12	1605791		
6K10006-CCB2	QC	13			
6K10006-CCV3	QC	14	1605791		
6K10006-CCB3	QC	15			
F610522-BLK1	QC	16			
F610522-BLK2	QC	17			
6K10006-CCV4	QC	18	1605791		
6K10006-CCB4	QC	19			
F610522-BLK3	QC	20			
F610522-BS1	QC	21			
F610522-BSD1	QC	22			
1609620-01	Hg-CVAFS-S-SSE-F5	23			
1609620-02	Hg-CVAFS-S-SSE-F5	24			
1609620-03	Hg-CVAFS-S-SSE-F5	25			
1609620-07	Hg-CVAFS-S-SSE-F5	26			
1609620-08	Hg-CVAFS-S-SSE-F5	27			
1609620-09	Hg-CVAFS-S-SSE-F5	28			
F610522-DUP1	QC	29			
6K10006-CCV5	QC	30	1605791		
6K10006-CCB5	QC	31			
6K10006-CCV6	QC	32	1605791		
6K10006-CCB6	QC	33			
6K10006-CCV7	QC	34	1605791		
6K10006-CCB7	QC	35			

Due Date: 10/21/2016

Page 1 of 2



ANALYSIS SEQUENCE

6K10006

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F610522-MS1	QC	36			
F610522-MSD1	QC	37			
1609620-02RE1	Hg-CVAFS-S-SSE-F5	38			Added 11/9/2016 by DM2
1609620-07RE1	Hg-CVAFS-S-SSE-F5	39			Added 11/9/2016 by DM2
1609620-09RE1	Hg-CVAFS-S-SSE-F5	40			Added 11/9/2016 by DM2
F610522-DUP2	QC	41			
6K10006-CCV8	QC	42	1605791		
6K10006-CCB8	QC	43			
6K10006-CCV9	QC	44	1605791		
6K10006-CCB9	QC	45			
6K10006-CCVA	QC	46	1605791		
6K10006-CCBA	QC	47			
6K10006-CCVB	QC	48	1605791		
6K10006-CCBB	QC	49			

Samples Loaded By Dan Myerson Date 11/9/16  
 Data Processed By Dan Myerson Date 11/13/16

**Failing Data Report - 6K10006**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F610522-DUP1	Hg-CVAFS-S-SSE-F5	2313	227	661.6	661.6		ng/g				111	25.00	PASS-OVER	FAIL-DUP	QR-07
6K10006-CCV5	Hg-CVAFS-S-SSE-F5	0.08	1.250			5.0000	ng/L	1.68	75.00	125.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10006-CCB5	Hg-CVAFS-S-SSE-F5	1.47	1.250				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

Don Moxem                      11/10/16  
 Analyst Reviewed By                      Date

Ryan M/L                      11/11/16  
 Peer Reviewed By                      Date

## ANALYSIS SEQUENCE

6K10005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-IBL1	QC	1			
6K10005-IBL2	QC	2			
6K10005-IBL3	QC	3			
6K10005-CAL1	QC	4	1605412		
6K10005-CAL2	QC	5	1605413		
6K10005-CAL3	QC	6	1605414		
6K10005-CAL4	QC	7	1605415		
6K10005-CAL5	QC	8	1605416		
6K10005-ICV1	QC	9	1605791		
6K10005-CCV1	QC	10	1605791		
6K10005-CCB1	QC	11			
6K10005-CCV2	QC	12	1605791		
6K10005-CCB2	QC	13			
6K10005-CCV3	QC	14	1605791		
6K10005-CCB3	QC	15			
6K10005-CCV4	QC	16	1605791		
6K10005-CCB4	QC	17			
6K10005-CCV5	QC	18	1605791		
6K10005-CCB5	QC	19			
6K10005-CCV6	QC	20	1605791		
6K10005-CCB6	QC	21			
6K10005-CCV7	QC	22	1605791		
6K10005-CCB7	QC	23			
6K10005-CCV8	QC	24	1605791		
6K10005-CCB8	QC	25			
6K10005-CCV9	QC	26	1605791		
6K10005-CCB9	QC	27			
F611244-BLK1	QC	28			
F611244-BLK2	QC	29			
F611244-BLK3	QC	30			
F611244-BLK4	QC	31			
F611244-BS1	QC	32			
F611244-BS2	QC	33			
F611244-BS3	QC	34			
F611244-BS4	QC	35			

ANALYSIS SEQUENCE

6K10005

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10005-CCVA	QC	36	1605791		
6K10005-CCBA	QC	37			
F611245-BLK1	QC	38			
F611245-BLK2	QC	39			
F611245-BLK3	QC	40			
F611245-BLK4	QC	41			
F611245-BS1	QC	42			
F611245-BS2	QC	43			
F611245-BS3	QC	44			
F611245-BS4	QC	45			
6K10005-CCVB	QC	46	1605791		
6K10005-CCBB	QC	47			

Samples Loaded By Don Norman Date 11/9/16

Data Processed By Don Norman Date 11/10/16

**Failing Data Report - 6K10005**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10005-CCV5	Hg_FSTM_TRAP_A	0.08	0.500			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	Wrong Location
6K10005-CCB5	Hg_FSTM_TRAP_A	1.47	0.500				ng/L						PASS-OVER	FAIL-CCB	Wrong Location

Don Moxem                      11/10/16  
 Analyst Reviewed By                      Date

[Signature]                      11/21/16  
 Peer Reviewed By                      Date

ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K10008-IBL1	QC	1			
6K10008-IBL2	QC	2			
6K10008-IBL3	QC	3			
6K10008-CAL1	QC	4	1605412		
6K10008-CAL2	QC	5	1605413		
6K10008-CAL3	QC	6	1605414		
6K10008-CAL4	QC	7	1605415		
6K10008-CAL5	QC	8	1605416		
6K10008-ICV1	QC	9	1605791		
F610492-BLK1	QC	10			
F610492-BLK2	QC	11			
F610492-BLK3	QC	12			
F610492-BS1	QC	13			
F610492-BSD1	QC	14			
F610492-BS2	QC	15			
1610232-27	Hg-CVAFS-T-7030	16			
1610232-28	Hg-CVAFS-T-7030	17			
1610232-29	Hg-CVAFS-T-7030	18			
1610232-30	Hg-CVAFS-T-7030	19			
6K10008-CCV1	QC	20	1605791		
6K10008-CCB1	QC	21			
1610232-31	Hg-CVAFS-T-7030	22			
1610232-32	Hg-CVAFS-T-7030	23			
1610232-33	Hg-CVAFS-T-7030	24			
1610232-34	Hg-CVAFS-T-7030	25			
1610232-35	Hg-CVAFS-T-7030	26			
1610232-36	Hg-CVAFS-T-7030	27			
1610232-37	Hg-CVAFS-T-7030	28			
1610232-38	Hg-CVAFS-T-7030	29			
1610232-39	Hg-CVAFS-T-7030	30			
1610232-40	Hg-CVAFS-T-7030	31			
6K10008-CCV2	QC	32	1605791		
6K10008-CCB2	QC	33			
1610232-41	Hg-CVAFS-T-7030	34			
1610232-42	Hg-CVAFS-T-7030	35			

Due Date: 11/2/2016

ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1610233-01	Hg-CVAFS-T-7030	36			
1610234-01	Hg-CVAFS-T-7030	37			
1610234-02	Hg-CVAFS-T-7030	38			
1610234-03	Hg-CVAFS-T-7030	39			
F610492-DUP1	QC	40			
F610492-MS1	QC	41			
F610492-MSD1	QC	42			
F610492-MS2	QC	43			
6K10008-CCV3	QC	44	1605791		
6K10008-CCB3	QC	45			
F610492-MSD2	QC	46			
1610232-35RE1	Hg-CVAFS-T-7030	47			Added 11/9/2016 by DM2
1610232-36RE1	Hg-CVAFS-T-7030	48			Added 11/9/2016 by DM2
1610233-01RE1	Hg-CVAFS-T-7030	49			Added 11/9/2016 by DM2
1610234-01RE1	Hg-CVAFS-T-7030	50			Added 11/9/2016 by DM2
1610234-02RE1	Hg-CVAFS-T-7030	51			Added 11/9/2016 by DM2
1610234-03RE1	Hg-CVAFS-T-7030	52			Added 11/9/2016 by DM2
F610492-DUP2	QC	53			
6K10008-CCV4	QC	54	1605791		
6K10008-CCB4	QC	55			
6K10008-CCV5	QC	56	1605791		
6K10008-CCB5	QC	57			
6K10008-CCV6	QC	58	1605791		
6K10008-CCB6	QC	59			
6K10008-CCV7	QC	60	1605791		
6K10008-CCB7	QC	61			
6K10008-CCV8	QC	62	1605791		
6K10008-CCB8	QC	63			
6K10008-CCV9	QC	64	1605791		
6K10008-CCB9	QC	65			
6K10008-CCVA	QC	66	1605791		
6K10008-CCBA	QC	67			
6K10008-CCVB	QC	68	1605791		
6K10008-CCBB	QC	69			

ANALYSIS SEQUENCE

6K10008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/9/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
Don Myerson					
Samples Loaded By					
	11/9/16				
Date					
Don Myerson					
Data Processed By					
	11/10/16				
Date					



**Failing Data Report - 6K10008**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
6K10008-CCV5	Hg-CVAFS-T-7030	0.084	2.000			5.0000	ng/L	1.68	77.00	123.00			PASS-OVER	FAIL-CCV	wrong location

    Dan Maceen                          11/10/16  
 Analyst Reviewed By                      Date

    Ryan N/L                          11/21/16  
 Peer Reviewed By                      Date

**PREPARATION BENCH SHEET**

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					
F611245-BLK2	Blank	1	40					
F611245-BLK3	Blank	1	40					
F611245-BLK4	Blank	1	40					
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00 03-Apr-17 00:00	1602941 1605635 1605636 1606221 1606367 1606370	25% Hydroxylamine-HCl working solution THg Dilute 1% BrCl THg Washstation (0.5% BrCl) 70/30 Digestion Acid 5% BrCl 3% SnCl2 THg reductant	03-Dec-16 00:00 09-Feb-17 00:00 03-Dec-16 00:00 22-Apr-17 00:00 26-Mar-17 00:00 20-Apr-17 00:00

FSTM Lot Testing 161102B

**PREPARATION BENCH SHEET**

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					
F611244-BLK2	Blank	1	40					
F611244-BLK3	Blank	1	40					
F611244-BLK4	Blank	1	40					
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			

<u>Standard ID(s):</u> 1605712	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 03-Apr-17 00:00 03-Apr-17 00:00	<u>Reagent ID(s):</u> 1602941 1605635 1605636 1606221 1606367 1606370	<u>Description:</u> 25% Hydroxylamine-HCl working solution THg Dilute 1% BrCl THg Washstation (0.5% BrCl) 70/30 Digestion Acid 5% BrCl 3% SnCl2 THg reductant	<u>Expiration:</u> 03-Dec-16 00:00 09-Feb-17 00:00 03-Dec-16 00:00 22-Apr-17 00:00 26-Mar-17 00:00 20-Apr-17 00:00
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FSTM Lot Testing 161102A

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					
F610492-BLK2	Blank	0.25	20					
F610492-BLK3	Blank	0.25	20					
F610492-BS1	LCS	0.25	20	1605270	20			
F610492-BS2	LCS	0.1252	20	1605470	125.2			
F610492-BSD1	LCS Dup	0.25	20	1605270	20			
F610492-DUP1	Duplicate [1610233-01RE1]	0.2557	20					
F610492-DUP2	Duplicate [1610233-01RE1]	0.2557	20					
F610492-MS1	Matrix Spike [1610233-01RE1]	0.2583	20	1605712	100			
F610492-MS2	Matrix Spike [1610234-01RE1]	0.2593	20	1605712	100			
F610492-MSD1	Matrix Spike Dup [1610233-01RE1]	0.2676	20	1605712	100			
F610492-MSD2	Matrix Spike Dup [1610234-01RE1]	0.2676	20	1605712	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00
			1606500		

**PREPARATION BENCH SHEET**

F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	-	-	-		
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	-	-	-		
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	-	-	-		
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	-	-	-		
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	-	-	-		
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	-	-	-		
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	-	-	-		
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	-	-	-		
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-		
1610232-35RE1	OB-01_092116_RAS_WB_14	0.2645	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-		
1610232-36RE1	OB-01_092116_RAS_WB_15	0.2619	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	-	-	-		
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	-	-	-		
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	-	-	-		
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	-	-	-		
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	-	-	-		
1610232-42	OB-05_092116_RAS_WB_01	0.264	20	-	-	-		
1610233-01	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD	

**PREPARATION BENCH SHEET**

F610492

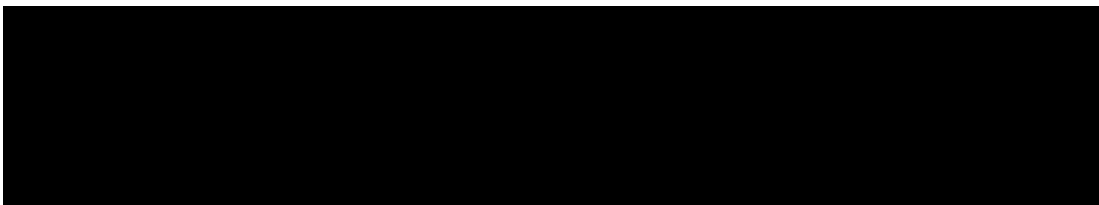
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**

1610233-01RE1	FRB-01_092916_TOM_WB_01	0.2529	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD	
1610234-01RE1	FRB-01_092816_MUM_WB_01	0.2562	20	QC	-	-	MS/MSD Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-		
1610234-02RE1	FRB-01_092816_MUM_WB_02	0.2577	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-		
1610234-03RE1	FRB-01_092816_MUM_WB_03	0.2686	20	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

F610522

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					
F610522-BLK2	Blank	0.25	40					
F610522-BLK3	Blank	0.25	40					
F610522-BS1	LCS	0.25	40	1605270	40			
F610522-BSD1	LCS Dup	0.25	40	1605270	40			
F610522-DUP1	Duplicate [1609620-03]	0.256	40					
F610522-DUP2	Duplicate [1609620-03]	0.258	40					
F610522-MS1	Matrix Spike [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->40mL; 40mL->40mL; Spiked 0.02mL.
F610522-MSD1	Matrix Spike Dup [1609620-01]	0.00013	0.02	1605272	25			[Spk] 0.26g->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>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605815	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00
			1606465	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610522

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5**

**Prepared: 11/4/2016**

Lab Number	Sample ID	Initial (g)	Final (ml.)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	40	-	-	-		
1609620-02RE1	Sand-Na25-2-bottom	0.258	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-03	Sand-Na25-3-bottom	0.258	40	-	-	-		
1609620-07	Hg0	0.263	40	-	-	-		
1609620-07RE1	Hg0	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-08	HgS	0.256	40	-	-	-		
1609620-09	Hg2Cl2	0.263	40	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	40	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2





**PREPARATION BENCH SHEET**

F610521

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					
F610521-BLK2	Blank	0.25	125					
F610521-BLK3	Blank	0.25	125					
F610521-BS1	LCS	0.002	1	1604715	100			
F610521-BSD1	LCS Dup	0.002	1	1604715	100			
F610521-DUP1	Duplicate [1609620-03]	0.256	125					
F610521-DUP2	Duplicate [1609620-03]	0.258	125					
F610521-MS1	Matrix Spike [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; Spiked 0.05mL
F610521-MSD1	Matrix Spike Dup [1609620-01]	0.000104	0.05	1605272	100			[Spk] 0.26g->125mL; 125mL->125mL; 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>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605635	THg Dilute 1% BrCl	09-Feb-17 00:00
			1605636	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1605838	12N HNO3	05-Apr-17 00:00
			1606370	3% SnCl2 THg reductant	20-Apr-17 00:00

**PREPARATION BENCH SHEET**

F610521

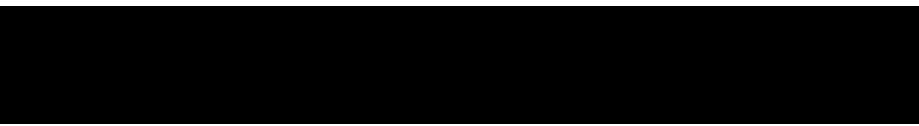
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 11/3/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	-	-	-		
1609620-02	Sand-Na25-2-bottom	0.258	125	-	-	-		
1609620-03	Sand-Na25-3-bottom	0.258	125	-	-	-		
1609620-07	Hg0	0.263	125	-	-	-		
1609620-08	HgS	0.256	125	-	-	-		
1609620-08RE1	HgS	0.256	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2
1609620-09	Hg2Cl2	0.263	125	-	-	-		
1609620-09RE1	Hg2Cl2	0.263	125	-	-	-	Added 11/9/2016 by DM2	Added 11/9/2016 by DM2



**PREPARATION BENCH SHEET**

200.3

11/9/16 DM

F611245

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611245-BLK1	Blank	1	40					100x
F611245-BLK2	Blank	1	40					100x
F611245-BLK3	Blank	1	40					100x
F611245-BLK4	Blank	1	40					100x
F611245-BS1	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS2	FSTM Lot Testing 161102B	1	40	1605712	20			100x
F611245-BS3	FSTM Lot Testing 161102B	1	40	1605712	200			500x
F611245-BS4	FSTM Lot Testing 161102B	1	40	1605712	200			500x

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

FSTM Lot Testing 161102B

1602941  
 1605636  
 1605635  
 1606379

**Trap Digestions**

Date: 11/3/16

Batch ID: F611245

Name: AMB

Work Order(s): N/A

Analysis:  Total Hg

Other

Sample Matrix:  FSTM  KCl  PHg Plug  Other

Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAS-T-AFS-SOP2985)

start time: 1640, start temp (°C): 550 (raw) 576 (w/ CF)

end time: 1840, end temp (°C): 580 (raw) 576 (w/ CF) Timer?  Yes  No

5% BrCl Oxidation (EFGS-031) start time: \_\_\_\_\_ (allow samples to sit for at least 4 hr before analysis)

Sample ID Number	Digest vol. (mL)
F611245-BLK1	40
F611245-BLK2	40
F611245-BLK3	40
F611245-BLK4	40
F611245-BS1	40
F611245-BS2	40
F611245-BS3	40
F611245-BS4	40

Spike ID: 1605712  
 Spike Amount (µL): See below  
 Spike Witness: AMB 11/3/16  
 BrCl ID: 1606307  
 70/30: 1606221  
 Other: N/A  
 Thermometer: 13698  
 Dispensers: 02K27494  04N73497   
 Other: 0222159 5i.BrCl  
 Pipette ID: M411619  
~~00065946~~ AMB  
 Cal. Date: 10/30/16 11/3/16  
 Vials and Jars lot# 00065946  
 Trap Material Lot#: 1606450  
 Loader Mass Verified:  Yes  No N/A  
AMB 11-3-16

Comments:  
 FSTM Lot testing  
 161102B  
 LIMS: 1606450  
 AMB 11/3/16  
 BS 1+2: spike round  
 of LIMS  
 BS 3+4: spike 200µl  
 of LIMS  
 AMB 11-3-16

**PREPARATION BENCH SHEET**

2600-3

11/9/16 DM

F611244

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/3/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611244-BLK1	Blank	1	40					100X
F611244-BLK2	Blank	1	40					100X
F611244-BLK3	Blank	1	40					100X
F611244-BLK4	Blank	1	40					100X
F611244-BS1	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS2	FSTM Lot 161102A testing	1	40	1605712	20			100X
F611244-BS3	FSTM Lot 161102A testing	1	40	1605712	200			500X
F611244-BS4	FSTM Lot 161102A testing	1	40	1605712	200			500X

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 03-Apr-17 00:00  
 03-Apr-17 00:00

Reagent ID(s): 1606221, 1606367  
Description: 70/30 Digestion Acid, 5% BrCl

Expiration:  
 22-Apr-17 00:00  
 26-Mar-17 00:00

FSTM Lot Testing 161102A

1602041  
 1605636  
 1605635  
 1606370

Trap Digestions

Name: AMRB

Date: 11/3/16

Batch ID: FG11244

Work Order(s): N/A

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: 1640, start temp (°C): 55.0 (raw) 54.6 (w/CF)

end time: 1840, end temp (°C): 58.0 (raw) 57.6 (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)

FG11244-BLK1 40

FG11244-BLK2 40

FG11244-BLK3 40

FG11244-BLK4 40

FG11244-BL1 40

FG11244-BL2 40

FG11244-BL3 40

FG11244-BL4 40

Spike ID: 1605712  
Spike Amount (µL): see below  
Spike Witness: 11/4/16  
BrCl ID: 1606367  
70/30: 1606221  
Other: N/A

Thermometer: 13698

Dispensers: 02K27494

04N73497

Other 0222159 5% BrCl

Pipette ID: MN11619

Cal. Date: 10/30/16

Vials and Jars lot#: 00065946

Trap Material Lot#: 1606449

Loader Mass Verified:  Yes  No N/A  
AMRB 11-3-16

Comments:

ESTM Lot testing  
161102A  
LIMS: 1606449

AMRB 11/3/16

BS 1 + 2: spike 200ul  
of LIMS

BS 3 + 4: spike 200ul  
of LIMS

AMRB 11-3-16

PREPARATION BENCH SHEET

2600-3  
11/9/16 DM

F610522

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610522-BLK1	Blank	0.25	40					20X
F610522-BLK2	Blank	0.25	40					20X
F610522-BLK3	Blank	0.25	40					20X
F610522-BS1	LCS	0.25	40	1605270	40			20X
F610522-BSD1	LCS Dup	0.25	40	1605270	40			20X
F610522-DUP1	Duplicate [1609620-03]	0.256	40					2500X
F610522-MS1	Matrix Spike 1609620-01	0.25	40	1605272	25			2500X
F610522-MSD1	Matrix Spike Dup 1609620-01	0.25	40	1605272	25			2500X

Standard ID(s): 1605270  
Description: THg 100ng/mL Primary Spiking Standard

Expiration: 10-Dec-16 00:00

Reagent ID(s): 1603399, 1605815, 1606137, 1606465  
Description: Boiling Chips for AFS prep, Fisher Nitric Acid, Tracemetal Grade, Omnitrace Hydrochloric Acid, 5% BrCl

Expiration: 01-Jun-17 00:00, 24-Mar-18 00:00, 13-Oct-19 00:00, 19-Apr-17 00:00

DUP1 - AD 2500X  
Source 1609620-03

1602041  
1605636  
1605635  
1606570

PREPARATION BENCH SHEET

200.3

11/9/16 DM

F610522

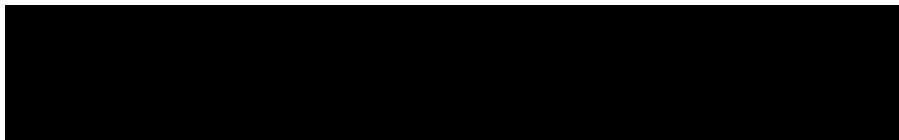
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-5

Prepared: 11/4/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	40	No	2500X
1609620-02	Sand-Na25-2-bottom	0.258	40	No	2500X → 500X
1609620-03	Sand-Na25-3-bottom	0.258	40	No	2500X
1609620-07	Hg0	0.263	40	No	DM 11/9/16 → 250,000X → 500X
1609620-08	HgS	0.256	40	No	250,000X
1609620-09	Hg2Cl2	0.263	40	No	250,000X → 2500X





Technician: MPM

Batch #: F610518

Date: 10/31/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CMAFS-S-SS-E-Flthorough F5

Vial Type:  Glass  Teflon

Balance #: 16 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

Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)

Spike Witness: SM 11/1/16 (initial and date) Pipette SN: 1605270

F-2 - PH2  
 MPM Her LIMS ID: 1605712 Pipette SN: 1605712 Calibration Date: 11/6/16 MPM  
 MPM F1 B-C1  
 MPM F1 LIMS ID: 1601163 Pipette SN: NU01049 Calibration Date: 10/30/16 MPM  
 MPM F2 B-C1  
 MPM F2 LIMS ID: 1601163 Pipette SN: NU01049 Calibration Date: 10/30/16 MPM  
 MPM F3 Kof  
 MPM F3 LIMS ID: 1605821 Pipette SN: NV01049 Calibration Date: 10/30/16 MPM  
 MPM Other Acid LIMS ID: 1605821 Pipette SN: NV01049 Calibration Date: 10/30/16 MPM  
 Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*Hotblock Position: N/A

Vial #	Sample ID Number	Sample Size mL <input type="checkbox"/> g <input checked="" type="checkbox"/>	Vial #	Sample ID Number	Sample Size mL <input type="checkbox"/> g <input type="checkbox"/>	CRM LIMS ID <input type="checkbox"/> NA <input type="checkbox"/>
1	F610518-B1K1	0.254	23			1605057
2	F610518-B1K2	0.265	24			1605058
3	F610518-B1K3	0.267	25			1605059
4	1609620-01	0.260	26			
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			
7	F610518-D1P(1609620-03)	0.256	29			F2 Batch # F610519
8	1609620-07	0.263	30			F3 Batch # F610520
9	1609620-08	0.256	31			F4 Batch # F610521
10	1609620-09	0.263	32			F5 Batch # F610522
11			33			MPM 10/28/16
12			34			F3 B-C1 1605634 MPM 11/1/16
13			35			F4 12NHW03 1605838
14			36			F4 B-C1 1605634 MPM 11/1/16
15			37			F4 Pipette NU01049
16			38			cal. 10/30/16
17			39			F5 boiling chips #
18			40			1603399
19			41			balance 19 cal. yes
20			42			BS1 0.2670g
21			43			BSD1 0.2488g
22			44			HCl 1606137

Comments:  
 F2 Batch # F610519  
 F3 Batch # F610520  
 F4 Batch # F610521  
 F5 Batch # F610522  
 MPM 10/28/16  
 1609620-07: HgO  
 1609620-08: HgS  
 1609620-09: Hg<sub>2</sub>Cl<sub>2</sub>  
 MPM 10/31/16  
 F3 B-C1 1605634 MPM 11/1/16  
 F4 12NHW03 1605838  
 F4 B-C1 1605634 MPM 11/1/16  
 F4 Pipette NU01049  
 cal. 10/30/16  
 F5 boiling chips #  
 1603399  
 balance 19 cal. yes  
 BS1 0.2670g  
 BSD1 0.2488g  
 HCl 1606137  
 Dispenser 6/1/2/3  
 1605815  
 Dispenser 05/1/8/12  
 Vial # 00065276  
 11/4/16 MPM  
 F5 F610522  
 B-C1: 1606465  
 dispenser: 022159  
 AMB 11/7/16

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610521

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610521-BLK1	Blank	0.25	125					50X
F610521-BLK2	Blank	0.25	125					50X
F610521-BLK3	Blank	0.25	125					50X
F610521-BS1	LCS 0.002	0.25	125	1604715	100			50X
F610521-BSD1	LCS Dup 0.002	0.25	125	1604715	100			50X
F610521-DUP1	Duplicate [1609620-03]	0.256	125					2500X
F610521-MS1	Matrix Spike 1609620-01	0.25	125	1605272	100			1000X
F610521-MSD1	Matrix Spike Dup 1609620-01	0.25	125	1605272	100			1000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1605634	0.2 N BRCL SEPTEMBER 2016	26-Mar-17 00:00
			1605838	12N HNO3	05-Apr-17 00:00

DUP2 - AD 2500X  
Source 1609620-03

1602941  
1605636  
1605635  
1606370

PREPARATION BENCH SHEET

2600-3

F610521

11/9/16 DM

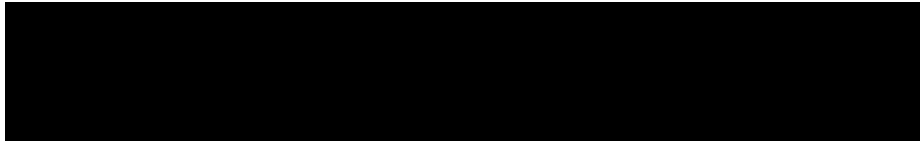
Euofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 11/3/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1609620-01	Sand-Na25-1-bottom	0.26	125	No	1000X
1609620-02	Sand-Na25-2-bottom	0.258	125	No	1000X
1609620-03	Sand-Na25-3-bottom	0.258	125	No	2500X
1609620-07	Hg0	0.263	125	No	500X
1609620-08	HgS	0.256	125	No	250,000X → 10,000X
1609620-09	Hg2Cl2	0.263	125	No	500X → 250,000X



Technician: MPM Batch #: F410518 Date: 10/31/16

EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.

EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.

EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).

EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: Hg-CMAES-S-SSE-Fl through F5

Vial Type:  Glass  Teflon

Balance #: 6 Calibrated?  Yes  No Therm. #: N/A Calibrated?  Yes  No

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

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

Final vol.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1605270)

Spike Witness: MPM 11/1/16 (initial and date) Pipette # NU01049 cal. 10/30/16

F-2 - PH2

MPM Pipette SN#: 44411607 Calibration Date: 11-6-16 MPM 11/1/16

MPM F1 B/C1 Pipette SN#: NU01049 Calibration Date: 10/30/16 MPM 11/1/16

MPM F2 B/C1 Pipette SN#: NU01049 Calibration Date: 10/30/16 MPM 11/1/16

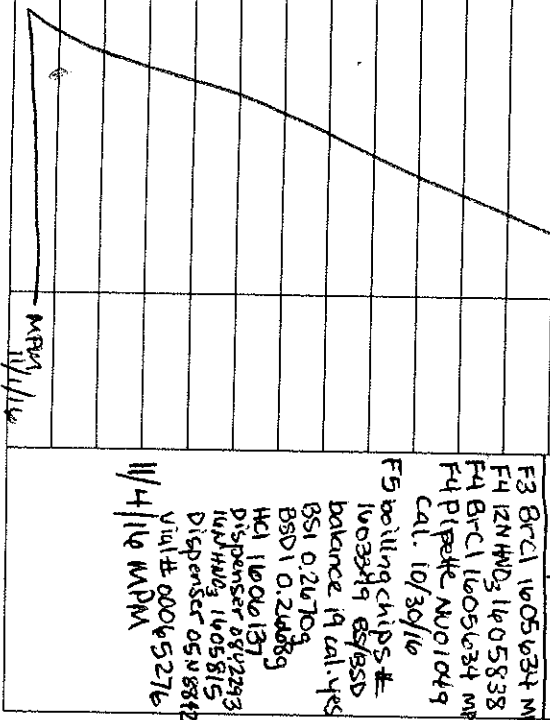
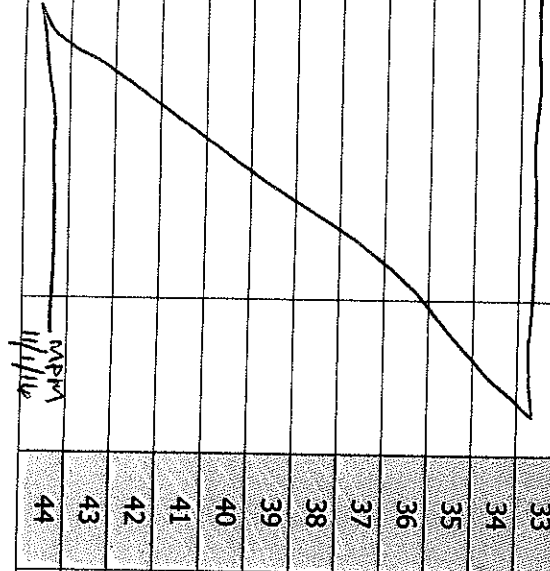
MPM F3 B/C1 Pipette SN#: NU01049 Calibration Date: 10/30/16 MPM 11/1/16

MPM F3 KOH Pipette SN#: NU01049 Calibration Date: 10/30/16 MPM 11/1/16

MPM Other Add: LIMS ID: 1605821 MPM F3 Pipette Dispenser #: NV01049 cal. yes

Glass Vial # N/A Teflon Boiling Chip lot # 1603399 \*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 type="checkbox"/> NA
1	F410518-BIK1	0.254	23			1605057
2	F410518-BIK2	0.245	24			1605058
3	F410518-BIK3	0.247	25			1605059
4	1609620-01	0.260	26			
5	1609620-02	0.258	27			
6	1609620-03	0.258	28			F2 Batch # F410519
7	F410518-Dupl(1609620-03)	0.256	29			F3 Batch # F410520
8	1609620-07	0.243	30			F4 Batch # F410521
9	1609620-08	0.256	31			F5 Batch # F410522
10	1609620-09	0.263	32			MPM 10/28/16
11			33			1609620-07: HgO
12			34			1609620-08: HgS
13			35			1609620-09: HgCl <sub>2</sub>
14			36			MPM 10/31/16
15			37			F3 B/C1 1605634 MPM 11/1/16
16			38			F4 IZN HD <sub>2</sub> 1605838
17			39			F4 B/C1 1605634 MPM 11/1/16
18			40			F4 Pipette NU01049
19			41			cal. 10/30/16
20			42			F5 boiling chips #
21			43			1603399 65/BSD
22			44			balance 19 cal. yes



Comments

F2 Batch # F410519

F3 Batch # F410520

F4 Batch # F410521

F5 Batch # F410522

MPM 10/28/16

1609620-07: HgO

1609620-08: HgS

1609620-09: HgCl<sub>2</sub>

MPM 10/31/16

F3 B/C1 1605634 MPM 11/1/16

F4 IZN HD<sub>2</sub> 1605838

F4 B/C1 1605634 MPM 11/1/16

F4 Pipette NU01049

cal. 10/30/16

F5 boiling chips #

1603399 65/BSD

balance 19 cal. yes

BS1 0.2670g

BSD1 0.2448g

HCl 1604137

Dispenser # 842293

NU01049 1605815

Dispenser # 5118842

Vial # 60045276

11/4/16 MPM

PREPARATION BENCH SHEET

200-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F610492-BLK1	Blank	0.25	20					20X
F610492-BLK2	Blank	0.25	20					20X
F610492-BLK3	Blank	0.25	20					20X
F610492-BS1	LCS	0.25	20	1605270	20			20X
F610492-BS2	LCS	0.1252	20	1605470	125.2			500X
F610492-BSD1	LCS Dup	0.25	20	1605270	20			20X
F610492-DUP1	Duplicate [1610233-01] RE1	0.2557	20					500X
F610492-MS1	Matrix Spike [1610233-01] RE1	0.2583	20	1605712	100			500X
F610492-MS2	Matrix Spike [1610234-01] RE1	0.2593	20	1605712	100			500X
F610492-MSD1	Matrix Spike Dup [1610233-01] RE1	0.2676	20	1605712	100			500X
F610492-MSD2	Matrix Spike Dup [1610234-01] RE1	0.2676	20	1605712	100			500X

Standard ID(s):  
 1605270 THg 100ng/mL Primary Spiking Standard  
 1605470 DORM-4  
 1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
 10-Dec-16 00:00  
 19-Mar-17 00:00  
 03-Apr-17 00:00

Reagent ID(s):  
 1603399 Boiling Chips for AFS prep  
 1606221 70/30 Digestion Acid  
 1606465 5% BrCl  
 1606500

Expiration:  
 01-Jun-17 00:00  
 22-Apr-17 00:00  
 19-Apr-17 00:00

DUP2 - 100X  
 re-run of DUP1

1602941  
 1605636  
 1605635  
 1605670

Due Date: 11/2/2016

Past due - Rush Analysis

PREPARATION BENCH SHEET

2600-3

11/9/16 DM

F610492

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/7/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1610232-27	OB-01_092116_RAS_WB_06	0.2948	20	No	500X
1610232-28	OB-01_092116_RAS_WB_07	0.2663	20	No	500X
1610232-29	OB-01_092116_RAS_WB_08	0.2678	20	No	500X
1610232-30	OB-01_092116_RAS_WB_09	0.2694	20	No	500X
1610232-31	OB-01_092116_RAS_WB_10	0.2624	20	No	500X
1610232-32	OB-01_092116_RAS_WB_11	0.2667	20	No	500X
1610232-33	OB-01_092116_RAS_WB_12	0.2502	20	No	500X
1610232-34	OB-01_092116_RAS_WB_13	0.2557	20	No	500X
1610232-35	OB-01_092116_RAS_WB_14	0.2645	20	No	500X → 100X
1610232-36	OB-01_092116_RAS_WB_15	0.2619	20	No	500X → 100X
1610232-37	OB-01_092116_RAS_WB_16	0.2694	20	No	500X
1610232-38	OB-01_092116_RAS_WB_17	0.2695	20	No	500X
1610232-39	OB-01_092116_RAS_WB_18	0.2674	20	No	500X
1610232-40	OB-01_092116_RAS_WB_19	0.2583	20	No	500X
1610232-41	OB-01_092116_RAS_WB_20	0.2629	20	No	500X
1610232-42	OB-05_092116_RAS_WB_01	0.264	20	No	500X
1610233-01	FRB-01_092916_TOM_WB_01	0.2529	20	No	500X → 100X
1610234-01	FRB-01_092816_MUM_WB_01	0.2562	20	No	500X → 20X
1610234-02	FRB-01_092816_MUM_WB_02	0.2577	20	No	500X → 20X
1610234-03	FRB-01_092816_MUM_WB_03	0.2686	20	No	500X → 20X

**PREPARATION BENCH SHEET**

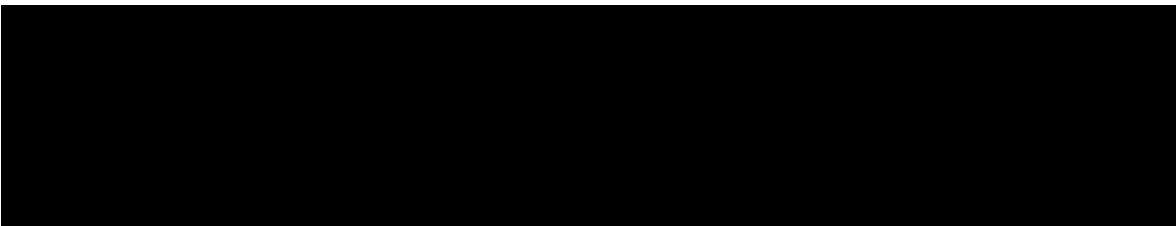
F610492

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/7/2016**



Technician: Dwyer/MPM Batch#: F610492 Date: 11/7/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 1535 <sup>15/11/16</sup> Actual Temp. (raw): 90 °C w/ CF: 79.7 °C Calibrated?  Yes  No

Time out: 1745 <sup>17/11/16</sup> Actual Temp. (raw): 85 °C w/ CF: 84.7 °C

Final vol.: 20 mL (LIMS ID: 1610492/160501) Spike vol.: 100 µL (LIMS ID: 1605712)

Spike Witness: pm 11/7/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11607 Calibration Date: 11/7/16

HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1604221 Dispenser #: 02K27494 Calibrated?  Yes  No

Other Acid LIMS ID: N/A Dispenser #: 0222159 Cal. yes

Glass Vial # DDV51688 Boiling Chip lot # 1603329 \*Hotblock Position: D16

Vial #	Sample ID Number	Sample Size mL <input type="checkbox"/> g <input checked="" type="checkbox"/>	Vial #	Sample ID Number	Sample Size mL <input type="checkbox"/> g <input checked="" type="checkbox"/>	CRM LIMS ID <input type="checkbox"/> NA <input checked="" type="checkbox"/>
1	F610492 Blank1	0.2510	23	1610232-38	0.2695	DORM-4 BS2 1605470
2	F610492 Blank2	0.2738	24	1610232-39	0.2674	
3	F610492 Blank3	0.2503	25	1610232-40	0.2583	
4	F610492 BS1	0.2612	26	1610232-41	0.2629	
5	F610492 BS01	0.2819	27	1610232-42	0.2640	
6	F610492 BS2	0.1252	28	1610233-01	0.2529	BS1. BS01 = 100µg/L = 20µL 1605270
7	F610492 Dup1	0.2551	29	1610234-01	0.2502	Dup1 / NS/MS01
8	F610492 NS1	0.2583	30	1610234-02	0.2571	1610233-01
9	F610492 MS01	0.2676	31	1610234-03	0.2680	MS2 MS02 1610234-01
10	F610492 MS2	0.2593	32			
11	F610492 MS02	0.2676	33			
12	1610232-27	0.2948	34			
13	1610232-28	0.2663	35			
14	1610232-29	0.2478	36			
15	1610232-30	0.2694	37			
16	1610232-31	0.2624	38			
17	1610232-32	0.2667	39			
18	1610232-33	0.2502	40			
19	1610232-34	0.2557	41			
20	1610232-35	0.2445	42			
21	1610232-36	0.2419	43			
22	1610232-37	0.2694	44			MPM 11/7/16



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

Analyst: DON MORAN *DM* Sequence(s) #: 6K10008, 6K10007, 6K10006, 6K10005  
 Reviewer: Kyle Dataset ID(s): THG26003-161109-1  
 Date: 11/10/2016 WO (s) #: 1610232, 1610233, 1610234, 1609620  
 Batch #(s): F611245, F611244, F610492, F610522, F610521

• Select the correct preparation method.

Analyte	Prep. Method	Matrix
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-SOP2885	FSTM Trap 70:30 Digest Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb-HF/HNO3/HCl Digest Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input checked="" type="checkbox"/> THg	EFAFS-T-AFS-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 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: h

1. Compare SampleID with Benchsheet/Sequence/Raw Data (Have all samples been imported?)  
 YES  NO  YES  NO  YES  NO
2. Check for transcription errors from Excel spreadsheet (or Prep Benchsheet)/Raw data  
 (a) On raw data (instrument print-out), does correct file (dataset ID#) name appear in description?  
 YES  NO  YES  NO  YES  NO

Naming convention: THg26001-yymmdd-1 or THg26002-yymmdd-1

- (b) Check 5% of transcription from instrument print-out and Excel file  
 Compare the "Dilute" and "Peak (raw)" columns to "Dilution" and "Uncorrected Result" in Excel  
 YES  NO  YES  NO  YES  NO
- (c) Check standards & reagents in sequence & bench sheet for correct usage (expiries).  
 YES  NO  YES  NO  YES  NO  YES  NO
- (d) Check and compare masses (review prep benchsheet)  
 YES  NO  YES  NO  YES  NO  YES  NO
- (e) Check & compare initial & final volumes  
 YES  NO  YES  NO  YES  NO  YES  NO
- (f) Do aliquots and dilutions written on benchsheet match those in Excel?  
 50 ml / aliquot = Excel dilution value  
 YES  NO  YES  NO  YES  NO  YES  NO

- (g) Is the sequence #, analyst, date, and instrument # on the QC page?  
 YES  NO  YES  NO  YES  NO  YES  NO
- (h) Is the analysis status correct? (analyzed/initial review/reviewed)  
 YES  NO  YES  NO  YES  NO  YES  NO
- (i) Original prep bench sheet added to data package?  
 YES  NO  YES  NO  YES  NO  YES  NO
- (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)  
 YES  NO  YES  NO  YES  NO  YES  NO

3. High QA? WO#(s)/Client(s): \_\_\_\_\_

4. Client specific QC? (if Yes, refer to Project Notes/LIMS)  
 (a) Have the QC requirements been met for all WO#s?  
 YES  NO  YES  NO  YES  NO  YES  NO

(b) Prep blanks corrections/assigned properly  
 YES  NO  YES  NO  YES  NO  YES  NO

5a. 20 or fewer samples in batch?  
 YES  NO  YES  NO  YES  NO  YES  NO

(i) 3 PBs, 1 LCS(or BS), 1 LCS(D or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples?  
 YES  NO  YES  NO  YES  NO  YES  NO

ii) 1 CCV and 1 CCB every 10 analytical runs?  
 YES  NO  YES  NO  YES  NO  YES  NO

**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>	6K10008, 6K10007, 6K10006, 6K10005
<b>Reviewer:</b>	0 <i>Log M</i>	<b>Dataset ID(s):</b>	THG26003-161109-1
<b>Date:</b>	11/10/2016	<b>WO (s) #:</b>	1610232, 1610233, 1610234, 1609620
<b>Batch #(s):</b>	F611245, F611244, F610492, F610522, F610521		0

**Analyst Initials** DM      **Reviewer Initials** LM

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 % Recovers EPA 1631E (75-125%)       PASS     FAIL   

9. ICV and CCV % Recovers 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: SEQ-CCV5 FAILED. WRONG LOCATION. 1609620-09 HIGH SAMPLE. F610521-DUP1 HIGH RPD. F610522-DUP1 FAILED. HIGH RPD. SEQ-CCB5 FAILED. WRONG LOCATION

13. Are the individual Preparation Blanks < PQL or <2.xMDL for WI (refer to appropriate prep method PQL list)       PASS     FAIL   

(a) If not < PQL or <2.xMDL for WI, note which PB(s) are above control limit:       YES     NO   

(b) Is the mean PB < PQL or <2.xMDL for WI (for appropriate qualification)?       YES     NO     N/A   

(c) Was a BrCl Blank analyzed for each preservation level?       YES     NO   

(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.xMDL 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: SEQ-CCB5 FAILED. WRONG LOCATION

17. Have Total Solids been applied? (if NO, please ensure that they are done or nearly done)       YES     NO     N/A   

18. Is the correct 'Source' designated for MD/MS/MSD?       YES     NO   

19. For digested preps: was there a spike witness signature & date on the prep bench sheet?       YES     NO     N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K10008, 6K10007, 6K10006, 6K10005
Reviewer:	0 <i>by NW</i>	Dataset ID(s):	THG26003-161109-1
Date:	11/10/2016	WO (s) #:	1610232, 1610233, 1610234, 1609620
Batch #(s):	F611245, F611244, F610492, F610522, F610521		0

Analyst Initials DM Reviewer Initials NW

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\IDOCs
36. Date of analyst IDOC/CDC 12/16/2015 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: 7/7/2016 LOD within last 3 months?  YES  NO
39. Date of LOQ: 7/7/16, 7/8/16 LOQ within last 3 months?  YES  NO
- Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**





Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

17 January 2017

Denise King

AMEC Foster Wheeler Chelmsford Maine - Penobscot

271 Mill Road,

Chelmsford, MAINE 01824

RE: Maine Lobster And Crab Special Project 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall

Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SVE-01_092416_LOB_TA_01	1611255-01	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_02	1611255-02	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_03	1611255-03	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_04	1611255-04	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_05	1611255-05	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_06	1611255-06	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_07	1611255-07	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_08	1611255-08	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_09	1611255-09	Tissue	24-Sep-16 12:17	28-Oct-16 09:40
SVE-01_092416_LOB_TA_10	1611255-10	Tissue	24-Sep-16 12:38	28-Oct-16 09:40
SVE-01_092416_LOB_TA_11	1611255-11	Tissue	24-Sep-16 12:38	28-Oct-16 09:40
SVE-01_092416_LOB_TA_12	1611255-12	Tissue	24-Sep-16 12:38	28-Oct-16 09:40
SVE-01_092416_LOB_TA_13	1611255-13	Tissue	24-Sep-16 12:38	28-Oct-16 09:40
SVE-01_092416_LOB_TA_14	1611255-14	Tissue	24-Sep-16 12:38	28-Oct-16 09:40
SVE-01_092416_LOB_TA_15	1611255-15	Tissue	24-Sep-16 12:38	28-Oct-16 09:40
SVE-01_092416_LOB_TA_16	1611255-16	Tissue	24-Sep-16 12:52	28-Oct-16 09:40
SVE-01_092416_LOB_TA_17	1611255-17	Tissue	24-Sep-16 12:57	28-Oct-16 09:40
SVE-01_092416_LOB_TA_18	1611255-18	Tissue	24-Sep-16 12:57	28-Oct-16 09:40
SVE-01_092416_LOB_TA_19	1611255-19	Tissue	24-Sep-16 12:57	28-Oct-16 09:40
SVE-01_092416_LOB_TA_20	1611255-20	Tissue	24-Sep-16 12:57	28-Oct-16 09:40

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King**Reported:**  
17-Jan-17 07:57

## REVISED REPORT (1/17/17)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631B.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/28/2016 9:40:00 AM . The samples were received intact, on-ice within a sealed cooler at -49.6 degrees Celsius.

## SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted, and the samples' sex was determined. The tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B. Total solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction which may be outside of the method recommended holding time of 7 days from sample collection.

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

## ANALYTICAL AND QUALITY CONTROL ISSUES

Client requested that sample 1611255-09 be used as the source QC for the MS/MSD. Samples were prepped in one batch for Mercury, F611360. Samples 1611255-09 and 1611255-20 were used as the source QC. Samples were prepped in one batch for total solids/% moisture, F611403/F611404. Samples 1611255-09 and 1611255-10 were used as the source QC.

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



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 07:57

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

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

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

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---

Amy Goodall, Project Manager



### Sample Receipt Checklist

EFGS Work Order: 1611255

Client: Amec Foster Wheeler

Date & Time Received: 10/28/16 9:40

Date Labeled: 11/10/16 Labeled By: MPM AMW 11/10/16

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

Received By: CSP

Label Verified By: AMW

# 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:
<u>3150</u>	<u>+0.4 °C</u>	<u>10/28/16 9:40</u>	<u>CSP</u>
Cooler 1: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 4: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 2: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 5: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 3: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 6: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 7: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 8: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>N</u>	
Preservation type:	<u>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:		
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):

Cooler 2: 7844 7802 4486      Cooler 3: 7844 7802 4497  
 Cooler 4: 7844 7802 4501      Cooler 6: 7844 7802 4523  
 Cooler 5: 7844 7802 4512      Cooler 8: 7844 7802 4545  
 Cooler 7: 7844 7802 4534

1611255

Chain of Custody Record & Laboratory Analysis Request:  
Air, Water, Sediments, Plant and Animal Tissue,  
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
Phone: 425-686-1996  
Fax: 425-686-3096  
info@frontiergs.com  
http://www.frontiergs.com



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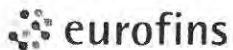
Page 1 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO <sub>3</sub> HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101		Phone: 308-789-1738 Fax:									Date: 10 27 16		
Project Name: USDC PENOBSCOT		E-mail: DENISE.KING@AMECFW.COM									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.		
Report To: DENISE KING		Contract/PO:									(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Address: 2 MILL ROAD CHELMSFORD MA 01824		Invoice To: ROD PENDLETON-AMEC									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)		
Address: 511 CONGRESS ST PORTLAND ME 04101		Address: 207-775-5444 Fax:									EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
Phone: Fax: 978 692 6633		E-mail: ROD.PENDLETON@AMECFW.COM						QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High					
E-mail:		E-mail:						Comments					
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time								
1		SVE-01-092416-LOB-TA-01		TLS	9/27/16 1217							PROJECT # 361616052.04.05	
2		SVE-01-092416-LOB-TA-02											
3		SVE-01-092416-LOB-TA-03											
4		SVE-01-092416-LOB-TA-04											
5		SVE-01-092416-LOB-TA-05											
6		SVE-01-092416-LOB-TA-06											
7		SVE-01-092416-LOB-TA-07											
8		SVE-01-092416-LOB-TA-08											
9		SVE-01-092416-LOB-TA-09											
10		SVE-01-092416-LOB-TA-10			9/24/16 1238								
11		SVE-01-092416-LOB-TA-11											
12		SVE-01-092416-LOB-TA-12											
For Laboratory Use Only			Matrix Codes:		Relinquished By:		Received By:		Received By:				
COC Seal: <i>yes</i>		Comments:		FW: Fresh Water WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other		<i>[Signature]</i>		<i>[Signature]</i>					
Cooler Temp: -49.6°C				TS: <i>TLS-TLSVE</i>		Name: K. BAVOR		Name: Corbin Powell					
Carrier: <i>Fedex</i>						Organization: AMEC FW		Organization: EFGS					
VTSR: <i>940</i>						Date & Time: 10/27/16 1600		Date & Time: 10/28/16 940					
# of Coolers:						Tracking number: FED EX 809397905121							
Sample Disposal: <input type="checkbox"/> Return (shipping fees may apply) <input checked="" type="checkbox"/> Standard Disposal - 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)						By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.							
Customer Approval: _____						Date: _____							

1611255

**Chain of Custody Record & Laboratory Analysis Request:**  
**Air, Water, Sediments, Plant and Animal Tissue,**  
**Hydrocarbon & Other Samples**

11720 Northcreek Pkwy N, Suite 400  
 Bothell, WA 98011  
 Phone: 425-686-1996  
 Fax: 425-686-3096  
 info@frontiergs.com  
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Page 2 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO <sub>3</sub> HCl BrCl Other (%)	TOT Hg 16312 / Tot L1012 - NOAA 1993 Ziplock bag	Analyses Requested				EFGS PM:
Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101		Phone: 508 789 1730 Fax:						Date: 10 27 16				
Project Name: USDC PENOBSCOT		E-mail: DENISE.KING@AMECFW.COM						TAT (business days): <b>20</b> (std)				
Report To: DENISE KING		Contract/PO:						<b>15 10 5 4 3 2 24 hrs.</b>				
Address: 2 MILL ROAD CHELMSFORD MA 01824		Invoice To: ROD PENDLETON-AMEC						(For TAT < 10 days, contact PM.)				
Address: 511 CONGRESS ST PORTLAND ME 04101		Address: 511 CONGRESS ST PORTLAND ME 04101		Surcharges apply for expedited TAT)								
Phone: Fax: 978 692 6633		Phone: 207-775-5444 Fax:		Saturday delivery? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N								
E-mail:		E-mail: ROD.PENDLETON@AMECFW.COM		(If yes, please contact PM)								
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time							EFGS PM:
1		SVE-01-092416-LOB-TA-13	13	FPS	9/24/16 1238							Date: 10 27 16
2		SVE-01-092416-LOB-TA-14	14									TAT (business days): <b>20</b> (std)
3		SVE-01-092416-LOB-TA-15	15									<b>15 10 5 4 3 2 24 hrs.</b>
4		SVE-01-092416-LOB-TA-16	16		9/24/16 1252							(For TAT < 10 days, contact PM.)
5		SVE-01-092416-LOB-TA-17	17		9/24/16 1257							Surcharges apply for expedited TAT)
6		SVE-01-092416-LOB-TA-18	18									Saturday delivery? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N
7		SVE-01-092416-LOB-TA-19	19									(If yes, please contact PM)
8		SVE-01-092416-LOB-TA-20	20									EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
9		SVE-01-092416-LOB-TA-MS-09	MS-09		9/24/16 1217							QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High
10		SVE-01-092416-LOB-TA-MD-09	MD-09									Comments
11												PROJECT # 361616052.04.05
12												

For Laboratory Use Only		Matrix Codes:	Relinquished By:	Received By:	Received By:
COC Seal:	Comments:	FW: Fresh Water			
Cooler Temp:		WW: Waste Water			
Carrier:		SB: Sea and Brackish Water			
VTSR:		SS: Soil and Sediment			
# of Coolers:		TS: Plant and Animal Tissue			
		HC: Hydrocarbons	Name: K. BAVOL	Name:	Name:
		TR: Trap	Organization: AMEC FW	Organization:	Organization:
		OT: Other	Date & Time: 10/27/16 1600	Date & Time:	Date & Time:
			Tracking number: FED EX 8093 9790 5121		

Sample Disposal:  
 Return (shipping fees may apply)  
 Standard Disposal - 30 Days after report  
 Retain for \_\_\_\_\_ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: \_\_\_\_\_ Date: \_\_\_\_\_



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_01  
1611255-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1790	9.92	88.6	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	344	1.90	17.0	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.8	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.2	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	136	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_02  
1611255-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1150	8.70	77.6	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	265	2.00	17.9	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	77.0	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	23.0	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	106	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_03  
1611255-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1550	11.5	102	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	277	2.05	18.3	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	82.1	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.9	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	148	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

**SVE-01\_092416\_LOB\_TA\_04**  
**1611255-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1060	9.91	88.5	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	222	2.08	18.6	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.0	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.0	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	80.7	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_05  
1611255-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	2590	9.54	85.2	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	512	1.89	16.9	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.2	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.8	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	168	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager





AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_06  
1611255-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	3110	13.1	117	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	523	2.20	19.6	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	83.2	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	16.8	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	135	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_07  
1611255-07

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

Sample Preparation: [CALC]

Mercury Dry Weight Corrected	857	10.5	93.7	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	181	2.21	19.8	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.9	-	0.1	% by Weigt	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.1	-	0.1	% by Weigt	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	75.5	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_08  
1611255-08

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1220	9.36	83.6	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	278	2.13	19.0	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	77.3	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.7	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	70.6	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_09  
1611255-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	2520	10.4	93.1	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	512	2.12	18.9	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.7	-	0.1	% by Weigt	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.3	-	0.1	% by Weigt	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	177	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	



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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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SVE-01\_092416\_LOB\_TA\_10  
1611255-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	822	10.0	89.6	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	167	2.04	18.2	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.7	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.3	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	72.6	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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17-Jan-17 07:57

**SVE-01\_092416\_LOB\_TA\_11**  
**1611255-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	2370	10.8	96.2	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	450	2.05	18.3	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.0	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.0	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	152	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_12  
1611255-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1060	9.88	88.2	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	227	2.11	18.8	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.7	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.3	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	108	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	



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17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_13  
1611255-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1380	10.8	96.5	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	272	2.13	19.0	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.3	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.7	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	71.7	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Manager: Denise King

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17-Jan-17 07:57

**SVE-01\_092416\_LOB\_TA\_14**  
**1611255-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1870	10.2	90.6	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	388	2.10	18.8	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.3	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.7	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	141	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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SVE-01\_092416\_LOB\_TA\_15  
1611255-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	3830	12.5	112	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	674	2.20	19.7	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	82.4	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.6	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	213	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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SVE-01\_092416\_LOB\_TA\_16  
1611255-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	2530	10.7	95.1	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	459	1.93	17.2	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	81.9	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.1	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	191	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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SVE-01\_092416\_LOB\_TA\_17  
1611255-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1560	10.6	94.4	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	308	2.08	18.6	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.3	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.7	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	118	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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17-Jan-17 07:57

**SVE-01\_092416\_LOB\_TA\_18**  
**1611255-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	2190	12.1	108	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	395	2.18	19.5	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.9	-	0.1	% by Weigt	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.1	-	0.1	% by Weigt	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	121	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

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17-Jan-17 07:57

SVE-01\_092416\_LOB\_TA\_19  
1611255-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	4290	11.8	105	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	747	2.06	18.3	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	82.6	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.4	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	231	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

**SVE-01\_092416\_LOB\_TA\_20**  
**1611255-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	6350	9.90	88.4	ng/g dry	500	[CALC]	15-Nov-16		16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	1320	2.06	18.4	ng/g	500	F611360	15-Nov-16	6K16023	16-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.2	-	0.1	% by Weight	1	F611404	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.8	-	0.1	% by Weight	1	F611403	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	244	-	0.10	g	1	F611395	17-Nov-16		17-Nov-16	None	
Female	No	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	
Male	Yes	-	N/A	N/A	1	F611394	17-Nov-16		17-Nov-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K16023 - F611360</b>											
<b>Cal Standard (6K16023-CAL1)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	0.498	-		ng/L	0.50100		99.5				
<b>Cal Standard (6K16023-CAL2)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	1.002	-		ng/L	1.0020		100				
<b>Cal Standard (6K16023-CAL3)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	4.979	-		ng/L	5.0100		99.4				
<b>Cal Standard (6K16023-CAL4)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	20.12	-		ng/L	20.040		100				
<b>Cal Standard (6K16023-CAL5)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	39.96	-		ng/L	40.080		99.7				
<b>Calibration Blank (6K16023-CCB1)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	0.058	-		ng/L							
<b>Calibration Blank (6K16023-CCB2)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	0.099	-		ng/L							
<b>Calibration Blank (6K16023-CCB3)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	0.066	-		ng/L							
<b>Calibration Blank (6K16023-CCB4)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	0.070	-		ng/L							
<b>Calibration Blank (6K16023-CCB5)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	0.081	-		ng/L							

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K16023 - F611360</b>											
<b>Calibration Blank (6K16023-CCB6)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	0.082	-		ng/L							
<b>Calibration Blank (6K16023-CCB7)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	0.098	-		ng/L							
<b>Calibration Check (6K16023-CCV1)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	4.795	-		ng/L	5.0000		95.9	77-123			
<b>Calibration Check (6K16023-CCV2)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	4.979	-		ng/L	5.0000		99.6	77-123			
<b>Calibration Check (6K16023-CCV3)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	4.921	-		ng/L	5.0000		98.4	77-123			
<b>Calibration Check (6K16023-CCV4)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	4.832	-		ng/L	5.0000		96.6	77-123			
<b>Calibration Check (6K16023-CCV5)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	4.886	-		ng/L	5.0000		97.7	77-123			
<b>Calibration Check (6K16023-CCV6)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	4.788	-		ng/L	5.0000		95.8	77-123			
<b>Calibration Check (6K16023-CCV7)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	4.885	-		ng/L	5.0000		97.7	77-123			
<b>Instrument Blank (6K16023-IBL1)</b> Prepared & Analyzed: 16-Nov-16											
Mercury	ND	0.004	0.040	ng/L							U

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271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

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 6K16023 - F611360

<b>Instrument Blank (6K16023-IBL2)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K16023-IBL3)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K16023-ICV1)</b>					Prepared & Analyzed: 16-Nov-16						
Mercury	4.999	-		ng/L	5.0000		100	77-123			

Batch F611360 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F611360-BLK1)</b>					Prepared: 15-Nov-16 Analyzed: 16-Nov-16						
Mercury	0.391	0.090	0.800	ng/g							J
<b>Blank (F611360-BLK2)</b>					Prepared: 15-Nov-16 Analyzed: 16-Nov-16						
Mercury	0.239	0.090	0.800	ng/g							J
<b>Blank (F611360-BLK3)</b>					Prepared: 15-Nov-16 Analyzed: 16-Nov-16						
Mercury	0.193	0.090	0.800	ng/g							J
<b>LCS (F611360-BS1)</b>					Prepared: 15-Nov-16 Analyzed: 16-Nov-16						
Mercury	7.485	0.090	0.800	ng/g	8.0160		93.4	75-125			
<b>LCS (F611360-BS2)</b>					Prepared: 15-Nov-16 Analyzed: 16-Nov-16						
Mercury	336.9	4.43	39.5	ng/g	382.50		88.1	75-125			
<b>LCS Dup (F611360-BSD1)</b>					Prepared: 15-Nov-16 Analyzed: 16-Nov-16						
Mercury	7.843	0.090	0.800	ng/g	8.0160		97.8	75-125	4.68	24	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F611360 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Duplicate (F611360-DUP1)</b>		<b>Source: 1611255-09</b>		Prepared: 15-Nov-16 Analyzed: 16-Nov-16							
Mercury	513.3	2.17	19.3	ng/g		512.5			0.150	24	
<b>Matrix Spike (F611360-MS1)</b>		<b>Source: 1611255-09</b>		Prepared: 15-Nov-16 Analyzed: 16-Nov-16							
Mercury	870.8	2.10	18.8	ng/g	375.23	512.5	95.5	71-125			
<b>Matrix Spike (F611360-MS2)</b>		<b>Source: 1611255-20</b>		Prepared: 15-Nov-16 Analyzed: 16-Nov-16							
Mercury	1635	3.98	35.5	ng/g	355.24	1321	88.6	71-125			
<b>Matrix Spike (F611360-MS3)</b>		<b>Source: 1611255-20</b>		Prepared: 15-Nov-16 Analyzed: 16-Nov-16							
Mercury	5053	10.3	91.9	ng/g	3683.8	1321	101	71-125			AS
<b>Matrix Spike Dup (F611360-MSD1)</b>		<b>Source: 1611255-09</b>		Prepared: 15-Nov-16 Analyzed: 16-Nov-16							
Mercury	845.6	2.11	18.8	ng/g	375.94	512.5	88.6	71-125	7.48	24	
<b>Matrix Spike Dup (F611360-MSD2)</b>		<b>Source: 1611255-20</b>		Prepared: 15-Nov-16 Analyzed: 16-Nov-16							
Mercury	1518	4.11	36.7	ng/g	366.97	1321	53.7	71-125	49.0	24	QM-02, QR-08
<b>Matrix Spike Dup (F611360-MSD3)</b>		<b>Source: 1611255-20</b>		Prepared: 15-Nov-16 Analyzed: 16-Nov-16							
Mercury	5040	10.3	91.9	ng/g	3683.8	1321	101	71-125	0.348	24	AS

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 07:57

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 F611403 - EFGS-019 Solids Analysis

Duplicate (F611403-DUP1)		Source: 1611255-09			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	19.6	-	0.1	% by Weight		20.3			3.51	25	
Duplicate (F611403-DUP2)		Source: 1611255-10			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	19.8	-	0.1	% by Weight		20.3			2.49	25	

Batch F611404 - EFGS-019 Solids Analysis

Duplicate (F611404-DUP1)		Source: 1611255-09			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	80.4	-	0.1	% by Weight		79.7			0.874	25	
Duplicate (F611404-DUP2)		Source: 1611255-10			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	80.2	-	0.1	% by Weight		79.7			0.625	25	

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Amy Goodall, Project Manager

AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King**Reported:**  
17-Jan-17 07:57**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-02 The MS and/or MSD recoveries outside acceptance limits, due to spike concentration less than 1 times the sample concentration. The batch was accepted based on LCS and LCSD recoveries within control limits and, when analysis permits, acceptable AS/ASD.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- 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

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/ N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611256-17	N/A	F	11/11/16 MPM	Y	81.06	81.06	2	
1611256-18	N/A	M	11/11/16 MPM	Y	77.54	77.54	2	
1611256-19	N/A	F	11/11/16 MPM	Y	70.71	70.71	2	
1611256-20	N/A	M	11/11/16 MPM	Y	60.41	60.41	2	
1611255-01	N/A	M	11/11/16 MPM	Y	18	135.82	2	1611255 = Batch
1611255-02	N/A	M	11/11/16 MPM	Y	18	106.26	2	FG11394 + FG11395
1611255-03	N/A	M	11/11/16 MPM	Y	18	147.75	2	AMB 12-6-16
1611255-04	N/A	M	11/11/16 MPM	Y	18	80.73	2	
1611255-05	N/A	M	11/11/16 MPM	Y	18	168.27	2	
1611255-06	N/A	M	11/11/16 MPM	Y	18	134.60	2	
1611255-07	N/A	M	11/11/16 MPM	Y	18	75.53	2	
1611255-08	N/A	M	11/11/16 MPM	Y	18	70.56	2	
1611255-09	N/A	M	11/11/16 MPM	Y	18	177.38	2	
1611255-10	N/A	M	11/11/16 MPM	Y	18	72.55	2	
1611255-11	N/A	M	11/11/16 MPM	Y	18	151.43	2	
1611255-12	N/A	F	11/11/16 MPM	Y	18	107.54	2	
1611255-13	N/A	M	11/11/16 MPM	Y	18	71.67	2	
1611255-14	N/A	M	11/11/16 MPM	Y	18	140.67	2	

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611255-15	N/A	M	11/11/16 MPM	Y	18	213.43	2	
1611255-16	N/A	M	11/11/16 MPM	Y	18	190.89	2	
1611255-17	N/A	M	11/11/16 MPM	Y	18	117.83	2	
1611255-18	N/A	M	11/11/16 MPM	Y	18	121.03 <del>122.03</del>	2	
1611255-19	N/A	M	11/11/16 MPM	Y	18	231.27	2	
1611255-20	N/A	M	11/11/16 MPM	Y	18	243.51	2	
1611258-01	N/A	M	11/14/16 MPM	Y	18	88.30	2	1611258: Batches
1611258-02	N/A	M	11/14/16 MPM	Y	18	107.22	2	F612332 + F612333
1611258-03	N/A	M	11/14/16 MPM	Y	18	78.45	2	AMB 12-6-16
1611258-04	N/A	M	11/14/16 MPM	Y	18	118.07	2	
1611258-05	N/A	M	11/14/16 MPM	Y	18	79.85	2	
1611258-06	N/A	M	11/14/16 MPM	Y	18	78.95	2	
1611258-07	N/A	F	11/14/16 MPM	Y	18	75.66	2	
1611258-08	N/A	M	11/16/16 MPM	Y	18	153.55	2	
1611258-09	N/A	F	11/16/16 MPM	Y	18	95.55	2	
1611258-10	N/A	M	11/16/16 MPM	Y	18	104.10	2	
1611258-11	N/A	M	11/15/16 MPM	Y	18	112.00	2	
1611258-12	N/A	M	11/15/16 MPM	Y	18	147.19	2	



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**Total Solids Dataset Cover Page**

**Dataset ID:** TS161118-1  
**Batch ID:** F611403/404  
**Work Order(s):** 1611255

**Analyst:** MPM  
**Prep. Date:** 11/18/2016

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER-REVIEWED  
INITIALS: DMW 11-22-16



Preparation Date: Nov 18, 2016

Batch #: 1

Analyst: MPM

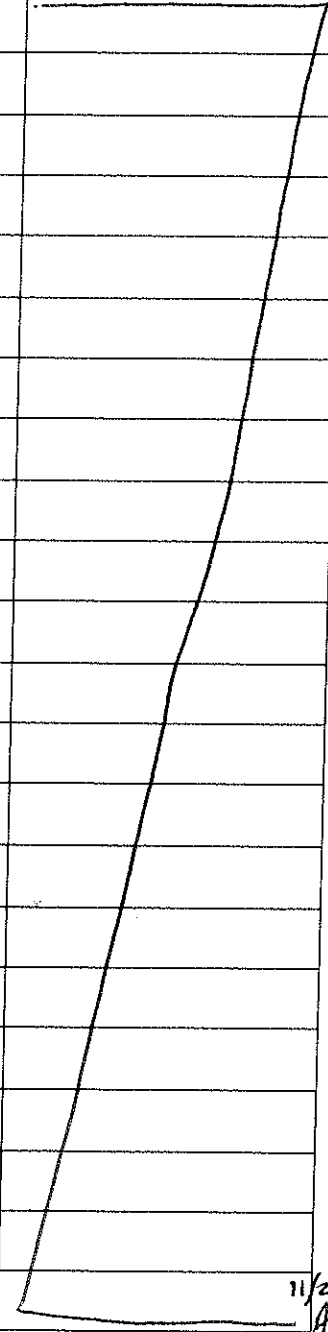
Batch ID: F611403/404

Work Order(s): 1611255

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	%TMoisture
1	1611255-01 -	1.0120 -	6.1030 -	5.0910	1.9920 -	0.9800	19.2%		80.8%
2	1611255-02 -	1.0360 -	6.1800 -	5.1440	2.2180 -	1.1820	23.0%		77.0%
3	1611255-03 -	1.0440 -	6.0460 -	5.0020	1.9390 -	0.8950	17.9%		82.1%
4	1611255-04 -	0.9970 -	6.0350 -	5.0380	2.0530 -	1.0560	21.0%		79.0%
5	1611255-05 -	1.0170 -	6.0720 -	5.0550	2.0160 -	0.9990	19.8%		80.2%
6	1611255-06 -	1.0040 -	6.0800 -	5.0760	1.8590 -	0.8550	16.8%		83.2%
7	1611255-07 -	0.9880 -	5.9950 -	5.0070	2.0430 -	1.0550	21.1%		78.9%
8	1611255-08 -	1.0410 -	6.0510 -	5.0100	2.1780 -	1.1370	22.7%		77.3%
9	1611255-09 -	1.0280 -	6.0550 -	5.0270	2.0460 -	1.0180	20.3%		79.7%
10	1611255-09MD -	1.0230 -	6.1080 -	5.0850	2.0220 -	0.9990	19.6%	3.0%	80.4%
11	1611255-10 -	1.0400 -	6.0620 -	5.0220	2.0610 -	1.0210	20.3%		79.7%
12	1611255-10MD -	1.0020 -	6.0090 -	5.0070	1.9930 -	0.9910	19.8%	2.7%	80.2%
13	1611255-11 -	1.0350 -	6.0390 -	5.0040	1.9850 -	0.9500	19.0%		81.0%
14	1611255-12 -	1.0480 -	6.0780 -	5.0300	2.1170 -	1.0690	21.3%		78.7%
15	1611255-13 -	1.0420 -	6.0610 -	5.0190	2.0290 -	0.9870	19.7%		80.3%
16	1611255-14 -	1.0060 -	6.0510 -	5.0450	2.0500 -	1.0440	20.7%		79.3%
17	1611255-15 -	1.0150 -	6.0190 -	5.0040	1.8940 -	0.8790	17.6%		82.4%
18	1611255-16 -	1.0200 -	6.0490 -	5.0290	1.9290 -	0.9090	18.1%		81.9%
19	1611255-17 -	1.0270 -	6.0280 -	5.0010	2.0110 -	0.9840	19.7%		80.3%
20	1611255-18 -	1.0040 -	6.1550 -	5.1510	1.9370 -	0.9330	18.1%		81.9%
21	1611255-19 -	1.0260 -	6.0260 -	5.0000	1.8960 -	0.8700	17.4%		82.6%
22	1611255-20 -	1.0140 -	6.0170 -	5.0030	2.0560 -	1.0420	20.8%		79.2%

Remote Lab Total Solids Logbook

Lab Technician(s): MPM / JS Batch: FL11403/404 Date: 11/18/16 Page 1 of 1  
 Thermometer #: 1312D6134 Oven #: OVN-03 Actual temperature: 103.0 (Range 103-105°C)  
 Balance #: 10 Start time: 1702 End time<sup>2</sup>: 942 Time re-weighed<sup>3</sup>: 944  
 Client(s)/WO#: 1611255

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1611255-01	A1	1.012	6.103	1.992	
1611255-02	A2	1.036	6.180	2.218	
1611255-03	A3	1.044	6.046	1.939	
1611255-04	A4	0.997	6.035	2.053	
1611255-05	A5	1.017	6.072	2.016	
1611255-06	A6	1.004	6.080	1.859	
1611255-07	A7	0.988	5.995	2.043	
1611255-08	A8	1.041	6.051	2.178	
1611255-09	A9	1.028	6.055	2.046	
FL11403-DUP1(1611255-09)	A10	1.023	6.108	2.022	
1611255-10	A11	1.040	6.062	2.061	
FL11403-DUP2(1611255-10)	A12	1.002	6.009	1.993	
1611255-11	A13	1.035	6.039	1.985	
1611255-12	A14	1.048	6.078	2.117	
1611255-13	A15	1.042	6.061	2.029	
1611255-14	A16	1.006	6.051	2.050	
1611255-15	A17	1.015	6.019	1.894	
1611255-16	A18	1.020	6.049	1.929	
1611255-17	A19	1.027	6.028	2.011	
1611255-18	A20	1.004	6.155	1.937	
1611255-19	A21	1.026	6.026	1.896	
1611255-20	A22	1.014	6.017	2.056	

Comments: REVIEWED 11-21-16 DMW

<sup>1</sup>The same balance must be used to weight samples before and after ovening.

<sup>2</sup>Samples must be ovened over 12 hours.

<sup>3</sup>Samples must be re-weighed within 30 minutes of oven cool down.

**PREPARATION BENCH SHEET**

F611403

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611403-DUP1	Duplicate (1611255-09)	5	5					
F611403-DUP2	Duplicate (1611255-10)	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F611403

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611255-01	SVE-01_092416_LOB_TA_01	5	5	-	-	-		
1611255-02	SVE-01_092416_LOB_TA_02	5	5	-	-	-		
1611255-03	SVE-01_092416_LOB_TA_03	5	5	-	-	-		
1611255-04	SVE-01_092416_LOB_TA_04	5	5	-	-	-		
1611255-05	SVE-01_092416_LOB_TA_05	5	5	-	-	-		
1611255-06	SVE-01_092416_LOB_TA_06	5	5	-	-	-		
1611255-07	SVE-01_092416_LOB_TA_07	5	5	-	-	-		
1611255-08	SVE-01_092416_LOB_TA_08	5	5	-	-	-		
1611255-09	SVE-01_092416_LOB_TA_09	5	5	QC	-	-	MS/MSD	
1611255-10	SVE-01_092416_LOB_TA_10	5	5	-	-	-		
1611255-11	SVE-01_092416_LOB_TA_11	5	5	-	-	-		
1611255-12	SVE-01_092416_LOB_TA_12	5	5	-	-	-		
1611255-13	SVE-01_092416_LOB_TA_13	5	5	-	-	-		
1611255-14	SVE-01_092416_LOB_TA_14	5	5	-	-	-		
1611255-15	SVE-01_092416_LOB_TA_15	5	5	-	-	-		
1611255-16	SVE-01_092416_LOB_TA_16	5	5	-	-	-		
1611255-17	SVE-01_092416_LOB_TA_17	5	5	-	-	-		
1611255-18	SVE-01_092416_LOB_TA_18	5	5	-	-	-		
1611255-19	SVE-01_092416_LOB_TA_19	5	5	-	-	-		

Page 40 of 125

Due Date: 11/29/2016

PREPARATION BENCH SHEET

F611403

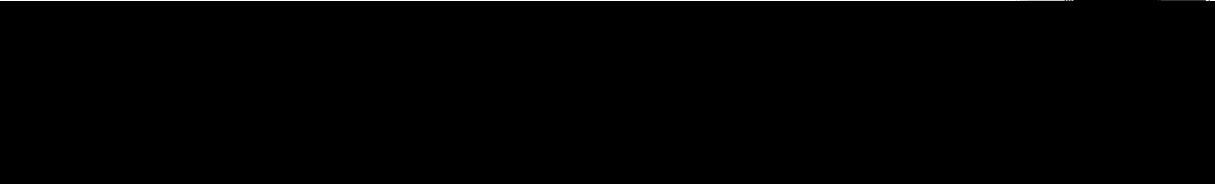
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611255-20	SVE-01_092416_LOB_TA_20	5	5	-	-	-		
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**PREPARATION BENCH SHEET**

F611404

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F611404-DUP1	Duplicate (1611255 - 09)	5	5					
F611404-DUP2	Duplicate (1611255 - 10)	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F611404

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611255-01	SVE-01_092416_LOB_TA_01	5	5	-	-	-		
1611255-02	SVE-01_092416_LOB_TA_02	5	5	-	-	-		
1611255-03	SVE-01_092416_LOB_TA_03	5	5	-	-	-		
1611255-04	SVE-01_092416_LOB_TA_04	5	5	-	-	-		
1611255-05	SVE-01_092416_LOB_TA_05	5	5	-	-	-		
1611255-06	SVE-01_092416_LOB_TA_06	5	5	-	-	-		
1611255-07	SVE-01_092416_LOB_TA_07	5	5	-	-	-		
1611255-08	SVE-01_092416_LOB_TA_08	5	5	-	-	-		
1611255-09	SVE-01_092416_LOB_TA_09	5	5	QC	-	-	MS/MSD	
1611255-10	SVE-01_092416_LOB_TA_10	5	5	-	-	-		
1611255-11	SVE-01_092416_LOB_TA_11	5	5	-	-	-		
1611255-12	SVE-01_092416_LOB_TA_12	5	5	-	-	-		
1611255-13	SVE-01_092416_LOB_TA_13	5	5	-	-	-		
1611255-14	SVE-01_092416_LOB_TA_14	5	5	-	-	-		
1611255-15	SVE-01_092416_LOB_TA_15	5	5	-	-	-		
1611255-16	SVE-01_092416_LOB_TA_16	5	5	-	-	-		
1611255-17	SVE-01_092416_LOB_TA_17	5	5	-	-	-		
1611255-18	SVE-01_092416_LOB_TA_18	5	5	-	-	-		
1611255-19	SVE-01_092416_LOB_TA_19	5	5	-	-	-		

Page 43 of 125

Due Date: 11/29/2016

PREPARATION BENCH SHEET

F611404

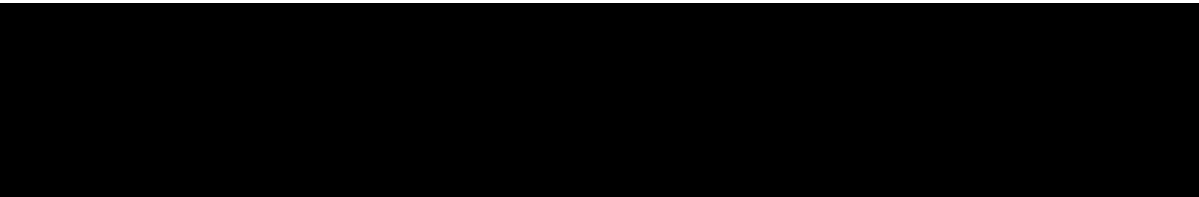
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611255-20	SVE-01_092416_LOB_TA_20	5	5	-	-	-		
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# Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: JS

Date: 11/21/16

Reviewer: DMW

Date: 11-22-16

WO #: 1611255

Batch #: FG11403/404

Dataset ID: TS161118-1

Reviewer Initials: DMW

### General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>JS</u>	<u>11/18/16</u>

Reviewer Initials: DMW

## 1. Total Solids

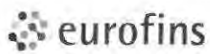
- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

## 2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>



Frontier Global Sciences

THg26003-161116-1

Analysis Datasheet for Total Mercury

Date of Analysis: November 16, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K16021, 6K16022, 6K16023

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	67.01 units	134.03	63.49 units	126.98	99.7 %Rec
SEQ-CAL2	1	1.00 ng/L	131.25 units	131.25	127.73 units	127.73	100.2 %Rec
SEQ-CAL3	1	5.00 ng/L	637.85 units	127.57	634.33 units	126.87	99.6 %Rec
SEQ-CAL4	1	20.00 ng/L	2567.42 units	128.37	2563.90 units	128.20	100.6 %Rec
SEQ-CAL5	1	40.00 ng/L	5094.36 units	127.36	5090.84 units	127.27	99.9 %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>				
127.41	+/- 0.55	0.4% RSD	129.72				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.52 units	±1.95	0.03 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	7.701 ng/L	±0.132
BLK	2	3	3.430 ng/L	±1.296
BLK	3	3	2.804 ng/L	±1.377
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
 F2FB - REVIEWED  
 INITIALS: BC 11/17/16

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?						
Hg2600-3	DM2	CAL	SEQ-IBL1	1	11/16/2016 11:49:39	55805-1.RAW	11:49:39 AM	3.26				-0.3	-0.002	-0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/16/2016 11:53:48	55806-1.RAW	11:53:48 AM	1.71				-1.8	-0.014	-0.014	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/16/2016 11:57:58	55807-1.RAW	11:57:56 AM	5.60				2.1	0.016	0.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/16/2016 12:02:05	55808-1.RAW	12:02:05 PM	67.01				63.5	0.498	0.498	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/16/2016 12:06:13	55809-1.RAW	12:06:13 PM	131.25				127.7	1.002	1.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/16/2016 12:10:21	55810-1.RAW	12:10:21 PM	637.85				634.3	4.979	4.979	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/16/2016 12:14:30	55811-1.RAW	12:14:30 PM	2567.42				2563.9	20.124	20.124	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/16/2016 12:18:38	55812-1.RAW	12:18:38 PM	5094.36				5090.8	39.957	39.957	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	11/16/2016 12:22:47	55813-1.RAW	12:22:47 PM	640.38				636.9	4.999	4.999	ng/L	
Hg2600-3	DM2	BLK	F611362-BLK1	100	11/16/2016 12:26:55	55814-1.RAW	12:26:55 PM	13.15	1			9.6	0.076	7.558	ng/L	
Hg2600-3	DM2	BLK	F611362-BLK2	100	11/16/2016 12:31:04	55815-1.RAW	12:31:04 PM	13.37	1			9.8	0.077	7.728	ng/L	
Hg2600-3	DM2	BLK	F611362-BLK3	100	11/16/2016 12:35:12	55816-1.RAW	12:35:12 PM	13.48	1			10.0	0.078	7.817	ng/L	
Hg2600-3	DM2	SAM	F611362-BS1	500	11/16/2016 12:39:20	55817-1.RAW	12:39:20 PM	439.82	1			436.3	3.409	1704.505	ng/L	
Hg2600-3	DM2	SAM	F611362-BS1	500	11/16/2016 12:43:29	55818-1.RAW	12:43:29 PM	430.48	1			427.0	3.336	1667.860	ng/L	
Hg2600-3	DM2	SAM	1611454-01	2500	11/16/2016 12:47:37	55819-1.RAW	12:47:37 PM	2571.62	1			2568.1	20.153	50383.562	ng/L	
Hg2600-3	DM2	SAM	1611454-02	2500	11/16/2016 12:51:46	55820-1.RAW	12:51:46 PM	2517.52	1			2514.0	19.729	49321.999	ng/L	
Hg2600-3	DM2	SAM	1611454-03	2500	11/16/2016 12:55:54	55821-1.RAW	12:55:54 PM	2622.12	1			2618.6	20.550	51374.542	ng/L	
Hg2600-3	DM2	SAM	1611454-04	2500	11/16/2016 13:00:02	55822-1.RAW	1:00:02 PM	2649.28	1			2645.8	20.763	51907.587	ng/L	
Hg2600-3	DM2	SAM	1611454-01B	100	11/16/2016 13:04:11	55823-1.RAW	1:04:11 PM	64.67	1			61.1	0.403	40.294	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/16/2016 13:08:19	55824-1.RAW	1:08:19 PM	614.50				611.0	4.795	4.795	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/16/2016 13:12:28	55825-1.RAW	1:12:28 PM	10.94				7.4	0.058	0.058	ng/L	
Hg2600-3	DM2	SAM	EFGS03781 9000NG	2500	11/16/2016 13:16:36	55826-1.RAW	1:16:36 PM	4237.65		X		4234.1	33.233	83082.235	ng/L	
Hg2600-3	DM2	SAM	EFGS03494 9000NG	2500	11/16/2016 13:20:45	55827-1.RAW	1:20:45 PM	4029.34		X		4025.8	31.598	78994.871	ng/L	
Hg2600-3	DM2	SAM	EFGS05996 13000NG	5000	11/16/2016 13:24:53	55828-1.RAW	1:24:53 PM	3337.05		X		3333.5	26.164	130821.151	ng/L	
Hg2600-3	DM2	SAM	EFGS05993 13000NG	5000	11/16/2016 13:29:01	55829-1.RAW	1:29:01 PM	3471.35		X		3467.8	27.218	136091.800	ng/L	
Hg2600-3	DM2	SAM	1611454-02B	100	11/16/2016 13:33:10	55830-1.RAW	1:33:10 PM	62.75	1			59.2	0.388	38.782	ng/L	
Hg2600-3	DM2	SAM	1611454-03B	100	11/16/2016 13:37:18	55831-1.RAW	1:37:18 PM	195.99	1			192.5	1.434	143.362	ng/L	
Hg2600-3	DM2	SAM	1611454-04B	100	11/16/2016 13:41:27	55832-1.RAW	1:41:27 PM	235.55	1			232.0	1.744	174.416	ng/L	
Hg2600-3	DM2	SAM	1611454-01C	2500	11/16/2016 13:45:35	55833-1.RAW	1:45:35 PM	4158.87	1			4155.3	32.612	81528.761	ng/L	
Hg2600-3	DM2	SAM	1611454-02C	2500	11/16/2016 13:49:44	55834-1.RAW	1:49:44 PM	4082.07	1			4078.6	32.009	80021.866	ng/L	
Hg2600-3	DM2	SAM	1611454-03C	5000	11/16/2016 13:53:52	55835-1.RAW	1:53:52 PM	3030.93	1			3027.4	23.760	118800.296	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/16/2016 13:58:00	55836-1.RAW	1:58:00 PM	637.93				634.4	4.979	4.979	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/16/2016 14:02:09	55837-1.RAW	2:02:09 PM	16.16				12.6	0.099	0.099	ng/L	
Hg2600-3	DM2	SAM	EFGS03494 9000NG	2500	11/16/2016 14:06:17	55838-1.RAW	2:06:17 PM	4082.86		X		4079.3	32.018	80045.072	ng/L	
Hg2600-3	DM2	SAM	1611454-04C	5000	11/16/2016 14:10:26	55839-1.RAW	2:10:26 PM	3030.20	1			3026.7	23.754	118771.471	ng/L	
Hg2600-3	DM2	SAM	F611362-DUP1	2500	11/16/2016 14:14:34	55840-1.RAW	2:14:34 PM	2677.21	1			2673.7	20.982	52455.587	ng/L	
Hg2600-3	DM2	SAM	F611362-MS1	5000	11/16/2016 14:18:42	55841-1.RAW	2:18:42 PM	3845.68	1			3842.2	30.155	150774.172	ng/L	
Hg2600-3	DM2	SAM	F611362-MSD1	5000	11/16/2016 14:22:51	55842-1.RAW	2:22:51 PM	3737.95	1			3734.4	29.309	146546.484	ng/L	
Hg2600-3	DM2	BLK	F611360-BLK1	20	11/16/2016 14:26:59	55843-1.RAW	2:26:59 PM	34.67	2			31.1	0.244	4.889	ng/L	
Hg2600-3	DM2	BLK	F611360-BLK2	20	11/16/2016 14:31:08	55844-1.RAW	2:31:08 PM	22.57	2			19.1	0.150	2.991	ng/L	
Hg2600-3	DM2	BLK	F611360-BLK3	20	11/16/2016 14:35:16	55845-1.RAW	2:35:16 PM	18.88	2			15.4	0.121	2.411	ng/L	
Hg2600-3	DM2	SAM	F611360-BS1	20	11/16/2016 14:39:25	55846-1.RAW	2:39:25 PM	621.37	2			617.8	4.678	93.557	ng/L	
Hg2600-3	DM2	SAM	F611360-BS1	20	11/16/2016 14:43:33	55847-1.RAW	2:43:33 PM	649.91	2			646.4	4.902	98.037	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/16/2016 14:47:41	55848-1.RAW	2:47:41 PM	630.46				626.9	4.921	4.921	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/16/2016 14:51:50	55849-1.RAW	2:51:50 PM	11.97				8.4	0.066	0.066	ng/L	
Hg2600-3	DM2	SAM	EFGS03781 9000NG	2500	11/16/2016 14:55:58	55850-1.RAW	2:55:58 PM	4219.53		X		4216.0	33.091	82726.811	ng/L	
Hg2600-3	DM2	SAM	EFGS03494 9000NG	2500	11/16/2016 15:00:07	55851-1.RAW	3:00:07 PM	4189.45		X		4185.9	32.855	82136.455	ng/L	
Hg2600-3	DM2	SAM	F611360-BS2	500	11/16/2016 15:04:15	55852-1.RAW	3:04:15 PM	547.41	2			543.9	4.262	2131.023	ng/L	
Hg2600-3	DM2	SAM	1611255-01	500	11/16/2016 15:08:24	55853-1.RAW	3:08:24 PM	1291.24	2			1287.7	10.100	5050.092	ng/L	
Hg2600-3	DM2	SAM	1611255-02	500	11/16/2016 15:12:32	55854-1.RAW	3:12:32 PM	949.44	2			945.9	7.417	3708.736	ng/L	
Hg2600-3	DM2	SAM	1611255-03	500	11/16/2016 15:16:40	55855-1.RAW	3:16:40 PM	969.42	2			965.9	7.574	3787.136	ng/L	
Hg2600-3	DM2	SAM	1611255-04	500	11/16/2016 15:20:49	55856-1.RAW	3:20:49 PM	764.66	2			761.1	5.967	2983.600	ng/L	
Hg2600-3	DM2	SAM	1611255-05	500	11/16/2016 15:24:57	55857-1.RAW	3:24:57 PM	1939.38	2			1935.9	15.187	7593.673	ng/L	
Hg2600-3	DM2	SAM	1611255-06	500	11/16/2016 15:29:06	55858-1.RAW	3:29:06 PM	1703.36	2			1699.8	13.335	6667.433	ng/L	
Hg2600-3	DM2	SAM	1611255-07	500	11/16/2016 15:33:15	55859-1.RAW	3:33:15 PM	586.94	2			583.4	4.572	2286.143	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/16/2016 15:37:24	55860-1.RAW	3:37:24 PM	619.16				615.6	4.832	4.832	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/16/2016 15:41:32	55861-1.RAW	3:41:32 PM	12.38				8.9	0.070	0.070	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	1611255-08	500	11/16/2016 15:45:40	55862-1.RAW	3:45:40 PM	937.37	2		933.8	7.323	3661.351	ng/L	
Hg2600-3	DM2	SAM	1611255-09	500	11/16/2016 15:49:49	55863-1.RAW	3:49:49 PM	1731.44	2		1727.9	13.555	6777.645	ng/L	
Hg2600-3	DM2	SAM	1611255-10	500	11/16/2016 15:53:57	55864-1.RAW	3:53:57 PM	589.39	2		585.9	4.592	2295.761	ng/L	
Hg2600-3	DM2	SAM	1611255-11	500	11/16/2016 15:58:06	55865-1.RAW	3:58:06 PM	1573.24	2		1569.7	12.314	6156.803	ng/L	
Hg2600-3	DM2	SAM	1611255-12	500	11/16/2016 16:02:14	55866-1.RAW	4:02:14 PM	772.69	2		769.2	6.030	3015.085	ng/L	
Hg2600-3	DM2	SAM	1611255-13	500	11/16/2016 16:06:23	55867-1.RAW	4:06:23 PM	917.14	2		913.6	7.164	3581.992	ng/L	
Hg2600-3	DM2	SAM	1611255-14	500	11/16/2016 16:10:31	55868-1.RAW	4:10:31 PM	1321.64	2		1318.1	10.339	5169.419	ng/L	
Hg2600-3	DM2	SAM	1611255-15	500	11/16/2016 16:14:39	55869-1.RAW	4:14:39 PM	2186.23	2		2182.7	17.125	8562.416	ng/L	
Hg2600-3	DM2	SAM	1611255-16	500	11/16/2016 16:18:48	55870-1.RAW	4:18:48 PM	1702.63	2		1699.1	13.329	6664.559	ng/L	
Hg2600-3	DM2	SAM	1611255-17	500	11/16/2016 16:22:56	55871-1.RAW	4:22:56 PM	1058.96	2		1055.4	8.277	4138.548	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/16/2016 16:27:05	55872-1.RAW	4:27:05 PM	626.0256469			622.5	4.886	4.886	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/16/2016 16:31:13	55873-1.RAW	4:31:13 PM	13.84			10.3	0.081	0.081	ng/L	
Hg2600-3	DM2	SAM	1611255-18	500	11/16/2016 16:35:22	55874-1.RAW	4:35:22 PM	1296.86	2		1293.3	10.144	5072.141	ng/L	
Hg2600-3	DM2	SAM	1611255-19	500	11/16/2016 16:39:30	55875-1.RAW	4:39:30 PM	2597.93	2		2594.4	20.356	10178.071	ng/L	
Hg2600-3	DM2	SAM	1611255-20	500	11/16/2016 16:43:38	55876-1.RAW	4:43:38 PM	4580.69	2		4577.2	35.918	17959.245	ng/L	
Hg2600-3	DM2	SAM	F611360-DUP1	500	11/16/2016 16:47:47	55877-1.RAW	4:47:47 PM	1694.81	2		1691.3	13.268	6633.876	ng/L	
Hg2600-3	DM2	SAM	F611360-MS1	500	11/16/2016 16:51:55	55878-1.RAW	4:51:55 PM	2961.21	2		2957.7	23.208	11603.764	ng/L	
Hg2600-3	DM2	SAM	F611360-MSD1	500	11/16/2016 16:56:04	55879-1.RAW	4:56:04 PM	2870.19	2		2866.7	22.493	11246.557	ng/L	
Hg2600-3	DM2	SAM	F611360-MS2	1000	11/16/2016 17:00:12	55880-1.RAW	5:00:12 PM	2936.36	2		2932.8	23.016	23015.900	ng/L	
Hg2600-3	DM2	SAM	F611360-MSD2	1000	11/16/2016 17:04:21	55881-1.RAW	5:04:21 PM	2638.61	2		2635.1	20.679	20678.863	ng/L	
Hg2600-3	DM2	BLK	F611283-BLK1	20	11/16/2016 17:08:29	55882-1.RAW	5:08:29 PM	30.54	3		27.0	0.212	4.241	ng/L	
Hg2600-3	DM2	BLK	F611283-BLK2	20	11/16/2016 17:12:37	55883-1.RAW	5:12:37 PM	20.55	3		17.0	0.134	2.673	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/16/2016 17:16:46	55884-1.RAW	5:16:46 PM	613.50			610.0	4.788	4.788	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/16/2016 17:20:54	55885-1.RAW	5:20:54 PM	13.93			10.4	0.082	0.082	ng/L	
Hg2600-3	DM2	BLK	F611283-BLK3	20	11/16/2016 17:25:03	55886-1.RAW	5:25:03 PM	13.06	3		9.5	0.075	1.497	ng/L	
Hg2600-3	DM2	SAM	F611283-BS1	20	11/16/2016 17:29:11	55887-1.RAW	5:29:11 PM	27.40	3		23.9	0.047	0.945	ng/L	
Hg2600-3	DM2	SAM	F611283-BS2	20	11/16/2016 17:33:19	55888-1.RAW	5:33:19 PM	75.76	3		72.2	0.427	8.536	ng/L	
Hg2600-3	DM2	SAM	1610746-07	20	11/16/2016 17:37:28	55889-1.RAW	5:37:28 PM	13.84	3		10.3	-0.059	-1.184	ng/L	
Hg2600-3	DM2	SAM	F611360-MS3	2500	11/16/2016 17:41:36	55890-1.RAW	5:41:36 PM	3505.63	2		3502.1	27.486	68715.192	ng/L	
Hg2600-3	DM2	SAM	F611360-MSD3	2500	11/16/2016 17:45:45	55891-1.RAW	5:45:45 PM	3496.64	2		3493.1	27.415	68538.670	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/16/2016 17:49:53	55892-1.RAW	5:49:53 PM	625.85			622.3	4.885	4.885	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/16/2016 17:54:02	55893-1.RAW	5:54:02 PM	16.04			12.5	0.098	0.098	ng/L	



F611360-BS1	D6	20	3.52	96.99		55846-1.RAW	14:39:25	621.37	Sample	OK	1
F611360-BSD1	D7	20	3.52	101.47		55847-1.RAW	14:43:33	649.91	Sample	OK	1
SEQ-CCV3	D8	1	3.52	4.92	98.41	55848-1.RAW	14:47:41	630.46	Sample	OK	1
SEQ-CCB3	D9	1	3.52	0.07	0.00	55849-1.RAW	14:51:50	11.97	Sample	OK	1
EFGS03781 9000NG	D10	2500	3.52	82726.81		55850-1.RAW	14:55:58	4219.53	Sample	OK	1
EFGS03494 9000NG	D11	2500	3.52	82136.46		55851-1.RAW	15:00:07	4189.45	Sample	OK	1
F611360-BS2	D12	500	3.52	2134.45		55852-1.RAW	15:04:15	547.41	Sample	OK	1
1611255-01	A1	500	3.52	5053.52		55853-1.RAW	15:08:24	1291.24	Sample	OK	1
1611255-02	A2	500	3.52	3712.17		55854-1.RAW	15:12:32	949.44	Sample	OK	1
1611255-03	A3	500	3.52	3790.57		55855-1.RAW	15:16:40	969.42	Sample	OK	1
1611255-04	A4	500	3.52	2987.03		55856-1.RAW	15:20:49	764.66	Sample	OK	1
1611255-05	A5	500	3.52	7597.10		55857-1.RAW	15:24:57	1939.38	Sample	OK	1
1611255-06	A6	500	3.52	6670.86		55858-1.RAW	15:29:06	1703.36	Sample	OK	1
1611255-07	A7	500	3.52	2289.57		55859-1.RAW	15:33:15	586.94	Sample	OK	1
SEQ-CCV4	A8	1	3.52	4.83	96.64	55860-1.RAW	15:37:24	619.16	Sample	OK	1
SEQ-CCB4	A9	1	3.52	0.07	0.00	55861-1.RAW	15:41:32	12.38	Sample	OK	1
1611255-08	A10	500	3.52	3664.78		55862-1.RAW	15:45:40	937.37	Sample	OK	1
1611255-09	A11	500	3.52	6781.07		55863-1.RAW	15:49:49	1731.44	Sample	OK	1
1611255-10	A12	500	3.52	2299.19		55864-1.RAW	15:53:57	589.39	Sample	OK	1
1611255-11	B1	500	3.52	6160.23		55865-1.RAW	15:58:06	1573.24	Sample	OK	1
1611255-12	B2	500	3.52	3018.52		55866-1.RAW	16:02:14	772.69	Sample	OK	1
1611255-13	B3	500	3.52	3585.42		55867-1.RAW	16:06:23	917.14	Sample	OK	1
1611255-14	B4	500	3.52	5172.85		55868-1.RAW	16:10:31	1321.64	Sample	OK	1
1611255-15	B5	500	3.52	8565.85		55869-1.RAW	16:14:39	2186.23	Sample	OK	1
1611255-16	B6	500	3.52	6667.99		55870-1.RAW	16:18:48	1702.63	Sample	OK	1
1611255-17	B7	500	3.52	4141.98		55871-1.RAW	16:22:56	1058.96	Sample	OK	1
SEQ-CCV5	B8	1	3.52	4.89	97.72	55872-1.RAW	16:27:05	626.03	Sample	OK	1
SEQ-CCB5	B9	1	3.52	0.08	0.00	55873-1.RAW	16:31:13	13.84	Sample	OK	1
1611255-18	B10	500	3.52	5075.57		55874-1.RAW	16:35:22	1296.86	Sample	OK	1
1611255-19	B11	500	3.52	10181.50		55875-1.RAW	16:39:30	2597.93	Sample	OK	1
1611255-20	B12	500	3.52	17962.67		55876-1.RAW	16:43:38	4580.69	Sample	FB	1
F611360-DUP1	C1	500	3.52	6637.31		55877-1.RAW	16:47:47	1694.81	Sample	OK	1
F611360-MS1	C2	500	3.52	11607.19	174.85	55878-1.RAW	16:51:55	2961.21	Sample	OK	1
F611360-MSD1	C3	500	3.52	11249.99		55879-1.RAW	16:56:04	2870.19	Sample	FB	1
F611360-MS2	C4	1000	3.52	23019.33	204.58	55880-1.RAW	17:00:12	2936.36	Sample	OK	1
F611360-MSD2	C5	1000	3.52	20682.29		55881-1.RAW	17:04:21	2638.61	Sample	OK	1
F611283-BLK1	C6	20	3.52	4.24		55882-1.RAW	17:08:29	30.54	Sample	OK	1
F611283-BLK2	C7	20	3.52	2.67		55883-1.RAW	17:12:37	20.55	Sample	OK	1
SEQ-CCV6	C8	1	3.52	4.79	95.75	55884-1.RAW	17:16:46	613.50	Sample	OK	1
SEQ-CCB6	C9	1	3.52	0.08	0.00	55885-1.RAW	17:20:54	13.93	Sample	OK	1
F611283-BLK3	C10	20	3.52	1.50		55886-1.RAW	17:25:03	13.06	Sample	OK	1
F611283-BS1	C11	20	3.52	3.75		55887-1.RAW	17:29:11	27.40	Sample	OK	1
F611283-BS2	C12	20	3.52	11.34		55888-1.RAW	17:33:19	75.76	Sample	OK	1
1610746-07	D1	20	3.52	1.62		55889-1.RAW	17:37:28	13.84	Sample	OK	1
F611360-MS3	D2	2500	3.52	68718.62	#####	55890-1.RAW	17:41:36	3505.63	Sample	OK	1
F611360-MSD3	D3	2500	3.52	68542.10		55891-1.RAW	17:45:45	3496.64	Sample	OK	1
SEQ-CCV7	D4	1	3.52	4.88	97.69	55892-1.RAW	17:49:53	625.85	Sample	OK	1
SEQ-CCB7	D5	1	3.52	0.10	0.00	55893-1.RAW	17:54:02	16.04	Sample	OK	1

## ANALYSIS SEQUENCE

6K16023

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/16/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K16023-IBL1	QC	1			
6K16023-IBL2	QC	2			
6K16023-IBL3	QC	3			
6K16023-CAL1	QC	4	1605412		
6K16023-CAL2	QC	5	1605413		
6K16023-CAL3	QC	6	1605414		
6K16023-CAL4	QC	7	1605415		
6K16023-CAL5	QC	8	1605416		
6K16023-ICV1	QC	9	1605791		
6K16023-CCV1	QC	10	1605791		
6K16023-CCB1	QC	11			
6K16023-CCV2	QC	12	1605791		
6K16023-CCB2	QC	13			
F611360-BLK1	QC	14			
F611360-BLK2	QC	15			
F611360-BLK3	QC	16			
F611360-BS1	QC	17			
F611360-BSD1	QC	18			
6K16023-CCV3	QC	19	1605791		
6K16023-CCB3	QC	20			
F611360-BS2	QC	21			
1611255-01	Hg-CVAFS-T-7030	22			
1611255-02	Hg-CVAFS-T-7030	23			
1611255-03	Hg-CVAFS-T-7030	24			
1611255-04	Hg-CVAFS-T-7030	25			
1611255-05	Hg-CVAFS-T-7030	26			
1611255-06	Hg-CVAFS-T-7030	27			
1611255-07	Hg-CVAFS-T-7030	28			
6K16023-CCV4	QC	29	1605791		
6K16023-CCB4	QC	30			
1611255-08	Hg-CVAFS-T-7030	31			
1611255-09	Hg-CVAFS-T-7030	32			
1611255-10	Hg-CVAFS-T-7030	33			
1611255-11	Hg-CVAFS-T-7030	34			
1611255-12	Hg-CVAFS-T-7030	35			

Due Date: 11/29/2016

## ANALYSIS SEQUENCE

6K16023

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/16/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611255-13	Hg-CVAFS-T-7030	36			
1611255-14	Hg-CVAFS-T-7030	37			
1611255-15	Hg-CVAFS-T-7030	38			
1611255-16	Hg-CVAFS-T-7030	39			
1611255-17	Hg-CVAFS-T-7030	40			
6K16023-CCV5	QC	41	1605791		
6K16023-CCB5	QC	42			
1611255-18	Hg-CVAFS-T-7030	43			
1611255-19	Hg-CVAFS-T-7030	44			
1611255-20	Hg-CVAFS-T-7030	45			
F611360-DUP1	QC	46			
F611360-MS1	QC	47			
F611360-MSD1	QC	48			
F611360-MS2	QC	49			
F611360-MSD2	QC	50			
6K16023-CCV6	QC	51	1605791		
6K16023-CCB6	QC	52			
F611360-MS3	QC	53			
F611360-MSD3	QC	54			
6K16023-CCV7	QC	55	1605791		
6K16023-CCB7	QC	56			

Don Moxem      11/16/16  
 Samples Loaded By      Date

Don Moxem      11/16/16  
 Data Processed By      Date

Due Date: 11/29/2016





## ANALYSIS SEQUENCE

6K16022

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/16/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K16022-IBL1	QC	1			
6K16022-IBL2	QC	2			
6K16022-IBL3	QC	3			
6K16022-CAL1	QC	4	1605412		
6K16022-CAL2	QC	5	1605413		
6K16022-CAL3	QC	6	1605414		
6K16022-CAL4	QC	7	1605415		
6K16022-CAL5	QC	8	1605416		
6K16022-ICV1	QC	9	1605791		
F611362-BLK1	QC	10			
F611362-BLK2	QC	11			
F611362-BLK3	QC	12			
F611362-BS1	QC	13			
F611362-BSD1	QC	14			
1611454-01	Hg_FSTM_TRAP_A	15			
1611454-02	Hg_FSTM_TRAP_A	16			
1611454-03	Hg_FSTM_TRAP_A	17			
1611454-04	Hg_FSTM_TRAP_A	18			
6K16022-CCV1	QC	19	1605791		
6K16022-CCB1	QC	20			
6K16022-CCV2	QC	21	1605791		
6K16022-CCB2	QC	22			
F611362-DUP1	QC	23			
F611362-MS1	QC	24			
F611362-MSD1	QC	25			
6K16022-CCV3	QC	26	1605791		
6K16022-CCB3	QC	27			
6K16022-CCV4	QC	28	1605791		
6K16022-CCB4	QC	29			
6K16022-CCV5	QC	30	1605791		
6K16022-CCB5	QC	31			
6K16022-CCV6	QC	32	1605791		
6K16022-CCB6	QC	33			
6K16022-CCV7	QC	34	1605791		
6K16022-CCB7	QC	35			

Due Date: 11/17/2016

ANALYSIS SEQUENCE

6K16022

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/16/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Moran      11/16/16  
Samples Loaded By      Date

Don Moran      11/16/16  
Data Processed By      Date

Due Date: 11/17/2016

# Failing Data Report - 6K16022

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 Moran      11/16/16  
Analyst Reviewed By      Date

[Signature]      11/17/16  
Peer Reviewed By      Date

**ANALYSIS SEQUENCE**

**6K16021**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/16/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K16021-IBL1	QC	1			
6K16021-IBL2	QC	2			
6K16021-IBL3	QC	3			
6K16021-CAL1	QC	4	1605412		
6K16021-CAL2	QC	5	1605413		
6K16021-CAL3	QC	6	1605414		
6K16021-CAL4	QC	7	1605415		
6K16021-CAL5	QC	8	1605416		
6K16021-ICV1	QC	9	1605791		
6K16021-CCV1	QC	10	1605791		
6K16021-CCB1	QC	11			
6K16021-CCV2	QC	12	1605791		
6K16021-CCB2	QC	13			
6K16021-CCV3	QC	14	1605791		
6K16021-CCB3	QC	15			
6K16021-CCV4	QC	16	1605791		
6K16021-CCB4	QC	17			
6K16021-CCV5	QC	18	1605791		
6K16021-CCB5	QC	19			
F611283-BLK1	QC	20			
F611283-BLK2	QC	21			
6K16021-CCV6	QC	22	1605791		
6K16021-CCB6	QC	23			
F611283-BLK3	QC	24			
F611283-BS1	QC	25			
F611283-BS2	QC	26			
1610746-07	Hg-CVAFS-T-7030 DOD	27			Spike at specified level
6K16021-CCV7	QC	28	1605791		
6K16021-CCB7	QC	29			

Don Motem      11/16/16  
 Samples Loaded By      Date

Don Motem      11/16/16  
 Data Processed By      Date

Due Date: 11/23/2016

# Failing Data Report - 6K16021

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F611283-BS1	Hg-CVAFS-T-7030 DOD	0.076	0.800			0.16032	ng/g		75.00	125.00			PASS-OVER	FAIL-BS	LOD

Den Moran  
 Analyst Reviewed By

11/16/16  
 Date

Brian King  
 Peer Reviewed By

11/17/16  
 Date

**PREPARATION BENCH SHEET**

F611360

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/15/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611360-BLK1	Blank	0.5	40					
F611360-BLK2	Blank	0.5	40					
F611360-BLK3	Blank	0.5	40					
F611360-BS1	LCS	0.5	40	1605270	40			
F611360-BS2	LCS	0.253	40	1605470	253			
F611360-BSD1	LCS Dup	0.5	40	1605270	40			
F611360-DUP1	Duplicate [1611255-09]	0.517	40					
F611360-MS1	Matrix Spike [1611255-09]	0.533	40	1605712	200			
F611360-MS2	Matrix Spike [1611255-20]	0.563	40	1605712	200			
F611360-MS3	Matrix Spike [1611255-20]	0.000272	0.02	1605272	100			[Spk] 0.544g->40mL; 40mL->40mL; Spiked 0.02mL
F611360-MSD1	Matrix Spike Dup [1611255-09]	0.532	40	1605712	200			
F611360-MSD2	Matrix Spike Dup [1611255-20]	0.545	40	1605712	200			
F611360-MSD3	Matrix Spike Dup [1611255-20]	0.000272	0.02	1605272	100			[Spk] 0.544g->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>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606579	70/30 Digestion Acid	08-May-17 00:00
			1606580		
			1606599	5% BrCl	19-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00

**PREPARATION BENCH SHEET**

F611360

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/15/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611255-01	SVE-01_092416_LOB_TA_01	0.588	40	-	-	-		
1611255-02	SVE-01_092416_LOB_TA_02	0.56	40	-	-	-		
1611255-03	SVE-01_092416_LOB_TA_03	0.546	40	-	-	-		
1611255-04	SVE-01_092416_LOB_TA_04	0.538	40	-	-	-		
1611255-05	SVE-01_092416_LOB_TA_05	0.593	40	-	-	-		
1611255-06	SVE-01_092416_LOB_TA_06	0.51	40	-	-	-		
1611255-07	SVE-01_092416_LOB_TA_07	0.506	40	-	-	-		
1611255-08	SVE-01_092416_LOB_TA_08	0.527	40	-	-	-		
1611255-09	SVE-01_092416_LOB_TA_09	0.529	40	QC	-	-	MS/MSD	
1611255-10	SVE-01_092416_LOB_TA_10	0.55	40	-	-	-		
1611255-11	SVE-01_092416_LOB_TA_11	0.547	40	-	-	-		
1611255-12	SVE-01_092416_LOB_TA_12	0.532	40	-	-	-		
1611255-13	SVE-01_092416_LOB_TA_13	0.526	40	-	-	-		
1611255-14	SVE-01_092416_LOB_TA_14	0.533	40	-	-	-		
1611255-15	SVE-01_092416_LOB_TA_15	0.508	40	-	-	-		
1611255-16	SVE-01_092416_LOB_TA_16	0.581	40	-	-	-		
1611255-17	SVE-01_092416_LOB_TA_17	0.538	40	-	-	-		
1611255-18	SVE-01_092416_LOB_TA_18	0.513	40	-	-	-		
1611255-19	SVE-01_092416_LOB_TA_19	0.545	40	-	-	-		

Page 60 of 125

Date: 11/29/2016



PREPARATION BENCH SHEET

F611360

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

1611255-20	SVE-01_092416_LOB_TA_20	0.544	40	-	-	-		
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**PREPARATION BENCH SHEET**

F611362

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 11/15/2016**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611362-BLK1	Blank	1	100					
F611362-BLK2	Blank	1	100					
F611362-BLK3	Blank	1	100					
F611362-BS1	LCS	1	100	1605712	200			
F611362-BSD1	LCS Dup	1	100	1605712	200			
F611362-DUP1	Duplicate [1611454-02]	1	100					
F611362-MS1	Matrix Spike [1611454-02]	0.0001	0.01	1605272	100			[Spk] 1 Trap->100mL; 20mL->20mL; Spiked 0.01mL
F611362-MSD1	Matrix Spike Dup [1611454-02]	0.0001	0.01	1605272	100			[Spk] 1 Trap->100mL; 20mL->20mL; Spiked 0.01mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606580	70/30 Digestion Acid	08-May-17 00:00
			1606599	5% BrCl	19-Apr-17 00:00

PREPARATION BENCH SHEET

F611362

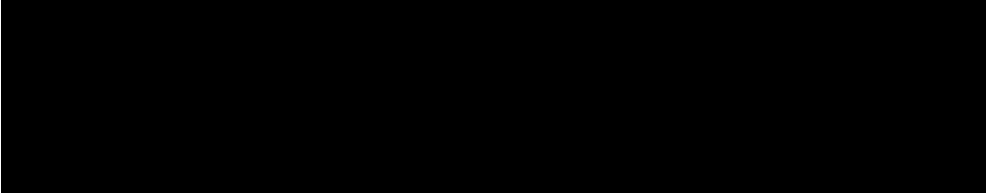
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 11/15/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611454-01	EFGS08572 Kiln 1 / Trap A	1	100	-	-	-		
1611454-02	EFGS08631 Kiln 1 / Trap B	1	100	-	-	-		
1611454-03	EFGS08712 Kiln 2 / Trap A	1	100	-	-	-		
1611454-04	EFGS08659 Kiln 2 / Trap B	1	100	-	-	-		



**PREPARATION BENCH SHEET**

F611283

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611283-BLK1	Blank	0.5	40					
F611283-BLK2	Blank	0.5	40					
F611283-BLK3	Blank	0.5	40					
F611283-BS1	LOD	0.5	40	1605271	80			
F611283-BS2	LOQ	0.5	40	1605272	40			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605271	THg 1ng/mL Calibration Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611283

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/8/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610746-07	Q4 LOD/LOQ - 2600-3	0.5	40	-	-	-	Spike at specified level	



PREPARATION BENCH SHEET

200-3

11/16/16 DM

F611360

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611360-BLK1	Blank	0.5	40					20X
F611360-BLK2	Blank	0.5	40					20X
F611360-BLK3	Blank	0.5	40					20X
F611360-BS1	LCS	0.5	40	1605270	40			20X
F611360-BS2	LCS	0.253	40	1605470	253			500X
F611360-BSD1	LCS Dup	0.5	40	1605270	40			20X
F611360-DUP1	Duplicate [1611255-09]	0.517	40					500X
F611360-MS1	Matrix Spike [1611255-09]	0.533	40	1605712	200			500X
F611360-MS2	Matrix Spike [1611255-20]	0.563	40	1605712	200		DM	500X 1000X
F611360-MSD1	Matrix Spike Dup [1611255-09]	0.532	40	1605712	200		11-16-16	500X
F611360-MSD2	Matrix Spike Dup [1611255-20]	0.545	40	1605712	200			500X 1000X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1606579	70/30 Digestion Acid	08-May-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606580		
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606599	5% BrCl	19-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00

MS3, MSD3 AS, ASD 2500X  
 Spike 1611255-20  
 1605272 10041

1602941  
 1606159  
 1606188  
 1606591

PREPARATION BENCH SHEET

2600.3  
11/16/16 DM

F611360

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1611255-01	SVE-01_092416_LOB_TA_01	0.588	40	No	500x
1611255-02	SVE-01_092416_LOB_TA_02	0.56	40	No	500x
1611255-03	SVE-01_092416_LOB_TA_03	0.546	40	No	500x
1611255-04	SVE-01_092416_LOB_TA_04	0.538	40	No	500x
1611255-05	SVE-01_092416_LOB_TA_05	0.593	40	No	500x
1611255-06	SVE-01_092416_LOB_TA_06	0.51	40	No	500x
1611255-07	SVE-01_092416_LOB_TA_07	0.506	40	No	500x
1611255-08	SVE-01_092416_LOB_TA_08	0.527	40	No	500x
1611255-09	SVE-01_092416_LOB_TA_09	0.529	40	No	500x
1611255-10	SVE-01_092416_LOB_TA_10	0.55	40	No	500x
1611255-11	SVE-01_092416_LOB_TA_11	0.547	40	No	500x
1611255-12	SVE-01_092416_LOB_TA_12	0.532	40	No	500x
1611255-13	SVE-01_092416_LOB_TA_13	0.526	40	No	500x
1611255-14	SVE-01_092416_LOB_TA_14	0.533	40	No	500x
1611255-15	SVE-01_092416_LOB_TA_15	0.508	40	No	500x
1611255-16	SVE-01_092416_LOB_TA_16	0.581	40	No	500x
1611255-17	SVE-01_092416_LOB_TA_17	0.538	40	No	500x
1611255-18	SVE-01_092416_LOB_TA_18	0.513	40	No	500x
1611255-19	SVE-01_092416_LOB_TA_19	0.545	40	No	500x
1611255-20	SVE-01_092416_LOB_TA_20	0.544	40	No	500x

**PREPARATION BENCH SHEET**

F611360

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/15/2016**



Technician: MPM Batch#: F611360 Date: 11/15/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm. #: 14545 Calibrated?  Yes  No

Time in: 1351 Actual Temp. (raw): 74 °C w/ CF: 73.8 °C

Time out: 1554 Actual Temp. (raw): 75.5 °C w/ CF: 75.2 °C

Final vol.: 40 mL (LIMS ID: 1606599) Spike vol.: 200 µL (LIMS ID: 1605712)

Spike Witness: MPM 11/15/16 (initial and date)

HCl LIMS ID: N/A

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

70/30 LIMS ID: 1606579/1606580

Other Acid LIMS ID: N/A

Pipette SN#: MU11619 Calibration Date: 11/14/16

Dispenser SN#: 0222159 Calibration Date: 11/4/16

Dispenser #: 02K27494 Calibrated?  Yes  No

Other Reagent/LIMS IDs: N/A

MPM 11/15/16 Centrifuge Tube lot # 00066064

Boiling Chip lot # 1606642 \*Hotblock Position: H1

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	F611360-BIK1	0.527	23	1611255-14	0.533	DORM-4 B52
2	F611360-BIK2	0.552	24	1611255-15	0.508	1605470
3	F611360-BIK3	0.510	25	1611255-16	0.581	
4	F611360-BS1	0.583	26	1611255-17	0.538	Comments BS1/BSD1 40 µL of 100 ng/mL 1605270 MPM 11/15/16
5	F611360-BSD1	0.509	27	1611255-18	0.513	
6	F611360-BS2	0.253	28	1611255-19	0.545	
7	1611255-01	<del>0.588</del> <sup>11/15/16 MPM</sup> 0.588	29	1611255-20	0.544	
8	1611255-02	0.560	30	F611360-MS2(1611255-20)	0.563	
9	1611255-03	0.546	31	F611360-MSD2(1611255-20)	0.545	
10	1611255-04	0.538	32			
11	1611255-05	0.593	33			
12	1611255-06	0.510	34			
13	1611255-07	0.506	35			
14	1611255-08	0.527	36			
15	1611255-09	0.529	37			
16	F611360-DUP1(1611255-09)	0.517	38			
17	F611360-MS1(1611255-09)	0.533	39			
18	F611360-MSD1(1611255-09)	0.532	40			
19	1611255-10	0.550	41			
20	1611255-11	0.547	42			
21	1611255-12	0.532	43			
22	1611255-13	0.526	44			

MPM 11/15/16

PREPARATION BENCH SHEET

20003  
11/16/16 DM

F611283

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611283-BLK1	Blank	0.5	40					20X
F611283-BLK2	Blank	0.5	40					20X
F611283-BLK3	Blank	0.5	40					20X
F611283-BS1	LOD	0.5	40	1605271	80			20X
F611283-BS2	LOQ	0.5	40	1605272	40			20X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
1605271	THg 1ng/mL Calibration Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1606221	70/30 Digestion Acid	22-Apr-17 00:00
			1606500	5% BrCl	19-Apr-17 00:00

1602941  
1606188  
1606189  
1606531

PREPARATION BENCH SHEET

2600-3  
11/16/16 DM

F611283

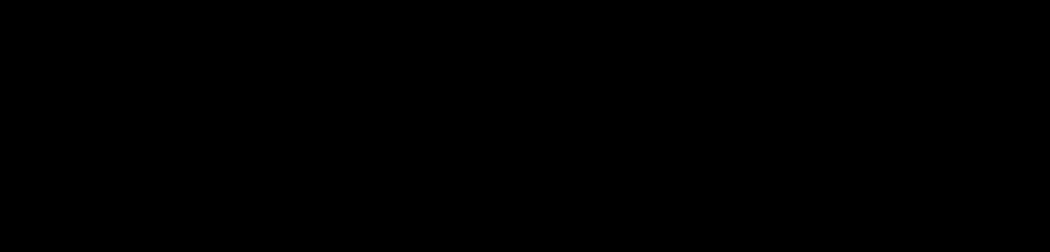
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/8/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610746-07	Q4 LOD/LOQ - 2600-3	0.5	40	-	-	-	Spike at specified level	20X



Technician: Duyen Batch#: 11/8/16 F611282 Date: 11-8-16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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: 11:25 Actual Temp. (raw): 79.0 °C w/ CF: 78.5 °C  
 Time out: 13:25 Actual Temp. (raw): 81.0 °C w/ CF: 80.5 °C  
 Final vol.: 40 mL (LIMS ID: 160500) Spike vol.: 1605271 µL (LIMS ID: 1605272)  
 Spike Witness: DM 11/8/16 (initial and date) LOA 1605272

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 11/7/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: 02K27494 Calibration Date: N/A  
 70/30 LIMS ID: 1606221 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: 022159  Yes  
 Centrifuge Tube lot # 00064588 Boiling Chip lot # 1603399 \*Hotblock Position: 9.2

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 type="checkbox"/> g	CRM LIMS ID <input type="checkbox"/> NA
1	F611282 Blank1	0.5199	23			
2	F611282 Blank2	0.5483	24			
3	F611282 Blank3	0.5016	25			
4	F611282 BS1 <sup>LOD</sup>	0.5128	26			
5	F611282 BS2 <sup>LOD</sup>	0.5407	27		11/8/16	F611283 Blank1
6	1610746-06	0.5199	28		N/A	F611283 Blank2
7	1610746-07	0.5483	29			F611283 Blank3
8			30			F611283 BS1
9			31			F611283 BS2
10			32			BS1 LOD
11			33			1.0mg/L
12			34			= 80ul
13			35			1605271
14			36			BS2 LOD
15			37			10.0mg/L
16			38			= 40ul
17			39			1605272
18			40			11/8/16 N/A
19			41			
20			42			
21			43			
22			44			

Reviewed  
11/9/16 DM

PREPARATION BENCH SHEET

2600-3  
11/15/16 DM

F611362

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 11/15/2016

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611362-BLK1	Blank	1	100					100x
F611362-BLK2	Blank	1	100					100x
F611362-BLK3	Blank	1	100					100x
F611362-BS1	LCS	1	100	1605712	200			500x
F611362-BSD1	LCS Dup	1	100	1605712	200			500x
F611362-DUP1	Duplicate 1611454.02	1	100					2500x
F611362-MS1	Matrix Spike 1611454.02	1	100	1605272	100			500x
F611362-MSD1	Matrix Spike Dup 1611454.02	1	100	1605272	100			5000x

<u>Standard ID(s):</u> 1605712	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 03-Apr-17 00:00	<u>Reagent ID(s):</u> 1606580 1606599	<u>Description:</u> 70/30 Digestion Acid 5% BrCl	<u>Expiration:</u> 08-May-17 00:00 19-Apr-17 00:00
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1602941  
1602189  
1606186  
1606531

PREPARATION BENCH SHEET

2600-3  
11/16/16 DM

F611362

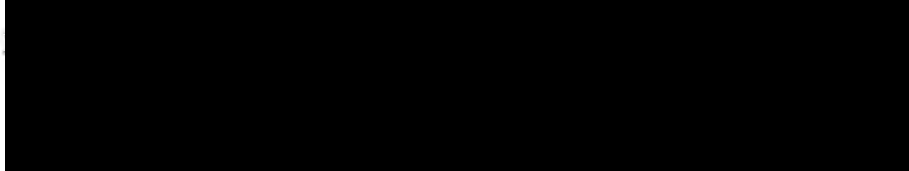
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 11/15/2016

Lab Number	Sample ID	Initial (Trap)	Final (mL)	A Sample Comments	B	C Analysis Comments
1611454-01	EFGS08572 Kiln 1 / Trap A	1	100	No 2500X	100X	2500X
1611454-02	EFGS08631 Kiln 1 / Trap B	1	100	No 2500X	100X	2500X
1611454-03	EFGS08712 Kiln 2 / Trap A	1	100	No 2500X	100X	5000X
1611454-04	EFGS08659 Kiln 2 / Trap B	1	100	No 2500X	100X	5000X



Name: AMB Trap Digestions Date: 11-15-16 Batch ID: FG11362  
 Work Order(s): \_\_\_\_\_ 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: 1835, start temp (°C): 62 (raw) 61.8 (w/ CF)  
 end time: 2035, end temp (°C): timer (raw) timer (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)
FG11362-BLK1	100
FG11362-BLK2	100
FG11362-BLK3	100
FG11362-BS1	100
FG11362-BSD1	100
1611454-01A	100
1611454-01B	100
1611454-01C	100
1611454-02A	100
1611454-02B	100
1611454-02C	100
1611454-03A	100
1611454-03B	100
1611454-03C	100
1611454-04A	100
1611454-04B	100
1611454-04C	100

Spike ID: 1605712  
 Spike Amount (µL): 200  
 Spike Witness: DA 11/15/16  
 BrCl ID: 1606599  
 70/30: 1606580  
 Other: N/A  
 Thermometer: 14545  
 Dispensers: 02K27494   
 04N73497   
 Other: 0222159  
5% BrCl Dispenser  
 Pipette ID: MU11619  
 Cal. Date: 11/14/16  
 Vials and Jars lot# 00065774  
 Trap Material Lot#: 1606449  
 Loader Mass Verified:  Yes  No  
 Comments:  
1611454-01C + 02C:  
Spiked @ 9000ng.  
1611454-03C + 04C:  
Spiked @ 13,000ng.  
AMB 11-15-16

AMB 11-15-16





**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>	6K16021, 6K16022, 6K16023
<b>Reviewer:</b>	0 <i>BC</i> <i>11/17/16</i>	<b>Dataset ID(s):</b>	THG26003-161116-1
<b>Date:</b>	11/16/2016	<b>WO (s) #:</b>	1611255, 1611454, 1610746
<b>Batch #(s):</b>	F611360, F611362, F611283		0

Analyst Initials DM                      Reviewer Initials BC

- 5b. Has the B/C section data been uploaded?  YES     NO     N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%)  PASS     FAIL      
 Comments: \_\_\_\_\_
7. The calibration curve included a minimum of 5 Standards  YES     NO      
 Comments: \_\_\_\_\_
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)  PASS     FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%)  PASS     FAIL      
 Comments: \_\_\_\_\_
10. Do all calibration points pass acceptance criteria?  YES     NO      
 Comments: \_\_\_\_\_
11. Are qualifiers consistent with the data review flowcharts?  YES     NO     N/A      
 Comments: \_\_\_\_\_
12. Explain any items on the failed data report from Element   
 Comments: F611360-MSD2 FAILED. RE-ANALYZED AND PASSED. F611283-BS1 FAILED. LOD
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>	6K16021, 6K16022, 6K16023
<b>Reviewer:</b>	0 <i>BC</i> 11/17/16	<b>Dataset ID(s):</b>	THG26003-161116-1
<b>Date:</b>	11/16/2016	<b>WO (s) #:</b>	1611255, 1611454, 1610746
<b>Batch #(s):</b>	F611360, F611362, F611283		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   |   |
| 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  |
| 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 checked="" type="checkbox"/> YES  |                               | <input type="checkbox"/> N/A <input checked="" type="checkbox"/>            |
| 34. Water samples: has the preservation log been included in dataset for final volume verification?  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| 35. Water samples-is the final volume correct in the sequence?   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
- Files located at:** \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
- |  |                              |                             |                                     |
|--|------------------------------|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 12/16/2015 _____ 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: _____ 5/20/2016 _____ Current SOP revision read? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 7/7/2016 _____ LOD within last 3 months?                                | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 7/7/2016 _____ LOQ within last 3 months?                                | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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





Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-12-1554**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1611255

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244

Approved for release on 01/16/2017 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1611255  
Work Order Number: 16-12-1554

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	8
	4.1 Sample Duplicate. . . . .	8
5	Glossary of Terms and Qualifiers. . . . .	9
6	Chain-of-Custody/Sample Receipt Form. . . . .	10
7	16-12-1554 Level IV Case Narrative. . . . .	18
8	16-12-1554 Level IV Data Package. . . . .	20

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 12/16/16. They were assigned to Work Order 16-12-1554.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-12-1554
11720 North Creek Parkway North, Suite 4	Project Name:	1611255
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	12/16/16 11:30
	Number of Containers:	20

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
SVE-01_092416_LOB_TA_01	16-12-1554-1	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_02	16-12-1554-2	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_03	16-12-1554-3	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_04	16-12-1554-4	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_05	16-12-1554-5	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_06	16-12-1554-6	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_07	16-12-1554-7	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_08	16-12-1554-8	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_09	16-12-1554-9	09/24/16 12:17	1	Tissue
SVE-01_092416_LOB_TA_10	16-12-1554-10	09/24/16 12:38	1	Tissue
SVE-01_092416_LOB_TA_11	16-12-1554-11	09/24/16 12:38	1	Tissue
SVE-01_092416_LOB_TA_12	16-12-1554-12	09/24/16 12:38	1	Tissue
SVE-01_092416_LOB_TA_13	16-12-1554-13	09/24/16 12:38	1	Tissue
SVE-01_092416_LOB_TA_14	16-12-1554-14	09/24/16 12:38	1	Tissue
SVE-01_092416_LOB_TA_15	16-12-1554-15	09/24/16 12:38	1	Tissue
SVE-01_092416_LOB_TA_16	16-12-1554-16	09/24/16 12:52	1	Tissue
SVE-01_092416_LOB_TA_17	16-12-1554-17	09/24/16 12:57	1	Tissue
SVE-01_092416_LOB_TA_18	16-12-1554-18	09/24/16 12:57	1	Tissue
SVE-01_092416_LOB_TA_19	16-12-1554-19	09/24/16 12:57	1	Tissue
SVE-01_092416_LOB_TA_20	16-12-1554-20	09/24/16 12:57	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1554  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611255

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE-01_092416_LOB_TA_01	16-12-1554-1-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.47	0.10		1.00		
SVE-01_092416_LOB_TA_02	16-12-1554-2-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.47	0.10		1.00		
SVE-01_092416_LOB_TA_03	16-12-1554-3-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.47	0.10		1.00		
SVE-01_092416_LOB_TA_04	16-12-1554-4-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.73	0.10		1.00		
SVE-01_092416_LOB_TA_05	16-12-1554-5-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.59	0.10		1.00		
SVE-01_092416_LOB_TA_06	16-12-1554-6-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.28	0.10		1.00		
SVE-01_092416_LOB_TA_07	16-12-1554-7-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.51	0.10		1.00		
SVE-01_092416_LOB_TA_08	16-12-1554-8-AA	09/24/16 12:17	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.64	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1554  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611255

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
<b>SVE-01_092416_LOB_TA_09</b>	<b>16-12-1554-9-AA</b>	<b>09/24/16 12:17</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.52	0.10		1.00		
<b>SVE-01_092416_LOB_TA_10</b>	<b>16-12-1554-10-AA</b>	<b>09/24/16 12:38</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.62	0.10		1.00		
<b>SVE-01_092416_LOB_TA_11</b>	<b>16-12-1554-11-AA</b>	<b>09/24/16 12:38</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.57	0.10		1.00		
<b>SVE-01_092416_LOB_TA_12</b>	<b>16-12-1554-12-AA</b>	<b>09/24/16 12:38</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.64	0.10		1.00		
<b>SVE-01_092416_LOB_TA_13</b>	<b>16-12-1554-13-AA</b>	<b>09/24/16 12:38</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.45	0.10		1.00		
<b>SVE-01_092416_LOB_TA_14</b>	<b>16-12-1554-14-AA</b>	<b>09/24/16 12:38</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.64	0.10		1.00		
<b>SVE-01_092416_LOB_TA_15</b>	<b>16-12-1554-15-AA</b>	<b>09/24/16 12:38</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.39	0.10		1.00		
<b>SVE-01_092416_LOB_TA_16</b>	<b>16-12-1554-16-AA</b>	<b>09/24/16 12:52</b>	<b>Tissue</b>	<b>N/A</b>	<b>12/29/16</b>	<b>12/29/16 00:00</b>	<b>161229B12</b>
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.52	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 12/16/16  
Work Order: 16-12-1554  
Preparation: EPA 3541  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1611255

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
SVE-01_092416_LOB_TA_17	16-12-1554-17-AA	09/24/16 12:57	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.51	0.10		1.00		
SVE-01_092416_LOB_TA_18	16-12-1554-18-AA	09/24/16 12:57	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.49	0.10		1.00		
SVE-01_092416_LOB_TA_19	16-12-1554-19-AA	09/24/16 12:57	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.41	0.10		1.00		
SVE-01_092416_LOB_TA_20	16-12-1554-20-AA	09/24/16 12:57	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.66	0.10		1.00		
Method Blank	099-14-104-159	N/A	Tissue	N/A	12/29/16	12/29/16 00:00	161229B12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 12/16/16  
Work Order: 16-12-1554  
Preparation: EPA 3541  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1611255

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
SVE-01_092416_LOB_TA_09	Sample	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D12
SVE-01_092416_LOB_TA_09	Sample Duplicate	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D12

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.5200	0.5200	0	0-25	

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-12-1554

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.

1611255

**16-12-1554**

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

**Analysis**

**Comments**

Sample ID: SVE-01\_092416\_LOB\_TA\_01

EFGS Lab ID: 1611255-01      Matrix: Tissue

Sampled: 24-Sep-16 12:17 Eastern      Due: 29-Nov-16 19:00

Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

Sample ID: SVE-01\_092416\_LOB\_TA\_02

EFGS Lab ID: 1611255-02      Matrix: Tissue

Sampled: 24-Sep-16 12:17 Eastern      Due: 29-Nov-16 19:00

Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

Sample ID: SVE-01\_092416\_LOB\_TA\_03

EFGS Lab ID: 1611255-03      Matrix: Tissue

Sampled: 24-Sep-16 12:17 Eastern      Due: 29-Nov-16 19:00

Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By		Date	12/15/16	Received By		Date	12/16/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611255

1554

Analysis Comments

4 Sample ID: SVE-01\_092416\_LOB\_TA\_04

EFGS Lab ID: 1611255-04 Matrix: Tissue

Sampled: 24-Sep-16 12:17 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

5 Sample ID: SVE-01\_092416\_LOB\_TA\_05

EFGS Lab ID: 1611255-05 Matrix: Tissue

Sampled: 24-Sep-16 12:17 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

6 Sample ID: SVE-01\_092416\_LOB\_TA\_06

EFGS Lab ID: 1611255-06 Matrix: Tissue

Sampled: 24-Sep-16 12:17 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

7 Sample ID: SVE-01\_092416\_LOB\_TA\_07

EFGS Lab ID: 1611255-07 Matrix: Tissue

Sampled: 24-Sep-16 12:17 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

Released By *[Signature]* Date 12/15/16 Received By *[Signature]* Date 12/16/16

Released By *[Signature]* Date 12/15/16 Received By *[Signature]* Date 12/16/16

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1611255

1554

Analysis

Comments

Sample ID: SYE-01\_092416\_LOB\_TA\_08  
EFGS Lab ID: 1611255-08 Matrix: Tissue  
Sampled: 24-Sep-16 12:17 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

Sample ID: SYE-01\_092416\_LOB\_TA\_09  
EFGS Lab ID: 1611255-09 Matrix: Tissue  
Sampled: 24-Sep-16 12:17 Eastern Due: 29-Nov-16 19:00  
MS/MSD

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

Sample ID: SYE-01\_092416\_LOB\_TA\_10  
EFGS Lab ID: 1611255-10 Matrix: Tissue  
Sampled: 24-Sep-16 12:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

Sample ID: SYE-01\_092416\_LOB\_TA\_11  
EFGS Lab ID: 1611255-11 Matrix: Tissue  
Sampled: 24-Sep-16 12:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

Released By: *[Signature]* Date: 12/15/16 Received By: *[Signature]* Date: 12/16/16  
Released By: *[Signature]* Date: 12/15/16 Received By: *[Signature]* Date: 12/16/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611255

1554

Analysis

Comments

12 Sample ID: SVE-01\_092416\_LOB\_TA\_12

EFGS Lab ID: 1611255-12 Matrix: Tissue

Sampled: 24-Sep-16 12:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

13 Sample ID: SVE-01\_092416\_LOB\_TA\_13

EFGS Lab ID: 1611255-13 Matrix: Tissue

Sampled: 24-Sep-16 12:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

14 Sample ID: SVE-01\_092416\_LOB\_TA\_14

EFGS Lab ID: 1611255-14 Matrix: Tissue

Sampled: 24-Sep-16 12:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)



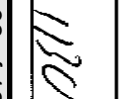
15 Sample ID: SVE-01\_092416\_LOB\_TA\_15

EFGS Lab ID: 1611255-15 Matrix: Tissue

Sampled: 24-Sep-16 12:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By	Bar	Date	12/15/16	Received By		Date	12/16/16





SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1611255

1354

Analysis Comments

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16 Sample ID: SVE-01\_092416\_LOB\_TA\_16  
EFGS Lab ID: 1611255-16 Matrix: Tissue  
Sampled: 24-Sep-16 12:52 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

17 Sample ID: SVE-01\_092416\_LOB\_TA\_17  
EFGS Lab ID: 1611255-17 Matrix: Tissue  
Sampled: 24-Sep-16 12:57 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

18 Sample ID: SVE-01\_092416\_LOB\_TA\_18  
EFGS Lab ID: 1611255-18 Matrix: Tissue  
Sampled: 24-Sep-16 12:57 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

19 Sample ID: SVE-01\_092416\_LOB\_TA\_19  
EFGS Lab ID: 1611255-19 Matrix: Tissue  
Sampled: 24-Sep-16 12:57 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

Released By: [Signature] Date: 12/15/16 Received By: [Signature] Date: 12/16/16  
Released By: [Signature] Date: 12/15/16 Received By: [Signature] Date: 12/16/16

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.  
**1611255**

(1554)

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<b>Analysis</b>	<b>Comments</b>
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---

20 Sample ID: SYE-01\_092416\_JOB\_TA\_20  
EFGS Lab ID: 1611255-20      Matrix: Tissue  
Sampled: 24-Sep-16 12:57 Eastern      Due: 29-Nov-16 19:00

Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

---

<p>Released By: <u>MW</u>      Date: <u>12/15/16</u></p> <p>Released By: <u>Barista</u>      Date: <u>12/15/16</u></p>	<p>Received By: _____      Date: _____</p> <p>Received By: <u>M. R. ...</u>      Date: <u>12/16/16 1130</u></p>
--	---

1554

FRONT DESK  
(425) 988-1998  
FRONTIER GLOBAL SCIENCES  
11720 N CREEK PKWY N  
BOTHELL WA 98011-8244

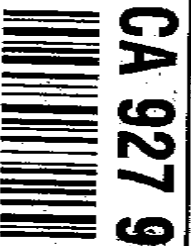
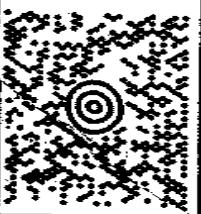
38 LBS

DWT: 24.13.14

1 OF 1

SHIP TO:

SAMPLE RECEIVING  
(714) 898-8494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841



CA 927 9-89



UPS NEXT DAY AIR

TRACKING #: 1Z 86W 050 01 5096.6731

1



0116  
159

CA 927 9-09  
CA 92841

19.0.10 Zmbro ZP 480 7E.0A 01/2016



9159

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**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: EFGS

DATE: 12/16/2016

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): -2.2 °C (w/ CF): -2.2 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 15

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 15  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 228

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  Yes  No  N/A  
 Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals  Yes  No  N/A  
 Container(s) for certain analysis free of headspace .....  Yes  No  N/A  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)  
 Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBzma  250AAGB  250CCGB  250CCGBs  250PB  250PBn  500AAGB  500AAGJ  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  ENCores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (TSME)  Z  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: ZZX  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 166A

## Case Narrative

Client Project Name: 1611255  
Work Order Number: 16-12-1554

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 20 tissue samples on December 16, 2016. A total of 20 containers were received in good condition at a temperature of -2.2°C, which was within the recommended temperature criteria.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
SVE-01_092416_LOB_TA_01	16-12-1554-1	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_02	16-12-1554-2	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_03	16-12-1554-3	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_04	16-12-1554-4	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_05	16-12-1554-5	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_06	16-12-1554-6	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_07	16-12-1554-7	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_08	16-12-1554-8	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_09	16-12-1554-9	09/24/16 12:17	12/16/16 11:30
SVE-01_092416_LOB_TA_10	16-12-1554-10	09/24/16 12:38	12/16/16 11:30
SVE-01_092416_LOB_TA_11	16-12-1554-11	09/24/16 12:38	12/16/16 11:30
SVE-01_092416_LOB_TA_12	16-12-1554-12	09/24/16 12:38	12/16/16 11:30
SVE-01_092416_LOB_TA_13	16-12-1554-13	09/24/16 12:38	12/16/16 11:30
SVE-01_092416_LOB_TA_14	16-12-1554-14	09/24/16 12:38	12/16/16 11:30
SVE-01_092416_LOB_TA_15	16-12-1554-15	09/24/16 12:38	12/16/16 11:30
SVE-01_092416_LOB_TA_16	16-12-1554-16	09/24/16 12:52	12/16/16 11:30
SVE-01_092416_LOB_TA_17	16-12-1554-17	09/24/16 12:57	12/16/16 11:30
SVE-01_092416_LOB_TA_18	16-12-1554-18	09/24/16 12:57	12/16/16 11:30
SVE-01_092416_LOB_TA_19	16-12-1554-19	09/24/16 12:57	12/16/16 11:30
SVE-01_092416_LOB_TA_20	16-12-1554-20	09/24/16 12:57	12/16/16 11:30

### DATA SUMMARY:

Pursuant to the chain-of-custody (COC), the samples were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a).

All samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

## Case Narrative

---

Client Project Name: 1611255  
Work Order Number: 16-12-1554

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -20 were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/29/16 in batch # 161229B12 / 161229D12.

### **Sample and QC:**

Sample -9 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

*% Lipids via MeCl<sub>2</sub> Ext.  
(NOAA 1993a)*

**RAW DATA**

[Return to Contents](#) 

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 1** **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_01

**LCS/MB BATCH:** 161229B12 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D12 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PE:** 1.00

**COMMENT:**

**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.470 1.00 0.470 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 2 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_02

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.470	1.00	0.470	0.10	

% Lipids



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

16-12-1554

ANALYZED BY: 142

N/A

D/T ANALYZED: 2016-12-29 00:00

EPA 3541

REVIEWED BY:

2016-12-29 00:00

D/T REVIEWED:

DATA FILE:

CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_03

# 3  
LCS/MB BATCH: 161229B12  
MS/MSD BATCH: 161229D12  
UNITS: %

SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC DF CONC RL

QUAL

% Lipids

0.470

1.00

0.470

0.10



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 4**      **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_04

**LCS/MB BATCH:** 161229B12      **SAMPLE VOLUME /WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D12      **FINAL VOLUME /WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.730	1.00	0.730	0.10		

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 5** **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_05

**LCS/MB BATCH:** 161229B12 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D12 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.590 1.00 0.590 0.10

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 6** **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_06

**LCS/MB BATCH:** 161229B12 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D12 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.280	1.00	0.280	0.10	

RAW DATA SHEET

FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00  
DATA FILE:

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 7 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_07

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.510	1.00	0.510	0.10	

% Lipids

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 8** **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_08

**LCS/MB BATCH:** 161229B12 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D12 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.640 1.00 0.640 0.10

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
DT EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
DT ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 9 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_09

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.520	1.00	0.520	0.10	

% Lipids





RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION : EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 10 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_10

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PE: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.620	1.00	0.620	0.10	

% Lipids



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 11**      **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_11

**LCS/MB BATCH:** 161229B12      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D12      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

**ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

---

% Lipids	0.570	1.00	0.570	0.10	
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RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
DT EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
DT ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
DT REVIEWED:

DATA FILE:

# 12 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_12

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids ON COL CONC DF CONC RL QUAL

0.640 1.00 0.640 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 13 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_13

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.450	1.00	0.450	0.10	

% Lipids



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 14**      **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_14

**LCS/MB BATCH:** 161229B12      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D12      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

**% Lipids**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

0.640      1.00      0.640      0.10

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**DT ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 15** **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_15

**LCS/MB BATCH:** 161229B12 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D12 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**  
% Lipids 0.390 1.00 0.390 0.10

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 16 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_16

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.520	1.00	0.520	0.10	

% Lipids

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 17**      **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_17

**LCS/MB BATCH:** 161229B12      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D12      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	0.510	1.00	0.510	0.10	



RAW DATA SHEET

FOR METHOD: MeCl2 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1554  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00  
DATA FILE:

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

# 18 CLIENT SAMPLE NUMBER: SVE-01\_092416\_LOB\_TA\_18

LCS/MB BATCH: 161229B12 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D12 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.490	1.00	0.490	0.10	

% Lipids



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 19** **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_19

**LC/MSB BATCH:** 161229B12 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D12 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

**ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

% Lipids 0.410 1.00 0.410 0.10



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1554  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 20**      **CLIENT SAMPLE NUMBER:** SVE-01\_092416\_LOB\_TA\_20

**LCS/MB BATCH:** 161229B12      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D12      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

**ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

0.660

1.00

0.660

0.10



**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: Mec12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-159  
**MB BATCH ID:** 161229B12  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-12-1554**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	SVE-01	_092416_LOB_TA_01	2016-12-29 00:00	
2	SVE-01	_092416_LOB_TA_02	2016-12-29 00:00	
3	SVE-01	_092416_LOB_TA_03	2016-12-29 00:00	
4	SVE-01	_092416_LOB_TA_04	2016-12-29 00:00	
5	SVE-01	_092416_LOB_TA_05	2016-12-29 00:00	
6	SVE-01	_092416_LOB_TA_06	2016-12-29 00:00	
7	SVE-01	_092416_LOB_TA_07	2016-12-29 00:00	
8	SVE-01	_092416_LOB_TA_08	2016-12-29 00:00	
9	SVE-01	_092416_LOB_TA_09	2016-12-29 00:00	
10	SVE-01	_092416_LOB_TA_10	2016-12-29 00:00	
11	SVE-01	_092416_LOB_TA_11	2016-12-29 00:00	
12	SVE-01	_092416_LOB_TA_12	2016-12-29 00:00	
13	SVE-01	_092416_LOB_TA_13	2016-12-29 00:00	
14	SVE-01	_092416_LOB_TA_14	2016-12-29 00:00	
15	SVE-01	_092416_LOB_TA_15	2016-12-29 00:00	
16	SVE-01	_092416_LOB_TA_16	2016-12-29 00:00	
17	SVE-01	_092416_LOB_TA_17	2016-12-29 00:00	
18	SVE-01	_092416_LOB_TA_18	2016-12-29 00:00	
19	SVE-01	_092416_LOB_TA_19	2016-12-29 00:00	
20	SVE-01	_092416_LOB_TA_20	2016-12-29 00:00	

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161229B12 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 0.0100 1.00 ND 0.10



## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-12-1554-9

**DUP BATCH:** 161229D12

**INSTRUMENTS:**

**SAMPLE:** N/A

**DUP SAMPLE:** N/A

**EXTRACTION:** EPA 3541

**D/T EXTRACTED:**

**SAMPLE:** 2016-12-29 00:00

**DUP SAMPLE:** 2016-12-29 00:00

**ANALYZED BY:** 142

**D/T ANALYZED**

**SAMPLE:** 2016-12-29 00:00

**DUP SAMPLE:** 2016-12-29 00:00

**REVIEWED BY:**

**D/T REVIEWED**

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	0.5200	0.5200	0	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-55-01	4) Sand 507-19-19	1) Filter 507-44-19	
2) C <sub>6</sub> H <sub>14</sub>			
3) Na <sub>2</sub> SO <sub>4</sub>			

MATRIX	BATCH NUMBER	COMMENTS
Tissue	MB: 161229 B12	
	Sample Duplicate: 161229 B12	

CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-12-1534-9	0.52	0	0-10	
Duplicate 16-12-1534-9	0.52			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12/29/16	MB	1.00	34	1	1	1.8873	1.8874	0.0001	0.01	682	
	16-12-1534-1AA	1.69				1.8851	1.8931	0.0080	0.47		
	-2AA	1.81				1.8522	1.8607	0.0085	0.47		
	-3AA	1.92				1.8686	1.8777	0.0091	0.47		
	-4AA	1.52				1.8909	1.9021	0.0112	0.73		
	-5AA	1.38				1.8713	1.8794	0.0081	0.59		
	-6AA	1.43				1.8702	1.8742	0.0040	0.28		
	-7AA	1.24				1.8415	1.8478	0.0063	0.51		
	-8AA	1.74				1.8670	1.8782	0.0112	0.64		
	-9AA	1.51				1.8575	1.8653	0.0078	0.52		
	-10AA	1.69				1.8822	1.8927	0.0105	0.62		
	-11AA	1.79				1.8938	1.904	0.0102	0.57		
	-12AA	1.47				1.8952	1.9046	0.0094	0.64		
	-13AA	1.45				1.8658	1.8723	0.0065	0.45		
	-14AA	1.43				1.8851	1.8942	0.0091	0.64		
	-15AA	1.39				1.8729	1.8783	0.0054	0.39		
	-16AA	1.49				1.8673	1.8751	0.0078	0.52		
	-17AA	1.72				1.8499	1.8587	0.0088	0.51		
	-18AA	1.72				1.8784	1.8868	0.0084	0.49		
	-19AA	1.21				1.894	1.899	0.005	0.41		
	-20AA	1.51				1.8878	1.8977	0.0099	0.66		
	Duplicate -9AA	1.50				1.8752	1.883	0.0078	0.52		

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  % L.P.D.S  
 8270  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL)

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID#: Measuring Sample- Start Extraction- 785 Blow Down- 785 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: Filter ID#: 507-44-19 ASE ID#: Soxtherm ID#: 1-4 Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 12-29-16 14:00 Ext. End Date/Time: 12-29-16 16:30

Sand or Wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

507-19-19 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (mL):

Spike Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-55-01 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #:	Sample W (g) / V (mL)	Clean Up Performed	Comments
161229 B12			

Cell ID#:	Initial	Final	Clean Up Performed	Comments
MB	1.00	1	<input type="checkbox"/>	
LCSD <del>NA</del> AA	1.50	1	<input type="checkbox"/>	
LCSD <del>NA</del> DMP			<input type="checkbox"/>	
MS <del>NA</del>			<input type="checkbox"/>	
MSD <del>NA</del>			<input type="checkbox"/>	
16-12-1554 - 1 AA	1.69	1	<input type="checkbox"/>	
	1.81	1	<input type="checkbox"/>	
	1.92	1	<input type="checkbox"/>	
	1.54	1	<input type="checkbox"/>	
	1.38	1	<input type="checkbox"/>	
	1.43	1	<input type="checkbox"/>	
	1.24	1	<input type="checkbox"/>	
	1.74	1	<input type="checkbox"/>	
	1.51	1	<input type="checkbox"/>	
	1.69	1	<input type="checkbox"/>	
	1.79	1	<input type="checkbox"/>	
	1.47	1	<input type="checkbox"/>	
	1.45	1	<input type="checkbox"/>	
	1.43	1	<input type="checkbox"/>	
	1.39	1	<input type="checkbox"/>	
	1.49	1	<input type="checkbox"/>	
	1.72	1	<input type="checkbox"/>	
	1.72	1	<input type="checkbox"/>	
	1.8	1	<input type="checkbox"/>	
	1.9	1	<input type="checkbox"/>	
	2.0	1	<input type="checkbox"/>	
	1.51	1	<input type="checkbox"/>	

Peer Reviewed by: 142

Peer Reviewed Date: 1/5/17

Revision Date: 10/20/16



# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/29/16

Initials: LSL

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.05	498.00 - 502.00	<input checked="" type="radio"/> Y	N
62	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	0.9995	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9993	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
26	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.95	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9997	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9978	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
53	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	N
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.01	498 - 502	<input checked="" type="radio"/> Y	N
20	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.05	498.00 - 502.00	<input checked="" type="radio"/> Y	N
57	100	100.0	98.0-102.0	<input checked="" type="radio"/> Y	Extractions
	1000	1000.0	998.0-1002.0	<input checked="" type="radio"/> Y	N
	2000	2000.0	1998.0-2002.0	<input checked="" type="radio"/> Y	N
52	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.9995	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
14	0.002		0.0018 - 0.0022	Y	BOD Room
	1		0.9990 - 1.0010	Y	N
	100		99.9000 - 100.1000	Y	N
63	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	BOD Room
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
64	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	10.00	9.8 - 10.2	<input checked="" type="radio"/> Y	N
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
34	0.002	0.0020	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.9995	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
30	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

17 January 2017

Denise King

AMEC Foster Wheeler Chelmsford Maine - Penobscot

271 Mill Road,

Chelmsford, MAINE 01824

RE: Maine Lobster And Crab Special Project 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall

Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HBI-01_092416_LOB_TA_01	1611256-01	Tissue	24-Sep-16 07:55	28-Oct-16 09:40
HBI-01_092416_LOB_TA_02	1611256-02	Tissue	24-Sep-16 07:55	28-Oct-16 09:40
HBI-01_092416_LOB_TA_03	1611256-03	Tissue	24-Sep-16 07:55	28-Oct-16 09:40
HBI-01_092416_LOB_TA_04	1611256-04	Tissue	24-Sep-16 08:10	28-Oct-16 09:40
HBI-01_092416_LOB_TA_05	1611256-05	Tissue	24-Sep-16 08:10	28-Oct-16 09:40
HBI-01_092416_LOB_TA_06	1611256-06	Tissue	24-Sep-16 08:12	28-Oct-16 09:40
HBI-01_092416_LOB_TA_07	1611256-07	Tissue	24-Sep-16 08:15	28-Oct-16 09:40
HBI-01_092416_LOB_TA_08	1611256-08	Tissue	24-Sep-16 08:21	28-Oct-16 09:40
HBI-01_092616_LOB_TA_09	1611256-09	Tissue	26-Sep-16 08:35	28-Oct-16 09:40
HBI-01_092616_LOB_TA_10	1611256-10	Tissue	26-Sep-16 08:39	28-Oct-16 09:40
HBI-01_092616_LOB_TA_11	1611256-11	Tissue	26-Sep-16 08:47	28-Oct-16 09:40
HBI-01_092616_LOB_TA_12	1611256-12	Tissue	26-Sep-16 09:01	28-Oct-16 09:40
HBI-01_092616_LOB_TA_13	1611256-13	Tissue	26-Sep-16 08:35	28-Oct-16 09:40
HBI-01_092616_LOB_TA_14	1611256-14	Tissue	26-Sep-16 08:43	28-Oct-16 09:40
HBI-01_092616_LOB_TA_15	1611256-15	Tissue	26-Sep-16 08:43	28-Oct-16 09:40
HBI-01_092616_LOB_TA_16	1611256-16	Tissue	26-Sep-16 08:43	28-Oct-16 09:40
HBI-01_092616_LOB_TA_17	1611256-17	Tissue	26-Sep-16 08:47	28-Oct-16 09:40
HBI-01_092616_LOB_TA_18	1611256-18	Tissue	26-Sep-16 09:14	28-Oct-16 09:40
HBI-01_092616_LOB_TA_19	1611256-19	Tissue	26-Sep-16 09:14	28-Oct-16 09:40
HBI-01_092616_LOB_TA_20	1611256-20	Tissue	26-Sep-16 09:14	28-Oct-16 09:40

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King**Reported:**  
17-Jan-17 08:07

## REVISED REPORT (1/17/17)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631B.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/28/2016 9:40:00 AM . The samples were received intact, on-ice within a sealed cooler at -49.6 degrees Celsius.

## SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted, and the samples' sex was determined. The tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B. Total solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction which may be outside of the method recommended holding time of 7 days from sample collection.

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

## ANALYTICAL AND QUALITY CONTROL ISSUES

Client requested that sample 1611256-01 be used as the source QC for the MS/MSD. Samples were prepped in one batch for Mercury, F611363. Samples 1611256-01 and 1611256-20 were used as the source QC. Samples were prepped in one batch for total solids/% moisture, F611405/F611406. Samples 1611256-01 and 1611256-20 were used as the source QC.

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.

---

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:07

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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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

EFGS Work Order: 1611256

Client: Amec Foster Wheeler

Date & Time Received: 10/28/16 9:40

Date Labeled: 11/10/16 Labeled By: MPM

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

Received By: CSF

Label Verified By: Amw

# 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:
<u>3150</u>	<u>+0.4 °C</u>	<u>10/28/16 9:40</u>	<u>CSF</u>
Cooler 1: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 4: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 2: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 5: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 3: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 6: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 7: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 8: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>

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

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:		
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):

Cooler 2: 7844 7802 4486      Cooler 3: 7844 7802 4497  
Cooler 4: 7844 7802 4501      Cooler 6: 7844 7802 4523  
Cooler 5: 7844 7802 4512      Cooler 8: 7844 7802 4545  
Cooler 7: 7844 7802 4534

1611256

Chain of Custody Record & Laboratory Analysis Request:  
Air, Water, Sediments, Plant and Animal Tissue,  
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
Phone: 425-686-1996  
Fax: 425-686-3096  
info@frontiergs.com  
http://www.frontiergs.com



Frontier Global Sciences

Page 3 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Analyses Requested HNO <sub>3</sub> HCl BrCl Other (%) Field Preserved: Field Filtered (Y/N) Sampled By TOT Hg 16312 / TOT LIPID - MOAA 1993 Ziplock bag		EFGS PM:	
Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101		Phone: 508 789 1738 Fax:				Date: 10 27 16	
Project Name: USDC PENOBSCOT		E-mail: DENISE.KING@AMECFW.COM				TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Report To: DENISE KING @		Contract/PO:				Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)	
Address: 2 MILL ROAD CHELMSFORD MA 01824		Invoice To: ROD PENDLETON-AMEC				EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Address: 511 CONGRESS ST PORTLAND ME 04101		Phone: 207-775-5444 Fax:		QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High			
Phone: Fax: 978 692 6633		E-mail: ROD.PENDLETON@AMECFW.COM					
E-mail:							
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time	Comments	
1		HBI-01-092416-LOB-TA-01		TIS	092416 0755	PRODUCT # 3616166052.04.05	
2		HBI-01-092416-LOB-TA-02			0810		
3		HBI-01-092416-LOB-TA-03			0812		
4		HBI-01-092416-LOB-TA-04			0815		
5		HBI-01-092416-LOB-TA-05			0821		
6		HBI-01-092416-LOB-TA-06			092616 0835		
7		HBI-01-092416-LOB-TA-07			0839		
8		HBI-01-092416-LOB-TA-08			0847		
9		HBI-01-092616-LOB-TA-09			0901		
10		HBI-01-092616-LOB-TA-10					
11		HBI-01-092616-LOB-TA-11					
12		HBI-01-092616-LOB-TA-12					
For Laboratory Use Only		Matrix Codes:		Relinquished By:		Received By:	
COC Seal:	Comments:	FW: Fresh Water		Name: K. BAVOR Organization: AMEC FW Date & Time: 10/27/16 1600 Tracking number: FED EX 809397905121		Received By:	
Cooler Temp:		WW: Waste Water				Name:	
Carrier:		SB: Sea and Brackish Water				Organization:	
VTSR:		SS: Soil and Sediment				Date & Time:	
# of Coolers:		TS: Plant and Animal Tissue				Date & Time:	
		HC: Hydrocarbons					
		TR: Trap					
		OT: Other					
Sample Disposal:				By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.			
<input type="checkbox"/> Return (shipping fees may apply) <input checked="" type="checkbox"/> Standard Disposal - 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)				Customer Approval: _____ Date: _____			

1611256

Chain of Custody Record & Laboratory Analysis Request:  
Air, Water, Sediments, Plant and Animal Tissue,  
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
Phone: 425-686-1996  
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info@frontiergs.com  
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Frontier Global Sciences

Page 4 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO <sub>3</sub> HCl BrCl Other (%)	Analyses Requested	EFGS PM:	
Address: 511 CONGRESS ST STE 20 PORTLAND ME 04101		Phone: 508 789 1738 Fax:						Date: 10 27 16	
Project Name: USDC PENOBSCOT		E-mail: DENISE.KING@AMECFW.COM						TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Report To: DENISE KING		Contract/PO:						Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)	
Address: 2 MILL ROAD CHELMSFORD MA 01824		Invoice To: ROD PENDLETON-AMEC						EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Phone: Fax: 978 692 6633		Address: 511 CONGRESS ST PORTLAND ME 04101						QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High	
E-mail:		Phone: 207-775-5444 Fax:		E-mail: ROD.PENDLETON@AMECFW.COM		Comments			
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time				
1		HBI-01-092616-LOB-TA-13		TS	092616 0835				
2		HBI-01-092616-LOB-TA-14			0843				
3		HBI-01-092616-LOB-TA-15							
4		HBI-01-092616-LOB-TA-16							
5		HBI-01-092616-LOB-TA-17			0847				
6		HBI-01-092616-LOB-TA-18			0914				
7		HBI-01-092616-LOB-TA-19							
8		HBI-01-092616-LOB-TA-20							
9		HBI-01-092416-LOB-TA-MS-01			092416 0755				
10		HBI-01-092416-LOB-TA-MD-01							
11									
12									

For Laboratory Use Only		Matrix Codes:	Relinquished By:	Received By:	Received By:
COC Seal:	Comments:	FW: Fresh Water	<i>[Signature]</i>	Name: K. BAVOL	Name:
Cooler Temp:		WW: Waste Water			
Carrier:		SB: Sea and Brackish Water			
VTSR:		SS: Soil and Sediment			
# of Copiers:		TS: Plant and Animal Tissue			
		HC: Hydrocarbons	Date & Time: 10/27/16 1600	Date & Time:	Date & Time:
		TR: Trap	Tracking number: FED EX 8093 9790 5121		
		OT: Other			

Sample Disposal:  
 Return (shipping fees may apply)  
 Standard Disposal - 30 Days after report  
 Retain for \_\_\_ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: \_\_\_\_\_ Date: \_\_\_\_\_

PROJECT #  
361616052.04.05

USE LOBSTER #1  
FOR EXTRA VOLUME  
MS/MSD





AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

HBI-01\_092416\_LOB\_TA\_01  
1611256-01

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

Sample Preparation: [CALC]

Mercury Dry Weight Corrected	799	2.41	21.5	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
------------------------------	-----	------	------	----------	-----	--------	-----------	--	-----------	-----------	--

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	139	0.419	3.74	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
---------	-----	-------	------	------	-----	---------	-----------	---------	-----------	-----------	--

Sample Preparation: EFGS-019 Solids Analysis

% Moisture	82.6	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.4	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	147	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

HBI-01\_092416\_LOB\_TA\_02  
1611256-02

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

Sample Preparation: [CALC]

Mercury Dry Weight Corrected	430	2.22	19.8	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
------------------------------	-----	------	------	----------	-----	--------	-----------	--	-----------	-----------	--

Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	76.9	0.398	3.55	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	82.1	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.9	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	99.5	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092416\_LOB\_TA\_03**  
**1611256-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	259	2.47	22.1	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	46.9	0.447	3.99	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.9	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.1	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	81.8	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092416\_LOB\_TA\_04**  
**1611256-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	365	2.18	19.4	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	68.7	0.410	3.66	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.2	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.8	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	76.2	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

HBI-01\_092416\_LOB\_TA\_05  
1611256-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	496	1.91	17.0	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	100	0.386	3.44	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.8	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.2	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	77.2	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

HBI-01\_092416\_LOB\_TA\_06  
1611256-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	461	2.02	18.0	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	92.7	0.406	3.62	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.9	-	0.1	% by Weigt	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.1	-	0.1	% by Weigt	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	101	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092416\_LOB\_TA\_07**  
**1611256-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	560	2.29	20.5	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	103	0.419	3.75	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.7	-	0.1	% by Weigt	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.3	-	0.1	% by Weigt	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	114	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092416\_LOB\_TA\_08**  
**1611256-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	430	2.20	19.6	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	82.9	0.424	3.79	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.7	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.3	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	79.6	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager





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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_09**  
**1611256-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	260	2.61	23.3	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	44.4	0.446	3.98	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	82.9	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.1	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	91.1	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_10**  
**1611256-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	739	2.73	24.3	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	117	0.431	3.85	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	84.2	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	15.8	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	110	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_11**  
**1611256-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	664	2.07	18.5	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	129	0.402	3.59	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.6	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.4	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	140	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_12**  
**1611256-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	509	2.10	18.8	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	96.7	0.399	3.57	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.0	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.0	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	98.4	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_13**  
**1611256-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	460	1.84	16.4	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	98.4	0.393	3.51	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.6	-	0.1	% by Weigt	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.4	-	0.1	% by Weigt	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	62.3	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_14**  
**1611256-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	597	1.98	17.7	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	128	0.425	3.80	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.5	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.5	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	81.3	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

HBI-01\_092616\_LOB\_TA\_15  
1611256-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	581	2.17	19.3	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	119	0.442	3.94	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.6	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.4	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	66.4	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

HBI-01\_092616\_LOB\_TA\_16  
1611256-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	289	2.14	19.1	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	54.0	0.401	3.58	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	81.3	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.7	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	71.6	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager





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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

HBI-01\_092616\_LOB\_TA\_17  
1611256-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	580	1.99	17.7	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	127	0.435	3.88	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.1	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.9	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	81.1	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_18**  
**1611256-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	476	1.86	16.6	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	108	0.422	3.77	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	77.3	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.7	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	77.5	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_19**  
**1611256-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	583	1.96	17.5	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	122	0.412	3.68	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.0	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.0	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	70.7	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

**HBI-01\_092616\_LOB\_TA\_20**  
**1611256-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	541	2.16	19.3	ng/g dry	100	[CALC]	15-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	107	0.426	3.80	ng/g	100	F611363	15-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.3	-	0.1	% by Weight	1	F611406	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.7	-	0.1	% by Weight	1	F611405	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	60.4	-	0.10	g	1	F612325	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612324	06-Dec-16		06-Dec-16	None	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K21015 - F611387</b>											
<b>Cal Standard (6K21015-CAL1)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.531	-		ng/L	0.50100		106				
<b>Cal Standard (6K21015-CAL2)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.988	-		ng/L	1.0020		98.6				
<b>Cal Standard (6K21015-CAL3)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	4.822	-		ng/L	5.0100		96.2				
<b>Cal Standard (6K21015-CAL4)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	20.07	-		ng/L	20.040		100				
<b>Cal Standard (6K21015-CAL5)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	39.27	-		ng/L	40.080		98.0				
<b>Calibration Blank (6K21015-CCB1)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.194	-		ng/L							
<b>Calibration Blank (6K21015-CCB2)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.091	-		ng/L							
<b>Calibration Blank (6K21015-CCB3)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.190	-		ng/L							
<b>Calibration Blank (6K21015-CCB4)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.183	-		ng/L							
<b>Calibration Blank (6K21015-CCB5)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.103	-		ng/L							

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K21015 - F611387</b>											
<b>Calibration Blank (6K21015-CCB6)</b>											
Mercury	0.154	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB7)</b>											
Mercury	0.230	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB8)</b>											
Mercury	0.182	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB9)</b>											
Mercury	0.212	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCBA)</b>											
Mercury	0.219	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCBB)</b>											
Mercury	0.223	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Check (6K21015-CCV1)</b>											
Mercury	4.961	-		ng/L	5.0000		99.2	77-123			Prepared & Analyzed: 18-Nov-16
<b>Calibration Check (6K21015-CCV2)</b>											
Mercury	4.559	-		ng/L	5.0000		91.2	77-123			Prepared & Analyzed: 18-Nov-16
<b>Calibration Check (6K21015-CCV3)</b>											
Mercury	4.938	-		ng/L	5.0000		98.8	77-123			Prepared & Analyzed: 18-Nov-16
<b>Calibration Check (6K21015-CCV4)</b>											
Mercury	4.730	-		ng/L	5.0000		94.6	77-123			Prepared & Analyzed: 18-Nov-16

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

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 6K21015 - F611387

<b>Calibration Check (6K21015-CCV5)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.595	-		ng/L	5.0000		91.9	77-123				
<b>Calibration Check (6K21015-CCV6)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.997	-		ng/L	5.0000		99.9	77-123				
<b>Calibration Check (6K21015-CCV7)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.785	-		ng/L	5.0000		95.7	77-123				
<b>Calibration Check (6K21015-CCV8)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.993	-		ng/L	5.0000		99.9	77-123				
<b>Calibration Check (6K21015-CCV9)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.840	-		ng/L	5.0000		96.8	77-123				
<b>Calibration Check (6K21015-CCVA)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.849	-		ng/L	5.0000		97.0	77-123				
<b>Calibration Check (6K21015-CCVB)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.973	-		ng/L	5.0000		99.5	77-123				
<b>Instrument Blank (6K21015-IBL1)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K21015-IBL2)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K21015-IBL3)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

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 6K21015 - F611387

Initial Cal Check (6K21015-ICV1)

Prepared & Analyzed: 18-Nov-16

Mercury	4.937	-		ng/L	5.0000		98.7	77-123			
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Batch F611363 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F611363-BLK1)

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	0.434	0.090	0.800	ng/g							J
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Blank (F611363-BLK2)

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	0.157	0.090	0.800	ng/g							J
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Blank (F611363-BLK3)

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	0.154	0.090	0.800	ng/g							J
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LCS (F611363-BS1)

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	7.810	0.090	0.800	ng/g	8.0160		97.4	75-125			
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LCS (F611363-BS2)

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	338.6	4.06	36.2	ng/g	382.50		88.5	75-125			
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LCS Dup (F611363-BSD1)

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	7.698	0.090	0.800	ng/g	8.0160		96.0	75-125	1.44	24	
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Duplicate (F611363-DUPI)

Source: 1611256-01

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	156.1	0.408	3.64	ng/g		139.0			11.6	24	
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Matrix Spike (F611363-MS1)

Source: 1611256-01

Prepared: 15-Nov-16 Analyzed: 18-Nov-16

Mercury	457.9	2.01	18.0	ng/g	359.71	139.0	88.6	71-125			
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Amy Goodall, Project Manager





AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

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 F611363 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Matrix Spike (F611363-MS2)</b>		<b>Source: 1611256-20</b>			Prepared: 15-Nov-16 Analyzed: 18-Nov-16					
Mercury	409.5	1.97	17.6	ng/g	351.49	106.5	86.2	71-125		
<b>Matrix Spike Dup (F611363-MSD1)</b>		<b>Source: 1611256-01</b>			Prepared: 15-Nov-16 Analyzed: 18-Nov-16					
Mercury	463.6	2.03	18.1	ng/g	362.98	139.0	89.4	71-125	0.881	24
<b>Matrix Spike Dup (F611363-MSD2)</b>		<b>Source: 1611256-20</b>			Prepared: 15-Nov-16 Analyzed: 18-Nov-16					
Mercury	411.7	1.91	17.1	ng/g	341.30	106.5	89.4	71-125	3.68	24

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AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:07

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 F611405 - EFGS-019 Solids Analysis

Duplicate (F611405-DUP1)		Source: 1611256-01			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	17.4	-	0.1	% by Weight		17.4			0.00	25	
Duplicate (F611405-DUP2)		Source: 1611256-20			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	23.1	-	0.1	% by Weight		19.7			15.9	25	

Batch F611406 - EFGS-019 Solids Analysis

Duplicate (F611406-DUP1)		Source: 1611256-01			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	82.6	-	0.1	% by Weight		82.6			0.00	25	
Duplicate (F611406-DUP2)		Source: 1611256-20			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	76.9	-	0.1	% by Weight		80.3			4.33	25	

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

Amy Goodall, Project Manager

AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:07

### 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.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

---

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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.*

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Amy Goodall, Project Manager

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611257-19	N/A	M	11/10/16 MPM	Y	18	103.15	2	
1611257-20	N/A	M	11/10/16 MPM	Y	18	110.80	2	
1611256-01	N/A	F	11/11/16 MPM	Y	18	147.23	2	1611256: Batches
1611256-02	N/A	M	11/11/16 MPM	Y	18	99.48	2	FG12324 + 612325
1611256-03	N/A	M	11/11/16 MPM	Y	18	81.76	2	AMB 12-6-16
1611256-04	N/A	F	11/11/16 MPM	Y	18	76.23	2	
1611256-05	N/A	M	11/11/16 MPM	Y	18	77.20	2	
1611256-06	N/A	M	11/11/16 MPM	Y	18	100.51	2	
1611256-07	N/A	M	11/11/16 MPM	Y	18	114.47	2	
1611256-08	N/A	F	11/11/16 MPM	Y	18	79.59	2	
1611256-09	N/A	F	11/11/16 MPM	Y	18	91.12	2	
1611256-10	N/A	F	11/11/16 MPM	Y	18	109.666	2	
1611256-11	N/A	M	11/11/16 MPM	Y	18	140.36	2	
1611256-12	N/A	M	11/11/16 MPM	Y	18	98.45	2	
1611256-13	N/A	M	11/11/16 MPM	Y	18	62.28	2	
1611256-14	N/A	F	11/11/16 MPM	Y	18	81.27	2	
1611256-15	N/A	M	11/11/16 MPM	Y	18	66.36	2	
1611256-16	N/A	M	11/11/16 MPM	Y	18	71.60	2	

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/ N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611256-17	N/A	F	11/11/16 MPM	Y	18	81.06	2	
1611256-18	N/A	M	11/11/16 MPM	Y	18	77.54	2	
1611256-19	N/A	F	11/11/16 MPM	Y	18	70.71	2	
1611256-20	N/A	M	11/11/16 MPM	Y	18	60.41	2	
1611255-01	N/A	M	11/11/16 MPM	Y	18	135.82	2	1611255 = Batch
1611255-02	N/A	M	11/11/16 MPM	Y	18	106.26	2	FG11394 + FG11395
1611255-03	N/A	M	11/11/16 MPM	Y	18	147.75	2	AMB 12-6-16
1611255-04	N/A	M	11/11/16 MPM	Y	18	80.73	2	
1611255-05	N/A	M	11/11/16 MPM	Y	18	168.27	2	
1611255-06	N/A	M	11/11/16 MPM	Y	18	134.60	2	
1611255-07	N/A	M	11/11/16 MPM	Y	18	75.53	2	
1611255-08	N/A	M	11/11/16 MPM	Y	18	70.56	2	
1611255-09	N/A	M	11/11/16 MPM	Y	18	177.38	2	
1611255-10	N/A	M	11/11/16 MPM	Y	18	72.55	2	
1611255-11	N/A	M	11/11/16 MPM	Y	18	151.43	2	
1611255-12	N/A	F	11/11/16 MPM	Y	18	107.54	2	
1611255-13	N/A	M	11/11/16 MPM	Y	18	71.67	2	
1611255-14	N/A	M	11/11/16 MPM	Y	18	140.67	2	



Frontier Global Sciences

**Total Solids Dataset Cover Page**

**Dataset ID:** TS161118-4  
**Batch ID:** F611405/406  
**Work Order(s):** 1611256

**Analyst:** JS  
**Prep. Date:** 11/18/2016

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER-REVIEWED  
INITIALS: DMW 11-22-16

Preparation Date: Nov 18, 2016

Batch #: 4

Analyst: JS

Batch ID: F611405/406

Work Order(s): 1611256

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	%TMoisture
1	1611256-01	1.0040	6.0120	5.0080	1.8750	0.8710	17.4%		82.6%
2	1611256-01MD	1.0040	6.0940	5.0900	1.8900	0.8860	17.4%	0.1%	82.6%
3	1611256-02	1.0040	6.0260	5.0220	1.9030	0.8990	17.9%		82.1%
4	1611256-03	1.0300	6.0880	5.0580	1.9430	0.9130	18.1%		81.9%
5	1611256-04	1.0190	6.0830	5.0640	1.9730	0.9540	18.8%		81.2%
6	1611256-05	1.0060	6.0500	5.0440	2.0240	1.0180	20.2%		79.8%
7	1611256-06	0.9940	5.9990	5.0050	1.9990	1.0050	20.1%		79.9%
8	1611256-07	1.0500	6.0920	5.0420	1.9730	0.9230	18.3%		81.7%
9	1611256-08	1.0520	6.0650	5.0130	2.0200	0.9680	19.3%		80.7%
10	1611256-09	1.0250	6.0260	5.0010	1.8810	0.8560	17.1%		82.9%
11	1611256-10	1.0360	6.0530	5.0170	1.8300	0.7940	15.8%		84.2%
12	1611256-11	1.0130	6.0390	5.0260	1.9860	0.9730	19.4%		80.6%
13	1611256-12	1.0190	6.0920	5.0730	1.9810	0.9620	19.0%		81.0%
14	1611256-13	1.0100	6.0360	5.0260	2.0880	1.0780	21.4%		78.6%
15	1611256-14	1.0040	6.0220	5.0180	2.0830	1.0790	21.5%		78.5%
16	1611256-15	1.0240	6.0810	5.0570	2.0540	1.0300	20.4%		79.6%
17	1611256-16	1.0250	6.0540	5.0290	1.9650	0.9400	18.7%		81.3%
18	1611256-17	1.0260	6.0880	5.0620	2.1360	1.1100	21.9%		78.1%
19	1611256-18	1.0210	6.0670	5.0460	2.1680	1.1470	22.7%		77.3%
20	1611256-19	1.0180	6.0660	5.0480	2.0790	1.0610	21.0%		79.0%
21	1611256-20	1.0110	6.1380	5.1270	2.0192	1.0082	19.7%		80.3%
22	1611256-20MD	1.0270	6.0690	5.0420	2.1930	1.1660	23.1%	16.2%	76.9%

**Total Solids Logbook**

Lab Technician(s): JS Batch: FG11405/406 Date: 11/18/16 Page 1 of 1

Thermometer #: 131206134 Oven #: OVN-03 Actual temperature: 103.0 (Range 103-105°C)

Balance #: 610<sup>11/21/16 JS</sup> Start time: 1702 End time<sup>2</sup>: 924 Time re-weighted<sup>3</sup>: 931

Client(s)/WO#: 1611258<sup>11/18/16 JS</sup> 1611256

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1611256-01	D1	<del>1.004</del> <del>1.019</del> <sup>11/18/16 JS</sup>	6.012	1.875	
FG11405-DUP1(1611256-01)	D2	1.004	6.094	1.890	
1611256-02	D3	1.004	6.026	1.903	
1611256-03	D4	1.030	6.088	1.943	
1611256-04	D5	1.019	6.083	1.973	
1611256-05	D6	1.006	6.050	2.024	
1611256-06	D7	0.994	5.999	1.999	
<del>11/18/16 JS 1611256-07</del> <del>11/18/16 JS 1611256-06</del> <sup>11/18/16 JS</sup>	D8	1.050	6.092	1.973	
1611256-08	D9	1.052	6.065	2.020	
1611256-09	D10	1.025	6.026	1.881	
1611256-10	D11	1.036	6.053	1.830	
1611256-11	D12	1.013	6.039	1.986	
1611256-12	D13	1.019	6.042	1.981	
1611256-13	D14	<del>1.010</del> <del>1.013</del> <sup>11/18/16 JS</sup>	6.036	2.088	
1611256-14	D15	1.004	6.022	2.083	
1611256-15	D16	1.024	6.081	2.054	
1611256-16	D17	1.025	6.054	1.965	
1611256-17	D18	1.026	6.088	2.136	
1611256-18	D19	1.021	6.067	2.168	
1611256-19	D20	1.018	6.066	2.079	
1611256-20	D21	1.011	6.138	2.192	
FG11405-DUP2(1611256-20)	D22	1.027	6.069	2.193	

Comments: **REVIEWED 11-21-16 DMV**

<sup>11/18/16 JS</sup>

<sup>1</sup>The same balance must be used to weight samples before and after ovening.  
<sup>2</sup>Samples must be ovened over 12 hours.  
<sup>3</sup>Samples must be re-weighted within 30 minutes of oven cool down.



PREPARATION BENCH SHEET

F611405

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F611405-DUP1	Duplicate (1611256-01)	5	5					
F611405-DUP2	Duplicate (1611256-20)	5	5					

Standard ID(s): Description:

Expiration:

**PREPARATION BENCH SHEET**

F611405

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611256-01	HBI-01_092416_LOB_TA_01	5	5	QC	-	-	MS/MSD	
1611256-02	HBI-01_092416_LOB_TA_02	5	5	-	-	-		
1611256-03	HBI-01_092416_LOB_TA_03	5	5	-	-	-		
1611256-04	HBI-01_092416_LOB_TA_04	5	5	-	-	-		
1611256-05	HBI-01_092416_LOB_TA_05	5	5	-	-	-		
1611256-06	HBI-01_092416_LOB_TA_06	5	5	-	-	-		
1611256-07	HBI-01_092416_LOB_TA_07	5	5	-	-	-		
1611256-08	HBI-01_092416_LOB_TA_08	5	5	-	-	-		
1611256-09	HBI-01_092616_LOB_TA_09	5	5	-	-	-		
1611256-10	HBI-01_092616_LOB_TA_10	5	5	-	-	-		
1611256-11	HBI-01_092616_LOB_TA_11	5	5	-	-	-		
1611256-12	HBI-01_092616_LOB_TA_12	5	5	-	-	-		
1611256-13	HBI-01_092616_LOB_TA_13	5	5	-	-	-		
1611256-14	HBI-01_092616_LOB_TA_14	5	5	-	-	-		
1611256-15	HBI-01_092616_LOB_TA_15	5	5	-	-	-		
1611256-16	HBI-01_092616_LOB_TA_16	5	5	-	-	-		
1611256-17	HBI-01_092616_LOB_TA_17	5	5	-	-	-		
1611256-18	HBI-01_092616_LOB_TA_18	5	5	-	-	-		
1611256-19	HBI-01_092616_LOB_TA_19	5	5	-	-	-		

Page 41 of 121

Due Date: 11/29/2016

PREPARATION BENCH SHEET

F611405

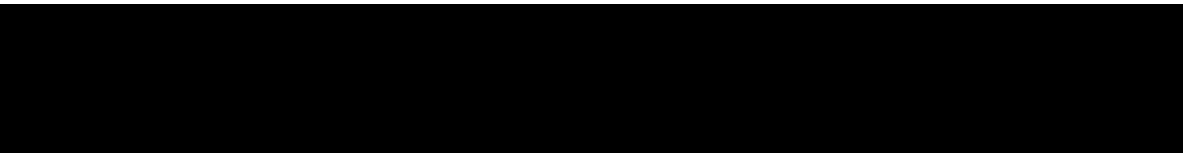
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611256-20	HBI-01_092616_LOB_TA_20	5	5	-	-	-		
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**PREPARATION BENCH SHEET**

F611406

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611406-DUP1	Duplicate (1611256-01)	5	5					
F611406-DUP2	Duplicate (1611256-20)	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F611406

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611256-01	HBI-01_092416_LOB_TA_01	5	5	QC	-	-	MS/MSD	
1611256-02	HBI-01_092416_LOB_TA_02	5	5	-	-	-		
1611256-03	HBI-01_092416_LOB_TA_03	5	5	-	-	-		
1611256-04	HBI-01_092416_LOB_TA_04	5	5	-	-	-		
1611256-05	HBI-01_092416_LOB_TA_05	5	5	-	-	-		
1611256-06	HBI-01_092416_LOB_TA_06	5	5	-	-	-		
1611256-07	HBI-01_092416_LOB_TA_07	5	5	-	-	-		
1611256-08	HBI-01_092416_LOB_TA_08	5	5	-	-	-		
1611256-09	HBI-01_092616_LOB_TA_09	5	5	-	-	-		
1611256-10	HBI-01_092616_LOB_TA_10	5	5	-	-	-		
1611256-11	HBI-01_092616_LOB_TA_11	5	5	-	-	-		
1611256-12	HBI-01_092616_LOB_TA_12	5	5	-	-	-		
1611256-13	HBI-01_092616_LOB_TA_13	5	5	-	-	-		
1611256-14	HBI-01_092616_LOB_TA_14	5	5	-	-	-		
1611256-15	HBI-01_092616_LOB_TA_15	5	5	-	-	-		
1611256-16	HBI-01_092616_LOB_TA_16	5	5	-	-	-		
1611256-17	HBI-01_092616_LOB_TA_17	5	5	-	-	-		
1611256-18	HBI-01_092616_LOB_TA_18	5	5	-	-	-		
1611256-19	HBI-01_092616_LOB_TA_19	5	5	-	-	-		

Page 44 of 121

Due Date: 11/29/2016

PREPARATION BENCH SHEET

F611406

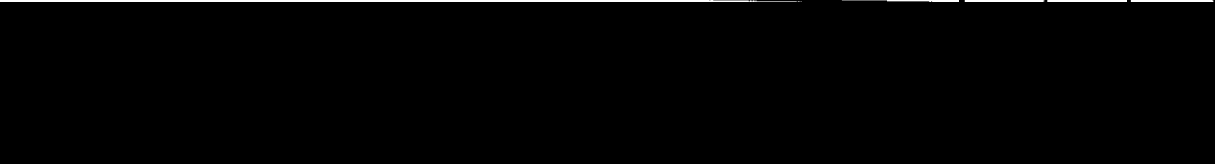
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611256-20	HBI-01_092616_LOB_TA_20	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: JS

Date: 11/21/16

Reviewer: DMW

Date: 11-22-16

WO #: 1611256

Batch #: FG11405/406

Dataset ID: TS161118-4

Reviewer Initials: DMW

General Comments/Re-run requirements:

[Empty box for general comments]

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date	
<u>JS</u>	<u>11/18/16</u>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

Reviewer Initials: DMW

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input type="checkbox"/> PASS	<input checked="" type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>



Frontier Global Sciences

THg26002-161118-2

Analysis Datasheet for Total Mercury

Date of Analysis: November 18, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K21015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	127.32 units	254.64	116.22 units	232.44	106.3 %Rec
SEQ-CAL2	1	1.00 ng/L	227.15 units	227.15	216.05 units	216.05	98.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1065.82 units	213.16	1054.73 units	210.95	96.4 %Rec
SEQ-CAL4	1	20.00 ng/L	4402.27 units	220.11	4391.17 units	219.56	100.4 %Rec
SEQ-CAL5	1	40.00 ng/L	8601.91 units	215.05	8590.81 units	214.77	98.2 %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
218.75	+/- 8.25	3.8% RSD	226.02

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.10 units	±2.63	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.103 ng/L	±2.012
BLK	2	3	2.576 ng/L	±0.551
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: DMW 11-21-16



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	11/18/2016 8:47:07	66005-1.RAW	8:47:07 AM	13.38			2.3	0.010	0.010	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/18/2016 8:51:15	66006-1.RAW	8:51:15 AM	11.70			0.6	0.003	0.003	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/18/2016 8:55:24	66007-1.RAW	8:55:24 AM	8.22			-2.9	-0.013	-0.013	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/18/2016 8:59:32	66008-1.RAW	8:59:32 AM	127.32			116.2	0.531	0.531	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/18/2016 9:03:41	66009-1.RAW	9:03:41 AM	227.15			216.0	0.988	0.988	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/18/2016 9:07:49	66010-1.RAW	9:07:49 AM	1065.82			1054.7	4.822	4.822	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/18/2016 9:11:57	66011-1.RAW	9:11:57 AM	4402.27			4391.2	20.074	20.074	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/18/2016 9:16:06	66012-1.RAW	9:16:06 AM	8601.91			8590.8	39.272	39.272	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/18/2016 9:20:14	66013-1.RAW	9:20:14 AM	1091.18			1080.1	4.937	4.937	ng/L	
Hg2600-2	DM2	BLK	F611382-BLK1	100	11/18/2016 9:28:58	66014-1.RAW	9:28:58 AM	88.65	X		77.6	0.355	35.454	ng/L	
Hg2600-2	DM2	BLK	F611382-BLK2	100	11/18/2016 9:33:07	66015-1.RAW	9:33:07 AM	38.66	X		27.6	0.126	12.598	ng/L	
Hg2600-2	DM2	BLK	F611382-BLK3	100	11/18/2016 9:37:15	66016-1.RAW	9:37:15 AM	33.31	X		22.2	0.102	10.152	ng/L	
Hg2600-2	DM2	SAM	F611382-BS1	500	11/18/2016 9:41:24	66017-1.RAW	9:41:24 AM	834.23	X		823.1	3.763	1881.425	ng/L	
Hg2600-2	DM2	SAM	F611382-BSD1	500	11/18/2016 9:45:32	66018-1.RAW	9:45:32 AM	825.53	X		814.4	3.723	1861.534	ng/L	
Hg2600-2	DM2	SAM	1611488-01	2500	11/18/2016 9:49:40	66019-1.RAW	9:49:40 AM	1282.51	X		1271.4	5.812	14530.301	ng/L	
Hg2600-2	DM2	SAM	1611488-02	2500	11/18/2016 9:53:49	66020-1.RAW	9:53:49 AM	1159.76	X		1148.7	5.251	13127.464	ng/L	
Hg2600-2	DM2	SAM	1611489-01	2500	11/18/2016 9:57:57	66021-1.RAW	9:57:57 AM	4392.48	X		4381.4	20.029	50072.481	ng/L	
Hg2600-2	DM2	SAM	1611489-03	2500	11/18/2016 10:02:06	66022-1.RAW	10:02:06 AM	7157.25	X		7146.2	32.668	81669.561	ng/L	
Hg2600-2	DM2	SAM	1611489-04	2500	11/18/2016 10:06:14	66023-1.RAW	10:06:14 AM	7494.69	X		7483.6	34.210	85526.012	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/18/2016 10:10:23	66024-1.RAW	10:10:23 AM	1096.22			1085.1	4.961	4.961	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/18/2016 10:14:31	66025-1.RAW	10:14:31 AM	53.63			42.5	0.194	0.194	ng/L	
Hg2600-2	DM2	SAM	1611499-01	2500	11/18/2016 10:18:39	66026-1.RAW	10:18:39 AM	539.08	X		528.0	2.414	6033.974	ng/L	
Hg2600-2	DM2	SAM	1611499-02	2500	11/18/2016 10:22:48	66027-1.RAW	10:22:48 AM	490.88	X		479.8	2.193	5483.219	ng/L	
Hg2600-2	DM2	SAM	1611500-01	2500	11/18/2016 10:26:56	66028-1.RAW	10:26:56 AM	267.83	X		256.7	1.174	2933.996	ng/L	
Hg2600-2	DM2	SAM	1611500-02	2500	11/18/2016 10:31:05	66029-1.RAW	10:31:05 AM	267.70	X		256.6	1.173	2932.530	ng/L	
Hg2600-2	DM2	SAM	1611488-01B	100	11/18/2016 10:35:13	66030-1.RAW	10:35:13 AM	59.78	X		48.7	0.223	22.254	ng/L	
Hg2600-2	DM2	SAM	1611488-02B	100	11/18/2016 10:39:21	66031-1.RAW	10:39:21 AM	30.24	X		19.1	0.087	8.748	ng/L	
Hg2600-2	DM2	SAM	1611489-01B	100	11/18/2016 10:43:30	66032-1.RAW	10:43:30 AM	34.14	X		23.0	0.105	10.532	ng/L	
Hg2600-2	DM2	SAM	1611489-03B	100	11/18/2016 10:47:38	66033-1.RAW	10:47:38 AM	73.77	X		62.7	0.287	28.651	ng/L	
Hg2600-2	DM2	SAM	1611489-04B	100	11/18/2016 10:51:47	66034-1.RAW	10:51:47 AM	536.32	X		525.2	2.401	240.097	ng/L	
Hg2600-2	DM2	SAM	1611499-01B	100	11/18/2016 10:55:55	66035-1.RAW	10:55:55 AM	160.22	X		149.1	0.682	68.167	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/18/2016 11:00:04	66036-1.RAW	11:00:04 AM	1008.38			997.3	4.559	4.559	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/18/2016 11:04:12	66037-1.RAW	11:04:12 AM	30.95			19.9	0.091	0.091	ng/L	
Hg2600-2	DM2	SAM	1611499-02B	100	11/18/2016 11:08:20	66038-1.RAW	11:08:20 AM	80.45	X		69.4	0.317	31.703	ng/L	
Hg2600-2	DM2	SAM	CLEAN		11/18/2016 11:14:28	66040-1.RAW	11:14:28 AM	5.27	X		-5.8	-0.027	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		11/18/2016 11:18:36	66041-1.RAW	11:18:36 AM	18.34	X		7.2	0.033	0.000	ng/L	
Hg2600-2	DM2	SAM	1611500-01B	100	11/18/2016 11:25:44	66039-3.RAW	11:25:44 AM	39.67	X		28.6	0.131	13.060	ng/L	
Hg2600-2	DM2	SAM	1611500-02B	100	11/18/2016 11:29:53	66042-1.RAW	11:29:53 AM	20.16	X		9.1	0.041	4.141	ng/L	
Hg2600-2	DM2	SAM	1611488-01C	2500	11/18/2016 11:34:01	66043-1.RAW	11:34:01 AM	2154.00	X		2142.9	9.796	24490.092	ng/L	
Hg2600-2	DM2	SAM	1611488-02C	2500	11/18/2016 11:38:09	66044-1.RAW	11:38:09 AM	2340.37	X		2329.3	10.648	26620.002	ng/L	
Hg2600-2	DM2	SAM	1611489-01C	2500	11/18/2016 11:42:18	66045-1.RAW	11:42:18 AM	7461.47	X		7450.4	34.059	85146.306	ng/L	
Hg2600-2	DM2	SAM	1611489-03C	5000	11/18/2016 11:46:26	66046-1.RAW	11:46:26 AM	5375.75	X		5364.6	24.524	122619.404	ng/L	
Hg2600-2	DM2	SAM	1611489-04C	5000	11/18/2016 11:50:35	66047-1.RAW	11:50:35 AM	5177.42	X		5166.3	23.617	118086.300	ng/L	
Hg2600-2	DM2	SAM	1611499-01C	500	11/18/2016 11:54:43	66048-1.RAW	11:54:43 AM	3512.10	X		3501.0	16.004	8002.212	ng/L	
Hg2600-2	DM2	SAM	1611499-02C	500	11/18/2016 11:58:52	66049-1.RAW	11:58:52 AM	3243.96	X		3232.9	14.779	7389.332	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/18/2016 12:03:00	66050-1.RAW	12:03:00 PM	1091.19			1080.1	4.938	4.938	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/18/2016 12:07:10	66051-1.RAW	12:07:10 PM	52.70			41.6	0.190	0.190	ng/L	
Hg2600-2	DM2	SAM	1611500-01C	500	11/18/2016 12:11:18	66052-1.RAW	12:11:18 PM	3641.31	X		3630.2	16.595	8297.542	ng/L	
Hg2600-2	DM2	SAM	1611500-02C	500	11/18/2016 12:15:26	66053-1.RAW	12:15:26 PM	3734.89	X		3723.8	17.023	8511.435	ng/L	
Hg2600-2	DM2	SAM	F611382-DUP1	2500	11/18/2016 12:19:35	66054-1.RAW	12:19:35 PM	1197.67	X		1186.6	5.424	13560.734	ng/L	
Hg2600-2	DM2	SAM	F611382-MS1	2500	11/18/2016 12:23:43	66055-1.RAW	12:23:43 PM	5548.30	X		5537.2	25.313	63281.725	ng/L	
Hg2600-2	DM2	SAM	F611382-MSD1	2500	11/18/2016 12:27:52	66056-1.RAW	12:27:52 PM	5381.70	X		5370.6	24.551	61377.690	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/18/2016 12:32:00	66057-1.RAW	12:32:00 PM	1045.76			1034.7	4.730	4.730	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/18/2016 12:36:08	66058-1.RAW	12:36:08 PM	51.02			39.9	0.183	0.183	ng/L	
Hg2600-2	DM2	BLK	F611363-BLK1	20	11/18/2016 12:42:48	66059-1.RAW	12:42:48 PM	70.45	1		59.3	0.271	5.426	ng/L	
Hg2600-2	DM2	BLK	F611363-BLK2	20	11/18/2016 12:46:56	66060-1.RAW	12:46:56 PM	32.53	1		21.4	0.098	1.960	ng/L	
Hg2600-2	DM2	BLK	F611363-BLK3	20	11/18/2016 12:51:05	66061-1.RAW	12:51:05 PM	32.12	1		21.0	0.096	1.922	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	DM2	SAM	F611363-BS1	20	11/18/2016 12:55:13	66062-1.RAW	12:55:13 PM	1112.85	1		1101.8	4.881	97.628	ng/L	
Hg2600-2	DM2	SAM	F611363-BSD1	20	11/18/2016 12:59:22	66063-1.RAW	12:59:22 PM	1097.54	1		1086.4	4.811	96.229	ng/L	
Hg2600-2	DM2	SAM	F611363-BS2	500	11/18/2016 13:03:30	66064-1.RAW	1:03:30 PM	1034.66	1		1023.6	4.673	2336.451	ng/L	
Hg2600-2	DM2	SAM	1611256-01	100	11/18/2016 13:07:38	66065-1.RAW	1:07:38 PM	4085.16	1		4074.1	18.593	1859.309	ng/L	
Hg2600-2	DM2	SAM	1611256-02	100	11/18/2016 13:11:47	66066-1.RAW	1:11:47 PM	2387.08	1		2376.0	10.831	1083.050	ng/L	
Hg2600-2	DM2	SAM	1611256-03	100	11/18/2016 13:15:55	66067-1.RAW	1:15:55 PM	1301.52	1		1290.4	5.868	586.797	ng/L	
Hg2600-2	DM2	SAM	1611256-04	100	11/18/2016 13:20:04	66068-1.RAW	1:20:04 PM	2072.30	1		2061.2	9.392	939.152	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/18/2016 13:24:12	66069-1.RAW	1:24:12 PM	1016.20	1		1005.1	4.595	4.595	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/18/2016 13:28:21	66070-1.RAW	1:28:21 PM	33.67	1		22.6	0.103	0.103	ng/L	
Hg2600-2	DM2	SAM	1611256-05	100	11/18/2016 13:32:29	66071-1.RAW	1:32:29 PM	3200.56	1		3189.5	14.549	1454.922	ng/L	
Hg2600-2	DM2	SAM	1611256-06	100	11/18/2016 13:36:38	66072-1.RAW	1:36:38 PM	2816.219849	1		2805.1	12.792	1279.227	ng/L	
Hg2600-2	DM2	SAM	1611256-07	100	11/18/2016 13:40:47	66073-1.RAW	1:40:47 PM	3011.84	1		3000.7	13.687	1368.653	ng/L	
Hg2600-2	DM2	SAM	1611256-08	100	11/18/2016 13:44:55	66074-1.RAW	1:44:55 PM	2412.77	1		2401.7	10.948	1094.796	ng/L	
Hg2600-2	DM2	SAM	1611256-09	100	11/18/2016 13:49:04	66075-1.RAW	1:49:04 PM	1238.05	1		1227.0	5.578	557.785	ng/L	
Hg2600-2	DM2	SAM	1611256-10	100	11/18/2016 13:53:12	66076-1.RAW	1:53:12 PM	3340.46	1		3329.4	15.189	1518.880	ng/L	
Hg2600-2	DM2	SAM	1611256-11	100	11/18/2016 13:57:21	66077-1.RAW	1:57:21 PM	3942.06	1		3931.0	17.939	1793.894	ng/L	
Hg2600-2	DM2	SAM	1611256-12	100	11/18/2016 14:01:29	66078-1.RAW	2:01:29 PM	2986.15	1		2975.0	13.569	1356.907	ng/L	
Hg2600-2	DM2	SAM	1611256-13	100	11/18/2016 14:05:38	66079-1.RAW	2:05:38 PM	3083.86	1		3072.8	14.016	1401.574	ng/L	
Hg2600-2	DM2	SAM	1611256-14	100	11/18/2016 14:09:46	66080-1.RAW	2:09:46 PM	3719.98	1		3708.9	16.924	1692.369	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/18/2016 14:13:55	66081-1.RAW	2:13:55 PM	1104.21	1		1093.1	4.997	4.997	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/18/2016 14:18:03	66082-1.RAW	2:18:03 PM	44.82	1		33.7	0.154	0.154	ng/L	
Hg2600-2	DM2	SAM	1611256-15	100	11/18/2016 14:22:11	66083-1.RAW	2:22:11 PM	3304.77	1		3293.7	15.026	1502.564	ng/L	
Hg2600-2	DM2	SAM	1611256-16	100	11/18/2016 14:26:20	66084-1.RAW	2:26:20 PM	1669.45	1		1658.3	7.550	754.993	ng/L	
Hg2600-2	DM2	SAM	1611256-17	100	11/18/2016 14:30:28	66085-1.RAW	2:30:28 PM	3593.65	1		3582.5	16.346	1634.618	ng/L	
Hg2600-2	DM2	SAM	1611256-18	100	11/18/2016 14:34:37	66086-1.RAW	2:34:37 PM	3154.22	1		3143.1	14.337	1433.740	ng/L	
Hg2600-2	DM2	SAM	1611256-19	100	11/18/2016 14:38:45	66087-1.RAW	2:38:45 PM	3660.66	1		3649.6	16.653	1665.255	ng/L	
Hg2600-2	DM2	SAM	1611256-20	100	11/18/2016 14:42:54	66088-1.RAW	2:42:54 PM	3082.70	1		3071.6	14.010	1401.044	ng/L	
Hg2600-2	DM2	SAM	F611363-DUP1	100	11/18/2016 14:47:02	66089-1.RAW	2:47:02 PM	4705.88	1		4694.8	21.431	2143.065	ng/L	
Hg2600-2	DM2	SAM	F611363-MS1	500	11/18/2016 14:51:10	66090-1.RAW	2:51:10 PM	2796.99	1		2785.9	12.729	6364.601	ng/L	
Hg2600-2	DM2	SAM	F611363-MSD1	500	11/18/2016 14:55:19	66091-1.RAW	2:55:19 PM	2806.55	1		2795.5	12.773	6386.445	ng/L	
Hg2600-2	DM2	SAM	F611363-MS2	500	11/18/2016 14:59:27	66092-1.RAW	2:59:27 PM	2560.80	1		2549.7	11.649	5824.728	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/18/2016 15:03:36	66093-1.RAW	3:03:36 PM	1057.89	1		1046.8	4.785	4.785	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/18/2016 15:07:44	66094-1.RAW	3:07:44 PM	61.46	1		50.4	0.230	0.230	ng/L	
Hg2600-2	DM2	SAM	F611363-MSD2	500	11/18/2016 15:11:53	66095-1.RAW	3:11:53 PM	2651.24	1		2640.1	12.063	6031.455	ng/L	
Hg2600-2	DM2	BLK	F611387-BLK1	20	11/18/2016 15:16:01	66096-1.RAW	3:16:01 PM	46.18	2		35.1	0.160	3.207	ng/L	
Hg2600-2	DM2	BLK	F611387-BLK2	20	11/18/2016 15:20:09	66097-1.RAW	3:20:09 PM	36.55	2		25.5	0.116	2.327	ng/L	
Hg2600-2	DM2	BLK	F611387-BLK3	20	11/18/2016 15:24:18	66098-1.RAW	3:24:18 PM	35.10	2		24.0	0.110	2.194	ng/L	
Hg2600-2	DM2	SAM	F611387-BS1	20	11/18/2016 15:28:26	66099-1.RAW	3:28:26 PM	1101.73	2		1090.6	4.857	97.138	ng/L	
Hg2600-2	DM2	SAM	F611387-BSD1	20	11/18/2016 15:32:35	66100-1.RAW	3:32:35 PM	1042.09	2		1031.0	4.584	91.685	ng/L	
Hg2600-2	DM2	SAM	F611387-BS2	500	11/18/2016 15:36:43	66101-1.RAW	3:36:43 PM	926.00	2		914.9	4.177	2088.608	ng/L	
Hg2600-2	DM2	SAM	1611257-01	100	11/18/2016 15:40:53	66102-1.RAW	3:40:53 PM	4528.28	2		4517.2	20.624	2062.404	ng/L	
Hg2600-2	DM2	SAM	1611257-02	100	11/18/2016 15:45:01	66103-1.RAW	3:45:01 PM	5651.42	2		5640.3	25.758	2575.835	ng/L	
Hg2600-2	DM2	SAM	1611257-03	100	11/18/2016 15:49:10	66104-1.RAW	3:49:10 PM	5541.10	2		5530.0	25.254	2525.402	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/18/2016 15:53:19	66105-1.RAW	3:53:19 PM	1103.23	1		1092.1	4.993	4.993	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/18/2016 15:57:28	66106-1.RAW	3:57:28 PM	50.85	1		39.8	0.182	0.182	ng/L	
Hg2600-2	DM2	SAM	1611257-04	100	11/18/2016 16:01:36	66107-1.RAW	4:01:36 PM	2799.97	2		2788.9	12.723	1272.323	ng/L	
Hg2600-2	DM2	SAM	1611257-05	100	11/18/2016 16:05:44	66108-1.RAW	4:05:44 PM	4660.18	2		4649.1	21.227	2122.697	ng/L	
Hg2600-2	DM2	SAM	1611257-06	100	11/18/2016 16:09:53	66109-1.RAW	4:09:53 PM	8623.05	2		8612.0	39.343	3934.281	ng/L	
Hg2600-2	DM2	SAM	1611257-07	100	11/18/2016 16:14:01	66110-1.RAW	4:14:01 PM	4272.63	2		4261.5	19.455	1945.536	ng/L	
Hg2600-2	DM2	SAM	1611257-08	100	11/18/2016 16:18:10	66111-1.RAW	4:18:10 PM	5304.28	2		5293.2	24.171	2417.143	ng/L	
Hg2600-2	DM2	SAM	1611257-09	100	11/18/2016 16:22:18	66112-1.RAW	4:22:18 PM	4632.53	2		4621.4	21.101	2110.060	ng/L	
Hg2600-2	DM2	SAM	1611257-10	100	11/18/2016 16:26:27	66113-1.RAW	4:26:27 PM	5010.35	2		4999.3	22.828	2282.776	ng/L	
Hg2600-2	DM2	SAM	1611257-11	100	11/18/2016 16:30:35	66114-1.RAW	4:30:35 PM	4587.94	2		4576.8	20.897	2089.676	ng/L	
Hg2600-2	DM2	SAM	1611257-12	100	11/18/2016 16:34:44	66115-1.RAW	4:34:44 PM	6775.33	2		6764.2	30.896	3089.617	ng/L	
Hg2600-2	DM2	SAM	1611257-13	100	11/18/2016 16:38:52	66116-1.RAW	4:38:52 PM	3885.62	2		3874.5	17.686	1768.619	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/18/2016 16:43:00	66117-1.RAW	4:43:00 PM	1069.87	1		1058.8	4.840	4.840	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/18/2016 16:47:09	66118-1.RAW	4:47:09 PM	57.56	1		46.5	0.212	0.212	ng/L	
Hg2600-2	DM2	SAM	1611257-14	100	11/18/2016 16:51:17	66119-1.RAW	4:51:17 PM	7548.10	2		7537.0	34.429	3442.881	ng/L	
Hg2600-2	DM2	SAM	1611257-15	100	11/18/2016 16:55:26	66120-1.RAW	4:55:26 PM	9411.99	2		9400.9	42.949	4294.937	ng/L	
Hg2600-2	DM2	SAM	1611257-16	100	11/18/2016 16:59:34	66121-1.RAW	4:59:34 PM	7484.73	2		7473.6	34.139	3413.911	ng/L	
Hg2600-2	DM2	SAM	1611257-17	100	11/18/2016 17:03:43	66122-1.RAW	5:03:43 PM	5079.24	2		5068.1	23.143	2314.266	ng/L	
Hg2600-2	DM2	SAM	1611257-18	100	11/18/2016 17:07:51	66123-1.RAW	5:07:51 PM	4429.61	2		4418.5	20.173	2017.297	ng/L	
Hg2600-2	DM2	SAM	1611257-19	100	11/18/2016 17:11:59	66124-1.RAW	5:11:59 PM	6292.90	2		6281.8	28.691	2869.077	ng/L	
Hg2600-2	DM2	SAM	1611257-20	100	11/18/2016 17:16:08	66125-1.RAW	5:16:08 PM	12337.26	2		12326.2	56.322	5632.188	ng/L	
Hg2600-2	DM2	SAM	F611387-DUP1	100	11/18/2016 17:20:16	66126-1.RAW	5:20:16 PM	4166.10	2		4155.0	18.968	1896.835	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	F611387-MS1	500	11/18/2016 17:24:25	66127-1.RAW	5:24:25 PM	2648.13	2		2637.0	12.050	6024.859	ng/L	
Hg2600-2	DM2	SAM	F611387-MSD1	500	11/18/2016 17:28:33	66128-1.RAW	5:28:33 PM	2907.71	2		2896.6	13.236	6618.198	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVA	1	11/18/2016 17:32:43	66129-1.RAW	5:32:43 PM	1071.88			1060.8	4.849	4.849	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	11/18/2016 17:36:51	66130-1.RAW	5:36:51 PM	59.00			47.9	0.219	0.219	ng/L	
Hg2600-2	DM2	SAM	F611387-MS2	500	11/18/2016 17:41:00	66131-1.RAW	5:41:00 PM	2838.82	2		2827.7	12.921	6460.734	ng/L	
Hg2600-2	DM2	SAM	F611387-MSD2	500	11/18/2016 17:45:08	66132-1.RAW	5:45:08 PM	3056.29	2		3045.2	13.916	6957.802	ng/L	
Hg2600-2	DM2	SAM	F611257-15RE1	500	11/18/2016 17:49:17	66133-1.RAW	5:49:17 PM	1967.75	2		1956.7	8.939	4469.736	ng/L	
Hg2600-2	DM2	SAM	F611257-16RE1	100	11/18/2016 17:53:25	66134-1.RAW	5:53:25 PM	7391.42	2		7380.3	33.713	3371.254	ng/L	
Hg2600-2	DM2	SAM	F611257-20RE1	500	11/18/2016 17:57:33	66135-1.RAW	5:57:33 PM	2564.03	2		2552.9	11.665	5832.644	ng/L	
Hg2600-2	DM2	SAM	F611387-DUP2	100	11/18/2016 18:01:42	66136-1.RAW	6:01:42 PM	4101.66	2		4090.6	18.674	1867.377	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVB	1	11/18/2016 18:05:50	66137-1.RAW	6:05:50 PM	1099.01			1087.9	4.973	4.973	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBB	1	11/18/2016 18:09:59	66138-1.RAW	6:09:59 PM	59.88			48.8	0.223	0.223	ng/L	

TotalMercury EPA1631  
 Operat BC  
 Worksh THG260  
 Method ####  
 Descrip THG26002-161118-1

BlankS 11.099  
 CalibFa 218.75  
 R: 0.9999  
 R<sup>2</sup>: 0.9999

Calib Eqn: Conc = (Area-11.09  
 QC Warnings:4/QC E  
 Run Date: #####  
 Run Time: 12:38:39

Blank SD: 2.631685004  
 Blank RSD%: 23.7120727  
 CF SD: 8.247980804  
 CF RSD%: 3.770471201

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (cif)	Flags	RunCount
Clean				0.00	5.40					66000-1.RAW	8:27:42	1181.68	Clean	OK	1
CLEAN				0.00	0.00					66001-1.RAW	8:30:33	0.32	Clean	OK	1
WS				11.10	0.01					66002-1.RAW	8:34:42	12.56	Sample	OK	1
WS				11.10	0.00					66003-1.RAW	8:38:50	10.18	Sample	OK	1
WS				11.10	0.00					66004-1.RAW	8:42:58	9.73	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.06					66005-1.RAW	8:47:07	13.38	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					66006-1.RAW	8:51:15	11.70	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					66007-1.RAW	8:55:24	8.22	Sample	OK	1
SEQ-CAL1	A4		1	11.10	0.53			106.26		66008-1.RAW	8:59:32	127.32	Sample	OK	1
SEQ-CAL2	A5		1	11.10	0.99			98.76		66009-1.RAW	9:03:41	227.15	Sample	OK	1
SEQ-CAL3	A6		1	11.10	4.82			96.43		66010-1.RAW	9:07:49	1065.82	Sample	OK	1
SEQ-CAL4	A7		1	11.10	20.07			100.37		66011-1.RAW	9:11:57	4402.27	Sample	OK	1
SEQ-CAL5	A8		1	11.10	39.27			98.18		66012-1.RAW	9:16:06	8601.91	Sample	OK	1
SEQ-ICV1	A9		1	11.10	4.94			98.75		66013-1.RAW	9:20:14	1091.18	Sample	OK	1
F611382-BLK1	A10		100	11.10	35.45					66014-1.RAW	9:28:58	88.65	Sample	OK	1
F611382-BLK2	A11		100	11.10	12.60					66015-1.RAW	9:33:07	38.66	Sample	OK	1
F611382-BLK3	A12		100	11.10	10.15					66016-1.RAW	9:37:15	33.31	Sample	OK	1
F611382-BS1	A13		500	11.10	1881.43					66017-1.RAW	9:41:24	834.23	Sample	OK	1
F611382-BSD1	A14		500	11.10	1861.53					66018-1.RAW	9:45:32	825.53	Sample	OK	1
1611488-01	A15		2500	11.10	14530.30					66019-1.RAW	9:49:40	1282.51	Sample	OK	1
1611488-02	A16		2500	11.10	13127.46					66020-1.RAW	9:53:49	1159.76	Sample	OK	1
1611489-01	A17		2500	11.10	50072.48					66021-1.RAW	9:57:57	4392.48	Sample	OK	1
1611489-03	A18		2500	11.10	81669.56					66022-1.RAW	10:02:06	7157.25	Sample	OK	1
1611489-04	A19		2500	11.10	85526.01					66023-1.RAW	10:06:14	7494.69	Sample	OK	1
SEQ-CCV1	A20		1	11.10	4.96			99.21		66024-1.RAW	10:10:23	1096.22	Sample	OK	1
SEQ-CCB1	A21		1	11.10	0.19			0.00		66025-1.RAW	10:14:31	53.63	Sample	OK	1
1611499-01	B1		2500	11.10	6033.97					66026-1.RAW	10:18:39	539.08	Sample	OK	1
1611499-02	B2		2500	11.10	5483.22					66027-1.RAW	10:22:48	490.88	Sample	OK	1
1611500-01	B3		2500	11.10	2934.00					66028-1.RAW	10:26:56	267.83	Sample	OK	1
1611500-02	B4		2500	11.10	2932.53					66029-1.RAW	10:31:05	267.70	Sample	OK	1
1611488-01B	B5		100	11.10	22.25					66030-1.RAW	10:35:13	59.78	Sample	OK	1
1611488-02B	B6		100	11.10	8.75					66031-1.RAW	10:39:21	30.24	Sample	OK	1
1611489-01B	B7		100	11.10	10.53					66032-1.RAW	10:43:30	34.14	Sample	OK	1
1611489-03B	B8		100	11.10	28.65					66033-1.RAW	10:47:38	73.77	Sample	OK	1
1611489-04B	B9		100	11.10	240.10					66034-1.RAW	10:51:47	536.32	Sample	OK	1
1611499-01B	B10		100	11.10	68.17					66035-1.RAW	10:55:55	160.22	Sample	OK	1
SEQ-CCV2	B11		1	11.10	4.56			91.18		66036-1.RAW	11:00:04	1008.38	Sample	OK	1
SEQ-CCB2	B12		1	11.10	0.09			0.00		66037-1.RAW	11:04:12	30.95	Sample	OK	1
1611499-02B	B13		100	11.10	31.70					66038-1.RAW	11:08:20	80.45	Sample	OK	1
CLEAN				0.00	0.02					66040-1.RAW	11:14:28	5.27	Clean	OK	1
WS				11.10	0.03					66041-1.RAW	11:18:36	18.34	Sample	OK	1
1611500-01B	B14		100	11.10	13.06					66039-3.RAW	11:25:44	39.67	Sample	OK	1
1611500-02B	B15		100	11.10	4.14					66042-1.RAW	11:29:53	20.16	Sample	OK	1
1611488-01C	B16		2500	11.10	24490.09					66043-1.RAW	11:34:01	2154.00	Sample	OK	1

1611488-02C	B17	2500	11.10	26620.00		66044-1.RAW	11:38:09	2340.37	Sample	OK	1
1611489-01C	B18	2500	11.10	85146.31		66045-1.RAW	11:42:18	7461.47	Sample	OK	1
1611489-03C	B19	5000	11.10	122619.40		66046-1.RAW	11:46:26	5375.75	Sample	OK	1
1611489-04C	B20	5000	11.10	118086.30		66047-1.RAW	11:50:35	5177.42	Sample	OK	1
1611499-01C	B21	500	11.10	8002.21		66048-1.RAW	11:54:43	3512.10	Sample	OK	1
1611499-02C	C1	500	11.10	7389.33		66049-1.RAW	11:58:52	3243.96	Sample	OK	1
SEQ-CCV3	C2	1	11.10	4.94	98.75	66050-1.RAW	12:03:00	1091.19	Sample	OK	1
SEQ-CCB3	C3	1	11.10	0.19	0.00	66051-1.RAW	12:07:10	52.70	Sample	OK	1
1611500-01C	C4	500	11.10	8297.54		66052-1.RAW	12:11:18	3641.31	Sample	OK	1
1611500-02C	C5	500	11.10	8511.43		66053-1.RAW	12:15:26	3734.89	Sample	OK	1
F611382-DUP1	C6	2500	11.10	13560.73		66054-1.RAW	12:19:35	1197.67	Sample	OK	1
F611382-MS1	C7	2500	11.10	63281.72	466.62	66055-1.RAW	12:23:43	5548.30	Sample	OK	1
F611382-MSD1	C8	2500	11.10	61377.69		66056-1.RAW	12:27:52	5381.70	Sample	OK	1
SEQ-CCV4	C9	1	11.10	4.73	94.60	66057-1.RAW	12:32:00	1045.76	Sample	OK	1
SEQ-CCB4	C10	1	11.10	0.18	0.00	66058-1.RAW	12:36:08	51.02	Sample	OK	1
F611363-BLK1	C11	20	11.10	5.43		66059-1.RAW	12:42:48	70.45	Sample	OK	1
F611363-BLK2	C12	20	11.10	1.96		66060-1.RAW	12:46:56	32.53	Sample	OK	1
F611363-BLK3	C13	20	11.10	1.92		66061-1.RAW	12:51:05	32.12	Sample	OK	1
F611363-BS1	C14	20	11.10	100.73		66062-1.RAW	12:55:13	1112.85	Sample	OK	1
F611363-BSD1	C15	20	11.10	99.33		66063-1.RAW	12:59:22	1097.54	Sample	OK	1
F611363-BS2	C16	500	11.10	2339.55		66064-1.RAW	13:03:30	1034.66	Sample	OK	1
1611256-01	C17	100	11.10	1862.41		66065-1.RAW	13:07:38	4085.16	Sample	OK	1
1611256-02	C18	100	11.10	1086.15		66066-1.RAW	13:11:47	2387.08	Sample	OK	1
1611256-03	C19	100	11.10	589.90		66067-1.RAW	13:15:55	1301.52	Sample	OK	1
1611256-04	C20	100	11.10	942.25		66068-1.RAW	13:20:04	2072.30	Sample	OK	1
SEQ-CCV5	C21	1	11.10	4.59	91.89	66069-1.RAW	13:24:12	1016.20	Sample	OK	1
SEQ-CCB5	A1	1	11.10	0.10	0.00	66070-1.RAW	13:28:21	33.67	Sample	OK	1
1611256-05	A2	100	11.10	1458.02		66071-1.RAW	13:32:29	3200.56	Sample	OK	1
1611256-06	A3	100	11.10	1282.33		66072-1.RAW	13:36:38	2816.22	Sample	OK	1
1611256-07	A4	100	11.10	1371.76		66073-1.RAW	13:40:47	3011.84	Sample	OK	1
1611256-08	A5	100	11.10	1097.90		66074-1.RAW	13:44:55	2412.77	Sample	OK	1
1611256-09	A6	100	11.10	560.89		66075-1.RAW	13:49:04	1238.05	Sample	OK	1
1611256-10	A7	100	11.10	1521.98		66076-1.RAW	13:53:12	3340.46	Sample	OK	1
1611256-11	A8	100	11.10	1797.00		66077-1.RAW	13:57:21	3942.06	Sample	OK	1
1611256-12	A9	100	11.10	1360.01		66078-1.RAW	14:01:29	2986.15	Sample	OK	1
1611256-13	A10	100	11.10	1404.68		66079-1.RAW	14:05:38	3083.86	Sample	OK	1
1611256-14	A11	100	11.10	1695.47		66080-1.RAW	14:09:46	3719.98	Sample	OK	1
SEQ-CCV6	A12	1	11.10	5.00	99.94	66081-1.RAW	14:13:55	1104.21	Sample	OK	1
SEQ-CCB6	A13	1	11.10	0.15	0.00	66082-1.RAW	14:18:03	44.82	Sample	OK	1
1611256-15	A14	100	11.10	1505.67		66083-1.RAW	14:22:11	3304.77	Sample	OK	1
1611256-16	A15	100	11.10	758.10		66084-1.RAW	14:26:20	1669.45	Sample	OK	1
1611256-17	A16	100	11.10	1637.72		66085-1.RAW	14:30:28	3593.65	Sample	OK	1
1611256-18	A17	100	11.10	1436.84		66086-1.RAW	14:34:37	3154.22	Sample	OK	1
1611256-19	A18	100	11.10	1668.36		66087-1.RAW	14:38:45	3660.66	Sample	OK	1
1611256-20	A19	100	11.10	1404.15		66088-1.RAW	14:42:54	3082.70	Sample	OK	1
F611363-DUP1	A20	100	11.10	2146.17		66089-1.RAW	14:47:02	4705.88	Sample	OK	1
F611363-MS1	A21	500	11.10	6367.70	296.56	66090-1.RAW	14:51:10	2796.99	Sample	OK	1
F611363-MSD1	B1	500	11.10	6389.55		66091-1.RAW	14:55:19	2806.55	Sample	OK	1
F611363-MS2	B2	500	11.10	5827.83	91.18	66092-1.RAW	14:59:27	2560.80	Sample	OK	1

SEQ-CCV7	B3	1	11.10	4.79	95.71	66093-1.RAW	15:03:36	1057.89	Sample	OK	1
SEQ-CCB7	B4	1	11.10	0.23	0.00	66094-1.RAW	15:07:44	61.46	Sample	OK	1
F611363-MSD2	B5	500	11.10	6034.56		66095-1.RAW	15:11:53	2651.24	Sample	OK	1
F611387-BLK1	B6	20	11.10	3.21		66096-1.RAW	15:16:01	46.18	Sample	OK	1
F611387-BLK2	B7	20	11.10	2.33		66097-1.RAW	15:20:09	36.55	Sample	OK	1
F611387-BLK3	B8	20	11.10	2.19		66098-1.RAW	15:24:18	35.10	Sample	OK	1
F611387-BS1	B9	20	11.10	99.71		66099-1.RAW	15:28:26	1101.73	Sample	OK	1
F611387-BSD1	B10	20	11.10	94.26		66100-1.RAW	15:32:35	1042.09	Sample	OK	1
F611387-BS2	B11	500	11.10	2091.18		66101-1.RAW	15:36:43	926.00	Sample	OK	1
1611257-01	B12	100	11.10	2064.98		66102-1.RAW	15:40:53	4528.28	Sample	OK	1
1611257-02	B13	100	11.10	2578.41		66103-1.RAW	15:45:01	5651.42	Sample	OK	1
1611257-03	B14	100	11.10	2527.98		66104-1.RAW	15:49:10	5541.10	Sample	OK	1
SEQ-CCV8	B15	1	11.10	4.99	99.85	66105-1.RAW	15:53:19	1103.23	Sample	OK	1
SEQ-CCB8	B16	1	11.10	0.18	0.00	66106-1.RAW	15:57:28	50.85	Sample	OK	1
1611257-04	B17	100	11.10	1274.90		66107-1.RAW	16:01:36	2799.97	Sample	OK	1
1611257-05	B18	100	11.10	2125.27		66108-1.RAW	16:05:44	4660.18	Sample	OK	1
1611257-06	B19	100	11.10	3936.86		66109-1.RAW	16:09:53	8623.05	Sample	OK	1
1611257-07	B20	100	11.10	1948.11		66110-1.RAW	16:14:01	4272.63	Sample	OK	1
1611257-08	B21	100	11.10	2419.72		66111-1.RAW	16:18:10	5304.28	Sample	OK	1
1611257-09	C1	100	11.10	2112.64		66112-1.RAW	16:22:18	4632.53	Sample	OK	1
1611257-10	C2	100	11.10	2285.35		66113-1.RAW	16:26:27	5010.35	Sample	OK	1
1611257-11	C3	100	11.10	2092.25		66114-1.RAW	16:30:35	4587.94	Sample	OK	1
1611257-12	C4	100	11.10	3092.19		66115-1.RAW	16:34:44	6775.33	Sample	OK	1
1611257-13	C5	100	11.10	1771.20		66116-1.RAW	16:38:52	3885.62	Sample	OK	1
SEQ-CCV9	C6	1	11.10	4.84	96.80	66117-1.RAW	16:43:00	1069.87	Sample	OK	1
SEQ-CCB9	C7	1	11.10	0.21	0.00	66118-1.RAW	16:47:09	57.56	Sample	OK	1
1611257-14	C8	100	11.10	3445.46		66119-1.RAW	16:51:17	7548.10	Sample	OK	1
1611257-15	C9	100	11.10	4297.51		66120-1.RAW	16:55:26	9411.99	Sample	OK	1
1611257-16	C10	100	11.10	3416.49		66121-1.RAW	16:59:34	7484.73	Sample	OK	1
1611257-17	C11	100	11.10	2316.84		66122-1.RAW	17:03:43	5079.24	Sample	OK	1
1611257-18	C12	100	11.10	2019.87		66123-1.RAW	17:07:51	4429.61	Sample	OK	1
1611257-19	C13	100	11.10	2871.65		66124-1.RAW	17:11:59	6292.90	Sample	OK	1
1611257-20	C14	100	11.10	5634.76		66125-1.RAW	17:16:08	12337.26	Sample	OK	1
F611387-DUP1	C15	100	11.10	1899.41		66126-1.RAW	17:20:16	4166.10	Sample	OK	1
F611387-MS1	C16	500	11.10	6027.43	317.16	66127-1.RAW	17:24:25	2648.13	Sample	OK	1
F611387-MSD1	C17	500	11.10	6620.77		66128-1.RAW	17:28:33	2907.71	Sample	OK	1
SEQ-CCVA	C18	1	11.10	4.85		66129-1.RAW	17:32:43	1071.88	Sample	OK	1
SEQ-CCBA	C19	1	11.10	0.22		66130-1.RAW	17:36:51	59.00	Sample	OK	1
F611387-MS2	C20	500	11.10	6463.31	291273.36	66131-1.RAW	17:41:00	2838.82	Sample	OK	1
F611387-MSD2	C21	500	11.10	6960.38		66132-1.RAW	17:45:08	3056.29	Sample	OK	1
1611257-15RE1	A1	500	11.10	4472.31		66133-1.RAW	17:49:17	1967.75	Sample	OK	1
1611257-16RE1	A2	100	11.10	3373.83		66134-1.RAW	17:53:25	7391.42	Sample	OK	1
1611257-20RE1	A3	500	11.10	5835.22		66135-1.RAW	17:57:33	2564.03	Sample	OK	1
F611387-DUP2	A4	100	11.10	1869.95		66136-1.RAW	18:01:42	4101.66	Sample	OK	1
SEQ-CCVB	A5	1	11.10	4.97		66137-1.RAW	18:05:50	1099.01	Sample	OK	1
SEQ-CCBB	A6	1	11.10	0.22		66138-1.RAW	18:09:59	59.88	Sample	OK	1

**Failing Data Report - 6K21015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1611257-15	Hg-CVAFS-T-7030	324	3.77				ng/g						FAIL-OVER	PASS	E
1611257-20	Hg-CVAFS-T-7030	378	3.36				ng/g						FAIL-OVER	PASS	E

Don Mason  
 Analyst Reviewed By

11/21/16  
 Date

[Signature]  
 Peer Reviewed By

11-21-16  
 Date

## ANALYSIS SEQUENCE

6K21015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21015-IBL1	QC	1			
6K21015-IBL2	QC	2			
6K21015-IBL3	QC	3			
6K21015-CAL1	QC	4	1605412		
6K21015-CAL2	QC	5	1605413		
6K21015-CAL3	QC	6	1605414		
6K21015-CAL4	QC	7	1605415		
6K21015-CAL5	QC	8	1605416		
6K21015-ICV1	QC	9	1605791		
6K21015-CCV1	QC	10	1605791		
6K21015-CCB1	QC	11			
6K21015-CCV2	QC	12	1605791		
6K21015-CCB2	QC	13			
6K21015-CCV3	QC	14	1605791		
6K21015-CCB3	QC	15			
6K21015-CCV4	QC	16	1605791		
6K21015-CCB4	QC	17			
F611363-BLK1	QC	18			
F611363-BLK2	QC	19			
F611363-BLK3	QC	20			
F611363-BS1	QC	21			
F611363-BSD1	QC	22			
F611363-BS2	QC	23			
1611256-01	Hg-CVAFS-T-7030	24			
1611256-02	Hg-CVAFS-T-7030	25			
1611256-03	Hg-CVAFS-T-7030	26			
1611256-04	Hg-CVAFS-T-7030	27			
6K21015-CCV5	QC	28	1605791		
6K21015-CCB5	QC	29			
1611256-05	Hg-CVAFS-T-7030	30			
1611256-06	Hg-CVAFS-T-7030	31			
1611256-07	Hg-CVAFS-T-7030	32			
1611256-08	Hg-CVAFS-T-7030	33			
1611256-09	Hg-CVAFS-T-7030	34			
1611256-10	Hg-CVAFS-T-7030	35			

Due Date: 11/29/2016



## ANALYSIS SEQUENCE

6K21015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611256-11	Hg-CVAFS-T-7030	36			
1611256-12	Hg-CVAFS-T-7030	37			
1611256-13	Hg-CVAFS-T-7030	38			
1611256-14	Hg-CVAFS-T-7030	39			
6K21015-CCV6	QC	40	1605791		
6K21015-CCB6	QC	41			
1611256-15	Hg-CVAFS-T-7030	42			
1611256-16	Hg-CVAFS-T-7030	43			
1611256-17	Hg-CVAFS-T-7030	44			
1611256-18	Hg-CVAFS-T-7030	45			
1611256-19	Hg-CVAFS-T-7030	46			
1611256-20	Hg-CVAFS-T-7030	47			
F611363-DUP1	QC	48			
F611363-MS1	QC	49			
F611363-MSD1	QC	50			
F611363-MS2	QC	51			
6K21015-CCV7	QC	52	1605791		
6K21015-CCB7	QC	53			
F611363-MSD2	QC	54			
F611387-BLK1	QC	55			
F611387-BLK2	QC	56			
F611387-BLK3	QC	57			
F611387-BS1	QC	58			
F611387-BSD1	QC	59			
F611387-BS2	QC	60			
1611257-01	Hg-CVAFS-T-7030	61			
1611257-02	Hg-CVAFS-T-7030	62			
1611257-03	Hg-CVAFS-T-7030	63			
6K21015-CCV8	QC	64	1605791		
6K21015-CCB8	QC	65			
1611257-04	Hg-CVAFS-T-7030	66			
1611257-05	Hg-CVAFS-T-7030	67			
1611257-06	Hg-CVAFS-T-7030	68			
1611257-07	Hg-CVAFS-T-7030	69			
1611257-08	Hg-CVAFS-T-7030	70			

Due Date: 11/29/2016

## ANALYSIS SEQUENCE

6K21015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611257-09	Hg-CVAFS-T-7030	71			
1611257-10	Hg-CVAFS-T-7030	72			
1611257-11	Hg-CVAFS-T-7030	73			
1611257-12	Hg-CVAFS-T-7030	74			
1611257-13	Hg-CVAFS-T-7030	75			
6K21015-CCV9	QC	76	1605791		
6K21015-CCB9	QC	77			
1611257-14	Hg-CVAFS-T-7030	78			
1611257-15	Hg-CVAFS-T-7030	79			
1611257-16	Hg-CVAFS-T-7030	80			
1611257-17	Hg-CVAFS-T-7030	81			
1611257-18	Hg-CVAFS-T-7030	82			
1611257-19	Hg-CVAFS-T-7030	83			
1611257-20	Hg-CVAFS-T-7030	84			
F611387-DUP1	QC	85			
F611387-MS1	QC	86			
F611387-MSD1	QC	87			
6K21015-CCVA	QC	88	1605791		
6K21015-CCBA	QC	89			
F611387-MS2	QC	90			
F611387-MSD2	QC	91			
1611257-15RE1	Hg-CVAFS-T-7030	92			Added 11/18/2016 by DM2
1611257-16RE1	Hg-CVAFS-T-7030	93			Added 11/18/2016 by DM2
1611257-20RE1	Hg-CVAFS-T-7030	94			Added 11/18/2016 by DM2
F611387-DUP2	QC	95			
6K21015-CCVB	QC	96	1605791		
6K21015-CCBB	QC	97			

Don Moran 11/18/16  
 Samples Loaded By \_\_\_\_\_ Date \_\_\_\_\_

Don Moran 11/21/16  
 Data Processed By \_\_\_\_\_ Date \_\_\_\_\_

Due Date: 11/29/2016

**PREPARATION BENCH SHEET**

F611363

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/15/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611363-BLK1	Blank	0.5	40					
F611363-BLK2	Blank	0.5	40					
F611363-BLK3	Blank	0.5	40					
F611363-BS1	LCS	0.5	40	1605270	40			
F611363-BS2	LCS	0.276	40	1605470	276			
F611363-BSD1	LCS Dup	0.5	40	1605270	40			
F611363-DUP1	Duplicate [1611256-01]	0.549	40					
F611363-MS1	Matrix Spike [1611256-01]	0.556	40	1605712	200			
F611363-MS2	Matrix Spike [1611256-20]	0.569	40	1605712	200			
F611363-MSD1	Matrix Spike Dup [1611256-01]	0.551	40	1605712	200			
F611363-MSD2	Matrix Spike Dup [1611256-20]	0.586	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606580	70/30 Digestion Acid	08-May-17 00:00
			1606599	5% BrCl	19-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00

**PREPARATION BENCH SHEET**

F611363

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/15/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611256-01	HBI-01_092416_LOB_TA_01	0.535	40	QC	-	-	MS/MSD	
1611256-02	HBI-01_092416_LOB_TA_02	0.563	40	-	-	-		
1611256-03	HBI-01_092416_LOB_TA_03	0.501	40	-	-	-		
1611256-04	HBI-01_092416_LOB_TA_04	0.547	40	-	-	-		
1611256-05	HBI-01_092416_LOB_TA_05	0.581	40	-	-	-		
1611256-06	HBI-01_092416_LOB_TA_06	0.552	40	-	-	-		
1611256-07	HBI-01_092416_LOB_TA_07	0.534	40	-	-	-		
1611256-08	HBI-01_092416_LOB_TA_08	0.528	40	-	-	-		
1611256-09	HBI-01_092616_LOB_TA_09	0.502	40	-	-	-		
1611256-10	HBI-01_092616_LOB_TA_10	0.52	40	-	-	-		
1611256-11	HBI-01_092616_LOB_TA_11	0.557	40	-	-	-		
1611256-12	HBI-01_092616_LOB_TA_12	0.561	40	-	-	-		
1611256-13	HBI-01_092616_LOB_TA_13	0.57	40	-	-	-		
1611256-14	HBI-01_092616_LOB_TA_14	0.527	40	-	-	-		
1611256-15	HBI-01_092616_LOB_TA_15	0.507	40	-	-	-		
1611256-16	HBI-01_092616_LOB_TA_16	0.559	40	-	-	-		
1611256-17	HBI-01_092616_LOB_TA_17	0.515	40	-	-	-		
1611256-18	HBI-01_092616_LOB_TA_18	0.531	40	-	-	-		
1611256-19	HBI-01_092616_LOB_TA_19	0.544	40	-	-	-		

Page 59 of 121

Date: 11/29/2016

PREPARATION BENCH SHEET

F611363

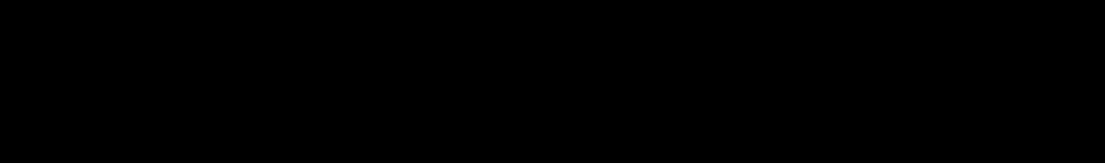
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

1611256-20	HBI-01_092616_LOB_TA_20	0.526	40	-	-	-		
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**PREPARATION BENCH SHEET**

F611387

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611387-BLK1	Blank	0.5	40					
F611387-BLK2	Blank	0.5	40					
F611387-BLK3	Blank	0.5	40					
F611387-BS1	LCS	0.5	40	1605270	40			
F611387-BS2	LCS	0.253	40	1605470	253			
F611387-BSD1	LCS Dup	0.5	40	1605270	40			
F611387-DUP1	Duplicate [1611257-01]	0.55	40					
F611387-DUP2	Duplicate [1611257-01]	0.55	40					
F611387-MS1	Matrix Spike [1611257-01]	0.504	40	1605712	200			
F611387-MS2	Matrix Spike [1611257-10]	0.546	40	1605712	200			
F611387-MSD1	Matrix Spike Dup [1611257-01]	0.582	40	1605712	200			
F611387-MSD2	Matrix Spike Dup [1611257-10]	0.545	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1606720	70/30 Digestion Acid	15-May-17 00:00
			1606759	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611387

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611257-01	CPJL-092416_LOB_TA_01	0.579	40	QC	-	-	MS/MSD	
1611257-02	CPJL-092416_LOB_TA_02	0.554	40	-	-	-		
1611257-03	CPJL-092416_LOB_TA_03	0.553	40	-	-	-		
1611257-04	CPJL-092416_LOB_TA_04	0.515	40	-	-	-		
1611257-05	CPJL-092416_LOB_TA_05	0.548	40	-	-	-		
1611257-06	CPJL-092416_LOB_TA_06	0.545	40	-	-	-		
1611257-07	CPJL-092416_LOB_TA_07	0.554	40	-	-	-		
1611257-08	CPJL-092416_LOB_TA_08	0.539	40	-	-	-		
1611257-09	CPJL-092416_LOB_TA_09	0.574	40	-	-	-		
1611257-10	CPJL-092416_LOB_TA_10	0.55	40	-	-	-		
1611257-11	CPJL-092416_LOB_TA_11	0.526	40	-	-	-		
1611257-12	CPJL-092416_LOB_TA_12	0.596	40	-	-	-		
1611257-13	CPJL-092416_LOB_TA_13	0.522	40	-	-	-		
1611257-14	CPJL-092416_LOB_TA_14	0.531	40	-	-	-		
1611257-15	CPJL-092416_LOB_TA_15	0.53	40	-	-	-		
1611257-15RE1	CPJL-092416_LOB_TA_15	0.53	40	-	-	-	Added 11/18/2016 by DM2	Added 11/18/2016 by DM2
1611257-16	CPJL-092416_LOB_TA_16	0.528	40	-	-	-		
1611257-16RE1	CPJL-092416_LOB_TA_16	0.528	40	-	-	-	Added 11/18/2016 by DM2	Added 11/18/2016 by DM2
1611257-17	CPJL-092416_LOB_TA_17	0.514	40	-	-	-		

Page 62 of 121

Date: 11/29/2016

PREPARATION BENCH SHEET

F611387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

1611257-18	CPJL-092416_LOB_TA_18	0.538	40	-	-	-		
1611257-19	CPJL-092416_LOB_TA_19	0.516	40	-	-	-		
1611257-20	CPJL-092416_LOB_TA_20	0.596	40	-	-	-		
1611257-20RE1	CPJL-092416_LOB_TA_20	0.596	40	-	-	-	Added 11/18/2016 by DM2	Added 11/18/2016 by DM2



2600-2

11/18/16 DM

PREPARATION BENCH SHEET

F611363

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611363-BLK1	Blank	0.5	40					20X
F611363-BLK2	Blank	0.5	40					20X
F611363-BLK3	Blank	0.5	40					20X
F611363-BS1	LCS	0.5	40	1605270	40			20X
F611363-BS2	LCS	0.276	40	1605470	276			500X
F611363-BSD1	LCS Dup	0.5	40	1605270	40			20X
F611363-DUP1	Duplicate [1611256-01]	0.549	40					100X
F611363-MS1	Matrix Spike [1611256-01]	0.556	40	1605712	200			500X
F611363-MS2	Matrix Spike [1611256-20]	0.569	40	1605712	200			500X
F611363-MSD1	Matrix Spike Dup [1611256-01]	0.551	40	1605712	200			500X
F611363-MSD2	Matrix Spike Dup [1611256-20]	0.586	40	1605712	200			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1606580	70/30 Digestion Acid	08-May-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606599	5% BrCl	19-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00

1602941  
1606188  
1606189  
1606581

PREPARATION BENCH SHEET

2000.2

11/18/16 DM

F611363

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611256-01	HBI-01_092416_LOB_TA_01	0.535	40	QC	-	-	MS/MSD	100X
1611256-02	HBI-01_092416_LOB_TA_02	0.563	40	-	-	-		100X
1611256-03	HBI-01_092416_LOB_TA_03	0.501	40	-	-	-		100X
1611256-04	HBI-01_092416_LOB_TA_04	0.547	40	-	-	-		100X
1611256-05	HBI-01_092416_LOB_TA_05	0.581	40	-	-	-		100X
1611256-06	HBI-01_092416_LOB_TA_06	0.552	40	-	-	-		100X
1611256-07	HBI-01_092416_LOB_TA_07	0.534	40	-	-	-		100X
1611256-08	HBI-01_092416_LOB_TA_08	0.528	40	-	-	-		100X
1611256-09	HBI-01_092616_LOB_TA_09	0.502	40	-	-	-		100X
1611256-10	HBI-01_092616_LOB_TA_10	0.52	40	-	-	-		100X
1611256-11	HBI-01_092616_LOB_TA_11	0.557	40	-	-	-		100X
1611256-12	HBI-01_092616_LOB_TA_12	0.561	40	-	-	-		100X
1611256-13	HBI-01_092616_LOB_TA_13	0.57	40	-	-	-		100X
1611256-14	HBI-01_092616_LOB_TA_14	0.527	40	-	-	-		100X
1611256-15	HBI-01_092616_LOB_TA_15	0.507	40	-	-	-		100X
1611256-16	HBI-01_092616_LOB_TA_16	0.559	40	-	-	-		100X
1611256-17	HBI-01_092616_LOB_TA_17	0.515	40	-	-	-		100X
1611256-18	HBI-01_092616_LOB_TA_18	0.531	40	-	-	-		100X
1611256-19	HBI-01_092616_LOB_TA_19	0.544	40	-	-	-		100X

Page 65 of 121

Date: 11/29/2016

PREPARATION BENCH SHEET

200-2  
11/18/16 DM

F611363

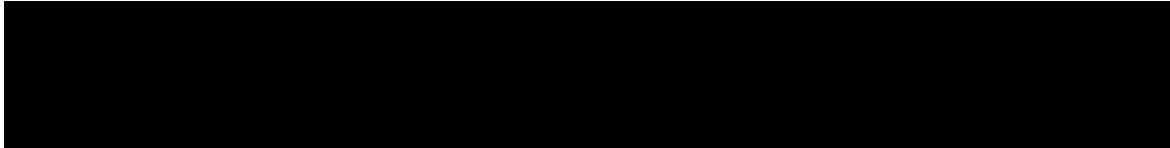
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

1611256-20	HBI-01_092616_LOB_TA_20	0.526	40	-	-	-	100X
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Technician: JS/MPM Batch#: F611363 Date: 11/15/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
  - EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
  - EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
  - EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.
- Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No  
 Time in: 11:35 Actual Temp. (raw): 74 °C w/ CF: 73.8 °C  
 Time out: 13:30 Actual Temp. (raw): 76 °C w/ CF: 75.7 °C  
 Final vol.: 40 mL (LIMS ID: 1606599) Spike vol.: 200 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/14/16 (initial and date) Spiked by MPM 11/16/16

HCl LIMS ID: N/A Pipette SN#: MU11407 Calibration Date: 11/14/16  
 HNO<sub>3</sub> LIMS ID: N/A Dispenser #: 0222159 Calibration Date: 04/09/16  
 70/30 LIMS ID: 1606580 Dispenser #: 02K27484 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: N/A

Centrifuge Tube lot # 00066064 Boiling Chip lot # 1606642 \*Hotblock Position: K2

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	F611363-BIK1	0.547	23	1611256-13	0.570	DORM-4 B5Z DORM-4 B5Z 1605470
2	F611363-BIK2	0.515	24	1611256-14	0.527	
3	F611363-BIK3	0.538	25	1611256-15	0.507	
4	F611363-B51	0.528	26	1611256-16	0.559	
5	F611363-B5D1	0.587	27	1611256-17	0.515	Comments <del>B51/B5D1</del> 40µl of 1000µg/ml
6	F611363-B5Z	0.276	28	1611256-18	0.531	
7	1611256-01	0.535	29	1611256-19	0.544	DUP1, MS1, MS02 Source 1611256-01 B
8	F611363-DUP1	0.549	30	1611256-20	0.526	
9	F611363-MS1	0.556	31	F611363-MS2	0.569	MS2, MS02 Source 1611256-20 B
10	<del>F611363-MS</del>		32	F611363-MS02	0.586	
11	F611363-MSD1	0.551	33			"11/15/16 JS B51/B5D1 40µl of 1000µg/ml 1605270 MPM 11/16/16
12	1611256-02	0.563	34			
13	1611256-03	0.501	35			
14	1611256-04	0.547	36			
15	1611256-05	0.581	37			
16	1611256-06	0.552	38			
17	1611256-07	0.534	39			
18	1611256-08	0.528	40			
19	1611256-09	0.502	41			
20	1611256-10	0.520	42			
21	1611256-11	0.557	43			
22	1611256-12	0.561	44			

PREPARATION BENCH SHEET

200-2  
11/18/16 DM

F611387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611387-BLK1	Blank	0.5	40					20x
F611387-BLK2	Blank	0.5	40					20x
F611387-BLK3	Blank	0.5	40					20x
F611387-BS1	LCS	0.5	40	1605270	40			20x
F611387-BS2	LCS	0.253	40	1605470	253			500x
F611387-BSD1	LCS Dup	0.5	40	1605270	40			20x
F611387-DUP1	Duplicate [1611257-01]	0.55	40					100x
F611387-MS1	Matrix Spike [1611257-01]	0.504	40	1605712	200			500x
F611387-MS2	Matrix Spike [1611257-10]	0.546	40	1605712	200			500x
F611387-MSD1	Matrix Spike Dup [1611257-01]	0.582	40	1605712	200			500x
F611387-MSD2	Matrix Spike Dup [1611257-10]	0.545	40	1605712	200			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606720	70/30 Digestion Acid	15-May-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606759	5% BrCl	19-Apr-17 00:00

DUP2 - E-Run of DUP1 100x

1605270  
1605470  
1605712  
1606642

PREPARATION BENCH SHEET

2000-2

F611387

11/18/16 DA

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1611257-01	CPJL-092416_LOB_TA_01	0.579	40	No	100X
1611257-02	CPJL-092416_LOB_TA_02	0.554	40	No	100X
1611257-03	CPJL-092416_LOB_TA_03	0.553	40	No	100X
1611257-04	CPJL-092416_LOB_TA_04	0.515	40	No	100X
1611257-05	CPJL-092416_LOB_TA_05	0.548	40	No	100X
1611257-06	CPJL-092416_LOB_TA_06	0.545	40	No	100X
1611257-07	CPJL-092416_LOB_TA_07	0.554	40	No	100X
1611257-08	CPJL-092416_LOB_TA_08	0.539	40	No	100X
1611257-09	CPJL-092416_LOB_TA_09	0.574	40	No	100X
1611257-10	CPJL-092416_LOB_TA_10	0.55	40	No	100X
1611257-11	CPJL-092416_LOB_TA_11	0.526	40	No	100X
1611257-12	CPJL-092416_LOB_TA_12	0.596	40	No	100X
1611257-13	CPJL-092416_LOB_TA_13	0.522	40	No	100X
1611257-14	CPJL-092416_LOB_TA_14	0.531	40	No	100X
1611257-15	CPJL-092416_LOB_TA_15	0.53	40	No	100X → 500X
1611257-16	CPJL-092416_LOB_TA_16	0.528	40	No	100X → 100X
1611257-17	CPJL-092416_LOB_TA_17	0.514	40	No	100X
1611257-18	CPJL-092416_LOB_TA_18	0.538	40	No	100X
1611257-19	CPJL-092416_LOB_TA_19	0.516	40	No	100X
1611257-20	CPJL-092416_LOB_TA_20	0.596	40	No	100X → 500X

**PREPARATION BENCH SHEET**

**F611387**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Technician: MPM Batch#: F611387 Date: 11/17/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No

Time in: 1638 Actual Temp. (raw): 71 °C w/ CF: 70.6 °C

Time out: 1838 Actual Temp. (raw): 74 °C w/ CF: 73.6 °C

Final vol.: 40 mL (LIMS ID: 1606759) Spike vol.: 200 <sup>ms/MSD</sup> µL (LIMS ID: 1605712)

Spike Witness: M 11/17/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 11/14/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606720 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 02Z2159 Cal. Yes  
 Glass Vial # 00066064 Boiling Chip lot # 1606642 \*Hotblock Position: M7

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	F611387-BIK1	0.517	23	1611257-12	0.596	DORM-4 BS2 1605470
2	F611387-BIK2	0.525	24	1611257-13	0.522	
3	F611387-BIK3	0.525	25	1611257-14	0.531	
4	F611387-BS1	0.528	26	1611257-15	0.530	<b>Comments</b> BS/BSD1 40µL of 100ng/mL 1605270 MPM 11/17/16
5	F611387-BSD1	0.529	27	1611257-16	0.528	
6	F611387-BS2	0.253	28	1611257-17	0.514	
7	1611257-01	0.579	29	1611257-18	0.538	
8	F611387-DUP1(1611257-01)	0.550	30	1611257-19	0.516	
9	F611387-MS1(1611257-01)	0.504	31	1611257-20	0.596	
10	F611387-MSD1(1611257-01)	0.582	32			
11	1611257-02	0.554	33			
12	1611257-03	0.553	34			
13	1611257-04	0.515	35			
14	1611257-05	0.548	36			
15	1611257-06	0.545	37			
16	1611257-07	0.554	38			
17	1611257-08	0.539	39			
18	1611257-09	0.574	40			
19	1611257-10	0.550	41			
20	F611387-MS2(1611257-10)	0.546	42			
21	F611387-MSD2(1611257-10)	0.545	43			
22	1611257-11	0.526	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>	6K21015
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26002-161118-2
<b>Date:</b>	11/21/2016	<b>WO (s) #:</b>	1611257, 1611256
<b>Batch #(s):</b>	F611387, F611363		0

Analyst Initials DM                      Reviewer Initials DMV

- 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: 1611257-15, 20 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:                       YES     NO
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?                       YES     NO     N/A
- (c) Was a BrCl Blank analyzed for each preservation level?                       YES     NO
- (d) Are Preparation Blanks summarized on QC page?                       YES     NO
- 
14. Filtration Blank Prepared (if yes, use FB qualifier)                       YES     NO
- (a) Filtration Blank prep date same as associated samples' prep date                       YES     NO     N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI                       YES     NO     N/A
- 
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                       PASS     FAIL
- Comments: \_\_\_\_\_
- 
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?                       PASS     FAIL
- Comments: \_\_\_\_\_
- 
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                       YES     NO     N/A
18. Is the correct 'Source' designated for MD/MS/MSD?                       YES     NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                       YES     NO     N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K21015
Reviewer:	0	Dataset ID(s):	THG26002-161118-2
Date:	11/21/2016	WO (s) #:	1611257, 1611256
Batch #(s):	F611367, F611363		0

Analyst Initials DM                      Reviewer Initials DMW

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   |
| 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: _____                | 12/16/2015 | 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: _____                              | 7/8/2016   | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 7/8/2016   | 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.**



The original report has been revised to include the Level IV deliverables package.



## WORK ORDER NUMBER: 16-12-1613

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

### Analytical Report For

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1611256

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244

Approved for release on 01/16/2017 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

Client Project Name: 1611256  
Work Order Number: 16-12-1613

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl <sub>2</sub> Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	8
	4.1 Sample Duplicate. . . . .	8
5	Glossary of Terms and Qualifiers. . . . .	9
6	Chain-of-Custody/Sample Receipt Form. . . . .	10
7	16-12-1613 Level IV Case Narrative. . . . .	18
8	16-12-1613 Level IV Data Package. . . . .	20

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 12/16/16. They were assigned to Work Order 16-12-1613.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-12-1613
11720 North Creek Parkway North, Suite 4	Project Name:	1611256
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	12/16/16 12:00
	Number of Containers:	20

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
HBI-01_092416_LOB_TA_01	16-12-1613-1	09/24/16 07:55	1	Tissue
HBI-01_092416_LOB_TA_02	16-12-1613-2	09/24/16 07:55	1	Tissue
HBI-01_092416_LOB_TA_03	16-12-1613-3	09/24/16 07:55	1	Tissue
HBI-01_092416_LOB_TA_04	16-12-1613-4	09/24/16 08:10	1	Tissue
HBI-01_092416_LOB_TA_05	16-12-1613-5	09/24/16 08:10	1	Tissue
HBI-01_092416_LOB_TA_06	16-12-1613-6	09/24/16 08:12	1	Tissue
HBI-01_092416_LOB_TA_07	16-12-1613-7	09/24/16 08:15	1	Tissue
HBI-01_092416_LOB_TA_08	16-12-1613-8	09/24/16 08:21	1	Tissue
HBI-01_092616_LOB_TA_09	16-12-1613-9	09/26/16 08:35	1	Tissue
HBI-01_092616_LOB_TA_10	16-12-1613-10	09/26/16 08:39	1	Tissue
HBI-01_092616_LOB_TA_11	16-12-1613-11	09/26/16 08:47	1	Tissue
HBI-01_092616_LOB_TA_12	16-12-1613-12	09/26/16 09:01	1	Tissue
HBI-01_092616_LOB_TA_13	16-12-1613-13	09/26/16 08:35	1	Tissue
HBI-01_092616_LOB_TA_14	16-12-1613-14	09/26/16 08:43	1	Tissue
HBI-01_092616_LOB_TA_15	16-12-1613-15	09/26/16 08:43	1	Tissue
HBI-01_092616_LOB_TA_16	16-12-1613-16	09/26/16 08:43	1	Tissue
HBI-01_092616_LOB_TA_17	16-12-1613-17	09/26/16 08:47	1	Tissue
HBI-01_092616_LOB_TA_18	16-12-1613-18	09/26/16 09:14	1	Tissue
HBI-01_092616_LOB_TA_19	16-12-1613-19	09/26/16 09:14	1	Tissue
HBI-01_092616_LOB_TA_20	16-12-1613-20	09/26/16 09:14	1	Tissue

Return to Contents



# Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1613  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611256

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
HBI-01_092416_LOB_TA_01	16-12-1613-1-AA	09/24/16 07:55	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		0.72	0.10		1.00		
HBI-01_092416_LOB_TA_02	16-12-1613-2-AA	09/24/16 07:55	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		0.91	0.10		1.00		
HBI-01_092416_LOB_TA_03	16-12-1613-3-AA	09/24/16 07:55	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		0.83	0.10		1.00		
HBI-01_092416_LOB_TA_04	16-12-1613-4-AA	09/24/16 08:10	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		1.0	0.10		1.00		
HBI-01_092416_LOB_TA_05	16-12-1613-5-AA	09/24/16 08:10	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		0.94	0.10		1.00		
HBI-01_092416_LOB_TA_06	16-12-1613-6-AA	09/24/16 08:12	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		1.0	0.10		1.00		
HBI-01_092416_LOB_TA_07	16-12-1613-7-AA	09/24/16 08:15	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		0.81	0.10		1.00		
HBI-01_092416_LOB_TA_08	16-12-1613-8-AA	09/24/16 08:21	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>	<u>Qualifiers</u>	
% Lipids		0.99	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

# Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1613  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611256

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
HBI-01_092616_LOB_TA_09	16-12-1613-9-AA	09/26/16 08:35	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.73	0.10		1.00		
HBI-01_092616_LOB_TA_10	16-12-1613-10-AA	09/26/16 08:39	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.64	0.10		1.00		
HBI-01_092616_LOB_TA_11	16-12-1613-11-AA	09/26/16 08:47	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.0	0.10		1.00		
HBI-01_092616_LOB_TA_12	16-12-1613-12-AA	09/26/16 09:01	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.76	0.10		1.00		
HBI-01_092616_LOB_TA_13	16-12-1613-13-AA	09/26/16 08:35	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.1	0.10		1.00		
HBI-01_092616_LOB_TA_14	16-12-1613-14-AA	09/26/16 08:43	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.85	0.10		1.00		
HBI-01_092616_LOB_TA_15	16-12-1613-15-AA	09/26/16 08:43	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.93	0.10		1.00		
HBI-01_092616_LOB_TA_16	16-12-1613-16-AA	09/26/16 08:43	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.94	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

# Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1613  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611256

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
HBI-01_092616_LOB_TA_17	16-12-1613-17-AA	09/26/16 08:47	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.97	0.10		1.00		
HBI-01_092616_LOB_TA_18	16-12-1613-18-AA	09/26/16 09:14	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.60	0.10		1.00		
HBI-01_092616_LOB_TA_19	16-12-1613-19-AA	09/26/16 09:14	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.95	0.10		1.00		
HBI-01_092616_LOB_TA_20	16-12-1613-20-AA	09/26/16 09:14	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.2	0.10		1.00		
Method Blank	099-14-104-162	N/A	Tissue	N/A	12/30/16	12/30/16 00:00	161230B10
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

### Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1613  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)

Project: 1611256

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
HBI-01_092416_LOB_TA_01	Sample	Tissue	N/A	12/30/16 00:00	12/30/16 00:00	161230D10
HBI-01_092416_LOB_TA_01	Sample Duplicate	Tissue	N/A	12/30/16 00:00	12/30/16 00:00	161230D10

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	0.7200	0.7600	5	0-25	

Return to Contents 

RPD: Relative Percent Difference. CL: Control Limits

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611256

**16-12-1613**

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

Analysis

Comments

1 Sample ID: HBI-01\_092416\_LOB\_TA\_01

EFGS Lab ID: 1611256-01 Matrix: Tissue

Sampled: 24-Sep-16 07:55 Eastern Due: 29-Nov-16 19:00  
MS/MSD

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

2 Sample ID: HBI-01\_092416\_LOB\_TA\_02

EFGS Lab ID: 1611256-02 Matrix: Tissue

Sampled: 24-Sep-16 07:55 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

3 Sample ID: HBI-01\_092416\_LOB\_TA\_03

EFGS Lab ID: 1611256-03 Matrix: Tissue


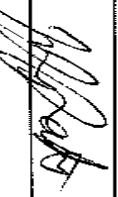

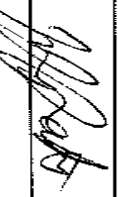
Sampled: 24-Sep-16 07:55 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By		Date	12/15/16	Received By		Date	12/16/16

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.

1611256

(1613)

Analysis Comments

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4 Sample ID: HBI-01\_092416\_LOB\_TA\_04  
EFGS Lab ID: 1611256-04 Matrix: Tissue  
Sampled: 24-Sep-16 08:10 Eastern Due: 29-Nov-16 19:00

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Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

---

5 Sample ID: HBI-01\_092416\_LOB\_TA\_05  
EFGS Lab ID: 1611256-05 Matrix: Tissue  
Sampled: 24-Sep-16 08:10 Eastern Due: 29-Nov-16 19:00

---

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

---

6 Sample ID: HBI-01\_092416\_LOB\_TA\_06  
EFGS Lab ID: 1611256-06 Matrix: Tissue  
Sampled: 24-Sep-16 08:12 Eastern Due: 29-Nov-16 19:00

---

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

---

7 Sample ID: HBI-01\_092416\_LOB\_TA\_07  
EFGS Lab ID: 1611256-07 Matrix: Tissue  
Sampled: 24-Sep-16 08:15 Eastern Due: 29-Nov-16 19:00

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Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

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<p>Released By <i>[Signature]</i> Date <i>12/15/16</i></p> <p>Released By <i>[Signature]</i> Date <i>12/15/16</i></p>	<p>Received By _____ Date _____</p> <p>Received By <i>[Signature]</i> Date <i>12/16/16</i></p>
---	--

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.

1611256

1613

Analysis	Comments
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8 Sample ID: HBI-01_092616_LOB_TA_08	Matrix: Tissue
EFGS Lab ID: 1611256-08	Due: 29-Nov-16 19:00
Sampled: 24-Sep-16 08:21 Eastern	

Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34\_Plastic Bag (C)

9 Sample ID: HBI-01_092616_LOB_TA_09	Matrix: Tissue
EFGS Lab ID: 1611256-09	Due: 29-Nov-16 19:00
Sampled: 26-Sep-16 08:35 Eastern	

Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34\_Plastic Bag (C)

10 Sample ID: HBI-01_092616_LOB_TA_10	Matrix: Tissue
EFGS Lab ID: 1611256-10	Due: 29-Nov-16 19:00
Sampled: 26-Sep-16 08:39 Eastern	




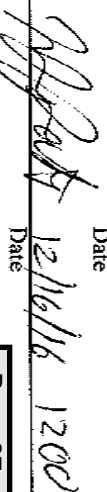
Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34\_Plastic Bag (C)

11 Sample ID: HBI-01_092616_LOB_TA_11	Matrix: Tissue
EFGS Lab ID: 1611256-11	Due: 29-Nov-16 19:00
Sampled: 26-Sep-16 08:47 Eastern	

Misc. Subcontract 1      % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34\_Plastic Bag (C)

Released By: 	Received By: 
Date: 12/15/16	Date: 12/16/16
Released By: 	Received By: 
Date: 12/15/16	Date: 12/16/16



SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.

1611256

1613

Analysis Comments

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12 Sample ID: HBI-01\_092616\_LOB\_TA\_12

EFGS Lab ID: 1611256-12 Matrix: Tissue

Sampled: 26-Sep-16 09:01 Eastern Due: 29-Nov-16 19:00

---

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

---

13 Sample ID: HBI-01\_092616\_LOB\_TA\_13

EFGS Lab ID: 1611256-13 Matrix: Tissue

Sampled: 26-Sep-16 08:35 Eastern Due: 29-Nov-16 19:00

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Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

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14 Sample ID: HBI-01\_092616\_LOB\_TA\_14

EFGS Lab ID: 1611256-14 Matrix: Tissue

Sampled: 26-Sep-16 08:43 Eastern Due: 29-Nov-16 19:00

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Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

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15 Sample ID: HBI-01\_092616\_LOB\_TA\_15

EFGS Lab ID: 1611256-15 Matrix: Tissue

Sampled: 26-Sep-16 08:43 Eastern Due: 29-Nov-16 19:00

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Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

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<p>Released By <u>[Signature]</u> Date <u>12/15/16</u></p>	<p>Received By <u>[Signature]</u> Date <u>12/16/16</u></p>
<p>Released By <u>[Signature]</u> Date <u>12/15/16</u></p>	<p>Received By <u>[Signature]</u> Date <u>12/16/16</u></p>

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.

1611256

(1613)

Analysis	Comments
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16 Sample ID: HBI-01\_092616\_LOB\_TA\_16

EFGS Lab ID: 1611256-16 Matrix: Tissue

Sampled: 26-Sep-16 08:43 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

17 Sample ID: HBI-01\_092616\_LOB\_TA\_17

EFGS Lab ID: 1611256-17 Matrix: Tissue

Sampled: 26-Sep-16 08:47 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

18 Sample ID: HBI-01\_092616\_LOB\_TA\_18

EFGS Lab ID: 1611256-18 Matrix: Tissue

Sampled: 26-Sep-16 09:14 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

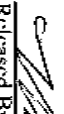



19 Sample ID: HBI-01\_092616\_LOB\_TA\_19

EFGS Lab ID: 1611256-19 Matrix: Tissue

Sampled: 26-Sep-16 09:14 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

Released By 	Date 12/15/16	Received By 	Date 12/16/16
Released By 	Date 12/15/16	Received By 	Date 12/16/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611256

1613

Analysis

Comments

20 Sample ID: HBI-01\_092616\_LOB\_TA\_20

EFGS Lab ID: 1611256-20

Matrix: Tissue

Sampled: 26-Sep-16 09:14 Eastern

Due: 29-Nov-16 19:00

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

<i>mmk</i>	12/15/16		
Released By	Date	Received By	Date
<i>WB</i>	12/15/16	<i>MA Roberts</i>	12/16/16 1200
Released By	Date	Received By	Date

1613

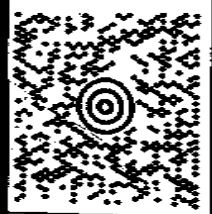
FRONT DESK  
(425) 888-1998  
FRONTIER GLOBAL SCIENCES  
11728 N GREEK PKWY N  
BOHELL WA 98011-8244

38 LBS

DWT: 24.13.14

1 OF 1

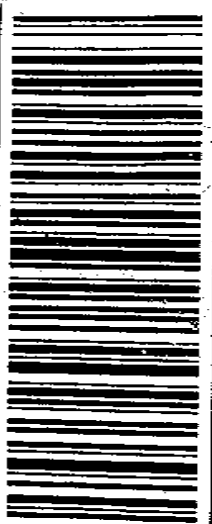
SHIP TO:  
SAMPLE RECEIVING  
(714) 895-8494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841



CA 927 9-899



UPS NEXT DAY AIR 1  
TRACKING #: 1Z 86W 050 01 5096 5731



0116  
39

CA 927 9-09  
CA 92841

10 JUN 18 Zebra ZP 450 ZE.DA 07/2016



1.1 US 9159 A

As shown approved by law, shipped within US to CA. If forwarding abroad, for export require 300  
and additional or otherwise were required from the USA. accordance with the Export Administration  
REG 07/016

**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: FFGS

DATE: 12/16/2016

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): -2.2 °C (w/ CF): -2.2 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/A/PM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: LS

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: LS  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: ZZ8

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples  Yes  No  N/A  
 COC document(s) received complete .....  Yes  No  N/A  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  Yes  No  N/A  
 Sample container label(s) consistent with COC .....  Yes  No  N/A  
 Sample container(s) intact and in good condition .....  Yes  No  N/A  
 Proper containers for analyses requested .....  Yes  No  N/A  
 Sufficient volume/mass for analyses requested .....  Yes  No  N/A  
 Samples received within holding time .....  Yes  No  N/A  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen .....  Yes  No  N/A  
 Proper preservation chemical(s) noted on COC and/or sample container .....  Yes  No  N/A  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals .....  Yes  No  N/A  
 Container(s) for certain analysis free of headspace .....  Yes  No  N/A  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  Yes  No  N/A  
**CONTAINER TYPE:** (T'rip Blank Lot Number: \_\_\_\_\_)  
 Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBP  125PB  
 125PBzma  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGus  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
**Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  Encores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (Tissue):  8  \_\_\_\_\_  
 Container: **A** = Amber, **B** = Bottle, **C** = Clear, **E** = Envelope, **G** = Glass, **J** = Jar, **P** = Plastic, and **Z** = Ziploc/Resealable Bag  
 Preservative: **b** = buffered, **f** = filtered, **h** = HCl, **n** = HNO<sub>3</sub>, **na** = NaOH, **na<sub>2</sub>** = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, **p** = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: ZZ8  
**s** = H<sub>2</sub>SO<sub>4</sub>, **u** = ultra-pure, **x** = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>·H<sub>2</sub>O, **zma** = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: LS

## Case Narrative

Client Project Name: 1611256  
Work Order Number: 16-12-1613

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 20 tissue samples on December 16, 2016. A total of 20 containers were received in good condition at a temperature of -2.2°C, which was within the recommended temperature criteria.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
HBI-01_092416_LOB_TA_01	16-12-1613-1	09/24/16 07:55	12/16/16 12:00
HBI-01_092416_LOB_TA_02	16-12-1613-2	09/24/16 07:55	12/16/16 12:00
HBI-01_092416_LOB_TA_03	16-12-1613-3	09/24/16 07:55	12/16/16 12:00
HBI-01_092416_LOB_TA_04	16-12-1613-4	09/24/16 08:10	12/16/16 12:00
HBI-01_092416_LOB_TA_05	16-12-1613-5	09/24/16 08:10	12/16/16 12:00
HBI-01_092416_LOB_TA_06	16-12-1613-6	09/24/16 08:12	12/16/16 12:00
HBI-01_092416_LOB_TA_07	16-12-1613-7	09/24/16 08:15	12/16/16 12:00
HBI-01_092416_LOB_TA_08	16-12-1613-8	09/24/16 08:21	12/16/16 12:00
HBI-01_092616_LOB_TA_09	16-12-1613-9	09/26/16 08:35	12/16/16 12:00
HBI-01_092616_LOB_TA_10	16-12-1613-10	09/26/16 08:39	12/16/16 12:00
HBI-01_092616_LOB_TA_11	16-12-1613-11	09/26/16 08:47	12/16/16 12:00
HBI-01_092616_LOB_TA_12	16-12-1613-12	09/26/16 09:01	12/16/16 12:00
HBI-01_092616_LOB_TA_13	16-12-1613-13	09/26/16 08:35	12/16/16 12:00
HBI-01_092616_LOB_TA_14	16-12-1613-14	09/26/16 08:43	12/16/16 12:00
HBI-01_092616_LOB_TA_15	16-12-1613-15	09/26/16 08:43	12/16/16 12:00
HBI-01_092616_LOB_TA_16	16-12-1613-16	09/26/16 08:43	12/16/16 12:00
HBI-01_092616_LOB_TA_17	16-12-1613-17	09/26/16 08:47	12/16/16 12:00
HBI-01_092616_LOB_TA_18	16-12-1613-18	09/26/16 09:14	12/16/16 12:00
HBI-01_092616_LOB_TA_19	16-12-1613-19	09/26/16 09:14	12/16/16 12:00
HBI-01_092616_LOB_TA_20	16-12-1613-20	09/26/16 09:14	12/16/16 12:00

  
Return to Contents

### DATA SUMMARY:

Pursuant to the chain-of-custody (COC), the samples were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a).

All samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

Client Project Name: 1611256  
Work Order Number: 16-12-1613

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -20 were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/30/16 in batch # 161230B10 / 161230D10.

### **Sample and QC:**

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**% Lipids via MeCl<sub>2</sub> Ext.  
(NOAA 1993a)**

**RAW DATA**

[Return to Contents](#)





**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 1**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_01

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.720	1.00	0.720	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 2**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_02

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      0.910      1.00      0.910      0.10



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 3**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_03

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

**ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

0.830

1.00

0.830

0.10



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 4**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_04

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.03	1.00	1.03	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 5**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_05

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

0.940      1.00      0.940      0.10



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 6**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_06

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

% Lipids      1.03      1.00      1.03      0.10

**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 7**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_07

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL</u>	<u>CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.810		1.00	0.810	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 8**      **CLIENT SAMPLE NUMBER:** HBI-01\_092416\_LOB\_TA\_08

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      0.990      1.00      0.990      0.10





# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**DT ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 9 CLIENT SAMPLE NUMBER: HBI-01\_092616\_LOB\_TA\_09**

**LCS/MB BATCH:** 161230B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PE:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**  
 % Lipids 0.730 1.00 0.730 0.10

# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 10**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_10

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME /WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME /WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.640	1.00	0.640	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 11**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_11

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      1.05      1.00      1.05      0.10

**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 12**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_12

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

% Lipids      0.760      1.00      0.760      0.10



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 13**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_13

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      1.09      1.00      1.09      0.10

**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**DT ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 14**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_14

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      0.850      1.00      0.850      0.10



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 15**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_15

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.930	1.00	0.930	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 16**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_16

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

**% Lipids**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

0.940      1.00      0.940      0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1613  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-30 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-30 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 17 CLIENT SAMPLE NUMBER: HBI-01\_092616\_LOB\_TA\_17

LCS/MB BATCH: 161230B10 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161230D10 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.970	1.00	0.970	0.10	



**RAW DATA SHEET**  
**FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 18**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_18

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      0.600      1.00      0.600      0.10

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 19 CLIENT SAMPLE NUMBER: HBI-01\_092616\_LOB\_TA\_19**

**LCS/MB BATCH:** 161230B10 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PE:** 1.00

**COMMENT:**  
**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.950	1.00	0.950	0.10	

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1613  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 20**      **CLIENT SAMPLE NUMBER:** HBI-01\_092616\_LOB\_TA\_20

**LCS/MB BATCH:** 161230B10      **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161230D10      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<b>COMPOUND</b>	<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
% Lipids	1.17	1.00	1.17	0.10	



**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: Mec12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-162  
**MB BATCH ID:** 161230B10  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-30 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-30 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 16-12-1613**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	HBI-01	_092416_LOB_TA_01	2016-12-30 00:00	
2	HBI-01	_092416_LOB_TA_02	2016-12-30 00:00	
3	HBI-01	_092416_LOB_TA_03	2016-12-30 00:00	
4	HBI-01	_092416_LOB_TA_04	2016-12-30 00:00	
5	HBI-01	_092416_LOB_TA_05	2016-12-30 00:00	
6	HBI-01	_092416_LOB_TA_06	2016-12-30 00:00	
7	HBI-01	_092416_LOB_TA_07	2016-12-30 00:00	
8	HBI-01	_092416_LOB_TA_08	2016-12-30 00:00	
9	HBI-01	_092616_LOB_TA_09	2016-12-30 00:00	
10	HBI-01	_092616_LOB_TA_10	2016-12-30 00:00	
11	HBI-01	_092616_LOB_TA_11	2016-12-30 00:00	
12	HBI-01	_092616_LOB_TA_12	2016-12-30 00:00	
13	HBI-01	_092616_LOB_TA_13	2016-12-30 00:00	
14	HBI-01	_092616_LOB_TA_14	2016-12-30 00:00	
15	HBI-01	_092616_LOB_TA_15	2016-12-30 00:00	
16	HBI-01	_092616_LOB_TA_16	2016-12-30 00:00	
17	HBI-01	_092616_LOB_TA_17	2016-12-30 00:00	
18	HBI-01	_092616_LOB_TA_18	2016-12-30 00:00	
19	HBI-01	_092616_LOB_TA_19	2016-12-30 00:00	
20	HBI-01	_092616_LOB_TA_20	2016-12-30 00:00	

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-30 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-30 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161230B10 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL

% Lipids 0.0100 1.00 ND 0.10



## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

DUP SAMPLE ID: 16-12-1613-1  
DUP BATCH: 161230D10  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: EPA 3541  
D/T EXTRACTED:  
SAMPLE: 2016-12-30 00:00  
DUP SAMPLE: 2016-12-30 00:00

ANALYZED BY: 142  
D/T ANALYZED:  
SAMPLE: 2016-12-30 00:00  
DUP SAMPLE: 2016-12-30 00:00  
REVIEWED BY:  
D/T REVIEWED:

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	0.7200	0.7600	5	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-55-01	4) Sand 507-19-19	1) Filter 507-44-19	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS
Tissue	MB: 161230 B10 Sample Duplicate: 161230 D10	

CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-12-1613-L AA	0.72	5	0 - 10	
Duplicate 16-12-1613-1 AA	0.76			

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12-30-16	MB	1.00	34			1.8326	1.8327	0.0001	0.01	6894	
1	16-12-1613-1 AA	1.39				1.8695	1.8795	0.01	0.72		
	2	1.40				1.8402	1.8529	0.0127	0.91		
	3	1.56				1.8538	1.8668	0.013	0.83		
	4	1.80				1.8524	1.8709	0.0185	1.03		
	5	1.27				1.8856	1.8976	0.012	0.94		
	6	2.07				1.8712	1.8926	0.0214	1.03		
	7	1.61				1.8647	1.8778	0.0131	0.81		
	8	1.64				1.859	1.8753	0.0163	0.99		
	9	1.45				1.875	1.8856	0.0106	0.73		
	10	1.52				1.863	1.8728	0.0098	0.64		
	11	1.60				1.8931	1.9099	0.0168	1.05		
	12	1.52				1.8647	1.8762	0.0115	0.76		
	13	1.29				1.8325	1.8466	0.0141	1.09		
	14	1.56				1.8779	1.8912	0.0133	0.85		
	15	1.42				1.8576	1.8708	0.0132	0.93		
	16	1.63				1.8775	1.8929	0.0154	0.94		
	17	1.85				1.8704	1.8883	0.0179	0.97		
	18	1.35				1.8709	1.8779	0.0081	0.60		
	19	1.91				1.9227	1.9408	0.0181	0.95		
	20	1.50				1.9033	1.9209	0.0176	1.17		
✓	Duplicate 16-12-1613-1	1.39	✓		✓	1.891	1.9016	0.0106	0.76	✓	

Page 119 of 121



Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  8141  
 8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID#: Measuring Sample- Start Extraction- 785 Blow Down- 785 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: Filter ID#: 507-44-19 ASE ID#: Soxtherm ID#: 1-4 Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 12-30-16 14:30 Ext. End Date/Time: 12-30-16 17:00

Sand or Wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

507-19-19 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (ml):

Spike Std ID# & Volume Added (ml): Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-55-01 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161230 B10 Sample W (g) / V (ml)

Cell ID#:	Sample W (g) / V (ml)		Clean Up Performed	Comments
	Initial	Final		
MB			<input type="checkbox"/>	
<del>161230</del> <u>16-12-1613-1</u> <sup>AA</sup> <sub>BAF</sub>			<input type="checkbox"/>	
LCSD <u>NA</u>			<input type="checkbox"/>	
MS <u>NA</u>			<input type="checkbox"/>	
MSD <u>NA</u>			<input type="checkbox"/>	
<u>16-12-1613-1</u> <sup>AA</sup>	1.39		<input type="checkbox"/>	
	2	1.40	<input type="checkbox"/>	
	3	1.56	<input type="checkbox"/>	
	4	1.80	<input type="checkbox"/>	
	5	1.27	<input type="checkbox"/>	
	6	2.07	<input type="checkbox"/>	
	7	1.61	<input type="checkbox"/>	
	8	1.64	<input type="checkbox"/>	
	9	1.45	<input type="checkbox"/>	
	10	1.52	<input type="checkbox"/>	
	11	1.60	<input type="checkbox"/>	
	12	1.52	<input type="checkbox"/>	
	13	1.29	<input type="checkbox"/>	
	14	1.56	<input type="checkbox"/>	
	15	1.42	<input type="checkbox"/>	
	16	1.63	<input type="checkbox"/>	
	17	1.85	<input type="checkbox"/>	
	18	1.35	<input type="checkbox"/>	
	19	1.91	<input type="checkbox"/>	
	20	1.50	<input type="checkbox"/>	

Peer Reviewed by: VF

Peer Reviewed Date: 1/5/17

Revision Date: 10/20/16

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/30/16 Initials: LSJ

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.98	498.00 - 502.00	<input checked="" type="radio"/> Y	N
62	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	1.00	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.98	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
26	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.99	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9999	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9999	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
53	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	N
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.99	498 - 502	<input checked="" type="radio"/> Y	N
20	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.99	498.00 - 502.00	<input checked="" type="radio"/> Y	N
57	100	100.00	98.0 - 102.0	<input checked="" type="radio"/> Y	Extractions
	1000	999.9	998.0 - 1002.0	<input checked="" type="radio"/> Y	N
	2000	1999.9	1998.0 - 2002.0	<input checked="" type="radio"/> Y	N
52	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9999	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.9999	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	BOD Room
	1	0.99	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
63	100	100.01	99.9000 - 100.1000	<input checked="" type="radio"/> Y	BOD Room
	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	N
	100	99.90	98.00 - 102.00	<input checked="" type="radio"/> Y	N
64	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	9.99	9.8 - 10.2	<input checked="" type="radio"/> Y	N
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
34	0.002	0.00198	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.99957	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.99561	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
30	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

17 January 2017

Denise King  
AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford, MAINE 01824  
RE: Maine Lobster And Crab Special Project 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall  
Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CPJL-092416_LOB_TA_01	1611257-01	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_02	1611257-02	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_03	1611257-03	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_04	1611257-04	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_05	1611257-05	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_06	1611257-06	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_07	1611257-07	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_08	1611257-08	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_09	1611257-09	Tissue	24-Sep-16 10:16	28-Oct-16 09:40
CPJL-092416_LOB_TA_10	1611257-10	Tissue	24-Sep-16 10:35	28-Oct-16 09:40
CPJL-092416_LOB_TA_11	1611257-11	Tissue	24-Sep-16 10:35	28-Oct-16 09:40
CPJL-092416_LOB_TA_12	1611257-12	Tissue	24-Sep-16 10:35	28-Oct-16 09:40
CPJL-092416_LOB_TA_13	1611257-13	Tissue	24-Sep-16 10:35	28-Oct-16 09:40
CPJL-092416_LOB_TA_14	1611257-14	Tissue	24-Sep-16 10:42	28-Oct-16 09:40
CPJL-092416_LOB_TA_15	1611257-15	Tissue	24-Sep-16 10:42	28-Oct-16 09:40
CPJL-092416_LOB_TA_16	1611257-16	Tissue	24-Sep-16 10:42	28-Oct-16 09:40
CPJL-092416_LOB_TA_17	1611257-17	Tissue	24-Sep-16 10:42	28-Oct-16 09:40
CPJL-092416_LOB_TA_18	1611257-18	Tissue	24-Sep-16 10:42	28-Oct-16 09:40
CPJL-092416_LOB_TA_19	1611257-19	Tissue	24-Sep-16 10:42	28-Oct-16 09:40
CPJL-092416_LOB_TA_20	1611257-20	Tissue	24-Sep-16 10:42	28-Oct-16 09:40

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King**Reported:**  
17-Jan-17 08:10

## REVISED REPORT (1/17/17)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631B.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/28/2016 9:40:00 AM . The samples were received intact, on-ice within a sealed cooler at -49.6 degrees Celsius.

## SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted, and the samples' sex was determined. The tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B. Total solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction which may be outside of the method recommended holding time of 7 days from sample collection.

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

## ANALYTICAL AND QUALITY CONTROL ISSUES

Client requested that sample 1611257-01 be used as the source QC for the MS/MSD. Samples were prepped in one batch for Mercury, F611387. Samples 1611257-01 and 1611257-10 were used as the source QC. Samples were prepped in one batch for total solids/% moisture, F611411/F611412. Samples 1611257-01 and 1611257-02 were used as the source QC.

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

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:10

exception of any items narrated above or flagged and described in the notes and definitions section of the report.

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

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

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



# Sample Receipt Checklist

EFGS Work Order: 1611257

Client: Amec Foster Wheeler

Date & Time Received: 10/28/16 940

Date Labeled: 11/9/16 Labeled By: LM

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

Received By: CSP

Label Verified By: CSP

# 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:
<u>3150</u>	<u>+0.4 °C</u>	<u>10/28/16 940</u>	<u>CSP</u>
Cooler 1: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 4: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 2: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 5: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 3: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 6: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 7: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 8: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>

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

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

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

Cooler 2: 7844 7802 4486      Cooler 3: 7844 7802 4497  
 Cooler 4: 7844 7802 4501      Cooler 6: 7844 7802 4523  
 Cooler 5: 7844 7802 4512      Cooler 8: 7844 7802 4545  
 Cooler 7: 7844 7802 4534

1611257

Chain of Custody Record & Laboratory Analysis Request:  
Air, Water, Sediments, Plant and Animal Tissue,  
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
Phone: 425-686-1996  
Fax: 425-686-3096  
info@frontiergs.com  
http://www.frontiergs.com



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Page 5 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Analyses Requested Field: Filtered (Y/N) Field: Preserved: HNO <sub>3</sub> HCl BrCl Other (%) TOT Hg 16316 / Tot LIPB - NOAA 1993 ZIP lock bag		EFGS PM:													
Address: 511 CONGRESS ST STE 20 PORTLAND ME 04101		Phone: 508-789-1738 Fax:				Date: 10 27 16		TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)											
Project Name: USDC PENOBSCOT		E-mail: DENISE.KING@AMECFW.COM				Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)		EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N											
Report To: DENISE KING		Contract/PO:				QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High		Comments											
Invoice To: ROD PENDLETON-AMEC		Address: 511 CONGRESS ST PORTLAND ME 04101				Address: 2 MILL ROAD CHELMSFORD MA 01824		Project # 361616052.04.05 USE VOLUME FROM LOBSTER #1 FOR MS/MSD											
Address: 2 MILL ROAD CHELMSFORD MA 01824		Phone: 207-775-5444 Fax:		Phone: 978-692-6633		E-mail: ROD.PENDLETON@AMECFW.COM													
E-mail:		E-mail:		E-mail:		E-mail:													
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time	Sampled By	Field Filtered (Y/N)	Field Preserved:	HNO <sub>3</sub>	HCl	BrCl	Other (%)	TOT Hg	LIPB	NOAA	1993	ZIP lock bag	Comments	
1	<del>CPJL-092416-6</del>	CPJL-092416-LOB-TA-01		TS	092416 1016														
2		CPJL-092416-LOB-TA-MS-01																	
3		CPJL-092416-LOB-TA-MS-01																	
4		CPJL-092416-LOB-TA-02																	
5		CPJL-092416-LOB-TA-03																	
6		CPJL-092416-LOB-TA-04																	
7		CPJL-092416-LOB-TA-05																	
8		CPJL-092416-LOB-TA-06																	
9		CPJL-092416-LOB-TA-07																	
10		CPJL-092416-LOB-TA-08																	
11		CPJL-092416-LOB-TA-09																	
12		CPJL-092416-LOB-TA-10			1035														
For Laboratory Use Only			Matrix Codes:			Relinquished By:		Received By:		Received By:		Received By:		Received By:		Received By:		Received By:	
COC Seal:		Comments:		FW: Fresh Water		Name: K. BAYOL		Name:		Name:		Name:		Name:		Name:		Name:	
Cooler Temp:				WW: Waste Water		Organization: AMEC FW		Organization:		Organization:		Organization:		Organization:		Organization:		Organization:	
Carrier:				SB: Sea and Brackish Water		Date & Time: 10/27/16 1600		Date & Time:		Date & Time:		Date & Time:		Date & Time:		Date & Time:		Date & Time:	
VTSR:				SS: Soil and Sediment		Tracking number: FED EX 809397905121		Tracking number:		Tracking number:		Tracking number:		Tracking number:		Tracking number:		Tracking number:	
# of Coplers:				TS: Plant and Animal Tissue		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.	
Sample Disposal:				HC: Hydrocarbons		Customer Approval: _____		Customer Approval: _____		Customer Approval: _____		Customer Approval: _____		Customer Approval: _____		Customer Approval: _____		Customer Approval: _____	
<input type="checkbox"/> Return (shipping fees may apply)				TR: Trap		Date: _____		Date: _____		Date: _____		Date: _____		Date: _____		Date: _____		Date: _____	
<input checked="" type="checkbox"/> Standard Disposal - 30 Days after report				OT: Other															
<input type="checkbox"/> Retain for _____ weeks after report (storage fees may apply)																			



1611257

**Chain of Custody Record & Laboratory Analysis Request:**  
**Air, Water, Sediments, Plant and Animal Tissue,**  
**Hydrocarbon & Other Samples**

11720 Northcreek Pkwy N, Suite 400  
 Bothell, WA 98011  
 Phone: 425-686-1996  
 Fax: 425-686-3096  
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Page 6 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Sampled By	Field Filtered (Y/N)	Field Preserved:	HNO <sub>3</sub>	HCl	BrCl	Other (%)	Analyses Requested				EFGS PM:	
Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101		Phone: 508-789-1738 Fax:													Date: 10 27 16	
Project Name: USDC PENOBSCOT		E-mail: DENISE.KING@AMECFW.COM													TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs.	
Report To: DENISE KING		Contract/PO:													(For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Address: 2 MILL ROAD CHELMSFORD MA 01824		Invoice To: ROD PENDLETON-AMEC													Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)	
Address: 511 CONGRESS ST PORTLAND ME 04101		Phone: 207-775-5444 Fax:													EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Phone: Fax: 978 692 6633		E-mail: ROD.PENDLETON@AMECFW.COM						QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High								
E-mail:								Comments								
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time											
1		CPJL-092416-LOB-TA-11		TS	092416 1035										PRODUCT # 361616052.04.05	
2		CPJL-092416-LOB-TA-12														
3		CPJL-092416-LOB-TA-13														
4		CPJL-092416-LOB-TA-14			1042											
5		CPJL-092416-LOB-TA-15														
6		CPJL-092416-LOB-TA-16														
7		CPJL-092416-LOB-TA-17														
8		CPJL-092416-LOB-TA-18														
9		CPJL-092416-LOB-TA-19														
10		CPJL-092416-LOB-TA-20														
11																
12																

TOT Hg 1631e / Tot  
 LIPB - NOAA 1993e  
 Ziplock bag

**Matrix Codes:**  
 FW: Fresh Water  
 WW: Waste Water  
 SB: Sea and Brackish Water  
 SS: Soil and Sediment  
 TS: Plant and Animal Tissue  
 HC: Hydrocarbons  
 TR: Trap  
 OT: Other

Relinquished By:	Received By:	Received By:
Name: K. BAVOR	Name:	Name:
Organization: AMEC FW	Organization:	Organization:
Date & Time: 10/27/16 1600	Date & Time:	Date & Time:
Tracking number: FED EX 809397905121		

**For Laboratory Use Only**

COC Seal:	Comments:
Cooler Temp:	
Carrier:	
VTSR:	
# of Coolers:	

Sample Disposal:  
 Return (shipping fees may apply)  
 Standard Disposal - 30 Days after report  
 Retain for \_\_\_ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: \_\_\_\_\_ Date: \_\_\_\_\_



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_01**  
**1611257-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	716	1.94	17.4	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	142	0.387	3.45	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.1	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.9	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	98.7	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_02**  
**1611257-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	845	1.84	16.4	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	186	0.404	3.61	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.0	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.0	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	86.8	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_03**  
**1611257-03**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	904	2.01	17.9	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	183	0.405	3.62	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.8	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.2	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	91.1	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_04**  
**1611257-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	565	2.49	22.2	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	98.8	0.435	3.88	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	82.5	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.5	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	88.5	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_05**  
**1611257-05**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	981	2.59	23.1	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	155	0.409	3.65	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	84.2	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	15.8	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	93.4	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_06**  
**1611257-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1470	2.10	18.7	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	289	0.411	3.67	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.4	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.6	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	111	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_07**  
**1611257-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	685	1.97	17.6	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	140	0.404	3.61	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.5	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.5	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	76.4	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager





AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_08**  
**1611257-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1000	2.32	20.7	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	179	0.416	3.71	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	82.1	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.9	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	88.2	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_09**  
**1611257-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	812	2.16	19.3	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	147	0.390	3.48	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.9	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.1	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	106	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_10**  
**1611257-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	783	1.92	17.2	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	166	0.407	3.64	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.8	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.2	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	91.5	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_11**  
**1611257-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	799	2.14	19.1	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	159	0.426	3.80	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.1	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.9	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	86.9	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

CPJL-092416\_LOB\_TA\_12  
1611257-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1010	1.82	16.3	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	207	0.376	3.36	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.4	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.6	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	84.4	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_13**  
**1611257-13**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	807	2.55	22.8	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	136	0.429	3.83	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	83.2	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	16.8	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	104	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_14**  
**1611257-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1540	2.51	22.4	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	259	0.422	3.77	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	83.2	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	16.8	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	160	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_15**  
**1611257-15**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1860	11.7	104	ng/g dry	500	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	337	2.11	18.9	ng/g	500	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.9	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.1	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	119	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager





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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_16**  
**1611257-16**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1180	1.96	17.5	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	255	0.424	3.79	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.3	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.7	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	135	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_17**  
**1611257-17**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	874	2.12	18.9	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	180	0.436	3.89	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.4	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.6	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	85.8	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_18**  
**1611257-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	676	1.88	16.7	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	150	0.416	3.72	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	77.8	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.2	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	78.3	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_19**  
**1611257-19**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1030	2.01	17.9	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	222	0.434	3.88	ng/g	100	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.4	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.6	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	103	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

**CPJL-092416\_LOB\_TA\_20**  
**1611257-20**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1800	8.66	77.3	ng/g dry	500	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	391	1.88	16.8	ng/g	500	F611387	17-Nov-16	6K21015	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.3	-	0.1	% by Weight	1	F611412	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.7	-	0.1	% by Weight	1	F611411	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	111	-	0.10	g	1	F612331	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612330	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager

AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:10

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K21015 - F611387</b>											
<b>Cal Standard (6K21015-CAL1)</b>											
Mercury	0.531	-		ng/L	0.50100		106				Prepared & Analyzed: 18-Nov-16
<b>Cal Standard (6K21015-CAL2)</b>											
Mercury	0.988	-		ng/L	1.0020		98.6				Prepared & Analyzed: 18-Nov-16
<b>Cal Standard (6K21015-CAL3)</b>											
Mercury	4.822	-		ng/L	5.0100		96.2				Prepared & Analyzed: 18-Nov-16
<b>Cal Standard (6K21015-CAL4)</b>											
Mercury	20.07	-		ng/L	20.040		100				Prepared & Analyzed: 18-Nov-16
<b>Cal Standard (6K21015-CAL5)</b>											
Mercury	39.27	-		ng/L	40.080		98.0				Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB1)</b>											
Mercury	0.194	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB2)</b>											
Mercury	0.091	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB3)</b>											
Mercury	0.190	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB4)</b>											
Mercury	0.183	-		ng/L							Prepared & Analyzed: 18-Nov-16
<b>Calibration Blank (6K21015-CCB5)</b>											
Mercury	0.103	-		ng/L							Prepared & Analyzed: 18-Nov-16

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Project Manager: Denise King

Reported:  
17-Jan-17 08:10

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 6K21015 - F611387

<b>Calibration Blank (6K21015-CCB6)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	0.154	-		ng/L								
<b>Calibration Blank (6K21015-CCB7)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	0.230	-		ng/L								
<b>Calibration Blank (6K21015-CCB8)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	0.182	-		ng/L								
<b>Calibration Blank (6K21015-CCB9)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	0.212	-		ng/L								
<b>Calibration Blank (6K21015-CCBA)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	0.219	-		ng/L								
<b>Calibration Blank (6K21015-CCBB)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	0.223	-		ng/L								
<b>Calibration Check (6K21015-CCV1)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.961	-		ng/L	5.0000		99.2	77-123				
<b>Calibration Check (6K21015-CCV2)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.559	-		ng/L	5.0000		91.2	77-123				
<b>Calibration Check (6K21015-CCV3)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.938	-		ng/L	5.0000		98.8	77-123				
<b>Calibration Check (6K21015-CCV4)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.730	-		ng/L	5.0000		94.6	77-123				

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

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 6K21015 - F611387

<b>Calibration Check (6K21015-CCV5)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.595	-		ng/L	5.0000		91.9	77-123				
<b>Calibration Check (6K21015-CCV6)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.997	-		ng/L	5.0000		99.9	77-123				
<b>Calibration Check (6K21015-CCV7)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.785	-		ng/L	5.0000		95.7	77-123				
<b>Calibration Check (6K21015-CCV8)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.993	-		ng/L	5.0000		99.9	77-123				
<b>Calibration Check (6K21015-CCV9)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.840	-		ng/L	5.0000		96.8	77-123				
<b>Calibration Check (6K21015-CCVA)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.849	-		ng/L	5.0000		97.0	77-123				
<b>Calibration Check (6K21015-CCVB)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	4.973	-		ng/L	5.0000		99.5	77-123				
<b>Instrument Blank (6K21015-IBL1)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K21015-IBL2)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	
<b>Instrument Blank (6K21015-IBL3)</b>												Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:10

**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 6K21015 - F611387**

**Initial Cal Check (6K21015-ICV1)**

Prepared & Analyzed: 18-Nov-16

Mercury	4.937	-		ng/L	5.0000		98.7	77-123			
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**Batch F611387 - EFGS-011 Nitric/Sulfuric Hg Digestion**

**Blank (F611387-BLK1)**

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	0.257	0.090	0.800	ng/g							J
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**Blank (F611387-BLK2)**

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	0.186	0.090	0.800	ng/g							J
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**Blank (F611387-BLK3)**

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	0.176	0.090	0.800	ng/g							J
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**LCS (F611387-BS1)**

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	7.771	0.090	0.800	ng/g	8.0160		96.9	75-125			
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**LCS (F611387-BS2)**

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	330.2	4.43	39.5	ng/g	382.50		86.3	75-125			
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**LCS Dup (F611387-BSD1)**

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	7.335	0.090	0.800	ng/g	8.0160		91.5	75-125	5.78	24	
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**Duplicate (F611387-DUP1)**

Source: 1611257-01

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	138.0	0.407	3.64	ng/g		142.5			3.23	24	
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**Duplicate (F611387-DUP2)**

Source: 1611257-01

Prepared: 17-Nov-16 Analyzed: 18-Nov-16

Mercury	135.8	0.407	3.64	ng/g		142.5			4.79	24	
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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

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 F611387 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Matrix Spike (F611387-MS1)</b>		<b>Source: 1611257-01</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	478.2	2.22	19.8	ng/g	396.83	142.5	84.6	71-125			
<b>Matrix Spike (F611387-MS2)</b>		<b>Source: 1611257-10</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	473.3	2.05	18.3	ng/g	366.30	166.0	83.9	71-125			
<b>Matrix Spike Dup (F611387-MSD1)</b>		<b>Source: 1611257-01</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	454.9	1.92	17.2	ng/g	343.64	142.5	90.9	71-125	7.19	24	
<b>Matrix Spike Dup (F611387-MSD2)</b>		<b>Source: 1611257-10</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	510.7	2.06	18.3	ng/g	366.97	166.0	93.9	71-125	11.3	24	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:10

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 F611411 - EFGS-019 Solids Analysis

Duplicate (F611411-DUP1)		Source: 1611257-01		Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	20.0	-	0.1	% by Weight	19.9	0.501	25			
Duplicate (F611411-DUP2)		Source: 1611257-02		Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	22.7	-	0.1	% by Weight	22.0	3.13	25			

Batch F611412 - EFGS-019 Solids Analysis

Duplicate (F611412-DUP1)		Source: 1611257-01		Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	80.0	-	0.1	% by Weight	80.1	0.125	25			
Duplicate (F611412-DUP2)		Source: 1611257-02		Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	77.3	-	0.1	% by Weight	78.0	0.901	25			

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:10

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- 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

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/ N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611257-01	NA	M	11/10/16 AMW	Y	18	98.72	2	1611257: Batches
1611257-02	NA	M	11/10/16 AMW	Y	18	86.80	2	F612330 + F612331
1611257-03	NA	M	11/10/16 AMW	Y	18	91.14	2	
1611257-04	NA	F	11/10/16 AMW	Y	18	88.54	2	
1611257-05	NA	M	11/10/16 AMW	Y	18	93.43	2	
1611257-06	NA	M	11/10/16 AMW	Y	18	111.03	2	
1611257-07	NA	M	11/10/16 AMW	Y	18	76.37	2	
1611257-08	NA	M	11/10/16 AMW	Y	18	88.17	2	
1611257-09	NA	M	11/10/16 AMW	Y	18	105.80	2	
1611257-10	NA	F	11/10/16 AMW	Y	18	91.47	2	
1611257-11	NA	M	11/10/16 AMW	Y	18	86.94	2	
1611257-12	NA	M	11/10/16 AMW	Y	18	84.37	2	
1611257-13	N/A	F	11/10/16 AMW	Y	18	103.76	2	
1611257-14	N/A	M	11/10/16 MPM	Y	18	160.31	2	
1611257-15	N/A	F	11/10/16 MPM	Y	18	119.11	2	
1611257-16	N/A	M	11/10/16 MPM	Y	18	134.81	2	
1611257-17	N/A	M	11/10/16 MPM	Y	18	85.85	2	
1611257-18	N/A	M	11/10/16 MPM	Y	18	78.31	2	

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611257-19	N/A	M	11/10/16 MPM	Y	18	103.15	2	
1611257-20	N/A	M	11/10/16 MPM	Y	18	110.80	2	
1611256-01	N/A	F	11/11/16 MPM	Y	18	147.23	2	1611256: Batches
1611256-02	N/A	M	11/11/16 MPM	Y	18	99.48	2	FG12324 + 612325
1611256-03	N/A	M	11/11/16 MPM	Y	18	81.76	2	AMB 12-6-16
1611256-04	N/A	F	11/11/16 MPM	Y	18	76.23	2	
1611256-05	N/A	M	11/11/16 MPM	Y	18	77.20	2	
1611256-06	N/A	M	11/11/16 MPM	Y	18	100.51	2	
1611256-07	N/A	M	11/11/16 MPM	Y	18	114.47	2	
1611256-08	N/A	F	11/11/16 MPM	Y	18	79.59	2	
1611256-09	N/A	F	11/11/16 MPM	Y	18	91.12	2	
1611256-10	N/A	F	11/11/16 MPM	Y	18	109.666	2	
1611256-11	N/A	M	11/11/16 MPM	Y	18	140.36	2	
1611256-12	N/A	M	11/11/16 MPM	Y	18	98.45	2	
1611256-13	N/A	M	11/11/16 MPM	Y	18	62.28	2	
1611256-14	N/A	F	11/11/16 MPM	Y	18	81.27	2	
1611256-15	N/A	M	11/11/16 MPM	Y	18	66.36	2	
1611256-16	N/A	M	11/11/16 MPM	Y	18	71.60	2	



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**Total Solids Dataset Cover Page**

**Dataset ID:** TS161118-2  
**Batch ID:** F611411/412  
**Work Order(s):** 1611257

**Analyst:** MPM/JS  
**Prep. Date:** 11/18/2016

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER-REVIEWED  
INITIALS: DMW 11-22-16

Preparation Date: Nov 18, 2016

Batch #: 2

Analyst: MPM/JS

Batch ID: F611411/412

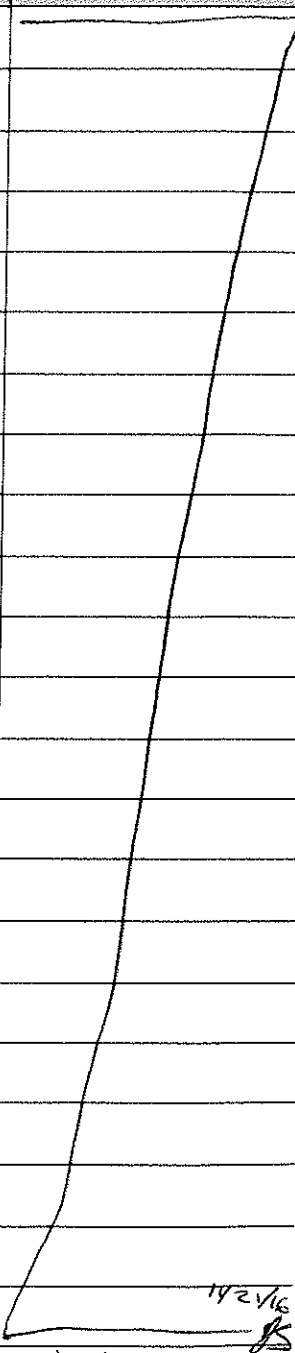
Work Order(s): 1611257

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	%TMoisture
1	1611257-01 -	1.0000 -	6.0140 -	5.0140	1.9970 -	0.9970	19.9%		80.1%
2	1611257-01MD *	0.9890 *	6.0110 -	5.0220	1.9920 -	1.0030	20.0%	0.4%	80.0%
3	1611257-02 -	1.0130 -	6.1090 -	5.0960	2.1360 -	1.1230	22.0%		78.0%
4	1611257-02MD -	0.9970 -	6.0370 -	5.0400	2.1420 -	1.1450	22.7%	3.0%	77.3%
5	1611257-03 *	1.0050 -	6.0760 -	5.0710	2.0310 -	1.0260	20.2%		79.8%
6	1611257-04 -	1.0160 -	6.0160 -	5.0000	1.8920 -	0.8760	17.5%		82.5%
7	1611257-05 *	1.0090 -	6.0390 -	5.0300	1.8040 -	0.7950	15.8%		84.2%
8	1611257-06 *	1.0430 -	6.0910 -	5.0480	2.0330 *	0.9900	19.6%		80.4%
9	1611257-07 *	1.0500 -	6.0550 -	5.0050	2.0750 -	1.0250	20.5%		79.5%
10	1611257-08 -	1.0190 -	6.0510 -	5.0320	1.9190 -	0.9000	17.9%		82.1%
11	1611257-09 *	1.0310 *	6.0710 *	5.0400	1.9430 -	0.9120	18.1%		81.9%
12	1611257-10 *	1.0220 -	6.0610 -	5.0390	1.963 -	1.0660	21.2%		78.8%
13	1611257-11 -	1.0110 -	6.0480 -	5.0370	2.0880 -	1.0030	19.9%		80.1%
14	1611257-12 *	1.0160 *	6.0790 *	5.0630	2.0140 -	1.0440	20.6%		79.4%
15	1611257-13 -	1.0430 -	6.0700 -	5.0270	2.0600 -	0.8430	16.8%		83.2%
16	1611257-14 -	0.9870 -	6.1440 *	5.1570	1.8860 -	0.8680	16.8%		83.2%
17	1611257-15 -	1.0230 -	6.0720 -	5.0490	1.8550 -	0.9150	18.1%		81.9%
18	1611257-16 -	1.0390 *	6.1300 *	5.0910	1.9380 -	1.1050	21.7%		78.3%
19	1611257-17 -	1.0380 -	6.0590 -	5.0210	2.1440 *	1.0330	20.6%		79.4%
20	1611257-18 *	1.0110 *	6.0990 -	5.0880	2.0710 -	1.1270	22.2%		77.8%
21	1611257-19 -	1.0240 -	6.0660 -	5.0420	2.1380 -	1.0900	21.6%		78.4%
22	1611257-20 *	1.0260 *	6.0430 -	5.0170	2.1140 -	1.0880	21.7%		78.3%



Remote Lab Total Solids Logbook

Lab Technician(s): MPM/JS Batch: F611411/412 Date: 11/18/16 Page 1 of 1  
 Thermometer #: 131206134 Oven #: OVN-03 Actual temperature: 103.0 (Range 103-105°C)  
 Balance #<sup>1</sup>: 10 Start time: 1702 End time<sup>2</sup>: 942 Time re-weighed<sup>3</sup>: 947  
 Client(s)/WO#: 1611257

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1611257-01	B1	1.000	6.014	1.997	
F611411-DUP1(1611257-01)	B2	0.989	6.011	1.992	
1611257-02	B3	1.013	6.109	2.136	
F611411-DUP2(1611257-02)	B4	0.997	6.037	2.142	
1611257-03	B5	1.005	6.076	2.031	
1611257-04	B6	1.016	6.016	1.892	
1611257-05	B7	1.009	6.039	1.804	
1611257-06	B8	1.043	6.091	2.033	
1611257-07	B9	1.050	6.055	2.075	
1611257-08	B10	1.019	6.051	1.919	
1611257-09	B11	1.031	6.071	1.943	
1611257-10	B12	1.022	6.061	1.963	
1611257-11	B13	1.011	6.048	2.088	
1611257-12	B14	1.016	6.079	2.041	
1611257-13	B15	1.043	6.070	2.060	
1611257-14	B16	0.987	6.144	1.856	
1611257-15	B17	1.023	6.072	1.855	
1611257-16	B18	1.039	6.130	1.938 <sup>11/21/16 JS</sup>	
1611257-17	B19	1.038	6.059	2.144	
1611257-18	B20	1.011	6.099	2.071	
1611257-19	B21	1.024	6.066	2.138	
1611257-20	B22	1.026	6.043	2.114	
MPM 11/18/16					11/21/16 JS

Comments: REVIEWED 11-21-16 DMW

<sup>1</sup>The same balance must be used to weight samples before and after ovening.

<sup>2</sup>Samples must be ovened over 12 hours.

<sup>3</sup>Samples must be re-weighed within 30 minutes of oven cool down.

**PREPARATION BENCH SHEET**

F611411

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F611411-DUP1	Duplicate (1611257-01)	5	5					
F611411-DUP2	Duplicate (1611257-02)	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F611411

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611257-01	CPJL-092416_LOB_TA_01	5	5	QC	-	-	MS/MSD	
1611257-02	CPJL-092416_LOB_TA_02	5	5	-	-	-		
1611257-03	CPJL-092416_LOB_TA_03	5	5	-	-	-		
1611257-04	CPJL-092416_LOB_TA_04	5	5	-	-	-		
1611257-05	CPJL-092416_LOB_TA_05	5	5	-	-	-		
1611257-06	CPJL-092416_LOB_TA_06	5	5	-	-	-		
1611257-07	CPJL-092416_LOB_TA_07	5	5	-	-	-		
1611257-08	CPJL-092416_LOB_TA_08	5	5	-	-	-		
1611257-09	CPJL-092416_LOB_TA_09	5	5	-	-	-		
1611257-10	CPJL-092416_LOB_TA_10	5	5	-	-	-		
1611257-11	CPJL-092416_LOB_TA_11	5	5	-	-	-		
1611257-12	CPJL-092416_LOB_TA_12	5	5	-	-	-		
1611257-13	CPJL-092416_LOB_TA_13	5	5	-	-	-		
1611257-14	CPJL-092416_LOB_TA_14	5	5	-	-	-		
1611257-15	CPJL-092416_LOB_TA_15	5	5	-	-	-		
1611257-16	CPJL-092416_LOB_TA_16	5	5	-	-	-		
1611257-17	CPJL-092416_LOB_TA_17	5	5	-	-	-		
1611257-18	CPJL-092416_LOB_TA_18	5	5	-	-	-		
1611257-19	CPJL-092416_LOB_TA_19	5	5	-	-	-		

PREPARATION BENCH SHEET

F611411

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611257-20	CPJL-092416_LOB_TA_20	5	5	-	-	-		
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**PREPARATION BENCH SHEET**

F611412

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611412-DUP1	Duplicate (1611257-01)	5	5					
F611412-DUP2	Duplicate (1611257-02)	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F611412

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611257-01	CPJL-092416_LOB_TA_01	5	5	QC	-	-	MS/MSD	
1611257-02	CPJL-092416_LOB_TA_02	5	5	-	-	-		
1611257-03	CPJL-092416_LOB_TA_03	5	5	-	-	-		
1611257-04	CPJL-092416_LOB_TA_04	5	5	-	-	-		
1611257-05	CPJL-092416_LOB_TA_05	5	5	-	-	-		
1611257-06	CPJL-092416_LOB_TA_06	5	5	-	-	-		
1611257-07	CPJL-092416_LOB_TA_07	5	5	-	-	-		
1611257-08	CPJL-092416_LOB_TA_08	5	5	-	-	-		
1611257-09	CPJL-092416_LOB_TA_09	5	5	-	-	-		
1611257-10	CPJL-092416_LOB_TA_10	5	5	-	-	-		
1611257-11	CPJL-092416_LOB_TA_11	5	5	-	-	-		
1611257-12	CPJL-092416_LOB_TA_12	5	5	-	-	-		
1611257-13	CPJL-092416_LOB_TA_13	5	5	-	-	-		
1611257-14	CPJL-092416_LOB_TA_14	5	5	-	-	-		
1611257-15	CPJL-092416_LOB_TA_15	5	5	-	-	-		
1611257-16	CPJL-092416_LOB_TA_16	5	5	-	-	-		
1611257-17	CPJL-092416_LOB_TA_17	5	5	-	-	-		
1611257-18	CPJL-092416_LOB_TA_18	5	5	-	-	-		
1611257-19	CPJL-092416_LOB_TA_19	5	5	-	-	-		

Page 44 of 121

Due Date: 11/29/2016

PREPARATION BENCH SHEET

F611412

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611257-20	CPJL-092416_LOB_TA_20	5	5	-	-	-		
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Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: JS

Date: 11/21/16

Reviewer: DMW

Date: 11-22-16

WO #: 1611257

Batch #: F611411/412

Dataset ID: TS161118-2

Reviewer Initials: DMW

General Comments/Re-run requirements:

[Empty box for general comments]

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Data	
<u>JS</u>	<u>11/18/16</u>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

Reviewer Initials: \_\_\_\_\_

1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

Density Only - NA this section

<input checked="" type="checkbox"/> DONE		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input checked="" type="checkbox"/>

2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

Total Solids Only - NA this section

<input type="checkbox"/> DONE		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A <input type="checkbox"/>





Frontier Global Sciences

THg26002-161118-2

Analysis Datasheet for Total Mercury

Date of Analysis: November 18, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K21015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	127.32 units	254.64	116.22 units	232.44	106.3 %Rec
SEQ-CAL2	1	1.00 ng/L	227.15 units	227.15	216.05 units	216.05	98.8 %Rec
SEQ-CAL3	1	5.00 ng/L	1065.82 units	213.16	1054.73 units	210.95	96.4 %Rec
SEQ-CAL4	1	20.00 ng/L	4402.27 units	220.11	4391.17 units	219.56	100.4 %Rec
SEQ-CAL5	1	40.00 ng/L	8601.91 units	215.05	8590.81 units	214.77	98.2 %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
218.75	+/- 8.25	3.8% RSD	226.02

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	11.10 units	±2.63	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.103 ng/L	±2.012
BLK	2	3	2.576 ng/L	±0.551
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: DMW 11-21-16

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	11/18/2016 8:47:07	66005-1.RAW	8:47:07 AM	13.38			2.3	0.010	0.010	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/18/2016 8:51:15	66006-1.RAW	8:51:15 AM	11.70			0.6	0.003	0.003	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/18/2016 8:55:24	66007-1.RAW	8:55:24 AM	8.22			-2.9	-0.013	-0.013	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/18/2016 8:59:32	66008-1.RAW	8:59:32 AM	127.32			116.2	0.531	0.531	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/18/2016 9:03:41	66009-1.RAW	9:03:41 AM	227.15			216.0	0.988	0.988	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/18/2016 9:07:49	66010-1.RAW	9:07:49 AM	1065.82			1054.7	4.822	4.822	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/18/2016 9:11:57	66011-1.RAW	9:11:57 AM	4402.27			4391.2	20.074	20.074	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/18/2016 9:16:06	66012-1.RAW	9:16:06 AM	8601.91			8590.8	39.272	39.272	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/18/2016 9:20:14	66013-1.RAW	9:20:14 AM	1091.18			1080.1	4.937	4.937	ng/L	
Hg2600-2	DM2	BLK	F611382-BLK1	100	11/18/2016 9:28:58	66014-1.RAW	9:28:58 AM	88.65	X		77.6	0.355	35.454	ng/L	
Hg2600-2	DM2	BLK	F611382-BLK2	100	11/18/2016 9:33:07	66015-1.RAW	9:33:07 AM	38.66	X		27.6	0.126	12.598	ng/L	
Hg2600-2	DM2	BLK	F611382-BLK3	100	11/18/2016 9:37:15	66016-1.RAW	9:37:15 AM	33.31	X		22.2	0.102	10.152	ng/L	
Hg2600-2	DM2	SAM	F611382-BS1	500	11/18/2016 9:41:24	66017-1.RAW	9:41:24 AM	834.23	X		823.1	3.763	1881.425	ng/L	
Hg2600-2	DM2	SAM	F611382-BSD1	500	11/18/2016 9:45:32	66018-1.RAW	9:45:32 AM	825.53	X		814.4	3.723	1861.534	ng/L	
Hg2600-2	DM2	SAM	1611488-01	2500	11/18/2016 9:49:40	66019-1.RAW	9:49:40 AM	1282.51	X		1271.4	5.812	14530.301	ng/L	
Hg2600-2	DM2	SAM	1611488-02	2500	11/18/2016 9:53:49	66020-1.RAW	9:53:49 AM	1159.76	X		1148.7	5.251	13127.464	ng/L	
Hg2600-2	DM2	SAM	1611489-01	2500	11/18/2016 9:57:57	66021-1.RAW	9:57:57 AM	4392.48	X		4381.4	20.029	50072.481	ng/L	
Hg2600-2	DM2	SAM	1611489-03	2500	11/18/2016 10:02:06	66022-1.RAW	10:02:06 AM	7157.25	X		7146.2	32.668	81669.561	ng/L	
Hg2600-2	DM2	SAM	1611489-04	2500	11/18/2016 10:06:14	66023-1.RAW	10:06:14 AM	7494.69	X		7483.6	34.210	85526.012	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/18/2016 10:10:23	66024-1.RAW	10:10:23 AM	1096.22			1085.1	4.961	4.961	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/18/2016 10:14:31	66025-1.RAW	10:14:31 AM	53.63			42.5	0.194	0.194	ng/L	
Hg2600-2	DM2	SAM	1611499-01	2500	11/18/2016 10:18:39	66026-1.RAW	10:18:39 AM	539.08	X		528.0	2.414	6033.974	ng/L	
Hg2600-2	DM2	SAM	1611499-02	2500	11/18/2016 10:22:48	66027-1.RAW	10:22:48 AM	490.88	X		479.8	2.193	5483.219	ng/L	
Hg2600-2	DM2	SAM	1611500-01	2500	11/18/2016 10:26:56	66028-1.RAW	10:26:56 AM	267.83	X		256.7	1.174	2933.996	ng/L	
Hg2600-2	DM2	SAM	1611500-02	2500	11/18/2016 10:31:05	66029-1.RAW	10:31:05 AM	267.70	X		256.6	1.173	2932.530	ng/L	
Hg2600-2	DM2	SAM	1611488-01B	100	11/18/2016 10:35:13	66030-1.RAW	10:35:13 AM	59.78	X		48.7	0.223	22.254	ng/L	
Hg2600-2	DM2	SAM	1611488-02B	100	11/18/2016 10:39:21	66031-1.RAW	10:39:21 AM	30.24	X		19.1	0.087	8.748	ng/L	
Hg2600-2	DM2	SAM	1611489-01B	100	11/18/2016 10:43:30	66032-1.RAW	10:43:30 AM	34.14	X		23.0	0.105	10.532	ng/L	
Hg2600-2	DM2	SAM	1611489-03B	100	11/18/2016 10:47:38	66033-1.RAW	10:47:38 AM	73.77	X		62.7	0.287	28.651	ng/L	
Hg2600-2	DM2	SAM	1611489-04B	100	11/18/2016 10:51:47	66034-1.RAW	10:51:47 AM	536.32	X		525.2	2.401	240.097	ng/L	
Hg2600-2	DM2	SAM	1611499-01B	100	11/18/2016 10:55:55	66035-1.RAW	10:55:55 AM	160.22	X		149.1	0.682	68.167	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/18/2016 11:00:04	66036-1.RAW	11:00:04 AM	1008.38			997.3	4.559	4.559	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/18/2016 11:04:12	66037-1.RAW	11:04:12 AM	30.95			19.9	0.091	0.091	ng/L	
Hg2600-2	DM2	SAM	1611499-02B	100	11/18/2016 11:08:20	66038-1.RAW	11:08:20 AM	80.45	X		69.4	0.317	31.703	ng/L	
Hg2600-2	DM2	SAM	CLEAN		11/18/2016 11:14:28	66040-1.RAW	11:14:28 AM	5.27	X		-5.8	-0.027	0.000	ng/L	
Hg2600-2	DM2	SAM	WS		11/18/2016 11:18:36	66041-1.RAW	11:18:36 AM	18.34	X		7.2	0.033	0.000	ng/L	
Hg2600-2	DM2	SAM	1611500-01B	100	11/18/2016 11:25:44	66039-3.RAW	11:25:44 AM	39.67	X		28.6	0.131	13.060	ng/L	
Hg2600-2	DM2	SAM	1611500-02B	100	11/18/2016 11:29:53	66042-1.RAW	11:29:53 AM	20.16	X		9.1	0.041	4.141	ng/L	
Hg2600-2	DM2	SAM	1611488-01C	2500	11/18/2016 11:34:01	66043-1.RAW	11:34:01 AM	2154.00	X		2142.9	9.796	24490.092	ng/L	
Hg2600-2	DM2	SAM	1611488-02C	2500	11/18/2016 11:38:09	66044-1.RAW	11:38:09 AM	2340.37	X		2329.3	10.648	26620.002	ng/L	
Hg2600-2	DM2	SAM	1611489-01C	2500	11/18/2016 11:42:18	66045-1.RAW	11:42:18 AM	7461.47	X		7450.4	34.059	85146.306	ng/L	
Hg2600-2	DM2	SAM	1611489-03C	5000	11/18/2016 11:46:26	66046-1.RAW	11:46:26 AM	5375.75	X		5364.6	24.524	122619.404	ng/L	
Hg2600-2	DM2	SAM	1611489-04C	5000	11/18/2016 11:50:35	66047-1.RAW	11:50:35 AM	5177.42	X		5166.3	23.617	118086.300	ng/L	
Hg2600-2	DM2	SAM	1611499-01C	500	11/18/2016 11:54:43	66048-1.RAW	11:54:43 AM	3512.10	X		3501.0	16.004	8002.212	ng/L	
Hg2600-2	DM2	SAM	1611499-02C	500	11/18/2016 11:58:52	66049-1.RAW	11:58:52 AM	3243.96	X		3232.9	14.779	7389.332	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/18/2016 12:03:00	66050-1.RAW	12:03:00 PM	1091.19			1080.1	4.938	4.938	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/18/2016 12:07:10	66051-1.RAW	12:07:10 PM	52.70			41.6	0.190	0.190	ng/L	
Hg2600-2	DM2	SAM	1611500-01C	500	11/18/2016 12:11:18	66052-1.RAW	12:11:18 PM	3641.31	X		3630.2	16.595	8297.542	ng/L	
Hg2600-2	DM2	SAM	1611500-02C	500	11/18/2016 12:15:26	66053-1.RAW	12:15:26 PM	3734.89	X		3723.8	17.023	8511.435	ng/L	
Hg2600-2	DM2	SAM	F611382-DUP1	2500	11/18/2016 12:19:35	66054-1.RAW	12:19:35 PM	1197.67	X		1186.6	5.424	13560.734	ng/L	
Hg2600-2	DM2	SAM	F611382-MS1	2500	11/18/2016 12:23:43	66055-1.RAW	12:23:43 PM	5548.30	X		5537.2	25.313	63281.725	ng/L	
Hg2600-2	DM2	SAM	F611382-MSD1	2500	11/18/2016 12:27:52	66056-1.RAW	12:27:52 PM	5381.70	X		5370.6	24.551	61377.690	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/18/2016 12:32:00	66057-1.RAW	12:32:00 PM	1045.76			1034.7	4.730	4.730	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/18/2016 12:36:08	66058-1.RAW	12:36:08 PM	51.02			39.9	0.183	0.183	ng/L	
Hg2600-2	DM2	BLK	F611363-BLK1	20	11/18/2016 12:42:48	66059-1.RAW	12:42:48 PM	70.45	1		59.3	0.271	5.426	ng/L	
Hg2600-2	DM2	BLK	F611363-BLK2	20	11/18/2016 12:46:56	66060-1.RAW	12:46:56 PM	32.53	1		21.4	0.098	1.960	ng/L	
Hg2600-2	DM2	BLK	F611363-BLK3	20	11/18/2016 12:51:05	66061-1.RAW	12:51:05 PM	32.12	1		21.0	0.096	1.922	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	DM2	SAM	F611363-BS1	20	11/18/2016 12:55:13	66062-1.RAW	12:55:13 PM	1112.85	1		1101.8	4.881	97.628	ng/L	
Hg2600-2	DM2	SAM	F611363-BSD1	20	11/18/2016 12:59:22	66063-1.RAW	12:59:22 PM	1097.54	1		1086.4	4.811	96.229	ng/L	
Hg2600-2	DM2	SAM	F611363-BS2	500	11/18/2016 13:03:30	66064-1.RAW	1:03:30 PM	1034.66	1		1023.6	4.673	2336.451	ng/L	
Hg2600-2	DM2	SAM	1611256-01	100	11/18/2016 13:07:38	66065-1.RAW	1:07:38 PM	4085.16	1		4074.1	18.593	1859.309	ng/L	
Hg2600-2	DM2	SAM	1611256-02	100	11/18/2016 13:11:47	66066-1.RAW	1:11:47 PM	2387.08	1		2376.0	10.831	1083.050	ng/L	
Hg2600-2	DM2	SAM	1611256-03	100	11/18/2016 13:15:55	66067-1.RAW	1:15:55 PM	1301.52	1		1290.4	5.868	586.797	ng/L	
Hg2600-2	DM2	SAM	1611256-04	100	11/18/2016 13:20:04	66068-1.RAW	1:20:04 PM	2072.30	1		2061.2	9.392	939.152	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/18/2016 13:24:12	66069-1.RAW	1:24:12 PM	1016.20	1		1005.1	4.595	4.595	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/18/2016 13:28:21	66070-1.RAW	1:28:21 PM	33.67	1		22.6	0.103	0.103	ng/L	
Hg2600-2	DM2	SAM	1611256-05	100	11/18/2016 13:32:29	66071-1.RAW	1:32:29 PM	3200.56	1		3189.5	14.549	1454.922	ng/L	
Hg2600-2	DM2	SAM	1611256-06	100	11/18/2016 13:36:38	66072-1.RAW	1:36:38 PM	2816.219849	1		2805.1	12.792	1279.227	ng/L	
Hg2600-2	DM2	SAM	1611256-07	100	11/18/2016 13:40:47	66073-1.RAW	1:40:47 PM	3011.84	1		3000.7	13.687	1368.653	ng/L	
Hg2600-2	DM2	SAM	1611256-08	100	11/18/2016 13:44:55	66074-1.RAW	1:44:55 PM	2412.77	1		2401.7	10.948	1094.796	ng/L	
Hg2600-2	DM2	SAM	1611256-09	100	11/18/2016 13:49:04	66075-1.RAW	1:49:04 PM	1238.05	1		1227.0	5.578	557.785	ng/L	
Hg2600-2	DM2	SAM	1611256-10	100	11/18/2016 13:53:12	66076-1.RAW	1:53:12 PM	3340.46	1		3329.4	15.189	1518.880	ng/L	
Hg2600-2	DM2	SAM	1611256-11	100	11/18/2016 13:57:21	66077-1.RAW	1:57:21 PM	3942.06	1		3931.0	17.939	1793.894	ng/L	
Hg2600-2	DM2	SAM	1611256-12	100	11/18/2016 14:01:29	66078-1.RAW	2:01:29 PM	2986.15	1		2975.0	13.569	1356.907	ng/L	
Hg2600-2	DM2	SAM	1611256-13	100	11/18/2016 14:05:38	66079-1.RAW	2:05:38 PM	3083.86	1		3072.8	14.016	1401.574	ng/L	
Hg2600-2	DM2	SAM	1611256-14	100	11/18/2016 14:09:46	66080-1.RAW	2:09:46 PM	3719.98	1		3708.9	16.924	1692.369	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/18/2016 14:13:55	66081-1.RAW	2:13:55 PM	1104.21	1		1093.1	4.997	4.997	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/18/2016 14:18:03	66082-1.RAW	2:18:03 PM	44.82	1		33.7	0.154	0.154	ng/L	
Hg2600-2	DM2	SAM	1611256-15	100	11/18/2016 14:22:11	66083-1.RAW	2:22:11 PM	3304.77	1		3293.7	15.026	1502.564	ng/L	
Hg2600-2	DM2	SAM	1611256-16	100	11/18/2016 14:26:20	66084-1.RAW	2:26:20 PM	1669.45	1		1658.3	7.550	754.993	ng/L	
Hg2600-2	DM2	SAM	1611256-17	100	11/18/2016 14:30:28	66085-1.RAW	2:30:28 PM	3593.65	1		3582.5	16.346	1634.618	ng/L	
Hg2600-2	DM2	SAM	1611256-18	100	11/18/2016 14:34:37	66086-1.RAW	2:34:37 PM	3154.22	1		3143.1	14.337	1433.740	ng/L	
Hg2600-2	DM2	SAM	1611256-19	100	11/18/2016 14:38:45	66087-1.RAW	2:38:45 PM	3660.66	1		3649.6	16.653	1665.255	ng/L	
Hg2600-2	DM2	SAM	1611256-20	100	11/18/2016 14:42:54	66088-1.RAW	2:42:54 PM	3082.70	1		3071.6	14.010	1401.044	ng/L	
Hg2600-2	DM2	SAM	F611363-DUP1	100	11/18/2016 14:47:02	66089-1.RAW	2:47:02 PM	4705.88	1		4694.8	21.431	2143.065	ng/L	
Hg2600-2	DM2	SAM	F611363-MS1	500	11/18/2016 14:51:10	66090-1.RAW	2:51:10 PM	2796.99	1		2785.9	12.729	6364.601	ng/L	
Hg2600-2	DM2	SAM	F611363-MSD1	500	11/18/2016 14:55:19	66091-1.RAW	2:55:19 PM	2806.55	1		2795.5	12.773	6386.445	ng/L	
Hg2600-2	DM2	SAM	F611363-MS2	500	11/18/2016 14:59:27	66092-1.RAW	2:59:27 PM	2560.80	1		2549.7	11.649	5824.728	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/18/2016 15:03:36	66093-1.RAW	3:03:36 PM	1057.89	1		1046.8	4.785	4.785	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/18/2016 15:07:44	66094-1.RAW	3:07:44 PM	61.46	1		50.4	0.230	0.230	ng/L	
Hg2600-2	DM2	SAM	F611363-MSD2	500	11/18/2016 15:11:53	66095-1.RAW	3:11:53 PM	2651.24	1		2640.1	12.063	6031.455	ng/L	
Hg2600-2	DM2	BLK	F611387-BLK1	20	11/18/2016 15:16:01	66096-1.RAW	3:16:01 PM	46.18	2		35.1	0.160	3.207	ng/L	
Hg2600-2	DM2	BLK	F611387-BLK2	20	11/18/2016 15:20:09	66097-1.RAW	3:20:09 PM	36.55	2		25.5	0.116	2.327	ng/L	
Hg2600-2	DM2	BLK	F611387-BLK3	20	11/18/2016 15:24:18	66098-1.RAW	3:24:18 PM	35.10	2		24.0	0.110	2.194	ng/L	
Hg2600-2	DM2	SAM	F611387-BS1	20	11/18/2016 15:28:26	66099-1.RAW	3:28:26 PM	1101.73	2		1090.6	4.857	97.138	ng/L	
Hg2600-2	DM2	SAM	F611387-BSD1	20	11/18/2016 15:32:35	66100-1.RAW	3:32:35 PM	1042.09	2		1031.0	4.584	91.685	ng/L	
Hg2600-2	DM2	SAM	F611387-BS2	500	11/18/2016 15:36:43	66101-1.RAW	3:36:43 PM	926.00	2		914.9	4.177	2088.608	ng/L	
Hg2600-2	DM2	SAM	1611257-01	100	11/18/2016 15:40:53	66102-1.RAW	3:40:53 PM	4528.28	2		4517.2	20.624	2062.404	ng/L	
Hg2600-2	DM2	SAM	1611257-02	100	11/18/2016 15:45:01	66103-1.RAW	3:45:01 PM	5651.42	2		5640.3	25.758	2575.835	ng/L	
Hg2600-2	DM2	SAM	1611257-03	100	11/18/2016 15:49:10	66104-1.RAW	3:49:10 PM	5541.10	2		5530.0	25.254	2525.402	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/18/2016 15:53:19	66105-1.RAW	3:53:19 PM	1103.23	2		1092.1	4.993	4.993	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/18/2016 15:57:28	66106-1.RAW	3:57:28 PM	50.85	2		39.8	0.182	0.182	ng/L	
Hg2600-2	DM2	SAM	1611257-04	100	11/18/2016 16:01:36	66107-1.RAW	4:01:36 PM	2799.97	2		2788.9	12.723	1272.323	ng/L	
Hg2600-2	DM2	SAM	1611257-05	100	11/18/2016 16:05:44	66108-1.RAW	4:05:44 PM	4660.18	2		4649.1	21.227	2122.697	ng/L	
Hg2600-2	DM2	SAM	1611257-06	100	11/18/2016 16:09:53	66109-1.RAW	4:09:53 PM	8623.05	2		8612.0	39.343	3934.281	ng/L	
Hg2600-2	DM2	SAM	1611257-07	100	11/18/2016 16:14:01	66110-1.RAW	4:14:01 PM	4272.63	2		4261.5	19.455	1945.536	ng/L	
Hg2600-2	DM2	SAM	1611257-08	100	11/18/2016 16:18:10	66111-1.RAW	4:18:10 PM	5304.28	2		5293.2	24.171	2417.143	ng/L	
Hg2600-2	DM2	SAM	1611257-09	100	11/18/2016 16:22:18	66112-1.RAW	4:22:18 PM	4632.53	2		4621.4	21.101	2110.060	ng/L	
Hg2600-2	DM2	SAM	1611257-10	100	11/18/2016 16:26:27	66113-1.RAW	4:26:27 PM	5010.35	2		4999.3	22.828	2282.776	ng/L	
Hg2600-2	DM2	SAM	1611257-11	100	11/18/2016 16:30:35	66114-1.RAW	4:30:35 PM	4587.94	2		4576.8	20.897	2089.676	ng/L	
Hg2600-2	DM2	SAM	1611257-12	100	11/18/2016 16:34:44	66115-1.RAW	4:34:44 PM	6775.33	2		6764.2	30.896	3089.617	ng/L	
Hg2600-2	DM2	SAM	1611257-13	100	11/18/2016 16:38:52	66116-1.RAW	4:38:52 PM	3885.62	2		3874.5	17.686	1768.619	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/18/2016 16:43:00	66117-1.RAW	4:43:00 PM	1069.87	2		1058.8	4.840	4.840	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/18/2016 16:47:09	66118-1.RAW	4:47:09 PM	57.56	2		46.5	0.212	0.212	ng/L	
Hg2600-2	DM2	SAM	1611257-14	100	11/18/2016 16:51:17	66119-1.RAW	4:51:17 PM	7548.10	2		7537.0	34.429	3442.881	ng/L	
Hg2600-2	DM2	SAM	1611257-15	100	11/18/2016 16:55:26	66120-1.RAW	4:55:26 PM	9411.99	2		9400.9	42.949	4294.937	ng/L	
Hg2600-2	DM2	SAM	1611257-16	100	11/18/2016 16:59:34	66121-1.RAW	4:59:34 PM	7484.73	2		7473.6	34.139	3413.911	ng/L	
Hg2600-2	DM2	SAM	1611257-17	100	11/18/2016 17:03:43	66122-1.RAW	5:03:43 PM	5079.24	2		5068.1	23.143	2314.266	ng/L	
Hg2600-2	DM2	SAM	1611257-18	100	11/18/2016 17:07:51	66123-1.RAW	5:07:51 PM	4429.61	2		4418.5	20.173	2017.297	ng/L	
Hg2600-2	DM2	SAM	1611257-19	100	11/18/2016 17:11:59	66124-1.RAW	5:11:59 PM	6292.90	2		6281.8	28.691	2869.077	ng/L	
Hg2600-2	DM2	SAM	1611257-20	100	11/18/2016 17:16:08	66125-1.RAW	5:16:08 PM	12337.26	2		12326.2	56.322	5632.188	ng/L	
Hg2600-2	DM2	SAM	F611387-DUP1	100	11/18/2016 17:20:16	66126-1.RAW	5:20:16 PM	4166.10	2		4155.0	18.968	1896.835	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	F611387-MS1	500	11/18/2016 17:24:25	66127-1.RAW	5:24:25 PM	2648.13	2		2637.0	12.050	6024.859	ng/L	
Hg2600-2	DM2	SAM	F611387-MSD1	500	11/18/2016 17:28:33	66128-1.RAW	5:28:33 PM	2907.71	2		2896.6	13.236	6618.198	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVA	1	11/18/2016 17:32:43	66129-1.RAW	5:32:43 PM	1071.88			1060.8	4.849	4.849	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	11/18/2016 17:36:51	66130-1.RAW	5:36:51 PM	59.00			47.9	0.219	0.219	ng/L	
Hg2600-2	DM2	SAM	F611387-MS2	500	11/18/2016 17:41:00	66131-1.RAW	5:41:00 PM	2838.82	2		2827.7	12.921	6460.734	ng/L	
Hg2600-2	DM2	SAM	F611387-MSD2	500	11/18/2016 17:45:08	66132-1.RAW	5:45:08 PM	3056.29	2		3045.2	13.916	6957.802	ng/L	
Hg2600-2	DM2	SAM	F611257-15RE1	500	11/18/2016 17:49:17	66133-1.RAW	5:49:17 PM	1967.75	2		1956.7	8.939	4469.736	ng/L	
Hg2600-2	DM2	SAM	F611257-16RE1	100	11/18/2016 17:53:25	66134-1.RAW	5:53:25 PM	7391.42	2		7380.3	33.713	3371.254	ng/L	
Hg2600-2	DM2	SAM	F611257-20RE1	500	11/18/2016 17:57:33	66135-1.RAW	5:57:33 PM	2564.03	2		2552.9	11.665	5832.644	ng/L	
Hg2600-2	DM2	SAM	F611387-DUP2	100	11/18/2016 18:01:42	66136-1.RAW	6:01:42 PM	4101.66	2		4090.6	18.674	1867.377	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVB	1	11/18/2016 18:05:50	66137-1.RAW	6:05:50 PM	1099.01			1087.9	4.973	4.973	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBB	1	11/18/2016 18:09:59	66138-1.RAW	6:09:59 PM	59.88			48.8	0.223	0.223	ng/L	

TotalMercury EPA1631  
 Operat BC  
 Worksh THG260  
 Method #### R: 0.9999 R<sup>2</sup>:  
 BlankS: 11.099  
 CalibFa 218.75  
 Status:  
 Conc = (Area-11.09 Run Date: ##### Blank SD: 2.631685004  
 QC Warnings:4/QC E Run Time: 12:38:39 Blank RSD%: 23.7120727  
 0.9999 R<sup>2</sup>: 0.9999 CF SD: 8.247980804  
 Descrip THG26002-161118-1 CF RSD%: 3.770471201

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (cif)	Flags	RunCount
Clean				0.00	5.40					66000-1.RAW	8:27:42	1181.68	Clean	OK	1
CLEAN				0.00	0.00					66001-1.RAW	8:30:33	0.32	Clean	OK	1
WS				11.10	0.01					66002-1.RAW	8:34:42	12.56	Sample	OK	1
WS				11.10	0.00					66003-1.RAW	8:38:50	10.18	Sample	OK	1
WS				11.10	0.00					66004-1.RAW	8:42:58	9.73	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.06					66005-1.RAW	8:47:07	13.38	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					66006-1.RAW	8:51:15	11.70	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					66007-1.RAW	8:55:24	8.22	Sample	OK	1
SEQ-CAL1	A4		1	11.10	0.53			106.26		66008-1.RAW	8:59:32	127.32	Sample	OK	1
SEQ-CAL2	A5		1	11.10	0.99			98.76		66009-1.RAW	9:03:41	227.15	Sample	OK	1
SEQ-CAL3	A6		1	11.10	4.82			96.43		66010-1.RAW	9:07:49	1065.82	Sample	OK	1
SEQ-CAL4	A7		1	11.10	20.07			100.37		66011-1.RAW	9:11:57	4402.27	Sample	OK	1
SEQ-CAL5	A8		1	11.10	39.27			98.18		66012-1.RAW	9:16:06	8601.91	Sample	OK	1
SEQ-ICV1	A9		1	11.10	4.94			98.75		66013-1.RAW	9:20:14	1091.18	Sample	OK	1
F611382-BLK1	A10		100	11.10	35.45					66014-1.RAW	9:28:58	88.65	Sample	OK	1
F611382-BLK2	A11		100	11.10	12.60					66015-1.RAW	9:33:07	38.66	Sample	OK	1
F611382-BLK3	A12		100	11.10	10.15					66016-1.RAW	9:37:15	33.31	Sample	OK	1
F611382-BS1	A13		500	11.10	1881.43					66017-1.RAW	9:41:24	834.23	Sample	OK	1
F611382-BSD1	A14		500	11.10	1861.53					66018-1.RAW	9:45:32	825.53	Sample	OK	1
1611488-01	A15		2500	11.10	14530.30					66019-1.RAW	9:49:40	1282.51	Sample	OK	1
1611488-02	A16		2500	11.10	13127.46					66020-1.RAW	9:53:49	1159.76	Sample	OK	1
1611489-01	A17		2500	11.10	50072.48					66021-1.RAW	9:57:57	4392.48	Sample	OK	1
1611489-03	A18		2500	11.10	81669.56					66022-1.RAW	10:02:06	7157.25	Sample	OK	1
1611489-04	A19		2500	11.10	85526.01					66023-1.RAW	10:06:14	7494.69	Sample	OK	1
SEQ-CCV1	A20		1	11.10	4.96			99.21		66024-1.RAW	10:10:23	1096.22	Sample	OK	1
SEQ-CCB1	A21		1	11.10	0.19			0.00		66025-1.RAW	10:14:31	53.63	Sample	OK	1
1611499-01	B1		2500	11.10	6033.97					66026-1.RAW	10:18:39	539.08	Sample	OK	1
1611499-02	B2		2500	11.10	5483.22					66027-1.RAW	10:22:48	490.88	Sample	OK	1
1611500-01	B3		2500	11.10	2934.00					66028-1.RAW	10:26:56	267.83	Sample	OK	1
1611500-02	B4		2500	11.10	2932.53					66029-1.RAW	10:31:05	267.70	Sample	OK	1
1611488-01B	B5		100	11.10	22.25					66030-1.RAW	10:35:13	59.78	Sample	OK	1
1611488-02B	B6		100	11.10	8.75					66031-1.RAW	10:39:21	30.24	Sample	OK	1
1611489-01B	B7		100	11.10	10.53					66032-1.RAW	10:43:30	34.14	Sample	OK	1
1611489-03B	B8		100	11.10	28.65					66033-1.RAW	10:47:38	73.77	Sample	OK	1
1611489-04B	B9		100	11.10	240.10					66034-1.RAW	10:51:47	536.32	Sample	OK	1
1611499-01B	B10		100	11.10	68.17					66035-1.RAW	10:55:55	160.22	Sample	OK	1
SEQ-CCV2	B11		1	11.10	4.56			91.18		66036-1.RAW	11:00:04	1008.38	Sample	OK	1
SEQ-CCB2	B12		1	11.10	0.09			0.00		66037-1.RAW	11:04:12	30.95	Sample	OK	1
1611499-02B	B13		100	11.10	31.70					66038-1.RAW	11:08:20	80.45	Sample	OK	1
CLEAN				0.00	0.02					66040-1.RAW	11:14:28	5.27	Clean	OK	1
WS				11.10	0.03					66041-1.RAW	11:18:36	18.34	Sample	OK	1
1611500-01B	B14		100	11.10	13.06					66039-3.RAW	11:25:44	39.67	Sample	OK	1
1611500-02B	B15		100	11.10	4.14					66042-1.RAW	11:29:53	20.16	Sample	OK	1
1611488-01C	B16		2500	11.10	24490.09					66043-1.RAW	11:34:01	2154.00	Sample	OK	1

1611488-02C	B17	2500	11.10	26620.00		66044-1.RAW	11:38:09	2340.37	Sample	OK	1
1611489-01C	B18	2500	11.10	85146.31		66045-1.RAW	11:42:18	7461.47	Sample	OK	1
1611489-03C	B19	5000	11.10	122619.40		66046-1.RAW	11:46:26	5375.75	Sample	OK	1
1611489-04C	B20	5000	11.10	118086.30		66047-1.RAW	11:50:35	5177.42	Sample	OK	1
1611499-01C	B21	500	11.10	8002.21		66048-1.RAW	11:54:43	3512.10	Sample	OK	1
1611499-02C	C1	500	11.10	7389.33		66049-1.RAW	11:58:52	3243.96	Sample	OK	1
SEQ-CCV3	C2	1	11.10	4.94	98.75	66050-1.RAW	12:03:00	1091.19	Sample	OK	1
SEQ-CCB3	C3	1	11.10	0.19	0.00	66051-1.RAW	12:07:10	52.70	Sample	OK	1
1611500-01C	C4	500	11.10	8297.54		66052-1.RAW	12:11:18	3641.31	Sample	OK	1
1611500-02C	C5	500	11.10	8511.43		66053-1.RAW	12:15:26	3734.89	Sample	OK	1
F611382-DUP1	C6	2500	11.10	13560.73		66054-1.RAW	12:19:35	1197.67	Sample	OK	1
F611382-MS1	C7	2500	11.10	63281.72	466.62	66055-1.RAW	12:23:43	5548.30	Sample	OK	1
F611382-MSD1	C8	2500	11.10	61377.69		66056-1.RAW	12:27:52	5381.70	Sample	OK	1
SEQ-CCV4	C9	1	11.10	4.73	94.60	66057-1.RAW	12:32:00	1045.76	Sample	OK	1
SEQ-CCB4	C10	1	11.10	0.18	0.00	66058-1.RAW	12:36:08	51.02	Sample	OK	1
F611363-BLK1	C11	20	11.10	5.43		66059-1.RAW	12:42:48	70.45	Sample	OK	1
F611363-BLK2	C12	20	11.10	1.96		66060-1.RAW	12:46:56	32.53	Sample	OK	1
F611363-BLK3	C13	20	11.10	1.92		66061-1.RAW	12:51:05	32.12	Sample	OK	1
F611363-BS1	C14	20	11.10	100.73		66062-1.RAW	12:55:13	1112.85	Sample	OK	1
F611363-BSD1	C15	20	11.10	99.33		66063-1.RAW	12:59:22	1097.54	Sample	OK	1
F611363-BS2	C16	500	11.10	2339.55		66064-1.RAW	13:03:30	1034.66	Sample	OK	1
1611256-01	C17	100	11.10	1862.41		66065-1.RAW	13:07:38	4085.16	Sample	OK	1
1611256-02	C18	100	11.10	1086.15		66066-1.RAW	13:11:47	2387.08	Sample	OK	1
1611256-03	C19	100	11.10	589.90		66067-1.RAW	13:15:55	1301.52	Sample	OK	1
1611256-04	C20	100	11.10	942.25		66068-1.RAW	13:20:04	2072.30	Sample	OK	1
SEQ-CCV5	C21	1	11.10	4.59	91.89	66069-1.RAW	13:24:12	1016.20	Sample	OK	1
SEQ-CCB5	A1	1	11.10	0.10	0.00	66070-1.RAW	13:28:21	33.67	Sample	OK	1
1611256-05	A2	100	11.10	1458.02		66071-1.RAW	13:32:29	3200.56	Sample	OK	1
1611256-06	A3	100	11.10	1282.33		66072-1.RAW	13:36:38	2816.22	Sample	OK	1
1611256-07	A4	100	11.10	1371.76		66073-1.RAW	13:40:47	3011.84	Sample	OK	1
1611256-08	A5	100	11.10	1097.90		66074-1.RAW	13:44:55	2412.77	Sample	OK	1
1611256-09	A6	100	11.10	560.89		66075-1.RAW	13:49:04	1238.05	Sample	OK	1
1611256-10	A7	100	11.10	1521.98		66076-1.RAW	13:53:12	3340.46	Sample	OK	1
1611256-11	A8	100	11.10	1797.00		66077-1.RAW	13:57:21	3942.06	Sample	OK	1
1611256-12	A9	100	11.10	1360.01		66078-1.RAW	14:01:29	2986.15	Sample	OK	1
1611256-13	A10	100	11.10	1404.68		66079-1.RAW	14:05:38	3083.86	Sample	OK	1
1611256-14	A11	100	11.10	1695.47		66080-1.RAW	14:09:46	3719.98	Sample	OK	1
SEQ-CCV6	A12	1	11.10	5.00	99.94	66081-1.RAW	14:13:55	1104.21	Sample	OK	1
SEQ-CCB6	A13	1	11.10	0.15	0.00	66082-1.RAW	14:18:03	44.82	Sample	OK	1
1611256-15	A14	100	11.10	1505.67		66083-1.RAW	14:22:11	3304.77	Sample	OK	1
1611256-16	A15	100	11.10	758.10		66084-1.RAW	14:26:20	1669.45	Sample	OK	1
1611256-17	A16	100	11.10	1637.72		66085-1.RAW	14:30:28	3593.65	Sample	OK	1
1611256-18	A17	100	11.10	1436.84		66086-1.RAW	14:34:37	3154.22	Sample	OK	1
1611256-19	A18	100	11.10	1668.36		66087-1.RAW	14:38:45	3660.66	Sample	OK	1
1611256-20	A19	100	11.10	1404.15		66088-1.RAW	14:42:54	3082.70	Sample	OK	1
F611363-DUP1	A20	100	11.10	2146.17		66089-1.RAW	14:47:02	4705.88	Sample	OK	1
F611363-MS1	A21	500	11.10	6367.70	296.56	66090-1.RAW	14:51:10	2796.99	Sample	OK	1
F611363-MSD1	B1	500	11.10	6389.55		66091-1.RAW	14:55:19	2806.55	Sample	OK	1
F611363-MS2	B2	500	11.10	5827.83	91.18	66092-1.RAW	14:59:27	2560.80	Sample	OK	1

SEQ-CCV7	B3	1	11.10	4.79	95.71	66093-1.RAW	15:03:36	1057.89	Sample	OK	1
SEQ-CCB7	B4	1	11.10	0.23	0.00	66094-1.RAW	15:07:44	61.46	Sample	OK	1
F611363-MSD2	B5	500	11.10	6034.56		66095-1.RAW	15:11:53	2651.24	Sample	OK	1
F611387-BLK1	B6	20	11.10	3.21		66096-1.RAW	15:16:01	46.18	Sample	OK	1
F611387-BLK2	B7	20	11.10	2.33		66097-1.RAW	15:20:09	36.55	Sample	OK	1
F611387-BLK3	B8	20	11.10	2.19		66098-1.RAW	15:24:18	35.10	Sample	OK	1
F611387-BS1	B9	20	11.10	99.71		66099-1.RAW	15:28:26	1101.73	Sample	OK	1
F611387-BSD1	B10	20	11.10	94.26		66100-1.RAW	15:32:35	1042.09	Sample	OK	1
F611387-BS2	B11	500	11.10	2091.18		66101-1.RAW	15:36:43	926.00	Sample	OK	1
1611257-01	B12	100	11.10	2064.98		66102-1.RAW	15:40:53	4528.28	Sample	OK	1
1611257-02	B13	100	11.10	2578.41		66103-1.RAW	15:45:01	5651.42	Sample	OK	1
1611257-03	B14	100	11.10	2527.98		66104-1.RAW	15:49:10	5541.10	Sample	OK	1
SEQ-CCV8	B15	1	11.10	4.99	99.85	66105-1.RAW	15:53:19	1103.23	Sample	OK	1
SEQ-CCB8	B16	1	11.10	0.18	0.00	66106-1.RAW	15:57:28	50.85	Sample	OK	1
1611257-04	B17	100	11.10	1274.90		66107-1.RAW	16:01:36	2799.97	Sample	OK	1
1611257-05	B18	100	11.10	2125.27		66108-1.RAW	16:05:44	4660.18	Sample	OK	1
1611257-06	B19	100	11.10	3936.86		66109-1.RAW	16:09:53	8623.05	Sample	OK	1
1611257-07	B20	100	11.10	1948.11		66110-1.RAW	16:14:01	4272.63	Sample	OK	1
1611257-08	B21	100	11.10	2419.72		66111-1.RAW	16:18:10	5304.28	Sample	OK	1
1611257-09	C1	100	11.10	2112.64		66112-1.RAW	16:22:18	4632.53	Sample	OK	1
1611257-10	C2	100	11.10	2285.35		66113-1.RAW	16:26:27	5010.35	Sample	OK	1
1611257-11	C3	100	11.10	2092.25		66114-1.RAW	16:30:35	4587.94	Sample	OK	1
1611257-12	C4	100	11.10	3092.19		66115-1.RAW	16:34:44	6775.33	Sample	OK	1
1611257-13	C5	100	11.10	1771.20		66116-1.RAW	16:38:52	3885.62	Sample	OK	1
SEQ-CCV9	C6	1	11.10	4.84	96.80	66117-1.RAW	16:43:00	1069.87	Sample	OK	1
SEQ-CCB9	C7	1	11.10	0.21	0.00	66118-1.RAW	16:47:09	57.56	Sample	OK	1
1611257-14	C8	100	11.10	3445.46		66119-1.RAW	16:51:17	7548.10	Sample	OK	1
1611257-15	C9	100	11.10	4297.51		66120-1.RAW	16:55:26	9411.99	Sample	OK	1
1611257-16	C10	100	11.10	3416.49		66121-1.RAW	16:59:34	7484.73	Sample	OK	1
1611257-17	C11	100	11.10	2316.84		66122-1.RAW	17:03:43	5079.24	Sample	OK	1
1611257-18	C12	100	11.10	2019.87		66123-1.RAW	17:07:51	4429.61	Sample	OK	1
1611257-19	C13	100	11.10	2871.65		66124-1.RAW	17:11:59	6292.90	Sample	OK	1
1611257-20	C14	100	11.10	5634.76		66125-1.RAW	17:16:08	12337.26	Sample	OK	1
F611387-DUP1	C15	100	11.10	1899.41		66126-1.RAW	17:20:16	4166.10	Sample	OK	1
F611387-MS1	C16	500	11.10	6027.43	317.16	66127-1.RAW	17:24:25	2648.13	Sample	OK	1
F611387-MSD1	C17	500	11.10	6620.77		66128-1.RAW	17:28:33	2907.71	Sample	OK	1
SEQ-CCVA	C18	1	11.10	4.85		66129-1.RAW	17:32:43	1071.88	Sample	OK	1
SEQ-CCBA	C19	1	11.10	0.22		66130-1.RAW	17:36:51	59.00	Sample	OK	1
F611387-MS2	C20	500	11.10	6463.31	291273.36	66131-1.RAW	17:41:00	2838.82	Sample	OK	1
F611387-MSD2	C21	500	11.10	6960.38		66132-1.RAW	17:45:08	3056.29	Sample	OK	1
1611257-15RE1	A1	500	11.10	4472.31		66133-1.RAW	17:49:17	1967.75	Sample	OK	1
1611257-16RE1	A2	100	11.10	3373.83		66134-1.RAW	17:53:25	7391.42	Sample	OK	1
1611257-20RE1	A3	500	11.10	5835.22		66135-1.RAW	17:57:33	2564.03	Sample	OK	1
F611387-DUP2	A4	100	11.10	1869.95		66136-1.RAW	18:01:42	4101.66	Sample	OK	1
SEQ-CCVB	A5	1	11.10	4.97		66137-1.RAW	18:05:50	1099.01	Sample	OK	1
SEQ-CCBB	A6	1	11.10	0.22		66138-1.RAW	18:09:59	59.88	Sample	OK	1

**Failing Data Report - 6K21015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1611257-15	Hg-CVAFS-T-7030	324	3.77				ng/g						FAIL-OVER	PASS	E
1611257-20	Hg-CVAFS-T-7030	378	3.36				ng/g						FAIL-OVER	PASS	E

Don Mason  
 Analyst Reviewed By

11/21/16  
 Date

[Signature]  
 Peer Reviewed By

11-21-16  
 Date



## ANALYSIS SEQUENCE

6K21015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21015-IBL1	QC	1			
6K21015-IBL2	QC	2			
6K21015-IBL3	QC	3			
6K21015-CAL1	QC	4	1605412		
6K21015-CAL2	QC	5	1605413		
6K21015-CAL3	QC	6	1605414		
6K21015-CAL4	QC	7	1605415		
6K21015-CAL5	QC	8	1605416		
6K21015-ICV1	QC	9	1605791		
6K21015-CCV1	QC	10	1605791		
6K21015-CCB1	QC	11			
6K21015-CCV2	QC	12	1605791		
6K21015-CCB2	QC	13			
6K21015-CCV3	QC	14	1605791		
6K21015-CCB3	QC	15			
6K21015-CCV4	QC	16	1605791		
6K21015-CCB4	QC	17			
F611363-BLK1	QC	18			
F611363-BLK2	QC	19			
F611363-BLK3	QC	20			
F611363-BS1	QC	21			
F611363-BSD1	QC	22			
F611363-BS2	QC	23			
1611256-01	Hg-CVAFS-T-7030	24			
1611256-02	Hg-CVAFS-T-7030	25			
1611256-03	Hg-CVAFS-T-7030	26			
1611256-04	Hg-CVAFS-T-7030	27			
6K21015-CCV5	QC	28	1605791		
6K21015-CCB5	QC	29			
1611256-05	Hg-CVAFS-T-7030	30			
1611256-06	Hg-CVAFS-T-7030	31			
1611256-07	Hg-CVAFS-T-7030	32			
1611256-08	Hg-CVAFS-T-7030	33			
1611256-09	Hg-CVAFS-T-7030	34			
1611256-10	Hg-CVAFS-T-7030	35			

Due Date: 11/29/2016

## ANALYSIS SEQUENCE

6K21015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611256-11	Hg-CVAFS-T-7030	36			
1611256-12	Hg-CVAFS-T-7030	37			
1611256-13	Hg-CVAFS-T-7030	38			
1611256-14	Hg-CVAFS-T-7030	39			
6K21015-CCV6	QC	40	1605791		
6K21015-CCB6	QC	41			
1611256-15	Hg-CVAFS-T-7030	42			
1611256-16	Hg-CVAFS-T-7030	43			
1611256-17	Hg-CVAFS-T-7030	44			
1611256-18	Hg-CVAFS-T-7030	45			
1611256-19	Hg-CVAFS-T-7030	46			
1611256-20	Hg-CVAFS-T-7030	47			
F611363-DUP1	QC	48			
F611363-MS1	QC	49			
F611363-MSD1	QC	50			
F611363-MS2	QC	51			
6K21015-CCV7	QC	52	1605791		
6K21015-CCB7	QC	53			
F611363-MSD2	QC	54			
F611387-BLK1	QC	55			
F611387-BLK2	QC	56			
F611387-BLK3	QC	57			
F611387-BS1	QC	58			
F611387-BSD1	QC	59			
F611387-BS2	QC	60			
1611257-01	Hg-CVAFS-T-7030	61			
1611257-02	Hg-CVAFS-T-7030	62			
1611257-03	Hg-CVAFS-T-7030	63			
6K21015-CCV8	QC	64	1605791		
6K21015-CCB8	QC	65			
1611257-04	Hg-CVAFS-T-7030	66			
1611257-05	Hg-CVAFS-T-7030	67			
1611257-06	Hg-CVAFS-T-7030	68			
1611257-07	Hg-CVAFS-T-7030	69			
1611257-08	Hg-CVAFS-T-7030	70			

Due Date: 11/29/2016

## ANALYSIS SEQUENCE

6K21015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611257-09	Hg-CVAFS-T-7030	71			
1611257-10	Hg-CVAFS-T-7030	72			
1611257-11	Hg-CVAFS-T-7030	73			
1611257-12	Hg-CVAFS-T-7030	74			
1611257-13	Hg-CVAFS-T-7030	75			
6K21015-CCV9	QC	76	1605791		
6K21015-CCB9	QC	77			
1611257-14	Hg-CVAFS-T-7030	78			
1611257-15	Hg-CVAFS-T-7030	79			
1611257-16	Hg-CVAFS-T-7030	80			
1611257-17	Hg-CVAFS-T-7030	81			
1611257-18	Hg-CVAFS-T-7030	82			
1611257-19	Hg-CVAFS-T-7030	83			
1611257-20	Hg-CVAFS-T-7030	84			
F611387-DUP1	QC	85			
F611387-MS1	QC	86			
F611387-MSD1	QC	87			
6K21015-CCVA	QC	88	1605791		
6K21015-CCBA	QC	89			
F611387-MS2	QC	90			
F611387-MSD2	QC	91			
1611257-15RE1	Hg-CVAFS-T-7030	92			Added 11/18/2016 by DM2
1611257-16RE1	Hg-CVAFS-T-7030	93			Added 11/18/2016 by DM2
1611257-20RE1	Hg-CVAFS-T-7030	94			Added 11/18/2016 by DM2
F611387-DUP2	QC	95			
6K21015-CCVB	QC	96	1605791		
6K21015-CCBB	QC	97			

Don Moran 11/18/16  
 Samples Loaded By Date

Don Moran 11/21/16  
 Data Processed By Date

Due Date: 11/29/2016

**PREPARATION BENCH SHEET**

F611363

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/15/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611363-BLK1	Blank	0.5	40					
F611363-BLK2	Blank	0.5	40					
F611363-BLK3	Blank	0.5	40					
F611363-BS1	LCS	0.5	40	1605270	40			
F611363-BS2	LCS	0.276	40	1605470	276			
F611363-BSD1	LCS Dup	0.5	40	1605270	40			
F611363-DUP1	Duplicate [1611256-01]	0.549	40					
F611363-MS1	Matrix Spike [1611256-01]	0.556	40	1605712	200			
F611363-MS2	Matrix Spike [1611256-20]	0.569	40	1605712	200			
F611363-MSD1	Matrix Spike Dup [1611256-01]	0.551	40	1605712	200			
F611363-MSD2	Matrix Spike Dup [1611256-20]	0.586	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606580	70/30 Digestion Acid	08-May-17 00:00
			1606599	5% BrCl	19-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00

**PREPARATION BENCH SHEET**

F611363

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/15/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611256-01	HBI-01_092416_LOB_TA_01	0.535	40	QC	-	-	MS/MSD	
1611256-02	HBI-01_092416_LOB_TA_02	0.563	40	-	-	-		
1611256-03	HBI-01_092416_LOB_TA_03	0.501	40	-	-	-		
1611256-04	HBI-01_092416_LOB_TA_04	0.547	40	-	-	-		
1611256-05	HBI-01_092416_LOB_TA_05	0.581	40	-	-	-		
1611256-06	HBI-01_092416_LOB_TA_06	0.552	40	-	-	-		
1611256-07	HBI-01_092416_LOB_TA_07	0.534	40	-	-	-		
1611256-08	HBI-01_092416_LOB_TA_08	0.528	40	-	-	-		
1611256-09	HBI-01_092616_LOB_TA_09	0.502	40	-	-	-		
1611256-10	HBI-01_092616_LOB_TA_10	0.52	40	-	-	-		
1611256-11	HBI-01_092616_LOB_TA_11	0.557	40	-	-	-		
1611256-12	HBI-01_092616_LOB_TA_12	0.561	40	-	-	-		
1611256-13	HBI-01_092616_LOB_TA_13	0.57	40	-	-	-		
1611256-14	HBI-01_092616_LOB_TA_14	0.527	40	-	-	-		
1611256-15	HBI-01_092616_LOB_TA_15	0.507	40	-	-	-		
1611256-16	HBI-01_092616_LOB_TA_16	0.559	40	-	-	-		
1611256-17	HBI-01_092616_LOB_TA_17	0.515	40	-	-	-		
1611256-18	HBI-01_092616_LOB_TA_18	0.531	40	-	-	-		
1611256-19	HBI-01_092616_LOB_TA_19	0.544	40	-	-	-		

Page 59 of 121

Date: 11/29/2016

PREPARATION BENCH SHEET

F611363

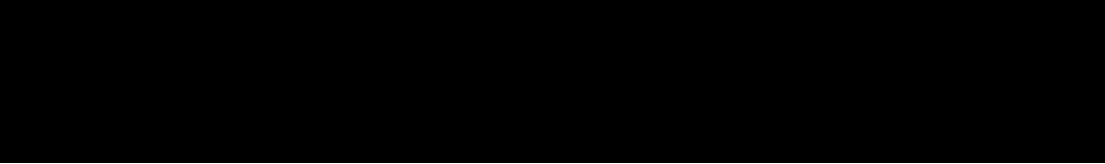
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

1611256-20	HBI-01_092616_LOB_TA_20	0.526	40	-	-	-		
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**PREPARATION BENCH SHEET**

F611387

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611387-BLK1	Blank	0.5	40					
F611387-BLK2	Blank	0.5	40					
F611387-BLK3	Blank	0.5	40					
F611387-BS1	LCS	0.5	40	1605270	40			
F611387-BS2	LCS	0.253	40	1605470	253			
F611387-BSD1	LCS Dup	0.5	40	1605270	40			
F611387-DUP1	Duplicate [1611257-01]	0.55	40					
F611387-DUP2	Duplicate [1611257-01]	0.55	40					
F611387-MS1	Matrix Spike [1611257-01]	0.504	40	1605712	200			
F611387-MS2	Matrix Spike [1611257-10]	0.546	40	1605712	200			
F611387-MSD1	Matrix Spike Dup [1611257-01]	0.582	40	1605712	200			
F611387-MSD2	Matrix Spike Dup [1611257-10]	0.545	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1606720	70/30 Digestion Acid	15-May-17 00:00
			1606759	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611387

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611257-01	CPJL-092416_LOB_TA_01	0.579	40	QC	-	-	MS/MSD	
1611257-02	CPJL-092416_LOB_TA_02	0.554	40	-	-	-		
1611257-03	CPJL-092416_LOB_TA_03	0.553	40	-	-	-		
1611257-04	CPJL-092416_LOB_TA_04	0.515	40	-	-	-		
1611257-05	CPJL-092416_LOB_TA_05	0.548	40	-	-	-		
1611257-06	CPJL-092416_LOB_TA_06	0.545	40	-	-	-		
1611257-07	CPJL-092416_LOB_TA_07	0.554	40	-	-	-		
1611257-08	CPJL-092416_LOB_TA_08	0.539	40	-	-	-		
1611257-09	CPJL-092416_LOB_TA_09	0.574	40	-	-	-		
1611257-10	CPJL-092416_LOB_TA_10	0.55	40	-	-	-		
1611257-11	CPJL-092416_LOB_TA_11	0.526	40	-	-	-		
1611257-12	CPJL-092416_LOB_TA_12	0.596	40	-	-	-		
1611257-13	CPJL-092416_LOB_TA_13	0.522	40	-	-	-		
1611257-14	CPJL-092416_LOB_TA_14	0.531	40	-	-	-		
1611257-15	CPJL-092416_LOB_TA_15	0.53	40	-	-	-		
1611257-15RE1	CPJL-092416_LOB_TA_15	0.53	40	-	-	-	Added 11/18/2016 by DM2	Added 11/18/2016 by DM2
1611257-16	CPJL-092416_LOB_TA_16	0.528	40	-	-	-		
1611257-16RE1	CPJL-092416_LOB_TA_16	0.528	40	-	-	-	Added 11/18/2016 by DM2	Added 11/18/2016 by DM2
1611257-17	CPJL-092416_LOB_TA_17	0.514	40	-	-	-		

Page 62 of 121

Date: 11/29/2016



PREPARATION BENCH SHEET

F611387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

1611257-18	CPJL-092416_LOB_TA_18	0.538	40	-	-	-		
1611257-19	CPJL-092416_LOB_TA_19	0.516	40	-	-	-		
1611257-20	CPJL-092416_LOB_TA_20	0.596	40	-	-	-		
1611257-20RE1	CPJL-092416_LOB_TA_20	0.596	40	-	-	-	Added 11/18/2016 by DM2	Added 11/18/2016 by DM2

2600-2

11/18/16 DM

PREPARATION BENCH SHEET

F611363

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611363-BLK1	Blank	0.5	40					20X
F611363-BLK2	Blank	0.5	40					20X
F611363-BLK3	Blank	0.5	40					20X
F611363-BS1	LCS	0.5	40	1605270	40			20X
F611363-BS2	LCS	0.276	40	1605470	276			500X
F611363-BSD1	LCS Dup	0.5	40	1605270	40			20X
F611363-DUP1	Duplicate [1611256-01]	0.549	40					100X
F611363-MS1	Matrix Spike [1611256-01]	0.556	40	1605712	200			500X
F611363-MS2	Matrix Spike [1611256-20]	0.569	40	1605712	200			500X
F611363-MSD1	Matrix Spike Dup [1611256-01]	0.551	40	1605712	200			500X
F611363-MSD2	Matrix Spike Dup [1611256-20]	0.586	40	1605712	200			500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1606580	70/30 Digestion Acid	08-May-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606599	5% BrCl	19-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00

1602941  
1606185  
1606189  
1606581

PREPARATION BENCH SHEET

2000.2

11/18/16 DM

F611363

Eurolins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611256-01	HBI-01_092416_LOB_TA_01	0.535	40	QC	-	-	MS/MSD	100X
1611256-02	HBI-01_092416_LOB_TA_02	0.563	40	-	-	-		100X
1611256-03	HBI-01_092416_LOB_TA_03	0.501	40	-	-	-		100X
1611256-04	HBI-01_092416_LOB_TA_04	0.547	40	-	-	-		100X
1611256-05	HBI-01_092416_LOB_TA_05	0.581	40	-	-	-		100X
1611256-06	HBI-01_092416_LOB_TA_06	0.552	40	-	-	-		100X
1611256-07	HBI-01_092416_LOB_TA_07	0.534	40	-	-	-		100X
1611256-08	HBI-01_092416_LOB_TA_08	0.528	40	-	-	-		100X
1611256-09	HBI-01_092616_LOB_TA_09	0.502	40	-	-	-		100X
1611256-10	HBI-01_092616_LOB_TA_10	0.52	40	-	-	-		100X
1611256-11	HBI-01_092616_LOB_TA_11	0.557	40	-	-	-		100X
1611256-12	HBI-01_092616_LOB_TA_12	0.561	40	-	-	-		100X
1611256-13	HBI-01_092616_LOB_TA_13	0.57	40	-	-	-		100X
1611256-14	HBI-01_092616_LOB_TA_14	0.527	40	-	-	-		100X
1611256-15	HBI-01_092616_LOB_TA_15	0.507	40	-	-	-		100X
1611256-16	HBI-01_092616_LOB_TA_16	0.559	40	-	-	-		100X
1611256-17	HBI-01_092616_LOB_TA_17	0.515	40	-	-	-		100X
1611256-18	HBI-01_092616_LOB_TA_18	0.531	40	-	-	-		100X
1611256-19	HBI-01_092616_LOB_TA_19	0.544	40	-	-	-		100X

Page 65 of 121

Date: 11/29/2016

PREPARATION BENCH SHEET

200-2  
11/18/16 DM

F611363

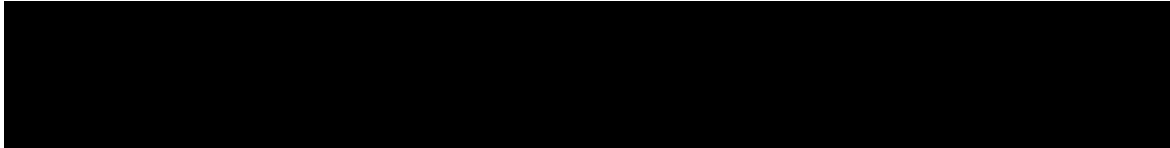
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/15/2016

1611256-20	HBI-01_092616_LOB_TA_20	0.526	40	-	-	-	100X
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Technician: JS/MPM Batch#: F611363 Date: 11/15/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
  - EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
  - EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
  - EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.
- Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No  
 Time in: 11:35 Actual Temp. (raw): 74 °C w/ CF: 73.8 °C  
 Time out: 13:30 Actual Temp. (raw): 76 °C w/ CF: 75.7 °C  
 Final vol.: 40 mL (LIMS ID: 1606599) Spike vol.: 200 µL (LIMS ID: 1605712)  
 Spike Witness: DM 11/14/16 (initial and date) Spiked by MPM 11/16/16

HCl LIMS ID: N/A Pipette SN#: MU11407 Calibration Date: 11/14/16  
 HNO<sub>3</sub> LIMS ID: N/A Dispenser #: 0222159 Calibration Date: 04/09/16  
 70/30 LIMS ID: 1606580 Dispenser #: 02K27484 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: N/A

Centrifuge Tube lot # 00066064 Boiling Chip lot # 1606642 \*Hotblock Position: K2

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	F611363-BIK1	0.547	23	1611256-13	0.570	DORM-4 B5Z DORM-4 B5Z 1605470
2	F611363-BIK2	0.515	24	1611256-14	0.527	
3	F611363-BIK3	0.538	25	1611256-15	0.507	
4	F611363-B51	0.528	26	1611256-16	0.559	
5	F611363-B5D1	0.587	27	1611256-17	0.515	Comments <del>B51/B5D1</del> 40µl of 1000µg/mL
6	F611363-B52	0.276	28	1611256-18	0.531	
7	1611256-01	0.535	29	1611256-19	0.544	Dup1, MS1, MS2 Source 1611256-01 B
8	F611363-DUP1	0.549	30	1611256-20	0.526	
9	F611363-MS1	0.556	31	F611363-MS2	0.569	MS2, MSD 2 Source 1611256-20 B
10	<del>F611363-MS</del>		32	F611363-MSD2	0.586	
11	F611363-MSD1	0.551	33			"11/15/16 JS B51/B5D1 40µl of 1000µg/mL 1605270 MPM 11/16/16
12	1611256-02	0.563	34			
13	1611256-03	0.501	35			
14	1611256-04	0.547	36			
15	1611256-05	0.581	37			
16	1611256-06	0.552	38			
17	1611256-07	0.534	39			
18	1611256-08	0.528	40			
19	1611256-09	0.502	41			
20	1611256-10	0.520	42			
21	1611256-11	0.557	43			
22	1611256-12	0.561	44			

PREPARATION BENCH SHEET

200-2  
11/18/16 DM

F611387

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611387-BLK1	Blank	0.5	40					20x
F611387-BLK2	Blank	0.5	40					20x
F611387-BLK3	Blank	0.5	40					20x
F611387-BS1	LCS	0.5	40	1605270	40			20x
F611387-BS2	LCS	0.253	40	1605470	253			500x
F611387-BSD1	LCS Dup	0.5	40	1605270	40			20x
F611387-DUP1	Duplicate [1611257-01]	0.55	40					100x
F611387-MS1	Matrix Spike [1611257-01]	0.504	40	1605712	200			500x
F611387-MS2	Matrix Spike [1611257-10]	0.546	40	1605712	200			500x
F611387-MSD1	Matrix Spike Dup [1611257-01]	0.582	40	1605712	200			500x
F611387-MSD2	Matrix Spike Dup [1611257-10]	0.545	40	1605712	200			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606720	70/30 Digestion Acid	15-May-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606759	5% BrCl	19-Apr-17 00:00

DUP2 - E-Run of DUP1 100x

1002941  
1605188  
1605189  
1606531

PREPARATION BENCH SHEET

2000-2

F611387

11/18/16 DA

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1611257-01	CPJL-092416_LOB_TA_01	0.579	40	No	100X
1611257-02	CPJL-092416_LOB_TA_02	0.554	40	No	100X
1611257-03	CPJL-092416_LOB_TA_03	0.553	40	No	100X
1611257-04	CPJL-092416_LOB_TA_04	0.515	40	No	100X
1611257-05	CPJL-092416_LOB_TA_05	0.548	40	No	100X
1611257-06	CPJL-092416_LOB_TA_06	0.545	40	No	100X
1611257-07	CPJL-092416_LOB_TA_07	0.554	40	No	100X
1611257-08	CPJL-092416_LOB_TA_08	0.539	40	No	100X
1611257-09	CPJL-092416_LOB_TA_09	0.574	40	No	100X
1611257-10	CPJL-092416_LOB_TA_10	0.55	40	No	100X
1611257-11	CPJL-092416_LOB_TA_11	0.526	40	No	100X
1611257-12	CPJL-092416_LOB_TA_12	0.596	40	No	100X
1611257-13	CPJL-092416_LOB_TA_13	0.522	40	No	100X
1611257-14	CPJL-092416_LOB_TA_14	0.531	40	No	100X
1611257-15	CPJL-092416_LOB_TA_15	0.53	40	No	100X → 500X
1611257-16	CPJL-092416_LOB_TA_16	0.528	40	No	100X → 100X
1611257-17	CPJL-092416_LOB_TA_17	0.514	40	No	100X
1611257-18	CPJL-092416_LOB_TA_18	0.538	40	No	100X
1611257-19	CPJL-092416_LOB_TA_19	0.516	40	No	100X
1611257-20	CPJL-092416_LOB_TA_20	0.596	40	No	100X → 500X

**PREPARATION BENCH SHEET**

**F611387**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**



Technician: MPM Batch#: F611387 Date: 11/17/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No

Time in: 1638 Actual Temp. (raw): 71 °C w/ CF: 70.6 °C  
 Time out: 1838 Actual Temp. (raw): 74 °C w/ CF: 73.6 °C

Final vol.: 40 mL (LIMS ID: 1606759) Spike vol.: 200 <sup>ms/MSD</sup> µL (LIMS ID: 1605712)

Spike Witness: M 11/17/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 11/14/16  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1606720 Dispenser #: 02K27494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 02Z2159 Cal. Yes  
 Glass Vial # 00066064 Boiling Chip lot # 1606642 \*Hotblock Position: M7

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	F611387-BIK1	0.517	23	1611257-12	0.596	DORM-4 BS2 1605470
2	F611387-BIK2	0.525	24	1611257-13	0.522	
3	F611387-BIK3	0.525	25	1611257-14	0.531	
4	F611387-BS1	0.528	26	1611257-15	0.530	<b>Comments</b> BS/BSD1 40µL of 100ng/mL 1605270 MPM 11/17/16
5	F611387-BSD1	0.529	27	1611257-16	0.528	
6	F611387-BS2	0.253	28	1611257-17	0.514	
7	1611257-01	0.579	29	1611257-18	0.538	
8	F611387-DUP1(1611257-01)	0.550	30	1611257-19	0.516	
9	F611387-MS1(1611257-01)	0.504	31	1611257-20	0.596	
10	F611387-MSD1(1611257-01)	0.582	32			
11	1611257-02	0.554	33			
12	1611257-03	0.553	34			
13	1611257-04	0.515	35			
14	1611257-05	0.548	36			
15	1611257-06	0.545	37			
16	1611257-07	0.554	38			
17	1611257-08	0.539	39			
18	1611257-09	0.574	40			
19	1611257-10	0.550	41			
20	F611387-MS2(1611257-10)	0.546	42			
21	F611387-MSD2(1611257-10)	0.545	43			
22	1611257-11	0.526	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>	6K21015
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26002-161118-2
<b>Date:</b>	11/21/2016	<b>WO (s) #:</b>	1611257, 1611256
<b>Batch #(s):</b>	F611387, F611363		0

Analyst Initials DM                      Reviewer Initials DMV

- 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: 1611257-15, 20 HIGH SAMPLES. ABOVE CAL5
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)                       PASS     FAIL      
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:  
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?                       YES     NO      
 (c) Was a BrCl Blank analyzed for each preservation level?                       YES     NO     N/A      
 (d) Are Preparation Blanks summarized on QC page?                       YES     NO
14. Filtration Blank Prepared (if yes, use FB qualifier)                       YES     NO      
 (a) Filtration Blank prep date same as associated samples' prep date                       YES     NO     N/A      
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI                       YES     NO     N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                       PASS     FAIL      
 Comments: \_\_\_\_\_
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?                       PASS     FAIL      
 Comments: \_\_\_\_\_
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                       YES     NO     N/A
18. Is the correct 'Source' designated for MD/MS/MSD?                       YES     NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                       YES     NO     N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K21015
Reviewer:	0	Dataset ID(s):	THG26002-161118-2
Date:	11/21/2016	WO (s) #:	1611257, 1611256
Batch #(s):	F611367, F611363		0

Analyst Initials DM                      Reviewer Initials DMW

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   |
| 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: _____                | 12/16/2015 | 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: _____                              | 7/8/2016   | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 7/8/2016   | LOQ within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

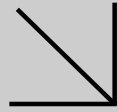
**Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**





Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-12-1553**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1611257

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244

Approved for release on 01/16/2017 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1611257  
Work Order Number: 16-12-1553

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	8
	4.1 Sample Duplicate. . . . .	8
5	Glossary of Terms and Qualifiers. . . . .	9
6	Chain-of-Custody/Sample Receipt Form. . . . .	10
7	16-12-1553 Level IV Case Narrative. . . . .	18
8	16-12-1553 Level IV Data Package. . . . .	20

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 12/16/16. They were assigned to Work Order 16-12-1553.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.





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## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-12-1553
11720 North Creek Parkway North, Suite 4	Project Name:	1611257
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	12/16/16 11:30
	Number of Containers:	20

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
CPJL-092416_LOB_TA_01	16-12-1553-1	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_02	16-12-1553-2	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_03	16-12-1553-3	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_04	16-12-1553-4	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_05	16-12-1553-5	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_06	16-12-1553-6	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_07	16-12-1553-7	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_08	16-12-1553-8	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_09	16-12-1553-9	09/24/16 10:16	1	Tissue
CPJL-092416_LOB_TA_10	16-12-1553-10	09/24/16 10:35	1	Tissue
CPJL-092416_LOB_TA_11	16-12-1553-11	09/24/16 10:35	1	Tissue
CPJL-092416_LOB_TA_12	16-12-1553-12	09/24/16 10:35	1	Tissue
CPJL-092416_LOB_TA_13	16-12-1553-13	09/24/16 10:35	1	Tissue
CPJL-092416_LOB_TA_14	16-12-1553-14	09/24/16 10:42	1	Tissue
CPJL-092416_LOB_TA_15	16-12-1553-15	09/24/16 10:42	1	Tissue
CPJL-092416_LOB_TA_16	16-12-1553-16	09/24/16 10:42	1	Tissue
CPJL-092416_LOB_TA_17	16-12-1553-17	09/24/16 10:42	1	Tissue
CPJL-092416_LOB_TA_18	16-12-1553-18	09/24/16 10:42	1	Tissue
CPJL-092416_LOB_TA_19	16-12-1553-19	09/24/16 10:42	1	Tissue
CPJL-092416_LOB_TA_20	16-12-1553-20	09/24/16 10:42	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1553  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611257

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CPJL-092416_LOB_TA_01	16-12-1553-1-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.88	0.10		1.00		
CPJL-092416_LOB_TA_02	16-12-1553-2-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.0	0.10		1.00		
CPJL-092416_LOB_TA_03	16-12-1553-3-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.73	0.10		1.00		
CPJL-092416_LOB_TA_04	16-12-1553-4-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.66	0.10		1.00		
CPJL-092416_LOB_TA_05	16-12-1553-5-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.63	0.10		1.00		
CPJL-092416_LOB_TA_06	16-12-1553-6-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.77	0.10		1.00		
CPJL-092416_LOB_TA_07	16-12-1553-7-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.90	0.10		1.00		
CPJL-092416_LOB_TA_08	16-12-1553-8-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.89	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1553  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611257

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CPJL-092416_LOB_TA_09	16-12-1553-9-AA	09/24/16 10:16	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.86	0.10		1.00		
CPJL-092416_LOB_TA_10	16-12-1553-10-AA	09/24/16 10:35	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.82	0.10		1.00		
CPJL-092416_LOB_TA_11	16-12-1553-11-AA	09/24/16 10:35	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.91	0.10		1.00		
CPJL-092416_LOB_TA_12	16-12-1553-12-AA	09/24/16 10:35	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.98	0.10		1.00		
CPJL-092416_LOB_TA_13	16-12-1553-13-AA	09/24/16 10:35	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.95	0.10		1.00		
CPJL-092416_LOB_TA_14	16-12-1553-14-AA	09/24/16 10:42	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.81	0.10		1.00		
CPJL-092416_LOB_TA_15	16-12-1553-15-AA	09/24/16 10:42	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.65	0.10		1.00		
CPJL-092416_LOB_TA_16	16-12-1553-16-AA	09/24/16 10:42	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.84	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1553  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611257

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CPJL-092416_LOB_TA_17	16-12-1553-17-AA	09/24/16 10:42	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.83	0.10		1.00		
CPJL-092416_LOB_TA_18	16-12-1553-18-AA	09/24/16 10:42	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.88	0.10		1.00		
CPJL-092416_LOB_TA_19	16-12-1553-19-AA	09/24/16 10:42	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.96	0.10		1.00		
CPJL-092416_LOB_TA_20	16-12-1553-20-AA	09/24/16 10:42	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.99	0.10		1.00		
Method Blank	099-14-104-161	N/A	Tissue	N/A	12/29/16	12/29/16 00:00	161229B15
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



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## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 12/16/16  
Work Order: 16-12-1553  
Preparation: EPA 3541  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1611257

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
CPJL-092416_LOB_TA_01	Sample	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D15
CPJL-092416_LOB_TA_01	Sample Duplicate	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D15

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.8800	0.9000	2	0-25	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-12-1553

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611257

16-12-1553

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Comments

1 Sample ID: CPJL-092416\_LOB\_TA\_01

EFGS Lab ID: 1611257-01 Matrix: Tissue

Sampled: 24-Sep-16 10:16 Eastern Due: 29-Nov-16 19:00

MS/MSD

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

2 Sample ID: CPJL-092416\_LOB\_TA\_02

EFGS Lab ID: 1611257-02 Matrix: Tissue

Sampled: 24-Sep-16 10:16 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

2 Sample ID: CPJL-092416\_LOB\_TA\_03

EFGS Lab ID: 1611257-03 Matrix: Tissue

Sampled: 24-Sep-16 10:16 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34 Plastic Bag (C)

<i>[Signature]</i>	12/15/16	Date		
Released By		Date	Received By	Date
<i>[Signature]</i>	12/15/16		<i>[Signature]</i>	12/16/16
Released By		Date	Received By	1130

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611257

153

Analysis Comments

4 Sample ID: CPJL-092416\_LOB\_TA\_04

EFGS Lab ID: 1611257-04 Matrix: Tissue

Sampled: 24-Sep-16 10:16 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

5 Sample ID: CPJL-092416\_LOB\_TA\_05

EFGS Lab ID: 1611257-05 Matrix: Tissue

Sampled: 24-Sep-16 10:16 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

6 Sample ID: CPJL-092416\_LOB\_TA\_06

EFGS Lab ID: 1611257-06 Matrix: Tissue

Sampled: 24-Sep-16 10:16 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

7 Sample ID: CPJL-092416\_LOB\_TA\_07

EFGS Lab ID: 1611257-07 Matrix: Tissue

Sampled: 24-Sep-16 10:16 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

Released By *[Signature]* Date 12/15/16

Received By *[Signature]* Date 12/16/16

Released By *[Signature]* Date 12/15/16

Received By *[Signature]* Date 12/16/16





SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611257

1553

Analysis \_\_\_\_\_ Comments \_\_\_\_\_

12 Sample ID: CPJL-092416\_LOB\_TA\_12

EFGS Lab ID: 1611257-12 Matrix: Tissue

Sampled: 24-Sep-16 10:35 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

13 Sample ID: CPJL-092416\_LOB\_TA\_13

EFGS Lab ID: 1611257-13 Matrix: Tissue

Sampled: 24-Sep-16 10:35 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

14 Sample ID: CPJL-092416\_LOB\_TA\_14

EFGS Lab ID: 1611257-14 Matrix: Tissue

Sampled: 24-Sep-16 10:42 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

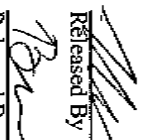
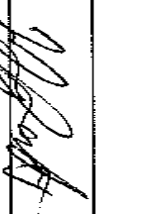

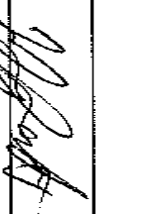
15 Sample ID: CPJL-092416\_LOB\_TA\_15

EFGS Lab ID: 1611257-15 Matrix: Tissue

Sampled: 24-Sep-16 10:42 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By		Date	12/15/14	Received By		Date	12/16/16
Released By		Date		Received By		Date	11/30

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611257

1553

Analysis

Comments

16 Sample ID: CPJL-092416\_LOB\_TA\_16

EFGS Lab ID: 1611257-16 Matrix: Tissue

Sampled: 24-Sep-16 10:42 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

17 Sample ID: CPJL-092416\_LOB\_TA\_17

EFGS Lab ID: 1611257-17 Matrix: Tissue

Sampled: 24-Sep-16 10:42 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

18 Sample ID: CPJL-092416\_LOB\_TA\_18

EFGS Lab ID: 1611257-18 Matrix: Tissue

Sampled: 24-Sep-16 10:42 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

19 Sample ID: CPJL-092416\_LOB\_TA\_19


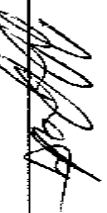

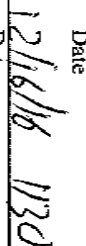
EFGS Lab ID: 1611257-19 Matrix: Tissue

Sampled: 24-Sep-16 10:42 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By		Date	12/15/16	Received By		Date	12/16/16



**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1611257

1533

Analysis

Comments

20 Sample ID: CPJL-092416\_LOB\_TA\_20

EFGS Lab ID: 1611257-20

Matrix: Tissue

Sampled: 24-Sep-16 10:42 Eastern

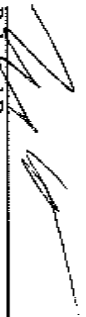
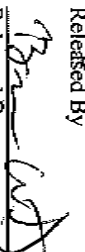

Due: 29-Nov-16 19:00

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

	12/15/16		
Released By	Date	Received By	Date
	12/15/16		12/16/16 1130
Released By	Date	Received By	Date

1553

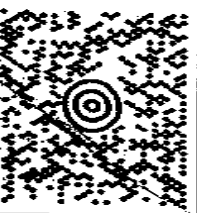
FRONT DESK  
1425 688 - 1995  
FRONTIER GLOBAL SCIENCES  
1720 N OREGON PKWY N  
BOHELL WA 98071-6244

38 LBS

DWT: 24.13.14

1 OF 1

SHIP TO:  
SAMPLE RECEIVING  
(774) 895-0494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841



CA 927 9-00



UPS NEXT DAY AIR 1  
TRACKING #: 1Z 86W 060 01 5096 5731



0116  
189

CA 927 9-00  
CA 92841

18-D-19 ZedBr ZP 480 7E.CA 07/2016



9159 A

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**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: ELGS

DATE: 12/16/2016

**TEMPERATURE:** (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): -2.2 °C (w/ CF): -2.2 °C;  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: 15

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  ~~Not Present~~  N/A Checked by: 15  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: 15

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples .....  
 COC document(s) received complete .....  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  
 Sample container label(s) consistent with COC .....  
 Sample container(s) intact and in good condition .....  
 Proper containers for analyses requested .....  
 Sufficient volume/mass for analyses requested .....  
 Samples received within holding time .....  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  
 Proper preservation chemical(s) noted on COC and/or sample container .....  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals  
 Container(s) for certain analysis free of headspace .....  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....  
 (Trip Blank Lot Number: \_\_\_\_\_)

**CONTAINER TYPE:**  
 Aqueous:  VOA  VOAh  VOAna<sub>2</sub>  100PJ  100PJa<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBzma  250AGB  250CGB  250CGBs  250PB  250PBh  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
 Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  Encores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  \_\_\_\_\_  
 Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (ISAVE)  \_\_\_\_\_  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>,  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH  
 Reviewed by: 126

## Case Narrative

Client Project Name: 1611259  
Work Order Number: 16-12-1553

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 20 tissue samples on December 16, 2016. A total of 20 containers were received in good condition at a temperature of -2.2°C, which was within the recommended temperature criteria.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
CPJL-092416_LOB_TA_01	16-12-1553-1	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_02	16-12-1553-2	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_03	16-12-1553-3	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_04	16-12-1553-4	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_05	16-12-1553-5	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_06	16-12-1553-6	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_07	16-12-1553-7	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_08	16-12-1553-8	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_09	16-12-1553-9	09/24/16 10:16	12/16/16 11:30
CPJL-092416_LOB_TA_10	16-12-1553-10	09/24/16 10:35	12/16/16 11:30
CPJL-092416_LOB_TA_11	16-12-1553-11	09/24/16 10:35	12/16/16 11:30
CPJL-092416_LOB_TA_12	16-12-1553-12	09/24/16 10:35	12/16/16 11:30
CPJL-092416_LOB_TA_13	16-12-1553-13	09/24/16 10:35	12/16/16 11:30
CPJL-092416_LOB_TA_14	16-12-1553-14	09/24/16 10:42	12/16/16 11:30
CPJL-092416_LOB_TA_15	16-12-1553-15	09/24/16 10:42	12/16/16 11:30
CPJL-092416_LOB_TA_16	16-12-1553-16	09/24/16 10:42	12/16/16 11:30
CPJL-092416_LOB_TA_17	16-12-1553-17	09/24/16 10:42	12/16/16 11:30
CPJL-092416_LOB_TA_18	16-12-1553-18	09/24/16 10:42	12/16/16 11:30
CPJL-092416_LOB_TA_19	16-12-1553-19	09/24/16 10:42	12/16/16 11:30
CPJL-092416_LOB_TA_20	16-12-1553-20	09/24/16 10:42	12/16/16 11:30

### DATA SUMMARY:

Pursuant to the chain-of-custody (COC), the samples were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a).

All samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

## Case Narrative

---

Client Project Name: 1611259  
Work Order Number: 16-12-1553

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -20 were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/29/16 in batch # 161229B15 / 161229D15.

### **Sample and QC:**

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.



*% Lipids via MeCl<sub>2</sub> Ext.  
(NOAA 1993a)*

**RAW DATA**

[Return to Contents](#) 

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT/ EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**DT/ ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**DT/ REVIEWED:**

**DATA FILE:**

**# 1** **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_01

**LCS/MB BATCH:** 161229B15 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D15 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**  
% Lipids 0.880 1.00 0.880 0.10



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**DT ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 2**      **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_02

**LCS/MB BATCH:** 161229B15      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D15      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**  
 % Lipids      1.03      1.00      1.03      0.10

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 3 CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_03

**LCS/MB BATCH:** 161229B15  
**MS/MSD BATCH:** 161229D15  
**UNITS:** %

**SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.730	1.00	0.730	0.10	



# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**DT ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 4**      **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_04

**LCS/MB BATCH:** 161229B15      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D15      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      0.660      1.00      0.660      0.10

# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 5**      **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_05

**LCS/MB BATCH:** 161229B15      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D15      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

<u>COMMENT:</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
<u>COMPOUND</u>	0.630	1.00	0.630	0.10	

% Lipids

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_06

**# 6**  
**LCS/MB BATCH:** 161229B15  
**MS/MSD BATCH:** 161229D15  
**UNITS:** %

**SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**ADJUSTMENT RATIO TO PF:** 1.00

<u>COMMENT:</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
<u>COMPOUND</u>	0.770	1.00	0.770	0.10	

% Lipids



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**DT ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 7** **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_07

**LCS/MB BATCH:** 161229B15 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D15 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**  
% Lipids 0.900 1.00 0.900 0.10





RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1553  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 8 CLIENT SAMPLE NUMBER: CPJL-092416\_LOB\_TA\_08

LCS/MB BATCH: 161229B15 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D15 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT: ON COL CONC DF CONC RL QUAL  
COMPOUND 0.890 1.00 0.890 0.10

% Lipids



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1553  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 9 CLIENT SAMPLE NUMBER: CPJL-092416\_LOB\_TA\_09

LCS/MB BATCH: 161229B15 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D15 FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 0.860 1.00 0.860 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**DT ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**DT REVIEWED:**

**DATA FILE:**

**# 10**      **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_10

**LCS/MB BATCH:** 161229B15      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D15      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**  
% Lipids      0.820      1.00      0.820      0.10

RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 11** **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_11

**LCS/MB BATCH:** 161229B15 **SAMPLE VOLUME / WEIGHT:** **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D15 **FINAL VOLUME / WEIGHT:** **DEFAULT:** 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**  
% Lipids 0.910 1.00 0.910 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**DT/ EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**DT/ ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**DT/ REVIEWED:**

**DATA FILE:**

**# 12**      **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_12

**LCS/MB BATCH:** 161229B15      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D15      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      0.980      1.00      0.980      0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 13** **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_13

**LCS/MB BATCH:** 161229B15 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D15 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
0.950	1.00	0.950	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1553  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 14 CLIENT SAMPLE NUMBER: CPJL-092416\_LOB\_TA\_14

LCS/MB BATCH: 161229B15 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D15 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.810	1.00	0.810	0.10	

% Lipids



RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1553  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 15 CLIENT SAMPLE NUMBER: CPJL-092416\_LOB\_TA\_15

LCS/MB BATCH: 161229B15 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D15 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT: ON COL CONC DF CONC RL QUAL  
COMPOUND 0.650 1.00 0.650 0.10

% Lipids





RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 16** **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_16

**LC/SMB BATCH:** 161229B15 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D15 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND** **ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

% Lipids 0.840 1.00 0.840 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 17**      **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_17

**LCS/MB BATCH:** 161229B15      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D15      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**  
0.830      1.00      0.830      0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1553  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 18 CLIENT SAMPLE NUMBER: CPJL-092416\_LOB\_TA\_18

LCS/MB BATCH: 161229B15 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D15 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 0.880 1.00 0.880 0.10

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1553  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 19 CLIENT SAMPLE NUMBER: CPJL-092416\_LOB\_TA\_19

LCS/MB BATCH: 161229B15 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D15 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

% Lipids ON COL CONC DF CONC RL QUAL  
0.960 1.00 0.960 0.10

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1553  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 20** **CLIENT SAMPLE NUMBER:** CPJL-092416\_LOB\_TA\_20

**LCS/MB BATCH:** 161229B15 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D15 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

**ON COL CONC** **DF** **CONC** **RL**

**QUAL**

0.990 1.00 0.990 0.10



METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**MB SAMPLE ID:** 099-14-104-161  
**MB BATCH ID:** 161229B15  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

DATA FILE:

CLIENT WORK ORDER: 16-12-1553

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	CPJL-092416_LOB_TA_01		2016-12-29 00:00	
2	CPJL-092416_LOB_TA_02		2016-12-29 00:00	
3	CPJL-092416_LOB_TA_03		2016-12-29 00:00	
4	CPJL-092416_LOB_TA_04		2016-12-29 00:00	
5	CPJL-092416_LOB_TA_05		2016-12-29 00:00	
6	CPJL-092416_LOB_TA_06		2016-12-29 00:00	
7	CPJL-092416_LOB_TA_07		2016-12-29 00:00	
8	CPJL-092416_LOB_TA_08		2016-12-29 00:00	
9	CPJL-092416_LOB_TA_09		2016-12-29 00:00	
10	CPJL-092416_LOB_TA_10		2016-12-29 00:00	
11	CPJL-092416_LOB_TA_11		2016-12-29 00:00	
12	CPJL-092416_LOB_TA_12		2016-12-29 00:00	
13	CPJL-092416_LOB_TA_13		2016-12-29 00:00	
14	CPJL-092416_LOB_TA_14		2016-12-29 00:00	
15	CPJL-092416_LOB_TA_15		2016-12-29 00:00	
16	CPJL-092416_LOB_TA_16		2016-12-29 00:00	
17	CPJL-092416_LOB_TA_17		2016-12-29 00:00	
18	CPJL-092416_LOB_TA_18		2016-12-29 00:00	
19	CPJL-092416_LOB_TA_19		2016-12-29 00:00	
20	CPJL-092416_LOB_TA_20		2016-12-29 00:00	

RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 161229B15 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:

COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 0.0200 1.00 ND 0.10

## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-12-1553-1  
**DUP BATCH:** 161229D15  
**INSTRUMENTS:**  
    **SAMPLE:** N/A  
    **DUP SAMPLE:** N/A

**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:**  
    **SAMPLE:** 2016-12-29 00:00  
    **DUP SAMPLE:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:**  
    **SAMPLE:** 2016-12-29 00:00  
    **DUP SAMPLE:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	0.8800	0.9000	2	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		



# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-55-01	4) Sand 507-19-19	1) Filter 507-44-19	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS
Tissue	MB: 161229 B15 Sample Duplicate: 161229 D15	

CEL ID #	LIPID CONTENT (%)	RPD	CONTROL LIMIT	COMMENTS
Sample 16-12-1553-1 AA	0.88	2	0-10	
Duplicate 16-12-1553-1 AA	0.90			

Instructions:

1. Cel ID consists of Work Order Number and Container ID.
2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12-28-16	MB	1.0	34	1	1	1.8554	1.8558	0.0002	0.02	884	
	16-12-1553-1 AA	1.47				1.8555	1.8684	0.0129	0.88		
	2	1.22				1.888	1.9006	0.0126	1.03		
	3	1.31				1.8662	1.8758	0.0096	0.73		
	4	1.09				1.8846	1.8918	0.0072	0.66		
	5	1.78				1.9044	1.9157	0.0113	0.63		
	6	1.41				1.8741	1.885	0.0109	0.77		
	7	1.60				1.8839	1.8983	0.0144	0.90		
	8	1.46				1.8639	1.8769	0.013	0.89		
	9	1.31				1.8778	1.8891	0.0113	0.86		
	10	1.79				1.8572	1.8719	0.0147	0.82		
	11	1.30				1.8678	1.8796	0.0118	0.91		
	12	1.74				1.8757	1.8928	0.0171	0.98		
	13	1.63				1.8768	1.8923	0.0155	0.95		
	14	1.24				1.85	1.8601	0.0101	0.81		
	15	1.50				1.8669	1.8766	0.0097	0.65		
	16	1.28				1.8719	1.8826	0.0107	0.84		
	17	1.44				1.8642	1.8761	0.0119	0.83		
	18	1.39				1.8693	1.8815	0.0122	0.88		
	19	1.37				1.8641	1.8772	0.0131	0.96		
	20	1.61				1.8775	1.8934	0.0159	0.99		
	Duplicate 16-12-1553-1	1.42				1.8637	1.8765	0.0128	0.90		

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  8141-15  
 8270  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL )

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580

Analyst ID#: Measuring Sample: Start Extraction- 785 Blow Down- 785 Clean Up-

Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: Filter ID#: 507-44-19 ASE ID#: Soxtherm ID#: 5~8 Orbit Shaker ID#: Sonicator ID#:

Ext. Start Date/Time: 12-29-16 18:20:00 Ext. End Date/Time: 12-29-16 20:30

Sand or Wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth

507-19-19 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (ml):

Spike Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-55-01 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/LCS/MS Batch #: 161229 B15 Sample Wt (g) V (mL)

Cell ID#:	Initial	Final	Clean Up Performed	Comments
MB	1.00	1	<input type="checkbox"/>	
MS	1.42	1	<input type="checkbox"/>	
LCSD	NA	NA	<input type="checkbox"/>	
MS	NA	NA	<input type="checkbox"/>	
MSD	NA	NA	<input type="checkbox"/>	
16-12-15-53-1	AA	1.47	<input type="checkbox"/>	
	2	1.22	<input type="checkbox"/>	
	3	1.31	<input type="checkbox"/>	
	4	1.09	<input type="checkbox"/>	
	5	1.78	<input type="checkbox"/>	
	6	1.41	<input type="checkbox"/>	
	7	1.60	<input type="checkbox"/>	
	8	1.46	<input type="checkbox"/>	
	9	1.31	<input type="checkbox"/>	
	10	1.79	<input type="checkbox"/>	
	11	1.30	<input type="checkbox"/>	
	12	1.74	<input type="checkbox"/>	
	13	1.63	<input type="checkbox"/>	
	14	1.24	<input type="checkbox"/>	
	15	1.50	<input type="checkbox"/>	
	16	1.28	<input type="checkbox"/>	
	17	1.44	<input type="checkbox"/>	
	18	1.39	<input type="checkbox"/>	
	19	1.37	<input type="checkbox"/>	
	20	1.61	<input type="checkbox"/>	

Peer Reviewed by: YRC

Peer Reviewed Date: 1/5/17

Revision Date: 10/20/16

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/29/16

Initials: LS

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.05	498.00 - 502.00	<input checked="" type="radio"/> Y	N
62	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	0.9995	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9943	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
26	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.95	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9997	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9978	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
53	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	N
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.01	498 - 502	<input checked="" type="radio"/> Y	N
20	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.05	498.00 - 502.00	<input checked="" type="radio"/> Y	N
57	100	100.0	98.0-102.0	<input checked="" type="radio"/> Y	Extractions
	1000	1000.0	998.0-1002.0	<input checked="" type="radio"/> Y	N
	2000	2000.0	1998.0-2002.0	<input checked="" type="radio"/> Y	N
52	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.9945	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
14	0.002		0.0018 - 0.0022	<input checked="" type="radio"/> Y	BOD Room
	1		0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100		99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
63	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	BOD Room
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
64	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	10.00	9.8 - 10.2	<input checked="" type="radio"/> Y	N
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
34	0.002	0.00201	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.99961	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.99453	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
30	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N



Frontier Global Sciences

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Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

17 January 2017

Denise King  
AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford, MAINE 01824  
RE: Maine Lobster And Crab Special Project 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall". The signature is written in a cursive, flowing style.

Amy Goodall  
Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L10_52_092416_LOB_TA_01	1611258-01	Tissue	24-Sep-16 11:14	28-Oct-16 09:40
L10_52_092416_LOB_TA_02	1611258-02	Tissue	24-Sep-16 11:14	28-Oct-16 09:40
L10_52_092416_LOB_TA_03	1611258-03	Tissue	24-Sep-16 11:14	28-Oct-16 09:40
L10_52_092416_LOB_TA_04	1611258-04	Tissue	24-Sep-16 11:14	28-Oct-16 09:40
L10_52_092416_LOB_TA_05	1611258-05	Tissue	24-Sep-16 11:14	28-Oct-16 09:40
L10_52_092416_LOB_TA_06	1611258-06	Tissue	24-Sep-16 11:25	28-Oct-16 09:40
L10_52_092416_LOB_TA_07	1611258-07	Tissue	24-Sep-16 11:25	28-Oct-16 09:40
L10_52_092416_LOB_TA_08	1611258-08	Tissue	24-Sep-16 11:25	28-Oct-16 09:40
L10_52_092416_LOB_TA_09	1611258-09	Tissue	24-Sep-16 11:25	28-Oct-16 09:40
L10_52_092416_LOB_TA_10	1611258-10	Tissue	24-Sep-16 11:25	28-Oct-16 09:40
L10_52_092416_LOB_TA_11	1611258-11	Tissue	24-Sep-16 11:25	28-Oct-16 09:40
L10_52_092416_LOB_TA_12	1611258-12	Tissue	24-Sep-16 11:25	28-Oct-16 09:40
L10_52_092416_LOB_TA_13	1611258-13	Tissue	24-Sep-16 11:38	28-Oct-16 09:40
L10_52_092416_LOB_TA_14	1611258-14	Tissue	24-Sep-16 11:38	28-Oct-16 09:40
L10_52_092416_LOB_TA_15	1611258-15	Tissue	24-Sep-16 11:38	28-Oct-16 09:40
L10_52_092416_LOB_TA_16	1611258-16	Tissue	24-Sep-16 11:38	28-Oct-16 09:40
L10_52_092416_LOB_TA_17	1611258-17	Tissue	24-Sep-16 11:38	28-Oct-16 09:40
L10_52_092416_LOB_TA_18	1611258-18	Tissue	24-Sep-16 11:38	28-Oct-16 09:40
L10_52_092416_LOB_TA_19	1611258-19	Tissue	24-Sep-16 11:38	28-Oct-16 09:40
L10_52_092416_LOB_TA_20	1611258-20	Tissue	24-Sep-16 11:38	28-Oct-16 09:40

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Amy Goodall, Project Manager

AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King**Reported:**  
17-Jan-17 08:12

## REVISED REPORT (1/17/17)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631B.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/28/2016 9:40:00 AM . The samples were received intact, on-ice within a sealed cooler at -49.6 degrees Celsius.

## SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted, and the samples' sex was determined. The tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B. Total solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction which may be outside of the method recommended holding time of 7 days from sample collection.

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

## ANALYTICAL AND QUALITY CONTROL ISSUES

Client requested that sample 1611258-01 be used as the source QC for the MS/MSD. Samples were prepped in one batch for Mercury, F611391. Samples 1611258-01 and 1611258-02 were used as the source QC. Samples were prepped in one batch for total solids/% moisture, F611416/F611417. Samples 1611258-01 and 1611258-02 were used as the source QC.

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.

Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
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Project Manager: Denise King

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17-Jan-17 08:12

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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Eurofins Frontier Global Sciences, Inc.



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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1611258

Client: AmeC Foster Wheeler

Date & Time Received: 10/28/16 940

Date Labeled: 11/10/16 Labeled By: MPM

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

Received By: CSP

Label Verified By: AMW

# 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:
<u>3150</u>	<u>+0.4 °C</u>	<u>10/28/16 940</u>	<u>CSP</u>
Cooler 1: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 4: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 2: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 5: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 3: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 6: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>
Cooler 7: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>	Cooler 8: <u>-50 °C</u>	w/CF: <u>-49.6 °C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>N</u>	
Preservation type:	<u>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:		
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):

Cooler 2: 7844 7802 4486    Cooler 3: 7844 7802 4497  
Cooler 4: 7844 7802 4501    Cooler 6: 7844 7802 4523  
Cooler 5: 7844 7802 4512    Cooler 8: 7844 7802 4545  
Cooler 7: 7844 7802 4534



1611258

Chain of Custody Record & Laboratory Analysis Request:  
Air, Water, Sediments, Plant and Animal Tissue,  
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400  
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Page 7 of 10

Client: AMEC FOSTER WHEELER	Contact: DENISE KING	Analyses Requested HNO <sub>3</sub> HCl BrCl Other (%) TOT TG 1631E / TOT <del>411</del> 411 PID - NO HA 1393a ZIPLOCK BAG	EFGS PM:
Address: 511 CONGRESS ST STE 200 PORTLAND ME	Phone: Fax: 978 622-6633		Date: 102716
Project Name: USDC PENABSCOT	E-mail: DENISE.KING@AMECFW.CO		TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)
Report To: DENISE KING	Contract/PO:		Saturday delivery? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N (If yes, please contact PM)
Address: 2 MILL ROAD CHELSEA MA 01934	Invoice To: ROD PENDLETON		EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Phone: Fax:	Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101		QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High
E-mail: 508-729-1736	Phone: 207-775-5444 Fax: 207-772-4762		
	E-mail: ROD.PENDLETON@AMECFW.CO		

No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time	Sampled By	Field Filtered (Y/N)	Field Preserved:	Comments
1		L10-52-092416-LOB-TA-01		TS	092416 1114				PROJECT # 3216166052.0431 USE LOBSTER #1 FOR EXTRA VOLUME MS/MSD
2		L10-52-092416-LOB-TA-MS-01							
3		L10-52-092416-LOB-TA-MD-01							
4		L10-52-092416-LOB-TA-02							
5		L10-52-092416-LOB-TA-03							
6		L10-52-092416-LOB-TA-04							
7		L10-52-092416-LOB-TA-05							
8		L10-52-092416-LOB-TA-06			1125				
9		L10-52-092416-LOB-TA-07							
10		L10-52-092416-LOB-TA-08							
11		L10-52-092416-LOB-TA-09							
12		L10-52-092416-LOB-TA-10							

For Laboratory Use Only		Matrix Codes:	Relinquished By:	Received By:	Received By:
COC Seal:	Comments:	FW: Fresh Water	Name: K. BAUER	Name:	Name:
Cooler Temp:		WW: Waste Water			
Carrier:		SB: Sea and Brackish Water			
VTSR:		SS: Soil and Sediment			
# of Coolers:		TS: Plant and Animal Tissue			
		HC: Hydrocarbons	Organization: AMEC FW	Organization:	Organization:
		TR: Trap	Date & Time: 102716 1600	Date & Time:	Date & Time:
		OT: Other	Tracking number: FED EX 8093 9790 5121		

Sample Disposal:  
 Return (shipping fees may apply)  
 Standard Disposal - 30 Days after report  
 Retain for \_\_\_ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: \_\_\_\_\_ Date: \_\_\_\_\_

1611258

**Chain of Custody Record & Laboratory Analysis Request:**  
**Air, Water, Sediments, Plant and Animal Tissue,**  
**Hydrocarbon & Other Samples**

11720 Northcreek Pkwy N, Suite 400  
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 http://www.frontiergs.com



Frontier Global Sciences

Page 8 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Sampled By	Field Filtered (Y/N)	Field Preserved: HNO <sub>3</sub> HCl BrCl Other (%)	Analyses Requested				EFGS PM:		
Address: 511 CONGRESS ST STE 200 PORTLAND ME		Phone: 207-775-5400 Fax: 978-622-6633									Date: 102716		
Project Name: USDC PERABSCOT		E-mail: DENISE.KING@AMECFW.COM									TAT (business days): <b>20 (std)</b> <b>15 10 5 4 3 2 24 hrs.</b> (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)		
Report To: DENISE KING		Contract/PO:									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)		
Address: 2 MILL ROAD CHILMARK MA 01824		Invoice To: ROD BENDLTON									EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101		Phone: 207-775-5400 Fax: 207-772-4762									QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High		
Phone: 207-729-1738		E-mail: ROD.BENDLTON@AMECFW.COM											
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time								Comments
1		L10-52-092416-LOB-TA-11	11	TS	092416 1125								PROJECT # 3216166052.04.05
2		L10-52-092416-LOB-TA-12											
3		L10-52-092416-LOB-TA-13			1138								
4		L10-52-092416-LOB-TA-14											
5		L10-52-092416-LOB-TA-15											
6		L10-52-092416-LOB-TA-16											
7		L10-52-092416-LOB-TA-17											
8		L10-52-092416-LOB-TA-18											
9		L10-52-092416-LOB-TA-19											
10		L10-52-092416-LOB-TA-20											
11													
12													

For Laboratory Use Only		Matrix Codes:		Relinquished By:		Received By:		Received By:	
COC Seal:	Comments:	FW: Fresh Water		Name: <u>R. BAVOK</u>		Name:		Name:	
Cooler Temp:		WW: Waste Water							
Carrier:		SB: Sea and Brackish Water							
VTSR:		SS: Soil and Sediment							
# of Coolers:		TS: Plant and Animal Tissue							
		HC: Hydrocarbons		Organization: <u>AMEC FW</u>		Organization:		Organization:	
		TR: Trap		Date & Time: <u>102716 1600</u>		Date & Time:		Date & Time:	
		OT: Other		Tracking number: <u>FED EX 8093 9790 5121</u>					

Sample Disposal:

Return (shipping fees may apply)

Standard Disposal – 30 Days after report

Retain for \_\_\_ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: \_\_\_\_\_ Date: \_\_\_\_\_



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_01  
1611258-01

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	810	2.00	17.8	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	169	0.417	3.72	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.1	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.9	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	88.3	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_02  
1611258-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	653	1.80	16.1	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	152	0.419	3.75	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	76.7	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	23.3	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	107	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	



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Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_03  
1611258-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	692	2.01	18.0	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	149	0.435	3.88	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.4	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.6	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	78.4	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_04  
1611258-04

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	2450	9.03	80.6	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	527	1.94	17.3	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.5	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.5	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	118	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_05  
1611258-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	725	1.83	16.4	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	159	0.403	3.60	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.0	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.0	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	79.8	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_06  
1611258-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	752	1.75	15.7	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	185	0.432	3.85	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	75.4	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	24.6	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	79.0	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager





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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_07  
1611258-07

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	724	1.86	16.7	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	158	0.407	3.63	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.2	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.8	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	75.7	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:12

**L10\_52\_092416\_LOB\_TA\_08**  
**1611258-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1960	10.8	96.9	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	364	2.02	18.0	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.4	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.6	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	154	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	



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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_09  
1611258-09

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1760	10.3	92.0	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	365	2.13	19.0	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.3	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.7	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	95.6	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_10  
1611258-10

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1180	1.94	17.3	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	263	0.435	3.88	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	77.6	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.4	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	104	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_11  
1611258-11

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	825	2.29	20.4	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	161	0.446	3.98	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.5	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.5	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	112	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_12  
1611258-12

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	3780	10.9	97.5	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	772	2.23	19.9	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.6	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.4	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	147	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_13  
1611258-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1170	2.04	18.2	ng/g dry	100	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	254	0.443	3.95	ng/g	100	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.3	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.7	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	112	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_14  
1611258-14

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	2350	11.2	99.9	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	438	2.08	18.6	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	81.4	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.6	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	148	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_15  
1611258-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1860	9.33	83.3	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	418	2.09	18.7	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	77.6	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.4	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	105	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	



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Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_16  
1611258-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	899	9.82	87.7	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	201	2.20	19.6	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	77.6	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.4	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	111	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_17  
1611258-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	988	11.1	98.8	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	200	2.24	20.0	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.8	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.2	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	112	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

**L10\_52\_092416\_LOB\_TA\_18**  
**1611258-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	723	10.3	91.8	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	142	2.01	18.0	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.4	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.6	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	123	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_19  
1611258-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1030	10.2	90.8	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	212	2.09	18.6	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.5	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.5	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	99.4	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

L10\_52\_092416\_LOB\_TA\_20  
1611258-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	4030	10.8	96.2	ng/g dry	500	[CALC]	17-Nov-16		22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	786	2.10	18.8	ng/g	500	F611391	17-Nov-16	6K23008	22-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.5	-	0.1	% by Weight	1	F611417	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.5	-	0.1	% by Weight	1	F611416	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	132	-	0.10	g	1	F612333	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612332	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K23008 - F611391</b>											
<b>Cal Standard (6K23008-CAL1)</b>											
Mercury	0.522	-		ng/L	0.50100		104				Prepared & Analyzed: 22-Nov-16
<b>Cal Standard (6K23008-CAL2)</b>											
Mercury	1.011	-		ng/L	1.0020		101				Prepared & Analyzed: 22-Nov-16
<b>Cal Standard (6K23008-CAL3)</b>											
Mercury	4.977	-		ng/L	5.0100		99.3				Prepared & Analyzed: 22-Nov-16
<b>Cal Standard (6K23008-CAL4)</b>											
Mercury	19.34	-		ng/L	20.040		96.5				Prepared & Analyzed: 22-Nov-16
<b>Cal Standard (6K23008-CAL5)</b>											
Mercury	39.28	-		ng/L	40.080		98.0				Prepared & Analyzed: 22-Nov-16
<b>Calibration Blank (6K23008-CCB1)</b>											
Mercury	0.262	-		ng/L							Prepared & Analyzed: 22-Nov-16
<b>Calibration Blank (6K23008-CCB2)</b>											
Mercury	0.341	-		ng/L							Prepared & Analyzed: 22-Nov-16
<b>Calibration Blank (6K23008-CCB3)</b>											
Mercury	0.212	-		ng/L							Prepared & Analyzed: 22-Nov-16
<b>Calibration Blank (6K23008-CCB4)</b>											
Mercury	0.134	-		ng/L							Prepared & Analyzed: 22-Nov-16
<b>Calibration Blank (6K23008-CCB5)</b>											
Mercury	0.187	-		ng/L							Prepared & Analyzed: 22-Nov-16

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271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

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 6K23008 - F611391

<b>Calibration Blank (6K23008-CCB6)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	0.098	-		ng/L							
<b>Calibration Blank (6K23008-CCB7)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	0.179	-		ng/L							
<b>Calibration Blank (6K23008-CCB8)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	0.089	-		ng/L							
<b>Calibration Blank (6K23008-CCB9)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	0.139	-		ng/L							
<b>Calibration Blank (6K23008-CCBA)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	0.074	-		ng/L							
<b>Calibration Blank (6K23008-CCBB)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	0.236	-		ng/L							
<b>Calibration Blank (6K23008-CCBC)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	0.235	-		ng/L							
<b>Calibration Check (6K23008-CCV1)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	5.343	-		ng/L	5.0000		107	77-123			
<b>Calibration Check (6K23008-CCV2)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	5.366	-		ng/L	5.0000		107	77-123			
<b>Calibration Check (6K23008-CCV3)</b>											
Prepared & Analyzed: 22-Nov-16											
Mercury	5.118	-		ng/L	5.0000		102	77-123			

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K23008 - F611391</b>											
<b>Calibration Check (6K23008-CCV4)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.984	-		ng/L	5.0000		99.7	77-123			
<b>Calibration Check (6K23008-CCV5)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.840	-		ng/L	5.0000		96.8	77-123			
<b>Calibration Check (6K23008-CCV6)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.889	-		ng/L	5.0000		97.8	77-123			
<b>Calibration Check (6K23008-CCV7)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.891	-		ng/L	5.0000		97.8	77-123			
<b>Calibration Check (6K23008-CCV8)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.749	-		ng/L	5.0000		95.0	77-123			
<b>Calibration Check (6K23008-CCV9)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.660	-		ng/L	5.0000		93.2	77-123			
<b>Calibration Check (6K23008-CCVA)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.931	-		ng/L	5.0000		98.6	77-123			
<b>Calibration Check (6K23008-CCVB)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	5.143	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (6K23008-CCVC)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	4.983	-		ng/L	5.0000		99.7	77-123			
<b>Instrument Blank (6K23008-IBL1)</b>					Prepared & Analyzed: 22-Nov-16						
Mercury	ND	0.004	0.040	ng/L							U

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271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:12

**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 6K23008 - F611391**

<b>Instrument Blank (6K23008-IBL2)</b>											
											Prepared & Analyzed: 22-Nov-16
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K23008-IBL3)</b>											
											Prepared & Analyzed: 22-Nov-16
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K23008-ICV1)</b>											
											Prepared & Analyzed: 22-Nov-16
Mercury	4.952	-		ng/L	5.0000		99.0	77-123			

**Batch F611391 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F611391-BLK1)</b>											
											Prepared: 17-Nov-16 Analyzed: 22-Nov-16
Mercury	0.699	0.090	0.800	ng/g							J
<b>Blank (F611391-BLK2)</b>											
											Prepared: 17-Nov-16 Analyzed: 22-Nov-16
Mercury	0.145	0.090	0.800	ng/g							J
<b>Blank (F611391-BLK3)</b>											
											Prepared: 17-Nov-16 Analyzed: 22-Nov-16
Mercury	0.099	0.090	0.800	ng/g							J
<b>LCS (F611391-BS1)</b>											
											Prepared: 17-Nov-16 Analyzed: 22-Nov-16
Mercury	7.587	0.090	0.800	ng/g	8.0160		94.6	75-125			
<b>LCS (F611391-BS2)</b>											
											Prepared: 17-Nov-16 Analyzed: 22-Nov-16
Mercury	359.0	4.44	39.7	ng/g	382.50		93.9	75-125			
<b>LCS Dup (F611391-BSD1)</b>											
											Prepared: 17-Nov-16 Analyzed: 22-Nov-16
Mercury	8.188	0.090	0.800	ng/g	8.0160		102	75-125	7.62	24	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:12

**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 F611391 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Duplicate (F611391-DUP1)</b>		<b>Source: 1611258-01</b>		<b>Prepared: 17-Nov-16 Analyzed: 22-Nov-16</b>						
Mercury	161.6	0.404	3.61	ng/g	169.3	4.65	24			
<b>Matrix Spike (F611391-MS1)</b>		<b>Source: 1611258-01</b>		<b>Prepared: 17-Nov-16 Analyzed: 22-Nov-16</b>						
Mercury	520.9	2.21	19.7	ng/g	394.48	169.3	89.1	71-125		
<b>Matrix Spike (F611391-MS2)</b>		<b>Source: 1611258-02</b>		<b>Prepared: 17-Nov-16 Analyzed: 22-Nov-16</b>						
Mercury	496.6	2.07	18.5	ng/g	369.69	152.2	93.2	71-125		
<b>Matrix Spike Dup (F611391-MSD1)</b>		<b>Source: 1611258-01</b>		<b>Prepared: 17-Nov-16 Analyzed: 22-Nov-16</b>						
Mercury	541.5	2.23	19.9	ng/g	398.41	169.3	93.4	71-125	4.71	24
<b>Matrix Spike Dup (F611391-MSD2)</b>		<b>Source: 1611258-02</b>		<b>Prepared: 17-Nov-16 Analyzed: 22-Nov-16</b>						
Mercury	512.9	2.20	19.6	ng/g	392.93	152.2	91.8	71-125	1.47	24

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:12

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 F611416 - EFGS-019 Solids Analysis

Duplicate (F611416-DUP1)		Source: 1611258-01			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	21.5	-	0.1	% by Weight		20.9			2.83	25	
Duplicate (F611416-DUP2)		Source: 1611258-02			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Solids	23.2	-	0.1	% by Weight		23.3			0.430	25	

Batch F611417 - EFGS-019 Solids Analysis

Duplicate (F611417-DUP1)		Source: 1611258-01			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	78.5	-	0.1	% by Weight		79.1			0.761	25	
Duplicate (F611417-DUP2)		Source: 1611258-02			Prepared: 18-Nov-16 Analyzed: 21-Nov-16						
% Moisture	76.8	-	0.1	% by Weight		76.7			0.130	25	

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:12

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- 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

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611255-15	N/A	M	11/11/16 MPM	Y	18	213.43	2	
1611255-16	N/A	M	11/11/16 MPM	Y	18	190.89	2	
1611255-17	N/A	M	11/11/16 MPM	Y	18	117.83	2	
1611255-18	N/A	M	11/11/16 MPM	Y	18	121.03 <del>122.03</del>	2	
1611255-19	N/A	M	11/11/16 MPM	Y	18	231.27	2	
1611255-20	N/A	M	11/11/16 MPM	Y	18	243.51	2	
1611258-01	N/A	M	11/14/16 MPM	Y	18	88.30	2	1611258: Batches
1611258-02	N/A	M	11/14/16 MPM	Y	18	107.22	2	F612332 + F612333
1611258-03	N/A	M	11/14/16 MPM	Y	18	78.45	2	AMB 12-6-16
1611258-04	N/A	M	11/14/16 MPM	Y	18	118.07	2	
1611258-05	N/A	M	11/14/16 MPM	Y	18	79.85	2	
1611258-06	N/A	M	11/14/16 MPM	Y	18	78.95	2	
1611258-07	N/A	F	11/14/16 MPM	Y	18	75.66	2	
1611258-08	N/A	M	11/16/16 MPM	Y	18	153.55	2	
1611258-09	N/A	F	11/16/16 MPM	Y	18	95.55	2	
1611258-10	N/A	M	11/16/16 MPM	Y	18	104.10	2	
1611258-11	N/A	M	11/15/16 MPM	Y	18	112.00	2	
1611258-12	N/A	M	11/15/16 MPM	Y	18	147.19	2	

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/ N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611258-13	N/A	M	11/15/16 MPM	Y	18	<del>112.06</del> 112.06	2	
1611258-14	N/A	M	11/15/16 MPM	Y	18	148.16	2	
1611258-15	N/A	M	11/15/16 MPM	Y	18	105.48	2	
1611258-16	N/A	M	11/16/16 MPM	Y	18	110.81	2	
1611258-17	N/A	M	11/15/16 MPM	Y	18	112.32	2	
1611258-18	N/A	M	11/16/16 MPM	Y	18	122.51	2	
1611258-19	N/A	M	11/16/16 MPM	Y	18	99.41	2	
1611258-20	N/A	M	11/16/16 MPM	Y	18	131.71	2	
1611259-01	N/A	F	11/16/16 MPM	Y	18	89.07	2	1611259: Batches
1611259-02	N/A	M	11/16/16 MPM	Y	18	80.72	2	F612334 + F612335.
1611259-03	N/A	M	11/16/16 MPM	Y	18	124.26	2	AMB 12-6-16
1611259-04	N/A	F	MPM 11/16/16	Y	18	87.96	2	
1611259-05	N/A	M	11/16/16 MPM	Y	18	74.68	2	
1611259-06	N/A	M	11/16/16 MPM	Y	18	105.37	2	
1611259-07	N/A	M	11/16/16 MPM	Y	18	81.47	2	
1611259-08	N/A	M	11/16/16 MPM	Y	18	106.39	2	
1611259-09	N/A	M	11/16/16 MPM	Y	18	107.91	2	
1611259-10	N/A	F	11/16/16 MPM	Y	18	75.25	2	



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**Total Solids Dataset Cover Page**

**Dataset ID:** TS161118-3  
**Batch ID:** F611416/417  
**Work Order(s):** 1611258

**Analyst:** MPM/JS  
**Prep. Date:** 11/18/2016

**Analytical Issues/Explanations:**

QUALITY ASSURANCE  
PEER-REVIEWED  
INITIALS: BC 11-22-16



Preparation Date: Nov 18, 2016

Batch #: 3

Analyst: MPM/JS

Batch ID: F611416/417

Work Order(s): 1611258

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	%TMoisture
1	1611258-01	1.0250	6.0740	5.0490	2.0790	1.0540	20.9%		79.1%
2	1611258-01MD	0.9810	6.0460	5.0650	2.0680	1.0870	21.5%	2.8%	78.5%
3	1611258-02	1.0140	6.0530	5.0390	2.1860	1.1720	23.3%		76.7%
4	1611258-02MD	1.0260	6.1100	5.0840	2.2060	1.1800	23.2%	0.2%	76.8%
5	1611258-03	0.9980	6.0770	5.0790	2.0970	1.0990	21.6%		78.4%
6	1611258-04	1.0050	6.0140	5.0090	2.0830	1.0780	21.5%		78.5%
7	1611258-05	1.0160	6.0670	5.0510	2.1260	1.1100	22.0%		78.0%
8	1611258-06	1.0410	6.0610	5.0200	2.2780	1.2370	24.6%		75.4%
9	1611258-07	1.0290	6.0930	5.0640	2.1350	1.1060	21.8%		78.2%
10	1611258-08	1.0290	6.0670	5.0380	1.9640	0.9350	18.6%		81.4%
11	1611258-09	1.0490	6.1170	5.0680	2.0980	1.0490	20.7%		79.3%
12	1611258-10	1.0200	6.0620	5.0420	2.1510	1.1310	22.4%		77.6%
13	1611258-11	1.0360	6.1080	5.0720	2.0270	0.9910	19.5%		80.5%
14	1611258-12	1.0400	6.1330	5.0930	2.0790	1.0390	20.4%		79.6%
15	1611258-13	1.0030	6.0710	5.0680	2.1050	1.1020	21.7%		78.3%
16	1611258-14	1.0250	6.0710	5.0460	1.9650	0.9400	18.6%		81.4%
17	1611258-15	1.0210	6.0490	5.0280	2.1450	1.1240	22.4%		77.6%
18	1611258-16	1.0220	6.0800	5.0580	2.1540	1.1320	22.4%		77.6%
19	1611258-17	1.0170	6.0700	5.0530	2.0360	1.0190	20.2%		79.8%
20	1611258-18	1.0200	6.0950	5.0750	2.0140	0.9940	19.6%		80.4%
21	1611258-19	0.9860	5.9940	5.0080	2.0130	1.0270	20.5%		79.5%
22	1611258-20	0.9840	5.9980	5.0140	1.9640	0.9800	19.5%		80.5%

Remote Lab Total Solids Logbook

Lab Technician(s): MPM/JS Batch: F611416/417 Date: 11/18/16 Page 1 of 1  
 Thermometer #: 131204134 Oven #: DNV-03 Actual temperature: 103.0 (Range 103-105°C)  
 Balance #<sup>1</sup>: 10 Start time: 1702 End time<sup>2</sup>: 942 Time re-weighed<sup>3</sup>: ~~10~~ <sup>11/21/16</sup> 953  
 Client(s)/WO#: 1611258

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1611258-01	C1	1.025	6.074	2.079	
F611416-DUP1(1611258-01)	C2	0.981	6.046	2.068	
1611258-02	C3	1.014	6.053	2.186	
F611416-DUP2(1611258-02)	C4	1.026	6.110	2.206	
1611258-03	C5	0.998	6.077	2.097	
1611258-04	C6	1.005	6.014	2.083	
1611258-05	C7	1.016	6.067	2.126	
1611258-06	C8	1.041	6.061	2.278	
1611258-07	C9	1.029	6.093	2.135	
1611258-08	C10	1.029	6.067	<del>1.964</del> <sup>11/21/16 JS</sup>	
1611258-09	C11	1.049	6.117	2.098	
1611258-10	C12	1.020	6.062	<del>2.1</del> <sup>11/21/16 JS</sup> 2.151	
1611258-11	C13	1.036	6.108	2.027	
1611258-12	C14	1.040	6.133	2.079	
1611258-13	C15	1.003	6.071	2.105	
1611258-14	C16	1.025	6.071	1.965	
1611258-15	C17	1.021	6.049	2.145	
1611258-16	C18	1.022	6.080	2.154	
1611258-17	C19	1.017	6.070	2.036	
1611258-18	C20	1.020	6.095	2.014	
1611258-19	C21	0.986	5.994	2.013	
1611258-20	C22	0.984	5.998	1.964	
					MPM 11/18/16 <sup>11/21/16 JS</sup>

Comments: REVIEWED 11-21-16 DMW

<sup>1</sup>The same balance must be used to weight samples before and after ovening.  
<sup>2</sup>Samples must be ovened over 12 hours.  
<sup>3</sup>Samples must be re-weighed within 30 minutes of oven cool down.

**PREPARATION BENCH SHEET**

F611416

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	μl Spike1	Spike2 ID	μl Spike2	Extraction Comments
F611416-DUP1	Duplicate [1611258-01]	5	5					
F611416-DUP2	Duplicate (1611258-02)	5	5					

Standard ID(s):      Description:

Expiration:

**PREPARATION BENCH SHEET**

F611416

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611258-01	L10_52_092416_LOB_TA_01	5	5	QC	-	-	MS/MSD	
1611258-02	L10_52_092416_LOB_TA_02	5	5	-	-	-		
1611258-03	L10_52_092416_LOB_TA_03	5	5	-	-	-		
1611258-04	L10_52_092416_LOB_TA_04	5	5	-	-	-		
1611258-05	L10_52_092416_LOB_TA_05	5	5	-	-	-		
1611258-06	L10_52_092416_LOB_TA_06	5	5	-	-	-		
1611258-07	L10_52_092416_LOB_TA_07	5	5	-	-	-		
1611258-08	L10_52_092416_LOB_TA_08	5	5	-	-	-		
1611258-09	L10_52_092416_LOB_TA_09	5	5	-	-	-		
1611258-10	L10_52_092416_LOB_TA_10	5	5	-	-	-		
1611258-11	L10_52_092416_LOB_TA_11	5	5	-	-	-		
1611258-12	L10_52_092416_LOB_TA_12	5	5	-	-	-		
1611258-13	L10_52_092416_LOB_TA_13	5	5	-	-	-		
1611258-14	L10_52_092416_LOB_TA_14	5	5	-	-	-		
1611258-15	L10_52_092416_LOB_TA_15	5	5	-	-	-		
1611258-16	L10_52_092416_LOB_TA_16	5	5	-	-	-		
1611258-17	L10_52_092416_LOB_TA_17	5	5	-	-	-		
1611258-18	L10_52_092416_LOB_TA_18	5	5	-	-	-		
1611258-19	L10_52_092416_LOB_TA_19	5	5	-	-	-		

Page 41 of 120

Date: 11/29/2016

PREPARATION BENCH SHEET

F611416

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611258-20	L10_52_092416_LOB_TA_20	5	5	-	-	-		
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PREPARATION BENCH SHEET

F611417

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F611417-DUP1	Duplicate [1611258-01]	5	5					
F611417-DUP2	Duplicate (1611258-02)	5	5					

Standard ID(s): Description:

Expiration:

**PREPARATION BENCH SHEET**

F611417

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611258-01	L10_52_092416_LOB_TA_01	5	5	QC	-	-	MS/MSD	
1611258-02	L10_52_092416_LOB_TA_02	5	5	-	-	-		
1611258-03	L10_52_092416_LOB_TA_03	5	5	-	-	-		
1611258-04	L10_52_092416_LOB_TA_04	5	5	-	-	-		
1611258-05	L10_52_092416_LOB_TA_05	5	5	-	-	-		
1611258-06	L10_52_092416_LOB_TA_06	5	5	-	-	-		
1611258-07	L10_52_092416_LOB_TA_07	5	5	-	-	-		
1611258-08	L10_52_092416_LOB_TA_08	5	5	-	-	-		
1611258-09	L10_52_092416_LOB_TA_09	5	5	-	-	-		
1611258-10	L10_52_092416_LOB_TA_10	5	5	-	-	-		
1611258-11	L10_52_092416_LOB_TA_11	5	5	-	-	-		
1611258-12	L10_52_092416_LOB_TA_12	5	5	-	-	-		
1611258-13	L10_52_092416_LOB_TA_13	5	5	-	-	-		
1611258-14	L10_52_092416_LOB_TA_14	5	5	-	-	-		
1611258-15	L10_52_092416_LOB_TA_15	5	5	-	-	-		
1611258-16	L10_52_092416_LOB_TA_16	5	5	-	-	-		
1611258-17	L10_52_092416_LOB_TA_17	5	5	-	-	-		
1611258-18	L10_52_092416_LOB_TA_18	5	5	-	-	-		
1611258-19	L10_52_092416_LOB_TA_19	5	5	-	-	-		

Page 44 of 120

Date: 11/29/2016

PREPARATION BENCH SHEET

F611417

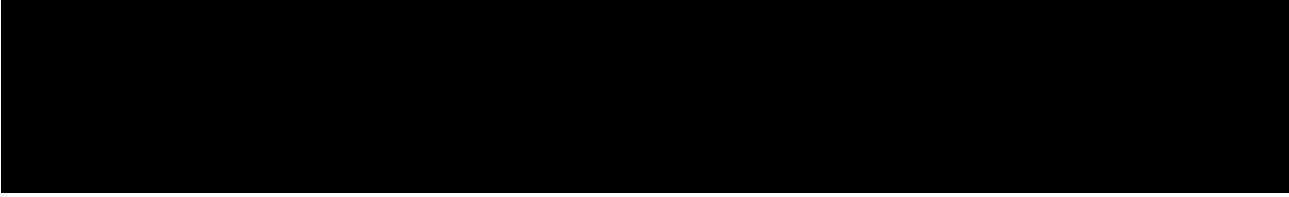
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611258-20	L10_52_092416_LOB_TA_20	5	5	-	-	-		
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# Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: JS

Date: 11/21/16

Reviewer: BCling

Date: 11/22/16

WO #: 1611258

Batch #: F611416/417

Dataset ID: TS161118-3

Reviewer Initials: BC

### General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date
<u>JS</u>	<u>11/18/16</u>

Reviewer Initials: BC

### 1. Total Solids

#### A. Check for transcription errors from Benchsheet/Raw Data

- (i) Do sample ID(s) match?
- (ii) Do masses/volumes match?
- (iii) Are the analyst name, dataset ID, and preparation date listed?
- (iv) Does the LIMS benchsheet prep date match the actual prep date?

#### B. Does the batch include 1 MD/MT per 10 client samples?

#### C. MD RPD/MT RSD ≤ 10%

#### D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

### 2. Density

#### A. Check for transcription errors from Benchsheet/Raw Data

- (i) Do sample ID(s) match?
- (ii) Do masses/volumes match?
- (iii) Are the analyst name, dataset ID, and preparation date listed?
- (iv) Does the LIMS benchsheet prep date match the actual prep date?
- (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>



Frontier Global Sciences

**THg26002-161122-1**

**Analysis Datasheet for Total Mercury**

Date of Analysis: November 22, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 6K23008, 6K23009 & 6K23007

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	121.50 units	242.99	110.62 units	221.23	104.5 %Rec
SEQ-CAL2	1	1.00 ng/L	224.91 units	224.91	214.03 units	214.03	101.1 %Rec
SEQ-CAL3	1	5.00 ng/L	1064.65 units	212.93	1053.78 units	210.76	99.5 %Rec
SEQ-CAL4	1	20.00 ng/L	4105.90 units	205.29	4095.02 units	204.75	96.7 %Rec
SEQ-CAL5	1	40.00 ng/L	8328.89 units	208.22	8318.01 units	207.95	98.2 %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**  
 211.74            +/- 6.32            3.0% RSD            218.87

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	10.88 units	±0.78	0.05 ng/L	±0.00

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	3.931 ng/L	±4.174
BLK	2	3	0.153 ng/L	±0.055
BLK	3	3	0.096 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: DMW 11-23-16

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	11/22/2016 8:10:01	66204-1.RAW	8:10:01 AM	11.69			0.8	0.004	0.004	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/22/2016 8:14:09	66205-1.RAW	8:14:09 AM	10.81			-0.1	0.000	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/22/2016 8:18:17	66206-1.RAW	8:18:17 AM	10.14			-0.7	-0.003	-0.003	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/22/2016 8:22:27	66207-1.RAW	8:22:27 AM	121.50			110.6	0.522	0.522	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/22/2016 8:26:35	66208-1.RAW	8:26:35 AM	224.91			214.0	1.011	1.011	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/22/2016 8:30:44	66209-1.RAW	8:30:44 AM	1064.65			1053.8	4.977	4.977	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/22/2016 8:34:52	66210-1.RAW	8:34:52 AM	4105.90			4095.0	19.340	19.340	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/22/2016 8:38:59	66211-1.RAW	8:38:59 AM	8328.89			8318.0	39.283	39.283	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/22/2016 8:43:08	66212-1.RAW	8:43:08 AM	1059.42	1		1048.5	4.952	4.952	ng/L	
Hg2600-2	DM2	BLK	F611391-BLK1	20	11/22/2016 8:55:07	66213-1.RAW	8:55:07 AM	103.41	1		92.5	0.437	0.437	ng/L	
Hg2600-2	DM2	BLK	F611391-BLK2	20	11/22/2016 8:59:16	66214-1.RAW	8:59:16 AM	30.04	1		19.2	0.091	0.091	ng/L	
Hg2600-2	DM2	BLK	F611391-BLK3	20	11/22/2016 9:03:24	66215-1.RAW	9:03:24 AM	24.03	1		13.2	0.062	0.062	ng/L	
Hg2600-2	DM2	SAM	F611391-BS1	20	11/22/2016 9:07:32	66216-1.RAW	9:07:32 AM	1056.51	1		1045.6	4.742	4.742	ng/L	
Hg2600-2	DM2	SAM	F611391-BSD1	20	11/22/2016 9:11:41	66217-1.RAW	9:11:41 AM	1136.06	1		1125.2	5.117	5.117	ng/L	
Hg2600-2	DM2	SAM	F611391-BS2	500	11/22/2016 9:15:49	66218-1.RAW	9:15:49 AM	970.43	1		959.6	4.524	4.524	ng/L	
Hg2600-2	DM2	SAM	+1611258-01	100	11/22/2016 9:19:58	66219-1.RAW	9:19:58 AM	4832.89	1		4822.0	22.734	22.734	ng/L	
Hg2600-2	DM2	SAM	+1611258-02	100	11/22/2016 9:24:06	66220-1.RAW	9:24:06 AM	4320.74	1		4309.9	20.315	20.315	ng/L	
Hg2600-2	DM2	SAM	+1611258-03	100	11/22/2016 9:28:15	66221-1.RAW	9:28:15 AM	4092.58	1		4081.7	19.237	19.237	ng/L	
Hg2600-2	DM2	SAM	+1611258-04	100	11/22/2016 9:32:23	66222-1.RAW	9:32:23 AM	16454.77	1		16443.9	77.620	77.620	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/22/2016 9:36:31	66223-1.RAW	9:36:31 AM	1142.28			1131.4	5.343	5.343	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/22/2016 9:40:40	66224-1.RAW	9:40:40 AM	66.26			55.4	0.262	0.262	ng/L	
Hg2600-2	DM2	SAM	+1611258-05	100	11/22/2016 9:46:56	66225-1.RAW	9:46:56 AM	4711.62	1		4700.7	22.161	22.161	ng/L	
Hg2600-2	DM2	SAM	+1611258-06	100	11/22/2016 9:51:04	66226-1.RAW	9:51:04 AM	5101.00	1		5090.1	24.000	23.999	ng/L	
Hg2600-2	DM2	SAM	+1611258-07	100	11/22/2016 9:55:12	66227-1.RAW	9:55:12 AM	4624.50	1		4613.6	21.749	21.749	ng/L	
Hg2600-2	DM2	SAM	+1611258-08	100	11/22/2016 9:59:21	66228-1.RAW	9:59:21 AM	11059.71	1		11048.8	52.141	52.141	ng/L	
Hg2600-2	DM2	SAM	+1611258-09	100	11/22/2016 10:03:29	66229-1.RAW	10:03:29 AM	10819.74	1		10808.9	51.008	51.008	ng/L	
Hg2600-2	DM2	SAM	+1611258-10	100	11/22/2016 10:07:38	66230-1.RAW	10:07:38 AM	7594.55	1		7583.7	35.776	35.776	ng/L	
Hg2600-2	DM2	SAM	+1611258-11	100	11/22/2016 10:11:46	66231-1.RAW	10:11:46 AM	4291.88	1		4281.0	20.179	20.179	ng/L	
Hg2600-2	DM2	SAM	+1611258-12	100	11/22/2016 10:15:54	66232-1.RAW	10:15:54 AM	22414.36	1		22403.5	105.766	105.766	ng/L	
Hg2600-2	DM2	SAM	+1611258-13	100	11/22/2016 10:20:03	66233-1.RAW	10:20:03 AM	6990.33	1		6979.5	32.923	32.923	ng/L	
Hg2600-2	DM2	SAM	+1611258-14	100	11/22/2016 10:24:11	66234-1.RAW	10:24:11 AM	13172.75	1		13161.9	62.120	62.120	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/22/2016 10:28:20	66235-1.RAW	10:28:20 AM	1147.11			1136.2	5.366	5.366	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/22/2016 10:32:28	66236-1.RAW	10:32:28 AM	83.07			72.2	0.341	0.341	ng/L	
Hg2600-2	DM2	SAM	+1611258-15	500	11/22/2016 10:36:37	66237-1.RAW	10:36:37 AM	2381.98	1		2371.1	11.190	11.190	ng/L	
Hg2600-2	DM2	SAM	+1611258-16	500	11/22/2016 10:40:45	66238-1.RAW	10:40:45 AM	1097.70	1		1086.8	5.125	5.125	ng/L	
Hg2600-2	DM2	SAM	+1611258-17	500	11/22/2016 10:44:53	66239-1.RAW	10:44:53 AM	1071.12	1		1060.2	4.999	4.999	ng/L	
Hg2600-2	DM2	SAM	+1611258-18	500	11/22/2016 10:49:02	66240-1.RAW	10:49:02 AM	846.58	1		835.7	3.939	3.939	ng/L	
Hg2600-2	DM2	SAM	+1611258-19	500	11/22/2016 10:53:10	66241-1.RAW	10:53:10 AM	1216.02	1		1205.1	5.684	5.684	ng/L	
Hg2600-2	DM2	SAM	+1611258-20	500	11/22/2016 10:57:19	66242-1.RAW	10:57:19 AM	4447.08	1		4436.2	20.943	20.943	ng/L	
Hg2600-2	DM2	SAM	+1611258-04RE1	500	11/22/2016 11:01:27	66243-1.RAW	11:01:27 AM	3232.07	1		3221.2	15.205	15.205	ng/L	
Hg2600-2	DM2	SAM	+1611258-08RE1	500	11/22/2016 11:05:36	66244-1.RAW	11:05:36 AM	2149.26	1		2138.4	10.091	10.091	ng/L	
Hg2600-2	DM2	SAM	+1611258-09RE1	500	11/22/2016 11:09:44	66245-1.RAW	11:09:44 AM	2040.46	1		2029.6	9.577	9.577	ng/L	
Hg2600-2	DM2	SAM	+1611258-10RE1	100	11/22/2016 11:13:52	66246-1.RAW	11:13:52 AM	7195.84	1		7185.0	33.893	33.893	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/22/2016 11:18:01	66247-1.RAW	11:18:01 AM	1094.67			1083.8	5.118	5.118	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/22/2016 11:22:09	66248-1.RAW	11:22:09 AM	55.80			44.9	0.212	0.212	ng/L	
Hg2600-2	DM2	SAM	+1611258-12RE1	500	11/22/2016 11:26:18	66249-1.RAW	11:26:18 AM	4123.96	1		4113.1	19.417	19.417	ng/L	
Hg2600-2	DM2	SAM	+1611258-13RE1	100	11/22/2016 11:30:26	66250-1.RAW	11:30:26 AM	6814.54	1		6803.7	32.092	32.092	ng/L	
Hg2600-2	DM2	SAM	+1611258-14RE1	500	11/22/2016 11:34:34	66251-1.RAW	11:34:34 AM	2505.37	1		2494.5	11.773	11.773	ng/L	
Hg2600-2	DM2	SAM	F611391-DUP1	100	11/22/2016 11:38:43	66252-1.RAW	11:38:43 AM	4759.44	1		4748.6	22.387	22.387	ng/L	
Hg2600-2	DM2	SAM	F611391-MS1	500	11/22/2016 11:42:51	66253-1.RAW	11:42:51 AM	2808.32	1		2797.4	13.204	13.204	ng/L	
Hg2600-2	DM2	SAM	F611391-MSD1	500	11/22/2016 11:47:00	66254-1.RAW	11:47:00 AM	2890.47	1		2879.6	13.592	13.592	ng/L	
Hg2600-2	DM2	SAM	F611391-MS2	500	11/22/2016 11:51:08	66255-1.RAW	11:51:08 AM	2856.87	1		2846.0	13.433	13.433	ng/L	
Hg2600-2	DM2	SAM	F611391-MSD2	500	11/22/2016 11:55:17	66256-1.RAW	11:55:17 AM	2776.58	1		2765.7	13.054	13.054	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK1	1	11/22/2016 11:59:25	66257-1.RAW	11:59:25 AM	55.86	2		45.0	0.212	0.212	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK2	1	11/22/2016 12:03:33	66258-1.RAW	12:03:33 PM	41.62	2		30.7	0.145	0.145	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/22/2016 12:07:42	66259-1.RAW	12:07:42 PM	1066.14			1055.3	4.984	4.984	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/22/2016 12:11:50	66260-1.RAW	12:11:50 PM	39.33			28.5	0.134	0.134	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber												
Hg2600-2	DM2	BLK	F611448-BLK3	1	11/22/2016 12:15:59	66261-1.RAW	12:15:59 PM	32.62	2		21.7	0.103	0.103	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK4	1	11/22/2016 12:20:07	66262-1.RAW	12:20:07 PM	34.29	3		23.4	0.111	0.111	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK5	1	11/22/2016 12:24:15	66263-1.RAW	12:24:15 PM	31.98	3		21.1	0.100	0.100	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK6	1	11/22/2016 12:28:24	66264-1.RAW	12:28:24 PM	27.03	3		16.2	0.076	0.076	ng/L	
Hg2600-2	DM2	SAM	F611448-BS1	1	11/22/2016 12:32:32	66265-1.RAW	12:32:32 PM	3419.35	2		3408.5	15.944	15.944	ng/L	
Hg2600-2	DM2	SAM	F611448-BSD1	1	11/22/2016 12:36:41	66266-1.RAW	12:36:41 PM	3497.15	2		3486.3	16.311	16.311	ng/L	
Hg2600-2	DM2	SAM	+1611079-11	1	11/22/2016 12:40:49	66267-1.RAW	12:40:49 PM	5045.02	2		5034.1	23.621	23.621	ng/L	
Hg2600-2	DM2	SAM	+1611079-12	1	11/22/2016 12:44:57	66268-1.RAW	12:44:57 PM	1500.92	2		1490.0	6.884	6.884	ng/L	
Hg2600-2	DM2	SAM	+1611079-13	1	11/22/2016 12:49:06	66269-1.RAW	12:49:06 PM	1369.35	2		1358.5	6.262	6.262	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/22/2016 12:53:14	66270-1.RAW	12:53:14 PM	1035.77			1024.9	4.840	4.840	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/22/2016 12:57:23	66271-1.RAW	12:57:23 PM	50.44734755			39.6	0.187	0.187	ng/L	
Hg2600-2	DM2	SAM	+1611079-14	1	11/22/2016 13:01:31	66272-1.RAW	1:01:31 PM	239.99	2		229.1	0.929	0.929	ng/L	
Hg2600-2	DM2	SAM	+1611079-15	1	11/22/2016 13:05:40	66273-1.RAW	1:05:40 PM	3399.73	2		3388.9	15.851	15.851	ng/L	
Hg2600-2	DM2	SAM	+1611079-16	1	11/22/2016 13:09:48	66274-1.RAW	1:09:48 PM	805.82	2		794.9	3.601	3.601	ng/L	
Hg2600-2	DM2	SAM	+1611079-17	1	11/22/2016 13:13:56	66275-1.RAW	1:13:56 PM	3586.73	2		3575.8	16.734	16.734	ng/L	
Hg2600-2	DM2	SAM	+1611079-18	1	11/22/2016 13:18:05	66276-1.RAW	1:18:05 PM	787.33	2		776.5	3.514	3.514	ng/L	
Hg2600-2	DM2	SAM	+1611079-19	1	11/22/2016 13:22:13	66277-1.RAW	1:22:13 PM	4500.94	2		4490.1	21.052	21.052	ng/L	
Hg2600-2	DM2	SAM	+1611079-20	1	11/22/2016 13:26:22	66278-1.RAW	1:26:22 PM	836.71	2		825.8	3.747	3.747	ng/L	
Hg2600-2	DM2	SAM	+1611079-21	1	11/22/2016 13:30:30	66279-1.RAW	1:30:30 PM	45.86	2		35.0	0.012	0.012	ng/L	
Hg2600-2	DM2	SAM	+1611079-22	1	11/22/2016 13:34:39	66280-1.RAW	1:34:39 PM	32.28	2		21.4	-0.052	-0.052	ng/L	
Hg2600-2	DM2	SAM	+1611079-23	1	11/22/2016 13:38:47	66281-1.RAW	1:38:47 PM	23.17	2		12.3	-0.095	-0.095	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/22/2016 13:42:55	66282-1.RAW	1:42:55 PM	1046.04			1035.2	4.889	4.889	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/22/2016 13:47:04	66283-1.RAW	1:47:04 PM	31.62			20.7	0.098	0.098	ng/L	
Hg2600-2	DM2	SAM	+1611080-02	5	11/22/2016 13:51:13	66284-1.RAW	1:51:13 PM	52.15	3		41.3	0.176	0.176	ng/L	
Hg2600-2	DM2	SAM	+1611082-13	5	11/22/2016 13:55:22	66285-1.RAW	1:55:22 PM	89.48	3		78.6	0.352	0.352	ng/L	
Hg2600-2	DM2	SAM	+1611083-08	1	11/22/2016 13:59:30	66286-1.RAW	1:59:30 PM	24.34	3		13.5	-0.032	-0.032	ng/L	
Hg2600-2	DM2	SAM	+1611084-06	1	11/22/2016 14:03:39	66287-1.RAW	2:03:39 PM	25.30	3		14.4	-0.027	-0.027	ng/L	
Hg2600-2	DM2	SAM	+1611084-07	1	11/22/2016 14:07:47	66288-1.RAW	2:07:47 PM	46.62	3		35.7	0.073	0.073	ng/L	
Hg2600-2	DM2	SAM	+1611084-08	1	11/22/2016 14:11:55	66289-1.RAW	2:11:55 PM	22.82	3		11.9	-0.039	-0.039	ng/L	
Hg2600-2	DM2	SAM	F611448-DUP1	1	11/22/2016 14:16:04	66290-1.RAW	2:16:04 PM	1434.53	2		1423.6	6.570	6.570	ng/L	
Hg2600-2	DM2	SAM	F611448-MS1	1	11/22/2016 14:20:12	66291-1.RAW	2:20:12 PM	5643.27	2		5632.4	26.447	26.447	ng/L	
Hg2600-2	DM2	SAM	F611448-MSD1	1	11/22/2016 14:24:21	66292-1.RAW	2:24:21 PM	5432.47	2		5421.6	25.451	25.451	ng/L	
Hg2600-2	DM2	SAM	F611448-MS2	1	11/22/2016 14:28:29	66293-1.RAW	2:28:29 PM	5378.46	2		5367.6	25.196	25.196	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/22/2016 14:32:37	66294-1.RAW	2:32:37 PM	1046.53			1035.7	4.891	4.891	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/22/2016 14:36:46	66295-1.RAW	2:36:46 PM	48.80			37.9	0.179	0.179	ng/L	
Hg2600-2	DM2	SAM	F611448-MSD2	1	11/22/2016 14:40:54	66296-1.RAW	2:40:54 PM	5558.42	2		5547.5	26.046	26.046	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK1	1	11/22/2016 14:45:03	66297-1.RAW	2:45:03 PM	62.05	x		51.2	0.242	0.242	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK2	1	11/22/2016 14:49:11	66298-1.RAW	2:49:11 PM	39.08	x		28.2	0.133	0.133	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK3	1	11/22/2016 14:53:20	66299-1.RAW	2:53:20 PM	27.50	x		16.6	0.078	0.078	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK4	1	11/22/2016 14:57:28	66300-1.RAW	2:57:28 PM	26.88	x		16.0	0.076	0.076	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK5	1	11/22/2016 15:01:36	66301-1.RAW	3:01:36 PM	25.00	x		14.1	0.067	0.067	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK6	1	11/22/2016 15:05:45	66302-1.RAW	3:05:45 PM	23.61	x		12.7	0.060	0.060	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK7	1	11/22/2016 15:09:53	66303-1.RAW	3:09:53 PM	23.12	x		12.2	0.058	0.058	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK8	1	11/22/2016 15:14:02	66304-1.RAW	3:14:02 PM	20.94	x		10.1	0.047	0.047	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK9	1	11/22/2016 15:18:10	66305-1.RAW	3:18:10 PM	16.15	x		5.3	0.025	0.025	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/22/2016 15:22:18	66306-1.RAW	3:22:18 PM	1016.39			1005.5	4.749	4.749	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/22/2016 15:26:27	66307-1.RAW	3:26:27 PM	29.68			18.8	0.089	0.089	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKA	1	11/22/2016 15:30:35	66308-1.RAW	3:30:35 PM	18.01	x		7.1	0.034	0.034	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKB	1	11/22/2016 15:34:44	66309-1.RAW	3:34:44 PM	18.64	x		7.8	0.037	0.037	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKC	1	11/22/2016 15:38:52	66310-1.RAW	3:38:52 PM	14.77	x		3.9	0.018	0.018	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKD	1	11/22/2016 15:43:01	66311-1.RAW	3:43:01 PM	17.24	x		6.4	0.030	0.030	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKE	1	11/22/2016 15:47:09	66312-1.RAW	3:47:09 PM	15.40	x		4.5	0.021	0.021	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKF	1	11/22/2016 15:51:18	66313-1.RAW	3:51:18 PM	17.10	x		6.2	0.029	0.029	ng/L	
Hg2600-2	DM2	SAM	F611454-BS1	1	11/22/2016 15:55:27	66314-1.RAW	3:55:27 PM	3137.67	x		3126.8	14.767	14.767	ng/L	
Hg2600-2	DM2	SAM	F611454-BSD1	1	11/22/2016 15:59:35	66315-1.RAW	3:59:35 PM	3249.53	x		3238.7	15.295	15.295	ng/L	
Hg2600-2	DM2	SAM	+1611148-14	1	11/22/2016 16:03:44	66316-1.RAW	4:03:44 PM	50.76	x		39.9	0.188	0.188	ng/L	
Hg2600-2	DM2	SAM	+1611150-06	1	11/22/2016 16:07:52	66317-1.RAW	4:07:52 PM	29.09	x		18.2	0.086	0.086	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	11/22/2016 16:12:00	66318-1.RAW	4:12:00 PM	997.50			986.6	4.660	4.660	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/22/2016 16:16:09	66319-1.RAW	4:16:09 PM	40.39			29.5	0.139	0.139	ng/L	
Hg2600-2	DM2	SAM	+1611239-04	1	11/22/2016 16:20:17	66320-1.RAW	4:20:17 PM	28.95	x		18.1	0.085	0.085	ng/L	
Hg2600-2	DM2	SAM	+1611241-04	1	11/22/2016 16:24:26	66321-1.RAW	4:24:26 PM	29.54	x		18.7	0.088	0.088	ng/L	
Hg2600-2	DM2	SAM	+1611242-15	1	11/22/2016 16:28:34	66322-1.RAW	4:28:34 PM	22.46	x		11.6	0.055	0.055	ng/L	
Hg2600-2	DM2	SAM	+1611249-10	1	11/22/2016 16:32:43	66323-1.RAW	4:32:43 PM	29.22	x		18.3	0.087	0.087	ng/L	
Hg2600-2	DM2	SAM	+1611249-11	1	11/22/2016 16:36:51	66324-1.RAW	4:36:51 PM	20.00	x		9.1	0.043	0.043	ng/L	
Hg2600-2	DM2	SAM	+1611321-01	1	11/22/2016 16:40:59	66325-1.RAW	4:40:59 PM	178.01	x		167.1	0.789	0.789	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	+1611325-07	1	11/22/2016 16:45:08	66326-1.RAW	4:45:08 PM	18.03		x	7.2	0.034	0.034	ng/L	
Hg2600-2	DM2	SAM	+1611373-01	1	11/22/2016 16:49:16	66327-1.RAW	4:49:16 PM	57.28		x	46.4	0.219	0.219	ng/L	
Hg2600-2	DM2	SAM	+1611373-02	1	11/22/2016 16:53:25	66328-1.RAW	4:53:25 PM	32.60		x	21.7	0.103	0.103	ng/L	
Hg2600-2	DM2	SAM	+1611391-05	1	11/22/2016 16:57:33	66329-1.RAW	4:57:33 PM	44.22		x	33.3	0.157	0.157	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVA	1	11/22/2016 17:01:41	66330-1.RAW	5:01:41 PM	1054.95			1044.1	4.931	4.931	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	11/22/2016 17:05:50	66331-1.RAW	5:05:50 PM	26.48			15.6	0.074	0.074	ng/L	
Hg2600-2	DM2	SAM	+1611547-02	10	11/22/2016 17:09:58	66332-1.RAW	5:09:58 PM	1908.12		x	1897.2	8.960	89.601	ng/L	
Hg2600-2	DM2	SAM	+1611547-04	1	11/22/2016 17:14:07	66333-1.RAW	5:14:07 PM	481.19		x	470.3	2.221	2.221	ng/L	
Hg2600-2	DM2	SAM	+1611550-01	1	11/22/2016 17:18:15	66334-1.RAW	5:18:15 PM	435.66		x	424.8	2.006	2.006	ng/L	
Hg2600-2	DM2	SAM	+1611576-01	1	11/22/2016 17:22:24	66335-1.RAW	5:22:24 PM	3779.20		x	3768.3	17.797	17.797	ng/L	
Hg2600-2	DM2	SAM	+1611577-01	1	11/22/2016 17:26:32	66336-1.RAW	5:26:32 PM	44378.52		x	44367.6	209.535	209.535	ng/L	
Hg2600-2	DM2	SAM	+1611578-01	1	11/22/2016 17:30:40	66337-1.RAW	5:30:40 PM	3506.63		x	3495.8	16.509	16.509	ng/L	
Hg2600-2	DM2	SAM	+F611454-DUP1	10	11/22/2016 17:34:49	66338-1.RAW	5:34:49 PM	2001.95		x	1991.1	9.403	94.032	ng/L	
Hg2600-2	DM2	SAM	+F611454-MS1	10	11/22/2016 17:38:57	66339-1.RAW	5:38:57 PM	6199.00		x	6188.1	29.225	292.247	ng/L	
Hg2600-2	DM2	SAM	+F611454-MSD1	10	11/22/2016 17:43:06	66340-1.RAW	5:43:06 PM	5889.26		x	5878.4	27.762	277.618	ng/L	
Hg2600-2	DM2	SAM	+F611454-MS2	1	11/22/2016 17:47:15	66341-1.RAW	5:47:15 PM	2575.06		x	2564.2	12.110	12.110	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVB	1	11/22/2016 17:51:24	66342-1.RAW	5:51:24 PM	1099.82			1088.9	5.143	5.143	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBB	1	11/22/2016 17:55:32	66343-1.RAW	5:55:32 PM	60.80			49.9	0.236	0.236	ng/L	
Hg2600-2	DM2	SAM	+F611454-MSD2	1	11/22/2016 17:59:41	66344-1.RAW	5:59:41 PM	2516.55		x	2505.7	11.834	11.834	ng/L	
Hg2600-2	DM2	SAM	+1611577-01RE1	10	11/22/2016 18:03:49	66345-1.RAW	6:03:49 PM	4906.56		x	4895.7	23.121	231.209	ng/L	
Hg2600-2	DM2	SAM	+1611578-01RE1	1	11/22/2016 18:07:57	66346-1.RAW	6:07:57 PM	3298.11		x	3287.2	15.525	15.525	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVC	1	11/22/2016 18:12:06	66347-1.RAW	6:12:06 PM	1065.89			1055.0	4.983	4.983	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBC	1	11/22/2016 18:16:14	66348-1.RAW	6:16:14 PM	60.62			49.7	0.235	0.235	ng/L	



Frontier Global Sciences

Analysis Datasheet for Total Mercury

Date of Analysis: November 22, 2016

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LMS Sequence #: 6K23007

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	121.50 units	242.99	110.62 units	221.23	104.5 %Rec
SEQ-CAL2	1	1.00 ng/L	224.91 units	224.91	214.03 units	214.03	101.1 %Rec
SEQ-CAL3	1	5.00 ng/L	1064.65 units	212.93	1053.78 units	210.76	99.5 %Rec
SEQ-CAL4	1	20.00 ng/L	4105.90 units	205.29	4095.02 units	204.75	96.7 %Rec
SEQ-CAL5	1	40.00 ng/L	8328.89 units	208.22	8318.01 units	207.95	98.2 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF    211.74    Corr. St Dev RF    +/- 6.32    Corr. RSD CF    3.0% RSD    Uncorr. Mean RF    218.87

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	10.88 units	±0.78	0.05 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.151 ng/L	±0.083
BLK	2	3	0.067 ng/L	±0.008
BLK	3	3	0.043 ng/L	±0.017
BLK	4	2	0.028 ng/L	±0.013
BLK	5	3	0.027 ng/L	±0.005
BLK	6	0	0.000 ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hg2600-2	DM2	CAL	SEQ-IBL1	1	11/22/2016 8:10:01	66204-1.RAW	8:10:01 AM	11.69				0.8	0.004	0.004	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	11/22/2016 8:14:09	66205-1.RAW	8:14:09 AM	10.81				-0.1	0.000	0.000	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	11/22/2016 8:18:17	66206-1.RAW	8:18:17 AM	10.14				-0.7	-0.003	-0.003	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	11/22/2016 8:22:27	66207-1.RAW	8:22:27 AM	121.50				110.6	0.522	0.522	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	11/22/2016 8:26:35	66208-1.RAW	8:26:35 AM	224.91				214.0	1.011	1.011	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	11/22/2016 8:30:44	66209-1.RAW	8:30:44 AM	1064.65				1053.8	4.977	4.977	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	11/22/2016 8:34:52	66210-1.RAW	8:34:52 AM	4105.90				4095.0	19.340	19.340	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	11/22/2016 8:38:59	66211-1.RAW	8:38:59 AM	8328.89				8318.0	39.283	39.283	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	11/22/2016 8:43:08	66212-1.RAW	8:43:08 AM	1059.42			x	1048.5	4.952	4.952	ng/L	
Hg2600-2	DM2	BLK	F611391-BLK1	20	11/22/2016 8:55:07	66213-1.RAW	8:55:07 AM	103.41		x		92.5	0.437	8.740	ng/L	
Hg2600-2	DM2	BLK	F611391-BLK2	20	11/22/2016 8:59:16	66214-1.RAW	8:59:16 AM	30.04		x		19.2	0.091	1.810	ng/L	
Hg2600-2	DM2	BLK	F611391-BLK3	20	11/22/2016 9:03:24	66215-1.RAW	9:03:24 AM	24.03		x		13.2	0.062	1.242	ng/L	
Hg2600-2	DM2	SAM	F611391-BS1	20	11/22/2016 9:07:32	66216-1.RAW	9:07:32 AM	1056.51		x		1045.6	4.938	98.764	ng/L	
Hg2600-2	DM2	SAM	F611391-BSD1	20	11/22/2016 9:11:41	66217-1.RAW	9:11:41 AM	1136.06		x		1125.2	5.314	106.278	ng/L	
Hg2600-2	DM2	SAM	F611391-BS2	500	11/22/2016 9:15:49	66218-1.RAW	9:15:49 AM	970.43		x		959.6	4.532	2265.839	ng/L	
Hg2600-2	DM2	SAM	1611258-01	100	11/22/2016 9:19:58	66219-1.RAW	9:19:58 AM	4832.89		x		4822.0	22.773	2277.294	ng/L	
Hg2600-2	DM2	SAM	1611258-02	100	11/22/2016 9:24:06	66220-1.RAW	9:24:06 AM	4320.74		x		4309.9	20.354	2035.419	ng/L	
Hg2600-2	DM2	SAM	1611258-03	100	11/22/2016 9:28:15	66221-1.RAW	9:28:15 AM	4092.58		x		4081.7	19.277	1927.666	ng/L	
Hg2600-2	DM2	SAM	1611258-04	100	11/22/2016 9:32:23	66222-1.RAW	9:32:23 AM	16454.77		x		16443.9	77.660	7765.961	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	11/22/2016 9:36:31	66223-1.RAW	9:36:31 AM	1142.28				1131.4	5.343	5.343	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	11/22/2016 9:40:40	66224-1.RAW	9:40:40 AM	66.26				55.4	0.262	0.262	ng/L	
Hg2600-2	DM2	SAM	1611258-05	100	11/22/2016 9:46:56	66225-1.RAW	9:46:56 AM	4711.62		x		4700.7	22.200	2220.021	ng/L	
Hg2600-2	DM2	SAM	1611258-06	100	11/22/2016 9:51:04	66226-1.RAW	9:51:04 AM	5101.00		x		5090.1	24.039	2403.914	ng/L	
Hg2600-2	DM2	SAM	1611258-07	100	11/22/2016 9:55:12	66227-1.RAW	9:55:12 AM	4624.50		x		4613.6	21.789	2178.878	ng/L	
Hg2600-2	DM2	SAM	1611258-08	100	11/22/2016 9:59:21	66228-1.RAW	9:59:21 AM	11059.71		x		11048.8	52.180	5218.034	ng/L	
Hg2600-2	DM2	SAM	1611258-09	100	11/22/2016 10:03:29	66229-1.RAW	10:03:29 AM	10819.74		x		10808.9	51.047	5104.701	ng/L	
Hg2600-2	DM2	SAM	1611258-10	100	11/22/2016 10:07:38	66230-1.RAW	10:07:38 AM	7594.55		x		7583.7	35.815	3581.540	ng/L	
Hg2600-2	DM2	SAM	1611258-11	100	11/22/2016 10:11:46	66231-1.RAW	10:11:46 AM	4291.88		x		4281.0	20.218	2021.790	ng/L	
Hg2600-2	DM2	SAM	1611258-12	100	11/22/2016 10:15:54	66232-1.RAW	10:15:54 AM	22414.36		x		22403.5	105.805	10580.498	ng/L	
Hg2600-2	DM2	SAM	1611258-13	100	11/22/2016 10:20:03	66233-1.RAW	10:20:03 AM	6990.33		x		6979.5	32.962	3296.189	ng/L	
Hg2600-2	DM2	SAM	1611258-14	100	11/22/2016 10:24:11	66234-1.RAW	10:24:11 AM	13172.75		x		13161.9	62.160	6215.961	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	11/22/2016 10:28:20	66235-1.RAW	10:28:20 AM	1147.11				1136.2	5.366	5.366	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	11/22/2016 10:32:28	66236-1.RAW	10:32:28 AM	83.07				72.2	0.341	0.341	ng/L	
Hg2600-2	DM2	SAM	1611258-15	500	11/22/2016 10:36:37	66237-1.RAW	10:36:37 AM	2381.98		x		2371.1	11.198	5598.998	ng/L	
Hg2600-2	DM2	SAM	1611258-16	500	11/22/2016 10:40:45	66238-1.RAW	10:40:45 AM	1097.70		x		1086.8	5.133	2566.359	ng/L	
Hg2600-2	DM2	SAM	1611258-17	500	11/22/2016 10:44:53	66239-1.RAW	10:44:53 AM	1071.12		x		1060.2	5.007	2503.607	ng/L	
Hg2600-2	DM2	SAM	1611258-18	500	11/22/2016 10:49:02	66240-1.RAW	10:49:02 AM	846.58		x		835.7	3.947	1973.386	ng/L	
Hg2600-2	DM2	SAM	1611258-19	500	11/22/2016 10:53:10	66241-1.RAW	10:53:10 AM	1216.02		x		1205.1	5.692	2845.761	ng/L	
Hg2600-2	DM2	SAM	1611258-20	500	11/22/2016 10:57:19	66242-1.RAW	10:57:19 AM	4447.08		x		4436.2	20.951	10475.425	ng/L	
Hg2600-2	DM2	SAM	1611258-04RE1	500	11/22/2016 11:01:27	66243-1.RAW	11:01:27 AM	3232.07		x		3221.2	15.213	7606.360	ng/L	
Hg2600-2	DM2	SAM	1611258-08RE1	500	11/22/2016 11:05:36	66244-1.RAW	11:05:36 AM	2149.26		x		2138.4	10.099	5049.477	ng/L	
Hg2600-2	DM2	SAM	1611258-09RE1	500	11/22/2016 11:09:44	66245-1.RAW	11:09:44 AM	2040.46		x		2029.6	9.585	4792.542	ng/L	
Hg2600-2	DM2	SAM	1611258-10RE1	100	11/22/2016 11:13:52	66246-1.RAW	11:13:52 AM	7195.84		x		7185.0	33.932	3393.243	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	11/22/2016 11:18:01	66247-1.RAW	11:18:01 AM	1094.67				1083.8	5.118	5.118	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	11/22/2016 11:22:09	66248-1.RAW	11:22:09 AM	55.80				44.9	0.212	0.212	ng/L	
Hg2600-2	DM2	SAM	1611258-12RE1	500	11/22/2016 11:26:18	66249-1.RAW	11:26:18 AM	4123.96		x		4113.1	19.425	9712.440	ng/L	
Hg2600-2	DM2	SAM	1611258-13RE1	100	11/22/2016 11:30:26	66250-1.RAW	11:30:26 AM	6814.54		x		6803.7	32.132	3213.169	ng/L	
Hg2600-2	DM2	SAM	1611258-14RE1	500	11/22/2016 11:34:34	66251-1.RAW	11:34:34 AM	2505.37		x		2494.5	11.781	5890.378	ng/L	
Hg2600-2	DM2	SAM	F611391-DUP1	100	11/22/2016 11:38:43	66252-1.RAW	11:38:43 AM	4759.44		x		4748.6	22.426	2242.606	ng/L	
Hg2600-2	DM2	SAM	F611391-MS1	500	11/22/2016 11:42:51	66253-1.RAW	11:42:51 AM	2808.32		x		2797.4	13.211	6605.749	ng/L	
Hg2600-2	DM2	SAM	F611391-MSD1	500	11/22/2016 11:47:00	66254-1.RAW	11:47:00 AM	2890.47		x		2879.6	13.599	6799.723	ng/L	
Hg2600-2	DM2	SAM	F611391-MS2	500	11/22/2016 11:51:08	66255-1.RAW	11:51:08 AM	2856.87		x		2846.0	13.441	6720.378	ng/L	
Hg2600-2	DM2	SAM	F611391-MSD2	500	11/22/2016 11:55:17	66256-1.RAW	11:55:17 AM	2776.58		x		2765.7	13.062	6530.781	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK1	1	11/22/2016 11:59:25	66257-1.RAW	11:59:25 AM	55.86		x		45.0	0.212	0.212	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK2	1	11/22/2016 12:03:33	66258-1.RAW	12:03:33 PM	41.62		x		30.7	0.145	0.145	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	11/22/2016 12:07:42	66259-1.RAW	12:07:42 PM	1066.14				1055.3	4.984	4.984	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	11/22/2016 12:11:50	66260-1.RAW	12:11:50 PM	39.33				28.5	0.134	0.134	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	F611448-BLK3	1	11/22/2016 12:15:59	66261-1.RAW	12:15:59 PM	32.62		x	21.7	0.103	0.103	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK4	1	11/22/2016 12:20:07	66262-1.RAW	12:20:07 PM	34.29		x	23.4	0.111	0.111	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK5	1	11/22/2016 12:24:15	66263-1.RAW	12:24:15 PM	31.98		x	21.1	0.100	0.100	ng/L	
Hg2600-2	DM2	BLK	F611448-BLK6	1	11/22/2016 12:28:24	66264-1.RAW	12:28:24 PM	27.03		x	16.2	0.076	0.076	ng/L	
Hg2600-2	DM2	SAM	F611448-BS1	1	11/22/2016 12:32:32	66265-1.RAW	12:32:32 PM	3419.35		x	3408.5	16.097	16.097	ng/L	
Hg2600-2	DM2	SAM	F611448-BSD1	1	11/22/2016 12:36:41	66266-1.RAW	12:36:41 PM	3497.15		x	3486.3	16.465	16.465	ng/L	
Hg2600-2	DM2	SAM	1611079-11	1	11/22/2016 12:40:49	66267-1.RAW	12:40:49 PM	5045.02		x	5034.1	23.775	23.775	ng/L	
Hg2600-2	DM2	SAM	1611079-12	1	11/22/2016 12:44:57	66268-1.RAW	12:44:57 PM	1500.92		x	1490.0	7.037	7.037	ng/L	
Hg2600-2	DM2	SAM	1611079-13	1	11/22/2016 12:49:06	66269-1.RAW	12:49:06 PM	1369.35		x	1358.5	6.416	6.416	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	11/22/2016 12:53:14	66270-1.RAW	12:53:14 PM	1035.77			1024.9	4.840	4.840	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	11/22/2016 12:57:23	66271-1.RAW	12:57:23 PM	50.44734755			39.6	0.187	0.187	ng/L	
Hg2600-2	DM2	SAM	1611079-14	1	11/22/2016 13:01:31	66272-1.RAW	1:01:31 PM	239.99		x	229.1	1.082	1.082	ng/L	
Hg2600-2	DM2	SAM	1611079-15	1	11/22/2016 13:05:40	66273-1.RAW	1:05:40 PM	3399.73		x	3388.9	16.005	16.005	ng/L	
Hg2600-2	DM2	SAM	1611079-16	1	11/22/2016 13:09:48	66274-1.RAW	1:09:48 PM	805.82		x	794.9	3.754	3.754	ng/L	
Hg2600-2	DM2	SAM	1611079-17	1	11/22/2016 13:13:56	66275-1.RAW	1:13:56 PM	3586.73		x	3575.8	16.888	16.888	ng/L	
Hg2600-2	DM2	SAM	1611079-18	1	11/22/2016 13:18:05	66276-1.RAW	1:18:05 PM	787.33		x	776.5	3.667	3.667	ng/L	
Hg2600-2	DM2	SAM	1611079-19	1	11/22/2016 13:22:13	66277-1.RAW	1:22:13 PM	4500.94		x	4490.1	21.205	21.205	ng/L	
Hg2600-2	DM2	SAM	1611079-20	1	11/22/2016 13:26:22	66278-1.RAW	1:26:22 PM	836.71		x	825.8	3.900	3.900	ng/L	
Hg2600-2	DM2	SAM	1611079-21	1	11/22/2016 13:30:30	66279-1.RAW	1:30:30 PM	45.86		x	35.0	0.165	0.165	ng/L	
Hg2600-2	DM2	SAM	1611079-22	1	11/22/2016 13:34:39	66280-1.RAW	1:34:39 PM	32.28		x	21.4	0.101	0.101	ng/L	
Hg2600-2	DM2	SAM	1611079-23	1	11/22/2016 13:38:47	66281-1.RAW	1:38:47 PM	23.17		x	12.3	0.058	0.058	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	11/22/2016 13:42:55	66282-1.RAW	1:42:55 PM	1046.04			1035.2	4.889	4.889	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	11/22/2016 13:47:04	66283-1.RAW	1:47:04 PM	31.62			20.7	0.098	0.098	ng/L	
Hg2600-2	DM2	SAM	1611080-02	5	11/22/2016 13:51:13	66284-1.RAW	1:51:13 PM	52.15		x	41.3	0.195	0.195	ng/L	
Hg2600-2	DM2	SAM	1611082-13	5	11/22/2016 13:55:22	66285-1.RAW	1:55:22 PM	89.48		x	78.6	0.371	1.856	ng/L	
Hg2600-2	DM2	SAM	1611083-08	1	11/22/2016 13:59:30	66286-1.RAW	1:59:30 PM	24.34		x	13.5	0.064	0.064	ng/L	
Hg2600-2	DM2	SAM	1611084-06	1	11/22/2016 14:03:39	66287-1.RAW	2:03:39 PM	25.30		x	14.4	0.068	0.068	ng/L	
Hg2600-2	DM2	SAM	1611084-07	1	11/22/2016 14:07:47	66288-1.RAW	2:07:47 PM	46.62		x	35.7	0.169	0.169	ng/L	
Hg2600-2	DM2	SAM	1611084-08	1	11/22/2016 14:11:55	66289-1.RAW	2:11:55 PM	22.82		x	11.9	0.056	0.056	ng/L	
Hg2600-2	DM2	SAM	F611448-DUP1	1	11/22/2016 14:16:04	66290-1.RAW	2:16:04 PM	1434.53		x	1423.6	6.723	6.723	ng/L	
Hg2600-2	DM2	SAM	F611448-MS1	1	11/22/2016 14:20:12	66291-1.RAW	2:20:12 PM	5643.27		x	5632.4	26.600	26.600	ng/L	
Hg2600-2	DM2	SAM	F611448-MSD1	1	11/22/2016 14:24:21	66292-1.RAW	2:24:21 PM	5432.47		x	5421.6	25.605	25.605	ng/L	
Hg2600-2	DM2	SAM	F611448-MS2	1	11/22/2016 14:28:29	66293-1.RAW	2:28:29 PM	5378.46		x	5367.6	25.349	25.349	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	11/22/2016 14:32:37	66294-1.RAW	2:32:37 PM	1046.53			1035.7	4.891	4.891	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	11/22/2016 14:36:46	66295-1.RAW	2:36:46 PM	48.80			37.9	0.179	0.179	ng/L	
Hg2600-2	DM2	SAM	F611448-MSD2	1	11/22/2016 14:40:54	66296-1.RAW	2:40:54 PM	5558.42		x	5547.5	26.199	26.199	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK1	1	11/22/2016 14:45:03	66297-1.RAW	2:45:03 PM	62.05		1	51.2	0.242	0.242	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK2	1	11/22/2016 14:49:11	66298-1.RAW	2:49:11 PM	39.08		1	28.2	0.133	0.133	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK3	1	11/22/2016 14:53:20	66299-1.RAW	2:53:20 PM	27.50		1	16.6	0.078	0.078	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK4	1	11/22/2016 14:57:28	66300-1.RAW	2:57:28 PM	26.88		2	16.0	0.076	0.076	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK5	1	11/22/2016 15:01:36	66301-1.RAW	3:01:36 PM	25.00		2	14.1	0.067	0.067	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK6	1	11/22/2016 15:05:45	66302-1.RAW	3:05:45 PM	23.61		2	12.7	0.060	0.060	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK7	1	11/22/2016 15:09:53	66303-1.RAW	3:09:53 PM	23.12		3	12.2	0.058	0.058	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK8	1	11/22/2016 15:14:02	66304-1.RAW	3:14:02 PM	20.94		3	10.1	0.047	0.047	ng/L	
Hg2600-2	DM2	BLK	F611454-BLK9	1	11/22/2016 15:18:10	66305-1.RAW	3:18:10 PM	16.15		3	5.3	0.025	0.025	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	11/22/2016 15:22:18	66306-1.RAW	3:22:18 PM	1016.39		4	1005.5	4.749	4.749	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	11/22/2016 15:26:27	66307-1.RAW	3:26:27 PM	29.68			18.8	0.089	0.089	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKA	1	11/22/2016 15:30:35	66308-1.RAW	3:30:35 PM	18.01			7.1	0.034	0.034	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKB	1	11/22/2016 15:34:44	66309-1.RAW	3:34:44 PM	18.64		4	7.8	0.037	0.037	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKC	1	11/22/2016 15:38:52	66310-1.RAW	3:38:52 PM	14.77		4	3.9	0.018	0.018	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKD	1	11/22/2016 15:43:01	66311-1.RAW	3:43:01 PM	17.24		5	6.4	0.030	0.030	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKE	1	11/22/2016 15:47:09	66312-1.RAW	3:47:09 PM	15.40		5	4.5	0.021	0.021	ng/L	
Hg2600-2	DM2	BLK	F611454-BLKF	1	11/22/2016 15:51:18	66313-1.RAW	3:51:18 PM	17.10		5	6.2	0.029	0.029	ng/L	
Hg2600-2	DM2	SAM	F611454-BS1	1	11/22/2016 15:55:27	66314-1.RAW	3:55:27 PM	3137.67		1	3126.8	14.616	14.616	ng/L	
Hg2600-2	DM2	SAM	F611454-BSD1	1	11/22/2016 15:59:35	66315-1.RAW	3:59:35 PM	3249.53		1	3238.7	15.144	15.144	ng/L	
Hg2600-2	DM2	SAM	1611148-14	1	11/22/2016 16:03:44	66316-1.RAW	4:03:44 PM	50.76		1	39.9	0.037	0.037	ng/L	
Hg2600-2	DM2	SAM	1611150-06	1	11/22/2016 16:07:52	66317-1.RAW	4:07:52 PM	29.09		1	18.2	-0.065	-0.065	ng/L	
Hg2600-2	DM2	SAM	SEQ-CCV9	1	11/22/2016 16:12:00	66318-1.RAW	4:12:00 PM	997.50			986.6	4.660	4.660	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	11/22/2016 16:16:09	66319-1.RAW	4:16:09 PM	40.39			29.5	0.139	0.139	ng/L	
Hg2600-2	DM2	SAM	1611239-04	1	11/22/2016 16:20:17	66320-1.RAW	4:20:17 PM	28.95		2	18.1	0.018	0.018	ng/L	
Hg2600-2	DM2	SAM	1611241-04	1	11/22/2016 16:24:26	66321-1.RAW	4:24:26 PM	29.54		2	18.7	0.021	0.021	ng/L	
Hg2600-2	DM2	SAM	1611242-15	1	11/22/2016 16:28:34	66322-1.RAW	4:28:34 PM	22.46		2	11.6	-0.013	-0.013	ng/L	
Hg2600-2	DM2	SAM	1611249-10	1	11/22/2016 16:32:43	66323-1.RAW	4:32:43 PM	29.22		2	18.3	0.019	0.019	ng/L	
Hg2600-2	DM2	SAM	1611249-11	1	11/22/2016 16:36:51	66324-1.RAW	4:36:51 PM	20.00		2	9.1	-0.024	-0.024	ng/L	
Hg2600-2	DM2	SAM	1611321-01	1	11/22/2016 16:40:59	66325-1.RAW	4:40:59 PM	178.01		1	167.1	0.638	0.638	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	1611325-07	1	11/22/2016 16:45:08	66326-1.RAW	4:45:08 PM	18.03	3		7.2	-0.010	-0.010	ng/L	
Hg2600-2	DM2	SAM	1611373-01	1	11/22/2016 16:49:16	66327-1.RAW	4:49:16 PM	57.28	4		46.4	0.192	0.192	ng/L	
Hg2600-2	DM2	SAM	1611373-02	1	11/22/2016 16:53:25	66328-1.RAW	4:53:25 PM	32.60	4		21.7	0.075	0.075	ng/L	
Hg2600-2	DM2	SAM	1611391-05	1	11/22/2016 16:57:33	66329-1.RAW	4:57:33 PM	44.22	5		33.3	0.131	0.131	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVA	1	11/22/2016 17:01:41	66330-1.RAW	5:01:41 PM	1054.95			1044.1	4.931	4.931	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	11/22/2016 17:05:50	66331-1.RAW	5:05:50 PM	26.48			15.6	0.074	0.074	ng/L	
Hg2600-2	DM2	SAM	1611547-02	10	11/22/2016 17:09:58	66332-1.RAW	5:09:58 PM	1908.12	1		1897.2	8.945	89.450	ng/L	
Hg2600-2	DM2	SAM	1611547-04	1	11/22/2016 17:14:07	66333-1.RAW	5:14:07 PM	481.19	1		470.3	2.070	2.070	ng/L	
Hg2600-2	DM2	SAM	1611550-01	1	11/22/2016 17:18:15	66334-1.RAW	5:18:15 PM	435.66	1		424.8	1.855	1.855	ng/L	
Hg2600-2	DM2	SAM	1611576-01	1	11/22/2016 17:22:24	66335-1.RAW	5:22:24 PM	3779.20	1		3768.3	17.646	17.646	ng/L	
Hg2600-2	DM2	SAM	1611577-01	1	11/22/2016 17:26:32	66336-1.RAW	5:26:32 PM	44378.52	1		44367.6	209.384	209.384	ng/L	
Hg2600-2	DM2	SAM	1611578-01	1	11/22/2016 17:30:40	66337-1.RAW	5:30:40 PM	3506.63	1		3495.8	16.358	16.358	ng/L	
Hg2600-2	DM2	SAM	F611454-DUP1	10	11/22/2016 17:34:49	66338-1.RAW	5:34:49 PM	2001.95	1		1991.1	9.388	93.881	ng/L	
Hg2600-2	DM2	SAM	F611454-MS1	10	11/22/2016 17:38:57	66339-1.RAW	5:38:57 PM	6199.00	1		6188.1	29.210	292.095	ng/L	
Hg2600-2	DM2	SAM	F611454-MSD1	10	11/22/2016 17:43:06	66340-1.RAW	5:43:06 PM	5889.26	1		5878.4	27.747	277.467	ng/L	
Hg2600-2	DM2	SAM	F611454-MS2	1	11/22/2016 17:47:15	66341-1.RAW	5:47:15 PM	2575.06	1		2564.2	11.959	11.959	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVB	1	11/22/2016 17:51:24	66342-1.RAW	5:51:24 PM	1099.82			1088.9	5.143	5.143	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBB	1	11/22/2016 17:55:32	66343-1.RAW	5:55:32 PM	60.80			49.9	0.236	0.236	ng/L	
Hg2600-2	DM2	SAM	F611454-MSD2	1	11/22/2016 17:59:41	66344-1.RAW	5:59:41 PM	2516.55	1		2505.7	11.682	11.682	ng/L	
Hg2600-2	DM2	SAM	1611577-01RE1	10	11/22/2016 18:03:49	66345-1.RAW	6:03:49 PM	4906.56	1		4895.7	23.106	231.057	ng/L	
Hg2600-2	DM2	SAM	1611578-01RE1	1	11/22/2016 18:07:57	66346-1.RAW	6:07:57 PM	3298.11	1		3287.2	15.373	15.373	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVC	1	11/22/2016 18:12:06	66347-1.RAW	6:12:06 PM	1065.89			1055.0	4.983	4.983	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBC	1	11/22/2016 18:16:14	66348-1.RAW	6:16:14 PM	60.62			49.7	0.235	0.235	ng/L	

TotalMercury EPA1631  
 Operatr BC  
 Worksh THG2601  
 Method ##### R:  
 Descrip THG26002-161122-1

BlankSi 10.879  
 CalibFa 211.74  
 R: 1  
 R<sup>2</sup>: 0.9999

Calib Eqn: Conc = (Area-10.87  
 Status: QC Warnings:7/QC E  
 Run Date: #####  
 Run Time: 9:42:46

Blank SD: 0.775947394  
 Blank RSD%: 7.132706606  
 CF SD: 6.315107388  
 CF RSD%: 2.982437034

Sample/ID	Location Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ef)	Flags	RunCount
Clean			0.00	3.12					66199-1.RAW	7:50:36	661.69	Clean	OK	1
clean			0.00	0.01					66200-1.RAW	7:53:27	1.32	Clean	OK	1
ws			10.88	0.03					66201-1.RAW	7:57:35	17.73	Sample	OK	1
ws			10.88	0.00					66202-1.RAW	8:01:44	11.29	Sample	OK	1
ws			10.88	0.00					66203-1.RAW	8:05:52	8.83	Sample	OK	1
SEQ-IBL1	A1		0.00	0.06					66204-1.RAW	8:10:01	11.69	Sample	OK	1
SEQ-IBL2	A2		0.00	0.05					66205-1.RAW	8:14:09	10.81	Sample	OK	1
SEQ-IBL3	A3		0.00	0.05					66206-1.RAW	8:18:17	10.14	Sample	OK	1
SEQ-CAL1	A4		10.88	0.52			104.48		66207-1.RAW	8:22:27	121.50	Sample	OK	1
SEQ-CAL2	A5		10.88	1.01			101.08		66208-1.RAW	8:26:35	224.91	Sample	OK	1
SEQ-CAL3	A6		10.88	4.98			99.53		66209-1.RAW	8:30:44	1064.65	Sample	OK	1
SEQ-CAL4	A7		10.88	19.34			96.70		66210-1.RAW	8:34:52	4105.90	Sample	OK	1
SEQ-CAL5	A8		10.88	39.28			98.21		66211-1.RAW	8:38:59	8328.89	Sample	OK	1
SEQ-ICV1	A9		10.88	4.95			99.04		66212-1.RAW	8:43:08	1059.42	Sample	OK	1
F611391-BLK1	A10	20	10.88	8.74					66213-1.RAW	8:55:07	103.41	Sample	OK	1
F611391-BLK2	A11	20	10.88	1.81					66214-1.RAW	8:59:16	30.04	Sample	OK	1
F611391-BLK3	A12	20	10.88	1.24					66215-1.RAW	9:03:24	24.03	Sample	OK	1
F611391-BS1	A13	20	10.88	98.76					66216-1.RAW	9:07:32	1056.51	Sample	OK	1
F611391-BSD1	A14	20	10.88	106.28					66217-1.RAW	9:11:41	1136.06	Sample	OK	1
F611391-BS2	A15	500	10.88	2265.84					66218-1.RAW	9:15:49	970.43	Sample	OK	1
1611258-01	A16	100	10.88	2277.29					66219-1.RAW	9:19:58	4832.89	Sample	OK	1
1611258-02	A17	100	10.88	2035.42					66220-1.RAW	9:24:06	4320.74	Sample	OK	1
1611258-03	A18	100	10.88	1927.67					66221-1.RAW	9:28:15	4092.58	Sample	OK	1
1611258-04	A19	100	10.88	7765.96					66222-1.RAW	9:32:23	16454.77	Sample	OK	1
SEQ-CCV1	A20	1	10.88	5.34			106.87		66223-1.RAW	9:36:31	1142.28	Sample	OK	1
SEQ-CCB1	A21	1	10.88	0.26			0.00		66224-1.RAW	9:40:40	66.26	Sample	OK	1
1611258-05	B1	100	10.88	2220.02					66225-1.RAW	9:46:56	4711.62	Sample	OK	1
1611258-06	B2	100	10.88	2403.91					66226-1.RAW	9:51:04	5101.00	Sample	OK	1
1611258-07	B3	100	10.88	2178.88					66227-1.RAW	9:55:12	4624.50	Sample	OK	1
1611258-08	B4	100	10.88	5218.03					66228-1.RAW	9:59:21	11059.71	Sample	OK	1
1611258-09	B5	100	10.88	5104.70					66229-1.RAW	10:03:29	10819.74	Sample	OK	1
1611258-10	B6	100	10.88	3581.54					66230-1.RAW	10:07:38	7594.55	Sample	OK	1
1611258-11	B7	100	10.88	2021.79					66231-1.RAW	10:11:46	4291.88	Sample	OK	1
1611258-12	B8	100	10.88	10580.50					66232-1.RAW	10:15:54	22414.36	Sample	OK	1
1611258-13	B9	100	10.88	3296.19					66233-1.RAW	10:20:03	6990.33	Sample	OK	1
1611258-14	B10	100	10.88	6215.96					66234-1.RAW	10:24:11	13172.75	Sample	OK	1
SEQ-CCV2	B11	1	10.88	5.37			107.32		66235-1.RAW	10:28:20	1147.11	Sample	OK	1
SEQ-CCB2	B12	1	10.88	0.34			0.00		66236-1.RAW	10:32:28	83.07	Sample	OK	1
1611258-15	B13	500	10.88	5599.00					66237-1.RAW	10:36:37	2381.98	Sample	OK	1
1611258-16	B14	500	10.88	2566.36					66238-1.RAW	10:40:45	1097.70	Sample	OK	1
1611258-17	B15	500	10.88	2503.61					66239-1.RAW	10:44:53	1071.12	Sample	OK	1
1611258-18	B16	500	10.88	1973.39					66240-1.RAW	10:49:02	846.58	Sample	OK	1
1611258-19	B17	500	10.88	2845.76					66241-1.RAW	10:53:10	1216.02	Sample	OK	1

1611258-20	B18	500	10.88	10475.43		66242-1.RAW	10:57:19	4447.08	Sample	OK	1
1611258-04RE1	B19	500	10.88	7606.36		66243-1.RAW	11:01:27	3232.07	Sample	OK	1
1611258-08RE1	B20	500	10.88	5049.48		66244-1.RAW	11:05:36	2149.26	Sample	OK	1
1611258-09RE1	B21	500	10.88	4792.54		66245-1.RAW	11:09:44	2040.46	Sample	OK	1
1611258-10RE1	C1	100	10.88	3393.24		66246-1.RAW	11:13:52	7195.84	Sample	OK	1
SEQ-CCV3	C2	1	10.88	5.12	102.37	66247-1.RAW	11:18:01	1094.67	Sample	OK	1
SEQ-CCB3	C3	1	10.88	0.21	0.00	66248-1.RAW	11:22:09	55.80	Sample	OK	1
1611258-12RE1	C4	500	10.88	9712.44		66249-1.RAW	11:26:18	4123.96	Sample	OK	1
1611258-13RE1	C5	100	10.88	3213.17		66250-1.RAW	11:30:26	6814.54	Sample	OK	1
1611258-14RE1	C6	500	10.88	5890.38		66251-1.RAW	11:34:34	2505.37	Sample	OK	1
F611391-DUP1	C7	100	10.88	2242.61		66252-1.RAW	11:38:43	4759.44	Sample	OK	1
F611391-MS1	C8	500	10.88	6605.75	294.43	66253-1.RAW	11:42:51	2808.32	Sample	OK	1
F611391-MSD1	C9	500	10.88	6799.72		66254-1.RAW	11:47:00	2890.47	Sample	OK	1
F611391-MS2	C10	500	10.88	6720.38	98.80	66255-1.RAW	11:51:08	2856.87	Sample	OK	1
F611391-MSD2	C11	500	10.88	6530.78		66256-1.RAW	11:55:17	2776.58	Sample	OK	1
F611448-BLK1	C12	1	10.88	0.21		66257-1.RAW	11:59:25	55.86	Sample	OK	1
F611448-BLK2	C13	1	10.88	0.15		66258-1.RAW	12:03:33	41.62	Sample	OK	1
SEQ-CCV4	C14	1	10.88	4.98	99.67	66259-1.RAW	12:07:42	1066.14	Sample	OK	1
SEQ-CCB4	C15	1	10.88	0.13	0.00	66260-1.RAW	12:11:50	39.33	Sample	OK	1
F611448-BLK3	C16	1	10.88	0.10		66261-1.RAW	12:15:59	32.62	Sample	OK	1
F611448-BLK4	C17	1	10.88	0.11		66262-1.RAW	12:20:07	34.29	Sample	OK	1
F611448-BLK5	C18	1	10.88	0.10		66263-1.RAW	12:24:15	31.98	Sample	OK	1
F611448-BLK6	C19	1	10.88	0.08		66264-1.RAW	12:28:24	27.03	Sample	OK	1
F611448-BS1	C20	1	10.88	16.10		66265-1.RAW	12:32:32	3419.35	Sample	OK	1
F611448-BSD1	C21	1	10.88	16.46		66266-1.RAW	12:36:41	3497.15	Sample	OK	1
1611079-11	A1	1	10.88	23.77		66267-1.RAW	12:40:49	5045.02	Sample	OK	1
1611079-12	A2	1	10.88	7.04		66268-1.RAW	12:44:57	1500.92	Sample	OK	1
1611079-13	A3	1	10.88	6.42		66269-1.RAW	12:49:06	1369.35	Sample	OK	1
SEQ-CCV5	A4	1	10.88	4.84	96.80	66270-1.RAW	12:53:14	1035.77	Sample	OK	1
SEQ-CCB5	A5	1	10.88	0.19	0.00	66271-1.RAW	12:57:23	50.45	Sample	OK	1
1611079-14	A6	1	10.88	1.08		66272-1.RAW	13:01:31	239.99	Sample	OK	1
1611079-15	A7	1	10.88	16.00		66273-1.RAW	13:05:40	3399.73	Sample	OK	1
1611079-16	A8	1	10.88	3.75		66274-1.RAW	13:09:48	805.82	Sample	OK	1
1611079-17	A9	1	10.88	16.89		66275-1.RAW	13:13:56	3586.73	Sample	OK	1
1611079-18	A10	1	10.88	3.67		66276-1.RAW	13:18:05	787.33	Sample	OK	1
1611079-19	A11	1	10.88	21.21		66277-1.RAW	13:22:13	4500.94	Sample	OK	1
1611079-20	A12	1	10.88	3.90		66278-1.RAW	13:26:22	836.71	Sample	OK	1
1611079-21	A13	1	10.88	0.17		66279-1.RAW	13:30:30	45.86	Sample	OK	1
1611079-22	A14	1	10.88	0.10		66280-1.RAW	13:34:39	32.28	Sample	OK	1
1611079-23	A15	1	10.88	0.06		66281-1.RAW	13:38:47	23.17	Sample	OK	1
SEQ-CCV6	A16	1	10.88	4.89	97.78	66282-1.RAW	13:42:55	1046.04	Sample	OK	1
SEQ-CCB6	A17	1	10.88	0.10	0.00	66283-1.RAW	13:47:04	31.62	Sample	OK	1
1611080-02	A18	5	10.88	0.97		66284-1.RAW	13:51:13	52.15	Sample	OK	1
1611082-13	A19	5	10.88	1.86		66285-1.RAW	13:55:22	89.48	Sample	OK	1
1611083-08	A20	1	10.88	0.06		66286-1.RAW	13:59:30	24.34	Sample	OK	1
1611084-06	A21	1	10.88	0.07		66287-1.RAW	14:03:39	25.30	Sample	OK	1
1611084-07	B1	1	10.88	0.17		66288-1.RAW	14:07:47	46.62	Sample	OK	1
1611084-08	B2	1	10.88	0.06		66289-1.RAW	14:11:55	22.82	Sample	OK	1

F611448-DUP1	B3	1	10.88	6.72		66290-1.RAW	14:16:04	1434.53	Sample	OK	1
F611448-MS1	B4	1	10.88	26.60	344.41	66291-1.RAW	14:20:12	5643.27	Sample	OK	1
F611448-MSD1	B5	1	10.88	25.60		66292-1.RAW	14:24:21	5432.47	Sample	OK	1
F611448-MS2	B6	1	10.88	25.35	91.83	66293-1.RAW	14:28:29	5378.46	Sample	OK	1
SEQ-CCV7	B7	1	10.88	4.89	97.82	66294-1.RAW	14:32:37	1046.53	Sample	OK	1
SEQ-CCB7	B8	1	10.88	0.18	0.00	66295-1.RAW	14:36:46	48.80	Sample	OK	1
F611448-MSD2	B9	1	10.88	26.20		66296-1.RAW	14:40:54	5558.42	Sample	OK	1
F611454-BLK1	B10	1	10.88	0.24		66297-1.RAW	14:45:03	62.05	Sample	OK	1
F611454-BLK2	B11	1	10.88	0.13		66298-1.RAW	14:49:11	39.08	Sample	OK	1
F611454-BLK3	B12	1	10.88	0.08		66299-1.RAW	14:53:20	27.50	Sample	OK	1
F611454-BLK4	B13	1	10.88	0.08		66300-1.RAW	14:57:28	26.88	Sample	OK	1
F611454-BLK5	B14	1	10.88	0.07		66301-1.RAW	15:01:36	25.00	Sample	OK	1
F611454-BLK6	B15	1	10.88	0.06		66302-1.RAW	15:05:45	23.61	Sample	OK	1
F611454-BLK7	B16	1	10.88	0.06		66303-1.RAW	15:09:53	23.12	Sample	OK	1
F611454-BLK8	B17	1	10.88	0.05		66304-1.RAW	15:14:02	20.94	Sample	OK	1
F611454-BLK9	B18	1	10.88	0.02		66305-1.RAW	15:18:10	16.15	Sample	OK	1
SEQ-CCV8	B19	1	10.88	4.75	94.97	66306-1.RAW	15:22:18	1016.39	Sample	OK	1
SEQ-CCB8	B20	1	10.88	0.09	0.00	66307-1.RAW	15:26:27	29.68	Sample	OK	1
F611454-BLKA	B21	1	10.88	0.03		66308-1.RAW	15:30:35	18.01	Sample	OK	1
F611454-BLKB	C1	1	10.88	0.04		66309-1.RAW	15:34:44	18.64	Sample	OK	1
F611454-BLKC	C2	1	10.88	0.02		66310-1.RAW	15:38:52	14.77	Sample	OK	1
F611454-BLKD	C3	1	10.88	0.03		66311-1.RAW	15:43:01	17.24	Sample	OK	1
F611454-BLKE	C4	1	10.88	0.02		66312-1.RAW	15:47:09	15.40	Sample	OK	1
F611454-BLKF	C5	1	10.88	0.03		66313-1.RAW	15:51:18	17.10	Sample	OK	1
F611454-BS1	C6	1	10.88	14.77		66314-1.RAW	15:55:27	3137.67	Sample	OK	1
F611454-BSD1	C7	1	10.88	15.30		66315-1.RAW	15:59:35	3249.53	Sample	OK	1
1611148-14	C8	1	10.88	0.19		66316-1.RAW	16:03:44	50.76	Sample	OK	1
1611150-06	C9	1	10.88	0.09		66317-1.RAW	16:07:52	29.09	Sample	OK	1
SEQ-CCV9	C10	1	10.88	4.66	93.19	66318-1.RAW	16:12:00	997.50	Sample	OK	1
SEQ-CCB9	C11	1	10.88	0.14	0.00	66319-1.RAW	16:16:09	40.39	Sample	OK	1
1611239-04	C12	1	10.88	0.09		66320-1.RAW	16:20:17	28.95	Sample	OK	1
1611241-04	C13	1	10.88	0.09		66321-1.RAW	16:24:26	29.54	Sample	OK	1
1611242-15	C14	1	10.88	0.05		66322-1.RAW	16:28:34	22.46	Sample	OK	1
1611249-10	C15	1	10.88	0.09		66323-1.RAW	16:32:43	29.22	Sample	OK	1
1611249-11	C16	1	10.88	0.04		66324-1.RAW	16:36:51	20.00	Sample	OK	1
1611321-01	C17	1	10.88	0.79		66325-1.RAW	16:40:59	178.01	Sample	OK	1
1611325-07	C18	1	10.88	0.03		66326-1.RAW	16:45:08	18.03	Sample	OK	1
1611373-01	C19	1	10.88	0.22		66327-1.RAW	16:49:16	57.28	Sample	OK	1
1611373-02	C20	1	10.88	0.10		66328-1.RAW	16:53:25	32.60	Sample	OK	1
1611391-05	C21	1	10.88	0.16		66329-1.RAW	16:57:33	44.22	Sample	OK	1
SEQ-CCVA	A1	1	10.88	4.93		66330-1.RAW	17:01:41	1054.95	Sample	OK	1
SEQ-CCBA	A2	1	10.88	0.07		66331-1.RAW	17:05:50	26.48	Sample	OK	1
1611547-02	A3	10	10.88	89.60		66332-1.RAW	17:09:58	1908.12	Sample	OK	1
1611547-04	A4	1	10.88	2.22		66333-1.RAW	17:14:07	481.19	Sample	OK	1
1611550-01	A5	1	10.88	2.01		66334-1.RAW	17:18:15	435.66	Sample	OK	1
1611576-01	A6	1	10.88	17.80		66335-1.RAW	17:22:24	3779.20	Sample	OK	1
1611577-01	A7	1	10.88	209.54		66336-1.RAW	17:26:32	44378.52	Sample	OK	1
1611578-01	A8	1	10.88	16.51		66337-1.RAW	17:30:40	3506.63	Sample	OK	1

F611454-DUP1	A9	10	10.88	94.03		66338-1.RAW	17:34:49	2001.95	Sample	OK	1
F611454-MS1	A10	10	10.88	292.25	307.52	66339-1.RAW	17:38:57	6199.00	Sample	OK	1
F611454-MSD1	A11	10	10.88	277.62		66340-1.RAW	17:43:06	5889.26	Sample	OK	1
F611454-MS2	A12	1	10.88	12.11	4.33	66341-1.RAW	17:47:15	2575.06	Sample	OK	1
SEQ-CCVB	A13	1	10.88	5.14		66342-1.RAW	17:51:24	1099.82	Sample	OK	1
SEQ-CCBB	A14	1	10.88	0.24		66343-1.RAW	17:55:32	60.80	Sample	OK	1
F611454-MSD2	A15	1	10.88	11.83		66344-1.RAW	17:59:41	2516.55	Sample	OK	1
1611577-01RE1	A16	10	10.88	231.21		66345-1.RAW	18:03:49	4906.56	Sample	OK	1
1611578-01RE1	A17	1	10.88	15.52		66346-1.RAW	18:07:57	3298.11	Sample	OK	1
SEQ-CCVC	A18	1	10.88	4.98		66347-1.RAW	18:12:06	1065.89	Sample	OK	1
SEQ-CCBC	A19	1	10.88	0.23		66348-1.RAW	18:16:14	60.62	Sample	OK	1

**Failing Data Report - 6K23007**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1611577-01	Hg-CVAFS-W-1631	211	0.50				ng/L						FAIL-OVER	PASS	E

Don Mason  
 Analyst Reviewed By

11/23/16  
 Date

[Signature]  
 Peer Reviewed By

11-23-16  
 Date

**Failing Data Report - 6K23008**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1611258-04	Hg-CVAFS-T-7030	538	3.47				ng/g						FAIL-OVER	PASS	E
1611258-08	Hg-CVAFS-T-7030	376	3.60				ng/g						FAIL-OVER	PASS	E
1611258-09	Hg-CVAFS-T-7030	389	3.81				ng/g						FAIL-OVER	PASS	E
1611258-12	Hg-CVAFS-T-7030	841	3.98				ng/g						FAIL-OVER	PASS	E
1611258-14	Hg-CVAFS-T-7030	462	3.72				ng/g						FAIL-OVER	PASS	E

Analyst Reviewed By Don Moran Date 11/23/10

Peer Reviewed By [Signature] Date 11-23-10





## ANALYSIS SEQUENCE

6K23008

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/22/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K23008-IBL1	QC	1			
6K23008-IBL2	QC	2			
6K23008-IBL3	QC	3			
6K23008-CAL1	QC	4	1605412		
6K23008-CAL2	QC	5	1605413		
6K23008-CAL3	QC	6	1605414		
6K23008-CAL4	QC	7	1605415		
6K23008-CAL5	QC	8	1605416		
6K23008-ICV1	QC	9	1605791		
F611391-BLK1	QC	10			
F611391-BLK2	QC	11			
F611391-BLK3	QC	12			
F611391-BS1	QC	13			
F611391-BSD1	QC	14			
F611391-BS2	QC	15			
1611258-01	Hg-CVAFS-T-7030	16			
1611258-02	Hg-CVAFS-T-7030	17			
1611258-03	Hg-CVAFS-T-7030	18			
1611258-04	Hg-CVAFS-T-7030	19			
6K23008-CCV1	QC	20	1605791		
6K23008-CCB1	QC	21			
1611258-05	Hg-CVAFS-T-7030	22			
1611258-06	Hg-CVAFS-T-7030	23			
1611258-07	Hg-CVAFS-T-7030	24			
1611258-08	Hg-CVAFS-T-7030	25			
1611258-09	Hg-CVAFS-T-7030	26			
1611258-10	Hg-CVAFS-T-7030	27			
1611258-11	Hg-CVAFS-T-7030	28			
1611258-12	Hg-CVAFS-T-7030	29			
1611258-13	Hg-CVAFS-T-7030	30			
1611258-14	Hg-CVAFS-T-7030	31			
6K23008-CCV2	QC	32	1605791		
6K23008-CCB2	QC	33			
1611258-15	Hg-CVAFS-T-7030	34			
1611258-16	Hg-CVAFS-T-7030	35			

Due Date: 11/29/2016

## ANALYSIS SEQUENCE

6K23008

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/22/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611258-17	Hg-CVAFS-T-7030	36			
1611258-18	Hg-CVAFS-T-7030	37			
1611258-19	Hg-CVAFS-T-7030	38			
1611258-20	Hg-CVAFS-T-7030	39			
1611258-04RE1	Hg-CVAFS-T-7030	40			Added 11/23/2016 by DM2
1611258-08RE1	Hg-CVAFS-T-7030	41			Added 11/23/2016 by DM2
1611258-09RE1	Hg-CVAFS-T-7030	42			Added 11/23/2016 by DM2
1611258-10RE1	Hg-CVAFS-T-7030	43			Added 11/23/2016 by DM2
6K23008-CCV3	QC	44	1605791		
6K23008-CCB3	QC	45			
1611258-12RE1	Hg-CVAFS-T-7030	46			Added 11/23/2016 by DM2
1611258-13RE1	Hg-CVAFS-T-7030	47			Added 11/23/2016 by DM2
1611258-14RE1	Hg-CVAFS-T-7030	48			Added 11/23/2016 by DM2
F611391-DUP1	QC	49			
F611391-MS1	QC	50			
F611391-MSD1	QC	51			
F611391-MS2	QC	52			
F611391-MSD2	QC	53			
6K23008-CCV4	QC	54	1605791		
6K23008-CCB4	QC	55			
6K23008-CCV5	QC	56	1605791		
6K23008-CCB5	QC	57			
6K23008-CCV6	QC	58	1605791		
6K23008-CCB6	QC	59			
6K23008-CCV7	QC	60	1605791		
6K23008-CCB7	QC	61			
6K23008-CCV8	QC	62	1605791		
6K23008-CCB8	QC	63			
6K23008-CCV9	QC	64	1605791		
6K23008-CCB9	QC	65			
6K23008-CCVA	QC	66	1605791		
6K23008-CCBA	QC	67			
6K23008-CCVB	QC	68	1605791		
6K23008-CCBB	QC	69			
6K23008-CCVC	QC	70	1605791		

Due Date: 11/29/2016

ANALYSIS SEQUENCE

6K23008

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/22/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K23008-CCBC	QC	71			

Don Matern 11/22/16  
Samples Loaded By Date

Don Matern 11/23/16  
Data Processed By Date

Due Date: 11/29/2016

## ANALYSIS SEQUENCE

6K23009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client
6K23009-IBL1	QC		1				
6K23009-IBL2	QC		2				
6K23009-IBL3	QC		3				
6K23009-CAL1	QC		4		1605412		
6K23009-CAL2	QC		5		1605413		
6K23009-CAL3	QC		6		1605414		
6K23009-CAL4	QC		7		1605415		
6K23009-CAL5	QC		8		1605416		
6K23009-ICV1	QC		9		1605791		
6K23009-CCV1	QC		10		1605791		
6K23009-CCB1	QC		11				
6K23009-CCV2	QC		12		1605791		
6K23009-CCB2	QC		13				
6K23009-CCV3	QC		14		1605791		
6K23009-CCB3	QC		15				
F611448-BLK1	QC		16				
F611448-BLK2	QC		17				
6K23009-CCV4	QC		18		1605791		
6K23009-CCB4	QC		19				
F611448-BLK3	QC		20				
F611448-BLK4	QC		21				
F611448-BLK5	QC		22				
F611448-BLK6	QC		23				
F611448-BS1	QC		24				
F611448-BSD1	QC		25				
1611079-11	Hg-CVAFS-W-1631	B	26				Parsons - Syracuse NY
1611079-12	Hg-CVAFS-W-1631	B	27				Parsons - Syracuse NY
1611079-13	Hg-CVAFS-W-1631	B	28				Parsons - Syracuse NY
6K23009-CCV5	QC		29		1605791		
6K23009-CCB5	QC		30				
1611079-14	Hg-CVAFS-W-1631	B	31				Parsons - Syracuse NY
1611079-15	Hg-CVAFS-W-1631	B	32				Parsons - Syracuse NY
1611079-16	Hg-CVAFS-W-1631	B	33				Parsons - Syracuse NY

Don Moran  
 Samples Loaded By

11/22/16  
 Date

Don Moran  
 Data Processed By

11/23/16  
 Date

## ANALYSIS SEQUENCE

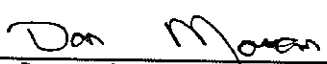
6K23009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client
1611079-17	Hg-CVAFS-W-1631	B	34				Parsons - Syracuse NY
1611079-18	Hg-CVAFS-W-1631	B	35				Parsons - Syracuse NY
1611079-19	Hg-CVAFS-W-1631	B	36				Parsons - Syracuse NY
1611079-20	Hg-CVAFS-W-1631	B	37				Parsons - Syracuse NY
1611079-21	Hg-CVAFS-W-1631	B	38				Parsons - Syracuse NY
1611079-22	Hg-CVAFS-W-1631	B	39				Parsons - Syracuse NY
1611079-23	Hg-CVAFS-W-1631	A	40				Parsons - Syracuse NY
6K23009-CCV6	QC		41		1605791		
6K23009-CCB6	QC		42				
1611080-02	Hg-CVAFS-W-1631	B	43				Tierra Solutions, Inc
1611082-13	Hg-CVAFS-W-1631	B	44				Tierra Solutions, Inc
1611083-08	Hg-CVAFS-W-1631	B	45				Tierra Solutions, Inc
1611084-06	Hg-CVAFS-W-1631	B	46				Tierra Solutions, Inc
1611084-07	Hg-CVAFS-W-1631	B	47				Tierra Solutions, Inc
1611084-08	Hg-CVAFS-W-1631	B	48				Tierra Solutions, Inc
F611448-DUP1	QC		49				
F611448-MS1	QC		50				
F611448-MSD1	QC		51				
F611448-MS2	QC		52				
6K23009-CCV7	QC		53		1605791		
6K23009-CCB7	QC		54				
F611448-MSD2	QC		55				
6K23009-CCV8	QC		56		1605791		
6K23009-CCB8	QC		57				
6K23009-CCV9	QC		58		1605791		
6K23009-CCB9	QC		59				
6K23009-CCVA	QC		60		1605791		
6K23009-CCBA	QC		61				
6K23009-CCVB	QC		62		1605791		
6K23009-CCBB	QC		63				
6K23009-CCVC	QC		64		1605791		
6K23009-CCBC	QC		65				


 Samples Loaded By \_\_\_\_\_ Date 11/22/10


 Data Processed By \_\_\_\_\_ Date 11/23/10

ANALYSIS SEQUENCE

6K23009

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client
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Don Moran 11/22/10  
Samples Loaded By Date

Don Moran 11/23/10  
Data Processed By Date

**ANALYSIS SEQUENCE**

**6K23007**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/22/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F611454-MSD2	QC	71			
1611577-01RE1	Hg-CVAFS-W-1631	72			Added 11/23/2016 by DM2
1611578-01RE1	Hg-CVAFS-W-1631	73			Added 11/23/2016 by DM2
6K23007-CCVC	QC	74	1605791		
6K23007-CCBC	QC	75			

Dan Moran      11/22/16  
 Samples Loaded By      Date

Dan Moran      11/23/16  
 Data Processed By      Date

Due Date: 12/5/2016

## ANALYSIS SEQUENCE

6K23007

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/22/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K23007-IBL1	QC	1			
6K23007-IBL2	QC	2			
6K23007-IBL3	QC	3			
6K23007-CAL1	QC	4	1605412		
6K23007-CAL2	QC	5	1605413		
6K23007-CAL3	QC	6	1605414		
6K23007-CAL4	QC	7	1605415		
6K23007-CAL5	QC	8	1605416		
6K23007-ICV1	QC	9	1605791		
6K23007-CCV1	QC	10	1605791		
6K23007-CCB1	QC	11			
6K23007-CCV2	QC	12	1605791		
6K23007-CCB2	QC	13			
6K23007-CCV3	QC	14	1605791		
6K23007-CCB3	QC	15			
6K23007-CCV4	QC	16	1605791		
6K23007-CCB4	QC	17			
6K23007-CCV5	QC	18	1605791		
6K23007-CCB5	QC	19			
6K23007-CCV6	QC	20	1605791		
6K23007-CCB6	QC	21			
6K23007-CCV7	QC	22	1605791		
6K23007-CCB7	QC	23			
F611454-BLK1	QC	24			
F611454-BLK2	QC	25			
F611454-BLK3	QC	26			
F611454-BLK4	QC	27			
F611454-BLK5	QC	28			
F611454-BLK6	QC	29			
F611454-BLK7	QC	30			
F611454-BLK8	QC	31			
F611454-BLK9	QC	32			
6K23007-CCV8	QC	33	1605791		
6K23007-CCB8	QC	34			
F611454-BLKA	QC	35			

Due Date: 12/5/2016



## ANALYSIS SEQUENCE

6K23007

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 11/22/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F611454-BLKB	QC	36			
F611454-BLKC	QC	37			
F611454-BLKD	QC	38			
F611454-BLKE	QC	39			
F611454-BLKF	QC	40			
F611454-BS1	QC	41			
F611454-BSD1	QC	42			
1611148-14	Hg-CVAFS-W-1631	43			Scan all data for Level IV
1611150-06	Hg-CVAFS-W-1631	44			Scan all data for Level IV
6K23007-CCV9	QC	45	1605791		
6K23007-CCB9	QC	46			
1611239-04	Hg-CVAFS-W-1631	47			Scan all data for Level IV
1611241-04	Hg-CVAFS-W-1631	48			Scan all data for Level IV
1611242-15	Hg-CVAFS-W-1631	49			Scan all data for Level IV
1611249-10	Hg-CVAFS-W-1631	50			Scan all data for Level IV
1611249-11	Hg-CVAFS-W-1631	51			Scan all data for Level IV
1611321-01	Hg-CVAFS-W-1631	52			
1611325-07	Hg-CVAFS-W-1631	53			Scan all data for Level IV
1611373-01	Hg-CVAFS-W-1631	54			Scan all data for Level IV
1611373-02	Hg-CVAFS-W-1631	55			Scan all data for Level IV
1611391-05	Hg-CVAFS-W-1631	56			Scan all data for Level IV
6K23007-CCVA	QC	57	1605791		
6K23007-CCBA	QC	58			
1611547-02	Hg-CVAFS-W-1631	59			give data to PM for scanning
1611547-04	Hg-CVAFS-W-1631	60			give data to PM for scanning
1611550-01	Hg-CVAFS-W-1631	61			scan all data for Level IV report
1611576-01	Hg-CVAFS-W-1631	62			
1611577-01	Hg-CVAFS-W-1631	63			
1611578-01	Hg-CVAFS-W-1631	64			
F611454-DUP1	QC	65			
F611454-MS1	QC	66			
F611454-MSD1	QC	67			
F611454-MS2	QC	68			
6K23007-CCVB	QC	69	1605791		
6K23007-CCBB	QC	70			

Due Date: 12/5/2016

**PREPARATION BENCH SHEET**

F611391

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611391-BLK1	Blank	0.5	40					
F611391-BLK2	Blank	0.5	40					
F611391-BLK3	Blank	0.5	40					
F611391-BS1	LCS	0.5	40	1605270	40			
F611391-BS2	LCS	0.252	40	1605470	252			
F611391-BSD1	LCS Dup	0.5	40	1605270	40			
F611391-DUP1	Duplicate [1611258-01]	0.554	40					
F611391-MS1	Matrix Spike [1611258-01]	0.507	40	1605712	200			
F611391-MS2	Matrix Spike [1611258-02]	0.541	40	1605712	200			
F611391-MSD1	Matrix Spike Dup [1611258-01]	0.502	40	1605712	200			
F611391-MSD2	Matrix Spike Dup [1611258-02]	0.509	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1606719	5% BrCl	19-Apr-17 00:00
			1606720	70/30 Digestion Acid	15-May-17 00:00
			1606759	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611391

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611258-01	L10_52_092416_LOB_TA_01	0.537	40	QC	-	-	MS/MSD	
1611258-02	L10_52_092416_LOB_TA_02	0.534	40	-	-	-		
1611258-03	L10_52_092416_LOB_TA_03	0.515	40	-	-	-		
1611258-04	L10_52_092416_LOB_TA_04	0.577	40	-	-	-		
1611258-04RE1	L10_52_092416_LOB_TA_04	0.577	40	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
1611258-05	L10_52_092416_LOB_TA_05	0.556	40	-	-	-		
1611258-06	L10_52_092416_LOB_TA_06	0.519	40	-	-	-		
1611258-07	L10_52_092416_LOB_TA_07	0.551	40	-	-	-		
1611258-08	L10_52_092416_LOB_TA_08	0.555	40	-	-	-		
1611258-08RE1	L10_52_092416_LOB_TA_08	0.555	40	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
1611258-09	L10_52_092416_LOB_TA_09	0.525	40	-	-	-		
1611258-09RE1	L10_52_092416_LOB_TA_09	0.525	40	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
1611258-10	L10_52_092416_LOB_TA_10	0.515	40	-	-	-		
1611258-10RE1	L10_52_092416_LOB_TA_10	0.515	40	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
1611258-11	L10_52_092416_LOB_TA_11	0.502	40	-	-	-		
1611258-12	L10_52_092416_LOB_TA_12	0.503	40	-	-	-		
1611258-12RE1	L10_52_092416_LOB_TA_12	0.503	40	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
1611258-13	L10_52_092416_LOB_TA_13	0.506	40	-	-	-		
1611258-13RE1	L10_52_092416_LOB_TA_13	0.506	40	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2

Page 72 of 120

Date: 11/29/2016

**PREPARATION BENCH SHEET**

F611391

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

1611258-14	L10_52_092416_LOB_TA_14	0.538	40	-	-	-		
1611258-14RE1	L10_52_092416_LOB_TA_14	0.538	40	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
1611258-15	L10_52_092416_LOB_TA_15	0.536	40	-	-	-		
1611258-16	L10_52_092416_LOB_TA_16	0.509	40	-	-	-		
1611258-17	L10_52_092416_LOB_TA_17	0.501	40	-	-	-		
1611258-18	L10_52_092416_LOB_TA_18	0.556	40	-	-	-		
1611258-19	L10_52_092416_LOB_TA_19	0.537	40	-	-	-		
1611258-20	L10_52_092416_LOB_TA_20	0.533	40	-	-	-		



**PREPARATION BENCH SHEET**

F611448

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611448-BLK1	Blank	100	101					SOURCE 1611079-24
F611448-BLK2	Blank	100	101					SOURCE 1611079-24
F611448-BLK3	Blank	100	101					SOURCE 1611079-24
F611448-BLK4	Blank	100	101					SOURCE 1611083-09, 1611080-03, 1611082-14, 1611084-09
F611448-BLK5	Blank	100	101					SOURCE 1611083-09, 1611080-03, 1611082-14, 1611084-09
F611448-BLK6	Blank	100	101					SOURCE 1611083-09, 1611080-03, 1611082-14, 1611084-09
F611448-BS1	LCS	50	50.5	1604715	100			
F611448-BSD1	LCS Dup	50	50.5	1604715	100			
F611448-DUP1	Duplicate [1611079-12]	100	101					
F611448-MS1	Matrix Spike [1611079-12]	49.50495	50	1605272	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611448-MS2	Matrix Spike [1611079-13]	49.50495	50	1605272	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611448-MSD1	Matrix Spike Dup [1611079-12]	49.50495	50	1605272	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611448-MSD2	Matrix Spike Dup [1611079-13]	49.50495	50	1605272	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>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1606163	0.2 N BRCL OCTOBER 2016	19-Apr-17 00:00
			1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611448

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611079-11	LCPI-5251-06	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-12	LCPI-5251-06 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-13	LCPI-5251-07	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-14	LCPI-5251-07 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-15	LCPI-5251-08	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-16	LCPI-5251-08 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-17	LCPI-5251-09	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-18	LCPI-5251-09 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-19	LCPI-5251-10	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-20	LCPI-5251-10 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-21	LCPI-5251-11	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-22	LCPI-5251-11 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-23	Laboratory Filter Blank	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611080-02	TB10272016-01 8666468	100	101	-	-	-	Preservation Blank created Scan all data	
1611082-13	TB10272016-01 Water 8666497	100	101	-	-	-	Preservation Blank created Scan all data	
1611083-08	TB10282016-01 Water	100	101	-	-	-	Preservation Blank created Scan all data	
1611084-06	NB3154FB Grab Water 8669032	100	101	-	-	-	Preservation blank created Scan all data	
1611084-07	NB3155FB Grab Water 8669034	100	101	-	-	-	Preservation blank created Scan all data	
1611084-08	TB10282016-01 Water	100	101	-	-	-	Preservation blank created Scan all data	

Page 75 of 120

Date: 12/2/2016

**PREPARATION BENCH SHEET**

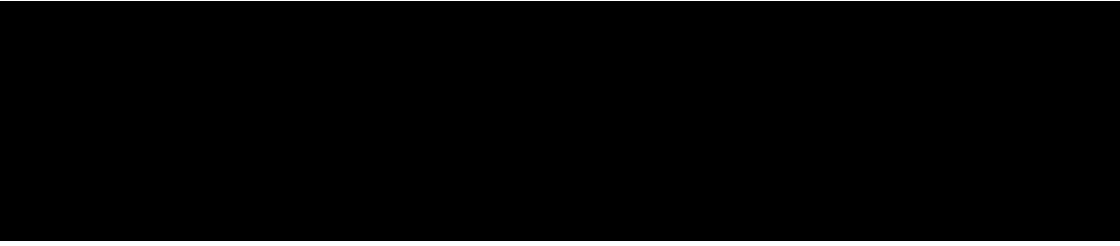
F611448

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**



**PREPARATION BENCH SHEET**

F611454

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611454-BLK1	Blank	100	101					SOURCE 1611148-15, 1611150-07
F611454-BLK2	Blank	100	101					SOURCE 1611148-15, 1611150-07
F611454-BLK3	Blank	100	101					SOURCE 1611148-15, 1611150-07
F611454-BLK4	Blank	100	101					SOURCE 1611241-05, 1611239-05, 1611242-16, 1611249-12
F611454-BLK5	Blank	100	101					SOURCE 1611241-05, 1611239-05, 1611242-16, 1611249-12
F611454-BLK6	Blank	100	101					SOURCE 1611241-05, 1611239-05, 1611242-16, 1611249-12
F611454-BLK7	Blank	100	101					SOURCE 1611325-08
F611454-BLK8	Blank	100	101					SOURCE 1611325-08
F611454-BLK9	Blank	100	101					SOURCE 1611325-08
F611454-BLKA	Blank	100	101					SOURCE 1611373-03
F611454-BLKB	Blank	100	101					SOURCE 1611373-03
F611454-BLKC	Blank	100	101					SOURCE 1611373-03
F611454-BLKD	Blank	100	101					SOURCE 1611391-06
F611454-BLKE	Blank	100	101					SOURCE 1611391-06
F611454-BLKF	Blank	100	101					SOURCE 1611391-06
F611454-BS1	LCS	50	50.5	1604715	100			
F611454-BSD1	LCS Dup	50	50.5	1604715	100			
F611454-DUP1	Duplicate [1611547-02]	100	101					
F611454-MS1	Matrix Spike [1611547-02]	4.950495	5	1605272	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F611454-MS2	Matrix Spike [1611550-01]	49.50495	50	1605272	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611454-MSD1	Matrix Spike Dup [1611547-02]	4.950495	5	1605272	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F611454-MSD2	Matrix Spike Dup [1611550-01]	49.50495	50	1605272	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

Page 77 of 120

Date: 12/5/2016



**PREPARATION BENCH SHEET**

**F611454**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**

<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	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1606163	0.2 N BRCL OCTOBER 2016	19-Apr-17 00:00
		10-Dec-16 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611454

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611148-14	TB11022016-01 Water 8675614	100	101	-	-	-	Trip blank same container as 1611150-06	
1611150-06	TB11022016-01 Water 8675654	100	101	-	-	-	Trip blank same as 1611148-14 Scan all data	
1611239-04	TB11032016-01 Water 8678424	100	101	-	-	-	Preservation Blank Created Scan all data	
1611241-04	TB11042016-01 Water 8680692	100	101	-	-	-	Preservation Blank Created Scan all data	
1611242-15	TB11032016-01 Water 8678456	100	101	-	-	-	Preservation Blank Created Scan all data	
1611249-10	NB3157FB Grab Water 8680715	100	101	-	-	-	Preservation Blank Created Scan all data	
1611249-11	TB11042016-01 Water 8680716	100	101	-	-	-	Preservation Blank Created Scan all data	
1611321-01	SC28191-03	100	101	-	-	-		
1611325-07	TB11082016-01 Water	100	101	-	-	-	Preservation Blank Created Scan all data	
1611373-01	NB3158FB	100	101	-	-	-	Scan all data for Level IV	
1611373-02	TB11092016-01	100	101	-	-	-	Scan all data for Level IV	
1611391-05	TB11102016-01 Water	100	101	-	-	-	Preservation Blank Created Scan all data	
1611547-02	B-161536 PLANT INFLUENT #16-17585	100	101	-	-	Scan Dat	give data to PM for scanning	
1611547-04	B-161539 PLANT EFFLUENT #16-17587	100	101	-	-	Scan Dat	give data to PM for scanning	
1611550-01	16K0235-01	100	101	-	-	-	MS/MSD scan all data for Level IV report	
1611576-01	R1612025-001 802W-111116-01H	100	101	-	-	-		
1611577-01	R1612026-001 WTP-111116-01P	100	101	-	-	-		
1611578-01RE1	R1612026-001 WTP-111116-01P	100	101	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
1611578-01	R1612092-001 802W-111416-01H	100	101	-	-	-		

Page 79 of 120

Date: 12/5/2016

PREPARATION BENCH SHEET

F611454

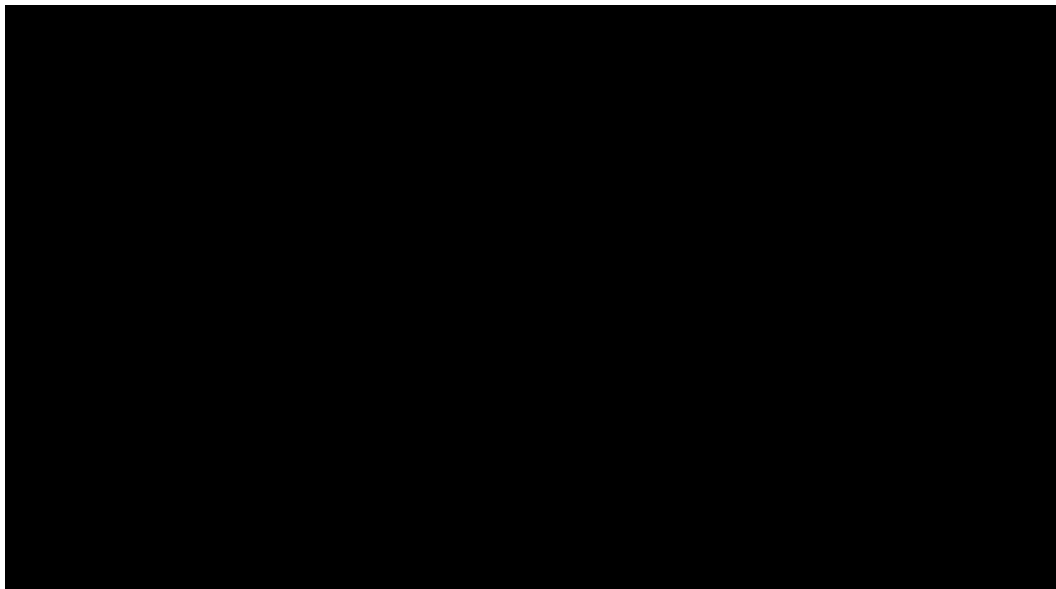
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/22/2016

1611578-01RE1	R1612092-001 802W-111416-01H	100	101	-	-	-	Added 11/23/2016 by DM2	Added 11/23/2016 by DM2
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PREPARATION BENCH SHEET

2600.2  
11/22/16 DM

F611391

Euofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611391-BLK1	Blank	0.5	40					20X
F611391-BLK2	Blank	0.5	40					20X
F611391-BLK3	Blank	0.5	40					20X
F611391-BS1	LCS	0.5	40	1605270	40			20X
F611391-BS2	LCS	0.252	40	1605470	252			500X
F611391-BSD1	LCS Dup	0.5	40	1605270	40			20X
F611391-DUP1	Duplicate [1611258-01]	0.554	40					100Y
F611391-MS1	Matrix Spike [1611258-01]	0.507	40	1605712	200			500X
F611391-MS2	Matrix Spike [1611258-02]	0.541	40	1605712	200			500X
F611391-MSD1	Matrix Spike Dup [1611258-01]	0.502	40	1605712	200			500X
F611391-MSD2	Matrix Spike Dup [1611258-02]	0.509	40	1605712	200			500X

Standard ID(s):  
1605270 THg 100ng/mL Primary Spiking Standard  
1605470 DORM-4  
1605712 THg 1,000ng/mL Secondary Spiking Standard

Expiration:  
10-Dec-16 00:00  
19-Mar-17 00:00  
03-Apr-17 00:00

Reagent ID(s):  
1606642 Boiling Chips for AFS prep  
1606719 5% BrCl  
1606720 70/30 Digestion Acid  
1606759 5% BrCl

Expiration:  
10-May-17 00:00  
19-Apr-17 00:00  
15-May-17 00:00  
19-Apr-17 00:00

1606741  
1606189  
1606188  
1606531

PREPARATION BENCH SHEET

2600.2  
11/22/16 DM

F611391

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	Sample Comments	Analysis Comments
1611258-01	L10_52_092416_LOB_TA_01	0.537	40	No 100X	
1611258-02	L10_52_092416_LOB_TA_02	0.534	40	No 100X	
1611258-03	L10_52_092416_LOB_TA_03	0.515	40	No 100X	
1611258-04	L10_52_092416_LOB_TA_04	0.577	40	No 100X → 500X	
1611258-05	L10_52_092416_LOB_TA_05	0.556	40	No 100X	
1611258-06	L10_52_092416_LOB_TA_06	0.519	40	No 160X	
1611258-07	L10_52_092416_LOB_TA_07	0.551	40	No 100X	
1611258-08	L10_52_092416_LOB_TA_08	0.555	40	No 100X → 500X	
1611258-09	L10_52_092416_LOB_TA_09	0.525	40	No 100X → 500X	
1611258-10	L10_52_092416_LOB_TA_10	0.515	40	No 100X → 100X	
1611258-11	L10_52_092416_LOB_TA_11	0.502	40	No 100X	
1611258-12	L10_52_092416_LOB_TA_12	0.503	40	No 100X → 500X	
1611258-13	L10_52_092416_LOB_TA_13	0.506	40	No 100X → 100X	
1611258-14	L10_52_092416_LOB_TA_14	0.538	40	No 100X → 500X	
1611258-15	L10_52_092416_LOB_TA_15	0.536	40	No 500X	
1611258-16	L10_52_092416_LOB_TA_16	0.509	40	No 500X	
1611258-17	L10_52_092416_LOB_TA_17	0.501	40	No 500X	
1611258-18	L10_52_092416_LOB_TA_18	0.556	40	No 500X	
1611258-19	L10_52_092416_LOB_TA_19	0.537	40	No 500X	
1611258-20	L10_52_092416_LOB_TA_20	0.533	40	No 500X	

**PREPARATION BENCH SHEET**

**F611391**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Technician: MPM Batch#: F611391 Date: 11/17/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 10 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No

Time in: 1638 Actual Temp. (raw): 71 °C w/ CF: 70.6 °C

Time out: 1838 Actual Temp. (raw): 74 °C w/ CF: 73.6 °C

Final vol.: 40 mL (LIMS ID: 1606759/1606719) Spike vol.: 200 µL (LIMS ID: 1605712)

Spike Witness: m 11/17/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MV11619 Calibration Date: 11/14/16

HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A

70/30 LIMS ID: 1606720 Dispenser #: 02K27494 Calibrated?  Yes  No

Other Acid LIMS ID: N/A Dispenser #: 02Z2159 Cal. Yes

Glass Vial # 6001042 Boiling Chip lot # 160642 \*Hotblock Position: M7

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	F611391-BIK1	0.549	23	1611258-12	0.503	DORM-4 BS2
2	F611391-BIK2	0.540	24	1611258-13	0.506	1605470
3	F611391-BIK2	0.512	25	1611258-14	0.538	
4	F611391-BS1	0.510	26	1611258-15	0.536	
5	F611391-BSD1	0.555	27	1611258-16	0.509	<b>Comments</b> BS1/BSD1 40µl of 160ng/ml 1605270 11/17/16 MPM
6	F611391-BS2	0.252	28	1611258-17	0.501	
7	1611258-01	0.537	29	1611258-18	0.556	
8	F611391-DUP1(1611258-01)	0.554	30	1611258-19	0.537	
9	F611391-MS1(1611258-01)	0.507	31	1611258-20	0.533	
10	F611391-MSD1(1611258-01)	0.502	32			
11	1611258-02	0.534	33			
12	F611391-MS2(1611258-02)	0.541	34			
13	F611391-MSD2(1611258-02)	0.509	35			
14	1611258-03	0.515	36			
15	1611258-04	0.577	37			
16	1611258-05	0.556	38			
17	1611258-06	0.519	39			
18	1611258-07	0.551	40			
19	1611258-08	0.555	41			
20	1611258-09	0.525	42			
21	1611258-10	0.515	43			
22	1611258-11	0.502	44			

PREPARATION BENCH SHEET

2600-2

11/22/16 DN

F611448

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/22/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611448-BLK1	Blank	100	101					Source 1611079-24 IX
F611448-BLK2	Blank	100	101					" " IX
F611448-BLK3	Blank	100	101					" " IX
F611448-BS1	LCS	50.100	50.3101	K04715	100			IX
F611448-BSD1	LCS Dup	50.100	50.3101	K04715	100			IX
F611448-DUP1	Duplicate 1611079-12	100	101					IX
F611448-MS1	Matrix Spike 1611079-12	100	101	K05272	100			IX
F611448-MS2	Matrix Spike K11079-13	100	101	K05272	100			IX
F611448-MSD1	Matrix Spike Dup 1611079-12	100	101	K05272	100			IX
F611448-MSD2	Matrix Spike Dup 1611079-13	100	101	K05272	100			IX

Standard ID(s): Description:

Expiration:

BLK 4, 5, 6 Source 1611083-09, 1611080-03, 1611082-14  
1611084-09

1602941  
1600189  
1600188  
1600531  
1600163



PREPARATION BENCH SHEET

2600-2  
11/22/16 DM

F611448

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/22/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611079-11	LCPI-5251-06	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-12	LCPI-5251-06 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-13	LCPI-5251-07	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-14	LCPI-5251-07 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-15	LCPI-5251-08	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-16	LCPI-5251-08 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-17	LCPI-5251-09	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-18	LCPI-5251-09 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-19	LCPI-5251-10	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-20	LCPI-5251-10 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-21	LCPI-5251-11	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-22	LCPI-5251-11 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-23	Laboratory Filter Blank	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611080-02	TB10272016-01 8666468	100	101	-	-	-	Preservation Blank created Scan all dat	5X
1611082-13	TB10272016-01 Water 8666497	100	101	-	-	-	Preservation Blank created Scan all dat	5X
1611083-08	TB10282016-01 Water	100	101	-	-	-	Preservation Blank created Scan all dat	IX
1611084-06	NB3154FB Grab Water 8669032	100	101	-	-	-	Preservation blank created Scan all data	IX
1611084-07	NB3155FB Grab Water 8669034	100	101	-	-	-	Preservation blank created Scan all data	IX
1611084-08	TB10282016-01 Water	100	101	-	-	-	Preservation blank created Scan all data	IX

Page 86 of 120

Date: 12/2/2016

**PREPARATION BENCH SHEET**

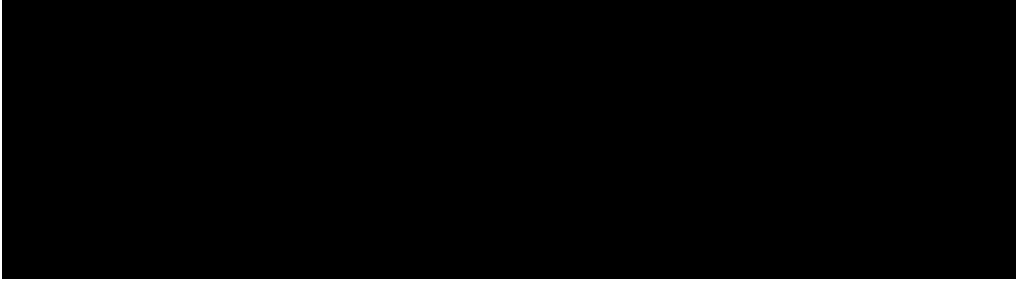
F611448

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**



# Total Mercury Preservation Logbook

Initial preservation and/or verification

AMN 11/3/16

Technician: AMN Date: 11/3/16 Time Completed: 12:10

Work Orders: 1611078  
1611079

Additional preservation and/or verification (as needed)

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

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

BrCl LIMS ID: 1606/p3

Pipette SN: MV32229

Cal. Date: 11/2/16

Sample ID	Sample Volume (ml)	Reagent added (ml)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (ml)	Oxidized? Y/N
1611079-01 A	300	3.00	Y			
1611078-02 A	300	3.00	Y			
1611078-03 A	300	3.00	Y			
1611079-01 A	600	6.00	Y			
1611079-02 B	600	6.00	Y			
1611079-03 A	600	6.00	Y			
1611079-04 B	600	6.00	Y			
1611079-05 B	600	6.00	Y			
1611079-06 B	600	6.00	Y			
1611079-07 A	600	6.00	Y			
1611079-08 B	600	6.00	Y			
1611079-09 B	600	6.00	Y			
1611079-10 B	600	6.00	Y			
1611079-11 A	600	6.00	Y			
1611079-12 B	600	6.00	Y			
1611079-13 A	600	6.00	Y			
1611079-14 B	600	6.00	Y			
1611079-15 A	600	6.00	Y			
1611079-16 B	600	6.00	Y			
1611079-17 A	600	6.00	Y			
1611079-18 B	600	6.00	Y			
1611079-19 A	600	6.00	Y			
1611079-20 B	600	6.00	Y			
1611079-21 A	600	6.00	Y			
1611079-22 B	600	6.00	Y			
1611079-23 A	600	6.00	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: \_\_\_\_\_

Reviewed



PREPARATION BENCH SHEET

2000-2  
11/22/16 DM

F611454

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/22/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611454-BLK1	Blank	100	101					Source 161145-15, 161150-07 IX
F611454-BLK2	Blank	100	101					" " IX
F611454-BLK3	Blank	100	101					" " IX
F611454-BS1	LCS	50 -100	50.5 -101	1604715	100			IX
F611454-BSD1	LCS Dup	50 -100	50.5 -101	1604715	100			IX
F611454-DUP1	Duplicate 1611547-02	100	101					IX
F611454-MS1	Matrix Spike 1611547-02	100	101	1605272	100			IX
F611454-MS2	Matrix Spike 1611550-01	100	101	1605272	50			IX
F611454-MSD1	Matrix Spike Dup 1611547-02	100	101	1605272	100			IX
F611454-MSD2	Matrix Spike Dup 1611550-01	100	101	1605272	50			IX

Standard ID(s): Description: Expiration:

BLK 4, 5, 6 SOURCE 1611241-05, 1611239-05, 1611242-10, 1611249-12  
 BLK 7, 8, 9 SOURCE 1611325-08  
 BLK A, B, C SOURCE 1611373-03  
 BLK D, E, F SOURCE 1611391-06

1602941  
 1602189  
 1602188  
 1602531  
 1602163

Page 90 of 120

Date: 12/5/2016

PREPARATION BENCH SHEET

200-2

11/22/16 DM

F611454

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/22/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611148-14	TB11022016-01 Water 8675614	100	101	-	-	-	Trip blank same container as 1611150-06	IX
1611150-06	TB11022016-01 Water 8675654	100	101	-	-	-	Trip blank same as 1611148-14 Scan all data	IX
1611239-04	TB11032016-01 Water 8678424	100	101	-	-	-	Preservation Blank Created Scan all data	IX
1611241-04	TB11042016-01 Water 8680692	100	101	-	-	-	Preservation Blank Created Scan all data	IX
1611242-15	TB11032016-01 Water 8678456	100	101	-	-	-	Preservation Blank Created Scan all data	IX
1611249-10	NB3157FB Grab Water 8680715	100	101	-	-	-	Preservation Blank Created Scan all data	IX
1611249-11	TB11042016-01 Water 8680716	100	101	-	-	-	Preservation Blank Created Scan all data	IX
1611321-01	SC28191-03	100	101	-	-	-		IX
1611325-07	TB11082016-01 Water	100	101	-	-	-	Preservation Blank Created Scan all data	IX
1611373-01	NB3158FB	100	101	-	-	-	Scan all data for Level IV	IX
1611373-02	TB11092016-01	100	101	-	-	-	Scan all data for Level IV	IX
1611391-05	TB11102016-01 Water	100	101	-	-	-	Preservation Blank Created Scan all data	IX
1611547-02	B-161536 PLANT INFLUENT #16-17585	100	101	-	-	scan Dat	give data to PM for scanning	10X
1611547-04	B-161539 PLANT EFFLUENT #16-17587	100	101	-	-	scan Dat	give data to PM for scanning	IX
1611550-01	16K0235-01	100	101	-	-	-	MS/MSD scan all data for Level IV rep	IX
1611576-01	R1612025-001 802W-11116-01H	100	101	-	-	-		IX
1611577-01	R1612026-001 WTP-11116-01P	100	101	-	-	-		IX → 10X
1611578-01	R1612092-001 802W-111416-01H	100	101	-	-	-		IX → IX

Page 91 of 120

Date: 12/5/2016

**PREPARATION BENCH SHEET**

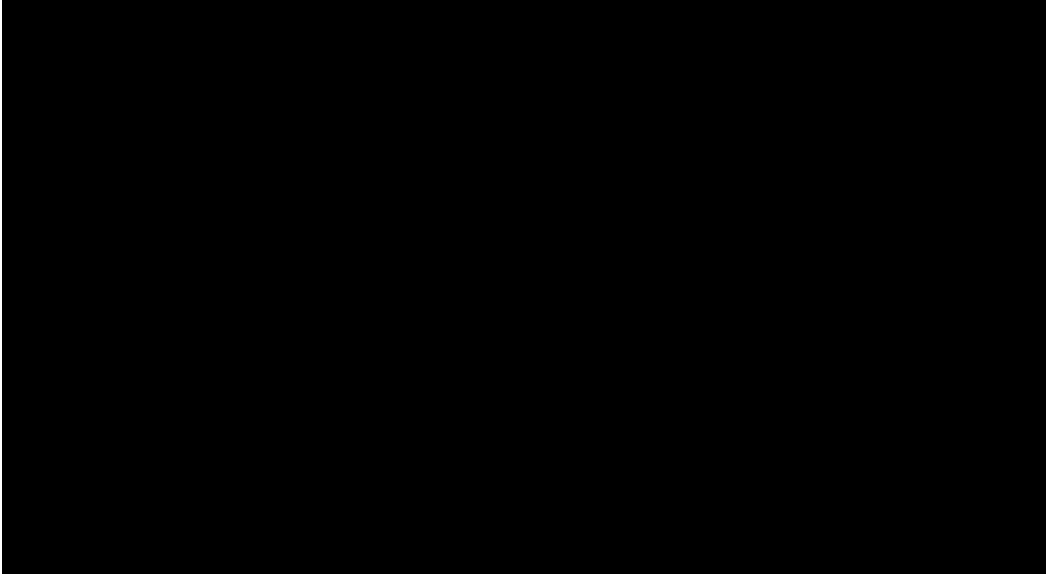
F611454

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/22/2016**



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: LJM Date: 11/4/16 Time Completed: 17:20

Work Orders: 161148  
~~161149~~ 161150, 161151

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

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

BrCl LIMS ID: AA-1606163  
 Pipette SN: MW22229  
 Cal. Date: 11/2/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
* 161148-15A	3.00	3.00	Y			
161150-07A	3.00	3.00	Y			
161152-02A	1.25	1.25	Y			
161152-02B	1.25	1.25	Y			
161149-01A	5.00	5.00	Y			
<del>161149</del>						
161151-01A	5.00	5.00	N	N	2000	
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: absolute; top: 50%; left: 50%;"></div> <p style="text-align: center; font-size: 2em; opacity: 0.5;">LJM 11/4/16</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: \* 161148-15A and 161150-07A are preservative blank in same bottle  
 • 161150-06A and 161148-14A are trip blank in same jar



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: AMM Date: 11/8/14 Time Completed: 1649

Work Orders: 164241

164239 164242

BrCl LIMS ID: 1606163

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

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

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

Pipette SN: 107631

Cal. Date: 11/8/14

Same bottle

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611239-05A	300	3.00	Y			
1611241-05A						
1611242-16A						
1611249-12A						
1611242-15A	250	2.50	Y			
1611249-10A	600	6.00	Y			
1611249-11A	250	2.50	Y			
<p>AMM</p> <p>11/8/14</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: CSP Date: 11/10/16 Time Completed: 1715

Work Orders: 1611321, 1611325  
1611325

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

Technician: CSP Date: 11/15/16 Time Completed: 1630  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1606163, 1606163  
Pipette SN: MU32229, MU32229  
Cal. Date: 11/9/16; 11/14/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611321-01A	600	6.00	y			
1611324-01A	600	6.00	y			
1611324-02A	550	5.50	y	N	5.60	y
1611324-03A	550	5.50	y			
1611324-04A	550	5.50	y	N	5.50	y
1611325-07A	125	1.25	y			
1611325-08A	300	3.00	y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 20px auto;"> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CSP</span> <span style="position: absolute; top: 10px; left: 50%; transform: translate(-50%, -50%); font-size: 1.5em;">11/15/16</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: 1611324-02A + -04A <sup>CSP 11/15/16</sup> base now in containers  
1611324-02B + -04B

Reviewed  
11/15/16

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CSP Date: 11/11/16 Time Completed: 1700

Work Orders: 1611373

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

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

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

<sup>CSP 11/11/16</sup>  
BrCl LIMS ID: ~~50~~ 1506163

Pipette SN: J07631

Cal. Date: 11/8/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611373-01B	300	3.00	y			
1611373-02B	125	1.25	y			
1611373-03A	300	3.00	y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 20px auto;"> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CSP</span> <span style="position: absolute; top: 10px; left: 50%; transform: translate(-50%, -50%); font-size: 1.5em;">11/11/16</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: CSP Date: 11/15/16 Time Completed: 1650

Work Orders: 1611458, 1611459  
1611461, 1611391

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

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

BrCl LIMS ID: 1606163

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

Pipette SN: MU32229

Cal. Date: 11/16/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611458-01A	300	3.00	y			
1611458-02A	300	3.00	y			
1611458-03A	300	3.00	y			
1611459-01A	300	3.00	y			
1611459-02A	300	3.00	y			
1611459-03A	600	6.00	y			
1611459-04A	600	6.00	y			
1611459-05A	600	6.00	y			
1611459-06A	600	6.00	y			
1611459-07A	300	3.00	y			
1611459-08A	300	3.00	y			
1611461-15A	300	3.00	y			
1611461-16A	125	1.25	y			
1611461-17A	300	3.00	y			
1611391-05A	125	1.25	y			
1611391-06A	300	3.00	y			
<div style="position: absolute; top: 20px; left: 20px; font-size: 2em;">                     CSP 11/15/16                 </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  
11/22/16

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: BGW Date: 11/18/16 Time Completed: 1445

Work Orders: 1611547 1611514

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

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

BrCl LIMS ID: 1606163

Pipette SN: MU32229

Cal. Date: 11/16/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611547-04A	360	3.00	Y			
1611547-02A	360	3.00	Y			
1611514-06A	360	3.00	Y			
1611514-03A	360	3.00	Y			
1611514-13A	360	3.00	Y			
1611514-19A	360	3.00	Y			
1611514-12A	360	3.00	Y			
1611514-14A	300	3.00	Y			
1611514-16A	360	3.00	Y			
1611514-17A	300	3.00	Y			
1611514-18A	300	3.00	Y			
1611514-01A	300	3.00	Y			
1611514-09A	300	3.00	Y			
1611514-23A	300	3.00	Y			
1611514-22A	300	3.00	Y			
1611514-07A	300	3.00	Y			
1611514-08A	300	3.00	Y			
1611514-02A	300	3.00	Y			
1611514-15A	300	3.00	Y			
1611514-05A	300	3.00	Y			
1611514-11A	360	3.00	Y			
1611514-24A	300	3.00	Y			
1611514-20A	300	3.00	Y			
1611514-25A	300	3.00	Y			
1611514-10A	300	3.00	Y			
1611514-04A	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: \_\_\_\_\_

Reviewed

11/22/16 DM

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: BGW Date: 11/18/16 Time Completed: 1550

1611577, 1611578  
 Work Orders: 1611514, 1611560  
1611502, 1611548, 1611579  
1611576

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

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

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

BrCl LIMS ID: 1606163

Pipette SN: MU32229

Cal. Date: 11/16/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611514-21A	300	3.00	Y			
1611502-03A	300	3.00	Y			
1611502-04A	300	3.00	Y			
1611502-07A	300	3.00	Y			
1611502-07A	300	3.00	Y			
1611548-10A	300	3.00	Y			
1611548-09B	125	1.25	Y			
1611550-01A	300	3.00	Y			
1611579-03A	600	6.00	Y			
1611579-04A	600	6.00	Y			
1611579-05A	600	6.00	Y			
1611579-06A	600	6.00	Y			
1611579-01A	600	6.00	Y			
1611579-02A	600	6.00	Y			
1611582-02A	600	6.00	Y			
1611582-03A	600	6.00	Y			
1611582-01A	600	6.00	Y			
1611581-01A	600	6.00	Y			
1611581-02A	600	6.00	Y			
1611581-03A	600	6.00	Y			
1611580-01A	600	6.00	Y			
1611580-03A	600	6.00	Y			
1611580-02A	600	6.00	Y			
1611576-01A	500	5.00	Y			
<del>1611576-</del>	500	5.00	Y			
<del>1611576-</del>	500	5.00	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:**

→ 1611577-01A → 1611578-01A  
 BGW 11/18/16 BGW 11/18/16

Reviewed  
11/22/16



**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>	6K23007, 6K23009, 6K23008
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26002-161122-1, THG26002-161122-2
<b>Date:</b>	11/23/2016	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F611454, F611391, F611448		0

Analyst Initials DM

Reviewer Initials DMW

- 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: 1611577-01, 1611258-04,08, 09,12, 14 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 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>	6K23007, 6K23009, 6K23008
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26002-161122-1, THG26002-161122-2
<b>Date:</b>	11/23/2016	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F611454, F611391, F611448		0

Analyst Initials DM

Reviewer Initials DMV

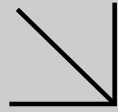
20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?  YES  NO
- Comments: \_\_\_\_\_
21. Are all samples within instrument calibration range? (or at minimum dilution size)  PASS  FAIL
- Comments: \_\_\_\_\_
22. Are the samples run at the correct dilution level for the method?  YES  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: 1-18-14, 12-16-15 IDOC/CDOC within last 12 months?  YES  NO
37. Date of analyst's SOP reading for method: 5-20-16 Current SOP revision read?  YES  NO
38. Date of LOD: 6-15-16, 7/8/16 LOD within last 3 months?  YES  NO
39. Date of LOQ: 6-15-16, 7-8-16 LOQ within last 3 months?  YES  NO

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



Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-12-1551**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1611258

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244

Approved for release on 01/16/2017 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1611258  
Work Order Number: 16-12-1551

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	8
	4.1 Sample Duplicate. . . . .	8
5	Glossary of Terms and Qualifiers. . . . .	9
6	Chain-of-Custody/Sample Receipt Form. . . . .	10

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 12/16/16. They were assigned to Work Order 16-12-1551.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-12-1551
11720 North Creek Parkway North, Suite 4	Project Name:	1611258
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	12/16/16 11:30
	Number of Containers:	20

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
L10_52_092416_LOB_TA_01	16-12-1551-1	09/24/16 11:14	1	Tissue
L10_52_092416_LOB_TA_02	16-12-1551-2	09/24/16 11:14	1	Tissue
L10_52_092416_LOB_TA_03	16-12-1551-3	09/24/16 11:14	1	Tissue
L10_52_092416_LOB_TA_04	16-12-1551-4	09/24/16 11:14	1	Tissue
L10_52_092416_LOB_TA_05	16-12-1551-5	09/24/16 11:14	1	Tissue
L10_52_092416_LOB_TA_06	16-12-1551-6	09/24/16 11:25	1	Tissue
L10_52_092416_LOB_TA_07	16-12-1551-7	09/24/16 11:25	1	Tissue
L10_52_092416_LOB_TA_08	16-12-1551-8	09/24/16 11:25	1	Tissue
L10_52_092416_LOB_TA_09	16-12-1551-9	09/24/16 11:25	1	Tissue
L10_52_092416_LOB_TA_10	16-12-1551-10	09/24/16 11:25	1	Tissue
L10_52_092416_LOB_TA_11	16-12-1551-11	09/24/16 11:25	1	Tissue
L10_52_092416_LOB_TA_12	16-12-1551-12	09/24/16 11:25	1	Tissue
L10_52_092416_LOB_TA_13	16-12-1551-13	09/24/16 11:38	1	Tissue
L10_52_092416_LOB_TA_14	16-12-1551-14	09/24/16 11:38	1	Tissue
L10_52_092416_LOB_TA_15	16-12-1551-15	09/24/16 11:38	1	Tissue
L10_52_092416_LOB_TA_16	16-12-1551-16	09/24/16 11:38	1	Tissue
L10_52_092416_LOB_TA_17	16-12-1551-17	09/24/16 11:38	1	Tissue
L10_52_092416_LOB_TA_18	16-12-1551-18	09/24/16 11:38	1	Tissue
L10_52_092416_LOB_TA_19	16-12-1551-19	09/24/16 11:38	1	Tissue
L10_52_092416_LOB_TA_20	16-12-1551-20	09/24/16 11:38	1	Tissue


  
Return to Contents

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1551  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611258

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
L10_52_092416_LOB_TA_01	16-12-1551-1-AA	09/24/16 11:14	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.41	0.10		1.00		
L10_52_092416_LOB_TA_02	16-12-1551-2-AA	09/24/16 11:14	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.48	0.10		1.00		
L10_52_092416_LOB_TA_03	16-12-1551-3-AA	09/24/16 11:14	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.29	0.10		1.00		
L10_52_092416_LOB_TA_04	16-12-1551-4-AA	09/24/16 11:14	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.50	0.10		1.00		
L10_52_092416_LOB_TA_05	16-12-1551-5-AA	09/24/16 11:14	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		
L10_52_092416_LOB_TA_06	16-12-1551-6-AA	09/24/16 11:25	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.84	0.10		1.00		
L10_52_092416_LOB_TA_07	16-12-1551-7-AA	09/24/16 11:25	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.47	0.10		1.00		
L10_52_092416_LOB_TA_08	16-12-1551-8-AA	09/24/16 11:25	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.4	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1551  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611258

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
L10_52_092416_LOB_TA_09	16-12-1551-9-AA	09/24/16 11:25	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.51	0.10		1.00		
L10_52_092416_LOB_TA_10	16-12-1551-10-AA	09/24/16 11:25	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.73	0.10		1.00		
L10_52_092416_LOB_TA_11	16-12-1551-11-AA	09/24/16 11:25	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.70	0.10		1.00		
L10_52_092416_LOB_TA_12	16-12-1551-12-AA	09/24/16 11:25	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.66	0.10		1.00		
L10_52_092416_LOB_TA_13	16-12-1551-13-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.91	0.10		1.00		
L10_52_092416_LOB_TA_14	16-12-1551-14-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.68	0.10		1.00		
L10_52_092416_LOB_TA_15	16-12-1551-15-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.0	0.10		1.00		
L10_52_092416_LOB_TA_16	16-12-1551-16-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.33	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 12/16/16  
Work Order: 16-12-1551  
Preparation: EPA 3541  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1611258

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
L10_52_092416_LOB_TA_17	16-12-1551-17-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.53	0.10		1.00		
L10_52_092416_LOB_TA_18	16-12-1551-18-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.56	0.10		1.00		
L10_52_092416_LOB_TA_19	16-12-1551-19-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.61	0.10		1.00		
L10_52_092416_LOB_TA_20	16-12-1551-20-AA	09/24/16 11:38	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.57	0.10		1.00		
Method Blank	099-14-104-164	N/A	Tissue	N/A	12/29/16	12/29/16 00:00	161229B13
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 12/16/16  
Work Order: 16-12-1551  
Preparation: EPA 3541  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1611258

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
L10_52_092416_LOB_TA_01	Sample	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D13
L10_52_092416_LOB_TA_01	Sample Duplicate	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D13

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.4100	0.4200	2	0-25	

RPD: Relative Percent Difference. CL: Control Limits

## Glossary of Terms and Qualifiers

Work Order: 16-12-1551

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611258

16-12-1551

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Comments

1 Sample ID: L10\_52\_092416\_LOB\_TA\_01

EFGS Lab ID: 1611258-01 Matrix: Tissue

Sampled: 24-Sep-16 11:14 Eastern Due: 29-Nov-16 19:00  
MS/MSD

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

2 Sample ID: L10\_52\_092416\_LOB\_TA\_02

EFGS Lab ID: 1611258-02 Matrix: Tissue

Sampled: 24-Sep-16 11:14 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

3 Sample ID: L10\_52\_092416\_LOB\_TA\_03

EFGS Lab ID: 1611258-03 Matrix: Tissue

Sampled: 24-Sep-16 11:14 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

Released By

12/15/16

Date

Received By

Date

Released By

12/15/16

Date

Received By

Date

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.

1611258

Analysis Comments

4  
Sample ID: L10\_52\_092416\_LOB\_TA\_04  
EFGS Lab ID: 1611258-04 Matrix: Tissue  
Sampled: 24-Sep-16 11:14 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

5  
Sample ID: L10\_52\_092416\_LOB\_TA\_05  
EFGS Lab ID: 1611258-05 Matrix: Tissue  
Sampled: 24-Sep-16 11:14 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

6  
Sample ID: L10\_52\_092416\_LOB\_TA\_06  
EFGS Lab ID: 1611258-06 Matrix: Tissue  
Sampled: 24-Sep-16 11:25 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

7  
Sample ID: L10\_52\_092416\_LOB\_TA\_07  
EFGS Lab ID: 1611258-07 Matrix: Tissue  
Sampled: 24-Sep-16 11:25 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

Released By 12/15/16 Date Received By 12/16/16 Date  
Released By 12/15/16 Date Received By 12/16/16 Date

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611258

(1551)

Analysis Comments

Sample ID: L10\_52\_092416\_LOB\_TA\_08

ERGS Lab ID: 1611258-08 Matrix: Tissue Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

Sample ID: L10\_52\_092416\_LOB\_TA\_09

ERGS Lab ID: 1611258-09 Matrix: Tissue Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

10 Sample ID: L10\_52\_092416\_LOB\_TA\_10

ERGS Lab ID: 1611258-10 Matrix: Tissue Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage


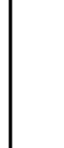


Containers Supplied:  
34 Plastic Bag (C)

Sample ID: L10\_52\_092416\_LOB\_TA\_11

ERGS Lab ID: 1611258-11 Matrix: Tissue Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By		Date	12/15/16	Received By		Date	12/16/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611258

1551

Analysis

Comments

12 Sample ID: L10\_52\_092416\_LOB\_TA\_12

EFGS Lab ID: 1611258-12 Matrix: Tissue

Sampled: 24-Sep-16 11:25 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

13 Sample ID: L10\_52\_092416\_LOB\_TA\_13

EFGS Lab ID: 1611258-13 Matrix: Tissue

Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

14 Sample ID: L10\_52\_092416\_LOB\_TA\_14

EFGS Lab ID: 1611258-14 Matrix: Tissue

Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

15 Sample ID: L10\_52\_092416\_LOB\_TA\_15

EFGS Lab ID: 1611258-15 Matrix: Tissue

Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

Released By

Date

Received By

Date

Released By

Date

Received By

Date



SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1611258

1331

Analysis Comments

16 Sample ID: L10\_52\_092416\_LOB\_TA\_16  
EFGS Lab ID: 1611258-16 Matrix: Tissue  
Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

17 Sample ID: L10\_52\_092416\_LOB\_TA\_17  
EFGS Lab ID: 1611258-17 Matrix: Tissue  
Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

18 Sample ID: L10\_52\_092416\_LOB\_TA\_18  
EFGS Lab ID: 1611258-18 Matrix: Tissue  
Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

19 Sample ID: L10\_52\_092416\_LOB\_TA\_19  
EFGS Lab ID: 1611258-19 Matrix: Tissue  
Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

Released By [Signature] Date 12/15/16 Received By [Signature] Date 12/16/16  
Released By [Signature] Date 12/15/16 Received By [Signature] Date 12/16/16



**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1611258

(1551)

Analysis Comments

---

20 Sample ID: L10\_52\_092416\_LOB\_TA\_20

EFGS Lab ID: 1611258-20 Matrix: Tissue

Sampled: 24-Sep-16 11:38 Eastern Due: 29-Nov-16 19:00




---

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (0)

---

	12/15/16		
Released By	Date	Received By	Date
	12/15/14		12/16/16
Released By	Date	Received By	Date

(151)

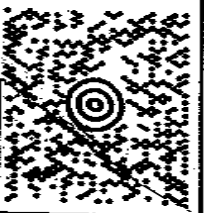
FRONT DESK  
(425) 888-1898  
FRONTIER GLOBAL SCIENCES  
11221 N OREGON PKWY N  
BETHELL WA 98011-8244

38 LBS

DWT: 24.13.14

1 OF 1

SHIP TO:  
SAMPLE RECEIVING  
(714) 898-0494  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841



CA 927 9-09



UPS NEXT DAY AIR

TRACKING #: 1Z 86W 050 01 5096.6731

1



0116  
59

CA 927 9-09  
CA 92841

19-0-18 23hrz 2P 46D 7E.O.A 01/2010



1.1 US 9159 A

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Calscience

SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

DATE: 12/16/2016

CLIENT: EFGS

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)  Sample

Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): -2.2 °C (w/ CF): -2.2 °C  Blank

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: 15

**CUSTODY SEAL:**

Cooler	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: 15
Sample(s)	<input type="checkbox"/> Present and Intact	<input type="checkbox"/> Present but Not Intact	<input checked="" type="checkbox"/> Not Present	<input type="checkbox"/> N/A	Checked by: 15

**SAMPLE CONDITION:**

Chain-of-Custody (COC) document(s) received with samples  Yes  No  N/A

COC document(s) received complete  Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC  Yes  No  N/A

Sample container label(s) consistent with COC  Yes  No  N/A

Sample container(s) intact and in good condition  Yes  No  N/A

Proper containers for analyses requested  Yes  No  N/A

Sufficient volume/mass for analyses requested  Yes  No  N/A

Samples received within holding time  Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container  Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals  Yes  No  N/A

Container(s) for certain analysis free of headspace  Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  Yes  No  N/A

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  Yes  No  N/A

Tedlar™ bag(s) free of condensation  Yes  No  N/A

**CONTAINER TYPE:**

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAH  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBH  125AGBP  125PB

125PBzma  250AGB  250CGB  250CGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve ( )  EnCores® ( )  TerraCores® ( )  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (Sieve )  Z  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: 778

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH Reviewed by: 1089

Page 120 of 120



Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
425.686.3096 Fax

17 January 2017

Denise King

AMEC Foster Wheeler Chelmsford Maine - Penobscot

271 Mill Road,

Chelmsford, MAINE 01824

RE: Maine Lobster And Crab Special Project 2016

Enclosed are the analytical results for samples received by Eurofins Frontier Global Sciences. All quality control measurements are within established control limits and there were no analytical difficulties encountered with the exception of those listed in the case narrative section of this report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amy Goodall".

Amy Goodall

Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
L9_45_092416_LOB_TA_01	1611259-01	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_02	1611259-02	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_03	1611259-03	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_04	1611259-04	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_05	1611259-05	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_06	1611259-06	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_07	1611259-07	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_08	1611259-08	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_09	1611259-09	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_10	1611259-10	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_11	1611259-11	Tissue	24-Sep-16 09:05	28-Oct-16 09:40
L9_45_092416_LOB_TA_12	1611259-12	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_13	1611259-13	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_14	1611259-14	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_15	1611259-15	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_16	1611259-16	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_17	1611259-17	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_18	1611259-18	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_19	1611259-19	Tissue	24-Sep-16 09:30	28-Oct-16 09:40
L9_45_092416_LOB_TA_20	1611259-20	Tissue	24-Sep-16 09:52	28-Oct-16 09:40

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King**Reported:**  
17-Jan-17 08:16

## REVISED REPORT (1/17/17)

Report was revised to include the % Lipids results from Eurofins Calscience. These results can be found after the raw data for the total mercury by EPA 1631B.

## SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 10/28/2016 9:40:00 AM . The samples were received intact, on-ice within a sealed cooler at -49.6 degrees Celsius.

## SAMPLE PREPARATION AND ANALYSIS

The samples were processed following the work instructions provided by the client; EFSR-P-SP-WI11646. All of the samples were defrosted, and the samples' sex was determined. The tails were then removed from the lobster. The shell was removed, and the meat was weighed, de-veined, and then homogenized before sample prep.

Total solids analysis was performed in accordance with method SM2540B. Total solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction which may be outside of the method recommended holding time of 7 days from sample collection.

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

## ANALYTICAL AND QUALITY CONTROL ISSUES

Client requested that sample 1611259-05 be used as the source QC for the MS/MSD. Samples were prepped in one batch for Mercury, F611393. Samples 1611259-05 and 1611259-06 were used as the source QC. Samples were prepped in one batch for total solids/% moisture, F611413/F611414. Samples 1611259-05 and 1611259-06 were used as the source QC.

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.

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 Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

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.*

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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1611259

Client: Amec Foster Wheeler

Date & Time Received: 10/28/16 990

Date Labeled: 11/9/16 Labeled By: AMB

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

Received By: CSF

Label Verified By: AMW

# of Coolers Received: 1 Samples Arrived By:  Shipping Service \_\_\_\_\_ Courier \_\_\_\_\_ Hand \_\_\_\_\_ Other (Specify: \_\_\_\_\_)

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

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

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

TID: <u>3150</u>	CF: <u>+0.4 °C</u>	Date/time: <u>10/28/16 990</u>	By: <u>CSF</u>
Cooler 1: <u>-50 °C</u>	w/ CF: <u>-49.6 °C</u>	Cooler 4: <u>-50 °C</u>	w/ CF: <u>-49.6 °C</u>
Cooler 2: <u>-50 °C</u>	w/ CF: <u>-49.6 °C</u>	Cooler 5: <u>-50 °C</u>	w/ CF: <u>-49.6 °C</u>
Cooler 3: <u>-50 °C</u>	w/ CF: <u>-49.6 °C</u>	Cooler 6: <u>-50 °C</u>	w/ CF: <u>-49.6 °C</u>
<u>Cooler 7: -50°C</u>	<u>-49.6°C</u>	<u>Cooler 8: -50°C</u>	<u>-49.6°C</u>

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

Sample Condition/Integrity:	Y/N/NA	Comments
Sample containers intact/present:		
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):

Cooler 2: 7844 7802 4486      Cooler 3: 7844 7802 4497  
Cooler 4: 7844 7802 4501      Cooler 6: 7844 7802 4523  
Cooler 5: 7844 7802 4512      Cooler 8: 7844 7802 4545  
Cooler 7: 7844 7802 4534



1611259

Chain of Custody Record & Laboratory Analysis Request:  
Air, Water, Sediments, Plant and Animal Tissue,  
Hydrocarbon & Other Samples

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
Phone: 425-686-1996  
Fax: 425-686-3096  
info@frontiergs.com  
http://www.frontiergs.com



Frontier Global Sciences

Page 9 of 10

Client: AMEC FOSTA WHEELER	Contact: DENISE KING	Analyses Requested HNO <sub>3</sub> HCl BrCl Other (%) Field Preserved: Hg 16312 / TOT LEAD - NO FA 15930 ZIP LOCK BAG	EFGS PM:	
Address: 511 CONGRESS ST STE 200 PORTLAND ME	Phone: Fax: 978 622-6633 E-mail: DENISE.KING@AMECFW.COM		Field Filtered (Y/N)	Date: 102716
Project Name: USDC PENOBSCOT	Contract/PO:		Sampled By	TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)
Report To: DENISE KING	Invoice To: ROB PENDELTON			Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)
Address: 2 MILL ROAD LICHFIELD MA 01824	Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101			EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N
Phone: ) Fax: E-mail: 508-789-1736	Phone: 207-775-5491 Fax: 207-772-4762 E-mail: ROB.BENDLTON@AMECFW.COM			QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High

No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time	Sampled By	Field Filtered (Y/N)	Field Preserved: HNO <sub>3</sub> HCl BrCl Other (%)	Comments
1		L9-45-092416-LOB-TA-01		TS	092416 0905				PROJECT # 3016166052.04  USE LOBSTER # 5 FOR EXTRA VOLUME MS/MSD
2		L9-45-092416-LOB-TA-02							
3		L9-45-092416-LOB-TA-03							
4		L9-45-092416-LOB-TA-04							
5		L9-45-092416-LOB-TA-05							
6		L9-45-092416-LOB-TA-06							
7		L9-45-092416-LOB-TA-07							
8		L9-45-092416-LOB-TA-MS-05							
9		L9-45-092416-LOB-TA-MD-05							
10		L9-45-092416-LOB-TA-08							
11		L9-45-092416-LOB-TA-09							
12		L9-45-092416-LOB-TA-10							

For Laboratory Use Only		Matrix Codes:	Relinquished By:	Received By:	Received By:
COC Seal:	Comments:	FW: Fresh Water	Name: K. BAUER	Name:	Name:
Cooler Temp:		WW: Waste Water			
Carrier:		SB: Sea and Brackish Water			
VTSR:		SS: Soil and Sediment			
# of Coolers:		TS: Plant and Animal Tissue			
		HC: Hydrocarbons	Date & Time: 102716 1600	Date & Time:	Date & Time:
		TR: Trap	Tracking number: FED EX 8093 9796 5121		
		OT: Other			

Sample Disposal:  
 Return (shipping fees may apply)  
 Standard Disposal - 30 Days after report  
 Retain for \_\_\_ weeks after report (storage fees may apply)

By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.

Customer Approval: \_\_\_\_\_ Date: \_\_\_\_\_

1611259

**Chain of Custody Record & Laboratory Analysis Request:  
Air, Water, Sediments, Plant and Animal Tissue,  
Hydrocarbon & Other Samples**

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
Phone: 425-686-1996  
Fax: 425-686-3096  
info@frontiergs.com  
http://www.frontiergs.com



Frontier Global Sciences

Page 10 of 10

Client: AMEC FOSTER WHEELER		Contact: DENISE KING		Sampled By	Field Filtered: (Y/N)	Field Preserved: HNO <sub>3</sub> HCl BrCl Other (%)	Analyses Requested				EFGS PM:	
Address: 511 CONGRESS ST STE 200 PORTLAND ME		Phone: Fax: 978 622-6633									Date: 102716	
Project Name: USDC PENOBSCOT		E-mail: DENISE.KING@AMECFW.COM									TAT (business days): 20 (std) 15 10 5 4 3 2 24 hrs. (For TAT < 10 days, contact PM. Surcharges apply for expedited TAT)	
Report To: DENISE KING		Contract/PO:									Saturday delivery? <input type="checkbox"/> Y <input type="checkbox"/> N (If yes, please contact PM)	
Invoice To: ROD BENDLETON		Address: 511 CONGRESS ST STE 200 PORTLAND ME 04101									EDD <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
Address: 2 MILL ROAD HELMSFORD MA 01824		Phone: 207-775-5481 Fax: 207-772-4762						QA <input checked="" type="checkbox"/> Standard <input type="checkbox"/> High				
Phone: Fax:		E-mail: ROD.BENDLETON@AMECFW.COM						Comments				
E-mail: 508-789-1736								Project # 3016166052.04.1				
No.	Engraved Bottle ID	Sample ID	# of Bottles	Matrix	Date & Time							
1		L9-45-092416-LOB-TA-11		TS	092416 0905							
2		L9-45-092416-LOB-TA-12			0930							
3		L9-45-092416-LOB-TA-13										
4		L9-45-092416-LOB-TA-14										
5		L9-45-092416-LOB-TA-15										
6		L9-45-092416-LOB-TA-16										
7		L9-45-092416-LOB-TA-17										
8		L9-45-092416-LOB-TA-18										
9		L9-45-092416-LOB-TA-19										
10		L9-45-092416-LOB-TA-20			0932							
11												
12												

For Laboratory Use Only		Matrix Codes:		Relinquished By:		Received By:		Received By:	
COC Seal:	Comments:	FW: Fresh Water	WW: Waste Water SB: Sea and Brackish Water SS: Soil and Sediment TS: Plant and Animal Tissue HC: Hydrocarbons TR: Trap OT: Other	<i>[Signature]</i>					
Cooler Temp:		Name: R. BAUER		Name:		Name:			
Carrier:		Organization: AMEC FW		Organization:		Organization:			
VTSR:		Date & Time: 102716 1600		Date & Time:		Date & Time:			
# of Coolers:		Tracking number: FED EX 8003 9796 5121							

Sample Disposal:		By signing, you declare that you agree with EFGS' terms and conditions, and that you authorize EFGS to perform the specified analyses.	
<input type="checkbox"/> Return (shipping fees may apply) <input type="checkbox"/> Standard Disposal - 30 Days after report <input type="checkbox"/> Retain for ___ weeks after report (storage fees may apply)		Customer Approval: _____ Date: _____	



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_01**  
**1611259-01**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	630	2.22	19.8	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	108	0.382	3.41	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	82.8	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	17.2	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	89.1	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_02  
1611259-02

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1040	2.14	19.1	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	191	0.391	3.49	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	81.7	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.3	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	80.7	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_03  
1611259-03

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1220	1.87	16.7	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	254	0.388	3.47	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.2	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.8	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	124	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_04**  
**1611259-04**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	520	2.01	18.0	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	101	0.390	3.48	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.6	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.4	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	88.0	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_05  
1611259-05

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	722	2.13	19.0	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	152	0.447	3.99	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.0	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.0	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	74.7	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_06  
1611259-06

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	978	1.89	16.9	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	194	0.374	3.34	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.2	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.8	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	105	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager





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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_07**  
**1611259-07**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	738	1.82	16.3	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	162	0.401	3.58	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.0	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	22.0	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	81.5	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_08**  
**1611259-08**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1250	2.10	18.7	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	242	0.407	3.63	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.6	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.4	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	106	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_09**  
**1611259-09**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	778	2.12	19.0	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	155	0.423	3.77	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.1	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.9	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	108	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_10**  
**1611259-10**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	391	2.05	18.3	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	74.0	0.388	3.46	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.1	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.9	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	75.2	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_11**  
**1611259-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	1010	1.76	15.7	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	219	0.382	3.41	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	78.3	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.7	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	87.4	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_12**  
**1611259-12**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	834	1.99	17.7	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	171	0.407	3.64	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	79.5	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.5	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	85.6	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_13  
1611259-13

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	743	2.03	18.1	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	157	0.428	3.82	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.9	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.1	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	115	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_14**  
**1611259-14**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	811	2.24	20.0	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	155	0.428	3.82	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	80.9	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.1	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	115	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager





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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_15  
1611259-15

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	670	2.11	18.8	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	129	0.404	3.61	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	80.8	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	19.2	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	78.4	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_16  
1611259-16

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	713	1.94	17.3	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	150	0.410	3.66	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.9	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.1	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	106	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_17  
1611259-17

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	1080	1.93	17.2	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	218	0.389	3.47	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	79.8	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	20.2	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	83.6	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

**L9\_45\_092416\_LOB\_TA\_18**  
**1611259-18**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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**Sample Preparation: [CALC]**

Mercury Dry Weight Corrected	881	2.14	19.1	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion**

Mercury	166	0.401	3.58	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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**Sample Preparation: EFGS-019 Solids Analysis**

% Moisture	81.2	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	18.8	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

**Sample Preparation: No Preparation**

Tail or Claw Mass	102	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_19  
1611259-19

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	814	1.99	17.8	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	173	0.423	3.77	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.8	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.2	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	86.3	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

L9\_45\_092416\_LOB\_TA\_20  
1611259-20

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
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Sample Preparation: [CALC]

Mercury Dry Weight Corrected	897	2.00	17.9	ng/g dry	100	[CALC]	17-Nov-16		18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion

Mercury	195	0.435	3.88	ng/g	100	F611393	17-Nov-16	6K21016	18-Nov-16	EPA 1631B	
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Sample Preparation: EFGS-019 Solids Analysis

% Moisture	78.3	-	0.1	% by Weight	1	F611414	18-Nov-16		21-Nov-16	SM 2540B	
% Solids	21.7	-	0.1	% by Weight	1	F611413	18-Nov-16		21-Nov-16	SM 2540B	O-04, O-09

Sample Preparation: No Preparation

Tail or Claw Mass	81.0	-	0.10	g	1	F612335	06-Dec-16		06-Dec-16	None	
Female	No	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	
Male	Yes	-	N/A	N/A	1	F612334	06-Dec-16		06-Dec-16	None	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K21016 - F611393</b>											
<b>Cal Standard (6K21016-CAL1)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.552	-		ng/L	0.50100		110				
<b>Cal Standard (6K21016-CAL2)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.975	-		ng/L	1.0020		97.4				
<b>Cal Standard (6K21016-CAL3)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	4.746	-		ng/L	5.0100		94.7				
<b>Cal Standard (6K21016-CAL4)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	20.54	-		ng/L	20.040		103				
<b>Cal Standard (6K21016-CAL5)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	37.81	-		ng/L	40.080		94.3				
<b>Calibration Blank (6K21016-CCB1)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.115	-		ng/L							
<b>Calibration Blank (6K21016-CCB2)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.024	-		ng/L							
<b>Calibration Blank (6K21016-CCB3)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.044	-		ng/L							
<b>Calibration Blank (6K21016-CCB4)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.066	-		ng/L							
<b>Calibration Blank (6K21016-CCB5)</b>					Prepared & Analyzed: 18-Nov-16						
Mercury	0.126	-		ng/L							

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271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K21016 - F611393</b>											
<b>Calibration Blank (6K21016-CCB6)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	0.114	-		ng/L							
<b>Calibration Blank (6K21016-CCB7)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	0.122	-		ng/L							
<b>Calibration Blank (6K21016-CCB8)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	0.108	-		ng/L							
<b>Calibration Blank (6K21016-CCB9)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	0.118	-		ng/L							
<b>Calibration Blank (6K21016-CCBA)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	0.121	-		ng/L							
<b>Calibration Blank (6K21016-CCBB)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	0.085	-		ng/L							
<b>Calibration Blank (6K21016-CCBC)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	0.087	-		ng/L							
<b>Calibration Check (6K21016-CCV1)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	4.758	-		ng/L	5.0000		95.2	77-123			
<b>Calibration Check (6K21016-CCV2)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	4.553	-		ng/L	5.0000		91.1	77-123			
<b>Calibration Check (6K21016-CCV3)</b> Prepared & Analyzed: 18-Nov-16											
Mercury	4.585	-		ng/L	5.0000		91.7	77-123			

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AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 6K21016 - F611393</b>											
<b>Calibration Check (6K21016-CCV4)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.594	-		ng/L	5.0000		91.9	77-123			
<b>Calibration Check (6K21016-CCV5)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.724	-		ng/L	5.0000		94.5	77-123			
<b>Calibration Check (6K21016-CCV6)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.879	-		ng/L	5.0000		97.6	77-123			
<b>Calibration Check (6K21016-CCV7)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.658	-		ng/L	5.0000		93.2	77-123			
<b>Calibration Check (6K21016-CCV8)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.653	-		ng/L	5.0000		93.1	77-123			
<b>Calibration Check (6K21016-CCV9)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.820	-		ng/L	5.0000		96.4	77-123			
<b>Calibration Check (6K21016-CCVA)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.603	-		ng/L	5.0000		92.1	77-123			
<b>Calibration Check (6K21016-CCVB)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.908	-		ng/L	5.0000		98.2	77-123			
<b>Calibration Check (6K21016-CCVC)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	4.669	-		ng/L	5.0000		93.4	77-123			
<b>Instrument Blank (6K21016-IBL1)</b>											
Prepared & Analyzed: 18-Nov-16											
Mercury	ND	0.004	0.040	ng/L							U

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271 Mill Road,  
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Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

**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 6K21016 - F611393**

<b>Instrument Blank (6K21016-IBL2)</b>											
											Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (6K21016-IBL3)</b>											
											Prepared & Analyzed: 18-Nov-16
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (6K21016-ICV1)</b>											
											Prepared & Analyzed: 18-Nov-16
Mercury	4.621	-		ng/L	5.0000		92.4	77-123			

**Batch F611393 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Blank (F611393-BLK2)</b>											
											Prepared: 17-Nov-16 Analyzed: 18-Nov-16
Mercury	0.268	0.090	0.800	ng/g							J
<b>Blank (F611393-BLK3)</b>											
											Prepared: 17-Nov-16 Analyzed: 18-Nov-16
Mercury	0.178	0.090	0.800	ng/g							J
<b>Blank (F611393-BLK4)</b>											
											Prepared: 17-Nov-16 Analyzed: 18-Nov-16
Mercury	0.326	0.090	0.800	ng/g							J
<b>LCS (F611393-BS1)</b>											
											Prepared: 17-Nov-16 Analyzed: 18-Nov-16
Mercury	7.387	0.090	0.800	ng/g	8.0160		92.2	75-125			
<b>LCS (F611393-BS2)</b>											
											Prepared: 17-Nov-16 Analyzed: 18-Nov-16
Mercury	334.0	4.39	39.2	ng/g	382.50		87.3	75-125			
<b>LCS Dup (F611393-BSD1)</b>											
											Prepared: 17-Nov-16 Analyzed: 18-Nov-16
Mercury	7.590	0.090	0.800	ng/g	8.0160		94.7	75-125	2.72	24	

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

Amy Goodall, Project Manager

AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

**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 F611393 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Duplicate (F611393-DUP1)</b>		<b>Source: 1611259-05</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	154.3	0.436	3.89	ng/g		151.5			1.78	24	
<b>Matrix Spike (F611393-MS1)</b>		<b>Source: 1611259-05</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	478.1	2.04	18.2	ng/g	364.96	151.5	89.5	71-125			
<b>Matrix Spike (F611393-MS2)</b>		<b>Source: 1611259-06</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	569.4	2.17	19.4	ng/g	388.35	193.7	96.7	71-125			
<b>Matrix Spike Dup (F611393-MSD1)</b>		<b>Source: 1611259-05</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	468.4	2.11	18.8	ng/g	376.65	151.5	84.1	71-125	6.17	24	
<b>Matrix Spike Dup (F611393-MSD2)</b>		<b>Source: 1611259-06</b>			Prepared: 17-Nov-16 Analyzed: 18-Nov-16						
Mercury	507.7	2.19	19.5	ng/g	390.62	193.7	80.4	71-125	18.5	24	

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

Reported:  
17-Jan-17 08:16

Quality Control Data

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

Batch F611413 - EFGS-019 Solids Analysis

Duplicate (F611413-DUP1)		Source: 1611259-05			Prepared: 18-Nov-16 Analyzed: 21-Nov-16					
% Solids	20.8	-	0.1	% by Weight		21.0		0.957	25	
Duplicate (F611413-DUP2)		Source: 1611259-06			Prepared: 18-Nov-16 Analyzed: 21-Nov-16					
% Solids	20.2	-	0.1	% by Weight		19.8		2.00	25	

Batch F611414 - EFGS-019 Solids Analysis

Duplicate (F611414-DUP1)		Source: 1611259-05			Prepared: 18-Nov-16 Analyzed: 21-Nov-16					
% Moisture	79.2	-	0.1	% by Weight		79.0		0.253	25	
Duplicate (F611414-DUP2)		Source: 1611259-06			Prepared: 18-Nov-16 Analyzed: 21-Nov-16					
% Moisture	79.8	-	0.1	% by Weight		80.2		0.500	25	

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler Chelmsford Maine - Penobscot  
271 Mill Road,  
Chelmsford MAINE, 01824

Project: Maine Lobster And Crab Special Project 2016  
Project Number: Maine Lobster And Crab Special Project 2016  
Project Manager: Denise King

**Reported:**  
17-Jan-17 08:16

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- O-09 Total Solids are prepared at the same time as the preparation for the analyte(s) of interest in order to provide the most accurate dry mass correction.
- O-04 This sample was analyzed outside of the recommended holding time.
- J The result is an estimated concentration.
- 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

# AmecFW Penobscot River Estuary Phase III - Lobster Homogenization Logbook

Work Order NUMBER	TAG NUMBER	SEX	Date and Tech's Initials	Thawed Y/ N	Balance ID	Tail mass (g)	Blender Type 1 = Robot Coupe 2 = Magic Bullet 3 = Other	Comments
1611258-13	N/A	M	11/15/16 MPM	Y	18	<del>112.06</del> 112.06	2	
1611258-14	N/A	M	11/15/16 MPM	Y	18	148.16	2	
1611258-15	N/A	M	11/15/16 MPM	Y	18	105.48	2	
1611258-16	N/A	M	11/16/16 MPM	Y	18	110.81	2	
1611258-17	N/A	M	11/15/16 MPM	Y	18	112.32	2	
1611258-18	N/A	M	11/16/16 MPM	Y	18	122.51	2	
1611258-19	N/A	M	11/16/16 MPM	Y	18	99.41	2	
1611258-20	N/A	M	11/16/16 MPM	Y	18	131.71	2	
1611259-01	N/A	F	11/16/16 MPM	Y	18	89.07	2	1611259: Batches
1611259-02	N/A	M	11/16/16 MPM	Y	18	80.72	2	F612334 + F612335.
1611259-03	N/A	M	11/16/16 MPM	Y	18	124.26	2	AMB 12-6-16
1611259-04	N/A	F	MPM 11/16/16	Y	18	87.96	2	
1611259-05	N/A	M	11/16/16 MPM	Y	18	74.68	2	
1611259-06	N/A	M	11/16/16 MPM	Y	18	105.37	2	
1611259-07	N/A	M	11/16/16 MPM	Y	18	81.47	2	
1611259-08	N/A	M	11/16/16 MPM	Y	18	106.39	2	
1611259-09	N/A	M	11/16/16 MPM	Y	18	107.91	2	
1611259-10	N/A	F	11/16/16 MPM	Y	18	75.25	2	





# Frontier Global Sciences

## Total Solids Dataset Cover Page

Dataset ID: TS161118-5  
Batch ID: F611413/414  
Work Order(s): 1611259

Analyst: JS  
Prep. Date: 11/18/2016

### Analytical Issues/Explanations:

QUALITY ASSURANCE  
EJER - REVIEWED  
INITIALS: BC 11/22/16



Preparation Date: Nov 18, 2016

Batch #: 5

Analyst: JS

Batch ID: F611413/414

Work Order(s): 1611259

Pan ID	Sample ID	Pan Wt (g)	Pan + Sample Wet (g)	Wet Sample (g)	Pan + Sample Dry (g)	Dry Sample (g)	% TS	Notes	%Tmoisture
1	1611259-01	1.0280	6.0570	5.0290	1.8940	0.8660	17.2%		82.8%
2	1611259-02	1.0140	6.0730	5.0590	1.9410	0.9270	18.3%		81.7%
3	1611259-03	1.0120	6.0360	5.0240	2.0590	1.0470	20.8%		79.2%
4	1611259-04	1.0140	6.0260	5.0120	1.9880	0.9740	19.4%		80.6%
5	1611259-05	1.0380	6.0430	5.0050	2.0870	1.0490	21.0%		79.0%
6	F611413-05MD	1.0200	6.0970	5.0770	2.0750	1.0550	20.8%	0.9%	79.2%
7	1611259-06	1.0360	6.0640	5.0280	2.0330	0.9970	19.8%		80.2%
8	F611413-06MD	1.0110	6.0210	5.0100	2.0240	1.0130	20.2%	2.0%	79.8%
9	1611259-07	1.0270	6.0740	5.0470	2.1360	1.1090	22.0%		78.0%
10	1611259-08	0.9960	6.0840	5.0880	1.9840	0.9880	19.4%		80.6%
11	1611259-09	1.0230	6.0700	5.0470	2.0250	1.0020	19.9%		80.1%
12	1611259-10	0.9860	6.0470	5.0610	1.9420	0.9560	18.9%		81.1%
13	1611259-11	1.0290	6.0740	5.0450	2.1260	1.0970	21.7%		78.3%
14	1611259-12	1.0330	6.0410	5.0080	2.0610	1.0280	20.5%		79.5%
15	1611259-13	1.0480	6.0870	5.0390	2.1120	1.0640	21.1%		78.9%
16	1611259-14	1.0430	6.0780	5.0350	2.0040	0.9610	19.1%		80.9%
17	1611259-15	1.0370	6.0490	5.0120	1.9980	0.9610	19.2%		80.8%
18	1611259-16	1.0380	6.0430	5.0050	2.0940	1.0560	21.1%		78.9%
19	1611259-17	1.0440	6.0570	5.0130	2.0570	1.0130	20.2%		79.8%
20	1611259-18	1.0390	6.0470	5.0080	1.9790	0.9400	18.8%		81.2%
21	1611259-19	1.0170	6.0790	5.0620	2.0880	1.0710	21.2%		78.8%
22	1611259-20	1.0220	6.0430	5.0210	2.1110	1.0890	21.7%		78.3%

# Total Solids Logbook

Lab Technician(s): JS Batch: FG11413/414 Date: 11/18/16 Page 1 of 1  
 Thermometer #: 131206134 Oven #: OVN-03 Actual temperature: 103.0 (Range 103-105°C)  
 Balance #<sup>1</sup>: 6 Start time: 1702 End time<sup>2</sup>: 924 Time re-weighted<sup>3</sup>: 936  
 Client(s)/WO#: 1611259

Sample ID	Pan #	Pan (g)	Pan + Wet Sample (g)	Pan + Dry Sample (g)	Notes
1611259-01	E1	1.028	6.057	1.894	11/21/16 JS
1611259-02	E2	1.014	6.073	1.941	
1611259-03	E3	1.012	6.036	2.059	
1611259-04	E4	1.014	6.026	1.988	
1611259-05	E5	1.038	6.043	2.087	
FG11413-Dup1(1611259-05)	E6	1.020	6.097	2.075	
1611259-06	E7	<del>1.033</del> <sup>1.036 11/18/16 JS</sup>	6.064	2.033	
FG11413-Dup2(1611259-06)	E8	<del>1.023</del> <sup>1.011 11/18/16 JS</sup>	<del>6.087</del> <sup>6.021 11/18/16 JS</sup>	2.024	
1611259-07	E9	1.027	6.074	2.136	
1611259-08	E10	0.996	6.084	1.984	
1611259-09	E11	1.023	6.070	2.025	
1611259-10	E12	0.986	6.047	1.942	
1611259-11	E13	1.029	6.074	2.126	
1611259-12	E14	1.033	6.041	2.061	
1611259-13	E15	1.048	6.087	2.112	
1611259-14	E16	1.043	6.078	2.004	
1611259-15	E17	1.037	6.049	1.998	
1611259-16	E18	1.038	6.043	2.094	
1611259-17	E19	1.044	6.057	2.057	
1611259-18	E20	1.039	6.047	1.979	
1611259-19	E21	1.017	6.079	2.088	
1611259-20	E22	1.022	6.043	2.111	

Comments:

REVIEWED 11-21-16 DMW

<sup>1</sup>The same balance must be used to weight samples before and after ovening.  
<sup>2</sup>Samples must be ovened over 12 hours.  
<sup>3</sup>Samples must be re-weighted within 30 minutes of oven cool down.

PREPARATION BENCH SHEET

F611413

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F611413-DUP1	Duplicate [1611259-05]	5	5					
F611413-DUP2	Duplicate [1611259-06]	5	5					

Standard ID(s):

Description:

Expiration:

**PREPARATION BENCH SHEET**

F611413

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611259-01	L9_45_092416_LOB_TA_01	5	5	-	-	-		
1611259-02	L9_45_092416_LOB_TA_02	5	5	-	-	-		
1611259-03	L9_45_092416_LOB_TA_03	5	5	-	-	-		
1611259-04	L9_45_092416_LOB_TA_04	5	5	-	-	-		
1611259-05	L9_45_092416_LOB_TA_05	5	5	QC	-	-	MS/MSD	
1611259-06	L9_45_092416_LOB_TA_06	5	5	-	-	-		
1611259-07	L9_45_092416_LOB_TA_07	5	5	-	-	-		
1611259-08	L9_45_092416_LOB_TA_08	5	5	-	-	-		
1611259-09	L9_45_092416_LOB_TA_09	5	5	-	-	-		
1611259-10	L9_45_092416_LOB_TA_10	5	5	-	-	-		
1611259-11	L9_45_092416_LOB_TA_11	5	5	-	-	-		
1611259-12	L9_45_092416_LOB_TA_12	5	5	-	-	-		
1611259-13	L9_45_092416_LOB_TA_13	5	5	-	-	-		
1611259-14	L9_45_092416_LOB_TA_14	5	5	-	-	-		
1611259-15	L9_45_092416_LOB_TA_15	5	5	-	-	-		
1611259-16	L9_45_092416_LOB_TA_16	5	5	-	-	-		
1611259-17	L9_45_092416_LOB_TA_17	5	5	-	-	-		
1259-18	L9_45_092416_LOB_TA_18	5	5	-	-	-		
1259-19	L9_45_092416_LOB_TA_19	5	5	-	-	-		

Page 41 of 147

Date: 11/29/2016

PREPARATION BENCH SHEET

F611413

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611259-20	L9_45_092416_LOB_TA_20	5	5	-	-	-		
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PREPARATION BENCH SHEET

F611414

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (g)	Spike1 ID	$\mu$ l Spike1	Spike2 ID	$\mu$ l Spike2	Extraction Comments
F611414-DUP1	Duplicate (1611259-05)	5	5					
F611414-DUP2	Duplicate (1611259-06)	5	5					

Standard ID(s):

Description:

Expiration:

**PREPARATION BENCH SHEET**

F611414

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

**Prepared using: AFS - EFGS-019 Solids Analysis**

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (g)	Final (g)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611259-01	L9_45_092416_LOB_TA_01	5	5	-	-	-		
1611259-02	L9_45_092416_LOB_TA_02	5	5	-	-	-		
1611259-03	L9_45_092416_LOB_TA_03	5	5	-	-	-		
1611259-04	L9_45_092416_LOB_TA_04	5	5	-	-	-		
1611259-05	L9_45_092416_LOB_TA_05	5	5	QC	-	-	MS/MSD	
1611259-06	L9_45_092416_LOB_TA_06	5	5	-	-	-		
1611259-07	L9_45_092416_LOB_TA_07	5	5	-	-	-		
1611259-08	L9_45_092416_LOB_TA_08	5	5	-	-	-		
1611259-09	L9_45_092416_LOB_TA_09	5	5	-	-	-		
1611259-10	L9_45_092416_LOB_TA_10	5	5	-	-	-		
1611259-11	L9_45_092416_LOB_TA_11	5	5	-	-	-		
1611259-12	L9_45_092416_LOB_TA_12	5	5	-	-	-		
1611259-13	L9_45_092416_LOB_TA_13	5	5	-	-	-		
1611259-14	L9_45_092416_LOB_TA_14	5	5	-	-	-		
1611259-15	L9_45_092416_LOB_TA_15	5	5	-	-	-		
1611259-16	L9_45_092416_LOB_TA_16	5	5	-	-	-		
1611259-17	L9_45_092416_LOB_TA_17	5	5	-	-	-		
1259-18	L9_45_092416_LOB_TA_18	5	5	-	-	-		
1259-19	L9_45_092416_LOB_TA_19	5	5	-	-	-		

Page 44 of 147

Date: 11/29/2016

PREPARATION BENCH SHEET

F611414

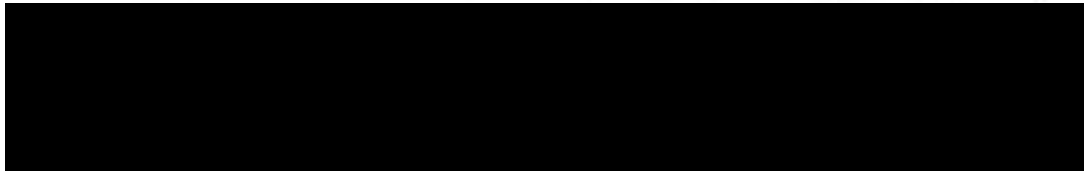
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

Prepared using: AFS - EFGS-019 Solids Analysis

Prepared: 11/18/2016

1611259-20	L9_45_092416_LOB_TA_20	5	5	-	-	-		
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# Peer Review Checklist for Total Solids and Density (SOP5133)

Analyst: JS

Date: 11/21/16

Reviewer: BC

Date: 11/22/16

WO #: 1611259

Batch #: FG11413/414

Dataset ID: TS161118-5

Reviewer Initials: BC

### General Comments/Re-run requirements:

Select	SOP	Method	Matrix
<input checked="" type="checkbox"/>	SOP5133	TS	S/T
<input type="checkbox"/>	SOP5133	Density	Liquids

Initials	SOP Date	
<u>JS</u>	<u>11/18/16</u>	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

Reviewer Initials: BC

### 1. Total Solids

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
- B. Does the batch include 1 MD/MT per 10 client samples?
- C. MD RPD/MT RSD ≤ 10%
- D. Are qualifiers, O-04 and O-09, included for samples analyzed out of hold time?

<input type="checkbox"/> Density Only - NA this section			
<input checked="" type="checkbox"/> DONE			<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> FAIL		<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/>

### 2. Density

- A. Check for transcription errors from Benchsheet/Raw Data
  - (i) Do sample ID(s) match?
  - (ii) Do masses/volumes match?
  - (iii) Are the analyst name, dataset ID, and preparation date listed?
  - (iv) Does the LIMS benchsheet prep date match the actual prep date?
  - (v) Volume (if other than 1 mL): \_\_\_\_\_ Can the calculated result be reproduced?

<input checked="" type="checkbox"/> Total Solids Only - NA this section			
<input type="checkbox"/> DONE			<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO		<input type="checkbox"/>
<input type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> N/A	<input type="checkbox"/>

Analysis Datasheet for Total Mercury

Date of Analysis: November 18, 2016

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 6K21021, 6K21016, 6K21018, 6K21019

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	62.05 units	124.10	57.67 units	115.34	110.3 %Rec
SEQ-CAL2	1	1.00 ng/L	106.39 units	106.39	102.01 units	102.01	97.5 %Rec
SEQ-CAL3	1	5.00 ng/L	500.69 units	100.14	496.31 units	99.26	94.9 %Rec
SEQ-CAL4	1	20.00 ng/L	2152.49 units	107.62	2148.11 units	107.41	102.7 %Rec
SEQ-CAL5	1	40.00 ng/L	3958.04 units	98.95	3953.66 units	98.84	94.5 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF    Corr. St Dev RF    Corr. RSD CF    Uncorr. Mean RF  
 104.57            +/- 6.92            6.6% RSD            107.44

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	4.38 units	±7.22	0.04 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	0.004 ng/L	±0.017
BLK	2	1	0.035 ng/L	
BLK	3	1	0.545 ng/L	
BLK	4	3	0.822 ng/L	±0.439
BLK	5	3	3.221 ng/L	±0.933
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE

PEER - REVIEWED

INITIALS: DMV 11-21-16

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	11/18/2016 8:45:08	55899-1.RAW	8:45:08 AM	6.90				2.5	0.024	0.024	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	11/18/2016 8:49:17	55900-1.RAW	8:49:17 AM	3.50				-0.9	-0.008	-0.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	11/18/2016 8:53:25	55901-1.RAW	8:53:25 AM	2.74				-1.6	-0.016	-0.016	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	11/18/2016 8:57:34	55902-1.RAW	8:57:34 AM	62.05				57.7	0.552	0.552	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	11/18/2016 9:01:42	55903-1.RAW	9:01:42 AM	106.39				102.0	0.975	0.975	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	11/18/2016 9:05:51	55904-1.RAW	9:05:51 AM	500.69				496.3	4.746	4.746	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	11/18/2016 9:09:59	55905-1.RAW	9:09:59 AM	2152.49				2148.1	20.542	20.542	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	11/18/2016 9:14:07	55906-1.RAW	9:14:07 AM	3958.04				3953.7	37.808	37.808	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	11/18/2016 9:18:16	55907-1.RAW	9:18:16 AM	487.63				483.3	4.621	4.621	ng/L	
Hg2600-3	DM2	BLK	F611402-BLK1	1	11/18/2016 9:24:17	55908-1.RAW	9:24:17 AM	6.80	1			2.4	0.023	0.023	ng/L	
Hg2600-3	DM2	BLK	F611402-BLK2	1	11/18/2016 9:28:26	55909-1.RAW	9:28:26 AM	4.23	1			-0.1	-0.001	-0.001	ng/L	
Hg2600-3	DM2	BLK	F611402-BLK3	1	11/18/2016 9:32:34	55910-1.RAW	9:32:34 AM	3.47	1			-0.9	-0.009	-0.009	ng/L	
Hg2600-3	DM2	BLK	F611402-BLK4	1	11/18/2016 9:36:43	55911-1.RAW	9:36:43 AM	8.02	2			3.6	0.035	0.035	ng/L	
Hg2600-3	DM2	BLK	F611402-BLK5	10	11/18/2016 9:40:51	55912-1.RAW	9:40:51 AM	10.08	3			5.7	0.054	0.054	ng/L	
Hg2600-3	DM2	SAM	F611402-BS1	1	11/18/2016 9:45:00	55913-1.RAW	9:45:00 AM	1543.22	1			1538.8	14.711	14.711	ng/L	
Hg2600-3	DM2	SAM	F611402-BSD1	1	11/18/2016 9:49:08	55914-1.RAW	9:49:08 AM	1503.01	1			1498.6	14.327	14.327	ng/L	
Hg2600-3	DM2	SAM	1611079-01	1	11/18/2016 9:53:17	55915-1.RAW	9:53:17 AM	4121.29	1			4116.9	39.365	39.365	ng/L	
Hg2600-3	DM2	SAM	1611079-02	1	11/18/2016 9:57:25	55916-1.RAW	9:57:25 AM	161.98	1			157.6	1.503	1.503	ng/L	
Hg2600-3	DM2	SAM	1611079-03	1	11/18/2016 10:01:33	55917-1.RAW	10:01:33 AM	2004.51	1			2000.1	19.123	19.123	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	11/18/2016 10:05:42	55918-1.RAW	10:05:42 AM	501.97				497.6	4.758	4.758	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	11/18/2016 10:09:50	55919-1.RAW	10:09:50 AM	16.36				12.0	0.115	0.115	ng/L	
Hg2600-3	DM2	SAM	1611079-04	1	11/18/2016 10:13:59	55920-1.RAW	10:13:59 AM	188.32	1			183.9	1.755	1.755	ng/L	
Hg2600-3	DM2	SAM	1611079-05	1	11/18/2016 10:18:07	55921-1.RAW	10:18:07 AM	876.93	1			872.6	8.340	8.340	ng/L	
Hg2600-3	DM2	SAM	1611079-06	1	11/18/2016 10:22:16	55922-1.RAW	10:22:16 AM	198.25	1			193.9	1.850	1.850	ng/L	
Hg2600-3	DM2	SAM	1611079-07	1	11/18/2016 10:26:24	55923-1.RAW	10:26:24 AM	289.78	1			285.4	2.725	2.725	ng/L	
Hg2600-3	DM2	SAM	1611079-08	1	11/18/2016 10:30:33	55924-1.RAW	10:30:33 AM	88.63	1			84.2	0.801	0.801	ng/L	
Hg2600-3	DM2	SAM	1611079-09	1	11/18/2016 10:34:41	55925-1.RAW	10:34:41 AM	919.78	1			915.4	8.749	8.749	ng/L	
Hg2600-3	DM2	SAM	1611079-10	1	11/18/2016 10:38:49	55926-1.RAW	10:38:49 AM	558.27	1			553.9	5.292	5.292	ng/L	
Hg2600-3	DM2	SAM	1611324-01	1	11/18/2016 10:42:58	55927-1.RAW	10:42:58 AM	2337.48	1			2333.1	22.307	22.307	ng/L	
Hg2600-3	DM2	SAM	1611324-02	10	11/18/2016 10:47:06	55928-1.RAW	10:47:06 AM	113.35	2			109.0	1.039	1.039	ng/L	
Hg2600-3	DM2	SAM	1611324-03	1	11/18/2016 10:51:15	55929-1.RAW	10:51:15 AM	418.44	1			414.1	3.955	3.955	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	11/18/2016 10:55:23	55930-1.RAW	10:55:23 AM	480.47				476.1	4.553	4.553	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	11/18/2016 10:59:32	55931-1.RAW	10:59:32 AM	6.84				2.5	0.024	0.024	ng/L	
Hg2600-3	DM2	SAM	1611324-04	10	11/18/2016 11:03:40	55932-1.RAW	11:03:40 AM	52.64	2			48.3	0.458	0.458	ng/L	
Hg2600-3	DM2	SAM	1611498-01	1	11/18/2016 11:07:49	55933-1.RAW	11:07:49 AM	571.54	1			567.2	5.419	5.419	ng/L	
Hg2600-3	DM2	SAM	1611498-02	1	11/18/2016 11:11:57	55934-1.RAW	11:11:57 AM	5.15	1			0.8	0.003	0.003	ng/L	
Hg2600-3	DM2	SAM	1611498-03	1	11/18/2016 11:16:05	55935-1.RAW	11:16:05 AM	671.65	1			667.3	6.377	6.377	ng/L	
Hg2600-3	DM2	SAM	1611498-04	1	11/18/2016 11:20:14	55936-1.RAW	11:20:14 AM	7.79	1			3.4	0.028	0.028	ng/L	
Hg2600-3	DM2	SAM	1611498-05	10	11/18/2016 11:24:22	55937-1.RAW	11:24:22 AM	587.05	3			582.7	5.517	5.517	ng/L	
Hg2600-3	DM2	SAM	1611498-06	1	11/18/2016 11:28:31	55938-1.RAW	11:28:31 AM	7.62	1			3.2	0.027	0.027	ng/L	
Hg2600-3	DM2	SAM	F611402-DUP1	1	11/18/2016 11:32:39	55939-1.RAW	11:32:39 AM	817.67	1			813.3	7.773	7.773	ng/L	
Hg2600-3	DM2	SAM	F611402-MS1	10	11/18/2016 11:36:48	55940-1.RAW	11:36:48 AM	1414.07	1			1409.7	13.480	13.480	ng/L	
Hg2600-3	DM2	SAM	F611402-MSD1	10	11/18/2016 11:40:56	55941-1.RAW	11:40:56 AM	1435.76	1			1431.4	13.688	13.688	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	11/18/2016 11:45:04	55942-1.RAW	11:45:04 AM	483.86				479.5	4.585	4.585	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	11/18/2016 11:49:13	55943-1.RAW	11:49:13 AM	9.00				4.6	0.044	0.044	ng/L	
Hg2600-3	DM2	SAM	1611324-04RE1	1	11/18/2016 11:53:21	55944-1.RAW	11:53:21 AM	302.44	2			298.1	2.815	2.815	ng/L	
Hg2600-3	DM2	SAM	F611402-MS2	1	11/18/2016 11:57:30	55945-1.RAW	11:57:30 AM	638.04	1			633.7	6.055	6.055	ng/L	
Hg2600-3	DM2	SAM	F611402-MSD2	1	11/18/2016 12:01:38	55946-1.RAW	12:01:38 PM	652.79	1			648.4	6.196	6.196	ng/L	
Hg2600-3	DM2	BLK	F611377-BLK1	20	11/18/2016 12:05:47	55947-1.RAW	12:05:47 PM	7.31	4			2.9	0.028	0.028	ng/L	
Hg2600-3	DM2	BLK	F611377-BLK2	20	11/18/2016 12:09:55	55948-1.RAW	12:09:55 PM	11.32	4			6.9	0.066	0.066	ng/L	
Hg2600-3	DM2	BLK	F611377-BLK3	20	11/18/2016 12:14:04	55949-1.RAW	12:14:04 PM	7.40	4			3.0	0.029	0.029	ng/L	
Hg2600-3	DM2	SAM	F611377-BS1	20	11/18/2016 12:18:12	55950-1.RAW	12:18:12 PM	506.09	4			501.7	4.757	4.757	ng/L	
Hg2600-3	DM2	SAM	F611377-BSD1	20	11/18/2016 12:22:20	55951-1.RAW	12:22:20 PM	533.50	4			529.1	5.019	5.019	ng/L	
Hg2600-3	DM2	SAM	1610828-01	100	11/18/2016 12:26:29	55952-1.RAW	12:26:29 PM	3359.67	4			3355.3	32.078	32.078	ng/L	
Hg2600-3	DM2	SAM	1610828-02	100	11/18/2016 12:30:37	55953-1.RAW	12:30:37 PM	2375.45	4			2371.1	22.666	22.666	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	11/18/2016 12:34:46	55954-1.RAW	12:34:46 PM	484.76				480.4	4.594	4.594	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	11/18/2016 12:38:54	55955-1.RAW	12:38:54 PM	11.25				6.9	0.066	0.066	ng/L	

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2600-3	DM2	SAM	+1610828-03	500	11/18/2016 12:43:03	55956-1.RAW	12:43:03 PM	6085.42	4		6081.0	58.150	29075.000	ng/L		
Hg2600-3	DM2	SAM	+1610828-04	500	11/18/2016 12:47:11	55957-1.RAW	12:47:11 PM	7566.82	4		7552.4	72.221	36110.368	ng/L		
Hg2600-3	DM2	SAM	+1610828-05	500	11/18/2016 12:51:20	55958-1.RAW	12:51:20 PM	1139.23	4		1134.9	10.851	5425.347	ng/L		
Hg2600-3	DM2	SAM	+1610828-06	500	11/18/2016 12:55:28	55959-1.RAW	12:55:28 PM	2721.28	4		2716.9	25.979	12989.728	ng/L		
Hg2600-3	DM2	SAM	+1610828-07	500	11/18/2016 12:59:36	55960-1.RAW	12:59:36 PM	1170.84	4		1166.5	11.153	5576.470	ng/L		
Hg2600-3	DM2	SAM	+1610828-08	500	11/18/2016 13:03:43	55961-1.RAW	1:03:43 PM	870.56	4		866.2	8.281	4140.731	ng/L		
Hg2600-3	DM2	SAM	+1610828-09	500	11/18/2016 13:07:52	55962-1.RAW	1:07:52 PM	368.76	4		364.4	3.483	1741.412	ng/L		
Hg2600-3	DM2	SAM	+1610862-01	500	11/18/2016 13:12:00	55963-1.RAW	1:12:00 PM	2970.30	4		2965.9	28.361	14180.412	ng/L		
Hg2600-3	DM2	SAM	+1610862-02	500	11/18/2016 13:16:08	55964-1.RAW	1:16:08 PM	2991.92	4		2987.5	28.568	14283.770	ng/L		
Hg2600-3	DM2	SAM	+1610862-03	500	11/18/2016 13:20:17	55965-1.RAW	1:20:17 PM	3470.27	4		3465.9	33.142	16570.950	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCV5	1	11/18/2016 13:24:25	55966-1.RAW	1:24:25 PM	498.426689			494.0	4.724	4.724	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCB5	1	11/18/2016 13:28:33	55967-1.RAW	1:28:33 PM	17.60			13.2	0.126	0.126	ng/L		
Hg2600-3	DM2	SAM	+1610828-03RE1	1000	11/18/2016 13:32:42	55968-1.RAW	1:32:42 PM	3194.56	4		3190.2	30.506	30506.187	ng/L		
Hg2600-3	DM2	SAM	+1610828-04RE1	2500	11/18/2016 13:36:50	55969-1.RAW	1:36:50 PM	1657.90	4		1653.5	15.812	39529.893	ng/L		
Hg2600-3	DM2	SAM	+1610828-05RE1	500	11/18/2016 13:40:59	55970-1.RAW	1:40:59 PM	1102.87	4		1098.5	10.503	5251.518	ng/L		
Hg2600-3	DM2	SAM	+1610862-04	500	11/18/2016 13:45:07	55971-1.RAW	1:45:07 PM	2759.79	4		2755.4	26.348	13173.880	ng/L		
Hg2600-3	DM2	SAM	+1610862-05	500	11/18/2016 13:49:16	55972-1.RAW	1:49:16 PM	3469.30	4		3464.9	33.133	16566.319	ng/L		
Hg2600-3	DM2	SAM	+1610862-06	500	11/18/2016 13:53:24	55973-1.RAW	1:53:24 PM	1352.92	4		1348.5	12.894	6447.085	ng/L		
Hg2600-3	DM2	SAM	+1610862-07	500	11/18/2016 13:57:32	55974-1.RAW	1:57:32 PM	907.55	4		903.2	8.635	4317.571	ng/L		
Hg2600-3	DM2	SAM	+1610862-08	500	11/18/2016 14:01:41	55975-1.RAW	2:01:41 PM	2744.42	4		2740.0	26.201	13100.382	ng/L		
Hg2600-3	DM2	SAM	+1610862-09	500	11/18/2016 14:05:49	55976-1.RAW	2:05:49 PM	874.80	4		870.4	8.322	4161.017	ng/L		
Hg2600-3	DM2	SAM	+1610865-01	500	11/18/2016 14:09:58	55977-1.RAW	2:09:58 PM	3000.36	4		2996.0	28.648	14324.124	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCV6	1	11/18/2016 14:14:06	55978-1.RAW	2:14:06 PM	514.56			510.2	4.879	4.879	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCB6	1	11/18/2016 14:18:15	55979-1.RAW	2:18:15 PM	16.29			11.9	0.114	0.114	ng/L		
Hg2600-3	DM2	SAM	+1610865-02	500	11/18/2016 14:23:11	55980-1.RAW	2:23:11 PM	26.10	4		21.7	0.206	103.035	ng/L		
Hg2600-3	DM2	SAM	+F611377-DUP1	100	11/18/2016 14:27:19	55981-1.RAW	2:27:19 PM	3357.24	4		3352.9	32.054	3205.446	ng/L		
Hg2600-3	DM2	SAM	+F611377-MS1	500	11/18/2016 14:31:27	55982-1.RAW	2:31:27 PM	1593.93	4		1589.6	15.199	7599.462	ng/L		
Hg2600-3	DM2	SAM	+F611377-MSD1	500	11/18/2016 14:35:36	55983-1.RAW	2:35:36 PM	1729.05	4		1724.7	16.491	8245.509	ng/L		
Hg2600-3	DM2	SAM	+F611377-MS2	500	11/18/2016 14:39:44	55984-1.RAW	2:39:44 PM	3906.64	4		3902.3	37.315	18657.422	ng/L		
Hg2600-3	DM2	SAM	+F611377-MSD2	500	11/18/2016 14:43:53	55985-1.RAW	2:43:53 PM	4342.22	4		4337.8	41.480	20740.103	ng/L		
Hg2600-3	DM2	BLK	+F611393-BLK1	20	11/18/2016 14:48:01	55986-1.RAW	2:48:01 PM	39.82	5 X		35.4	0.339	6.779	ng/L		
Hg2600-3	DM2	BLK	+F611393-BLK2	20	11/18/2016 14:52:10	55987-1.RAW	2:52:10 PM	21.91	5		17.5	0.168	3.354	ng/L		
Hg2600-3	DM2	BLK	+F611393-BLK3	20	11/18/2016 14:56:18	55988-1.RAW	2:56:18 PM	16.04	5		11.7	0.111	2.229	ng/L		
Hg2600-3	DM2	SAM	+F611393-BS1	20	11/18/2016 15:00:26	55989-1.RAW	3:00:26 PM	504.03	5		499.6	4.617	92.339	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCV7	1	11/18/2016 15:04:35	55990-1.RAW	3:04:35 PM	491.50			487.1	4.658	4.658	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCB7	1	11/18/2016 15:08:43	55991-1.RAW	3:08:43 PM	17.18			12.8	0.122	0.122	ng/L		
Hg2600-3	DM2	SAM	+1610865-02RE1	20	11/18/2016 15:12:52	55992-1.RAW	3:12:52 PM	333.18	4		328.8	3.103	62.063	ng/L		
Hg2600-3	DM2	SAM	+F611377-MS3	1000	11/18/2016 15:17:00	55993-1.RAW	3:17:00 PM	2002.73	4		1998.4	19.109	19108.990	ng/L		
Hg2600-3	DM2	SAM	+F611377-MSD3	1000	11/18/2016 15:21:08	55994-1.RAW	3:21:08 PM	2047.58	4		2043.2	19.538	19537.885	ng/L		
Hg2600-3	DM2	BLK	+F611393-BLK4	20	11/18/2016 15:25:17	55995-1.RAW	3:25:17 PM	25.71	5		21.3	0.204	4.081	ng/L		
Hg2600-3	DM2	SAM	+F611393-BSD1	20	11/18/2016 15:29:25	55996-1.RAW	3:29:25 PM	517.32	5		512.9	4.744	94.881	ng/L		
Hg2600-3	DM2	SAM	+F611393-BS2	500	11/18/2016 15:33:34	55997-1.RAW	3:33:34 PM	450.40	5		446.0	4.259	2129.369	ng/L		
Hg2600-3	DM2	SAM	+1611259-01	100	11/18/2016 15:37:42	55998-1.RAW	3:37:42 PM	1669.84	5		1665.5	15.894	1589.419	ng/L		
Hg2600-3	DM2	SAM	+1611259-02	100	11/18/2016 15:41:51	55999-1.RAW	3:41:51 PM	2867.21	5		2862.8	27.344	2734.442	ng/L		
Hg2600-3	DM2	SAM	+1611259-03	100	11/18/2016 15:45:59	56000-1.RAW	3:45:59 PM	3846.19	5		3841.8	36.706	3670.616	ng/L		
Hg2600-3	DM2	SAM	+1611259-04	100	11/18/2016 15:50:07	56001-1.RAW	3:50:07 PM	1521.51	5		1517.1	14.476	1447.581	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCV8	1	11/18/2016 15:54:16	56002-1.RAW	3:54:16 PM	490.95			486.6	4.653	4.653	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCB8	1	11/18/2016 15:58:24	56003-1.RAW	3:58:24 PM	15.64			11.3	0.108	0.108	ng/L		
Hg2600-3	DM2	SAM	+1611259-05	100	11/18/2016 16:02:33	56004-1.RAW	4:02:33 PM	1992.65	5		1988.3	18.981	1898.117	ng/L		
Hg2600-3	DM2	SAM	+1611259-06	100	11/18/2016 16:06:41	56005-1.RAW	4:06:41 PM	3040.68	5		3036.3	29.003	2900.330	ng/L		
Hg2600-3	DM2	SAM	+1611259-07	100	11/18/2016 16:10:50	56006-1.RAW	4:10:50 PM	2377.79	5		2373.4	22.664	2266.419	ng/L		
Hg2600-3	DM2	SAM	+1611259-08	100	11/18/2016 16:14:58	56007-1.RAW	4:14:58 PM	3500.77	5		3496.4	33.403	3340.305	ng/L		
Hg2600-3	DM2	SAM	+1611259-09	100	11/18/2016 16:19:06	56008-1.RAW	4:19:06 PM	2151.71	5		2147.3	20.502	2050.225	ng/L		
Hg2600-3	DM2	SAM	+1611259-10	100	11/18/2016 16:23:15	56009-1.RAW	4:23:15 PM	1125.26	5		1120.9	10.687	1068.657	ng/L		
Hg2600-3	DM2	SAM	+1611259-11	100	11/18/2016 16:27:23	56010-1.RAW	4:27:23 PM	3356.56	5		3352.2	32.024	3202.393	ng/L		
Hg2600-3	DM2	SAM	+1611259-12	100	11/18/2016 16:31:32	56011-1.RAW	4:31:32 PM	2464.65	5		2460.3	23.495	2349.478	ng/L		
Hg2600-3	DM2	SAM	+1611259-13	100	11/18/2016 16:35:40	56012-1.RAW	4:35:40 PM	2152.45	5		2148.1	20.509	2050.934	ng/L		
Hg2600-3	DM2	SAM	+1611259-14	100	11/18/2016 16:39:48	56013-1.RAW	4:39:48 PM	2124.45	5		2120.1	20.242	2024.156	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCV9	1	11/18/2016 16:43:57	56014-1.RAW	4:43:57 PM	508.38			504.0	4.820	4.820	ng/L		
Hg2600-3	DM2	CAL	SEQ-CCB9	1	11/18/2016 16:48:05	56015-1.RAW	4:48:05 PM	16.69			12.3	0.118	0.118	ng/L		
Hg2600-3	DM2	SAM	+1611259-15	100	11/18/2016 16:52:14	56016-1.RAW	4:52:14 PM	1869.54	5		1865.2	17.804	1780.396	ng/L		
Hg2600-3	DM2	SAM	+1611259-16	100	11/18/2016 16:56:22	56017-1.RAW	4:56:22 PM	2158.99	5		2154.6	20.572	2057.190	ng/L		
Hg2600-3	DM2	SAM	+1611259-17	100	11/18/2016 17:00:31	56018-1.RAW	5:00:31 PM	3294.73	5		3290.4	31.433	3143.274	ng/L		
Hg2600-3	DM2	SAM	+1611259-18	100	11/18/2016 17:04:39	56019-1.RAW	5:04:39 PM	2422.69	5		2418.3	23.094	2309.356	ng/L		
Hg2600-3	DM2	SAM	+1611259-19	100	11/18/2016 17:08:47	56020-1.RAW	5:08:47 PM	2399.54	5		2395.2	22.872	2287.221	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	1611259-20	100	11/18/2016 17:12:56	56021-1.RAW	5:12:56 PM	2629.11	5		2624.7	25.068	2506.751	ng/L	
Hg2600-3	DM2	SAM	F611393-DUP1	100	11/18/2016 17:17:04	56022-1.RAW	5:17:04 PM	2080.74	5		2076.4	19.824	1982.359	ng/L	
Hg2600-3	DM2	SAM	F611393-MS1	500	11/18/2016 17:21:13	56023-1.RAW	5:21:13 PM	1375.02	5		1370.6	13.101	6550.357	ng/L	
Hg2600-3	DM2	SAM	F611393-MSD1	500	11/18/2016 17:25:21	56024-1.RAW	5:25:21 PM	1305.50	5		1301.1	12.436	6217.962	ng/L	
Hg2600-3	DM2	SAM	F611393-MS2	500	11/18/2016 17:29:29	56025-1.RAW	5:29:29 PM	1538.29	5		1533.9	14.662	7331.011	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVA	1	11/18/2016 17:33:38	56026-1.RAW	5:33:38 PM	485.72			481.3	4.603	4.603	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	11/18/2016 17:37:46	56027-1.RAW	5:37:46 PM	17.00			12.6	0.121	0.121	ng/L	
Hg2600-3	DM2	SAM	F611393-MSD2	500	11/18/2016 17:41:55	56028-1.RAW	5:41:55 PM	1364.18	5		1359.8	12.997	6498.509	ng/L	
Hg2600-3	DM2	BLK	F611415-BLK1	1	11/18/2016 17:46:03	56029-1.RAW	5:46:03 PM	15.30		X	10.9	0.104	0.104	ng/L	
Hg2600-3	DM2	BLK	F611415-BLK2	1	11/18/2016 17:50:12	56030-1.RAW	5:50:12 PM	11.33		X	6.9	0.066	0.066	ng/L	
Hg2600-3	DM2	BLK	F611415-BLK3	1	11/18/2016 17:54:20	56031-1.RAW	5:54:20 PM	11.12		X	6.7	0.064	0.064	ng/L	
Hg2600-3	DM2	BLK	F611415-BLK4	1	11/18/2016 17:58:28	56032-1.RAW	5:58:28 PM	12.77		X	8.4	0.080	0.080	ng/L	
Hg2600-3	DM2	BLK	F611415-BLK5	1	11/18/2016 18:02:37	56033-1.RAW	6:02:37 PM	8.81		X	4.4	0.042	0.042	ng/L	
Hg2600-3	DM2	BLK	F611415-BLK6	1	11/18/2016 18:06:45	56034-1.RAW	6:06:45 PM	9.58		X	5.2	0.050	0.050	ng/L	
Hg2600-3	DM2	SAM	F611415-BS1 -	1	11/18/2016 18:10:54	56035-1.RAW	6:10:54 PM	1571.93		X	1567.5	14.990	14.990	ng/L	
Hg2600-3	DM2	SAM	F611415-BSD1	1	11/18/2016 18:15:02	56036-1.RAW	6:15:02 PM	1549.95		X	1545.6	14.780	14.780	ng/L	
Hg2600-3	DM2	SAM	1611212-01	1	11/18/2016 18:19:10	56037-1.RAW	6:19:10 PM	66.25		X	61.9	0.592	0.592	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVB	1	11/18/2016 18:23:19	56038-1.RAW	6:23:19 PM	517.66			513.3	4.908	4.908	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBB	1	11/18/2016 18:27:27	56039-1.RAW	6:27:27 PM	13.27			8.9	0.085	0.085	ng/L	
Hg2600-3	DM2	SAM	1611212-02	1	11/18/2016 18:31:36	56040-1.RAW	6:31:36 PM	15.36		X	11.0	0.105	0.105	ng/L	
Hg2600-3	DM2	SAM	1611458-01	1	11/18/2016 18:35:44	56041-1.RAW	6:35:44 PM	114.34		X	110.0	1.052	1.052	ng/L	
Hg2600-3	DM2	SAM	1611458-02	1	11/18/2016 18:39:53	56042-1.RAW	6:39:53 PM	16.42		X	12.0	0.115	0.115	ng/L	
Hg2600-3	DM2	SAM	F611415-DUP1	1	11/18/2016 18:44:01	56043-1.RAW	6:44:01 PM	116.32		X	111.9	1.070	1.070	ng/L	
Hg2600-3	DM2	SAM	F611415-MS1 -	1	11/18/2016 18:48:09	56044-1.RAW	6:48:09 PM	603.28		X	598.9	5.727	5.727	ng/L	
Hg2600-3	DM2	SAM	F611415-MSD1	1	11/18/2016 18:52:18	56045-1.RAW	6:52:18 PM	630.55		X	626.2	5.988	5.988	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCVC	1	11/18/2016 18:56:26	56046-1.RAW	6:56:26 PM	492.62			488.2	4.669	4.669	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBC	1	11/18/2016 19:00:35	56047-1.RAW	7:00:35 PM	13.43			9.1	0.087	0.087	ng/L	

TotalMercury EPA1631  
 Operat BC  
 BlankS: 4.3784  
 Calib Eqn: Conc = (Area-4.378  
 Run Date: #####  
 Blank SD: 2.216784642  
 Worksh THg2601 CalibFa 104.57  
 Status: QC Warnings:8/QC E  
 Run Time: 14:19:02  
 Blank RSD%: 50.63001681  
 Method #### R: 0.9991  
 R<sup>2</sup>: 0.9983  
 CF SD: 6.922374622  
 CF RSD%: 6.619715141  
 Descrip THg26003-161118-1

Sample/ID	Location	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (etf)	Flags	RunCount
Clean				0.00	8.74					55894-1.RAW	8:25:43	914.35	Clean	OK	1
CLEAN										55895-1.RAW	8:28:35	0.00	Clean	NP	1
WS				4.38	0.00					55896-1.RAW	8:32:43	3.26	Sample	OK	1
WS				4.38	0.00					55897-1.RAW	8:36:51	1.43	Sample	OK	1
WS				4.38	0.00					55898-1.RAW	8:41:00	3.32	Sample	OK	1
SEQ-IBL1	A1			0.00	0.07					55899-1.RAW	8:45:08	6.90	Sample	OK	1
SEQ-IBL2	A2			0.00	0.03					55900-1.RAW	8:49:17	3.50	Sample	OK	1
SEQ-IBL3	A3			0.00	0.03					55901-1.RAW	8:53:25	2.74	Sample	OK	1
SEQ-CAL1	A4			4.38	0.55			110.30		55902-1.RAW	8:57:34	62.05	Sample	OK	1
SEQ-CAL2	A5			4.38	0.98			97.55		55903-1.RAW	9:01:42	106.39	Sample	OK	1
SEQ-CAL3	A6			4.38	4.75			94.92		55904-1.RAW	9:05:51	500.69	Sample	OK	1
SEQ-CAL4	A7			4.38	20.54			102.71		55905-1.RAW	9:09:59	2152.49	Sample	OK	1
SEQ-CAL5	A8			4.38	37.81			94.52		55906-1.RAW	9:14:07	3958.04	Sample	OK	1
SEQ-ICV1	A9			4.38	4.62			92.42		55907-1.RAW	9:18:16	487.63	Sample	OK	1
F611402-BLK1	A10		1	4.38	0.02					55908-1.RAW	9:24:17	6.80	Sample	OK	1
F611402-BLK2	A11		1	4.38	0.00					55909-1.RAW	9:28:26	4.23	Sample	OK	1
F611402-BLK3	A12		1	4.38	0.00					55910-1.RAW	9:32:34	3.47	Sample	OK	1
F611402-BLK4	B1		1	4.38	0.03					55911-1.RAW	9:36:43	8.02	Sample	OK	1
F611402-BLK5	B2		10	4.38	0.54					55912-1.RAW	9:40:51	10.08	Sample	OK	1
F611402-BS1	B3		1	4.38	14.72					55913-1.RAW	9:45:00	1543.22	Sample	OK	1
F611402-BSD1	B4		1	4.38	14.33					55914-1.RAW	9:49:08	1503.01	Sample	OK	1
1611079-01	B5		1	4.38	39.37					55915-1.RAW	9:53:17	4121.29	Sample	OK	1
1611079-02	B6		1	4.38	1.51					55916-1.RAW	9:57:25	161.98	Sample	OK	1
1611079-03	B7		1	4.38	19.13					55917-1.RAW	10:01:33	2004.51	Sample	OK	1
SEQ-CCV1	B8		1	4.38	4.76			95.17		55918-1.RAW	10:05:42	501.97	Sample	OK	1
SEQ-CCB1	B9		1	4.38	0.11			0.00		55919-1.RAW	10:09:50	16.36	Sample	OK	1
1611079-04	B10		1	4.38	1.76					55920-1.RAW	10:13:59	188.32	Sample	OK	1
1611079-05	B11		1	4.38	8.34					55921-1.RAW	10:18:07	876.93	Sample	OK	1
1611079-06	B12		1	4.38	1.85					55922-1.RAW	10:22:16	198.25	Sample	OK	1
1611079-07	C1		1	4.38	2.73					55923-1.RAW	10:26:24	289.78	Sample	OK	1
1611079-08	C2		1	4.38	0.81					55924-1.RAW	10:30:33	88.63	Sample	OK	1
1611079-09	C3		1	4.38	8.75					55925-1.RAW	10:34:41	919.78	Sample	OK	1
1611079-10	C4		1	4.38	5.30					55926-1.RAW	10:38:49	558.27	Sample	OK	1
1611324-01	C5		1	4.38	22.31					55927-1.RAW	10:42:58	2337.48	Sample	OK	1
1611324-02	C6		10	4.38	10.42					55928-1.RAW	10:47:06	113.35	Sample	OK	1
1611324-03	C7		1	4.38	3.96					55929-1.RAW	10:51:15	418.44	Sample	OK	1
SEQ-CCV2	C8		1	4.38	4.55			91.05		55930-1.RAW	10:55:23	480.47	Sample	OK	1
SEQ-CCB2	C9		1	4.38	0.02			0.00		55931-1.RAW	10:59:32	6.84	Sample	OK	1
1611324-04	C10		10	4.38	4.62					55932-1.RAW	11:03:40	52.64	Sample	OK	1
1611498-01	C11		1	4.38	5.42					55933-1.RAW	11:07:49	571.54	Sample	OK	1
1611498-02	C12		1	4.38	0.01					55934-1.RAW	11:11:57	5.15	Sample	OK	1
1611498-03	D1		1	4.38	6.38					55935-1.RAW	11:16:05	671.65	Sample	OK	1
1611498-04	D2		1	4.38	0.03					55936-1.RAW	11:20:14	7.79	Sample	OK	1
1611498-05	D3		10	4.38	55.72					55937-1.RAW	11:24:22	587.05	Sample	OK	1

1611498-06	D4	1	4.38	0.03		55938-1.RAW	11:28:31	7.62	Sample	OK	1
F611402-DUP1	D5	1	4.38	7.78		55939-1.RAW	11:32:39	817.67	Sample	OK	1
F611402-MS1	D6	10	4.38	134.81	1535.84	55940-1.RAW	11:36:48	1414.07	Sample	OK	1
F611402-MSD1	D7	10	4.38	136.88		55941-1.RAW	11:40:56	1435.76	Sample	OK	1
SEQ-CCV3	D8	1	4.38	4.59	91.70	55942-1.RAW	11:45:04	483.86	Sample	OK	1
SEQ-CCB3	D9	1	4.38	0.04	0.00	55943-1.RAW	11:49:13	9.00	Sample	OK	1
1611324-04RE1	D10	1	4.38	2.85		55944-1.RAW	11:53:21	302.44	Sample	OK	1
F611402-MS2	D11	1	4.38	6.06	124.93	55945-1.RAW	11:57:30	638.04	Sample	OK	1
F611402-MSD2	D12	1	4.38	6.20		55946-1.RAW	12:01:38	652.79	Sample	OK	1
F611377-BLK1	A1	20	4.38	0.56		55947-1.RAW	12:05:47	7.31	Sample	OK	1
F611377-BLK2	A2	20	4.38	1.33		55948-1.RAW	12:09:55	11.32	Sample	OK	1
F611377-BLK3	A3	20	4.38	0.58		55949-1.RAW	12:14:04	7.40	Sample	OK	1
F611377-BS1	A4	20	4.38	95.95		55950-1.RAW	12:18:12	506.09	Sample	OK	1
F611377-BSD1	A5	20	4.38	101.20		55951-1.RAW	12:22:20	533.50	Sample	OK	1
1610828-01	A6	100	4.38	3208.59		55952-1.RAW	12:26:29	3359.67	Sample	OK	1
1610828-02	A7	100	4.38	2267.41		55953-1.RAW	12:30:37	2375.45	Sample	OK	1
SEQ-CCV4	A8	1	4.38	4.59	91.88	55954-1.RAW	12:34:46	484.76	Sample	OK	1
SEQ-CCB4	A9	1	4.38	0.07	0.00	55955-1.RAW	12:38:54	11.25	Sample	OK	1
1610828-03	A10	500	4.38	29075.82		55956-1.RAW	12:43:03	6085.42	Sample	OK	1
1610828-04	A11	500	4.38	36111.19		55957-1.RAW	12:47:11	7556.82	Sample	FB	1
1610828-05	A12	500	4.38	5426.17		55958-1.RAW	12:51:20	1139.23	Sample	OK	1
1610828-06	B1	500	4.38	12990.55		55959-1.RAW	12:55:28	2721.28	Sample	OK	1
1610828-07	B2	500	4.38	5577.29		55960-1.RAW	12:59:36	1170.84	Sample	OK	1
1610828-08	B3	500	4.38	4141.55		55961-1.RAW	13:03:43	870.56	Sample	OK	1
1610828-09	B4	500	4.38	1742.23		55962-1.RAW	13:07:52	368.76	Sample	OK	1
1610862-01	B5	500	4.38	14181.23		55963-1.RAW	13:12:00	2970.30	Sample	OK	1
1610862-02	B6	500	4.38	14284.59		55964-1.RAW	13:16:08	2991.92	Sample	OK	1
1610862-03	B7	500	4.38	16571.77		55965-1.RAW	13:20:17	3470.27	Sample	OK	1
SEQ-CCV5	B8	1	4.38	4.72	94.49	55966-1.RAW	13:24:25	498.43	Sample	OK	1
SEQ-CCB5	B9	1	4.38	0.13	0.00	55967-1.RAW	13:28:33	17.60	Sample	OK	1
1610828-03RE1	B10	1000	4.38	30507.01		55968-1.RAW	13:32:42	3194.56	Sample	FB	1
1610828-04RE1	B11	2500	4.38	39530.72		55969-1.RAW	13:36:50	1657.90	Sample	OK	1
1610828-05RE1	B12	500	4.38	5252.34		55970-1.RAW	13:40:59	1102.87	Sample	OK	1
1610862-04	C1	500	4.38	13174.70		55971-1.RAW	13:45:07	2759.79	Sample	OK	1
1610862-05	C2	500	4.38	16567.14		55972-1.RAW	13:49:16	3469.30	Sample	OK	1
1610862-06	C3	500	4.38	6447.91		55973-1.RAW	13:53:24	1352.92	Sample	OK	1
1610862-07	C4	500	4.38	4318.39		55974-1.RAW	13:57:32	907.55	Sample	OK	1
1610862-08	C5	500	4.38	13101.20		55975-1.RAW	14:01:41	2744.42	Sample	FB	1
1610862-09	C6	500	4.38	4161.84		55976-1.RAW	14:05:49	874.80	Sample	OK	1
1610865-01	C7	500	4.38	14324.95		55977-1.RAW	14:09:58	3000.36	Sample	OK	1
SEQ-CCV6	C8	1	4.38	4.88	97.57	55978-1.RAW	14:14:06	514.56	Sample	OK	1
SEQ-CCB6	C9	1	4.38	0.11	0.00	55979-1.RAW	14:18:15	16.29	Sample	OK	1
1610865-02	C10	500	4.38	103.86		55980-1.RAW	14:23:11	26.10	Sample	OK	1
F611377-DUP1	C11	100	4.38	3206.27		55981-1.RAW	14:27:19	3357.24	Sample	FB	1
F611377-MS1	C12	500	4.38	7600.28	236.97	55982-1.RAW	14:31:27	1593.93	Sample	OK	1
F611377-MSD1	D1	500	4.38	8246.33		55983-1.RAW	14:35:36	1729.05	Sample	OK	1
F611377-MS2	D2	500	4.38	18658.24	226.21	55984-1.RAW	14:39:44	3906.64	Sample	OK	1
F611377-MSD2	D3	500	4.38	20740.93		55985-1.RAW	14:43:53	4342.22	Sample	FB	1
*F611393-BLK1	D4	20	4.38	6.78		55986-1.RAW	14:48:01	39.82	Sample	OK	1

F611393-BLK2	D5	20	4.38	3.35		55987-1.RAW	14:52:10	21.91	Sample	OK	1
F611393-BLK3	D6	20	4.38	2.23		55988-1.RAW	14:56:18	16.04	Sample	OK	1
F611393-BS1	D7	20	4.38	95.56		55989-1.RAW	15:00:26	504.03	Sample	OK	1
SEQ-CCV7	D8	1	4.38	4.66	93.16	55990-1.RAW	15:04:35	491.50	Sample	OK	1
SEQ-CCB7	D9	1	4.38	0.12	0.00	55991-1.RAW	15:08:43	17.18	Sample	OK	1
1610865-02RE1	D10	20	4.38	62.89		55992-1.RAW	15:12:52	333.18	Sample	OK	1
F611377-MS3	D11	1000	4.38	19109.81	29004.77	55993-1.RAW	15:17:00	2002.73	Sample	OK	1
F611377-MSD3	D12	1000	4.38	19538.71		55994-1.RAW	15:21:08	2047.58	Sample	OK	1
F611393-BLK4	A1	20	4.38	4.08		55995-1.RAW	15:25:17	25.71	Sample	OK	1
F611393-BSD1	A2	20	4.38	98.10		55996-1.RAW	15:29:25	517.32	Sample	OK	1
F611393-BS2	A3	500	4.38	2132.59		55997-1.RAW	15:33:34	450.40	Sample	OK	1
1611259-01	A4	100	4.38	1592.64		55998-1.RAW	15:37:42	1669.84	Sample	OK	1
1611259-02	A5	100	4.38	2737.66		55999-1.RAW	15:41:51	2867.21	Sample	OK	1
1611259-03	A6	100	4.38	3673.84		56000-1.RAW	15:45:59	3846.19	Sample	OK	1
1611259-04	A7	100	4.38	1450.80		56001-1.RAW	15:50:07	1521.51	Sample	OK	1
SEQ-CCV8	A8	1	4.38	4.65	93.06	56002-1.RAW	15:54:16	490.95	Sample	OK	1
SEQ-CCB8	A9	1	4.38	0.11	0.00	56003-1.RAW	15:58:24	15.64	Sample	OK	1
1611259-05	A10	100	4.38	1901.34		56004-1.RAW	16:02:33	1992.65	Sample	OK	1
1611259-06	A11	100	4.38	2903.55		56005-1.RAW	16:06:41	3040.68	Sample	OK	1
1611259-07	A12	100	4.38	2269.64		56006-1.RAW	16:10:50	2377.79	Sample	OK	1
1611259-08	B1	100	4.38	3343.53		56007-1.RAW	16:14:58	3500.77	Sample	FB	1
1611259-09	B2	100	4.38	2053.45		56008-1.RAW	16:19:06	2151.71	Sample	OK	1
1611259-10	B3	100	4.38	1071.88		56009-1.RAW	16:23:15	1125.26	Sample	OK	1
1611259-11	B4	100	4.38	3205.61		56010-1.RAW	16:27:23	3356.56	Sample	FB	1
1611259-12	B5	100	4.38	2352.70		56011-1.RAW	16:31:32	2464.65	Sample	OK	1
1611259-13	B6	100	4.38	2054.15		56012-1.RAW	16:35:40	2152.45	Sample	OK	1
1611259-14	B7	100	4.38	2027.38		56013-1.RAW	16:39:48	2124.45	Sample	OK	1
SEQ-CCV9	B8	1	4.38	4.82	96.39	56014-1.RAW	16:43:57	508.38	Sample	OK	1
SEQ-CCB9	B9	1	4.38	0.12	0.00	56015-1.RAW	16:48:05	16.69	Sample	OK	1
1611259-15	B10	100	4.38	1783.62		56016-1.RAW	16:52:14	1869.54	Sample	OK	1
1611259-16	B11	100	4.38	2060.41		56017-1.RAW	16:56:22	2158.99	Sample	OK	1
1611259-17	B12	100	4.38	3146.49		56018-1.RAW	17:00:31	3294.73	Sample	OK	1
1611259-18	C1	100	4.38	2312.58		56019-1.RAW	17:04:39	2422.69	Sample	OK	1
1611259-19	C2	100	4.38	2290.44		56020-1.RAW	17:08:47	2399.54	Sample	OK	1
1611259-20	C3	100	4.38	2509.97		56021-1.RAW	17:12:56	2629.11	Sample	OK	1
F611393-DUP1	C4	100	4.38	1985.58		56022-1.RAW	17:17:04	2080.74	Sample	OK	1
F611393-MS1	C5	500	4.38	6553.58	329.89	56023-1.RAW	17:21:13	1375.02	Sample	OK	1
F611393-MSD1	C6	500	4.38	6221.18		56024-1.RAW	17:25:21	1305.50	Sample	OK	1
F611393-MS2	C7	500	4.38	7334.23	117.85	56025-1.RAW	17:29:29	1538.29	Sample	OK	1
SEQ-CCVA	C8	1	4.38	4.60		56026-1.RAW	17:33:38	485.72	Sample	OK	1
SEQ-CCBA	C9	1	4.38	0.12		56027-1.RAW	17:37:46	17.00	Sample	OK	1
F611393-MSD2	C10	500	4.38	6501.73		56028-1.RAW	17:41:55	1364.18	Sample	OK	1
F611415-BLK1	C11	1	4.38	0.10		56029-1.RAW	17:46:03	15.30	Sample	OK	1
F611415-BLK2	C12	1	4.38	0.07		56030-1.RAW	17:50:12	11.33	Sample	OK	1
F611415-BLK3	D1	1	4.38	0.06		56031-1.RAW	17:54:20	11.12	Sample	OK	1
F611415-BLK4	D2	1	4.38	0.08		56032-1.RAW	17:58:28	12.77	Sample	OK	1
F611415-BLK5	D3	1	4.38	0.04		56033-1.RAW	18:02:37	8.81	Sample	OK	1
F611415-BLK6	D4	1	4.38	0.05		56034-1.RAW	18:06:45	9.58	Sample	OK	1
F611415-BS1	D5	1	4.38	14.99		56035-1.RAW	18:10:54	1571.93	Sample	OK	1



F611415-BSD1	D6	1	4.38	14.78		56036-1.RAW	18:15:02	1549.95	Sample	OK	1
1611212-01	D7	1	4.38	0.59		56037-1.RAW	18:19:10	66.25	Sample	OK	1
SEQ-CCVB	D8	1	4.38	4.91		56038-1.RAW	18:23:19	517.66	Sample	OK	1
SEQ-CCBB	D9	1	4.38	0.09		56039-1.RAW	18:27:27	13.27	Sample	OK	1
1611212-02	D10	1	4.38	0.11		56040-1.RAW	18:31:36	15.36	Sample	OK	1
1611458-01	D11	1	4.38	1.05		56041-1.RAW	18:35:44	114.34	Sample	OK	1
1611458-02	D12	1	4.38	0.12		56042-1.RAW	18:39:53	16.42	Sample	OK	1
F611415-DUP1	A1	1	4.38	1.07		56043-1.RAW	18:44:01	116.32	Sample	OK	1
F611415-MS1	A2	1	4.38	5.73	276.61	56044-1.RAW	18:48:09	603.28	Sample	OK	1
F611415-MSD1	A3	1	4.38	5.99		56045-1.RAW	18:52:18	630.55	Sample	OK	1
SEQ-CCVC	A4	1	4.38	4.67		56046-1.RAW	18:56:26	492.62	Sample	OK	1
SEQ-CCBC	A5	1	4.38	0.09		56047-1.RAW	19:00:35	13.43	Sample	OK	1




**Failing Data Report - 6K21019**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1610828-03	Hg-CVAFS-S-AR	3270	35.1				ng/g						FAIL-OVER	PASS	FF
1610828-04	Hg-CVAFS-S-AR	4450	38.5				ng/g						FAIL-OVER	PASS	FF
F611377-MSD2	Hg-CVAFS-S-AR	2621	39.5	2570	1848	631.80	ng/g	122	71.00	125.00	15.4	24.00	FAIL-OVER	PASS-MSD	FF

Don M. Mason  
 Analyst Reviewed By

11/21/16  
 Date

  
 Peer Reviewed By

11-21-16  
 Date





## ANALYSIS SEQUENCE

6K21018

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21018-IBL1	QC	1			
6K21018-IBL2	QC	2			
6K21018-IBL3	QC	3			
6K21018-CAL1	QC	4	1605412		
6K21018-CAL2	QC	5	1605413		
6K21018-CAL3	QC	6	1605414		
6K21018-CAL4	QC	7	1605415		
6K21018-CAL5	QC	8	1605416		
6K21018-ICV1	QC	9	1605791		
F611402-BLK1	QC	10			
F611402-BLK2	QC	11			
F611402-BLK3	QC	12			
F611402-BLK4	QC	13			
F611402-BLK5	QC	14			
F611402-BS1	QC	15			
F611402-BSD1	QC	16			
1611079-01	Hg-CVAFS-W-1631	17			Scan all data for level IV report
1611079-02	Hg-CVAFS-W-1631	18			Scan all data for level IV report
1611079-03	Hg-CVAFS-W-1631	19			Scan all data for level IV report
6K21018-CCV1	QC	20	1605791		
6K21018-CCB1	QC	21			
1611079-04	Hg-CVAFS-W-1631	22			Scan all data for level IV report
1611079-05	Hg-CVAFS-W-1631	23			Scan all data for level IV report
1611079-06	Hg-CVAFS-W-1631	24			Scan all data for level IV report
1611079-07	Hg-CVAFS-W-1631	25			Scan all data for level IV report
1611079-08	Hg-CVAFS-W-1631	26			Scan all data for level IV report
1611079-09	Hg-CVAFS-W-1631	27			Scan all data for level IV report
1611079-10	Hg-CVAFS-W-1631	28			Scan all data for level IV report
1611324-01	Hg-CVAFS-W-1631	29			
1611324-02	Hg-CVAFS-W-1631	30			
1611324-03	Hg-CVAFS-W-1631	31			
6K21018-CCV2	QC	32	1605791		
6K21018-CCB2	QC	33			
1611324-04	Hg-CVAFS-W-1631	34			
1611498-01	Hg-CVAFS-W-1631	35			

Due Date: 11/21/2016

## ANALYSIS SEQUENCE

6K21018

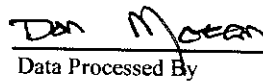
Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1611498-02	Hg-CVAFS-W-1631	36			
1611498-03	Hg-CVAFS-W-1631	37			
1611498-04	Hg-CVAFS-W-1631	38			
1611498-05	Hg-CVAFS-W-1631	39			
1611498-06	Hg-CVAFS-W-1631	40			
F611402-DUP1	QC	41			
F611402-MS1	QC	42			
F611402-MSD1	QC	43			
6K21018-CCV3	QC	44	1605791		
6K21018-CCB3	QC	45			
1611324-04RE1	Hg-CVAFS-W-1631	46			Added 11/21/2016 by DM2
F611402-MS2	QC	47			
F611402-MSD2	QC	48			
6K21018-CCV4	QC	49	1605791		
6K21018-CCB4	QC	50			
6K21018-CCV5	QC	51	1605791		
6K21018-CCB5	QC	52			
6K21018-CCV6	QC	53	1605791		
6K21018-CCB6	QC	54			
6K21018-CCV7	QC	55	1605791		
6K21018-CCB7	QC	56			
6K21018-CCV8	QC	57	1605791		
6K21018-CCB8	QC	58			
6K21018-CCV9	QC	59	1605791		
6K21018-CCB9	QC	60			
6K21018-CCVA	QC	61	1605791		
6K21018-CCBA	QC	62			
6K21018-CCVB	QC	63	1605791		
6K21018-CCBB	QC	64			
6K21018-CCVC	QC	65	1605791		
6K21018-CCBC	QC	66			


 Samples Loaded By \_\_\_\_\_ Date 11/18/16


 Data Processed By \_\_\_\_\_ Date 11/21/16

Due Date: 11/21/2016

## ANALYSIS SEQUENCE

6K21019

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21019-IBL1	QC	1			
6K21019-IBL2	QC	2			
6K21019-IBL3	QC	3			
6K21019-CAL1	QC	4	1605412		
6K21019-CAL2	QC	5	1605413		
6K21019-CAL3	QC	6	1605414		
6K21019-CAL4	QC	7	1605415		
6K21019-CAL5	QC	8	1605416		
6K21019-ICV1	QC	9	1605791		
6K21019-CCV1	QC	10	1605791		
6K21019-CCB1	QC	11			
6K21019-CCV2	QC	12	1605791		
6K21019-CCB2	QC	13			
6K21019-CCV3	QC	14	1605791		
6K21019-CCB3	QC	15			
F611377-BLK1	QC	16			
F611377-BLK2	QC	17			
F611377-BLK3	QC	18			
F611377-BS1	QC	19			
F611377-BSD1	QC	20			
1610828-01	Hg-CVAFS-S-AR	21			Scan all data for Level IV
1610828-02	Hg-CVAFS-S-AR	22			Scan all data for Level IV
6K21019-CCV4	QC	23	1605791		
6K21019-CCB4	QC	24			
1610828-03	Hg-CVAFS-S-AR	25			Scan all data for Level IV
1610828-04	Hg-CVAFS-S-AR	26			Scan all data for Level IV
1610828-05	Hg-CVAFS-S-AR	27			Scan all data for Level IV
1610828-06	Hg-CVAFS-S-AR	28			Scan all data for Level IV
1610828-07	Hg-CVAFS-S-AR	29			Scan all data for Level IV
1610828-08	Hg-CVAFS-S-AR	30			Scan all data for Level IV
1610828-09	Hg-CVAFS-S-AR	31			Scan all data for Level IV
1610862-01	Hg-CVAFS-S-AR	32			Scan all data for Level IV
1610862-02	Hg-CVAFS-S-AR	33			Scan all data for Level IV
1610862-03	Hg-CVAFS-S-AR	34			Scan all data for Level IV
6K21019-CCV5	QC	35	1605791		

Due Date: 11/28/2016



## ANALYSIS SEQUENCE

6K21019

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21019-CCB5	QC	36			
1610828-03RE1	Hg-CVAFS-S-AR	37			Added 11/21/2016 by DM2
1610828-04RE1	Hg-CVAFS-S-AR	38			Added 11/21/2016 by DM2
1610828-05RE1	Hg-CVAFS-S-AR	39			Added 11/21/2016 by DM2
1610862-04	Hg-CVAFS-S-AR	40			Scan all data for Level IV
1610862-05	Hg-CVAFS-S-AR	41			Scan all data for Level IV
1610862-06	Hg-CVAFS-S-AR	42			Scan all data for Level IV
1610862-07	Hg-CVAFS-S-AR	43			Scan all data for Level IV
1610862-08	Hg-CVAFS-S-AR	44			Scan all data for Level IV
1610862-09	Hg-CVAFS-S-AR	45			Scan all data for Level IV
1610865-01	Hg-CVAFS-S-AR	46			Scan all data for Level IV
6K21019-CCV6	QC	47	1605791		
6K21019-CCB6	QC	48			
1610865-02	Hg-CVAFS-S-AR	49			Scan all data for Level IV
F611377-DUP1	QC	50			
F611377-MS1	QC	51			
F611377-MSD1	QC	52			
F611377-MS2	QC	53			
F611377-MSD2	QC	54			
6K21019-CCV7	QC	55	1605791		
6K21019-CCB7	QC	56			
1610865-02RE1	Hg-CVAFS-S-AR	57			Added 11/21/2016 by DM2
F611377-MS3	QC	58			
F611377-MSD3	QC	59			
6K21019-CCV8	QC	60	1605791		
6K21019-CCB8	QC	61			
6K21019-CCV9	QC	62	1605791		
6K21019-CCB9	QC	63			
6K21019-CCVA	QC	64	1605791		
6K21019-CCBA	QC	65			
6K21019-CCVB	QC	66	1605791		
6K21019-CCBB	QC	67			
6K21019-CCVC	QC	68	1605791		
6K21019-CCBC	QC	69			

Due Date: 11/28/2016

ANALYSIS SEQUENCE

6K21019

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
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Don Moran                      11/18/16  
Samples Loaded By                      Date

Don Moran                      11/21/16  
Data Processed By                      Date

Due Date: 11/28/2016

## ANALYSIS SEQUENCE

6K21016

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21016-IBL1	QC	1			
6K21016-IBL2	QC	2			
6K21016-IBL3	QC	3			
6K21016-CAL1	QC	4	1605412		
6K21016-CAL2	QC	5	1605413		
6K21016-CAL3	QC	6	1605414		
6K21016-CAL4	QC	7	1605415		
6K21016-CAL5	QC	8	1605416		
6K21016-ICV1	QC	9	1605791		
6K21016-CCV1	QC	10	1605791		
6K21016-CCB1	QC	11			
6K21016-CCV2	QC	12	1605791		
6K21016-CCB2	QC	13			
6K21016-CCV3	QC	14	1605791		
6K21016-CCB3	QC	15			
6K21016-CCV4	QC	16	1605791		
6K21016-CCB4	QC	17			
6K21016-CCV5	QC	18	1605791		
6K21016-CCB5	QC	19			
6K21016-CCV6	QC	20	1605791		
6K21016-CCB6	QC	21			
F611393-BLK1	QC	22			
F611393-BLK2	QC	23			
F611393-BLK3	QC	24			
F611393-BS1	QC	25			
6K21016-CCV7	QC	26	1605791		
6K21016-CCB7	QC	27			
F611393-BLK4	QC	28			
F611393-BSD1	QC	29			
F611393-BS2	QC	30			
1611259-01	Hg-CVAFS-T-7030	31			
1611259-02	Hg-CVAFS-T-7030	32			
1611259-03	Hg-CVAFS-T-7030	33			
1611259-04	Hg-CVAFS-T-7030	34			
6K21016-CCV8	QC	35	1605791		

Due Date: 11/29/2016

## ANALYSIS SEQUENCE


6K21016


Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21016-CCB8	QC	36			
1611259-05	Hg-CVAFS-T-7030	37			
1611259-06	Hg-CVAFS-T-7030	38			
1611259-07	Hg-CVAFS-T-7030	39			
1611259-08	Hg-CVAFS-T-7030	40			
1611259-09	Hg-CVAFS-T-7030	41			
1611259-10	Hg-CVAFS-T-7030	42			
1611259-11	Hg-CVAFS-T-7030	43			
1611259-12	Hg-CVAFS-T-7030	44			
1611259-13	Hg-CVAFS-T-7030	45			
1611259-14	Hg-CVAFS-T-7030	46			
6K21016-CCV9	QC	47	1605791		
6K21016-CCB9	QC	48			
1611259-15	Hg-CVAFS-T-7030	49			
1611259-16	Hg-CVAFS-T-7030	50			
1611259-17	Hg-CVAFS-T-7030	51			
1611259-18	Hg-CVAFS-T-7030	52			
1611259-19	Hg-CVAFS-T-7030	53			
1611259-20	Hg-CVAFS-T-7030	54			
F611393-DUP1	QC	55			
F611393-MS1	QC	56			
F611393-MSD1	QC	57			
F611393-MS2	QC	58			
6K21016-CCVA	QC	59	1605791		
6K21016-CCBA	QC	60			
F611393-MSD2	QC	61			
6K21016-CCVB	QC	62	1605791		
6K21016-CCBB	QC	63			
6K21016-CCVC	QC	64	1605791		
6K21016-CCBC	QC	65			


  
 Samples Loaded By \_\_\_\_\_ Date 11/18/16


  
 Data Processed By \_\_\_\_\_ Date 11/21/16

Due Date: 11/29/2016

## ANALYSIS SEQUENCE

6K21021

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 11/18/2016

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
6K21021-IBL1	QC	1			
6K21021-IBL2	QC	2			
6K21021-IBL3	QC	3			
6K21021-CAL1	QC	4	1605412		
6K21021-CAL2	QC	5	1605413		
6K21021-CAL3	QC	6	1605414		
6K21021-CAL4	QC	7	1605415		
6K21021-CAL5	QC	8	1605416		
6K21021-ICV1	QC	9	1605791		
6K21021-CCV1	QC	10	1605791		
6K21021-CCB1	QC	11			
6K21021-CCV2	QC	12	1605791		
6K21021-CCB2	QC	13			
6K21021-CCV3	QC	14	1605791		
6K21021-CCB3	QC	15			
6K21021-CCV4	QC	16	1605791		
6K21021-CCB4	QC	17			
6K21021-CCV5	QC	18	1605791		
6K21021-CCB5	QC	19			
6K21021-CCV6	QC	20	1605791		
6K21021-CCB6	QC	21			
6K21021-CCV7	QC	22	1605791		
6K21021-CCB7	QC	23			
6K21021-CCV8	QC	24	1605791		
6K21021-CCB8	QC	25			
6K21021-CCV9	QC	26	1605791		
6K21021-CCB9	QC	27			
6K21021-CCVA	QC	28	1605791		
6K21021-CCBA	QC	29			
F611415-BLK1	QC	30			
F611415-BLK2	QC	31			
F611415-BLK3	QC	32			
F611415-BLK4	QC	33			
F611415-BLK5	QC	34			
F611415-BLK6	QC	35			

Due Date: 11/21/2016

**ANALYSIS SEQUENCE**

**6K21021**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 11/18/2016**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F611415-BS1	QC	36			
F611415-BSD1	QC	37			
1611212-01	Hg-CVAFS-W-1631-WI DNR	38			
6K21021-CCVB	QC	39	1605791		
6K21021-CCBB	QC	40			
1611212-02	Hg-CVAFS-W-1631-WI DNR	41			
1611458-01	Hg-CVAFS-W-1631-WI DNR	42			
1611458-02	Hg-CVAFS-W-1631-WI DNR	43			
F611415-DUP1	QC	44			
F611415-MS1	QC	45			
F611415-MSD1	QC	46			
6K21021-CCVC	QC	47	1605791		
6K21021-CCBC	QC	48			

Dan Moran      11/18/16  
 Samples Loaded By      Date

Dan Moran      11/21/16  
 Data Processed By      Date

Due Date: 11/21/2016

**PREPARATION BENCH SHEET**

F611402

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611402-BLK1	Blank	100	101					SOURCE 1611079-24
F611402-BLK2	Blank	100	101					SOURCE 1611079-24
F611402-BLK3	Blank	100	101					SOURCE 1611079-24
F611402-BLK4	Blank	100	110					
F611402-BLK5	Blank	100	200					
F611402-BS1	LCS	50	50.5	1604715	100			
F611402-BSD1	LCS Dup	50	50.5	1604715	100			
F611402-DUP1	Duplicate [1611079-05]	100	101					
F611402-MS1	Matrix Spike [1611079-01]	4.950495	5	1605272	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F611402-MS2	Matrix Spike [1611079-02]	49.50495	50	1605272	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611402-MSD1	Matrix Spike Dup [1611079-01]	4.950495	5	1605272	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F611402-MSD2	Matrix Spike Dup [1611079-02]	49.50495	50	1605272	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
		10-Dec-16 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611402

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/18/2016**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611079-01	LCPI-5251-01	100	101	QC	-	-	MS/MSD Scan all data for level IV rept	
1611079-02	LCPI-5251-01 Dissolved	100	101	QC	-	-	MS/MSD Scan all data for level IV rept	
1611079-03	LCPI-5251-02	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-04	LCPI-5251-02 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-05	LCPI-5251-03	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-06	LCPI-5251-03 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-07	LCPI-5251-04	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-08	LCPI-5251-04 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-09	LCPI-5251-05	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611079-10	LCPI-5251-05 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	
1611324-01	FEN BI03618	100	101	-	-	-		
1611324-02	SCE BI03619	100	110	-	-	-		
1611324-03	FEN Blank BI03622	100	101	-	-	-		
1611324-04	SCE Blank BI03623	100	110	-	-	-		
1611324-04RE1	SCE Blank BI03623	100	110	-	-	-	Added 11/21/2016 by DM2	Added 11/21/2016 by DM2
1611498-01	Lagoons	100	101	-	-	-		
1611498-02	Lagoons Field Blank	100	101	-	-	-		
1611498-03	Clarifier	100	101	-	-	-		
1611498-04	Clarifier Field Blank	100	101	-	-	-		

Page 69 of 147

Date: 11/21/2016



PREPARATION BENCH SHEET

F611402

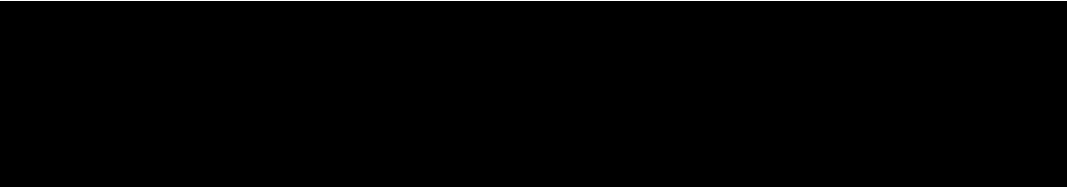
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/18/2016

1611498-05	A149	100	200	-	-	-		
1611498-06	A149 Blank	100	101	-	-	-		



**PREPARATION BENCH SHEET**

F611377

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 11/16/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611377-BLK1	Blank	0.5	40					
F611377-BLK2	Blank	0.5	40					
F611377-BLK3	Blank	0.5	40					
F611377-BS1	Blank Spike	0.5	40	1605270	40			
F611377-BSD1	Blank Spike Dup	0.5	40	1605270	40			
F611377-DUP1	Duplicate [1610828-01]	0.5501	40					
F611377-MS1	Matrix Spike [1610828-01]	0.548	40	1605712	200			
F611377-MS2	Matrix Spike [1610862-02]	0.5489	40	1605712	200			
F611377-MS3	Matrix Spike [1610862-02]	0.5984	40	1605712	200			
F611377-MSD1	Matrix Spike Dup [1610828-01]	0.5922	40	1605712	200			
F611377-MSD2	Matrix Spike Dup [1610862-02]	0.5984	40	1605712	200			
F611377-MSD3	Matrix Spike Dup [1610862-02]	0.5984	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
			1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606467	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606531	3% SnCl <sub>2</sub> THg reductant	29-Apr-17 00:00
			1606599	5% BrCl	19-Apr-17 00:00

**PREPARATION BENCH SHEET**

F611377

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 11/16/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610828-01	NB03SED-CHM388 8661391	0.597	40	-	-	-	Scan all data for Level IV	
1610828-02	NB03SED-CHM385 8661394	0.5477	40	-	-	-	Scan all data for Level IV	
1610828-03	NB03SED-CHM387 8661397	0.5548	40	-	-	-	Scan all data for Level IV	
1610828-03RE1	NB03SED-CHM387 8661397	0.5548	40	-	-	-	Added 11/21/2016 by DM2	Added 11/21/2016 by DM2
1610828-04	NB03SED-CHM384 8661400	0.5688	40	-	-	-	Scan all data for Level IV	
1610828-04RE1	NB03SED-CHM384 8661400	0.5688	40	-	-	-	Added 11/21/2016 by DM2	Added 11/21/2016 by DM2
1610828-05	NB03SED-CHM395 8661403	0.5951	40	-	-	-	Scan all data for Level IV	
1610828-05RE1	NB03SED-CHM395 8661403	0.5951	40	-	-	-	Added 11/21/2016 by DM2	Added 11/21/2016 by DM2
1610828-06	NB03SED-CHM399 8661409	0.5541	40	-	-	-	Scan all data for Level IV	
1610828-07	NB03SED-CHM386 8661412	0.5879	40	-	-	-	Scan all data for Level IV	
1610828-08	NB03SED-CHM391 8661415	0.5692	40	-	-	-	Scan all data for Level IV	
1610828-09	NB03SEDDUP-07 8661418	0.5406	40	-	-	-	Scan all data for Level IV	
1610862-01	NB03SED-CHM408 8664049	0.5416	40	-	-	-	Scan all data for Level IV	
1610862-02	NB03SED-CHM409 8664051	0.5844	40	-	-	-	Scan all data for Level IV	
1610862-03	NB03SED-CHM406 8664053	0.5621	40	-	-	-	Scan all data for Level IV	
1610862-04	NB03SED-CHM405 8664055	0.5613	40	-	-	-	Scan all data for Level IV	
1610862-05	NB03SED-CHM404 8664057	0.5388	40	-	-	-	Scan all data for Level IV	
1610862-06	NB03SED-CHM401 8664059	0.5318	40	-	-	-	Scan all data for Level IV	
1610862-07	NB03SED-CHM400 8664061	0.5654	40	-	-	-	Scan all data for Level IV	

Page 72 of 147

Date: 11/28/2016

**PREPARATION BENCH SHEET**

F611377

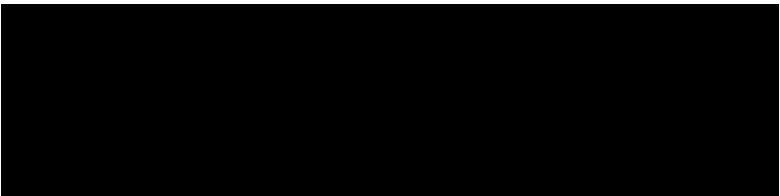
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg**

**Prepared: 11/16/2016**

1610862-08	NB03SED-CHM397 8664063	0.577	40	-	-	-	Scan all data for Level IV	
1610862-09	NB03SED-CHM396 8664065	0.5403	40	-	-	-	Scan all data for Level IV	
1610865-01	NB03SED-CHM407 8664077	0.5826	40	-	-	-	Scan all data for Level IV	
1610865-02	NB03SED-CHM407C 8664079	0.5294	40	-	-	-	Scan all data for Level IV	
1610865-02RE1	NB03SED-CHM407C 8664079	0.5294	40	-	-	-	Added 11/21/2016 by DM2	Added 11/21/2016 by DM2



**PREPARATION BENCH SHEET**

F611393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611393-BLK1	Blank	0.5	40					
F611393-BLK2	Blank	0.5	40					
F611393-BLK3	Blank	0.5	40					
F611393-BLK4	Blank	0.5	40					
F611393-BS1	LCS	0.5	40	1605270	40			
F611393-BS2	LCS	0.255	40	1605470	255			
F611393-BSD1	LCS Dup	0.5	40	1605270	40			
F611393-DUP1	Duplicate [1611259-05]	0.514	40					
F611393-MS1	Matrix Spike [1611259-05]	0.548	40	1605712	200			
F611393-MS2	Matrix Spike [1611259-06]	0.515	40	1605712	200			
F611393-MSD1	Matrix Spike Dup [1611259-05]	0.531	40	1605712	200			
F611393-MSD2	Matrix Spike Dup [1611259-06]	0.512	40	1605712	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605470	DORM-4	19-Mar-17 00:00	1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1606719	5% BrCl	19-Apr-17 00:00
			1606720	70/30 Digestion Acid	15-May-17 00:00

**PREPARATION BENCH SHEET**

F611393

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611259-01	L9_45_092416_LOB_TA_01	0.587	40	-	-	-		
1611259-02	L9_45_092416_LOB_TA_02	0.573	40	-	-	-		
1611259-03	L9_45_092416_LOB_TA_03	0.577	40	-	-	-		
1611259-04	L9_45_092416_LOB_TA_04	0.574	40	-	-	-		
1611259-05	L9_45_092416_LOB_TA_05	0.501	40	QC	-	-	MS/MSD	
1611259-06	L9_45_092416_LOB_TA_06	0.599	40	-	-	-		
1611259-07	L9_45_092416_LOB_TA_07	0.558	40	-	-	-		
1611259-08	L9_45_092416_LOB_TA_08	0.551	40	-	-	-		
1611259-09	L9_45_092416_LOB_TA_09	0.53	40	-	-	-		
1611259-10	L9_45_092416_LOB_TA_10	0.578	40	-	-	-		
1611259-11	L9_45_092416_LOB_TA_11	0.586	40	-	-	-		
1611259-12	L9_45_092416_LOB_TA_12	0.55	40	-	-	-		
1611259-13	L9_45_092416_LOB_TA_13	0.523	40	-	-	-		
1611259-14	L9_45_092416_LOB_TA_14	0.523	40	-	-	-		
1611259-15	L9_45_092416_LOB_TA_15	0.554	40	-	-	-		
1611259-16	L9_45_092416_LOB_TA_16	0.547	40	-	-	-		
1611259-17	L9_45_092416_LOB_TA_17	0.576	40	-	-	-		
1611259-18	L9_45_092416_LOB_TA_18	0.558	40	-	-	-		
1611259-19	L9_45_092416_LOB_TA_19	0.53	40	-	-	-		

Page 75 of 147

Date: 11/29/2016

**PREPARATION BENCH SHEET**

F611393

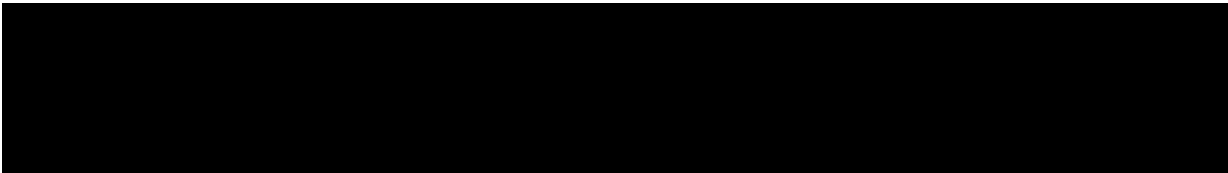
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 11/17/2016**

1611259-20	L9_45_092416_LOB_TA_20	0.515	40	-	-	-		
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**PREPARATION BENCH SHEET**

F611415

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 11/18/2016**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611415-BLK1	Blank	100	101					SOURCE 1611212-03
F611415-BLK2	Blank	100	101					SOURCE 1611212-03
F611415-BLK3	Blank	100	101					SOURCE 1611212-03
F611415-BLK4	Blank	100	101					SOURCE 1611458-03
F611415-BLK5	Blank	100	101					SOURCE 1611458-03
F611415-BLK6	Blank	100	101					SOURCE 1611458-03
F611415-BS1	LCS	50	50.5	1604715	100			
F611415-BSD1	LCS Dup	50	50.5	1604715	100			
F611415-DUP1	Duplicate [1611458-01]	100	101					
F611415-MS1	Matrix Spike [1611458-01]	49.50495	50	1605272	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F611415-MSD1	Matrix Spike Dup [1611458-01]	49.50495	50	1605272	25			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1602941	25% Hydroxylamine-HCl working solution	03-Dec-16 00:00
1605272	THg 10ng/mL Calibration Standard	10-Dec-16 00:00	1606163	0.2 N BRCL OCTOBER 2016	19-Apr-17 00:00
			1606188	THg Dilute 1% BrCl	26-Mar-17 00:00
			1606189	THg Washstation (0.5% BrCl)	03-Dec-16 00:00
			1606531	3% SnCl2 THg reductant	29-Apr-17 00:00



PREPARATION BENCH SHEET

F611415

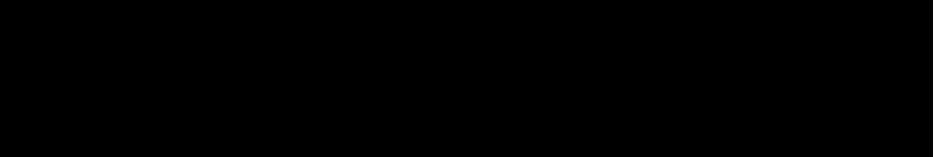
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/18/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611212-01	1611056-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation blank created	
1611212-02	1611056-04 Monthly Effluent Mercury - Blank	100	101	-	-	-	Preservation blank created	
1611458-01	1611188-01 Effluent 11/10/16 - HG	100	101	-	-	-	Preservation Blank Created	
1611458-02	1611188-02 Effluent 11/10/16 - HG Blank	100	101	-	-	-	Preservation Blank Created	



PREPARATION BENCH SHEET

2600-3  
11/18/16 DM

F611402

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/18/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611402-BLK1	Blank	100	101					Source: 1611079-24 IX
F611402-BLK2	Blank	100	101					Source: 1611079-24 IX
F611402-BLK3	Blank	100	101					Source: 1611079-24 IX
F611402-BLK4	Blank	100	110 101					IX
F611402-BLK5	Blank	100	200 101					IX 10X
F611402-BS1	LCS	50 100	50.5 101	1604715	100			IX
F611402-BSD1	LCS Dup	50 100	50.5 101	1604715	100			IX
F611402-DUP1	Duplicate 1611079-05	100	101					IX
F611402-MS1	Matrix Spike [1611079-01]	100	101	1605272	50			10X
F611402-MS2	Matrix Spike [1611079-02]	100	101	1605272	25			IX
F611402-MSD1	Matrix Spike Dup [1611079-01]	100	101	1605272	50			10X
F611402-MSD2	Matrix Spike Dup [1611079-02]	100	101	1605272	25			IX

Standard ID(s): Description:

Expiration:

1602941  
1606531  
1606189  
1606188  
1606163

PREPARATION BENCH SHEET

2600-3

11/18/16 DM

F611402

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/18/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611079-01	LCPI-5251-01	100	101	QC	-	-	MS/MSD Scan all data for level IV rep	✓
1611079-02	LCPI-5251-01 Dissolved	100	101	QC	-	-	MS/MSD Scan all data for level IV rep	IX
1611079-03	LCPI-5251-02	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-04	LCPI-5251-02 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-05	LCPI-5251-03	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-06	LCPI-5251-03 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-07	LCPI-5251-04	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-08	LCPI-5251-04 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-09	LCPI-5251-05	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611079-10	LCPI-5251-05 Dissolved	100	101	-	-	-	Preservation Blank Created Scan all dat	IX
1611324-01	FEN BI03618	100	101	-	-	-		IX
1611324-02	SCE BI03619	100	101	-	-	-		10X
1611324-03	FEN Blank BI03622	100	101	-	-	-		IX
1611324-04	SCE Blank BI03623	100	101	-	-	-		10X → IX
1611498-01	Lagoons	100	101	-	-	-		IX
1611498-02	Lagoons Field Blank	100	101	-	-	-		IX
1611498-03	Clarifier	100	101	-	-	-		IX
1611498-04	Clarifier Field Blank	100	101	-	-	-		IX
1611498-05	A149	100	101	-	-	-		10X

37

Page 80 of 147

Date: 11/21/2016

PREPARATION BENCH SHEET

2600-3

11/18/16 DM

F611402

Eurofins Frontier Global Sciences, Inc.

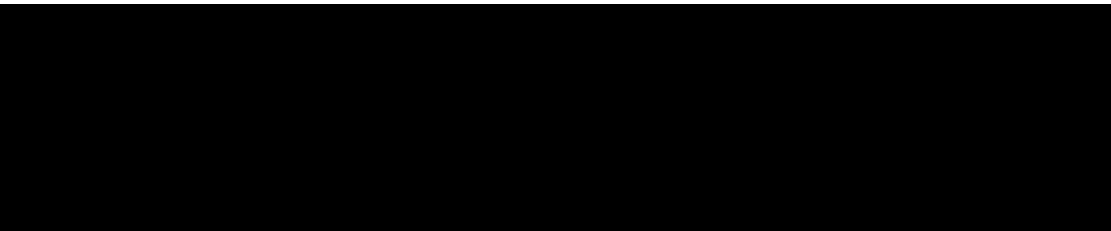
Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/18/2016

1611498-06	A149 Blank	100	101	-	-	-		ix
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37



## Total Mercury Preservation Logbook

Initial preservation and/or verification <sup>AMN 11/3/16</sup>  
 Technician: AMN Date: 11/3/16 Time Completed: 12:10

Work Orders: 1611078  
1611079

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

BrCl LIMS ID: 1606163  
 Pipette SN: MU32229  
 Cal. Date: 11/2/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611079-01A	300	5.00	Y			
1611078-02A	300	3.00	Y			
1611078-03A	300	3.00	Y			
1611079-01A	600	6.00	Y			
1611079-02B	600	6.00	Y			
1611079-03A	600	6.00	Y			
1611079-04B	600	6.00	Y			
1611079-05B	600	6.00	Y			
1611079-06B	600	6.00	Y			
1611079-07A	600	6.00	Y			
1611079-08B	600	6.00	Y			
1611079-09B	600	6.00	Y			
1611079-10B	600	6.00	Y			
1611079-11A	600	6.00	Y			
1611079-12B	600	6.00	Y			
1611079-13A	600	6.00	Y			
1611079-14B	600	6.00	Y			
1611079-15A	600	6.00	Y			
1611079-16B	600	6.00	Y			
1611079-17A	600	6.00	Y			
1611079-18B	600	6.00	Y			
1611079-19A	600	6.00	Y			
1611079-20B	600	6.00	Y			
1611079-21A	600	6.00	Y			
1611079-22B	600	6.00	Y			
1611079-23A	600	6.00	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: \_\_\_\_\_



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CSP Date: 11/10/16 Time Completed: 1715

Work Orders: 1611321, 1611324, 1611325

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

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

BrCl LIMS ID: 1606163

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

Pipette SN: MU32229

Cal. Date: 11/9/16

Sample ID	Sample Volume (ml)	Reagent added (ml)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (ml)	Oxidized? Y/N
1611321-01A	600	6.00	y			
1611324-01A	600	6.00	y			
1611324-02A	550	5.50	y			
1611324-03A	550	5.50	y			
1611324-04A	550	5.50	y			
1611325-07A	125	1.25	y			
1611325-08A	300	3.00	y			
<div style="border: 1px solid black; width: 100%; height: 100%; transform: rotate(45deg); position: relative; margin: 0 auto;"> <span style="position: absolute; top: -20px; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">CSP</span> <span style="position: absolute; top: 10px; left: 50%; transform: translate(-50%, -50%); font-size: 1.5em;">11/18/16</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: \_\_\_\_\_

Reviewed  
11/16/16

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CSP Date: 11/16/16 Time Completed: 1730

Work Orders: 1611324, 1611498  
1611510

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

Technician: BGW Date: 11/17/16 Time Completed: 1330  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1606163  
Pipette SN: MU32229  
Cal. Date: 11/16/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611324-02B	550	1750	y	N	29.5	Y
1611498-01A	300	3.00	y			
1611498-02A	300	3.00	y			
1611498-03A	300	3.00	y			
1611498-04A	300	3.00	y			
1611498-05B	10	10	y			
1611498-06A	300	3.00	y			
<del>1611510-01A</del>	<del>500</del>	<del>6.00</del>	<del>y</del>			
1611510-02A	125	1.25	y			
1611510-03A	300	3.00	y			
<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); opacity: 0.5;"> <p>CSP 11/16/16</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: \_\_\_\_\_



PREPARATION BENCH SHEET

2600.3  
11/15/16 DM

F611377

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 11/16/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611377-BLK1	Blank	0.5	40					20x
F611377-BLK2	Blank	0.5	40					20x
F611377-BLK3	Blank	0.5	40					20x
F611377-BS1	Blank Spike	0.5	40	1605270	40			20x
F611377-BSD1	Blank Spike Dup	0.5	40	1605270	40			20x
F611377-DUP1	Duplicate [1610828-01]	0.5501	40					100x
F611377-MS1	Matrix Spike [1610828-01]	0.548	40	1605712	200			500x
F611377-MS2	Matrix Spike [1610862-02]	0.5489	40	1605712	200			500x
F611377-MSD1	Matrix Spike Dup [1610828-01]	0.5922	40	1605712	200			500x
F611377-MSD2	Matrix Spike Dup [1610862-02]	0.5984	40	1605712	200			500x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1603399	Boiling Chips for AFS prep	01-Jun-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606137	Omnitrace Hydrochloric Acid	13-Oct-19 00:00
			1606467	Fisher Nitric Acid, Tracemetal Grade	24-Mar-18 00:00
			1606599	5% BrCl	19-Apr-17 00:00

MS3, MSD3 re. run of MS2, MSD2  
1000x

1602941  
1606531  
1606159  
1606158

PREPARATION BENCH SHEET

2000-3

11/18/16 DM

F611377

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 11/16/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1610828-01	NB03SED-CHM388 8661391	0.597	40	-	-	-	Scan all data for Level IV	100X
1610828-02	NB03SED-CHM385 8661394	0.5477	40	-	-	-	Scan all data for Level IV	100X
1610828-03	NB03SED-CHM387 8661397	0.5548	40	-	-	-	Scan all data for Level IV	500X → 1000X
1610828-04	NB03SED-CHM384 8661400	0.5688	40	-	-	-	Scan all data for Level IV	500X → 2500X
1610828-05	NB03SED-CHM395 8661403	0.5951	40	-	-	-	Scan all data for Level IV	500X → 500X
1610828-06	NB03SED-CHM399 8661409	0.5541	40	-	-	-	Scan all data for Level IV	500X
1610828-07	NB03SED-CHM386 8661412	0.5879	40	-	-	-	Scan all data for Level IV	500X
1610828-08	NB03SED-CHM391 8661415	0.5692	40	-	-	-	Scan all data for Level IV	500X
1610828-09	NB03SEDDUP-07 8661418	0.5406	40	-	-	-	Scan all data for Level IV	500X
1610862-01	NB03SED-CHM408 8664049	0.5416	40	-	-	-	Scan all data for Level IV	500X
1610862-02	NB03SED-CHM409 8664051	0.5844	40	-	-	-	Scan all data for Level IV	500X
1610862-03	NB03SED-CHM406 8664053	0.5621	40	-	-	-	Scan all data for Level IV	500X
1610862-04	NB03SED-CHM405 8664055	0.5613	40	-	-	-	Scan all data for Level IV	500X
1610862-05	NB03SED-CHM404 8664057	0.5388	40	-	-	-	Scan all data for Level IV	500X
1610862-06	NB03SED-CHM401 8664059	0.5318	40	-	-	-	Scan all data for Level IV	500X
1610862-07	NB03SED-CHM400 8664061	0.5654	40	-	-	-	Scan all data for Level IV	500X
1610862-08	NB03SED-CHM397 8664063	0.577	40	-	-	-	Scan all data for Level IV	500X
1610862-09	NB03SED-CHM396 8664065	0.5403	40	-	-	-	Scan all data for Level IV	500X
1610865-01	NB03SED-CHM407 8664077	0.5826	40	-	-	-	Scan all data for Level IV	500X

Page 87 of 147

Date: 11/28/2016

PREPARATION BENCH SHEET

2000-3

11/15/16 DM

F611377

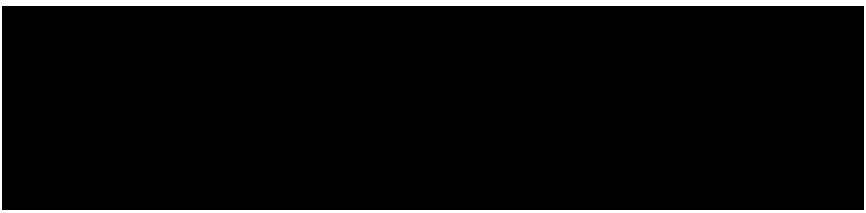
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: AFS - EFGS-066 Cold Aqua Regia Digestion for Hg

Prepared: 11/16/2016

1610865-02	NB03SED-CHM407C 8664079	0.5294	40	-	-	-	Scan all data for Level IV	500X → 20X
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Technician: Duplan Batch#: F611377 Date: 11/16/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 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

Final vol.: 40 mL (LIMS ID: 1606599) Spike vol.: 200 µL (LIMS ID: 1605712)  
 Spike Witness: DN 11/16/16 (initial and date)

HCl LIMS ID: 1606137 Pipette SN#: MU11619 Calibration Date: 11-14-16  
 HNO<sub>3</sub> LIMS ID: 1606467 Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: N/A Dispenser #: 08V2273 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 09V45351 TXVet  
 Glass Vial # 00065532 Boiling Chip lot # 1603399 \*Hotblock Position: N/A

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	F611377 Blank1	0.5606	23	1610862-04	0.5613	
2	F611377 Blank2	0.5070	24	1610862-05	0.5388	
3	F611377 Blank3	0.5183	25	1610862-06	0.5318	
4	F611377 BS1	0.5069	26	1610862-07	0.5654	Comments
5	F611377 BS01	0.5129	27	1610862-08	0.5770	Dupl MS1 MS01
6	F611377 Dupl	0.5501	28	1610862-09	0.5403	source
7	F611377 MS1	0.5487	29	1610865-01	0.5826	1610828-01
8	F611377 MS01	0.5922	30	1610865-02	0.5294	MS2 MS02
9	F611377 MS2	0.5489	31			160862-02
10	F611377 MS02	0.5984	32			1610865-02
11	1610828-01	0.5970	33			= 0.52948
12	1610828-02	0.5477	34			BS1 BS01
13	1610828-03	0.5548	35			= 100mg/1640µL
14	1610828-04	0.5688	36			1605270
15	1610828-05	0.5951	37			F611377 MS1
16	1610828-06	0.5541	38			= Reweigh 11/16/16
17	1610828-07	0.5879	39			= 0.5480 (g)
18	1610828-08	0.5692	40			1610865-02
19	1610828-09	0.5406	41			= 0.5294 (g)
20	1610862-01	0.5416	42			11/16/16 24
21	1610862-02	0.5844	43			F611377 MS
22	1610862-03	0.5621	44			11/16/16 24

PREPARATION BENCH SHEET

2600.3

11/18/16 DM

F611393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611393-BLK1	Blank	0.5	40					25X
F611393-BLK2	Blank	0.5	40					20X
F611393-BLK3	Blank	0.5	40					20X
F611393-BS1	LCS	0.5	40	1605270	40			20X
F611393-BS2	LCS	0.255	40	1605470	255			500X
F611393-BSD1	LCS Dup	0.5	40	1605270	40			20X
F611393-DUP1	Duplicate [1611259-05]	0.514	40					100X
F611393-MS1	Matrix Spike [1611259-05]	0.548	40	1605712	200			500X
F611393-MS2	Matrix Spike [1611259-06]	0.515	40	1605712	200			500X
F611393-MSD1	Matrix Spike Dup [1611259-05]	0.514	40	1605712	200			500X
F611393-MSD2	Matrix Spike Dup [1611259-06]	0.512	40	1605712	200			500X

Standard ID(s):	Description:	Expiration:	Reagent:	Description:	Expiration:
1605270	THg 100ng/mL Primary Spiking Standard	10-Dec-16 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1605470	DORM-4	19-Mar-17 00:00	1606719	5% BrCl	19-Apr-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606720	70/30 Digestion Acid	15-May-17 00:00

BLK 4 re-run of BLK 1

1602941  
1605189  
1605188  
1606531

PREPARATION BENCH SHEET

2600-3  
11/18/16 DM

F611393

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611259-01	L9_45_092416_LOB_TA_01	0.587	40	-	-	-		100X
1611259-02	L9_45_092416_LOB_TA_02	0.573	40	-	-	-		100X
1611259-03	L9_45_092416_LOB_TA_03	0.577	40	-	-	-		100X
1611259-04	L9_45_092416_LOB_TA_04	0.574	40	-	-	-		100X
1611259-05	L9_45_092416_LOB_TA_05	0.501	40	QC	-	-	MS/MSD	100X
1611259-06	L9_45_092416_LOB_TA_06	0.599	40	-	-	-		100X
1611259-07	L9_45_092416_LOB_TA_07	0.558	40	-	-	-		100X
1611259-08	L9_45_092416_LOB_TA_08	0.551	40	-	-	-		100X
1611259-09	L9_45_092416_LOB_TA_09	0.53	40	-	-	-		100X
1611259-10	L9_45_092416_LOB_TA_10	0.578	40	-	-	-		100X
1611259-11	L9_45_092416_LOB_TA_11	0.586	40	-	-	-		100X
1611259-12	L9_45_092416_LOB_TA_12	0.55	40	-	-	-		100X
1611259-13	L9_45_092416_LOB_TA_13	0.523	40	-	-	-		100X
1611259-14	L9_45_092416_LOB_TA_14	0.523	40	-	-	-		100X
1611259-15	L9_45_092416_LOB_TA_15	0.554	40	-	-	-		100X
1611259-16	L9_45_092416_LOB_TA_16	0.547	40	-	-	-		100X
1611259-17	L9_45_092416_LOB_TA_17	0.576	40	-	-	-		100X
1611259-18	L9_45_092416_LOB_TA_18	0.558	40	-	-	-		100X
1611259-19	L9_45_092416_LOB_TA_19	0.53	40	-	-	-		100X

Page 91 of 147

Date: 11/29/2016

PREPARATION BENCH SHEET

2003

11/18/16 DM

F611393

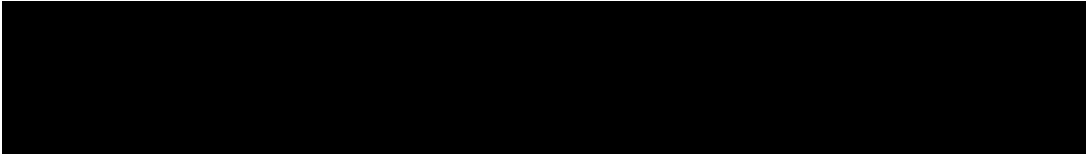
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 11/17/2016

1611259-20	L9_45_092416_LOB_TA_20	0.515	40	-	-	-	100x
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Technician: JS/MPM Batch#: F611393 Date: 11/17/16

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon

Balance#: 6 Calibrated?  Yes  No Therm.#: 13698 Calibrated?  Yes  No

Time in: 1638 Actual Temp. (raw): 71 °C w/ CF: 70.0 °C

Time out: 1838 Actual Temp. (raw): 74.0 °C w/ CF: 73.6 °C AMB 11/17/16

Final vol.: 40 mL (LIMS ID: 1606719) Spike vol.: 200 µL (LIMS ID: 1605712)

Spike Witness: JS 11/17/16 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 11/14/16

HNO<sub>3</sub> LIMS ID: N/A Dispenser #: 0222159 Calibration Date: 11/4/16

70/30 LIMS ID: 1606720 Dispenser #: 02K 27484 Calibrated?  Yes  No

Other Acid LIMS ID: N/A Other Reagent/LIMS IDs: N/A

Glass Vials prod # \_\_\_\_\_ Centrifuge Tube lot # 00065315 Boiling Chip lot # 1606642 \*Hotblock Position: M7

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	F611393-BLK1	0.542	23	1611259-12	0.550	DORM-4 BSZ 1605470
2	F611393-BLK2	0.554	24	1611259-13	0.523	
3	F611393-BLK3	0.514	25	1611259-14	0.523	Comments
4	F611393-BS1	0.560	26	1611259-15	0.554	
5	F611393-BS01	0.525	27	1611259-16	0.547	DUP1, MS1, MS01 Source 1611259-05
6	F611393-BS2	0.255	28	1611259-17	0.576	
7	1611259-01	0.587	29	1611259-18	0.558	MS2, MS02 Source 1611259-06
8	1611259-02	0.573	30	1611259-19	0.530	
9	1611259-03	0.577	31	1611259-20	0.515	11/17/16 JS
10	1611259-04	0.574	32			
11	1611259-05	0.501	33			BS1/BS01 40mL of 100ng/ml 1605270
12	F611393-DUP1	0.514	34			
13	F611393-MS1	0.548	35			11/17/16 JS 11/17/16 MPM
14	F611393-MS01	0.531	36			
15	1611259-06	0.599	37			11/17/16 JS
16	F611393-MS2	0.515	38			
17	F611393-MS02	0.512	39			11/17/16 JS
18	1611259-07	0.558	40			
19	1611259-08	0.551	41			11/17/16 JS
20	1611259-09	0.530	42			
21	1611259-10	0.578	43			11/17/16 JS
22	1611259-11	0.586	44			



PREPARATION BENCH SHEET

2000-3

11/18/16 DM

F611415

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

NI - DNR

Prepared: 11/18/2016

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F611415-BLK1	Blank	100	101					Source 1611212.03 IX
F611415-BLK2	Blank	100	101					" " IX
F611415-BLK3	Blank	100	101					" " IX
F611415-BLK4	Blank	100	101					Source 1611458.03 IX
F611415-BLK5	Blank	100	101					" " IX
F611415-BLK6	Blank	100	101					" " IX
F611415-BS1	LCS	50 <del>100</del>	50.5 <del>101</del>	1604715	100			IX
F611415-BSD1	LCS Dup	50 <del>100</del>	50.5 <del>101</del>	1604715	100			IX
F611415-DUP1	Duplicate 1611458.01	100	101					IX
F611415-MS1	Matrix Spike 1611458.01	100	101	1605272	25			IX
F611415-MSD1	Matrix Spike Dup 1611458.01	100	101	1605272	25			IX

Standard ID(s): Description:

Expiration:

1602941  
1606531  
1606188  
1606189  
1606163

PREPARATION BENCH SHEET

2600.3

11/18/16 DM

F611415

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 11/18/2016

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1611212-01	1611056-03 Monthly Effluent Mercury	100	101	-	-	-	Preservation blank created	IX
1611212-02	1611056-04 Monthly Effluent Mercury - Blank	100	101	-	-	-	Preservation blank created	IX
1611458-01	1611188-01 Effluent 11/10/16 - HG	100	101	-	-	-	Preservation Blank Created	IX
1611458-02	1611188-02 Effluent 11/10/16 - HG Blank	100	101	-	-	-	Preservation Blank Created	IX





# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CSJ Date: 11/15/16 Time Completed: 1650

Work Orders: 1611458, 1611459  
1611461, 1611391

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

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

BrCl LIMS ID: 1606163  
Pipette SN: MU32229  
Cal. Date: 11/14/16

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1611458-01A	300	3.00	y			
1611458-02A	300	3.00	y			
1611458-03A	300	3.00	y			
1611459-01A	300	3.00	y			
1611459-02A	300	3.00	y			
1611459-03A	600	6.00	y			
1611459-04A	600	6.00	y			
1611459-05A	600	6.00	y			
1611459-06A	600	6.00	y			
1611459-07A	300	3.00	y			
1611459-08A	300	3.00	y			
1611461-15A	300	3.00	y			
1611461-16A	125	1.25	y			
1611461-17A	300	3.00	y			
1611391-05A	125	1.25	y			
1611391-06A	300	3.00	y			
CSJ 11/15/16						

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)**

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	6K21016, 6K21018, 6K21019, 6K21021
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26003-161118-1
<b>Date:</b>	11/21/2016	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F611415, F611402, F611393, F611377		0

Analyst Initials DM

Reviewer Initials DM

- 5b. Has the B/C section data been uploaded?  YES  NO  N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%)  PASS  FAIL   
 Comments: \_\_\_\_\_
7. The calibration curve included a minimum of 5 Standards  YES  NO   
 Comments: \_\_\_\_\_
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)  PASS  FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%)  PASS  FAIL   
 Comments: \_\_\_\_\_
10. Do all calibration points pass acceptance criteria?  YES  NO   
 Comments: \_\_\_\_\_
11. Are qualifiers consistent with the data review flowcharts?  YES  NO  N/A   
 Comments: \_\_\_\_\_
12. Explain any items on the failed data report from Element   
 Comments: 1610828-03, 04 AND F611377-MSD2 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 BrCI Blank analyzed for each preservation level?  YES  NO  N/A   
 (d) Are Preparation Blanks summarized on QC page?  YES  NO
14. Filtration Blank Prepared (if yes, use FB qualifier)  YES  NO   
 (a) Filtration Blank prep date same as associated samples' prep date  YES  NO  N/A   
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI  YES  NO  N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?  PASS  FAIL   
 Comments: \_\_\_\_\_
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?  PASS  FAIL   
 Comments: \_\_\_\_\_
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

Analyst:	DON MORAN	Sequence(s) #:	6K21016, 6K21018, 6K21019, 6K21021
Reviewer:	0	Dataset ID(s):	THG26003-161118-1
Date:	11/21/2016	WO (s) #:	VARIOUS
Batch #(s):	F611415, F611402, F611393, F611377		0

Analyst Initials DM                      Reviewer Initials DMW

20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?                       YES     NO
- Comments: \_\_\_\_\_
21. Are all samples within instrument calibration range? (or at minimum dilution size)                       PASS     FAIL
- Comments: \_\_\_\_\_
22. Are the samples run at the correct dilution level for the method?                       YES     NO
- Comments: \_\_\_\_\_
23. Dissolved < Total (if applicable)                       YES     NO     N/A
- Comments: \_\_\_\_\_
24. Effluent < Influent (visually confirm if needed)                       YES     NO     N/A
- Comments: \_\_\_\_\_
25. Are re-runs noted with reason?                       YES     NO     N/A
- Comments: \_\_\_\_\_
26. FSTM Datasets: Check to ensure the 'Response' & 'Initial Result' columns match in both the Excel dataset & LIMS for the FSTM A (in sequence) & B/C (in batch) traps?                       YES     NO     N/A
- Comments: \_\_\_\_\_
27. Is the B trap <5% A Traps                       YES     NO     N/A
- Comments: \_\_\_\_\_
28. Are spiked trap recoveries 75-125% of true value?                       YES     NO     N/A
- Comments: \_\_\_\_\_
29. Have non-reportable samples been imported into LIMS and clicked to non-reportable?                       YES     NO     N/A
- Comments: \_\_\_\_\_
30. Have re-extracts been created for non-reportable samples?                       YES     NO     N/A
31. Are there any HIGH QA projects within the data? If so, place data package in QA office before scanning.                       YES     NO     N/A
32. Does the data set need scanning?                       YES                       N/A
33. Does the dataset have an LOQ/LOQ or DOC?                       YES                       N/A
34. Water samples: has the preservation log been included in dataset for final volume verification?                       YES     NO     N/A
35. Water samples-is the final volume correct in the sequence?                       YES     NO     N/A
- Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs
36. Date of analyst IDOC/CDOC: \_\_\_\_\_ 12/16/2015, 1/18/16 \_\_\_\_\_ 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: \_\_\_\_\_ 6/14/16, 7/7/16 \_\_\_\_\_ LOD within last 3 months?                       YES     NO
39. Date of LOQ: \_\_\_\_\_ 6/14/16, 7/7/16, \_\_\_\_\_ LOQ within last 3 months?                       YES     NO

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







Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.



**WORK ORDER NUMBER: 16-12-1552**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For**

**Client:** Eurofins Frontier Global Sciences, Inc.

**Client Project Name:** 1611259

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244

Approved for release on 01/16/2017 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1611259  
Work Order Number: 16-12-1552

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	8
	4.1 Sample Duplicate. . . . .	8
5	Glossary of Terms and Qualifiers. . . . .	9
6	Chain-of-Custody/Sample Receipt Form. . . . .	10
7	16-12-1552 Level IV Case Narrative. . . . .	18
8	16-12-1552 Level IV Data Package. . . . .	20

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 12/16/16. They were assigned to Work Order 16-12-1552.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	16-12-1552
11720 North Creek Parkway North, Suite 4	Project Name:	1611259
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	12/16/16 11:30
	Number of Containers:	20

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
L9_45_092416_LOB_TA_01	16-12-1552-1	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_02	16-12-1552-2	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_03	16-12-1552-3	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_04	16-12-1552-4	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_05	16-12-1552-5	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_06	16-12-1552-6	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_07	16-12-1552-7	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_08	16-12-1552-8	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_09	16-12-1552-9	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_10	16-12-1552-10	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_11	16-12-1552-11	09/24/16 09:05	1	Tissue
L9_45_092416_LOB_TA_12	16-12-1552-12	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_13	16-12-1552-13	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_14	16-12-1552-14	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_15	16-12-1552-15	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_16	16-12-1552-16	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_17	16-12-1552-17	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_18	16-12-1552-18	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_19	16-12-1552-19	09/24/16 09:30	1	Tissue
L9_45_092416_LOB_TA_20	16-12-1552-20	09/24/16 09:52	1	Tissue


  
Return to Contents

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1552  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611259

Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
L9_45_092416_LOB_TA_01	16-12-1552-1-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.65	0.10		1.00		
L9_45_092416_LOB_TA_02	16-12-1552-2-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.58	0.10		1.00		
L9_45_092416_LOB_TA_03	16-12-1552-3-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.62	0.10		1.00		
L9_45_092416_LOB_TA_04	16-12-1552-4-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.1	0.10		1.00		
L9_45_092416_LOB_TA_05	16-12-1552-5-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.57	0.10		1.00		
L9_45_092416_LOB_TA_06	16-12-1552-6-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.99	0.10		1.00		
L9_45_092416_LOB_TA_07	16-12-1552-7-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.0	0.10		1.00		
L9_45_092416_LOB_TA_08	16-12-1552-8-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.70	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 12/16/16  
 Work Order: 16-12-1552  
 Preparation: EPA 3541  
 Method: MeCl2 Ext. (NOAA 1993a)  
 Units: %

Project: 1611259

Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
L9_45_092416_LOB_TA_09	16-12-1552-9-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.52	0.10		1.00		
L9_45_092416_LOB_TA_10	16-12-1552-10-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.70	0.10		1.00		
L9_45_092416_LOB_TA_11	16-12-1552-11-AA	09/24/16 09:05	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.77	0.10		1.00		
L9_45_092416_LOB_TA_12	16-12-1552-12-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.78	0.10		1.00		
L9_45_092416_LOB_TA_13	16-12-1552-13-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.73	0.10		1.00		
L9_45_092416_LOB_TA_14	16-12-1552-14-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.1	0.10		1.00		
L9_45_092416_LOB_TA_15	16-12-1552-15-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.83	0.10		1.00		
L9_45_092416_LOB_TA_16	16-12-1552-16-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.98	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 12/16/16  
Work Order: 16-12-1552  
Preparation: EPA 3541  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1611259

Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
L9_45_092416_LOB_TA_17	16-12-1552-17-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.66	0.10		1.00		
L9_45_092416_LOB_TA_18	16-12-1552-18-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.70	0.10		1.00		
L9_45_092416_LOB_TA_19	16-12-1552-19-AA	09/24/16 09:30	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.75	0.10		1.00		
L9_45_092416_LOB_TA_20	16-12-1552-20-AA	09/24/16 09:52	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		0.77	0.10		1.00		
Method Blank	099-14-104-160	N/A	Tissue	N/A	12/29/16	12/29/16 00:00	161229B14
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 12/16/16  
Work Order: 16-12-1552  
Preparation: EPA 3541  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1611259

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
L9_45_092416_LOB_TA_05	Sample	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D14
L9_45_092416_LOB_TA_05	Sample Duplicate	Tissue	N/A	12/29/16 00:00	12/29/16 00:00	161229D14

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	0.5700	0.5300	7	0-25	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



## Glossary of Terms and Qualifiers

Work Order: 16-12-1552

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611259

16-12-1552

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc

7440 Lincoln Way  
Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Comments

Sample ID: L9\_45\_092416\_LOB\_TA\_01

EFGS Lab ID: 1611259-01

Matrix: Tissue

Sampled: 24-Sep-16 09:05 Eastern

Due: 29-Nov-16 19:00

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34\_Plastic Bag (C)

Sample ID: L9\_45\_092416\_LOB\_TA\_02

EFGS Lab ID: 1611259-02

Matrix: Tissue

Sampled: 24-Sep-16 09:05 Eastern

Due: 29-Nov-16 19:00

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34\_Plastic Bag (C)

Sample ID: L9\_45\_092416\_LOB\_TA\_03

EFGS Lab ID: 1611259-03

Matrix: Tissue

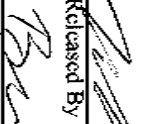
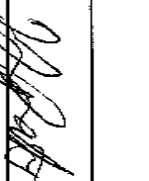
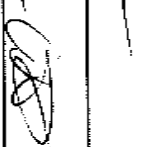
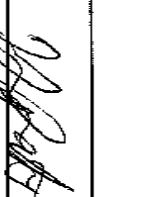
Sampled: 24-Sep-16 09:05 Eastern

Due: 29-Nov-16 19:00

Misc. Subcontract 1

% Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

*Containers Supplied:*  
34\_Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By		Date	12/15/16	Received By		Date	12/16/16

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1611259

1552

Analysis

Comments

4  
Sample ID: L9\_45\_092416\_LOB\_TA\_04  
EFGS Lab ID: 1611259-04 Matrix: Tissue  
Sampled: 24-Sep-16 09:05 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

5  
Sample ID: L9\_45\_092416\_LOB\_TA\_05  
EFGS Lab ID: 1611259-05 Matrix: Tissue  
Sampled: 24-Sep-16 09:05 Eastern MS/MSD Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

6  
Sample ID: L9\_45\_092416\_LOB\_TA\_06  
EFGS Lab ID: 1611259-06 Matrix: Tissue  
Sampled: 24-Sep-16 09:05 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

7  
Sample ID: L9\_45\_092416\_LOB\_TA\_07  
EFGS Lab ID: 1611259-07 Matrix: Tissue  
Sampled: 24-Sep-16 09:05 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34 Plastic Bag (C)

Released By [Signature] Date 12/15/16 Received By [Signature] Date 12/16/16  
Released By [Signature] Date 12/15/16 Received By [Signature] Date 12/16/16

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611259

1552

Analysis

Comments

Sample ID: L9\_45\_092416\_LOB\_TA\_08

EFGS Lab ID: 1611259-08 Matrix: Tissue

Sampled: 24-Sep-16 09:05 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

9 Sample ID: L9\_45\_092416\_LOB\_TA\_09

EFGS Lab ID: 1611259-09 Matrix: Tissue

Sampled: 24-Sep-16 09:05 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

10 Sample ID: L9\_45\_092416\_LOB\_TA\_10

EFGS Lab ID: 1611259-10 Matrix: Tissue

Sampled: 24-Sep-16 09:05 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

11 Sample ID: L9\_45\_092416\_LOB\_TA\_11


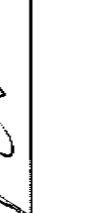


EFGS Lab ID: 1611259-11 Matrix: Tissue

Sampled: 24-Sep-16 09:05 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

Released By		Date	12/15/16	Received By		Date	12/16/16
Released By		Date	12/15/16	Received By		Date	12/16/16 1130

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1611259

1552

Analysis Comments

---

12 Sample ID: L9\_45\_092416\_LOB\_TA\_12

EFGS Lab ID: 1611259-12 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

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Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

---

13 Sample ID: L9\_45\_092416\_LOB\_TA\_13

EFGS Lab ID: 1611259-13 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

---

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

---

14 Sample ID: L9\_45\_092416\_LOB\_TA\_14

EFGS Lab ID: 1611259-14 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

---

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

---

15 Sample ID: L9\_45\_092416\_LOB\_TA\_15

EFGS Lab ID: 1611259-15 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

---

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34\_Plastic Bag (C)

---

<p>Released By <u>W</u> Date <u>12/15/16</u></p> <p>Released By <u>W</u> Date <u>12/15/16</u></p>	<p>Received By <u>W</u> Date <u>12/16/16</u></p> <p>Received By <u>W</u> Date <u>12/16/16</u></p>
---	---

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1611259

1552

Analysis \_\_\_\_\_ Comments \_\_\_\_\_

16 Sample ID: L9\_45\_092416\_LOB\_TA\_16

EFGS Lab ID: 1611259-16 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

17 Sample ID: L9\_45\_092416\_LOB\_TA\_17

EFGS Lab ID: 1611259-17 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

18 Sample ID: L9\_45\_092416\_LOB\_TA\_18

EFGS Lab ID: 1611259-18 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

19 Sample ID: L9\_45\_092416\_LOB\_TA\_19

EFGS Lab ID: 1611259-19 Matrix: Tissue

Sampled: 24-Sep-16 09:30 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:  
34\_Plastic Bag (C)

<p>Released By <u>[Signature]</u> Date <u>12/15/16</u></p> <p>Released By <u>[Signature]</u> Date <u>12/15/16</u></p>	<p>Received By <u>[Signature]</u> Date <u>12/16/16 1130</u></p> <p>Received By <u>[Signature]</u> Date <u>12/16/16 1130</u></p>
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SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1611259

1552

Analysis Comments

70 Sample ID: L9\_45\_092416\_LOB\_TA\_20

EFGS Lab ID: 1611259-20 Matrix: Tissue

Sampled: 24-Sep-16 09:52 Eastern Due: 29-Nov-16 19:00

Misc. Subcontract 1 % Lipids (NOAA 1993a) - Maine and EZEDD Required, Level IV datapackage

Containers Supplied:

34 Plastic Bag (C)

Released By [Signature] Date 12/15/16 Received By [Signature] Date 12/16/16  
Released By [Signature] Date 12/15/16 Received By [Signature] Date 12/16/16 1130

1552

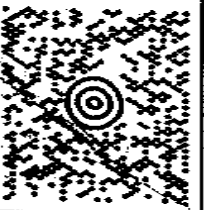
38 LBS

1 OF 1

FRONT DECK  
(425) 888-1998  
FRONTIER GLOBAL SCIENCES  
17720 N. CREEK PKWY N  
BOTHELL WA 98077-8244

DWT: 24.13.14

SHIP TO:  
SAMPLE RECEIVING  
(714) 888-8594  
EUROFINS CALSCIENCE, INC.  
7440 LINCOLN WAY  
GARDEN GROVE CA 92841



CA 927 9-09



UPS NEXT DAY AIR 1  
TRACKING #: 1Z 86W 060 01 6096.6731



0116  
159

CA 927 9-09  
CA 92841

19.0.18 Z878 2P 48D 7E.DA 01/2018



9159 A





**SAMPLE RECEIPT CHECKLIST**

COOLER 1 OF 1

CLIENT: ELGS

DATE: 12/16/2016

**TEMPERATURE:** (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)  
 Thermometer ID: SC3A (CF: 0.0°C); Temperature (w/o CF): -2.2 °C (w/ CF): -2.2 °C.  Blank  Sample  
 Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)  
 Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling  
 Sample(s) received at ambient temperature; placed on ice for transport by courier  
 Ambient Temperature:  Air  Filter  
 Checked by: LS

**CUSTODY SEAL:**  
 Cooler  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: LS  
 Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A Checked by: ZJ

**SAMPLE CONDITION:**  
 Chain-of-Custody (COC) document(s) received with samples .....  
 COC document(s) received complete .....  
 Sampling date  Sampling time  Matrix  Number of containers  
 No analysis requested  Not relinquished  No relinquished date  No relinquished time  
 Sampler's name indicated on COC .....  
 Sample container label(s) consistent with COC .....  
 Sample container(s) intact and in good condition .....  
 Proper containers for analyses requested .....  
 Sufficient volume/mass for analyses requested .....  
 Samples received within holding time .....  
 Aqueous samples for certain analyses received within 15-minute holding time  
 pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen  
 Proper preservation chemical(s) noted on COC and/or sample container .....  
 Unpreserved aqueous sample(s) received for certain analyses  
 Volatile Organics  Total Metals  Dissolved Metals  
 Container(s) for certain analysis free of headspace .....  
 Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)  
 Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)  
 Tedlar™ bag(s) free of condensation .....

	Yes	No	N/A
Chain-of-Custody (COC) document(s) received with samples	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampling date	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sampling time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Matrix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of containers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No analysis requested	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not relinquished	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No relinquished date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No relinquished time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and in good condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper containers for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sufficient volume/mass for analyses requested	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received within holding time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aqueous samples for certain analyses received within 15-minute holding time	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
pH	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Residual Chlorine	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dissolved Sulfide	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dissolved Oxygen	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Proper preservation chemical(s) noted on COC and/or sample container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Unpreserved aqueous sample(s) received for certain analyses	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Volatile Organics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Total Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Container(s) for certain analysis free of headspace	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Volatile Organics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dissolved Gases (RSK-175)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dissolved Oxygen (SM 4500)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Carbon Dioxide (SM 4500)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Ferrous Iron (SM 3500)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrogen Sulfide (Hach)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar™ bag(s) free of condensation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:** (Trip Blank Lot Number: \_\_\_\_\_)  
 Aqueous:  VOA  VOAH  VOAna<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB  
 125PBzma  250AGB  250CGB  250CGBs  250PB  250PBh  500AGB  500AGJ  500AGJs  
 500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  
**Solid:**  40ZCGJ  80ZCGJ  160ZCGJ  Sleeve (\_\_\_\_\_)  EncCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_  
**Air:**  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (Scale \_\_\_\_\_): Z  
 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag  
 Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, na<sub>2</sub> = Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>, p = H<sub>3</sub>PO<sub>4</sub>,  
 s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH  
 Reviewed by: 1269

## Case Narrative

Client Project Name: 1611259  
Work Order Number: 16-12-1552

### CONDITION UPON RECEIPT:

Eurofins Calscience, Inc. received 20 tissue samples on December 16, 2016. A total of 20 containers were received in good condition at a temperature of -2.2°C, which was within the recommended temperature criteria.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
L9_45_092416_LOB_TA_01	16-12-1552-1	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_02	16-12-1552-2	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_03	16-12-1552-3	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_04	16-12-1552-4	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_05	16-12-1552-5	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_06	16-12-1552-6	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_07	16-12-1552-7	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_08	16-12-1552-8	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_09	16-12-1552-9	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_10	16-12-1552-10	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_11	16-12-1552-11	09/24/16 09:05	12/16/16 11:30
L9_45_092416_LOB_TA_12	16-12-1552-12	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_13	16-12-1552-13	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_14	16-12-1552-14	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_15	16-12-1552-15	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_16	16-12-1552-16	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_17	16-12-1552-17	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_18	16-12-1552-18	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_19	16-12-1552-19	09/24/16 09:30	12/16/16 11:30
L9_45_092416_LOB_TA_20	16-12-1552-20	09/24/16 09:52	12/16/16 11:30

### DATA SUMMARY:

Pursuant to the chain-of-custody (COC), the samples were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a).

All samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

## Case Narrative

---

Client Project Name: 1611259  
Work Order Number: 16-12-1552

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -20 were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 12/29/16 in batch # 161229B14 / 161229D14.

### **Sample and QC:**

Sample -5 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**% Lipids via MeCl<sub>2</sub> Ext.  
(NOAA 1993a)**

**RAW DATA**

[Return to Contents](#) 

# RAW DATA SHEET

## FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 1** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_01

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.650 1.00 0.650 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 2** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_02

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.580	1.00	0.580	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 3** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_03

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.620 1.00 0.620 0.10

# RAW DATA SHEET

## FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 4** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_04

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.09	1.00	1.09	0.10	

% Lipids





RAW DATA SHEET

FOR METHOD: MecI2 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 5** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_05

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

**ON COL CONC** **DF** **CONC** **RL** **QUAL**  
0.570 1.00 0.570 0.10



RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 6** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_06

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

**ON COL CONC**

**DF**

**CONC**

**RL**

**QUAL**

0.990

1.00

0.990

0.10



RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**#** 7 **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_07

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<b>COMPOUND</b>	<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
% Lipids	1.01	1.00	1.01	0.10	



RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 8** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_08

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.700 1.00 0.700 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 9** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_09

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
% Lipids	0.520	1.00	0.520	0.10	



RAW DATA SHEET

FOR METHOD: MecI2 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 10**      **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_10

**LCS/MB BATCH:** 161229B14      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D14      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

0.700      1.00      0.700      0.10

RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 11** **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_11

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

% Lipids

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.770	1.00	0.770	0.10	



RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

DATA FILE:

**#** 12 **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_12

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

COMMENT:  
COMPOUND

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
	0.780	1.00	0.780	0.10	





RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**#** 13 **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_13

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.730 1.00 0.730 0.10



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 14**      **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_14

**LCS/MB BATCH:** 161229B14      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D14      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.13	1.00	1.13	0.10	

% Lipids



RAW DATA SHEET

FOR METHOD: Mec12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1552  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 15 CLIENT SAMPLE NUMBER: L9\_45\_092416\_LOB\_TA\_15

LCS/MB BATCH: 161229B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

ON COL CONC	DF	CONC	RL	QUAL
0.830	1.00	0.830	0.10	

% Lipids



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**#** 16 **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_16

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

% Lipids

ON COL CONC	DF	CONC	RL	QUAL
0.980	1.00	0.980	0.10	



# RAW DATA SHEET

## FOR METHOD: Mec12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**#** 17 **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_17

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

COMPOUND	ON COL CONC	DF	CONC	RL	QUAL
% Lipids	0.660	1.00	0.660	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 18**      **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_18

**LCS/MB BATCH:** 161229B14      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 161229D14      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<b>% Lipids</b>	<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
0.700	1.00	0.700	0.10		



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 16-12-1552  
INSTRUMENT: N/A  
EXTRACTION: EPA 3541  
D/T EXTRACTED: 2016-12-29 00:00

ANALYZED BY: 142  
D/T ANALYZED: 2016-12-29 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 19 CLIENT SAMPLE NUMBER: L9\_45\_092416\_LOB\_TA\_19

LCS/MB BATCH: 161229B14 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 161229D14 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND

	ON COL CONC	DF	CONC	RL	QUAL
% Lipids	0.750	1.00	0.750	0.10	



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 16-12-1552  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**#** 20 **CLIENT SAMPLE NUMBER:** L9\_45\_092416\_LOB\_TA\_20

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 161229D14 **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND** **ON COL CONC** **DF** **CONC** **RL** **QUAL**

% Lipids 0.770 1.00 0.770 0.10





METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

**MB SAMPLE ID:** 099-14-104-160  
**MB BATCH ID:** 161229B14  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

DATA FILE:

**CLIENT WORK ORDER: 16-12-1552**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	L9_45_092416_LOB_TA_01		2016-12-29 00:00	
2	L9_45_092416_LOB_TA_02		2016-12-29 00:00	
3	L9_45_092416_LOB_TA_03		2016-12-29 00:00	
4	L9_45_092416_LOB_TA_04		2016-12-29 00:00	
5	L9_45_092416_LOB_TA_05		2016-12-29 00:00	
6	L9_45_092416_LOB_TA_06		2016-12-29 00:00	
7	L9_45_092416_LOB_TA_07		2016-12-29 00:00	
8	L9_45_092416_LOB_TA_08		2016-12-29 00:00	
9	L9_45_092416_LOB_TA_09		2016-12-29 00:00	
10	L9_45_092416_LOB_TA_10		2016-12-29 00:00	
11	L9_45_092416_LOB_TA_11		2016-12-29 00:00	
12	L9_45_092416_LOB_TA_12		2016-12-29 00:00	
13	L9_45_092416_LOB_TA_13		2016-12-29 00:00	
14	L9_45_092416_LOB_TA_14		2016-12-29 00:00	
15	L9_45_092416_LOB_TA_15		2016-12-29 00:00	
16	L9_45_092416_LOB_TA_16		2016-12-29 00:00	
17	L9_45_092416_LOB_TA_17		2016-12-29 00:00	
18	L9_45_092416_LOB_TA_18		2016-12-29 00:00	
19	L9_45_092416_LOB_TA_19		2016-12-29 00:00	
20	L9_45_092416_LOB_TA_20		2016-12-29 00:00	

# RAW DATA SHEET

## FOR METHOD: MeC12 Ext. (NOAA 1993a)

**WORK ORDER:** 099-14-104  
**INSTRUMENT:** N/A  
**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:** 2016-12-29 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# MB** **CLIENT SAMPLE NUMBER:** Method Blank

**LCS/MB BATCH:** 161229B14 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** % **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND**

**% Lipids** **ON COL CONC** **DF** **CONC** **RL** **QUAL**  
0.0100 1.00 ND 0.10



## DUPLICATE REPORT FOR METHOD: MeCl2 Ext. (NOAA 1993a)

**DUP SAMPLE ID:** 16-12-1552-5  
**DUP BATCH:** 161229D14  
**INSTRUMENTS:**  
    **SAMPLE:** N/A  
    **DUP SAMPLE:** N/A

**EXTRACTION:** EPA 3541  
**D/T EXTRACTED:**  
    **SAMPLE:** 2016-12-29 00:00  
    **DUP SAMPLE:** 2016-12-29 00:00

**ANALYZED BY:** 142  
**D/T ANALYZED:**  
    **SAMPLE:** 2016-12-29 00:00  
    **DUP SAMPLE:** 2016-12-29 00:00  
**REVIEWED BY:** 142  
**D/T REVIEWED:** 2017-01-05 17:45

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	0.5700	0.5300	7	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

# Lipid Content Raw Data Logbook

REAGENT NAME / ID #	REAGENT NAME / ID #	SUPPLY NAME / ID #	COMMENTS
1) CH <sub>2</sub> Cl <sub>2</sub> 507-55-01	4) Sand 507-19-19	1) Filter 507-44-19	
2) C <sub>6</sub> H <sub>14</sub> /			
3) Na <sub>2</sub> SO <sub>4</sub> /			

MATRIX	BATCH NUMBER	COMMENTS
Tissue	MB: 161229 B14	
	Sample Duplicate: 161229 D14	

Instructions:  
 1. Cel ID consists of Work Order Number and Container ID.  
 2.  $C = [(M3 - M2) / M1] \times (V1 / V2) \times 100$

DATE	CEL ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
12-29-16	MB	1.0	34	1	1	1.8779	1.878	0.0001	0.01	684	
7	16-12-1552-1 AA	1.58				1.8571	1.8673	0.0102	0.65		
	2	1.65				1.8759	1.8855	0.0096	0.58		
	3	1.67				1.8504	1.8608	0.0104	0.62		
	4	1.63				1.8634	1.8812	0.0178	1.09		
	5	1.95				1.859	1.8701	0.0111	0.57		
	6	1.37				1.8589	1.8725	0.0136	0.79		
	7	1.51				1.8671	1.8824	0.0153	1.01		
	8	1.58				1.8714	1.8825	0.0111	0.70		
	9	1.70				1.8535	1.8624	0.0089	0.52		
	10	1.48				1.8639	1.8742	0.0103	0.70		
	11	1.65				1.9121	1.9248	0.0127	0.77		
	12	1.76				1.8924	1.9052	0.0128	0.78		
	13	1.43				1.8628	1.8732	0.0104	0.73		
	14	1.67				1.8827	1.9015	0.0188	1.13		
	15	1.79				1.8761	1.891	0.0149	0.83		
	16	2.15				1.8605	1.8815	0.021	0.98		
	17	1.45				1.8575	1.867	0.0095	0.66		
	18	1.22				1.8876	1.8961	0.0085	0.70		
	19	1.87				1.8711	1.8852	0.0141	0.75		
	20	1.50				1.8845	1.8961	0.0116	0.77		
	Duplicate 16-12-1552-5	1.65				1.8762	1.885	0.0088	0.53		

Page 145 of 147

Page 44 of 46

Analysis Method (EPA Method):  608  8081  8082  8141  8310  TO-13  TO-4  8270 (  Soil  Soil SIM SUPER  PAH  SIM PAH  SIM Pest  SIM PCB cong.  SIM FL ) % v.p.l.s

Extraction Method (EPA Method):  3510  3520  3540  3541  3545  3550  3580  
 Analyst ID#: Measuring Sample- Start Extraction- 785 Blow Down- 785 Clean Up-  
 Matrix:  Soil  Aqueous  Oil  Wipe  Filter  Tissue  Air

Balance ID#: Filter ID#: 507-44-19 ASE ID#: Soxhlem ID#: 1-4 Orbit Shaker ID#: Sonicator ID#:  
 Ext. Start Date/Time: 12-29-16 18:00 Ext. End Date/Time: 12-29-16 20:30

Sand or Wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub>  Diatomaceous Earth  
 507-19-19 Drying Agent(s) ID#: 507-22-03

Surrogate Std ID# & Volume Added (mL):  
 Spike Std ID# & Volume Added (mL): Spike Added to:  LCS  LCSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub>-Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile  
 Exchange Solvent ( Hexane  Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:  
 Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:  
 MB/LCS/MS Batch #: 161229 B14 Sample W (g) V (mL)

Cell ID#:	Initial	Final	Clean Up Performed	Comments
MB	1.00	1	<input type="checkbox"/>	
LCS <del>205</del> 16-12-15-2-5 DNP	1.65	1	<input type="checkbox"/>	
LCSD NA	-	-	<input type="checkbox"/>	
MS NA	-	-	<input type="checkbox"/>	
MSD NA	-	-	<input type="checkbox"/>	
16-12-15-2-1 AA	1.58	1	<input type="checkbox"/>	
	1.65		<input type="checkbox"/>	
	1.67		<input type="checkbox"/>	
	1.63		<input type="checkbox"/>	
	1.95		<input type="checkbox"/>	
	1.37		<input type="checkbox"/>	
	1.51		<input type="checkbox"/>	
	1.58		<input type="checkbox"/>	
	1.70		<input type="checkbox"/>	
	1.48		<input type="checkbox"/>	
	1.65		<input type="checkbox"/>	
	1.76		<input type="checkbox"/>	
	1.43		<input type="checkbox"/>	
	1.4		<input type="checkbox"/>	
	1.5		<input type="checkbox"/>	
	1.79		<input type="checkbox"/>	
	1.6		<input type="checkbox"/>	
	1.9		<input type="checkbox"/>	
	1.8		<input type="checkbox"/>	
	1.9		<input type="checkbox"/>	
	1.87		<input type="checkbox"/>	
	1.50		<input type="checkbox"/>	

Peer Reviewed by: KFZ Peer Reviewed Date: 1/5/17 Revision Date: 10/20/16

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 12/29/16

Initials: LSL

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.05	498.00 - 502.00	<input checked="" type="radio"/> Y	N
62	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	0.9995	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9943	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
26	1	1.60	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.95	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	0.002	0.0019	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9997	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9978	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
53	0.1	0.16	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	N
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.01	498 - 502	<input checked="" type="radio"/> Y	N
20	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.05	498.00 - 502.00	<input checked="" type="radio"/> Y	N
57	100	100.0	98.0-102.0	<input checked="" type="radio"/> Y	Extractions
	1000	1000.0	998.0-1002.0	<input checked="" type="radio"/> Y	N
	2000	2000.0	1998.0-2002.0	<input checked="" type="radio"/> Y	N
52	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.9945	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
14	0.002		0.0018 - 0.0022	Y	BOD Room
	1		0.9990 - 1.0010	Y	N
	100		99.9000 - 100.1000	Y	N
63	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	BOD Room
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
64	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	10.00	9.8 - 10.2	<input checked="" type="radio"/> Y	N
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
34	0.002	0.0020	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.9996	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.9945	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
30	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1702050

PO#

C012208478

March 4, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1702050

### Table of Contents

March 4, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	3
Chain of Custody forms	5
Analytical Results Report	9
Quality Control Results	38
Notes and Definitions	44
Raw Data: 7B22008	45

**Total Pages – 81**





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
04-Mar-17 11:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MMBKD-01_012217_ABD_01_BL	1702050-01	Tissue	22-Jan-17 17:00	01-Feb-17 10:10
MMBKD-01_012217_ABD_02_BL	1702050-02	Tissue	22-Jan-17 17:15	01-Feb-17 10:10
MMBKD-01_012417_ABD_03_BL	1702050-03	Tissue	24-Jan-17 10:00	01-Feb-17 10:10
MMBKD-01_012417_ABD_04_BL	1702050-04	Tissue	24-Jan-17 10:20	01-Feb-17 10:10
MMBKD-01_012417_ABD_05_BL	1702050-05	Tissue	24-Jan-17 10:35	01-Feb-17 10:10
MMBKD-01_012417_ABD_06_BL	1702050-06	Tissue	24-Jan-17 10:50	01-Feb-17 10:10
MMBKD-01_012417_ABD_07_BL	1702050-07	Tissue	24-Jan-17 11:05	01-Feb-17 10:10
MMBKD-01_012417_ABD_08_BL	1702050-08	Tissue	24-Jan-17 11:20	01-Feb-17 10:10
MMBKD-01_012417_ABD_09_BL	1702050-09	Tissue	24-Jan-17 11:40	01-Feb-17 10:10
MMBKD-01_012417_ABD_10_BL	1702050-10	Tissue	24-Jan-17 12:00	01-Feb-17 10:10
MMBKD-01_012417_ABD_11_BL	1702050-11	Tissue	24-Jan-17 12:15	01-Feb-17 10:10
MMBKD-01_012417_ABD_12_BL	1702050-12	Tissue	24-Jan-17 12:30	01-Feb-17 10:10
MMBKD-01_012417_ABD_13_BL	1702050-13	Tissue	24-Jan-17 12:40	01-Feb-17 10:10
MMBKD-01_012417_ABD_14_BL	1702050-14	Tissue	24-Jan-17 12:50	01-Feb-17 10:10
MMBKD-01_012417_ABD_15_BL	1702050-15	Tissue	24-Jan-17 13:00	01-Feb-17 10:10
FRB-01_012417_ABD_01_BL	1702050-16	Tissue	24-Jan-17 14:00	01-Feb-17 10:10
FRB-01_012417_ABD_02_BL	1702050-17	Tissue	24-Jan-17 14:15	01-Feb-17 10:10
FRB-01_012417_ABD_03_BL	1702050-18	Tissue	24-Jan-17 14:30	01-Feb-17 10:10
FRB-01_012417_ABD_04_BL	1702050-19	Tissue	24-Jan-17 14:45	01-Feb-17 10:10
FRB-01_012417_ABD_05_BL	1702050-20	Tissue	24-Jan-17 15:00	01-Feb-17 10:10
FRB-01_012417_ABD_06_BL	1702050-21	Tissue	24-Jan-17 15:15	01-Feb-17 10:10
FRB-01_012417_ABD_07_BL	1702050-22	Tissue	24-Jan-17 15:30	01-Feb-17 10:10
FRB-01_012417_ABD_08_BL	1702050-23	Tissue	24-Jan-17 15:45	01-Feb-17 10:10
FRB-01_012417_ABD_09_BL	1702050-24	Tissue	24-Jan-17 16:00	01-Feb-17 10:10
FRB-01_012417_ABD_10_BL	1702050-25	Tissue	24-Jan-17 16:15	01-Feb-17 10:10
ES-13_012417_ABD_01_BL	1702050-26	Tissue	24-Jan-17 18:00	01-Feb-17 10:10

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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  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_012417_ABD_02_BL	1702050-27	Tissue	24-Jan-17 18:00	01-Feb-17 10:10
ES-13_012817_ABD_03_BL	1702050-28	Tissue	28-Jan-17 13:20	01-Feb-17 10:10
ES-13_012817_ABD_04_BL	1702050-29	Tissue	28-Jan-17 13:25	01-Feb-17 10:10

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
04-Mar-17 11:42

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/1/2017 10:10:00 AM . The samples were received intact, on-ice within two sealed coolers at -30.5 and 3.5 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per EFGS SOP5141 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).

These samples were prepped in two batches; F702348 and F702349. They were analyzed in sequence 7B22008. Per client request, samples 1702050-01 and 1702050-29 were used as the MS/MSD source QC in batches F702348 and F702349. The client also requested that sample 1702050-21 be used as the MS/MSD but due to limited volume, the lab was unable to complete this 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

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Frontier Global Sciences

11720 Northcreek Pkwy N, Suite 400  
Bothell, WA 98011  
425.686.1996 Phone  
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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

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

EFGS Work Order: 1702050

Client: Amecc

Date & Time Received: 2/1/17 1010

Date Labeled: 2-2-17 Labeled By: AMB

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

Received By: CSF

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): 2

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

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

TID: <u>3150</u>	CF: <u>-0.5°C</u>	Date/time: <u>2/1/17 1010</u>	By: <u>CSF</u>
Cooler 1: <u>-30°C</u>	w/CF: <u>-30.5°C</u>	Cooler 4: <u>4.0°C</u>	w/CF: <u>3.5°C</u>
Cooler 2: <u>°C</u>	w/CF: <u>°C</u>	Cooler 5: <u>°C</u>	w/CF: <u>°C</u>
Cooler 3: <u>°C</u>	w/CF: <u>°C</u>	Cooler 6: <u>°C</u>	w/CF: <u>°C</u>

Chain of Custody:	Y/N/NA	Comments
Sample ID/Description:	<u>Y</u>	
Date and time of collection:	<u>Y</u>	
Sampled by:	<u>Y</u>	
Preservation type:	<u>Y</u>	<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>	<u>see below</u>
Sample ID on container/bag matches COC:	<u>N</u>	<u>* see below AMB 2-2-17</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 2: 9020 5603 4580

\* Samples AMB 2-2-17

\* Samples 1702050-01 through 15: Sample labels have "MMBKD" but the COC lists them as "MMBKD-01" All samples are identifiable. AMB 2-2-17

1702050

# Environmental Analysis Request/Chain of Custody

**eurofins**

Order Form for Samples

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested				For Lab Use Only						
Project Name#: USDC Penobscot		PN #: 3616166052.04.05		Preservation Codes				SF #:						
Project Manager: Rod Pendleton		P.O. #:						SCR #:						
Sampler: <u>LSV</u>		PWSID #:												
Phone #:		Quote #:												
State where samples were collected: <u>ME</u>		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>												
Sample Identification		Date	Time	Grab	Composite	Soil	Sediment	Tissue	Pelable	Water	Other:	Total # of Containers	Total (g 1631e / 70µl Cap Tube / Inst Freeze)	Remarks
1	MMBKD-01_012117_ABD_01_BI	012217	1700	Grab								6		
2	MMBKD-01_012217_ABD_01_BI_MS	012217	1700	Grab								1		Sample I.D #1 includes extra volume for MS/MSD.
3	MMBKD-01_012217_ABD_01_BI_MD	012217	1700	Grab								1		
4	MMBKD-01_012217_ABD_02_BI	012217	1715	Grab								5		
5	MMBKD-01_012417_ABD_03_BI	012417	1000	Grab								3		
6	MMBKD-01_012417_ABD_04_BI		1020	Grab								5		
7	MMBKD-01_012417_ABD_05_BI		1035	Grab								5		
8	MMBKD-01_012417_ABD_06_BI		1050	Grab								5		
9	MMBKD-01_012417_ABD_07_BI		1105	Grab								4		
10	MMBKD-01_012417_ABD_08_BI		1120	Grab								4		
11	MMBKD-01_012417_ABD_09_BI		1140	Grab								3		
12	MMBKD-01_012417_ABD_10_BI		1200	Grab								4		
13	MMBKD-01_012417_ABD_11_BI		1215	Grab								3		
14	MMBKD-01_012417_ABD_12_BI		1230	Grab								5		
15	MMBKD-01_012417_ABD_13_BI		1240	Grab								5		
16	MMBKD-01_012417_ABD_14_BI		1350	Grab								4		
17	MMBKD-01_012417_ABD_15_BI		1300	Grab								3		
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>KCP</i>		1/30/17	1300	<i>[Signature]</i>		2/1/17	1010			
Notes:		FedEx # <u>902056034579</u> - <u>DR105</u>		Relinquished by:		Date	Time	Received by:		Date	Time			
		# of Coolers <u>2</u>		<i>Yus</i> - <u>-30.5°C</u>				<i>Corbin Powell</i>						
Sample disposal - Standard 30 days after report		Request and EDD to: <a href="mailto:denise.wing@eurofins.com">denise.wing@eurofins.com</a> 878-892-8833		Relinquished by:		Date	Time	Received by:		Date	Time			
				<i>Fredy</i> 1010				<i>FF65</i>						
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by Commercial Carrier:		Date	Time	Received by:		Date	Time			
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		if yes, format:		UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Other <input type="checkbox"/>				Temperature upon receipt:		°C				

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9020 5603 4579

1702050

# Environmental Analysis Request/Chain of Custody



Client: Aimec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Matrix		Analyses Requested				For Lab Use Only			
Project Name#: USDC Pembeco		PN #: 3618168082_04_05		Preservation Codes				SF #:			
Project Manager: Rod Pendleton		P.O. #:						SCR #:			
Sampler: LSV		PWSID #:						Preservation Codes			
Phone #:		Quote #:						H = HCl      T = Thiocyanate 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			
State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						Remarks			
Sample Identification		Date	Time	Grab	Composite	Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>	Water <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input checked="" type="checkbox"/>	Other: <input type="checkbox"/> Blood <input type="checkbox"/>	Total # of Containers	Total # of 70µL Csp Tubes / Inst Freezes	Remarks
1	FRB-01_012417_ABD_01_BL	012417	1400	Grab					5	1	
2	FRB-01_012417_ABD_06_BL_MS	012417	1515	Grab					2	1	Sample I.D # includes extra volume for MS/MSD.
3	FRB-01_012417_ABD_06_BL_MD	012417	1515	Grab					2	1	
4	FRB-01_012417_ABD_02_BL	012417	1405	Grab					9	1	
5	FRB-01_012417_ABD_03_BL		1430	Grab					5	1	
6	FRB-01_012417_ABD_04_BL		1445	Grab					5	1	
7	FRB-01_012417_ABD_05_BL		1500	Grab					5	1	
8	FRB-01_012417_ABD_06_BL		1515	Grab					3	1	SAMPLE ID # 6
9	FRB-01_012417_ABD_07_BL		1530	Grab					5	1	
10	FRB-01_012417_ABD_08_BL		1545	Grab					5	1	
11	FRB-01_012417_ABD_09_BL		1600	Grab					6	1	
12	FRB-01_012417_ABD_10_BL		1615	Grab					5	1	
13	<del>FRB-01_17_ABD_11_BL</del>			<del>Grab</del>					<del>4</del>	<del>1</del>	
14	<del>FRB-01_17_ABD_12_BL</del>			<del>Grab</del>					<del>4</del>	<del>1</del>	
15	<del>FRB-01_17_ABD_13_BL</del>			<del>Grab</del>					<del>4</del>	<del>1</del>	
16	<del>FRB-01_17_ABD_14_BL</del>			<del>Grab</del>					<del>4</del>	<del>1</del>	
17	<del>FRB-01_17_ABD_15_BL</del>			<del>Grab</del>					<del>4</del>	<del>1</del>	
Turnaround Time Requested (TAT) (please check): Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>				Relinquished by: XCB		Date: 1/30/17	Time: 1300	Received by:	Date:	Time:	
Notes: FedEx # 500 86 # 1 # of Coolers 2 Sample disposal - Standard 30 days after report Report and EDD to: denise.king@amecfl.com 978-892-8833				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:		Date:	Time:	Received by:	Date:	Time:	
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, format:				Relinquished by Commercial Carrier:		Temperature upon receipt _____ °C					

1702050

Environmental Analysis Request/Chain of Custody

Client: <b>Amet Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101</b>		Matrix: <input type="checkbox"/> Tissue <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface		Analyses Requested				For Lab Use Only					
Project Name/ID: <b>USDC Penobscot</b>		PN #: <b>3516156052.04.05</b>		Preservation Codes				SF #:					
Project Manager: <b>Rod Pendleton</b>		P.O. #:						SCR #:					
Sampler: <b>CSV</b>		PWSID #:											
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 <input type="checkbox"/> Sediment <input type="checkbox"/>	Water <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/>	Other: <input type="checkbox"/> Blood <input type="checkbox"/>	Total # of Containers	Total Hg 1631e / Opt. Cap Tube / Inst. Filtrate	Preservation Codes		Remarks
Date	Time	Soil	Water								Other	H=HCl	
1	ES-13_0124_17_ABD_01_BL	012417	1800	Grab					4				
2	ES-13_0128_17_ABD_04_BL_MS	012817	1325	Grab					1				Sample I.D #6 includes extra volume for MS/MSD.
3	ES-13_0128_17_ABD_04_BL_MD	012817	1325	Grab					1				
4	ES-13_0124_17_ABD_02_BL	012417	1800	Grab					5				
5	ES-13_0128_17_ABD_03_BL	012817	1320	Grab					4				
6	ES-13_0128_17_ABD_04_BL	012817	1325	Grab					4				
7	ES-13_17_ABD_05_BL			Grab					4				(TOTAL SIX TUBES USE EXTRA FOR MS/MSD)
8	ES-13_17_ABD_06_BL			Grab					4				
9	ES-13_17_ABD_07_BL			Grab					4				
10	ES-13_17_ABD_08_BL			Grab					4				
11	ES-13_17_ABD_09_BL			Grab					4				
12	ES-13_17_ABD_10_BL			Grab					4				
13	ES-13_17_ABD_11_BL			Grab					4				
14	ES-13_17_ABD_12_BL			Grab					4				
15	ES-13_17_ABD_13_BL			Grab					4				
16	ES-13_17_ABD_14_BL			Grab					4				
17	ES-13_17_ABD_15_BL			Grab					4				

use extra for MS/MSD





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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**MMBKD-01\_012217\_ABD\_01\_BL**  
**1702050-01**

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	264	3.25	29.0	ng/g	100	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	
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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**MMBKD-01\_012217\_ABD\_02\_BL**  
**1702050-02**

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	157	0.556	4.96	ng/g	100	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**MMBKD-01\_012417\_ABD\_03\_BL**  
**1702050-03**

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	1400	6.08	54.3	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**MMBKD-01\_012417\_ABD\_04\_BL**  
**1702050-04**

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	379	1.24	11.1	ng/g	100	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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04-Mar-17 11:42

**MMBKD-01\_012417\_ABD\_05\_BL**  
**1702050-05**

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	284	3.70	33.1	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**MMBKD-01\_012417\_ABD\_06\_BL**  
**1702050-06**

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	961	3.52	31.4	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	

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**Reported:**  
04-Mar-17 11:42

**MMBKD-01\_012417\_ABD\_07\_BL**  
**1702050-07**

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	558	9.24	82.5	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
04-Mar-17 11:42

**MMBKD-01\_012417\_ABD\_08\_BL**  
**1702050-08**

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	504	4.57	40.8	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	





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**MMBKD-01\_012417\_ABD\_09\_BL**  
**1702050-09**

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	242	3.58	31.9	ng/g	100	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
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**MMBKD-01\_012417\_ABD\_10\_BL**  
**1702050-10**

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	409	3.25	29.0	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
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**MMBKD-01\_012417\_ABD\_11\_BL**  
**1702050-11**

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	533	7.02	62.7	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**MMBKD-01\_012417\_ABD\_12\_BL**  
**1702050-12**

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	701	3.58	31.9	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
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**MMBKD-01\_012417\_ABD\_13\_BL**  
**1702050-13**

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	330	2.32	20.7	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**MMBKD-01\_012417\_ABD\_14\_BL**  
**1702050-14**

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	589	2.59	23.1	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**MMBKD-01\_012417\_ABD\_15\_BL**  
**1702050-15**

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	628	3.75	33.4	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**FRB-01\_012417\_ABD\_01\_BL**  
**1702050-16**

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	43.5	0.712	6.36	ng/g	100	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	





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**FRB-01\_012417\_ABD\_02\_BL  
1702050-17**

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	35.5	0.448	4.00	ng/g	100	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**FRB-01\_012417\_ABD\_03\_BL**  
**1702050-18**

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	31.2	0.860	7.67	ng/g	100	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**FRB-01\_012417\_ABD\_04\_BL**  
**1702050-19**

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	109	2.39	21.4	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
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**FRB-01\_012417\_ABD\_05\_BL  
1702050-20**

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	70.6	2.45	21.9	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	

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**FRB-01\_012417\_ABD\_06\_BL**  
**1702050-21**

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	11.3	0.357	3.19	ng/g	50	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	

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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**FRB-01\_012417\_ABD\_07\_BL**  
**1702050-22**

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	53.8	0.913	8.15	ng/g	100	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**FRB-01\_012417\_ABD\_08\_BL**  
**1702050-23**

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	53.1	2.36	21.1	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
04-Mar-17 11:42

**FRB-01\_012417\_ABD\_09\_BL  
1702050-24**

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	43.3	1.86	16.6	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	





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**FRB-01\_012417\_ABD\_10\_BL**  
**1702050-25**

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	69.0	2.26	20.1	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
04-Mar-17 11:42

**ES-13\_012417\_ABD\_01\_BL**  
**1702050-26**

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	331	4.34	38.7	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
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**Reported:**  
04-Mar-17 11:42

**ES-13\_012417\_ABD\_02\_BL**  
**1702050-27**

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	310	2.29	20.5	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	

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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**ES-13\_012817\_ABD\_03\_BL**  
**1702050-28**

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	487	5.81	51.9	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

**ES-13\_012817\_ABD\_04\_BL**  
**1702050-29**

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	700	5.59	49.9	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
04-Mar-17 11:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B22008 - F702348</b>											
<b>Cal Standard (7B22008-CAL1)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	0.521	-		ng/L	0.50100		104				
<b>Cal Standard (7B22008-CAL2)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	0.956	-		ng/L	1.0020		95.4				
<b>Cal Standard (7B22008-CAL3)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	5.069	-		ng/L	5.0100		101				
<b>Cal Standard (7B22008-CAL4)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	19.79	-		ng/L	20.040		98.8				
<b>Cal Standard (7B22008-CAL5)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	39.93	-		ng/L	40.080		99.6				
<b>Calibration Blank (7B22008-CCB1)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	0.065	-		ng/L							
<b>Calibration Blank (7B22008-CCB2)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	0.042	-		ng/L							
<b>Calibration Blank (7B22008-CCB3)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	0.057	-		ng/L							
<b>Calibration Blank (7B22008-CCB4)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	0.069	-		ng/L							
<b>Calibration Blank (7B22008-CCB5)</b> Prepared & Analyzed: 21-Feb-17											
Mercury	0.039	-		ng/L							

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Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
04-Mar-17 11:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B22008 - F702348

<b>Calibration Blank (7B22008-CCB6)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.064	-		ng/L								
<b>Calibration Blank (7B22008-CCB7)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.086	-		ng/L								
<b>Calibration Blank (7B22008-CCB8)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.079	-		ng/L								
<b>Calibration Check (7B22008-CCV1)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.090	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7B22008-CCV2)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.086	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7B22008-CCV3)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.046	-		ng/L	5.0000		101	77-123				
<b>Calibration Check (7B22008-CCV4)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.120	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7B22008-CCV5)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.210	-		ng/L	5.0000		104	77-123				
<b>Calibration Check (7B22008-CCV6)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.015	-		ng/L	5.0000		100	77-123				
<b>Calibration Check (7B22008-CCV7)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.109	-		ng/L	5.0000		102	77-123				

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Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
04-Mar-17 11:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B22008 - F702348

Calibration Check (7B22008-CCV8)

Prepared & Analyzed: 21-Feb-17

Mercury	5.481	-		ng/L	5.0000		110	77-123			
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Instrument Blank (7B22008-IBL1)

Prepared & Analyzed: 21-Feb-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7B22008-IBL2)

Prepared & Analyzed: 21-Feb-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7B22008-IBL3)

Prepared & Analyzed: 21-Feb-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7B22008-ICV1)

Prepared & Analyzed: 21-Feb-17

Mercury	5.062	-		ng/L	5.0000		101	77-123			
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Batch F702348 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F702348-BLK1)

Prepared: 16-Feb-17 Analyzed: 21-Feb-17

Mercury	0.097	0.090	0.800	ng/g							J
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Blank (F702348-BLK2)

Prepared: 16-Feb-17 Analyzed: 21-Feb-17

Mercury	0.098	0.090	0.800	ng/g							J
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Blank (F702348-BLK3)

Prepared: 16-Feb-17 Analyzed: 21-Feb-17

Mercury	ND	0.090	0.800	ng/g							U
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LCS (F702348-BS1)

Prepared: 16-Feb-17 Analyzed: 21-Feb-17

Mercury	7.734	0.090	0.800	ng/g	8.0160		96.5	75-125			
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AMEC Foster Wheeler 511 Congress Street Portland ME, 04101	Project: Penobscot Tissues - Hg and % Lipids - 2017 Project Number: USDC Penobscot Project Manager: Denise King	Reported: 04-Mar-17 11:42
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**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F702348 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>LCS (F702348-BS2)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	328.3	3.58	31.9	ng/g	381.89		86.0	75-125			
<b>LCS Dup (F702348-BSD1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.747	0.090	0.800	ng/g	8.0160		96.6	75-125	0.169	24	
<b>Duplicate (F702348-DUP1)</b>					Source: 1702168-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	358.8	1.59	14.2	ng/g		717.2			66.6	24	QR-07
<b>Matrix Spike (F702348-MS1)</b>					Source: 1702050-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	34670	94.3	842	ng/g	33737	263.6	102	71-125			
<b>Matrix Spike (F702348-MS2)</b>					Source: 1702168-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3976	10.7	95.3	ng/g	3818.6	717.2	85.3	71-125			
<b>Matrix Spike Dup (F702348-MSD1)</b>					Source: 1702050-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	24930	69.0	616	ng/g	24680	263.6	99.9	71-125	2.02	24	
<b>Matrix Spike Dup (F702348-MSD2)</b>					Source: 1702168-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3927	10.3	92.3	ng/g	3700.1	717.2	86.7	71-125	1.64	24	
<b>Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F702349-BLK1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.124	0.090	0.800	ng/g							J
<b>Blank (F702349-BLK2)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.147	0.090	0.800	ng/g							J

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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
04-Mar-17 11:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F702349-BLK3)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.121	0.090	0.800	ng/g							J
<b>Blank (F702349-BLK4)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	ND	0.052	0.464	ng/g							F-03, U
<b>Blank (F702349-BLK5)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	ND	0.051	0.456	ng/g							F-03, U
<b>LCS (F702349-BS1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.759	0.090	0.800	ng/g	8.0160		96.8	75-125			
<b>LCS (F702349-BS2)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	331.9	3.58	31.9	ng/g	381.58		87.0	75-125			
<b>LCS Dup (F702349-BSD1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.865	0.090	0.800	ng/g	8.0160		98.1	75-125	1.36	24	
<b>Duplicate (F702349-DUP1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	469.8	1.72	15.3	ng/g		440.7			6.40	24	
<b>Matrix Spike (F702349-MS1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3619	10.0	89.4	ng/g	3585.0	440.7	88.7	71-125			
<b>Matrix Spike (F702349-MS2)</b>					Source: 1702050-29 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	2635	5.59	49.9	ng/g	2001.5	700.2	96.7	71-125			
<b>Matrix Spike Dup (F702349-MSD1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3390	9.53	85.1	ng/g	3410.5	440.7	86.5	71-125	2.48	24	

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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
04-Mar-17 11:42

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F702349-MSD2)

Source: 1702050-29

Prepared: 16-Feb-17 Analyzed: 21-Feb-17

Mercury	2646	5.59	49.9	ng/g	2001.5	700.2	97.2	71-125	0.546	24	
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Amy Goodall, Project Manager

AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
04-Mar-17 11:42

### Notes and Definitions

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





Frontier Global Sciences

THg26003-170221-1

Analysis Datasheet for Total Mercury

Date of Analysis: February 21, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7B22007, 7B22008

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	81.99 units	163.97	76.94 units	153.87	104.2 %Rec
SEQ-CAL2	1	1.00 ng/L	146.26 units	146.26	141.21 units	141.21	95.6 %Rec
SEQ-CAL3	1	5.00 ng/L	753.59 units	150.72	748.54 units	149.71	101.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2927.92 units	146.40	2922.87 units	146.14	99.0 %Rec
SEQ-CAL5	1	40.00 ng/L	5901.49 units	147.54	5896.44 units	147.41	99.8 %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**  
 147.67            +/- 4.66            3.2% RSD            150.98

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	5.05 units	±1.41	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.176 ng/L	±0.073
BLK	2	3	1.635 ng/L	±0.177
BLK	3	3	12.162 ng/L	±2.448
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURED  
 PEER-REVIEWED  
 INITIALS: *CMK* 2/24/17  
                   *A* 3/1/17

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	2/21/2017 8:26:36	61304-1.RAW	8:26:36 AM	6.19			1.1	0.008	0.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/21/2017 8:30:44	61305-1.RAW	8:30:44 AM	5.49			0.4	0.003	0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/21/2017 8:34:53	61306-1.RAW	8:34:53 AM	3.47			-1.6	-0.011	-0.011	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	2/21/2017 8:39:01	61307-1.RAW	8:39:01 AM	81.99			76.9	0.521	0.521	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/21/2017 8:43:09	61308-1.RAW	8:43:09 AM	146.26			141.2	0.956	0.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/21/2017 8:47:18	61309-1.RAW	8:47:18 AM	753.59			748.5	5.069	5.069	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/21/2017 8:51:26	61310-1.RAW	8:51:26 AM	2927.92			2922.9	19.793	19.793	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/21/2017 8:55:35	61311-1.RAW	8:55:35 AM	5901.49			5896.4	39.930	39.930	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/21/2017 8:59:43	61312-1.RAW	8:59:43 AM	752.56			747.5	5.062	5.062	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK1	20	2/21/2017 9:03:52	61313-1.RAW	9:03:52 AM	14.02	1		9.0	0.061	1.214	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK2	20	2/21/2017 9:08:00	61314-1.RAW	9:08:00 AM	14.08	1		9.0	0.061	1.223	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK3	20	2/21/2017 9:12:08	61315-1.RAW	9:12:08 AM	13.11	1		8.1	0.055	1.092	ng/L	
Hg2600-3	DM2	SAM	F702348-BS1	20	2/21/2017 9:16:17	61316-1.RAW	9:16:17 AM	727.50	1		722.4	4.834	96.670	ng/L	
Hg2600-3	DM2	SAM	F702348-BSD1	20	2/21/2017 9:20:25	61317-1.RAW	9:20:25 AM	728.71	1		723.7	4.842	96.834	ng/L	
Hg2600-3	DM2	SAM	F702348-BS2	400	2/21/2017 9:24:34	61318-1.RAW	9:24:34 AM	764.12	1		759.1	5.137	2054.950	ng/L	
Hg2600-3	DM2	SAM	1702050-01	100	2/21/2017 9:28:42	61319-1.RAW	9:28:42 AM	678.28	1		673.2	4.547	454.731	ng/L	
Hg2600-3	DM2	SAM	1702050-02	100	2/21/2017 9:32:50	61320-1.RAW	9:32:50 AM	2338.74	1		2333.7	15.792	1579.177	ng/L	
Hg2600-3	DM2	SAM	1702050-03	100	2/21/2017 9:36:59	61321-1.RAW	9:36:59 AM	7610.93	1		7605.9	51.495	5149.451	ng/L	
Hg2600-3	DM2	SAM	1702050-04	100	2/21/2017 9:41:07	61322-1.RAW	9:41:07 AM	2536.43	1		2531.4	17.130	1713.048	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/21/2017 9:45:16	61323-1.RAW	9:45:16 AM	756.66			751.6	5.090	5.090	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/21/2017 9:49:24	61324-1.RAW	9:49:24 AM	14.58			9.5	0.065	0.065	ng/L	
Hg2600-3	DM2	SAM	1702050-05	400	2/21/2017 9:53:33	61325-1.RAW	9:53:33 AM	639.06	1		634.0	4.291	1716.215	ng/L	
Hg2600-3	DM2	SAM	1702050-06	400	2/21/2017 9:57:41	61326-1.RAW	9:57:41 AM	2264.12	1		2259.1	15.295	6118.099	ng/L	
Hg2600-3	DM2	SAM	1702050-07	400	2/21/2017 10:01:49	61327-1.RAW	10:01:49 AM	505.11	1		500.1	3.383	1353.360	ng/L	
Hg2600-3	DM2	SAM	1702050-08	400	2/21/2017 10:05:58	61328-1.RAW	10:05:58 AM	918.44	1		913.4	6.182	2472.973	ng/L	
Hg2600-3	DM2	SAM	1702050-09	400	2/21/2017 10:10:06	61329-1.RAW	10:10:06 AM	151.56	1		146.5	0.989	395.692	ng/L	
Hg2600-3	DM2	SAM	1702050-10	400	2/21/2017 10:14:15	61330-1.RAW	10:14:15 AM	1046.05	1		1041.0	7.047	2818.643	ng/L	
Hg2600-3	DM2	SAM	1702050-11	400	2/21/2017 10:18:23	61331-1.RAW	10:18:23 AM	633.70	1		628.6	4.254	1701.681	ng/L	
Hg2600-3	DM2	SAM	1702050-12	400	2/21/2017 10:22:31	61332-1.RAW	10:22:31 AM	1627.17	1		1622.1	10.982	4392.747	ng/L	
Hg2600-3	DM2	SAM	1702050-13	400	2/21/2017 10:26:40	61333-1.RAW	10:26:40 AM	1181.23	1		1176.2	7.962	3184.806	ng/L	
Hg2600-3	DM2	SAM	1702050-14	400	2/21/2017 10:30:48	61334-1.RAW	10:30:48 AM	1890.11	1		1885.1	12.763	5105.007	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/21/2017 10:34:57	61335-1.RAW	10:34:57 AM	756.15			751.1	5.086	5.086	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/21/2017 10:39:05	61336-1.RAW	10:39:05 AM	11.20			6.1	0.042	0.042	ng/L	
Hg2600-3	DM2	SAM	1702050-15	400	2/21/2017 10:43:14	61337-1.RAW	10:43:14 AM	1392.92	1		1387.9	9.396	3758.238	ng/L	
Hg2600-3	DM2	SAM	1702050-16	400	2/21/2017 10:47:22	61338-1.RAW	10:47:22 AM	132.10	1		127.1	0.857	342.978	ng/L	
Hg2600-3	DM2	SAM	1702050-17	400	2/21/2017 10:51:30	61339-1.RAW	10:51:30 AM	168.73	1		163.7	1.105	442.184	ng/L	
Hg2600-3	DM2	SAM	1702050-18	400	2/21/2017 10:55:39	61340-1.RAW	10:55:39 AM	85.96	1		80.9	0.545	217.974	ng/L	
Hg2600-3	DM2	SAM	1702050-19	400	2/21/2017 10:59:47	61341-1.RAW	10:59:47 AM	381.32	1		376.3	2.545	1018.042	ng/L	
Hg2600-3	DM2	SAM	1702168-01	400	2/21/2017 11:03:56	61342-1.RAW	11:03:56 AM	1737.78	1		1732.7	11.731	4692.366	ng/L	
Hg2600-3	DM2	SAM	1702050-03RE1	400	2/21/2017 11:08:04	61343-1.RAW	11:08:04 AM	1914.44	1		1909.4	12.927	5170.889	ng/L	
Hg2600-3	DM2	SAM	1702050-04RE1	100	2/21/2017 11:12:12	61344-1.RAW	11:12:12 AM	2532.04	1		2527.0	17.101	1710.073	ng/L	
Hg2600-3	DM2	SAM	1702050-09RE1	100	2/21/2017 11:16:21	61345-1.RAW	11:16:21 AM	567.16	1		562.1	3.795	379.477	ng/L	
Hg2600-3	DM2	SAM	F702348-DUP1	400	2/21/2017 11:20:29	61346-1.RAW	11:20:29 AM	1867.94	1		1862.9	12.612	5044.937	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/21/2017 11:24:38	61347-1.RAW	11:24:38 AM	750.19			745.1	5.046	5.046	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/21/2017 11:28:46	61348-1.RAW	11:28:46 AM	13.47			8.4	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F702348-MS1	2500	2/21/2017 11:32:55	61349-1.RAW	11:32:55 AM	3045.80	1		3040.8	20.591	51478.000	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD1	2500	2/21/2017 11:37:03	61350-1.RAW	11:37:03 AM	2993.87	1		2988.8	20.239	50598.744	ng/L	
Hg2600-3	DM2	SAM	F702348-MS2	2500	2/21/2017 11:41:11	61351-1.RAW	11:41:11 AM	3086.12	1		3081.1	20.864	52160.563	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD2	2500	2/21/2017 11:45:20	61352-1.RAW	11:45:20 AM	3145.64	1		3140.6	21.267	53168.269	ng/L	
Hg2600-3	DM2	SAM	1702050-16RE1	100	2/21/2017 11:49:28	61353-1.RAW	11:49:28 AM	512.19	1		507.1	3.423	342.255	ng/L	
Hg2600-3	DM2	SAM	1702050-17RE1	100	2/21/2017 11:53:37	61354-1.RAW	11:53:37 AM	663.15	1		658.1	4.445	444.481	ng/L	
Hg2600-3	DM2	SAM	1702050-18RE1	100	2/21/2017 11:57:45	61355-1.RAW	11:57:45 AM	307.40	1		302.3	2.036	203.572	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK1	20	2/21/2017 12:01:53	61356-1.RAW	12:01:53 PM	16.47	2		11.4	0.077	1.547	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK2	20	2/21/2017 12:06:02	61357-1.RAW	12:06:02 PM	18.63	2		13.6	0.092	1.839	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK3	20	2/21/2017 12:10:10	61358-1.RAW	12:10:10 PM	16.26	2		11.2	0.076	1.518	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	2/21/2017 12:14:19	61359-1.RAW	12:14:19 PM	761.16			756.1	5.120	5.120	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/21/2017 12:18:27	61360-1.RAW	12:18:27 PM	15.28			10.2	0.069	0.069	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	*F702349-BLK4	20	2/21/2017 12:22:36	61361-1.RAW	12:22:36 PM	16.45	2		11.4	-0.005	-0.091	ng/L	
Hg2600-3	DM2	SAM	*F702349-BLK5	20	2/21/2017 12:26:44	61362-1.RAW	12:26:44 PM	14.61	2		9.6	-0.017	-0.340	ng/L	
Hg2600-3	DM2	SAM	F702349-BS1	20	2/21/2017 12:30:52	61363-1.RAW	12:30:52 PM	733.23	2		728.2	4.849	96.989	ng/L	
Hg2600-3	DM2	SAM	F702349-BSD1	20	2/21/2017 12:35:01	61364-1.RAW	12:35:01 PM	743.04	2		738.0	4.916	98.317	ng/L	
Hg2600-3	DM2	SAM	F702349-BS2	400	2/21/2017 12:39:09	61365-1.RAW	12:39:09 PM	773.32	2		768.3	5.199	2079.412	ng/L	
Hg2600-3	DM2	SAM	1702050-20	400	2/21/2017 12:43:18	61366-1.RAW	12:43:18 PM	243.99	2		238.9	1.614	645.567	ng/L	
Hg2600-3	DM2	SAM	1702050-21	400	2/21/2017 12:47:26	61367-1.RAW	12:47:26 PM	43.76	2		38.7	0.258	103.218	ng/L	
Hg2600-3	DM2	SAM	1702050-22	400	2/21/2017 12:51:34	61368-1.RAW	12:51:34 PM	130.64	2		125.6	0.846	338.562	ng/L	
Hg2600-3	DM2	SAM	1702050-23	400	2/21/2017 12:55:43	61369-1.RAW	12:55:43 PM	192.04	2		187.0	1.262	504.867	ng/L	
Hg2600-3	DM2	SAM	1702050-24	400	2/21/2017 12:59:51	61370-1.RAW	12:59:51 PM	197.98	2		192.9	1.302	520.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/21/2017 13:04:00	61371-1.RAW	1:04:00 PM	774.4704421			769.4	5.210	5.210	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/21/2017 13:08:08	61372-1.RAW	1:08:08 PM	10.74			5.7	0.039	0.039	ng/L	
Hg2600-3	DM2	SAM	1702050-25	400	2/21/2017 13:12:17	61373-1.RAW	1:12:17 PM	258.42	2		253.4	1.712	684.678	ng/L	
Hg2600-3	DM2	SAM	1702050-26	400	2/21/2017 13:16:25	61374-1.RAW	1:16:25 PM	636.26	2		631.2	4.270	1708.150	ng/L	
Hg2600-3	DM2	SAM	1702050-27	400	2/21/2017 13:20:33	61375-1.RAW	1:20:33 PM	1124.78	2		1119.7	7.579	3031.438	ng/L	
Hg2600-3	DM2	SAM	1702050-28	400	2/21/2017 13:24:42	61376-1.RAW	1:24:42 PM	698.55	2		693.5	4.692	1876.893	ng/L	
Hg2600-3	DM2	SAM	1702050-29	400	2/21/2017 13:28:50	61377-1.RAW	1:28:50 PM	1040.95	2		1035.9	7.011	2804.374	ng/L	
Hg2600-3	DM2	SAM	1702284-01	400	2/21/2017 13:32:59	61378-1.RAW	1:32:59 PM	2318.99	2		2313.9	15.666	6266.267	ng/L	
Hg2600-3	DM2	SAM	1702285-02	400	2/21/2017 13:37:07	61379-1.RAW	1:37:07 PM	148.08	2		143.0	0.964	385.786	ng/L	
Hg2600-3	DM2	SAM	1702285-03	400	2/21/2017 13:41:16	61380-1.RAW	1:41:16 PM	88.53	2		83.5	0.561	224.493	ng/L	
Hg2600-3	DM2	SAM	1702285-04	400	2/21/2017 13:45:24	61381-1.RAW	1:45:24 PM	429.79	2		424.7	2.872	1148.882	ng/L	
Hg2600-3	DM2	SAM	1702285-05	400	2/21/2017 13:49:32	61382-1.RAW	1:49:32 PM	152.66	2		147.6	0.995	398.194	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/21/2017 13:53:41	61383-1.RAW	1:53:41 PM	745.67			740.6	5.015	5.015	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/21/2017 13:57:49	61384-1.RAW	1:57:49 PM	14.54			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702285-06	400	2/21/2017 14:01:58	61385-1.RAW	2:01:58 PM	996.54	2		991.5	6.710	2684.081	ng/L	
Hg2600-3	DM2	SAM	1702285-07	400	2/21/2017 14:06:06	61386-1.RAW	2:06:06 PM	1844.40	2		1839.4	12.452	4980.730	ng/L	
Hg2600-3	DM2	SAM	1702285-08	400	2/21/2017 14:10:14	61387-1.RAW	2:10:14 PM	548.04	2		543.0	3.673	1469.180	ng/L	
Hg2600-3	DM2	SAM	1702285-09	400	2/21/2017 14:14:23	61388-1.RAW	2:14:23 PM	1253.40	2		1248.3	8.450	3379.843	ng/L	
Hg2600-3	DM2	SAM	1702285-10	400	2/21/2017 14:18:31	61389-1.RAW	2:18:31 PM	803.56	2		798.5	5.403	2161.343	ng/L	
Hg2600-3	DM2	SAM	1702050-21RE1	50	2/21/2017 14:22:40	61390-1.RAW	2:22:40 PM	272.27	2		267.2	1.777	88.844	ng/L	
Hg2600-3	DM2	SAM	1702050-22RE1	100	2/21/2017 14:26:48	61391-1.RAW	2:26:48 PM	494.75	2		489.7	3.300	329.988	ng/L	
Hg2600-3	DM2	SAM	F702349-DUP1	400	2/21/2017 14:30:57	61392-1.RAW	2:30:57 PM	2265.59	2		2260.5	15.304	6121.632	ng/L	
Hg2600-3	DM2	SAM	F702349-MS1	2500	2/21/2017 14:37:19	61393-2.RAW	2:37:19 PM	2992.78	2		2987.7	20.232	50579.842	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD1	2500	2/21/2017 14:41:27	61394-1.RAW	2:41:27 PM	2947.05	2		2942.0	19.922	49805.588	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/21/2017 14:45:36	61395-1.RAW	2:45:36 PM	759.43			754.4	5.109	5.109	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/21/2017 14:49:44	61396-1.RAW	2:49:44 PM	17.74			12.7	0.086	0.086	ng/L	
Hg2600-3	DM2	SAM	F702349-MS2	400	2/21/2017 14:53:52	61397-1.RAW	2:53:52 PM	3901.71	2		3896.7	26.384	10553.466	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD2	400	2/21/2017 14:58:01	61398-1.RAW	2:58:01 PM	3917.35	2		3912.3	26.490	10595.853	ng/L	
Hg2600-3	DM2	SAM	1702285-02RE1	100	2/21/2017 15:02:09	61399-1.RAW	3:02:09 PM	551.38	2		546.3	3.683	368.335	ng/L	
Hg2600-3	DM2	SAM	1702285-03RE1	100	2/21/2017 15:06:18	61400-1.RAW	3:06:18 PM	297.98	2		292.9	1.967	196.736	ng/L	
Hg2600-3	DM2	SAM	1702285-05RE1	100	2/21/2017 15:10:26	61401-1.RAW	3:10:26 PM	550.27	2		545.2	3.676	367.580	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK1	100	2/21/2017 15:14:34	61402-1.RAW	3:14:34 PM	23.19	3		18.1	0.123	12.281	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK2	100	2/21/2017 15:18:43	61403-1.RAW	3:18:43 PM	26.53	3		21.5	0.145	14.548	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK3	100	2/21/2017 15:22:51	61404-1.RAW	3:22:51 PM	19.31	3		14.3	0.097	9.656	ng/L	
Hg2600-3	DM2	SAM	F702375-BS1	400	2/21/2017 15:27:00	61405-1.RAW	3:27:00 PM	676.97	3		671.9	4.520	1807.897	ng/L	
Hg2600-3	DM2	SAM	F702375-BSD1	400	2/21/2017 15:31:08	61406-1.RAW	3:31:08 PM	684.62	3		679.6	4.572	1828.636	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/21/2017 15:35:17	61407-1.RAW	3:35:17 PM	814.38			809.3	5.481	5.481	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/21/2017 15:39:25	61408-1.RAW	3:39:25 PM	16.73			11.7	0.079	0.079	ng/L	
Hg2600-3	DM2	SAM	1702401-01	1000	2/21/2017 15:43:33	61409-1.RAW	3:43:33 PM	852.11	3		847.1	5.724	5724.055	ng/L	
Hg2600-3	DM2	SAM	1702401-02	1000	2/21/2017 15:47:42	61410-1.RAW	3:47:42 PM	2354.59	3		2349.5	15.899	15898.697	ng/L	
Hg2600-3	DM2	SAM	1702402-01	400	2/21/2017 15:51:50	61411-1.RAW	3:51:50 PM	2100.12	3		2095.1	14.157	5662.872	ng/L	
Hg2600-3	DM2	SAM	1702402-02	400	2/21/2017 15:55:59	61412-1.RAW	3:55:59 PM	4404.39	3		4399.3	29.762	11904.600	ng/L	
Hg2600-3	DM2	SAM	1702403-01	400	2/21/2017 16:00:07	61413-1.RAW	4:00:07 PM	1158.80	3		1153.7	7.783	3113.067	ng/L	
Hg2600-3	DM2	SAM	1702403-02	400	2/21/2017 16:04:16	61414-1.RAW	4:04:16 PM	1758.84	3		1753.8	11.846	4738.430	ng/L	
Hg2600-3	DM2	SAM	1702401-01B	100	2/21/2017 16:08:25	61415-1.RAW	4:08:25 PM	25.16	3		20.1	0.015	1.458	ng/L	
Hg2600-3	DM2	SAM	1702401-02B	100	2/21/2017 16:12:33	61416-1.RAW	4:12:33 PM	53.27	3		48.2	0.205	20.493	ng/L	
Hg2600-3	DM2	SAM	1702402-01B	100	2/21/2017 16:16:42	61417-1.RAW	4:16:42 PM	19.11	3		14.1	-0.026	-2.643	ng/L	
Hg2600-3	DM2	SAM	1702402-02B	100	2/21/2017 16:20:50	61418-1.RAW	4:20:50 PM	26.41	3		21.4	0.023	2.305	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	2/21/2017 16:24:59	61419-1.RAW	4:24:59 PM	802.04			797.0	5.397	5.397	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	2/21/2017 16:29:07	61420-1.RAW	4:29:07 PM	14.50			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702403-01B	100	2/21/2017 16:33:16	61421-1.RAW	4:33:16 PM	18.28	3		13.2	-0.032	-3.200	ng/L	
Hg2600-3	DM2	SAM	1702403-02B	100	2/21/2017 16:37:24	61422-1.RAW	4:37:24 PM	21.37	3		16.3	-0.011	-1.110	ng/L	
Hg2600-3	DM2	SAM	F702375-DUP1	1000	2/21/2017 16:41:32	61423-1.RAW	4:41:32 PM	867.22	3		862.2	5.826	5826.392	ng/L	
Hg2600-3	DM2	SAM	F702375-MS1	1000	2/21/2017 16:45:41	61424-1.RAW	4:45:41 PM	3806.61	3		3801.6	25.732	25731.594	ng/L	
Hg2600-3	DM2	SAM	F702375-MSD1	1000	2/21/2017 16:49:49	61425-1.RAW	4:49:49 PM	3938.99	3		3933.9	26.628	26628.064	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analized	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	CAL	SEQ-CCVA	1	2/21/2017 16:53:58	61426-1.RAW	4:53:58 PM	815.04			810.0	5.485	5.485	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	2/21/2017 16:58:06	61427-1.RAW	4:58:06 PM	20.72			15.7	0.106	0.106	ng/L	



TotalMercury EPA1631 Operat: DM Blanks: 5.0508 Calib Eqn: Conc = (Area-5.050) Run Date: 2/21/2017 Blank SD: 1.411904368  
 Workst: THg260i CalibFa: 147.67 Status: QC Warnings:4/QC E Run Time: 14:33:10 Blank RSD%: 27.95430348  
 Methoc: ### R: 1 R2: 1 CF SD: 4.656872348  
 Descrip: THg26003-170221-1 CF RSD%: 3.153586442

SampleID	Locator	Run#	DiLine	Blank	Conc (ppm)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (elt)	Flags	RunCount
Clean				0.00	6.05					61299-1.RAW	8:07:11	1188.09	Clean	OK	1
CLEAN										61300-1.RAW	8:10:02	0.00	Clean	NP	1
WS				5.05	0.00					61301-1.RAW	8:14:11	4.59	Sample	OK	1
WS				5.05	0.00					61302-1.RAW	8:18:19	4.73	Sample	OK	1
WS				5.05	0.01					61303-1.RAW	8:22:27	7.14	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.04					61304-1.RAW	8:26:36	6.19	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.04					61305-1.RAW	8:30:44	5.49	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.02					61306-1.RAW	8:34:53	3.47	Sample	OK	1
SEQ-CAL1	A4		1	5.05	0.52		104.20			61307-1.RAW	8:39:01	81.99	Sample	OK	1
SEQ-CAL2	A5		1	5.05	0.96		95.63			61308-1.RAW	8:43:09	146.26	Sample	OK	1
SEQ-CAL3	A6		1	5.05	5.07		101.38			61309-1.RAW	8:47:18	753.59	Sample	OK	1
SEQ-CAL4	A7		1	5.05	19.79		98.97			61310-1.RAW	8:51:26	2927.92	Sample	OK	1
SEQ-CAL5	A8		1	5.05	39.93		99.83			61311-1.RAW	8:55:35	5901.49	Sample	OK	1
SEQ-ICV1	A9		1	5.05	5.06		101.24			61312-1.RAW	8:59:43	752.56	Sample	OK	1
F702348-BLK1	A10		20	5.05	1.21					61313-1.RAW	9:03:52	14.02	Sample	OK	1
F702348-BLK2	A11		20	5.05	1.22					61314-1.RAW	9:08:00	14.08	Sample	OK	1
F702348-BLK3	A12		20	5.05	1.09					61315-1.RAW	9:12:08	13.11	Sample	OK	1
F702348-BS1	B1		20	5.05	97.85					61316-1.RAW	9:16:17	727.50	Sample	OK	1
F702348-BSD1	B2		20	5.05	98.01					61317-1.RAW	9:20:25	728.71	Sample	OK	1
F702348-BS2	B3		400	5.05	2056.13					61318-1.RAW	9:24:34	764.12	Sample	OK	1
1702050-01	B4		100	5.05	455.91					61319-1.RAW	9:28:42	678.28	Sample	OK	1
1702050-02	B5		100	5.05	1580.35					61320-1.RAW	9:32:50	2338.74	Sample	OK	1
1702050-03	B6		100	5.05	5150.63					61321-1.RAW	9:36:59	7610.93	Sample	FB	1
1702050-04	B7		100	5.05	1714.22					61322-1.RAW	9:41:07	2536.43	Sample	OK	1
SEQ-CCV1	B8		1	5.05	5.09		101.80			61323-1.RAW	9:45:16	756.66	Sample	OK	1
SEQ-CCB1	B9		1	5.05	0.06		0.00			61324-1.RAW	9:49:24	14.58	Sample	OK	1
1702050-05	B10		400	5.05	1717.39					61325-1.RAW	9:53:33	639.06	Sample	OK	1
1702050-06	B11		400	5.05	6119.28					61326-1.RAW	9:57:41	2264.12	Sample	OK	1
1702050-07	B12		400	5.05	1354.54					61327-1.RAW	10:01:49	505.11	Sample	OK	1
1702050-08	C1		400	5.05	2474.15					61328-1.RAW	10:05:58	918.44	Sample	OK	1
1702050-09	C2		400	5.05	396.87					61329-1.RAW	10:10:06	151.56	Sample	OK	1
1702050-10	C3		400	5.05	2819.82					61330-1.RAW	10:14:15	1046.05	Sample	OK	1
1702050-11	C4		400	5.05	1702.86					61331-1.RAW	10:18:23	633.70	Sample	OK	1
1702050-12	C5		400	5.05	4393.92					61332-1.RAW	10:22:31	1627.17	Sample	OK	1
1702050-13	C6		400	5.05	3185.98					61333-1.RAW	10:26:40	1181.23	Sample	OK	1
1702050-14	C7		400	5.05	5106.18					61334-1.RAW	10:30:48	1890.11	Sample	OK	1
SEQ-CCV2	C8		1	5.05	5.09		101.73			61335-1.RAW	10:34:57	756.15	Sample	OK	1
SEQ-CCB2	C9		1	5.05	0.04		0.00			61336-1.RAW	10:39:05	11.20	Sample	OK	1
1702050-15	C10		400	5.05	3759.41					61337-1.RAW	10:43:14	1392.92	Sample	OK	1
1702050-16	C11		400	5.05	344.15					61338-1.RAW	10:47:22	132.10	Sample	OK	1
1702050-17	C12		400	5.05	443.36					61339-1.RAW	10:51:30	168.73	Sample	OK	1
1702050-18	D1		400	5.05	219.15					61340-1.RAW	10:55:39	85.96	Sample	OK	1
1702050-19	D2		400	5.05	1019.22					61341-1.RAW	10:59:47	381.32	Sample	OK	1
1702169-01	D3		400	5.05	4693.54					61342-1.RAW	11:03:56	1737.78	Sample	OK	1
1702050-03RE1	D4		400	5.05	5172.06					61343-1.RAW	11:08:04	1914.44	Sample	OK	1
1702050-04RE1	D5		100	5.05	1711.25					61344-1.RAW	11:12:12	2532.04	Sample	OK	1
1702050-09RE1	D6		100	5.05	380.65					61345-1.RAW	11:16:21	567.16	Sample	OK	1
F702348-DUP1	D7		400	5.05	5046.11					61346-1.RAW	11:20:29	1867.94	Sample	OK	1
SEQ-CCV3	D8		1	5.05	5.05		100.92			61347-1.RAW	11:24:38	750.19	Sample	OK	1
SEQ-CCB3	D9		1	5.05	0.06		0.00			61348-1.RAW	11:28:46	13.47	Sample	OK	1
F702348-MS1	D10		2500	5.05	51479.18		#####			61349-1.RAW	11:32:55	3045.80	Sample	OK	1
F702348-MSD1	D11		2500	5.05	50599.92					61350-1.RAW	11:37:03	2993.87	Sample	OK	1
F702348-MS2	D12		2500	5.05	52161.74		103.08			61351-1.RAW	11:41:11	3086.12	Sample	OK	1
F702348-MSD2	A1		2500	5.05	53169.45					61352-1.RAW	11:45:20	3145.64	Sample	OK	1
1702050-16RE1	A2		100	5.05	343.43					61353-1.RAW	11:49:28	512.19	Sample	OK	1
1702050-17RE1	A3		100	5.05	445.66					61354-1.RAW	11:53:37	663.15	Sample	OK	1
1702050-18RE1	A4		100	5.05	204.75					61355-1.RAW	11:57:45	307.40	Sample	OK	1
F702349-BLK1	A5		20	5.05	1.55					61356-1.RAW	12:01:53	16.47	Sample	OK	1
F702349-BLK2	A6		20	5.05	1.64					61357-1.RAW	12:06:02	18.63	Sample	OK	1
F702349-BLK3	A7		20	5.05	1.52					61358-1.RAW	12:10:10	16.26	Sample	OK	1

SEQ-CCV4	A8	1	5.05	5.12	102.41	61359-1.RAW	12:14:19	761.16	Sample	OK	1
SEQ-CCB4	A9	1	5.05	0.07	0.00	61360-1.RAW	12:18:27	15.28	Sample	OK	1
*F702349-BLK4	A10	20	5.05	1.54		61361-1.RAW	12:22:36	16.45	Sample	OK	1
*F702349-BLK5	A11	20	5.05	1.29		61362-1.RAW	12:26:44	14.61	Sample	OK	1
F702349-BS1	A12	20	5.05	98.62		61363-1.RAW	12:30:52	733.23	Sample	OK	1
F702349-BSD1	B1	20	5.05	99.95		61364-1.RAW	12:35:01	743.04	Sample	OK	1
F702349-BS2	B2	400	5.05	2081.05		61365-1.RAW	12:39:09	773.32	Sample	OK	1
1702050-20	B3	400	5.05	647.20		61366-1.RAW	12:43:18	243.98	Sample	OK	1
1702050-21	B4	400	5.05	104.85		61367-1.RAW	12:47:26	43.76	Sample	OK	1
1702050-22	B5	400	5.05	340.20		61368-1.RAW	12:51:34	130.64	Sample	OK	1
1702050-23	B6	400	5.05	506.50		61369-1.RAW	12:55:43	192.04	Sample	OK	1
1702050-24	B7	400	5.05	522.59		61370-1.RAW	12:59:51	197.98	Sample	OK	1
SEQ-CCV5	B8	1	5.05	5.21	104.21	61371-1.RAW	13:04:00	774.47	Sample	OK	1
SEQ-CCB5	B9	1	5.05	0.04	0.00	61372-1.RAW	13:08:08	10.74	Sample	OK	1
1702050-25	B10	400	5.05	686.31		61373-1.RAW	13:12:17	258.42	Sample	OK	1
1702050-26	B11	400	5.05	1709.78		61374-1.RAW	13:16:25	636.26	Sample	OK	1
1702050-27	B12	400	5.05	3033.07		61375-1.RAW	13:20:33	1124.78	Sample	OK	1
1702050-28	C1	400	5.05	1878.53		61376-1.RAW	13:24:42	698.55	Sample	OK	1
1702050-29	C2	400	5.05	2806.01		61377-1.RAW	13:28:50	1040.95	Sample	OK	1
1702284-01	C3	400	5.05	6267.90		61378-1.RAW	13:32:59	2318.99	Sample	OK	1
1702285-02	C4	400	5.05	387.42		61379-1.RAW	13:37:07	148.08	Sample	OK	1
1702285-03	C5	400	5.05	226.13		61380-1.RAW	13:41:16	88.53	Sample	OK	1
1702285-04	C6	400	5.05	1150.52		61381-1.RAW	13:45:24	429.79	Sample	OK	1
1702285-05	C7	400	5.05	399.83		61382-1.RAW	13:49:32	152.66	Sample	OK	1
SEQ-CCV6	C8	1	5.05	5.02	100.31	61383-1.RAW	13:53:41	745.67	Sample	OK	1
SEQ-CCB6	C9	1	5.05	0.06	0.00	61384-1.RAW	13:57:49	14.54	Sample	OK	1
1702285-06	C10	400	5.05	2685.72		61385-1.RAW	14:01:58	996.54	Sample	OK	1
1702285-07	C11	400	5.05	4982.36		61386-1.RAW	14:06:06	1844.40	Sample	OK	1
1702285-08	C12	400	5.05	1470.82		61387-1.RAW	14:10:14	548.04	Sample	OK	1
1702285-09	D1	400	5.05	3381.48		61388-1.RAW	14:14:23	1253.40	Sample	OK	1
1702285-10	D2	400	5.05	2162.98		61389-1.RAW	14:18:31	803.56	Sample	OK	1
1702050-21RE1	D3	50	5.05	90.48		61390-1.RAW	14:22:40	272.27	Sample	OK	1
1702050-22RE1	D4	100	5.05	331.62		61391-1.RAW	14:26:48	494.75	Sample	OK	1
F702349-DUP1	D5	400	5.05	6123.27		61392-1.RAW	14:30:57	2265.59	Sample	OK	1
F702349-MS1	D6	2500	5.05	50581.48	825.92	61393-2.RAW	14:37:19	2992.78	Sample	OK	1
F702349-MSD1	D7	2500	5.05	49807.22		61394-1.RAW	14:41:27	2947.05	Sample	OK	1
SEQ-CCV7	D8	1	5.05	5.11	102.17	61395-1.RAW	14:45:36	759.43	Sample	OK	1
SEQ-CCB7	D9	1	5.05	0.09	0.00	61396-1.RAW	14:49:44	17.74	Sample	OK	1
F702349-MS2	D10	400	5.05	10555.10	506014.90	61397-1.RAW	14:53:52	3901.71	Sample	OK	1
F702349-MSD2	D11	400	5.05	10597.49		61398-1.RAW	14:58:01	3917.35	Sample	OK	1
1702285-02RE1	D12	100	5.05	369.97		61399-1.RAW	15:02:09	551.38	Sample	OK	1
1702285-03RE1	A1	100	5.05	198.37		61400-1.RAW	15:06:18	297.98	Sample	OK	1
1702285-05RE1	A2	100	5.05	369.21		61401-1.RAW	15:10:26	550.27	Sample	OK	1
F702375-BLK1	A3	100	5.05	12.28		61402-1.RAW	15:14:34	23.19	Sample	OK	1
F702375-BLK2	A4	100	5.05	14.55		61403-1.RAW	15:18:43	26.53	Sample	OK	1
F702375-BLK3	A5	100	5.05	9.66		61404-1.RAW	15:22:51	19.31	Sample	OK	1
F702375-BS1	A6	400	5.05	1820.06		61405-1.RAW	15:27:00	676.97	Sample	OK	1
F702375-BSD1	A7	400	5.05	1840.80		61406-1.RAW	15:31:08	684.62	Sample	OK	1
SEQ-CCV8	A8	1	5.05	5.48	109.61	61407-1.RAW	15:35:17	814.38	Sample	OK	1
SEQ-CCB8	A9	1	5.05	0.08	0.00	61408-1.RAW	15:39:25	16.73	Sample	OK	1
1702401-01	A10	1000	5.05	5736.22		61409-1.RAW	15:43:33	852.11	Sample	OK	1
1702401-02	A11	1000	5.05	15910.86		61410-1.RAW	15:47:42	2354.59	Sample	OK	1
1702402-01	A12	400	5.05	5675.03		61411-1.RAW	15:51:50	2100.12	Sample	OK	1
1702402-02	B1	400	5.05	11918.76		61412-1.RAW	15:55:59	4404.39	Sample	OK	1
1702403-01	B2	400	5.05	3125.23		61413-1.RAW	16:00:07	1158.80	Sample	OK	1
1702403-02	B3	400	5.05	4750.59		61414-1.RAW	16:04:16	1758.84	Sample	OK	1
1702401-01B	B4	100	5.05	13.62		61415-1.RAW	16:08:25	25.16	Sample	OK	1
1702401-02B	B5	100	5.05	32.65		61416-1.RAW	16:12:33	53.27	Sample	OK	1
1702402-01B	B6	100	5.05	9.52		61417-1.RAW	16:16:42	19.11	Sample	OK	1
1702402-02B	B7	100	5.05	14.47		61418-1.RAW	16:20:50	26.41	Sample	OK	1
SEQ-CCV9	B8	1	5.05	5.40	107.94	61419-1.RAW	16:24:59	802.04	Sample	OK	1
SEQ-CCB9	B9	1	5.05	0.06	0.00	61420-1.RAW	16:29:07	14.50	Sample	OK	1
1702403-01B	B10	100	5.05	8.96		61421-1.RAW	16:33:16	18.28	Sample	OK	1
1702403-02B	B11	100	5.05	11.05		61422-1.RAW	16:37:24	21.37	Sample	OK	1
F702375-DUP1	B12	1000	5.05	5838.55		61423-1.RAW	16:41:32	887.22	Sample	OK	1

F702375-MS1	C1	1000	5.05	25743.76	440.85	61424-1.RAW	16:45:41	3805.61	Sample	OK	1
F702375-MSD1	C2	1000	5.05	26640.23		61425-1.RAW	16:49:49	3938.99	Sample	FB	1
SEQ-CCVA	C3	1	5.05	5.49		61426-1.RAW	16:53:58	815.04	Sample	OK	1
SEQ-CCBA	C4	1	5.05	0.11		61427-1.RAW	16:58:06	20.72	Sample	OK	1

## ANALYSIS SEQUENCE

7B22007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22007-IBL1	QC	1			
7B22007-IBL2	QC	2			
7B22007-IBL3	QC	3			
7B22007-CAL1	QC	4	1700737		
7B22007-CAL2	QC	5	1700738		
7B22007-CAL3	QC	6	1700739		
7B22007-CAL4	QC	7	1700740		
7B22007-CAL5	QC	8	1700741		
7B22007-ICV1	QC	9	1700018		
7B22007-CCV1	QC	10	1700018		
7B22007-CCB1	QC	11			
7B22007-CCV2	QC	12	1700018		
7B22007-CCB2	QC	13			
7B22007-CCV3	QC	14	1700018		
7B22007-CCB3	QC	15			
7B22007-CCV4	QC	16	1700018		
7B22007-CCB4	QC	17			
7B22007-CCV5	QC	18	1700018		
7B22007-CCB5	QC	19			
7B22007-CCV6	QC	20	1700018		
7B22007-CCB6	QC	21			
7B22007-CCV7	QC	22	1700018		
7B22007-CCB7	QC	23			
F702375-BLK1	QC	24			
F702375-BLK2	QC	25			
F702375-BLK3	QC	26			
F702375-BS1	QC	27			
F702375-BSD1	QC	28			
7B22007-CCV8	QC	29	1700018		
7B22007-CCB8	QC	30			
1702401-01	Hg_FSTM_TRAP_A	31			
1702401-02	Hg_FSTM_TRAP_A	32			
1702402-01	Hg_FSTM_TRAP_A	33			
1702402-02	Hg_FSTM_TRAP_A	34			
1702403-01	Hg_FSTM_TRAP_A	35			

Due Date: 2/22/2017

52 of 81

Page 1 of 2

ANALYSIS SEQUENCE

7B22007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702403-02	Hg_FSTM_TRAP_A	36			
7B22007-CCV9	QC	37	1700018		
7B22007-CCB9	QC	38			
F702375-DUP1	QC	39			
F702375-MS1	QC	40			
F702375-MSD1	QC	41			
7B22007-CCVA	QC	42	1700018		
7B22007-CCBA	QC	43			

Dan Maxam      2/21/17  
Samples Loaded By      Date

Dan Maxam      2/22/17  
Data Processed By      Date

# Failing Data Report - 7B22007

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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DM M. [Signature] 2/22/17  
Analyst Reviewed By Date

[Signature] M. [Signature] 3/1/17  
Peer Reviewed By Date

## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22008-IBL1	QC	1			
7B22008-IBL2	QC	2			
7B22008-IBL3	QC	3			
7B22008-CAL1	QC	4	1700737		
7B22008-CAL2	QC	5	1700738		
7B22008-CAL3	QC	6	1700739		
7B22008-CAL4	QC	7	1700740		
7B22008-CAL5	QC	8	1700741		
7B22008-ICV1	QC	9	1700018		
F702348-BLK1	QC	10			
F702348-BLK2	QC	11			
F702348-BLK3	QC	12			
F702348-BS1	QC	13			
F702348-BSD1	QC	14			
F702348-BS2	QC	15			
1702050-01	Hg-CVAFS-T-7030	16			
1702050-02	Hg-CVAFS-T-7030	17			
1702050-03	Hg-CVAFS-T-7030	18			
1702050-04	Hg-CVAFS-T-7030	19			
7B22008-CCV1	QC	20	1700018		
7B22008-CCB1	QC	21			
1702050-05	Hg-CVAFS-T-7030	22			
1702050-06	Hg-CVAFS-T-7030	23			
1702050-07	Hg-CVAFS-T-7030	24			
1702050-08	Hg-CVAFS-T-7030	25			
1702050-09	Hg-CVAFS-T-7030	26			
1702050-10	Hg-CVAFS-T-7030	27			
1702050-11	Hg-CVAFS-T-7030	28			
1702050-12	Hg-CVAFS-T-7030	29			
1702050-13	Hg-CVAFS-T-7030	30			
1702050-14	Hg-CVAFS-T-7030	31			
7B22008-CCV2	QC	32	1700018		
7B22008-CCB2	QC	33			
1702050-15	Hg-CVAFS-T-7030	34			
1702050-16	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2017

55 of 81

## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-17	Hg-CVAFS-T-7030	36			
1702050-18	Hg-CVAFS-T-7030	37			
1702050-19	Hg-CVAFS-T-7030	38			
1702168-01	Hg-CVAFS-T-7030	39			
1702050-03RE1	Hg-CVAFS-T-7030	40			Added 2/21/2017 by DM2
1702050-04RE1	Hg-CVAFS-T-7030	41			Added 2/21/2017 by DM2
1702050-09RE1	Hg-CVAFS-T-7030	42			Added 2/21/2017 by DM2
F702348-DUP1	QC	43			
7B22008-CCV3	QC	44	1700018		
7B22008-CCB3	QC	45			
F702348-MS1	QC	46			
F702348-MSD1	QC	47			
F702348-MS2	QC	48			
F702348-MSD2	QC	49			
1702050-16RE1	Hg-CVAFS-T-7030	50			Added 2/21/2017 by DM2
1702050-17RE1	Hg-CVAFS-T-7030	51			Added 2/21/2017 by DM2
1702050-18RE1	Hg-CVAFS-T-7030	52			Added 2/21/2017 by DM2
F702349-BLK1	QC	53			
F702349-BLK2	QC	54			
F702349-BLK3	QC	55			
7B22008-CCV4	QC	56	1700018		
7B22008-CCB4	QC	57			
F702349-BLK4	QC	58			
F702349-BLK5	QC	59			
F702349-BS1	QC	60			
F702349-BSD1	QC	61			
F702349-BS2	QC	62			
1702050-20	Hg-CVAFS-T-7030	63			
1702050-21	Hg-CVAFS-T-7030	64			
1702050-22	Hg-CVAFS-T-7030	65			
1702050-23	Hg-CVAFS-T-7030	66			
1702050-24	Hg-CVAFS-T-7030	67			
7B22008-CCV5	QC	68	1700018		
7B22008-CCB5	QC	69			
1702050-25	Hg-CVAFS-T-7030	70			



## ANALYSIS SEQUENCE

**7B22008**

**Instrument: Hg2600-3**
**Calibration ID: UNASSIGNED**
**Analyzed: 2/21/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-26	Hg-CVAFS-T-7030	71			
1702050-27	Hg-CVAFS-T-7030	72			
1702050-28	Hg-CVAFS-T-7030	73			
1702050-29	Hg-CVAFS-T-7030	74			
1702284-01	Hg-CVAFS-T-7030	75			
1702285-02	Hg-CVAFS-T-7030	76			
1702285-03	Hg-CVAFS-T-7030	77			
1702285-04	Hg-CVAFS-T-7030	78			
1702285-05	Hg-CVAFS-T-7030	79			
7B22008-CCV6	QC	80	1700018		
7B22008-CCB6	QC	81			
1702285-06	Hg-CVAFS-T-7030	82			
1702285-07	Hg-CVAFS-T-7030	83			
1702285-08	Hg-CVAFS-T-7030	84			
1702285-09	Hg-CVAFS-T-7030	85			
1702285-10	Hg-CVAFS-T-7030	86			
1702050-21RE1	Hg-CVAFS-T-7030	87			Added 2/21/2017 by DM2
1702050-22RE1	Hg-CVAFS-T-7030	88			Added 2/21/2017 by DM2
F702349-DUP1	QC	89			
F702349-MS1	QC	90			
F702349-MSD1	QC	91			
7B22008-CCV7	QC	92	1700018		
7B22008-CCB7	QC	93			
F702349-MS2	QC	94			
F702349-MSD2	QC	95			
1702285-02RE1	Hg-CVAFS-T-7030	96			Added 2/21/2017 by DM2
1702285-03RE1	Hg-CVAFS-T-7030	97			Added 2/21/2017 by DM2
1702285-05RE1	Hg-CVAFS-T-7030	98			Added 2/21/2017 by DM2
7B22008-CCV8	QC	99	1700018		
7B22008-CCB8	QC	100			

Don Moxem      2/21/17  
 Samples Loaded By      Date

Don Moxem      2/22/17  
 Data Processed By      Date

**Due Date: 3/2/2017**

# Failing Data Report - 7B22008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702050-03	Hg-CVAFS-T-7030	1400	13.6				ng/g						FAIL-OVER	PASS	E
F702348-DUP1	Hg-CVAFS-T-7030	358.8	14.2	717.2	717.2		ng/g				66.6	24.00	PASS-OVER	FAIL-DUP	QR-07

Don Motam  
 Analyst Reviewed By

2/22/17  
 Date

Hy N  
 Peer Reviewed By

3/1/17  
 Date

**PREPARATION BENCH SHEET**

F702375

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					
F702375-BLK2	Blank	1	100					
F702375-BLK3	Blank	1	100					
F702375-BS1	LCS	1	100	1605712	200			
F702375-BSD1	LCS Dup	1	100	1605712	200			
F702375-DUP1	Duplicate [1702401-01]	1	100					
F702375-MS1	Matrix Spike [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.
F702375-MSD1	Matrix Spike Dup [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

**F702375**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-		
1702401-02	EFGS-04134 Trap B	1	100	-	-	-		
1702402-01	EFGS-07869 Trap A	1	100	-	-	-		
1702402-02	EFGS-07908 Trap B	1	100	-	-	-		
1702403-01	EFGS-08086 Trap A	1	100	-	-	-		
1702403-02	EFGS-08420 TrapB	1	100	-	-	-		



**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					
F702348-BLK2	Blank	0.25	20					
F702348-BLK3	Blank	0.25	20					
F702348-BS1	Blank Spike	0.25	20	1700686	20			
F702348-BS2	DORM-4	0.1252	20	1605470	125			
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		
1702050-03RE1	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		
1702050-04RE1	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		
1702050-09RE1	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		

**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

1702050-16RE1	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		
1702050-17RE1	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		
1702050-18RE1	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		
1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	



**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					
F702349-BLK2	Blank	0.25	20					
F702349-BLK3	Blank	0.25	20					
F702349-BLK4	Blank	0.4312	20					
F702349-BLK5	Blank	0.4387	20					
F702349-BS1	Blank Spike	0.25	20	1700686	20			
F702349-BS2	DORM-4	0.1253	20	1605470	125			
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			
F702349-MS2	Matrix Spike [1702050-29]	0.00050062 5	0.125	1700687	100			[Spk] 0.0801g->20mL; 40mL->40mL; Spiked 0.125mL
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			
F702349-MSD2	Matrix Spike Dup [1702050-29]	0.00050062 5	0.125	1700687	100			[Spk] 0.0801g->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>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00



**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	
1702050-21RE1	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		
1702050-22RE1	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		
1702285-02RE1	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		
1702285-03RE1	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		

PREPARATION BENCH SHEET

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702285-05RE1	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		
1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-		

PREPARATION BENCH SHEET

2100-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					100X
F702375-BLK2	Blank	1	100					100X
F702375-BLK3	Blank	1	100					100X
F702375-BS1	LCS	1	100	1605712	200			400X
F702375-BSD1	LCS Dup	1	100	1605712	200			400X
F702375-DUP1	Duplicate 1702401-01	1	100	1700657				1000X
F702375-MS1	Matrix Spike 1702401-01	1	100	1700657	100			1000X
F702375-MSD1	Matrix Spike Dup 1702401-01	1	100	1700657	100			1000X

1700657  
DM  
2-21-17

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 03-Apr-17 00:00

Reagent ID(s): 1700947, 1700969  
Description: 5% BrCl, 70/30 Digestion Acid

Expiration: 15-Jul-17 00:00, 14-Aug-17 00:00

1700771  
1700309  
1700308  
1600934

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-	100X	100X
1702401-02	EFGS-04134 Trap B	1	100	-	-	-	100X	100X
1702402-01	EFGS-07869 Trap A	1	100	-	-	-	500X 400X	100X
1702402-02	EFGS-07908 Trap B	1	100	-	-	-	500X 400X	100X
1702403-01	EFGS-08086 Trap A	1	100	-	-	-	500X 400X	100X
1702403-02	EFGS-08420 Trap B	1	100	-	-	-	400X	100X

DM 2/21/17

Trap Digestions

Name: AMB Date: 2-17-17 Batch ID: F702375  
 Work Order(s): 1702401, 1702402, 1702403 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: 1730 start temp (°C): 56.0 (raw) 55.8 (w/ CF)  
 end time: 1930 end temp (°C): 69.0 (raw) 68.8 (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)
F702375-BLK1	<del>100</del> 100
F702375-BLK2	<del>100</del> 100
F702375-BLK3	100
F702375-BS1	100
F702375-BS1	100
1702401-01A	100
1702401-01B	100
1702401-02A	100
1702401-02B	100
1702402-01A	100
1702402-01B	100
1702402-02A	100
1702402-02B	100
1702403-01A	100
1702403-01B	100
1702403-02A	100
1702403-02B	100

Spike ID: 1605712  
 Spike Amount (µL): 200  
 Spike Witness: DM 2/17/17  
 BrCl ID: 1700947  
 70/30: 1700969  
 Other: N/A  
 Thermometer: 14545  
 Dispensers: 02K27494   
                   04N73497   
 Other 15406623  
 Pipette ID: MU11619  
 Cal. Date: 2-13-17  
 Vials and Jars lot# 00066589  
 Trap Material Lot#: 1700517  
 Loader Mass Verified:  Yes  No  
 Comments:  
 1702401-02: 'A' bed spiked at 1,100ng.  
 1702402-02: 'A' bed spiked at 650ng.  
 1702402-AMB 2-17-17  
 1702403-02: 'A' bed spiked at 200ng.  
 AMB 2-17-17

AMB  
2-17-17

PREPARATION BENCH SHEET

2600.3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					20X
F702348-BLK2	Blank	0.25	20					20X
F702348-BLK3	Blank	0.25	20					20X
F702348-BS1	Blank Spike	0.25	20	1700686	20			20X
F702348-BS2	DORM-4	0.1252	20	1605470	125			400X
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			20X
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					400X
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			2500X
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			2500X
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			2500X
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			2500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

170071  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3

2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	100X
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		100X
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		100X → 400X
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		100X → 100X
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		400X
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		400X
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		400X
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		400X
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		400X → 100X
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		400X
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		400X
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		400X
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		400X
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		400X
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		400X
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		400X → 100X
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		400X → 100X
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		400X → 100X
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		400X

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	400X
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Technician: Dwyer Batch#: F702348 Date: 2-16-17

- 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: 14:05 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 16:06 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C AMB

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

Final vol.: 20 mL (LIMS ID: 1700947) Spike vol.: 100 µL (LIMS ID: 1700684)  
*MS1/MS1 MS2/MS2 2-16-17 10,000µg/L*

Spike Witness: DW 2-16-17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MU11619 Calibration Date: 2-13-17

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

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

70/30 LIMS ID: 1700969

Dispenser #: 02K27484 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406623  Yes

Glass Vial # 00065550 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702348 Blk1	0.2663	23	1702050-12	0.1253	B52 DORM-4 1605470
2	F702348 Blk2	0.2770	24	1702050-13	0.1928	
3	F702348 Blk3	0.2827	25	1702050-14	0.1733	
4	F702348 B51	0.2661	26	1702050-15	0.1196	<b>Comments</b>
5	F702348 B501	0.2798	27	1702050-16	0.1572	Dup source F702348 MS1/MS2
6	F702348 B52	0.1252	28	1702050-17	0.2502	F702348 MS1/MS2
7	F702348 Dup1	0.2812	29	1702050-18	0.1300	F702348 MS1/MS2 1702050-01
8	F702348 MS1	0.2297	30	1702050-19	0.1873	
9	F702348 MS01	0.0406	31	1702168-01	0.2617	F702348 MS1/MS2 1702050 2/16/17 1702168-01
10	F702348 MS2	0.2624	32			
11	F702348 MS02	0.2708	33			
12	1702050-01	0.0345	34			Dup 1702168-01
13	1702050-02	0.2015	35			1702050-01 Broken glass 2/16/17
14	1702050-03	0.0737	36			
15	1702050-04	0.0903	37			
16	1702050-05	0.1210	38			B51 B501 = 100µg/L = 20µL
17	1702050-06	0.1273	39			
18	1702050-07	0.0485	40			1700686
19	1702050-08	0.0981	41			
20	1702050-09	0.0313	42			All samples low volume
21	1702050-10	0.1379	43			1702050 2/16/17 2-16-17
22	1702050-11	0.0638	44			

PREPARATION BENCH SHEET

2000.3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					20X
F702349-BLK2	Blank	0.25	20					20X
F702349-BLK3	Blank	0.25	20					20X
F702349-BLK4	Blank	0.4312	20					20X
F702349-BLK5	Blank	0.4387	20					20X
F702349-BS1	Blank Spike	0.25	20	1700686	20			20X
F702349-BS2	DORM-4	0.1253	20	1605470	125			400X
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			20X
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					400X
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			<del>400X</del> 2500X
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			<del>400X</del> 2500X

DM 2-21-17

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

MS2, MSD2 - 1702050-20  
400X  
1700687 100ul

1700771  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		400X
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	400X → 50X
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		400X → 100X
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		400X
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		400X
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		400X
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		400X
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		400X
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		400X
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	400X
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		400X
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		400X → 100X
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		400X → 100X
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		400X → 400X DM 2-21-17
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		400X → 100X
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		400X
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		400X
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		400X
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		400X

PREPARATION BENCH SHEET

2600-3

2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-	400X
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Technician: Dwyer Batch#: F702349 Date: 2-16-17

- 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: 14:15 Actual Temp. (raw): 74.0 °C w/ CF: 74.0 °C  
 Time out: 16:15 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: 1700949) Spike vol.: 100 µL (LIMS ID: 1700684)  
 Spike Witness: 2-16-17 DMW (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 2/13/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1700969 Dispenser #: 02K27484 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  YCS  
 Glass Vial # 00065688 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702349 BKK1	0.2647	23	1702050-29	0.0801	BS2
2	F702349 BKK2	0.2669	24	1702284-01	0.2844	DORRY
3	F702349 BKK3	0.2511	25	1702284-02	0.2066	1605470
4	F702349 BKK4	0.4312	26	1702285-02	0.1773	Comments
5	F702349 BKK5	0.4387	27	1702285-03	0.1250	
6	F702349 BS1	0.2756	28	1702285-04	0.2574	F702349 PREP POST BLANK
7	F702349 BS01	0.2549	29	1702285-05	0.2252	1702284
8	F702349 BS2	0.1253	30	1702285-06	0.1332	Dup sample
9	F702349 Dup1	0.2606	31	1702285-07	0.2518	1702284-01
10	F702349 MS1	0.2795	32	1702285-08	0.2326	F702349
11	F702349 MS01	0.2938	33	1702285-09	0.2118	MS1 MS01 2/16/17
12	F702349 MS2	2-1617	34	1702285-10	0.2066	1702284-01
13	F702349 MS02	2-1617	35			MS1 MS01 2/16/17
14	1702050-20	0.1829	36			1702050-29
15	1702050-21	0.1567	37			MS1 MS01 2/16/17
16	1702050-22	0.1227	38			1702284-01
17	1702050-23	0.1900	39			BS1 BS01
18	1702050-24	0.2407	40			= 100µL
19	1702050-25	0.21986	41			= 20µL
20	1702050-26	0.1033	42			1700686
21	1702050-27	0.1955	43			F702349
22	1702050-28	0.0771	44			MS2 MS02

**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> 7B22007, 7B22008
<b>Reviewer:</b> <i>[Signature]</i>	<b>Dataset ID(s):</b> THG26003-170221-1
<b>Date:</b> 2/22/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F702375, F702348, F702349	

• 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: [Signature]

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

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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials DM                      Reviewer Initials [Signature]

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 ( $\leq 15\%$ )  | <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: <u>E, QR-07</u>  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input type="checkbox"/>            |
| Comments: <u>1702050-03 HIGH SAMPLE, F702348-DUP1 HIGH RPD.</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 type="checkbox"/>            |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials *DM* Reviewer Initials *DM*

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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  |
| 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: _____ 1/18/16, 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: _____ 12-19-16, 11-8-16 _____ LOD within last 3 months?                       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 12-19-16, 11-8-16 _____ 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:

1702167

PO#

C012208478

March 14, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1702167

### Table of Contents

March 14, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	7
Quality Control Results	14
Notes and Definitions	21
Raw Data: 7B07020	22
Raw Data: 7B13016	47
Calscience Level IV Report - % Lipids	82

**Total Pages – 108**



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_012517_ABD_06_MU	1702167-01	Tissue	25-Jan-17 14:55	01-Feb-17 10:10
FRB-01_012517_ABD_07_MU	1702167-02	Tissue	25-Jan-17 15:15	01-Feb-17 10:10
FRB-01_012517_ABD_08_MU	1702167-03	Tissue	25-Jan-17 16:15	01-Feb-17 10:10
FRB-01_012617_ABD_09_MU	1702167-04	Tissue	26-Jan-17 15:15	01-Feb-17 10:10
FRB-01_012617_ABD_10_MU	1702167-05	Tissue	26-Jan-17 15:35	01-Feb-17 10:10
EB_Knife_012317_ABD_F00_QC	1702167-06	Water	23-Jan-17 06:45	01-Feb-17 10:10
EB_Knife_012617_ABD_F05_QC	1702167-11	Water	26-Jan-17 15:40	01-Feb-17 10:10

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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/1/2017 10:10:00 AM . The samples were received intact, on-ice within a two sealed coolers at -30.5 and 3.5 degrees Celsius.

Samples 1702167-07, -08, -09, and -10 were received and preserved, but were put on hold per client request.

The tissue samples were sent to Eurofins Calscience for % Lipids by NOAA 1993a after EFGS completed the homogenization. The final data can be found at the end of the report after the Mercury raw data.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per EFGS SOP5141 prior to digestion.

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

The equipment blanks were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

The tissue samples were prepped in batch F702256 and analyzed in sequence 7B13016. Per client request, the lab used sample 1702167-01 as the MS/MSD source in this batch. The water samples were analyzed in batch F702254 and analyzed in sequence 7B07020.

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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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

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.



Frontier Global Sciences

# Sample Receipt Checklist

1702167 <sup>shw 2/8/17</sup>

EFGS Work Order: 702049

Client: AmeC

Date & Time Received: 2/1/17 1010

Date Labeled: 2-2-17 Labeled By: AMB

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

Received By: CSF

Label Verified By: PSW

# of Coolers Received: 1 Samples Arrived By:  Shipping Service \_\_\_\_\_ Hand \_\_\_\_\_ Other (Specify): \_\_\_\_\_

Coolant:  None/Ambient  Loose Ice  Gel Ice  Dry Ice Coolant Required:  Y  N Temp Blank Used:  Y  N for Cooler(s): 2

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:
3150	-0.5 °C	2/1/17 1010	CSF
Cooler 1:	-30 °C w/CF: -30.5 °C	Cooler 4:	4.0 °C w/CF: 3.5 °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>	<u>MA</u>
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>Y</u>	

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

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

Cooler 2: 9020 5603 4580

# Sample Receipt Checklist

1702167  
 11/18/17  
 EFGS Work Order: 1702051

Client: AmeC  
 Project: \_\_\_\_\_  
 Date & Time Received: 2/1/17 | 1010  
 Received By: CSF  
 Date Labeled: 2-2-17 Labeled By: AMB  
 # of Coolers Received: 1  
 Label Verified By: Bow  
 Samples Arrived By:  Shipping Service \_\_\_\_\_ Hand \_\_\_\_\_ Other (Specify): \_\_\_\_\_  
 Coolant:  None/Ambient  Loose Ice  Gel Ice  Dry Ice  Shipping Service \_\_\_\_\_  
 Temp Blank Used:  Y/N for Cooler(s): 2

Notify Project Manager if packages/coolers are received without 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>3150</u>	CF: <u>-0.5</u> °C	Date/time: <u>2/1/17 1010</u>	By: <u>CSF</u>
Cooler 1:	<u>-30</u> °C w/CF: <u>-30.5</u> °C	Cooler 4:	<u>4.0</u> °C w/CF: <u>3.5</u> °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	<u>NA</u>
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:	N	<u>* See below</u>
Correct sample containers used:	Y	
Samples received within holding times:	Y	
Sample volume sufficient for requested analyses:	Y	
Correct preservative used for requested analyses:	N/A	

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

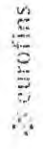
Cooler 2: 9020 5603 4580

\* Samples 1702051-01 through 05: The sample IDs on the COC all have "-01" after "MMBKD" but the sample labels do not. Samples are identifiable without the "-01" AMB 2-2-17



1602167

# Environmental Analysis Request/Chain of Custody



Order with Barcode

Page 4 of 6

Client: **Anec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101**  
 Project Name/#: **USDC Penobscot** PN #: **3616166052.04.05**  
 Project Manager: **Rod Pendleton** P.O. #:  
 Sampler: **L > V /** PWSID #:  
 Phone #:  
 State where samples were collected: **ME** For Compliance: Yes  No  Quota #:

Sample Identification	Collection		Total # of Containers	Matrix	Reinquisitioned by:	Date	Time	Date	Time	Received by:	Date	Time	Remarks
	Date	Time											
1 FRB-01_012517_ABD_01_MU	012517	1455	1	Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/> Water <input type="checkbox"/> Potable <input type="checkbox"/> Ground <input type="checkbox"/> NPDES <input type="checkbox"/> Surface <input type="checkbox"/>									
2 FRB-01_012517_ABD_06_MU_MS	012517	1455	NA										
3 FRB-01_012517_ABD_06_MU_MD	012517	1455	NA										
4 FRB-01_012517_ABD_07_MU	012517	1515	1										
5 FRB-01_012517_ABD_08_MU	012517	1615	1										
6 FRB-01_012617_ABD_09_MU	012617	1515	1										
7 FRB-01_012617_ABD_00_MU	012617	1535	1										
8 EB_Knife_012517_ABD_F00_QC	012517	0645	1	AQ									Sample I.D.#1 includes extra tissue volume for MS/MSD.
9 EB_Knife_012517_ABD_F01_QC	012517	1505	1	AQ									Hold
10 EB_Knife_012517_ABD_F02_QC	012517	1520	1	AQ									Hold
11 EB_Knife_012517_ABD_F03_QC	012517	1600	1	AQ									Hold
12 EB_Knife_012617_ABD_F04_QC	012617	1520	1	AQ									Hold
13 EB_Knife_012617_ABD_F05_QC	012617	1540	1	AQ									Hold

Turnaround Time Requested (TAT) (please check):  Standard  Rush  
 (Rush TAT is subject to laboratory approval and surcharges.)

Notes: FedEx # **566 PG 41**  
 # of Coolers **2**  
 Sample disposal - Halo Environmental Blankets 1-4 units 30 days after delivery of report  
 Report and EDD to: [benise.king@anecfh.com](mailto:benise.king@anecfh.com) 978-892-8853

Data Package Options (please check if required)  
 High  Standard   if yes, format:  
 EDD Required? Yes  No

Reinquisitioned by: **RUB**  
 Date: **1/30/17**  
 Time: **1300**

Reinquisitioned by:  
 Date:   
 Time:   
 Received by:  
 Date:   
 Time:   
 Received by:  
 Date:   
 Time:   
 Received by:  
 Date:   
 Time:   
 Received by:  
 Date:   
 Time:   
 Temperature upon receipt: °C

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Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**FRB-01\_012517\_ABD\_06\_MU**  
**1702167-01**

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

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

Mercury	10.1	0.418	3.73	ng/g	100	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	
---------	------	-------	------	------	-----	---------	-----------	---------	-----------	-----------	--



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**FRB-01\_012517\_ABD\_07\_MU**  
**1702167-02**

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	46.5	0.422	3.77	ng/g	100	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**FRB-01\_012517\_ABD\_08\_MU  
1702167-03**

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	44.8	0.386	3.44	ng/g	100	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**FRB-01\_012617\_ABD\_09\_MU  
1702167-04**

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	47.6	0.406	3.62	ng/g	100	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**FRB-01\_012617\_ABD\_10\_MU  
1702167-05**

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	41.7	0.417	3.72	ng/g	100	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	



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**Reported:**  
14-Mar-17 09:25

**EB\_Knife\_012317\_ABD\_F00\_QC**  
**1702167-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631E BrCl Oxidation</b>											
Mercury	0.15	0.08	0.50	ng/L	1	F702254	02-Feb-17	7B07020	07-Feb-17	EPA 1631E	J



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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**EB\_Knife\_012617\_ABD\_F05\_QC**  
**1702167-11**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631E BrCl Oxidation</b>											
Mercury	ND	0.08	0.50	ng/L	1	F702254	02-Feb-17	7B07020	07-Feb-17	EPA 1631E	U





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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
14-Mar-17 09:25

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B07020 - F702254</b>											
<b>Cal Standard (7B07020-CAL1)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	0.53	-		ng/L	0.50100		105				
<b>Cal Standard (7B07020-CAL2)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	1.00	-		ng/L	1.0020		100				
<b>Cal Standard (7B07020-CAL3)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	4.98	-		ng/L	5.0100		99.4				
<b>Cal Standard (7B07020-CAL4)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	19.43	-		ng/L	20.040		97.0				
<b>Cal Standard (7B07020-CAL5)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	38.96	-		ng/L	40.080		97.2				
<b>Calibration Blank (7B07020-CCB1)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	0.03	-		ng/L							
<b>Calibration Blank (7B07020-CCB2)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7B07020-CCB3)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	0.06	-		ng/L							
<b>Calibration Blank (7B07020-CCB4)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	0.07	-		ng/L							
<b>Calibration Blank (7B07020-CCB5)</b> Prepared & Analyzed: 07-Feb-17											
Mercury	0.06	-		ng/L							

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Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
14-Mar-17 09:25

Quality Control Data

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

Batch 7B07020 - F702254

<b>Calibration Blank (7B07020-CCB6)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	0.09	-		ng/L								
<b>Calibration Blank (7B07020-CCB7)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	0.08	-		ng/L								
<b>Calibration Blank (7B07020-CCB8)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	0.08	-		ng/L								
<b>Calibration Check (7B07020-CCV1)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	5.24	-		ng/L	5.0000		105	77-123				
<b>Calibration Check (7B07020-CCV2)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	5.32	-		ng/L	5.0000		106	77-123				
<b>Calibration Check (7B07020-CCV3)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	5.39	-		ng/L	5.0000		108	77-123				
<b>Calibration Check (7B07020-CCV4)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	5.33	-		ng/L	5.0000		107	77-123				
<b>Calibration Check (7B07020-CCV5)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	5.26	-		ng/L	5.0000		105	77-123				
<b>Calibration Check (7B07020-CCV6)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	5.37	-		ng/L	5.0000		107	77-123				
<b>Calibration Check (7B07020-CCV7)</b>												Prepared & Analyzed: 07-Feb-17
Mercury	5.25	-		ng/L	5.0000		105	77-123				

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
14-Mar-17 09:25

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 7B07020 - F702254

Calibration Check (7B07020-CCV8)											
											Prepared & Analyzed: 07-Feb-17
Mercury	4.98	-		ng/L	5.0000		99.6	77-123			
Instrument Blank (7B07020-IBL1)											
											Prepared & Analyzed: 07-Feb-17
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (7B07020-IBL2)											
											Prepared & Analyzed: 07-Feb-17
Mercury	ND	0.08	0.50	ng/L							U
Instrument Blank (7B07020-IBL3)											
											Prepared & Analyzed: 07-Feb-17
Mercury	ND	0.08	0.50	ng/L							U
Initial Cal Check (7B07020-ICV1)											
											Prepared & Analyzed: 07-Feb-17
Mercury	5.12	-		ng/L	5.0000		102	77-123			

Batch 7B13016 - F702256

Cal Standard (7B13016-CAL2)											
											Prepared & Analyzed: 13-Feb-17
Mercury	1.023	-		ng/L	1.0020		102				
Cal Standard (7B13016-CAL3)											
											Prepared & Analyzed: 13-Feb-17
Mercury	4.675	-		ng/L	5.0100		93.3				
Cal Standard (7B13016-CAL4)											
											Prepared & Analyzed: 13-Feb-17
Mercury	18.78	-		ng/L	20.040		93.7				
Cal Standard (7B13016-CAL5)											
											Prepared & Analyzed: 13-Feb-17
Mercury	37.02	-		ng/L	40.080		92.4				

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Reported:  
14-Mar-17 09:25

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B13016 - F702256</b>											
<b>Cal Standard (7B13016-CAL6)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.589	-		ng/L	0.50100		118				
<b>Calibration Blank (7B13016-CCB1)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.027	-		ng/L							
<b>Calibration Blank (7B13016-CCB2)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.091	-		ng/L							
<b>Calibration Blank (7B13016-CCB3)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.073	-		ng/L							
<b>Calibration Blank (7B13016-CCB4)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.099	-		ng/L							
<b>Calibration Check (7B13016-CCV1)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	4.900	-		ng/L	5.0000		98.0	77-123			
<b>Calibration Check (7B13016-CCV2)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	5.038	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7B13016-CCV3)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	5.263	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7B13016-CCV4)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	5.207	-		ng/L	5.0000		104	77-123			
<b>Instrument Blank (7B13016-IBL1)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U

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Project Manager: Denise King

Reported:  
14-Mar-17 09:25

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 7B13016 - F702256

<b>Instrument Blank (7B13016-IBL2)</b>				Prepared & Analyzed: 13-Feb-17							
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7B13016-IBL3)</b>				Prepared & Analyzed: 13-Feb-17							
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7B13016-ICV1)</b>				Prepared & Analyzed: 13-Feb-17							
Mercury	4.881	-		ng/L	5.0000		97.6	77-123			

Batch F702254 - EPA 1631E BrCl Oxidation

<b>Blank (F702254-BLK1)</b>				Prepared & Analyzed: 07-Feb-17							
Mercury	0.08	0.08	0.50	ng/L							J
<b>Blank (F702254-BLK2)</b>				Prepared & Analyzed: 07-Feb-17							
Mercury	ND	0.08	0.50	ng/L							U
<b>Blank (F702254-BLK3)</b>				Prepared & Analyzed: 07-Feb-17							
Mercury	ND	0.08	0.50	ng/L							U
<b>LCS (F702254-BS1)</b>				Prepared & Analyzed: 07-Feb-17							
Mercury	16.39	0.08	0.50	ng/L	15.679		105	80-120			
<b>LCS Dup (F702254-BSD1)</b>				Prepared & Analyzed: 07-Feb-17							
Mercury	16.69	0.08	0.50	ng/L	15.679		106	80-120	1.79	24	
<b>Duplicate (F702254-DUP1)</b>				<b>Source: 1702167-06</b>				Prepared & Analyzed: 07-Feb-17			
Mercury	ND	0.08	0.50	ng/L		0.15				24	U

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Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
14-Mar-17 09:25

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 F702254 - EPA 1631E BrCl Oxidation

<b>Matrix Spike (F702254-MS1)</b>		<b>Source: 1702167-06</b>			Prepared & Analyzed: 07-Feb-17						
Mercury	2.53	0.08	0.50	ng/L	2.5300	0.15	94.0	71-125			
<b>Matrix Spike (F702254-MS2)</b>		<b>Source: 1702168-06</b>			Prepared & Analyzed: 07-Feb-17						
Mercury	2.59	0.08	0.50	ng/L	2.5300	ND	102	71-125			
<b>Matrix Spike Dup (F702254-MSD1)</b>		<b>Source: 1702167-06</b>			Prepared & Analyzed: 07-Feb-17						
Mercury	2.52	0.08	0.50	ng/L	2.5300	0.15	93.7	71-125	0.328	24	
<b>Matrix Spike Dup (F702254-MSD2)</b>		<b>Source: 1702168-06</b>			Prepared & Analyzed: 07-Feb-17						
Mercury	2.54	0.08	0.50	ng/L	2.5300	ND	101	71-125	1.77	24	

Batch F702256 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F702256-BLK1)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	ND	0.179	1.60	ng/g							U
<b>Blank (F702256-BLK2)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	ND	0.179	1.60	ng/g							U
<b>Blank (F702256-BLK3)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	0.180	0.179	1.60	ng/g							J
<b>Blank (F702256-BLK4)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	ND	0.074	0.658	ng/g							F-03, U
<b>Blank (F702256-BLK5)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	ND	0.071	0.634	ng/g							F-03, U

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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
14-Mar-17 09:25

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 F702256 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>LCS (F702256-BS1)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	7.532	0.090	0.800	ng/g	8.0160		94.0	75-125			
<b>LCS (F702256-BS2)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	324.5	3.54	31.6	ng/g	382.50		84.8	75-125			
<b>LCS Dup (F702256-BSD1)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	7.604	0.090	0.800	ng/g	8.0160		94.9	75-125	0.953	24	
<b>Duplicate (F702256-DUP1)</b>					Source: 1702166-04RE1 Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	321.9	1.55	13.9	ng/g		325.2			1.03	24	
<b>Matrix Spike (F702256-MS2)</b>					Source: 1702167-01 Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	315.0	1.57	14.0	ng/g	351.52	10.13	86.7	71-125			
<b>Matrix Spike (F702256-MS3)</b>					Source: 1702166-04RE1 Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	634.7	3.98	35.6	ng/g	356.39	325.2	86.8	71-125			
<b>Matrix Spike Dup (F702256-MSD2)</b>					Source: 1702167-01 Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	314.6	1.54	13.7	ng/g	344.27	10.13	88.4	71-125	1.94	24	
<b>Matrix Spike Dup (F702256-MSD3)</b>					Source: 1702166-04RE1 Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	597.7	3.97	35.5	ng/g	355.38	325.2	76.7	71-125	12.4	24	

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Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:25

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference





Frontier Global Sciences

THg26003-170207-2

Analysis Datasheet for Total Mercury

Date of Analysis: February 07, 2017  
Instrument #: Hg2600-3  
LIMS Sequence #: 7B07020, 7B07021

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	67.33 units	134.67	61.75 units	123.50	105.7 %Rec
SEQ-CAL2	1	1.00 ng/L	122.77 units	122.77	117.19 units	117.19	100.3 %Rec
SEQ-CAL3	1	5.00 ng/L	587.41 units	117.48	581.83 units	116.37	99.6 %Rec
SEQ-CAL4	1	20.00 ng/L	2276.60 units	113.83	2271.02 units	113.55	97.1 %Rec
SEQ-CAL5	1	40.00 ng/L	4559.08 units	113.98	4553.49 units	113.84	97.4 %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>
116.89	+/- 4.02	3.4% RSD	120.55

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-TBL	3	5.58 units	±1.22	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	8.504 ng/L	±4.326
BLK	2	3	0.060 ng/L	±0.016
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 2/9/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2600-3	DM2	CAL	SEQ-IBL1	1	2/7/2017 11:30:57	60517-1.RAW	11:30:57 AM	6.80				1.0	0.009	0.009	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/7/2017 11:35:05	60518-1.RAW	11:35:05 AM	5.91				0.3	0.003	0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/7/2017 11:39:14	60519-1.RAW	11:39:14 AM	4.24				-1.3	-0.012	-0.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	2/7/2017 11:43:22	60520-1.RAW	11:43:22 AM	67.33				61.8	0.528	0.528	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/7/2017 11:47:30	60521-1.RAW	11:47:30 AM	122.77				117.2	1.003	1.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/7/2017 11:51:39	60522-1.RAW	11:51:39 AM	587.41				581.8	4.978	4.978	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/7/2017 11:55:47	60523-1.RAW	11:55:47 AM	2276.80				2271.0	19.429	19.429	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/7/2017 11:59:56	60524-1.RAW	11:59:56 AM	4559.08				4553.5	38.956	38.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/7/2017 12:04:04	60525-1.RAW	12:04:04 PM	603.93				598.3	5.119	5.119	ng/L	
Hg2600-3	DM2	SAM	EFGS08054 3000NG	2500	2/7/2017 12:15:05	60526-1.RAW	12:15:05 PM	1373.10				1367.5	11.699	29248.244	ng/L	
Hg2600-3	DM2	SAM	EFGS03851 3000NG	2500	2/7/2017 12:19:14	60527-1.RAW	12:19:14 PM	1316.76		X		1311.2	11.217	28043.284	ng/L	
Hg2600-3	DM2	SAM	EFGS05211 900NG	500	2/7/2017 12:23:22	60528-1.RAW	12:23:22 PM	1975.60		X		1970.0	16.854	8426.902	ng/L	
Hg2600-3	DM2	SAM	EFGS06341 900NG	500	2/7/2017 12:27:31	60529-1.RAW	12:27:31 PM	1947.01		X		1941.4	16.609	8304.577	ng/L	
Hg2600-3	DM2	BLK	F702230-BLK1	100	2/7/2017 12:31:39	60530-1.RAW	12:31:39 PM	21.31	1			15.7	0.135	13.451	ng/L	
Hg2600-3	DM2	BLK	F702230-BLK2	100	2/7/2017 12:35:47	60531-1.RAW	12:35:47 PM	13.34	1			7.8	0.066	6.633	ng/L	
Hg2600-3	DM2	BLK	F702230-BLK3	100	2/7/2017 12:39:56	60532-1.RAW	12:39:56 PM	11.93	1			6.3	0.054	5.429	ng/L	
Hg2600-3	DM2	SAM	F702230-BS1	500	2/7/2017 12:44:04	60533-1.RAW	12:44:04 PM	945.77	1			940.2	8.026	4013.228	ng/L	
Hg2600-3	DM2	SAM	F702230-BSD1	500	2/7/2017 12:48:13	60534-1.RAW	12:48:13 PM	945.03	1			939.5	8.020	4010.062	ng/L	
Hg2600-3	DM2	SAM	1702090-01	2500	2/7/2017 12:52:21	60535-1.RAW	12:52:21 PM	99.72	1			94.1	0.802	2004.841	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/7/2017 12:56:30	60536-1.RAW	12:56:30 PM	618.35				612.8	5.242	5.242	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/7/2017 13:00:38	60537-1.RAW	1:00:38 PM	9.07				3.5	0.030	0.030	ng/L	
Hg2600-3	DM2	SAM	1702090-02	500	2/7/2017 13:04:46	60538-1.RAW	1:04:46 PM	576.92	1			571.3	4.871	2435.426	ng/L	
Hg2600-3	DM2	SAM	1702090-03	500	2/7/2017 13:08:55	60539-1.RAW	1:08:55 PM	441.80	1			436.2	3.715	1857.432	ng/L	
Hg2600-3	DM2	SAM	1702090-04	500	2/7/2017 13:13:03	60540-1.RAW	1:13:03 PM	268.34	1			262.8	2.231	1115.463	ng/L	
Hg2600-3	DM2	SAM	1702090-05	500	2/7/2017 13:17:12	60541-1.RAW	1:17:12 PM	229.01	1			223.4	1.894	947.222	ng/L	
Hg2600-3	DM2	SAM	1702090-06	500	2/7/2017 13:21:20	60542-1.RAW	1:21:20 PM	225.19	1			219.6	1.862	930.868	ng/L	
Hg2600-3	DM2	SAM	1702091-01	500	2/7/2017 13:25:29	60543-1.RAW	1:25:29 PM	688.64	1			683.1	5.827	2913.313	ng/L	
Hg2600-3	DM2	SAM	1702091-02	500	2/7/2017 13:29:37	60544-1.RAW	1:29:37 PM	611.70	1			606.1	5.168	2584.223	ng/L	
Hg2600-3	DM2	SAM	1702091-03	500	2/7/2017 13:33:45	60545-1.RAW	1:33:45 PM	597.52	1			581.9	4.962	2480.780	ng/L	
Hg2600-3	DM2	SAM	1702091-04	500	2/7/2017 13:37:54	60546-1.RAW	1:37:54 PM	444.42	1			438.8	3.737	1868.652	ng/L	
Hg2600-3	DM2	SAM	1702091-05	500	2/7/2017 13:42:02	60547-1.RAW	1:42:02 PM	411.34	1			405.8	3.454	1727.142	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/7/2017 13:46:11	60548-1.RAW	1:46:11 PM	626.87				621.3	5.315	5.315	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/7/2017 13:50:19	60549-1.RAW	1:50:19 PM	15.73				10.1	0.087	0.087	ng/L	
Hg2600-3	DM2	SAM	1702091-06	500	2/7/2017 13:54:28	60550-1.RAW	1:54:28 PM	363.84	1			358.3	3.048	1523.943	ng/L	
Hg2600-3	DM2	SAM	1702090-01RE1	500	2/7/2017 13:58:37	60551-1.RAW	1:58:37 PM	464.26	1			458.7	3.907	1953.519	ng/L	
Hg2600-3	DM2	SAM	1702090-02RE1	500	2/7/2017 14:02:45	60552-1.RAW	2:02:45 PM	569.83	1			564.2	4.810	2405.105	ng/L	
Hg2600-3	DM2	SAM	1702090-05RE1	500	2/7/2017 14:06:54	60553-1.RAW	2:06:54 PM	231.48	1			225.9	1.916	957.767	ng/L	
Hg2600-3	DM2	SAM	1702090-01B	100	2/7/2017 14:11:02	60554-1.RAW	2:11:02 PM	505.33	1			499.7	4.190	419.037	ng/L	
Hg2600-3	DM2	SAM	1702090-02B	100	2/7/2017 14:15:11	60555-1.RAW	2:15:11 PM	116.69	1			111.1	0.865	86.548	ng/L	
Hg2600-3	DM2	SAM	1702090-03B	100	2/7/2017 14:19:19	60556-1.RAW	2:19:19 PM	94.88	1			89.3	0.679	67.890	ng/L	
Hg2600-3	DM2	SAM	1702090-04B	100	2/7/2017 14:23:28	60557-1.RAW	2:23:28 PM	20.59	1			15.0	0.043	4.338	ng/L	
Hg2600-3	DM2	SAM	1702090-05B	100	2/7/2017 14:27:36	60558-1.RAW	2:27:36 PM	19.22	1			13.6	0.032	3.161	ng/L	
Hg2600-3	DM2	SAM	1702090-06B	100	2/7/2017 14:31:44	60559-1.RAW	2:31:44 PM	20.13	1			14.5	0.039	3.941	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/7/2017 14:35:53	60560-1.RAW	2:35:53 PM	636.06				630.5	5.394	5.394	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/7/2017 14:40:01	60561-1.RAW	2:40:01 PM	12.80				7.2	0.062	0.062	ng/L	
Hg2600-3	DM2	SAM	1702090-01RE1B	100	2/7/2017 14:45:52	60562-1.RAW	2:45:52 PM	493.44	1			487.9	4.089	408.867	ng/L	
Hg2600-3	DM2	SAM	1702091-01B	100	2/7/2017 14:50:00	60563-1.RAW	2:50:00 PM	31.29	1			25.7	0.135	13.485	ng/L	
Hg2600-3	DM2	SAM	1702091-02B	100	2/7/2017 14:54:09	60564-1.RAW	2:54:09 PM	21.46	1			15.9	0.051	5.082	ng/L	
Hg2600-3	DM2	SAM	1702091-03B	100	2/7/2017 14:58:17	60565-1.RAW	2:58:17 PM	26.76	1			21.2	0.096	9.611	ng/L	
Hg2600-3	DM2	SAM	1702091-04B	100	2/7/2017 15:02:26	60566-1.RAW	3:02:26 PM	14.04	1			8.5	-0.013	-1.268	ng/L	
Hg2600-3	DM2	SAM	1702091-05B	100	2/7/2017 15:06:34	60567-1.RAW	3:06:34 PM	15.51	1			9.9	0.000	-0.009	ng/L	
Hg2600-3	DM2	SAM	1702091-06B	100	2/7/2017 15:10:42	60568-1.RAW	3:10:42 PM	16.96	1			11.4	0.012	1.231	ng/L	
Hg2600-3	DM2	SAM	F702230-DUP1	500	2/7/2017 15:14:51	60569-1.RAW	3:14:51 PM	454.97	1			449.4	3.828	1913.787	ng/L	
Hg2600-3	DM2	SAM	F702230-MS1	500	2/7/2017 15:18:59	60570-1.RAW	3:18:59 PM	1608.54	1			1603.0	13.697	6848.269	ng/L	
Hg2600-3	DM2	SAM	F702230-MSD1	500	2/7/2017 15:23:08	60571-1.RAW	3:23:08 PM	1610.99	1			1605.4	13.717	6858.725	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	2/7/2017 15:27:16	60572-1.RAW	3:27:16 PM	628.22				622.6	5.327	5.327	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/7/2017 15:31:25	60573-1.RAW	3:31:25 PM	13.27				7.7	0.066	0.066	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	F702230-MS2	500	2/7/2017 15:35:33	60574-1.RAW	3:35:33 PM	1585.79	1		1580.2	13.502	6750.923	ng/L	
Hg2600-3	DM2	SAM	F702230-MSD2	500	2/7/2017 15:39:41	60575-1.RAW	3:39:41 PM	1576.47	1		1570.9	13.422	6711.094	ng/L	
Hg2600-3	DM2	BLK	F702254-BLK1	1	2/7/2017 15:43:50	60576-1.RAW	3:43:50 PM	14.65	2		9.1	0.078	0.078	ng/L	
Hg2600-3	DM2	BLK	F702254-BLK2	1	2/7/2017 15:47:58	60577-1.RAW	3:47:58 PM	11.81	2		6.2	0.053	0.053	ng/L	
Hg2600-3	DM2	BLK	F702254-BLK3	1	2/7/2017 15:52:07	60578-1.RAW	3:52:07 PM	11.18	2		5.6	0.048	0.048	ng/L	
Hg2600-3	DM2	SAM	F702254-BS1	1	2/7/2017 15:56:15	60579-1.RAW	3:56:15 PM	1909.40	2		1903.8	16.228	16.228	ng/L	
Hg2600-3	DM2	SAM	F702254-BSD1	1	2/7/2017 16:00:23	60580-1.RAW	4:00:23 PM	1943.75	2		1938.2	16.522	16.522	ng/L	
Hg2600-3	DM2	SAM	1702167-06	1	2/7/2017 16:04:32	60581-1.RAW	4:04:32 PM	30.11	2		24.5	0.150	0.150	ng/L	
Hg2600-3	DM2	SAM	1702167-07	1	2/7/2017 16:08:40	60582-1.RAW	4:08:40 PM	15.15	2		9.6	0.022	0.022	ng/L	
Hg2600-3	DM2	SAM	1702167-08	1	2/7/2017 16:12:49	60583-1.RAW	4:12:49 PM	13.89	2		8.3	0.012	0.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/7/2017 16:16:57	60584-1.RAW	4:16:57 PM	620.4931776			614.9	5.261	5.261	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/7/2017 16:21:06	60585-1.RAW	4:21:06 PM	12.93			7.3	0.063	0.063	ng/L	
Hg2600-3	DM2	SAM	1702167-09	1	2/7/2017 16:25:14	60586-1.RAW	4:25:14 PM	13.83	2		8.2	0.011	0.011	ng/L	
Hg2600-3	DM2	SAM	1702167-10	1	2/7/2017 16:29:22	60587-1.RAW	4:29:22 PM	13.98	2		8.4	0.012	0.012	ng/L	
Hg2600-3	DM2	SAM	1702167-11	1	2/7/2017 16:33:31	60588-1.RAW	4:33:31 PM	14.96	2		9.4	0.021	0.021	ng/L	
Hg2600-3	DM2	SAM	1702168-06	1	2/7/2017 16:37:39	60589-1.RAW	4:37:39 PM	16.93	2		11.3	0.037	0.037	ng/L	
Hg2600-3	DM2	SAM	1702168-07	1	2/7/2017 16:41:48	60590-1.RAW	4:41:48 PM	11.98	2		6.4	-0.005	-0.005	ng/L	
Hg2600-3	DM2	SAM	1702168-08	1	2/7/2017 16:45:56	60591-1.RAW	4:45:56 PM	13.55	2		8.0	0.009	0.009	ng/L	
Hg2600-3	DM2	SAM	1702168-09	1	2/7/2017 16:50:04	60592-1.RAW	4:50:04 PM	14.76	2		9.2	0.019	0.019	ng/L	
Hg2600-3	DM2	SAM	1702168-10	1	2/7/2017 16:54:13	60593-1.RAW	4:54:13 PM	10.86	2		5.3	-0.014	-0.014	ng/L	
Hg2600-3	DM2	SAM	F702254-DUP1	1	2/7/2017 16:58:21	60594-1.RAW	4:58:21 PM	11.93	2		6.3	-0.005	-0.005	ng/L	
Hg2600-3	DM2	SAM	F702254-MS1	1	2/7/2017 17:02:30	60595-1.RAW	5:02:30 PM	305.48	2		299.9	2.506	2.506	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/7/2017 17:06:38	60596-1.RAW	5:06:38 PM	633.56			628.0	5.372	5.372	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/7/2017 17:10:47	60597-1.RAW	5:10:47 PM	16.59			11.0	0.094	0.094	ng/L	
Hg2600-3	DM2	SAM	F702254-MSD1	1	2/7/2017 17:14:55	60598-1.RAW	5:14:55 PM	304.52	2		298.9	2.498	2.498	ng/L	
Hg2600-3	DM2	SAM	F702254-MS2	1	2/7/2017 17:19:03	60599-1.RAW	5:19:03 PM	312.26	2		306.7	2.564	2.564	ng/L	
Hg2600-3	DM2	SAM	F702254-MSD2	1	2/7/2017 17:23:12	60600-1.RAW	5:23:12 PM	307.02	2		301.4	2.519	2.519	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/7/2017 17:27:20	60601-1.RAW	5:27:20 PM	619.65			614.1	5.253	5.253	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/7/2017 17:31:29	60602-1.RAW	5:31:29 PM	14.42			8.8	0.076	0.076	ng/L	
Hg2600-3	DM2	SAM	SNCL 1700770	1	2/7/2017 17:35:37	60603-1.RAW	5:35:37 PM	4.39		X	-1.2	-0.010	-0.010	ng/L	
Hg2600-3	DM2	SAM	CLEAN		2/7/2017 17:38:29	60604-1.RAW	5:38:29 PM	0.00		X	-5.6	-0.048	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		2/7/2017 17:42:37	60605-1.RAW	5:42:37 PM	10.07		X	4.5	0.038	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		2/7/2017 17:46:45	60606-1.RAW	5:46:45 PM	10.15		X	4.6	0.039	0.000	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/7/2017 17:50:54	60607-1.RAW	5:50:54 PM	587.53			581.9	4.979	4.979	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/7/2017 17:55:02	60608-1.RAW	5:55:02 PM	15.30			9.7	0.083	0.083	ng/L	

TotalMercury EPA1631 Operat DM BlankS 5.5831 Calib Eqn: Conc = (Area-5.583 Run Date: 2/7/2017 Blank SD: 1.215702614 Works1 THg2600 CalibFa 116.89 Status: QC Warnings:4/QC f Run Time: 14:41:43 Blank RSD%: 21.77452087 Method ### R: 1 R2: 1 CF SD: -4.017094947 CF RSD%: 3.436680031 Descr: THg26003-170207-1

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	1.83					60512-1.RAW	11:11:32	214.09	Clean	OK	1
clean										60513-1.RAW	11:14:23	0.00	Clean	NP	1
ws				5.58	0.02					60514-1.RAW	11:18:32	7.51	Sample	OK	1
ws				5.58	0.02					60515-1.RAW	11:22:40	7.38	Sample	OK	1
ws				5.58	0.02					60516-1.RAW	11:26:48	7.37	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.06					60517-1.RAW	11:30:57	6.60	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					60518-1.RAW	11:35:05	5.91	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					60519-1.RAW	11:39:14	4.24	Sample	OK	1
SEQ-CAL1	A4		1	5.58	0.53		105.66			60520-1.RAW	11:43:22	67.33	Sample	OK	1
SEQ-CAL2	A5		1	5.58	1.00		100.26			60521-1.RAW	11:47:30	122.77	Sample	OK	1
SEQ-CAL3	A6		1	5.58	4.98		99.55			60522-1.RAW	11:51:39	587.41	Sample	OK	1
SEQ-CAL4	A7		1	5.58	19.43		97.14			60523-1.RAW	11:55:47	2276.60	Sample	OK	1
SEQ-CAL5	A8		1	5.58	38.96		97.39			60524-1.RAW	11:59:58	4559.08	Sample	FB	1
SEQ-ICV1	A9		1	5.58	5.12		102.38			60525-1.RAW	12:04:04	603.93	Sample	OK	1
EFGS08054 300	A10		2500	5.58	29248.24					60526-1.RAW	12:15:05	1373.10	Sample	OK	1
EFGS03851 300	A11		2500	5.58	28043.28					60527-1.RAW	12:19:14	1316.76	Sample	OK	1
EFGS05211 900	A12		500	5.58	8426.90					60528-1.RAW	12:23:22	1975.60	Sample	OK	1
EFGS06341 900	B1		500	5.58	6304.58					60529-1.RAW	12:27:31	1947.01	Sample	OK	1
F702230-BLK1	B2		100	5.58	13.45					60530-1.RAW	12:31:39	21.31	Sample	OK	1
F702230-BLK2	B3		100	5.58	6.63					60531-1.RAW	12:35:47	13.34	Sample	OK	1
F702230-BLK3	B4		100	5.58	5.43					60532-1.RAW	12:39:56	11.93	Sample	OK	1
F702230-BS1	B5		500	5.58	4021.73					60533-1.RAW	12:44:04	945.77	Sample	OK	1
F702230-BSD1	B6		500	5.58	4018.57					60534-1.RAW	12:48:13	945.03	Sample	OK	1
1702090-01	B7		2500	5.58	2013.35					60535-1.RAW	12:52:21	99.72	Sample	OK	1
SEQ-CCV1	B8		1	5.58	5.24	104.85				60536-1.RAW	12:56:30	618.35	Sample	OK	1
SEQ-CCB1	B9		1	5.58	0.03	0.00				60537-1.RAW	13:00:38	9.07	Sample	OK	1
1702090-02	B10		500	5.58	2443.93					60538-1.RAW	13:04:46	576.92	Sample	OK	1
1702090-03	B11		500	5.58	1865.94					60539-1.RAW	13:08:55	441.80	Sample	OK	1
1702090-04	B12		500	5.58	1123.97					60540-1.RAW	13:13:03	268.34	Sample	OK	1
1702090-05	C1		500	5.58	955.73					60541-1.RAW	13:17:12	229.01	Sample	OK	1
1702090-06	C2		500	5.58	939.37					60542-1.RAW	13:21:20	225.19	Sample	OK	1
1702091-01	C3		500	5.58	2921.82					60543-1.RAW	13:25:29	688.64	Sample	OK	1
1702091-02	C4		500	5.58	2592.73					60544-1.RAW	13:29:37	611.70	Sample	OK	1
1702091-03	C5		500	5.58	2489.28					60545-1.RAW	13:33:45	587.52	Sample	OK	1
1702091-04	C6		500	5.58	1877.16					60546-1.RAW	13:37:54	444.42	Sample	OK	1
1702091-05	C7		500	5.58	1735.65					60547-1.RAW	13:42:02	411.34	Sample	OK	1
SEQ-CCV2	C8		1	5.58	5.32	106.30				60548-1.RAW	13:46:11	626.87	Sample	OK	1
SEQ-CCB2	C9		1	5.58	0.09	0.00				60549-1.RAW	13:50:19	15.73	Sample	OK	1
1702091-06	C10		500	5.58	1532.45					60550-1.RAW	13:54:28	363.84	Sample	OK	1
1702090-01RE1	C11		500	5.58	1962.02					60551-1.RAW	13:58:37	464.26	Sample	OK	1
1702090-02RE1	C12		500	5.58	2413.61					60552-1.RAW	14:02:45	569.83	Sample	OK	1
1702090-05RE1	D1		500	5.58	966.27					60553-1.RAW	14:06:54	231.48	Sample	OK	1
1702090-01B	D2		100	5.58	427.54					60554-1.RAW	14:11:02	505.33	Sample	OK	1
1702090-02B	D3		100	5.58	95.05					60555-1.RAW	14:15:11	116.69	Sample	OK	1
1702090-03B	D4		100	5.58	76.39					60556-1.RAW	14:19:19	94.88	Sample	OK	1
1702090-04B	D5		100	5.58	12.84					60557-1.RAW	14:23:28	20.59	Sample	OK	1
1702090-05B	D6		100	5.58	11.67					60558-1.RAW	14:27:36	19.22	Sample	OK	1
1702090-06B	D7		100	5.58	12.44					60559-1.RAW	14:31:44	20.13	Sample	OK	1
SEQ-CCV3	D8		1	5.58	5.39	107.88				60560-1.RAW	14:35:53	636.06	Sample	OK	1
SEQ-CCB3	D9		1	5.58	0.06	0.00				60561-1.RAW	14:40:01	12.80	Sample	OK	1
1702090-01RE11	D10		100	5.58	417.37					60562-2.RAW	14:45:52	493.44	Sample	OK	1
1702091-01B	D11		100	5.58	21.99					60563-1.RAW	14:50:00	31.29	Sample	OK	1
1702091-02B	D12		100	5.58	13.59					60564-1.RAW	14:54:09	21.46	Sample	OK	1
1702091-03B	A1		100	5.58	18.12					60565-1.RAW	14:58:17	26.76	Sample	OK	1
1702091-04B	A2		100	5.58	7.24					60566-1.RAW	15:02:26	14.04	Sample	OK	1
1702091-05B	A3		100	5.58	8.50					60567-1.RAW	15:06:34	15.51	Sample	OK	1
1702091-06B	A4		100	5.58	9.73					60568-1.RAW	15:10:42	16.96	Sample	OK	1
F702230-DUP1	A5		500	5.58	1922.29					60569-1.RAW	15:14:51	454.97	Sample	OK	1
F702230-MS1	A6		500	5.58	6856.77		356.51			60570-1.RAW	15:18:59	1608.54	Sample	OK	1
F702230-MSD1	A7		500	5.58	6867.23					60571-1.RAW	15:23:08	1610.99	Sample	OK	1
SEQ-CCV4	A8		1	5.58	5.33	106.53				60572-1.RAW	15:27:16	628.22	Sample	OK	1
SEQ-CCB4	A9		1	5.58	0.07	0.00				60573-1.RAW	15:31:25	13.27	Sample	OK	1

F702230-MS2	A10	500	5.58	6759.43	327218.37	60574-1.RAW	15:35:33	1585.79	Sample	OK	1
F702230-MSD2	A11	500	5.58	6719.60		60575-1.RAW	15:39:41	1576.47	Sample	OK	1
F702254-BLK1	A12	1	5.58	0.08		60576-1.RAW	15:43:50	14.65	Sample	OK	1
F702254-BLK2	B1	1	5.58	0.05		60577-1.RAW	15:47:58	11.81	Sample	OK	1
F702254-BLK3	B2	1	5.58	0.05		60578-1.RAW	15:52:07	11.18	Sample	OK	1
F702254-BS1	B3	1	5.58	16.29		60579-1.RAW	15:56:15	1909.40	Sample	OK	1
F702254-BSD1	B4	1	5.58	16.58		60580-1.RAW	16:00:23	1943.75	Sample	OK	1
1702167-06	B5	1	5.58	0.21		60581-1.RAW	16:04:32	30.11	Sample	OK	1
1702167-07	B6	1	5.58	0.08		60582-1.RAW	16:08:40	15.15	Sample	OK	1
1702167-08	B7	1	5.58	0.07		60583-1.RAW	16:12:49	13.89	Sample	OK	1
SEQ-CCV5	B8	1	5.58	5.26	105.21	60584-1.RAW	16:16:57	620.49	Sample	OK	1
SEQ-CCB5	B9	1	5.58	0.06	0.00	60585-1.RAW	16:21:06	12.93	Sample	OK	1
1702167-09	B10	1	5.58	0.07		60586-1.RAW	16:25:14	13.83	Sample	OK	1
1702167-10	B11	1	5.58	0.07		60587-1.RAW	16:29:22	13.98	Sample	OK	1
1702167-11	B12	1	5.58	0.08		60588-1.RAW	16:33:31	14.96	Sample	OK	1
1702168-06	C1	1	5.58	0.10		60589-1.RAW	16:37:39	16.93	Sample	OK	1
1702168-07	C2	1	5.58	0.05		60590-1.RAW	16:41:48	11.98	Sample	OK	1
1702168-08	C3	1	5.58	0.07		60591-1.RAW	16:45:56	13.55	Sample	OK	1
1702168-09	C4	1	5.58	0.08		60592-1.RAW	16:50:04	14.76	Sample	OK	1
1702168-10	C5	1	5.58	0.05		60593-1.RAW	16:54:13	10.86	Sample	OK	1
F702254-DUP1	C6	1	5.58	0.05		60594-1.RAW	16:58:21	11.93	Sample	OK	1
F702254-MS1	C7	1	5.58	2.57	243.35	60595-1.RAW	17:02:30	305.48	Sample	OK	1
SEQ-CCV6	C8	1	5.58	5.37	107.45	60596-1.RAW	17:06:38	633.56	Sample	OK	1
SEQ-CCB6	C9	1	5.58	0.09	0.00	60597-1.RAW	17:10:47	16.59	Sample	OK	1
F702254-MSD1	C10	1	5.58	2.56		60598-1.RAW	17:14:55	304.52	Sample	OK	1
F702254-MS2	C11	1	5.58	2.62	57.57	60599-1.RAW	17:19:03	312.26	Sample	OK	1
F702254-MSD2	C12	1	5.58	2.58		60600-1.RAW	17:23:12	307.02	Sample	OK	1
SEQ-CCV7	D1	1	5.58	5.25	105.07	60601-1.RAW	17:27:20	619.65	Sample	OK	1
SEQ-CCB7	D2	1	5.58	0.08	0.00	60602-1.RAW	17:31:29	14.42	Sample	OK	1
SNCL 1700770	D3	1	5.58	0.00		60603-1.RAW	17:35:37	4.39	Sample	OK	1
CLEAN						60604-1.RAW	17:38:29	0.00	Clean	NP	1
WS			5.58	0.04		60605-1.RAW	17:42:37	10.07	Sample	OK	1
WS			5.58	0.04		60606-1.RAW	17:46:45	10.15	Sample	OK	1
SEQ-CCV8	D4	1	5.58	4.98	99.57	60607-1.RAW	17:50:54	587.53	Sample	OK	1
SEQ-CCB8	D5	1	5.58	0.08	0.00	60608-1.RAW	17:55:02	15.30	Sample	OK	1

**Failing Data Report - 7B07020**

Sample ID      Analysis      Result    MRL    Dup    Source    True    Units    % Rec.    Rec.    Rec.    RPD    RPD    Over Cal    Failure    Qualifier  
Result    Result    Value                                  LCL    UCL         Limit

---

    Dan M. Moran              2/7/17      
Analyst Reviewed By      Date

    Beavis              2/9/17      
Peer Reviewed By      Date

# Failing Data Report - 7B07021

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 M. Steem  
 Analyst Reviewed By

2/7/17  
 Date

~~Don M. Steem~~ *Brooks*  
 Peer Reviewed By

2/4/17  
 Date

DM  
 2/7/17

## ANALYSIS SEQUENCE

7B07021

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/7/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B07021-IBL1	QC	1			
7B07021-IBL2	QC	2			
7B07021-IBL3	QC	3			
7B07021-CAL1	QC	4	1700737		
7B07021-CAL2	QC	5	1700738		
7B07021-CAL3	QC	6	1700739		
7B07021-CAL4	QC	7	1700740		
7B07021-CAL5	QC	8	1700741		
7B07021-ICV1	QC	9	1700018		
F702230-BLK1	QC	10			
F702230-BLK2	QC	11			
F702230-BLK3	QC	12			
F702230-BS1	QC	13			
F702230-BSD1	QC	14			
1702090-01	Hg_FSTM_TRAP_A	15			
7B07021-CCV1	QC	16	1700018		
7B07021-CCB1	QC	17			
1702090-02	Hg_FSTM_TRAP_A	18			
1702090-03	Hg_FSTM_TRAP_A	19			
1702090-04	Hg_FSTM_TRAP_A	20			
1702090-05	Hg_FSTM_TRAP_A	21			
1702090-06	Hg_FSTM_TRAP_A	22			
1702091-01	Hg_FSTM_TRAP_A	23			
1702091-02	Hg_FSTM_TRAP_A	24			
1702091-03	Hg_FSTM_TRAP_A	25			
1702091-04	Hg_FSTM_TRAP_A	26			
1702091-05	Hg_FSTM_TRAP_A	27			
7B07021-CCV2	QC	28	1700018		
7B07021-CCB2	QC	29			
1702091-06	Hg_FSTM_TRAP_A	30			
1702090-01RE1	Hg_FSTM_TRAP_A	31			Added 2/7/2017 by DM2
1702090-02RE1	Hg_FSTM_TRAP_A	32			Added 2/7/2017 by DM2
1702090-05RE1	Hg_FSTM_TRAP_A	33			Added 2/7/2017 by DM2
7B07021-CCV3	QC	34	1700018		
7B07021-CCB3	QC	35			

Due Date: 2/9/2017

Page 1 of 2



**ANALYSIS SEQUENCE**

**7B07021**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 2/7/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F702230-DUP1	QC	36			
F702230-MS1	QC	37			
F702230-MSD1	QC	38			
7B07021-CCV4	QC	39	1700018		
7B07021-CCB4	QC	40			
F702230-MS2	QC	41			
F702230-MSD2	QC	42			
7B07021-CCV5	QC	43	1700018		
7B07021-CCB5	QC	44			

    Dan Maxem              2/7/17      
 Samples Loaded By                      Date

    Dan Maxem              2/7/17      
 Data Processed By                      Date

Due Date: 2/9/2017

## ANALYSIS SEQUENCE

7B07020

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/7/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B07020-IBL1	QC	1			
7B07020-IBL2	QC	2			
7B07020-IBL3	QC	3			
7B07020-CAL1	QC	4	1700737		
7B07020-CAL2	QC	5	1700738		
7B07020-CAL3	QC	6	1700739		
7B07020-CAL4	QC	7	1700740		
7B07020-CAL5	QC	8	1700741		
7B07020-ICV1	QC	9	1700018		
7B07020-CCV1	QC	10	1700018		
7B07020-CCB1	QC	11			
7B07020-CCV2	QC	12	1700018		
7B07020-CCB2	QC	13			
7B07020-CCV3	QC	14	1700018		
7B07020-CCB3	QC	15			
7B07020-CCV4	QC	16	1700018		
7B07020-CCB4	QC	17			
F702254-BLK1	QC	18			
F702254-BLK2	QC	19			
F702254-BLK3	QC	20			
F702254-BS1	QC	21			
F702254-BSD1	QC	22			
1702167-06	Hg-CVAFS-W-1631	23			
1702167-07	Hg-CVAFS-W-1631	24			
1702167-08	Hg-CVAFS-W-1631	25			
7B07020-CCV5	QC	26	1700018		
7B07020-CCB5	QC	27			
1702167-09	Hg-CVAFS-W-1631	28			
1702167-10	Hg-CVAFS-W-1631	29			
1702167-11	Hg-CVAFS-W-1631	30			
1702168-06	Hg-CVAFS-W-1631	31			
1702168-07	Hg-CVAFS-W-1631	32			
1702168-08	Hg-CVAFS-W-1631	33			
1702168-09	Hg-CVAFS-W-1631	34			
1702168-10	Hg-CVAFS-W-1631	35			

Due Date: 2/15/2017

Page 1 of 2

**ANALYSIS SEQUENCE**

**7B07020**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 2/7/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F702254-DUP1	QC	36			
F702254-MS1	QC	37			
7B07020-CCV6	QC	38	1700018		
7B07020-CCB6	QC	39			
F702254-MSD1	QC	40			
F702254-MS2	QC	41			
F702254-MSD2	QC	42			
7B07020-CCV7	QC	43	1700018		
7B07020-CCB7	QC	44			
7B07020-CCV8	QC	45	1700018		
7B07020-CCB8	QC	46			

Don Mason                      2/7/17  
 Samples Loaded By                      Date

Don Mason                      2/7/17  
 Data Processed By                      Date

Due Date: 2/15/2017

**PREPARATION BENCH SHEET**

F702254

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/7/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702254-BLK1	Blank	100	101					
F702254-BLK2	Blank	100	101					
F702254-BLK3	Blank	100	101					
F702254-BS1	LCS	50	50.5	1604715	100			
F702254-BSD1	LCS Dup	50	50.5	1604715	100			
F702254-DUP1	Duplicate [1702167-06]	100	101					
F702254-MS1	Matrix Spike [1702167-06]	49.50495	50	1700688	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702254-MS2	Matrix Spike [1702168-06]	49.50495	50	1700688	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702254-MSD1	Matrix Spike Dup [1702167-06]	49.50495	50	1700688	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702254-MSD2	Matrix Spike Dup [1702168-06]	49.50495	50	1700688	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1700688	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-17 00:00
01-May-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
1700308	THg Dilute 1% BrCl	28-May-17 00:00
1700309	THg Washstation (0.5% BrCl)	
1700509	3% SnCl2 THg reductant	10-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702254

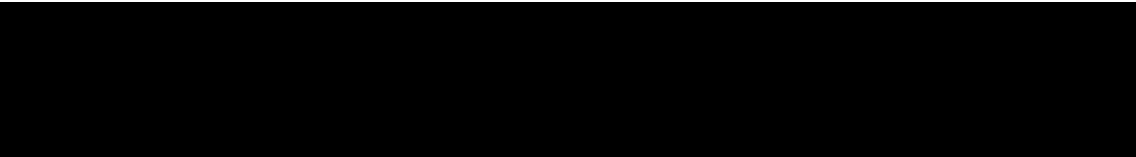
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/7/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702167-06	EB_Knife_012317_ABD_F00_QC	100	101	-	-	-		
1702167-07	EB_Knife_012517_ABD_F01_QC	100	101	-	-	-		
1702167-08	EB_Knife_012517_ABD_F02_QC	100	101	-	-	-		
1702167-09	EB_Knife_012517_ABD_F03_QC	100	101	-	-	-		
1702167-10	EB_Knife_012617_ABD_F04_QC	100	101	-	-	-		
1702167-11	EB_Knife_012617_ABD_F05_QC	100	101	-	-	-		
1702168-06	EB_Knife_012317_ABD_E00_QC	100	101	-	-	-		
1702168-07	EB_Knife_012417_ABD_E01_QC	100	101	-	-	-		
1702168-08	EB_Knife_012417_ABD_E02_QC	100	101	-	-	-		
1702168-09	EB_Knife_012817_ABD_E03_QC	100	101	-	-	-		
1702168-10	EB_Knife_012817_ABD_E04_QC	100	101	-	-	-		



**PREPARATION BENCH SHEET**

F702230

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/3/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702230-BLK1	Blank	1	48					
F702230-BLK2	Blank	1	48					
F702230-BLK3	Blank	1	48					
F702230-BS1	LCS	1	48	1605712	200			
F702230-BSD1	LCS Dup	1	48	1605712	200			
F702230-DUP1	Duplicate [1702091-04]	1	48					
F702230-MS1	Matrix Spike [1702091-04]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL
F702230-MS2	Matrix Spike [1702091-05]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL
F702230-MSD1	Matrix Spike Dup [1702091-04]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL
F702230-MSD2	Matrix Spike Dup [1702091-05]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700509	3% SnCl2 THg reductant	10-Jul-17 00:00
			1700638	5% BrCl	28-May-17 00:00
			1700639	70/30 Digestion Acid	29-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702230

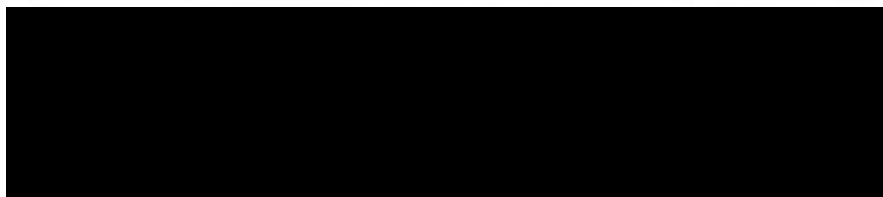
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/3/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702090-01	EFGS08528 Side A - RUN 1	1	48	-	-	-		
1702090-01RE1	EFGS08528 Side A - RUN 1	1	48	-	-	-	Added 2/7/2017 by DM2	Added 2/7/2017 by DM2
1702090-02	EFGS08155 Side A - RUN 2	1	48	-	-	-		
1702090-02RE1	EFGS08155 Side A - RUN 2	1	48	-	-	-	Added 2/7/2017 by DM2	Added 2/7/2017 by DM2
1702090-03	EFGS08135 Side A - RUN 3	1	48	-	-	-		
1702090-04	EFGS08148 Side B - RUN 1	1	48	-	-	-		
1702090-05	EFGS07958 Side B - RUN 2	1	48	-	-	-		
1702090-05RE1	EFGS07958 Side B - RUN 2	1	48	-	-	-	Added 2/7/2017 by DM2	Added 2/7/2017 by DM2
1702090-06	EFGS08068 Side B - RUN 3	1	48	-	-	-		
1702091-01	EFGS08131 SIDE A - RUN 1	1	48	-	-	-		
1702091-02	EFGS08208 SIDE A - RUN 2	1	48	-	-	-		
1702091-03	EFGS08157 SIDE A - RUN 3	1	48	-	-	-		
1702091-04	EFGS07944 SIDE B - RUN 1	1	48	-	-	-		
1702091-05	EFGS08539 SIDE B - RUN 2	1	48	-	-	-		
1702091-06	EFGS07918 SIDE B - RUN 3	1	48	-	-	-		



PREPARATION BENCH SHEET

2600-3

2/7/17 Jm

F702254

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 2/7/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702254-BLK1	Blank	100	101					1X
F702254-BLK2	Blank	100	101					1X
F702254-BLK3	Blank	100	101					1X
F702254-BS1	LCS	50 <del>100</del>	50.5 <del>101</del>	1604715	100			1X
F702254-BSD1	LCS Dup	50 <del>100</del>	50.5 <del>101</del>	1604715	100			1X
F702254-DUP1	Duplicate 1702167-06	100	101					1X
F702254-MS1	Matrix Spike 1702167-06	100	101	1700688	125			1X
F702254-MS2	Matrix Spike 1702168-06	100	101	1700688	125			1X
F702254-MSD1	Matrix Spike Dup 1702167-06	100	101	1700688	125			1X
F702254-MSD2	Matrix Spike Dup 1702168-06	100	101	1700688	125			1X

Standard ID(s): Description:

Expiration:

1700306  
1700509  
1700309  
1700308  
1600934



PREPARATION BENCH SHEET

200.3  
2/7/17 DM

F702254

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 2/7/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702167-06	EB_Knife_012317_ABD_F00_QC	100	101	-	-	-		IX
1702167-07	EB_Knife_012517_ABD_F01_QC	100	101	-	-	-		IX
1702167-08	EB_Knife_012517_ABD_F02_QC	100	101	-	-	-		IX
1702167-09	EB_Knife_012517_ABD_F03_QC	100	101	-	-	-		IX
1702167-10	EB_Knife_012617_ABD_F04_QC	100	101	-	-	-		IX
1702167-11	EB_Knife_012617_ABD_F05_QC	100	101	-	-	-		IX
1702168-06	EB_Knife_012317_ABD_E00_QC	100	101	-	-	-		IX
1702168-07	EB_Knife_012417_ABD_E01_QC	100	101	-	-	-		IX
1702168-08	EB_Knife_012417_ABD_E02_QC	100	101	-	-	-		IX
1702168-09	EB_Knife_012817_ABD_E03_QC	100	101	-	-	-		IX
1702168-10	EB_Knife_012817_ABD_E04_QC	100	101	-	-	-		IX

## Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: DM Date: 2/2/17 Time Completed: 17:25

Work Orders: 1702049  
1702084, 1702087

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

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

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

BrCl LIMS ID: 1606945, 1700306

Pipette SN: MU32229

Cal. Date: 2/1/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702049-01A	300	3.00	Y			
1702049-02A	300	3.00	Y			
1702049-03A	300	3.00	Y			
1702049-04A	300	3.00	Y			
1702049-05A	300	3.00	Y			
1702049-06A	300	3.00	Y			
1702049-07A	300	3.00	Y			
1702049-08A	300	3.00	Y			
1702049-09A	300	3.00	Y			
1702049-10A	300	3.00	Y			
1702049-11A	300	3.00	Y			
1702049-12A	300	3.00	Y			
1702049-13A	300	3.00	Y			
1702049-14A	300	3.00	Y			
1702049-15A	300	3.00	Y			
1702049-16A	300	3.00	Y			
1702049-17A	300	3.00	Y			
1702084-01A	600	6.00	Y			
1702087-01A	300	3.00	Y			
1702087-02A	300	3.00	Y			
1702087-03A	300	3.00	Y			
1702087-04A	300	3.00	Y			
1702087-05A	300	3.00	Y			
1702087-06A	300	3.00	Y			
1702087-07A	300	3.00	Y			
1702087-08A	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: Used BrCl 1606945 for WO 1702049. 1700306 used for 1702084 and 1702087

Reviewed  
2/3/17 DM

PREPARATION BENCH SHEET

2600-3  
2/7/17 DM

F702230

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702230-BLK1	Blank	1	48					100x
F702230-BLK2	Blank	1	48					100x
F702230-BLK3	Blank	1	48					100x
F702230-BS1	LCS	1	48	1605712	200			500x
F702230-BSD1	LCS Dup	1	48	1605712	200			500x
F702230-DUP1	Duplicate 1702091.04	1	48					500x
F702230-MS1	Matrix Spike 1702091.04	1	48	1700687	50			500x
F702230-MS2	Matrix Spike 1702091.05	1	48	1700687	50			500x
F702230-MSD1	Matrix Spike Dup 1702091.04	1	48	1700687	50			500x
F702230-MSD2	Matrix Spike Dup 1702091.05	1	48	1700687	50			500x

<u>Standard ID(s):</u> 1605712	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 03-Apr-17 00:00	<u>Reagent ID(s):</u> 1700638 1700639	<u>Description:</u> 5% BrCl 70/30 Digestion Acid	<u>Expiration:</u> 28-May-17 00:00 29-Jul-17 00:00
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1700559  
1700309  
1700308  
1606934

Due Date: 2/9/2017

PREPARATION BENCH SHEET

200-3

2/7/17 DM

F702230

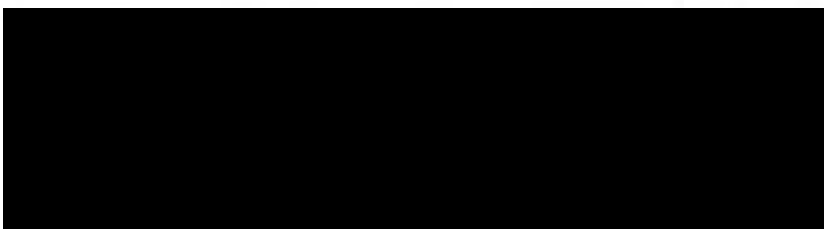
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	Analysis Comments B
1702090-01	EFGS08528 Side A - RUN 1	1	48	-	-	-	250X → 500X	100X → 100X
1702090-02	EFGS08155 Side A - RUN 2	1	48	-	-	-	500X → 500X	100X
1702090-03	EFGS08135 Side A - RUN 3	1	48	-	-	-	500X	100X
1702090-04	EFGS08148 Side B - RUN 1	1	48	-	-	-	500X	100X
1702090-05	EFGS07958 Side B - RUN 2	1	48	-	-	-	500X → 500X	100X
1702090-06	EFGS08068 Side B - RUN 3	1	48	-	-	-	500X	100X
1702091-01	EFGS08131 SIDE A - RUN 1	1	48	-	-	-	500X	100X
1702091-02	EFGS08208 SIDE A - RUN 2	1	48	-	-	-	500X	100X
1702091-03	EFGS08157 SIDE A - RUN 3	1	48	-	-	-	500X	100X
1702091-04	EFGS07944 SIDE B - RUN 1	1	48	-	-	-	500X	100X
1702091-05	EFGS08539 SIDE B - RUN 2	1	48	-	-	-	500X	100X
1702091-06	EFGS07918 SIDE B - RUN 3	1	48	-	-	-	500X	100X



Trap Digestions

Name: DMW Date: 2-3-17 Batch ID: F702230  
 Work Order(s): 1702090, 1702091 Analysis:  Total Hg  Other \_\_\_\_\_  
 Sample Matrix:  FSTM  KCl  PHg Plug  Other \_\_\_\_\_  
 Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)  
 start time: 16:00, start temp (°C): 51.0 (raw) 50.7 (w/ CF)  
 end time: 18:00, end temp (°C): 62.0 (raw) 61.7 (w/ CF) Timer?  Yes  No AMB  
 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)
F702230 - BLK1	40
F702230 - BLK2	40
F702230 - BLK3	40
F702230 - BSI	40
F702230 - BSD1	40
1702090 - 01A	40
1702090 - 01B	40
1702090 - 02A	40
1702090 - 02B	40
1702090 - 03A	40
1702090 - 03B	40
1702090 - 04A	40
1702090 - 04B	40
1702090 - 05A	40
1702090 - 05B	40
1702090 - 06A	40
1702090 - 06B	40
1702091 - 01A	40
1702091 - 01B	40
1702091 - 02A	40
1702091 - 02B	40
1702091 - 03A	40
1702091 - 03B	40
1702091 - 04A	40
1702091 - 04B	40
1702091 - 05A	40
1702091 - 05B	40
1702091 - 06A	40
1702091 - 06B	40

Spike ID: 1605712  
 Spike Amount (µL): 200  
 Spike Witness: DM 2/3/17  
 BrCl ID: 1700638  
 70/30: 1700639  
 Other: NA  
 Thermometer: 13698  
 Dispensers: 02K27494   
 04N73497   
 Other 15406623  
 Pipette ID: M411619  
 Cal. Date: 1-30-17  
 Vials and Jars lot# 00064557  
 Trap Material Lot#: 1606450  
 Loader Mass Verified:  Yes  No  
 Comments:  
 1702090-01A, 02A, 03A, 1702091-01A, 02A, 03A  
 SPIKED @ 50 µg.  
 PARTICULATE IN ALL 1702090 TRAPS  
 BEP SEEM OK.  
 ACCIDENTALLY ADDED 24 µL 70/30. DMW 2-3-17  
 24 µL BrCl ADDED @ 9:20 2-6-17 DMW  
 \*FINAL VOLUME = 48 mL.  
 DMW  
 2-6-17



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

Analyst: <u>DON MORAN</u>	Sequence(s) #: <u>7B07020, 7B07021</u>
Reviewer: <u>BC</u> <u>2/4/17</u>	Dataset ID(s): <u>THG26003-170207-2</u>
Date: <u>2/7/2017</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F702254, F702230</u>	<u>0</u>

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 ( $\leq 15\%$ )  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 7. The calibration curve included a minimum of 5 Standards   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 10. Do all calibration points pass acceptance criteria?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 11. Are qualifiers consistent with the data review flowcharts?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input checked="" type="checkbox"/> |
| Comments: <u>NONE</u>  |  |  |   |                                     |
| 13. Are the individual Preparation Blanks $< PQL$ or $< 2.2 \times MDL$ 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 $< 2.2 \times MDL$ 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)?                                   | <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 $< 2.2 \times MDL$ 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 $2.2 \times MDL$ for WI?  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                               | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                                | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	7B07020, 7B07021
Reviewer:	0 <i>[Signature]</i> 2/9/17	Dataset ID(s):	THG26003-170207-2
Date:	2/7/2017	WO (s) #:	VARIOUS
Batch #(s):	F702254, F702230		0

Analyst Initials *BC DM*      Reviewer Initials *BC*  
*BC 2/9/17*

- |  |  |  |   |
|--|--|--|---|
| 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 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 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 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 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 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\IDOCs

- |   |                     |                                  |   |
|---|---------------------|----------------------------------|---|
| 36. Date of analyst IDOC/CDOC: _____                | 12/15/2016, 1/18/16 | 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: _____                              | 12/19/16, 12/16/16  | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 12/19/16, 12/16/16  | 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

THg26003-170213-1

Analysis Datasheet for Total Mercury

Date of Analysis: February 13, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7B13017, 7B13016, 7B13015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	0	0.50 ng/L					
SEQ-CAL2	1	1.00 ng/L	133.63 units	133.63	129.68 units	129.68	102.3 %Rec
SEQ-CAL3	1	5.00 ng/L	596.80 units	119.36	592.85 units	118.57	93.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2385.39 units	119.27	2381.45 units	119.07	93.9 %Rec
SEQ-CAL5	1	40.00 ng/L	4698.52 units	117.46	4694.58 units	117.36	92.6 %Rec
SEQ-CAL6	1	0.50 ng/L	78.63 units	157.26	74.68 units	149.37	117.8 %Rec
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF**    **Corr. St Dev RF**    **Corr. RSD CF**    **Uncorr. Mean RF**  
 126.81            +/- 13.55            10.7% RSD            129.40

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.95 units	±0.44	0.03 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.053 ng/L	±0.069
BLK	2	3	12.075 ng/L	±18.743
BLK	3	3	6.325 ng/L	±8.130
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: DMW 2-15-17

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	2/13/2017 9:19:47	60789-1.RAW	9:19:47 AM	4.22			0.3	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/13/2017 9:23:55	60790-1.RAW	9:23:55 AM	4.18			0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/13/2017 9:28:04	60791-1.RAW	9:28:04 AM	3.44			-0.5	-0.004	-0.004	ng/L	
Hg2600-3	DM2	SAM	*SEQ-CAL1	1	2/13/2017 9:32:12	60792-1.RAW	9:32:12 AM	87.82		X	83.9	0.661	0.661	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/13/2017 9:36:21	60793-1.RAW	9:36:21 AM	133.63			129.7	1.023	1.023	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/13/2017 9:40:29	60794-1.RAW	9:40:29 AM	596.80			592.9	4.675	4.675	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/13/2017 9:44:37	60795-1.RAW	9:44:37 AM	2385.39			2381.4	18.780	18.780	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/13/2017 9:48:46	60796-1.RAW	9:48:46 AM	4698.52			4694.6	37.020	37.020	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/13/2017 9:52:54	60797-1.RAW	9:52:54 AM	622.91			619.0	4.881	4.881	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL6	1	2/13/2017 9:57:03	60798-1.RAW	9:57:03 AM	78.63			74.7	0.589	0.589	ng/L	
Hg2600-3	DM2	SAM	WS		2/13/2017 10:13:44	60799-1.RAW	10:13:44 AM	13.89		X	9.9	0.078	0.000	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK1	20	2/13/2017 10:17:52	60800-1.RAW	10:17:52 AM	10.61		1	6.7	0.053	1.052	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK2	20	2/13/2017 10:22:01	60801-1.RAW	10:22:01 AM	10.19		1	6.2	0.049	0.985	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK3	20	2/13/2017 10:26:09	60802-1.RAW	10:26:09 AM	11.07		1	7.1	0.056	1.123	ng/L	
Hg2600-3	DM2	SAM	F702256-BLK4	20	2/13/2017 10:30:18	60803-1.RAW	10:30:18 AM	9.52		1	5.6	-0.009	-0.173	ng/L	
Hg2600-3	DM2	SAM	F702256-BLK5	20	2/13/2017 10:34:26	60804-1.RAW	10:34:26 AM	8.52		1	4.6	-0.017	-0.332	ng/L	
Hg2600-3	DM2	SAM	F702256-BS1	20	2/13/2017 10:38:35	60805-1.RAW	10:38:35 AM	607.56		1	603.6	4.707	94.146	ng/L	
Hg2600-3	DM2	SAM	F702256-BSD1	20	2/13/2017 10:42:43	60806-1.RAW	10:42:43 AM	613.28		1	609.3	4.752	95.048	ng/L	
Hg2600-3	DM2	SAM	F702256-BS2	400	2/13/2017 10:46:51	60807-1.RAW	10:46:51 AM	654.92		1	651.0	5.131	2052.301	ng/L	
Hg2600-3	DM2	SAM	1702086-01	100	2/13/2017 10:51:00	60808-1.RAW	10:51:00 AM	2210.02		1	2206.1	17.386	1738.604	ng/L	
Hg2600-3	DM2	SAM	1702166-01	100	2/13/2017 10:55:08	60809-1.RAW	10:55:08 AM	3204.98		1	3201.0	25.232	2523.207	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/13/2017 10:59:17	60810-1.RAW	10:59:17 AM	625.36			621.4	4.900	4.900	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/13/2017 11:03:25	60811-1.RAW	11:03:25 AM	7.37			3.4	0.027	0.027	ng/L	
Hg2600-3	DM2	SAM	1702166-02	100	2/13/2017 11:07:34	60812-1.RAW	11:07:34 AM	2225.02		1	2221.1	17.504	1750.428	ng/L	
Hg2600-3	DM2	SAM	1702166-03	100	2/13/2017 11:11:42	60813-1.RAW	11:11:42 AM	15255.53		1	15251.6	120.260	12025.973	ng/L	
Hg2600-3	DM2	SAM	1702166-04	100	2/13/2017 11:15:50	60814-1.RAW	11:15:50 AM	5595.18		1	5595.2	44.112	4411.213	ng/L	
Hg2600-3	DM2	SAM	1702166-05	100	2/13/2017 11:19:59	60815-1.RAW	11:19:59 AM	2950.37		1	2946.4	23.224	2322.426	ng/L	
Hg2600-3	DM2	SAM	1702167-01	100	2/13/2017 11:24:07	60816-1.RAW	11:24:07 AM	177.56		1	173.6	1.359	135.854	ng/L	
Hg2600-3	DM2	SAM	1702167-02	100	2/13/2017 11:28:16	60817-1.RAW	11:28:16 AM	788.68		1	784.7	6.178	617.767	ng/L	
Hg2600-3	DM2	SAM	1702167-03	100	2/13/2017 11:32:24	60818-1.RAW	11:32:24 AM	829.03		1	825.1	6.496	649.588	ng/L	
Hg2600-3	DM2	SAM	1702167-04	100	2/13/2017 11:36:32	60819-1.RAW	11:36:32 AM	838.08		1	834.1	6.567	656.724	ng/L	
Hg2600-3	DM2	SAM	1702167-05	100	2/13/2017 11:40:41	60820-1.RAW	11:40:41 AM	715.63		1	711.7	5.602	560.164	ng/L	
Hg2600-3	DM2	SAM	1702168-02	100	2/13/2017 11:44:49	60821-1.RAW	11:44:49 AM	4143.04		1	4139.1	32.629	3262.935	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/13/2017 11:48:58	60822-1.RAW	11:48:58 AM	642.76			638.8	5.038	5.038	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/13/2017 11:53:06	60823-1.RAW	11:53:06 AM	15.48			11.5	0.091	0.091	ng/L	
Hg2600-3	DM2	SAM	1702168-03	100	2/13/2017 11:57:15	60824-1.RAW	11:57:15 AM	5973.33		1	5969.4	47.063	4706.254	ng/L	
Hg2600-3	DM2	SAM	1702168-04	100	2/13/2017 12:01:23	60825-1.RAW	12:01:23 PM	9277.47		1	9273.5	73.118	7311.817	ng/L	
Hg2600-3	DM2	SAM	1702168-05	100	2/13/2017 12:05:31	60826-1.RAW	12:05:31 PM	39.09		1	35.1	0.267	26.662	ng/L	
Hg2600-3	DM2	SAM	1702168-03RE1	400	2/13/2017 12:09:40	60827-1.RAW	12:09:40 PM	3888.52		1	3884.6	30.630	12252.052	ng/L	
Hg2600-3	DM2	SAM	1702168-04RE1	400	2/13/2017 12:13:48	60828-1.RAW	12:13:48 PM	1456.06		1	1452.1	11.448	4579.354	ng/L	
Hg2600-3	DM2	SAM	1702168-05RE1	100	2/13/2017 12:17:57	60829-1.RAW	12:17:57 PM	3066.76		1	3062.8	24.142	2414.210	ng/L	
Hg2600-3	DM2	SAM	F702256-DUP1	400	2/13/2017 12:22:05	60830-1.RAW	12:22:05 PM	1475.82		1	1471.9	11.604	4641.676	ng/L	
Hg2600-3	DM2	SAM	F702256-MS1	1000	2/13/2017 12:26:13	60831-1.RAW	12:26:13 PM	2263.05		1	2259.1	17.814	17813.700	ng/L	
Hg2600-3	DM2	SAM	F702256-MSD1	1000	2/13/2017 12:30:22	60832-1.RAW	12:30:22 PM	21.67		1	17.7	0.139	138.728	ng/L	
Hg2600-3	DM2	SAM	F702256-MS2	400	2/13/2017 12:34:30	60833-1.RAW	12:34:30 PM	1427.79		1	1423.8	11.225	4490.174	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/13/2017 12:38:39	60834-1.RAW	12:38:39 PM	671.40			667.5	5.263	5.263	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/13/2017 12:42:47	60835-1.RAW	12:42:47 PM	13.18			9.2	0.073	0.073	ng/L	
Hg2600-3	DM2	SAM	F702256-MSD2	400	2/13/2017 12:46:56	60836-1.RAW	12:46:56 PM	1455.72		1	1451.8	11.446	4578.283	ng/L	
Hg2600-3	DM2	SAM	1702168-03RE1	400	2/13/2017 12:51:04	60837-1.RAW	12:51:04 PM	1535.06		1	1531.1	12.071	4828.551	ng/L	
Hg2600-3	DM2	SAM	1702168-04RE1	400	2/13/2017 12:55:12	60838-1.RAW	12:55:12 PM	2379.78		1	2375.8	18.733	7493.053	ng/L	
Hg2600-3	DM2	SAM	1702168-05RE1	20	2/13/2017 12:59:21	60839-1.RAW	12:59:21 PM	60.11		1	56.2	0.390	7.805	ng/L	
Hg2600-3	DM2	SAM	F702256-MS3	1000	2/13/2017 13:03:29	60840-1.RAW	1:03:29 PM	1135.48		1	1131.5	8.922	8921.929	ng/L	
Hg2600-3	DM2	SAM	F702256-MSD3	1000	2/13/2017 13:07:38	60841-1.RAW	1:07:38 PM	1072.56		1	1068.6	8.426	8425.775	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK1	10	2/13/2017 13:11:46	60842-1.RAW	1:11:46 PM	17.26		2	13.3	0.105	1.050	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK2	10	2/13/2017 13:15:55	60843-1.RAW	1:15:55 PM	22.46		2	18.5	0.146	1.460	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK3	10	2/13/2017 13:20:03	60844-1.RAW	1:20:03 PM	431.50		2	427.6	3.372	33.716	ng/L	
Hg2600-3	DM2	SAM	F702256-BS1	10	2/13/2017 13:24:11	60845-1.RAW	1:24:11 PM	1947.58		2	1943.6	14.120	141.195	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	CAL	SEQ-CCV4	1	2/13/2017 13:28:20	60846-1.RAW	1:28:20 PM	664.30			660.3	5.207	5.207	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/13/2017 13:32:28	60847-1.RAW	1:32:28 PM	16.45			12.5	0.099	0.099	ng/L	
Hg2600-3	DM2	SAM	F702265-BSD1	10	2/13/2017 13:36:37	60848-1.RAW	1:36:37 PM	1947.94	2		1944.0	14.122	14.122	ng/L	
Hg2600-3	DM2	SAM	1701569-01 X	5000	2/13/2017 13:40:45	60849-1.RAW	1:40:45 PM	19.38	2		15.4	0.119	596.296	ng/L	
Hg2600-3	DM2	SAM	1701569-02 X	5000	2/13/2017 13:44:53	60850-1.RAW	1:44:53 PM	15.26	2		11.3	0.087	433.851	ng/L	
Hg2600-3	DM2	SAM	1701569-03 X	5000	2/13/2017 13:48:02	60851-1.RAW	1:49:02 PM	12.57	2		8.6	0.066	327.924	ng/L	
Hg2600-3	DM2	SAM	1701569-04 X	5000	2/13/2017 13:53:10	60852-1.RAW	1:53:10 PM	13.01	2		9.1	0.069	345.510	ng/L	
Hg2600-3	DM2	SAM	1701569-05 X	5000	2/13/2017 13:57:19	60853-1.RAW	1:57:19 PM	12.64	2		8.7	0.066	330.848	ng/L	
Hg2600-3	DM2	SAM	1701569-06 X	5000	2/13/2017 14:01:27	60854-1.RAW	2:01:27 PM	13.76	2		9.8	0.075	375.038	ng/L	
Hg2600-3	DM2	SAM	1701569-07 X	5000	2/13/2017 14:05:36	60855-1.RAW	2:05:36 PM	12.74	2		8.8	0.067	334.797	ng/L	
Hg2600-3	DM2	SAM	1701569-08 X	5000	2/13/2017 14:09:44	60856-1.RAW	2:09:44 PM	12.52034743	2		8.6	0.065	326.008	ng/L	
Hg2600-3	DM2	SAM	1701569-09 X	100000	2/13/2017 14:13:52	60857-1.RAW	2:13:52 PM	29.05	2		25.1	0.198	19784.704	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/13/2017 14:18:01	60858-1.RAW	2:18:01 PM	631.66			627.7	4.950	4.950	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/13/2017 14:22:09	60859-1.RAW	2:22:09 PM	14.99			11.0	0.087	0.087	ng/L	
Hg2600-3	DM2	SAM	1701569-10	250000	2/13/2017 14:26:18	60860-1.RAW	2:26:18 PM	2005.43	2		2001.5	15.783	3945793.778	ng/L	
Hg2600-3	DM2	SAM	1701569-11	250000	2/13/2017 14:30:26	60861-1.RAW	2:30:26 PM	221.33	2		217.4	1.714	428549.145	ng/L	
Hg2600-3	DM2	SAM	1701569-01RE1 X	100	2/13/2017 14:34:34	60862-1.RAW	2:34:34 PM	45.11	2		41.2	0.204	20.387	ng/L	
Hg2600-3	DM2	SAM	1701569-02RE1 X	100	2/13/2017 14:38:43	60863-1.RAW	2:38:43 PM	25.49	2		21.5	0.049	4.913	ng/L	
Hg2600-3	DM2	SAM	1701569-03RE1 X	100	2/13/2017 14:42:51	60864-1.RAW	2:42:51 PM	18.56	2		14.6	-0.005	-0.548	ng/L	
Hg2600-3	DM2	SAM	1701569-04RE1 X	100	2/13/2017 14:47:00	60865-1.RAW	2:47:00 PM	17.97	2		14.0	-0.010	-1.017	ng/L	
Hg2600-3	DM2	SAM	1701569-05RE1 X	100	2/13/2017 14:51:08	60866-1.RAW	2:51:08 PM	30.13	2		26.2	0.086	8.571	ng/L	
Hg2600-3	DM2	SAM	1701569-06RE1	100	2/13/2017 14:55:17	60867-1.RAW	2:55:17 PM	137.59	2		133.6	0.933	93.316	ng/L	
Hg2600-3	DM2	SAM	1701569-07RE1 X	100	2/13/2017 14:59:25	60868-1.RAW	2:59:25 PM	12.77	2		8.8	-0.051	-5.113	ng/L	
Hg2600-3	DM2	SAM	1701569-08RE1 X	100	2/13/2017 15:03:33	60869-1.RAW	3:03:33 PM	28.59	2		24.6	0.074	7.357	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/13/2017 15:07:42	60870-1.RAW	3:07:42 PM	644.60			640.7	5.052	5.052	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/13/2017 15:11:50	60871-1.RAW	3:11:50 PM	17.91			14.0	0.110	0.110	ng/L	
Hg2600-3	DM2	SAM	1701569-09RE1	2500	2/13/2017 15:15:59	60872-1.RAW	3:15:59 PM	796.53	2		792.6	6.245	15613.280	ng/L	
Hg2600-3	DM2	SAM	1701569-01RE2	10	2/13/2017 15:20:07	60873-1.RAW	3:20:07 PM	367.10	2		363.2	1.656	16.562	ng/L	
Hg2600-3	DM2	SAM	1701569-02RE2	10	2/13/2017 15:24:16	60874-1.RAW	3:24:16 PM	160.57	2		156.6	0.028	0.276	ng/L	
Hg2600-3	DM2	SAM	1701569-03RE2	10	2/13/2017 15:28:24	60875-1.RAW	3:28:24 PM	84.31	2		80.4	-0.574	-5.738	ng/L	
Hg2600-3	DM2	SAM	1701569-04RE2	10	2/13/2017 15:32:33	60876-1.RAW	3:32:33 PM	64.97	2		61.0	-0.726	-7.263	ng/L	
Hg2600-3	DM2	SAM	1701569-05RE2	10	2/13/2017 15:36:42	60877-1.RAW	3:36:42 PM	232.18	2		228.2	0.592	5.923	ng/L	
Hg2600-3	DM2	SAM	1701569-07RE2	10	2/13/2017 15:40:50	60878-1.RAW	3:40:50 PM	17.37	2		13.4	-1.102	-11.017	ng/L	
Hg2600-3	DM2	SAM	1701569-08RE2	10	2/13/2017 15:44:59	60879-1.RAW	3:44:59 PM	171.10	2		167.2	0.111	1.106	ng/L	
Hg2600-3	DM2	SAM	F702265-DUP1	10	2/13/2017 15:49:07	60880-1.RAW	3:49:07 PM	214.18	2		210.2	0.450	4.503	ng/L	
Hg2600-3	DM2	SAM	F702265-MS1	10	2/13/2017 15:53:16	60881-1.RAW	3:53:16 PM	1570.50	2		1566.6	11.146	111.460	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/13/2017 15:57:24	60882-1.RAW	3:57:24 PM	656.31			652.4	5.144	5.144	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/13/2017 16:01:32	60883-1.RAW	4:01:32 PM	13.42			9.5	0.075	0.075	ng/L	
Hg2600-3	DM2	SAM	F702265-MSD1	10	2/13/2017 16:05:41	60884-1.RAW	4:05:41 PM	1590.40	2		1586.5	11.303	113.029	ng/L	
Hg2600-3	DM2	SAM	F702265-MS2	10	2/13/2017 16:09:49	60885-1.RAW	4:09:49 PM	857.26	2		853.3	5.522	55.215	ng/L	
Hg2600-3	DM2	SAM	F702265-MSD2	10	2/13/2017 16:13:58	60886-1.RAW	4:13:58 PM	858.83	2		854.9	5.534	55.339	ng/L	
Hg2600-3	DM2	BLK	F702283-BLK1	10	2/13/2017 16:18:06	60887-1.RAW	4:18:06 PM	26.10	3		22.2	0.175	1.747	ng/L	
Hg2600-3	DM2	BLK	F702283-BLK2	10	2/13/2017 16:22:15	60888-1.RAW	4:22:15 PM	23.18	3		19.2	0.152	1.517	ng/L	
Hg2600-3	DM2	BLK	F702283-BLK3	10	2/13/2017 16:26:23	60889-1.RAW	4:26:23 PM	203.19	3		199.2	1.571	15.712	ng/L	
Hg2600-3	DM2	SAM	F702283-BS1	10	2/13/2017 16:30:32	60890-1.RAW	4:30:32 PM	1940.63	3		1936.7	14.640	146.397	ng/L	
Hg2600-3	DM2	SAM	F702283-BSD1	10	2/13/2017 16:34:40	60891-1.RAW	4:34:40 PM	1938.97	3		1935.0	14.627	146.266	ng/L	
Hg2600-3	DM2	SAM	1701569-09	2500	2/13/2017 16:38:48	60892-1.RAW	4:38:48 PM	1254.56	3		1250.6	9.859	24648.677	ng/L	
Hg2600-3	DM2	SAM	1701569-10	250000	2/13/2017 16:42:57	60893-1.RAW	4:42:57 PM	349.11	3		345.2	2.722	680466.998	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/13/2017 16:47:05	60894-1.RAW	4:47:05 PM	649.78			645.8	5.093	5.093	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/13/2017 16:51:14	60895-1.RAW	4:51:14 PM	18.47			14.5	0.115	0.115	ng/L	
Hg2600-3	DM2	SAM	F702283-BLK4	10	2/13/2017 16:55:22	60896-1.RAW	4:55:22 PM	203.80	3 X		199.9	1.576	15.760	ng/L	
Hg2600-3	DM2	SAM	1701569-11	250000	2/13/2017 16:59:31	60897-1.RAW	4:59:31 PM	168.60	3		164.7	1.298	324605.307	ng/L	
Hg2600-3	DM2	SAM	F702283-DUP1	2500	2/13/2017 17:03:39	60898-1.RAW	5:03:39 PM	1269.44	3		1265.5	9.977	24942.190	ng/L	
Hg2600-3	DM2	SAM	F702283-MS1	5000	2/13/2017 17:07:48	60899-1.RAW	5:07:48 PM	3036.89	3		3032.9	23.916	119578.865	ng/L	
Hg2600-3	DM2	SAM	F702283-MSD1	5000	2/13/2017 17:11:56	60900-1.RAW	5:11:56 PM	2973.00	3		2969.1	23.412	117059.903	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	2/13/2017 17:16:04	60901-1.RAW	5:16:04 PM	657.14			653.2	5.151	5.151	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	2/13/2017 17:20:13	60902-1.RAW	5:20:13 PM	19.85			15.9	0.125	0.125	ng/L	

TotalMercury  
EPA1631

Operat: DM BlankS: 3.9458 Calib Eqn:  
Workst: THq2600 CalibFa: 121.17 Status:  
Method ### R: 1 R%:  
Descrpt: THq26003-170213-1

Conc = (Area-3.945 Run Date: 2/13/2017  
QC Warmups:6/OC E Run Time: 10:09:35  
0.9999


Blank SD: 0.44055864  
Blank RSD%: 11.16517631  
CF SD: 5.718254532  
CF RSD%: 4.719110285

SampleID	Location	Run	Dilut	Blank	Conc (ppb)	MR%	Final Conc	Rec%	QA	Raw Data	RunEnd	Peak (Raw)	Control (ppb)	Flags	RunCount
Clean				0.00	4.83					60784-1.RAW	9:00:22	584.84	Clean	OK	1
clean										60785-1.RAW	9:03:13	0.00	Clean	NP	1
ws				3.95	0.02					60786-1.RAW	9:07:22	6.48	Sample	OK	1
ws				3.95	0.02					60787-1.RAW	9:11:30	6.62	Sample	OK	1
ws				3.95	0.02					60788-1.RAW	9:15:39	6.65	Sample	OK	1
SEQ-HBL1	A1		1	0.00	0.03					60789-1.RAW	9:19:47	4.22	Sample	OK	1
SEQ-HBL2	A2		1	0.00	0.03					60790-1.RAW	9:23:55	4.18	Sample	OK	1
SEQ-HBL3	A3		1	0.00	0.03					60791-1.RAW	9:28:04	3.44	Sample	OK	1
*SEQ-CAL1	A4		1	3.95	0.69		125.41			60792-1.RAW	9:32:12	87.82	Sample	OK	1
SEQ-CAL2	A5		1	3.95	1.07		107.02			60793-1.RAW	9:36:21	133.63	Sample	OK	1
SEQ-CAL3	A6		1	3.95	4.89		97.85			60794-1.RAW	9:40:29	596.80	Sample	OK	1
SEQ-CAL4	A7		1	3.95	19.65		98.27			60795-1.RAW	9:44:37	2385.39	Sample	OK	1
SEQ-CAL5	A8		1	3.95	38.74		96.88			60796-1.RAW	9:48:46	4698.52	Sample	FB	1
SEQ-CV1	A9		1	3.95	5.11		102.16			60797-1.RAW	9:52:54	622.91	Sample	OK	1
SEQ-CAL6	A10		1	3.95	0.82					60798-1.RAW	9:57:03	78.63	Sample	OK	1
WS				3.95	0.06					60799-1.RAW	10:13:44	13.89	Sample	OK	1
F702256-BLK1	A11		20	3.95	1.10					60800-1.RAW	10:17:52	10.81	Sample	OK	1
F702256-BLK2	A12		20	3.95	1.03					60801-1.RAW	10:22:01	10.19	Sample	OK	1
F702256-BLK3	B1		20	3.95	1.18					60802-1.RAW	10:26:09	11.07	Sample	OK	1
*F702256-BLK4	B2		20	3.95	0.92					60803-1.RAW	10:30:18	9.52	Sample	OK	1
*F702256-BLK5	B3		20	3.95	0.75					60804-1.RAW	10:34:26	8.52	Sample	OK	1
F702256-BS1	B4		20	3.95	99.63					60805-1.RAW	10:38:35	607.56	Sample	OK	1
F702256-BSO1	B5		20	3.95	100.57					60806-1.RAW	10:42:43	613.28	Sample	OK	1
F702256-BS2	B6		400	3.95	2148.91					60807-1.RAW	10:46:51	654.32	Sample	OK	1
1702086-01	B7		100	3.95	1820.81					60808-1.RAW	10:51:00	2210.02	Sample	OK	1
1702166-01	B8		100	3.95	2641.72					60809-1.RAW	10:55:08	3204.98	Sample	OK	1
SEQ-CCV1	B9		1	3.95	5.13		102.57			60810-1.RAW	10:59:17	625.36	Sample	OK	1
SEQ-CCB1	B10		1	3.95	0.03		0.00			60811-1.RAW	11:03:25	7.37	Sample	OK	1
1702166-02	B11		100	3.95	1832.99					60812-1.RAW	11:07:34	2225.02	Sample	OK	1
1702166-03	B12		100	3.95	12586.69					60813-1.RAW	11:11:42	15255.53	Sample	FB	1
1702166-04	C1		100	3.95	4617.59					60814-1.RAW	11:15:50	5599.18	Sample	OK	1
1702166-05	C2		100	3.95	2431.60					60815-1.RAW	11:19:59	2950.37	Sample	OK	1
1702167-01	C3		100	3.95	143.28					60816-1.RAW	11:24:07	177.56	Sample	OK	1
1702167-02	C4		100	3.95	647.62					60817-1.RAW	11:28:16	788.68	Sample	OK	1
1702167-03	C5		100	3.95	880.92					60818-1.RAW	11:32:24	829.03	Sample	OK	1
1702167-04	C6		100	3.95	688.39					60819-1.RAW	11:36:32	838.08	Sample	OK	1
1702167-05	C7		100	3.95	587.33					60820-1.RAW	11:40:41	715.63	Sample	OK	1
1702168-02	C8		100	3.95	3415.88					60821-1.RAW	11:44:49	4143.04	Sample	OK	1
SEQ-CCV2	C9		1	3.95	5.27		105.44			60822-1.RAW	11:48:58	642.76	Sample	OK	1
SEQ-CCB2	C10		1	3.95	0.10		0.00			60823-1.RAW	11:53:06	15.48	Sample	OK	1
1702168-03	C11		100	3.95	4926.36					60824-1.RAW	11:57:15	5973.33	Sample	OK	1
1702168-04	C12		100	3.95	7853.17					60825-1.RAW	12:01:23	9277.47	Sample	FB	1
1702168-05	D1		100	3.95	29.00					60826-1.RAW	12:05:31	39.09	Sample	OK	1
1702166-03RE1	D2		400	3.95	12823.29					60827-1.RAW	12:09:40	3888.52	Sample	FB	1
1702166-04RE1	D3		400	3.95	4793.55					60828-1.RAW	12:13:48	1456.06	Sample	OK	1
1702166-05RE1	D4		100	3.95	2527.66					60829-1.RAW	12:17:57	3066.76	Sample	OK	1
F702256-DUP1	D5		400	3.95	4858.78					60830-1.RAW	12:22:05	1475.82	Sample	OK	1
F702258-MS1	D6		1000	3.95	18643.75		383.63			60831-1.RAW	12:26:13	2263.05	Sample	OK	1
F702256-MSD1	D7		1000	3.95	146.29					60832-1.RAW	12:30:22	21.67	Sample	OK	1
F702256-MS2	D8		400	3.95	4700.22		3169.70			60833-1.RAW	12:34:30	1427.79	Sample	OK	1
SEQ-CCV3	D9		1	3.95	5.51		110.17			60834-1.RAW	12:38:39	671.40	Sample	OK	1
SEQ-CCB3	D10		1	3.95	0.08		0.00			60835-1.RAW	12:42:47	13.18	Sample	OK	1
F702256-MSD2	D11		400	3.95	4792.43					60836-1.RAW	12:46:56	1455.72	Sample	OK	1
1702168-03RE1	D12		400	3.95	5054.35					60837-1.RAW	12:51:04	1535.06	Sample	OK	1
1702168-04RE1	A1		400	3.95	7842.84					60838-1.RAW	12:55:12	2379.78	Sample	OK	1
1702168-05RE1	A2		20	3.95	9.27					60839-1.RAW	12:59:21	60.11	Sample	OK	1
F702256-MS3	A3		1000	3.95	9338.21		76100.96			60840-1.RAW	13:03:29	1135.48	Sample	OK	1
F702256-MSD3	A4		1000	3.95	8818.96					60841-1.RAW	13:07:38	1072.56	Sample	OK	1
F702265-BLK1	A5		10	3.95	1.10					60842-1.RAW	13:11:46	17.26	Sample	OK	1
F702265-BLK2	A6		10	3.95	1.53					60843-1.RAW	13:15:55	22.48	Sample	OK	1
F702265-BLK3	A7		10	3.95	35.29					60844-1.RAW	13:20:03	431.50	Sample	OK	1
F702265-BS1	A8		10	3.95	160.40					60845-1.RAW	13:24:11	1947.58	Sample	OK	1
SEQ-CCV4	A9		1	3.95	5.45		108.99			60846-1.RAW	13:28:20	664.30	Sample	OK	1
SEQ-CCB4	A10		1	3.95	0.10		0.00			60847-1.RAW	13:32:28	16.45	Sample	OK	1
F702265-BSO1	A11		10	3.95	160.43					60848-1.RAW	13:36:37	1947.94	Sample	OK	1
1701569-01	A12		5000	3.95	636.88					60849-1.RAW	13:40:45	19.38	Sample	OK	1
1701569-02	B1		5000	3.95	466.68					60850-1.RAW	13:44:53	15.26	Sample	OK	1
1701569-03	B2		5000	3.95	355.82					60851-1.RAW	13:49:02	12.57	Sample	OK	1
1701569-04	B3		5000	3.95	374.22					60852-1.RAW	13:53:10	13.01	Sample	OK	1


1701569-05	B4	5000	3.95	358.88		60853-1.RAW	13:57:19	12.64	Sample	OK	1
1701569-06	B5	5000	3.95	405.13		60854-1.RAW	14:01:27	13.76	Sample	OK	1
1701569-07	B6	5000	3.95	363.01		60855-1.RAW	14:05:36	12.74	Sample	OK	1
1701569-08	B7	5000	3.95	353.82		60856-1.RAW	14:09:44	12.52	Sample	OK	1
1701569-09	B8	100000	3.95	20718.01		60857-1.RAW	14:13:52	29.05	Sample	OK	1
SEQ-CCV5	B9	1	3.95	5.18	103.61	60858-1.RAW	14:18:01	631.66	Sample	OK	1
SEQ-CCB5	B10	1	3.95	0.09	0.00	60859-1.RAW	14:22:09	14.99	Sample	OK	1
1701569-10	B11	250000	3.95	4129420.98		60860-1.RAW	14:26:18	2005.43	Sample	OK	1
1701569-11	B12	250000	3.95	448504.00		60861-1.RAW	14:30:26	221.33	Sample	OK	1
1701569-01RE1	C1	100	3.95	33.97		60862-1.RAW	14:34:34	45.11	Sample	OK	1
1701569-02RE1	C2	100	3.95	17.79		60863-1.RAW	14:38:43	25.49	Sample	OK	1
1701569-03RE1	C3	100	3.95	12.06		60864-1.RAW	14:42:51	18.56	Sample	OK	1
1701569-04RE1	C4	100	3.95	11.57		60865-1.RAW	14:47:00	17.97	Sample	OK	1
1701569-05RE1	C5	100	3.95	21.61		60866-1.RAW	14:51:08	30.13	Sample	OK	1
1701569-06RE1	C6	100	3.95	110.30		60867-1.RAW	14:55:17	137.59	Sample	OK	1
1701569-07RE1	C7	100	3.95	7.29		60868-1.RAW	14:59:25	12.77	Sample	OK	1
1701569-08RE1	C8	100	3.95	20.34		60869-1.RAW	15:03:33	28.59	Sample	OK	1
SEQ-CCV6	C9	1	3.95	5.29	105.74	60870-1.RAW	15:07:42	644.60	Sample	OK	1
SEQ-CCB6	C10	1	3.95	0.12	0.00	60871-1.RAW	15:11:50	17.91	Sample	OK	1
1701569-09RE1	C11	2500	3.95	16352.47		60872-1.RAW	15:15:59	796.53	Sample	OK	1
1701569-01RE2	C12	10	3.95	29.97		60873-1.RAW	15:20:07	367.10	Sample	OK	1
1701569-02RE2	D1	10	3.95	12.93		60874-1.RAW	15:24:16	160.57	Sample	OK	1
1701569-03RE2	D2	10	3.95	6.63		60875-1.RAW	15:28:24	84.31	Sample	OK	1
1701569-04RE2	D3	10	3.95	5.04		60876-1.RAW	15:32:33	64.97	Sample	OK	1
1701569-05RE2	D4	10	3.95	18.84		60877-1.RAW	15:36:42	232.18	Sample	OK	1
1701569-07RE2	D5	10	3.95	1.11		60878-1.RAW	15:40:50	17.37	Sample	OK	1
1701569-08RE2	D6	10	3.95	13.79		60879-1.RAW	15:44:59	171.10	Sample	OK	1
F702265-DUP1	D7	10	3.95	17.35		60880-1.RAW	15:49:07	214.18	Sample	OK	1
F702265-MS1	D8	10	3.95	129.28	704.56	60881-1.RAW	15:53:16	1570.50	Sample	OK	1
SEQ-CCV7	D9	1	3.95	5.38	107.68	60882-1.RAW	15:57:24	656.31	Sample	OK	1
SEQ-CCB7	D10	1	3.95	0.08	0.00	60883-1.RAW	16:01:32	13.42	Sample	OK	1
F702265-MSD1	D11	10	3.95	130.93		60884-1.RAW	16:05:41	1590.40	Sample	OK	1
F702265-MS2	D12	10	3.95	70.42	52.98	60885-1.RAW	16:09:49	857.26	Sample	OK	1
F702265-MSD2	A1	10	3.95	70.55		60886-1.RAW	16:13:58	858.83	Sample	OK	1
F702283-BLK1	A2	10	3.95	1.83		60887-1.RAW	16:18:06	26.10	Sample	OK	1
F702283-BLK2	A3	10	3.95	1.59		60888-1.RAW	16:22:15	23.18	Sample	OK	1
F702283-BLK3	A4	10	3.95	16.44		60889-1.RAW	16:26:23	203.19	Sample	OK	1
F702283-BS1	A5	10	3.95	159.83		60890-1.RAW	16:30:32	1940.53	Sample	OK	1
F702283-BSD1	A6	10	3.95	159.69		60891-1.RAW	16:34:40	1938.97	Sample	OK	1
1701569-09	A7	2500	3.95	25802.30		60892-1.RAW	16:38:48	1254.56	Sample	OK	1
1701569-10	A8	250000	3.95	712138.64		60893-1.RAW	16:42:57	349.11	Sample	OK	1
SEQ-CCV8	A9	1	3.95	5.33	105.60	60894-1.RAW	16:47:05	649.78	Sample	OK	1
SEQ-CCB8	A10	1	3.95	0.12	0.00	60895-1.RAW	16:51:14	18.47	Sample	OK	1
*F702283-BLK4	A11	10	3.95	16.49		60896-1.RAW	16:55:22	203.80	Sample	OK	1
1701569-11	A12	250000	3.95	339717.19		60897-1.RAW	16:59:31	168.60	Sample	OK	1
F702283-DUP1	B1	2500	3.95	26109.48		60898-1.RAW	17:03:39	1269.44	Sample	OK	1
F702283-MS1	B2	5000	3.95	125150.00	479.31	60899-1.RAW	17:07:48	3036.89	Sample	OK	1
F702283-MSD1	B3	5000	3.95	122513.82		60900-1.RAW	17:11:56	2873.00	Sample	OK	1
SEQ-CCV9	B4	1	3.95	5.39	107.81	60901-1.RAW	17:16:04	657.14	Sample	OK	1
SEQ-CCB9	B5	1	3.95	0.13	0.00	60902-1.RAW	17:20:13	19.85	Sample	OK	1

**Failing Data Report - 7B13016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702166-03	Hg-CVAFS-T-7030	838	3.49				ng/g						FAIL-OVER	PASS	E
1702166-04	Hg-CVAFS-T-7030	313	3.55				ng/g						FAIL-OVER	PASS	E
1702168-03	Hg-CVAFS-T-7030	361	3.84				ng/g						FAIL-OVER	PASS	E
1702168-04	Hg-CVAFS-T-7030	495	3.39				ng/g						FAIL-OVER	PASS	E
F702256-MS1	Hg-CVAFS-T-7030	1267	35.6		325.2	356.39	ng/g	264	71.00	125.00			PASS-OVER	FAIL-MS	QM 07
F702256-MSD1	Hg-CVAFS-T-7030	9.841	35.5	1267	325.2	355.38	ng/g	-88.7	71.00	125.00	402	24.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM 07, QR 07


  
 Analyst Reviewed By \_\_\_\_\_

2/13/17
   
 Date

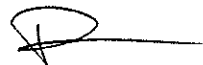

  
 Peer Reviewed By \_\_\_\_\_

2-15-17
   
 Date

**Failing Data Report - 7B13017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
7B13017-CAL1	Hg-CVAFS-S-SSE-F1	0.66				0.50100	ng/L	132					PASS-OVER	FAIL-CAL	Re-Analyzed
F702265-BLK3	Hg-CVAFS-S-SSE-F1	10.54	3.12				ng/g						PASS-OVER	FAIL-BLK	QB-10
F702265-DUP1	Hg-CVAFS-S-SSE-F1	1.49	3.31	5.63	5.63		ng/g				116	25.00	PASS-OVER	FAIL-DUP	QR-07

Dan Moxem      2/13/17  
 Analyst Reviewed By      Date

  
 Peer Reviewed By      2-15-17  
 Date



**Failing Data Report - 7B13015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
7B13015-CAL1	Hg-CVAFS-S-SSE-F2	0.66				0.50100	ng/L	132					PASS-OVER	FAIL-CAL	Re-Analyzed
F702283-BLK3	Hg-CVAFS-S-SSE-F2	4.91	3.12				ng/g						PASS-OVER	FAIL-BLK	QB-10
F702283-BLK4	Hg-CVAFS-S-SSE-F2	4.92	3.12				ng/g						PASS-OVER	FAIL-BLK	QB-10

Don Moore 2/13/17  
 Analyst Reviewed By Date

[Signature] 2-15-17  
 Peer Reviewed By Date

## ANALYSIS SEQUENCE

7B13016

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B13016-IBL1	QC	1			
7B13016-IBL2	QC	2			
7B13016-IBL3	QC	3			
7B13016-CAL1	QC	4	1700737		
7B13016-CAL2	QC	5	1700738		
7B13016-CAL3	QC	6	1700739		
7B13016-CAL4	QC	7	1700740		
7B13016-CAL5	QC	8	1700741		
7B13016-ICV1	QC	9	1700018		
7B13016-CAL6	QC	10	1700737		
F702256-BLK1	QC	11			
F702256-BLK2	QC	12			
F702256-BLK3	QC	13			
F702256-BLK4	QC	14			
F702256-BLK5	QC	15			
F702256-BS1	QC	16			
F702256-BSD1	QC	17			
F702256-BS2	QC	18			
1702086-01	Hg-CVAFS-T-7030	19			
1702166-01	Hg-CVAFS-T-7030	20			
7B13016-CCV1	QC	21	1700018		
7B13016-CCB1	QC	22			
1702166-02	Hg-CVAFS-T-7030	23			
1702166-03	Hg-CVAFS-T-7030	24			
1702166-04	Hg-CVAFS-T-7030	25			
1702166-05	Hg-CVAFS-T-7030	26			
1702167-01	Hg-CVAFS-T-7030	27			
1702167-02	Hg-CVAFS-T-7030	28			
1702167-03	Hg-CVAFS-T-7030	29			
1702167-04	Hg-CVAFS-T-7030	30			
1702167-05	Hg-CVAFS-T-7030	31			
1702168-02	Hg-CVAFS-T-7030	32			
7B13016-CCV2	QC	33	1700018		
7B13016-CCB2	QC	34			
1702168-03	Hg-CVAFS-T-7030	35			

Due Date: 2/16/2017

## ANALYSIS SEQUENCE

7B13016

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702168-04	Hg-CVAFS-T-7030	36			
1702168-05	Hg-CVAFS-T-7030	37			
1702166-03RE1	Hg-CVAFS-T-7030	38			Added 2/13/2017 by DM2
1702166-04RE1	Hg-CVAFS-T-7030	39			Added 2/13/2017 by DM2
1702166-05RE1	Hg-CVAFS-T-7030	40			Added 2/13/2017 by DM2
F702256-DUP1	QC	41			
F702256-MS1	QC	42			
F702256-MSD1	QC	43			
F702256-MS2	QC	44			
7B13016-CCV3	QC	45	1700018		
7B13016-CCB3	QC	46			
F702256-MSD2	QC	47			
1702168-03RE1	Hg-CVAFS-T-7030	48			Added 2/13/2017 by DM2
1702168-04RE1	Hg-CVAFS-T-7030	49			Added 2/13/2017 by DM2
1702168-05RE1	Hg-CVAFS-T-7030	50			Added 2/13/2017 by DM2
F702256-MS3	QC	51			
F702256-MSD3	QC	52			
7B13016-CCV4	QC	53	1700018		
7B13016-CCB4	QC	54			

Don Moran      2/13/17  
 Samples Loaded By      Date

Don Moran      2/13/17  
 Data Processed By      Date

Due Date: 2/16/2017

## ANALYSIS SEQUENCE

7B13017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B13017-IBL1	QC	1			
7B13017-IBL2	QC	2			
7B13017-IBL3	QC	3			
7B13017-CAL1	QC	4	1700737		
7B13017-CAL2	QC	5	1700738		
7B13017-CAL3	QC	6	1700739		
7B13017-CAL4	QC	7	1700740		
7B13017-CAL5	QC	8	1700741		
7B13017-ICV1	QC	9	1700018		
7B13017-CAL6	QC	10	1700737		
7B13017-CCV1	QC	11	1700018		
7B13017-CCB1	QC	12			
7B13017-CCV2	QC	13	1700018		
7B13017-CCB2	QC	14			
7B13017-CCV3	QC	15	1700018		
7B13017-CCB3	QC	16			
F702265-BLK1	QC	17			
F702265-BLK2	QC	18			
F702265-BLK3	QC	19			
F702265-BS1	QC	20			
7B13017-CCV4	QC	21	1700018		
7B13017-CCB4	QC	22			
F702265-BSD1	QC	23			
1701569-01	Hg-CVAFS-S-SSE-F1	24			
1701569-02	Hg-CVAFS-S-SSE-F1	25			
1701569-03	Hg-CVAFS-S-SSE-F1	26			
1701569-04	Hg-CVAFS-S-SSE-F1	27			
1701569-05	Hg-CVAFS-S-SSE-F1	28			
1701569-06	Hg-CVAFS-S-SSE-F1	29			
1701569-07	Hg-CVAFS-S-SSE-F1	30			
1701569-08	Hg-CVAFS-S-SSE-F1	31			
1701569-09	Hg-CVAFS-S-SSE-F1	32			
7B13017-CCV5	QC	33	1700018		
7B13017-CCB5	QC	34			
1701569-10	Hg-CVAFS-S-SSE-F1	35			

Due Date: 2/17/2017

**ANALYSIS SEQUENCE**

**7B13017**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 2/13/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1701569-11	Hg-CVAFS-S-SSE-F1	36			
1701569-01RE1	Hg-CVAFS-S-SSE-F1	37			Added 2/13/2017 by DM2
1701569-02RE1	Hg-CVAFS-S-SSE-F1	38			Added 2/13/2017 by DM2
1701569-03RE1	Hg-CVAFS-S-SSE-F1	39			Added 2/13/2017 by DM2
1701569-04RE1	Hg-CVAFS-S-SSE-F1	40			Added 2/13/2017 by DM2
1701569-05RE1	Hg-CVAFS-S-SSE-F1	41			Added 2/13/2017 by DM2
1701569-06RE1	Hg-CVAFS-S-SSE-F1	42			Added 2/13/2017 by DM2
1701569-07RE1	Hg-CVAFS-S-SSE-F1	43			Added 2/13/2017 by DM2
1701569-08RE1	Hg-CVAFS-S-SSE-F1	44			Added 2/13/2017 by DM2
7B13017-CCV6	QC	45	1700018		
7B13017-CCB6	QC	46			
1701569-09RE1	Hg-CVAFS-S-SSE-F1	47			Added 2/13/2017 by DM2
1701569-01RE2	Hg-CVAFS-S-SSE-F1	48			Added 2/13/2017 by DM2
1701569-02RE2	Hg-CVAFS-S-SSE-F1	49			Added 2/13/2017 by DM2
1701569-03RE2	Hg-CVAFS-S-SSE-F1	50			Added 2/13/2017 by DM2
1701569-04RE2	Hg-CVAFS-S-SSE-F1	51			Added 2/13/2017 by DM2
1701569-05RE2	Hg-CVAFS-S-SSE-F1	52			Added 2/13/2017 by DM2
1701569-07RE2	Hg-CVAFS-S-SSE-F1	53			Added 2/13/2017 by DM2
1701569-08RE2	Hg-CVAFS-S-SSE-F1	54			Added 2/13/2017 by DM2
F702265-DUP1	QC	55			
F702265-MS1	QC	56			
7B13017-CCV7	QC	57	1700018		
7B13017-CCB7	QC	58			
F702265-MSD1	QC	59			
F702265-MS2	QC	60			
F702265-MSD2	QC	61			
7B13017-CCV8	QC	62	1700018		
7B13017-CCB8	QC	63			

Don Moran      2/13/17  
 Samples Loaded By      Date

Don Moran      2/13/17  
 Data Processed By      Date

Due Date: 2/17/2017

## ANALYSIS SEQUENCE

7B13015

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B13015-IBL1	QC	1			
7B13015-IBL2	QC	2			
7B13015-IBL3	QC	3			
7B13015-CAL1	QC	4	1700737		
7B13015-CAL2	QC	5	1700738		
7B13015-CAL3	QC	6	1700739		
7B13015-CAL4	QC	7	1700740		
7B13015-CAL5	QC	8	1700741		
7B13015-ICV1	QC	9	1700018		
7B13015-CAL6	QC	10	1700737		
7B13015-CCV1	QC	11	1700018		
7B13015-CCB1	QC	12			
7B13015-CCV2	QC	13	1700018		
7B13015-CCB2	QC	14			
7B13015-CCV3	QC	15	1700018		
7B13015-CCB3	QC	16			
7B13015-CCV4	QC	17	1700018		
7B13015-CCB4	QC	18			
7B13015-CCV5	QC	19	1700018		
7B13015-CCB5	QC	20			
7B13015-CCV6	QC	21	1700018		
7B13015-CCB6	QC	22			
7B13015-CCV7	QC	23	1700018		
7B13015-CCB7	QC	24			
F702283-BLK1	QC	25			
F702283-BLK2	QC	26			
F702283-BLK3	QC	27			
F702283-BS1	QC	28			
F702283-BSD1	QC	29			
1701569-09	Hg-CVAFS-S-SSE-F2	30			
1701569-10	Hg-CVAFS-S-SSE-F2	31			
7B13015-CCV8	QC	32	1700018		
7B13015-CCB8	QC	33			
F702283-BLK4	QC	34			
1701569-11	Hg-CVAFS-S-SSE-F2	35			

Due Date: 2/17/2017

ANALYSIS SEQUENCE

7B13015

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F702283-DUP1	QC	36			
F702283-MS1	QC	37			
F702283-MSD1	QC	38			
7B13015-CCV9	QC	39	1700018		
7B13015-CCB9	QC	40			

Don Moxam      2/13/17  
Samples Loaded By      Date

Don Moxam      2/13/17  
Data Processed By      Date

**PREPARATION BENCH SHEET**

F702256

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702256-BLK1	Blank	0.25	40					
F702256-BLK2	Blank	0.25	40					
F702256-BLK3	Blank	0.25	40					
F702256-BLK4	Blank	0.6081	40					
F702256-BLK5	Blank	0.6312	40					
F702256-BS1	Blank Spike	0.5	40	1700686	40			
F702256-BS2	DORM-4	0.253	40	1605470	253			
F702256-BSD1	Blank Spike Dup	0.5	40	1700686	40			
F702256-DUP1	Duplicate [1702166-04RE1]	0.5768	40					
F702256-MS1	Matrix Spike [1702166-04RE1]	0.5623	40	1607152	200			
F702256-MS2	Matrix Spike [1702167-01]	0.5701	40	1607152	200			
F702256-MS3	Matrix Spike [1702166-04RE1]	0.5623	40	1607152	200			
F702256-MSD1	Matrix Spike Dup [1702166-04RE1]	0.5639	40	1607152	200			
F702256-MSD2	Matrix Spike Dup [1702167-01]	0.5821	40	1607152	200			
F702256-MSD3	Matrix Spike Dup [1702166-04RE1]	0.5639	40	1607152	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1607152	THg 1,000ng/mL Primary Spiking Standard	08-Jun-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700639	70/30 Digestion Acid	29-Jul-17 00:00
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700818	5% BrCl	15-Jul-17 00:00
			1700821	70/30 Digestion Acid	07-Aug-17 00:00



**PREPARATION BENCH SHEET**

F702256

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702086-01	17A0316-01	0.5521	40	-	-	-		
1702166-01	MMBKD-01_012317_ABD_01_MU	0.5718	40	-	-	-		
1702166-02	MMBKD-01_012317_ABD_02_MU	0.5775	40	-	-	-		
1702166-03	MMBKD-01_012417_ABD_03_MU	0.5737	40	-	-	-		
1702166-03RE1	MMBKD-01_012417_ABD_03_MU	0.5737	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702166-04	MMBKD-01_012417_ABD_04_MU	0.5632	40	QC	-	-	MS/MSD	
1702166-04RE1	MMBKD-01_012417_ABD_04_MU	0.5632	40	QC	-	-	MS/MSD Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702166-05	MMBKD-01_012417_ABD_05_MU	0.5682	40	-	-	-		
1702166-05RE1	MMBKD-01_012417_ABD_05_MU	0.5682	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702167-01	FRB-01_012517_ABD_06_MU	0.5365	40	QC	-	-	MS/MSD	
1702167-02	FRB-01_012517_ABD_07_MU	0.5312	40	-	-	-		
1702167-03	FRB-01_012517_ABD_08_MU	0.5806	40	-	-	-		
1702167-04	FRB-01_012617_ABD_09_MU	0.5518	40	-	-	-		
1702167-05	FRB-01_012617_ABD_10_MU	0.5374	40	-	-	-		
1702168-02	ES-13_012417_ABD_02_MU	0.537	40	-	-	-		
1702168-03	ES-13_012817_ABD_03_MU	0.5213	40	-	-	-		
1702168-03RE1	ES-13_012817_ABD_03_MU	0.5213	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702168-04	ES-13_012817_ABD_04_MU	0.5908	40	-	-	-		
1702168-04RE1	ES-13_012817_ABD_04_MU	0.5908	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2

**PREPARATION BENCH SHEET**

F702256

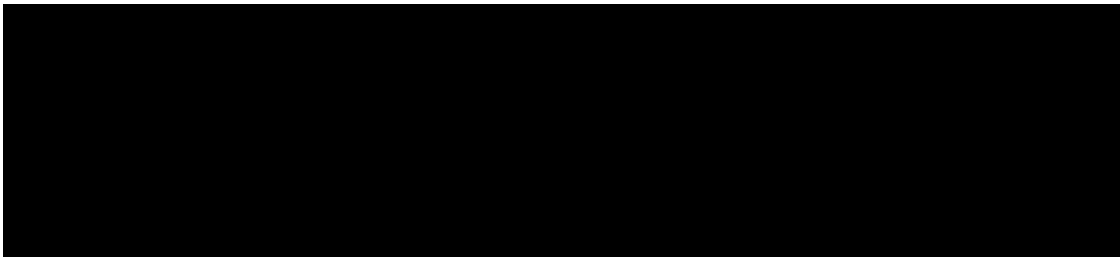
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

1702168-05	CORN_012817_DUCK_BAIT	0.5847	40	-	-	-		
1702168-05RE1	CORN_012817_DUCK_BAIT	0.5847	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2



**PREPARATION BENCH SHEET**

F702265

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1**

**Prepared: 2/8/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702265-BLK1	Blank	0.4	125					
F702265-BLK2	Blank	0.4	125					
F702265-BLK3	Blank	0.4	125					
F702265-BS1	LCS	0.016	5	1604715	100			
F702265-BSD1	LCS Dup	0.016	5	1604715	100			
F702265-DUP1	Duplicate [1701569-01RE2]	0.4525	125					
F702265-MS1	Matrix Spike [1701569-01RE2]	0.017604	5	1700687	50			[Spk] 0.4401g->125mL; 125mL->125mL; Spiked 5mL.
F702265-MS2	Matrix Spike [1701569-05RE2]	0.018308	5	1700687	25			[Spk] 0.4577g->125mL; 125mL->125mL; Spiked 5mL.
F702265-MSD1	Matrix Spike Dup [1701569-01RE2]	0.017604	5	1700687	50			[Spk] 0.4401g->125mL; 125mL->125mL; Spiked 5mL.
F702265-MSD2	Matrix Spike Dup [1701569-05RE2]	0.018308	5	1700687	25			[Spk] 0.4577g->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	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
		01-May-17 00:00	1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702265

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1**

**Prepared: 2/8/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-01	MW-45 8.5-10'	0.4401	125	-	-	-		
1701569-01RE1	MW-45 8.5-10'	0.4401	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-01RE2	MW-45 8.5-10'	0.4401	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-02	MW-45 13.5-15'	0.4332	125	-	-	-		
1701569-02RE1	MW-45 13.5-15'	0.4332	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-02RE2	MW-45 13.5-15'	0.4332	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-03	MW-47 3.5-5'	0.4212	125	-	-	-		
1701569-03RE1	MW-47 3.5-5'	0.4212	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-03RE2	MW-47 3.5-5'	0.4212	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-04	MW-47 8.5-10'	0.4772	125	-	-	-		
1701569-04RE1	MW-47 8.5-10'	0.4772	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-04RE2	MW-47 8.5-10'	0.4772	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-05	MW-46 8.5-10'	0.4577	125	-	-	-		
1701569-05RE1	MW-46 8.5-10'	0.4577	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-05RE2	MW-46 8.5-10'	0.4577	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-06	MW-46 18.5-20'	0.456	125	-	-	-		
1701569-06RE1	MW-46 18.5-20'	0.456	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-07	HG-1 8.5-10'	0.4683	125	-	-	-		
1701569-07RE1	HG-1 8.5-10'	0.4683	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2

**PREPARATION BENCH SHEET**

F702265

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1**

**Prepared: 2/8/2017**

1701569-07RE2	HG-1 8.5-10'	0.4683	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-08	HG-1 13.5-15'	0.4637	125	-	-	-		
1701569-08RE1	HG-1 13.5-15'	0.4637	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-08RE2	HG-1 13.5-15'	0.4637	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-09	HgS	0.4696	125	-	-	-		
1701569-09RE1	HgS	0.4696	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-10	HgO	0.4513	125	-	-	-		
1701569-11	Hg2Cl2	0.4568	125	-	-	-		

**PREPARATION BENCH SHEET**

F702283

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 2/9/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702283-BLK1	Blank	0.4	125					
F702283-BLK2	Blank	0.4	125					
F702283-BLK3	Blank	0.4	125					
F702283-BLK4	Blank	0.4	125					
F702283-BS1	LCS	0.016	5	1604715	100			
F702283-BSD1	LCS Dup	0.016	5	1604715	100			
F702283-DUP1	Duplicate [1701569-09]	0.4696	125					
F702283-MS1	Matrix Spike [1701569-09]	0.00003756 g	0.01	1700687	100			[Spk] 0.4696g->125mL; 125mL->125mL; Spiked 0.01mL
F702283-MSD1	Matrix Spike Dup [1701569-09]	0.00003756 g	0.01	1700687	100			[Spk] 0.4696g->125mL; 125mL->125mL; Spiked 0.01mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00

PREPARATION BENCH SHEET

F702283

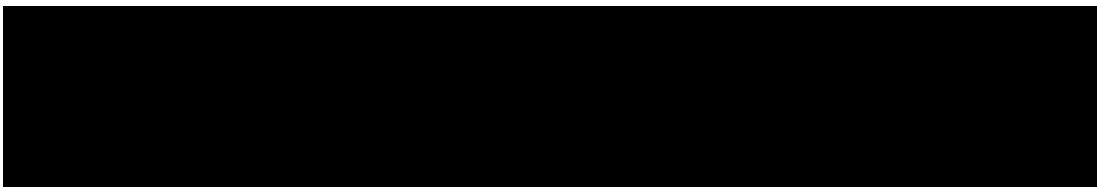
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-09	HgS	0.4696	125	-	-	-		
1701569-10	HgO	0.4513	125	-	-	-		
1701569-11	Hg2Cl2	0.4568	125	-	-	-		



PREPARATION BENCH SHEET

2600-3  
2/13/17 DM

F702256

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/8/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702256-BLK1	Blank	0.25	40					20X
F702256-BLK2	Blank	0.25	40					20X
F702256-BLK3	Blank	0.25	40					20X
F702256-BLK4	Blank	0.6081	40					20X
F702256-BLK5	Blank	0.6312	40					20X
F702256-BS1	Blank Spike	0.5	40	1700686	40			20X
F702256-BS2	DORM-4	0.253	40	1605470	253			1000X 400X
F702256-BSD1	Blank Spike Dup	0.5	40	1700686	40			20X
F702256-DUP1	Duplicate [1702166-04] RE1	0.5768	40					400X
F702256-MS1	Matrix Spike [1702166-04] RE1	0.5623	40	1607152	200			1000X
F702256-MS2	Matrix Spike [1702167-01]	0.5701	40	1607152	200			400X 400X
F702256-MSD1	Matrix Spike Dup [1702166-04] RE1	0.5639	40	1607152	200			1000X
F702256-MSD2	Matrix Spike Dup [1702167-01]	0.5821	40	1607152	200			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1607152	THg 1,000ng/mL Primary Spiking Standard	08-Jun-17 00:00	1700639	70/30 Digestion Acid	29-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700818	5% BrCl	15-Jul-17 00:00
			1700821	70/30 Digestion Acid	07-Aug-17 00:00

4 4  
~~MSD3 - 1000X~~  
Spike 1702166-04 RE1  
100ul 1700686  
NO DM 2/13/17

MS3, MSD3 re-run of MS1, MSD1

1700908  
1606934  
1700771  
1700309

Due Date: 2/16/2017



PREPARATION BENCH SHEET

26003  
2/19/17 DM

F702256

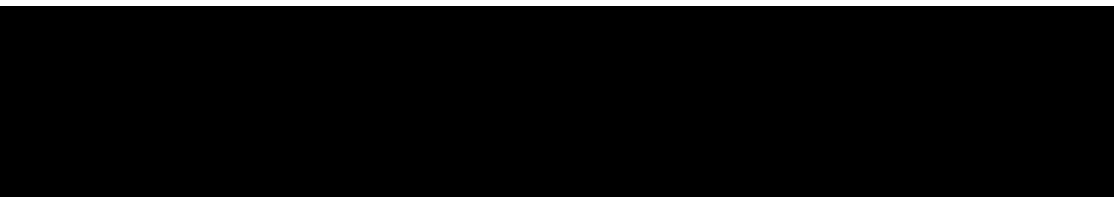
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/8/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702086-01	17A0316-01	0.5521	40	-	-	-		100X
1702166-01	MMBKD-01_012317_ABD_01_MU	0.5718	40	-	-	-		100X
1702166-02	MMBKD-01_012317_ABD_02_MU	0.5775	40	-	-	-		100X
1702166-03	MMBKD-01_012417_ABD_03_MU	0.5737	40	-	-	-		100X → 400X
1702166-04	MMBKD-01_012417_ABD_04_MU	0.5632	40	QC	-	-	MS/MSD	100X → 400X
1702166-05	MMBKD-01_012417_ABD_05_MU	0.5682	40	-	-	-		100X → 100X
1702167-01	FRB-01_012517_ABD_06_MU	0.5365	40	QC	-	-	MS/MSD	100X
1702167-02	FRB-01_012517_ABD_07_MU	0.5312	40	-	-	-		100X
1702167-03	FRB-01_012517_ABD_08_MU	0.5806	40	-	-	-		100X
1702167-04	FRB-01_012617_ABD_09_MU	0.5518	40	-	-	-		100X
1702167-05	FRB-01_012617_ABD_10_MU	0.5374	40	-	-	-		100X
1702168-02	ES-13_012417_ABD_02_MU	0.537	40	-	-	-		100X
1702168-03	ES-13_012817_ABD_03_MU	0.5213	40	-	-	-		100X → 400X
1702168-04	ES-13_012817_ABD_04_MU	0.5908	40	-	-	-		100X → 400X
1702168-05	CORN_012817_DUCK_BAIT	0.5847	40	-	-	-		100X → 20X



**PREPARATION BENCH SHEET**

F702256

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

**Due Date: 2/16/2017**

Technician: Dwyer Batch#: F702256 Date: 2/8/17

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon  
 Balance#: 19 Calibrated?  Yes  No Therm.#: 14545 Calibrated?  Yes  No  
 \*Time in: 14:30 Actual Temp. (raw): 79.0 °C w/ CF: <sup>2/8/17</sup> 780.0 °C  
 Time out: 16:30 Actual Temp. (raw): 76.0 °C w/ CF: 77.0 °C ATMB 2/8/17  
 \*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1700818) Spike vol.: 200 µL (LIMS ID: 1607152)  
 Spike Witness: BC 2/8/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 2-6-17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1700639, 1700821 Dispenser #: 02K29494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  No  
 Glass Vial # 00066592 Boiling Chip lot # 1606642 \*Hotblock Position: F2  
00066664

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	F702256 Blk1	0.5639	23	1702167-04	0.5518	BS2
2	F702256 Blk2	0.5235	24	1702167-05	0.5374	DORM-4 1605470
3	F702256 Blk3	0.5765	25	1702168-02	0.5370	
4	F702256 Blk4	0.6081	26	1702168-03	0.5213	<b>Comments</b>
5	F702256 Blk5	0.6312	27	1702168-04	0.5908	Dup some
6	F702256 BS1	0.5562	28	1702168-05	0.5847	1702166-04
7	F702256 BS1	0.5418	29			
8	F702256 BS2	0.2530	30			MS1 MS01 F702256 1702166-04
9	F702256 Dup1	0.5768	31		2-877	
10	F702256 MS1	0.5623	32		48	MS2 MS02 F702256 1702167-01
11	F702256 MS01	0.5639	33			BS1 BS01 = 100µg/100
12	F702256 MS2	0.5701	34			= 40µg
13	F702256 MS02	0.5821	35			1700686
14	1702086-01	0.5521	36			vials #1 1702086-01
15	1702166-01	0.5718	37			
16	1702166-02	0.5775	38			
17	1702166-03	0.5737	39			Prep Blank Blank 4 1702166, 2167 1702168
18	1702166-04	0.5632	40			
19	1702166-05	0.5682	41			
20	1702167-01	0.5365	42			Post Blank Blank 5 1702166, 2167, 2168 2-877 out
21	1702167-02	0.5312	43			
22	1702167-03	0.5806	44			

PREPARATION BENCH SHEET

2600.3

2/13/17 DM

F702265

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1

Prepared: 2/8/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702265-BLK1	Blank	0.4	125					10X
F702265-BLK2	Blank	0.4	125					10X
F702265-BLK3	Blank	0.4	125					10X
F702265-BS1	LCS	0.016 -0.4	5 725	1604715	100			10X
F702265-BSD1	LCS Dup	0.016 -0.4	5 725	1604715	100			10X
F702265-DUP1	Duplicate [1701569-01] RE2	0.4525	125					10X
F702265-MS1	Matrix Spike 1701569-01 RE2	0.4	125	1700687	50			10X
F702265-MSD1	Matrix Spike Dup 1701569-01 RE2	0.4	125	1700687	50			10X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00

MS2, MSD2 - 10X  
 1701569-01 RE2  
 1700687 25µl

1700308  
 1606934  
 1700771  
 1700309

PREPARATION BENCH SHEET

2600-3  
2/13/17 DM

F702265

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1

Prepared: 2/8/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-01	MW-45 8.5-10'	0.4401	125	-	-	-		500X 5000X → 100X → 10X
1701569-02	MW-45 13.5-15'	0.4332	125	-	-	-		500X → 100X → 10X
1701569-03	MW-47 3.5-5'	0.4212	125	-	-	-		500X → 100X → 10X
1701569-04	MW-47 8.5-10'	0.4772	125	-	-	-		500X → 100X → 10X
1701569-05	MW-46 8.5-10'	0.4577	125	-	-	-		500X → 100X → 10X
1701569-06	MW-46 18.5-20'	0.456	125	-	-	-		500X → 100X
1701569-07	HG-1 8.5-10'	0.4683	125	-	-	-		5000X → 100X → 10X
1701569-08	HG-1 13.5-15'	0.4637	125	-	-	-		5000X → 100X → 10X
1701569-09	HgS	0.4696	125	-	-	-		100,000X → 2500X
1701569-10	HgO	0.4513	125	-	-	-		250,000X
1701569-11	Hg2Cl2	0.4568	125	-	-	-		250,000X

Technician: AMB Batch#: F702265 Date: 2-8-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/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 - WAFS - F1, F3, F4, F5 (F2 for blank)  
 Balance#: 19 Calibrated?  Yes  No Vial Type:  Glass  Teflon  
 Therm. #: and CRM 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.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1700686)  
 Spike Witness: DM 2-13-17 (initial and date)

Other acid ID: 1605878 (12N HNO<sub>3</sub>) Pipette: MU11619 cal: 2-13-17  
 HCl LIMS ID: 1607476 Pipette SN#: MU32229 Calibration Date: 2-3-17  
 HNO<sub>3</sub> LIMS ID: 1700510 (F5) 2-11-17 Pipette SN#: MU32229 Calibration Date: 2-13-17  
 70:30 LIMS ID: 1605790 (pH2) Dispenser #: 0842293 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1605877 (KOH) Dispenser #: 09N45351 Eyes Dispenser  
 Glass Vial # N/A - AMB Boiling Chip lot # 1606642 \*Hotblock Position: N/A  
00066595 2-11-17

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 type="checkbox"/> NA
1	F702265-BLK1	0.4939	23			
2	F702265-BLK2	0.4305	24			HgS 1605058
3	F702265-BLK3	0.4313	25			HgO 1605057
4	1701569-01	0.4401	26			Hg2Cl2 1605056
5	F702265-DUP1	0.4525	27			Comments
6	1701569-02	0.4332	28			F2 - F702283
7	1701569-03	0.4212	29			pH2 1.25mL BrCl
8	1701569-04	0.4772	30			BrCl: 1700306
9	1701569-05	0.4577	31			Pipette: MU32229
10	1701569-06	0.4560	32			F3 - F702284
11	1701569-07	0.4683	33			KOH - 1605877
12	1701569-08	0.4637	34			BrCl: 1700306 (0.5mL)
13	1701569-09	0.4696	35			Pipette: MU32229
14	1701569-10	0.4513	36			F4 - F702285
15	1701569-11	0.4568	37			12N HNO <sub>3</sub> : 1605878
16			38			BrCl: 1700306 (2.5mL)
17			39			Pipette: MU32229
18			40			F5 - F702286
19			41			5% BrCl 1700947
20			42			Dispenser:
21			43			F1 - 1.25mL
22			44			BrCl 1700306 Pipette MU32229

PREPARATION BENCH SHEET

2600-3  
2/13/17 DM

F702283

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/9/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702283-BLK1	Blank	0.4	125					10X
F702283-BLK2	Blank	0.4	125					10X
F702283-BLK3	Blank	0.4	125					10X
F702283-BS1	LCS	0.016 -0.4	5 125	1604715	100			10X
F702283-BSD1	LCS Dup	0.016 -0.4	5 125	1604715	100			10X
F702283-DUP1	Duplicate 1701569-09	0.4	125					2500X
F702283-MS1	Matrix Spike 1701569-09	0.4	125	1700687	100			5000X
F702283-MSD1	Matrix Spike Dup 1701569-09	0.4	125	1700687	100			5000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00

BLK re-run of BLK3

1700308  
1606642  
1700771  
1700909

PREPARATION BENCH SHEET

2600.3  
2/13/17 DM

F702283

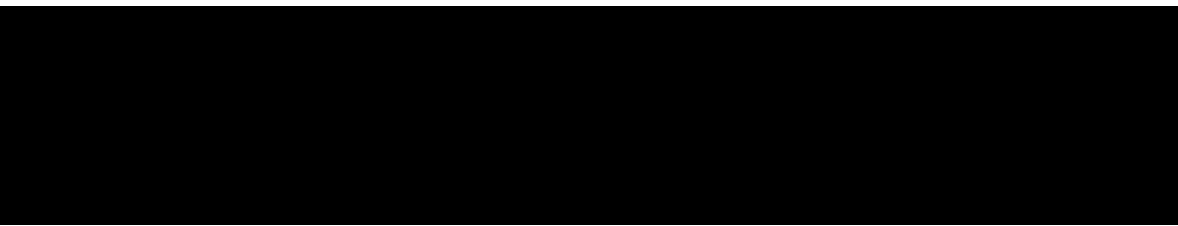
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-09	HgS	0.4696	125	-	-	-		2500X
1701569-10	HgO	0.4513	125	-	-	-		250,000X
1701569-11	Hg2Cl2	0.4568	125	-	-	-		250,000X





**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> 7B13017, 7B13016, 7B13015
<b>Reviewer:</b> DAN WEIKART	<b>Dataset ID(s):</b> THG26003-170213-1
<b>Date:</b> 2/13/2017	<b>WO (s) #:</b> VARIOUS
<b>Batch #(s):</b> F702265, F702283, F702256	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2865	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:** DMW

- |   |   |  |  |
|---|---|--|--|
| 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 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? <span style="float:right">WO#(s)/Client(s): _____</span>                                | <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>	7B13017, 7B13016, 7B13015
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26003-170213-1
<b>Date:</b>	2/13/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F702265, F702283, F702256		0

Analyst Initials DM

Reviewer Initials DMW

- 5b. Has the B/C section data been uploaded?  YES  NO  N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%)  PASS  FAIL
- Comments: \_\_\_\_\_
7. The calibration curve included a minimum of 5 Standards  YES  NO
- Comments: SEQ-CAL1 FAILED. RE-ANALYZED AND PASSED
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: QB-10, QR-07, E, QM-07,, QR-08
12. Explain any items on the failed data report from Element
- Comments: SEE FAILING DATA REPORT
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)  PASS  FAIL
- (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit:  YES  NO
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?  YES  NO  N/A
- (c) Was a BrCl Blank analyzed for each preservation level?  YES  NO
- (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>	7B13017, 7B13016, 7B13015
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26003-170213-1
<b>Date:</b>	2/13/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F702265, F702283, F702256		0

Analyst Initials DM                      Reviewer Initials DMW

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   |
| 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 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

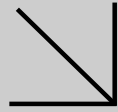
- |  |   |                             |                                     |
|--|---|-----------------------------|-------------------------------------|
| 36. Date of analyst IDOC/CDOC: _____ 11/23/16, 12/1/16 _____ IDOC/CDOC within last 12 months?  | <input checked="" type="checkbox"/> YES | <input 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: _____ 11/8/16, 12/28/16 _____ LOD within last 3 months?                       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 11/8/16, 12/28/16 _____ LOQ within last 3 months?                       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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



Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.

**WORK ORDER NUMBER: 17-02-0647**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Eurofins Frontier Global Sciences, Inc.**Client Project Name:** 1702167

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 03/09/2017 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

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Client Project Name: 1702167  
 Work Order Number: 17-02-0647

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl <sub>2</sub> Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	6
	4.1 Sample Duplicate. . . . .	6
5	Glossary of Terms and Qualifiers. . . . .	7
6	Chain-of-Custody/Sample Receipt Form. . . . .	8
7	17-02-0647 Level IV Case Narrative. . . . .	12
8	17-02-0647 Level IV Data Package. . . . .	13

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 02/08/17. They were assigned to Work Order 17-02-0647.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	17-02-0647
11720 North Creek Parkway North, Suite 4	Project Name:	1702167
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	02/08/17 10:40
	Number of Containers:	5

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
FRB-01_012517_ABD_06_MU	17-02-0647-1	01/25/17 14:55	1	Tissue
FRB-01_012517_ABD_07_MU	17-02-0647-2	01/25/17 15:15	1	Tissue
FRB-01_012517_ABD_08_MU	17-02-0647-3	01/25/17 16:15	1	Tissue
FRB-01_012617_ABD_09_MU	17-02-0647-4	01/26/17 15:15	1	Tissue
FRB-01_012617_ABD_10_MU	17-02-0647-5	01/26/17 15:35	1	Tissue



## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
 11720 North Creek Parkway North, Suite 4  
 Bothell, WA 98011-8244

Date Received: 02/08/17  
 Work Order: 17-02-0647  
 Preparation: N/A  
 Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
 Units: %

Project: 1702167

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
FRB-01_012517_ABD_06_MU	17-02-0647-1-AA	01/25/17 14:55	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.3	0.10		1.00		
FRB-01_012517_ABD_07_MU	17-02-0647-2-AA	01/25/17 15:15	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.6	0.10		1.00		
FRB-01_012517_ABD_08_MU	17-02-0647-3-AA	01/25/17 16:15	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.7	0.10		1.00		
FRB-01_012617_ABD_09_MU	17-02-0647-4-AA	01/26/17 15:15	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.0	0.10		1.00		
FRB-01_012617_ABD_10_MU	17-02-0647-5-AA	01/26/17 15:35	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.5	0.10		1.00		
Method Blank	099-14-104-168	N/A	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 02/08/17  
Work Order: 17-02-0647  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1702167

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
FRB-01_012517_ABD_06_MU	Sample	Tissue	N/A	02/22/17 00:00	02/22/17 00:00	170222D06
FRB-01_012517_ABD_06_MU	Sample Duplicate	Tissue	N/A	02/22/17 00:00	02/22/17 00:00	170222D06

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	2.335	2.390	2	0-25	

  
Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.

1702167

**17-02-0647**

89 of 108

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

**Analysis** **Comments**

---

1 **Sample ID:** FRB-01\_012517\_ABD\_06\_MU

**EFGS Lab ID:** 1702167-01 **Matrix:** Tissue

**Sampled:** 25-Jan-17 14:55 Eastern **Due:** 02-Mar-17 19:00  
**MS/MSD**

---

**Misc. Subcontract 1** **Lipids Analysis - NOAA1993a**

*Containers Supplied:*  
34 Plastic Bag (D)

---

2 **Sample ID:** FRB-01\_012517\_ABD\_07\_MU

**EFGS Lab ID:** 1702167-02 **Matrix:** Tissue

**Sampled:** 25-Jan-17 15:15 Eastern **Due:** 02-Mar-17 19:00

---

**Misc. Subcontract 1** **Lipids Analysis - NOAA1993a**

*Containers Supplied:*  
34 Plastic Bag (B)

---

3 **Sample ID:** FRB-01\_012517\_ABD\_08\_MU

**EFGS Lab ID:** 1702167-03 **Matrix:** Tissue

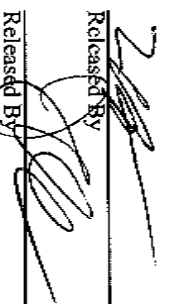
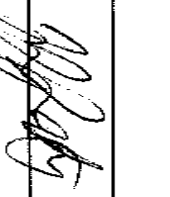
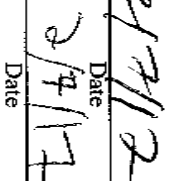
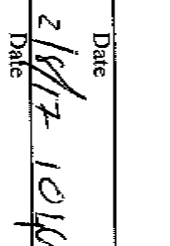
**Sampled:** 25-Jan-17 16:15 Eastern **Due:** 02-Mar-17 19:00

---

**Misc. Subcontract 1** **Lipids Analysis - NOAA1993a**

*Containers Supplied:*  
34 Plastic Bag (B)

---

<b>Released By</b> 	<b>Received By</b> 
<b>Date</b> 2/17/17	<b>Date</b> 2/17/17
<b>Released By</b> 	<b>Received By</b> 
<b>Date</b> 2/17/17	<b>Date</b> 2/17/17

SUBCONTRACT ORDER  
Eurofins Frontier Global Sciences, Inc.  
1702167

0647

90 of 108

Analysis Comments

Sample ID: FRB-01\_012617\_ABD\_09\_MU

FFGS Lab ID: 1702167-04 Matrix: Tissue

Sampled: 26-Jan-17 15:15 Eastern Due: 02-Mar-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a

Containers Supplied:

34 Plastic Bag (B)

Sample ID: FRB-01\_012617\_ABD\_10\_MU


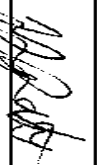

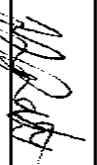
FFGS Lab ID: 1702167-05 Matrix: Tissue

Sampled: 26-Jan-17 15:35 Eastern Due: 02-Mar-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOAA1993a

Containers Supplied:

34 Plastic Bag (B)

Released By		Date	2/7/17	Received By		Date	2/8/17 1040
Released By		Date	2/7/17	Received By		Date	2/8/17 1040





SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

WORK ORDER NUMBER: 17-02-0647

CLIENT: EFGS DATE: 02/08/2017

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue) Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 0.2 °C (w/ CF): 0.2 °C; Blank Sample Sample(s) outside temperature criteria (PM/APM contacted by: ) Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling Sample(s) received at ambient temperature; placed on ice for transport by courier Ambient Temperature: Air Filter Checked by: 15

CUSTODY SEAL: Cooler Present and Intact Present but Not Intact Not Present N/A Checked by: 15 Sample(s) Present and Intact Present but Not Intact Not Present N/A Checked by: 1053

SAMPLE CONDITION: Chain-of-Custody (COC) document(s) received with samples COC document(s) received complete COC document(s) received complete Sampling date Sampling time Matrix Number of containers No analysis requested Not relinquished No relinquished date No relinquished time Sampler's name indicated on COC Sample container label(s) consistent with COC Sample container label(s) intact and in good condition Proper containers for analyses requested Proper containers for analyses requested Sufficient volume/mass for analyses requested Samples received within holding time Aqueous samples for certain analyses received within 15-minute holding time pH Residual Chlorine Dissolved Sulfide Dissolved Oxygen Proper preservation chemical(s) noted on COC and/or sample container Unpreserved aqueous sample(s) received for certain analyses Volatile Organics Total Metals Dissolved Metals Container(s) for certain analysis free of headspace Volatile Organics Dissolved Gases (RSK-175) Dissolved Oxygen (SM 4500) Carbon Dioxide (SM 4500) Ferrous Iron (SM 3500) Hydrogen Sulfide (Hach) Tedlar™ bag(s) free of condensation

CONTAINER TYPE: Aqueous: VOA VOA H VOA na 2 100P J 100P J na 2 125AGB 125AGBh 125AGBp 125PB 125PBzma 250AGB 250AGB 250CGB 250CGBs 250PB 250PBn 500AGB 500AGJ 500AGJs 500PB 1AGB 1AGBna 1AGBs 1PB 1PBna Solid: 4ozCGJ 8ozCGJ 16ozCGJ Sleeve Encores TerraCores Air: Tedlar Canister Sorbent Tube PUF Other Matrix (Tissue): 2 Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag Preservative: b = buffered, f = filtered, h = HCl, n = HNO3, na = NaOH, na2 = Na2S2O3, p = H3PO4, s = H2SO4, u = ultra-pure, x = Na2SO3+NaHSO4.H2O, zma = Zn (CH3CO2)2 + NaOH Reviewed by: 1053

## Case Narrative

Client Project Name: 1702167  
Work Order Number: 17-02-0647

### **CONDITION UPON RECEIPT:**

Eurofins Calscience, Inc. received 5 tissue samples on February 8, 2017. A total of 5 containers were received in good condition at a temperature of 0.2°C, which was within the recommended temperature criteria.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
FRB-01_012517_ABD_06_MU	17-02-0647-1	01/25/17 14:55	02/08/17 10:40
FRB-01_012517_ABD_07_MU	17-02-0647-2	01/25/17 15:15	02/08/17 10:40
FRB-01_012517_ABD_08_MU	17-02-0647-3	01/25/17 16:15	02/08/17 10:40
FRB-01_012617_ABD_09_MU	17-02-0647-4	01/26/17 15:15	02/08/17 10:40
FRB-01_012617_ABD_10_MU	17-02-0647-5	01/26/17 15:35	02/08/17 10:40

### **DATA SUMMARY:**

Pursuant to the chain-of-custody (COC), the samples were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a).

All samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -5 were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 02/22/17 in batch # 170222B06 / 170222D06.

### **Sample and QC:**

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.



**% Lipids via MeCl2 Ext.  
(NOAA 1993a)**

**RAW DATA**

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-0647  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 1**      **CLIENT SAMPLE NUMBER:** FRB-01\_012617\_ABD\_06\_MU

**LCS/MB BATCH:** 170222B06      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 170222D06      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND:**

<u>% Lipids</u>	<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
2.34	1.00	2.34	0.10		

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-0647  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 2**      **CLIENT SAMPLE NUMBER:** FRB-01\_012517\_ABD\_07\_MU

**LCS/MB BATCH:** 170222B06      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 170222D06      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

**COMPOUND:**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      1.61      1.00      1.61      0.10



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 17-02-0647  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2017-02-22 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2017-02-22 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 3 CLIENT SAMPLE NUMBER: FRB-01\_012517\_ABD\_08\_MU

LCS/MB BATCH: 170222B06 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 170222D06 FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND:

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
1.68	1.00	1.68	0.10	

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-0647  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 4**      **CLIENT SAMPLE NUMBER:** FRB-01\_012617\_ABD\_09\_MU

**LCS/MB BATCH:** 170222B06      **SAMPLE VOLUME / WEIGHT:** 20.00 g  
**MS/MSD BATCH:** 170222D06      **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**      **ON COL CONC**      **DF**      **CONC**      **RL**      **QUAL**

% Lipids      2.00      1.00      2.00      0.10



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-0647  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 5**      **CLIENT SAMPLE NUMBER:** FRB-01\_012617\_ABD\_10\_MU

**LCS/MB BATCH:** 170222B06      **SAMPLE VOLUME /WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 170222D06      **FINAL VOLUME /WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**

<b>COMPOUND</b>	<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
% Lipids	1.54	1.00	1.54	0.10	



METHOD BLANK ASSOCIATION SUMMARY  
 FOR METHOD: Mec12 Ext. (NOAA 1993a)

**MB SAMPLE ID:** 099-14-104-166  
**MB BATCH ID:** 170222B06  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

DATA FILE:

**CLIENT WORK ORDER: 17-02-0647**

S#	RUN TYPE	CLIENT SAMPLE ID	D/T ANALYZED	DATA FILE
1	FRB-01	012517_ABD_06_MU	2017-02-22 00:00	
2	FRB-01	012517_ABD_07_MU	2017-02-22 00:00	
3	FRB-01	012517_ABD_08_MU	2017-02-22 00:00	
4	FRB-01	012617_ABD_09_MU	2017-02-22 00:00	
5	FRB-01	012617_ABD_10_MU	2017-02-22 00:00	



RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 099-14-104  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2017-02-22 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2017-02-22 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# MB CLIENT SAMPLE NUMBER: Method Blank

LCS/MB BATCH: 170222B06 SAMPLE VOLUME / WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: FINAL VOLUME / WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PF: 1.00

COMMENT:  
COMPOUND ON COL CONC DF CONC RL QUAL

% Lipids 0.0120 1.00 ND 0.10





**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 17-02-0647-1  
DUP BATCH: 170222D06  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
SAMPLE: 2017-02-22 00:00  
DUP SAMPLE: 2017-02-22 00:00

ANALYZED BY: 684  
D/T ANALYZED  
SAMPLE: 2017-02-22 00:00  
DUP SAMPLE: 2017-02-22 00:00  
REVIEWED BY:  
D/T REVIEWED

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	2.335	2.390	2	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

### Lipid Content Raw Data Logbook

REAGENT NAME / ID #		REAGENT NAME / ID #		SUPPLY NAME / ID #		COMMENTS					
1) CH <sub>2</sub> Cl <sub>2</sub> S07-55-01		4) Sand S07-19-19		1) Filter S07-44-19		Instructions: 1. ECI ID consists of Work Order Number and Container ID. 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100 3. RPD =   Sample% - Duplicate%   × 2 / (Sample% + Duplicate%) × 100					
2) C <sub>6</sub> H <sub>14</sub>											
3) Na <sub>2</sub> SO <sub>4</sub> S07-44-18											
MATRIX	BATCH NUMBER		COMMENTS								
Tissue	MB 170222B06										
	Sample Dup 170222D06										
ECI ID #		LIPID CONTENT (%)	RPD %	CONTROL LIMIT							
Sample 17-02-0647-1AA		2.335	2	0 - 25							
Duplicate 17-02-0647-1AA		2.390									
DATE	ECI ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
2/22/17	MB	5.00	52	1	1	1.8371	1.8377	0.0006	0.012000	684	
2/22/17	Duplicate 17-02-0647-1AA	5.00	52	1	1	1.8478	1.9673	0.1195	2.390000	684	
2/22/17	17-02-0647-1AA	5.01	52	1	1	1.8717	1.9887	0.1170	2.335329	684	
2/22/17	17-02-0647-2AA	5.00	52	1	1	1.8398	1.9201	0.0803	1.606000	684	
2/22/17	17-02-0647-3AA	5.02	52	1	1	1.8506	1.9351	0.0845	1.683267	684	
2/22/17	17-02-0647-4AA	5.01	52	1	1	1.8639	1.9641	0.1002	2.000000	684	
2/22/17	17-02-0647-5AA	5.00	52	1	1	1.8382	1.9153	0.0771	1.542000	684	
2/22/17	17-02-0648-1AA	5.01	52	1	1	1.8399	1.9368	0.0969	1.934132	684	
2/22/17	17-02-0648-2AA	5.00	52	1	1	1.8445	1.9453	0.1008	2.016000	684	
2/22/17	17-02-0648-3AA	5.00	52	1	1	1.8577	1.9636	0.1059	2.118000	684	
2/22/17	17-02-0648-4AA	5.02	52	1	1	1.8549	1.9891	0.1342	2.673307	684	
2/22/17	17-02-0649-1AA	5.00	52	1	1	1.8346	1.9805	0.1459	2.918000	684	
2/22/17	17-02-0649-2AA	5.00	52	1	1	1.8495	1.9765	0.1270	2.540000	684	
2/22/17	17-02-0649-3AA	5.01	52	1	1	1.8579	1.9148	0.0569	1.135729	684	
2/22/17	17-02-0649-4AA	5.00	52	1	1	1.8463	1.9761	0.1298	2.596000	684	
2/22/17	17-02-0649-5AA	5.02	52	1	1	1.8433	1.9241	0.0808	1.609562	684	
2/22/17	17-02-1314-1AA	5.00	52	1	1	1.8531	1.9985	0.1454	2.908000	684	
2/22/17	Duplicate 17-02-0648-1AA	5.00	52	1	1	1.8368	1.9377	0.1009	2.018000	684	
2/22/17	Duplicate 17-02-0649-1AA	5.00	52	1	1	1.8549	2.0096	0.1547	3.094000	684	
	Duplicate										

Page 22 of 27

8770 ( Soil Soil SIM SUPR PAH SIM PAH SIM Pest SIM PCB cong. SIM FC )

Extraction Method (EPA Method): 3510 3520 3540 3541 3545 3550 3580

Analyst ID#: Measuring Sample 682 Start Extraction 682 Blow Down: Clean Up

Matrix: Soil Aqueous Oil Wipe Filter  Tissue Air

Balance ID#: 20 Filter ID#: AST ID#: Soxhlet ID#: Orbital Shaker ID#: Sonicator ID#

Ext Start Date/Time: 2/22/17 11:26 Ext End Date/Time: 2/22/17 13:30

Sand or Wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub> Diatomaceous Earth

Surrogate Std ID# & Volume Added (ml): Drying Agent(s) ID#: 507-44-18

Spike Std ID# & Volume Added (ml): Spike Added to:  ICS  ICSD  MS  MSD

Extraction Solvent:  MeCl<sub>2</sub>  1:1 Hexane-Acetone  1:1 MeCl<sub>2</sub> Acetone  9:1 Hexane-Diethyl-ether  Acetonitrile

Extraction Solvent ID#: 507-55-01 Exchange Solvent (Hexane Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time: Cartridge ID#:

Clean Up:  3620 Florisil  3630 SGC  3660 Sulfur  3665 Acid  Other

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Flution Reagent ID#:

MB/ICS/MS Batch #: 170222 Bob Sample W (g) / V (ml)

Cell ID#	Initial	Final	Clean Up Performed	Comments
MB	5.00	1	<input type="checkbox"/>	
ICS	/	/	<input type="checkbox"/>	
ICSD	/	/	<input type="checkbox"/>	
MS	/	/	<input type="checkbox"/>	
MSD Dup 17-02-0647-1AA	5.00	1	<input type="checkbox"/>	
	0-02-0647-1AA	5.01	<input type="checkbox"/>	
	-2	5.00	<input type="checkbox"/>	
	-3	5.02	<input type="checkbox"/>	
	-4	5.01	<input type="checkbox"/>	
	-5	5.00	<input type="checkbox"/>	
	17-02-0648-1	5.01	<input type="checkbox"/>	
	-2	5.00	<input type="checkbox"/>	
	-3	5.00	<input type="checkbox"/>	
	-4	5.02	<input type="checkbox"/>	
	17-02-0649-1	5.00	<input type="checkbox"/>	
	-2	5.00	<input type="checkbox"/>	
	-3	5.01	<input type="checkbox"/>	
	-4	5.00	<input type="checkbox"/>	
	-5	5.02	<input type="checkbox"/>	
	17-02-1314-1	5.00	<input type="checkbox"/>	
	Dup 17-02-0648-1	5.00	<input type="checkbox"/>	
	Dup 17-02-0649-1 AA	5.00	<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	
			<input type="checkbox"/>	

Peer Reviewed by: 684 Peer Reviewed Date: Revision Date: 10/20/16

# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 02/24/17 Initials: LOS

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.03	98.00 - 102.00	<input checked="" type="radio"/> Y	N
62	500	500.10	498.00 - 502.00	<input checked="" type="radio"/> Y	N
	0.002	0.0020	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
26	1	0.9994	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9904	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
55	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y	N
11	500	499.91	498.00 - 502.00	<input checked="" type="radio"/> Y	N
	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
66	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	0.002	0.0022	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
53	1	0.9996	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	100.0008	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
2070	0.1	0.09	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	0.98	0.98 - 1.02	<input checked="" type="radio"/> Y	N
57	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.17	498.00 - 502.00	<input checked="" type="radio"/> Y	Extractions
52	100	100.0	98.0 - 102.0	<input checked="" type="radio"/> Y	N
	2000	1998.2	1998.0 - 2002.0	<input checked="" type="radio"/> Y	Extractions
71	0.002	0.0018	0.0018 - 0.0022	<input checked="" type="radio"/> Y	N
	1	0.9999	0.9990 - 1.0010	<input checked="" type="radio"/> Y	BOD Room
63	100	99.9970	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	BOD Room
64	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
72	10	10.00	9.8 - 10.2	<input checked="" type="radio"/> Y	N
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
30	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.9995	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
30	100	100.0001	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
30	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	N



# Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	MS. Sp. L.	Chem Service	H1-C5M515B1 1396-SML	402-1100	6/30/17	5 ml	G	1/28/16	785	3-3-16	785	
2										04-27-16	1061	
3										05-24-16	1001	
4										06-25-16	1006	
5	Chloroform		1-1425J4 -1ML	4177-000	2-21-17	1ml	G	1/28/16	785	03/17/16	669	
6	Hydrochloric Acid		N 1210-16	0040400	11-20-17	1				1/29/16	1018	verified
7												
8	Acetonitrile	Fisher	A998-4	157707	01-26-19	4L X 8	G	01-26-16	1000	01-26-16	1100	
9	Sodium Sulfate Anhydrous	Fisher	S421-10	154284	1-28-21	10kg X 3	P	1-28-16	785	1-28-16	785	
10	Dichloromethane	Cal D	Dx-0831-1	55313	02-01-19	4 <sup>L</sup> X 60	G	02-01-16	787	02-01-16	787	
11	MS.		N 1210-16	2305125	15-08-17	1ml	G	2-2-16	960	2-2-16	1018	verified.
12	Acetonitrile	Acros STD	M-134-25	2135749	01/01/15	1 ml	G	2-2-16	785	6/19/16	785	
13										6/10/16	923	
14										8/10/16	20	
15										11/8/16	785	
16												
17	MS.	Absolute	FCE71	072215	7/24/20	1ml	G	2-4-16	429	2/5/16	421	
18	Dichloromethane	EMD	Dx0831-1	55310	02/08/19	4 <sup>L</sup> X 80	G	02-08-16	787	02/08/16	787	
19	Sand	EMD	SX0075-30	XH27A	2-10-21	12kg X 3	P	2-10-16	785	2-10-16	785	
20	Hydrochloric Acid	EMD	HX0607-2	55253	2-10-19	2.5L X 3	G	2-10-16	785	2-10-16	785	
21	Sulfuric Acid	EMD	SX1247-2	59132	2-16-19	2.5L X 3	G	2-16-16	785	2-16-16	785	
22	4-Phenylpiperidine	Supelco	48298	XH16372V	9-30-18	1ml	G	2-27-16	785			
23	Ara m f 2		861176	LC05648	2-29-17	1ml	G			4/25/16	923	
24	1,4-dioxane	Acros Standard	APP-7-1162-20X	2161109	1-7/20	1ml X 5	G	2-23-16	785	7/18/16	785	
25										7/18/16	785	

Page 25 of 27

COMMENTS

## Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Acetonitrile	Fisher	A998-4	153894	10-7-19	4Lx6	G	10-7-16	785	10-7-16	785	
2	Dichloromethane	EMD	DX0831CS-39	56211	10-7-19	200Lx2	D	10-7-16	785	10-7-16	785	
3	Acetone	Fisher	A929-1	163343	10-20-19	1L	G	10-20-16	262	10-20-16	262	
4	Ethyl Ether	EMD	EX0190-4	55033	02-28-17	1Lx20	G	10-24-16	787	10-24-16	787	Janet Lott
5	Ethyl Ether	EMD	EX0110-4	55152	06-30-17	1Lx20	G	10-24-16	787	10-24-16	787	
6	Dichloromethane	EMD	DX0831CS-39	56230	10-25-19	200Lx2	D	10-25-16	787	10-25-16	787	
7	Hexanes	EMD	HX0298CS-39	56197	10-25-19	200Lx1	D	↓	↓	↓	↓	
8	Acetone	EMD	AX0116CS-39	55086	10-25-19	200Lx1	D	↓	↓	↓	↓	
9	Swartz microfiber filters	Whatman	1837-101	9709206	NA	12x100	RUX	10-25-16	142	10-25-16	142	
10	N-Hexanes 95	EMD	HX0295-1	56147	10-27-19	1Lx20	G	10-27-16	787	10-27-16	787	
11	Mercury	Sigma-Aldrich	215457	11897503V	10-28-21	5x2kg	C	10-28-16	787	10-28-16	787	
12	N-Sulfonylurea sulfonamide	Aldrich	B910653250	AK1520267V	10-28-19	250ml	P	10-28-16	262	10-28-16	923	
13	↓	SPEX	S-677	EN16102008	10-26-19	1 ml	G	11-1-16	262			
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15	↓	↓	↓	↓	↓	↓	↓					
16	Supelclean LC-Alumina-A SPE Tube	Supelclean	57083-U	6545701	NA	25	P	11-1-16	684	11-1-16	684	
17	Sodium Sulfide	Fisher	711-10	162564	11-1-19	100g/3	P	11-2-16	785	11-2-16	785	
18	Sodium Sulfate Anhydrous	Fisher	5921-10	161565	11-3-21	100g/5	P	11-3-16	785	11-3-16	785	
19	Filter paper - 18.5cm	Fisher	08-780-14F	A10055719	NA	100circle x 10	P	11-8-16	785	11-8-16	785	
20	8270 SIM EPA STD	Ultras	CUS-13287	CP-5450	12/31/18	1 ml	G	11-8-16	262	21-01-17	262	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓			
23	↓	↓	↓	↓	↓	↓	↓	↓	↓			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

Page 26 of 27



## Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Dichloromethane	EIM D	DX0831ES <sup>3A</sup>	56338	12/20/19	5 x 200 <sup>4</sup>	D	12/20/16	787	12/20/16	787	
2	Aroclor 1268	Ultra	EPA-1382	CP-6205	1/31/2021	1 mL	G	1/4/17	1028			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
4	Methanol	Fisher	A452-4	163686		4 L <sup>4</sup>	G	11/01/17	zbr			
5	<del>zbr 11/01/17</del>											
6												
7												
8	Methanol	Fisher	A452-4	163686	11/01/20	4 L x 4	G	11/01/17	zbr	11/01/17	zbr	
9	ICB & TCMX	Acc STD	CLP-032 HSA	21502153	2/25/218	1 mL	G	1/4/17	zbr			
10												
11												
12												
13												
14												
15												
16												
17												
18												
19	Sodium chloride	Fisher	307H10	10623	11/1/22	200	P	10/1/17	1028	1/3/17	1028	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Regene	Acc STD	AS-EC573	212102651	3/25/2018	1 mL	G	11/9/17	zbr	2/15/17	923	
22												
23												
24												
25												

Page 27 of 27

COMMENTS:

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1702168

PO#

C012208478

March 14, 2017



# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1702168

### Table of Contents

March 14, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	7
Quality Control Results	13
Notes and Definitions	24
Raw Data: 7B07020	25
Raw Data: 7B13016	50
Raw Data: 7B22008	85
Calscience Level II Data Package - % Lipids	122

**Total Pages – 147**



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:28

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_012417_ABD_01_MU	1702168-01	Tissue	24-Jan-17 18:30	01-Feb-17 10:10
ES-13_012417_ABD_02_MU	1702168-02	Tissue	24-Jan-17 18:45	01-Feb-17 10:10
ES-13_012817_ABD_03_MU	1702168-03	Tissue	28-Jan-17 15:25	01-Feb-17 10:10
ES-13_012817_ABD_04_MU	1702168-04	Tissue	28-Jan-17 15:35	01-Feb-17 10:10
CORN_012817_DUCK_BAIT	1702168-05	Tissue	28-Jan-17 16:00	01-Feb-17 10:10
EB_Knife_012317_ABD_E00_QC	1702168-06	Water	23-Jan-17 06:50	01-Feb-17 10:10

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  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:28

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/1/2017 10:10:00 AM . The samples were received intact, on-ice within two sealed coolers at -30.5 and 3.5 degrees Celsius.

Samples 1702168-07, -08, -09, and -10 were received and preserved, but were put on hold per client request.

The tissue samples were sent to Eurofins Calscience for % Lipids by NOAA 1993a after EFGS completed the homogenization. The final data can be found at the end of the report after the Mercury raw data.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per EFGS SOP5141 prior to digestion.

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

The equipment blanks were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

The tissue samples were prepped in batches F702256 and F702348. They were analyzed in sequences 7B13016 and 7B22008. Per client request, the lab used sample 1702168-01 as the MS/MSD source in batch F702348. The water samples were analyzed in batch F702254 and analyzed in sequence 7B07020.

ANALYTICAL AND QUALITY CONTROL ISSUES

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

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

Eurofins Frontier Global Sciences, Inc.

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017

Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:28

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.



Frontier Global Sciences

# Sample Receipt Checklist

1702168 2014117

EFGS Work Order: 17021049

Client: AmeC

Date & Time Received 2/1/17 1010

Date Labeled: 2-2-17 Labeled By: RMB

Project: \_\_\_\_\_ Received By: CSF

Label Verified By: PCW

# 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 Temp Blank Used: Y/N for Cooler(s): 2

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:
3150	-30	-30.5	2/1/17 1010	CSF
Cooler 1:	-30	°C	4.0	°C
Cooler 2:	°C	°C	°C	°C
Cooler 3:	°C	°C	°C	°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>	<u>MA</u>
Requested analyses:	<u>Y</u>	
Required signatures:	<u>Y</u>	
Internal COC required:	<u>Y</u>	

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

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

Cooler 2: 9020 5603 4580

# Sample Receipt Checklist

1702051 on 2/13/17

EFGS Work Order: 1702051

Client: AmeC

Date & Time Received 2/1/17 1010

Date Labeled: 2-2-17 Labeled By: AMB

Received By: CSF

Label Verified By: SGW

# 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): 2

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:
3150	-0.5°C	2/1/17 1010	CSF
Cooler 1:	-30°C w/CF: -30.5°C	Cooler 4:	4.0°C w/CF: 3.5°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>	<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>N</u>	<u>* See below</u>
Correct sample containers used:	<u>Y</u>	
Samples received within holding times:	<u>Y</u>	
Sample volume sufficient for requested analyses:	<u>Y</u>	
Correct preservative used for requested analyses:	<u>N/A</u>	

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

Cooler 2: 9020 5603 4580

\* Samples 1702051-01 through 05: The sample IDs on the COC all have "-01" after "MMBKD" but the sample labels do not. Samples are identifiable without the "-01" AMB 2-2-17





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:28

**ES-13\_012417\_ABD\_01\_MU**  
**1702168-01**

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

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

Mercury	717	3.42	30.6	ng/g	400	F702348	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	
---------	-----	------	------	------	-----	---------	-----------	---------	-----------	-----------	--





AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:28

**ES-13\_012417\_ABD\_02\_MU**  
**1702168-02**

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	243	0.417	3.72	ng/g	100	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	



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Project Number: USDC Penobscot  
Project Manager: Denise King

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14-Mar-17 09:28

**ES-13\_012817\_ABD\_03\_MU**  
**1702168-03**

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	371	1.72	15.3	ng/g	400	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	



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**ES-13\_012817\_ABD\_04\_MU**  
**1702168-04**

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	507	1.52	13.5	ng/g	400	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	



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**CORN\_012817\_DUCK\_BAIT**  
**1702168-05**

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	0.534	0.077	0.684	ng/g	20	F702256	08-Feb-17	7B13016	13-Feb-17	EPA 1631B	J



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**EB\_Knife\_012317\_ABD\_E00\_QC**  
**1702168-06**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631E BrCl Oxidation</b>											
Mercury	ND	0.08	0.50	ng/L	1	F702254	02-Feb-17	7B07020	07-Feb-17	EPA 1631E	U



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14-Mar-17 09:28

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B07020 - F702254</b>											
<b>Cal Standard (7B07020-CAL1)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	0.53	-		ng/L	0.50100		105				
<b>Cal Standard (7B07020-CAL2)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	1.00	-		ng/L	1.0020		100				
<b>Cal Standard (7B07020-CAL3)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	4.98	-		ng/L	5.0100		99.4				
<b>Cal Standard (7B07020-CAL4)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	19.43	-		ng/L	20.040		97.0				
<b>Cal Standard (7B07020-CAL5)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	38.96	-		ng/L	40.080		97.2				
<b>Calibration Blank (7B07020-CCB1)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	0.03	-		ng/L							
<b>Calibration Blank (7B07020-CCB2)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7B07020-CCB3)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	0.06	-		ng/L							
<b>Calibration Blank (7B07020-CCB4)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	0.07	-		ng/L							
<b>Calibration Blank (7B07020-CCB5)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	0.06	-		ng/L							

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B07020 - F702254

<b>Calibration Blank (7B07020-CCB6)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7B07020-CCB7)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	0.08	-		ng/L							
<b>Calibration Blank (7B07020-CCB8)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	0.08	-		ng/L							
<b>Calibration Check (7B07020-CCV1)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	5.24	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7B07020-CCV2)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	5.32	-		ng/L	5.0000		106	77-123			
<b>Calibration Check (7B07020-CCV3)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	5.39	-		ng/L	5.0000		108	77-123			
<b>Calibration Check (7B07020-CCV4)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	5.33	-		ng/L	5.0000		107	77-123			
<b>Calibration Check (7B07020-CCV5)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	5.26	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7B07020-CCV6)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	5.37	-		ng/L	5.0000		107	77-123			
<b>Calibration Check (7B07020-CCV7)</b>											
Prepared & Analyzed: 07-Feb-17											
Mercury	5.25	-		ng/L	5.0000		105	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 7B07020 - F702254

<b>Calibration Check (7B07020-CCV8)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	4.98	-		ng/L	5.0000		99.6	77-123			
<b>Instrument Blank (7B07020-IBL1)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	ND	0.08	0.50	ng/L							U
<b>Instrument Blank (7B07020-IBL2)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	ND	0.08	0.50	ng/L							U
<b>Instrument Blank (7B07020-IBL3)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	ND	0.08	0.50	ng/L							U
<b>Initial Cal Check (7B07020-ICV1)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	5.12	-		ng/L	5.0000		102	77-123			

Batch 7B13016 - F702256

<b>Cal Standard (7B13016-CAL2)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	1.023	-		ng/L	1.0020		102				
<b>Cal Standard (7B13016-CAL3)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	4.675	-		ng/L	5.0100		93.3				
<b>Cal Standard (7B13016-CAL4)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	18.78	-		ng/L	20.040		93.7				
<b>Cal Standard (7B13016-CAL5)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	37.02	-		ng/L	40.080		92.4				

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14-Mar-17 09:28

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B13016 - F702256</b>											
<b>Cal Standard (7B13016-CAL6)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.589	-		ng/L	0.50100		118				
<b>Calibration Blank (7B13016-CCB1)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.027	-		ng/L							
<b>Calibration Blank (7B13016-CCB2)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.091	-		ng/L							
<b>Calibration Blank (7B13016-CCB3)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.073	-		ng/L							
<b>Calibration Blank (7B13016-CCB4)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	0.099	-		ng/L							
<b>Calibration Check (7B13016-CCV1)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	4.900	-		ng/L	5.0000		98.0	77-123			
<b>Calibration Check (7B13016-CCV2)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	5.038	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7B13016-CCV3)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	5.263	-		ng/L	5.0000		105	77-123			
<b>Calibration Check (7B13016-CCV4)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	5.207	-		ng/L	5.0000		104	77-123			
<b>Instrument Blank (7B13016-IBL1)</b>					Prepared & Analyzed: 13-Feb-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 7B13016 - F702256

<b>Instrument Blank (7B13016-IBL2)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U

<b>Instrument Blank (7B13016-IBL3)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U

<b>Initial Cal Check (7B13016-ICV1)</b>					Prepared & Analyzed: 13-Feb-17						
Mercury	4.881	-		ng/L	5.0000		97.6	77-123			

Batch 7B22008 - F702348

<b>Cal Standard (7B22008-CAL1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.521	-		ng/L	0.50100		104				

<b>Cal Standard (7B22008-CAL2)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.956	-		ng/L	1.0020		95.4				

<b>Cal Standard (7B22008-CAL3)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.069	-		ng/L	5.0100		101				

<b>Cal Standard (7B22008-CAL4)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	19.79	-		ng/L	20.040		98.8				

<b>Cal Standard (7B22008-CAL5)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	39.93	-		ng/L	40.080		99.6				

<b>Calibration Blank (7B22008-CCB1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.065	-		ng/L							



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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B22008 - F702348

<b>Calibration Blank (7B22008-CCB2)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.042	-		ng/L								
<b>Calibration Blank (7B22008-CCB3)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.057	-		ng/L								
<b>Calibration Blank (7B22008-CCB4)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.069	-		ng/L								
<b>Calibration Blank (7B22008-CCB5)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.039	-		ng/L								
<b>Calibration Blank (7B22008-CCB6)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.064	-		ng/L								
<b>Calibration Blank (7B22008-CCB7)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.086	-		ng/L								
<b>Calibration Blank (7B22008-CCB8)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	0.079	-		ng/L								
<b>Calibration Check (7B22008-CCV1)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.090	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7B22008-CCV2)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.086	-		ng/L	5.0000		102	77-123				
<b>Calibration Check (7B22008-CCV3)</b>												Prepared & Analyzed: 21-Feb-17
Mercury	5.046	-		ng/L	5.0000		101	77-123				

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Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B22008 - F702348

<b>Calibration Check (7B22008-CCV4)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.120	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV5)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.210	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7B22008-CCV6)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.015	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (7B22008-CCV7)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.109	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV8)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.481	-		ng/L	5.0000		110	77-123			
<b>Instrument Blank (7B22008-IBL1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7B22008-IBL2)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7B22008-IBL3)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7B22008-ICV1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.062	-		ng/L	5.0000		101	77-123			

Batch F702254 - EPA 1631E BrCl Oxidation

<b>Blank (F702254-BLK1)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	0.08	0.08	0.50	ng/L							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 F702254 - EPA 1631E BrCl Oxidation

<b>Blank (F702254-BLK2)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	ND	0.08	0.50	ng/L							U
<b>Blank (F702254-BLK3)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	ND	0.08	0.50	ng/L							U
<b>LCS (F702254-BS1)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	16.39	0.08	0.50	ng/L	15.679		105	80-120			
<b>LCS Dup (F702254-BSD1)</b>					Prepared & Analyzed: 07-Feb-17						
Mercury	16.69	0.08	0.50	ng/L	15.679		106	80-120	1.79	24	
<b>Duplicate (F702254-DUP1)</b>					Source: 1702167-06 Prepared & Analyzed: 07-Feb-17						
Mercury	ND	0.08	0.50	ng/L		0.15				24	U
<b>Matrix Spike (F702254-MS1)</b>					Source: 1702167-06 Prepared & Analyzed: 07-Feb-17						
Mercury	2.53	0.08	0.50	ng/L	2.5300	0.15	94.0	71-125			
<b>Matrix Spike (F702254-MS2)</b>					Source: 1702168-06 Prepared & Analyzed: 07-Feb-17						
Mercury	2.59	0.08	0.50	ng/L	2.5300	ND	102	71-125			
<b>Matrix Spike Dup (F702254-MSD1)</b>					Source: 1702167-06 Prepared & Analyzed: 07-Feb-17						
Mercury	2.52	0.08	0.50	ng/L	2.5300	0.15	93.7	71-125	0.328	24	
<b>Matrix Spike Dup (F702254-MSD2)</b>					Source: 1702168-06 Prepared & Analyzed: 07-Feb-17						
Mercury	2.54	0.08	0.50	ng/L	2.5300	ND	101	71-125	1.77	24	

Batch F702256 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F702256-BLK1)</b>					Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	ND	0.179	1.60	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 F702256 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F702256-BLK2)</b>												Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	ND	0.179	1.60	ng/g								U	
<b>Blank (F702256-BLK3)</b>												Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	0.180	0.179	1.60	ng/g								J	
<b>Blank (F702256-BLK4)</b>												Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	ND	0.074	0.658	ng/g								F-03, U	
<b>Blank (F702256-BLK5)</b>												Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	ND	0.071	0.634	ng/g								F-03, U	
<b>LCS (F702256-BS1)</b>												Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	7.532	0.090	0.800	ng/g	8.0160		94.0	75-125					
<b>LCS (F702256-BS2)</b>												Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	324.5	3.54	31.6	ng/g	382.50		84.8	75-125					
<b>LCS Dup (F702256-BSD1)</b>												Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	7.604	0.090	0.800	ng/g	8.0160		94.9	75-125	0.953	24			
<b>Duplicate (F702256-DUP1)</b>												Source: 1702166-04RE1 Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	321.9	1.55	13.9	ng/g		325.2			1.03	24			
<b>Matrix Spike (F702256-MS2)</b>												Source: 1702167-01 Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	315.0	1.57	14.0	ng/g	351.52	10.13	86.7	71-125					
<b>Matrix Spike (F702256-MS3)</b>												Source: 1702166-04RE1 Prepared: 08-Feb-17 Analyzed: 13-Feb-17	
Mercury	634.7	3.98	35.6	ng/g	356.39	325.2	86.8	71-125					

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: USDC Penobscot  
Project Manager: Denise King

Reported:  
14-Mar-17 09:28

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 F702256 - EFGS-011 Nitric/Sulfuric Hg Digestion

Matrix Spike Dup (F702256-MSD2)		Source: 1702167-01			Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	314.6	1.54	13.7	ng/g	344.27	10.13	88.4	71-125	1.94	24	
Matrix Spike Dup (F702256-MSD3)		Source: 1702166-04RE1			Prepared: 08-Feb-17 Analyzed: 13-Feb-17						
Mercury	597.7	3.97	35.5	ng/g	355.38	325.2	76.7	71-125	12.4	24	

Batch F702348 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F702348-BLK1)					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.097	0.090	0.800	ng/g							J
Blank (F702348-BLK2)					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.098	0.090	0.800	ng/g							J
Blank (F702348-BLK3)					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	ND	0.090	0.800	ng/g							U
LCS (F702348-BS1)					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.734	0.090	0.800	ng/g	8.0160		96.5	75-125			
LCS (F702348-BS2)					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	328.3	3.58	31.9	ng/g	381.89		86.0	75-125			
LCS Dup (F702348-BSD1)					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.747	0.090	0.800	ng/g	8.0160		96.6	75-125	0.169	24	
Duplicate (F702348-DUP1)		Source: 1702168-01			Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	358.8	1.59	14.2	ng/g		717.2			66.6	24	QR-07

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Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F702348 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Matrix Spike (F702348-MS1)</b>		<b>Source: 1702050-01</b>			Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	34670	94.3	842	ng/g	33737	263.6	102	71-125			
<b>Matrix Spike (F702348-MS2)</b>		<b>Source: 1702168-01</b>			Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3976	10.7	95.3	ng/g	3818.6	717.2	85.3	71-125			
<b>Matrix Spike Dup (F702348-MSD1)</b>		<b>Source: 1702050-01</b>			Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	24930	69.0	616	ng/g	24680	263.6	99.9	71-125	2.02	24	
<b>Matrix Spike Dup (F702348-MSD2)</b>		<b>Source: 1702168-01</b>			Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3927	10.3	92.3	ng/g	3700.1	717.2	86.7	71-125	1.64	24	

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**Reported:**  
14-Mar-17 09:28

**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.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26003-170207-2

Analysis Datasheet for Total Mercury

Date of Analysis: February 07, 2017  
Instrument #: Hg2600-3  
LIMS Sequence #: 7B07020, 7B07021

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	67.33 units	134.67	61.75 units	123.50	105.7 %Rec
SEQ-CAL2	1	1.00 ng/L	122.77 units	122.77	117.19 units	117.19	100.3 %Rec
SEQ-CAL3	1	5.00 ng/L	587.41 units	117.48	581.83 units	116.37	99.6 %Rec
SEQ-CAL4	1	20.00 ng/L	2276.60 units	113.83	2271.02 units	113.55	97.1 %Rec
SEQ-CAL5	1	40.00 ng/L	4559.08 units	113.98	4553.49 units	113.84	97.4 %Rec
SEQ-CAL6	0						
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

Corr. Mean RF    Corr. St Dev RF    Corr. RSD CF    Uncorr. Mean RF  
116.89            +/- 4.02            3.4% RSD            120.55

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-TBL	3	5.58 units	±1.22	0.05 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	8.504 ng/L	±4.326
BLK	2	3	0.060 ng/L	±0.016
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 2/9/17

Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		RESP	InitialResult	FinalResult	InitialUnits	Comments
		Type	LabNumber							Correction?	RESP					
Hg2600-3	DM2	CAL	SEQ-IBL1	1	2/7/2017 11:30:57	60517-1.RAW	11:30:57 AM	6.80				1.0	0.009	0.009	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/7/2017 11:35:05	60518-1.RAW	11:35:05 AM	5.91				0.3	0.003	0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/7/2017 11:39:14	60519-1.RAW	11:39:14 AM	4.24				-1.3	-0.012	-0.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	2/7/2017 11:43:22	60520-1.RAW	11:43:22 AM	67.33				61.8	0.528	0.528	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/7/2017 11:47:30	60521-1.RAW	11:47:30 AM	122.77				117.2	1.003	1.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/7/2017 11:51:39	60522-1.RAW	11:51:39 AM	587.41				581.8	4.978	4.978	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/7/2017 11:55:47	60523-1.RAW	11:55:47 AM	2276.80				2271.0	19.429	19.429	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/7/2017 11:59:56	60524-1.RAW	11:59:56 AM	4559.08				4553.5	38.956	38.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/7/2017 12:04:04	60525-1.RAW	12:04:04 PM	603.93				598.3	5.119	5.119	ng/L	
Hg2600-3	DM2	SAM	EFGS08054 3000NG	2500	2/7/2017 12:15:05	60526-1.RAW	12:15:05 PM	1373.10				1367.5	11.699	29248.244	ng/L	
Hg2600-3	DM2	SAM	EFGS03851 3000NG	2500	2/7/2017 12:19:14	60527-1.RAW	12:19:14 PM	1316.76		X		1311.2	11.217	28043.284	ng/L	
Hg2600-3	DM2	SAM	EFGS05211 900NG	500	2/7/2017 12:23:22	60528-1.RAW	12:23:22 PM	1975.60		X		1970.0	16.854	8426.902	ng/L	
Hg2600-3	DM2	SAM	EFGS06341 900NG	500	2/7/2017 12:27:31	60529-1.RAW	12:27:31 PM	1947.01		X		1941.4	16.609	8304.577	ng/L	
Hg2600-3	DM2	BLK	F702230-BLK1	100	2/7/2017 12:31:39	60530-1.RAW	12:31:39 PM	21.31	1			15.7	0.135	13.451	ng/L	
Hg2600-3	DM2	BLK	F702230-BLK2	100	2/7/2017 12:35:47	60531-1.RAW	12:35:47 PM	13.34	1			7.8	0.066	6.633	ng/L	
Hg2600-3	DM2	BLK	F702230-BLK3	100	2/7/2017 12:39:56	60532-1.RAW	12:39:56 PM	11.93	1			6.3	0.054	5.429	ng/L	
Hg2600-3	DM2	SAM	F702230-BS1	500	2/7/2017 12:44:04	60533-1.RAW	12:44:04 PM	945.77	1			940.2	8.026	4013.228	ng/L	
Hg2600-3	DM2	SAM	F702230-BSD1	500	2/7/2017 12:48:13	60534-1.RAW	12:48:13 PM	945.03	1			939.5	8.020	4010.062	ng/L	
Hg2600-3	DM2	SAM	1702090-01	2500	2/7/2017 12:52:21	60535-1.RAW	12:52:21 PM	99.72	1			94.1	0.802	2004.841	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/7/2017 12:56:30	60536-1.RAW	12:56:30 PM	618.35				612.8	5.242	5.242	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/7/2017 13:00:38	60537-1.RAW	1:00:38 PM	9.07				3.5	0.030	0.030	ng/L	
Hg2600-3	DM2	SAM	1702090-02	500	2/7/2017 13:04:46	60538-1.RAW	1:04:46 PM	576.92	1			571.3	4.871	2435.426	ng/L	
Hg2600-3	DM2	SAM	1702090-03	500	2/7/2017 13:08:55	60539-1.RAW	1:08:55 PM	441.80	1			436.2	3.715	1857.432	ng/L	
Hg2600-3	DM2	SAM	1702090-04	500	2/7/2017 13:13:03	60540-1.RAW	1:13:03 PM	268.34	1			262.8	2.231	1115.463	ng/L	
Hg2600-3	DM2	SAM	1702090-05	500	2/7/2017 13:17:12	60541-1.RAW	1:17:12 PM	229.01	1			223.4	1.894	947.222	ng/L	
Hg2600-3	DM2	SAM	1702090-06	500	2/7/2017 13:21:20	60542-1.RAW	1:21:20 PM	225.19	1			219.6	1.862	930.868	ng/L	
Hg2600-3	DM2	SAM	1702091-01	500	2/7/2017 13:25:29	60543-1.RAW	1:25:29 PM	688.64	1			683.1	5.827	2913.313	ng/L	
Hg2600-3	DM2	SAM	1702091-02	500	2/7/2017 13:29:37	60544-1.RAW	1:29:37 PM	611.70	1			606.1	5.168	2584.223	ng/L	
Hg2600-3	DM2	SAM	1702091-03	500	2/7/2017 13:33:45	60545-1.RAW	1:33:45 PM	597.52	1			581.9	4.962	2480.780	ng/L	
Hg2600-3	DM2	SAM	1702091-04	500	2/7/2017 13:37:54	60546-1.RAW	1:37:54 PM	444.42	1			438.8	3.737	1868.652	ng/L	
Hg2600-3	DM2	SAM	1702091-05	500	2/7/2017 13:42:02	60547-1.RAW	1:42:02 PM	411.34	1			405.8	3.454	1727.142	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/7/2017 13:46:11	60548-1.RAW	1:46:11 PM	626.87				621.3	5.315	5.315	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/7/2017 13:50:19	60549-1.RAW	1:50:19 PM	15.73				10.1	0.087	0.087	ng/L	
Hg2600-3	DM2	SAM	1702091-06	500	2/7/2017 13:54:28	60550-1.RAW	1:54:28 PM	363.84	1			358.3	3.048	1523.943	ng/L	
Hg2600-3	DM2	SAM	1702090-01RE1	500	2/7/2017 13:58:37	60551-1.RAW	1:58:37 PM	464.26	1			458.7	3.907	1953.519	ng/L	
Hg2600-3	DM2	SAM	1702090-02RE1	500	2/7/2017 14:02:45	60552-1.RAW	2:02:45 PM	569.83	1			564.2	4.810	2405.105	ng/L	
Hg2600-3	DM2	SAM	1702090-05RE1	500	2/7/2017 14:06:54	60553-1.RAW	2:06:54 PM	231.48	1			225.9	1.916	957.767	ng/L	
Hg2600-3	DM2	SAM	1702090-01B	100	2/7/2017 14:11:02	60554-1.RAW	2:11:02 PM	505.33	1			499.7	4.190	419.037	ng/L	
Hg2600-3	DM2	SAM	1702090-02B	100	2/7/2017 14:15:11	60555-1.RAW	2:15:11 PM	116.69	1			111.1	0.865	86.548	ng/L	
Hg2600-3	DM2	SAM	1702090-03B	100	2/7/2017 14:19:19	60556-1.RAW	2:19:19 PM	94.88	1			89.3	0.679	67.890	ng/L	
Hg2600-3	DM2	SAM	1702090-04B	100	2/7/2017 14:23:28	60557-1.RAW	2:23:28 PM	20.59	1			15.0	0.043	4.338	ng/L	
Hg2600-3	DM2	SAM	1702090-05B	100	2/7/2017 14:27:36	60558-1.RAW	2:27:36 PM	19.22	1			13.6	0.032	3.161	ng/L	
Hg2600-3	DM2	SAM	1702090-06B	100	2/7/2017 14:31:44	60559-1.RAW	2:31:44 PM	20.13	1			14.5	0.039	3.941	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/7/2017 14:35:53	60560-1.RAW	2:35:53 PM	636.06				630.5	5.394	5.394	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/7/2017 14:40:01	60561-1.RAW	2:40:01 PM	12.80				7.2	0.062	0.062	ng/L	
Hg2600-3	DM2	SAM	1702090-01RE1B	100	2/7/2017 14:45:52	60562-1.RAW	2:45:52 PM	493.44	1			487.9	4.089	408.867	ng/L	
Hg2600-3	DM2	SAM	1702091-01B	100	2/7/2017 14:50:00	60563-1.RAW	2:50:00 PM	31.29	1			25.7	0.135	13.485	ng/L	
Hg2600-3	DM2	SAM	1702091-02B	100	2/7/2017 14:54:09	60564-1.RAW	2:54:09 PM	21.46	1			15.9	0.051	5.082	ng/L	
Hg2600-3	DM2	SAM	1702091-03B	100	2/7/2017 14:58:17	60565-1.RAW	2:58:17 PM	26.76	1			21.2	0.096	9.611	ng/L	
Hg2600-3	DM2	SAM	1702091-04B	100	2/7/2017 15:02:26	60566-1.RAW	3:02:26 PM	14.04	1			8.5	-0.013	-1.268	ng/L	
Hg2600-3	DM2	SAM	1702091-05B	100	2/7/2017 15:06:34	60567-1.RAW	3:06:34 PM	15.51	1			9.9	0.000	-0.009	ng/L	
Hg2600-3	DM2	SAM	1702091-06B	100	2/7/2017 15:10:42	60568-1.RAW	3:10:42 PM	16.96	1			11.4	0.012	1.231	ng/L	
Hg2600-3	DM2	SAM	F702230-DUP1	500	2/7/2017 15:14:51	60569-1.RAW	3:14:51 PM	454.97	1			449.4	3.828	1913.787	ng/L	
Hg2600-3	DM2	SAM	F702230-MS1	500	2/7/2017 15:18:59	60570-1.RAW	3:18:59 PM	1608.54	1			1603.0	13.697	6848.269	ng/L	
Hg2600-3	DM2	SAM	F702230-MSD1	500	2/7/2017 15:23:08	60571-1.RAW	3:23:08 PM	1610.99	1			1605.4	13.717	6858.725	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	2/7/2017 15:27:16	60572-1.RAW	3:27:16 PM	628.22				622.6	5.327	5.327	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/7/2017 15:31:25	60573-1.RAW	3:31:25 PM	13.27				7.7	0.066	0.066	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	F702230-MS2	500	2/7/2017 15:35:33	60574-1.RAW	3:35:33 PM	1585.79	1		1580.2	13.502	6750.923	ng/L	
Hg2600-3	DM2	SAM	F702230-MSD2	500	2/7/2017 15:39:41	60575-1.RAW	3:39:41 PM	1576.47	1		1570.9	13.422	6711.094	ng/L	
Hg2600-3	DM2	BLK	F702254-BLK1	1	2/7/2017 15:43:50	60576-1.RAW	3:43:50 PM	14.65	2		9.1	0.078	0.078	ng/L	
Hg2600-3	DM2	BLK	F702254-BLK2	1	2/7/2017 15:47:58	60577-1.RAW	3:47:58 PM	11.81	2		6.2	0.053	0.053	ng/L	
Hg2600-3	DM2	BLK	F702254-BLK3	1	2/7/2017 15:52:07	60578-1.RAW	3:52:07 PM	11.18	2		5.6	0.048	0.048	ng/L	
Hg2600-3	DM2	SAM	F702254-BS1	1	2/7/2017 15:56:15	60579-1.RAW	3:56:15 PM	1909.40	2		1903.8	16.228	16.228	ng/L	
Hg2600-3	DM2	SAM	F702254-BSD1	1	2/7/2017 16:00:23	60580-1.RAW	4:00:23 PM	1943.75	2		1938.2	16.522	16.522	ng/L	
Hg2600-3	DM2	SAM	1702167-06	1	2/7/2017 16:04:32	60581-1.RAW	4:04:32 PM	30.11	2		24.5	0.150	0.150	ng/L	
Hg2600-3	DM2	SAM	1702167-07	1	2/7/2017 16:08:40	60582-1.RAW	4:08:40 PM	15.15	2		9.6	0.022	0.022	ng/L	
Hg2600-3	DM2	SAM	1702167-08	1	2/7/2017 16:12:49	60583-1.RAW	4:12:49 PM	13.89	2		8.3	0.012	0.012	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/7/2017 16:16:57	60584-1.RAW	4:16:57 PM	620.4931776			614.9	5.261	5.261	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/7/2017 16:21:06	60585-1.RAW	4:21:06 PM	12.93			7.3	0.063	0.063	ng/L	
Hg2600-3	DM2	SAM	1702167-09	1	2/7/2017 16:25:14	60586-1.RAW	4:25:14 PM	13.83	2		8.2	0.011	0.011	ng/L	
Hg2600-3	DM2	SAM	1702167-10	1	2/7/2017 16:29:22	60587-1.RAW	4:29:22 PM	13.98	2		8.4	0.012	0.012	ng/L	
Hg2600-3	DM2	SAM	1702167-11	1	2/7/2017 16:33:31	60588-1.RAW	4:33:31 PM	14.96	2		9.4	0.021	0.021	ng/L	
Hg2600-3	DM2	SAM	1702168-06	1	2/7/2017 16:37:39	60589-1.RAW	4:37:39 PM	16.93	2		11.3	0.037	0.037	ng/L	
Hg2600-3	DM2	SAM	1702168-07	1	2/7/2017 16:41:48	60590-1.RAW	4:41:48 PM	11.98	2		6.4	-0.005	-0.005	ng/L	
Hg2600-3	DM2	SAM	1702168-08	1	2/7/2017 16:45:56	60591-1.RAW	4:45:56 PM	13.55	2		8.0	0.009	0.009	ng/L	
Hg2600-3	DM2	SAM	1702168-09	1	2/7/2017 16:50:04	60592-1.RAW	4:50:04 PM	14.76	2		9.2	0.019	0.019	ng/L	
Hg2600-3	DM2	SAM	1702168-10	1	2/7/2017 16:54:13	60593-1.RAW	4:54:13 PM	10.86	2		5.3	-0.014	-0.014	ng/L	
Hg2600-3	DM2	SAM	F702254-DUP1	1	2/7/2017 16:58:21	60594-1.RAW	4:58:21 PM	11.93	2		6.3	-0.005	-0.005	ng/L	
Hg2600-3	DM2	SAM	F702254-MS1	1	2/7/2017 17:02:30	60595-1.RAW	5:02:30 PM	305.48	2		299.9	2.506	2.506	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/7/2017 17:06:38	60596-1.RAW	5:06:38 PM	633.56			628.0	5.372	5.372	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/7/2017 17:10:47	60597-1.RAW	5:10:47 PM	16.59			11.0	0.094	0.094	ng/L	
Hg2600-3	DM2	SAM	F702254-MSD1	1	2/7/2017 17:14:55	60598-1.RAW	5:14:55 PM	304.52	2		298.9	2.498	2.498	ng/L	
Hg2600-3	DM2	SAM	F702254-MS2	1	2/7/2017 17:19:03	60599-1.RAW	5:19:03 PM	312.26	2		306.7	2.564	2.564	ng/L	
Hg2600-3	DM2	SAM	F702254-MSD2	1	2/7/2017 17:23:12	60600-1.RAW	5:23:12 PM	307.02	2		301.4	2.519	2.519	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/7/2017 17:27:20	60601-1.RAW	5:27:20 PM	619.65			614.1	5.253	5.253	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/7/2017 17:31:29	60602-1.RAW	5:31:29 PM	14.42			8.8	0.076	0.076	ng/L	
Hg2600-3	DM2	SAM	SNCL 1700770	1	2/7/2017 17:35:37	60603-1.RAW	5:35:37 PM	4.39		X	-1.2	-0.010	-0.010	ng/L	
Hg2600-3	DM2	SAM	CLEAN		2/7/2017 17:38:29	60604-1.RAW	5:38:29 PM	0.00		X	-5.6	-0.048	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		2/7/2017 17:42:37	60605-1.RAW	5:42:37 PM	10.07		X	4.5	0.038	0.000	ng/L	
Hg2600-3	DM2	SAM	WS		2/7/2017 17:46:45	60606-1.RAW	5:46:45 PM	10.15		X	4.6	0.039	0.000	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/7/2017 17:50:54	60607-1.RAW	5:50:54 PM	587.53			581.9	4.979	4.979	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/7/2017 17:55:02	60608-1.RAW	5:55:02 PM	15.30			9.7	0.083	0.083	ng/L	

TotalMercury EPA1631  
 Operat DM BlankS 5.5831 Calib Eqn: Conc = (Area-5.583 Run Date: 2/7/2017 Blank SD: 1.215702614  
 Works1 THg2600 CalibFa 116.89 Status: QC Warnings:4/QC f Run Time: 14:41:43 Blank RSD%: 21.77452087  
 Method ### R: 1 R2: 1 CF SD: -4.017094947  
 Descr: THg26003-170207-1 CF RSD%: 3.436680031

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (eff)	Flags	RunCount
Clean				0.00	1.83					60512-1.RAW	11:11:32	214.09	Clean	OK	1
clean										60513-1.RAW	11:14:23	0.00	Clean	NP	1
ws				5.58	0.02					60514-1.RAW	11:18:32	7.51	Sample	OK	1
ws				5.58	0.02					60515-1.RAW	11:22:40	7.38	Sample	OK	1
ws				5.58	0.02					60516-1.RAW	11:26:48	7.37	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.06					60517-1.RAW	11:30:57	6.60	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.05					60518-1.RAW	11:35:05	5.91	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.04					60519-1.RAW	11:39:14	4.24	Sample	OK	1
SEQ-CAL1	A4		1	5.58	0.53		105.66			60520-1.RAW	11:43:22	67.33	Sample	OK	1
SEQ-CAL2	A5		1	5.58	1.00		100.26			60521-1.RAW	11:47:30	122.77	Sample	OK	1
SEQ-CAL3	A6		1	5.58	4.98		99.55			60522-1.RAW	11:51:39	587.41	Sample	OK	1
SEQ-CAL4	A7		1	5.58	19.43		97.14			60523-1.RAW	11:55:47	2276.60	Sample	OK	1
SEQ-CAL5	A8		1	5.58	38.96		97.39			60524-1.RAW	11:59:58	4559.08	Sample	FB	1
SEQ-ICV1	A9		1	5.58	5.12		102.38			60525-1.RAW	12:04:04	603.93	Sample	OK	1
EFGS08054 300	A10		2500	5.58	29248.24					60526-1.RAW	12:15:05	1373.10	Sample	OK	1
EFGS03851 300	A11		2500	5.58	28043.28					60527-1.RAW	12:19:14	1316.76	Sample	OK	1
EFGS05211 900	A12		500	5.58	8426.90					60528-1.RAW	12:23:22	1975.60	Sample	OK	1
EFGS06341 900	B1		500	5.58	6304.58					60529-1.RAW	12:27:31	1947.01	Sample	OK	1
F702230-BLK1	B2		100	5.58	13.45					60530-1.RAW	12:31:39	21.31	Sample	OK	1
F702230-BLK2	B3		100	5.58	6.63					60531-1.RAW	12:35:47	13.34	Sample	OK	1
F702230-BLK3	B4		100	5.58	5.43					60532-1.RAW	12:39:56	11.93	Sample	OK	1
F702230-BS1	B5		500	5.58	4021.73					60533-1.RAW	12:44:04	945.77	Sample	OK	1
F702230-BSD1	B6		500	5.58	4018.57					60534-1.RAW	12:48:13	945.03	Sample	OK	1
1702090-01	B7		2500	5.58	2013.35					60535-1.RAW	12:52:21	99.72	Sample	OK	1
SEQ-CCV1	B8		1	5.58	5.24	104.85				60536-1.RAW	12:56:30	618.35	Sample	OK	1
SEQ-CCB1	B9		1	5.58	0.03	0.00				60537-1.RAW	13:00:38	9.07	Sample	OK	1
1702090-02	B10		500	5.58	2443.93					60538-1.RAW	13:04:46	576.92	Sample	OK	1
1702090-03	B11		500	5.58	1865.94					60539-1.RAW	13:08:55	441.80	Sample	OK	1
1702090-04	B12		500	5.58	1123.97					60540-1.RAW	13:13:03	268.34	Sample	OK	1
1702090-05	C1		500	5.58	955.73					60541-1.RAW	13:17:12	229.01	Sample	OK	1
1702090-06	C2		500	5.58	939.37					60542-1.RAW	13:21:20	225.19	Sample	OK	1
1702091-01	C3		500	5.58	2921.82					60543-1.RAW	13:25:29	688.64	Sample	OK	1
1702091-02	C4		500	5.58	2592.73					60544-1.RAW	13:29:37	611.70	Sample	OK	1
1702091-03	C5		500	5.58	2489.28					60545-1.RAW	13:33:45	587.52	Sample	OK	1
1702091-04	C6		500	5.58	1877.16					60546-1.RAW	13:37:54	444.42	Sample	OK	1
1702091-05	C7		500	5.58	1735.65					60547-1.RAW	13:42:02	411.34	Sample	OK	1
SEQ-CCV2	C8		1	5.58	5.32	106.30				60548-1.RAW	13:46:11	626.87	Sample	OK	1
SEQ-CCB2	C9		1	5.58	0.09	0.00				60549-1.RAW	13:50:19	15.73	Sample	OK	1
1702091-06	C10		500	5.58	1532.45					60550-1.RAW	13:54:28	363.84	Sample	OK	1
1702090-01RE1	C11		500	5.58	1962.02					60551-1.RAW	13:58:37	464.26	Sample	OK	1
1702090-02RE1	C12		500	5.58	2413.61					60552-1.RAW	14:02:45	569.83	Sample	OK	1
1702090-05RE1	D1		500	5.58	966.27					60553-1.RAW	14:06:54	231.48	Sample	OK	1
1702090-01B	D2		100	5.58	427.54					60554-1.RAW	14:11:02	505.33	Sample	OK	1
1702090-02B	D3		100	5.58	95.05					60555-1.RAW	14:15:11	116.69	Sample	OK	1
1702090-03B	D4		100	5.58	76.39					60556-1.RAW	14:19:19	94.88	Sample	OK	1
1702090-04B	D5		100	5.58	12.84					60557-1.RAW	14:23:28	20.59	Sample	OK	1
1702090-05B	D6		100	5.58	11.67					60558-1.RAW	14:27:36	19.22	Sample	OK	1
1702090-06B	D7		100	5.58	12.44					60559-1.RAW	14:31:44	20.13	Sample	OK	1
SEQ-CCV3	D8		1	5.58	5.39	107.88				60560-1.RAW	14:35:53	636.06	Sample	OK	1
SEQ-CCB3	D9		1	5.58	0.06	0.00				60561-1.RAW	14:40:01	12.80	Sample	OK	1
1702090-01RE11	D10		100	5.58	417.37					60562-2.RAW	14:45:52	493.44	Sample	OK	1
1702091-01B	D11		100	5.58	21.99					60563-1.RAW	14:50:00	31.29	Sample	OK	1
1702091-02B	D12		100	5.58	13.59					60564-1.RAW	14:54:09	21.46	Sample	OK	1
1702091-03B	A1		100	5.58	18.12					60565-1.RAW	14:58:17	26.76	Sample	OK	1
1702091-04B	A2		100	5.58	7.24					60566-1.RAW	15:02:26	14.04	Sample	OK	1
1702091-05B	A3		100	5.58	8.50					60567-1.RAW	15:06:34	15.51	Sample	OK	1
1702091-06B	A4		100	5.58	9.73					60568-1.RAW	15:10:42	16.96	Sample	OK	1
F702230-DUP1	A5		500	5.58	1922.29					60569-1.RAW	15:14:51	454.97	Sample	OK	1
F702230-MS1	A6		500	5.58	6856.77		356.51			60570-1.RAW	15:18:59	1608.54	Sample	OK	1
F702230-MSD1	A7		500	5.58	6867.23					60571-1.RAW	15:23:08	1610.99	Sample	OK	1
SEQ-CCV4	A8		1	5.58	5.33	106.53				60572-1.RAW	15:27:16	628.22	Sample	OK	1
SEQ-CCB4	A9		1	5.58	0.07	0.00				60573-1.RAW	15:31:25	13.27	Sample	OK	1

F702230-MS2	A10	500	5.58	6759.43	327218.37	60574-1.RAW	15.35.33	1585.79	Sample	OK	1
F702230-MSD2	A11	500	5.58	6719.60		60575-1.RAW	15.39.41	1576.47	Sample	OK	1
F702254-BLK1	A12	1	5.58	0.08		60576-1.RAW	15.43.50	14.65	Sample	OK	1
F702254-BLK2	B1	1	5.58	0.05		60577-1.RAW	15.47.58	11.81	Sample	OK	1
F702254-BLK3	B2	1	5.58	0.05		60578-1.RAW	15.52.07	11.18	Sample	OK	1
F702254-BS1	B3	1	5.58	16.29		60579-1.RAW	15.56.15	1909.40	Sample	OK	1
F702254-BSD1	B4	1	5.58	16.58		60580-1.RAW	16.00.23	1943.75	Sample	OK	1
1702167-06	B5	1	5.58	0.21		60581-1.RAW	16.04.32	30.11	Sample	OK	1
1702167-07	B6	1	5.58	0.08		60582-1.RAW	16.08.40	15.15	Sample	OK	1
1702167-08	B7	1	5.58	0.07		60583-1.RAW	16.12.49	13.89	Sample	OK	1
SEQ-CCV5	B8	1	5.58	5.26	105.21	60584-1.RAW	16.16.57	620.49	Sample	OK	1
SEQ-CCB5	B9	1	5.58	0.06	0.00	60585-1.RAW	16.21.06	12.93	Sample	OK	1
1702167-09	B10	1	5.58	0.07		60586-1.RAW	16.25.14	13.83	Sample	OK	1
1702167-10	B11	1	5.58	0.07		60587-1.RAW	16.29.22	13.98	Sample	OK	1
1702167-11	B12	1	5.58	0.08		60588-1.RAW	16.33.31	14.96	Sample	OK	1
1702168-06	C1	1	5.58	0.10		60589-1.RAW	16.37.39	16.93	Sample	OK	1
1702168-07	C2	1	5.58	0.05		60590-1.RAW	16.41.48	11.98	Sample	OK	1
1702168-08	C3	1	5.58	0.07		60591-1.RAW	16.45.56	13.55	Sample	OK	1
1702168-09	C4	1	5.58	0.08		60592-1.RAW	16.50.04	14.76	Sample	OK	1
1702168-10	C5	1	5.58	0.05		60593-1.RAW	16.54.13	10.86	Sample	OK	1
F702254-DUP1	C6	1	5.58	0.05		60594-1.RAW	16.58.21	11.93	Sample	OK	1
F702254-MS1	C7	1	5.58	2.57	243.35	60595-1.RAW	17.02.30	305.48	Sample	OK	1
SEQ-CCV6	C8	1	5.58	5.37	107.45	60596-1.RAW	17.06.38	633.56	Sample	OK	1
SEQ-CCB6	C9	1	5.58	0.09	0.00	60597-1.RAW	17.10.47	16.59	Sample	OK	1
F702254-MSD1	C10	1	5.58	2.56		60598-1.RAW	17.14.55	304.52	Sample	OK	1
F702254-MS2	C11	1	5.58	2.62	57.57	60599-1.RAW	17.19.03	312.26	Sample	OK	1
F702254-MSD2	C12	1	5.58	2.58		60600-1.RAW	17.23.12	307.02	Sample	OK	1
SEQ-CCV7	D1	1	5.58	5.25	105.07	60601-1.RAW	17.27.20	619.65	Sample	OK	1
SEQ-CCB7	D2	1	5.58	0.08	0.00	60602-1.RAW	17.31.29	14.42	Sample	OK	1
SNCL 1700770	D3	1	5.58	0.00		60603-1.RAW	17.35.37	4.39	Sample	OK	1
CLEAN						60604-1.RAW	17.38.29	0.00	Clean	NP	1
WS			5.58	0.04		60605-1.RAW	17.42.37	10.07	Sample	OK	1
WS			5.58	0.04		60606-1.RAW	17.46.45	10.15	Sample	OK	1
SEQ-CCV8	D4	1	5.58	4.98	99.57	60607-1.RAW	17.50.54	587.53	Sample	OK	1
SEQ-CCB8	D5	1	5.58	0.08	0.00	60608-1.RAW	17.55.02	15.30	Sample	OK	1



# Failing Data Report - 7B07021

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 Mosem  
Analyst Reviewed By

2/7/17  
Date

Don Mosem  
Peer Reviewed By

2/4/17  
Date

DM  
2/7/17



## ANALYSIS SEQUENCE

7B07021

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/7/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B07021-IBL1	QC	1			
7B07021-IBL2	QC	2			
7B07021-IBL3	QC	3			
7B07021-CAL1	QC	4	1700737		
7B07021-CAL2	QC	5	1700738		
7B07021-CAL3	QC	6	1700739		
7B07021-CAL4	QC	7	1700740		
7B07021-CAL5	QC	8	1700741		
7B07021-ICV1	QC	9	1700018		
F702230-BLK1	QC	10			
F702230-BLK2	QC	11			
F702230-BLK3	QC	12			
F702230-BS1	QC	13			
F702230-BSD1	QC	14			
1702090-01	Hg_FSTM_TRAP_A	15			
7B07021-CCV1	QC	16	1700018		
7B07021-CCB1	QC	17			
1702090-02	Hg_FSTM_TRAP_A	18			
1702090-03	Hg_FSTM_TRAP_A	19			
1702090-04	Hg_FSTM_TRAP_A	20			
1702090-05	Hg_FSTM_TRAP_A	21			
1702090-06	Hg_FSTM_TRAP_A	22			
1702091-01	Hg_FSTM_TRAP_A	23			
1702091-02	Hg_FSTM_TRAP_A	24			
1702091-03	Hg_FSTM_TRAP_A	25			
1702091-04	Hg_FSTM_TRAP_A	26			
1702091-05	Hg_FSTM_TRAP_A	27			
7B07021-CCV2	QC	28	1700018		
7B07021-CCB2	QC	29			
1702091-06	Hg_FSTM_TRAP_A	30			
1702090-01RE1	Hg_FSTM_TRAP_A	31			Added 2/7/2017 by DM2
1702090-02RE1	Hg_FSTM_TRAP_A	32			Added 2/7/2017 by DM2
1702090-05RE1	Hg_FSTM_TRAP_A	33			Added 2/7/2017 by DM2
7B07021-CCV3	QC	34	1700018		
7B07021-CCB3	QC	35			

Due Date: 2/9/2017

Page 1 of 2



## ANALYSIS SEQUENCE

7B07020

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/7/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B07020-IBL1	QC	1			
7B07020-IBL2	QC	2			
7B07020-IBL3	QC	3			
7B07020-CAL1	QC	4	1700737		
7B07020-CAL2	QC	5	1700738		
7B07020-CAL3	QC	6	1700739		
7B07020-CAL4	QC	7	1700740		
7B07020-CAL5	QC	8	1700741		
7B07020-ICV1	QC	9	1700018		
7B07020-CCV1	QC	10	1700018		
7B07020-CCB1	QC	11			
7B07020-CCV2	QC	12	1700018		
7B07020-CCB2	QC	13			
7B07020-CCV3	QC	14	1700018		
7B07020-CCB3	QC	15			
7B07020-CCV4	QC	16	1700018		
7B07020-CCB4	QC	17			
F702254-BLK1	QC	18			
F702254-BLK2	QC	19			
F702254-BLK3	QC	20			
F702254-BS1	QC	21			
F702254-BSD1	QC	22			
1702167-06	Hg-CVAFS-W-1631	23			
1702167-07	Hg-CVAFS-W-1631	24			
1702167-08	Hg-CVAFS-W-1631	25			
7B07020-CCV5	QC	26	1700018		
7B07020-CCB5	QC	27			
1702167-09	Hg-CVAFS-W-1631	28			
1702167-10	Hg-CVAFS-W-1631	29			
1702167-11	Hg-CVAFS-W-1631	30			
1702168-06	Hg-CVAFS-W-1631	31			
1702168-07	Hg-CVAFS-W-1631	32			
1702168-08	Hg-CVAFS-W-1631	33			
1702168-09	Hg-CVAFS-W-1631	34			
1702168-10	Hg-CVAFS-W-1631	35			

Due Date: 2/15/2017

Page 1 of 2

ANALYSIS SEQUENCE

7B07020

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/7/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F702254-DUP1	QC	36			
F702254-MS1	QC	37			
7B07020-CCV6	QC	38	1700018		
7B07020-CCB6	QC	39			
F702254-MSD1	QC	40			
F702254-MS2	QC	41			
F702254-MSD2	QC	42			
7B07020-CCV7	QC	43	1700018		
7B07020-CCB7	QC	44			
7B07020-CCV8	QC	45	1700018		
7B07020-CCB8	QC	46			

Don M. Mason                      2/7/17  
 Samples Loaded By                      Date

Don M. Mason                      2/7/17  
 Data Processed By                      Date

Due Date: 2/15/2017

**PREPARATION BENCH SHEET**

F702254

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/7/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702254-BLK1	Blank	100	101					
F702254-BLK2	Blank	100	101					
F702254-BLK3	Blank	100	101					
F702254-BS1	LCS	50	50.5	1604715	100			
F702254-BSD1	LCS Dup	50	50.5	1604715	100			
F702254-DUP1	Duplicate [1702167-06]	100	101					
F702254-MS1	Matrix Spike [1702167-06]	49.50495	50	1700688	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702254-MS2	Matrix Spike [1702168-06]	49.50495	50	1700688	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702254-MSD1	Matrix Spike Dup [1702167-06]	49.50495	50	1700688	125			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702254-MSD2	Matrix Spike Dup [1702168-06]	49.50495	50	1700688	125			[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	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700688	THg 1ng/mL Calibration Standard	01-May-17 00:00	1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700509	3% SnCl2 THg reductant	10-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702254

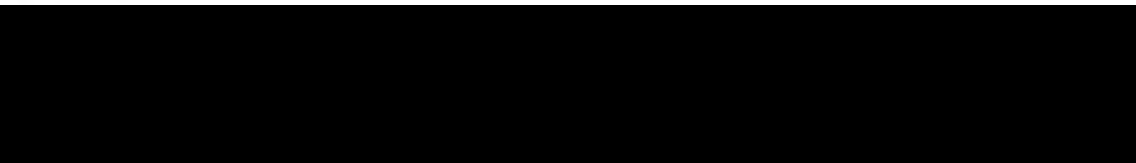
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/7/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702167-06	EB_Knife_012317_ABD_F00_QC	100	101	-	-	-		
1702167-07	EB_Knife_012517_ABD_F01_QC	100	101	-	-	-		
1702167-08	EB_Knife_012517_ABD_F02_QC	100	101	-	-	-		
1702167-09	EB_Knife_012517_ABD_F03_QC	100	101	-	-	-		
1702167-10	EB_Knife_012617_ABD_F04_QC	100	101	-	-	-		
1702167-11	EB_Knife_012617_ABD_F05_QC	100	101	-	-	-		
1702168-06	EB_Knife_012317_ABD_E00_QC	100	101	-	-	-		
1702168-07	EB_Knife_012417_ABD_E01_QC	100	101	-	-	-		
1702168-08	EB_Knife_012417_ABD_E02_QC	100	101	-	-	-		
1702168-09	EB_Knife_012817_ABD_E03_QC	100	101	-	-	-		
1702168-10	EB_Knife_012817_ABD_E04_QC	100	101	-	-	-		



**PREPARATION BENCH SHEET**

F702230

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/3/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702230-BLK1	Blank	1	48					
F702230-BLK2	Blank	1	48					
F702230-BLK3	Blank	1	48					
F702230-BS1	LCS	1	48	1605712	200			
F702230-BSD1	LCS Dup	1	48	1605712	200			
F702230-DUP1	Duplicate [1702091-04]	1	48					
F702230-MS1	Matrix Spike [1702091-04]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL
F702230-MS2	Matrix Spike [1702091-05]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL
F702230-MSD1	Matrix Spike Dup [1702091-04]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL
F702230-MSD2	Matrix Spike Dup [1702091-05]	0.00208333 3	0.1	1700687	50			[Spk] 1Trap->48mL; 20mL->20mL; Spiked 0.1mL

<u>Standard ID(s):</u>	<u>Description:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard
1700687	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
03-Apr-17 00:00
01-May-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700308	THg Dilute 1% BrCl	28-May-17 00:00
1700309	THg Washstation (0.5% BrCl)	
1700509	3% SnCl2 THg reductant	10-Jul-17 00:00
1700638	5% BrCl	28-May-17 00:00
1700639	70/30 Digestion Acid	29-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702230

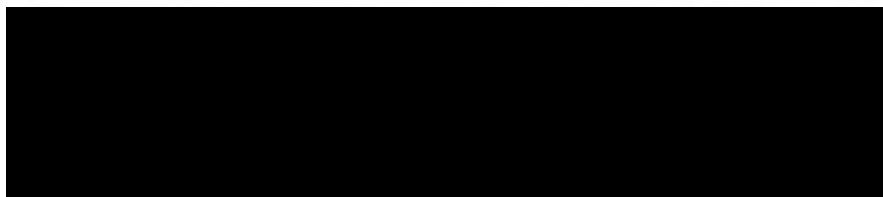
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/3/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702090-01	EFGS08528 Side A - RUN 1	1	48	-	-	-		
1702090-01RE1	EFGS08528 Side A - RUN 1	1	48	-	-	-	Added 2/7/2017 by DM2	Added 2/7/2017 by DM2
1702090-02	EFGS08155 Side A - RUN 2	1	48	-	-	-		
1702090-02RE1	EFGS08155 Side A - RUN 2	1	48	-	-	-	Added 2/7/2017 by DM2	Added 2/7/2017 by DM2
1702090-03	EFGS08135 Side A - RUN 3	1	48	-	-	-		
1702090-04	EFGS08148 Side B - RUN 1	1	48	-	-	-		
1702090-05	EFGS07958 Side B - RUN 2	1	48	-	-	-		
1702090-05RE1	EFGS07958 Side B - RUN 2	1	48	-	-	-	Added 2/7/2017 by DM2	Added 2/7/2017 by DM2
1702090-06	EFGS08068 Side B - RUN 3	1	48	-	-	-		
1702091-01	EFGS08131 SIDE A - RUN 1	1	48	-	-	-		
1702091-02	EFGS08208 SIDE A - RUN 2	1	48	-	-	-		
1702091-03	EFGS08157 SIDE A - RUN 3	1	48	-	-	-		
1702091-04	EFGS07944 SIDE B - RUN 1	1	48	-	-	-		
1702091-05	EFGS08539 SIDE B - RUN 2	1	48	-	-	-		
1702091-06	EFGS07918 SIDE B - RUN 3	1	48	-	-	-		





PREPARATION BENCH SHEET

2600-3

2/7/17 Jm

F702254

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 2/7/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702254-BLK1	Blank	100	101					1X
F702254-BLK2	Blank	100	101					1X
F702254-BLK3	Blank	100	101					1X
F702254-BS1	LCS	50 <del>100</del>	50.5 <del>101</del>	1604715	100			1X
F702254-BSD1	LCS Dup	50 <del>100</del>	50.5 <del>101</del>	1604715	100			1X
F702254-DUP1	Duplicate 1702167-06	100	101					1X
F702254-MS1	Matrix Spike 1702167-06	100	101	1700688	125			1X
F702254-MS2	Matrix Spike 1702168-06	100	101	1700688	125			1X
F702254-MSD1	Matrix Spike Dup 1702167-06	100	101	1700688	125			1X
F702254-MSD2	Matrix Spike Dup 1702168-06	100	101	1700688	125			1X

Standard ID(s): Description:

Expiration:

1700306  
1700509  
1700309  
1700308  
1600934

PREPARATION BENCH SHEET

200.3  
2/7/17 DM

F702254

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 2/7/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702167-06	EB_Knife_012317_ABD_F00_QC	100	101	-	-	-		IX
1702167-07	EB_Knife_012517_ABD_F01_QC	100	101	-	-	-		IX
1702167-08	EB_Knife_012517_ABD_F02_QC	100	101	-	-	-		IX
1702167-09	EB_Knife_012517_ABD_F03_QC	100	101	-	-	-		IX
1702167-10	EB_Knife_012617_ABD_F04_QC	100	101	-	-	-		IX
1702167-11	EB_Knife_012617_ABD_F05_QC	100	101	-	-	-		IX
1702168-06	EB_Knife_012317_ABD_E00_QC	100	101	-	-	-		IX
1702168-07	EB_Knife_012417_ABD_E01_QC	100	101	-	-	-		IX
1702168-08	EB_Knife_012417_ABD_E02_QC	100	101	-	-	-		IX
1702168-09	EB_Knife_012817_ABD_E03_QC	100	101	-	-	-		IX
1702168-10	EB_Knife_012817_ABD_E04_QC	100	101	-	-	-		IX

## Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: DM Date: 2/2/17 Time Completed: 17:25

Work Orders: 1702049  
1702084, 1702087

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

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

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

BrCl LIMS ID: 1606945, 1700306

Pipette SN: MU32229

Cal. Date: 2/1/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702049-01A	300	3.00	Y			
1702049-02A	300	3.00	Y			
1702049-03A	300	3.00	Y			
1702049-04A	300	3.00	Y			
1702049-05A	300	3.00	Y			
1702049-06A	300	3.00	Y			
1702049-07A	300	3.00	Y			
1702049-08A	300	3.00	Y			
1702049-09A	300	3.00	Y			
1702049-10A	300	3.00	Y			
1702049-11A	300	3.00	Y			
1702049-12A	300	3.00	Y			
1702049-13A	300	3.00	Y			
1702049-14A	300	3.00	Y			
1702049-15A	300	3.00	Y			
1702049-16A	300	3.00	Y			
1702049-17A	300	3.00	Y			
1702084-01A	600	6.00	Y			
1702087-01A	300	3.00	Y			
1702087-02A	300	3.00	Y			
1702087-03A	300	3.00	Y			
1702087-04A	300	3.00	Y			
1702087-05A	300	3.00	Y			
1702087-06A	300	3.00	Y			
1702087-07A	300	3.00	Y			
1702087-08A	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: Used BrCl 1606945 for WO 1702049. 1700306 used for 1702084 and 1702087

Reviewed  
2/3/17 DM

PREPARATION BENCH SHEET

2600-3  
2/7/17 DM

F702230

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/3/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702230-BLK1	Blank	1	48					100X
F702230-BLK2	Blank	1	48					100X
F702230-BLK3	Blank	1	48					100X
F702230-BS1	LCS	1	48	1605712	200			500X
F702230-BSD1	LCS Dup	1	48	1605712	200			500X
F702230-DUP1	Duplicate 1702091.04	1	48					500X
F702230-MS1	Matrix Spike 1702091.04	1	48	1700687	50			500X
F702230-MS2	Matrix Spike 1702091.05	1	48	1700687	50			500X
F702230-MSD1	Matrix Spike Dup 1702091.04	1	48	1700687	50			500X
F702230-MSD2	Matrix Spike Dup 1702091.05	1	48	1700687	50			500X

<u>Standard ID(s):</u> 1605712	<u>Description:</u> THg 1,000ng/mL Secondary Spiking Standard	<u>Expiration:</u> 03-Apr-17 00:00	<u>Reagent ID(s):</u> 1700638 1700639	<u>Description:</u> 5% BrCl 70/30 Digestion Acid	<u>Expiration:</u> 28-May-17 00:00 29-Jul-17 00:00
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1700559  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

200-3  
2/7/17 DM

F702230

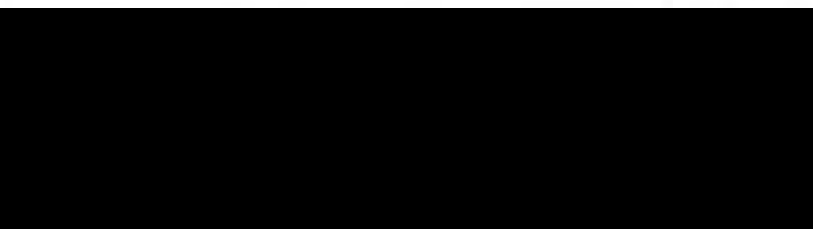
Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/3/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	Analysis Comments B
1702090-01	EFGS08528 Side A - RUN 1	1	48	-	-	-	250X → 500X	100X → 100X
1702090-02	EFGS08155 Side A - RUN 2	1	48	-	-	-	500X → 500X	100X
1702090-03	EFGS08135 Side A - RUN 3	1	48	-	-	-	500X	100X
1702090-04	EFGS08148 Side B - RUN 1	1	48	-	-	-	500X	100X
1702090-05	EFGS07958 Side B - RUN 2	1	48	-	-	-	500X → 500X	100X
1702090-06	EFGS08068 Side B - RUN 3	1	48	-	-	-	500X	100X
1702091-01	EFGS08131 SIDE A - RUN 1	1	48	-	-	-	500X	100X
1702091-02	EFGS08208 SIDE A - RUN 2	1	48	-	-	-	500X	100X
1702091-03	EFGS08157 SIDE A - RUN 3	1	48	-	-	-	500X	100X
1702091-04	EFGS07944 SIDE B - RUN 1	1	48	-	-	-	500X	100X
1702091-05	EFGS08539 SIDE B - RUN 2	1	48	-	-	-	500X	100X
1702091-06	EFGS07918 SIDE B - RUN 3	1	48	-	-	-	500X	100X



Trap Digestions

Name: DMW Date: 2-3-17 Batch ID: F702230  
 Work Order(s): 1702090, 1702091 Analysis:  Total Hg  Other \_\_\_\_\_  
 Sample Matrix:  FSTM  KCl  PHg Plug  Other \_\_\_\_\_  
 Prep:  70/30 Digestion, 2 hr. @ ~55°C (EFAFS-T-AFS-SOP2985)  
 start time: 16:00, start temp (°C): 51.0 (raw) 50.7 (w/ CF)  
 end time: 18:00, end temp (°C): 62.0 (raw) 61.7 (w/ CF) Timer?  Yes  No AMB  
 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)
F702230 - BLK1	40
F702230 - BLK2	40
F702230 - BLK3	40
F702230 - BSI	40
F702230 - BSD1	40
1702090 - 01A	40
1702090 - 01B	40
1702090 - 02A	40
1702090 - 02B	40
1702090 - 03A	40
1702090 - 03B	40
1702090 - 04A	40
1702090 - 04B	40
1702090 - 05A	40
1702090 - 05B	40
1702090 - 06A	40
1702090 - 06B	40
1702091 - 01A	40
1702091 - 01B	40
1702091 - 02A	40
1702091 - 02B	40
1702091 - 03A	40
1702091 - 03B	40
1702091 - 04A	40
1702091 - 04B	40
1702091 - 05A	40
1702091 - 05B	40
1702091 - 06A	40
1702091 - 06B	40

Spike ID: 1605712  
 Spike Amount (µL): 200  
 Spike Witness: DM 2/3/17  
 BrCl ID: 1700638  
 70/30: 1700639  
 Other: NA  
 Thermometer: 13698  
 Dispensers: 02K27494   
 04N73497   
 Other 15406623  
 Pipette ID: M411619  
 Cal. Date: 1-30-17

Vials and Jars lot# 00064557  
 Trap Material Lot#: 1606450  
 Loader Mass Verified:  Yes  No

Comments:  
 1702090-01A, 02A, 03A, 1702091-01A, 02A, 03A  
 SPIKED @ 50 ng.  
 PARTICULATE IN ALL 1702090 TRAPS.  
 BPS SEEM OK.  
 ACCIDENTALLY ADDED 24 µL 70/30. DMW 2-3-17  
 24 µL BrCl ADDED @ 9:20 2-6-17 DMW

\*FINAL VOLUME = 48 mL.  
 DMW  
 2-6-17

DMW  
2-3-17



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

Analyst: DON MORAN	Sequence(s) #: 7B07020, 7B07021
Reviewer: 0 <u>BBC</u> <u>2/4/17</u>	Dataset ID(s): THG26003-170207-2
Date: 2/7/2017	WO (s) #: VARIOUS
Batch #(s): F702254, F702230	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 ( $\leq 15\%$ )  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 7. The calibration curve included a minimum of 5 Standards   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| 9. ICV and CCV % Recoveries EPA 1631E (77-123%)  | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 10. Do all calibration points pass acceptance criteria?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 11. Are qualifiers consistent with the data review flowcharts?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input checked="" type="checkbox"/> |
| Comments: <u>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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |
| (d) Are Preparation Blanks summarized on QC page?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 14. Filtration Blank Prepared (if yes, use FB qualifier)   | <input type="checkbox"/> YES             | <input checked="" type="checkbox"/> NO |   | <input checked="" type="checkbox"/> |
| (a) Filtration Blank prep date same as associated samples' prep date   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?                          | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL          |   | <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |                                     |
| 17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)                   | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |



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

Analyst:	DON MORAN	Sequence(s) #:	7B07020, 7B07021
Reviewer:	0 <i>[Signature]</i> 2/9/17	Dataset ID(s):	THG26003-170207-2
Date:	2/7/2017	WO (s) #:	VARIOUS
Batch #(s):	F702254, F702230		0

Analyst Initials *BC DM*      Reviewer Initials *BC*  
*BC 2/9/17*

- |  |  |  |   |
|--|--|--|---|
| 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 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 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 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  |
| 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\IDOCs

- |   |                     |                                  |   |
|---|---------------------|----------------------------------|---|
| 36. Date of analyst IDOC/CDOC: _____                | 12/15/2016, 1/18/16 | 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: _____                              | 12/19/16, 12/16/16  | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 12/19/16, 12/16/16  | 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

THg26003-170213-1

Analysis Datasheet for Total Mercury

Date of Analysis: February 13, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7B13017, 7B13016, 7B13015

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	0	0.50 ng/L					
SEQ-CAL2	1	1.00 ng/L	133.63 units	133.63	129.68 units	129.68	102.3 %Rec
SEQ-CAL3	1	5.00 ng/L	596.80 units	119.36	592.85 units	118.57	93.5 %Rec
SEQ-CAL4	1	20.00 ng/L	2385.39 units	119.27	2381.45 units	119.07	93.9 %Rec
SEQ-CAL5	1	40.00 ng/L	4698.52 units	117.46	4694.58 units	117.36	92.6 %Rec
SEQ-CAL6	1	0.50 ng/L	78.63 units	157.26	74.68 units	149.37	117.8 %Rec
SEQ-CAL7	0						
SEQ-CAL8	0						
SEQ-CAL9	0						

**Corr. Mean RF**    **Corr. St Dev RF**    **Corr. RSD CF**    **Uncorr. Mean RF**  
 126.81            +/- 13.55            10.7% RSD            129.40

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	3.95 units	±0.44	0.03 ng/L	±0.00

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.053 ng/L	±0.069
BLK	2	3	12.075 ng/L	±18.743
BLK	3	3	6.325 ng/L	±8.130
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: DMW 2-15-17

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	2/13/2017 9:19:47	60789-1.RAW	9:19:47 AM	4.22			0.3	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/13/2017 9:23:55	60790-1.RAW	9:23:55 AM	4.18			0.2	0.002	0.002	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/13/2017 9:28:04	60791-1.RAW	9:28:04 AM	3.44			-0.5	-0.004	-0.004	ng/L	
Hg2600-3	DM2	SAM	*SEQ-CAL1	1	2/13/2017 9:32:12	60792-1.RAW	9:32:12 AM	87.82		X	83.9	0.661	0.661	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/13/2017 9:36:21	60793-1.RAW	9:36:21 AM	133.63			129.7	1.023	1.023	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/13/2017 9:40:29	60794-1.RAW	9:40:29 AM	596.80			592.9	4.675	4.675	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/13/2017 9:44:37	60795-1.RAW	9:44:37 AM	2385.39			2381.4	18.780	18.780	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/13/2017 9:48:46	60796-1.RAW	9:48:46 AM	4698.52			4694.6	37.020	37.020	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/13/2017 9:52:54	60797-1.RAW	9:52:54 AM	622.91			619.0	4.881	4.881	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL6	1	2/13/2017 9:57:03	60798-1.RAW	9:57:03 AM	78.63			74.7	0.589	0.589	ng/L	
Hg2600-3	DM2	SAM	WS		2/13/2017 10:13:44	60799-1.RAW	10:13:44 AM	13.89		X	9.9	0.078	0.000	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK1	20	2/13/2017 10:17:52	60800-1.RAW	10:17:52 AM	10.61		1	6.7	0.053	1.052	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK2	20	2/13/2017 10:22:01	60801-1.RAW	10:22:01 AM	10.19		1	6.2	0.049	0.985	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK3	20	2/13/2017 10:26:09	60802-1.RAW	10:26:09 AM	11.07		1	7.1	0.056	1.123	ng/L	
Hg2600-3	DM2	SAM	F702256-BLK4	20	2/13/2017 10:30:18	60803-1.RAW	10:30:18 AM	9.52		1	5.6	-0.009	-0.173	ng/L	
Hg2600-3	DM2	SAM	F702256-BLK5	20	2/13/2017 10:34:26	60804-1.RAW	10:34:26 AM	8.52		1	4.6	-0.017	-0.332	ng/L	
Hg2600-3	DM2	SAM	F702256-BS1	20	2/13/2017 10:38:35	60805-1.RAW	10:38:35 AM	607.56		1	603.6	4.707	94.146	ng/L	
Hg2600-3	DM2	SAM	F702256-BSD1	20	2/13/2017 10:42:43	60806-1.RAW	10:42:43 AM	613.28		1	609.3	4.752	95.048	ng/L	
Hg2600-3	DM2	SAM	F702256-BS2	400	2/13/2017 10:46:51	60807-1.RAW	10:46:51 AM	654.92		1	651.0	5.131	2052.301	ng/L	
Hg2600-3	DM2	SAM	1702086-01	100	2/13/2017 10:51:00	60808-1.RAW	10:51:00 AM	2210.02		1	2206.1	17.386	1738.604	ng/L	
Hg2600-3	DM2	SAM	1702166-01	100	2/13/2017 10:55:08	60809-1.RAW	10:55:08 AM	3204.98		1	3201.0	25.232	2523.207	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/13/2017 10:59:17	60810-1.RAW	10:59:17 AM	625.36			621.4	4.900	4.900	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/13/2017 11:03:25	60811-1.RAW	11:03:25 AM	7.37			3.4	0.027	0.027	ng/L	
Hg2600-3	DM2	SAM	1702166-02	100	2/13/2017 11:07:34	60812-1.RAW	11:07:34 AM	2225.02		1	2221.1	17.504	1750.428	ng/L	
Hg2600-3	DM2	SAM	1702166-03	100	2/13/2017 11:11:42	60813-1.RAW	11:11:42 AM	15255.53		1	15251.6	120.260	12025.973	ng/L	
Hg2600-3	DM2	SAM	1702166-04	100	2/13/2017 11:15:50	60814-1.RAW	11:15:50 AM	5595.18		1	5595.2	44.112	4411.213	ng/L	
Hg2600-3	DM2	SAM	1702166-05	100	2/13/2017 11:19:59	60815-1.RAW	11:19:59 AM	2950.37		1	2946.4	23.224	2322.426	ng/L	
Hg2600-3	DM2	SAM	1702167-01	100	2/13/2017 11:24:07	60816-1.RAW	11:24:07 AM	177.56		1	173.6	1.359	135.854	ng/L	
Hg2600-3	DM2	SAM	1702167-02	100	2/13/2017 11:28:16	60817-1.RAW	11:28:16 AM	788.68		1	784.7	6.178	617.767	ng/L	
Hg2600-3	DM2	SAM	1702167-03	100	2/13/2017 11:32:24	60818-1.RAW	11:32:24 AM	829.03		1	825.1	6.496	649.588	ng/L	
Hg2600-3	DM2	SAM	1702167-04	100	2/13/2017 11:36:32	60819-1.RAW	11:36:32 AM	838.08		1	834.1	6.567	656.724	ng/L	
Hg2600-3	DM2	SAM	1702167-05	100	2/13/2017 11:40:41	60820-1.RAW	11:40:41 AM	715.63		1	711.7	5.602	560.164	ng/L	
Hg2600-3	DM2	SAM	1702168-02	100	2/13/2017 11:44:49	60821-1.RAW	11:44:49 AM	4143.04		1	4139.1	32.629	3262.935	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/13/2017 11:48:58	60822-1.RAW	11:48:58 AM	642.76			638.8	5.038	5.038	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/13/2017 11:53:06	60823-1.RAW	11:53:06 AM	15.48			11.5	0.091	0.091	ng/L	
Hg2600-3	DM2	SAM	1702168-03	100	2/13/2017 11:57:15	60824-1.RAW	11:57:15 AM	5973.33		1	5969.4	47.063	4706.254	ng/L	
Hg2600-3	DM2	SAM	1702168-04	100	2/13/2017 12:01:23	60825-1.RAW	12:01:23 PM	9277.47		1	9273.5	73.118	7311.817	ng/L	
Hg2600-3	DM2	SAM	1702168-05	100	2/13/2017 12:05:31	60826-1.RAW	12:05:31 PM	39.09		1	35.1	0.267	26.662	ng/L	
Hg2600-3	DM2	SAM	1702166-03RE1	400	2/13/2017 12:09:40	60827-1.RAW	12:09:40 PM	3888.52		1	3884.6	30.630	12252.052	ng/L	
Hg2600-3	DM2	SAM	1702166-04RE1	400	2/13/2017 12:13:48	60828-1.RAW	12:13:48 PM	1456.06		1	1452.1	11.448	4579.354	ng/L	
Hg2600-3	DM2	SAM	1702166-05RE1	100	2/13/2017 12:17:57	60829-1.RAW	12:17:57 PM	3066.76		1	3062.8	24.142	2414.210	ng/L	
Hg2600-3	DM2	SAM	F702256-DUP1	400	2/13/2017 12:22:05	60830-1.RAW	12:22:05 PM	1475.82		1	1471.9	11.604	4641.676	ng/L	
Hg2600-3	DM2	SAM	F702256-MS1	1000	2/13/2017 12:26:13	60831-1.RAW	12:26:13 PM	2263.05		1	2259.1	17.814	17813.700	ng/L	
Hg2600-3	DM2	SAM	F702256-MSD1	1000	2/13/2017 12:30:22	60832-1.RAW	12:30:22 PM	21.67		1	17.7	0.139	138.728	ng/L	
Hg2600-3	DM2	SAM	F702256-MS2	400	2/13/2017 12:34:30	60833-1.RAW	12:34:30 PM	1427.79		1	1423.8	11.225	4490.174	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/13/2017 12:38:39	60834-1.RAW	12:38:39 PM	671.40			667.5	5.263	5.263	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/13/2017 12:42:47	60835-1.RAW	12:42:47 PM	13.18			9.2	0.073	0.073	ng/L	
Hg2600-3	DM2	SAM	F702256-MSD2	400	2/13/2017 12:46:56	60836-1.RAW	12:46:56 PM	1455.72		1	1451.8	11.446	4578.283	ng/L	
Hg2600-3	DM2	SAM	1702168-03RE1	400	2/13/2017 12:51:04	60837-1.RAW	12:51:04 PM	1535.06		1	1531.1	12.071	4828.551	ng/L	
Hg2600-3	DM2	SAM	1702168-04RE1	400	2/13/2017 12:55:12	60838-1.RAW	12:55:12 PM	2379.78		1	2375.8	18.733	7493.053	ng/L	
Hg2600-3	DM2	SAM	1702168-05RE1	20	2/13/2017 12:59:21	60839-1.RAW	12:59:21 PM	60.11		1	56.2	0.390	7.805	ng/L	
Hg2600-3	DM2	SAM	F702256-MS3	1000	2/13/2017 13:03:29	60840-1.RAW	1:03:29 PM	1135.48		1	1131.5	8.922	8921.929	ng/L	
Hg2600-3	DM2	SAM	F702256-MSD3	1000	2/13/2017 13:07:38	60841-1.RAW	1:07:38 PM	1072.56		1	1068.6	8.426	8425.775	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK1	10	2/13/2017 13:11:46	60842-1.RAW	1:11:46 PM	17.26		2	13.3	0.105	1.050	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK2	10	2/13/2017 13:15:55	60843-1.RAW	1:15:55 PM	22.46		2	18.5	0.146	1.460	ng/L	
Hg2600-3	DM2	BLK	F702256-BLK3	10	2/13/2017 13:20:03	60844-1.RAW	1:20:03 PM	431.50		2	427.6	3.372	33.716	ng/L	
Hg2600-3	DM2	SAM	F702256-BS1	10	2/13/2017 13:24:11	60845-1.RAW	1:24:11 PM	1947.58		2	1943.6	14.120	141.195	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	CAL	SEQ-CCV4	1	2/13/2017 13:28:20	60846-1.RAW	1:28:20 PM	664.30			660.3	5.207	5.207	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/13/2017 13:32:28	60847-1.RAW	1:32:28 PM	16.45			12.5	0.099	0.099	ng/L	
Hg2600-3	DM2	SAM	F702265-BSD1	10	2/13/2017 13:36:37	60848-1.RAW	1:36:37 PM	1947.94	2		1944.0	14.122	14.122	ng/L	
Hg2600-3	DM2	SAM	1701569-01 X	5000	2/13/2017 13:40:45	60849-1.RAW	1:40:45 PM	19.38	2		15.4	0.119	596.296	ng/L	
Hg2600-3	DM2	SAM	1701569-02 X	5000	2/13/2017 13:44:53	60850-1.RAW	1:44:53 PM	15.26	2		11.3	0.087	433.851	ng/L	
Hg2600-3	DM2	SAM	1701569-03 X	5000	2/13/2017 13:49:02	60851-1.RAW	1:49:02 PM	12.57	2		8.6	0.066	327.924	ng/L	
Hg2600-3	DM2	SAM	1701569-04 X	5000	2/13/2017 13:53:10	60852-1.RAW	1:53:10 PM	13.01	2		9.1	0.069	345.510	ng/L	
Hg2600-3	DM2	SAM	1701569-05 X	5000	2/13/2017 13:57:19	60853-1.RAW	1:57:19 PM	12.64	2		8.7	0.066	330.848	ng/L	
Hg2600-3	DM2	SAM	1701569-06 X	5000	2/13/2017 14:01:27	60854-1.RAW	2:01:27 PM	13.76	2		9.8	0.075	375.038	ng/L	
Hg2600-3	DM2	SAM	1701569-07 X	5000	2/13/2017 14:05:36	60855-1.RAW	2:05:36 PM	12.74	2		8.8	0.067	334.797	ng/L	
Hg2600-3	DM2	SAM	1701569-08 X	5000	2/13/2017 14:09:44	60856-1.RAW	2:09:44 PM	12.52034743	2		8.6	0.065	326.008	ng/L	
Hg2600-3	DM2	SAM	1701569-09 X	100000	2/13/2017 14:13:52	60857-1.RAW	2:13:52 PM	29.05	2		25.1	0.198	19784.704	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/13/2017 14:18:01	60858-1.RAW	2:18:01 PM	631.66			627.7	4.950	4.950	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/13/2017 14:22:09	60859-1.RAW	2:22:09 PM	14.99			11.0	0.087	0.087	ng/L	
Hg2600-3	DM2	SAM	1701569-10	250000	2/13/2017 14:26:18	60860-1.RAW	2:26:18 PM	2005.43	2		2001.5	15.783	3945793.778	ng/L	
Hg2600-3	DM2	SAM	1701569-11	250000	2/13/2017 14:30:26	60861-1.RAW	2:30:26 PM	221.33	2		217.4	1.714	428549.145	ng/L	
Hg2600-3	DM2	SAM	1701569-01RE1 X	100	2/13/2017 14:34:34	60862-1.RAW	2:34:34 PM	45.11	2		41.2	0.204	20.387	ng/L	
Hg2600-3	DM2	SAM	1701569-02RE1 X	100	2/13/2017 14:38:43	60863-1.RAW	2:38:43 PM	25.49	2		21.5	0.049	4.913	ng/L	
Hg2600-3	DM2	SAM	1701569-03RE1 X	100	2/13/2017 14:42:51	60864-1.RAW	2:42:51 PM	18.56	2		14.6	-0.005	-0.548	ng/L	
Hg2600-3	DM2	SAM	1701569-04RE1 X	100	2/13/2017 14:47:00	60865-1.RAW	2:47:00 PM	17.97	2		14.0	-0.010	-1.017	ng/L	
Hg2600-3	DM2	SAM	1701569-05RE1 X	100	2/13/2017 14:51:08	60866-1.RAW	2:51:08 PM	30.13	2		26.2	0.086	8.571	ng/L	
Hg2600-3	DM2	SAM	1701569-06RE1	100	2/13/2017 14:55:17	60867-1.RAW	2:55:17 PM	137.59	2		133.6	0.933	93.316	ng/L	
Hg2600-3	DM2	SAM	1701569-07RE1 X	100	2/13/2017 14:59:25	60868-1.RAW	2:59:25 PM	12.77	2		8.8	-0.051	-5.113	ng/L	
Hg2600-3	DM2	SAM	1701569-08RE1 X	100	2/13/2017 15:03:33	60869-1.RAW	3:03:33 PM	28.59	2		24.6	0.074	7.357	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/13/2017 15:07:42	60870-1.RAW	3:07:42 PM	644.60			640.7	5.052	5.052	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/13/2017 15:11:50	60871-1.RAW	3:11:50 PM	17.91			14.0	0.110	0.110	ng/L	
Hg2600-3	DM2	SAM	1701569-09RE1	2500	2/13/2017 15:15:59	60872-1.RAW	3:15:59 PM	796.53	2		792.6	6.245	15613.280	ng/L	
Hg2600-3	DM2	SAM	1701569-01RE2	10	2/13/2017 15:20:07	60873-1.RAW	3:20:07 PM	367.10	2		363.2	1.656	16.562	ng/L	
Hg2600-3	DM2	SAM	1701569-02RE2	10	2/13/2017 15:24:16	60874-1.RAW	3:24:16 PM	160.57	2		156.6	0.028	0.276	ng/L	
Hg2600-3	DM2	SAM	1701569-03RE2	10	2/13/2017 15:28:24	60875-1.RAW	3:28:24 PM	84.31	2		80.4	-0.574	-5.738	ng/L	
Hg2600-3	DM2	SAM	1701569-04RE2	10	2/13/2017 15:32:33	60876-1.RAW	3:32:33 PM	64.97	2		61.0	-0.726	-7.263	ng/L	
Hg2600-3	DM2	SAM	1701569-05RE2	10	2/13/2017 15:36:42	60877-1.RAW	3:36:42 PM	232.18	2		228.2	0.592	5.923	ng/L	
Hg2600-3	DM2	SAM	1701569-07RE2	10	2/13/2017 15:40:50	60878-1.RAW	3:40:50 PM	17.37	2		13.4	-1.102	-11.017	ng/L	
Hg2600-3	DM2	SAM	1701569-08RE2	10	2/13/2017 15:44:59	60879-1.RAW	3:44:59 PM	171.10	2		167.2	0.111	1.106	ng/L	
Hg2600-3	DM2	SAM	F702265-DUP1	10	2/13/2017 15:49:07	60880-1.RAW	3:49:07 PM	214.18	2		210.2	0.450	4.503	ng/L	
Hg2600-3	DM2	SAM	F702265-MS1	10	2/13/2017 15:53:16	60881-1.RAW	3:53:16 PM	1570.50	2		1566.6	11.146	111.460	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/13/2017 15:57:24	60882-1.RAW	3:57:24 PM	656.31			652.4	5.144	5.144	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/13/2017 16:01:32	60883-1.RAW	4:01:32 PM	13.42			9.5	0.075	0.075	ng/L	
Hg2600-3	DM2	SAM	F702265-MSD1	10	2/13/2017 16:05:41	60884-1.RAW	4:05:41 PM	1590.40	2		1586.5	11.303	113.029	ng/L	
Hg2600-3	DM2	SAM	F702265-MS2	10	2/13/2017 16:09:49	60885-1.RAW	4:09:49 PM	857.26	2		853.3	5.522	55.215	ng/L	
Hg2600-3	DM2	SAM	F702265-MSD2	10	2/13/2017 16:13:58	60886-1.RAW	4:13:58 PM	858.83	2		854.9	5.534	55.339	ng/L	
Hg2600-3	DM2	BLK	F702283-BLK1	10	2/13/2017 16:18:06	60887-1.RAW	4:18:06 PM	26.10	3		22.2	0.175	1.747	ng/L	
Hg2600-3	DM2	BLK	F702283-BLK2	10	2/13/2017 16:22:15	60888-1.RAW	4:22:15 PM	23.18	3		19.2	0.152	1.517	ng/L	
Hg2600-3	DM2	BLK	F702283-BLK3	10	2/13/2017 16:26:23	60889-1.RAW	4:26:23 PM	203.19	3		199.2	1.571	15.712	ng/L	
Hg2600-3	DM2	SAM	F702283-BS1	10	2/13/2017 16:30:32	60890-1.RAW	4:30:32 PM	1940.63	3		1936.7	14.640	146.397	ng/L	
Hg2600-3	DM2	SAM	F702283-BSD1	10	2/13/2017 16:34:40	60891-1.RAW	4:34:40 PM	1938.97	3		1935.0	14.627	146.266	ng/L	
Hg2600-3	DM2	SAM	1701569-09	2500	2/13/2017 16:38:48	60892-1.RAW	4:38:48 PM	1254.56	3		1250.6	9.859	24648.677	ng/L	
Hg2600-3	DM2	SAM	1701569-10	250000	2/13/2017 16:42:57	60893-1.RAW	4:42:57 PM	349.11	3		345.2	2.722	680466.998	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/13/2017 16:47:05	60894-1.RAW	4:47:05 PM	649.78			645.8	5.093	5.093	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/13/2017 16:51:14	60895-1.RAW	4:51:14 PM	18.47			14.5	0.115	0.115	ng/L	
Hg2600-3	DM2	SAM	*F702283-BLK4	10	2/13/2017 16:55:22	60896-1.RAW	4:55:22 PM	203.80	3 X		199.9	1.576	15.760	ng/L	
Hg2600-3	DM2	SAM	1701569-11	250000	2/13/2017 16:59:31	60897-1.RAW	4:59:31 PM	168.60	3		164.7	1.298	324605.307	ng/L	
Hg2600-3	DM2	SAM	F702283-DUP1	2500	2/13/2017 17:03:39	60898-1.RAW	5:03:39 PM	1269.44	3		1265.5	9.977	24942.190	ng/L	
Hg2600-3	DM2	SAM	F702283-MS1	5000	2/13/2017 17:07:48	60899-1.RAW	5:07:48 PM	3036.89	3		3032.9	23.916	119578.865	ng/L	
Hg2600-3	DM2	SAM	F702283-MSD1	5000	2/13/2017 17:11:56	60900-1.RAW	5:11:56 PM	2973.00	3		2969.1	23.412	117059.903	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	2/13/2017 17:16:04	60901-1.RAW	5:16:04 PM	657.14			653.2	5.151	5.151	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	2/13/2017 17:20:13	60902-1.RAW	5:20:13 PM	19.85			15.9	0.125	0.125	ng/L	

TotalMercury  
EPA1631

Operat: DM BlankS: 3.9458 Calib Eqn: 121.17  
 Works: THq2600 CalibFa: 121.17 Status: 1 R²:  
 Method: THq2600-170213-1

Conc = (Area-3.945 Run Date: 2/13/2017  
 QC Warmup:6/OC E Run Time: 10:09:35  
 0.9999


Blank SD: 0.44055864  
 Blank RSD%: 11.16517631  
 CF SD: 5.718254532  
 CF RSD%: 4.719110285

SampleID	Location	Run	Dilut	Blank	Conc (ppb)	MR%	Final Conc	Rec%	QA	Raw Data	Run End	Peak (Raw)	Control (ppb)	Flags	Run Count
Clean				0.00	4.83					60784-1.RAW	9:00:22	584.84	Clean	OK	1
clean										60785-1.RAW	9:03:13	0.00	Clean	NP	1
ws				3.95	0.02					60786-1.RAW	9:07:22	6.48	Sample	OK	1
ws				3.95	0.02					60787-1.RAW	9:11:30	6.62	Sample	OK	1
ws				3.95	0.02					60788-1.RAW	9:15:39	6.65	Sample	OK	1
SEQ-HBL1	A1		1	0.00	0.03					60789-1.RAW	9:19:47	4.22	Sample	OK	1
SEQ-HBL2	A2		1	0.00	0.03					60790-1.RAW	9:23:55	4.18	Sample	OK	1
SEQ-HBL3	A3		1	0.00	0.03					60791-1.RAW	9:28:04	3.44	Sample	OK	1
*SEQ-CAL1	A4		1	3.95	0.69		125.41			60792-1.RAW	9:32:12	87.82	Sample	OK	1
SEQ-CAL2	A5		1	3.95	1.07		107.02			60793-1.RAW	9:36:21	133.63	Sample	OK	1
SEQ-CAL3	A6		1	3.95	4.89		97.85			60794-1.RAW	9:40:29	596.80	Sample	OK	1
SEQ-CAL4	A7		1	3.95	19.65		98.27			60795-1.RAW	9:44:37	2385.39	Sample	OK	1
SEQ-CAL5	A8		1	3.95	38.74		96.88			60796-1.RAW	9:48:46	4698.52	Sample	FB	1
SEQ-CV1	A9		1	3.95	5.11		102.16			60797-1.RAW	9:52:54	622.91	Sample	OK	1
SEQ-CAL6	A10		1	3.95	0.82					60798-1.RAW	9:57:03	78.63	Sample	OK	1
WS				3.95	0.06					60799-1.RAW	10:13:44	13.89	Sample	OK	1
F702256-BLK1	A11		20	3.95	1.10					60800-1.RAW	10:17:52	10.81	Sample	OK	1
F702256-BLK2	A12		20	3.95	1.03					60801-1.RAW	10:22:01	10.19	Sample	OK	1
F702256-BLK3	B1		20	3.95	1.18					60802-1.RAW	10:26:09	11.07	Sample	OK	1
*F702256-BLK4	B2		20	3.95	0.92					60803-1.RAW	10:30:18	9.52	Sample	OK	1
*F702256-BLK5	B3		20	3.95	0.75					60804-1.RAW	10:34:26	8.52	Sample	OK	1
F702256-BS1	B4		20	3.95	99.63					60805-1.RAW	10:38:35	607.56	Sample	OK	1
F702256-BS01	B5		20	3.95	100.57					60806-1.RAW	10:42:43	613.28	Sample	OK	1
F702256-BS2	B6		400	3.95	2148.91					60807-1.RAW	10:46:51	654.32	Sample	OK	1
1702086-01	B7		100	3.95	1820.81					60808-1.RAW	10:51:00	2210.02	Sample	OK	1
1702166-01	B8		100	3.95	2641.72					60809-1.RAW	10:55:08	3204.98	Sample	OK	1
SEQ-CCV1	B9		1	3.95	5.13		102.57			60810-1.RAW	10:59:17	625.36	Sample	OK	1
SEQ-CCB1	B10		1	3.95	0.03		0.00			60811-1.RAW	11:03:25	7.37	Sample	OK	1
1702166-02	B11		100	3.95	1832.99					60812-1.RAW	11:07:34	2225.02	Sample	OK	1
1702166-03	B12		100	3.95	12586.69					60813-1.RAW	11:11:42	15255.53	Sample	FB	1
1702166-04	C1		100	3.95	4617.59					60814-1.RAW	11:15:50	5599.18	Sample	OK	1
1702166-05	C2		100	3.95	2431.60					60815-1.RAW	11:19:59	2950.37	Sample	OK	1
1702167-01	C3		100	3.95	143.28					60816-1.RAW	11:24:07	177.56	Sample	OK	1
1702167-02	C4		100	3.95	647.62					60817-1.RAW	11:28:16	788.68	Sample	OK	1
1702167-03	C5		100	3.95	880.92					60818-1.RAW	11:32:24	829.03	Sample	OK	1
1702167-04	C6		100	3.95	688.39					60819-1.RAW	11:36:32	838.08	Sample	OK	1
1702167-05	C7		100	3.95	587.33					60820-1.RAW	11:40:41	715.63	Sample	OK	1
1702168-02	C8		100	3.95	3415.88					60821-1.RAW	11:44:49	4143.04	Sample	OK	1
SEQ-CCV2	C9		1	3.95	5.27		105.44			60822-1.RAW	11:48:58	642.76	Sample	OK	1
SEQ-CCB2	C10		1	3.95	0.10		0.00			60823-1.RAW	11:53:06	15.48	Sample	OK	1
1702168-03	C11		100	3.95	4926.36					60824-1.RAW	11:57:15	5973.33	Sample	OK	1
1702168-04	C12		100	3.95	7653.17					60825-1.RAW	12:01:23	9277.47	Sample	FB	1
1702168-05	D1		100	3.95	29.00					60826-1.RAW	12:05:31	39.09	Sample	OK	1
1702166-03RE1	D2		400	3.95	12823.29					60827-1.RAW	12:09:40	3888.52	Sample	FB	1
1702166-04RE1	D3		400	3.95	4793.55					60828-1.RAW	12:13:48	1456.06	Sample	OK	1
1702166-05RE1	D4		100	3.95	2527.66					60829-1.RAW	12:17:57	3066.76	Sample	OK	1
F702256-DUP1	D5		400	3.95	4858.78					60830-1.RAW	12:22:05	1475.82	Sample	OK	1
F702258-MS1	D6		1000	3.95	18643.75		383.63			60831-1.RAW	12:26:13	2263.05	Sample	OK	1
F702256-MSD1	D7		1000	3.95	146.29					60832-1.RAW	12:30:22	21.67	Sample	OK	1
F702256-MS2	D8		400	3.95	4700.22		3169.70			60833-1.RAW	12:34:30	1427.79	Sample	OK	1
SEQ-CCV3	D9		1	3.95	5.51		110.17			60834-1.RAW	12:38:39	671.40	Sample	OK	1
SEQ-CCB3	D10		1	3.95	0.08		0.00			60835-1.RAW	12:42:47	13.18	Sample	OK	1
F702256-MSD2	D11		400	3.95	4792.43					60836-1.RAW	12:46:56	1455.72	Sample	OK	1
1702168-03RE1	D12		400	3.95	5054.35					60837-1.RAW	12:51:04	1535.06	Sample	OK	1
1702168-04RE1	A1		400	3.95	7842.84					60838-1.RAW	12:55:12	2379.78	Sample	OK	1
1702168-05RE1	A2		20	3.95	9.27					60839-1.RAW	12:59:21	60.11	Sample	OK	1
F702256-MS3	A3		1000	3.95	9338.21		76100.96			60840-1.RAW	13:03:29	1135.48	Sample	OK	1
F702256-MSD3	A4		1000	3.95	8818.96					60841-1.RAW	13:07:38	1072.56	Sample	OK	1
F702265-BLK1	A5		10	3.95	1.10					60842-1.RAW	13:11:46	17.26	Sample	OK	1
F702265-BLK2	A6		10	3.95	1.53					60843-1.RAW	13:15:55	22.46	Sample	OK	1
F702265-BLK3	A7		10	3.95	35.29					60844-1.RAW	13:20:03	431.50	Sample	OK	1
F702265-BS1	A8		10	3.95	160.40					60845-1.RAW	13:24:11	1947.58	Sample	OK	1
SEQ-CCV4	A9		1	3.95	5.45		108.99			60846-1.RAW	13:28:20	664.30	Sample	OK	1
SEQ-CCB4	A10		1	3.95	0.10		0.00			60847-1.RAW	13:32:28	16.45	Sample	OK	1
F702265-BS01	A11		10	3.95	160.43					60848-1.RAW	13:36:37	1947.94	Sample	OK	1
1701569-01	A12		5000	3.95	636.88					60849-1.RAW	13:40:45	19.38	Sample	OK	1
1701569-02	B1		5000	3.95	466.68					60850-1.RAW	13:44:53	15.26	Sample	OK	1
1701569-03	B2		5000	3.95	355.82					60851-1.RAW	13:49:02	12.57	Sample	OK	1
1701569-04	B3		5000	3.95	374.22					60852-1.RAW	13:53:10	13.01	Sample	OK	1

1701569-05	B4	5000	3.95	358.88		60853-1.RAW	13:57:19	12.64	Sample	OK	1
1701569-06	B5	5000	3.95	405.13		60854-1.RAW	14:01:27	13.76	Sample	OK	1
1701569-07	B6	5000	3.95	363.01		60855-1.RAW	14:05:36	12.74	Sample	OK	1
1701569-08	B7	5000	3.95	353.82		60856-1.RAW	14:09:44	12.52	Sample	OK	1
1701569-09	B8	100000	3.95	20718.01		60857-1.RAW	14:13:52	29.05	Sample	OK	1
SEQ-CCV5	B9	1	3.95	5.18	103.61	60858-1.RAW	14:18:01	631.66	Sample	OK	1
SEQ-CCB5	B10	1	3.95	0.09	0.00	60859-1.RAW	14:22:09	14.99	Sample	OK	1
1701569-10	B11	250000	3.95	4129420.98		60860-1.RAW	14:26:18	2005.43	Sample	OK	1
1701569-11	B12	250000	3.95	448504.00		60861-1.RAW	14:30:26	221.33	Sample	OK	1
1701569-01RE1	C1	100	3.95	33.97		60862-1.RAW	14:34:34	45.11	Sample	OK	1
1701569-02RE1	C2	100	3.95	17.78		60863-1.RAW	14:38:43	25.49	Sample	OK	1
1701569-03RE1	C3	100	3.95	12.06		60864-1.RAW	14:42:51	18.56	Sample	OK	1
1701569-04RE1	C4	100	3.95	11.57		60865-1.RAW	14:47:00	17.97	Sample	OK	1
1701569-05RE1	C5	100	3.95	21.61		60866-1.RAW	14:51:08	30.13	Sample	OK	1
1701569-06RE1	C6	100	3.95	110.30		60867-1.RAW	14:55:17	137.59	Sample	OK	1
1701569-07RE1	C7	100	3.95	7.29		60868-1.RAW	14:59:25	12.77	Sample	OK	1
1701569-08RE1	C8	100	3.95	20.34		60869-1.RAW	15:03:33	28.59	Sample	OK	1
SEQ-CCV6	C9	1	3.95	5.29	105.74	60870-1.RAW	15:07:42	644.60	Sample	OK	1
SEQ-CCB6	C10	1	3.95	0.12	0.00	60871-1.RAW	15:11:50	17.91	Sample	OK	1
1701569-09RE1	C11	2500	3.95	16352.47		60872-1.RAW	15:15:59	796.53	Sample	OK	1
1701569-01RE2	C12	10	3.95	29.97		60873-1.RAW	15:20:07	367.10	Sample	OK	1
1701569-02RE2	D1	10	3.95	12.93		60874-1.RAW	15:24:16	160.57	Sample	OK	1
1701569-03RE2	D2	10	3.95	6.63		60875-1.RAW	15:28:24	84.31	Sample	OK	1
1701569-04RE2	D3	10	3.95	5.04		60876-1.RAW	15:32:33	64.97	Sample	OK	1
1701569-05RE2	D4	10	3.95	18.84		60877-1.RAW	15:36:42	232.18	Sample	OK	1
1701569-07RE2	D5	10	3.95	1.11		60878-1.RAW	15:40:50	17.37	Sample	OK	1
1701569-08RE2	D6	10	3.95	13.79		60879-1.RAW	15:44:59	171.10	Sample	OK	1
F702265-0UP1	D7	10	3.95	17.35		60880-1.RAW	15:49:07	214.18	Sample	OK	1
F702265-MS1	D8	10	3.95	129.28	704.56	60881-1.RAW	15:53:16	1570.50	Sample	OK	1
SEQ-CCV7	D9	1	3.95	5.38	107.68	60882-1.RAW	15:57:24	656.31	Sample	OK	1
SEQ-CCB7	D10	1	3.95	0.08	0.00	60883-1.RAW	16:01:32	13.42	Sample	OK	1
F702265-MSD1	D11	10	3.95	130.93		60884-1.RAW	16:05:41	1590.40	Sample	OK	1
F702265-MS2	D12	10	3.95	70.42	52.98	60885-1.RAW	16:09:49	857.26	Sample	OK	1
F702265-MSD2	A1	10	3.95	70.55		60886-1.RAW	16:13:58	858.83	Sample	OK	1
F702283-BLK1	A2	10	3.95	1.83		60887-1.RAW	16:18:06	26.10	Sample	OK	1
F702283-BLK2	A3	10	3.95	1.59		60888-1.RAW	16:22:15	23.18	Sample	OK	1
F702283-BLK3	A4	10	3.95	16.44		60889-1.RAW	16:26:23	203.19	Sample	OK	1
F702283-B51	A5	10	3.95	159.83		60890-1.RAW	16:30:32	1940.53	Sample	OK	1
F702283-BSD1	A6	10	3.95	159.69		60891-1.RAW	16:34:40	1938.97	Sample	OK	1
1701569-09	A7	2500	3.95	25802.30		60892-1.RAW	16:38:48	1254.56	Sample	OK	1
1701569-10	A8	250000	3.95	712138.64		60893-1.RAW	16:42:57	349.11	Sample	OK	1
SEQ-CCV8	A9	1	3.95	5.33	105.60	60894-1.RAW	16:47:05	649.78	Sample	OK	1
SEQ-CCB8	A10	1	3.95	0.12	0.00	60895-1.RAW	16:51:14	18.47	Sample	OK	1
*F702283-BLK4	A11	10	3.95	16.49		60896-1.RAW	16:55:22	203.80	Sample	OK	1
1701569-11	A12	250000	3.95	339717.18		60897-1.RAW	16:59:31	168.60	Sample	OK	1
F702283-DUP1	B1	2500	3.95	26109.48		60898-1.RAW	17:03:39	1269.44	Sample	OK	1
F702283-MS1	B2	5000	3.95	125150.00	479.31	60899-1.RAW	17:07:48	3036.89	Sample	OK	1
F702283-MSD1	B3	5000	3.95	122513.82		60900-1.RAW	17:11:56	2873.00	Sample	OK	1
SEQ-CCV9	B4	1	3.95	5.39	107.81	60901-1.RAW	17:16:04	657.14	Sample	OK	1
SEQ-CCB9	B5	1	3.95	0.13	0.00	60902-1.RAW	17:20:13	19.85	Sample	OK	1

**Failing Data Report - 7B13016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702166-03	Hg-CVAFS-T-7030	838	3.49				ng/g						FAIL-OVER	PASS	E
1702166-04	Hg-CVAFS-T-7030	313	3.55				ng/g						FAIL-OVER	PASS	E
1702168-03	Hg-CVAFS-T-7030	361	3.84				ng/g						FAIL-OVER	PASS	E
1702168-04	Hg-CVAFS-T-7030	495	3.39				ng/g						FAIL-OVER	PASS	E
F702256-MS1	Hg-CVAFS-T-7030	1267	35.6		325.2	356.39	ng/g	264	71.00	125.00			PASS-OVER	FAIL-MS	QM 07
F702256-MSD1	Hg-CVAFS-T-7030	9.841	35.5	1267	325.2	355.38	ng/g	-88.7	71.00	125.00	402	24.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM 07, QR 07


  
 Analyst Reviewed By \_\_\_\_\_

2/13/17
   
 Date


  
 Peer Reviewed By \_\_\_\_\_

2-15-17
   
 Date



**Failing Data Report - 7B13017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
7B13017-CAL1	Hg-CVAFS-S-SSE-F1	0.66				0.50100	ng/L	132					PASS-OVER	FAIL-CAL	Re-Analyzed
F702265-BLK3	Hg-CVAFS-S-SSE-F1	10.54	3.12				ng/g						PASS-OVER	FAIL-BLK	QB-10
F702265-DUP1	Hg-CVAFS-S-SSE-F1	1.49	3.31	5.63	5.63		ng/g				116	25.00	PASS-OVER	FAIL-DUP	QR-07

Dan Moxem      2/13/17  
 Analyst Reviewed By      Date

[Signature]      2-15-17  
 Peer Reviewed By      Date

**Failing Data Report - 7B13015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
7B13015-CAL1	Hg-CVAFS-S-SSE-F2	0.66				0.50100	ng/L	132					PASS-OVER	FAIL-CAL	Re-Analyzed
F702283-BLK3	Hg-CVAFS-S-SSE-F2	4.91	3.12				ng/g						PASS-OVER	FAIL-BLK	QB-10
F702283-BLK4	Hg-CVAFS-S-SSE-F2	4.92	3.12				ng/g						PASS-OVER	FAIL-BLK	QB-10

Don Moore 2/13/17  
 Analyst Reviewed By Date

[Signature] 2-15-17  
 Peer Reviewed By Date

## ANALYSIS SEQUENCE

7B13016

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B13016-IBL1	QC	1			
7B13016-IBL2	QC	2			
7B13016-IBL3	QC	3			
7B13016-CAL1	QC	4	1700737		
7B13016-CAL2	QC	5	1700738		
7B13016-CAL3	QC	6	1700739		
7B13016-CAL4	QC	7	1700740		
7B13016-CAL5	QC	8	1700741		
7B13016-ICV1	QC	9	1700018		
7B13016-CAL6	QC	10	1700737		
F702256-BLK1	QC	11			
F702256-BLK2	QC	12			
F702256-BLK3	QC	13			
F702256-BLK4	QC	14			
F702256-BLK5	QC	15			
F702256-BS1	QC	16			
F702256-BSD1	QC	17			
F702256-BS2	QC	18			
1702086-01	Hg-CVAFS-T-7030	19			
1702166-01	Hg-CVAFS-T-7030	20			
7B13016-CCV1	QC	21	1700018		
7B13016-CCB1	QC	22			
1702166-02	Hg-CVAFS-T-7030	23			
1702166-03	Hg-CVAFS-T-7030	24			
1702166-04	Hg-CVAFS-T-7030	25			
1702166-05	Hg-CVAFS-T-7030	26			
1702167-01	Hg-CVAFS-T-7030	27			
1702167-02	Hg-CVAFS-T-7030	28			
1702167-03	Hg-CVAFS-T-7030	29			
1702167-04	Hg-CVAFS-T-7030	30			
1702167-05	Hg-CVAFS-T-7030	31			
1702168-02	Hg-CVAFS-T-7030	32			
7B13016-CCV2	QC	33	1700018		
7B13016-CCB2	QC	34			
1702168-03	Hg-CVAFS-T-7030	35			

Due Date: 2/16/2017

## ANALYSIS SEQUENCE

7B13016

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702168-04	Hg-CVAFS-T-7030	36			
1702168-05	Hg-CVAFS-T-7030	37			
1702166-03RE1	Hg-CVAFS-T-7030	38			Added 2/13/2017 by DM2
1702166-04RE1	Hg-CVAFS-T-7030	39			Added 2/13/2017 by DM2
1702166-05RE1	Hg-CVAFS-T-7030	40			Added 2/13/2017 by DM2
F702256-DUP1	QC	41			
F702256-MS1	QC	42			
F702256-MSD1	QC	43			
F702256-MS2	QC	44			
7B13016-CCV3	QC	45	1700018		
7B13016-CCB3	QC	46			
F702256-MSD2	QC	47			
1702168-03RE1	Hg-CVAFS-T-7030	48			Added 2/13/2017 by DM2
1702168-04RE1	Hg-CVAFS-T-7030	49			Added 2/13/2017 by DM2
1702168-05RE1	Hg-CVAFS-T-7030	50			Added 2/13/2017 by DM2
F702256-MS3	QC	51			
F702256-MSD3	QC	52			
7B13016-CCV4	QC	53	1700018		
7B13016-CCB4	QC	54			

Don Moran 2/13/17  
 Samples Loaded By Date

Don Moran 2/13/17  
 Data Processed By Date

Due Date: 2/16/2017

## ANALYSIS SEQUENCE

7B13017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B13017-IBL1	QC	1			
7B13017-IBL2	QC	2			
7B13017-IBL3	QC	3			
7B13017-CAL1	QC	4	1700737		
7B13017-CAL2	QC	5	1700738		
7B13017-CAL3	QC	6	1700739		
7B13017-CAL4	QC	7	1700740		
7B13017-CAL5	QC	8	1700741		
7B13017-ICV1	QC	9	1700018		
7B13017-CAL6	QC	10	1700737		
7B13017-CCV1	QC	11	1700018		
7B13017-CCB1	QC	12			
7B13017-CCV2	QC	13	1700018		
7B13017-CCB2	QC	14			
7B13017-CCV3	QC	15	1700018		
7B13017-CCB3	QC	16			
F702265-BLK1	QC	17			
F702265-BLK2	QC	18			
F702265-BLK3	QC	19			
F702265-BS1	QC	20			
7B13017-CCV4	QC	21	1700018		
7B13017-CCB4	QC	22			
F702265-BSD1	QC	23			
1701569-01	Hg-CVAFS-S-SSE-F1	24			
1701569-02	Hg-CVAFS-S-SSE-F1	25			
1701569-03	Hg-CVAFS-S-SSE-F1	26			
1701569-04	Hg-CVAFS-S-SSE-F1	27			
1701569-05	Hg-CVAFS-S-SSE-F1	28			
1701569-06	Hg-CVAFS-S-SSE-F1	29			
1701569-07	Hg-CVAFS-S-SSE-F1	30			
1701569-08	Hg-CVAFS-S-SSE-F1	31			
1701569-09	Hg-CVAFS-S-SSE-F1	32			
7B13017-CCV5	QC	33	1700018		
7B13017-CCB5	QC	34			
1701569-10	Hg-CVAFS-S-SSE-F1	35			

Due Date: 2/17/2017

## ANALYSIS SEQUENCE

7B13017

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1701569-11	Hg-CVAFS-S-SSE-F1	36			
1701569-01RE1	Hg-CVAFS-S-SSE-F1	37			Added 2/13/2017 by DM2
1701569-02RE1	Hg-CVAFS-S-SSE-F1	38			Added 2/13/2017 by DM2
1701569-03RE1	Hg-CVAFS-S-SSE-F1	39			Added 2/13/2017 by DM2
1701569-04RE1	Hg-CVAFS-S-SSE-F1	40			Added 2/13/2017 by DM2
1701569-05RE1	Hg-CVAFS-S-SSE-F1	41			Added 2/13/2017 by DM2
1701569-06RE1	Hg-CVAFS-S-SSE-F1	42			Added 2/13/2017 by DM2
1701569-07RE1	Hg-CVAFS-S-SSE-F1	43			Added 2/13/2017 by DM2
1701569-08RE1	Hg-CVAFS-S-SSE-F1	44			Added 2/13/2017 by DM2
7B13017-CCV6	QC	45	1700018		
7B13017-CCB6	QC	46			
1701569-09RE1	Hg-CVAFS-S-SSE-F1	47			Added 2/13/2017 by DM2
1701569-01RE2	Hg-CVAFS-S-SSE-F1	48			Added 2/13/2017 by DM2
1701569-02RE2	Hg-CVAFS-S-SSE-F1	49			Added 2/13/2017 by DM2
1701569-03RE2	Hg-CVAFS-S-SSE-F1	50			Added 2/13/2017 by DM2
1701569-04RE2	Hg-CVAFS-S-SSE-F1	51			Added 2/13/2017 by DM2
1701569-05RE2	Hg-CVAFS-S-SSE-F1	52			Added 2/13/2017 by DM2
1701569-07RE2	Hg-CVAFS-S-SSE-F1	53			Added 2/13/2017 by DM2
1701569-08RE2	Hg-CVAFS-S-SSE-F1	54			Added 2/13/2017 by DM2
F702265-DUP1	QC	55			
F702265-MS1	QC	56			
7B13017-CCV7	QC	57	1700018		
7B13017-CCB7	QC	58			
F702265-MSD1	QC	59			
F702265-MS2	QC	60			
F702265-MSD2	QC	61			
7B13017-CCV8	QC	62	1700018		
7B13017-CCB8	QC	63			

Don Moorem      2/13/17  
 Samples Loaded By      Date

Don Moorem      2/13/17  
 Data Processed By      Date

Due Date: 2/17/2017

## ANALYSIS SEQUENCE

7B13015

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B13015-IBL1	QC	1			
7B13015-IBL2	QC	2			
7B13015-IBL3	QC	3			
7B13015-CAL1	QC	4	1700737		
7B13015-CAL2	QC	5	1700738		
7B13015-CAL3	QC	6	1700739		
7B13015-CAL4	QC	7	1700740		
7B13015-CAL5	QC	8	1700741		
7B13015-ICV1	QC	9	1700018		
7B13015-CAL6	QC	10	1700737		
7B13015-CCV1	QC	11	1700018		
7B13015-CCB1	QC	12			
7B13015-CCV2	QC	13	1700018		
7B13015-CCB2	QC	14			
7B13015-CCV3	QC	15	1700018		
7B13015-CCB3	QC	16			
7B13015-CCV4	QC	17	1700018		
7B13015-CCB4	QC	18			
7B13015-CCV5	QC	19	1700018		
7B13015-CCB5	QC	20			
7B13015-CCV6	QC	21	1700018		
7B13015-CCB6	QC	22			
7B13015-CCV7	QC	23	1700018		
7B13015-CCB7	QC	24			
F702283-BLK1	QC	25			
F702283-BLK2	QC	26			
F702283-BLK3	QC	27			
F702283-BS1	QC	28			
F702283-BSD1	QC	29			
1701569-09	Hg-CVAFS-S-SSE-F2	30			
1701569-10	Hg-CVAFS-S-SSE-F2	31			
7B13015-CCV8	QC	32	1700018		
7B13015-CCB8	QC	33			
F702283-BLK4	QC	34			
1701569-11	Hg-CVAFS-S-SSE-F2	35			

Due Date: 2/17/2017

ANALYSIS SEQUENCE

7B13015

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/13/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F702283-DUP1	QC	36			
F702283-MS1	QC	37			
F702283-MSD1	QC	38			
7B13015-CCV9	QC	39	1700018		
7B13015-CCB9	QC	40			

Don Moxam      2/13/17  
Samples Loaded By      Date

Don Moxam      2/13/17  
Data Processed By      Date

Due Date: 2/17/2017



**PREPARATION BENCH SHEET**

F702256

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702256-BLK1	Blank	0.25	40					
F702256-BLK2	Blank	0.25	40					
F702256-BLK3	Blank	0.25	40					
F702256-BLK4	Blank	0.6081	40					
F702256-BLK5	Blank	0.6312	40					
F702256-BS1	Blank Spike	0.5	40	1700686	40			
F702256-BS2	DORM-4	0.253	40	1605470	253			
F702256-BSD1	Blank Spike Dup	0.5	40	1700686	40			
F702256-DUP1	Duplicate [1702166-04RE1]	0.5768	40					
F702256-MS1	Matrix Spike [1702166-04RE1]	0.5623	40	1607152	200			
F702256-MS2	Matrix Spike [1702167-01]	0.5701	40	1607152	200			
F702256-MS3	Matrix Spike [1702166-04RE1]	0.5623	40	1607152	200			
F702256-MSD1	Matrix Spike Dup [1702166-04RE1]	0.5639	40	1607152	200			
F702256-MSD2	Matrix Spike Dup [1702167-01]	0.5821	40	1607152	200			
F702256-MSD3	Matrix Spike Dup [1702166-04RE1]	0.5639	40	1607152	200			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1607152	THg 1,000ng/mL Primary Spiking Standard	08-Jun-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700639	70/30 Digestion Acid	29-Jul-17 00:00
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700818	5% BrCl	15-Jul-17 00:00
			1700821	70/30 Digestion Acid	07-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702256

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702086-01	17A0316-01	0.5521	40	-	-	-		
1702166-01	MMBKD-01_012317_ABD_01_MU	0.5718	40	-	-	-		
1702166-02	MMBKD-01_012317_ABD_02_MU	0.5775	40	-	-	-		
1702166-03	MMBKD-01_012417_ABD_03_MU	0.5737	40	-	-	-		
1702166-03RE1	MMBKD-01_012417_ABD_03_MU	0.5737	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702166-04	MMBKD-01_012417_ABD_04_MU	0.5632	40	QC	-	-	MS/MSD	
1702166-04RE1	MMBKD-01_012417_ABD_04_MU	0.5632	40	QC	-	-	MS/MSD Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702166-05	MMBKD-01_012417_ABD_05_MU	0.5682	40	-	-	-		
1702166-05RE1	MMBKD-01_012417_ABD_05_MU	0.5682	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702167-01	FRB-01_012517_ABD_06_MU	0.5365	40	QC	-	-	MS/MSD	
1702167-02	FRB-01_012517_ABD_07_MU	0.5312	40	-	-	-		
1702167-03	FRB-01_012517_ABD_08_MU	0.5806	40	-	-	-		
1702167-04	FRB-01_012617_ABD_09_MU	0.5518	40	-	-	-		
1702167-05	FRB-01_012617_ABD_10_MU	0.5374	40	-	-	-		
1702168-02	ES-13_012417_ABD_02_MU	0.537	40	-	-	-		
1702168-03	ES-13_012817_ABD_03_MU	0.5213	40	-	-	-		
1702168-03RE1	ES-13_012817_ABD_03_MU	0.5213	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1702168-04	ES-13_012817_ABD_04_MU	0.5908	40	-	-	-		
1702168-04RE1	ES-13_012817_ABD_04_MU	0.5908	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2

**PREPARATION BENCH SHEET**

F702256

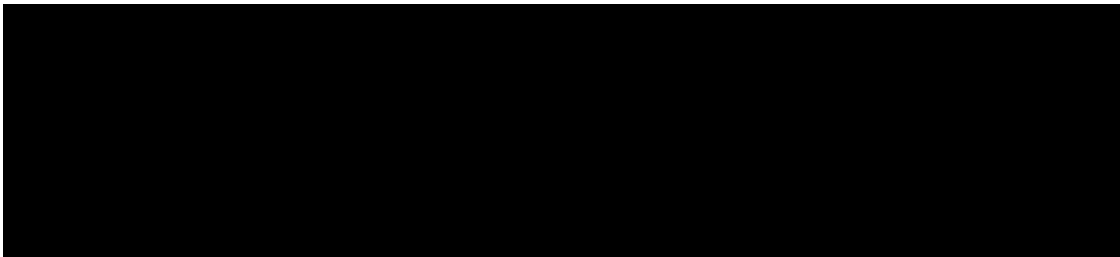
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

1702168-05	CORN_012817_DUCK_BAIT	0.5847	40	-	-	-		
1702168-05RE1	CORN_012817_DUCK_BAIT	0.5847	40	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2



**PREPARATION BENCH SHEET**

F702265

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1**

**Prepared: 2/8/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702265-BLK1	Blank	0.4	125					
F702265-BLK2	Blank	0.4	125					
F702265-BLK3	Blank	0.4	125					
F702265-BS1	LCS	0.016	5	1604715	100			
F702265-BSD1	LCS Dup	0.016	5	1604715	100			
F702265-DUP1	Duplicate [1701569-01RE2]	0.4525	125					
F702265-MS1	Matrix Spike [1701569-01RE2]	0.017604	5	1700687	50			[Spk] 0.4401g->125mL; 125mL->125mL; Spiked 5mL.
F702265-MS2	Matrix Spike [1701569-05RE2]	0.018308	5	1700687	25			[Spk] 0.4577g->125mL; 125mL->125mL; Spiked 5mL.
F702265-MSD1	Matrix Spike Dup [1701569-01RE2]	0.017604	5	1700687	50			[Spk] 0.4401g->125mL; 125mL->125mL; Spiked 5mL.
F702265-MSD2	Matrix Spike Dup [1701569-05RE2]	0.018308	5	1700687	25			[Spk] 0.4577g->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	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
		01-May-17 00:00	1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702265

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1**

**Prepared: 2/8/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-01	MW-45 8.5-10'	0.4401	125	-	-	-		
1701569-01RE1	MW-45 8.5-10'	0.4401	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-01RE2	MW-45 8.5-10'	0.4401	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-02	MW-45 13.5-15'	0.4332	125	-	-	-		
1701569-02RE1	MW-45 13.5-15'	0.4332	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-02RE2	MW-45 13.5-15'	0.4332	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-03	MW-47 3.5-5'	0.4212	125	-	-	-		
1701569-03RE1	MW-47 3.5-5'	0.4212	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-03RE2	MW-47 3.5-5'	0.4212	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-04	MW-47 8.5-10'	0.4772	125	-	-	-		
1701569-04RE1	MW-47 8.5-10'	0.4772	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-04RE2	MW-47 8.5-10'	0.4772	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-05	MW-46 8.5-10'	0.4577	125	-	-	-		
1701569-05RE1	MW-46 8.5-10'	0.4577	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-05RE2	MW-46 8.5-10'	0.4577	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-06	MW-46 18.5-20'	0.456	125	-	-	-		
1701569-06RE1	MW-46 18.5-20'	0.456	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-07	HG-1 8.5-10'	0.4683	125	-	-	-		
1701569-07RE1	HG-1 8.5-10'	0.4683	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2

**PREPARATION BENCH SHEET**

F702265

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1**

**Prepared: 2/8/2017**

1701569-07RE2	HG-1 8.5-10'	0.4683	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-08	HG-1 13.5-15'	0.4637	125	-	-	-		
1701569-08RE1	HG-1 13.5-15'	0.4637	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-08RE2	HG-1 13.5-15'	0.4637	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-09	HgS	0.4696	125	-	-	-		
1701569-09RE1	HgS	0.4696	125	-	-	-	Added 2/13/2017 by DM2	Added 2/13/2017 by DM2
1701569-10	HgO	0.4513	125	-	-	-		
1701569-11	Hg <sub>2</sub> Cl <sub>2</sub>	0.4568	125	-	-	-		



**PREPARATION BENCH SHEET**

F702283

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 2/9/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702283-BLK1	Blank	0.4	125					
F702283-BLK2	Blank	0.4	125					
F702283-BLK3	Blank	0.4	125					
F702283-BLK4	Blank	0.4	125					
F702283-BS1	LCS	0.016	5	1604715	100			
F702283-BSD1	LCS Dup	0.016	5	1604715	100			
F702283-DUP1	Duplicate [1701569-09]	0.4696	125					
F702283-MS1	Matrix Spike [1701569-09]	0.00003756 g	0.01	1700687	100			[Spk] 0.4696g->125mL; 125mL->125mL; Spiked 0.01mL
F702283-MSD1	Matrix Spike Dup [1701569-09]	0.00003756 g	0.01	1700687	100			[Spk] 0.4696g->125mL; 125mL->125mL; Spiked 0.01mL

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00

PREPARATION BENCH SHEET

F702283

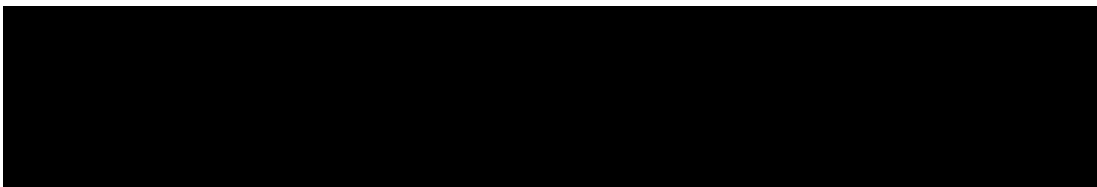
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-09	HgS	0.4696	125	-	-	-		
1701569-10	HgO	0.4513	125	-	-	-		
1701569-11	Hg2Cl2	0.4568	125	-	-	-		





PREPARATION BENCH SHEET

2600-3  
2/13/17 DM

F702256

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/8/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702256-BLK1	Blank	0.25	40					20X
F702256-BLK2	Blank	0.25	40					20X
F702256-BLK3	Blank	0.25	40					20X
F702256-BLK4	Blank	0.6081	40					20X
F702256-BLK5	Blank	0.6312	40					20X
F702256-BS1	Blank Spike	0.5	40	1700686	40			20X
F702256-BS2	DORM-4	0.253	40	1605470	253			1000X 400X
F702256-BSD1	Blank Spike Dup	0.5	40	1700686	40			20X
F702256-DUP1	Duplicate [1702166-04] RE1	0.5768	40					400X
F702256-MS1	Matrix Spike [1702166-04] RE1	0.5623	40	1607152	200			1000X
F702256-MS2	Matrix Spike [1702167-01]	0.5701	40	1607152	200			400X 400X
F702256-MSD1	Matrix Spike Dup [1702166-04] RE1	0.5639	40	1607152	200			1000X
F702256-MSD2	Matrix Spike Dup [1702167-01]	0.5821	40	1607152	200			400X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1607152	THg 1,000ng/mL Primary Spiking Standard	08-Jun-17 00:00	1700639	70/30 Digestion Acid	29-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700818	5% BrCl	15-Jul-17 00:00
			1700821	70/30 Digestion Acid	07-Aug-17 00:00

4 4  
~~MSD3 - 1000X~~  
Spike 1702166-04 RE1  
100ul 1700686  
NO DM 2/13/17

MS3, MSD3 re-run of MS1, MSD1

1700908  
1606934  
1700771  
1700309

Due Date: 2/16/2017

PREPARATION BENCH SHEET

26003  
2/19/17 DM

F702256

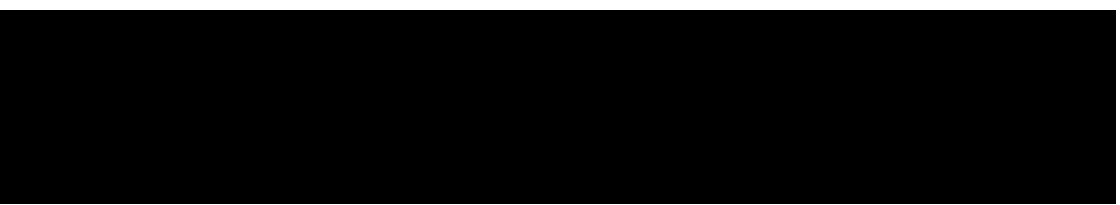
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/8/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702086-01	17A0316-01	0.5521	40	-	-	-		100X
1702166-01	MMBKD-01_012317_ABD_01_MU	0.5718	40	-	-	-		100X
1702166-02	MMBKD-01_012317_ABD_02_MU	0.5775	40	-	-	-		100X
1702166-03	MMBKD-01_012417_ABD_03_MU	0.5737	40	-	-	-		100X → 400X
1702166-04	MMBKD-01_012417_ABD_04_MU	0.5632	40	QC	-	-	MS/MSD	100X → 400X
1702166-05	MMBKD-01_012417_ABD_05_MU	0.5682	40	-	-	-		100X → 100X
1702167-01	FRB-01_012517_ABD_06_MU	0.5365	40	QC	-	-	MS/MSD	100X
1702167-02	FRB-01_012517_ABD_07_MU	0.5312	40	-	-	-		100X
1702167-03	FRB-01_012517_ABD_08_MU	0.5806	40	-	-	-		100X
1702167-04	FRB-01_012617_ABD_09_MU	0.5518	40	-	-	-		100X
1702167-05	FRB-01_012617_ABD_10_MU	0.5374	40	-	-	-		100X
1702168-02	ES-13_012417_ABD_02_MU	0.537	40	-	-	-		100X
1702168-03	ES-13_012817_ABD_03_MU	0.5213	40	-	-	-		100X → 400X
1702168-04	ES-13_012817_ABD_04_MU	0.5908	40	-	-	-		100X → 400X
1702168-05	CORN_012817_DUCK_BAIT	0.5847	40	-	-	-		100X → 20X



**PREPARATION BENCH SHEET**

F702256

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/8/2017**

**Due Date: 2/16/2017**

Technician: Dwyer Batch#: F702256 Date: 2/8/17

- EFGS-010 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFGS-011 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFGS-045 Sediments - Methyl Mercury - KBr/CH<sub>2</sub>Cl<sub>2</sub>: Heat Block 45°C (nitrogen purge for 30 minutes).
- EFGS-066 Solids - Total Mercury - Cold AR: 18-25°C for over four hours.

Other: \_\_\_\_\_ Vial Type:  Glass  Teflon  
 Balance#: 19 Calibrated?  Yes  No Therm.#: 14545 Calibrated?  Yes  No  
 \*Time in: 14:30 Actual Temp. (raw): 79.0 °C w/ CF: 780.0 °C  
 Time out: 16:30 Actual Temp. (raw): 76.0 °C w/ CF: 77.0 °C ATMB 2/8/17  
 \*Time in can't begin before target temperature is reached

Final vol.: 40 mL (LIMS ID: 1700818) Spike vol.: 200 µL (LIMS ID: 1607152)  
 Spike Witness: BC 2/8/17 (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 2-6-17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1700639, 1700821 Dispenser #: 02K29494 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  Yes  No  
 Glass Vial # 00066592 Boiling Chip lot # 1606642 \*Hotblock Position: F2  
00066664

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	F702256 Blk1	0.5639	23	1702167-04	0.5518	BS2
2	F702256 Blk2	0.5235	24	1702167-05	0.5374	DORM-4 1605470
3	F702256 Blk3	0.5765	25	1702168-02	0.5370	
4	F702256 Blk4	0.6081	26	1702168-03	0.5213	<b>Comments</b>
5	F702256 Blk5	0.6312	27	1702168-04	0.5908	Dup source
6	F702256 BS1	0.5562	28	1702168-05	0.5847	1702166-04
7	F702256 BS1	0.5418	29			
8	F702256 BS2	0.2530	30			MS1 MS01 F702256 1702166-04
9	F702256 Dup1	0.5768	31		2-877	
10	F702256 MS1	0.5623	32		48	MS2 MS02 F702256 1702167-01
11	F702256 MS01	0.5639	33			
12	F702256 MS2	0.5701	34			BS1 BS01 = 100µg/100
13	F702256 MS02	0.5821	35			= 40µg 1700686
14	1702086-01	0.5521	36			
15	1702166-01	0.5718	37			vials #1 1702086-01
16	1702166-02	0.5775	38			
17	1702166-03	0.5737	39			Prep Blank Blank 4 1702166, 2167 1702168
18	1702166-04	0.5632	40			
19	1702166-05	0.5682	41			
20	1702167-01	0.5365	42			Post Blank Blank 5 1702166, 2167, 2168 2-877 out
21	1702167-02	0.5312	43			
22	1702167-03	0.5806	44			

PREPARATION BENCH SHEET

2600.3

2/13/17 DM

F702265

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1

Prepared: 2/8/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702265-BLK1	Blank	0.4	125					10X
F702265-BLK2	Blank	0.4	125					10X
F702265-BLK3	Blank	0.4	125					10X
F702265-BS1	LCS	0.016 -0.4	5 725	1604715	100			10X
F702265-BSD1	LCS Dup	0.016 -0.4	5 725	1604715	100			10X
F702265-DUP1	Duplicate [1701569-01] RE2	0.4525	125					10X
F702265-MS1	Matrix Spike 1701569-01 RE2	0.4	125	1700687	50			10X
F702265-MSD1	Matrix Spike Dup 1701569-01 RE2	0.4	125	1700687	50			10X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00

MS2, MSD2 - 10X  
 1701569-01 RE2  
 1700687 25µl

1700308  
 1606934  
 1700771  
 1700309

PREPARATION BENCH SHEET

2600-3  
2/13/17 DM

F702265

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-1

Prepared: 2/8/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-01	MW-45 8.5-10'	0.4401	125	-	-	-		500X 5000X → 100X → 10X
1701569-02	MW-45 13.5-15'	0.4332	125	-	-	-		500X → 100X → 10X
1701569-03	MW-47 3.5-5'	0.4212	125	-	-	-		500X → 100X → 10X
1701569-04	MW-47 8.5-10'	0.4772	125	-	-	-		500X → 100X → 10X
1701569-05	MW-46 8.5-10'	0.4577	125	-	-	-		500X → 100X → 10X
1701569-06	MW-46 18.5-20'	0.456	125	-	-	-		500X → 100X
1701569-07	HG-1 8.5-10'	0.4683	125	-	-	-		5000X → 100X → 10X
1701569-08	HG-1 13.5-15'	0.4637	125	-	-	-		5000X → 100X → 10X
1701569-09	HgS	0.4696	125	-	-	-		100,000X → 2500X
1701569-10	HgO	0.4513	125	-	-	-		250,000X
1701569-11	Hg2Cl2	0.4568	125	-	-	-		250,000X

Technician: AMB Batch#: F702265 Date: 2-8-17

- EFAFS-T-AFS-SOP2986 Tissues - Methyl Mercury - KOH/Methanol: Hot plate 75±5°C for 2-4 hours.
- EFAFS-T-AFS-SOP2795 Tissues - Total Mercury - 70:30: Hot plate 75±5°C for two hours.
- EFAFS-T-AFS-SOP5134 Sediments - Methyl Mercury - KBr/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 - WAFS - F1, F3, F4, F5 (F2 for blank)  
 Balance#: 19 Calibrated?  Yes  No Vial Type:  Glass  Teflon  
 Therm. #: and CRM 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.: 125 mL (LIMS ID: N/A) Spike vol.: 40 µL (LIMS ID: 1700686)  
 Spike Witness: DM 2-13-17 (initial and date)

Other acid ID: 1605878 (12N HNO<sub>3</sub>) Pipette: MU11619 cal: 2-13-17  
 HCl LIMS ID: 1607476 Pipette SN#: MU32229 Calibration Date: 2-3-17  
 HNO<sub>3</sub> LIMS ID: 1700510 (F5) 2-11-17 Pipette SN#: MU32229 Calibration Date: 2-13-17  
 70:30 LIMS ID: 1605790 (pH2) Dispenser #: 0842293 Calibrated?  Yes  No  
 Other Acid LIMS ID: 1605877 (KOH) Dispenser #: 09N45351 Eyes Dispenser  
 Glass Vial # N/A - AMB Boiling Chip lot # 1606642 \*Hotblock Position: N/A  
00066595 2-11-17

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 type="checkbox"/> NA
1	F702265-BLK1	0.4939	23			
2	F702265-BLK2	0.4305	24			HgS 1605058
3	F702265-BLK3	0.4313	25			HgO 1605057
4	1701569-01	0.4401	26			Hg2Cl2 1605056
5	F702265-DUP1	0.4525	27			Comments
6	1701569-02	0.4332	28			F2 - F702283
7	1701569-03	0.4212	29			pH2 1.25mL BrCl
8	1701569-04	0.4772	30			BrCl: 1700306
9	1701569-05	0.4577	31			Pipette: MU32229
10	1701569-06	0.4560	32			F3 - F702284
11	1701569-07	0.4683	33			KOH - 1605877
12	1701569-08	0.4637	34			BrCl: 1700306 (0.5mL)
13	1701569-09	0.4696	35			Pipette: MU32229
14	1701569-10	0.4513	36			F4 - F702285
15	1701569-11	0.4568	37			12N HNO <sub>3</sub> : 1605878
16			38			BrCl: 1700306 (2.5mL)
17			39			Pipette: MU32229
18			40			F5 - F702286
19			41			5% BrCl 1700947
20			42			Dispenser:
21			43			F1 - 1.25mL
22			44			BrCl 1700306 Pipette MU32229

PREPARATION BENCH SHEET

2600-3  
2/13/17 DM

F702283

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/9/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702283-BLK1	Blank	0.4	125					10X
F702283-BLK2	Blank	0.4	125					10X
F702283-BLK3	Blank	0.4	125					10X
F702283-BS1	LCS	0.016 -0.4	5 125	1604715	100			10X
F702283-BSD1	LCS Dup	0.016 -0.4	5 125	1604715	100			10X
F702283-DUP1	Duplicate 1701569-09	0.4	125					2500X
F702283-MS1	Matrix Spike 1701569-09	0.4	125	1700687	100			5000X
F702283-MSD1	Matrix Spike Dup 1701569-09	0.4	125	1700687	100			5000X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00

BLK re-run of BLK3

1700308  
1606642  
1700771  
1700909



PREPARATION BENCH SHEET

2600.3  
2/13/17 DM

F702283

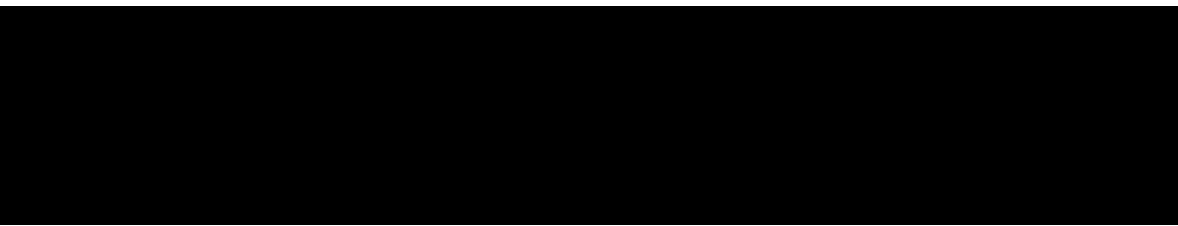
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/9/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-09	HgS	0.4696	125	-	-	-		2500X
1701569-10	HgO	0.4513	125	-	-	-		250,000X
1701569-11	Hg2Cl2	0.4568	125	-	-	-		250,000X





**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>	7B13017, 7B13016, 7B13015
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26003-170213-1
<b>Date:</b>	2/13/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F702265, F702283, F702256		0

Analyst Initials DM

Reviewer Initials DMW

- 5b. Has the B/C section data been uploaded?  YES  NO  N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%)  PASS  FAIL   
 Comments: \_\_\_\_\_
7. The calibration curve included a minimum of 5 Standards  YES  NO   
 Comments: SEQ-CAL1 FAILED. RE-ANALYZED AND PASSED
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: QB-10, QR-07, E, QM-07,, QR-08
12. Explain any items on the failed data report from Element   
 Comments: SEE FAILING DATA REPORT
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)  PASS  FAIL   
 (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: \_\_\_\_\_  
 (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?  YES  NO   
 (c) Was a BrCl Blank analyzed for each preservation level?  YES  NO  N/A   
 (d) Are Preparation Blanks summarized on QC page?  YES  NO
14. Filtration Blank Prepared (if yes, use FB qualifier)  YES  NO   
 (a) Filtration Blank prep date same as associated samples' prep date  YES  NO  N/A   
 (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI  YES  NO  N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?  PASS  FAIL   
 Comments: \_\_\_\_\_
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?  PASS  FAIL   
 Comments: \_\_\_\_\_
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

<b>Analyst:</b>	DON MORAN	<b>Sequence(s) #:</b>	7B13017, 7B13016, 7B13015
<b>Reviewer:</b>	0	<b>Dataset ID(s):</b>	THG26003-170213-1
<b>Date:</b>	2/13/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F702265, F702283, F702256		0

Analyst Initials DM                      Reviewer Initials DMW

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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 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: _____ 11/8/16, 12/28/16 _____ LOD within last 3 months?                       | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 11/8/16, 12/28/16 _____ 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

THg26003-170221-1

Analysis Datasheet for Total Mercury

Date of Analysis: February 21, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7B22007, 7B22008

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	81.99 units	163.97	76.94 units	153.87	104.2 %Rec
SEQ-CAL2	1	1.00 ng/L	146.26 units	146.26	141.21 units	141.21	95.6 %Rec
SEQ-CAL3	1	5.00 ng/L	753.59 units	150.72	748.54 units	149.71	101.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2927.92 units	146.40	2922.87 units	146.14	99.0 %Rec
SEQ-CAL5	1	40.00 ng/L	5901.49 units	147.54	5896.44 units	147.41	99.8 %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**  
 147.67            +/- 4.66            3.2% RSD            150.98

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	5.05 units	±1.41	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.176 ng/L	±0.073
BLK	2	3	1.635 ng/L	±0.177
BLK	3	3	12.162 ng/L	±2.448
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURED  
 PEER-REVIEWED  
 INITIALS: *CMK* 2/24/17  
                   *A* 3/1/17

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	2/21/2017 8:26:36	61304-1.RAW	8:26:36 AM	6.19			1.1	0.008	0.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/21/2017 8:30:44	61305-1.RAW	8:30:44 AM	5.49			0.4	0.003	0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/21/2017 8:34:53	61306-1.RAW	8:34:53 AM	3.47			-1.6	-0.011	-0.011	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	2/21/2017 8:39:01	61307-1.RAW	8:39:01 AM	81.99			76.9	0.521	0.521	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/21/2017 8:43:09	61308-1.RAW	8:43:09 AM	146.26			141.2	0.956	0.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/21/2017 8:47:18	61309-1.RAW	8:47:18 AM	753.59			748.5	5.069	5.069	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/21/2017 8:51:26	61310-1.RAW	8:51:26 AM	2927.92			2922.9	19.793	19.793	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/21/2017 8:55:35	61311-1.RAW	8:55:35 AM	5901.49			5896.4	39.930	39.930	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/21/2017 8:59:43	61312-1.RAW	8:59:43 AM	752.56			747.5	5.062	5.062	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK1	20	2/21/2017 9:03:52	61313-1.RAW	9:03:52 AM	14.02	1		9.0	0.061	1.214	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK2	20	2/21/2017 9:08:00	61314-1.RAW	9:08:00 AM	14.08	1		9.0	0.061	1.223	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK3	20	2/21/2017 9:12:08	61315-1.RAW	9:12:08 AM	13.11	1		8.1	0.055	1.092	ng/L	
Hg2600-3	DM2	SAM	F702348-BS1	20	2/21/2017 9:16:17	61316-1.RAW	9:16:17 AM	727.50	1		722.4	4.834	96.670	ng/L	
Hg2600-3	DM2	SAM	F702348-BSD1	20	2/21/2017 9:20:25	61317-1.RAW	9:20:25 AM	728.71	1		723.7	4.842	96.834	ng/L	
Hg2600-3	DM2	SAM	F702348-BS2	400	2/21/2017 9:24:34	61318-1.RAW	9:24:34 AM	764.12	1		759.1	5.137	2054.950	ng/L	
Hg2600-3	DM2	SAM	1702050-01	100	2/21/2017 9:28:42	61319-1.RAW	9:28:42 AM	678.28	1		673.2	4.547	454.731	ng/L	
Hg2600-3	DM2	SAM	1702050-02	100	2/21/2017 9:32:50	61320-1.RAW	9:32:50 AM	2338.74	1		2333.7	15.792	1579.177	ng/L	
Hg2600-3	DM2	SAM	1702050-03	100	2/21/2017 9:36:59	61321-1.RAW	9:36:59 AM	7610.93	1		7605.9	51.495	5149.451	ng/L	
Hg2600-3	DM2	SAM	1702050-04	100	2/21/2017 9:41:07	61322-1.RAW	9:41:07 AM	2536.43	1		2531.4	17.130	1713.048	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/21/2017 9:45:16	61323-1.RAW	9:45:16 AM	756.66			751.6	5.090	5.090	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/21/2017 9:49:24	61324-1.RAW	9:49:24 AM	14.58			9.5	0.065	0.065	ng/L	
Hg2600-3	DM2	SAM	1702050-05	400	2/21/2017 9:53:33	61325-1.RAW	9:53:33 AM	639.06	1		634.0	4.291	1716.215	ng/L	
Hg2600-3	DM2	SAM	1702050-06	400	2/21/2017 9:57:41	61326-1.RAW	9:57:41 AM	2264.12	1		2259.1	15.295	6118.099	ng/L	
Hg2600-3	DM2	SAM	1702050-07	400	2/21/2017 10:01:49	61327-1.RAW	10:01:49 AM	505.11	1		500.1	3.383	1353.360	ng/L	
Hg2600-3	DM2	SAM	1702050-08	400	2/21/2017 10:05:58	61328-1.RAW	10:05:58 AM	918.44	1		913.4	6.182	2472.973	ng/L	
Hg2600-3	DM2	SAM	1702050-09	400	2/21/2017 10:10:06	61329-1.RAW	10:10:06 AM	151.56	1		146.5	0.989	395.692	ng/L	
Hg2600-3	DM2	SAM	1702050-10	400	2/21/2017 10:14:15	61330-1.RAW	10:14:15 AM	1046.05	1		1041.0	7.047	2818.643	ng/L	
Hg2600-3	DM2	SAM	1702050-11	400	2/21/2017 10:18:23	61331-1.RAW	10:18:23 AM	633.70	1		628.6	4.254	1701.681	ng/L	
Hg2600-3	DM2	SAM	1702050-12	400	2/21/2017 10:22:31	61332-1.RAW	10:22:31 AM	1627.17	1		1622.1	10.982	4392.747	ng/L	
Hg2600-3	DM2	SAM	1702050-13	400	2/21/2017 10:26:40	61333-1.RAW	10:26:40 AM	1181.23	1		1176.2	7.962	3184.806	ng/L	
Hg2600-3	DM2	SAM	1702050-14	400	2/21/2017 10:30:48	61334-1.RAW	10:30:48 AM	1890.11	1		1885.1	12.763	5105.007	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/21/2017 10:34:57	61335-1.RAW	10:34:57 AM	756.15			751.1	5.086	5.086	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/21/2017 10:39:05	61336-1.RAW	10:39:05 AM	11.20			6.1	0.042	0.042	ng/L	
Hg2600-3	DM2	SAM	1702050-15	400	2/21/2017 10:43:14	61337-1.RAW	10:43:14 AM	1392.92	1		1387.9	9.396	3758.238	ng/L	
Hg2600-3	DM2	SAM	1702050-16	400	2/21/2017 10:47:22	61338-1.RAW	10:47:22 AM	132.10	1		127.1	0.857	342.978	ng/L	
Hg2600-3	DM2	SAM	1702050-17	400	2/21/2017 10:51:30	61339-1.RAW	10:51:30 AM	168.73	1		163.7	1.105	442.184	ng/L	
Hg2600-3	DM2	SAM	1702050-18	400	2/21/2017 10:55:39	61340-1.RAW	10:55:39 AM	85.96	1		80.9	0.545	217.974	ng/L	
Hg2600-3	DM2	SAM	1702050-19	400	2/21/2017 10:59:47	61341-1.RAW	10:59:47 AM	381.32	1		376.3	2.545	1018.042	ng/L	
Hg2600-3	DM2	SAM	1702168-01	400	2/21/2017 11:03:56	61342-1.RAW	11:03:56 AM	1737.78	1		1732.7	11.731	4692.366	ng/L	
Hg2600-3	DM2	SAM	1702050-03RE1	400	2/21/2017 11:08:04	61343-1.RAW	11:08:04 AM	1914.44	1		1909.4	12.927	5170.889	ng/L	
Hg2600-3	DM2	SAM	1702050-04RE1	100	2/21/2017 11:12:12	61344-1.RAW	11:12:12 AM	2532.04	1		2527.0	17.101	1710.073	ng/L	
Hg2600-3	DM2	SAM	1702050-09RE1	100	2/21/2017 11:16:21	61345-1.RAW	11:16:21 AM	567.16	1		562.1	3.795	379.477	ng/L	
Hg2600-3	DM2	SAM	F702348-DUP1	400	2/21/2017 11:20:29	61346-1.RAW	11:20:29 AM	1867.94	1		1862.9	12.612	5044.937	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/21/2017 11:24:38	61347-1.RAW	11:24:38 AM	750.19			745.1	5.046	5.046	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/21/2017 11:28:46	61348-1.RAW	11:28:46 AM	13.47			8.4	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F702348-MS1	2500	2/21/2017 11:32:55	61349-1.RAW	11:32:55 AM	3045.80	1		3040.8	20.591	51478.000	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD1	2500	2/21/2017 11:37:03	61350-1.RAW	11:37:03 AM	2993.87	1		2988.8	20.239	50598.744	ng/L	
Hg2600-3	DM2	SAM	F702348-MS2	2500	2/21/2017 11:41:11	61351-1.RAW	11:41:11 AM	3086.12	1		3081.1	20.864	52160.563	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD2	2500	2/21/2017 11:45:20	61352-1.RAW	11:45:20 AM	3145.64	1		3140.6	21.267	53168.269	ng/L	
Hg2600-3	DM2	SAM	1702050-16RE1	100	2/21/2017 11:49:28	61353-1.RAW	11:49:28 AM	512.19	1		507.1	3.423	342.255	ng/L	
Hg2600-3	DM2	SAM	1702050-17RE1	100	2/21/2017 11:53:37	61354-1.RAW	11:53:37 AM	663.15	1		658.1	4.445	444.481	ng/L	
Hg2600-3	DM2	SAM	1702050-18RE1	100	2/21/2017 11:57:45	61355-1.RAW	11:57:45 AM	307.40	1		302.3	2.036	203.572	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK1	20	2/21/2017 12:01:53	61356-1.RAW	12:01:53 PM	16.47	2		11.4	0.077	1.547	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK2	20	2/21/2017 12:06:02	61357-1.RAW	12:06:02 PM	18.63	2		13.6	0.092	1.839	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK3	20	2/21/2017 12:10:10	61358-1.RAW	12:10:10 PM	16.26	2		11.2	0.076	1.518	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	2/21/2017 12:14:19	61359-1.RAW	12:14:19 PM	761.16			756.1	5.120	5.120	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/21/2017 12:18:27	61360-1.RAW	12:18:27 PM	15.28			10.2	0.069	0.069	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	*F702349-BLK4	20	2/21/2017 12:22:36	61361-1.RAW	12:22:36 PM	16.45	2		11.4	-0.005	-0.091	ng/L	
Hg2600-3	DM2	SAM	*F702349-BLK5	20	2/21/2017 12:26:44	61362-1.RAW	12:26:44 PM	14.61	2		9.6	-0.017	-0.340	ng/L	
Hg2600-3	DM2	SAM	F702349-BS1	20	2/21/2017 12:30:52	61363-1.RAW	12:30:52 PM	733.23	2		728.2	4.849	96.989	ng/L	
Hg2600-3	DM2	SAM	F702349-BSD1	20	2/21/2017 12:35:01	61364-1.RAW	12:35:01 PM	743.04	2		738.0	4.916	98.317	ng/L	
Hg2600-3	DM2	SAM	F702349-BS2	400	2/21/2017 12:39:09	61365-1.RAW	12:39:09 PM	773.32	2		768.3	5.199	2079.412	ng/L	
Hg2600-3	DM2	SAM	1702050-20	400	2/21/2017 12:43:18	61366-1.RAW	12:43:18 PM	243.99	2		238.9	1.614	645.567	ng/L	
Hg2600-3	DM2	SAM	1702050-21	400	2/21/2017 12:47:26	61367-1.RAW	12:47:26 PM	43.76	2		38.7	0.258	103.218	ng/L	
Hg2600-3	DM2	SAM	1702050-22	400	2/21/2017 12:51:34	61368-1.RAW	12:51:34 PM	130.64	2		125.6	0.846	338.562	ng/L	
Hg2600-3	DM2	SAM	1702050-23	400	2/21/2017 12:55:43	61369-1.RAW	12:55:43 PM	192.04	2		187.0	1.262	504.867	ng/L	
Hg2600-3	DM2	SAM	1702050-24	400	2/21/2017 12:59:51	61370-1.RAW	12:59:51 PM	197.98	2		192.9	1.302	520.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/21/2017 13:04:00	61371-1.RAW	1:04:00 PM	774.4704421			769.4	5.210	5.210	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/21/2017 13:08:08	61372-1.RAW	1:08:08 PM	10.74			5.7	0.039	0.039	ng/L	
Hg2600-3	DM2	SAM	1702050-25	400	2/21/2017 13:12:17	61373-1.RAW	1:12:17 PM	258.42	2		253.4	1.712	684.678	ng/L	
Hg2600-3	DM2	SAM	1702050-26	400	2/21/2017 13:16:25	61374-1.RAW	1:16:25 PM	636.26	2		631.2	4.270	1708.150	ng/L	
Hg2600-3	DM2	SAM	1702050-27	400	2/21/2017 13:20:33	61375-1.RAW	1:20:33 PM	1124.78	2		1119.7	7.579	3031.438	ng/L	
Hg2600-3	DM2	SAM	1702050-28	400	2/21/2017 13:24:42	61376-1.RAW	1:24:42 PM	698.55	2		693.5	4.692	1876.893	ng/L	
Hg2600-3	DM2	SAM	1702050-29	400	2/21/2017 13:28:50	61377-1.RAW	1:28:50 PM	1040.95	2		1035.9	7.011	2804.374	ng/L	
Hg2600-3	DM2	SAM	1702284-01	400	2/21/2017 13:32:59	61378-1.RAW	1:32:59 PM	2318.99	2		2313.9	15.666	6266.267	ng/L	
Hg2600-3	DM2	SAM	1702285-02	400	2/21/2017 13:37:07	61379-1.RAW	1:37:07 PM	148.08	2		143.0	0.964	385.786	ng/L	
Hg2600-3	DM2	SAM	1702285-03	400	2/21/2017 13:41:16	61380-1.RAW	1:41:16 PM	88.53	2		83.5	0.561	224.493	ng/L	
Hg2600-3	DM2	SAM	1702285-04	400	2/21/2017 13:45:24	61381-1.RAW	1:45:24 PM	429.79	2		424.7	2.872	1148.882	ng/L	
Hg2600-3	DM2	SAM	1702285-05	400	2/21/2017 13:49:32	61382-1.RAW	1:49:32 PM	152.66	2		147.6	0.995	398.194	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/21/2017 13:53:41	61383-1.RAW	1:53:41 PM	745.67			740.6	5.015	5.015	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/21/2017 13:57:49	61384-1.RAW	1:57:49 PM	14.54			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702285-06	400	2/21/2017 14:01:58	61385-1.RAW	2:01:58 PM	996.54	2		991.5	6.710	2684.081	ng/L	
Hg2600-3	DM2	SAM	1702285-07	400	2/21/2017 14:06:06	61386-1.RAW	2:06:06 PM	1844.40	2		1839.4	12.452	4980.730	ng/L	
Hg2600-3	DM2	SAM	1702285-08	400	2/21/2017 14:10:14	61387-1.RAW	2:10:14 PM	548.04	2		543.0	3.673	1469.180	ng/L	
Hg2600-3	DM2	SAM	1702285-09	400	2/21/2017 14:14:23	61388-1.RAW	2:14:23 PM	1253.40	2		1248.3	8.450	3379.843	ng/L	
Hg2600-3	DM2	SAM	1702285-10	400	2/21/2017 14:18:31	61389-1.RAW	2:18:31 PM	803.56	2		798.5	5.403	2161.343	ng/L	
Hg2600-3	DM2	SAM	1702050-21RE1	50	2/21/2017 14:22:40	61390-1.RAW	2:22:40 PM	272.27	2		267.2	1.777	88.844	ng/L	
Hg2600-3	DM2	SAM	1702050-22RE1	100	2/21/2017 14:26:48	61391-1.RAW	2:26:48 PM	494.75	2		489.7	3.300	329.988	ng/L	
Hg2600-3	DM2	SAM	F702349-DUP1	400	2/21/2017 14:30:57	61392-1.RAW	2:30:57 PM	2265.59	2		2260.5	15.304	6121.632	ng/L	
Hg2600-3	DM2	SAM	F702349-MS1	2500	2/21/2017 14:37:19	61393-2.RAW	2:37:19 PM	2992.78	2		2987.7	20.232	50579.842	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD1	2500	2/21/2017 14:41:27	61394-1.RAW	2:41:27 PM	2947.05	2		2942.0	19.922	49805.588	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/21/2017 14:45:36	61395-1.RAW	2:45:36 PM	759.43			754.4	5.109	5.109	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/21/2017 14:49:44	61396-1.RAW	2:49:44 PM	17.74			12.7	0.086	0.086	ng/L	
Hg2600-3	DM2	SAM	F702349-MS2	400	2/21/2017 14:53:52	61397-1.RAW	2:53:52 PM	3901.71	2		3896.7	26.384	10553.466	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD2	400	2/21/2017 14:58:01	61398-1.RAW	2:58:01 PM	3917.35	2		3912.3	26.490	10595.853	ng/L	
Hg2600-3	DM2	SAM	1702285-02RE1	100	2/21/2017 15:02:09	61399-1.RAW	3:02:09 PM	551.38	2		546.3	3.683	368.335	ng/L	
Hg2600-3	DM2	SAM	1702285-03RE1	100	2/21/2017 15:06:18	61400-1.RAW	3:06:18 PM	297.98	2		292.9	1.967	196.736	ng/L	
Hg2600-3	DM2	SAM	1702285-05RE1	100	2/21/2017 15:10:26	61401-1.RAW	3:10:26 PM	550.27	2		545.2	3.676	367.580	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK1	100	2/21/2017 15:14:34	61402-1.RAW	3:14:34 PM	23.19	3		18.1	0.123	12.281	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK2	100	2/21/2017 15:18:43	61403-1.RAW	3:18:43 PM	26.53	3		21.5	0.145	14.548	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK3	100	2/21/2017 15:22:51	61404-1.RAW	3:22:51 PM	19.31	3		14.3	0.097	9.656	ng/L	
Hg2600-3	DM2	SAM	F702375-BS1	400	2/21/2017 15:27:00	61405-1.RAW	3:27:00 PM	676.97	3		671.9	4.520	1807.897	ng/L	
Hg2600-3	DM2	SAM	F702375-BSD1	400	2/21/2017 15:31:08	61406-1.RAW	3:31:08 PM	684.62	3		679.6	4.572	1828.636	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/21/2017 15:35:17	61407-1.RAW	3:35:17 PM	814.38			809.3	5.481	5.481	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/21/2017 15:39:25	61408-1.RAW	3:39:25 PM	16.73			11.7	0.079	0.079	ng/L	
Hg2600-3	DM2	SAM	1702401-01	1000	2/21/2017 15:43:33	61409-1.RAW	3:43:33 PM	852.11	3		847.1	5.724	5724.055	ng/L	
Hg2600-3	DM2	SAM	1702401-02	1000	2/21/2017 15:47:42	61410-1.RAW	3:47:42 PM	2354.59	3		2349.5	15.899	15898.697	ng/L	
Hg2600-3	DM2	SAM	1702402-01	400	2/21/2017 15:51:50	61411-1.RAW	3:51:50 PM	2100.12	3		2095.1	14.157	5662.872	ng/L	
Hg2600-3	DM2	SAM	1702402-02	400	2/21/2017 15:55:59	61412-1.RAW	3:55:59 PM	4404.39	3		4399.3	29.762	11904.600	ng/L	
Hg2600-3	DM2	SAM	1702403-01	400	2/21/2017 16:00:07	61413-1.RAW	4:00:07 PM	1158.80	3		1153.7	7.783	3113.067	ng/L	
Hg2600-3	DM2	SAM	1702403-02	400	2/21/2017 16:04:16	61414-1.RAW	4:04:16 PM	1758.84	3		1753.8	11.846	4738.430	ng/L	
Hg2600-3	DM2	SAM	1702401-01B	100	2/21/2017 16:08:25	61415-1.RAW	4:08:25 PM	25.16	3		20.1	0.015	1.458	ng/L	
Hg2600-3	DM2	SAM	1702401-02B	100	2/21/2017 16:12:33	61416-1.RAW	4:12:33 PM	53.27	3		48.2	0.205	20.493	ng/L	
Hg2600-3	DM2	SAM	1702402-01B	100	2/21/2017 16:16:42	61417-1.RAW	4:16:42 PM	19.11	3		14.1	-0.026	-2.643	ng/L	
Hg2600-3	DM2	SAM	1702402-02B	100	2/21/2017 16:20:50	61418-1.RAW	4:20:50 PM	26.41	3		21.4	0.023	2.305	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	2/21/2017 16:24:59	61419-1.RAW	4:24:59 PM	802.04			797.0	5.397	5.397	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	2/21/2017 16:29:07	61420-1.RAW	4:29:07 PM	14.50			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702403-01B	100	2/21/2017 16:33:16	61421-1.RAW	4:33:16 PM	18.28	3		13.2	-0.032	-3.200	ng/L	
Hg2600-3	DM2	SAM	1702403-02B	100	2/21/2017 16:37:24	61422-1.RAW	4:37:24 PM	21.37	3		16.3	-0.011	-1.110	ng/L	
Hg2600-3	DM2	SAM	F702375-DUP1	1000	2/21/2017 16:41:32	61423-1.RAW	4:41:32 PM	867.22	3		862.2	5.826	5826.392	ng/L	
Hg2600-3	DM2	SAM	F702375-MS1	1000	2/21/2017 16:45:41	61424-1.RAW	4:45:41 PM	3806.61	3		3801.6	25.732	25731.594	ng/L	
Hg2600-3	DM2	SAM	F702375-MSD1	1000	2/21/2017 16:49:49	61425-1.RAW	4:49:49 PM	3938.99	3		3933.9	26.628	26628.064	ng/L	



Instrument	Analyst	Sample Type	LabNumber	Dilution	Analized	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	CAL	SEQ-CCVA	1	2/21/2017 16:53:58	61426-1.RAW	4:53:58 PM	815.04			810.0	5.485	5.485	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	2/21/2017 16:58:06	61427-1.RAW	4:58:06 PM	20.72			15.7	0.106	0.106	ng/L	

TotalMercury EPA1631 Operat: DM Blanks: 5.0508 Calib Eqn: Conc = (Area-5.050 Run Date: 2/21/2017 Blank SD: 1.411904368  
 Workst THg260i CalibFa 147.67 Status: QC Warnings:4/QC E Run Time: 14:33:10 Blank RSD%: 27.95430348  
 Methoc ##### R: 1 R²: 1 CF SD: 4.656872348  
 Descrip THg26003-170221-1 CF RSD%: 3.153586442

SampleID	Locator	Run#	Volume	Blank	Conc (ppm)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (elt)	Flags	RunCount
Clean				0.00	6.05					61299-1.RAW	8:07:11	1188.09	Clean	OK	1
CLEAN										61300-1.RAW	8:10:02	0.00	Clean	NP	1
WS				5.05	0.00					61301-1.RAW	8:14:11	4.59	Sample	OK	1
WS				5.05	0.00					61302-1.RAW	8:18:19	4.73	Sample	OK	1
WS				5.05	0.01					61303-1.RAW	8:22:27	7.14	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.04						61304-1.RAW	8:26:36	6.19	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.04						61305-1.RAW	8:30:44	5.49	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.02						61306-1.RAW	8:34:53	3.47	Sample	OK	1
SEQ-CAL1	A4	1	5.05	0.52		104.20				61307-1.RAW	8:39:01	81.99	Sample	OK	1
SEQ-CAL2	A5	1	5.05	0.96		95.63				61308-1.RAW	8:43:09	146.26	Sample	OK	1
SEQ-CAL3	A6	1	5.05	5.07		101.38				61309-1.RAW	8:47:18	753.59	Sample	OK	1
SEQ-CAL4	A7	1	5.05	19.79		98.97				61310-1.RAW	8:51:26	2927.92	Sample	OK	1
SEQ-CAL5	A8	1	5.05	39.93		99.83				61311-1.RAW	8:55:35	5901.49	Sample	OK	1
SEQ-ICV1	A9	1	5.05	5.06		101.24				61312-1.RAW	8:59:43	752.56	Sample	OK	1
F702348-BLK1	A10	20	5.05	1.21						61313-1.RAW	9:03:52	14.02	Sample	OK	1
F702348-BLK2	A11	20	5.05	1.22						61314-1.RAW	9:08:00	14.08	Sample	OK	1
F702348-BLK3	A12	20	5.05	1.09						61315-1.RAW	9:12:08	13.11	Sample	OK	1
F702348-BS1	B1	20	5.05	97.85						61316-1.RAW	9:16:17	727.50	Sample	OK	1
F702348-BS2	B2	20	5.05	98.01						61317-1.RAW	9:20:25	728.71	Sample	OK	1
F702348-BS3	B3	400	5.05	2056.13						61318-1.RAW	9:24:34	764.12	Sample	OK	1
1702050-01	B4	100	5.05	455.91						61319-1.RAW	9:28:42	678.28	Sample	OK	1
1702050-02	B5	100	5.05	1580.35						61320-1.RAW	9:32:50	2338.74	Sample	OK	1
1702050-03	B6	100	5.05	5150.63						61321-1.RAW	9:36:59	7610.93	Sample	FB	1
1702050-04	B7	100	5.05	1714.22						61322-1.RAW	9:41:07	2536.43	Sample	OK	1
SEQ-CCV1	B8	1	5.05	5.09		101.80				61323-1.RAW	9:45:16	756.66	Sample	OK	1
SEQ-CCB1	B9	1	5.05	0.06		0.00				61324-1.RAW	9:49:24	14.58	Sample	OK	1
1702050-05	B10	400	5.05	1717.39						61325-1.RAW	9:53:33	639.06	Sample	OK	1
1702050-06	B11	400	5.05	6119.28						61326-1.RAW	9:57:41	2264.12	Sample	OK	1
1702050-07	B12	400	5.05	1354.54						61327-1.RAW	10:01:49	505.11	Sample	OK	1
1702050-08	C1	400	5.05	2474.15						61328-1.RAW	10:05:58	918.44	Sample	OK	1
1702050-09	C2	400	5.05	396.87						61329-1.RAW	10:10:06	151.56	Sample	OK	1
1702050-10	C3	400	5.05	2819.82						61330-1.RAW	10:14:15	1046.05	Sample	OK	1
1702050-11	C4	400	5.05	1702.86						61331-1.RAW	10:18:23	633.70	Sample	OK	1
1702050-12	C5	400	5.05	4393.92						61332-1.RAW	10:22:31	1627.17	Sample	OK	1
1702050-13	C6	400	5.05	3185.98						61333-1.RAW	10:26:40	1181.23	Sample	OK	1
1702050-14	C7	400	5.05	5106.18						61334-1.RAW	10:30:48	1890.11	Sample	OK	1
SEQ-CCV2	C8	1	5.05	5.09		101.73				61335-1.RAW	10:34:57	756.15	Sample	OK	1
SEQ-CCB2	C9	1	5.05	0.04		0.00				61336-1.RAW	10:39:05	11.20	Sample	OK	1
1702050-15	C10	400	5.05	3759.41						61337-1.RAW	10:43:14	1392.92	Sample	OK	1
1702050-16	C11	400	5.05	344.15						61338-1.RAW	10:47:22	132.10	Sample	OK	1
1702050-17	C12	400	5.05	443.36						61339-1.RAW	10:51:30	168.73	Sample	OK	1
1702050-18	D1	400	5.05	219.15						61340-1.RAW	10:55:39	85.96	Sample	OK	1
1702050-19	D2	400	5.05	1019.22						61341-1.RAW	10:59:47	381.32	Sample	OK	1
1702169-01	D3	400	5.05	4693.54						61342-1.RAW	11:03:56	1737.78	Sample	OK	1
1702050-03RE1	D4	400	5.05	5172.06						61343-1.RAW	11:08:04	1914.44	Sample	OK	1
1702050-04RE1	D5	100	5.05	1711.25						61344-1.RAW	11:12:12	2532.04	Sample	OK	1
1702050-09RE1	D6	100	5.05	380.65						61345-1.RAW	11:16:21	567.16	Sample	OK	1
F702348-DUP1	D7	400	5.05	5046.11						61346-1.RAW	11:20:29	1867.94	Sample	OK	1
SEQ-CCV3	D8	1	5.05	5.05		100.92				61347-1.RAW	11:24:38	750.19	Sample	OK	1
SEQ-CCB3	D9	1	5.05	0.06		0.00				61348-1.RAW	11:28:46	13.47	Sample	OK	1
F702348-MS1	D10	2500	5.05	51479.18		#####				61349-1.RAW	11:32:55	3045.80	Sample	OK	1
F702348-MSD1	D11	2500	5.05	50599.92						61350-1.RAW	11:37:03	2993.87	Sample	OK	1
F702348-MS2	D12	2500	5.05	52161.74		103.08				61351-1.RAW	11:41:11	3086.12	Sample	OK	1
F702348-MSD2	A1	2500	5.05	53169.45						61352-1.RAW	11:45:20	3145.64	Sample	OK	1
1702050-16RE1	A2	100	5.05	343.43						61353-1.RAW	11:49:28	512.19	Sample	OK	1
1702050-17RE1	A3	100	5.05	445.66						61354-1.RAW	11:53:37	663.15	Sample	OK	1
1702050-18RE1	A4	100	5.05	204.75						61355-1.RAW	11:57:45	307.40	Sample	OK	1
F702349-BLK1	A5	20	5.05	1.55						61356-1.RAW	12:01:53	16.47	Sample	OK	1
F702349-BLK2	A6	20	5.05	1.64						61357-1.RAW	12:06:02	18.63	Sample	OK	1
F702349-BLK3	A7	20	5.05	1.52						61358-1.RAW	12:10:10	16.26	Sample	OK	1

SEQ-CCV4	A8	1	5.05	5.12	102.41	61359-1.RAW	12:14:19	761.16	Sample	OK	1
SEQ-CCB4	A9	1	5.05	0.07	0.00	61360-1.RAW	12:18:27	15.28	Sample	OK	1
*F702349-BLK4	A10	20	5.05	1.54		61361-1.RAW	12:22:36	16.45	Sample	OK	1
*F702349-BLK5	A11	20	5.05	1.29		61362-1.RAW	12:26:44	14.61	Sample	OK	1
F702349-BS1	A12	20	5.05	98.62		61363-1.RAW	12:30:52	733.23	Sample	OK	1
F702349-BSD1	B1	20	5.05	99.95		61364-1.RAW	12:35:01	743.04	Sample	OK	1
F702349-BS2	B2	400	5.05	2081.05		61365-1.RAW	12:39:09	773.32	Sample	OK	1
1702050-20	B3	400	5.05	647.20		61366-1.RAW	12:43:18	243.98	Sample	OK	1
1702050-21	B4	400	5.05	104.85		61367-1.RAW	12:47:26	43.76	Sample	OK	1
1702050-22	B5	400	5.05	340.20		61368-1.RAW	12:51:34	130.64	Sample	OK	1
1702050-23	B6	400	5.05	506.50		61369-1.RAW	12:55:43	192.04	Sample	OK	1
1702050-24	B7	400	5.05	522.59		61370-1.RAW	12:59:51	197.98	Sample	OK	1
SEQ-CCV5	B8	1	5.05	5.21	104.21	61371-1.RAW	13:04:00	774.47	Sample	OK	1
SEQ-CCB5	B9	1	5.05	0.04	0.00	61372-1.RAW	13:08:08	10.74	Sample	OK	1
1702050-25	B10	400	5.05	686.31		61373-1.RAW	13:12:17	258.42	Sample	OK	1
1702050-26	B11	400	5.05	1709.78		61374-1.RAW	13:16:25	636.26	Sample	OK	1
1702050-27	B12	400	5.05	3033.07		61375-1.RAW	13:20:33	1124.78	Sample	OK	1
1702050-28	C1	400	5.05	1878.53		61376-1.RAW	13:24:42	698.55	Sample	OK	1
1702050-29	C2	400	5.05	2806.01		61377-1.RAW	13:28:50	1040.95	Sample	OK	1
1702284-01	C3	400	5.05	6267.90		61378-1.RAW	13:32:59	2318.99	Sample	OK	1
1702285-02	C4	400	5.05	387.42		61379-1.RAW	13:37:07	148.08	Sample	OK	1
1702285-03	C5	400	5.05	226.13		61380-1.RAW	13:41:16	88.53	Sample	OK	1
1702285-04	C6	400	5.05	1150.52		61381-1.RAW	13:45:24	429.79	Sample	OK	1
1702285-05	C7	400	5.05	399.83		61382-1.RAW	13:49:32	152.66	Sample	OK	1
SEQ-CCV6	C8	1	5.05	5.02	100.31	61383-1.RAW	13:53:41	745.67	Sample	OK	1
SEQ-CCB6	C9	1	5.05	0.06	0.00	61384-1.RAW	13:57:49	14.54	Sample	OK	1
1702285-06	C10	400	5.05	2685.72		61385-1.RAW	14:01:58	996.54	Sample	OK	1
1702285-07	C11	400	5.05	4982.36		61386-1.RAW	14:06:06	1844.40	Sample	OK	1
1702285-08	C12	400	5.05	1470.82		61387-1.RAW	14:10:14	548.04	Sample	OK	1
1702285-09	D1	400	5.05	3381.48		61388-1.RAW	14:14:23	1253.40	Sample	OK	1
1702285-10	D2	400	5.05	2162.98		61389-1.RAW	14:18:31	803.56	Sample	OK	1
1702050-21RE1	D3	50	5.05	90.48		61390-1.RAW	14:22:40	272.27	Sample	OK	1
1702050-22RE1	D4	100	5.05	331.62		61391-1.RAW	14:26:48	494.75	Sample	OK	1
F702349-DUP1	D5	400	5.05	6123.27		61392-1.RAW	14:30:57	2265.59	Sample	OK	1
F702349-MS1	D6	2500	5.05	50581.48	825.92	61393-2.RAW	14:37:19	2992.78	Sample	OK	1
F702349-MSD1	D7	2500	5.05	49807.22		61394-1.RAW	14:41:27	2947.05	Sample	OK	1
SEQ-CCV7	D8	1	5.05	5.11	102.17	61395-1.RAW	14:45:36	759.43	Sample	OK	1
SEQ-CCB7	D9	1	5.05	0.09	0.00	61396-1.RAW	14:49:44	17.74	Sample	OK	1
F702349-MS2	D10	400	5.05	10555.10	506014.90	61397-1.RAW	14:53:52	3901.71	Sample	OK	1
F702349-MSD2	D11	400	5.05	10597.49		61398-1.RAW	14:58:01	3917.35	Sample	OK	1
1702285-02RE1	D12	100	5.05	369.97		61399-1.RAW	15:02:09	551.38	Sample	OK	1
1702285-03RE1	A1	100	5.05	198.37		61400-1.RAW	15:06:18	297.98	Sample	OK	1
1702285-05RE1	A2	100	5.05	369.21		61401-1.RAW	15:10:26	550.27	Sample	OK	1
F702375-BLK1	A3	100	5.05	12.28		61402-1.RAW	15:14:34	23.19	Sample	OK	1
F702375-BLK2	A4	100	5.05	14.55		61403-1.RAW	15:18:43	26.53	Sample	OK	1
F702375-BLK3	A5	100	5.05	9.66		61404-1.RAW	15:22:51	19.31	Sample	OK	1
F702375-BS1	A6	400	5.05	1820.06		61405-1.RAW	15:27:00	676.97	Sample	OK	1
F702375-BSD1	A7	400	5.05	1840.80		61406-1.RAW	15:31:08	684.62	Sample	OK	1
SEQ-CCV8	A8	1	5.05	5.48	109.61	61407-1.RAW	15:35:17	814.38	Sample	OK	1
SEQ-CCB8	A9	1	5.05	0.08	0.00	61408-1.RAW	15:39:25	16.73	Sample	OK	1
1702401-01	A10	1000	5.05	5736.22		61409-1.RAW	15:43:33	852.11	Sample	OK	1
1702401-02	A11	1000	5.05	15910.86		61410-1.RAW	15:47:42	2354.59	Sample	OK	1
1702402-01	A12	400	5.05	5675.03		61411-1.RAW	15:51:50	2100.12	Sample	OK	1
1702402-02	B1	400	5.05	11918.76		61412-1.RAW	15:55:59	4404.39	Sample	OK	1
1702403-01	B2	400	5.05	3125.23		61413-1.RAW	16:00:07	1158.80	Sample	OK	1
1702403-02	B3	400	5.05	4750.59		61414-1.RAW	16:04:16	1758.84	Sample	OK	1
1702401-01B	B4	100	5.05	13.62		61415-1.RAW	16:08:25	25.16	Sample	OK	1
1702401-02B	B5	100	5.05	32.65		61416-1.RAW	16:12:33	53.27	Sample	OK	1
1702402-01B	B6	100	5.05	9.52		61417-1.RAW	16:16:42	19.11	Sample	OK	1
1702402-02B	B7	100	5.05	14.47		61418-1.RAW	16:20:50	26.41	Sample	OK	1
SEQ-CCV9	B8	1	5.05	5.40	107.94	61419-1.RAW	16:24:59	802.04	Sample	OK	1
SEQ-CCB9	B9	1	5.05	0.06	0.00	61420-1.RAW	16:29:07	14.50	Sample	OK	1
1702403-01B	B10	100	5.05	8.96		61421-1.RAW	16:33:16	18.28	Sample	OK	1
1702403-02B	B11	100	5.05	11.05		61422-1.RAW	16:37:24	21.37	Sample	OK	1
F702375-DUP1	B12	1000	5.05	5838.55		61423-1.RAW	16:41:32	887.22	Sample	OK	1

F702375-MS1	C1	1000	5.05	25743.76	440.85	61424-1.RAW	16:45:41	3805.61	Sample	OK	1
F702375-MSD1	C2	1000	5.05	26640.23		61425-1.RAW	16:49:49	3938.99	Sample	FB	1
SEQ-CCVA	C3	1	5.05	5.49		61426-1.RAW	16:53:58	815.04	Sample	OK	1
SEQ-CCBA	C4	1	5.05	0.11		61427-1.RAW	16:58:06	20.72	Sample	OK	1

## ANALYSIS SEQUENCE

7B22007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22007-IBL1	QC	1			
7B22007-IBL2	QC	2			
7B22007-IBL3	QC	3			
7B22007-CAL1	QC	4	1700737		
7B22007-CAL2	QC	5	1700738		
7B22007-CAL3	QC	6	1700739		
7B22007-CAL4	QC	7	1700740		
7B22007-CAL5	QC	8	1700741		
7B22007-ICV1	QC	9	1700018		
7B22007-CCV1	QC	10	1700018		
7B22007-CCB1	QC	11			
7B22007-CCV2	QC	12	1700018		
7B22007-CCB2	QC	13			
7B22007-CCV3	QC	14	1700018		
7B22007-CCB3	QC	15			
7B22007-CCV4	QC	16	1700018		
7B22007-CCB4	QC	17			
7B22007-CCV5	QC	18	1700018		
7B22007-CCB5	QC	19			
7B22007-CCV6	QC	20	1700018		
7B22007-CCB6	QC	21			
7B22007-CCV7	QC	22	1700018		
7B22007-CCB7	QC	23			
F702375-BLK1	QC	24			
F702375-BLK2	QC	25			
F702375-BLK3	QC	26			
F702375-BS1	QC	27			
F702375-BSD1	QC	28			
7B22007-CCV8	QC	29	1700018		
7B22007-CCB8	QC	30			
1702401-01	Hg_FSTM_TRAP_A	31			
1702401-02	Hg_FSTM_TRAP_A	32			
1702402-01	Hg_FSTM_TRAP_A	33			
1702402-02	Hg_FSTM_TRAP_A	34			
1702403-01	Hg_FSTM_TRAP_A	35			

Due Date: 2/22/2017

92 of 147

Page 1 of 2

**ANALYSIS SEQUENCE**

**7B22007**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 2/21/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702403-02	Hg_FSTM_TRAP_A	36			
7B22007-CCV9	QC	37	1700018		
7B22007-CCB9	QC	38			
F702375-DUP1	QC	39			
F702375-MS1	QC	40			
F702375-MSD1	QC	41			
7B22007-CCVA	QC	42	1700018		
7B22007-CCBA	QC	43			

Dan Maxam      2/21/17  
 Samples Loaded By      Date

Dan Maxam      2/22/17  
 Data Processed By      Date



## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22008-IBL1	QC	1			
7B22008-IBL2	QC	2			
7B22008-IBL3	QC	3			
7B22008-CAL1	QC	4	1700737		
7B22008-CAL2	QC	5	1700738		
7B22008-CAL3	QC	6	1700739		
7B22008-CAL4	QC	7	1700740		
7B22008-CAL5	QC	8	1700741		
7B22008-ICV1	QC	9	1700018		
F702348-BLK1	QC	10			
F702348-BLK2	QC	11			
F702348-BLK3	QC	12			
F702348-BS1	QC	13			
F702348-BSD1	QC	14			
F702348-BS2	QC	15			
1702050-01	Hg-CVAFS-T-7030	16			
1702050-02	Hg-CVAFS-T-7030	17			
1702050-03	Hg-CVAFS-T-7030	18			
1702050-04	Hg-CVAFS-T-7030	19			
7B22008-CCV1	QC	20	1700018		
7B22008-CCB1	QC	21			
1702050-05	Hg-CVAFS-T-7030	22			
1702050-06	Hg-CVAFS-T-7030	23			
1702050-07	Hg-CVAFS-T-7030	24			
1702050-08	Hg-CVAFS-T-7030	25			
1702050-09	Hg-CVAFS-T-7030	26			
1702050-10	Hg-CVAFS-T-7030	27			
1702050-11	Hg-CVAFS-T-7030	28			
1702050-12	Hg-CVAFS-T-7030	29			
1702050-13	Hg-CVAFS-T-7030	30			
1702050-14	Hg-CVAFS-T-7030	31			
7B22008-CCV2	QC	32	1700018		
7B22008-CCB2	QC	33			
1702050-15	Hg-CVAFS-T-7030	34			
1702050-16	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2017

95 of 147

Page 1 of 3



## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-17	Hg-CVAFS-T-7030	36			
1702050-18	Hg-CVAFS-T-7030	37			
1702050-19	Hg-CVAFS-T-7030	38			
1702168-01	Hg-CVAFS-T-7030	39			
1702050-03RE1	Hg-CVAFS-T-7030	40			Added 2/21/2017 by DM2
1702050-04RE1	Hg-CVAFS-T-7030	41			Added 2/21/2017 by DM2
1702050-09RE1	Hg-CVAFS-T-7030	42			Added 2/21/2017 by DM2
F702348-DUP1	QC	43			
7B22008-CCV3	QC	44	1700018		
7B22008-CCB3	QC	45			
F702348-MS1	QC	46			
F702348-MSD1	QC	47			
F702348-MS2	QC	48			
F702348-MSD2	QC	49			
1702050-16RE1	Hg-CVAFS-T-7030	50			Added 2/21/2017 by DM2
1702050-17RE1	Hg-CVAFS-T-7030	51			Added 2/21/2017 by DM2
1702050-18RE1	Hg-CVAFS-T-7030	52			Added 2/21/2017 by DM2
F702349-BLK1	QC	53			
F702349-BLK2	QC	54			
F702349-BLK3	QC	55			
7B22008-CCV4	QC	56	1700018		
7B22008-CCB4	QC	57			
F702349-BLK4	QC	58			
F702349-BLK5	QC	59			
F702349-BS1	QC	60			
F702349-BSD1	QC	61			
F702349-BS2	QC	62			
1702050-20	Hg-CVAFS-T-7030	63			
1702050-21	Hg-CVAFS-T-7030	64			
1702050-22	Hg-CVAFS-T-7030	65			
1702050-23	Hg-CVAFS-T-7030	66			
1702050-24	Hg-CVAFS-T-7030	67			
7B22008-CCV5	QC	68	1700018		
7B22008-CCB5	QC	69			
1702050-25	Hg-CVAFS-T-7030	70			

## ANALYSIS SEQUENCE

7B22008

**Instrument:** Hg2600-3

**Calibration ID:** UNASSIGNED

**Analyzed:** 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-26	Hg-CVAFS-T-7030	71			
1702050-27	Hg-CVAFS-T-7030	72			
1702050-28	Hg-CVAFS-T-7030	73			
1702050-29	Hg-CVAFS-T-7030	74			
1702284-01	Hg-CVAFS-T-7030	75			
1702285-02	Hg-CVAFS-T-7030	76			
1702285-03	Hg-CVAFS-T-7030	77			
1702285-04	Hg-CVAFS-T-7030	78			
1702285-05	Hg-CVAFS-T-7030	79			
7B22008-CCV6	QC	80	1700018		
7B22008-CCB6	QC	81			
1702285-06	Hg-CVAFS-T-7030	82			
1702285-07	Hg-CVAFS-T-7030	83			
1702285-08	Hg-CVAFS-T-7030	84			
1702285-09	Hg-CVAFS-T-7030	85			
1702285-10	Hg-CVAFS-T-7030	86			
1702050-21RE1	Hg-CVAFS-T-7030	87			Added 2/21/2017 by DM2
1702050-22RE1	Hg-CVAFS-T-7030	88			Added 2/21/2017 by DM2
F702349-DUP1	QC	89			
F702349-MS1	QC	90			
F702349-MSD1	QC	91			
7B22008-CCV7	QC	92	1700018		
7B22008-CCB7	QC	93			
F702349-MS2	QC	94			
F702349-MSD2	QC	95			
1702285-02RE1	Hg-CVAFS-T-7030	96			Added 2/21/2017 by DM2
1702285-03RE1	Hg-CVAFS-T-7030	97			Added 2/21/2017 by DM2
1702285-05RE1	Hg-CVAFS-T-7030	98			Added 2/21/2017 by DM2
7B22008-CCV8	QC	99	1700018		
7B22008-CCB8	QC	100			

Don Moxem      2/21/17  
 Samples Loaded By      Date

Don Moxem      2/22/17  
 Data Processed By      Date

# Failing Data Report - 7B22008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702050-03	Hg-CVAFS-T-7030	1400	13.6				ng/g						FAIL-OVER	PASS	E
F702348-DUP1	Hg-CVAFS-T-7030	358.8	14.2	717.2	717.2		ng/g				66.6	24.00	PASS-OVER	FAIL-DUP	QR-07

Don Motam                      2/22/17  
 Analyst Reviewed By                      Date

Hy N                                      3/1/17  
 Peer Reviewed By                                      Date

**PREPARATION BENCH SHEET**

F702375

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					
F702375-BLK2	Blank	1	100					
F702375-BLK3	Blank	1	100					
F702375-BS1	LCS	1	100	1605712	200			
F702375-BSD1	LCS Dup	1	100	1605712	200			
F702375-DUP1	Duplicate [1702401-01]	1	100					
F702375-MS1	Matrix Spike [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.
F702375-MSD1	Matrix Spike Dup [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

**F702375**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-		
1702401-02	EFGS-04134 Trap B	1	100	-	-	-		
1702402-01	EFGS-07869 Trap A	1	100	-	-	-		
1702402-02	EFGS-07908 Trap B	1	100	-	-	-		
1702403-01	EFGS-08086 Trap A	1	100	-	-	-		
1702403-02	EFGS-08420 TrapB	1	100	-	-	-		



**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					
F702348-BLK2	Blank	0.25	20					
F702348-BLK3	Blank	0.25	20					
F702348-BS1	Blank Spike	0.25	20	1700686	20			
F702348-BS2	DORM-4	0.1252	20	1605470	125			
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		
1702050-03RE1	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		
1702050-04RE1	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		
1702050-09RE1	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		

**PREPARATION BENCH SHEET**

F702348

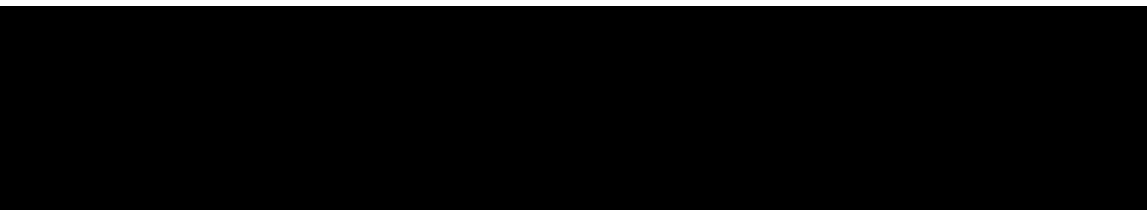
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

1702050-16RE1	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		
1702050-17RE1	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		
1702050-18RE1	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		
1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	





**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					
F702349-BLK2	Blank	0.25	20					
F702349-BLK3	Blank	0.25	20					
F702349-BLK4	Blank	0.4312	20					
F702349-BLK5	Blank	0.4387	20					
F702349-BS1	Blank Spike	0.25	20	1700686	20			
F702349-BS2	DORM-4	0.1253	20	1605470	125			
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			
F702349-MS2	Matrix Spike [1702050-29]	0.000500625	0.125	1700687	100			[Spk] 0.0801g->20mL; 40mL->40mL; Spiked 0.125mL
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			
F702349-MSD2	Matrix Spike Dup [1702050-29]	0.000500625	0.125	1700687	100			[Spk] 0.0801g->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>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	
1702050-21RE1	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		
1702050-22RE1	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		
1702285-02RE1	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		
1702285-03RE1	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		

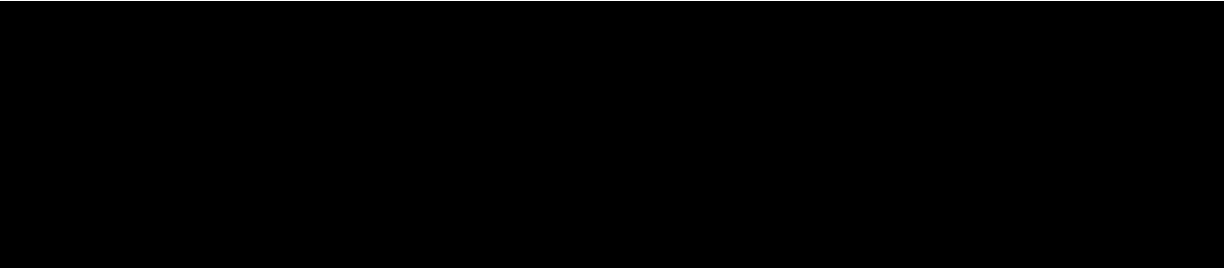
**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue** **Prepared using: AFS - EFGS-011 Nitric/Sulfuric Hg Digestion** **Prepared: 2/16/2017**

1702285-05RE1	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		
1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-		



PREPARATION BENCH SHEET

2100-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					100X
F702375-BLK2	Blank	1	100					100X
F702375-BLK3	Blank	1	100					100X
F702375-BS1	LCS	1	100	1605712	200			400X
F702375-BSD1	LCS Dup	1	100	1605712	200			400X
F702375-DUP1	Duplicate 1702401-01	1	100	1700657				1000X
F702375-MS1	Matrix Spike 1702401-01	1	100	1700657	100			1000X
F702375-MSD1	Matrix Spike Dup 1702401-01	1	100	1700657	100			1000X

1700657

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 03-Apr-17 00:00

DM  
2-21-17

Reagent ID(s): 1700947, 1700969  
Description: 5% BrCl, 70/30 Digestion Acid

Expiration: 15-Jul-17 00:00, 14-Aug-17 00:00

1700771  
1700309  
1700308  
1600934

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-	100X	100X
1702401-02	EFGS-04134 Trap B	1	100	-	-	-	100X	100X
1702402-01	EFGS-07869 Trap A	1	100	-	-	-	500X 400X	100X
1702402-02	EFGS-07908 Trap B	1	100	-	-	-	500X 400X	100X
1702403-01	EFGS-08086 Trap A	1	100	-	-	-	500X 400X	100X
1702403-02	EFGS-08420 Trap B	1	100	-	-	-	400X	100X

DM 2/21/17

Trap Digestions

Name: AMB Date: 2-17-17 Batch ID: F702375  
 Work Order(s): 1702401, 1702402, 1702403 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: 1730 start temp (°C): 56.0 (raw) 55.8 (w/ CF)  
 end time: 1930 end temp (°C): 69.0 (raw) 68.8 (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)	
F702375-BLK1	<del>100</del> 100	Spike ID: <u>1605712</u> Spike Amount (µL): <u>200</u> Spike Witness: <u>DM 2/17/17</u> BrCl ID: <u>1700947</u> 70/30: <u>1700969</u> Other: <u>N/A</u> Thermometer: <u>14545</u> Dispensers: 02K27494 <input checked="" type="checkbox"/> 04N73497 <input type="checkbox"/> Other <u>15406623</u> Pipette ID: <u>MU11619</u> Cal. Date: <u>2-13-17</u> Vials and Jars lot# <u>00066589</u> Trap Material Lot#: <u>1700517</u> Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Comments: 1702401-02: 'A' bed spiked at 1,100ng. 1702402-02: 'A' bed spiked at 650ng. 1702402-AMB 2-17-17 1702403-02: 'A' bed spiked at 200ng. AMB 2-17-17
F702375-BLK2	<del>100</del> 100	
F702375-BLK3	100	
F702375-BS1	100	
F702375-BS1	100	
1702401-01A	100	
1702401-01B	100	
1702401-02A	100	
1702401-02B	100	
1702402-01A	100	
1702402-01B	100	
1702402-02A	100	
1702402-02B	100	
1702403-01A	100	
1702403-01B	100	
1702403-02A	100	
1702403-02B	100	

PREPARATION BENCH SHEET

2600.3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					20X
F702348-BLK2	Blank	0.25	20					20X
F702348-BLK3	Blank	0.25	20					20X
F702348-BS1	Blank Spike	0.25	20	1700686	20			20X
F702348-BS2	DORM-4	0.1252	20	1605470	125			400X
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			20X
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					400X
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			2500X
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			2500X
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			2500X
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			2500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

170071  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3

2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	100X
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		100X
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		100X → 400X
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		100X → 100X
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		400X
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		400X
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		400X
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		400X
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		400X → 100X
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		400X
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		400X
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		400X
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		400X
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		400X
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		400X
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		400X → 100X
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		400X → 100X
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		400X → 100X
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		400X



PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	400X
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Technician: Dwyer Batch#: F702348 Date: 2-16-17

- 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: 14:05 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 16:06 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C AMB

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

Final vol.: 20 mL (LIMS ID: 1700947) Spike vol.: 100 µL (LIMS ID: 1700684)  
*MS1/MS1 MS2/MS2 2-16-17 10,000µg/L*

Spike Witness: Dmw 2-16-17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MU11619 Calibration Date: 2-13-17

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

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

70/30 LIMS ID: 1700969

Dispenser #: 02K27484 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406623  Yes

Glass Vial # 00065550 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702348 Blk1	0.2663	23	1702050-12	0.1253	B52 DORM-4 1605470
2	F702348 Blk2	0.2770	24	1702050-13	0.1928	
3	F702348 Blk3	0.2827	25	1702050-14	0.1733	
4	F702348 B51	0.2661	26	1702050-15	0.1196	<b>Comments</b>
5	F702348 B501	0.2798	27	1702050-16	0.1572	Dup source F702348 MS1/MS2
6	F702348 B52	0.1252	28	1702050-17	0.2502	F702348 MS1/MS2
7	F702348 Dup1	0.2812	29	1702050-18	0.1300	F702348 MS1/MS2 1702050-01
8	F702348 MS1	0.2297	30	1702050-19	0.1873	
9	F702348 MS01	0.0406	31	1702168-01	0.2617	F702348 MS1/MS2 1702050 2/16/17 1702168-01
10	F702348 MS2	0.2624	32			
11	F702348 MS02	0.2708	33			
12	1702050-01	0.0345	34			Dup 1702168-01
13	1702050-02	0.2015	35			1702050-01 Broken glass 2/16/17
14	1702050-03	0.0737	36			
15	1702050-04	0.0903	37			B51 B501 = 100µg/L = 20µL
16	1702050-05	0.1210	38			
17	1702050-06	0.1273	39			
18	1702050-07	0.0485	40			1700686
19	1702050-08	0.0981	41			All Samples Low Volume
20	1702050-09	0.0313	42			
21	1702050-10	0.1379	43			1702050 2/16/17 2-16-17
22	1702050-11	0.0638	44			

PREPARATION BENCH SHEET

2000.3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					20X
F702349-BLK2	Blank	0.25	20					20X
F702349-BLK3	Blank	0.25	20					20X
F702349-BLK4	Blank	0.4312	20					20X
F702349-BLK5	Blank	0.4387	20					20X
F702349-BS1	Blank Spike	0.25	20	1700686	20			20X
F702349-BS2	DORM-4	0.1253	20	1605470	125			400X
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			20X
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					400X
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			<del>400X</del> 2500X
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			<del>400X</del> 2500X

DM 2-21-17

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

MS2, MSD2 - 1702050-20  
400X  
1700687 100ul

1700771  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		400X
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	400X → 50X
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		400X → 100X
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		400X
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		400X
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		400X
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		400X
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		400X
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		400X
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	400X
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		400X
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		400X → 100X
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		400X → 100X
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		400X → 400X DM 2-21-17
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		400X → 100X
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		400X
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		400X
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		400X
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		400X

PREPARATION BENCH SHEET

2600-3

2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-	400X
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Technician: Dwyer Batch#: F702349 Date: 2-16-17

- 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: 14:15 Actual Temp. (raw): 74.0 °C w/ CF: 74.0 °C  
 Time out: 16:15 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: 1700949) Spike vol.: 100 µL (LIMS ID: 1700684)  
 Spike Witness: 2-16-17 DMW (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 2/13/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1700969 Dispenser #: 02K27484 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  YCS  
 Glass Vial # 00065688 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702349 BKK1	0.2647	23	1702050-29	0.0801	BS2
2	F702349 BKK2	0.2669	24	1702284-01	0.2844	DORRY
3	F702349 BKK3	0.2511	25	1702284-02	0.2066	1605470
4	F702349 BKK4	0.4312	26	1702285-02	0.1773	<b>Comments</b> F702349 prep post blank 1702284 Dup sample 1702284-01 F702349 MS1 MS2 2/16/17 1702284-01 1702284-02 1702284-03 1702284-04 1702284-05 1702284-06 1702284-07 1702284-08 1702284-09 1702284-10 MS1 MS2 2/16/17 1702284-01 BS1 BS2 = 100µL = 20µL 1700686 F702349 MS2 MS2 NB samples for QA Recurrence not enough Mass 2/16/17
5	F702349 BKK5	0.4387	27	1702285-03	0.1250	
6	F702349 BS1	0.2756	28	1702285-04	0.2574	
7	F702349 BS01	0.2549	29	1702285-05	0.2252	
8	F702349 BS2	0.1253	30	1702285-06	0.1332	
9	F702349 Dup1	0.2606	31	1702285-07	0.2518	
10	F702349 MS1	0.2795	32	1702285-08	0.2326	
11	F702349 MS01	0.2938	33	1702285-09	0.2118	
12	F702349 MS2	2-1617	34	1702285-10	0.2066	
13	F702349 MS02	2-1617	35			
14	1702050-20	0.1829	36			
15	1702050-21	0.1567	37			
16	1702050-22	0.1227	38			
17	1702050-23	0.1900	39			
18	1702050-24	0.2407	40			
19	1702050-25	0.21986	41			
20	1702050-26	0.1033	42			
21	1702050-27	0.1955	43			
22	1702050-28	0.0771	44			



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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials DM                      Reviewer Initials [Signature]

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 ( $\leq 15\%$ )  | <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: <u>E, QR-07</u>  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input type="checkbox"/>            |
| Comments: <u>1702050-03 HIGH SAMPLE, F702348-DUP1 HIGH RPD.</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 type="checkbox"/>            |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |



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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials DM

Reviewer Initials DM

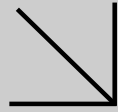
- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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  |
| 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"/> |
| <u>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</u>   |  |                               |   |
| 36. Date of analyst IDOC/CDOC: _____ 1/18/16, 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: _____ 12-19-16, 11-8-16 _____ LOD within last 3 months?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| 39. Date of LOQ: _____ 12-19-16, 11-8-16 _____ LOQ within last 3 months?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |

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



Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.

**WORK ORDER NUMBER: 17-02-0648**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Eurofins Frontier Global Sciences, Inc.**Client Project Name:** 1702168

**Attention:** Amy Goodall  
11720 North Creek Parkway North  
Suite 4  
Bothell, WA 98011-8244



Approved for release on 03/09/2017 by:  
Carla Hollowell  
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

Client Project Name: 1702168  
Work Order Number: 17-02-0648

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl2 Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	6
	4.1 Sample Duplicate. . . . .	6
5	Glossary of Terms and Qualifiers. . . . .	7
6	Chain-of-Custody/Sample Receipt Form. . . . .	8
7	17-02-0648 Level IV Case Narrative. . . . .	12
8	17-02-0648 Level IV Data Package. . . . .	13

**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 02/08/17. They were assigned to Work Order 17-02-0648.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	17-02-0648
11720 North Creek Parkway North, Suite 4	Project Name:	1702168
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	02/08/17 10:40
	Number of Containers:	4

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
ES-13_012417_ABD_01_MU	17-02-0648-1	01/24/17 18:30	1	Tissue
ES-13_012417_ABD_02_MU	17-02-0648-2	01/24/17 18:45	1	Tissue
ES-13_012817_ABD_03_MU	17-02-0648-3	01/28/17 15:25	1	Tissue
ES-13_012817_ABD_04_MU	17-02-0648-4	01/28/17 15:35	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 02/08/17  
Work Order: 17-02-0648  
Preparation: N/A  
Method: MeCl<sub>2</sub> Ext. (NOAA 1993a)  
Units: %

Project: 1702168

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-13_012417_ABD_01_MU	17-02-0648-1-AA	01/24/17 18:30	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		1.9	0.10		1.00		BU
ES-13_012417_ABD_02_MU	17-02-0648-2-AA	01/24/17 18:45	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.0	0.10		1.00		BU
ES-13_012817_ABD_03_MU	17-02-0648-3-AA	01/28/17 15:25	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.1	0.10		1.00		
ES-13_012817_ABD_04_MU	17-02-0648-4-AA	01/28/17 15:35	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		2.7	0.10		1.00		
Method Blank	099-14-104-168	N/A	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
<u>Parameter</u>		<u>Result</u>	<u>RL</u>		<u>DF</u>		<u>Qualifiers</u>
% Lipids		ND	0.10		1.00		

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 02/08/17  
Work Order: 17-02-0648  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1702168

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
ES-13_012417_ABD_01_MU	Sample	Tissue	N/A	02/22/17 00:00	02/22/17 00:00	170222D06A
ES-13_012417_ABD_01_MU	Sample Duplicate	Tissue	N/A	02/22/17 00:00	02/22/17 00:00	170222D06A

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
% Lipids	1.934	2.018	4	0-25	

RPD: Relative Percent Difference. CL: Control Limits



## Glossary of Terms and Qualifiers

Work Order: 17-02-0648

Page 1 of 1

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

SUBCONTRACT ORDER

Eurofins Frontier Global Sciences, Inc.

1702168

17-02-0648

129 of 147

SENDING LABORATORY:

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

RECEIVING LABORATORY:

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841

Phone :7148955494

Fax: x

Analysis

Comments

1 Sample ID: ES-13\_012417\_ABD\_01\_MU

EFGS Lab ID: 1702168-01

Matrix: Tissue

Sampled: 24-Jan-17 18:30 Eastern

Due: 02-Mar-17 19:00

MS/MSD

Misc. Subcontract 1

Lipids Analysis - NOAA1993a

*Containers Supplied:*  
34 Plastic Bag (D)

2 Sample ID: ES-13\_012417\_ABD\_02\_MU

EFGS Lab ID: 1702168-02

Matrix: Tissue

Sampled: 24-Jan-17 18:45 Eastern

Due: 02-Mar-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a

*Containers Supplied:*  
34 Plastic Bag (B)

2 Sample ID: ES-13\_012817\_ABD\_03\_MU

EFGS Lab ID: 1702168-03

Matrix: Tissue


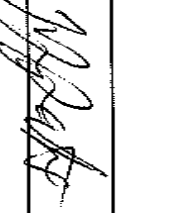
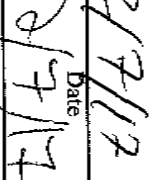
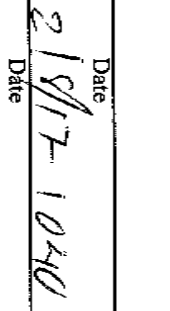
Sampled: 28-Jan-17 15:25 Eastern

Due: 02-Mar-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a

*Containers Supplied:*  
34 Plastic Bag (B)

Released By		Date	2/7/17	Received By		Date	2/8/17
Released By		Date	2/7/17	Received By		Date	2/8/17

**SUBCONTRACT ORDER**  
Eurofins Frontier Global Sciences, Inc.  
1702168



130 of 147

Analysis Comments

Sample ID: ES-13\_012817\_ABD\_04\_MU


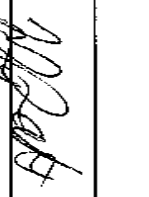

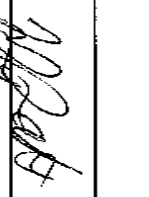

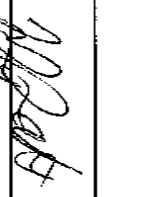
ERGS Lab ID: 1702168-04 Matrix: Tissue

Sampled: 28-Jan-17 15:35 Eastern Due: 02-Mar-17 19:00

Misc. Subcontract 1 Lipids Analysis - NOVA1993a

Containers Supplied:

34 Plastic Bag (B)

	
Released By	Received By
	
Date	Date
2/7/17	2/8/17
2/7/17	2/8/17
Released By	Received By
	
Date	Date
2/7/17	2/8/17



SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 1

WORK ORDER NUMBER: 17-02-06418

CLIENT: EFGS

DATE: 02 / 08 / 2017

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC33B (CF: 0.0°C); Temperature (w/o CF): 0.2 °C (w/ CF): 0.2 °C; Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: JS

CUSTODY SEAL:

Cooler  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: JS

Sample(s)  Present and Intact  Present but Not Intact  Not Present  N/A

Checked by: JS

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples

Yes  No  N/A

COC document(s) received complete

Yes  No  N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC

Yes  No  N/A

Sample container label(s) consistent with COC

Yes  No  N/A

Sample container(s) intact and in good condition

Yes  No  N/A

Proper containers for analyses requested

Yes  No  N/A

Sufficient volume/mass for analyses requested

Yes  No  N/A

Samples received within holding time

Yes  No  N/A

Aqueous samples for certain analyses received within 15-minute holding time

Yes  No  N/A

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen

Yes  No  N/A

Proper preservation chemical(s) noted on COC and/or sample container

Yes  No  N/A

Unpreserved aqueous sample(s) received for certain analyses

Yes  No  N/A

Volatile Organics  Total Metals  Dissolved Metals

Yes  No  N/A

Container(s) for certain analysis free of headspace

Yes  No  N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Yes  No  N/A

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Yes  No  N/A

Tedlar™ bag(s) free of condensation

Yes  No  N/A

CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAh  VOAna2  100PJ  100PJna2  125AGB  125AGBh  125AGBP  125PB

125PBzanna  250AGB  250CCGB  250CCGBs  250PB  250PBn  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna2  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_\_)  EncCores® (\_\_\_\_\_)  TerraCores® (\_\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (Tissue):  Z  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO3, na = NaOH, na2 = Na2S2O3, p = H3PO4, Labeled/Checked by: JS

s = H2SO4, u = ultra-pure, x = Na2SO3+NaHSO4, H2O, zanna = Zn (CH3CO2)2 + NaOH

Reviewed by: JS

## Case Narrative

Client Project Name: 1702168  
Work Order Number: 17-02-0648

### **CONDITION UPON RECEIPT:**

Eurofins Calscience, Inc. received 4 tissue samples on February 8, 2017. A total of 5 containers were received in good condition at a temperature of 0.2°C, which was within the recommended temperature criteria.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
ES-13_012417_ABD_01_MU	17-02-0648-1	01/24/17 18:30	02/08/17 10:40
ES-13_012417_ABD_02_MU	17-02-0648-2	01/24/17 18:45	02/08/17 10:40
ES-13_012817_ABD_03_MU	17-02-0648-3	01/28/17 15:25	02/08/17 10:40
ES-13_012817_ABD_04_MU	17-02-0648-4	01/28/17 15:35	02/08/17 10:40

### **DATA SUMMARY:**

Pursuant to the chain-of-custody (COC), the samples were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a).

All samples were analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Samples -1 through -4 were analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a). The samples were prepared and analyzed on 02/22/17 in batch # 170222B06 / 170222D06A.

### **Sample and QC:**

Sample -1 was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**% Lipids via MeCl2 Ext.  
(NOAA 1993a)**

**RAW DATA**



RAW DATA SHEET

FOR METHOD: MeC12 Ext. (NOAA 1993a)

WORK ORDER: 17-02-0648  
INSTRUMENT: N/A  
EXTRACTION: N/A  
D/T EXTRACTED: 2017-02-22 00:00

ANALYZED BY: 684  
D/T ANALYZED: 2017-02-22 00:00  
REVIEWED BY:  
D/T REVIEWED:

DATA FILE:

# 1 CLIENT SAMPLE NUMBER: ES-13\_012417\_ABD\_01\_MU

LCS/MB BATCH: 170222806 SAMPLE VOLUME /WEIGHT: DEFAULT: 20.00 g  
MS/MSD BATCH: 170222D06A FINAL VOLUME /WEIGHT: DEFAULT: 2.00 ml  
UNITS: % ADJUSTMENT RATIO TO PE: 1.00

COMMENT:

COMPOUND ON COL CONC DF CONC RL QUAL  
% Lipids 1.93 1.00 1.93 0.10 c





**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-0648  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 2** **CLIENT SAMPLE NUMBER:** ES-13\_012417\_ABD\_02\_MU

**LCS/MB BATCH:** 170222B06 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 170222D06A **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PE:** 1.00

**COMMENT:**  
**COMPOUND**

<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
2.02	1.00	2.02	0.10	C

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-0648  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 3**      **CLIENT SAMPLE NUMBER:** ES-13\_012817\_ABD\_03\_MU

**LCS/MB BATCH:** 170222B06      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 170222D06A      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
2.12	1.00	2.12	0.10	

% Lipids



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-0648  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 4**      **CLIENT SAMPLE NUMBER:** ES-13\_012817\_ABD\_04\_MU

**LCS/MB BATCH:** 170222B06      **SAMPLE VOLUME / WEIGHT:**      **DEFAULT:** 20.00 g  
**MS/MSD BATCH:** 170222D06A      **FINAL VOLUME / WEIGHT:**      **DEFAULT:** 2.00 ml  
**UNITS:** %      **ADJUSTMENT RATIO TO PE:** 1.00

**COMMENT:**  
**COMPOUND:**

<b>% Lipids</b>	<b>ON COL CONC</b>	<b>DF</b>	<b>CONC</b>	<b>RL</b>	<b>QUAL</b>
2.67	1.00	2.67	0.10		

**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-168  
**MB BATCH ID:** 170222B06  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 17-02-0648**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	ES-13_012417_ABD_01_MU		2017-02-22 00:00	
2	ES-13_012417_ABD_02_MU		2017-02-22 00:00	
3	ES-13_012817_ABD_03_MU		2017-02-22 00:00	
4	ES-13_012817_ABD_04_MU		2017-02-22 00:00	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 099-14-104  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# MB CLIENT SAMPLE NUMBER: Method Blank**

**LCS/MB BATCH:** 170222B06 **SAMPLE VOLUME / WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** % **FINAL VOLUME / WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND:**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.0120	1.00	ND	0.10	

% Lipids



**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 17-02-0648-1  
DUP BATCH: 170222D06A  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
SAMPLE: 2017-02-22 00:00  
DUP SAMPLE: 2017-02-22 00:00

ANALYZED BY: 684  
D/T ANALYZED  
SAMPLE: 2017-02-22 00:00  
DUP SAMPLE: 2017-02-22 00:00  
REVIEWED BY:  
D/T REVIEWED

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	1.934	2.018	4	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

# Lipid Content Raw Data Logbook

REAGENT NAME / ID #		REAGENT NAME / ID #		SUPPLY NAME / ID #		COMMENTS						
1) CH <sub>2</sub> Cl <sub>2</sub> S07-55-01		4) Sand S07-19-19		1) Filter S07-44-19								
2) C <sub>6</sub> H <sub>6</sub>												
3) Na <sub>2</sub> SO <sub>4</sub> S07-44-18												
MATRIX	BATCH NUMBER		COMMENTS									
Tissue	MB	170222B06		Instructions: 1. ECI ID consists of Work Order Number and Container ID. 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100 3. RPD =   Sample% - Duplicate%   × 2 / (Sample% + Duplicate%) × 100								
	Sample Dup	170222D06										
ECI ID #		LIPID CONTENT (%)	RPD %	CONTROL LIMIT								
Sample 17-02-0647-1AA		2.335	2	0 - 25								
Duplicate 17-02-0647-1AA		2.390										
DATE	ECI ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS	
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)					
2/22/17	MB	5.00	52	1	1	1.8371	1.8377	0.0006	0.012000	684		
2/22/17	Duplicate 17-02-0647-1AA	5.00	52	1	1	1.8478	1.9673	0.1195	2.390000	684		
2/22/17	17-02-0647-1AA	5.01	52	1	1	1.8717	1.9887	0.1170	2.335329	684		
2/22/17	17-02-0647-2AA	5.00	52	1	1	1.8398	1.9201	0.0803	1.606000	684		
2/22/17	17-02-0647-3AA	5.02	52	1	1	1.8506	1.9351	0.0845	1.683267	684		
2/22/17	17-02-0647-4AA	5.01	52	1	1	1.8639	1.9641	0.1002	2.000000	684		
2/22/17	17-02-0647-5AA	5.00	52	1	1	1.8382	1.9153	0.0771	1.542000	684		
2/22/17	17-02-0648-1AA	5.01	52	1	1	1.8399	1.9368	0.0969	1.934132	684		
2/22/17	17-02-0648-2AA	5.00	52	1	1	1.8445	1.9453	0.1008	2.016000	684		
2/22/17	17-02-0648-3AA	5.00	52	1	1	1.8577	1.9636	0.1059	2.118000	684		
2/22/17	17-02-0648-4AA	5.02	52	1	1	1.8549	1.9891	0.1342	2.673307	684		
2/22/17	17-02-0649-1AA	5.00	52	1	1	1.8346	1.9805	0.1459	2.918000	684		
2/22/17	17-02-0649-2AA	5.00	52	1	1	1.8495	1.9765	0.1270	2.540000	684		
2/22/17	17-02-0649-3AA	5.01	52	1	1	1.8579	1.9148	0.0569	1.135729	684		
2/22/17	17-02-0649-4AA	5.00	52	1	1	1.8463	1.9761	0.1298	2.596000	684		
2/22/17	17-02-0649-5AA	5.02	52	1	1	1.8433	1.9241	0.0808	1.609562	684		
2/22/17	17-02-1314-1AA	5.00	52	1	1	1.8531	1.9985	0.1454	2.908000	684		
2/22/17	Duplicate 17-02-0648-1AA	5.00	52	1	1	1.8368	1.9377	0.1009	2.018000	684		
2/22/17	Duplicate 17-02-0649-1AA	5.00	52	1	1	1.8549	2.0096	0.1547	3.094000	684		
	Duplicate											

Page 21 of 26

8770 ( Soil Soil SIM SUPER PAH SIM PAH SIM Pest SIM PCB cong. SIM FL)

Extraction Method (LPA Method): 3510 3620 3500 3041  3545 3550 3580

Analyst ID# Measuring Sample 682 Start Extraction 632 Blow Down Clean Up

Matrix Soil Aqueous Oil Wipe Filter  Tissue Air

Balance ID# 20 Filter ID# ASI ID# Southern ID# Orbit Shaker ID# Sonicator ID#

Ext. Start Date/Time: 2/22/17 11:20 Ext. End Date/Time: 2/27/17 12:30

Sand or Wipe ID# Drying Agent:  Na<sub>2</sub>SO<sub>4</sub> Diatomaceous Earth

507-19-19 Drying Agent(s) ID# 507-40-18

Surrogate Std ID# & Volume Added (ml):

Spike Std ID# & Volume Added (ml): Spike Added to: 1: LCS 2: LCS 3: MS 4: MS

Extraction Solvent:  MeCl<sub>2</sub> 1:1 Hexane Acetone 1:1:1 MeCl<sub>2</sub>-Acetone 1:1:1 Hexane-Diethyl-ether 1: Acetonitrile

Extraction Solvent ID#: 507-55-01 Exchange Solvent (1: Hexane 2: Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time:

Clean Up: 1: 3620 Florisil 2: 3630 SEC 3: 3660 Sulfur 4: 3665 Acid 5: Other

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MR/LCS/MS Batch #: 170222 Bob Sample W (g) / V (ml)

Cell ID#	Initial	Final	Clean Up Performed	Comments
MB	5.00	1	<input type="checkbox"/>	
LCS	/	/	<input type="checkbox"/>	
LCS/D	/	/	<input type="checkbox"/>	
MS	/	/	<input type="checkbox"/>	
MSD	DWP 17-02-0647-1AA	5.00	<input type="checkbox"/>	
	17-02-0647-1AA	5.01	<input type="checkbox"/>	
	-2	5.00	<input type="checkbox"/>	
	-3	5.02	<input type="checkbox"/>	
	-4	5.01	<input type="checkbox"/>	
	-5	5.00	<input type="checkbox"/>	
	17-02-0648-1	5.01	<input type="checkbox"/>	
	-2	5.00	<input type="checkbox"/>	
	-3	5.00	<input type="checkbox"/>	
	-4	5.02	<input type="checkbox"/>	
	17-02-0649-1	5.00	<input type="checkbox"/>	
	-2	5.00	<input type="checkbox"/>	
	-3	5.01	<input type="checkbox"/>	
	-4	5.00	<input type="checkbox"/>	
	-5	5.02	<input type="checkbox"/>	
	17-02-1314-1	5.00	<input type="checkbox"/>	
	DWP 17-02-0648-1	5.00	<input type="checkbox"/>	
	DWP 17-02-0649-1AA	5.00	<input type="checkbox"/>	
	/	/	<input type="checkbox"/>	
	/	/	<input type="checkbox"/>	

Peer Reviewed by: 684

Peer Reviewed Date:

Revision Date: 10/20/16



# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 02/22/17 Initials: CRS

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.03	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.16	498.00 - 502.00	<input checked="" type="radio"/> Y	N
62	0.002	0.0020	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	0.9999	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9999	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
26	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.91	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	0.002	0.0022	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9999	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	100.0000	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
53	0.1	0.09	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	0.98	0.98 - 1.02	<input checked="" type="radio"/> Y	N
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
20 70	500	499.99	498 - 502	<input checked="" type="radio"/> Y	N
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	100	99.84	98.00 - 102.00	<input checked="" type="radio"/> Y	N
57	500	499.17	498.00 - 502.00	<input checked="" type="radio"/> Y	N
	100	100.0	98.0 - 102.0	<input checked="" type="radio"/> Y	Extractions
	1000	1000.0	998.0 - 1002.0	<input checked="" type="radio"/> Y	N
52	2000	2000.0	1998.0 - 2002.0	<input checked="" type="radio"/> Y	N
	0.002	0.0018	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
	1	0.9995	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
71	100	99.9970	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
	0.002	0.0018	0.0018 - 0.0022	<input checked="" type="radio"/> Y	BOD Room
	1	0.9999	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
63	100	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	BOD Room
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
64	10	10.00	9.8 - 10.2	<input checked="" type="radio"/> Y	N
	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
72	1	0.9995	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	100.001	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
30	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	N
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N

# Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	SPK	STEM	H-65151531 1346-5ML	402-1000	6/30/17	5 ml	G	1/26/16	262	3-3-16	785	
2										04-27-16	1061	
3										05-24-16	1001	
4										0-5-16	100	
5	Chloroform		4-242534	2177	1-21-17	1ml	G	1/23/16	76	03/17/16	661	
6	Hexamethylenetetramine		4-242534	2177	1-21-17	1ml	G	1/23/16	76	1/24/16	1018	verified
7												
8	Acetonitrile	Fisher	A998-4	157707	01-26-19	4L X 8	G	01-26-16	1000	01-26-16	1000	
9	Sodium Sulfate Anhydrous	Fisher	S421-10	154284	1-28-21	10kg X 2	P	1-28-16	785	1-28-16	785	
10	Dichloromethane	EMD	DX-0831-1	55313	02-01-19	4L X 60	G	02-01-16	787	02-01-16	787	
11	EtOH		4-242534	2177	1-21-17	1ml	G	2-2-16	960	2-2-16	1018	verified
12	Water	Acustandard	4-134-25	2177	1-21-17	1ml	G	2-2-16	42	6/9/16	262	
13										6/10/16	923	
14										8/11/16	262	
15										11/2/16	785	
16												
17	EtOH	Absolute	FCE+1	072015	7/20/20	1ml	G	2-4-16	1001	2/5/16	471	
18	Dichloromethane	EMD	DX 0831-1	55310	02/08/19	4L X 80	G	02-08-16	787	02/08/16	787	
19	Sand	EMD	SX0075-30	XH27A	2-10-21	12kg X 3	P	2-10-16	785	2-10-16	785	
20	Hydrochloric Acid	EMD	HX0607-2	55253	2-10-19	2.5L X 3	G	2-10-16	785	2-10-16	785	
21	sulfuric Acid	EMD	SX1247-2	59132	2-16-19	2.5L X 6	G	2-16-16	785	2-16-16	785	
22	4-Methylmorpholine	Supelco	48298	X116372v	7-30-18	1ml	G	2-22-16	723			
23	Acetone		861176	LC05648	2-29-17	1ml	G			4/25/16	923	
24	Hexachlorophene	Acustandard	App-7-160-20x	2177	1-7/16	1ml X 5	G	2-23-16	702	7/18/16	923	
25										7/18/16	923	

Page 24 of 26

COMMENTS:

## Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Acetonitrile	Fisher	A998-4	153894	10-7-19	4Lx6	G	10-7-16	785	10-7-16	785	
2	Dichloromethane	EMD	EX0831CS-39	56211	10-7-19	200Lx2	D	10-7-16	785	10-7-16	785	
3	Acetone	Fisher	A929-1	163343	10-20-19	1L	G	10-20-16	262	10-20-16	262	
4	Ethyl Ether	EMD	EX0190-4	55033	02-28-17	4 <sup>L</sup> x20	G	10-24-16	787	10-24-16	787	Jan Lot#
5	Ethyl Ether	EMD	EX0110-4	55152	06-30-17	4 <sup>L</sup> x20	G	10-24-16	787	10-24-16	787	
6	Dichloromethane	EMD	EX0831CS-39	56230	10-25-19	200Lx2	D	10-25-16	787	10-25-16	787	
7	Hexanes	EMD	HX0298CS-39	56197	10-25-19	200Lx1	D	↓	↓	↓	↓	
8	Acetone	EMD	AX0116CS-39	55086	10-25-19	200Lx1	D	↓	↓	↓	↓	
9	Quartz microfiber filters	Whatman	183T-101	9709206	NA	12x100	RUX	10-25-16	142	10-25-16	142	
10	N-Hexanes 95	EMD	HX0295-1	56147	10-27-19	4 <sup>L</sup> x20	G	10-27-16	787	10-27-16	787	
11	Mercury	SIGMA-A	215457	148P7503V	10-28-21	5x2kg	C	10-28-16	787	10-28-16	787	
12	N-Butylpyrrolidone sulfonamide	Aldrich	B370653-250	MR15A0761V	10-25-19	250ml	P	10-25-16	262	10-25-16	262	
13	ii	SPEX	S-677	EN161025003	10-26-2019	1 m	G	11-1-16	182			
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15	↓											
16	Supelclean LC-Alumina-A GPE Tube	Supelclean	57083-U	6545701	NA	25	P	11-1-16	684	11-1-16	684	
17	Sodium Chloride	Fisher	271-10	163284	11/2/16	10kgx3	P	11-2-16	785	11-2-16	785	
18	sodium sulfate Anhydrous	Fisher	54X-10	161565	11-3-21	10kgx5	P	11-3-16	785	11-3-16	785	
19	Filter paper - 18.5cm	Fisher	0P-790-10F	A10055719	NA	100cm <sup>2</sup> x10	P	11-8-16	785	11-8-16	785	
20	8270 SIM E12 STD	ULTRA	CUS-13287	CP-5750	12/31/2018	1 ml	G	11-8-16	262	21-01-7	262	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓			
23	↓	↓	↓	↓	↓	↓	↓	↓	↓			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25				26	11/9/16							

Page 25 of 26



## Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Dichloromethane	EMD	DX083165 <sup>3A</sup>	56328	12/20/19	5 x 200 <sup>u</sup>	D	12/20/16	JRT	12/20/16	JRT	
2	Aroclor 1268	Ultra	EPA-1382	CP-6205	1/31/2021	1 mL	G	1/4/17	1028			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Methanol	Fisher	A452-4	163656		4 L <sup>u</sup>	G	11/01/17	262			
5	↓	↓	↓	↓	↓	↓	↓	↓	↓			
6	↓	↓	↓	↓	↓	↓	↓	↓	↓			
7	↓	↓	↓	↓	↓	↓	↓	↓	↓			
8	Methanol	Fisher	A452-4	163656	11/01/20	4 L x 4	G	11/01/17	262	11/01/17	262	
9	DCB & TCMX	Accu STD	CLP-032 H-5X	245021153	2075-2-18	1 ml	G	1/4/17	262			
10	↓	↓	↓	↓	↓	↓	↓	↓	↓			
11	↓	↓	↓	↓	↓	↓	↓	↓	↓			
12	↓	↓	↓	↓	↓	↓	↓	↓	↓			
13	↓	↓	↓	↓	↓	↓	↓	↓	↓			
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15	↓	↓	↓	↓	↓	↓	↓	↓	↓			
16	↓	↓	↓	↓	↓	↓	↓	↓	↓			
17	↓	↓	↓	↓	↓	↓	↓	↓	↓			
18	↓	↓	↓	↓	↓	↓	↓	↓	↓			
19	Sodium chloride	Fisher	327H10	106218	11/5/22	100g	P	11/5/17	1028	11/5/17	1028	
20	↓	↓	↓	158055	↓	↓	↓	↓	↓	↓	↓	
21	Xepene	Accu STD	AS-EC573	21210128501	3/2/2018	1 ml	G	11/9/17	262	2/15/17	923	
22	↓	↓	↓	↓	↓	↓	↓	↓	↓			
23	↓	↓	↓	↓	↓	↓	↓	↓	↓			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25	↓	↓	↓	↓	↓	↓	↓	↓	↓			

COMMENTS:



# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1702284

PO#

C012208478

March 14, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1702284

### Table of Contents

March 14, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	7
Quality Control Results	9
Notes and Definitions	17
Raw Data: 7B17012	18
Raw Data: 7B22008	52
Calscience Level IV Data Package - % Lipids	89

**Total Pages – 110**



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:34

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
ES-13_020517_ABD_15_MU	1702284-01	Tissue	05-Feb-17 17:25	07-Feb-17 10:35
EB_Knife_020517_ABD_E05_QC	1702284-02	Water	05-Feb-17 17:35	07-Feb-17 10:35

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Amy Goodall, Project Manager



AMEC Foster Wheeler  
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Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:34

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/7/2017 10:35:00 AM . The samples were received intact, on-ice within two sealed coolers at -46.5 and 0.7 degrees Celsius.

The tissue samples were sent to Eurofins Calscience for % Lipids by NOAA 1993a after EFGS completed the homogenization. The final data can be found at the end of the report after the Mercury raw data.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per EFGS SOP5141 prior to digestion.

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

The equipment blanks were prepared and analyzed for total mercury by flow injection atomic fluorescence spectrometry (FI-AFS) in accordance with EPA 1631E.

The tissue sample was prepped in batch F702349 and analyzed in sequence 7B22008. The water sample was analyzed in batch F702378 and analyzed in sequence 7B17012.

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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**Reported:**  
14-Mar-17 09:34

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: 1702284

Client: Amec Foster Wheeler

Date & Time Received: 2/7/17 10:35 Date Labeled: 2/14/17 Labeled By: LM

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

Received By: WF Label Verified By: JH 2/14/17

# 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>122405225</u>	CF: <u>-0.5 °C</u>	Date/time: <u>2/7/17</u>	By: <u>WF</u>
Cooler 1: <u>-4.6 °C</u>	w/CF: <u>-46.5 °C</u>	Cooler 4: °C	w/CF: °C
Cooler 2: <u>1.2 °C</u>	w/CF: <u>0.7 °C</u>	Cooler 5: °C	w/CF: °C
Cooler 3: °C	w/CF: °C	Cooler 6: °C	w/CF: °C

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

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

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

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**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

**1702284**

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 400  
Bothell, WA 98011  
Phone: (425) 686-1996  
Fax: (425) 686-3096  
Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc  
7440 Lincoln Way  
Garden Grove, CA 92841  
Phone :7148955494  
Fax: x

**Analysis** \_\_\_\_\_ **Comments** \_\_\_\_\_

**Sample ID:** ES-13\_020517\_ABD\_15\_MU

**EFGS Lab ID:** 1702284-01

**Matrix:** Tissue

**Sampled:** 05-Feb-17 17:25 Eastern

**Due:** 08-Mar-17 19:00

**Misc. Subcontract 1**

**Lipids Analysis - NOAA1993a**

*Containers Supplied:*

34\_Plastic Bag (B)

86W060 FEB 14, 2017 ACT WT 6.2 LBS #PK 1  
SVC 1DA BL WT ALL CURRENCY USD  
TRACKING# 1286W0600161147848  
DEPT NO.: OVERHEAD  
REF 2:SUBCONTRACT  
FRT: SHP  
SVC 21.83 USD  
RS 0.00  
NR+HC21.83  
HC 0.00 CNS 0.00  
SHIPMENT NR RATE CHARGES:  
COD 0.00  
DV 0.00 DGD 0.00  
DC 0.00 PR 0.00 ROD 0.00  
AH 0.00  
TOT NR CHG 21.83

Released By \_\_\_\_\_ Date 2/14/17

Received By \_\_\_\_\_ Date \_\_\_\_\_

Released By *Amy Goodall* Date 2/14/17

Received By \_\_\_\_\_ Date \_\_\_\_\_



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:34

**ES-13\_020517\_ABD\_15\_MU**  
**1702284-01**

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	441	1.58	14.1	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	
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Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
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**Reported:**  
14-Mar-17 09:34

**EB\_Knife\_020517\_ABD\_E05\_QC**  
**1702284-02**

Analyte	Result	Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EPA 1631E BrCl Oxidation</b>											
Mercury	0.13	0.08	0.50	ng/L	1	F702378	16-Feb-17	7B17012	17-Feb-17	EPA 1631E	J

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Amy Goodall, Project Manager



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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

Reported:  
14-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B17012 - F702378</b>											
<b>Cal Standard (7B17012-CAL1)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.49	-		ng/L	0.50100		97.1				
<b>Cal Standard (7B17012-CAL2)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.99	-		ng/L	1.0020		98.6				
<b>Cal Standard (7B17012-CAL3)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	5.08	-		ng/L	5.0100		101				
<b>Cal Standard (7B17012-CAL4)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	20.26	-		ng/L	20.040		101				
<b>Cal Standard (7B17012-CAL5)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	40.36	-		ng/L	40.080		101				
<b>Calibration Blank (7B17012-CCB1)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.009	-		ng/L							
<b>Calibration Blank (7B17012-CCB2)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.04	-		ng/L							
<b>Calibration Blank (7B17012-CCB3)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.05	-		ng/L							
<b>Calibration Blank (7B17012-CCB4)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.34	-		ng/L							
<b>Calibration Blank (7B17012-CCB5)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.15	-		ng/L							

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Project Manager: Denise King

Reported:  
14-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B17012 - F702378</b>											
<b>Calibration Blank (7B17012-CCB6)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	0.23	-		ng/L							
<b>Calibration Blank (7B17012-CCB7)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	0.09	-		ng/L							
<b>Calibration Blank (7B17012-CCB8)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	0.12	-		ng/L							
<b>Calibration Blank (7B17012-CCB9)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	0.11	-		ng/L							
<b>Calibration Check (7B17012-CCV1)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	4.85	-		ng/L	5.0000		97.1	77-123			
<b>Calibration Check (7B17012-CCV2)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	5.09	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B17012-CCV3)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	4.93	-		ng/L	5.0000		98.6	77-123			
<b>Calibration Check (7B17012-CCV4)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	5.46	-		ng/L	5.0000		109	77-123			
<b>Calibration Check (7B17012-CCV5)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	5.14	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (7B17012-CCV6)</b> Prepared & Analyzed: 17-Feb-17											
Mercury	5.09	-		ng/L	5.0000		102	77-123			

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Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

Reported:  
14-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B17012 - F702378

Calibration Check (7B17012-CCV7) Prepared & Analyzed: 17-Feb-17

Mercury	4.96	-		ng/L	5.0000		99.2	77-123			
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Calibration Check (7B17012-CCV8) Prepared & Analyzed: 17-Feb-17

Mercury	5.06	-		ng/L	5.0000		101	77-123			
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Calibration Check (7B17012-CCV9) Prepared & Analyzed: 17-Feb-17

Mercury	5.20	-		ng/L	5.0000		104	77-123			
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Instrument Blank (7B17012-IBL1) Prepared & Analyzed: 17-Feb-17

Mercury	ND	0.08	0.50	ng/L							U
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Instrument Blank (7B17012-IBL2) Prepared & Analyzed: 17-Feb-17

Mercury	ND	0.08	0.50	ng/L							U
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Instrument Blank (7B17012-IBL3) Prepared & Analyzed: 17-Feb-17

Mercury	ND	0.08	0.50	ng/L							U
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Initial Cal Check (7B17012-ICV1) Prepared & Analyzed: 17-Feb-17

Mercury	5.19	-		ng/L	5.0000		104	77-123			
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Batch 7B22008 - F702348

Cal Standard (7B22008-CAL1) Prepared & Analyzed: 21-Feb-17

Mercury	0.521	-		ng/L	0.50100		104				
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Cal Standard (7B22008-CAL2) Prepared & Analyzed: 21-Feb-17

Mercury	0.956	-		ng/L	1.0020		95.4				
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Amy Goodall, Project Manager



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:34

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7B22008 - F702348**

<b>Cal Standard (7B22008-CAL3)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	5.069	-		ng/L	5.0100		101				
<b>Cal Standard (7B22008-CAL4)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	19.79	-		ng/L	20.040		98.8				
<b>Cal Standard (7B22008-CAL5)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	39.93	-		ng/L	40.080		99.6				
<b>Calibration Blank (7B22008-CCB1)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	0.065	-		ng/L							
<b>Calibration Blank (7B22008-CCB2)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	0.042	-		ng/L							
<b>Calibration Blank (7B22008-CCB3)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	0.057	-		ng/L							
<b>Calibration Blank (7B22008-CCB4)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	0.069	-		ng/L							
<b>Calibration Blank (7B22008-CCB5)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	0.039	-		ng/L							
<b>Calibration Blank (7B22008-CCB6)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	0.064	-		ng/L							
<b>Calibration Blank (7B22008-CCB7)</b>						Prepared & Analyzed: 21-Feb-17					
Mercury	0.086	-		ng/L							

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Project Manager: Denise King

Reported:  
14-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B22008 - F702348</b>											
<b>Calibration Blank (7B22008-CCB8)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	0.079	-		ng/L							
<b>Calibration Check (7B22008-CCV1)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.090	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV2)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.086	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV3)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.046	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7B22008-CCV4)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.120	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV5)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.210	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7B22008-CCV6)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.015	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (7B22008-CCV7)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.109	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV8)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.481	-		ng/L	5.0000		110	77-123			
<b>Instrument Blank (7B22008-IBL1)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	ND	0.004	0.040	ng/L							U



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14-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B22008 - F702348

<b>Instrument Blank (7B22008-IBL2)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U

<b>Instrument Blank (7B22008-IBL3)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U

<b>Initial Cal Check (7B22008-ICV1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.062	-		ng/L	5.0000		101	77-123			

Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion

<b>Blank (F702349-BLK1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.124	0.090	0.800	ng/g							J

<b>Blank (F702349-BLK2)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.147	0.090	0.800	ng/g							J

<b>Blank (F702349-BLK3)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.121	0.090	0.800	ng/g							J

<b>Blank (F702349-BLK4)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	ND	0.052	0.464	ng/g							F-03, U

<b>Blank (F702349-BLK5)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	ND	0.051	0.456	ng/g							F-03, U

<b>LCS (F702349-BS1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.759	0.090	0.800	ng/g	8.0160		96.8	75-125			

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Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
14-Mar-17 09:34

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>LCS (F702349-BS2)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	331.9	3.58	31.9	ng/g	381.58		87.0	75-125			
<b>LCS Dup (F702349-BSD1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.865	0.090	0.800	ng/g	8.0160		98.1	75-125	1.36	24	
<b>Duplicate (F702349-DUP1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	469.8	1.72	15.3	ng/g		440.7			6.40	24	
<b>Matrix Spike (F702349-MS1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3619	10.0	89.4	ng/g	3585.0	440.7	88.7	71-125			
<b>Matrix Spike (F702349-MS2)</b>					Source: 1702050-29 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	2635	5.59	49.9	ng/g	2001.5	700.2	96.7	71-125			
<b>Matrix Spike Dup (F702349-MSD1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3390	9.53	85.1	ng/g	3410.5	440.7	86.5	71-125	2.48	24	
<b>Matrix Spike Dup (F702349-MSD2)</b>					Source: 1702050-29 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	2646	5.59	49.9	ng/g	2001.5	700.2	97.2	71-125	0.546	24	

**Batch F702378 - EPA 1631E BrCl Oxidation**

<b>Blank (F702378-BLK1)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.15	0.08	0.50	ng/L							J
<b>Blank (F702378-BLK2)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.09	0.08	0.50	ng/L							J

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Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

Reported:  
14-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch F702378 - EPA 1631E BrCl Oxidation

<b>Blank (F702378-BLK3)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	0.11	0.08	0.50	ng/L							J
<b>LCS (F702378-BS1)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	15.45	0.08	0.50	ng/L	15.679		98.5	80-120			
<b>LCS Dup (F702378-BSD1)</b>					Prepared & Analyzed: 17-Feb-17						
Mercury	15.99	0.08	0.50	ng/L	15.679		102	80-120	3.48	24	
<b>Duplicate (F702378-DUP1)</b>					Source: 1702362-02 Prepared & Analyzed: 17-Feb-17						
Mercury	2.94	0.08	0.50	ng/L		2.92			0.631	24	
<b>Matrix Spike (F702378-MS1)</b>					Source: 1702362-02 Prepared & Analyzed: 17-Feb-17						
Mercury	11.97	0.08	0.50	ng/L	10.120	2.92	89.4	71-125			
<b>Matrix Spike (F702378-MS2)</b>					Source: 1702362-03 Prepared & Analyzed: 17-Feb-17						
Mercury	12.25	0.08	0.50	ng/L	10.120	3.12	90.3	71-125			
<b>Matrix Spike Dup (F702378-MSD1)</b>					Source: 1702362-02 Prepared & Analyzed: 17-Feb-17						
Mercury	12.94	0.08	0.50	ng/L	10.120	2.92	99.0	71-125	7.81	24	
<b>Matrix Spike Dup (F702378-MSD2)</b>					Source: 1702362-03 Prepared & Analyzed: 17-Feb-17						
Mercury	12.16	0.08	0.50	ng/L	10.120	3.12	89.4	71-125	0.772	24	

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Project Manager: Denise King

**Reported:**  
14-Mar-17 09:34

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-07 The RPD/RSD value for the matrix duplicate/triplicate was outside of acceptance limits. Batch QC acceptable based on MS/MSD and/or LCS/LCSD RPD values within control limits.
- J The result is an estimated concentration.
- F-03 This method blank is an equipment blank created during the homogenization process of associated samples at the laboratory. For informational purposes only.
- E-01 Sample was preceded by a sample exceeding the calibration curve and was reanalyzed for confirmation.
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference



Frontier Global Sciences

THg26002-170217-2

Analysis Datasheet for Total Mercury

Date of Analysis: February 17, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7B17014, 7B17013, 7B17012

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	65.33 units	130.67	59.81 units	119.62	97.3 %Rec
SEQ-CAL2	1	1.00 ng/L	126.94 units	126.94	121.42 units	121.42	98.8 %Rec
SEQ-CAL3	1	5.00 ng/L	630.36 units	126.07	624.83 units	124.97	101.7 %Rec
SEQ-CAL4	1	20.00 ng/L	2495.98 units	124.80	2490.46 units	124.52	101.3 %Rec
SEQ-CAL5	1	40.00 ng/L	4965.41 units	124.14	4959.88 units	124.00	100.9 %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>				
122.90	+/- 2.30	1.9% RSD	126.52				

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	5.53 units	±2.34	0.04 ng/L	±0.02

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.091 ng/L	±0.170
BLK	2	3	-0.015 ng/L	±0.017
BLK	3	1	0.632 ng/L	
BLK	4	3	0.114 ng/L	±0.030
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
 PEER-REVIEWED  
 INITIALS: *CMK* 2/21/17



Instrument	Analyst	Sample		Dilution	Analyzed	FileID	RunEnd	Uncorrected Response	Batch ID	No PB		InitialResult	FinalResult	InitialUnits	Comments	
		Type	LabNumber							Correction?	RESP					
Hg2600-2	DM2	CAL	SEQ-IBL1	1	2/17/2017 10:42:49	71696-1.RAW	10:42:49 AM	7.83				2.3	0.019	0.019	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	2/17/2017 10:46:57	71697-1.RAW	10:46:57 AM	3.15				-2.4	-0.019	-0.019	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	2/17/2017 10:51:05	71698-1.RAW	10:51:05 AM	5.60				0.1	0.001	0.001	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	2/17/2017 10:55:14	71699-1.RAW	10:55:14 AM	65.33				59.8	0.487	0.487	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	2/17/2017 10:59:22	71700-1.RAW	10:59:22 AM	126.94				121.4	0.988	0.988	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	2/17/2017 11:03:31	71701-1.RAW	11:03:31 AM	630.36				624.8	5.084	5.084	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	2/17/2017 11:07:39	71702-1.RAW	11:07:39 AM	2495.98				2490.5	20.263	20.263	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	2/17/2017 11:11:47	71703-1.RAW	11:11:47 AM	4965.41				4959.9	40.356	40.356	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	2/17/2017 11:15:56	71704-1.RAW	11:15:56 AM	643.23				637.7	5.189	5.189	ng/L	
Hg2600-2	DM2	BLK	F701519-BLK4	20	2/17/2017 11:20:04	71705-1.RAW	11:20:04 AM	12.82	1			7.3	0.059	1.186	ng/L	
Hg2600-2	DM2	BLK	F701519-BLK5	20	2/17/2017 11:24:13	71706-1.RAW	11:24:13 AM	11.02	1			5.5	0.045	0.894	ng/L	
Hg2600-2	DM2	BLK	F701519-BLK6	20	2/17/2017 11:28:21	71707-1.RAW	11:28:21 AM	12.85	1			7.3	0.060	1.192	ng/L	
Hg2600-2	DM2	SAM	F701519-BS3	20	2/17/2017 11:32:30	71708-1.RAW	11:32:30 AM	27.99	1			22.5	0.128	2.565	ng/L	
Hg2600-2	DM2	SAM	F701519-BS4	20	2/17/2017 11:36:38	71709-1.RAW	11:36:38 AM	71.03	1			65.5	0.478	9.569	ng/L	
Hg2600-2	DM2	SAM	1701037-10RE1	20	2/17/2017 11:40:46	71710-1.RAW	11:40:46 AM	6.88	1			1.4	-0.044	-0.871	ng/L	
Hg2600-2	DM2	BLK	F702364-BLK1	1	2/17/2017 11:44:55	71711-1.RAW	11:44:55 AM	2.14	2			-3.4	-0.028	-0.028	ng/L	
Hg2600-2	DM2	BLK	F702364-BLK2	1	2/17/2017 11:49:03	71712-1.RAW	11:49:03 AM	6.05	2			0.5	0.004	0.004	ng/L	
Hg2600-2	DM2	BLK	F702364-BLK3	1	2/17/2017 11:53:12	71713-1.RAW	11:53:12 AM	2.72	2			-2.8	-0.023	-0.023	ng/L	
Hg2600-2	DM2	BLK	F702364-BLK4	10	2/17/2017 11:57:20	71714-1.RAW	11:57:20 AM	13.29	3			7.8	0.063	0.632	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	2/17/2017 12:01:29	71715-1.RAW	12:01:29 PM	601.98				596.5	4.853	4.853	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	2/17/2017 12:05:38	71716-1.RAW	12:05:38 PM	6.88				1.2	0.009	0.009	ng/L	
Hg2600-2	DM2	SAM	F702364-BS1	1	2/17/2017 12:09:47	71717-1.RAW	12:09:47 PM	1996.00	2			1990.5	16.211	16.211	ng/L	
Hg2600-2	DM2	SAM	F702364-BSD1	1	2/17/2017 12:13:55	71718-1.RAW	12:13:55 PM	1997.41	2			1991.9	16.222	16.222	ng/L	
Hg2600-2	DM2	SAM	1702280-01	1	2/17/2017 12:18:04	71719-1.RAW	12:18:04 PM	110.03	2			104.5	0.866	0.866	ng/L	
Hg2600-2	DM2	SAM	1702280-02	10	2/17/2017 12:22:12	71720-1.RAW	12:22:12 PM	58.20	2			52.7	0.430	4.301	ng/L	
Hg2600-2	DM2	SAM	1702280-03	1	2/17/2017 12:26:20	71721-1.RAW	12:26:20 PM	149.86	2			144.3	1.190	1.190	ng/L	
Hg2600-2	DM2	SAM	1702434-01	1	2/17/2017 12:30:29	71722-1.RAW	12:30:29 PM	1125.93	2			1120.4	9.131	9.131	ng/L	
Hg2600-2	DM2	SAM	1702434-02	1	2/17/2017 12:34:37	71723-1.RAW	12:34:37 PM	15.88	2			10.3	0.100	0.100	ng/L	
Hg2600-2	DM2	SAM	1702434-03	1	2/17/2017 12:38:46	71724-1.RAW	12:38:46 PM	1422.73	2			1417.2	11.546	11.546	ng/L	
Hg2600-2	DM2	SAM	1702434-04	1	2/17/2017 12:42:54	71725-1.RAW	12:42:54 PM	23.20	2			17.7	0.159	0.159	ng/L	
Hg2600-2	DM2	SAM	1702434-05	10	2/17/2017 12:47:03	71726-1.RAW	12:47:03 PM	572.21	3			566.7	4.548	45.476	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	2/17/2017 12:51:11	71727-1.RAW	12:51:11 PM	630.54				625.0	5.085	5.085	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	2/17/2017 12:55:19	71728-1.RAW	12:55:19 PM	10.16				4.6	0.038	0.038	ng/L	
Hg2600-2	DM2	SAM	1702434-06	1	2/17/2017 12:59:28	71729-1.RAW	12:59:28 PM	16.18	2			10.7	0.102	0.102	ng/L	
Hg2600-2	DM2	SAM	F702364-DUP1	1	2/17/2017 13:03:36	71730-1.RAW	1:03:36 PM	1132.45	2			1126.9	9.184	9.184	ng/L	
Hg2600-2	DM2	SAM	F702364-MS1	1	2/17/2017 13:07:45	71731-1.RAW	1:07:45 PM	3382.52	2			3377.0	27.492	27.492	ng/L	
Hg2600-2	DM2	SAM	F702364-MSD1	1	2/17/2017 13:11:53	71732-1.RAW	1:11:53 PM	3190.86	2			3185.3	25.933	25.933	ng/L	
Hg2600-2	DM2	BLK	F702366-BLK1	1	2/17/2017 13:16:02	71733-1.RAW	1:16:02 PM	19.96	x			14.4	0.117	0.117	ng/L	
Hg2600-2	DM2	BLK	F702366-BLK2	1	2/17/2017 13:20:10	71734-1.RAW	1:20:10 PM	14.37	x			8.8	0.072	0.072	ng/L	
Hg2600-2	DM2	BLK	F702366-BLK3	1	2/17/2017 13:24:18	71735-1.RAW	1:24:18 PM	13.17	x			7.6	0.062	0.062	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV1	1	2/17/2017 13:28:27	71736-1.RAW	1:28:27 PM	67.83				62.3	0.507	0.507	ng/L	
Hg2600-2	DM2	CAL	SEQ-LCV2	1	2/17/2017 13:32:35	71737-1.RAW	1:32:35 PM	42.44				36.9	0.300	0.300	ng/L	
Hg2600-2	DM2	SAM	F702366-BS1	1	2/17/2017 13:36:44	71738-1.RAW	1:36:44 PM	1888.69	x			1883.2	15.322	15.322	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	2/17/2017 13:40:52	71739-1.RAW	1:40:52 PM	611.14				605.6	4.928	4.928	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	2/17/2017 13:45:00	71740-1.RAW	1:45:00 PM	12.06				6.5	0.053	0.053	ng/L	
Hg2600-2	DM2	SAM	F702366-BSD1	1	2/17/2017 13:49:09	71741-1.RAW	1:49:09 PM	1899.94	x			1894.4	15.414	15.414	ng/L	
Hg2600-2	DM2	SAM	F702366-BS2	1	2/17/2017 13:53:17	71742-1.RAW	1:53:17 PM	1545.03	x			1539.5	12.526	12.526	ng/L	
Hg2600-2	DM2	SAM	F702366-BSD2	1	2/17/2017 13:57:26	71743-1.RAW	1:57:26 PM	1634.83	x			1629.3	13.257	13.257	ng/L	
Hg2600-2	DM2	SAM	1702280-02RE1	1	2/17/2017 14:01:34	71744-1.RAW	2:01:34 PM	402.29	2			396.8	3.244	3.244	ng/L	
Hg2600-2	DM2	SAM	1702201-01	1	2/17/2017 14:05:42	71745-1.RAW	2:05:42 PM	4434.16	x			44335.6	360.733	360.733	ng/L	
Hg2600-2	DM2	SAM	1702201-02	1	2/17/2017 14:09:51	71746-1.RAW	2:09:51 PM	22401.48	x			22396.0	182.223	182.223	ng/L	
Hg2600-2	DM2	SAM	1702201-03	1	2/17/2017 14:13:59	71747-1.RAW	2:13:59 PM	2528.11	x			2522.6	20.525	20.525	ng/L	
Hg2600-2	DM2	SAM	1702201-04	1	2/17/2017 14:18:08	71748-1.RAW	2:18:08 PM	96.54	x			91.0	0.740	0.740	ng/L	
Hg2600-2	DM2	SAM	1702201-05	1	2/17/2017 14:22:16	71749-1.RAW	2:22:16 PM	65.94	x			60.4	0.492	0.492	ng/L	
Hg2600-2	DM2	SAM	1702201-06	1	2/17/2017 14:26:25	71750-1.RAW	2:26:25 PM	12247.95	x			12242.4	99.610	99.610	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	2/17/2017 14:30:33	71751-1.RAW	2:30:33 PM	676.25				670.7	5.457	5.457	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	2/17/2017 14:34:41	71752-1.RAW	2:34:41 PM	47.00				41.5	0.337	0.337	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	1702201-08	10	2/17/2017 14:39:52	71753-1.RAW	2:39:52 PM	738.70		x	733.2	5.965	59.654	ng/L	
Hg2600-2	DM2	SAM	1702201-09	10	2/17/2017 14:44:01	71754-1.RAW	2:44:01 PM	747.98		x	742.5	6.041	60.409	ng/L	
Hg2600-2	DM2	SAM	1702201-10	1	2/17/2017 14:48:09	71755-1.RAW	2:48:09 PM	1424.73		x	1419.2	11.547	11.547	ng/L	
Hg2600-2	DM2	SAM	1702201-11	1	2/17/2017 14:52:17	71756-1.RAW	2:52:17 PM	43.56		x	38.0	0.309	0.309	ng/L	
Hg2600-2	DM2	SAM	1702201-12	1	2/17/2017 14:56:26	71757-1.RAW	2:56:26 PM	35.62		x	30.1	0.245	0.245	ng/L	
Hg2600-2	DM2	SAM	1702201-01RE1	50	2/17/2017 15:00:34	71758-1.RAW	3:00:34 PM	1061.42		x	1055.9	8.591	429.561	ng/L	
Hg2600-2	DM2	SAM	1702201-02RE1	10	2/17/2017 15:04:43	71759-1.RAW	3:04:43 PM	2481.41		x	2475.9	20.145	201.448	ng/L	
Hg2600-2	DM2	SAM	1702201-03RE1	1	2/17/2017 15:08:51	71760-1.RAW	3:08:51 PM	2508.73		x	2503.2	20.367	20.367	ng/L	
Hg2600-2	DM2	SAM	1702201-06RE1	10	2/17/2017 15:12:59	71761-1.RAW	3:12:59 PM	1435.20		x	1429.7	11.632	116.325	ng/L	
Hg2600-2	DM2	SAM	F702366-DUP1	1	2/17/2017 15:17:08	71762-1.RAW	3:17:08 PM	2499.83		x	2494.3	20.295	20.295	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	2/17/2017 15:21:16	71763-1.RAW	3:21:16 PM	636.6537781			631.1	5.135	5.135	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	2/17/2017 15:25:25	71764-1.RAW	3:25:25 PM	23.71			18.2	0.148	0.148	ng/L	
Hg2600-2	DM2	SAM	F702366-DUP2	1	2/17/2017 15:29:33	71765-1.RAW	3:29:33 PM	1471.29		x	1465.8	11.926	11.926	ng/L	
Hg2600-2	DM2	SAM	F702366-MS1	10	2/17/2017 15:33:42	71766-1.RAW	3:33:42 PM	2953.40		x	2947.9	23.985	239.851	ng/L	
Hg2600-2	DM2	SAM	F702366-MSD1	10	2/17/2017 15:37:50	71767-1.RAW	3:37:50 PM	3073.29		x	3067.8	24.961	249.606	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	2/17/2017 15:41:58	71768-1.RAW	3:41:58 PM	631.70			626.2	5.095	5.095	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	2/17/2017 15:46:07	71769-1.RAW	3:46:07 PM	33.30			27.8	0.226	0.226	ng/L	
Hg2600-2	DM2	BLK	F702378-BLK1	1	2/17/2017 15:50:15	71770-1.RAW	3:50:15 PM	23.29		4	17.8	0.145	0.145	ng/L	
Hg2600-2	DM2	BLK	F702378-BLK2	1	2/17/2017 15:54:24	71771-1.RAW	3:54:24 PM	15.97		4	10.4	0.085	0.085	ng/L	
Hg2600-2	DM2	BLK	F702378-BLK3	1	2/17/2017 15:58:32	71772-1.RAW	3:58:32 PM	19.35		4	13.8	0.112	0.112	ng/L	
Hg2600-2	DM2	SAM	F702378-BS1	1	2/17/2017 16:02:40	71773-1.RAW	4:02:40 PM	1899.18		4	1893.6	15.294	15.294	ng/L	
Hg2600-2	DM2	SAM	F702378-BSD1	1	2/17/2017 16:06:49	71774-1.RAW	4:06:49 PM	1965.73		4	1960.2	15.835	15.835	ng/L	
Hg2600-2	DM2	SAM	1702284-02	1	2/17/2017 16:10:57	71775-1.RAW	4:10:57 PM	35.03		4	29.5	0.126	0.126	ng/L	
Hg2600-2	DM2	SAM	1702362-01	1	2/17/2017 16:15:06	71776-1.RAW	4:15:06 PM	30.19		4	24.7	0.087	0.087	ng/L	
Hg2600-2	DM2	SAM	1702362-02	1	2/17/2017 16:19:14	71777-1.RAW	4:19:14 PM	374.55		4	369.0	2.889	2.889	ng/L	
Hg2600-2	DM2	SAM	1702362-03	1	2/17/2017 16:23:23	71778-1.RAW	4:23:23 PM	398.92		4	393.4	3.087	3.087	ng/L	
Hg2600-2	DM2	SAM	1702363-01	1	2/17/2017 16:27:31	71779-1.RAW	4:27:31 PM	21.37		4	15.8	0.015	0.015	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	2/17/2017 16:31:39	71780-1.RAW	4:31:39 PM	615.37			609.8	4.962	4.962	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	2/17/2017 16:35:48	71781-1.RAW	4:35:48 PM	16.64			11.1	0.090	0.090	ng/L	
Hg2600-2	DM2	SAM	1702363-02	1	2/17/2017 16:39:56	71782-1.RAW	4:39:56 PM	1348.09		4	1342.6	10.810	10.810	ng/L	
Hg2600-2	DM2	SAM	1702363-03	1	2/17/2017 16:44:05	71783-1.RAW	4:44:05 PM	1152.70		4	1147.2	9.220	9.220	ng/L	
Hg2600-2	DM2	SAM	1702437-04	1	2/17/2017 16:48:13	71784-1.RAW	4:48:13 PM	92.59		4	87.1	0.594	0.594	ng/L	
Hg2600-2	DM2	SAM	1702437-05	1	2/17/2017 16:52:21	71785-1.RAW	4:52:21 PM	62.61		4	57.1	0.350	0.350	ng/L	
Hg2600-2	DM2	SAM	1702437-06	1	2/17/2017 16:56:30	71786-1.RAW	4:56:30 PM	22.53		4	17.0	0.024	0.024	ng/L	
Hg2600-2	DM2	SAM	1702437-15	1	2/17/2017 17:00:38	71787-1.RAW	5:00:38 PM	898.02		4	892.5	7.148	7.148	ng/L	
Hg2600-2	DM2	SAM	1702437-16	1	2/17/2017 17:04:47	71788-1.RAW	5:04:47 PM	3859.33		4	3853.8	31.242	31.242	ng/L	
Hg2600-2	DM2	SAM	F702378-DUP1	1	2/17/2017 17:08:55	71789-1.RAW	5:08:55 PM	376.80		4	371.3	2.907	2.907	ng/L	
Hg2600-2	DM2	SAM	F702378-MS1	1	2/17/2017 17:13:04	71790-1.RAW	5:13:04 PM	1475.83		4	1470.3	11.849	11.849	ng/L	
Hg2600-2	DM2	SAM	F702378-MSD1	1	2/17/2017 17:17:12	71791-1.RAW	5:17:12 PM	1594.19		4	1588.7	12.812	12.812	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	2/17/2017 17:21:20	71792-1.RAW	5:21:20 PM	627.14			621.6	5.058	5.058	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	2/17/2017 17:25:29	71793-1.RAW	5:25:29 PM	20.89			15.4	0.125	0.125	ng/L	
Hg2600-2	DM2	SAM	F702378-MS2	1	2/17/2017 17:29:37	71794-1.RAW	5:29:37 PM	1510.74		4	1505.2	12.133	12.133	ng/L	
Hg2600-2	DM2	SAM	F702378-MSD2	1	2/17/2017 17:33:46	71795-1.RAW	5:33:46 PM	1499.28		4	1493.8	12.040	12.040	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	2/17/2017 17:37:54	71796-1.RAW	5:37:54 PM	645.21			639.7	5.205	5.205	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	2/17/2017 17:42:03	71797-1.RAW	5:42:03 PM	19.39			13.9	0.113	0.113	ng/L	

TotalMercury EPA1631  
 Operat DM  
 BlankS 5.5264  
 Works THg260  
 CalibFa 122.9  
 Method #### R:  
 Descr: THg26002-170217-1

SampleID	Locator	Rinse	Dilute	Blank	Conc (ppb)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (ref)	Flags	RunCount
Clean				0.00	6.49					71691-1.RAW	10:23:24	797.33	Clean	OK	1
clean				0.00	0.01					71692-1.RAW	10:25:15	1.06	Clean	OK	1
ws				5.53	0.06					71693-1.RAW	10:30:23	12.79	Sample	OK	1
ws				5.53	0.00					71694-1.RAW	10:34:32	2.69	Sample	OK	1
ws				5.53	0.01					71695-1.RAW	10:38:40	6.94	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.06					71696-1.RAW	10:42:49	7.83	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.03					71697-1.RAW	10:46:57	3.15	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.05					71698-1.RAW	10:51:05	5.60	Sample	OK	1
SEQ-CAL1	A4		1	5.53	0.49		97.32			71699-1.RAW	10:55:14	65.33	Sample	OK	1
SEQ-CAL2	A5		1	5.53	0.99		98.79			71700-1.RAW	10:59:22	126.94	Sample	OK	1
SEQ-CAL3	A6		1	5.53	5.08		101.68			71701-1.RAW	11:03:31	630.36	Sample	OK	1
SEQ-CAL4	A7		1	5.53	20.26		101.32			71702-1.RAW	11:07:39	2495.98	Sample	OK	1
SEQ-CAL5	A8		1	5.53	40.36		100.89			71703-1.RAW	11:11:47	4965.41	Sample	OK	1
SEQ-ICV1	A9		1	5.53	5.19		103.77			71704-1.RAW	11:15:56	643.23	Sample	OK	1
F701519-BLK4	A10		20	5.53	1.19					71705-1.RAW	11:20:04	12.82	Sample	OK	1
F701519-BLK5	A11		20	5.53	0.89					71706-1.RAW	11:24:13	11.02	Sample	OK	1
F701519-BLK6	A12		20	5.53	1.19					71707-1.RAW	11:28:21	12.85	Sample	OK	1
F701519-BS3	A13		20	5.53	3.66					71708-1.RAW	11:32:30	27.99	Sample	OK	1
F701519-BS4	A14		20	5.53	10.66					71709-1.RAW	11:36:38	71.03	Sample	OK	1
1701037-10RE1	A15		20	5.53	0.22					71710-1.RAW	11:40:46	6.88	Sample	OK	1
F702364-BLK1	A16		1	5.53	0.00					71711-1.RAW	11:44:55	2.14	Sample	OK	1
F702364-BLK2	A17		1	5.53	0.00					71712-1.RAW	11:49:03	6.05	Sample	OK	1
F702364-BLK3	A18		1	5.53	0.00					71713-1.RAW	11:53:12	2.72	Sample	OK	1
F702364-BLK4	A19		10	5.53	0.63					71714-1.RAW	11:57:20	13.29	Sample	OK	1
SEQ-CCV1	A20		1	5.53	4.85		97.06			71715-1.RAW	12:01:29	601.98	Sample	OK	1
SEQ-CCB1	A21		1	5.53	0.01		0.00			71716-1.RAW	12:05:38	6.68	Sample	OK	1
F702364-BS1	B1		1	5.53	16.20					71717-1.RAW	12:09:47	1996.00	Sample	OK	1
F702364-BSD1	B2		1	5.53	16.21					71718-1.RAW	12:13:55	1997.41	Sample	OK	1
1702280-01	B3		1	5.53	0.85					71719-1.RAW	12:18:04	110.03	Sample	OK	1
1702280-02	B4		10	5.53	4.29					71720-1.RAW	12:22:12	58.20	Sample	OK	1
1702280-03	B5		1	5.53	1.17					71721-1.RAW	12:26:20	149.86	Sample	OK	1
1702434-01	B6		1	5.53	9.12					71722-1.RAW	12:30:29	1125.93	Sample	OK	1
1702434-02	B7		1	5.53	0.08					71723-1.RAW	12:34:37	15.88	Sample	OK	1
1702434-03	B8		1	5.53	11.53					71724-1.RAW	12:38:46	1422.73	Sample	OK	1
1702434-04	B9		1	5.53	0.14					71725-1.RAW	12:42:54	23.20	Sample	OK	1
1702434-05	B10		10	5.53	46.11					71726-1.RAW	12:47:03	572.21	Sample	OK	1
SEQ-CCV2	B11		1	5.53	5.09		101.71			71727-1.RAW	12:51:11	630.54	Sample	OK	1
SEQ-CCB2	B12		1	5.53	0.04		0.00			71728-1.RAW	12:55:19	10.16	Sample	OK	1
1702434-06	B13		1	5.53	0.09					71729-1.RAW	12:59:28	16.18	Sample	OK	1
F702364-DUP1	B14		1	5.53	9.17					71730-1.RAW	13:03:36	1132.45	Sample	OK	1
F702364-MS1	B15		1	5.53	27.48		270.20			71731-1.RAW	13:07:45	3382.52	Sample	OK	1
F702364-MSD1	B16		1	5.53	25.92					71732-1.RAW	13:11:53	3190.86	Sample	OK	1
F702366-BLK1	B17		1	5.53	0.12					71733-1.RAW	13:16:02	19.96	Sample	OK	1
F702366-BLK2	B18		1	5.53	0.07					71734-1.RAW	13:20:10	14.37	Sample	OK	1
F702366-BLK3	B19		1	5.53	0.06					71735-1.RAW	13:24:18	13.17	Sample	OK	1
SEQ-LCV1	B20		1	5.53	0.51					71736-1.RAW	13:28:27	67.83	Sample	OK	1
SEQ-LCV2	B21		1	5.53	0.30					71737-1.RAW	13:32:35	42.44	Sample	OK	1
F702366-BS1	C1		1	5.53	15.32					71738-1.RAW	13:36:44	1888.69	Sample	OK	1
SEQ-CCV3	C2		1	5.53	4.93		98.55			71739-1.RAW	13:40:52	611.14	Sample	OK	1
SEQ-CCB3	C3		1	5.53	0.05		0.00			71740-1.RAW	13:45:00	12.06	Sample	OK	1
F702366-BSD1	C4		1	5.53	15.41					71741-1.RAW	13:49:09	1899.94	Sample	OK	1
F702366-BS2	C5		1	5.53	12.53					71742-1.RAW	13:53:17	1545.03	Sample	OK	1
F702366-BSD2	C6		1	5.53	13.26					71743-1.RAW	13:57:26	1634.83	Sample	OK	1
1702280-02RE1	C7		1	5.53	3.23					71744-1.RAW	14:01:34	402.29	Sample	OK	1
1702201-01	C8		1	5.53	360.73					71745-1.RAW	14:05:42	44341.16	Sample	OK	1
1702201-02	C9		1	5.53	182.22					71746-1.RAW	14:09:51	22401.48	Sample	OK	1
1702201-03	C10		1	5.53	20.52					71747-1.RAW	14:13:59	2528.11	Sample	OK	1
1702201-04	C11		1	5.53	0.74					71748-1.RAW	14:18:08	96.54	Sample	OK	1
1702201-05	C12		1	5.53	0.49					71749-1.RAW	14:22:16	65.94	Sample	OK	1

1702201-06	C13	1	5.53	99.61		71750-1.RAW	14:26:25	12247.95	Sample	OK	1
SEQ-CCV4	C14	1	5.53	5.46	109.15	71751-1.RAW	14:30:33	676.25	Sample	OK	1
SEQ-CCB4	C15	1	5.53	0.34	0.00	71752-1.RAW	14:34:41	47.00	Sample	OK	1
1702201-08	C16	10	5.53	59.65		71753-1.RAW	14:39:52	738.70	Sample	OK	1
1702201-09	C17	10	5.53	60.41		71754-1.RAW	14:44:01	747.98	Sample	OK	1
1702201-10	C18	1	5.53	11.55		71755-1.RAW	14:48:09	1424.73	Sample	OK	1
1702201-11	C19	1	5.53	0.31		71756-1.RAW	14:52:17	43.56	Sample	OK	1
1702201-12	C20	1	5.53	0.24		71757-1.RAW	14:56:26	35.62	Sample	OK	1
1702201-01RE1	C21	50	5.53	429.56		71758-1.RAW	15:00:34	1061.42	Sample	OK	1
1702201-02RE1	A1	10	5.53	201.45		71759-1.RAW	15:04:43	2481.41	Sample	OK	1
1702201-03RE1	A2	1	5.53	20.37		71760-1.RAW	15:08:51	2508.73	Sample	OK	1
1702201-06RE1	A3	10	5.53	116.32		71761-1.RAW	15:12:59	1435.20	Sample	OK	1
F702366-DUP1	A4	1	5.53	20.29		71762-1.RAW	15:17:08	2499.83	Sample	OK	1
SEQ-CCV5	A5	1	5.53	5.14	102.70	71763-1.RAW	15:21:16	636.65	Sample	OK	1
SEQ-CCB5	A6	1	5.53	0.15	0.00	71764-1.RAW	15:25:25	23.71	Sample	OK	1
F702366-DUP2	A7	1	5.53	11.93		71765-1.RAW	15:29:33	1471.29	Sample	OK	1
F702366-MS1	A8	10	5.53	239.85	1855.56	71766-1.RAW	15:33:42	2953.40	Sample	OK	1
F702366-MSD1	A9	10	5.53	249.61		71767-1.RAW	15:37:50	3073.29	Sample	OK	1
SEQ-CCV6	A10	1	5.53	5.09	101.90	71768-1.RAW	15:41:58	631.70	Sample	OK	1
SEQ-CCB6	A11	1	5.53	0.23	0.00	71769-1.RAW	15:46:07	33.30	Sample	OK	1
F702378-BLK1	A12	1	5.53	0.14		71770-1.RAW	15:50:15	23.29	Sample	OK	1
F702378-BLK2	A13	1	5.53	0.08		71771-1.RAW	15:54:24	15.97	Sample	OK	1
F702378-BLK3	A14	1	5.53	0.11		71772-1.RAW	15:58:32	19.35	Sample	OK	1
F702378-BS1	A15	1	5.53	15.41		71773-1.RAW	16:02:40	1899.18	Sample	OK	1
F702378-BSD1	A16	1	5.53	15.95		71774-1.RAW	16:06:49	1965.73	Sample	OK	1
1702284-02	A17	1	5.53	0.24		71775-1.RAW	16:10:57	35.03	Sample	OK	1
1702362-01	A18	1	5.53	0.20		71776-1.RAW	16:15:06	30.19	Sample	OK	1
1702362-02	A19	1	5.53	3.00		71777-1.RAW	16:19:14	374.55	Sample	OK	1
1702362-03	A20	1	5.53	3.20		71778-1.RAW	16:23:23	398.92	Sample	OK	1
1702363-01	A21	1	5.53	0.13		71779-1.RAW	16:27:31	21.37	Sample	OK	1
SEQ-CCV7	B1	1	5.53	4.96	99.24	71780-1.RAW	16:31:39	615.37	Sample	OK	1
SEQ-CCB7	B2	1	5.53	0.09	0.00	71781-1.RAW	16:35:48	16.64	Sample	OK	1
1702363-02	B3	1	5.53	10.92		71782-1.RAW	16:39:56	1348.09	Sample	OK	1
1702363-03	B4	1	5.53	9.33		71783-1.RAW	16:44:05	1152.70	Sample	OK	1
1702437-04	B5	1	5.53	0.71		71784-1.RAW	16:48:13	92.59	Sample	OK	1
1702437-05	B6	1	5.53	0.46		71785-1.RAW	16:52:21	62.61	Sample	OK	1
1702437-06	B7	1	5.53	0.14		71786-1.RAW	16:56:30	22.53	Sample	OK	1
1702437-15	B8	1	5.53	7.26		71787-1.RAW	17:00:38	899.02	Sample	OK	1
1702437-16	B9	1	5.53	31.36		71788-1.RAW	17:04:47	3859.33	Sample	OK	1
F702378-DUP1	B10	1	5.53	3.02		71789-1.RAW	17:08:55	376.80	Sample	OK	1
F702378-MS1	B11	1	5.53	11.96	297.53	71790-1.RAW	17:13:04	1475.63	Sample	OK	1
F702378-MSD1	B12	1	5.53	12.93		71791-1.RAW	17:17:12	1594.19	Sample	OK	1
SEQ-CCV8	B13	1	5.53	5.06	101.15	71792-1.RAW	17:21:20	627.14	Sample	OK	1
SEQ-CCB8	B14	1	5.53	0.12	0.00	71793-1.RAW	17:25:29	20.69	Sample	OK	1
F702378-MS2	B15	1	5.53	12.25	576.33	71794-1.RAW	17:29:37	1510.74	Sample	OK	1
F702378-MSD2	B16	1	5.53	12.15		71795-1.RAW	17:33:46	1499.28	Sample	OK	1
SEQ-CCV9	B17	1	5.53	5.20	104.09	71796-1.RAW	17:37:54	645.21	Sample	OK	1
SEQ-CCB9	B18	1	5.53	0.11	0.00	71797-1.RAW	17:42:03	19.39	Sample	OK	1

## ANALYSIS SEQUENCE

7B17014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B17014-IBL1	QC	1			
7B17014-IBL2	QC	2			
7B17014-IBL3	QC	3			
7B17014-CAL1	QC	4	1700737		
7B17014-CAL2	QC	5	1700738		
7B17014-CAL3	QC	6	1700739		
7B17014-CAL4	QC	7	1700740		
7B17014-CAL5	QC	8	1700741		
7B17014-ICV1	QC	9	1700018		
7B17014-CCV1	QC	10	1700018		
7B17014-CCB1	QC	11			
7B17014-CCV2	QC	12	1700018		
7B17014-CCB2	QC	13			
F702366-BLK1	QC	14			
F702366-BLK2	QC	15			
F702366-BLK3	QC	16			
7B17014-LCV1	QC	17	1700737		
7B17014-LCV2	QC	18	1701001		
F702366-BS1	QC	19			
7B17014-CCV3	QC	20	1700018		
7B17014-CCB3	QC	21			
F702366-BSD1	QC	22			
F702366-BS2	QC	23			
F702366-BSD2	QC	24			
1702201-01	Hg-CVAFS-W-1631-PRASA	25			
1702201-02	Hg-CVAFS-W-1631-PRASA	26			
1702201-03	Hg-CVAFS-W-1631-PRASA	27			
1702201-04	Hg-CVAFS-W-1631-PRASA	28			
1702201-05	Hg-CVAFS-W-1631-PRASA	29			
1702201-06	Hg-CVAFS-W-1631-PRASA	30			
7B17014-CCV4	QC	31	1700018		
7B17014-CCB4	QC	32			
1702201-08	Hg-CVAFS-W-1631-PRASA	33			
1702201-09	Hg-CVAFS-W-1631-PRASA	34			
1702201-10	Hg-CVAFS-W-1631-PRASA	35			

Due Date: 3/8/2017

## ANALYSIS SEQUENCE

7B17014

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702201-11	Hg-CVAFS-W-1631-PRASA	36			
1702201-12	Hg-CVAFS-W-1631-PRASA	37			
1702201-01RE1	Hg-CVAFS-W-1631-PRASA	38			Added 2/17/2017 by DM2
1702201-02RE1	Hg-CVAFS-W-1631-PRASA	39			Added 2/17/2017 by DM2
1702201-03RE1	Hg-CVAFS-W-1631-PRASA	40			Added 2/17/2017 by DM2
1702201-06RE1	Hg-CVAFS-W-1631-PRASA	41			Added 2/17/2017 by DM2
F702366-DUP1	QC	42			
7B17014-CCV5	QC	43	1700018		
7B17014-CCB5	QC	44			
F702366-DUP2	QC	45			
F702366-MS1	QC	46			
F702366-MSD1	QC	47			
7B17014-CCV6	QC	48	1700018		
7B17014-CCB6	QC	49			

Dan Moran 2/17/17  
 Samples Loaded By Date

Dan Moran 2/17/17  
 Data Processed By Date

Due Date: 3/8/2017

# Failing Data Report - 7B17014

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702201-01	Hg-CVAFS-W-1631-PRASA	364	0.50				ng/L						FAIL-OVER	PASS	E
1702201-02	Hg-CVAFS-W-1631-PRASA	184	0.50				ng/L						FAIL-OVER	PASS	E
1702201-06	Hg-CVAFS-W-1631-PRASA	101	0.50				ng/L						FAIL-OVER	PASS	E

Den Mason  
 Analyst Reviewed By

2/17/17  
 Date

CLA  
 Peer Reviewed By

2/21/17  
 Date

## ANALYSIS SEQUENCE

7B17013

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B17013-IBL1	QC	1			
7B17013-IBL2	QC	2			
7B17013-IBL3	QC	3			
7B17013-CAL1	QC	4	1700737		
7B17013-CAL2	QC	5	1700738		
7B17013-CAL3	QC	6	1700739		
7B17013-CAL4	QC	7	1700740		
7B17013-CAL5	QC	8	1700741		
7B17013-ICV1	QC	9	1700018		
F701519-BLK4	QC	10			
F701519-BLK5	QC	11			
F701519-BLK6	QC	12			
F701519-BS3	QC	13			
F701519-BS4	QC	14			
1701037-10RE1	Hg-Hg(II)-TRAP A DOD	15			Added 2/17/2017 by DM2
7B17013-CCV1	QC	16	1700018		
7B17013-CCB1	QC	17			

Don Mason 2/17/17  
 Samples Loaded By Date

Don Mason 2/17/17  
 Data Processed By Date

Due Date: 1/31/2017



**Failing Data Report - 7B17013**

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. Mason  
Analyst Reviewed By

2/17/17  
Date

Colto A.  
Peer Reviewed By

2/21/17  
Date

## ANALYSIS SEQUENCE

7B17012

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 2/17/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B17012-IBL1	QC	1			
7B17012-IBL2	QC	2			
7B17012-IBL3	QC	3			
7B17012-CAL1	QC	4	1700737		
7B17012-CAL2	QC	5	1700738		
7B17012-CAL3	QC	6	1700739		
7B17012-CAL4	QC	7	1700740		
7B17012-CAL5	QC	8	1700741		
7B17012-ICV1	QC	9	1700018		
7B17012-CCV1	QC	10	1700018		
7B17012-CCB1	QC	11			
7B17012-CCV2	QC	12	1700018		
7B17012-CCB2	QC	13			
7B17012-CCV3	QC	14	1700018		
7B17012-CCB3	QC	15			
7B17012-CCV4	QC	16	1700018		
7B17012-CCB4	QC	17			
7B17012-CCV5	QC	18	1700018		
7B17012-CCB5	QC	19			
7B17012-CCV6	QC	20	1700018		
7B17012-CCB6	QC	21			
F702378-BLK1	QC	22			
F702378-BLK2	QC	23			
F702378-BLK3	QC	24			
F702378-BS1	QC	25			
F702378-BSD1	QC	26			
1702284-02	Hg-CVAFS-W-1631	27			
1702362-01	Hg-CVAFS-W-1631	28			
1702362-02	Hg-CVAFS-W-1631	29			
1702362-03	Hg-CVAFS-W-1631	30			
1702363-01	Hg-CVAFS-W-1631	31			
7B17012-CCV7	QC	32	1700018		
7B17012-CCB7	QC	33			
1702363-02	Hg-CVAFS-W-1631	34			
1702363-03	Hg-CVAFS-W-1631	35			

Due Date: 2/21/2017



# Failing Data Report - 7B17012

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. Akeem  
Analyst Reviewed By

2/17/17  
Date

Colt  
Peer Reviewed By

2/21/17  
Date

**PREPARATION BENCH SHEET**

F701519

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

**Prepared using: AFS - EFGS-031 FAMS Trap B and C (KCl)**

**Prepared: 2/10/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F701519-BLK1	Blank	1	36					
F701519-BLK2	Blank	1	36					
F701519-BLK3	Blank	1	36					
F701519-BLK4	Blank	1	36					
F701519-BLK5	Blank	1	36					
F701519-BLK6	Blank	1	36					
F701519-BS1	Q1 LOD 2600-2 2017	1	36	1700688	100			
F701519-BS2	Q1 LOQ 2600-2 2017	1	36	1700687	36			
F701519-BS3	Q1 LOD 2600-2 2017	1	36	1700688	100			
F701519-BS4	Q1 LOQ 2600-2 2017	1	36	1700687	36			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1603494	KCl/Quartz Material for FAMS Traps	30-Jun-18 00:00
1700688	THg 1ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700818	5% BrCl	15-Jul-17 00:00

**PREPARATION BENCH SHEET**

**F701519**

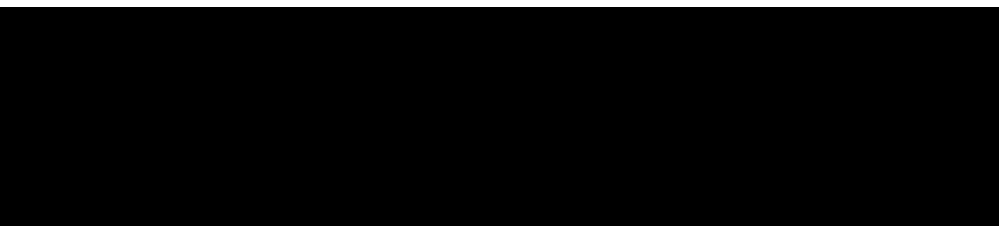
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

**Prepared using: AFS - EFGS-031 FAMS Trap B and C (KCl)**

**Prepared: 2/10/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701037-10	Q1 LOD/LOQ 2600-2	1	36	-	-	-	Spike at specified level	
1701037-10RE1	Q1 LOD/LOQ 2600-2	1	36	-	-	-	Added 2/17/2017 by DM2	Added 2/17/2017 by DM2



**PREPARATION BENCH SHEET**

F702366

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702366-BLK1	Blank	100	101					
F702366-BLK2	Blank	100	101					
F702366-BLK3	Blank	100	101					
F702366-BS1	LCS	50	50.5	1604715	100			
F702366-BS2	LCS	50	50.5	1604715	100			2% NACL
F702366-BSD1	LCS Dup	50	50.5	1604715	100			
F702366-BSD2	LCS Dup	50	50.5	1604715	100			2% NACL
F702366-DUP1	Duplicate [1702201-03RE1]	100	101					
F702366-DUP2	Duplicate [1702201-10]	100	101					
F702366-MS1	Matrix Spike [1702201-08]	4.950495	5	1700687	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 5mL
F702366-MSD1	Matrix Spike Dup [1702201-08]	4.950495	5	1700687	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	1504687	Sodium Chloride, Biological Grade, Certified	23-Jul-18 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702366

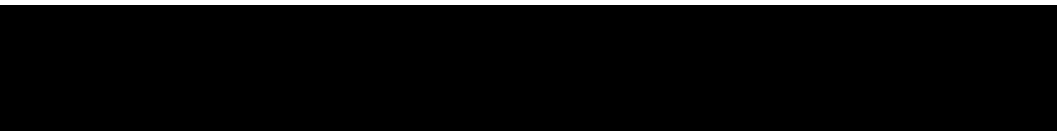
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702201-01	HTP001 INFLUENT-HAT	100	101	-	-	-		
1702201-01RE1	HTP001 INFLUENT-HAT	100	101	-	-	-	Added 2/17/2017 by DM2	Added 2/17/2017 by DM2
1702201-02	HTP002FD1 INFLUENT-HAT	100	101	-	-	-		
1702201-02RE1	HTP002FD1 INFLUENT-HAT	100	101	-	-	-	Added 2/17/2017 by DM2	Added 2/17/2017 by DM2
1702201-03	HTP003 EFFLUENT-HAT	100	101	-	-	-		
1702201-03RE1	HTP003 EFFLUENT-HAT	100	101	-	-	-	Added 2/17/2017 by DM2	Added 2/17/2017 by DM2
1702201-04	HTP016AB1 FIELDQC	100	101	-	-	-		
1702201-05	HTP018EB1 FIELDQC	100	101	-	-	-		
1702201-06	HTD001 DOMESTIC-HAT	100	101	-	-	-		
1702201-06RE1	HTD001 DOMESTIC-HAT	100	101	-	-	-	Added 2/17/2017 by DM2	Added 2/17/2017 by DM2
1702201-08	ABP001 INFLUENT-AB	100	101	-	-	-		
1702201-09	ABP002FD1 INFLUENT-AB	100	101	-	-	-		
1702201-10	ABP003 EFFLUENT-AB	100	101	-	-	-		
1702201-11	ABP016AB1 FIELDQC	100	101	-	-	-		
1702201-12	ABP018EB1 FIELDQC	100	101	-	-	-		





**PREPARATION BENCH SHEET**

F702378

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702378-BLK1	Blank	100	101					
F702378-BLK2	Blank	100	101					
F702378-BLK3	Blank	100	101					
F702378-BS1	LCS	50	50.5	1604715	100			
F702378-BSD1	LCS Dup	50	50.5	1604715	100			
F702378-DUPI	Duplicate [1702362-02]	100	101					
F702378-MS1	Matrix Spike [1702362-02]	49.50495	50	1700687	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702378-MS2	Matrix Spike [1702362-03]	49.50495	50	1700687	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702378-MSD1	Matrix Spike Dup [1702362-02]	49.50495	50	1700687	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F702378-MSD2	Matrix Spike Dup [1702362-03]	49.50495	50	1700687	50			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1700687	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-17 00:00
01-May-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
1700308	THg Dilute 1% BrCl	28-May-17 00:00
1700309	THg Washstation (0.5% BrCl)	
1700771	3% SnCl2 THg reductant	23-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702378

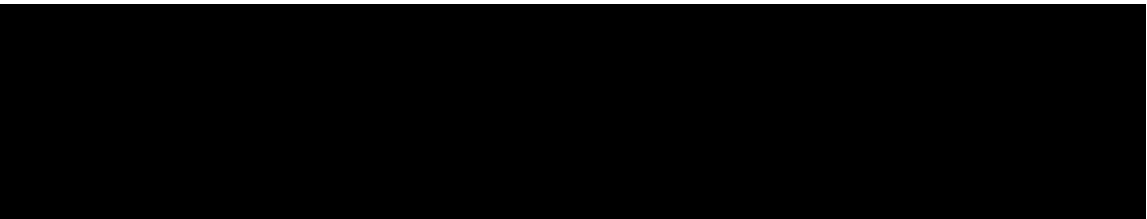
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702284-02	EB_Knife_020517_ABD_E05_QC	100	101	-	-	-		
1702362-01	Russelville WWTP Field Blank	100	101	-	-	-		
1702362-02	Russelville WWTP Effluent	100	101	-	-	-		
1702362-03	Russelville WWTP Duplicate	100	101	-	-	-		
1702363-01	Huntsville WWTP Field Blank	100	101	-	-	-		
1702363-02	Huntsville WWTP Influent	100	101	-	-	-		
1702363-03	Huntsville WWTP Duplicate	100	101	-	-	-		
1702437-04	EB_LDI_020817_SED_PROCESS_01_ULIQ_QC	100	101	-	-	-	PROCESS_1_02082017_ULIQ - RUS	
1702437-05	EB_LDI_020817_SED_PROCESS_01_FLIQ_QC - Dissolved	100	101	-	-	-	PROCESS_1_02082017_FLIQ Dissolv	
1702437-06	EB_LDI_020817_SED_PROCESS_MIX_01_QC	100	101	-	-	-	PROCESS_1_02082017_MIX - RUSH	
1702437-15	BU50THRU52_SIEVE_02102017_FLIQ - Dissolved	100	101	-	-	-	BU50THRU62_SIEVE_02102017_FLI	
1702437-16	BU50THRU52_SIEVE_02102017_ULIQ	100	101	-	-	-	BU50THRU62_SIEVE_02102017_UL	



**PREPARATION BENCH SHEET**

2600-2  
2/17/17 DM

F701519

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

**Prepared using: AFS - EFGS-031 FAMS Trap B and C (KCl)**

**Prepared: 2/10/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F701519-BLK1	Blank	1	36					
F701519-BLK2	Blank	1	36					
F701519-BLK3	Blank	1	36					
F701519-BLK4	Blank	1	36					20X
F701519-BLK5	Blank	1	36					20X
F701519-BLK6	Blank	1	36					20X
F701519-BS1	Q1 LOD 2600-2 2017	1	36	1700688	100			
F701519-BS2	Q1 LOQ 2600-2 2017	1	36	1700687	36			
F701519-BS3	Q1 LOD 2600-2 2017	1	36	1700688	100			20X
F701519-BS4	Q1 LOQ 2600-2 2017	1	36	1700687	36			20X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1603494	KCl/Quartz Material for FAMS Traps	30-Jun-18 00:00
1700688	THg 1ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700818	5% BrCl	15-Jul-17 00:00

PREPARATION BENCH SHEET

2600-2

2/17/17 DM

F701519

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

Prepared using: AFS - EFGS-031 FAMS Trap B and C (KCl)

Prepared: 2/10/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701037-10	Q1 LOD/LOQ 2600-2	1	36	-	-	-	Spike at specified level	
1701037-10RE1	Q1 LOD/LOQ 2600-2	1	36	-	-	-	Added 2/17/2017 by DM2	Added 2/17/2017 by DM2 20X





PREPARATION BENCH SHEET

2600-2

2/17/17 DM

F702366

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

FRASA

Prepared: 2/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702366-BLK1	Blank	100	101					IX
F702366-BLK2	Blank	100	101					IX
F702366-BLK3	Blank	100	101					IX
F702366-BS1	LCS	<del>50</del> 100	<del>50.5</del> 101	1604715	100			IX
F702366-BSD1	LCS Dup	<del>50</del> 100	<del>50.5</del> 101	1604715	100			IX
F702366-DUP1	Duplicate 1702201-03 RE1	100	101					IX
F702366-DUP2	Duplicate 1702201-10	100	101					IX
F702366-MS1	Matrix Spike 1702201-08	100	101	1700687	100			10X
F702366-MSD1	Matrix Spike Dup 1702201-08	100	101	1700687	100			10X

Standard ID(s): Description:

Expiration:

BS2, BSD2 - 2% NaCl

Seq - LCV1 - CAL 1

Seq - LCV2 - 1/2 CAL 1

1700306

1700308

1700309

1604934

1700771

1504687

PREPARATION BENCH SHEET

2600-2

F702366

2/17/17 DM

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 2/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702201-01	HTP001 INFLUENT-HAT	100	101	-	-	-		IX → 50X
1702201-02	HTP002FD1 INFLUENT-HAT	100	101	-	-	-		IX → 10X
1702201-03	HTP003 EFFLUENT-HAT	100	101	-	-	-		IX → IX
1702201-04	HTP016AB1 FIELDQC	100	101	-	-	-		IX
1702201-05	HTP018EB1 FIELDQC	100	101	-	-	-		IX
1702201-06	HTD001 DOMESTIC-HAT	100	101	-	-	-		IX → 10X
<del>1702201-07</del>	ABD001 DOMESTIC-AB	100	101	-	-	-		NOT PRESERVED
1702201-08	ABP001 INFLUENT-AB	100	101	-	-	-		10X
1702201-09	ABP002FD1 INFLUENT-AB	100	101	-	-	-		10X
1702201-10	ABP003 EFFLUENT-AB	100	101	-	-	-		IX
1702201-11	ABP016AB1 FIELDQC	100	101	-	-	-		IX
1702201-12	ABP018EB1 FIELDQC	100	101	-	-	-		IX

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: BGW Date: 2/8/17 Time Completed: 1550

Work Orders: 1702245  
1702199, 1702200, 1702198, 1702201

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

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

BrCl LIMS ID: 17003060  
 Pipette SN: MU3229  
 Cal. Date: 2/3/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702245-01A	300	3.00	Y			
1702245-03A	300	3.00	Y			
1702245-02A	300	3.00	Y			
1702245-04A	300	3.00	Y			
1702245-06A	300	3.00	Y			
1702245-05B	10	10	Y			
1702199-01A	600	6.00	Y			
1702199-02A	600	6.00	Y			
1702200-01A	300	3.00	Y			
1702200-02A	300	3.00	Y			
1702200-03A / 1702199-03A	300	3.00	Y			
1702198-03A	300	3.00	Y			
1702198-01A	300	3.00	Y			
1702198-02A	300	3.00	Y			
1702201-11A	300	3.00	Y			
1702201-12A	300	3.00	Y			
1702201-04A	300	3.00	Y			
1702201-10A	300	3.00	Y			
1702201-06A	300	3.00	Y			
1702201-05A	300	3.00	Y			
1702201-03A	300	3.00	Y			
1702201-07A	300	3.00	Y			
1702201-09A	300	3.00	Y			
1702201-08A	300	3.00	Y			
1702201-01A	300	3.00	Y			
1702201-02A	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: \_\_\_\_\_

Reviewed  
 2/14/17 DM



PREPARATION BENCH SHEET

2600-2  
2/17/17 DM

F702378

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 2/17/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702378-BLK1	Blank	100	101					IX
F702378-BLK2	Blank	100	101					IX
F702378-BLK3	Blank	100	101					IX
F702378-BS1	LCS	50 <del>100</del>	50.5 <del>101</del>	164715	100			IX
F702378-BSD1	LCS Dup	50 <del>100</del>	50.5 <del>101</del>	164715	100			IX
F702378-DUP1	Duplicate 1702362-02	100	101					IX
F702378-MS1	Matrix Spike 1702362-02	100	101	1700687	50			IX
F702378-MS2	Matrix Spike 1702362-03	100	101	1700687	50			IX
F702378-MSD1	Matrix Spike Dup 1702362-02	100	101	1700687	50			IX
F702378-MSD2	Matrix Spike Dup 1702362-03	100	101	1700687	50			IX

Standard ID(s):      Description:      Expiration:

1700306  
1700308  
1700309  
160434  
1700771

PREPARATION BENCH SHEET

F702378

Eurofins Frontier Global Sciences, Inc.

2600-2  
2/17/17 DM

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 2/17/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702284-02	EB_Knife_020517_ABD_E05_QC	100	101	-	-	-		IX
1702362-01	Russelville WWTP Field Blank	100	101	-	-	-		IX
1702362-02	Russelville WWTP Effluent	100	101	-	-	-		IX
1702362-03	Russelville WWTP Duplicate	100	101	-	-	-		IX
1702363-01	Huntsville WWTP Field Blank	100	101	-	-	-		IX
1702363-02	Huntsville WWTP Influent	100	101	-	-	-		IX
1702363-03	Huntsville WWTP Duplicate	100	101	-	-	-		IX
1702437-04	EB_LDI_020817_SED_PROCESS_01_ULIQ_QC	100	101	-	-	-	PROCESS_1_02082017_ULIQ - RUS	IX
1702437-05	EB_LDI_020817_SED_PROCESS_01_FLIQ_QC - Dissolved	100	101	-	-	-	PROCESS_1_02082017_FLIQ Dissolv	IX
1702437-06	EB_LDI_020817_SED_PROCESS_MIX_01_QC	100	101	-	-	-	PROCESS_1_02082017_MIX - RUSH	IX
1702437-15	BU50THRU52_SIEVE_02102017_FLIQ - Dissolved	100	101	-	-	-	BU50THRU62_SIEVE_02102017_FLI	IX
1702437-16	BU50THRU52_SIEVE_02102017_ULIQ	100	101	-	-	-	BU50THRU62_SIEVE_02102017_UL	IX



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CMB Date: 2/16/17 Time Completed: 1400

2/16/17  
cont

Work Orders: 1702405, 1702366, 1702435, 1702406, 1702437

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

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

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

BrCl LIMS ID: 1700306

Pipette SN: MU32229

Cal. Date: 2/15/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702405-16A	300	3.00	Y			
1702405-17A	300	3.00	Y			
1702405-18A	300	3.00	Y			
1702405-19A	290	2.90	Y			
1702405-20A	300	3.00	Y			
1702405-21A	300	3.00	Y			
1702405-22A	300	3.00	Y			
1702405-23A	250	2.50	Y			
1702366-02A	300	3.00	Y			
1702366-04A	300	3.00	Y			
1702366-06A	300	3.00	Y			
1702366-08A	300	3.00	Y			
1702366-10A	300	3.00	Y			
1702366-12A	300	3.00	Y			
1702435-01A	600	6.00	Y			
1702406-01B	300	3.00	Y			
1702406-02B	300	3.00	Y			
1702406-03B	290	2.90	Y			
1702437-01B	300	3.00	Y			
1702437-02A	300	3.00	Y			
1702437-03A	300	3.00	Y			
1702437-04B	300	3.00	Y			
1702437-05A	250	2.50	Y			
1702437-06A	300	3.00	Y			
1702437-07A	250	2.50	Y			
1702437-08A	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: \_\_\_\_\_

# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: CML Date: 2/16/17 Time Completed: 1325

Work Orders: 1702247, 1702280,  
1702284, 1702362, 1702363, 1702405

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

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

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

BrCl LIMS ID: 1700306

Pipette SN: M432229

Cal. Date: 2/15/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702247-06A	300	3.00	Y			
1702280-03A	250	2.50	Y			
1702284-02A	300	3.00	Y			
1702362-01A	300	3.00	Y			
1702362-02A	300	3.00	Y			
1702362-03A	300	3.00	Y			
1702363-01A	600	6.00	Y			
1702363-02A	600	6.00	Y			
1702363-03A	600	6.00	Y			
1702405-01A	300	3.00	Y			
1702405-02A	300	3.00	Y			
1702405-03A	300	3.00	Y			
1702405-04A	300	3.00	Y			
1702405-05A	300	3.00	Y			
1702405-06A	300	3.00	Y			
1702405-07A	300	3.00	Y			
1702405-07D	300	3.00	Y			
1702405-07G	300	3.00	Y			
1702405-08A	300	3.00	Y			
1702405-09A	300	3.00	Y			
1702405-10A	300	3.00	Y			
1702405-11A	290	2.90	Y			
1702405-12A	300	3.00	Y			
1702405-13A	300	3.00	Y			
1702405-14A	300	3.00	Y			
1702405-15A	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: \_\_\_\_\_

Reviewed  
47 of 110  
2/17/17 DM

**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>7B17014, 7B17013, 7B17012</u>
Reviewer: _____	Dataset ID(s): <u>THG26002-170217-1</u>
Date: <u>2/17/2017</u>	WO (s) #: <u>VARIOUS</u>
Batch #(s): <u>F702378, F702366, F701519</u>	

• Select the correct preparation method.

Analyte	Prep Method	Matrix
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2885	FSTM Trap 70:30 Digest Air/Gas
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2807	Modified Cold Aqua Regia Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2821	Shared Bomb- HF/HNO3/HCl Digest Sed/Soil
<input type="checkbox"/> THg	EFTM-T-TM-SOP2825	Nitric Acid Oven Bomb Sed/Soil
<input type="checkbox"/> THg	EFAFS-T-AFS-SOP2795	70:30 Digest Tissue
<input checked="" 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: C.Bo

- |   |   |                                     |
|---|---|-------------------------------------|
| 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 type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (d) Check and compare masses (review prep benchsheet)   | <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (e) Check & compare initial & final volumes   | <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> |
| (f) Do aliquots and dilutions written on benchsheet match those in Excel?<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 type="checkbox"/> YES <input type="checkbox"/> NO                              | <input checked="" type="checkbox"/> |
| (h) Is the analysis status correct? (analyzed/initial review/reviewed)  | <input type="checkbox"/> YES <input type="checkbox"/> NO                              | <input checked="" type="checkbox"/> |
| (i) Original prep bench sheet added to data package?  | <input type="checkbox"/> YES <input type="checkbox"/> NO                              | <input checked="" type="checkbox"/> |
| (j) Benchsheet prep date MUST match actual prep date (check if re-shot vs re-extract)   | <input type="checkbox"/> YES <input type="checkbox"/> NO                              | <input checked="" type="checkbox"/> |
| 3. High QA?      WO#(s)/Client(s): _____  | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO                   | <input checked="" type="checkbox"/> |
| 4. Client specific QC? (if Yes, refer to Project Notes/LIMS)  | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                   | <input checked="" type="checkbox"/> |
| (a) Have the QC requirements been met for all WO#s?   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                   | <input checked="" type="checkbox"/> |
| (b) Prep blanks corrections/assigned properly   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                   | <input checked="" type="checkbox"/> |
| 5a. 20 or fewer samples in batch?   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                   | <input checked="" type="checkbox"/> |
| (i) 3 PBs, 1 LCS(or BS), 1 LCSD(or BSD), 1 DUP/Batch 1 MS/MSD (or AS/ASD)/10 samples?   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                   | <input checked="" type="checkbox"/> |
| (ii) 1 CCV and 1 CCB every 10 analytical runs?  | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO                   | <input checked="" type="checkbox"/> |

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

<b>Analyst:</b>	<u>DON MORAN</u>	<b>Sequence(s) #:</b>	<u>7B17014, 7B17013, 7B17012</u>
<b>Reviewer:</b>	<u>0</u>	<b>Dataset ID(s):</b>	<u>THG26002-170217-1</u>
<b>Date:</b>	<u>2/17/2017</u>	<b>WO (s) #:</b>	<u>VARIOUS</u>
<b>Batch #(s):</b>	<u>F702378, F702366, F701519</u>		<u>0</u>

Analyst Initials DM Reviewer Initials CM

- 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: E
12. Explain any items on the failed data report from Element
- Comments: 1702201-01, 02, 06 HIGH SAMPLES. ABOVE CAL5
13. Are the individual Preparation Blanks < PQL or <2.2xMDL for WI (refer to appropriate prep method PQL list)  PASS  FAIL
- (a) If not < PQL or <2.2xMDL for WI, note which PB(s) are above control limit: \_\_\_\_\_
- (b) Is the mean PB < PQL or <2.2xMDL for WI (for appropriate qualification)?  YES  NO
- (c) Was a BrCl Blank analyzed for each preservation level?  YES  NO  N/A
- (d) Are Preparation Blanks summarized on QC page?  YES  NO
14. Filtration Blank Prepared (if yes, use FB qualifier)  YES  NO
- (a) Filtration Blank prep date same as associated samples' prep date  YES  NO  N/A
- (b) Filtration Blank absolute value < PQL or <2.2xMDL for WI  YES  NO  N/A
15. IBLs (3 minimum) individually < 0.50 ng/L, mean < 0.25 ng/L and STD of 0.10 ng/L?  PASS  FAIL
- Comments: \_\_\_\_\_
16. CCBs individually < 0.50 ng/L or 2.2 x MDL for WI?  PASS  FAIL
- Comments: \_\_\_\_\_
17. Have Total Solids been applied? (If NO, please ensure that they are done or nearly done)  YES  NO  N/A
18. Is the correct 'Source' designated for MD/MS/MSD?  YES  NO
19. For digested preps: was there a spike witness signature & date on the prep bench sheet?  YES  NO  N/A

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

Analyst:	DON MORAN	Sequence(s) #:	7B17014, 7B17013, 7B17012
Reviewer:	0	Dataset ID(s):	THG26002-170217-1
Date:	2/17/2017	WO (s) #:	VARIOUS
Batch #(s):	F702378, F702366, F701519		0

Analyst Initials DM                      Reviewer Initials \_\_\_\_\_

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   |   |
| 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 checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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: _____ 12/15/16, 1/18/16 _____ 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: _____ 5/20/2016 _____ Current SOP revision read? | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 38. Date of LOD: _____ 12/29/16, 12/15/16 _____ LOD within last 3 months?                      | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____ 12/29/16, 12/15/16 _____ LOQ within last 3 months?                      | <input type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |

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







Frontier Global Sciences

THg26003-170221-1

Analysis Datasheet for Total Mercury

Date of Analysis: February 21, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7B22007, 7B22008

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	81.99 units	163.97	76.94 units	153.87	104.2 %Rec
SEQ-CAL2	1	1.00 ng/L	146.26 units	146.26	141.21 units	141.21	95.6 %Rec
SEQ-CAL3	1	5.00 ng/L	753.59 units	150.72	748.54 units	149.71	101.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2927.92 units	146.40	2922.87 units	146.14	99.0 %Rec
SEQ-CAL5	1	40.00 ng/L	5901.49 units	147.54	5896.44 units	147.41	99.8 %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**  
 147.67            +/- 4.66            3.2% RSD            150.98

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	5.05 units	±1.41	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.176 ng/L	±0.073
BLK	2	3	1.635 ng/L	±0.177
BLK	3	3	12.162 ng/L	±2.448
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURED  
 PEER-REVIEWED  
 INITIALS: *CMK* 2/24/17  
                   *A* 3/1/17

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	2/21/2017 8:26:36	61304-1.RAW	8:26:36 AM	6.19			1.1	0.008	0.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/21/2017 8:30:44	61305-1.RAW	8:30:44 AM	5.49			0.4	0.003	0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/21/2017 8:34:53	61306-1.RAW	8:34:53 AM	3.47			-1.6	-0.011	-0.011	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	2/21/2017 8:39:01	61307-1.RAW	8:39:01 AM	81.99			76.9	0.521	0.521	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/21/2017 8:43:09	61308-1.RAW	8:43:09 AM	146.26			141.2	0.956	0.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/21/2017 8:47:18	61309-1.RAW	8:47:18 AM	753.59			748.5	5.069	5.069	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/21/2017 8:51:26	61310-1.RAW	8:51:26 AM	2927.92			2922.9	19.793	19.793	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/21/2017 8:55:35	61311-1.RAW	8:55:35 AM	5901.49			5896.4	39.930	39.930	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/21/2017 8:59:43	61312-1.RAW	8:59:43 AM	752.56			747.5	5.062	5.062	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK1	20	2/21/2017 9:03:52	61313-1.RAW	9:03:52 AM	14.02	1		9.0	0.061	1.214	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK2	20	2/21/2017 9:08:00	61314-1.RAW	9:08:00 AM	14.08	1		9.0	0.061	1.223	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK3	20	2/21/2017 9:12:08	61315-1.RAW	9:12:08 AM	13.11	1		8.1	0.055	1.092	ng/L	
Hg2600-3	DM2	SAM	F702348-BS1	20	2/21/2017 9:16:17	61316-1.RAW	9:16:17 AM	727.50	1		722.4	4.834	96.670	ng/L	
Hg2600-3	DM2	SAM	F702348-BSD1	20	2/21/2017 9:20:25	61317-1.RAW	9:20:25 AM	728.71	1		723.7	4.842	96.834	ng/L	
Hg2600-3	DM2	SAM	F702348-BS2	400	2/21/2017 9:24:34	61318-1.RAW	9:24:34 AM	764.12	1		759.1	5.137	2054.950	ng/L	
Hg2600-3	DM2	SAM	1702050-01	100	2/21/2017 9:28:42	61319-1.RAW	9:28:42 AM	678.28	1		673.2	4.547	454.731	ng/L	
Hg2600-3	DM2	SAM	1702050-02	100	2/21/2017 9:32:50	61320-1.RAW	9:32:50 AM	2338.74	1		2333.7	15.792	1579.177	ng/L	
Hg2600-3	DM2	SAM	1702050-03	100	2/21/2017 9:36:59	61321-1.RAW	9:36:59 AM	7610.93	1		7605.9	51.495	5149.451	ng/L	
Hg2600-3	DM2	SAM	1702050-04	100	2/21/2017 9:41:07	61322-1.RAW	9:41:07 AM	2536.43	1		2531.4	17.130	1713.048	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/21/2017 9:45:16	61323-1.RAW	9:45:16 AM	756.66			751.6	5.090	5.090	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/21/2017 9:49:24	61324-1.RAW	9:49:24 AM	14.58			9.5	0.065	0.065	ng/L	
Hg2600-3	DM2	SAM	1702050-05	400	2/21/2017 9:53:33	61325-1.RAW	9:53:33 AM	639.06	1		634.0	4.291	1716.215	ng/L	
Hg2600-3	DM2	SAM	1702050-06	400	2/21/2017 9:57:41	61326-1.RAW	9:57:41 AM	2264.12	1		2259.1	15.295	6118.099	ng/L	
Hg2600-3	DM2	SAM	1702050-07	400	2/21/2017 10:01:49	61327-1.RAW	10:01:49 AM	505.11	1		500.1	3.383	1353.360	ng/L	
Hg2600-3	DM2	SAM	1702050-08	400	2/21/2017 10:05:58	61328-1.RAW	10:05:58 AM	918.44	1		913.4	6.182	2472.973	ng/L	
Hg2600-3	DM2	SAM	1702050-09	400	2/21/2017 10:10:06	61329-1.RAW	10:10:06 AM	151.56	1		146.5	0.989	395.692	ng/L	
Hg2600-3	DM2	SAM	1702050-10	400	2/21/2017 10:14:15	61330-1.RAW	10:14:15 AM	1046.05	1		1041.0	7.047	2818.643	ng/L	
Hg2600-3	DM2	SAM	1702050-11	400	2/21/2017 10:18:23	61331-1.RAW	10:18:23 AM	633.70	1		628.6	4.254	1701.681	ng/L	
Hg2600-3	DM2	SAM	1702050-12	400	2/21/2017 10:22:31	61332-1.RAW	10:22:31 AM	1627.17	1		1622.1	10.982	4392.747	ng/L	
Hg2600-3	DM2	SAM	1702050-13	400	2/21/2017 10:26:40	61333-1.RAW	10:26:40 AM	1181.23	1		1176.2	7.962	3184.806	ng/L	
Hg2600-3	DM2	SAM	1702050-14	400	2/21/2017 10:30:48	61334-1.RAW	10:30:48 AM	1890.11	1		1885.1	12.763	5105.007	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/21/2017 10:34:57	61335-1.RAW	10:34:57 AM	756.15			751.1	5.086	5.086	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/21/2017 10:39:05	61336-1.RAW	10:39:05 AM	11.20			6.1	0.042	0.042	ng/L	
Hg2600-3	DM2	SAM	1702050-15	400	2/21/2017 10:43:14	61337-1.RAW	10:43:14 AM	1392.92	1		1387.9	9.396	3758.238	ng/L	
Hg2600-3	DM2	SAM	1702050-16	400	2/21/2017 10:47:22	61338-1.RAW	10:47:22 AM	132.10	1		127.1	0.857	342.978	ng/L	
Hg2600-3	DM2	SAM	1702050-17	400	2/21/2017 10:51:30	61339-1.RAW	10:51:30 AM	168.73	1		163.7	1.105	442.184	ng/L	
Hg2600-3	DM2	SAM	1702050-18	400	2/21/2017 10:55:39	61340-1.RAW	10:55:39 AM	85.96	1		80.9	0.545	217.974	ng/L	
Hg2600-3	DM2	SAM	1702050-19	400	2/21/2017 10:59:47	61341-1.RAW	10:59:47 AM	381.32	1		376.3	2.545	1018.042	ng/L	
Hg2600-3	DM2	SAM	1702168-01	400	2/21/2017 11:03:56	61342-1.RAW	11:03:56 AM	1737.78	1		1732.7	11.731	4692.366	ng/L	
Hg2600-3	DM2	SAM	1702050-03RE1	400	2/21/2017 11:08:04	61343-1.RAW	11:08:04 AM	1914.44	1		1909.4	12.927	5170.889	ng/L	
Hg2600-3	DM2	SAM	1702050-04RE1	100	2/21/2017 11:12:12	61344-1.RAW	11:12:12 AM	2532.04	1		2527.0	17.101	1710.073	ng/L	
Hg2600-3	DM2	SAM	1702050-09RE1	100	2/21/2017 11:16:21	61345-1.RAW	11:16:21 AM	567.16	1		562.1	3.795	379.477	ng/L	
Hg2600-3	DM2	SAM	F702348-DUP1	400	2/21/2017 11:20:29	61346-1.RAW	11:20:29 AM	1867.94	1		1862.9	12.612	5044.937	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/21/2017 11:24:38	61347-1.RAW	11:24:38 AM	750.19			745.1	5.046	5.046	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/21/2017 11:28:46	61348-1.RAW	11:28:46 AM	13.47			8.4	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F702348-MS1	2500	2/21/2017 11:32:55	61349-1.RAW	11:32:55 AM	3045.80	1		3040.8	20.591	51478.000	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD1	2500	2/21/2017 11:37:03	61350-1.RAW	11:37:03 AM	2993.87	1		2988.8	20.239	50598.744	ng/L	
Hg2600-3	DM2	SAM	F702348-MS2	2500	2/21/2017 11:41:11	61351-1.RAW	11:41:11 AM	3086.12	1		3081.1	20.864	52160.563	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD2	2500	2/21/2017 11:45:20	61352-1.RAW	11:45:20 AM	3145.64	1		3140.6	21.267	53168.269	ng/L	
Hg2600-3	DM2	SAM	1702050-16RE1	100	2/21/2017 11:49:28	61353-1.RAW	11:49:28 AM	512.19	1		507.1	3.423	342.255	ng/L	
Hg2600-3	DM2	SAM	1702050-17RE1	100	2/21/2017 11:53:37	61354-1.RAW	11:53:37 AM	663.15	1		658.1	4.445	444.481	ng/L	
Hg2600-3	DM2	SAM	1702050-18RE1	100	2/21/2017 11:57:45	61355-1.RAW	11:57:45 AM	307.40	1		302.3	2.036	203.572	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK1	20	2/21/2017 12:01:53	61356-1.RAW	12:01:53 PM	16.47	2		11.4	0.077	1.547	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK2	20	2/21/2017 12:06:02	61357-1.RAW	12:06:02 PM	18.63	2		13.6	0.092	1.839	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK3	20	2/21/2017 12:10:10	61358-1.RAW	12:10:10 PM	16.26	2		11.2	0.076	1.518	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	2/21/2017 12:14:19	61359-1.RAW	12:14:19 PM	761.16			756.1	5.120	5.120	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/21/2017 12:18:27	61360-1.RAW	12:18:27 PM	15.28			10.2	0.069	0.069	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	*F702349-BLK4	20	2/21/2017 12:22:36	61361-1.RAW	12:22:36 PM	16.45	2		11.4	-0.005	-0.091	ng/L	
Hg2600-3	DM2	SAM	*F702349-BLK5	20	2/21/2017 12:26:44	61362-1.RAW	12:26:44 PM	14.61	2		9.6	-0.017	-0.340	ng/L	
Hg2600-3	DM2	SAM	F702349-BS1	20	2/21/2017 12:30:52	61363-1.RAW	12:30:52 PM	733.23	2		728.2	4.849	96.989	ng/L	
Hg2600-3	DM2	SAM	F702349-BSD1	20	2/21/2017 12:35:01	61364-1.RAW	12:35:01 PM	743.04	2		738.0	4.916	98.317	ng/L	
Hg2600-3	DM2	SAM	F702349-BS2	400	2/21/2017 12:39:09	61365-1.RAW	12:39:09 PM	773.32	2		768.3	5.199	2079.412	ng/L	
Hg2600-3	DM2	SAM	1702050-20	400	2/21/2017 12:43:18	61366-1.RAW	12:43:18 PM	243.99	2		238.9	1.614	645.567	ng/L	
Hg2600-3	DM2	SAM	1702050-21	400	2/21/2017 12:47:26	61367-1.RAW	12:47:26 PM	43.76	2		38.7	0.258	103.218	ng/L	
Hg2600-3	DM2	SAM	1702050-22	400	2/21/2017 12:51:34	61368-1.RAW	12:51:34 PM	130.64	2		125.6	0.846	338.562	ng/L	
Hg2600-3	DM2	SAM	1702050-23	400	2/21/2017 12:55:43	61369-1.RAW	12:55:43 PM	192.04	2		187.0	1.262	504.867	ng/L	
Hg2600-3	DM2	SAM	1702050-24	400	2/21/2017 12:59:51	61370-1.RAW	12:59:51 PM	197.98	2		192.9	1.302	520.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/21/2017 13:04:00	61371-1.RAW	1:04:00 PM	774.4704421			769.4	5.210	5.210	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/21/2017 13:08:08	61372-1.RAW	1:08:08 PM	10.74			5.7	0.039	0.039	ng/L	
Hg2600-3	DM2	SAM	1702050-25	400	2/21/2017 13:12:17	61373-1.RAW	1:12:17 PM	258.42	2		253.4	1.712	684.678	ng/L	
Hg2600-3	DM2	SAM	1702050-26	400	2/21/2017 13:16:25	61374-1.RAW	1:16:25 PM	636.26	2		631.2	4.270	1708.150	ng/L	
Hg2600-3	DM2	SAM	1702050-27	400	2/21/2017 13:20:33	61375-1.RAW	1:20:33 PM	1124.78	2		1119.7	7.579	3031.438	ng/L	
Hg2600-3	DM2	SAM	1702050-28	400	2/21/2017 13:24:42	61376-1.RAW	1:24:42 PM	698.55	2		693.5	4.692	1876.893	ng/L	
Hg2600-3	DM2	SAM	1702050-29	400	2/21/2017 13:28:50	61377-1.RAW	1:28:50 PM	1040.95	2		1035.9	7.011	2804.374	ng/L	
Hg2600-3	DM2	SAM	1702284-01	400	2/21/2017 13:32:59	61378-1.RAW	1:32:59 PM	2318.99	2		2313.9	15.666	6266.267	ng/L	
Hg2600-3	DM2	SAM	1702285-02	400	2/21/2017 13:37:07	61379-1.RAW	1:37:07 PM	148.08	2		143.0	0.964	385.786	ng/L	
Hg2600-3	DM2	SAM	1702285-03	400	2/21/2017 13:41:16	61380-1.RAW	1:41:16 PM	88.53	2		83.5	0.561	224.493	ng/L	
Hg2600-3	DM2	SAM	1702285-04	400	2/21/2017 13:45:24	61381-1.RAW	1:45:24 PM	429.79	2		424.7	2.872	1148.882	ng/L	
Hg2600-3	DM2	SAM	1702285-05	400	2/21/2017 13:49:32	61382-1.RAW	1:49:32 PM	152.66	2		147.6	0.995	398.194	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/21/2017 13:53:41	61383-1.RAW	1:53:41 PM	745.67			740.6	5.015	5.015	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/21/2017 13:57:49	61384-1.RAW	1:57:49 PM	14.54			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702285-06	400	2/21/2017 14:01:58	61385-1.RAW	2:01:58 PM	996.54	2		991.5	6.710	2684.081	ng/L	
Hg2600-3	DM2	SAM	1702285-07	400	2/21/2017 14:06:06	61386-1.RAW	2:06:06 PM	1844.40	2		1839.4	12.452	4980.730	ng/L	
Hg2600-3	DM2	SAM	1702285-08	400	2/21/2017 14:10:14	61387-1.RAW	2:10:14 PM	548.04	2		543.0	3.673	1469.180	ng/L	
Hg2600-3	DM2	SAM	1702285-09	400	2/21/2017 14:14:23	61388-1.RAW	2:14:23 PM	1253.40	2		1248.3	8.450	3379.843	ng/L	
Hg2600-3	DM2	SAM	1702285-10	400	2/21/2017 14:18:31	61389-1.RAW	2:18:31 PM	803.56	2		798.5	5.403	2161.343	ng/L	
Hg2600-3	DM2	SAM	1702050-21RE1	50	2/21/2017 14:22:40	61390-1.RAW	2:22:40 PM	272.27	2		267.2	1.777	88.844	ng/L	
Hg2600-3	DM2	SAM	1702050-22RE1	100	2/21/2017 14:26:48	61391-1.RAW	2:26:48 PM	494.75	2		489.7	3.300	329.988	ng/L	
Hg2600-3	DM2	SAM	F702349-DUP1	400	2/21/2017 14:30:57	61392-1.RAW	2:30:57 PM	2265.59	2		2260.5	15.304	6121.632	ng/L	
Hg2600-3	DM2	SAM	F702349-MS1	2500	2/21/2017 14:37:19	61393-2.RAW	2:37:19 PM	2992.78	2		2987.7	20.232	50579.842	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD1	2500	2/21/2017 14:41:27	61394-1.RAW	2:41:27 PM	2947.05	2		2942.0	19.922	49805.588	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/21/2017 14:45:36	61395-1.RAW	2:45:36 PM	759.43			754.4	5.109	5.109	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/21/2017 14:49:44	61396-1.RAW	2:49:44 PM	17.74			12.7	0.086	0.086	ng/L	
Hg2600-3	DM2	SAM	F702349-MS2	400	2/21/2017 14:53:52	61397-1.RAW	2:53:52 PM	3901.71	2		3896.7	26.384	10553.466	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD2	400	2/21/2017 14:58:01	61398-1.RAW	2:58:01 PM	3917.35	2		3912.3	26.490	10595.853	ng/L	
Hg2600-3	DM2	SAM	1702285-02RE1	100	2/21/2017 15:02:09	61399-1.RAW	3:02:09 PM	551.38	2		546.3	3.683	368.335	ng/L	
Hg2600-3	DM2	SAM	1702285-03RE1	100	2/21/2017 15:06:18	61400-1.RAW	3:06:18 PM	297.98	2		292.9	1.967	196.736	ng/L	
Hg2600-3	DM2	SAM	1702285-05RE1	100	2/21/2017 15:10:26	61401-1.RAW	3:10:26 PM	550.27	2		545.2	3.676	367.580	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK1	100	2/21/2017 15:14:34	61402-1.RAW	3:14:34 PM	23.19	3		18.1	0.123	12.281	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK2	100	2/21/2017 15:18:43	61403-1.RAW	3:18:43 PM	26.53	3		21.5	0.145	14.548	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK3	100	2/21/2017 15:22:51	61404-1.RAW	3:22:51 PM	19.31	3		14.3	0.097	9.656	ng/L	
Hg2600-3	DM2	SAM	F702375-BS1	400	2/21/2017 15:27:00	61405-1.RAW	3:27:00 PM	676.97	3		671.9	4.520	1807.897	ng/L	
Hg2600-3	DM2	SAM	F702375-BSD1	400	2/21/2017 15:31:08	61406-1.RAW	3:31:08 PM	684.62	3		679.6	4.572	1828.636	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/21/2017 15:35:17	61407-1.RAW	3:35:17 PM	814.38			809.3	5.481	5.481	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/21/2017 15:39:25	61408-1.RAW	3:39:25 PM	16.73			11.7	0.079	0.079	ng/L	
Hg2600-3	DM2	SAM	1702401-01	1000	2/21/2017 15:43:33	61409-1.RAW	3:43:33 PM	852.11	3		847.1	5.724	5724.055	ng/L	
Hg2600-3	DM2	SAM	1702401-02	1000	2/21/2017 15:47:42	61410-1.RAW	3:47:42 PM	2354.59	3		2349.5	15.899	15898.697	ng/L	
Hg2600-3	DM2	SAM	1702402-01	400	2/21/2017 15:51:50	61411-1.RAW	3:51:50 PM	2100.12	3		2095.1	14.157	5662.872	ng/L	
Hg2600-3	DM2	SAM	1702402-02	400	2/21/2017 15:55:59	61412-1.RAW	3:55:59 PM	4404.39	3		4399.3	29.762	11904.600	ng/L	
Hg2600-3	DM2	SAM	1702403-01	400	2/21/2017 16:00:07	61413-1.RAW	4:00:07 PM	1158.80	3		1153.7	7.783	3113.067	ng/L	
Hg2600-3	DM2	SAM	1702403-02	400	2/21/2017 16:04:16	61414-1.RAW	4:04:16 PM	1758.84	3		1753.8	11.846	4738.430	ng/L	
Hg2600-3	DM2	SAM	1702401-01B	100	2/21/2017 16:08:25	61415-1.RAW	4:08:25 PM	25.16	3		20.1	0.015	1.458	ng/L	
Hg2600-3	DM2	SAM	1702401-02B	100	2/21/2017 16:12:33	61416-1.RAW	4:12:33 PM	53.27	3		48.2	0.205	20.493	ng/L	
Hg2600-3	DM2	SAM	1702402-01B	100	2/21/2017 16:16:42	61417-1.RAW	4:16:42 PM	19.11	3		14.1	-0.026	-2.643	ng/L	
Hg2600-3	DM2	SAM	1702402-02B	100	2/21/2017 16:20:50	61418-1.RAW	4:20:50 PM	26.41	3		21.4	0.023	2.305	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	2/21/2017 16:24:59	61419-1.RAW	4:24:59 PM	802.04			797.0	5.397	5.397	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	2/21/2017 16:29:07	61420-1.RAW	4:29:07 PM	14.50			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702403-01B	100	2/21/2017 16:33:16	61421-1.RAW	4:33:16 PM	18.28	3		13.2	-0.032	-3.200	ng/L	
Hg2600-3	DM2	SAM	1702403-02B	100	2/21/2017 16:37:24	61422-1.RAW	4:37:24 PM	21.37	3		16.3	-0.011	-1.110	ng/L	
Hg2600-3	DM2	SAM	F702375-DUP1	1000	2/21/2017 16:41:32	61423-1.RAW	4:41:32 PM	867.22	3		862.2	5.826	5826.392	ng/L	
Hg2600-3	DM2	SAM	F702375-MS1	1000	2/21/2017 16:45:41	61424-1.RAW	4:45:41 PM	3806.61	3		3801.6	25.732	25731.594	ng/L	
Hg2600-3	DM2	SAM	F702375-MSD1	1000	2/21/2017 16:49:49	61425-1.RAW	4:49:49 PM	3938.99	3		3933.9	26.628	26628.064	ng/L	

Instrument	Analyst	Sample Type	LabNumber	Dilution	Analized	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	CAL	SEQ-CCVA	1	2/21/2017 16:53:58	61426-1.RAW	4:53:58 PM	815.04			810.0	5.485	5.485	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	2/21/2017 16:58:06	61427-1.RAW	4:58:06 PM	20.72			15.7	0.106	0.106	ng/L	

TotalMercury EPA1631 Operat: DM BlankS: 5.0508 Calib Eqn: Conc = (Area-5.050 Run Date: 2/21/2017 Blank SD: 1.411904368  
 Workst THg260i CalibFa 147.67 Status: QC Warnings:4/QC E Run Time: 14:33:10 Blank RSD%: 27.95430348  
 Methoc ### R: 1 R²: 1 CF SD: 4.656872348  
 Descrip THg26003-170221-1 CF RSD%: 3.153586442

SampleID	Locator	Run#	Dilute	Blank	Conc (ppm)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (elt)	Flags	RunCount
Clean				0.00	6.05					61299-1.RAW	8:07:11	1188.09	Clean	OK	1
CLEAN										61300-1.RAW	8:10:02	0.00	Clean	NP	1
WS				5.05	0.00					61301-1.RAW	8:14:11	4.59	Sample	OK	1
WS				5.05	0.00					61302-1.RAW	8:18:19	4.73	Sample	OK	1
WS				5.05	0.01					61303-1.RAW	8:22:27	7.14	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.04						61304-1.RAW	8:26:36	6.19	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.04						61305-1.RAW	8:30:44	5.49	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.02						61306-1.RAW	8:34:53	3.47	Sample	OK	1
SEQ-CAL1	A4	1	5.05	0.52		104.20				61307-1.RAW	8:39:01	81.99	Sample	OK	1
SEQ-CAL2	A5	1	5.05	0.96		95.63				61308-1.RAW	8:43:09	146.26	Sample	OK	1
SEQ-CAL3	A6	1	5.05	5.07		101.38				61309-1.RAW	8:47:18	753.59	Sample	OK	1
SEQ-CAL4	A7	1	5.05	19.79		98.97				61310-1.RAW	8:51:26	2927.92	Sample	OK	1
SEQ-CAL5	A8	1	5.05	39.93		99.83				61311-1.RAW	8:55:35	5901.49	Sample	OK	1
SEQ-ICV1	A9	1	5.05	5.06		101.24				61312-1.RAW	8:59:43	752.56	Sample	OK	1
F702348-BLK1	A10	20	5.05	1.21						61313-1.RAW	9:03:52	14.02	Sample	OK	1
F702348-BLK2	A11	20	5.05	1.22						61314-1.RAW	9:08:00	14.08	Sample	OK	1
F702348-BLK3	A12	20	5.05	1.09						61315-1.RAW	9:12:08	13.11	Sample	OK	1
F702348-BS1	B1	20	5.05	97.85						61316-1.RAW	9:16:17	727.50	Sample	OK	1
F702348-BS2	B2	20	5.05	98.01						61317-1.RAW	9:20:25	728.71	Sample	OK	1
F702348-BS3	B3	400	5.05	2056.13						61318-1.RAW	9:24:34	764.12	Sample	OK	1
1702050-01	B4	100	5.05	455.91						61319-1.RAW	9:28:42	678.28	Sample	OK	1
1702050-02	B5	100	5.05	1580.35						61320-1.RAW	9:32:50	2338.74	Sample	OK	1
1702050-03	B6	100	5.05	5150.63						61321-1.RAW	9:36:59	7610.93	Sample	FB	1
1702050-04	B7	100	5.05	1714.22						61322-1.RAW	9:41:07	2536.43	Sample	OK	1
SEQ-CCV1	B8	1	5.05	5.09		101.80				61323-1.RAW	9:45:16	756.66	Sample	OK	1
SEQ-CCB1	B9	1	5.05	0.06		0.00				61324-1.RAW	9:49:24	14.58	Sample	OK	1
1702050-05	B10	400	5.05	1717.39						61325-1.RAW	9:53:33	639.06	Sample	OK	1
1702050-06	B11	400	5.05	6119.28						61326-1.RAW	9:57:41	2264.12	Sample	OK	1
1702050-07	B12	400	5.05	1354.54						61327-1.RAW	10:01:49	505.11	Sample	OK	1
1702050-08	C1	400	5.05	2474.15						61328-1.RAW	10:05:58	918.44	Sample	OK	1
1702050-09	C2	400	5.05	396.87						61329-1.RAW	10:10:06	151.56	Sample	OK	1
1702050-10	C3	400	5.05	2819.82						61330-1.RAW	10:14:15	1046.05	Sample	OK	1
1702050-11	C4	400	5.05	1702.86						61331-1.RAW	10:18:23	633.70	Sample	OK	1
1702050-12	C5	400	5.05	4393.92						61332-1.RAW	10:22:31	1627.17	Sample	OK	1
1702050-13	C6	400	5.05	3185.98						61333-1.RAW	10:26:40	1181.23	Sample	OK	1
1702050-14	C7	400	5.05	5106.18						61334-1.RAW	10:30:48	1890.11	Sample	OK	1
SEQ-CCV2	C8	1	5.05	5.09		101.73				61335-1.RAW	10:34:57	756.15	Sample	OK	1
SEQ-CCB2	C9	1	5.05	0.04		0.00				61336-1.RAW	10:39:05	11.20	Sample	OK	1
1702050-15	C10	400	5.05	3759.41						61337-1.RAW	10:43:14	1392.92	Sample	OK	1
1702050-16	C11	400	5.05	344.15						61338-1.RAW	10:47:22	132.10	Sample	OK	1
1702050-17	C12	400	5.05	443.36						61339-1.RAW	10:51:30	168.73	Sample	OK	1
1702050-18	D1	400	5.05	219.15						61340-1.RAW	10:55:39	85.96	Sample	OK	1
1702050-19	D2	400	5.05	1019.22						61341-1.RAW	10:59:47	381.32	Sample	OK	1
1702169-01	D3	400	5.05	4693.54						61342-1.RAW	11:03:56	1737.78	Sample	OK	1
1702050-03RE1	D4	400	5.05	5172.06						61343-1.RAW	11:08:04	1914.44	Sample	OK	1
1702050-04RE1	D5	100	5.05	1711.25						61344-1.RAW	11:12:12	2532.04	Sample	OK	1
1702050-09RE1	D6	100	5.05	380.65						61345-1.RAW	11:16:21	567.16	Sample	OK	1
F702348-DUP1	D7	400	5.05	5046.11						61346-1.RAW	11:20:29	1867.94	Sample	OK	1
SEQ-CCV3	D8	1	5.05	5.05		100.92				61347-1.RAW	11:24:38	750.19	Sample	OK	1
SEQ-CCB3	D9	1	5.05	0.06		0.00				61348-1.RAW	11:28:46	13.47	Sample	OK	1
F702348-MS1	D10	2500	5.05	51479.18		#####				61349-1.RAW	11:32:55	3045.80	Sample	OK	1
F702348-MSD1	D11	2500	5.05	50599.92						61350-1.RAW	11:37:03	2993.87	Sample	OK	1
F702348-MS2	D12	2500	5.05	52161.74		103.08				61351-1.RAW	11:41:11	3086.12	Sample	OK	1
F702348-MSD2	A1	2500	5.05	53169.45						61352-1.RAW	11:45:20	3145.64	Sample	OK	1
1702050-16RE1	A2	100	5.05	343.43						61353-1.RAW	11:49:28	512.19	Sample	OK	1
1702050-17RE1	A3	100	5.05	445.66						61354-1.RAW	11:53:37	663.15	Sample	OK	1
1702050-18RE1	A4	100	5.05	204.75						61355-1.RAW	11:57:45	307.40	Sample	OK	1
F702349-BLK1	A5	20	5.05	1.55						61356-1.RAW	12:01:53	16.47	Sample	OK	1
F702349-BLK2	A6	20	5.05	1.64						61357-1.RAW	12:06:02	18.63	Sample	OK	1
F702349-BLK3	A7	20	5.05	1.52						61358-1.RAW	12:10:10	16.26	Sample	OK	1

SEQ-CCV4	A8	1	5.05	5.12	102.41	61359-1.RAW	12:14:19	761.16	Sample	OK	1
SEQ-CCB4	A9	1	5.05	0.07	0.00	61360-1.RAW	12:18:27	15.28	Sample	OK	1
*F702349-BLK4	A10	20	5.05	1.54		61361-1.RAW	12:22:36	16.45	Sample	OK	1
*F702349-BLK5	A11	20	5.05	1.29		61362-1.RAW	12:26:44	14.61	Sample	OK	1
F702349-BS1	A12	20	5.05	98.62		61363-1.RAW	12:30:52	733.23	Sample	OK	1
F702349-BSD1	B1	20	5.05	99.95		61364-1.RAW	12:35:01	743.04	Sample	OK	1
F702349-BS2	B2	400	5.05	2081.05		61365-1.RAW	12:39:09	773.32	Sample	OK	1
1702050-20	B3	400	5.05	647.20		61366-1.RAW	12:43:18	243.98	Sample	OK	1
1702050-21	B4	400	5.05	104.85		61367-1.RAW	12:47:26	43.76	Sample	OK	1
1702050-22	B5	400	5.05	340.20		61368-1.RAW	12:51:34	130.64	Sample	OK	1
1702050-23	B6	400	5.05	506.50		61369-1.RAW	12:55:43	192.04	Sample	OK	1
1702050-24	B7	400	5.05	522.59		61370-1.RAW	12:59:51	197.98	Sample	OK	1
SEQ-CCV5	B8	1	5.05	5.21	104.21	61371-1.RAW	13:04:00	774.47	Sample	OK	1
SEQ-CCB5	B9	1	5.05	0.04	0.00	61372-1.RAW	13:08:08	10.74	Sample	OK	1
1702050-25	B10	400	5.05	686.31		61373-1.RAW	13:12:17	258.42	Sample	OK	1
1702050-26	B11	400	5.05	1709.78		61374-1.RAW	13:16:25	636.26	Sample	OK	1
1702050-27	B12	400	5.05	3033.07		61375-1.RAW	13:20:33	1124.78	Sample	OK	1
1702050-28	C1	400	5.05	1878.53		61376-1.RAW	13:24:42	698.55	Sample	OK	1
1702050-29	C2	400	5.05	2806.01		61377-1.RAW	13:28:50	1040.95	Sample	OK	1
1702284-01	C3	400	5.05	6267.90		61378-1.RAW	13:32:59	2318.99	Sample	OK	1
1702285-02	C4	400	5.05	387.42		61379-1.RAW	13:37:07	148.08	Sample	OK	1
1702285-03	C5	400	5.05	226.13		61380-1.RAW	13:41:16	88.53	Sample	OK	1
1702285-04	C6	400	5.05	1150.52		61381-1.RAW	13:45:24	429.79	Sample	OK	1
1702285-05	C7	400	5.05	399.83		61382-1.RAW	13:49:32	152.66	Sample	OK	1
SEQ-CCV6	C8	1	5.05	5.02	100.31	61383-1.RAW	13:53:41	745.67	Sample	OK	1
SEQ-CCB6	C9	1	5.05	0.06	0.00	61384-1.RAW	13:57:49	14.54	Sample	OK	1
1702285-06	C10	400	5.05	2685.72		61385-1.RAW	14:01:58	996.54	Sample	OK	1
1702285-07	C11	400	5.05	4982.36		61386-1.RAW	14:06:06	1844.40	Sample	OK	1
1702285-08	C12	400	5.05	1470.82		61387-1.RAW	14:10:14	548.04	Sample	OK	1
1702285-09	D1	400	5.05	3381.48		61388-1.RAW	14:14:23	1253.40	Sample	OK	1
1702285-10	D2	400	5.05	2162.98		61389-1.RAW	14:18:31	803.56	Sample	OK	1
1702050-21RE1	D3	50	5.05	90.48		61390-1.RAW	14:22:40	272.27	Sample	OK	1
1702050-22RE1	D4	100	5.05	331.62		61391-1.RAW	14:26:48	494.75	Sample	OK	1
F702349-DUP1	D5	400	5.05	6123.27		61392-1.RAW	14:30:57	2265.59	Sample	OK	1
F702349-MS1	D6	2500	5.05	50581.48	825.92	61393-2.RAW	14:37:19	2992.78	Sample	OK	1
F702349-MSD1	D7	2500	5.05	49807.22		61394-1.RAW	14:41:27	2947.05	Sample	OK	1
SEQ-CCV7	D8	1	5.05	5.11	102.17	61395-1.RAW	14:45:36	759.43	Sample	OK	1
SEQ-CCB7	D9	1	5.05	0.09	0.00	61396-1.RAW	14:49:44	17.74	Sample	OK	1
F702349-MS2	D10	400	5.05	10555.10	506014.90	61397-1.RAW	14:53:52	3901.71	Sample	OK	1
F702349-MSD2	D11	400	5.05	10597.49		61398-1.RAW	14:58:01	3917.35	Sample	OK	1
1702285-02RE1	D12	100	5.05	369.97		61399-1.RAW	15:02:09	551.38	Sample	OK	1
1702285-03RE1	A1	100	5.05	198.37		61400-1.RAW	15:06:18	297.98	Sample	OK	1
1702285-05RE1	A2	100	5.05	369.21		61401-1.RAW	15:10:26	550.27	Sample	OK	1
F702375-BLK1	A3	100	5.05	12.28		61402-1.RAW	15:14:34	23.19	Sample	OK	1
F702375-BLK2	A4	100	5.05	14.55		61403-1.RAW	15:18:43	26.53	Sample	OK	1
F702375-BLK3	A5	100	5.05	9.66		61404-1.RAW	15:22:51	19.31	Sample	OK	1
F702375-BS1	A6	400	5.05	1820.06		61405-1.RAW	15:27:00	676.97	Sample	OK	1
F702375-BSD1	A7	400	5.05	1840.80		61406-1.RAW	15:31:08	684.62	Sample	OK	1
SEQ-CCV8	A8	1	5.05	5.48	109.61	61407-1.RAW	15:35:17	814.38	Sample	OK	1
SEQ-CCB8	A9	1	5.05	0.08	0.00	61408-1.RAW	15:39:25	16.73	Sample	OK	1
1702401-01	A10	1000	5.05	5736.22		61409-1.RAW	15:43:33	852.11	Sample	OK	1
1702401-02	A11	1000	5.05	15910.86		61410-1.RAW	15:47:42	2354.59	Sample	OK	1
1702402-01	A12	400	5.05	5675.03		61411-1.RAW	15:51:50	2100.12	Sample	OK	1
1702402-02	B1	400	5.05	11918.76		61412-1.RAW	15:55:59	4404.39	Sample	OK	1
1702403-01	B2	400	5.05	3125.23		61413-1.RAW	16:00:07	1158.80	Sample	OK	1
1702403-02	B3	400	5.05	4750.59		61414-1.RAW	16:04:16	1758.84	Sample	OK	1
1702401-01B	B4	100	5.05	13.62		61415-1.RAW	16:08:25	25.16	Sample	OK	1
1702401-02B	B5	100	5.05	32.65		61416-1.RAW	16:12:33	53.27	Sample	OK	1
1702402-01B	B6	100	5.05	9.52		61417-1.RAW	16:16:42	19.11	Sample	OK	1
1702402-02B	B7	100	5.05	14.47		61418-1.RAW	16:20:50	26.41	Sample	OK	1
SEQ-CCV9	B8	1	5.05	5.40	107.94	61419-1.RAW	16:24:59	802.04	Sample	OK	1
SEQ-CCB9	B9	1	5.05	0.06	0.00	61420-1.RAW	16:29:07	14.50	Sample	OK	1
1702403-01B	B10	100	5.05	8.96		61421-1.RAW	16:33:16	18.28	Sample	OK	1
1702403-02B	B11	100	5.05	11.05		61422-1.RAW	16:37:24	21.37	Sample	OK	1
F702375-DUP1	B12	1000	5.05	5838.55		61423-1.RAW	16:41:32	887.22	Sample	OK	1

F702375-MS1	C1	1000	5.05	25743.76	440.85	61424-1.RAW	16:45:41	3805.61	Sample	OK	1
F702375-MSD1	C2	1000	5.05	26640.23		61425-1.RAW	16:49:49	3938.99	Sample	FB	1
SEQ-CCVA	C3	1	5.05	5.49		61426-1.RAW	16:53:58	815.04	Sample	OK	1
SEQ-CCBA	C4	1	5.05	0.11		61427-1.RAW	16:58:06	20.72	Sample	OK	1



## ANALYSIS SEQUENCE

7B22007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22007-IBL1	QC	1			
7B22007-IBL2	QC	2			
7B22007-IBL3	QC	3			
7B22007-CAL1	QC	4	1700737		
7B22007-CAL2	QC	5	1700738		
7B22007-CAL3	QC	6	1700739		
7B22007-CAL4	QC	7	1700740		
7B22007-CAL5	QC	8	1700741		
7B22007-ICV1	QC	9	1700018		
7B22007-CCV1	QC	10	1700018		
7B22007-CCB1	QC	11			
7B22007-CCV2	QC	12	1700018		
7B22007-CCB2	QC	13			
7B22007-CCV3	QC	14	1700018		
7B22007-CCB3	QC	15			
7B22007-CCV4	QC	16	1700018		
7B22007-CCB4	QC	17			
7B22007-CCV5	QC	18	1700018		
7B22007-CCB5	QC	19			
7B22007-CCV6	QC	20	1700018		
7B22007-CCB6	QC	21			
7B22007-CCV7	QC	22	1700018		
7B22007-CCB7	QC	23			
F702375-BLK1	QC	24			
F702375-BLK2	QC	25			
F702375-BLK3	QC	26			
F702375-BS1	QC	27			
F702375-BSD1	QC	28			
7B22007-CCV8	QC	29	1700018		
7B22007-CCB8	QC	30			
1702401-01	Hg_FSTM_TRAP_A	31			
1702401-02	Hg_FSTM_TRAP_A	32			
1702402-01	Hg_FSTM_TRAP_A	33			
1702402-02	Hg_FSTM_TRAP_A	34			
1702403-01	Hg_FSTM_TRAP_A	35			

Due Date: 2/22/2017

59 of 110

Page 1 of 2

ANALYSIS SEQUENCE

7B22007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702403-02	Hg_FSTM_TRAP_A	36			
7B22007-CCV9	QC	37	1700018		
7B22007-CCB9	QC	38			
F702375-DUP1	QC	39			
F702375-MS1	QC	40			
F702375-MSD1	QC	41			
7B22007-CCVA	QC	42	1700018		
7B22007-CCBA	QC	43			

Dan Moxam      2/21/17  
Samples Loaded By      Date

Dan Moxam      2/22/17  
Data Processed By      Date

# Failing Data Report - 7B22007

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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DM M. J. Mason 2/22/17  
Analyst Reviewed By Date

lyn M 3/1/17  
Peer Reviewed By Date

## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22008-IBL1	QC	1			
7B22008-IBL2	QC	2			
7B22008-IBL3	QC	3			
7B22008-CAL1	QC	4	1700737		
7B22008-CAL2	QC	5	1700738		
7B22008-CAL3	QC	6	1700739		
7B22008-CAL4	QC	7	1700740		
7B22008-CAL5	QC	8	1700741		
7B22008-ICV1	QC	9	1700018		
F702348-BLK1	QC	10			
F702348-BLK2	QC	11			
F702348-BLK3	QC	12			
F702348-BS1	QC	13			
F702348-BSD1	QC	14			
F702348-BS2	QC	15			
1702050-01	Hg-CVAFS-T-7030	16			
1702050-02	Hg-CVAFS-T-7030	17			
1702050-03	Hg-CVAFS-T-7030	18			
1702050-04	Hg-CVAFS-T-7030	19			
7B22008-CCV1	QC	20	1700018		
7B22008-CCB1	QC	21			
1702050-05	Hg-CVAFS-T-7030	22			
1702050-06	Hg-CVAFS-T-7030	23			
1702050-07	Hg-CVAFS-T-7030	24			
1702050-08	Hg-CVAFS-T-7030	25			
1702050-09	Hg-CVAFS-T-7030	26			
1702050-10	Hg-CVAFS-T-7030	27			
1702050-11	Hg-CVAFS-T-7030	28			
1702050-12	Hg-CVAFS-T-7030	29			
1702050-13	Hg-CVAFS-T-7030	30			
1702050-14	Hg-CVAFS-T-7030	31			
7B22008-CCV2	QC	32	1700018		
7B22008-CCB2	QC	33			
1702050-15	Hg-CVAFS-T-7030	34			
1702050-16	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2017

62 of 110

Page 1 of 3

## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-17	Hg-CVAFS-T-7030	36			
1702050-18	Hg-CVAFS-T-7030	37			
1702050-19	Hg-CVAFS-T-7030	38			
1702168-01	Hg-CVAFS-T-7030	39			
1702050-03RE1	Hg-CVAFS-T-7030	40			Added 2/21/2017 by DM2
1702050-04RE1	Hg-CVAFS-T-7030	41			Added 2/21/2017 by DM2
1702050-09RE1	Hg-CVAFS-T-7030	42			Added 2/21/2017 by DM2
F702348-DUP1	QC	43			
7B22008-CCV3	QC	44	1700018		
7B22008-CCB3	QC	45			
F702348-MS1	QC	46			
F702348-MSD1	QC	47			
F702348-MS2	QC	48			
F702348-MSD2	QC	49			
1702050-16RE1	Hg-CVAFS-T-7030	50			Added 2/21/2017 by DM2
1702050-17RE1	Hg-CVAFS-T-7030	51			Added 2/21/2017 by DM2
1702050-18RE1	Hg-CVAFS-T-7030	52			Added 2/21/2017 by DM2
F702349-BLK1	QC	53			
F702349-BLK2	QC	54			
F702349-BLK3	QC	55			
7B22008-CCV4	QC	56	1700018		
7B22008-CCB4	QC	57			
F702349-BLK4	QC	58			
F702349-BLK5	QC	59			
F702349-BS1	QC	60			
F702349-BSD1	QC	61			
F702349-BS2	QC	62			
1702050-20	Hg-CVAFS-T-7030	63			
1702050-21	Hg-CVAFS-T-7030	64			
1702050-22	Hg-CVAFS-T-7030	65			
1702050-23	Hg-CVAFS-T-7030	66			
1702050-24	Hg-CVAFS-T-7030	67			
7B22008-CCV5	QC	68	1700018		
7B22008-CCB5	QC	69			
1702050-25	Hg-CVAFS-T-7030	70			

**ANALYSIS SEQUENCE**

**7B22008**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 2/21/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-26	Hg-CVAFS-T-7030	71			
1702050-27	Hg-CVAFS-T-7030	72			
1702050-28	Hg-CVAFS-T-7030	73			
1702050-29	Hg-CVAFS-T-7030	74			
1702284-01	Hg-CVAFS-T-7030	75			
1702285-02	Hg-CVAFS-T-7030	76			
1702285-03	Hg-CVAFS-T-7030	77			
1702285-04	Hg-CVAFS-T-7030	78			
1702285-05	Hg-CVAFS-T-7030	79			
7B22008-CCV6	QC	80	1700018		
7B22008-CCB6	QC	81			
1702285-06	Hg-CVAFS-T-7030	82			
1702285-07	Hg-CVAFS-T-7030	83			
1702285-08	Hg-CVAFS-T-7030	84			
1702285-09	Hg-CVAFS-T-7030	85			
1702285-10	Hg-CVAFS-T-7030	86			
1702050-21RE1	Hg-CVAFS-T-7030	87			Added 2/21/2017 by DM2
1702050-22RE1	Hg-CVAFS-T-7030	88			Added 2/21/2017 by DM2
F702349-DUP1	QC	89			
F702349-MS1	QC	90			
F702349-MSD1	QC	91			
7B22008-CCV7	QC	92	1700018		
7B22008-CCB7	QC	93			
F702349-MS2	QC	94			
F702349-MSD2	QC	95			
1702285-02RE1	Hg-CVAFS-T-7030	96			Added 2/21/2017 by DM2
1702285-03RE1	Hg-CVAFS-T-7030	97			Added 2/21/2017 by DM2
1702285-05RE1	Hg-CVAFS-T-7030	98			Added 2/21/2017 by DM2
7B22008-CCV8	QC	99	1700018		
7B22008-CCB8	QC	100			

Don Moxem      2/21/17  
 Samples Loaded By      Date

Don Moxem      2/22/17  
 Data Processed By      Date

# Failing Data Report - 7B22008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702050-03	Hg-CVAFS-T-7030	1400	13.6				ng/g						FAIL-OVER	PASS	E
F702348-DUP1	Hg-CVAFS-T-7030	358.8	14.2	717.2	717.2		ng/g				66.6	24.00	PASS-OVER	FAIL-DUP	QR-07

Don Motam  
 Analyst Reviewed By

2/22/17  
 Date

Hy N  
 Peer Reviewed By

3/1/17  
 Date

**PREPARATION BENCH SHEET**

F702375

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					
F702375-BLK2	Blank	1	100					
F702375-BLK3	Blank	1	100					
F702375-BS1	LCS	1	100	1605712	200			
F702375-BSD1	LCS Dup	1	100	1605712	200			
F702375-DUP1	Duplicate [1702401-01]	1	100					
F702375-MS1	Matrix Spike [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.
F702375-MSD1	Matrix Spike Dup [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00



**PREPARATION BENCH SHEET**

**F702375**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-		
1702401-02	EFGS-04134 Trap B	1	100	-	-	-		
1702402-01	EFGS-07869 Trap A	1	100	-	-	-		
1702402-02	EFGS-07908 Trap B	1	100	-	-	-		
1702403-01	EFGS-08086 Trap A	1	100	-	-	-		
1702403-02	EFGS-08420 TrapB	1	100	-	-	-		



**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					
F702348-BLK2	Blank	0.25	20					
F702348-BLK3	Blank	0.25	20					
F702348-BS1	Blank Spike	0.25	20	1700686	20			
F702348-BS2	DORM-4	0.1252	20	1605470	125			
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		
1702050-03RE1	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		
1702050-04RE1	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		
1702050-09RE1	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		

**PREPARATION BENCH SHEET**

F702348

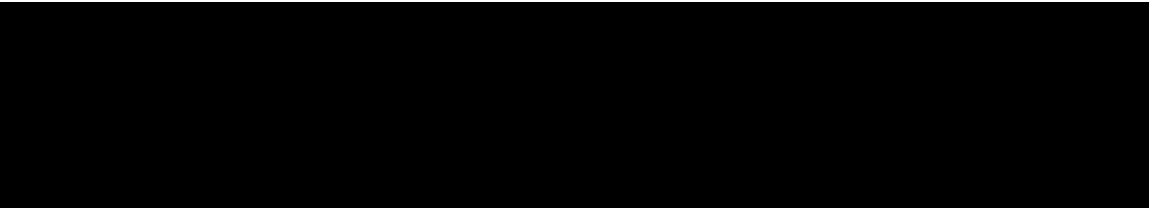
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

1702050-16RE1	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		
1702050-17RE1	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		
1702050-18RE1	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		
1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	



**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					
F702349-BLK2	Blank	0.25	20					
F702349-BLK3	Blank	0.25	20					
F702349-BLK4	Blank	0.4312	20					
F702349-BLK5	Blank	0.4387	20					
F702349-BS1	Blank Spike	0.25	20	1700686	20			
F702349-BS2	DORM-4	0.1253	20	1605470	125			
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			
F702349-MS2	Matrix Spike [1702050-29]	0.00050062 5	0.125	1700687	100			[Spk] 0.0801g->20mL; 40mL->40mL; Spiked 0.125mL
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			
F702349-MSD2	Matrix Spike Dup [1702050-29]	0.00050062 5	0.125	1700687	100			[Spk] 0.0801g->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>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	
1702050-21RE1	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		
1702050-22RE1	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		
1702285-02RE1	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		
1702285-03RE1	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		

PREPARATION BENCH SHEET

F702349

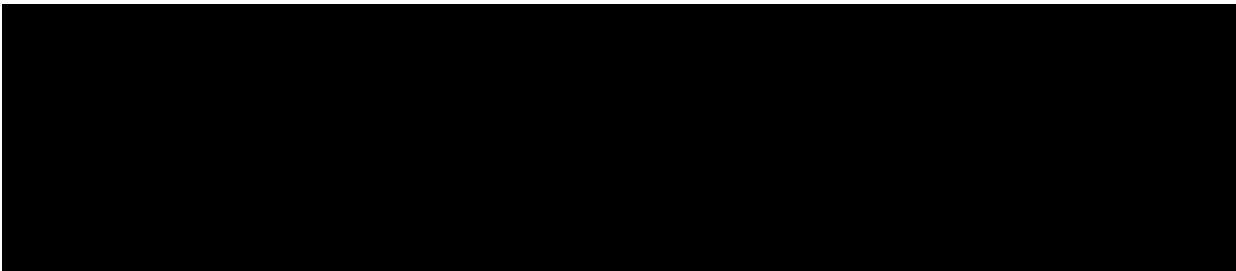
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702285-05RE1	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		
1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-		



PREPARATION BENCH SHEET

2100-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					100X
F702375-BLK2	Blank	1	100					100X
F702375-BLK3	Blank	1	100					100X
F702375-BS1	LCS	1	100	1605712	200			400X
F702375-BSD1	LCS Dup	1	100	1605712	200			400X
F702375-DUP1	Duplicate 1702401-01	1	100	1700657				1000X
F702375-MS1	Matrix Spike 1702401-01	1	100	1700657	100			1000X
F702375-MSD1	Matrix Spike Dup 1702401-01	1	100	1700657	100			1000X

DM  
2.21-17

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 03-Apr-17 00:00

Reagent ID(s): 1700947, 1700969  
Description: 5% BrCl, 70/30 Digestion Acid

Expiration: 15-Jul-17 00:00, 14-Aug-17 00:00

1700771  
1700309  
1700308  
1600934



PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-	100X	100X
1702401-02	EFGS-04134 Trap B	1	100	-	-	-	100X	100X
1702402-01	EFGS-07869 Trap A	1	100	-	-	-	500X 400X	100X
1702402-02	EFGS-07908 Trap B	1	100	-	-	-	500X 400X	100X
1702403-01	EFGS-08086 Trap A	1	100	-	-	-	500X 400X	100X
1702403-02	EFGS-08420 Trap B	1	100	-	-	-	400X	100X

DM 2/21/17

Trap Digestions

Name: AMB Date: 2-17-17 Batch ID: F702375  
 Work Order(s): 1702401, 1702402, 1702403 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: 1730 start temp (°C): 56.0 (raw) 55.8 (w/ CF)  
 end time: 1930 end temp (°C): 69.0 (raw) 68.8 (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)	
F702375-BLK1	<del>100</del> 100	Spike ID: <u>1605712</u>
F702375-BLK2	100	
F702375-BLK3	100	Spike Amount (µL): <u>200</u>
F702375-BS1	100	Spike Witness: <u>dm 2/17/17</u>
F702375-BS1	100	
1702401-01A	100	BrCl ID: <u>1700947</u>
1702401-01B	100	70/30: <u>1700969</u>
1702401-02A	100	Other: <u>N/A</u>
1702401-02B	100	
1702402-01A	100	Thermometer: <u>14545</u>
1702402-01B	100	Dispensers: 02K27494 <input checked="" type="checkbox"/>
1702402-02A	100	04N73497 <input type="checkbox"/>
1702402-02B	100	Other <u>15406623</u>
1702403-01A	100	
1702403-01B	100	Pipette ID: <u>MU11619</u>
1702403-02A	100	Cal. Date: <u>2-13-17</u>
1702403-02B	100	
<div style="border: 1px solid black; width: 100px; height: 100px; transform: rotate(45deg); margin: auto; display: flex; align-items: center; justify-content: center;"> <div style="transform: rotate(-45deg);"> <p>AMB 2-17-17</p> </div> </div>		Vials and Jars lot# <u>00066589</u>
		Trap Material Lot#: <u>1700517</u>
		Loader Mass Verified: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
		Comments: 1702401-02: 'A' bed spiked at 1,100ng. 1702402-02: 'A' bed spiked at 650ng. 1702402-AMB 2-17-17 1702403-02: 'A' bed spiked at 200ng. AMB 2-17-17

PREPARATION BENCH SHEET

2600.3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					20X
F702348-BLK2	Blank	0.25	20					20X
F702348-BLK3	Blank	0.25	20					20X
F702348-BS1	Blank Spike	0.25	20	1700686	20			20X
F702348-BS2	DORM-4	0.1252	20	1605470	125			400X
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			20X
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					400X
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			2500X
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			2500X
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			2500X
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			2500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

170071  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3

2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	100X
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		100X
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		100X → 400X
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		100X → 100X
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		400X
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		400X
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		400X
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		400X
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		400X → 100X
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		400X
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		400X
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		400X
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		400X
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		400X
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		400X
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		400X → 100X
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		400X → 100X
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		400X → 100X
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		400X

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	400X
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Technician: Dwyer Batch#: F702348 Date: 2-16-17

- 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: 14:05 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 16:06 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C AMB

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

Final vol.: 20 mL (LIMS ID: 1700947) Spike vol.: 100 µL (LIMS ID: 1700684)  
*MS1/MS1 MS2/MS2 2-16-17 10,000µL*

Spike Witness: DW 2-16-17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MU11619 Calibration Date: 2-13-17

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

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

70/30 LIMS ID: 1700969

Dispenser #: 02K27484 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406623  Yes

Glass Vial # 00065550 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702348 Blk1	0.2663	23	1702050-12	0.1253	B52 DORM-4 1605470
2	F702348 Blk2	0.2770	24	1702050-13	0.1928	
3	F702348 Blk3	0.2827	25	1702050-14	0.1733	
4	F702348 B51	0.2661	26	1702050-15	0.1196	<b>Comments</b>
5	F702348 B501	0.2798	27	1702050-16	0.1572	Dup source F702348 MS1/MS2
6	F702348 B52	0.1252	28	1702050-17	0.2502	F702348 MS1/MS2
7	F702348 Dup1	0.2812	29	1702050-18	0.1300	F702348 MS1/MS2 1702050-01
8	F702348 MS1	0.2297	30	1702050-19	0.1873	
9	F702348 MS01	0.0406	31	1702168-01	0.2617	F702348 MS1/MS2 1702050 2/16/17 1702168-01
10	F702348 MS2	0.2624	32			
11	F702348 MS02	0.2708	33			
12	1702050-01	0.0345	34			Dup 1702168-01
13	1702050-02	0.2015	35			1702050-01 Broken glass 2/16/17
14	1702050-03	0.0737	36			
15	1702050-04	0.0903	37			
16	1702050-05	0.1210	38			B51 B501 = 100µL = 20µL
17	1702050-06	0.1273	39			
18	1702050-07	0.0485	40			1700686
19	1702050-08	0.0981	41			
20	1702050-09	0.0313	42			All samples low volume
21	1702050-10	0.1379	43			1702050 2/16/17 2-16-17
22	1702050-11	0.0638	44			

PREPARATION BENCH SHEET

2000.3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					20X
F702349-BLK2	Blank	0.25	20					20X
F702349-BLK3	Blank	0.25	20					20X
F702349-BLK4	Blank	0.4312	20					20X
F702349-BLK5	Blank	0.4387	20					20X
F702349-BS1	Blank Spike	0.25	20	1700686	20			20X
F702349-BS2	DORM-4	0.1253	20	1605470	125			400X
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			20X
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					400X
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			<del>400X</del> 2500X
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			<del>400X</del> 2500X

DM 2-21-17

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

MS2, MSD2 - 1702050-20  
400X  
1700687 100ul

1700771  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		400X
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	400X → 50X
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		400X → 100X
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		400X
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		400X
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		400X
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		400X
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		400X
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		400X
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	400X
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		400X
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		400X → 100X
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		400X → 100X
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		400X → 400X DM 2-21-17
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		400X → 100X
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		400X
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		400X
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		400X
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		400X



PREPARATION BENCH SHEET

2600-3

2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-	400X
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Technician: Dwyer Batch#: F702349 Date: 2-16-17

- 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: 14:15 Actual Temp. (raw): 74.0 °C w/ CF: 74.0 °C  
 Time out: 16:15 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: 1700949) Spike vol.: 100 µL (LIMS ID: 1700684)  
 Spike Witness: 2-16-17 DMW (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 2/13/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1700969 Dispenser #: 02K27484 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  YCS  
 Glass Vial # 00065688 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702349 BKK1	0.2647	23	1702050-29	0.0801	BS2
2	F702349 BKK2	0.2669	24	1702284-01	0.2844	DORRY
3	F702349 BKK3	0.2511	25	1702284-02	0.2066	1605470
4	F702349 BKK4	0.4312	26	1702285-02	0.1773	Comments
5	F702349 BKK5	0.4387	27	1702285-03	0.1250	
6	F702349 BS1	0.2756	28	1702285-04	0.2574	F702349 PREP POST BLANK
7	F702349 BS01	0.2549	29	1702285-05	0.2252	1702284
8	F702349 BS2	0.1253	30	1702285-06	0.1332	Dup sample
9	F702349 Dup1	0.2606	31	1702285-07	0.2518	1702284-01
10	F702349 MS1	0.2795	32	1702285-08	0.2326	F702349 MS1 MS01 2/16/17
11	F702349 MS01	0.2938	33	1702285-09	0.2118	1702284-01
12	F702349 MS2	2-1617	34	1702285-10	0.2066	1702284-01
13	F702349 MS02	2-1617	35			MS1 MS01 2/16/17
14	1702050-20	0.1829	36			1702050-29
15	1702050-21	0.1567	37			MS1 MS01 2/16/17
16	1702050-22	0.1227	38			1702284-01
17	1702050-23	0.1900	39			BS1 BS01 = 100% Wt
18	1702050-24	0.2407	40			= 20% Wt
19	1702050-25	0.21986	41			1700686
20	1702050-26	0.1033	42			F702349 MS2 MS02
21	1702050-27	0.1955	43			Wt samples for QC Recalibration
22	1702050-28	0.0771	44			Enough Mass 2/16/17



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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials DM                      Reviewer Initials [Signature]

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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: <u>E, QR-07</u>  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input type="checkbox"/>            |
| Comments: <u>1702050-03 HIGH SAMPLE. F702348-DUP1 HIGH RPD.</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 type="checkbox"/>            |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |

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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials DM

Reviewer Initials DM

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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  |
| 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"/> |
| <u>Files located at: \\Cuprum\gen_admin\Quality Assurance\Training Master\DOCs</u>   |  |                               |   |
| 36. Date of analyst IDOC/CDOC: _____ 1/18/16, 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: _____ 12-19-16, 11-8-16 _____ LOD within last 3 months?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| 39. Date of LOQ: _____ 12-19-16, 11-8-16 _____ LOQ within last 3 months?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |

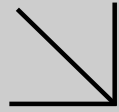
**Data can not be reported without a current IDOC/CDOC, LOD or LOQ.**





Supplemental Report 1

The original report has been revised to include the Level IV deliverables package.

**WORK ORDER NUMBER: 17-02-1314**

*The difference is service*



AIR | SOIL | WATER | MARINE CHEMISTRY

**Analytical Report For****Client:** Eurofins Frontier Global Sciences, Inc.**Client Project Name:** 1702284

**Attention:** Amy Goodall  
 11720 North Creek Parkway North  
 Suite 4  
 Bothell, WA 98011-8244

A handwritten signature in black ink, appearing to read "Carla Hollowell".

Approved for release on 03/09/2017 by:  
 Carla Hollowell  
 Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

# Contents

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Client Project Name: 1702284  
 Work Order Number: 17-02-1314

1	Work Order Narrative. . . . .	3
2	Sample Summary. . . . .	4
3	Client Sample Data. . . . .	5
	3.1 % Lipids via MeCl <sub>2</sub> Ext. (NOAA 1993a) (Tissue). . . . .	5
4	Quality Control Sample Data. . . . .	6
	4.1 Sample Duplicate. . . . .	6
5	Glossary of Terms and Qualifiers. . . . .	7
6	Chain-of-Custody/Sample Receipt Form. . . . .	8
7	17-02-1314 Level IV Case Narrative. . . . .	11
8	17-02-1314 Level IV Data Package. . . . .	12



**Condition Upon Receipt:**

Samples were received under Chain-of-Custody (COC) on 02/15/17. They were assigned to Work Order 17-02-1314.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

**Holding Times:**

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of  $\leq 15$  minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

**Quality Control:**

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

**Subcontractor Information:**

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

**Additional Comments:**

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

## Sample Summary

Client: Eurofins Frontier Global Sciences, Inc.	Work Order:	17-02-1314
11720 North Creek Parkway North, Suite 4	Project Name:	1702284
Bothell, WA 98011-8244	PO Number:	
	Date/Time Received:	02/15/17 10:45
	Number of Containers:	1

Attn: Amy Goodall

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
ES-13_020517_ABD_15_MU	17-02-1314-1	02/05/17 17:25	1	Tissue

## Analytical Report

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 02/15/17  
Work Order: 17-02-1314  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)  
Units: %

Project: 1702284

Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
ES-13_020517_ABD_15_MU	17-02-1314-1-AA	02/05/17 17:25	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
% Lipids	2.1	0.10	1.00	

Method Blank	099-14-104-168	N/A	Tissue	N/A	02/22/17	02/22/17 00:00	170222B06
--------------	----------------	-----	--------	-----	----------	-------------------	-----------

<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>
% Lipids	ND	0.10	1.00	



Calscience

## Quality Control - Sample Duplicate

Eurofins Frontier Global Sciences, Inc.  
11720 North Creek Parkway North, Suite 4  
Bothell, WA 98011-8244

Date Received: 02/15/17  
Work Order: 17-02-1314  
Preparation: N/A  
Method: MeCl2 Ext. (NOAA 1993a)

Project: 1702284

Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	Duplicate Batch Number
17-02-0647-1	Sample	Tissue	N/A	02/22/17 00:00	02/22/17 00:00	170222D06
17-02-0647-1	Sample Duplicate	Tissue	N/A	02/22/17 00:00	02/22/17 00:00	170222D06

<u>Parameter</u>	<u>Sample Conc.</u>	<u>DUP Conc.</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
% Lipids	2.335	2.390	2	0-25	

RPD: Relative Percent Difference. CL: Control Limits

<u>Qualifiers</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

**SUBCONTRACT ORDER**

Eurofins Frontier Global Sciences, Inc.

1702284

**17-02-1314**

96 of 110

**SENDING LABORATORY:**

Eurofins Frontier Global Sciences, Inc.

11720 North Creek Parkway North, Suite 400

Bothell, WA 98011

Phone: (425) 686-1996

Fax: (425) 686-3096

Project Manager: Amy Goodall

**RECEIVING LABORATORY:**

Eurofins Calscience, Inc

7440 Lincoln Way

Garden Grove, CA 92841

Phone :7148955494

Fax: x

**Analysis**

**Comments**

Sample ID: ES-13\_020517\_ABD\_15\_MU

EFGS Lab ID: 1702284-01

Matrix: Tissue

Sampled: 05-Feb-17 17:25 Eastern

Due: 08-Mar-17 19:00

Misc. Subcontract 1

Lipids Analysis - NOAA1993a

*Containers Supplied:*

34 Plastic Bag (B)

Released By

*[Signature]*  
Date 2/14/17

Received By

Date

Released By *[Signature]*

Date 2/14/17

Received By *[Signature]*

Date 2/15/17

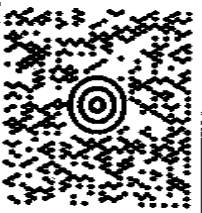
1045



1314

7846  
 FRONT DESK  
 8251 696 - 1995  
 ASSISTANT GLOBAL SCIENCES  
 17200 N CREEK PKWY N  
 BOTHELL WA 98011 - 8244  
 7 LBS  
 DIVTS 13.90  
 1 OF 1

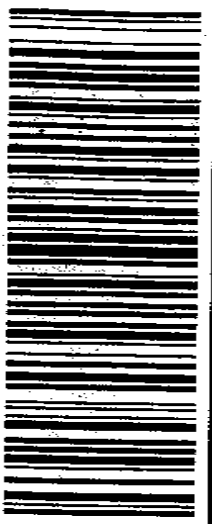
SHIP TO:  
 SAMPLE RECEIVING  
 (714) 895 - 5494  
 EUROFINS CALSCIENCE, INC.  
 7440 LINCOLN WAY  
 GARDEN GROVE CA 92841 - 1427



CA 927 9-09



UPS NEXT DAY AIR 1  
 TRACKING #: 1Z 86W 050 01 5114 7846



BILLING: P/P

Depi No.: OVERHEAD  
 S 6516  
 SN 1.6.91 SDDH 7102 90:80:EO 15 994 21.71610  
 9484711510050A9871



CA 9279-0  
 CA 92841-  
 Door-0115  
 UPS1843987  
 A-P1

SAMPLE RECEIPT CHECKLIST

WORK ORDER NUMBER: 17-02-1314

CLIENT: EFGS, Inc.

DATE: 02 / 15 / 2017

COOLER 1 OF 1

TEMPERATURE: (Criteria: 0.0°C - 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC3B (CF: 0.0°C); Temperature (w/o CF): 3.9 °C (w/ CF): 3.9 °C;  Blank  Sample

Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_)

Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature:  Air  Filter

Checked by: SMC

CUSTODY SEAL:

Cooler  Present and Intact

Present but Not Intact

Not Present

N/A

Checked by: SMC

Sample(s)  Present and Intact

Present but Not Intact

Not Present

N/A

Checked by: SMC

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples

Yes

No

N/A

COC document(s) received complete

Yes

No

N/A

Sampling date  Sampling time  Matrix  Number of containers

No analysis requested  Not relinquished  No relinquished date  No relinquished time

Sampler's name indicated on COC

Yes

No

N/A

Sample container label(s) consistent with COC

Yes

No

N/A

Sample container(s) intact and in good condition

Yes

No

N/A

Proper containers for analyses requested

Yes

No

N/A

Sufficient volume/mass for analyses requested

Yes

No

N/A

Samples received within holding time

Yes

No

N/A

Aqueous samples for certain analyses received within 15-minute holding time

pH  Residual Chlorine  Dissolved Sulfide  Dissolved Oxygen

Yes

No

N/A

Proper preservation chemical(s) noted on COC and/or sample container

Yes

No

N/A

Unpreserved aqueous sample(s) received for certain analyses

Volatile Organics  Total Metals  Dissolved Metals

Yes

No

N/A

Container(s) for certain analysis free of headspace

Yes

No

N/A

Volatile Organics  Dissolved Gases (RSK-175)  Dissolved Oxygen (SM 4500)

Carbon Dioxide (SM 4500)  Ferrous Iron (SM 3500)  Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation

Yes

No

N/A

CONTAINER TYPE:

(Trip Blank Lot Number: \_\_\_\_\_)

Aqueous:  VOA  VOAH  VOANa<sub>2</sub>  100PJ  100PJna<sub>2</sub>  125AGB  125AGBh  125AGBp  125PB

125PBzma  250AGB  250CGB  250CGBs  250PB  250PBh  500AGB  500AGJ  500AGJs

500PB  1AGB  1AGBna<sub>2</sub>  1AGBs  1PB  1PBna  \_\_\_\_\_  \_\_\_\_\_  \_\_\_\_\_

Solid:  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve (\_\_\_\_)  EnCores® (\_\_\_\_)  TerraCores® (\_\_\_\_)  \_\_\_\_\_

Air:  Tedlar™  Canister  Sorbent Tube  PUF  \_\_\_\_\_ Other Matrix (Issue): 2  \_\_\_\_\_

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO<sub>3</sub>, na = NaOH, naz = Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub>, p = H<sub>3</sub>PO<sub>4</sub>, Labeled/Checked by: SMC

s = H<sub>2</sub>SO<sub>4</sub>, u = ultra-pure, x = Na<sub>2</sub>SO<sub>3</sub>+NaHSO<sub>4</sub>.H<sub>2</sub>O, zma = Zn (CH<sub>3</sub>CO<sub>2</sub>)<sub>2</sub> + NaOH

Reviewed by: SMC



## Case Narrative

Client Project Name: 1702284  
Work Order Number: 17-02-1314

### **CONDITION UPON RECEIPT:**

Eurofins Calscience, Inc. received one tissue sample on February 15, 2017. A total of one container was received in good condition at a temperature of -3.9°C, which was within the recommended temperature criteria.

Client Sample ID	Lab Sample ID	Date & Time Sampled	Date & Time Received
ES-13_020517_ABD_15_MU	17-02-1314-1	02/05/17 17:25	02/15/17 10:45

### **DATA SUMMARY:**

Pursuant to the chain-of-custody (COC), the sample was analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a).

The sample was analyzed within the suggested EPA holding time for the requested methods unless otherwise noted.

Sample results were reported in the RL format.

Any dilutions made to the sample(s) and/or QC will be noted in the following narrative. Reporting limits have been adjusted accordingly.

Unless otherwise noted below, all sample and instrument QC were within acceptance criteria.

### **% Lipids via MeCl<sub>2</sub> Ext. (NOAA 1993a):**

Sample -1 was analyzed for % Lipids using MeCl<sub>2</sub> Ext. (NOAA 1993a). The sample was prepared and analyzed on 02/22/17 in batch # 170222B06 / 170222D06.

### **Sample and QC:**

A sample from a different work order was used as the sample duplicate for quality control. The method blank was non-detect and the duplicate analysis was within acceptance criteria.

**% Lipids via MeCl<sub>2</sub> Ext.  
(NOAA 1993a)**

**RAW DATA**

**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 17-02-1314  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# 1** **CLIENT SAMPLE NUMBER:** ES-13\_020517\_ABD\_15\_MU

**LCS/MB BATCH:** 170222B06 **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:** 170222D06 **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** % **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
2.91	1.00	2.91	0.10	

% Lipids



**METHOD BLANK ASSOCIATION SUMMARY  
FOR METHOD: Mec12 Ext. (NOAA 1993a)**

**MB SAMPLE ID:** 099-14-104-168  
**MB BATCH ID:** 170222B06  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**  
**MATRIX:** Tissue

**DATA FILE:**

**CLIENT WORK ORDER: 17-02-1314**

<u>S#</u>	<u>RUN TYPE</u>	<u>CLIENT SAMPLE ID</u>	<u>D/T ANALYZED</u>	<u>DATA FILE</u>
1	ES-13	020617_ABD_15_MU	2017-02-22 00:00	



**RAW DATA SHEET  
FOR METHOD: MeC12 Ext. (NOAA 1993a)**

**WORK ORDER:** 099-14-104  
**INSTRUMENT:** N/A  
**EXTRACTION:** N/A  
**D/T EXTRACTED:** 2017-02-22 00:00

**ANALYZED BY:** 684  
**D/T ANALYZED:** 2017-02-22 00:00  
**REVIEWED BY:**  
**D/T REVIEWED:**

**DATA FILE:**

**# MB**                      **CLIENT SAMPLE NUMBER:** Method Blank

**LCS/MB BATCH:** 170222B06                      **SAMPLE VOLUME /WEIGHT:** DEFAULT: 20.00 g  
**MS/MSD BATCH:**                                      **FINAL VOLUME /WEIGHT:** DEFAULT: 2.00 ml  
**UNITS:** %    **ADJUSTMENT RATIO TO PF:** 1.00

**COMMENT:**  
**COMPOUND:**

<u>ON COL CONC</u>	<u>DF</u>	<u>CONC</u>	<u>RL</u>	<u>QUAL</u>
0.0120	1.00	ND	0.10	

% Lipids



**DUPLICATE REPORT  
FOR METHOD: MeCl2 Ext. (NOAA 1993a)**

DUP SAMPLE ID: 17-02-0647-1  
DUP BATCH: 170222D06  
INSTRUMENTS:  
SAMPLE: N/A  
DUP SAMPLE: N/A

EXTRACTION: N/A  
D/T EXTRACTED:  
SAMPLE: 2017-02-22 00:00  
DUP SAMPLE: 2017-02-22 00:00

ANALYZED BY: 684  
D/T ANALYZED  
SAMPLE: 2017-02-22 00:00  
DUP SAMPLE: 2017-02-22 00:00  
REVIEWED BY:  
D/T REVIEWED

<u>COMPOUND</u>	<u>SAMPLE CONC</u>	<u>DUP CONC</u>	<u>% RPD</u>	<u>CONTROL LIMIT</u>	<u>STATUS</u>	<u>QUALIFIERS</u>
% Lipids	2.335	2.390	2	0-25	PASS	

Data Files:

<u>TYPE</u>	<u>DATA FILE</u>	<u>DATA FILE PATH</u>
SDP		

### Lipid Content Raw Data Logbook

REAGENT NAME / ID #		REAGENT NAME / ID #		SUPPLY NAME / ID #		COMMENTS					
1) CH <sub>2</sub> Cl <sub>2</sub> S07-55-01		4) Sand S07-19-19		1) Filter S07-44-19							
2) C <sub>6</sub> H <sub>14</sub>											
3) Na <sub>2</sub> SO <sub>4</sub> S07-44-18											
MATRIX	BATCH NUMBER		COMMENTS								
Tissue	MB: 170222B06		Instructions: 1. ECI ID consists of Work Order Number and Container ID. 2. C = [(M3 - M2) / M1] × (V1 / V2) × 100 3. RPD =   Sample% - Duplicate%   × 2 / (Sample% + Duplicate%) × 100								
	Sample Dup: 170222D06										
ECI ID #		LIPID CONTENT (%)	RPD %	CONTROL LIMIT							
Sample 17-02-0647-1AA		2.335	2	0 - 25							
Duplicate 17-02-0647-1AA		2.390									
DATE	ECI ID #	TISSUE SAMPLE MASS (g) (M1)	BALANCE ID #	EXTRACT VOLUME (mL)		WEIGHING DISH MASS (g)		LIPID RESIDUE MASS (g) (M3 - M2)	LIPID CONTENT (%) (C)	ANALYST	COMMENTS
				COLLECTED (V1)	ANALYZED (V2)	INITIAL (M2)	FINAL (M3)				
2/22/17	MB	5.00	52	1	1	1.8371	1.8377	0.0006	0.012000	684	
2/22/17	Duplicate 17-02-0647-1AA	5.00	52	1	1	1.8478	1.9673	0.1195	2.390000	684	
2/22/17	17-02-0647-1AA	5.01	52	1	1	1.8717	1.9887	0.1170	2.335329	684	
2/22/17	17-02-0647-2AA	5.00	52	1	1	1.8398	1.9201	0.0803	1.606000	684	
2/22/17	17-02-0647-3AA	5.02	52	1	1	1.8506	1.9351	0.0845	1.683267	684	
2/22/17	17-02-0647-4AA	5.01	52	1	1	1.8639	1.9641	0.1002	2.000000	684	
2/22/17	17-02-0647-5AA	5.00	52	1	1	1.8382	1.9153	0.0771	1.542000	684	
2/22/17	17-02-0648-1AA	5.01	52	1	1	1.8399	1.9368	0.0969	1.934132	684	
2/22/17	17-02-0648-2AA	5.00	52	1	1	1.8445	1.9453	0.1008	2.016000	684	
2/22/17	17-02-0648-3AA	5.00	52	1	1	1.8577	1.9636	0.1059	2.118000	684	
2/22/17	17-02-0648-4AA	5.02	52	1	1	1.8549	1.9891	0.1342	2.673307	684	
2/22/17	17-02-0649-1AA	5.00	52	1	1	1.8346	1.9805	0.1459	2.918000	684	
2/22/17	17-02-0649-2AA	5.00	52	1	1	1.8495	1.9765	0.1270	2.540000	684	
2/22/17	17-02-0649-3AA	5.01	52	1	1	1.8579	1.9148	0.0569	1.135729	684	
2/22/17	17-02-0649-4AA	5.00	52	1	1	1.8463	1.9761	0.1298	2.596000	684	
2/22/17	17-02-0649-5AA	5.02	52	1	1	1.8433	1.9241	0.0808	1.609562	684	
2/22/17	17-02-1314-1AA	5.00	52	1	1	1.8531	1.9985	0.1454	2.908000	684	
2/22/17	Duplicate 17-02-0648-1AA	5.00	52	1	1	1.8368	1.9377	0.1009	2.018000	684	
2/22/17	Duplicate 17-02-0649-1AA	5.00	52	1	1	1.8549	2.0096	0.1547	3.094000	684	
	Duplicate										

Page 17 of 22

8270 ( Soil Soil SIM SUPER PAH SIM PAH SIM Pest SIM Pest SIM PCB cong SIM H )

Extraction Method (1 PA Method) 3510 3520 3540 3541 X 3545 3550 3580

Analyst ID#: Measuring Sample 682 Start Extraction 682 Blow Down Clean Up:

Matrix: Soil Aqueous Oil Wipe Filler  Tissue Air

Balance ID#: 20 Filter ID#: ASI ID#: Southern ID# Olat Shaker ID# Sample ID#

Ext Start Date/Time: 2/27/17 Ext End Date/Time: 2/27/17 13:36

Sand or wipe ID#: Drying Agent:  Na<sub>2</sub>SO<sub>4</sub> Diatomaceous Earth

Surrogate Std ID# & Volume Added (ml): Drying Agent(s) ID#: 507-17-19 507-44-18

Spike Std ID# & Volume Added (ml): Spike Added to: LCS LCSD TMS & MSD

Extraction Solvent: X MeCl<sub>2</sub> 1:1 Hexane Acetone 1:1:1 MeCl<sub>2</sub>:Acetone 1:9:1 Hexane Diethyl ether 1:Acetonitrile

Extraction Solvent ID#: 507-55-01 Exchange Solvent (L: Hexane: Acetonitrile) ID#:

Clean Up Start Date & Time: Clean Up End Date & Time: Cartridge ID#:

Clean Up Reagent ID#: Cartridge Conditioning Column Pre-Elution Reagent ID#:

MB/CS/MS Batch #: 170222 Bob

Cell ID#:	Sample W (g) / V (ml)	Clean Up		Comments
		Initial	Final	
MB	S.00	1	1	0
LCS	/	/	/	0
LCSD	/	/	/	0
MS	/	/	/	0
MSD	17-02-0647-1AA	S.00	1	0
		-2	1	0
		-3	1	0
		-4	1	0
		-5	1	0
	17-02-0648-1	S.01	1	0
		-2	1	0
		-3	1	0
		-4	1	0
		-5	1	0
	17-02-0649-1	S.00	1	0
		-2	1	0
		-3	1	0
		-4	1	0
		-5	1	0
	17-02-1314-1	S.00	1	0
		-2	1	0
		-3	1	0
		-4	1	0
		-5	1	0
	17-02-0648-1	S.00	1	0
		-2	1	0
		-3	1	0
		-4	1	0
		-5	1	0
	17-02-0649-1 AA	S.00	1	0
		-2	1	0
		-3	1	0
		-4	1	0
		-5	1	0

Peer Reviewed by: 682 Peer Reviewed Date: Revision Date: 10/20/16



# BALANCE CALIBRATION CHECK LOG

Eurofins Calscience

Date performed: 02/22/17 Initials: LOK

ID	Class 2 Weight (g)	Reading (g)	Acceptance Range	Pass? (circle one)	Comment (if not passed, note removal or corrective action)
25	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	500.00	498.00 - 502.00	<input checked="" type="radio"/> Y	N
62	0.002	0.0020	0.00180 - 0.00220	<input checked="" type="radio"/> Y	IO Lab
	1	0.9999	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	99.9904	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
26	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.98	98.00 - 102.00	<input checked="" type="radio"/> Y	N
55	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	99.97	98.00 - 102.00	<input checked="" type="radio"/> Y	N
	500	499.91	498.00 - 502.00	<input checked="" type="radio"/> Y	N
11	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	IO Lab
	100	100.01	98.00 - 102.00	<input checked="" type="radio"/> Y	N
66	0.002	0.0022	0.00180 - 0.00220	<input checked="" type="radio"/> Y	Metals
	1	0.9990	0.99900 - 1.00100	<input checked="" type="radio"/> Y	N
	100	100.0000	99.90000 - 100.10000	<input checked="" type="radio"/> Y	N
53	0.1	0.09	0.09 - 0.11	<input checked="" type="radio"/> Y	Extractions
	1	0.98	0.98 - 1.02	<input checked="" type="radio"/> Y	N
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
20	500	499.99	498 - 502	<input checked="" type="radio"/> Y	N
	1	1.00	0.98 - 1.02	<input checked="" type="radio"/> Y	Extractions
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
57	1000	1000.0	998.0 - 1002.0	<input checked="" type="radio"/> Y	Extractions
	2000	2000.0	1998.0 - 2002.0	<input checked="" type="radio"/> Y	N
	0.002	0.0018	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Extractions
71	1	0.9995	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	99.9905	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
	0.002	0.0018	0.0018 - 0.0022	<input checked="" type="radio"/> Y	BOD Room
63	0.1	0.10	0.09 - 0.11	<input checked="" type="radio"/> Y	BOD Room
	100	100.00	98.00 - 102.00	<input checked="" type="radio"/> Y	N
64	1	1.01	0.98 - 1.02	<input checked="" type="radio"/> Y	Metals Clean Room
	10	10.00	9.8 - 10.2	<input checked="" type="radio"/> Y	N
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N
72	0.002	0.0019	0.0018 - 0.0022	<input checked="" type="radio"/> Y	Oil & Grease Room
	1	0.9995	0.9990 - 1.0010	<input checked="" type="radio"/> Y	N
	100	100.0001	99.9000 - 100.1000	<input checked="" type="radio"/> Y	N
30	1	0.99	0.98 - 1.02	<input checked="" type="radio"/> Y	Oil & Grease Room
	100	99.99	98.00 - 102.00	<input checked="" type="radio"/> Y	N



# Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	SIS1 Sp. L.	Chem Service	M-65MS15B1 B99-5AL	402-1100	6/30/17	5 ml	G	1/26/16	262	3-3-16	785	
2										04-27-16	1061	
3										05-24-16	1001	
4										05-25-16	1000	
5	Chloroform		M-1425J4 -1ML	3177200	2-31-17	1ml		1/26/16	161	02/17/16	669	
6	Hexamethyl-2-Pyridone		M-2161-16	4640200	11-20-17					1/27/16	1018	verified
7												
8	Acetonitrile	Fisher	A998-4	157707	01-26-19	4L X 8	G	01-26-16	1000	01-26-16	1000	
9	Sodium Sulfate Anhydrous	Fisher	S421-10	154284	1-28-21	10kg X 3	P	1-28-16	785	1-28-16	785	
10	Dichloromethane	EMD	DX-0831-1	55313	02-01-19	4L X 60	G	02-01-16	787	02-01-16	787	
11	EPN	Accustd	M-622-10	21505125	05-08-17	1ml	G	2-2-16	960	2-2-16	1018	verified.
12	Carbazole	AccuSTD	M-634-2S	2130523 490	11/21/15	1 ml	G	2-2-16	262	6/9/16	262	
13										6/10/16	923	
14										8/11/16	20	
15										11/8/16	723	
16												
17	IPA	Absolute	F0671	072215	7/22/20	10. L	G	2-4-16	1421	2/5/16	421	
18	Dichloromethane	EMD	DX 0831-1	55310	02/02/19	4L X 80	G	02-02-16	787	02/02/16	787	
19	Sand	EMD	SX0075-30	XH27A	2-10-21	12kg X 3	P	2-10-16	785	2-10-16	785	
20	Hydrochloric Acid	EMD	HX0607-2	55253	2-10-19	2.5L X 3	G	2-10-16	785	2-10-16	785	
21	Sulfuric Acid	EMD	SX1247-2	54132	2-16-19	2.5L X 8	G	2-16-16	785	2-16-16	785	
22	1,4-Phenylenediamine	Supelco	48298	XA16372V	9-30-18	1ml	G	2-22-16	923			
23	Aram 12		861176	LC05648	2-29-17	1ml	G			4/15/16	923	
24	Hexachlorophene	Accustandard	APP-7-116D-20x	21601109	1-7/20	1ml X 5	G	2-23-16	923	7/18/16	923	
25										7/18/16	923	

Page 20 of 22

COMMENTS:

## Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Acetonitrile	Fisher	A998-4	153894	10-7-19	4Lx6	G	10-7-16	785	10-7-16	785	
2	Dichloromethane	EMD	DX0831CS-39	56211	10-7-19	200Lx2	D	10-7-16	785	10-7-16	785	
3	Acetone	Fisher	A929-1	163343	10-20-19	1L	G	10-20-16	262	10-20-16	262	
4	Ethyl Ether	EMD	EX0140-4	55033	02-28-17	4Lx20	G	10-24-16	787	10-24-16	787	Janeloff
5	Ethyl Ether	EMD	EX0110-4	55152	06-30-17	4Lx20	G	10-24-16	787	10-24-16	787	
6	Dichloromethane	EMD	DX0831CS-39	56230	10-25-19	200Lx2	D	10-25-16	787	10-25-16	787	
7	Hexanes	EMD	HX0298CS-39	56197	10-25-19	200Lx1	D	↓	↓	↓	↓	
8	Acetone	EMD	AX0116CS-39	55086	10-25-19	200Lx1	D	↓	↓	↓	↓	
9	Swartz microfiter filters	Whatman	185T-101	7709206	NA	12x100	PxG	10-25-16	142	10-25-16	142	
10	N-Hexanes 95	EMD	HX0295-1	56147	10-27-19	4Lx20	G	10-27-16	787	10-27-16	787	
11	Mercury	SIGMA-ALDRICH	215457	168P7503V	10-28-21	5X2kg	C	10-28-16	787	10-28-16	787	
12	N-isopropylsulfonamide	MIDKON	B4065325m	AKB310701V	10-28-19	250ml	P	10-28-16	262	10-28-16	262	
13	ii	SPEX	S-677	EN16102503	10-26-2019	1 ml	G	11-1-16	262			
14	↓	↓	↓	↓	↓	↓	↓	↓	↓			
15	↓											
16	Supelclean LC-Alumina-A SPE Tube	Supelclean	57083-U	6545701	NA	25	P	11-1-16	684	11-1-16	684	
17	Sodium Sulfate	Fisher	5421-10	161565	11-3-21	10kgx5	P	11-3-16	785	11-3-16	785	
18	sodium sulfate Anhydrous	Fisher	5421-10	161565	11-3-21	10kgx5	P	11-3-16	785	11-3-16	785	
19	Filter paper - 18.5cm	Fisher	09-790-10F	A1005719	NA	100circle x 10	P	11-8-16	785	11-8-16	785	
20	80% SIM STD	ULTRA	CUS-13287	CP-5750	12/31/2018	1 ml	G	11-8-16	262	2/10/17	262	
21	↓	↓	↓	↓	↓	↓	↓	↓	↓			
22	↓	↓	↓	↓	↓	↓	↓	↓	↓			
23	↓	↓	↓	↓	↓	↓	↓	↓	↓			
24	↓	↓	↓	↓	↓	↓	↓	↓	↓			
25					11/9/16							

Page 21 of 22

COMMENTS

## Chemical and Supply Receiving Logbook

LINE #	CHEMICAL / SUPPLY NAME (OR DESCRIPTION)	MANUFACTURER	CATALOG #	LOT #	EXPIRATION DATE	AMOUNT RECEIVED	CONTAINER TYPE	RECEIVED		OPENED		COMMENTS
								DATE	WHO	DATE	WHO	
1	Dichloromethane	EMD	DX083105 <sup>39</sup>	56328	12/20/19	5 x 200 <sup>L</sup>	D	12/20/16	RP7	12/20/16	RP7	
2	Aroclor 1268	Ultra	EPA-1382	CP-6205	1/31/2021	1 mL	G	1/4/17	1028			
3	↓	↓	↓	↓	↓	↓	↓	↓	↓			
4	Methanol	Fisher	A452-4	163656		4 L <sup>4</sup>	G	11/01/17	zbr			
5												
6												
7												
8	Methanol	Fisher	A452-4	163656	11/01/20	4 L <sup>4</sup>	G	11/01/17	zbr	11/01/17	zbr	
9	DEA & TCMs	Accu STD	CEP-032-H50	2450-2153	2015-2018	1 ml	G	1/4/17	zbr			
10												
11												
12												
13												
14												
15												
16												
17												
18												
19	Sodium Chloride	Fisher	277110	100013	1/12/22	1 kg	G	1/15/17	zbr	1/15/17	zbr	
20	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
21	Regene	Accu STD	AS-EC573	2121012501	2/12/2018	1 ml	G	11/9/17	zbr	2/15/17	zbr	
22												
23												
24												
25												

Page 22 of 22

# AMEC FOSTER WHEELER

## USDC Penobscot

### Level IV Data Package

Laboratory SDG:

1702285

PO#

C012208478

March 8, 2017

# AMEC Foster Wheeler

## USDC Penobscot

Laboratory SDG: 1702285

### Table of Contents

March 8, 2017

Section	Page Number
EFGS Analytical Report for Samples	1
Case Narrative	2
Chain of Custody forms	4
Analytical Results Report	7
Quality Control Results	23
Notes and Definitions	31
Raw Data: 7B22008	32
Raw Data: 7C02015	69

**Total Pages – 111**



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
08-Mar-17 09:34

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
FRB-01_020217_ABD_11_BL	1702285-01	Tissue	02-Feb-17 09:20	07-Feb-17 10:35
FRB-01_020217_ABD_12_BL	1702285-02	Tissue	02-Feb-17 09:25	07-Feb-17 10:35
FRB-01_020217_ABD_13_BL	1702285-03	Tissue	02-Feb-17 09:33	07-Feb-17 10:35
FRB-01_020217_ABD_14_BL	1702285-04	Tissue	02-Feb-17 09:40	07-Feb-17 10:35
FRB-01_020217_ABD_15_BL	1702285-05	Tissue	02-Feb-17 09:51	07-Feb-17 10:35
ES-13_020517_ABD_05_BL	1702285-06	Tissue	05-Feb-17 15:15	07-Feb-17 10:35
ES-13_020517_ABD_06_BL	1702285-07	Tissue	05-Feb-17 15:25	07-Feb-17 10:35
ES-13_020517_ABD_07_BL	1702285-08	Tissue	05-Feb-17 15:30	07-Feb-17 10:35
ES-13_020517_ABD_08_BL	1702285-09	Tissue	05-Feb-17 15:35	07-Feb-17 10:35
ES-13_020517_ABD_09_BL	1702285-10	Tissue	05-Feb-17 15:40	07-Feb-17 10:35
ES-13_020517_ABD_10_BL	1702285-11	Tissue	05-Feb-17 15:55	07-Feb-17 10:35
ES-13_020517_ABD_11_BL	1702285-12	Tissue	05-Feb-17 16:05	07-Feb-17 10:35
ES-13_020517_ABD_12_BL	1702285-13	Tissue	05-Feb-17 16:15	07-Feb-17 10:35
ES-13_020517_ABD_13_BL	1702285-14	Tissue	05-Feb-17 16:25	07-Feb-17 10:35
ES-13_020517_ABD_14_BL	1702285-15	Tissue	05-Feb-17 16:35	07-Feb-17 10:35
ES-13_020517_ABD_15_BL	1702285-16	Tissue	05-Feb-17 16:40	07-Feb-17 10:35

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
08-Mar-17 09:34

SAMPLE RECEIPT

Samples were received at Eurofins Frontier Global Sciences (EFGS) on 2/7/2017 10:35:00 AM . The samples were received intact, on-ice within two sealed coolers at -46.5 and 0.7 degrees Celsius.

SAMPLE PREPARATION AND ANALYSIS

Tissue samples were homogenized per EFGS SOP5141 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).

These samples were prepped in two batches; F702349 and F702412. They were analyzed in sequences 7B22008 and 7C02015. There were no requested source QC samples from the client for this set of samples.

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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Amy Goodall, Project Manager





Frontier Global Sciences

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Project Manager: Denise King

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08-Mar-17 09:34

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Amy Goodall, Project Manager

# Sample Receipt Checklist

EFGS Work Order: 1702285

Client: Amec Foster Wheeler

Date & Time Received: 2/7/17 10:35 Date Labeled: 2/14/17 Labeled By: LM

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

Received By: CWF Label Verified By: CWF

# 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>122405225</u>	CF: <u>-0.5 °C</u>	Date/time: <u>2/7/17</u>	By: <u>CWF</u>
Cooler 1: <u>-46 °C</u>	w/CF: <u>-46.5 °C</u>	Cooler 4: °C	w/CF: °C
Cooler 2: <u>1.2 °C</u>	w/CF: <u>0.7 °C</u>	Cooler 5: °C	w/CF: °C
Cooler 3: °C	w/CF: °C	Cooler 6: °C	w/CF: °C

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

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

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

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1702285

# Environmental Analysis Request/Chain of Custody



Frontier Global Sciences

Page 2 of 3

Client: Amec Foster Wheeler / 511 Congress St. Suite 200 Portland, ME 04101		Project Name/#: USDC Penobscot		PN #: 3616166052.04.05		Matrix		Analyses Requested						For Lab Use Only													
Project Manager: Rod Pendleton		P.O. #:		PWSID #:		Quote #:		Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>		Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/>		Preservation Codes		SF #: _____													
Sampler: LV		State where samples were collected: ME		For Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Water <input type="checkbox"/> NPDES <input type="checkbox"/>		Other: Blood <input type="checkbox"/>		Total # of Containers		Total Hg 1631e		SCR #: _____													
Sample Identification		Collection		Grab		Composite		Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>		Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/>		Water <input type="checkbox"/> NPDES <input type="checkbox"/>		Other: Blood <input type="checkbox"/>		Total # of Containers		Total Hg 1631e		70µL Cap Tube / Inst Freeze		Preservation Codes		Remarks			
		Date		Time		Grab		Composite		Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Tissue <input type="checkbox"/>		Potable <input type="checkbox"/> Ground <input type="checkbox"/> Surface <input checked="" type="checkbox"/>		Water <input type="checkbox"/> NPDES <input type="checkbox"/>		Other: Blood <input type="checkbox"/>		Total # of Containers		Total Hg 1631e		70µL Cap Tube / Inst Freeze		H = HCl      T = Thioullate 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			
1	ES-13_17_ABD_01_BL					Grab													2	1							
2	ES-13_17_ABD_01_BL_MS					Grab													2	1						Sample I.D #1 includes extra volume for MS/MSD.	
3	ES-13_17_ABD_01_BL_MD					Grab													2	1							
4	ES-13_17_ABD_02_BL					Grab													4	1							
5	ES-13_17_ABD_03_BL					Grab													4	1							
6	ES-13_17_ABD_04_BL					Grab													4	1							
7	ES-13_020517_ABD_05_BL	020517		1515		Grab													5	1							
8	ES-13_020517_ABD_06_BL			1525		Grab													6	1							
9	ES-13_020517_ABD_07_BL			1530		Grab													5	1							
10	ES-13_020517_ABD_08_BL			1535		Grab													5	1							
11	ES-13_020517_ABD_09_BL			1540		Grab													6	1							
12	ES-13_020517_ABD_10_BL			1555		Grab													5	1							
13	ES-13_020517_ABD_11_BL			1605		Grab													5	1							
14	ES-13_020517_ABD_12_BL			1615		Grab													5	1							
15	ES-13_020517_ABD_13_BL			1625		Grab													6	1							
16	ES-13_020517_ABD_14_BL			1635		Grab													5	1							
17	ES-13_020517_ABD_15_BL			1640		Grab													5	1							
Turnaround Time Requested (TAT) (please check):		Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>		Relinquished by: <i>R. King</i>		Date: 2/6/17		Time: 1300		Received by:		Date:		Time:													
Notes:		FedEx # 8104 2664 1938		Relinquished by:		Date:		Time:		Received by:		Date:		Time:													
Sample disposal - Standard 30 days after report		Report and EDD to: denise.king@amecfw.com / 978-692-6633		Relinquished by:		Date:		Time:		Received by:		Date:		Time:													
Data Package Options (please check if required)		High <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		Relinquished by:		Date:		Time:		Received by:		Date:		Time:													
EDD Required? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		If yes, format:		Relinquished by Commercial Carrier:		UPS <input type="checkbox"/> FedEx <input checked="" type="checkbox"/> Other <input type="checkbox"/>		Temperature upon receipt _____ °C																			



AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
08-Mar-17 09:34

**FRB-01\_020217\_ABD\_11\_BL**  
**1702285-01**

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	83.9	2.94	26.3	ng/g	400	F702412	23-Feb-17	7C02015	01-Mar-17	EPA 1631B	
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**Reported:**  
08-Mar-17 09:34

**FRB-01\_020217\_ABD\_12\_BL**  
**1702285-02**

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	41.5	0.632	5.64	ng/g	100	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**FRB-01\_020217\_ABD\_13\_BL**  
**1702285-03**

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	31.5	0.896	8.00	ng/g	100	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**FRB-01\_020217\_ABD\_14\_BL**  
**1702285-04**

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	89.3	1.74	15.5	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	





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**Reported:**  
08-Mar-17 09:34

**FRB-01\_020217\_ABD\_15\_BL**  
**1702285-05**

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	32.6	0.497	4.44	ng/g	100	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_05\_BL**  
**1702285-06**

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	403	3.36	30.0	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	

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Amy Goodall, Project Manager



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_06\_BL**  
**1702285-07**

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	396	1.78	15.9	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_07\_BL**  
**1702285-08**

Analyte	Detection Result	Reporting Limit	Units	Dilution	Batch	Prepared	Sequence	Analyzed	Method	Notes
<b>Sample Preparation: EFGS-011 Nitric/Sulfuric Hg Digestion</b>										
Mercury	126	1.93	17.2	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_08\_BL**  
**1702285-09**

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	319	2.12	18.9	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_09\_BL**  
**1702285-10**

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	209	2.17	19.4	ng/g	400	F702349	16-Feb-17	7B22008	21-Feb-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_10\_BL**  
**1702285-11**

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	362	5.62	50.2	ng/g	400	F702412	23-Feb-17	7C02015	01-Mar-17	EPA 1631B	



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08-Mar-17 09:34

**ES-13\_020517\_ABD\_11\_BL**  
**1702285-12**

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	377	3.12	27.8	ng/g	400	F702412	23-Feb-17	7C02015	01-Mar-17	EPA 1631B	





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**ES-13\_020517\_ABD\_12\_BL**  
**1702285-13**

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	596	4.59	40.9	ng/g	400	F702412	23-Feb-17	7C02015	01-Mar-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_13\_BL**  
**1702285-14**

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	472	1.96	17.5	ng/g	400	F702412	23-Feb-17	7C02015	01-Mar-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_14\_BL**  
**1702285-15**

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	198	2.40	21.4	ng/g	400	F702412	23-Feb-17	7C02015	01-Mar-17	EPA 1631B	



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**Reported:**  
08-Mar-17 09:34

**ES-13\_020517\_ABD\_15\_BL**  
**1702285-16**

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	408	2.11	18.8	ng/g	400	F702412	23-Feb-17	7C02015	01-Mar-17	EPA 1631B	

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Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

Reported:  
08-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 7B22008 - F702348</b>											
<b>Cal Standard (7B22008-CAL1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.521	-		ng/L	0.50100		104				
<b>Cal Standard (7B22008-CAL2)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.956	-		ng/L	1.0020		95.4				
<b>Cal Standard (7B22008-CAL3)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.069	-		ng/L	5.0100		101				
<b>Cal Standard (7B22008-CAL4)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	19.79	-		ng/L	20.040		98.8				
<b>Cal Standard (7B22008-CAL5)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	39.93	-		ng/L	40.080		99.6				
<b>Calibration Blank (7B22008-CCB1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.065	-		ng/L							
<b>Calibration Blank (7B22008-CCB2)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.042	-		ng/L							
<b>Calibration Blank (7B22008-CCB3)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.057	-		ng/L							
<b>Calibration Blank (7B22008-CCB4)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.069	-		ng/L							
<b>Calibration Blank (7B22008-CCB5)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	0.039	-		ng/L							

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AMEC Foster Wheeler  
511 Congress Street  
Portland ME, 04101

Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

Reported:  
08-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B22008 - F702348

<b>Calibration Blank (7B22008-CCB6)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	0.064	-		ng/L							
<b>Calibration Blank (7B22008-CCB7)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	0.086	-		ng/L							
<b>Calibration Blank (7B22008-CCB8)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	0.079	-		ng/L							
<b>Calibration Check (7B22008-CCV1)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.090	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV2)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.086	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV3)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.046	-		ng/L	5.0000		101	77-123			
<b>Calibration Check (7B22008-CCV4)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.120	-		ng/L	5.0000		102	77-123			
<b>Calibration Check (7B22008-CCV5)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.210	-		ng/L	5.0000		104	77-123			
<b>Calibration Check (7B22008-CCV6)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.015	-		ng/L	5.0000		100	77-123			
<b>Calibration Check (7B22008-CCV7)</b>											
Prepared & Analyzed: 21-Feb-17											
Mercury	5.109	-		ng/L	5.0000		102	77-123			

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Reported:  
08-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7B22008 - F702348

<b>Calibration Check (7B22008-CCV8)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.481	-		ng/L	5.0000		110	77-123			
<b>Instrument Blank (7B22008-IBL1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7B22008-IBL2)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Instrument Blank (7B22008-IBL3)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	ND	0.004	0.040	ng/L							U
<b>Initial Cal Check (7B22008-ICV1)</b>					Prepared & Analyzed: 21-Feb-17						
Mercury	5.062	-		ng/L	5.0000		101	77-123			

Batch 7C02015 - F702412

<b>Cal Standard (7C02015-CAL1)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	0.495	-		ng/L	0.50100		98.9				
<b>Cal Standard (7C02015-CAL2)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	1.020	-		ng/L	1.0020		102				
<b>Cal Standard (7C02015-CAL3)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	5.112	-		ng/L	5.0100		102				
<b>Cal Standard (7C02015-CAL4)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	20.08	-		ng/L	20.040		100				

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Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
08-Mar-17 09:34

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch 7C02015 - F702412**

<b>Cal Standard (7C02015-CAL5)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	38.51	-		ng/L	40.080		96.1				
<b>Calibration Blank (7C02015-CCB1)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	0.010	-		ng/L							
<b>Calibration Blank (7C02015-CCB2)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	0.019	-		ng/L							
<b>Calibration Blank (7C02015-CCB3)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	0.094	-		ng/L							
<b>Calibration Blank (7C02015-CCB4)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	0.056	-		ng/L							
<b>Calibration Blank (7C02015-CCB5)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	0.285	-		ng/L							
<b>Calibration Blank (7C02015-CCB6)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	0.123	-		ng/L							
<b>Calibration Check (7C02015-CCV1)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	5.344	-		ng/L	5.0000		107	77-123			
<b>Calibration Check (7C02015-CCV2)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	5.160	-		ng/L	5.0000		103	77-123			
<b>Calibration Check (7C02015-CCV3)</b>					Prepared & Analyzed: 01-Mar-17						
Mercury	5.242	-		ng/L	5.0000		105	77-123			

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Reported:  
08-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7C02015 - F702412

Calibration Check (7C02015-CCV4) Prepared & Analyzed: 01-Mar-17

Mercury	5.476	-		ng/L	5.0000		110	77-123			
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Calibration Check (7C02015-CCV5) Prepared & Analyzed: 01-Mar-17

Mercury	5.312	-		ng/L	5.0000		106	77-123			
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Calibration Check (7C02015-CCV6) Prepared & Analyzed: 01-Mar-17

Mercury	5.232	-		ng/L	5.0000		105	77-123			
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Instrument Blank (7C02015-IBL1) Prepared & Analyzed: 01-Mar-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7C02015-IBL2) Prepared & Analyzed: 01-Mar-17

Mercury	ND	0.004	0.040	ng/L							U
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Instrument Blank (7C02015-IBL3) Prepared & Analyzed: 01-Mar-17

Mercury	ND	0.004	0.040	ng/L							U
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Initial Cal Check (7C02015-ICV1) Prepared & Analyzed: 01-Mar-17

Mercury	5.318	-		ng/L	5.0000		106	77-123			
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Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion

Blank (F702349-BLK1) Prepared: 16-Feb-17 Analyzed: 21-Feb-17

Mercury	0.124	0.090	0.800	ng/g							J
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Blank (F702349-BLK2) Prepared: 16-Feb-17 Analyzed: 21-Feb-17

Mercury	0.147	0.090	0.800	ng/g							J
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Project: Penobscot Tissues - Hg and % Lipids - 2017  
Project Number: Penobscot Tissues - Hg and % Lipids - 2017  
Project Manager: Denise King

**Reported:**  
08-Mar-17 09:34

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F702349-BLK3)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	0.121	0.090	0.800	ng/g							J
<b>Blank (F702349-BLK4)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	ND	0.052	0.464	ng/g							F-03, U
<b>Blank (F702349-BLK5)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	ND	0.051	0.456	ng/g							F-03, U
<b>LCS (F702349-BS1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.759	0.090	0.800	ng/g	8.0160		96.8	75-125			
<b>LCS (F702349-BS2)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	331.9	3.58	31.9	ng/g	381.58		87.0	75-125			
<b>LCS Dup (F702349-BSD1)</b>					Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	7.865	0.090	0.800	ng/g	8.0160		98.1	75-125	1.36	24	
<b>Duplicate (F702349-DUP1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	469.8	1.72	15.3	ng/g		440.7			6.40	24	
<b>Matrix Spike (F702349-MS1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3619	10.0	89.4	ng/g	3585.0	440.7	88.7	71-125			
<b>Matrix Spike (F702349-MS2)</b>					Source: 1702050-29 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	2635	5.59	49.9	ng/g	2001.5	700.2	96.7	71-125			
<b>Matrix Spike Dup (F702349-MSD1)</b>					Source: 1702284-01 Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	3390	9.53	85.1	ng/g	3410.5	440.7	86.5	71-125	2.48	24	





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08-Mar-17 09:34

Quality Control Data

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch F702349 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Matrix Spike Dup (F702349-MSD2)</b>		<b>Source: 1702050-29</b>			Prepared: 16-Feb-17 Analyzed: 21-Feb-17						
Mercury	2646	5.59	49.9	ng/g	2001.5	700.2	97.2	71-125	0.546	24	
<b>Batch F702412 - EFGS-011 Nitric/Sulfuric Hg Digestion</b>											
<b>Blank (F702412-BLK1)</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17									
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F702412-BLK2)</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17									
Mercury	ND	0.090	0.800	ng/g							U
<b>Blank (F702412-BLK3)</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17									
Mercury	ND	0.090	0.800	ng/g							U
<b>LCS (F702412-BS1)</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17									
Mercury	8.045	0.090	0.800	ng/g	8.0160		100	75-125			
<b>LCS (F702412-BS2)</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17									
Mercury	339.0	3.56	31.8	ng/g	383.41		88.4	75-125			
<b>LCS Dup (F702412-BSD1)</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17									
Mercury	7.986	0.090	0.800	ng/g	8.0160		99.6	75-125	0.745	24	
<b>Duplicate (F702412-DUP1)</b>		<b>Source: 1702248-01RE1</b>			Prepared: 23-Feb-17 Analyzed: 01-Mar-17						
Mercury	333.5	1.55	13.8	ng/g		514.1			42.6	24	QR-07
<b>Duplicate (F702412-DUP2)</b>		<b>Source: 1702248-01RE1</b>			Prepared: 23-Feb-17 Analyzed: 01-Mar-17						
Mercury	517.0	1.62	14.5	ng/g		514.1			0.554	24	AD

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08-Mar-17 09:34

**Quality Control Data**

Analyte	Result	Detection Limit	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch F702412 - EFGS-011 Nitric/Sulfuric Hg Digestion**

<b>Matrix Spike (F702412-MS1)</b>		<b>Source: 1702248-01RE1</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17							
Mercury	632.1	1.54	13.7	ng/g	343.05	514.1	34.4	71-125			QM-02
<b>Matrix Spike (F702412-MS2)</b>		<b>Source: 1702248-01RE1</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17							
Mercury	1912	4.06	36.2	ng/g	1451.6	514.1	96.3	71-125			AS
<b>Matrix Spike Dup (F702412-MSD1)</b>		<b>Source: 1702248-01RE1</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17							
Mercury	685.1	1.51	13.5	ng/g	336.70	514.1	50.8	71-125	38.5	24	QM-02, QR-08
<b>Matrix Spike Dup (F702412-MSD2)</b>		<b>Source: 1702248-01RE1</b>		Prepared: 23-Feb-17 Analyzed: 01-Mar-17							
Mercury	2025	4.06	36.2	ng/g	1451.6	514.1	104	71-125	7.79	24	AS

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**Reported:**  
08-Mar-17 09:34

**Notes and Definitions**

- U Analyte was not detected and is reported as less than the LOD or as defined by the client. The LOD has been adjusted for any dilution or concentration of the sample.
- QR-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.
- 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





Frontier Global Sciences

THg26003-170221-1

Analysis Datasheet for Total Mercury

Date of Analysis: February 21, 2017

Analyst: DM2

Instrument #: Hg2600-3

Units ng/L

LIMS Sequence #: 7B22007, 7B22008

Calibration Statistics:

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	81.99 units	163.97	76.94 units	153.87	104.2 %Rec
SEQ-CAL2	1	1.00 ng/L	146.26 units	146.26	141.21 units	141.21	95.6 %Rec
SEQ-CAL3	1	5.00 ng/L	753.59 units	150.72	748.54 units	149.71	101.4 %Rec
SEQ-CAL4	1	20.00 ng/L	2927.92 units	146.40	2922.87 units	146.14	99.0 %Rec
SEQ-CAL5	1	40.00 ng/L	5901.49 units	147.54	5896.44 units	147.41	99.8 %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**  
 147.67            +/- 4.66            3.2% RSD            150.98

Blanks:

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	5.05 units	±1.41	0.03 ng/L	±0.01

Preparation Blanks

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	1.176 ng/L	±0.073
BLK	2	3	1.635 ng/L	±0.177
BLK	3	3	12.162 ng/L	±2.448
BLK	4	0	0.000 ng/L	
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURED  
 PEER-REVIEWED  
 INITIALS: *CMK* 2/24/17  
                   *A* 3/1/17

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	2/21/2017 8:26:36	61304-1.RAW	8:26:36 AM	6.19			1.1	0.008	0.008	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL2	1	2/21/2017 8:30:44	61305-1.RAW	8:30:44 AM	5.49			0.4	0.003	0.003	ng/L	
Hg2600-3	DM2	CAL	SEQ-IBL3	1	2/21/2017 8:34:53	61306-1.RAW	8:34:53 AM	3.47			-1.6	-0.011	-0.011	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL1	1	2/21/2017 8:39:01	61307-1.RAW	8:39:01 AM	81.99			76.9	0.521	0.521	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL2	1	2/21/2017 8:43:09	61308-1.RAW	8:43:09 AM	146.26			141.2	0.956	0.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL3	1	2/21/2017 8:47:18	61309-1.RAW	8:47:18 AM	753.59			748.5	5.069	5.069	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL4	1	2/21/2017 8:51:26	61310-1.RAW	8:51:26 AM	2927.92			2922.9	19.793	19.793	ng/L	
Hg2600-3	DM2	CAL	SEQ-CAL5	1	2/21/2017 8:55:35	61311-1.RAW	8:55:35 AM	5901.49			5896.4	39.930	39.930	ng/L	
Hg2600-3	DM2	CAL	SEQ-ICV1	1	2/21/2017 8:59:43	61312-1.RAW	8:59:43 AM	752.56			747.5	5.062	5.062	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK1	20	2/21/2017 9:03:52	61313-1.RAW	9:03:52 AM	14.02	1		9.0	0.061	1.214	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK2	20	2/21/2017 9:08:00	61314-1.RAW	9:08:00 AM	14.08	1		9.0	0.061	1.223	ng/L	
Hg2600-3	DM2	BLK	F702348-BLK3	20	2/21/2017 9:12:08	61315-1.RAW	9:12:08 AM	13.11	1		8.1	0.055	1.092	ng/L	
Hg2600-3	DM2	SAM	F702348-BS1	20	2/21/2017 9:16:17	61316-1.RAW	9:16:17 AM	727.50	1		722.4	4.834	96.670	ng/L	
Hg2600-3	DM2	SAM	F702348-BSD1	20	2/21/2017 9:20:25	61317-1.RAW	9:20:25 AM	728.71	1		723.7	4.842	96.834	ng/L	
Hg2600-3	DM2	SAM	F702348-BS2	400	2/21/2017 9:24:34	61318-1.RAW	9:24:34 AM	764.12	1		759.1	5.137	2054.950	ng/L	
Hg2600-3	DM2	SAM	1702050-01	100	2/21/2017 9:28:42	61319-1.RAW	9:28:42 AM	678.28	1		673.2	4.547	454.731	ng/L	
Hg2600-3	DM2	SAM	1702050-02	100	2/21/2017 9:32:50	61320-1.RAW	9:32:50 AM	2338.74	1		2333.7	15.792	1579.177	ng/L	
Hg2600-3	DM2	SAM	1702050-03	100	2/21/2017 9:36:59	61321-1.RAW	9:36:59 AM	7610.93	1		7605.9	51.495	5149.451	ng/L	
Hg2600-3	DM2	SAM	1702050-04	100	2/21/2017 9:41:07	61322-1.RAW	9:41:07 AM	2536.43	1		2531.4	17.130	1713.048	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV1	1	2/21/2017 9:45:16	61323-1.RAW	9:45:16 AM	756.66			751.6	5.090	5.090	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB1	1	2/21/2017 9:49:24	61324-1.RAW	9:49:24 AM	14.58			9.5	0.065	0.065	ng/L	
Hg2600-3	DM2	SAM	1702050-05	400	2/21/2017 9:53:33	61325-1.RAW	9:53:33 AM	639.06	1		634.0	4.291	1716.215	ng/L	
Hg2600-3	DM2	SAM	1702050-06	400	2/21/2017 9:57:41	61326-1.RAW	9:57:41 AM	2264.12	1		2259.1	15.295	6118.099	ng/L	
Hg2600-3	DM2	SAM	1702050-07	400	2/21/2017 10:01:49	61327-1.RAW	10:01:49 AM	505.11	1		500.1	3.383	1353.360	ng/L	
Hg2600-3	DM2	SAM	1702050-08	400	2/21/2017 10:05:58	61328-1.RAW	10:05:58 AM	918.44	1		913.4	6.182	2472.973	ng/L	
Hg2600-3	DM2	SAM	1702050-09	400	2/21/2017 10:10:06	61329-1.RAW	10:10:06 AM	151.56	1		146.5	0.989	395.692	ng/L	
Hg2600-3	DM2	SAM	1702050-10	400	2/21/2017 10:14:15	61330-1.RAW	10:14:15 AM	1046.05	1		1041.0	7.047	2818.643	ng/L	
Hg2600-3	DM2	SAM	1702050-11	400	2/21/2017 10:18:23	61331-1.RAW	10:18:23 AM	633.70	1		628.6	4.254	1701.681	ng/L	
Hg2600-3	DM2	SAM	1702050-12	400	2/21/2017 10:22:31	61332-1.RAW	10:22:31 AM	1627.17	1		1622.1	10.982	4392.747	ng/L	
Hg2600-3	DM2	SAM	1702050-13	400	2/21/2017 10:26:40	61333-1.RAW	10:26:40 AM	1181.23	1		1176.2	7.962	3184.806	ng/L	
Hg2600-3	DM2	SAM	1702050-14	400	2/21/2017 10:30:48	61334-1.RAW	10:30:48 AM	1890.11	1		1885.1	12.763	5105.007	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV2	1	2/21/2017 10:34:57	61335-1.RAW	10:34:57 AM	756.15			751.1	5.086	5.086	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB2	1	2/21/2017 10:39:05	61336-1.RAW	10:39:05 AM	11.20			6.1	0.042	0.042	ng/L	
Hg2600-3	DM2	SAM	1702050-15	400	2/21/2017 10:43:14	61337-1.RAW	10:43:14 AM	1392.92	1		1387.9	9.396	3758.238	ng/L	
Hg2600-3	DM2	SAM	1702050-16	400	2/21/2017 10:47:22	61338-1.RAW	10:47:22 AM	132.10	1		127.1	0.857	342.978	ng/L	
Hg2600-3	DM2	SAM	1702050-17	400	2/21/2017 10:51:30	61339-1.RAW	10:51:30 AM	168.73	1		163.7	1.105	442.184	ng/L	
Hg2600-3	DM2	SAM	1702050-18	400	2/21/2017 10:55:39	61340-1.RAW	10:55:39 AM	85.96	1		80.9	0.545	217.974	ng/L	
Hg2600-3	DM2	SAM	1702050-19	400	2/21/2017 10:59:47	61341-1.RAW	10:59:47 AM	381.32	1		376.3	2.545	1018.042	ng/L	
Hg2600-3	DM2	SAM	1702168-01	400	2/21/2017 11:03:56	61342-1.RAW	11:03:56 AM	1737.78	1		1732.7	11.731	4692.366	ng/L	
Hg2600-3	DM2	SAM	1702050-03RE1	400	2/21/2017 11:08:04	61343-1.RAW	11:08:04 AM	1914.44	1		1909.4	12.927	5170.889	ng/L	
Hg2600-3	DM2	SAM	1702050-04RE1	100	2/21/2017 11:12:12	61344-1.RAW	11:12:12 AM	2532.04	1		2527.0	17.101	1710.073	ng/L	
Hg2600-3	DM2	SAM	1702050-09RE1	100	2/21/2017 11:16:21	61345-1.RAW	11:16:21 AM	567.16	1		562.1	3.795	379.477	ng/L	
Hg2600-3	DM2	SAM	F702348-DUP1	400	2/21/2017 11:20:29	61346-1.RAW	11:20:29 AM	1867.94	1		1862.9	12.612	5044.937	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV3	1	2/21/2017 11:24:38	61347-1.RAW	11:24:38 AM	750.19			745.1	5.046	5.046	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB3	1	2/21/2017 11:28:46	61348-1.RAW	11:28:46 AM	13.47			8.4	0.057	0.057	ng/L	
Hg2600-3	DM2	SAM	F702348-MS1	2500	2/21/2017 11:32:55	61349-1.RAW	11:32:55 AM	3045.80	1		3040.8	20.591	51478.000	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD1	2500	2/21/2017 11:37:03	61350-1.RAW	11:37:03 AM	2993.87	1		2988.8	20.239	50598.744	ng/L	
Hg2600-3	DM2	SAM	F702348-MS2	2500	2/21/2017 11:41:11	61351-1.RAW	11:41:11 AM	3086.12	1		3081.1	20.864	52160.563	ng/L	
Hg2600-3	DM2	SAM	F702348-MSD2	2500	2/21/2017 11:45:20	61352-1.RAW	11:45:20 AM	3145.64	1		3140.6	21.267	53168.269	ng/L	
Hg2600-3	DM2	SAM	1702050-16RE1	100	2/21/2017 11:49:28	61353-1.RAW	11:49:28 AM	512.19	1		507.1	3.423	342.255	ng/L	
Hg2600-3	DM2	SAM	1702050-17RE1	100	2/21/2017 11:53:37	61354-1.RAW	11:53:37 AM	663.15	1		658.1	4.445	444.481	ng/L	
Hg2600-3	DM2	SAM	1702050-18RE1	100	2/21/2017 11:57:45	61355-1.RAW	11:57:45 AM	307.40	1		302.3	2.036	203.572	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK1	20	2/21/2017 12:01:53	61356-1.RAW	12:01:53 PM	16.47	2		11.4	0.077	1.547	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK2	20	2/21/2017 12:06:02	61357-1.RAW	12:06:02 PM	18.63	2		13.6	0.092	1.839	ng/L	
Hg2600-3	DM2	BLK	F702349-BLK3	20	2/21/2017 12:10:10	61358-1.RAW	12:10:10 PM	16.26	2		11.2	0.076	1.518	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV4	1	2/21/2017 12:14:19	61359-1.RAW	12:14:19 PM	761.16			756.1	5.120	5.120	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB4	1	2/21/2017 12:18:27	61360-1.RAW	12:18:27 PM	15.28			10.2	0.069	0.069	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	*F702349-BLK4	20	2/21/2017 12:22:36	61361-1.RAW	12:22:36 PM	16.45	2		11.4	-0.005	-0.091	ng/L	
Hg2600-3	DM2	SAM	*F702349-BLK5	20	2/21/2017 12:26:44	61362-1.RAW	12:26:44 PM	14.61	2		9.6	-0.017	-0.340	ng/L	
Hg2600-3	DM2	SAM	F702349-BS1	20	2/21/2017 12:30:52	61363-1.RAW	12:30:52 PM	733.23	2		728.2	4.849	96.989	ng/L	
Hg2600-3	DM2	SAM	F702349-BSD1	20	2/21/2017 12:35:01	61364-1.RAW	12:35:01 PM	743.04	2		738.0	4.916	98.317	ng/L	
Hg2600-3	DM2	SAM	F702349-BS2	400	2/21/2017 12:39:09	61365-1.RAW	12:39:09 PM	773.32	2		768.3	5.199	2079.412	ng/L	
Hg2600-3	DM2	SAM	1702050-20	400	2/21/2017 12:43:18	61366-1.RAW	12:43:18 PM	243.99	2		238.9	1.614	645.567	ng/L	
Hg2600-3	DM2	SAM	1702050-21	400	2/21/2017 12:47:26	61367-1.RAW	12:47:26 PM	43.76	2		38.7	0.258	103.218	ng/L	
Hg2600-3	DM2	SAM	1702050-22	400	2/21/2017 12:51:34	61368-1.RAW	12:51:34 PM	130.64	2		125.6	0.846	338.562	ng/L	
Hg2600-3	DM2	SAM	1702050-23	400	2/21/2017 12:55:43	61369-1.RAW	12:55:43 PM	192.04	2		187.0	1.262	504.867	ng/L	
Hg2600-3	DM2	SAM	1702050-24	400	2/21/2017 12:59:51	61370-1.RAW	12:59:51 PM	197.98	2		192.9	1.302	520.956	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV5	1	2/21/2017 13:04:00	61371-1.RAW	1:04:00 PM	774.4704421			769.4	5.210	5.210	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB5	1	2/21/2017 13:08:08	61372-1.RAW	1:08:08 PM	10.74			5.7	0.039	0.039	ng/L	
Hg2600-3	DM2	SAM	1702050-25	400	2/21/2017 13:12:17	61373-1.RAW	1:12:17 PM	258.42	2		253.4	1.712	684.678	ng/L	
Hg2600-3	DM2	SAM	1702050-26	400	2/21/2017 13:16:25	61374-1.RAW	1:16:25 PM	636.26	2		631.2	4.270	1708.150	ng/L	
Hg2600-3	DM2	SAM	1702050-27	400	2/21/2017 13:20:33	61375-1.RAW	1:20:33 PM	1124.78	2		1119.7	7.579	3031.438	ng/L	
Hg2600-3	DM2	SAM	1702050-28	400	2/21/2017 13:24:42	61376-1.RAW	1:24:42 PM	698.55	2		693.5	4.692	1876.893	ng/L	
Hg2600-3	DM2	SAM	1702050-29	400	2/21/2017 13:28:50	61377-1.RAW	1:28:50 PM	1040.95	2		1035.9	7.011	2804.374	ng/L	
Hg2600-3	DM2	SAM	1702284-01	400	2/21/2017 13:32:59	61378-1.RAW	1:32:59 PM	2318.99	2		2313.9	15.666	6266.267	ng/L	
Hg2600-3	DM2	SAM	1702285-02	400	2/21/2017 13:37:07	61379-1.RAW	1:37:07 PM	148.08	2		143.0	0.964	385.786	ng/L	
Hg2600-3	DM2	SAM	1702285-03	400	2/21/2017 13:41:16	61380-1.RAW	1:41:16 PM	88.53	2		83.5	0.561	224.493	ng/L	
Hg2600-3	DM2	SAM	1702285-04	400	2/21/2017 13:45:24	61381-1.RAW	1:45:24 PM	429.79	2		424.7	2.872	1148.882	ng/L	
Hg2600-3	DM2	SAM	1702285-05	400	2/21/2017 13:49:32	61382-1.RAW	1:49:32 PM	152.66	2		147.6	0.995	398.194	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV6	1	2/21/2017 13:53:41	61383-1.RAW	1:53:41 PM	745.67			740.6	5.015	5.015	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB6	1	2/21/2017 13:57:49	61384-1.RAW	1:57:49 PM	14.54			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702285-06	400	2/21/2017 14:01:58	61385-1.RAW	2:01:58 PM	996.54	2		991.5	6.710	2684.081	ng/L	
Hg2600-3	DM2	SAM	1702285-07	400	2/21/2017 14:06:06	61386-1.RAW	2:06:06 PM	1844.40	2		1839.4	12.452	4980.730	ng/L	
Hg2600-3	DM2	SAM	1702285-08	400	2/21/2017 14:10:14	61387-1.RAW	2:10:14 PM	548.04	2		543.0	3.673	1469.180	ng/L	
Hg2600-3	DM2	SAM	1702285-09	400	2/21/2017 14:14:23	61388-1.RAW	2:14:23 PM	1253.40	2		1248.3	8.450	3379.843	ng/L	
Hg2600-3	DM2	SAM	1702285-10	400	2/21/2017 14:18:31	61389-1.RAW	2:18:31 PM	803.56	2		798.5	5.403	2161.343	ng/L	
Hg2600-3	DM2	SAM	1702050-21RE1	50	2/21/2017 14:22:40	61390-1.RAW	2:22:40 PM	272.27	2		267.2	1.777	88.844	ng/L	
Hg2600-3	DM2	SAM	1702050-22RE1	100	2/21/2017 14:26:48	61391-1.RAW	2:26:48 PM	494.75	2		489.7	3.300	329.988	ng/L	
Hg2600-3	DM2	SAM	F702349-DUP1	400	2/21/2017 14:30:57	61392-1.RAW	2:30:57 PM	2265.59	2		2260.5	15.304	6121.632	ng/L	
Hg2600-3	DM2	SAM	F702349-MS1	2500	2/21/2017 14:37:19	61393-2.RAW	2:37:19 PM	2992.78	2		2987.7	20.232	50579.842	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD1	2500	2/21/2017 14:41:27	61394-1.RAW	2:41:27 PM	2947.05	2		2942.0	19.922	49805.588	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV7	1	2/21/2017 14:45:36	61395-1.RAW	2:45:36 PM	759.43			754.4	5.109	5.109	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB7	1	2/21/2017 14:49:44	61396-1.RAW	2:49:44 PM	17.74			12.7	0.086	0.086	ng/L	
Hg2600-3	DM2	SAM	F702349-MS2	400	2/21/2017 14:53:52	61397-1.RAW	2:53:52 PM	3901.71	2		3896.7	26.384	10553.466	ng/L	
Hg2600-3	DM2	SAM	F702349-MSD2	400	2/21/2017 14:58:01	61398-1.RAW	2:58:01 PM	3917.35	2		3912.3	26.490	10595.853	ng/L	
Hg2600-3	DM2	SAM	1702285-02RE1	100	2/21/2017 15:02:09	61399-1.RAW	3:02:09 PM	551.38	2		546.3	3.683	368.335	ng/L	
Hg2600-3	DM2	SAM	1702285-03RE1	100	2/21/2017 15:06:18	61400-1.RAW	3:06:18 PM	297.98	2		292.9	1.967	196.736	ng/L	
Hg2600-3	DM2	SAM	1702285-05RE1	100	2/21/2017 15:10:26	61401-1.RAW	3:10:26 PM	550.27	2		545.2	3.676	367.580	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK1	100	2/21/2017 15:14:34	61402-1.RAW	3:14:34 PM	23.19	3		18.1	0.123	12.281	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK2	100	2/21/2017 15:18:43	61403-1.RAW	3:18:43 PM	26.53	3		21.5	0.145	14.548	ng/L	
Hg2600-3	DM2	BLK	F702375-BLK3	100	2/21/2017 15:22:51	61404-1.RAW	3:22:51 PM	19.31	3		14.3	0.097	9.656	ng/L	
Hg2600-3	DM2	SAM	F702375-BS1	400	2/21/2017 15:27:00	61405-1.RAW	3:27:00 PM	676.97	3		671.9	4.520	1807.897	ng/L	
Hg2600-3	DM2	SAM	F702375-BSD1	400	2/21/2017 15:31:08	61406-1.RAW	3:31:08 PM	684.62	3		679.6	4.572	1828.636	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV8	1	2/21/2017 15:35:17	61407-1.RAW	3:35:17 PM	814.38			809.3	5.481	5.481	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB8	1	2/21/2017 15:39:25	61408-1.RAW	3:39:25 PM	16.73			11.7	0.079	0.079	ng/L	
Hg2600-3	DM2	SAM	1702401-01	1000	2/21/2017 15:43:33	61409-1.RAW	3:43:33 PM	852.11	3		847.1	5.724	5724.055	ng/L	
Hg2600-3	DM2	SAM	1702401-02	1000	2/21/2017 15:47:42	61410-1.RAW	3:47:42 PM	2354.59	3		2349.5	15.899	15898.697	ng/L	
Hg2600-3	DM2	SAM	1702402-01	400	2/21/2017 15:51:50	61411-1.RAW	3:51:50 PM	2100.12	3		2095.1	14.157	5662.872	ng/L	
Hg2600-3	DM2	SAM	1702402-02	400	2/21/2017 15:55:59	61412-1.RAW	3:55:59 PM	4404.39	3		4399.3	29.762	11904.600	ng/L	
Hg2600-3	DM2	SAM	1702403-01	400	2/21/2017 16:00:07	61413-1.RAW	4:00:07 PM	1158.80	3		1153.7	7.783	3113.067	ng/L	
Hg2600-3	DM2	SAM	1702403-02	400	2/21/2017 16:04:16	61414-1.RAW	4:04:16 PM	1758.84	3		1753.8	11.846	4738.430	ng/L	
Hg2600-3	DM2	SAM	1702401-01B	100	2/21/2017 16:08:25	61415-1.RAW	4:08:25 PM	25.16	3		20.1	0.015	1.458	ng/L	
Hg2600-3	DM2	SAM	1702401-02B	100	2/21/2017 16:12:33	61416-1.RAW	4:12:33 PM	53.27	3		48.2	0.205	20.493	ng/L	
Hg2600-3	DM2	SAM	1702402-01B	100	2/21/2017 16:16:42	61417-1.RAW	4:16:42 PM	19.11	3		14.1	-0.026	-2.643	ng/L	
Hg2600-3	DM2	SAM	1702402-02B	100	2/21/2017 16:20:50	61418-1.RAW	4:20:50 PM	26.41	3		21.4	0.023	2.305	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCV9	1	2/21/2017 16:24:59	61419-1.RAW	4:24:59 PM	802.04			797.0	5.397	5.397	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCB9	1	2/21/2017 16:29:07	61420-1.RAW	4:29:07 PM	14.50			9.5	0.064	0.064	ng/L	
Hg2600-3	DM2	SAM	1702403-01B	100	2/21/2017 16:33:16	61421-1.RAW	4:33:16 PM	18.28	3		13.2	-0.032	-3.200	ng/L	
Hg2600-3	DM2	SAM	1702403-02B	100	2/21/2017 16:37:24	61422-1.RAW	4:37:24 PM	21.37	3		16.3	-0.011	-1.110	ng/L	
Hg2600-3	DM2	SAM	F702375-DUP1	1000	2/21/2017 16:41:32	61423-1.RAW	4:41:32 PM	867.22	3		862.2	5.826	5826.392	ng/L	
Hg2600-3	DM2	SAM	F702375-MS1	1000	2/21/2017 16:45:41	61424-1.RAW	4:45:41 PM	3806.61	3		3801.6	25.732	25731.594	ng/L	
Hg2600-3	DM2	SAM	F702375-MSD1	1000	2/21/2017 16:49:49	61425-1.RAW	4:49:49 PM	3938.99	3		3933.9	26.628	26628.064	ng/L	



Instrument	Analyst	Sample Type	LabNumber	Dilution	Analized	FileID	RunEnd	Uncorrected Response	Batch ID	No PB Correction?	RESP	InitialResult	FinalResult	InitialUnits	Comments
Hg2600-3	DM2	CAL	SEQ-CCVA	1	2/21/2017 16:53:58	61426-1.RAW	4:53:58 PM	815.04			810.0	5.485	5.485	ng/L	
Hg2600-3	DM2	CAL	SEQ-CCBA	1	2/21/2017 16:58:06	61427-1.RAW	4:58:06 PM	20.72			15.7	0.106	0.106	ng/L	

TotalMercury EPA1631 Operat: DM BlankS: 5.0508 Calib Eqn: Conc = (Area-5.050 Run Date: 2/21/2017 Blank SD: 1.411904368  
 Workst THg260i CalibFa 147.67 Status: QC Warnings:4/QC E Run Time: 14:33:10 Blank RSD%: 27.95430348  
 Methoc ### R: 1 R²: 1 CF SD: 4.656872348  
 Descrip THg26003-170221-1 CF RSD%: 3.153586442

SampleID	Locator	Run#	Diine	Blank	Conc (ppm)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (elt)	Flags	RunCount
Clean				0.00	6.05					61299-1.RAW	8:07:11	1188.09	Clean	OK	1
CLEAN										61300-1.RAW	8:10:02	0.00	Clean	NP	1
WS				5.05	0.00					61301-1.RAW	8:14:11	4.59	Sample	OK	1
WS				5.05	0.00					61302-1.RAW	8:18:19	4.73	Sample	OK	1
WS				5.05	0.01					61303-1.RAW	8:22:27	7.14	Sample	OK	1
SEQ-IBL1	A1	1	0.00	0.04						61304-1.RAW	8:26:36	6.19	Sample	OK	1
SEQ-IBL2	A2	1	0.00	0.04						61305-1.RAW	8:30:44	5.49	Sample	OK	1
SEQ-IBL3	A3	1	0.00	0.02						61306-1.RAW	8:34:53	3.47	Sample	OK	1
SEQ-CAL1	A4	1	5.05	0.52		104.20				61307-1.RAW	8:39:01	81.99	Sample	OK	1
SEQ-CAL2	A5	1	5.05	0.96		95.63				61308-1.RAW	8:43:09	146.26	Sample	OK	1
SEQ-CAL3	A6	1	5.05	5.07		101.38				61309-1.RAW	8:47:18	753.59	Sample	OK	1
SEQ-CAL4	A7	1	5.05	19.79		98.97				61310-1.RAW	8:51:26	2927.92	Sample	OK	1
SEQ-CAL5	A8	1	5.05	39.93		99.83				61311-1.RAW	8:55:35	5901.49	Sample	OK	1
SEQ-ICV1	A9	1	5.05	5.06		101.24				61312-1.RAW	8:59:43	752.56	Sample	OK	1
F702348-BLK1	A10	20	5.05	1.21						61313-1.RAW	9:03:52	14.02	Sample	OK	1
F702348-BLK2	A11	20	5.05	1.22						61314-1.RAW	9:08:00	14.08	Sample	OK	1
F702348-BLK3	A12	20	5.05	1.09						61315-1.RAW	9:12:08	13.11	Sample	OK	1
F702348-BS1	B1	20	5.05	97.85						61316-1.RAW	9:16:17	727.50	Sample	OK	1
F702348-BS2	B2	20	5.05	98.01						61317-1.RAW	9:20:25	728.71	Sample	OK	1
F702348-BS3	B3	400	5.05	2056.13						61318-1.RAW	9:24:34	764.12	Sample	OK	1
1702050-01	B4	100	5.05	455.91						61319-1.RAW	9:28:42	678.28	Sample	OK	1
1702050-02	B5	100	5.05	1580.35						61320-1.RAW	9:32:50	2338.74	Sample	OK	1
1702050-03	B6	100	5.05	5150.63						61321-1.RAW	9:36:59	7610.93	Sample	FB	1
1702050-04	B7	100	5.05	1714.22						61322-1.RAW	9:41:07	2536.43	Sample	OK	1
SEQ-CCV1	B8	1	5.05	5.09		101.80				61323-1.RAW	9:45:16	756.66	Sample	OK	1
SEQ-CCB1	B9	1	5.05	0.06		0.00				61324-1.RAW	9:49:24	14.58	Sample	OK	1
1702050-05	B10	400	5.05	1717.39						61325-1.RAW	9:53:33	639.06	Sample	OK	1
1702050-06	B11	400	5.05	6119.28						61326-1.RAW	9:57:41	2264.12	Sample	OK	1
1702050-07	B12	400	5.05	1354.54						61327-1.RAW	10:01:49	505.11	Sample	OK	1
1702050-08	C1	400	5.05	2474.15						61328-1.RAW	10:05:58	918.44	Sample	OK	1
1702050-09	C2	400	5.05	396.87						61329-1.RAW	10:10:06	151.56	Sample	OK	1
1702050-10	C3	400	5.05	2819.82						61330-1.RAW	10:14:15	1046.05	Sample	OK	1
1702050-11	C4	400	5.05	1702.86						61331-1.RAW	10:18:23	633.70	Sample	OK	1
1702050-12	C5	400	5.05	4393.92						61332-1.RAW	10:22:31	1627.17	Sample	OK	1
1702050-13	C6	400	5.05	3185.98						61333-1.RAW	10:26:40	1181.23	Sample	OK	1
1702050-14	C7	400	5.05	5106.18						61334-1.RAW	10:30:48	1890.11	Sample	OK	1
SEQ-CCV2	C8	1	5.05	5.09		101.73				61335-1.RAW	10:34:57	756.15	Sample	OK	1
SEQ-CCB2	C9	1	5.05	0.04		0.00				61336-1.RAW	10:39:05	11.20	Sample	OK	1
1702050-15	C10	400	5.05	3759.41						61337-1.RAW	10:43:14	1392.92	Sample	OK	1
1702050-16	C11	400	5.05	344.15						61338-1.RAW	10:47:22	132.10	Sample	OK	1
1702050-17	C12	400	5.05	443.36						61339-1.RAW	10:51:30	168.73	Sample	OK	1
1702050-18	D1	400	5.05	219.15						61340-1.RAW	10:55:39	85.96	Sample	OK	1
1702050-19	D2	400	5.05	1019.22						61341-1.RAW	10:59:47	381.32	Sample	OK	1
1702169-01	D3	400	5.05	4693.54						61342-1.RAW	11:03:56	1737.78	Sample	OK	1
1702050-03RE1	D4	400	5.05	5172.06						61343-1.RAW	11:08:04	1914.44	Sample	OK	1
1702050-04RE1	D5	100	5.05	1711.25						61344-1.RAW	11:12:12	2532.04	Sample	OK	1
1702050-09RE1	D6	100	5.05	380.65						61345-1.RAW	11:16:21	567.16	Sample	OK	1
F702348-DUP1	D7	400	5.05	5046.11						61346-1.RAW	11:20:29	1867.94	Sample	OK	1
SEQ-CCV3	D8	1	5.05	5.05		100.92				61347-1.RAW	11:24:38	750.19	Sample	OK	1
SEQ-CCB3	D9	1	5.05	0.06		0.00				61348-1.RAW	11:28:46	13.47	Sample	OK	1
F702348-MS1	D10	2500	5.05	51479.18		#####				61349-1.RAW	11:32:55	3045.80	Sample	OK	1
F702348-MSD1	D11	2500	5.05	50599.92						61350-1.RAW	11:37:03	2993.87	Sample	OK	1
F702348-MS2	D12	2500	5.05	52161.74		103.08				61351-1.RAW	11:41:11	3086.12	Sample	OK	1
F702348-MSD2	A1	2500	5.05	53169.45						61352-1.RAW	11:45:20	3145.64	Sample	OK	1
1702050-16RE1	A2	100	5.05	343.43						61353-1.RAW	11:49:28	512.19	Sample	OK	1
1702050-17RE1	A3	100	5.05	445.66						61354-1.RAW	11:53:37	663.15	Sample	OK	1
1702050-18RE1	A4	100	5.05	204.75						61355-1.RAW	11:57:45	307.40	Sample	OK	1
F702349-BLK1	A5	20	5.05	1.55						61356-1.RAW	12:01:53	16.47	Sample	OK	1
F702349-BLK2	A6	20	5.05	1.64						61357-1.RAW	12:06:02	18.63	Sample	OK	1
F702349-BLK3	A7	20	5.05	1.52						61358-1.RAW	12:10:10	16.26	Sample	OK	1

SEQ-CCV4	A8	1	5.05	5.12	102.41	61359-1.RAW	12:14:19	761.16	Sample	OK	1
SEQ-CCB4	A9	1	5.05	0.07	0.00	61360-1.RAW	12:18:27	15.28	Sample	OK	1
*F702349-BLK4	A10	20	5.05	1.54		61361-1.RAW	12:22:36	16.45	Sample	OK	1
*F702349-BLK5	A11	20	5.05	1.29		61362-1.RAW	12:26:44	14.61	Sample	OK	1
F702349-BS1	A12	20	5.05	98.62		61363-1.RAW	12:30:52	733.23	Sample	OK	1
F702349-BSD1	B1	20	5.05	99.95		61364-1.RAW	12:35:01	743.04	Sample	OK	1
F702349-BS2	B2	400	5.05	2081.05		61365-1.RAW	12:39:09	773.32	Sample	OK	1
1702050-20	B3	400	5.05	647.20		61366-1.RAW	12:43:18	243.98	Sample	OK	1
1702050-21	B4	400	5.05	104.85		61367-1.RAW	12:47:26	43.76	Sample	OK	1
1702050-22	B5	400	5.05	340.20		61368-1.RAW	12:51:34	130.64	Sample	OK	1
1702050-23	B6	400	5.05	506.50		61369-1.RAW	12:55:43	192.04	Sample	OK	1
1702050-24	B7	400	5.05	522.59		61370-1.RAW	12:59:51	197.98	Sample	OK	1
SEQ-CCV5	B8	1	5.05	5.21	104.21	61371-1.RAW	13:04:00	774.47	Sample	OK	1
SEQ-CCB5	B9	1	5.05	0.04	0.00	61372-1.RAW	13:08:08	10.74	Sample	OK	1
1702050-25	B10	400	5.05	686.31		61373-1.RAW	13:12:17	258.42	Sample	OK	1
1702050-26	B11	400	5.05	1709.78		61374-1.RAW	13:16:25	636.26	Sample	OK	1
1702050-27	B12	400	5.05	3033.07		61375-1.RAW	13:20:33	1124.78	Sample	OK	1
1702050-28	C1	400	5.05	1878.53		61376-1.RAW	13:24:42	698.55	Sample	OK	1
1702050-29	C2	400	5.05	2806.01		61377-1.RAW	13:28:50	1040.95	Sample	OK	1
1702284-01	C3	400	5.05	6267.90		61378-1.RAW	13:32:59	2318.99	Sample	OK	1
1702285-02	C4	400	5.05	387.42		61379-1.RAW	13:37:07	148.08	Sample	OK	1
1702285-03	C5	400	5.05	226.13		61380-1.RAW	13:41:16	88.53	Sample	OK	1
1702285-04	C6	400	5.05	1150.52		61381-1.RAW	13:45:24	429.79	Sample	OK	1
1702285-05	C7	400	5.05	399.83		61382-1.RAW	13:49:32	152.66	Sample	OK	1
SEQ-CCV6	C8	1	5.05	5.02	100.31	61383-1.RAW	13:53:41	745.67	Sample	OK	1
SEQ-CCB6	C9	1	5.05	0.06	0.00	61384-1.RAW	13:57:49	14.54	Sample	OK	1
1702285-06	C10	400	5.05	2685.72		61385-1.RAW	14:01:58	996.54	Sample	OK	1
1702285-07	C11	400	5.05	4982.36		61386-1.RAW	14:06:06	1844.40	Sample	OK	1
1702285-08	C12	400	5.05	1470.82		61387-1.RAW	14:10:14	548.04	Sample	OK	1
1702285-09	D1	400	5.05	3381.48		61388-1.RAW	14:14:23	1253.40	Sample	OK	1
1702285-10	D2	400	5.05	2162.98		61389-1.RAW	14:18:31	803.56	Sample	OK	1
1702050-21RE1	D3	50	5.05	90.48		61390-1.RAW	14:22:40	272.27	Sample	OK	1
1702050-22RE1	D4	100	5.05	331.62		61391-1.RAW	14:26:48	494.75	Sample	OK	1
F702349-DUP1	D5	400	5.05	6123.27		61392-1.RAW	14:30:57	2265.59	Sample	OK	1
F702349-MS1	D6	2500	5.05	50581.48	825.92	61393-2.RAW	14:37:19	2992.78	Sample	OK	1
F702349-MSD1	D7	2500	5.05	49807.22		61394-1.RAW	14:41:27	2947.05	Sample	OK	1
SEQ-CCV7	D8	1	5.05	5.11	102.17	61395-1.RAW	14:45:36	759.43	Sample	OK	1
SEQ-CCB7	D9	1	5.05	0.09	0.00	61396-1.RAW	14:49:44	17.74	Sample	OK	1
F702349-MS2	D10	400	5.05	10555.10	506014.90	61397-1.RAW	14:53:52	3901.71	Sample	OK	1
F702349-MSD2	D11	400	5.05	10597.49		61398-1.RAW	14:58:01	3917.35	Sample	OK	1
1702285-02RE1	D12	100	5.05	369.97		61399-1.RAW	15:02:09	551.38	Sample	OK	1
1702285-03RE1	A1	100	5.05	198.37		61400-1.RAW	15:06:18	297.98	Sample	OK	1
1702285-05RE1	A2	100	5.05	369.21		61401-1.RAW	15:10:26	550.27	Sample	OK	1
F702375-BLK1	A3	100	5.05	12.28		61402-1.RAW	15:14:34	23.19	Sample	OK	1
F702375-BLK2	A4	100	5.05	14.55		61403-1.RAW	15:18:43	26.53	Sample	OK	1
F702375-BLK3	A5	100	5.05	9.66		61404-1.RAW	15:22:51	19.31	Sample	OK	1
F702375-BS1	A6	400	5.05	1820.06		61405-1.RAW	15:27:00	676.97	Sample	OK	1
F702375-BSD1	A7	400	5.05	1840.80		61406-1.RAW	15:31:08	684.62	Sample	OK	1
SEQ-CCV8	A8	1	5.05	5.48	109.61	61407-1.RAW	15:35:17	814.38	Sample	OK	1
SEQ-CCB8	A9	1	5.05	0.08	0.00	61408-1.RAW	15:39:25	16.73	Sample	OK	1
1702401-01	A10	1000	5.05	5736.22		61409-1.RAW	15:43:33	852.11	Sample	OK	1
1702401-02	A11	1000	5.05	15910.86		61410-1.RAW	15:47:42	2354.59	Sample	OK	1
1702402-01	A12	400	5.05	5675.03		61411-1.RAW	15:51:50	2100.12	Sample	OK	1
1702402-02	B1	400	5.05	11918.76		61412-1.RAW	15:55:59	4404.39	Sample	OK	1
1702403-01	B2	400	5.05	3125.23		61413-1.RAW	16:00:07	1158.80	Sample	OK	1
1702403-02	B3	400	5.05	4750.59		61414-1.RAW	16:04:16	1758.84	Sample	OK	1
1702401-01B	B4	100	5.05	13.62		61415-1.RAW	16:08:25	25.16	Sample	OK	1
1702401-02B	B5	100	5.05	32.65		61416-1.RAW	16:12:33	53.27	Sample	OK	1
1702402-01B	B6	100	5.05	9.52		61417-1.RAW	16:16:42	19.11	Sample	OK	1
1702402-02B	B7	100	5.05	14.47		61418-1.RAW	16:20:50	26.41	Sample	OK	1
SEQ-CCV9	B8	1	5.05	5.40	107.94	61419-1.RAW	16:24:59	802.04	Sample	OK	1
SEQ-CCB9	B9	1	5.05	0.06	0.00	61420-1.RAW	16:29:07	14.50	Sample	OK	1
1702403-01B	B10	100	5.05	8.96		61421-1.RAW	16:33:16	18.28	Sample	OK	1
1702403-02B	B11	100	5.05	11.05		61422-1.RAW	16:37:24	21.37	Sample	OK	1
F702375-DUP1	B12	1000	5.05	5838.55		61423-1.RAW	16:41:32	887.22	Sample	OK	1

F702375-MS1	C1	1000	5.05	25743.76	440.85	61424-1.RAW	16:45:41	3805.61	Sample	OK	1
F702375-MSD1	C2	1000	5.05	26640.23		61425-1.RAW	16:49:49	3938.99	Sample	FB	1
SEQ-CCVA	C3	1	5.05	5.49		61426-1.RAW	16:53:58	815.04	Sample	OK	1
SEQ-CCBA	C4	1	5.05	0.11		61427-1.RAW	16:58:06	20.72	Sample	OK	1

**ANALYSIS SEQUENCE**

**7B22007**

**Instrument: Hg2600-3**

**Calibration ID: UNASSIGNED**

**Analyzed: 2/21/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22007-IBL1	QC	1			
7B22007-IBL2	QC	2			
7B22007-IBL3	QC	3			
7B22007-CAL1	QC	4	1700737		
7B22007-CAL2	QC	5	1700738		
7B22007-CAL3	QC	6	1700739		
7B22007-CAL4	QC	7	1700740		
7B22007-CAL5	QC	8	1700741		
7B22007-ICV1	QC	9	1700018		
7B22007-CCV1	QC	10	1700018		
7B22007-CCB1	QC	11			
7B22007-CCV2	QC	12	1700018		
7B22007-CCB2	QC	13			
7B22007-CCV3	QC	14	1700018		
7B22007-CCB3	QC	15			
7B22007-CCV4	QC	16	1700018		
7B22007-CCB4	QC	17			
7B22007-CCV5	QC	18	1700018		
7B22007-CCB5	QC	19			
7B22007-CCV6	QC	20	1700018		
7B22007-CCB6	QC	21			
7B22007-CCV7	QC	22	1700018		
7B22007-CCB7	QC	23			
F702375-BLK1	QC	24			
F702375-BLK2	QC	25			
F702375-BLK3	QC	26			
F702375-BS1	QC	27			
F702375-BSD1	QC	28			
7B22007-CCV8	QC	29	1700018		
7B22007-CCB8	QC	30			
1702401-01	Hg_FSTM_TRAP_A	31			
1702401-02	Hg_FSTM_TRAP_A	32			
1702402-01	Hg_FSTM_TRAP_A	33			
1702402-02	Hg_FSTM_TRAP_A	34			
1702403-01	Hg_FSTM_TRAP_A	35			

**Due Date: 2/22/2017**

ANALYSIS SEQUENCE

7B22007

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702403-02	Hg_FSTM_TRAP_A	36			
7B22007-CCV9	QC	37	1700018		
7B22007-CCB9	QC	38			
F702375-DUP1	QC	39			
F702375-MS1	QC	40			
F702375-MSD1	QC	41			
7B22007-CCVA	QC	42	1700018		
7B22007-CCBA	QC	43			

Dan Maxam      2/21/17  
Samples Loaded By      Date

Dan Maxam      2/22/17  
Data Processed By      Date

# Failing Data Report - 7B22007

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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DM M. Mason 2/22/17  
Analyst Reviewed By Date

lyn M 3/1/17  
Peer Reviewed By Date

## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7B22008-IBL1	QC	1			
7B22008-IBL2	QC	2			
7B22008-IBL3	QC	3			
7B22008-CAL1	QC	4	1700737		
7B22008-CAL2	QC	5	1700738		
7B22008-CAL3	QC	6	1700739		
7B22008-CAL4	QC	7	1700740		
7B22008-CAL5	QC	8	1700741		
7B22008-ICV1	QC	9	1700018		
F702348-BLK1	QC	10			
F702348-BLK2	QC	11			
F702348-BLK3	QC	12			
F702348-BS1	QC	13			
F702348-BSD1	QC	14			
F702348-BS2	QC	15			
1702050-01	Hg-CVAFS-T-7030	16			
1702050-02	Hg-CVAFS-T-7030	17			
1702050-03	Hg-CVAFS-T-7030	18			
1702050-04	Hg-CVAFS-T-7030	19			
7B22008-CCV1	QC	20	1700018		
7B22008-CCB1	QC	21			
1702050-05	Hg-CVAFS-T-7030	22			
1702050-06	Hg-CVAFS-T-7030	23			
1702050-07	Hg-CVAFS-T-7030	24			
1702050-08	Hg-CVAFS-T-7030	25			
1702050-09	Hg-CVAFS-T-7030	26			
1702050-10	Hg-CVAFS-T-7030	27			
1702050-11	Hg-CVAFS-T-7030	28			
1702050-12	Hg-CVAFS-T-7030	29			
1702050-13	Hg-CVAFS-T-7030	30			
1702050-14	Hg-CVAFS-T-7030	31			
7B22008-CCV2	QC	32	1700018		
7B22008-CCB2	QC	33			
1702050-15	Hg-CVAFS-T-7030	34			
1702050-16	Hg-CVAFS-T-7030	35			

Due Date: 3/2/2017

42 of 111

Page 1 of 3



## ANALYSIS SEQUENCE

7B22008

Instrument: Hg2600-3

Calibration ID: UNASSIGNED

Analyzed: 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-17	Hg-CVAFS-T-7030	36			
1702050-18	Hg-CVAFS-T-7030	37			
1702050-19	Hg-CVAFS-T-7030	38			
1702168-01	Hg-CVAFS-T-7030	39			
1702050-03RE1	Hg-CVAFS-T-7030	40			Added 2/21/2017 by DM2
1702050-04RE1	Hg-CVAFS-T-7030	41			Added 2/21/2017 by DM2
1702050-09RE1	Hg-CVAFS-T-7030	42			Added 2/21/2017 by DM2
F702348-DUP1	QC	43			
7B22008-CCV3	QC	44	1700018		
7B22008-CCB3	QC	45			
F702348-MS1	QC	46			
F702348-MSD1	QC	47			
F702348-MS2	QC	48			
F702348-MSD2	QC	49			
1702050-16RE1	Hg-CVAFS-T-7030	50			Added 2/21/2017 by DM2
1702050-17RE1	Hg-CVAFS-T-7030	51			Added 2/21/2017 by DM2
1702050-18RE1	Hg-CVAFS-T-7030	52			Added 2/21/2017 by DM2
F702349-BLK1	QC	53			
F702349-BLK2	QC	54			
F702349-BLK3	QC	55			
7B22008-CCV4	QC	56	1700018		
7B22008-CCB4	QC	57			
F702349-BLK4	QC	58			
F702349-BLK5	QC	59			
F702349-BS1	QC	60			
F702349-BSD1	QC	61			
F702349-BS2	QC	62			
1702050-20	Hg-CVAFS-T-7030	63			
1702050-21	Hg-CVAFS-T-7030	64			
1702050-22	Hg-CVAFS-T-7030	65			
1702050-23	Hg-CVAFS-T-7030	66			
1702050-24	Hg-CVAFS-T-7030	67			
7B22008-CCV5	QC	68	1700018		
7B22008-CCB5	QC	69			
1702050-25	Hg-CVAFS-T-7030	70			

## ANALYSIS SEQUENCE

7B22008

**Instrument:** Hg2600-3

**Calibration ID:** UNASSIGNED

**Analyzed:** 2/21/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702050-26	Hg-CVAFS-T-7030	71			
1702050-27	Hg-CVAFS-T-7030	72			
1702050-28	Hg-CVAFS-T-7030	73			
1702050-29	Hg-CVAFS-T-7030	74			
1702284-01	Hg-CVAFS-T-7030	75			
1702285-02	Hg-CVAFS-T-7030	76			
1702285-03	Hg-CVAFS-T-7030	77			
1702285-04	Hg-CVAFS-T-7030	78			
1702285-05	Hg-CVAFS-T-7030	79			
7B22008-CCV6	QC	80	1700018		
7B22008-CCB6	QC	81			
1702285-06	Hg-CVAFS-T-7030	82			
1702285-07	Hg-CVAFS-T-7030	83			
1702285-08	Hg-CVAFS-T-7030	84			
1702285-09	Hg-CVAFS-T-7030	85			
1702285-10	Hg-CVAFS-T-7030	86			
1702050-21RE1	Hg-CVAFS-T-7030	87			Added 2/21/2017 by DM2
1702050-22RE1	Hg-CVAFS-T-7030	88			Added 2/21/2017 by DM2
F702349-DUP1	QC	89			
F702349-MS1	QC	90			
F702349-MSD1	QC	91			
7B22008-CCV7	QC	92	1700018		
7B22008-CCB7	QC	93			
F702349-MS2	QC	94			
F702349-MSD2	QC	95			
1702285-02RE1	Hg-CVAFS-T-7030	96			Added 2/21/2017 by DM2
1702285-03RE1	Hg-CVAFS-T-7030	97			Added 2/21/2017 by DM2
1702285-05RE1	Hg-CVAFS-T-7030	98			Added 2/21/2017 by DM2
7B22008-CCV8	QC	99	1700018		
7B22008-CCB8	QC	100			

Don Moxem      2/21/17  
 Samples Loaded By      Date

Don Moxem      2/22/17  
 Data Processed By      Date

Due Date: 3/2/2017

# Failing Data Report - 7B22008

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702050-03	Hg-CVAFS-T-7030	1400	13.6				ng/g						FAIL-OVER	PASS	E
F702348-DUP1	Hg-CVAFS-T-7030	358.8	14.2	717.2	717.2		ng/g				66.6	24.00	PASS-OVER	FAIL-DUP	QR-07

Don Motam  
 Analyst Reviewed By

2/22/17  
 Date

Hy N  
 Peer Reviewed By

3/1/17  
 Date

**PREPARATION BENCH SHEET**

F702375

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					
F702375-BLK2	Blank	1	100					
F702375-BLK3	Blank	1	100					
F702375-BS1	LCS	1	100	1605712	200			
F702375-BSD1	LCS Dup	1	100	1605712	200			
F702375-DUP1	Duplicate [1702401-01]	1	100					
F702375-MS1	Matrix Spike [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.
F702375-MSD1	Matrix Spike Dup [1702401-01]	0.0005	0.05	1700687	100			[Spk] 1Trap->100mL; 20mL->20mL; Spiked 0.05mL.

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

**F702375**

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Air**

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

**Prepared: 2/17/2017**

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-		
1702401-02	EFGS-04134 Trap B	1	100	-	-	-		
1702402-01	EFGS-07869 Trap A	1	100	-	-	-		
1702402-02	EFGS-07908 Trap B	1	100	-	-	-		
1702403-01	EFGS-08086 Trap A	1	100	-	-	-		
1702403-02	EFGS-08420 TrapB	1	100	-	-	-		



**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					
F702348-BLK2	Blank	0.25	20					
F702348-BLK3	Blank	0.25	20					
F702348-BS1	Blank Spike	0.25	20	1700686	20			
F702348-BS2	DORM-4	0.1252	20	1605470	125			
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702348

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		
1702050-03RE1	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		
1702050-04RE1	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		
1702050-09RE1	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		

**PREPARATION BENCH SHEET**

F702348

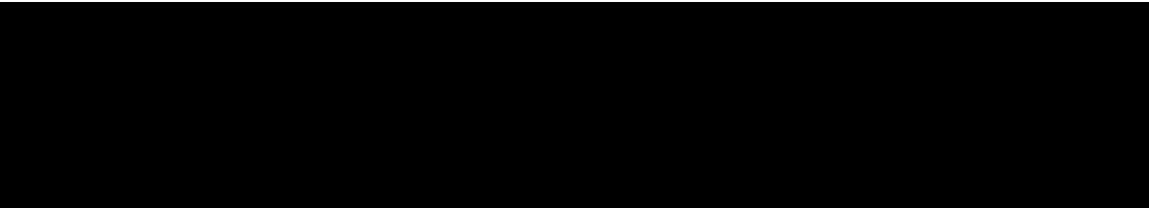
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

1702050-16RE1	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		
1702050-17RE1	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		
1702050-18RE1	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		
1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	





**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					
F702349-BLK2	Blank	0.25	20					
F702349-BLK3	Blank	0.25	20					
F702349-BLK4	Blank	0.4312	20					
F702349-BLK5	Blank	0.4387	20					
F702349-BS1	Blank Spike	0.25	20	1700686	20			
F702349-BS2	DORM-4	0.1253	20	1605470	125			
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			
F702349-MS2	Matrix Spike [1702050-29]	0.00050062 5	0.125	1700687	100			[Spk] 0.0801g->20mL; 40mL->40mL; Spiked 0.125mL
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			
F702349-MSD2	Matrix Spike Dup [1702050-29]	0.00050062 5	0.125	1700687	100			[Spk] 0.0801g->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>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700308	THg Dilute 1% BrCl	28-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1700309	THg Washstation (0.5% BrCl)	
			1700771	3% SnCl2 THg reductant	23-Jul-17 00:00
			1700947	5% BrCl	15-Jul-17 00:00
			1700969	70/30 Digestion Acid	14-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702349

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/16/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	
1702050-21RE1	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		
1702050-22RE1	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		
1702285-02RE1	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		
1702285-03RE1	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		

PREPARATION BENCH SHEET

F702349

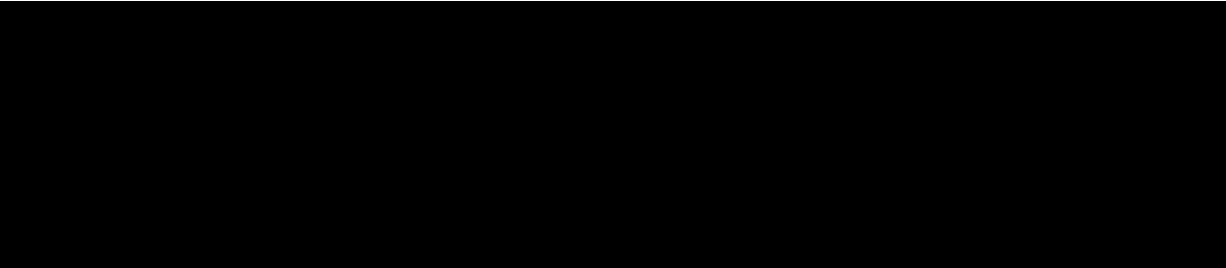
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702285-05RE1	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-	Added 2/21/2017 by DM2	Added 2/21/2017 by DM2
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		
1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-		



PREPARATION BENCH SHEET

2100-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID and Source Sample	Initial (Trap)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702375-BLK1	Blank	1	100					100X
F702375-BLK2	Blank	1	100					100X
F702375-BLK3	Blank	1	100					100X
F702375-BS1	LCS	1	100	1605712	200			400X
F702375-BSD1	LCS Dup	1	100	1605712	200			400X
F702375-DUP1	Duplicate 1702401-01	1	100	1700657				1000X
F702375-MS1	Matrix Spike 1702401-01	1	100	1700657	100			1000X
F702375-MSD1	Matrix Spike Dup 1702401-01	1	100	1700657	100			1000X

1700657  
DM  
2-21-17

Standard ID(s): 1605712  
Description: THg 1,000ng/mL Secondary Spiking Standard

Expiration: 03-Apr-17 00:00

Reagent ID(s): 1700947, 1700969  
Description: 5% BrCl, 70/30 Digestion Acid

Expiration: 15-Jul-17 00:00, 14-Aug-17 00:00

1700771  
1700309  
1700308  
1600934

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702375

Eurofins Frontier Global Sciences, Inc.

Matrix: Air

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

Prepared: 2/17/2017

Lab Number	Sample ID	Initial (Trap)	Final (mL)	QC Sample	Sample Specs.	Raw Data	A Sample Comments	B Analysis Comments
1702401-01	EFGS-06154 Trap A	1	100	-	-	-	100X	100X
1702401-02	EFGS-04134 Trap B	1	100	-	-	-	100X	100X
1702402-01	EFGS-07869 Trap A	1	100	-	-	-	500X 400X	100X
1702402-02	EFGS-07908 Trap B	1	100	-	-	-	500X 400X	100X
1702403-01	EFGS-08086 Trap A	1	100	-	-	-	500X 400X	100X
1702403-02	EFGS-08420 Trap B	1	100	-	-	-	400X	100X

DM 2/21/17

Trap Digestions

Name: AMB Date: 2-17-17 Batch ID: F702375  
 Work Order(s): 1702401, 1702402, 1702403 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: 1730 start temp (°C): 56.0 (raw) 55.8 (w/ CF)  
 end time: 1930 end temp (°C): 69.0 (raw) 68.8 (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)
F702375-BLK1	<del>100</del> 100
F702375-BLK2	<del>100</del> 100
F702375-BLK3	100
F702375-BS1	100
F702375-BS1	100
1702401-01A	100
1702401-01B	100
1702401-02A	100
1702401-02B	100
1702402-01A	100
1702402-01B	100
1702402-02A	100
1702402-02B	100
1702403-01A	100
1702403-01B	100
1702403-02A	100
1702403-02B	100

Spike ID: 1605712  
 Spike Amount (µL): 200  
 Spike Witness: DM 2/17/17  
 BrCl ID: 1700947  
 70/30: 1700969  
 Other: N/A  
 Thermometer: 14545  
 Dispensers: 02K27494   
                   04N73497   
 Other 15406623  
 Pipette ID: MU11619  
 Cal. Date: 2-13-17  
 Vials and Jars lot# 00066589  
 Trap Material Lot#: 1700517  
 Loader Mass Verified:  Yes  No

Comments:  
 1702401-02: 'A' bed spiked at 1,100ng.  
 1702402-02: 'A' bed spiked at 650ng.  
 1702402-AMB 2-17-17  
 1702403-02: 'A' bed spiked at 200ng.  
 AMB 2-17-17

AMB  
2-17-17

PREPARATION BENCH SHEET

2600.3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702348-BLK1	Blank	0.25	20					20X
F702348-BLK2	Blank	0.25	20					20X
F702348-BLK3	Blank	0.25	20					20X
F702348-BS1	Blank Spike	0.25	20	1700686	20			20X
F702348-BS2	DORM-4	0.1252	20	1605470	125			400X
F702348-BSD1	Blank Spike Dup	0.25	20	1700686	20			20X
F702348-DUP1	Duplicate [1702168-01]	0.2812	20					400X
F702348-MS1	Matrix Spike [1702050-01]	0.0297	20	1700684	100			2500X
F702348-MS2	Matrix Spike [1702168-01]	0.2624	20	1700684	100			2500X
F702348-MSD1	Matrix Spike Dup [1702050-01]	0.0406	20	1700684	100			2500X
F702348-MSD2	Matrix Spike Dup [1702168-01]	0.2708	20	1700684	100			2500X

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

170071  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3

2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-01	MMBKD-01_012217_ABD_01_BL	0.0345	20	QC	-	-	MS/MSD	100X
1702050-02	MMBKD-01_012217_ABD_02_BL	0.2015	20	-	-	-		100X
1702050-03	MMBKD-01_012417_ABD_03_BL	0.0737	20	-	-	-		100X → 400X
1702050-04	MMBKD-01_012417_ABD_04_BL	0.0903	20	-	-	-		100X → 100X
1702050-05	MMBKD-01_012417_ABD_05_BL	0.121	20	-	-	-		400X
1702050-06	MMBKD-01_012417_ABD_06_BL	0.1273	20	-	-	-		400X
1702050-07	MMBKD-01_012417_ABD_07_BL	0.0485	20	-	-	-		400X
1702050-08	MMBKD-01_012417_ABD_08_BL	0.0981	20	-	-	-		400X
1702050-09	MMBKD-01_012417_ABD_09_BL	0.0313	20	-	-	-		400X → 100X
1702050-10	MMBKD-01_012417_ABD_10_BL	0.1379	20	-	-	-		400X
1702050-11	MMBKD-01_012417_ABD_11_BL	0.0638	20	-	-	-		400X
1702050-12	MMBKD-01_012417_ABD_12_BL	0.1253	20	-	-	-		400X
1702050-13	MMBKD-01_012417_ABD_13_BL	0.1928	20	-	-	-		400X
1702050-14	MMBKD-01_012417_ABD_14_BL	0.1733	20	-	-	-		400X
1702050-15	MMBKD-01_012417_ABD_15_BL	0.1196	20	-	-	-		400X
1702050-16	FRB-01_012417_ABD_01_BL	0.1572	20	-	-	-		400X → 100X
1702050-17	FRB-01_012417_ABD_02_BL	0.2502	20	-	-	-		400X → 100X
1702050-18	FRB-01_012417_ABD_03_BL	0.1303	20	-	-	-		400X → 100X
1702050-19	FRB-01_012417_ABD_04_BL	0.1873	20	-	-	-		400X



PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702348

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702168-01	ES-13_012417_ABD_01_MU	0.2617	40	QC	-	-	MS/MSD	400X
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Technician: Dwyer Batch#: F702348 Date: 2-16-17

- 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: 14:05 Actual Temp. (raw): 75.0 °C w/ CF: 75.0 °C

Time out: 16:06 Actual Temp. (raw): 82.0 °C w/ CF: 82.0 °C AMB

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

Final vol.: 20 mL (LIMS ID: 1700947) Spike vol.: 100 µL (LIMS ID: 1700684)  
*MS1/MS1 MS2/MS2 2-16-17 10,000µg/L*

Spike Witness: Dmw 2-16-17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MU11619 Calibration Date: 2-13-17

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

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

70/30 LIMS ID: 1700969

Dispenser #: 02K27484 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 15406623  Yes

Glass Vial # 00065550 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702348 Blk1	0.2663	23	1702050-12	0.1253	B52 DORM-4
2	F702348 Blk2	0.2770	24	1702050-13	0.1928	1605470
3	F702348 Blk3	0.2827	25	1702050-14	0.1733	
4	F702348 B51	0.2661	26	1702050-15	0.1196	<b>Comments</b>
5	F702348 B501	0.2798	27	1702050-16	0.1572	Dup source
6	F702348 B52	0.1252	28	1702050-17	0.2502	F702348 MS2056
7	F702348 Dup1	0.2812	29	1702050-18	0.1300	F702348 MS11661
8	F702348 MS1	0.2297	30	1702050-19	0.1873	1702050-01
9	F702348 MS01	0.0406	31	1702168-01	0.2617	F702348 MS11661
10	F702348 MS2	0.2624	32			1702050 2/16/17
11	F702348 MS02	0.2708	33			1702168-01
12	1702050-01	0.0345	34			Dup
13	1702050-02	0.2015	35			1702050-01
14	1702050-03	0.0737	36			Broken glass
15	1702050-04	0.0903	37			2/16/17
16	1702050-05	0.1210	38			B51 B501
17	1702050-06	0.1273	39			= 100µg/L
18	1702050-07	0.0485	40			= 20µg
19	1702050-08	0.0981	41			1700686
20	1702050-09	0.0313	42			All samples
21	1702050-10	0.1379	43			Low volume
22	1702050-11	0.0638	44			1702050

PREPARATION BENCH SHEET

2000.3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702349-BLK1	Blank	0.25	20					20X
F702349-BLK2	Blank	0.25	20					20X
F702349-BLK3	Blank	0.25	20					20X
F702349-BLK4	Blank	0.4312	20					20X
F702349-BLK5	Blank	0.4387	20					20X
F702349-BS1	Blank Spike	0.25	20	1700686	20			20X
F702349-BS2	DORM-4	0.1253	20	1605470	125			400X
F702349-BSD1	Blank Spike dup	0.25	20	1700686	20			20X
F702349-DUP1	Duplicate [1702284-01]	0.2606	20					400X
F702349-MS1	Matrix Spike [1702284-01]	0.2795	20	1700684	100			<del>400X</del> 2500X
F702349-MSD1	Matrix Spike Dup [1702284-01]	0.2938	20	1700684	100			<del>400X</del> 2500X

DM 2-21-17

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700684	THg 10,000ng/mL Primary Spiking Standard	31-Jul-17 00:00	1700947	5% BrCl	15-Jul-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1700969	70/30 Digestion Acid	14-Aug-17 00:00

MS2, MSD2 - 1702050-20  
400X  
1700687 100ul

1700771  
1700309  
1700308  
1606934

PREPARATION BENCH SHEET

2600-3  
2/21/17 DM

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702050-20	FRB-01_012417_ABD_05_BL	0.1829	20	-	-	-		400X
1702050-21	FRB-01_012417_ABD_06_BL	0.1567	20	QC	-	-	MS/MSD	400X → 50X
1702050-22	FRB-01_012417_ABD_07_BL	0.1227	20	-	-	-		400X → 100X
1702050-23	FRB-01_012417_ABD_08_BL	0.19	20	-	-	-		400X
1702050-24	FRB-01_012417_ABD_09_BL	0.2407	20	-	-	-		400X
1702050-25	FRB-01_012417_ABD_10_BL	0.1986	20	-	-	-		400X
1702050-26	ES-13_012417_ABD_01_BL	0.1033	20	-	-	-		400X
1702050-27	ES-13_012417_ABD_02_BL	0.1955	20	-	-	-		400X
1702050-28	ES-13_012817_ABD_03_BL	0.0771	20	-	-	-		400X
1702050-29	ES-13_012817_ABD_04_BL	0.0801	20	-	-	-	MS/MSD	400X
1702284-01	ES-13_020517_ABD_15_MU	0.2844	20	-	-	-		400X
1702285-02	FRB-01_020217_ABD_12_BL	0.1773	20	-	-	-		400X → 100X
1702285-03	FRB-01_020217_ABD_13_BL	0.125	20	-	-	-		400X → 100X
1702285-04	FRB-01_020217_ABD_14_BL	0.2574	20	-	-	-		400X → 400X DM 2-21-17
1702285-05	FRB-01_020217_ABD_15_BL	0.2252	20	-	-	-		400X → 100X
1702285-06	ES-13_020517_ABD_05_BL	0.1332	20	-	-	-		400X
1702285-07	ES-13_020517_ABD_06_BL	0.2518	20	-	-	-		400X
1702285-08	ES-13_020517_ABD_07_BL	0.2326	20	-	-	-		400X
1702285-09	ES-13_020517_ABD_08_BL	0.2118	20	-	-	-		400X

2600-3

2/21/17 DM

PREPARATION BENCH SHEET

F702349

Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/16/2017

1702285-10	ES-13_020517_ABD_09_BL	0.2066	20	-	-	-	400X
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Technician: Duncan Batch#: F702349 Date: 2-16-17

- 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: 14:15 Actual Temp. (raw): 74.0 °C w/ CF: 74.0 °C  
 Time out: 16:15 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: 1700949) Spike vol.: 100 µL (LIMS ID: 1700684)  
 Spike Witness: 2-16-17 DMW (initial and date)

HCl LIMS ID: N/A Pipette SN#: MU11619 Calibration Date: 2/13/17  
 HNO<sub>3</sub> LIMS ID: N/A Pipette SN#: N/A Calibration Date: N/A  
 70/30 LIMS ID: 1700969 Dispenser #: 02K27484 Calibrated?  Yes  No  
 Other Acid LIMS ID: N/A Dispenser #: 15406623  YCS  
 Glass Vial # 00065688 Boiling Chip lot # 1606642 \*Hotblock Position: D.6

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	F702349 BKK1	0.2647	23	1702050-29	0.0801	BS2
2	F702349 BKK2	0.2669	24	1702284-01	0.2844	DORRY
3	F702349 BKK3	0.2511	25	1702284-02	0.2066	1605470
4	F702349 BKK4	0.4312	26	1702285-02	0.1773	<b>Comments</b> F702349 prep post blank 1702284 Dup sample 1702284-01 F702349 MS1 MS2 2/16/17 1702284-01 1702284-02 1702284-03 1702284-04 1702284-05 1702284-06 1702284-07 1702284-08 1702284-09 1702284-10 MS1 MS2 2/16/17 1702284-01 BS1 BS2 = 100µL = 20µL 1700686 F702349 MS2 MS2 NB samples for QA Recurrence not enough Mass 2/16/17
5	F702349 BKK5	0.4387	27	1702285-03	0.1250	
6	F702349 BS1	0.2756	28	1702285-04	0.2574	
7	F702349 BS01	0.2549	29	1702285-05	0.2252	
8	F702349 BS2	0.1253	30	1702285-06	0.1332	
9	F702349 Dup1	0.2606	31	1702285-07	0.2518	
10	F702349 MS1	0.2795	32	1702285-08	0.2326	
11	F702349 MS01	0.2938	33	1702285-09	0.2118	
12	F702349 MS2	2-16-17	34	1702285-10	0.2066	
13	F702349 MS02	2-16-17	35			
14	1702050-20	0.1829	36			
15	1702050-21	0.1567	37			
16	1702050-22	0.1227	38			
17	1702050-23	0.1900	39			
18	1702050-24	0.2407	40			
19	1702050-25	0.21986	41			
20	1702050-26	0.1033	42			
21	1702050-27	0.1955	43			
22	1702050-28	0.0771	44			



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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>[Signature]</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials DM                      Reviewer Initials [Signature]

- |  |  |  |   |                                     |
|--|--|--|---|-------------------------------------|
| 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 ( $\leq 15\%$ )  | <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: <u>E, QR-07</u>  |  |  |   |                                     |
| 12. Explain any items on the failed data report from Element   |  |  |   | <input type="checkbox"/>            |
| Comments: <u>1702050-03 HIGH SAMPLE. F702348-DUP1 HIGH RPD.</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 type="checkbox"/>            |
| 18. Is the correct 'Source' designated for MD/MS/MSD?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            |   | <input checked="" type="checkbox"/> |
| 19. For digested preps: was there a spike witness signature & date on the prep bench sheet?                    | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input type="checkbox"/> N/A            | <input checked="" type="checkbox"/> |



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

Analyst:	DON MORAN	Sequence(s) #:	7B22007, 7B22008
Reviewer:	0 <i>DM</i>	Dataset ID(s):	THG26003-170221-1
Date:	2/22/2017	WO (s) #:	VARIOUS
Batch #(s):	F702375, F702348, F702349		0

Analyst Initials *DM*

Reviewer Initials *DM*

- |  |  |                               |   |
|--|--|-------------------------------|---|
| 20. MS/MSD Spiked at least 1-5 X ambient or 5x MRL (whichever is higher) ?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 21. Are all samples within instrument calibration range? (or at minimum dilution size)   | <input checked="" type="checkbox"/> PASS | <input type="checkbox"/> FAIL | <input checked="" type="checkbox"/>   |
| Comments: _____  |  |                               |   |
| 22. Are the samples run at the correct dilution level for the method?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO   | <input 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  |
| 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: _____                | 1/18/16, 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: _____                              | 12-19-16, 11-8-16 | LOD within last 3 months?        | <input checked="" type="checkbox"/> YES | <input type="checkbox"/> NO | <input checked="" type="checkbox"/> |
| 39. Date of LOQ: _____                              | 12-19-16, 11-8-16 | 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

**THg26002-170301-1**

**Analysis Datasheet for Total Mercury**

Date of Analysis: March 01, 2017

Analyst: DM2

Instrument #: Hg2600-2

Units ng/L

LIMS Sequence #: 7C02016, 7C02015, 7C02013, 7C02017

**Calibration Statistics:**

LabNumber	n	True Val	Area	Uncorrected Response Factor	Corrected Peak Height	Corrected Response Factor	% Recovery
SEQ-CAL1	1	0.50 ng/L	67.52 units	135.05	60.58 units	121.16	99.1 %Rec
SEQ-CAL2	1	1.00 ng/L	131.72 units	131.72	124.78 units	124.78	102.0 %Rec
SEQ-CAL3	1	5.00 ng/L	632.10 units	126.42	625.16 units	125.03	102.2 %Rec
SEQ-CAL4	1	20.00 ng/L	2461.91 units	123.10	2454.97 units	122.75	100.4 %Rec
SEQ-CAL5	1	40.00 ng/L	4715.87 units	117.90	4708.93 units	117.72	96.3 %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>				
122.29	+/- 3.00	2.5% RSD	126.84				

**Blanks:**

LabNumber	n	Mean	Std Dev	Mean (ng/L)	Std Dev (ng/L)
SEQ-IBL	3	6.94 units	±1.24	0.05 ng/L	±0.01

**Preparation Blanks**

Sample Type	Batch ID	n	Mean	Std Dev
BLK	1	3	25.369 ng/L	±38.135
BLK	2	3	0.142 ng/L	±0.467
BLK	3	3	1.068 ng/L	±0.585
BLK	4	3	0.160 ng/L	±0.096
BLK	5	0	0.000 ng/L	
BLK	6	0	0.000 ng/L	

QUALITY ASSURANCE  
 REVIEWED  
 DATE = BC 3-6-17

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	3/1/2017 10:35:39	72198-1.RAW	10:35:39 AM	5.51			-1.4	-0.012	-0.012	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL2	1	3/1/2017 10:39:47	72199-1.RAW	10:39:47 AM	7.79			0.9	0.007	0.007	ng/L	
Hg2600-2	DM2	CAL	SEQ-IBL3	1	3/1/2017 10:43:55	72200-1.RAW	10:43:55 AM	7.52			0.6	0.005	0.005	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL1	1	3/1/2017 10:48:04	72201-1.RAW	10:48:04 AM	67.52			60.6	0.495	0.495	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL2	1	3/1/2017 10:52:12	72202-1.RAW	10:52:12 AM	131.72			124.8	1.020	1.020	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL3	1	3/1/2017 10:56:21	72203-1.RAW	10:56:21 AM	632.10			625.2	5.112	5.112	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL4	1	3/1/2017 11:00:29	72204-1.RAW	11:00:29 AM	2461.91			2455.0	20.075	20.075	ng/L	
Hg2600-2	DM2	CAL	SEQ-CAL5	1	3/1/2017 11:04:38	72205-1.RAW	11:04:38 AM	4715.87			4708.9	38.507	38.507	ng/L	
Hg2600-2	DM2	CAL	SEQ-ICV1	1	3/1/2017 11:08:46	72206-1.RAW	11:08:46 AM	657.27			650.3	5.318	5.318	ng/L	
Hg2600-2	DM2	BLK	F702418-BLK1	50	3/1/2017 11:14:54	72207-1.RAW	11:14:54 AM	17.63	1		10.7	0.087	4.368	ng/L	
Hg2600-2	DM2	BLK	F702418-BLK2	50	3/1/2017 11:19:02	72208-1.RAW	11:19:02 AM	176.65	1		169.7	1.388	69.387	ng/L	
Hg2600-2	DM2	BLK	F702418-BLK3	50	3/1/2017 11:23:10	72209-1.RAW	11:23:10 AM	12.69	1		5.7	0.047	2.350	ng/L	
Hg2600-2	DM2	SAM	F702418-BS1	50	3/1/2017 11:27:19	72210-1.RAW	11:27:19 AM	1928.68	1		1921.7	15.207	760.371	ng/L	
Hg2600-2	DM2	SAM	F702418-BSD1	50	3/1/2017 11:31:27	72211-1.RAW	11:31:27 AM	1949.13	1		1942.2	15.375	768.732	ng/L	
Hg2600-2	DM2	SAM	1701569-01RE1	50	3/1/2017 11:35:36	72212-1.RAW	11:35:36 AM	77.66	1		70.7	0.071	3.545	ng/L	
Hg2600-2	DM2	SAM	1701569-02RE1	50	3/1/2017 11:39:44	72213-1.RAW	11:39:44 AM	55.86	1		48.9	-0.107	-5.367	ng/L	
Hg2600-2	DM2	SAM	1701569-03RE1	50	3/1/2017 11:43:53	72214-1.RAW	11:43:53 AM	57.86	1		50.9	-0.091	-4.550	ng/L	
Hg2600-2	DM2	SAM	1701569-04RE1	50	3/1/2017 11:48:01	72215-1.RAW	11:48:01 AM	26.51	1		19.6	-0.347	-17.370	ng/L	
Hg2600-2	DM2	SAM	1701569-05RE1	50	3/1/2017 11:52:10	72216-1.RAW	11:52:10 AM	30.50	1		23.6	-0.315	-15.737	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV1	1	3/1/2017 11:56:19	72217-1.RAW	11:56:19 AM	660.46			653.5	5.344	5.344	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB1	1	3/1/2017 12:00:27	72218-1.RAW	12:00:27 PM	8.13			1.2	0.010	0.010	ng/L	
Hg2600-2	DM2	SAM	*F702418-BLK4	50	3/1/2017 12:04:36	72219-1.RAW	12:04:36 PM	160.43	1		153.5	0.748	37.388	ng/L	
Hg2600-2	DM2	SAM	1701569-06RE1	50	3/1/2017 12:08:44	72220-1.RAW	12:08:44 PM	20.12	1		13.2	-0.400	-19.982	ng/L	
Hg2600-2	DM2	SAM	1701569-07RE1	50	3/1/2017 12:12:53	72221-1.RAW	12:12:53 PM	21.31	1		14.4	-0.390	-19.495	ng/L	
Hg2600-2	DM2	SAM	1701569-08RE1	50	3/1/2017 12:17:01	72222-1.RAW	12:17:01 PM	10.46	1		3.5	-0.479	-23.929	ng/L	
Hg2600-2	DM2	SAM	1701569-09RE2	50000	3/1/2017 12:21:09	72223-1.RAW	12:21:09 PM	1344.70	1		1337.8	10.939	546943.880	ng/L	
Hg2600-2	DM2	SAM	1701569-10RE2	2500	3/1/2017 12:25:18	72224-1.RAW	12:25:18 PM	151.10	1		144.2	1.169	2921.621	ng/L	
Hg2600-2	DM2	SAM	1701569-11RE1	250000	3/1/2017 12:29:26	72225-1.RAW	12:29:26 PM	266.07	1		259.1	2.119	529729.689	ng/L	
Hg2600-2	DM2	SAM	F702418-DUP1	50	3/1/2017 12:33:35	72226-1.RAW	12:33:35 PM	42.43	1		35.5	-0.217	-10.857	ng/L	
Hg2600-2	DM2	SAM	F702418-MS1	50	3/1/2017 12:37:43	72227-1.RAW	12:37:43 PM	369.39	1		362.5	2.457	122.826	ng/L	
Hg2600-2	DM2	SAM	F702418-MSD1	50	3/1/2017 12:41:51	72228-1.RAW	12:41:51 PM	368.17	1		361.2	2.447	122.326	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV2	1	3/1/2017 12:46:00	72229-1.RAW	12:46:00 PM	638.01			631.1	5.160	5.160	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB2	1	3/1/2017 12:50:08	72230-1.RAW	12:50:08 PM	9.27			2.3	0.019	0.019	ng/L	
Hg2600-2	DM2	SAM	F702418-MS2	50	3/1/2017 12:54:17	72231-1.RAW	12:54:17 PM	347.56	1		340.6	2.278	113.898	ng/L	
Hg2600-2	DM2	SAM	F702418-MSD2	50	3/1/2017 12:58:25	72232-1.RAW	12:58:25 PM	356.01	1		349.1	2.347	117.353	ng/L	
Hg2600-2	DM2	SAM	F702418-DUP2	50	3/1/2017 13:02:34	72233-1.RAW	1:02:34 PM	66.24	1		59.3	-0.022	-1.124	ng/L	
Hg2600-2	DM2	BLK	F702412-BLK1	20	3/1/2017 13:06:42	72234-1.RAW	1:06:42 PM	10.28	2		3.3	0.027	0.546	ng/L	
Hg2600-2	DM2	BLK	F702412-BLK2	20	3/1/2017 13:10:50	72235-1.RAW	1:10:50 PM	8.48	2		1.5	0.013	0.251	ng/L	
Hg2600-2	DM2	BLK	F702412-BLK3	20	3/1/2017 13:14:59	72236-1.RAW	1:14:59 PM	4.68	2		-2.3	-0.018	-0.369	ng/L	
Hg2600-2	DM2	SAM	F702412-BS1	20	3/1/2017 13:19:07	72237-1.RAW	1:19:07 PM	622.72	2		615.8	5.028	100.566	ng/L	
Hg2600-2	DM2	SAM	F702412-BSD1	20	3/1/2017 13:23:17	72238-1.RAW	1:23:17 PM	618.15	2		611.2	4.991	99.819	ng/L	
Hg2600-2	DM2	SAM	F702412-BS2	400	3/1/2017 13:27:25	72239-1.RAW	1:27:25 PM	658.43	2		651.5	5.327	2130.845	ng/L	
Hg2600-2	DM2	SAM	1702248-01	100	3/1/2017 13:31:34	72240-1.RAW	1:31:34 PM	8273.77	2		8266.8	67.600	6759.955	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV3	1	3/1/2017 13:35:43	72241-1.RAW	1:35:43 PM	647.97			641.0	5.242	5.242	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB3	1	3/1/2017 13:39:51	72242-1.RAW	1:39:51 PM	18.45			11.5	0.094	0.094	ng/L	
Hg2600-2	DM2	SAM	1702248-02	400	3/1/2017 13:44:00	72243-1.RAW	1:44:00 PM	1668.11	2		1661.2	13.584	5433.466	ng/L	
Hg2600-2	DM2	SAM	1702285-01	400	3/1/2017 13:48:08	72244-1.RAW	1:48:08 PM	202.19	2		195.3	1.596	638.511	ng/L	
Hg2600-2	DM2	SAM	1702285-11	400	3/1/2017 13:52:17	72245-1.RAW	1:52:17 PM	448.56	2		441.6	3.611	1444.371	ng/L	
Hg2600-2	DM2	SAM	1702285-12	400	3/1/2017 13:56:25	72246-1.RAW	1:56:25 PM	834.88	2		827.9	6.770	2707.990	ng/L	
Hg2600-2	DM2	SAM	1702285-13	400	3/1/2017 14:00:34	72247-1.RAW	2:00:34 PM	897.56	2		890.6	7.283	2913.034	ng/L	
Hg2600-2	DM2	SAM	1702285-14	400	3/1/2017 14:04:42	72248-1.RAW	2:04:42 PM	1653.81	2		1646.9	13.467	5386.670	ng/L	
Hg2600-2	DM2	SAM	1702285-15	400	3/1/2017 14:08:51	72249-1.RAW	2:08:51 PM	571.50	2		564.6	4.616	1846.510	ng/L	
Hg2600-2	DM2	SAM	1702285-16	400	3/1/2017 14:12:59	72250-1.RAW	2:12:59 PM	1332.01	2		1325.1	10.835	4334.078	ng/L	
Hg2600-2	DM2	SAM	1702328-01	400	3/1/2017 14:17:08	72251-1.RAW	2:17:08 PM	1483.27	2		1476.3	12.072	4828.848	ng/L	
Hg2600-2	DM2	SAM	1702248-01RE1	400	3/1/2017 14:21:16	72252-1.RAW	2:21:16 PM	2176.81	2		2169.9	17.743	7097.388	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV4	1	3/1/2017 14:25:24	72253-1.RAW	2:25:24 PM	676.61			669.7	5.476	5.476	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB4	1	3/1/2017 14:29:33	72254-1.RAW	2:29:33 PM	13.80			6.9	0.056	0.056	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	F702412-DUP1	400	3/1/2017 14:36:33	72255-1.RAW	2:36:33 PM	1483.86	2		1476.9	12.077	4830.780	ng/L	
Hg2600-2	DM2	SAM	F702412-MS1	400	3/1/2017 14:40:42	72256-1.RAW	2:40:42 PM	2823.43	2		2816.5	23.031	9212.437	ng/L	
Hg2600-2	DM2	SAM	F702412-MSD1	400	3/1/2017 14:44:50	72257-1.RAW	2:44:50 PM	3117.53	2		3110.6	25.436	10174.425	ng/L	
Hg2600-2	DM2	BLK	F702469-BLK1	10	3/1/2017 14:48:59	72258-1.RAW	2:48:59 PM	28.00	3		21.1	0.172	1.722	ng/L	
Hg2600-2	DM2	BLK	F702469-BLK2	10	3/1/2017 14:53:07	72259-1.RAW	2:53:07 PM	17.77	3		10.8	0.089	0.885	ng/L	
Hg2600-2	DM2	BLK	F702469-BLK3	10	3/1/2017 14:57:16	72260-1.RAW	2:57:16 PM	14.23	3		7.3	0.060	0.596	ng/L	
Hg2600-2	DM2	SAM	F702469-BS1	10	3/1/2017 15:01:24	72261-1.RAW	3:01:24 PM	2053.62	3		2046.7	16.630	166.297	ng/L	
Hg2600-2	DM2	SAM	F702469-BSD1	10	3/1/2017 15:05:32	72262-1.RAW	3:05:32 PM	1943.64	3		1936.7	15.730	157.303	ng/L	
Hg2600-2	DM2	SAM	1701569-09RE2	2500	3/1/2017 15:09:41	72263-1.RAW	3:09:41 PM	1058.89	3		1051.9	8.602	21504.294	ng/L	
Hg2600-2	DM2	SAM	1701569-10RE3	5000	3/1/2017 15:13:49	72264-1.RAW	3:13:49 PM	18793.73	3		18786.8	153.626	768132.198	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV5	1	3/1/2017 15:17:58	72265-1.RAW	3:17:58 PM	656.5929495			649.7	5.312	5.312	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB5	1	3/1/2017 15:22:06	72266-1.RAW	3:22:06 PM	41.79			34.8	0.285	0.285	ng/L	
Hg2600-2	DM2	SAM	F702412-DUP2	400	3/1/2017 15:27:46	72267-1.RAW	3:27:46 PM	2188.86	2		2181.9	17.842	7136.812	ng/L	
Hg2600-2	DM2	SAM	F702412-MS2	1000	3/1/2017 15:31:54	72268-1.RAW	3:31:54 PM	3234.14	2		3227.2	26.390	26389.898	ng/L	
Hg2600-2	DM2	SAM	F702412-MSD2	1000	3/1/2017 15:36:02	72269-1.RAW	3:36:02 PM	3425.40	2		3418.5	27.954	27953.878	ng/L	
Hg2600-2	DM2	SAM	1701569-11RE3	5000	3/1/2017 15:40:11	72270-1.RAW	3:40:11 PM	6830.75	3		6823.8	55.801	279003.188	ng/L	
Hg2600-2	DM2	SAM	1701569-10RE4	50000	3/1/2017 15:44:19	72271-1.RAW	3:44:19 PM	2024.43	3		2017.5	16.498	824886.365	ng/L	
Hg2600-2	DM2	SAM	F702469-DUP1	2500	3/1/2017 15:48:28	72272-1.RAW	3:48:28 PM	1177.24	3		1170.3	9.570	23923.790	ng/L	
Hg2600-2	DM2	SAM	F702469-MS1	2500	3/1/2017 15:52:36	72273-1.RAW	3:52:36 PM	3687.95	3		3681.0	30.101	75251.459	ng/L	
Hg2600-2	DM2	SAM	F702469-MSD1	2500	3/1/2017 15:56:45	72274-1.RAW	3:56:45 PM	3686.61	3		3679.7	30.090	75224.057	ng/L	
Hg2600-2	DM2	BLK	F703257-BLK1	1	3/1/2017 16:00:53	72275-1.RAW	4:00:53 PM	39.88	4		32.9	0.269	0.269	ng/L	
Hg2600-2	DM2	BLK	F703257-BLK2	1	3/1/2017 16:05:02	72276-1.RAW	4:05:02 PM	21.65	4		14.7	0.120	0.120	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV6	1	3/1/2017 16:09:10	72277-1.RAW	4:09:10 PM	646.77			639.8	5.232	5.232	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB6	1	3/1/2017 16:13:18	72278-1.RAW	4:13:18 PM	22.02			15.1	0.123	0.123	ng/L	
Hg2600-2	DM2	BLK	F703257-BLK3	1	3/1/2017 16:17:27	72279-1.RAW	4:17:27 PM	17.85	4		10.9	0.089	0.089	ng/L	
Hg2600-2	DM2	SAM	1701569-10RE5	50000	3/1/2017 16:21:35	72280-1.RAW	4:21:35 PM	1952.60	3		1945.7	15.910	795518.326	ng/L	
Hg2600-2	DM2	SAM	1701569-11RE4	10000	3/1/2017 16:25:44	72281-1.RAW	4:25:44 PM	3379.62	3		3372.7	27.580	275795.604	ng/L	
Hg2600-2	DM2	SAM	F703257-BS1	1	3/1/2017 16:29:52	72282-1.RAW	4:29:52 PM	1986.55	4		1979.6	16.028	16.028	ng/L	
Hg2600-2	DM2	SAM	F703257-BSD1	1	3/1/2017 16:34:01	72283-1.RAW	4:34:01 PM	1974.49	4		1967.6	15.930	15.930	ng/L	
Hg2600-2	DM2	SAM	1702406-01	1	3/1/2017 16:38:09	72284-1.RAW	4:38:09 PM	651.78	4		644.8	5.113	5.113	ng/L	
Hg2600-2	DM2	SAM	1702406-02	1	3/1/2017 16:42:17	72285-1.RAW	4:42:17 PM	570.96	4		564.0	4.453	4.453	ng/L	
Hg2600-2	DM2	SAM	1702406-03	1	3/1/2017 16:46:26	72286-1.RAW	4:46:26 PM	731.50	4		724.6	5.765	5.765	ng/L	
Hg2600-2	DM2	SAM	1702631-01	1	3/1/2017 16:50:34	72287-1.RAW	4:50:34 PM	27.50	4		20.6	0.009	0.009	ng/L	
Hg2600-2	DM2	SAM	1702631-02	1	3/1/2017 16:54:43	72288-1.RAW	4:54:43 PM	92.57	4		85.6	0.541	0.541	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV7	1	3/1/2017 16:58:51	72289-1.RAW	4:58:51 PM	660.84			653.9	5.347	5.347	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB7	1	3/1/2017 17:03:00	72290-1.RAW	5:03:00 PM	15.11			8.2	0.067	0.067	ng/L	
Hg2600-2	DM2	SAM	1702631-03	1	3/1/2017 17:07:08	72291-1.RAW	5:07:08 PM	80.37	4		73.4	0.441	0.441	ng/L	
Hg2600-2	DM2	SAM	1702631-04	1	3/1/2017 17:11:17	72292-1.RAW	5:11:17 PM	88.92	4		82.0	0.511	0.511	ng/L	
Hg2600-2	DM2	SAM	1702631-05	1	3/1/2017 17:15:25	72293-1.RAW	5:15:25 PM	82.31	4		75.4	0.457	0.457	ng/L	
Hg2600-2	DM2	SAM	1702631-06	1	3/1/2017 17:19:34	72294-1.RAW	5:19:34 PM	11.55	4		4.6	-0.122	-0.122	ng/L	
Hg2600-2	DM2	SAM	1702633-01	1	3/1/2017 17:23:42	72295-1.RAW	5:23:42 PM	14.25	4		7.3	-0.100	-0.100	ng/L	
Hg2600-2	DM2	SAM	1702633-02	10	3/1/2017 17:27:50	72296-1.RAW	5:27:50 PM	6403.35	4		6396.4	52.290	522.899	ng/L	
Hg2600-2	DM2	SAM	1702633-03	1	3/1/2017 17:31:59	72297-1.RAW	5:31:59 PM	3794.35	4		3787.4	30.811	30.811	ng/L	
Hg2600-2	DM2	SAM	1702633-04	1	3/1/2017 17:36:07	72298-1.RAW	5:36:07 PM	16339.34	4		16332.4	133.397	133.397	ng/L	
Hg2600-2	DM2	SAM	1702633-05	1	3/1/2017 17:40:16	72299-1.RAW	5:40:16 PM	610.24	4		603.3	4.774	4.774	ng/L	
Hg2600-2	DM2	SAM	1702633-06	1	3/1/2017 17:44:24	72300-1.RAW	5:44:24 PM	728.33	4		721.4	5.740	5.740	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV8	1	3/1/2017 17:48:33	72301-1.RAW	5:48:33 PM	695.14			688.2	5.628	5.628	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB8	1	3/1/2017 17:52:41	72302-1.RAW	5:52:41 PM	22.59			15.7	0.128	0.128	ng/L	
Hg2600-2	DM2	SAM	1702633-07	10	3/1/2017 17:56:50	72303-1.RAW	5:56:50 PM	1171.12	4		1164.2	9.504	95.039	ng/L	
Hg2600-2	DM2	SAM	1702633-08	1	3/1/2017 18:00:58	72304-1.RAW	6:00:58 PM	401.88	4		394.9	3.070	3.070	ng/L	
Hg2600-2	DM2	SAM	F703257-DUP1	1	3/1/2017 18:05:06	72305-1.RAW	6:05:06 PM	638.38	4		631.4	5.004	5.004	ng/L	
Hg2600-2	DM2	SAM	F703257-MS1	1	3/1/2017 18:09:15	72306-1.RAW	6:09:15 PM	3016.11	4		3009.2	24.447	24.447	ng/L	
Hg2600-2	DM2	SAM	F703257-MSD1	1	3/1/2017 18:13:23	72307-1.RAW	6:13:23 PM	2987.37	4		2980.4	24.212	24.212	ng/L	
Hg2600-2	DM2	SAM	F703257-MS2	1	3/1/2017 18:17:32	72308-1.RAW	6:17:32 PM	2797.84	4		2790.9	22.663	22.663	ng/L	
Hg2600-2	DM2	SAM	F703257-MSD2	1	3/1/2017 18:21:40	72309-1.RAW	6:21:40 PM	2936.93	4		2930.0	23.800	23.800	ng/L	
Hg2600-2	DM2	SAM	1702633-02RE1	50	3/1/2017 18:25:49	72310-1.RAW	6:25:49 PM	1308.72	4		1301.8	10.642	532.099	ng/L	
Hg2600-2	DM2	SAM	1702633-03RE1	1	3/1/2017 18:29:58	72311-1.RAW	6:29:58 PM	3573.07	4		3566.1	29.002	29.002	ng/L	
Hg2600-2	DM2	SAM	1702633-04RE1	10	3/1/2017 18:34:07	72312-1.RAW	6:34:07 PM	1853.91	4		1847.0	15.087	150.874	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCV9	1	3/1/2017 18:38:15	72313-1.RAW	6:38:15 PM	668.52			661.6	5.410	5.410	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCB9	1	3/1/2017 18:42:23	72314-1.RAW	6:42:23 PM	27.42			20.5	0.167	0.167	ng/L	
Hg2600-2	DM2	SAM	1702633-05RE1	1	3/1/2017 18:46:32	72315-1.RAW	6:46:32 PM	554.11	4		547.2	4.315	4.315	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCVA	1	3/1/2017 18:50:40	72316-1.RAW	6:50:40 PM	656.02			649.1	5.308	5.308	ng/L	
Hg2600-2	DM2	CAL	SEQ-CCBA	1	3/1/2017 18:54:49	72317-1.RAW	6:54:49 PM	18.58			11.6	0.095	0.095	ng/L	

TotalMercury  
EPA1631

Operat DM BlankS: 6.9427 Calib Eqn: Conc = (Area-6.942 Run Date: 3/1/2017 Blank SD: 1.244334535  
 Workst THg2600 CalibFa 122.29 Status: QC Warnings:15/QC Run Time: 15:23:36 Blank RSD%: 17.92302793  
 Method ### R: 0.9998 R2: 0.9996 CF SD: 3.002073917  
 Descrip THg26002-170301-1 CF RSD%: 2.454908707

Sample/ID	Locator	Rinse	Dilute	Blank	Conc (ppt)	MB%	FinalConc	Rec%	QA	RawData	RunEnd	Peak (Raw)	Control (cft)	Flags	RunCount
Clean				0.00	8.55					72193-1.RAW	10:16:13	1045.83	Clean	OK	1
clean				0.00	0.01					72194-1.RAW	10:19:04	1.76	Clean	OK	1
ws				6.94	0.00					72195-1.RAW	10:23:12	5.61	Sample	OK	1
ws				6.94	0.00					72196-1.RAW	10:27:22	5.65	Sample	OK	1
ws				6.94	0.00					72197-1.RAW	10:31:30	4.29	Sample	OK	1
SEQ-IBL1	A1		1	0.00	0.05					72198-1.RAW	10:35:39	5.51	Sample	OK	1
SEQ-IBL2	A2		1	0.00	0.06					72199-1.RAW	10:39:47	7.79	Sample	OK	1
SEQ-IBL3	A3		1	0.00	0.06					72200-1.RAW	10:43:55	7.52	Sample	OK	1
SEQ-CAL1	A4		1	6.94	0.50			99.08		72201-1.RAW	10:48:04	67.52	Sample	OK	1
SEQ-CAL2	A5		1	6.94	1.02			102.04		72202-1.RAW	10:52:12	131.72	Sample	OK	1
SEQ-CAL3	A6		1	6.94	5.11			102.24		72203-1.RAW	10:56:21	632.10	Sample	OK	1
SEQ-CAL4	A7		1	6.94	20.08			100.38		72204-1.RAW	11:00:29	2461.91	Sample	OK	1
SEQ-CAL5	A8		1	6.94	38.51			96.27		72205-1.RAW	11:04:38	4715.87	Sample	OK	1
SEQ-ICV1	A9		1	6.94	5.32			106.36		72206-1.RAW	11:08:46	657.27	Sample	OK	1
F702418-BLK1	A10		50	6.94	4.37					72207-1.RAW	11:14:54	17.63	Sample	OK	1
F702418-BLK2	A11		50	6.94	69.39					72208-1.RAW	11:19:02	176.65	Sample	OK	1
F702418-BLK3	A12		50	6.94	2.35					72209-1.RAW	11:23:10	12.69	Sample	OK	1
F702418-BS1	A13		50	6.94	785.74					72210-1.RAW	11:27:19	1928.68	Sample	OK	1
F702418-BSD1	A14		50	6.94	794.10					72211-1.RAW	11:31:27	1949.13	Sample	OK	1
1701569-01RE1	A15		50	6.94	28.91					72212-1.RAW	11:35:36	77.66	Sample	OK	1
1701569-02RE1	A16		50	6.94	20.00					72213-1.RAW	11:39:44	55.86	Sample	OK	1
1701569-03RE1	A17		50	6.94	20.82					72214-1.RAW	11:43:53	57.86	Sample	OK	1
1701569-04RE1	A18		50	6.94	8.00					72215-1.RAW	11:48:01	26.51	Sample	OK	1
1701569-05RE1	A19		50	6.94	9.63					72216-1.RAW	11:52:10	30.50	Sample	OK	1
SEQ-CCV1	A20		1	6.94	5.34			106.88		72217-1.RAW	11:56:19	660.46	Sample	OK	1
SEQ-CCB1	A21		1	6.94	0.01			0.00		72218-1.RAW	12:00:27	8.13	Sample	OK	1
*F702418-BLK4	B1		50	6.94	62.76					72219-1.RAW	12:04:36	160.43	Sample	OK	1
1701569-06RE1	B2		50	6.94	5.39					72220-1.RAW	12:08:44	20.12	Sample	OK	1
1701569-07RE1	B3		50	6.94	5.87					72221-1.RAW	12:12:53	21.31	Sample	OK	1
1701569-08RE1	B4		50	6.94	1.44					72222-1.RAW	12:17:01	10.46	Sample	OK	1
1701569-09RE2	B5		50000	6.94	546969.25					72223-1.RAW	12:21:09	1344.70	Sample	OK	1
1701569-10RE2	B6		2500	6.94	2946.99					72224-1.RAW	12:25:18	151.10	Sample	OK	1
1701569-11RE1	B7		250000	6.94	529755.06					72225-1.RAW	12:29:26	266.07	Sample	OK	1
F702418-DUP1	B8		50	6.94	14.51					72226-1.RAW	12:33:35	42.43	Sample	OK	1
F702418-MS1	B9		50	6.94	148.19			955.38		72227-1.RAW	12:37:43	369.39	Sample	OK	1
F702418-MSD1	B10		50	6.94	147.69					72228-1.RAW	12:41:51	368.17	Sample	OK	1
SEQ-CCV2	B11		1	6.94	5.16			103.21		72229-1.RAW	12:46:00	638.01	Sample	OK	1
SEQ-CCB2	B12		1	6.94	0.02			0.00		72230-1.RAW	12:50:08	9.27	Sample	OK	1
F702418-MS2	B13		50	6.94	139.27			6897.57		72231-1.RAW	12:54:17	347.56	Sample	OK	1
F702418-MSD2	B14		50	6.94	142.72					72232-1.RAW	12:58:25	356.01	Sample	OK	1
F702418-DUP2	B15		50	6.94	24.24					72233-1.RAW	13:02:34	66.24	Sample	OK	1
F702412-BLK1	B16		20	6.94	0.55					72234-1.RAW	13:06:42	10.28	Sample	OK	1
F702412-BLK2	B17		20	6.94	0.25					72235-1.RAW	13:10:50	8.48	Sample	OK	1
F702412-BLK3	B18		20	6.94	0.00					72236-1.RAW	13:14:59	4.68	Sample	OK	1
F702412-BS1	B19		20	6.94	100.71					72237-1.RAW	13:19:07	622.72	Sample	OK	1
F702412-BSD1	B20		20	6.94	99.96					72238-1.RAW	13:23:17	618.15	Sample	OK	1
F702412-BS2	B21		400	6.94	2130.99					72239-1.RAW	13:27:25	658.43	Sample	OK	1
1702248-01	C1		100	6.94	6760.10					72240-1.RAW	13:31:34	8273.77	Sample	OK	1
SEQ-CCV3	C2		1	6.94	5.24			104.84		72241-1.RAW	13:35:43	647.97	Sample	OK	1
SEQ-CCB3	C3		1	6.94	0.09			0.00		72242-1.RAW	13:39:51	18.45	Sample	OK	1
1702248-02	C4		400	6.94	5433.61					72243-1.RAW	13:44:00	1668.11	Sample	OK	1
1702285-01	C5		400	6.94	638.65					72244-1.RAW	13:48:08	202.19	Sample	OK	1
1702285-11	C6		400	6.94	1444.51					72245-1.RAW	13:52:17	448.56	Sample	OK	1
1702285-12	C7		400	6.94	2708.13					72246-1.RAW	13:56:25	834.88	Sample	OK	1
1702285-13	C8		400	6.94	2913.18					72247-1.RAW	14:00:34	897.56	Sample	OK	1
1702285-14	C9		400	6.94	5386.81					72248-1.RAW	14:04:42	1653.81	Sample	OK	1
1702285-15	C10		400	6.94	1846.65					72249-1.RAW	14:08:51	571.50	Sample	OK	1
1702285-16	C11		400	6.94	4334.22					72250-1.RAW	14:12:59	1332.01	Sample	OK	1
1702328-01	C12		400	6.94	4828.99					72251-1.RAW	14:17:08	1483.27	Sample	OK	1
1702248-01RE1	C13		400	6.94	7097.53					72252-1.RAW	14:21:16	2176.81	Sample	OK	1
SEQ-CCV4	C14		1	6.94	5.48			109.52		72253-1.RAW	14:25:24	676.61	Sample	OK	1
SEQ-CCB4	C15		1	6.94	0.06			0.00		72254-1.RAW	14:29:33	13.80	Sample	OK	1

F702412-DUP1	C16	400	6.94	4830.92		72255-1.RAW	14:36:33	1483.86	Sample	OK	1
F702412-MS1	C17	400	6.94	9212.58	190.66	72256-1.RAW	14:40:42	2823.43	Sample	OK	1
F702412-MSD1	C18	400	6.94	10174.57		72257-1.RAW	14:44:50	3117.53	Sample	OK	1
F702469-BLK1	C19	10	6.94	1.72		72258-1.RAW	14:48:59	28.00	Sample	OK	1
F702469-BLK2	C20	10	6.94	0.89		72259-1.RAW	14:53:07	17.77	Sample	OK	1
F702469-BLK3	C21	10	6.94	0.60		72260-1.RAW	14:57:16	14.23	Sample	OK	1
F702469-BS1	A1	10	6.94	167.36		72261-1.RAW	15:01:24	2053.82	Sample	OK	1
F702469-BSD1	A2	10	6.94	158.37		72262-1.RAW	15:05:32	1943.64	Sample	OK	1
1701569-09RE2	A3	2500	6.94	21505.36		72263-1.RAW	15:09:41	1058.89	Sample	OK	1
1701569-10RE3	A4	5000	6.94	768133.27		72264-1.RAW	15:13:49	18793.73	Sample	OK	1
SEQ-CCV5	A5	1	6.94	5.31	106.25	72265-1.RAW	15:17:58	656.59	Sample	OK	1
SEQ-CCB5	A6	1	6.94	0.28	0.00	72266-1.RAW	15:22:06	41.79	Sample	OK	1
F702412-DUP2	A7	400	6.94	7136.95		72267-1.RAW	15:27:46	2188.86	Sample	OK	1
F702412-MS2	A8	1000	6.94	26390.04	369.66	72268-1.RAW	15:31:54	3234.14	Sample	OK	1
F702412-MSD2	A9	1000	6.94	27954.02		72269-1.RAW	15:36:02	3425.40	Sample	OK	1
1701569-11RE3	A10	5000	6.94	279004.26		72270-1.RAW	15:40:11	6830.75	Sample	OK	1
1701569-10RE4	A11	5000	6.94	824887.43		72271-1.RAW	15:44:19	2024.43	Sample	OK	1
F702469-DUP1	A12	2500	6.94	23924.86		72272-1.RAW	15:48:28	1177.24	Sample	OK	1
F702469-MS1	A13	2500	6.94	75252.53	314.52	72273-1.RAW	15:52:36	3687.95	Sample	OK	1
F702469-MSD1	A14	2500	6.94	75225.12		72274-1.RAW	15:56:45	3686.61	Sample	OK	1
F703257-BLK1	A15	1	6.94	0.27		72275-1.RAW	16:00:53	39.88	Sample	OK	1
F703257-BLK2	A16	1	6.94	0.12		72276-1.RAW	16:05:02	21.65	Sample	OK	1
SEQ-CCV6	A17	1	6.94	5.23	104.64	72277-1.RAW	16:09:10	646.77	Sample	OK	1
SEQ-CCB6	A18	1	6.94	0.12	0.00	72278-1.RAW	16:13:18	22.02	Sample	OK	1
F703257-BLK3	A19	1	6.94	0.09		72279-1.RAW	16:17:27	17.85	Sample	OK	1
1701569-10RE5	A20	5000	6.94	795519.39		72280-1.RAW	16:21:35	1952.60	Sample	OK	1
1701569-11RE4	A21	10000	6.94	275796.67		72281-1.RAW	16:25:44	3379.62	Sample	OK	1
F703257-BS1	B1	1	6.94	16.19		72282-1.RAW	16:29:52	1986.55	Sample	OK	1
F703257-BSD1	B2	1	6.94	16.09		72283-1.RAW	16:34:01	1974.49	Sample	OK	1
1702406-01	B3	1	6.94	5.27		72284-1.RAW	16:38:09	651.78	Sample	OK	1
1702406-02	B4	1	6.94	4.61		72285-1.RAW	16:42:17	570.96	Sample	OK	1
1702406-03	B5	1	6.94	5.92		72286-1.RAW	16:46:26	731.50	Sample	OK	1
1702631-01	B6	1	6.94	0.17		72287-1.RAW	16:50:34	27.50	Sample	OK	1
1702631-02	B7	1	6.94	0.70		72288-1.RAW	16:54:43	92.57	Sample	OK	1
SEQ-CCV7	B8	1	6.94	5.35	106.94	72289-1.RAW	16:58:51	660.84	Sample	OK	1
SEQ-CCB7	B9	1	6.94	0.07	0.00	72290-1.RAW	17:03:00	15.11	Sample	OK	1
1702631-03	B10	1	6.94	0.60		72291-1.RAW	17:07:08	80.37	Sample	OK	1
1702631-04	B11	1	6.94	0.67		72292-1.RAW	17:11:17	88.92	Sample	OK	1
1702631-05	B12	1	6.94	0.62		72293-1.RAW	17:15:25	82.31	Sample	OK	1
1702631-06	B13	1	6.94	0.04		72294-1.RAW	17:19:34	11.55	Sample	OK	1
1702633-01	B14	1	6.94	0.06		72295-1.RAW	17:23:42	14.25	Sample	OK	1
1702633-02	B15	10	6.94	523.06		72296-1.RAW	17:27:50	6403.35	Sample	OK	1
1702633-03	B16	1	6.94	30.97		72297-1.RAW	17:31:59	3794.35	Sample	OK	1
1702633-04	B17	1	6.94	133.56		72298-1.RAW	17:36:07	16339.34	Sample	FB	1
1702633-05	B18	1	6.94	4.93		72299-1.RAW	17:40:16	610.24	Sample	OK	1
1702633-06	B19	1	6.94	5.90		72300-1.RAW	17:44:24	728.33	Sample	OK	1
SEQ-CCV8	B20	1	6.94	5.63	112.55	72301-1.RAW	17:48:33	695.14	Sample	OK	1
SEQ-CCB8	B21	1	6.94	0.13	0.00	72302-1.RAW	17:52:41	22.59	Sample	OK	1
1702633-07	C1	10	6.94	95.20		72303-1.RAW	17:56:50	1171.12	Sample	OK	1
1702633-08	C2	1	6.94	3.23		72304-1.RAW	18:00:58	401.88	Sample	OK	1
F703257-DUP1	C3	1	6.94	5.16		72305-1.RAW	18:05:06	638.38	Sample	OK	1
F703257-MS1	C4	1	6.94	24.61	399.24	72306-1.RAW	18:09:15	3016.11	Sample	OK	1
F703257-MSD1	C5	1	6.94	24.37		72307-1.RAW	18:13:23	2987.37	Sample	OK	1
F703257-MS2	C6	1	6.94	22.82	86.54	72308-1.RAW	18:17:32	2797.84	Sample	OK	1
F703257-MSD2	C7	1	6.94	23.96		72309-1.RAW	18:21:40	2936.93	Sample	OK	1
1702633-02RE1	C8	50	6.94	532.26		72310-1.RAW	18:25:49	1308.72	Sample	OK	1
1702633-03RE1	C9	1	6.94	29.16		72311-1.RAW	18:29:58	3573.07	Sample	OK	1
1702633-04RE1	C10	10	6.94	151.03		72312-1.RAW	18:34:07	1853.91	Sample	OK	1
SEQ-CCV9	C11	1	6.94	5.41	108.20	72313-1.RAW	18:38:15	668.52	Sample	OK	1
SEQ-CCB9	C12	1	6.94	0.17	0.00	72314-1.RAW	18:42:23	27.42	Sample	OK	1
1702633-05RE1	C13	1	6.94	4.47		72315-1.RAW	18:46:32	554.11	Sample	OK	1
SEQ-CCVA	C14	1	6.94	5.31		72316-1.RAW	18:50:40	656.02	Sample	OK	1
SEQ-CCBA	C15	1	6.94	0.10		72317-1.RAW	18:54:49	18.58	Sample	OK	1

**Failing Data Report - 7C02013**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1701569-10RE3	Hg-CVAFS-S-SSE-F2	224000	1460				ng/g						FAIL-OVER	PASS	E
1701569-11RE3	Hg-CVAFS-S-SSE-F2	78600	1410				ng/g						FAIL-OVER	PASS	E

Dan Mason  
 Analyst Reviewed By

3/2/17  
 Date

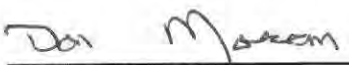
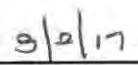
  
 Peer Reviewed By

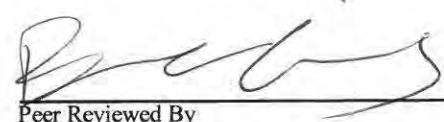
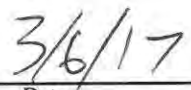
3/6/17  
 Date



**Failing Data Report - 7C02015**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702248-01	Hg-CVAFS-T-7030	490	3.62				ng/g						FAIL-OVER	PASS	E
F702412-DUP1	Hg-CVAFS-T-7030	333.5	13.8	514.1	514.1		ng/g				42.6	24.00	PASS-OVER	FAIL-DUP	QR-07
F702412-MS1	Hg-CVAFS-T-7030	632.1	13.7		514.1	343.05	ng/g	34.4	71.00	125.00			PASS-OVER	FAIL-MS	QM-02
F702412-MSD1	Hg-CVAFS-T-7030	685.1	13.5	632.1	514.1	336.70	ng/g	50.8	71.00	125.00	38.5	24.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM-02, QR-08
1702248-01	Hg-CVAFS-T-7030-PRASA	490	3.62				ng/g						FAIL-OVER	PASS	E
F702412-DUP1	Hg-CVAFS-T-7030-PRASA	333.5	13.8	514.1	514.1		ng/g				42.6	25.00	PASS-OVER	FAIL-DUP	QR-07
F702412-MS1	Hg-CVAFS-T-7030-PRASA	632.1	13.7		514.1	343.05	ng/g	34.4	75.00	125.00			PASS-OVER	FAIL-MS	QM-02
F702412-MSD1	Hg-CVAFS-T-7030-PRASA	685.1	13.5	632.1	514.1	336.70	ng/g	50.8	75.00	125.00	38.5	25.00	PASS-OVER	FAIL-MSD (Rec. and RPD)	QM-02, QR-08

  
 Analyst Reviewed By \_\_\_\_\_  
  
 Date \_\_\_\_\_

  
 Peer Reviewed By \_\_\_\_\_  
  
 Date \_\_\_\_\_

**Failing Data Report - 7C02016**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
F702418-BLK2	Hg-CVAFS-S-SSE-F4	21.68	15.6				ng/g						PASS-OVER	FAIL-BLK	QB-10

Don Maxon      3/2/17  
 Analyst Reviewed By      Date

[Signature]      3/6/17  
 Peer Reviewed By      Date

**Failing Data Report - 7C02017**

Sample ID	Analysis	Result	MRL	Dup Result	Source Result	True Value	Units	% Rec.	Rec. LCL	Rec. UCL	RPD	RPD Limit	Over Cal	Failure	Qualifier
1702633-02	Hg-CVAFS-W-1631	528	5.00				ng/L						FAIL-OVER	PASS	E
1702633-04	Hg-CVAFS-W-1631	135	0.50				ng/L						FAIL-OVER	PASS	E

Don Maten  
 Analyst Reviewed By

3/2/17  
 Date

[Signature]  
 Peer Reviewed By

3/6/17  
 Date

## ANALYSIS SEQUENCE

7C02013

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 3/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7C02013-IBL1	QC	1			
7C02013-IBL2	QC	2			
7C02013-IBL3	QC	3			
7C02013-CAL1	QC	4	1700737		
7C02013-CAL2	QC	5	1700738		
7C02013-CAL3	QC	6	1700739		
7C02013-CAL4	QC	7	1700740		
7C02013-CAL5	QC	8	1700741		
7C02013-ICV1	QC	9	1700018		
7C02013-CCV1	QC	10	1700018		
7C02013-CCB1	QC	11			
7C02013-CCV2	QC	12	1700018		
7C02013-CCB2	QC	13			
7C02013-CCV3	QC	14	1700018		
7C02013-CCB3	QC	15			
7C02013-CCV4	QC	16	1700018		
7C02013-CCB4	QC	17			
F702469-BLK1	QC	18			
F702469-BLK2	QC	19			
F702469-BLK3	QC	20			
F702469-BS1	QC	21			
F702469-BSD1	QC	22			
1701569-09RE2	Hg-CVAFS-S-SSE-F2	23			From F702416 by AMB on 28-Feb-17
1701569-10RE3	Hg-CVAFS-S-SSE-F2	24			From F702416 by AMB on 28-Feb-17
7C02013-CCV5	QC	25	1700018		
7C02013-CCB5	QC	26			
1701569-11RE3	Hg-CVAFS-S-SSE-F2	27			From F702416 by AMB on 28-Feb-17
1701569-10RE4	Hg-CVAFS-S-SSE-F2	28			Added 3/1/2017 by DM2
F702469-DUP1	QC	29			
F702469-MS1	QC	30			
F702469-MSD1	QC	31			
7C02013-CCV6	QC	32	1700018		
7C02013-CCB6	QC	33			
1701569-10RE5	Hg-CVAFS-S-SSE-F2	34			Added 3/1/2017 by DM2
1701569-11RE4	Hg-CVAFS-S-SSE-F2	35			Added 3/1/2017 by DM2

Due Date: 2/17/2017

ANALYSIS SEQUENCE

7C02013

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 3/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7C02013-CCV7	QC	36	1700018		
7C02013-CCB7	QC	37			

Don M. Moore      3/1/17  
Samples Loaded By      Date

Don M. Moore      3/2/17  
Data Processed By      Date

## ANALYSIS SEQUENCE

7C02015

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 3/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7C02015-IBL1	QC	1			
7C02015-IBL2	QC	2			
7C02015-IBL3	QC	3			
7C02015-CAL1	QC	4	1700737		
7C02015-CAL2	QC	5	1700738		
7C02015-CAL3	QC	6	1700739		
7C02015-CAL4	QC	7	1700740		
7C02015-CAL5	QC	8	1700741		
7C02015-ICV1	QC	9	1700018		
7C02015-CCV1	QC	10	1700018		
7C02015-CCB1	QC	11			
7C02015-CCV2	QC	12	1700018		
7C02015-CCB2	QC	13			
F702412-BLK1	QC	14			
F702412-BLK2	QC	15			
F702412-BLK3	QC	16			
F702412-BS1	QC	17			
F702412-BSD1	QC	18			
F702412-BS2	QC	19			
1702248-01	Hg-CVAFS-T-7030	20			BatchQC
1702248-01	Hg-CVAFS-T-7030-PRASA	21			
7C02015-CCV3	QC	22	1700018		
7C02015-CCB3	QC	23			
1702248-02	Hg-CVAFS-T-7030-PRASA	24			
1702285-01	Hg-CVAFS-T-7030	25			
1702285-11	Hg-CVAFS-T-7030	26			
1702285-12	Hg-CVAFS-T-7030	27			
1702285-13	Hg-CVAFS-T-7030	28			
1702285-14	Hg-CVAFS-T-7030	29			
1702285-15	Hg-CVAFS-T-7030	30			
1702285-16	Hg-CVAFS-T-7030	31			
1702328-01	Hg-CVAFS-T-7030-PRASA	32			
1702248-01RE1	Hg-CVAFS-T-7030	33			Added 3/1/2017 by DM2
1702248-01RE1	Hg-CVAFS-T-7030-PRASA	34			Added 3/2/2017 by DM2
7C02015-CCV4	QC	35	1700018		

Due Date: 3/8/2017

**ANALYSIS SEQUENCE**

**7C02015**

**Instrument: Hg2600-2**

**Calibration ID: UNASSIGNED**

**Analyzed: 3/1/2017**

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7C02015-CCB4	QC	36			
F702412-DUP1	QC	37			
F702412-MS1	QC	38			
F702412-MSD1	QC	39			
7C02015-CCV5	QC	40	1700018		
7C02015-CCB5	QC	41			
F702412-DUP2	QC	42			
F702412-MS2	QC	43			
F702412-MSD2	QC	44			
7C02015-CCV6	QC	45	1700018		
7C02015-CCB6	QC	46			

Don Moore      3/1/17  
 Samples Loaded By                      Date

Don Moore      3/2/17  
 Data Processed By                      Date

Due Date: 3/8/2017

## ANALYSIS SEQUENCE

7C02016

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 3/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7C02016-IBL1	QC	1			
7C02016-IBL2	QC	2			
7C02016-IBL3	QC	3			
7C02016-CAL1	QC	4	1700737		
7C02016-CAL2	QC	5	1700738		
7C02016-CAL3	QC	6	1700739		
7C02016-CAL4	QC	7	1700740		
7C02016-CAL5	QC	8	1700741		
7C02016-ICV1	QC	9	1700018		
F702418-BLK1	QC	10			
F702418-BLK2	QC	11			
F702418-BLK3	QC	12			
F702418-BS1	QC	13			
F702418-BSD1	QC	14			
1701569-01RE1	Hg-CVAFS-S-SSE-F4	15			From F702285 by AMB on 23-Feb-17
1701569-02RE1	Hg-CVAFS-S-SSE-F4	16			From F702285 by AMB on 23-Feb-17
1701569-03RE1	Hg-CVAFS-S-SSE-F4	17			From F702285 by AMB on 23-Feb-17
1701569-04RE1	Hg-CVAFS-S-SSE-F4	18			From F702285 by AMB on 23-Feb-17
1701569-05RE1	Hg-CVAFS-S-SSE-F4	19			From F702285 by AMB on 23-Feb-17
7C02016-CCV1	QC	20	1700018		
7C02016-CCB1	QC	21			
F702418-BLK4	QC	22			
1701569-06RE1	Hg-CVAFS-S-SSE-F4	23			From F702285 by AMB on 23-Feb-17
1701569-07RE1	Hg-CVAFS-S-SSE-F4	24			From F702285 by AMB on 23-Feb-17
1701569-08RE1	Hg-CVAFS-S-SSE-F4	25			From F702285 by AMB on 23-Feb-17
1701569-09RE2	Hg-CVAFS-S-SSE-F4	26			From F702285 by AMB on 23-Feb-17
1701569-10RE2	Hg-CVAFS-S-SSE-F4	27			From F702285 by AMB on 23-Feb-17
1701569-11RE1	Hg-CVAFS-S-SSE-F4	28			From F702285 by AMB on 23-Feb-17
F702418-DUP1	QC	29			
F702418-MS1	QC	30			
F702418-MSD1	QC	31			
7C02016-CCV2	QC	32	1700018		
7C02016-CCB2	QC	33			
F702418-MS2	QC	34			
F702418-MSD2	QC	35			

Due Date: 2/17/2017



ANALYSIS SEQUENCE

7C02016

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 3/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
F702418-DUP2	QC	36			
7C02016-CCV3	QC	37	1700018		
7C02016-CCB3	QC	38			

    Dan Moxem              3/1/17      
Samples Loaded By                      Date

    Dan Moxem              3/2/17      
Data Processed By                      Date

## ANALYSIS SEQUENCE

7C02017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 3/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
7C02017-IBL1	QC	1			
7C02017-IBL2	QC	2			
7C02017-IBL3	QC	3			
7C02017-CAL1	QC	4	1700737		
7C02017-CAL2	QC	5	1700738		
7C02017-CAL3	QC	6	1700739		
7C02017-CAL4	QC	7	1700740		
7C02017-CAL5	QC	8	1700741		
7C02017-ICV1	QC	9	1700018		
7C02017-CCV1	QC	10	1700018		
7C02017-CCB1	QC	11			
7C02017-CCV2	QC	12	1700018		
7C02017-CCB2	QC	13			
7C02017-CCV3	QC	14	1700018		
7C02017-CCB3	QC	15			
7C02017-CCV4	QC	16	1700018		
7C02017-CCB4	QC	17			
7C02017-CCV5	QC	18	1700018		
7C02017-CCB5	QC	19			
F703257-BLK1	QC	20			
F703257-BLK2	QC	21			
7C02017-CCV6	QC	22	1700018		
7C02017-CCB6	QC	23			
F703257-BLK3	QC	24			
F703257-BS1	QC	25			
F703257-BSD1	QC	26			
1702406-01	Hg-CVAFS-W-1631	27			
1702406-02	Hg-CVAFS-W-1631	28			
1702406-03	Hg-CVAFS-W-1631	29			
1702631-01	Hg-CVAFS-W-1631	30			
1702631-02	Hg-CVAFS-W-1631	31			
7C02017-CCV7	QC	32	1700018		
7C02017-CCB7	QC	33			
1702631-03	Hg-CVAFS-W-1631	34			
1702631-04	Hg-CVAFS-W-1631	35			

Due Date: 3/8/2017

## ANALYSIS SEQUENCE

7C02017

Instrument: Hg2600-2

Calibration ID: UNASSIGNED

Analyzed: 3/1/2017

Lab Number	Analysis	Order	STD ID	ISTD ID	Comments
1702631-05	Hg-CVAFS-W-1631	36			
1702631-06	Hg-CVAFS-W-1631	37			
1702633-01	Hg-CVAFS-W-1631	38			
1702633-02	Hg-CVAFS-W-1631	39			
1702633-03	Hg-CVAFS-W-1631	40			
1702633-04	Hg-CVAFS-W-1631	41			
1702633-05	Hg-CVAFS-W-1631	42			
1702633-06	Hg-CVAFS-W-1631	43			
7C02017-CCV8	QC	44	1700018		
7C02017-CCB8	QC	45			
1702633-07	Hg-CVAFS-W-1631	46			
1702633-08	Hg-CVAFS-W-1631	47			
F703257-DUP1	QC	48			
F703257-MS1	QC	49			
F703257-MSD1	QC	50			
F703257-MS2	QC	51			
F703257-MSD2	QC	52			
1702633-02RE1	Hg-CVAFS-W-1631	53			Added 3/1/2017 by DM2
1702633-03RE1	Hg-CVAFS-W-1631	54			Added 3/1/2017 by DM2
1702633-04RE1	Hg-CVAFS-W-1631	55			Added 3/1/2017 by DM2
7C02017-CCV9	QC	56	1700018		
7C02017-CCB9	QC	57			
1702633-05RE1	Hg-CVAFS-W-1631	58			Added 3/1/2017 by DM2
7C02017-CCVA	QC	59	1700018		
7C02017-CCBA	QC	60			

Don Matern      3/1/17  
 Samples Loaded By      Date

Don Matern      3/2/17  
 Data Processed By      Date

Due Date: 3/8/2017

**PREPARATION BENCH SHEET**

F703257

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 3/1/2017**

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F703257-BLK1	Blank	100	101					
F703257-BLK2	Blank	100	101					
F703257-BLK3	Blank	100	101					
F703257-BS1	LCS	50	50.5	1604715	100			
F703257-BSD1	LCS Dup	50	50.5	1604715	100			
F703257-DUP1	Duplicate [1702406-01]	100	101					
F703257-MS1	Matrix Spike [1702406-01]	49.50495	50	1700687	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F703257-MS2	Matrix Spike [1702406-02]	49.50495	50	1700687	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F703257-MSD1	Matrix Spike Dup [1702406-01]	49.50495	50	1700687	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL
F703257-MSD2	Matrix Spike Dup [1702406-02]	49.50495	50	1700687	100			[Spk] 100mL->101mL; 101mL->101mL; Spiked 50mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1700687	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-17 00:00
01-May-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>
1606934	25% Hydroxylamine-HCl working solution
1700306	0.2 N BRCL JANUARY 2017
1700308	THg Dilute 1% BrCl
1700309	THg Washstation (0.5% BrCl)
1701003	3% SnCl2 THg reductant

<u>Expiration:</u>
29-May-17 00:00
15-Jul-17 00:00
28-May-17 00:00
05-Aug-17 00:00

**PREPARATION BENCH SHEET**

F703257

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 3/1/2017**

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702406-01	Salem MH (Background) Day 1	100	101	-	-	-		
1702406-02	Salem MH (Background) Day 2	100	101	-	-	-		
1702406-03	Salem MH (Background) Day 3	100	101	-	-	-		
1702631-01	P87631-1	100	101	-	-	-		
1702631-02	P87631-2	100	101	-	-	-		
1702631-03	P87631-5	100	101	-	-	-		
1702631-04	P87631-6	100	101	-	-	-		
1702631-05	P87631-7	100	101	-	-	-		
1702631-06	P87631-8	100	101	-	-	-		
1702633-01	B-161989 Blank	100	101	-	-	-		
1702633-02	B-162000 Plant A Influent	100	101	-	-	-		
1702633-02RE1	B-162000 Plant A Influent	100	101	-	-	-	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2
1702633-03	B-161990 Plant A Effluent	100	101	-	-	-		
1702633-03RE1	B-161990 Plant A Effluent	100	101	-	-	-	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2
1702633-04	B-161999 Plant B/C Influent	100	101	-	-	-		
1702633-04RE1	B-161999 Plant B/C Influent	100	101	-	-	-	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2
1702633-05	B-162005 Plant B/C Effluent	100	101	-	-	-		
1702633-05RE1	B-162005 Plant B/C Effluent	100	101	-	-	-	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2
1702633-06	B-161993 Plant B/C Eff-Dup	100	101	-	-	-		

PREPARATION BENCH SHEET

F703257

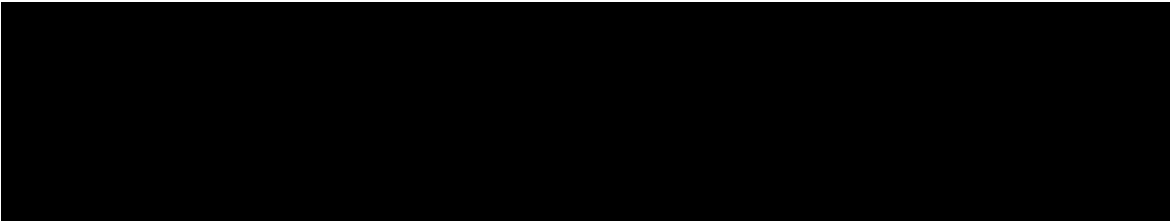
Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 3/1/2017

1702633-07	B-161998 Plant D Influent	100	101	-	-	-		
1702633-08	B-161988 Plant D Effluent	100	101	-	-	-		



**PREPARATION BENCH SHEET**

F702418

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 2/23/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702418-BLK1	Blank	0.4	125					
F702418-BLK2	Blank	0.4	125					
F702418-BLK3	Blank	0.4	125					
F702418-BLK4	Blank	0.4	125					
F702418-BS1	LCS	0.0032	1	1604715	100			
F702418-BSD1	LCS Dup	0.0032	1	1604715	100			
F702418-DUP1	Duplicate [1701569-01RE1]	0.451	125					
F702418-DUP2	Duplicate [1701569-01RE1]	0.462	125					
F702418-MS1	Matrix Spike [1701569-01RE1]	0.003696	1	1700688	125			[Spk] 0.462g->125mL; 125mL->125mL; Spiked 1mL
F702418-MS2	Matrix Spike [1701569-02RE1]	0.003648	1	1700688	125			[Spk] 0.456g->125mL; 125mL->125mL; Spiked 1mL
F702418-MSD1	Matrix Spike Dup [1701569-01RE1]	0.003696	1	1700688	125			[Spk] 0.462g->125mL; 125mL->125mL; Spiked 1mL
F702418-MSD2	Matrix Spike Dup [1701569-02RE1]	0.003648	1	1700688	125			[Spk] 0.456g->125mL; 125mL->125mL; Spiked 1mL

<u>Standard ID(s):</u>	<u>Description:</u>
1604715	Nist 1641D 200X
1700688	THg 1ng/mL Calibration Standard

<u>Expiration:</u>
18-Aug-17 00:00
01-May-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>
1606642	Boiling Chips for AFS prep
1606934	25% Hydroxylamine-HCl working solution
1700306	0.2 N BRCL JANUARY 2017
1700308	THg Dilute 1% BrCl
1700309	THg Washstation (0.5% BrCl)
1701003	3% SnCl2 THg reductant
1701119	12N HNO3

<u>Expiration:</u>
10-May-17 00:00
29-May-17 00:00
15-Jul-17 00:00
28-May-17 00:00
05-Aug-17 00:00
23-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702418

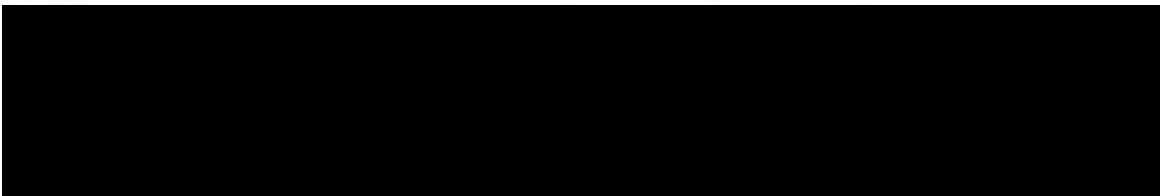
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4**

**Prepared: 2/23/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-01RE1	MW-45 8.5-10'	0.462	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-02RE1	MW-45 13.5-15'	0.456	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-03RE1	MW-47 3.5-5'	0.457	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-04RE1	MW-47 8.5-10'	0.448	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-05RE1	MW-46 8.5-10'	0.441	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-06RE1	MW-46 18.5-20'	0.475	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-07RE1	HG-1 8.5-10'	0.429	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-08RE1	HG-1 13.5-15'	0.42	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-09RE2	HgS	0.415	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-10RE2	HgO	0.428	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17
1701569-11RE1	Hg2Cl2	0.419	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17





**PREPARATION BENCH SHEET**

F702412

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/23/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702412-BLK1	Blank	0.25	20					
F702412-BLK2	Blank	0.25	20					
F702412-BLK3	Blank	0.25	20					
F702412-BS1	Blank Spike	0.25	20	1700686	20			
F702412-BS2	DORM-4	0.1257	20	1605470	126			
F702412-BSD1	Blank Spike Dup	0.25	20	1700686	20			
F702412-DUP1	Duplicate [1702248-01RE1]	0.2897	20					
F702412-DUP2	Duplicate [1702248-01RE1]	0.2761	20					
F702412-MS1	Matrix Spike [1702248-01RE1]	0.2915	20	1605712	100			
F702412-MS2	Matrix Spike [1702248-01RE1]	0.00069025	0.05	1700687	100			[Spk] 0.2761g->20mL; 20mL->20mL; Spiked 0.05mL
F702412-MSD1	Matrix Spike Dup [1702248-01RE1]	0.297	20	1605712	100			
F702412-MSD2	Matrix Spike Dup [1702248-01RE1]	0.00069025	0.05	1700687	100			[Spk] 0.2761g->20mL; 20mL->20mL; Spiked 0.05mL

<u>Standard ID(s):</u>	<u>Description:</u>
1605470	DORM-4
1605712	THg 1,000ng/mL Secondary Spiking Standard
1700686	THg 100ng/mL Primary Spiking Standard
1700687	THg 10ng/mL Calibration Standard

<u>Expiration:</u>
19-Mar-17 00:00
03-Apr-17 00:00
01-May-17 00:00
01-May-17 00:00

<u>Reagent ID(s):</u>	<u>Description:</u>
1606642	Boiling Chips for AFS prep
1606934	25% Hydroxylamine-HCl working solution
1700308	THg Dilute 1% BrCl
1700309	THg Washstation (0.5% BrCl)
1701000	70/30 Digestion Acid
1701003	3% SnCl2 THg reductant
1701085	5% BrCl

<u>Expiration:</u>
10-May-17 00:00
29-May-17 00:00
28-May-17 00:00
17-Aug-17 00:00
05-Aug-17 00:00
15-Jul-17 00:00

**PREPARATION BENCH SHEET**

F702412

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Tissue**

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

**Prepared: 2/23/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702248-01	HTS001 SLUDGE-HAT	0.2761	20	-	-	scan Dat	BatchQC	Added for BatchQC in: F702412
1702248-01RE1	HTS001 SLUDGE-HAT	0.2761	20	-	-	scan Dat	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2
1702248-02	HTS002FD1 SLUDGE-HAT	0.2968	20	-	-	scan Dat		
1702285-01	FRB-01_020217_ABD_11_BL	0.1522	20	-	-	-		
1702285-11	ES-13_020517_ABD_10_BL	0.0797	20	-	-	-		
1702285-12	ES-13_020517_ABD_11_BL	0.1438	20	-	-	-		
1702285-13	ES-13_020517_ABD_12_BL	0.0977	20	-	-	-		
1702285-14	ES-13_020517_ABD_13_BL	0.2283	20	-	-	-		
1702285-15	ES-13_020517_ABD_14_BL	0.1867	20	-	-	-		
1702285-16	ES-13_020517_ABD_15_BL	0.2124	20	-	-	-		
1702328-01	HTS003 SLUDGE-HAT	0.2868	20	-	-	scan Dat		

**PREPARATION BENCH SHEET**

F702469

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 2/28/2017**

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	μl Spike1	Spike2 ID	μl Spike2	Extraction Comments
F702469-BLK1	Blank	0.4	125					
F702469-BLK2	Blank	0.4	125					
F702469-BLK3	Blank	0.4	125					
F702469-BS1	LCS	0.016	5	1604715	100			
F702469-BSD1	LCS Dup	0.016	5	1604715	100			
F702469-DUP1	Duplicate [1701569-09RE2]	0.4593	125					
F702469-MS1	Matrix Spike [1701569-09RE2]	0.00007348 8	0.02	1700687	100			[Spk] 0.4593g->125mL; 125mL->125mL; Spiked 0.02mL
F702469-MSD1	Matrix Spike Dup [1701569-09RE2]	0.00007348 8	0.02	1700687	100			[Spk] 0.4593g->125mL; 125mL->125mL; 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>
1604715	Nist 1641D 200X	18-Aug-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1700687	THg 10ng/mL Calibration Standard	01-May-17 00:00	1606934	25% Hydroxylamine-HCl working solution	29-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1700308	THg Dilute 1% BrCl	28-May-17 00:00
			1700309	THg Washstation (0.5% BrCl)	
			1701003	3% SnCl2 THg reductant	05-Aug-17 00:00
			1701117	SSE pH2	23-Aug-17 00:00

**PREPARATION BENCH SHEET**

F702469

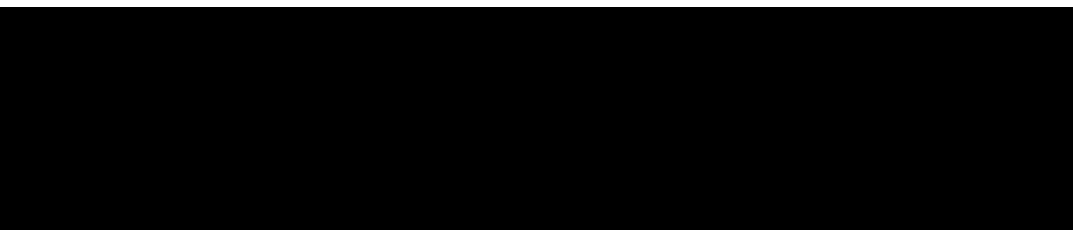
**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Soil/Sediment**

**Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2**

**Prepared: 2/28/2017**

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-09RE2	HgS	0.4593	125	-	-	-	From F702416 by AMB on 28-Feb-17	From F702416 by AMB on 28-Feb-17
1701569-10RE3	HgO	0.4286	125	-	-	-	From F702416 by AMB on 28-Feb-17	From F702416 by AMB on 28-Feb-17
1701569-10RE4	HgO	0.4286	125	-	-	-	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2
1701569-10RE5	HgO	0.4286	125	-	-	-	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2
1701569-11RE3	Hg2Cl2	0.4438	125	-	-	-	From F702416 by AMB on 28-Feb-17	From F702416 by AMB on 28-Feb-17
1701569-11RE4	Hg2Cl2	0.4438	125	-	-	-	Added 3/1/2017 by DM2	Added 3/1/2017 by DM2



PREPARATION BENCH SHEET

F702412

Eurofins Frontier Global Sciences, Inc.

2000-2

3/1/17 DM

Matrix: Tissue

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

Prepared: 2/23/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702412-BLK1	Blank	0.25	20					20x
F702412-BLK2	Blank	0.25	20					20x
F702412-BLK3	Blank	0.25	20					20x
F702412-BS1	Blank Spike	0.25	20	1700686	20			20x
F702412-BS2	DORM-4	0.1257	20	1605470	126			400x
F702412-BSD1	Blank Spike Dup	0.25	20	1700686	20			20x
F702412-DUP1	Duplicate [1702248-01] REI	0.2897	20					400x
F702412-MS1	Matrix Spike [1702248-01] REI	0.2915	20	1605712	100			400x
F702412-MSD1	Matrix Spike Dup [1702248-01] REI	0.297	20	1605712	100			400x

<u>Standard ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>	<u>Reagent ID(s):</u>	<u>Description:</u>	<u>Expiration:</u>
1605470	DORM-4	19-Mar-17 00:00	1606642	Boiling Chips for AFS prep	10-May-17 00:00
1605712	THg 1,000ng/mL Secondary Spiking Standard	03-Apr-17 00:00	1701000	70/30 Digestion Acid	17-Aug-17 00:00
1700686	THg 100ng/mL Primary Spiking Standard	01-May-17 00:00	1701085	5% BrCl	15-Jul-17 00:00

DUP2 - 400X AD 1702248-01REI

MS2, MSD2 - 1000X AS, ASD

Source 1702248-01REI

100u1 1700687

1700308

1700309

1606934

1701003

Due Date: 3/8/2017

PREPARATION BENCH SHEET

2600-2  
3/1/17 DM

F702412

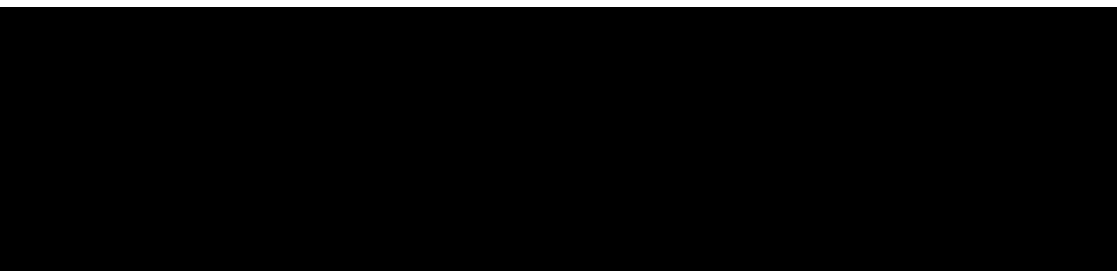
Eurofins Frontier Global Sciences, Inc.

Matrix: Tissue

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

Prepared: 2/23/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702248-01	HTS001 SLUDGE-HAT	0.2761	20	-	-	Scan Dat	BatchQC	Added for BatchQC in: F702412 100x → 400x
1702248-02	HTS002FD1 SLUDGE-HAT	0.2968	20	-	-	Scan Dat		400x
1702285-01	FRB-01_020217_ABD_11_BL	0.1522	20	-	-	-		400x
1702285-11	ES-13_020517_ABD_10_BL	0.0797	20	-	-	-		400x
1702285-12	ES-13_020517_ABD_11_BL	0.1438	20	-	-	-		400x
1702285-13	ES-13_020517_ABD_12_BL	0.0977	20	-	-	-		400x
1702285-14	ES-13_020517_ABD_13_BL	0.2283	20	-	-	-		400x
1702285-15	ES-13_020517_ABD_14_BL	0.1867	20	-	-	-		400x
1702285-16	ES-13_020517_ABD_15_BL	0.2124	20	-	-	-		400x
1702328-01	HTS003 SLUDGE-HAT	0.2868	20	-	-	Scan Dat		400x



Technician: Durfee Batch#: F702412 Date: 2/23/17  
 NO 2/23/17 v4

- 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: 13:55 Actual Temp. (raw): 77.0 °C w/ CF: 77.0 °C

Time out: 15:55 Actual Temp. (raw): 80.0 °C w/ CF: 80.0 °C

\*Time in can't begin before target temperature is reached 2/23/17

Final vol.: 20 mL (LIMS ID: 1701085) Spike vol.: 100 µL (LIMS ID: 1605712)  
 Spike Witness: DN 2/23/17 (initial and date)

HCl LIMS ID: N/A

Pipette SN#: MU11619 Calibration Date: 2-21-17

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

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

70/30 LIMS ID: 1701000

Dispenser #: 02K27494 Calibrated?  Yes  No

Other Acid LIMS ID: N/A

Dispenser #: 04N77497 15406623  Yes

Glass Vial # 00065550

Boiling Chip lot # 1606642

\*Hotblock Position: N.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	F702412 <sup>blk1</sup> <del>blk1</del>	0.2511	23			
2	F702412 blk2	0.2652	24			BS2 100µL 1605470
3	F702412 blk3	0.3089	25			
4	F702412 BS1	0.2579	26			
5	F702412 BSp1	0.3071	27			<b>Comments</b>
6	F702412 BS2	0.1257	28		2-23-17	BS1 BS01. = 100µL
7	F702412 dup1	0.2897	29		N/A	= 20µL 1700666
8	F702412 MS1	0.2915	30			dup1 MS1 MS01
9	F702412 MS01	0.2970	31			F702412
10	1702248-01A	0.2761	32			1702248-01
11	1702248-02A	0.2968	33			1702285-ALL
12	1702285-01A	0.1522	34			Sample NO enough
13	1702285-11A	0.0797	35			trans. volume 2/23/17 by
14	1702285-12A	0.1438	36			
15	1702285-13A	0.0977	37			Brought to
16	1702285-14A	0.2283	38			vol w/ BrCl
17	1702285-15A	0.1867	39			by AMB.
18	1702285-16A	0.2124	40			2/24/17
19	1702328-01	0.2868	41			
20			42			
21			43			
22			44			

PREPARATION BENCH SHEET

2600-2  
3/1/17 DM

F702469

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/28/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702469-BLK1	Blank	0.4	125					10X
F702469-BLK2	Blank	0.4	125					10X
F702469-BLK3	Blank	0.4	125					10X
F702469-BS1	LCS 0.016	0.4	5 125	160715	100			10X
F702469-BSD1	LCS Dup 0.016	0.4	5 125	160715	100			10X
F702469-DUPI	Duplicate 1701569-09RE2	0.4	125					2500X
F702469-MS1	Matrix Spike 1701569-09RE2	0.4	125	1700687	100			2500X
F702469-MSD1	Matrix Spike Dup 1701569-09RE2	0.4	125	1700687	100			2500X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1701117	SSE pH2	23-Aug-17 00:00

1700308  
1700309  
1701003  
1600934



PREPARATION BENCH SHEET

2600-2  
3/1/17 DM

F702469

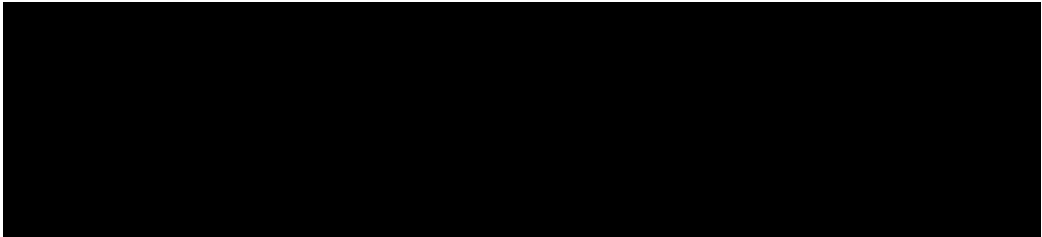
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-2

Prepared: 2/28/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-09RE2	HgS	0.4593	125	-	-	-	From F702416 by AMB on 28-Feb-17	From F702416 by AMB on 28-Feb-17
1701569-10RE3	HgO	0.4286	125	-	-	-	From F702416 by AMB on 28-Feb-17	From F702416 by AMB on 28-Feb-17
1701569-11RE3	Hg2Cl2	0.4438	125	-	-	-	From F702416 by AMB on 28-Feb-17	From F702416 by AMB on 28-Feb-17



2500x  
5000x  
5000x  
10,000x  
50,000x  
50,000x

PREPARATION BENCH SHEET

2L00-2

3/1/17 DM

F702418

Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 2/23/2017

Lab Number	Sample ID and Source Sample	Initial (g)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F702418-BLK1	Blank	0.4	125					50X
F702418-BLK2	Blank	0.4	125					50X
F702418-BLK3	Blank	0.4	125					50X
F702418-BS1	LCS 0.0032	0.4	125	104715	100 µl			50X
F702418-BSD1	LCS Dup 0.0032	0.4	125	104715	100 µl			50X
F702418-DUP1	Duplicate [1701569-01RE1]	0.451	125					50X
F702418-MS1	Matrix Spike 1701569-01RE1	0.4	125	1700688	125			50X
F702418-MSD1	Matrix Spike Dup 1701569-01RE1	0.4	125	1700688	125			50X

Standard ID(s):	Description:	Expiration:	Reagent ID(s):	Description:	Expiration:
			1606642	Boiling Chips for AFS prep	10-May-17 00:00
			1700306	0.2 N BRCL JANUARY 2017	15-Jul-17 00:00
			1701119	12N HNO3	23-Aug-17 00:00

BLK4 re-run of BLK2

MS2, MSD2 - 50X

Source 1701569-02RE1

1700688 125 µl

DUP2. 1701569-01RE1 50X

1700308

1700309

1606934

1701003

PREPARATION BENCH SHEET

2100-2

F702418

8/1/17 DM

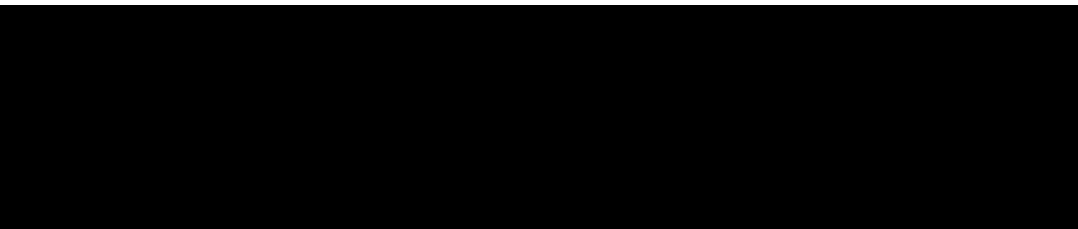
Eurofins Frontier Global Sciences, Inc.

Matrix: Soil/Sediment

Prepared using: Hg Aquatic/Solids - EFGS-090 Hg SSE Fraction F-4

Prepared: 2/23/2017

Lab Number	Sample ID	Initial (g)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1701569-01RE1	MW-45 8.5-10'	0.462	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X
1701569-02RE1	MW-45 13.5-15'	0.456	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X
1701569-03RE1	MW-47 3.5-5'	0.457	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X
1701569-04RE1	MW-47 8.5-10'	0.448	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X
1701569-05RE1	MW-46 8.5-10'	0.441	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X
1701569-06RE1	MW-46 18.5-20'	0.475	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X
1701569-07RE1	HG-1 8.5-10'	0.429	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X
1701569-08RE1	HG-1 13.5-15'	0.42	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50X 100X
1701569-09RE2	HgS	0.415	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 50, 100X
1701569-10RE2	HgO	0.428	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 250X
1701569-11RE1	Hg2Cl2	0.419	125	-	-	-	From F702285 by AMB on 23-Feb-17	From F702285 by AMB on 23-Feb-17 250, 1000X



PREPARATION BENCH SHEET

200-2

3/1/17 DM

F703257

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 3/1/2017

Lab Number	Sample ID and Source Sample	Initial (mL)	Final (mL)	Spike1 ID	µl Spike1	Spike2 ID	µl Spike2	Extraction Comments
F703257-BLK1	Blank	100	101					IX
F703257-BLK2	Blank	100	101					IX
F703257-BLK3	Blank	100	101					IX
F703257-BS1	LCS	50 100	50.5 101	164715	100			IX
F703257-BSD1	LCS Dup	50 100	50.5 101	164715	100			IX
F703257-DUP1	Duplicate 1702406-01	100	101					IX
F703257-MS1	Matrix Spike 1702406-01	100	101	1700657	100			IX
F703257-MS2	Matrix Spike 1702406-02	100	101	1700657	100			IX
F703257-MSD1	Matrix Spike Dup 1702406-01	100	101	1700657	100			IX
F703257-MSD2	Matrix Spike Dup 1702406-02	100	101	1700657	100			IX

Standard ID(s): Description:

Expiration:

1700900  
1700308  
1700309  
1701003  
1006934

Due Date: 3/8/2017

PREPARATION BENCH SHEET

2600-2  
3/1/17 DM

F703257

Eurofins Frontier Global Sciences, Inc.

Matrix: Water

Prepared using: AFS - EPA 1631E BrCl Oxidation

Prepared: 3/1/2017

Lab Number	Sample ID	Initial (mL)	Final (mL)	QC Sample	Sample Specs.	Raw Data	Sample Comments	Analysis Comments
1702406-01	Salem MH (Background) Day 1	100	101	-	-	-		IX
1702406-02	Salem MH (Background) Day 2	100	101	-	-	-		IX
1702406-03	Salem MH (Background) Day 3	100	101	-	-	-		IX
1702631-01	P87631-1	100	101	-	-	-		IX
1702631-02	P87631-2	100	101	-	-	-		IX
1702631-03	P87631-5	100	101	-	-	-		IX
1702631-04	P87631-6	100	101	-	-	-		IX
1702631-05	P87631-7	100	101	-	-	-		IX
1702631-06	P87631-8	100	101	-	-	-		IX
1702633-01	B-161989 Blank	100	101	-	-	-		IX
1702633-02	B-162000 Plant A Influent	100	101	-	-	-		10X → 50X
1702633-03	B-161990 Plant A Effluent	100	101	-	-	-		IX → IX
1702633-04	B-161999 Plant B/C Influent	100	101	-	-	-		IX → 10X
1702633-05	B-162005 Plant B/C Effluent	100	101	-	-	-		IX → IX
1702633-06	B-161993 Plant B/C Eff-Dup	100	101	-	-	-		IX
1702633-07	B-161998 Plant D Influent	100	101	-	-	-		10X
1702633-08	B-161988 Plant D Effluent	100	101	-	-	-		IX

**PREPARATION BENCH SHEET**

F703257

**Eurofins Frontier Global Sciences, Inc.**

**Matrix: Water**

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

**Prepared: 3/1/2017**



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: GM Date: 2/16/17 Time Completed: 1400

2/16/17  
Work Orders: 1702405, 1702366, 1702435, 1702406, 1702437

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

Technician: LM Date: 2/24/17 Time Completed: 17:40  
Technician: \_\_\_\_\_ Date: \_\_\_\_\_ Time Completed: \_\_\_\_\_

BrCl LIMS ID: 1700306  
Pipette SN: MW32229  
Cal. Date: 2/15/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702405-16A	300	3.00	Y			
1702405-17A	300	3.00	Y			
1702405-18A	300	3.00	Y	N	3.00	Y
1702405-19A	290	2.90	Y	N	3.00	Y
1702405-20A	300	3.00	Y	N	3.00	Y
1702405-21A	300	3.00	Y			
1702405-22A	300	3.00	Y			
1702405-23A	250	2.50	Y			
1702366-02A	300	3.00	Y			
1702366-04A	300	3.00	Y			
1702366-06A	300	3.00	Y			
1702366-08A	300	3.00	Y			
1702366-10A	300	3.00	Y			
1702366-12A	300	3.00	Y			
1702435-01A	600	6.00	Y			
1702406-01B	300	3.00	Y			
1702406-02B	300	3.00	Y			
1702406-03B	290	2.90	Y			
1702437-01B	300	3.00	Y			
1702437-02A	300	3.00	Y			
1702437-03A	300	3.00	Y			
1702437-04B	300	3.00	Y			
1702437-05A	250	2.50	Y			
1702437-06A	300	3.00	Y			
1702437-07A	250	2.50	Y			
1702437-08A	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: \_\_\_\_\_

Reviewed  
2/17/17  
DM

Total Mercury Preservation Logbook

Initial preservation and/or verification

Technician: LM Date: 2/22/17 Time Completed: 17:45

1702631, 170263  
Work Orders: 1702592  
1702593/1702594

Additional preservation and/or verification (as needed)

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

BrCl LIMS ID: 1700368  
Pipette SN: MU32229  
Cal. Date: 2/23 2/16/17  
LM 2/22/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702592-01A	3.00	3.00	Y			
1702592-02A	3.00	3.00	Y			
1702592-03A	3.00	3.00	Y			
1702592-04A	3.00	3.00	Y			
1702593-01A	6.00	6.00	Y			
1702593-02A	6.00	6.00	Y			
1702593-03A	6.00	6.00	Y			
1702594-01A	6.00	6.00	Y			
1702594-02A	6.00	6.00	Y			
1702594-03A	6.00	6.00	Y			
1702631-01B	3.00	3.00	Y			
1702631-02B	3.00	3.00	Y			
1702631-03B	3.00	3.00	Y			
1702631-04B	3.00	3.00	Y			
1702631-05B	3.00	3.00	Y			
1702631-06B	3.00	3.00	Y			
1702632-01A	3.00	3.00	Y			
1702632-02A	3.00	3.00	Y			
1702632-03A	3.00	3.00	Y			
1702632-04A	3.00	3.00	Y			
1702632-05B	* 3.00 10.00	10.00	Y			
1702632-06A	3.00	3.00	Y			
LM 2/22/17						

\*CM  
2/22/17

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

Comments: 1702632-05B is a 50/50 split. 10ml BrCl added to 10ml of 1702632-05 into a 20ml glass vial. -LM 2/22/17



# Total Mercury Preservation Logbook

**Initial preservation and/or verification**

Technician: LM Date: 2/22/17 Time Completed: 18:00

Work Orders: 1702633

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

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

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

BrCl LIMS ID: 1700706

Pipette SN: M032229

Cal. Date: 2/16/17

Sample ID	Sample Volume (mL)	Reagent added (mL)	Oxidized? Y/N	Additional preservation (as needed)		
				Oxidized? Y/N	Reagent added (mL)	Oxidized? Y/N
1702633-01A	280	2.80				
1702633-02A	270	2.70				
1702633-03A	270	2.70				
1702633-04A	260	2.60				
1702633-05A	260	2.60				
1702633-06A	280	2.80				
1702633-07A	280	2.80				
1702633-08A	290	2.90				

LM 2/22/17

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

Comments: \_\_\_\_\_

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

Analyst:	DON MORAN	Sequence(s) #:	7C02016, 7C02015, 7C02013, 7C02017
Reviewer:	<i>Beary</i> 3/6/17	Dataset ID(s):	THG26002-170301-1
Date:	3/2/2017	WO (s) #:	VARIOUS
Batch #(s):	F703257, F702418, F702412, F702469		

• Select the correct preparation method.

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

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

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

Analyst:	DON MORAN	Sequence(s) #:	7C02016, 7C02015, 7C02013, 7C02017
Reviewer:	0 <i>[Signature]</i> 3/6/17	Dataset ID(s):	THG26002-170301-1
Date:	3/2/2017	WO (s) #:	VARIOUS
Batch #(s):	F703257, F702418, F702412, F702469		0

Analyst Initials DM                      Reviewer Initials BC

- 5b. Has the B/C section data been uploaded?  YES     NO     N/A
- QA/QC Data Checked**
6. RSD CF (≤ 15%)  PASS     FAIL      
 Comments: \_\_\_\_\_
7. The calibration curve included a minimum of 5 Standards  YES     NO      
 Comments: \_\_\_\_\_
8. 1st Calibration Standard % Recoveries EPA 1631E (75-125%)  PASS     FAIL
9. ICV and CCV % Recoveries EPA 1631E (77-123%)  PASS     FAIL      
 Comments: \_\_\_\_\_
10. Do all calibration points pass acceptance criteria?  YES     NO      
 Comments: \_\_\_\_\_
11. Are qualifiers consistent with the data review flowcharts?  YES     NO     N/A      
 Comments: \_\_\_\_\_
12. Explain any items on the failed data report from Element   
 Comments: 1702633-02, 1702633-04, 1702248-01, 1701569-10RE3, 11RE3 HIGH SAMPLES. F702418-BLK2 HIGH RECOVERY. F702412-DUP1 HIGH RPD. F702412-MS1, MSD1 LOW RECOVERY
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>	7C02016, 7C02015, 7C02013, 7C02017
<b>Reviewer:</b>	0 <u>BCJ</u> <u>3/6/17</u>	<b>Dataset ID(s):</b>	THG26002-170301-1
<b>Date:</b>	3/2/2017	<b>WO (s) #:</b>	VARIOUS
<b>Batch #(s):</b>	F703257, F702418, F702412, F702469		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 checked="" 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            |   |
| Comments: _____  |  |  |   |
| 23. Dissolved < Total (if applicable)  | <input type="checkbox"/> YES             | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> |
| Comments: _____  |  |  |   |
| 24. Effluent < Influent (visually confirm if needed)   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input 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 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"/>            |
| <b>Files located at: \\Cuprum\gen admin\Quality Assurance\Training Master\DOCs</b>   |  |  |   |
| 36. Date of analyst IDOC/CDOC: <u>12-15-16, 12-1-16, 11-23-16</u> IDOC/CDOC within last 12 months?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/>   |
| 37. Date of analyst's SOP reading for method: <u>5/20/2016</u> Current SOP revision read?  | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/>   |
| 38. Date of LOD: <u>1/24/17, 1/30/17, 12/29/16</u> LOD within last 3 months?   | <input checked="" type="checkbox"/> YES  | <input type="checkbox"/> NO            | <input checked="" type="checkbox"/>   |
| 39. Date of LOQ: <u>1-24-17, 1-30-17, 12-29-16</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.**

