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ANALYTICAL RESULTS FOR:

Sarah Meyers
CH2M-Jacobs
2411 Dulles Corner Park
Suite 500
Herndon, VA 20171

PROJECT SITE:	Former Ravenna Army Ammunition Plant, OH Load Lines 1, 2, 3, 4, & 12
DOD CONTRACT #:	W912QR-12-D-0005
PROJECT #:	D32949.00.K.PN.TPE.05.01
SDG:	157958
PREPARED:	December 8, 2020
DOCUMENT PAGES:	877

The data contained in the following report have been reviewed by the appropriate CT Laboratories LLC's staff members. In addition, CT Laboratories LLC certifies that to the best of our knowledge that the analyses reported herein are true, complete and correct within the limits of the methods employed and that they follow the applicable requirements as specified by the project plan, state-specific, NELAC or DOD QSM requirements. The estimated uncertainty of measurement is only available upon request. The reported results relate only to the tested samples. This report shall not be reproduced, except in full, without written approval of CT Laboratories LLC.

APPROVED BY: _____ LABORATORY DIRECTOR

APPROVED BY: _____ PROJECT MANAGER

Certifications: IL (NELAP 002413), KS (NELAP E-10368), KY (0023), WI (157066030), DOD ELAP (A2LA 3806.01), VA (7608), LA (NELAP 115843), ISO17025 (A2LA 3806.01, GA EDP Stipulation (Accreditor: LA NELAP, ACC#: E971111, Scope: Non-potable water solid and chemical materials, biological tissue, Effective: 12/10/2014, Expires: annually)

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Table of Contents

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Case Narrative

Client: CH2M-Jacobs, Herndon, VA
Project: Former Ravenna Army Ammunition Plant, OH - Load Lines 1, 2, 3, 4, & 12
Sample Receipt Date(s): 11-13-2020
SDG #: 157958

Two solid (concrete material) samples were analyzed for RCRA metals and PCBs. The assigned sample ID numbers, date sampled, and date received are indicated in the attached Project Summary. The samples were received intact and at a temperature within method specified acceptance limits. Any exceptions are noted below. The analyses were performed following DOD QSM 5.3. Samples were further reduced in size prior to sample preparation.

Manual integrations may have been performed on the data provided with this package. If manual integrations were performed, Reason #(s) were included on the raw data that corresponds to the "Index Key for Manual Integration Rationale." The raw data includes a "Before" and "After" manual integration illustration. The manual integrations were initialed and dated by the analyst, as well as, by the person reviewing the data.

Sample Analysis and Quality Control

PCB Analysis:

The samples were analyzed using US EPA Method 8082A. All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Surrogate Recovery Data
Matrix Spike/Matrix Spike Duplicate Recovery Data
Laboratory Control Spike Data
Method Blank Data
Initial Calibration Summary
Calibration Check Summary
Analysis Run Log
Prep Log
Chromatograms

All analysis results met the method specified quality control criteria with the following exceptions:

PCB (8082) Solid Analyses

Analytical Run # 177212

All analytical results for this run met the method/project specified quality control criteria.

Metals:

The samples were analyzed using US EPA Methods 6010C (ICP) and 7471B (Hg). All samples were analyzed within the holding time. The following summaries of quality control procedures are included:

Initial and Continuing Calibration Verification
Blanks Summary
ICP Interference Check Data
Spike Sample Recovery
Duplicates Data
Laboratory Control Sample Data
Analysis Run Log

All analyses met the method specified quality control criteria with the following exceptions:

Continuing Calibration Verifications standards were analyzed at two levels (CCV1 & CCV2) with potentially differing wavelengths. Data associated with CCV's were evaluated based on the concentration of the element in the samples and compared to the appropriate CCV level/wavelength.

Some samples may have been analyzed and/or reanalyzed diluted to obtain results for all target analytes within the calibration range of the instrument.

ICP Metals (6010C) Solid Analyses

Analytical Run # 177205

All analytical results for this run met the method/project specified quality control criteria.

CVAA Mercury (7471B) Solid Analyses

Analytical Run # 177246

The Duplicate (DUP) for sample # 504405 was not applicable for mercury because the parent sample result was less than five times the Limit of Quantitation (LOQ). A Matrix Spike Duplicate (MSD) was analyzed to demonstrate precision and was acceptable. The parent sample was reported and not qualified.

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Data Qualifiers

Code	Description
A	Analyte averaged calibration criteria within acceptable limits.
B	Analyte detected in associated Method Blank.
C	Toxicity present in BOD sample.
D	Diluted Out.
E	Safe, No Total Coliform detected.
F	Unsafe, Total Coliform detected, no E. Coli detected.
G	Unsafe, Total Coliform detected and E. Coli detected.
H	Holding time exceeded.
J	Estimated value.
L	Significant peaks were detected outside the chromatographic window.
M	Matrix spike and/or Matrix Spike Duplicate recovery outside acceptance limits.
N	Insufficient BOD oxygen depletion.
O	Complete BOD oxygen depletion.
P	Concentration of analyte differs more than 40% between primary and confirmation analysis.
Q	Laboratory Control Sample outside acceptance limits.
R	See Narrative at end of report.
S	Surrogate standard recovery outside acceptance limits due to apparent matrix effects.
T	Sample received with improper preservation or temperature.
U	Analyte concentration was not above the detection level.
V	Raised Quantitation or Reporting Limit due to limited sample amount or dilution for matrix background interference.
W	Sample amount received was below program minimum.
X	Analyte exceeded calibration range.
Y	Replicate/Duplicate precision outside acceptance limits.
Z	Calibration criteria exceeded.

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MANUAL INTEGRATION REASON CODES

CTLaboratories has identified four general cases with valid reasons supporting the use of manual integration techniques. These codes are used on chromatograms in this data package to document the reasons for manual integrations per CTLaboratories' SOP SS-10 current revision.

#1: **Data system failed to select the correct peak or missed the peak entirely.**
In some cases the chromatography system selects and integrates the "wrong peak". In this case the analyst must correct the selection and force the system to integrate the proper peak. In other instances the system may miss the peak completely. In this case the analyst manually integrated the peak

#2: **Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak.**
This phenomenon is common at low concentrations where the signal to noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low or high area counts for the target compound.

#3: Improperly Integrated Isomers and/or coeluting compounds.
For when the system fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations may be inaccurate, and they must be corrected by manual integration. Prime examples are compounds that are unresolved and integrated improperly when present at low concentrations in standards or samples.

#4: System Established Incorrect Baseline.
There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and may be corrected via manual procedures.

#5: Miscellaneous.
Some situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the group supervisor. If the form of manual integration is not clearly covered by these four cases, then review and approval by the group supervisor or the *QA/QC* Supervisor will be required.

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Sample Delivery Group

157958

CH2M - JACOBS
DOUG SCOTT
59 LILAC CT
PAGOSA SPRINGS, CO 81147

Project Name: RVAAP
Project #: D32949.00.K.PN.TPE.05

	CT Sample #	Folder #	Client Sample #	Sample Description	Matrix	Date Sampled	Date Received
1	504392	157958		CONCRETEDC 001-001-CO	SOIL	11/12/2020	11/13/2020
2	504405	157958		CONCRETEDC-002-002-CO	SOIL	11/12/2020	11/13/2020

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QC Batch Cross Reference Summary

CH2M - JACOBS
DOUG SCOTT
59 LILAC CT
PAGOSA SPRINGS, CO 81147

Copy: doug.scott@jacobs.com

Project Name:	RVAAP
Project #:	D32949.00.K.PN.TPE.05
Report Date:	12/08/2020
Date Received:	11/13/2020
SDG #:	157958

Inorganic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
504392	Solids, Percent	EPA 8000C	SOIL		177141
504405	Solids, Percent	EPA 8000C	SOIL		177141

Metal Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
504392	ICP Metals QSM 5.0	EPA 6010C	SOIL	79000	177205
504405	ICP Metals QSM 5.0	EPA 6010C	SOIL	79000	177205

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
504392	Mercury QSM 5.0	EPA 7471B	SOIL	79008	177246
504405	Mercury QSM 5.0	EPA 7471B	SOIL	79008	177246

Organic Parameters

CTI LAB#:	Parameter	Method	Matrix	Prep Batch #	Analytical Run #
504392	PCB	EPA 8082A	SOIL	79012	177212
504405	PCB	EPA 8082A	SOIL	79012	177212

POLYCHLORINATED BIPHENYL QUALITY CONTROL SUMMARY DOCUMENTS

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1D-2

PCB ORGANICS ANALYSIS

Sample Description

CONCRETEDC 001-001-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix:	SOIL	SDG No.:	157958
Sample wt/vol:	10.13 (g/L)	CTL Sample ID:	504392
% Solids:	89.7	Date Received:	11/13/2020
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	11/16/2020 / 08:30
Analytical Method:	EPA 8082A	Analytical Prep Batch #	79012
Analytical Run #:	177212	Dilution Factor:	1.00
Date & Time Analyzed:	11/17/2020 / 13:40		
Cleanup Date/Time/Type:	, 11/17/2020 11:00 (Sulfur) , 11/17/2020 10:00 (Acid) ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	102920pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	44	U	19	44	44	44
11104-28-2	Aroclor-1221	44	U	22	44	44	44
11141-16-5	Aroclor-1232	22	U	11	22	22	22
53469-21-9	Aroclor-1242	22	U	9.2	22	22	22
12672-29-6	Aroclor-1248	44	U	15	44	44	44
11097-69-1	Aroclor-1254	44	U	20	44	44	44
11096-82-5	Aroclor-1260	22	U	11	22	22	22
37324-23-5	Aroclor-1262	22	U	6.7	22	22	22
11100-14-4	Aroclor-1268	44	U	19	44	44	44

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1D-2

PCB ORGANICS ANALYSIS

Sample Description

CONCRETEDC-002-002-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix:	SOIL	SDG No.:	157958
Sample wt/vol:	10.15 (g/L)	CTL Sample ID:	504405
% Solids:	90.9	Date Received:	11/13/2020
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	11/16/2020 / 08:30
Analytical Method:	EPA 8082A	Analytical Prep Batch #	79012
Analytical Run #:	177212	Dilution Factor:	1.00
Date & Time Analyzed:	11/17/2020 / 14:01		
Cleanup Date/Time/Type:	, 11/17/2020 11:00 (Sulfur) , 11/17/2020 10:00 (Acid) ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	102920pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
12674-11-2	Aroclor-1016	43	U	18	43	43	43
11104-28-2	Aroclor-1221	43	U	22	43	43	43
11141-16-5	Aroclor-1232	22	U	11	22	22	22
53469-21-9	Aroclor-1242	22	U	9.1	22	22	22
12672-29-6	Aroclor-1248	43	U	15	43	43	43
11097-69-1	Aroclor-1254	43	U	20	43	43	43
11096-82-5	Aroclor-1260	22	U	11	22	22	22
37324-23-5	Aroclor-1262	22	U	6.6	22	22	22
11100-14-4	Aroclor-1268	43	U	18	43	43	43

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1D-4

Sample Description

METHOD BLANK

PCB ORGANICS ANALYSIS (MB)

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix:		SDG No.:	157958
Sample wt/vol:	10.00 (g/L)	CTL Sample ID:	505017
% Solids:		Date Received:	11/13/2020
Conc. Extract Vol:	10 (mL)	Date/Time Prepared:	11/16/2020 / 08:30
Analytical Method:	EPA 8082A	Analytical Prep Batch #	79012
Analytical Run #:	177212	Dilution Factor:	1.00
Cleanup Date/Time/Type:	, 11/17/2020 11:00 (Sulfur) , 11/17/2020 10:00 (Acid) ,		
TCLP / SPLP / MLP or ASTM Procedure Extraction Date (*if applicable*):			/
ICAL Calibration #:	102920pcbic	Concentration Units:	ug/kg

CAS NO.	Analyte	Analysis Date/Time		Concentration	Qualifiers	DL/LOD	RL	*Control Limit*
12674-11-2	Aroclor-1016	11/17/2020	12:36	17	U	17	40	***20***
11104-28-2	Aroclor-1221	11/17/2020	12:36	20	U	20	40	***20***
11141-16-5	Aroclor-1232	11/17/2020	12:36	10	U	10	20	***10***
53469-21-9	Aroclor-1242	11/17/2020	12:36	8.4	U	8.4	20	***10***
12672-29-6	Aroclor-1248	11/17/2020	12:36	14	U	14	40	***20***
11097-69-1	Aroclor-1254	11/17/2020	12:36	18	U	18	40	***20***
11096-82-5	Aroclor-1260	11/17/2020	12:36	10	U	10	20	***10***
37324-23-5	Aroclor-1262	11/17/2020	12:36	6.1	U	6.1	20	***10***
11100-14-4	Aroclor-1268	11/17/2020	12:36	17	U	17	40	***20***

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2F-1

SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: CT Laboratories | Contract: CH2M - JACOBS-RVAAP

Analytical Method: EPA 8082A | SDG: 157958

Analytical Run #: 177212 | ICAL Calibration #: 102920pcbic

GC Column(1): Restek RTX ID: 0.32 (mm) | GC Column(2): Restek RTX C2 ID: 0.32 (mm)

CTLab #	504392				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	94	44	130	
Surr: DCBP	100	86	54	141	

CTLab #	504405				
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	95	44	130	
Surr: DCBP	100	88	54	141	

CTLab #	505017	Sample Type:	Method Blank		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	104	44	130	
Surr: DCBP	100	98.5	54	141	

CTLab #	505018	Sample Type:	Lab Control Spike		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	101	44	130	
Surr: DCBP	100	101	54	141	

CTLab #	505019	Sample Type:	Lab Control Spike Duplicate		
Surrogate	**Spike Amount**	**% Recovery**	**Lower Limit**	**Upper Limit**	**Qualifier**
Surr: 2,4,5,6-TCMX	100	103	44	130	
Surr: DCBP	100	100	54	141	

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3F

Sample Description

LCS

SOIL PCB LAB CONTROL SAMPLE

Lab Name: CT Laboratories
Contract: CH2M - JACOBS-RVAAP
Sample No.: 505018
SDG No.: 157958
Analytical Method: EPA 8082A
Concentration Units: ug/kg

Sample No.: 505018
Parent Sample No.: 0
Analytical Prep Batch #: 79012
Analytical Preparation Date/Time: 11/16/2020 08:30
Analytical Run #: 177212
ICAL Calibration #: 102920pcbic

Analyte	Analysis Date/Time		Control Limit (%R)	Spike Result	Parent Result	Spike Amount	%R
Aroclor-1016	11/17/2020	12:57	47-134	507		500	101
Aroclor-1260	11/17/2020	12:57	53-140	493		500	99

Spike Recovery: 0 out of 2 outside limits

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3F

SOIL PCB LAB CONTROL SAMPLE

Sample Description: **LCSD**

Lab Name: CT Laboratories
Contract: CH2M - JACOBS-RVAAP
Sample No.: 505019
SDG No.: 157958
Analytical Method: EPA 8082A
Concentration Units: ug/kg

Analytical Run #: 177212
Sample No.: 505019
Parent Sample No.: 505018
Analytical Prep Batch #: 79012
Analytical Preparation Date/Time: 11/16/2020 08:30
ICAL Calibration #: 102920pcbic

Analyte	Analysis Date/Time	Spike Result	Parent Result	Spike Amount	%R	%RPD	Control Limit (%R)	Control Limit (%RPD)
Aroclor-1016	11/17/2020 14:22	513	507	500	103	1	47-134	30
Aroclor-1260	11/17/2020 14:22	498	493	500	100	1	53-140	30

RPD or Spike Recovery: 0 out of 2 outside QC limits

CT Laboratories

4C-2

PCB METHOD BLANK SUMMARY

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Sample ID:	505017	SDG No.:	157958
Matrix:	SOLID	Date Extracted:	11/16/2020
Date Analyzed:	11/17/2020	Time Analyzed:	12:36
Analytical Method:	EPA 8082A	Extraction Method:	SW3546
Analytical Run #:	177212	Extraction Batch #:	79012
		ICAL Calibration #:	102920pcbic

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND QC:

SEQUENCE	SAMPLE DESCRIPTION	SAMPLE ID	DATE/TIME ANALYZED	CALIBRATION REFERENCE #
1	CONCRETEDC 001-001-CO	504392	11/17/2020 13:40	102920pcbic
2	CONCRETEDC-002-002-CO	504405	11/17/2020 14:01	102920pcbic
3	MBS	505017	11/17/2020 12:36	102920pcbic
4	LCSS	505018	11/17/2020 12:57	102920pcbic
5	LCSDS	505019	11/17/2020 14:22	102920pcbic

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CHANNEL A/B (FRONT/BACK) DETECTOR/COLUMN RPD

PCB ANALYSIS

Sample Description

CONCRETEDC 001-001-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix:	SOIL	SDG No.:	157958
Analytical Method:	EPA 8082A	CTL Sample ID:	504392
Analytical Run #:	177212	Date/Time Prepared:	11/16/2020 / 08:30
Date & Time Analyzed:	11/17/2020 / 13:40	Analytical Prep Batch #:	79012
Date & Time Analyzed #2:	/	Concentration Units:	ug/mL
ICAL Calibration #:	102920pcbic		

Analyte	Column/Detector #1	Column/Detector #2	%RPD	Qualifiers
Aroclor-1016	NA			
Aroclor-1221	NA			
Aroclor-1232	NA			
Aroclor-1242	NA			
Aroclor-1248	NA			
Aroclor-1254	NA			
Aroclor-1260	NA			
Aroclor-1262	NA			
Aroclor-1268	NA			

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CHANNEL A/B (FRONT/BACK) DETECTOR/COLUMN RPD

PCB ANALYSIS

Sample Description

CONCRETEDC-002-002-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix:	SOIL	SDG No.:	157958
Analytical Method:	EPA 8082A	CTL Sample ID:	504405
Analytical Run #:	177212	Date/Time Prepared:	11/16/2020 / 08:30
Date & Time Analyzed:	11/17/2020 / 14:01	Analytical Prep Batch #:	79012
Date & Time Analyzed #2:	/	Concentration Units:	ug/mL
ICAL Calibration #:	102920pcbic		

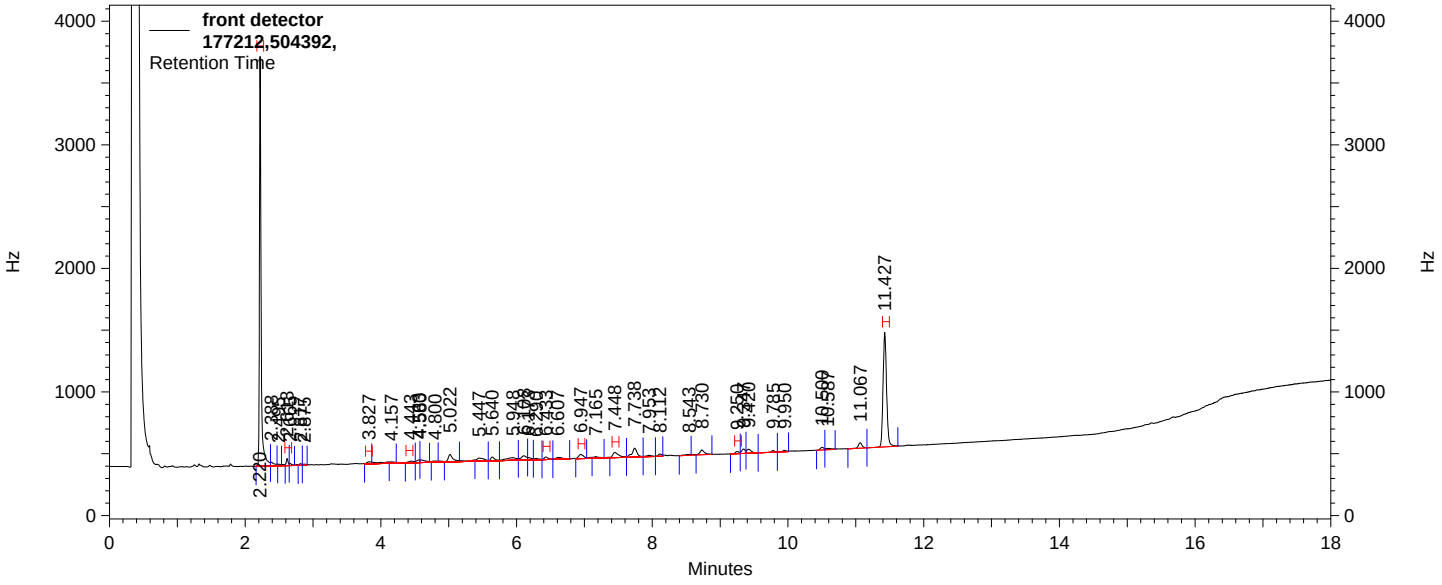
Analyte	Column/Detector #1	Column/Detector #2	%RPD	Qualifiers
Aroclor-1016	NA			
Aroclor-1221	NA			
Aroclor-1232	NA			
Aroclor-1242	NA			
Aroclor-1248	NA			
Aroclor-1254	NA			
Aroclor-1260	NA			
Aroclor-1262	NA			
Aroclor-1268	NA			

POLYCHLORINATED BIPHENYL
SAMPLE DATA
DOCUMENTS

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\111720pcb\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,504392,
Acquired: 11/17/2020 13:40:03
Printed: 11/17/2020 14:44:10

Data Summary: {Data Description}



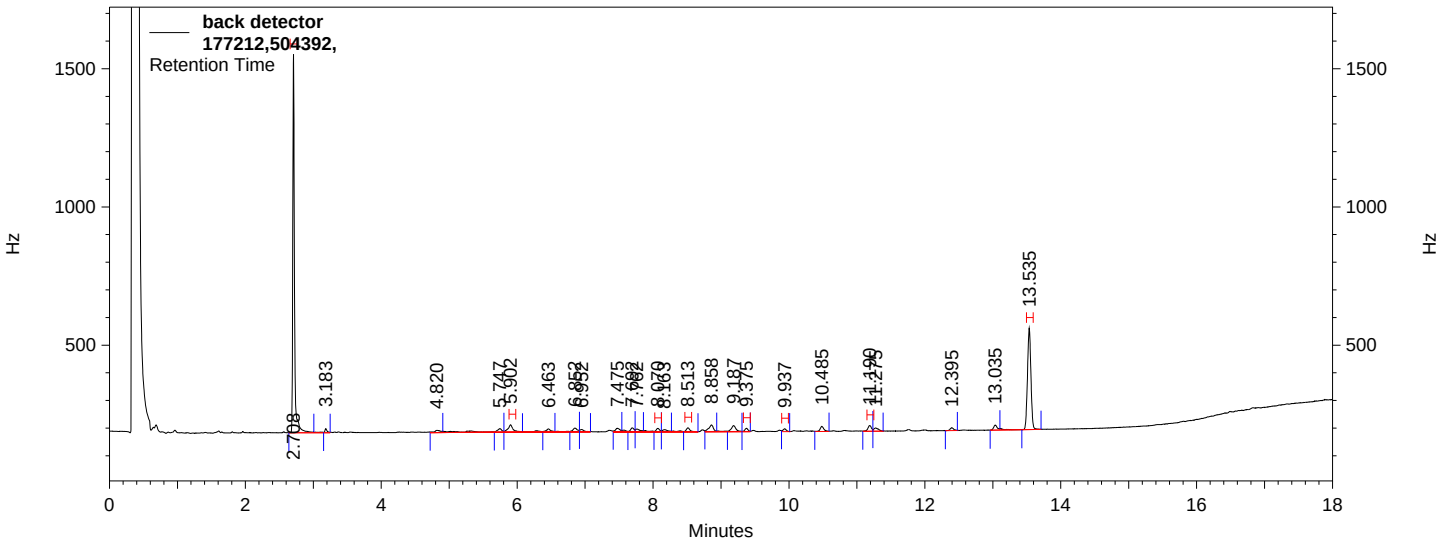
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.220	43181072	94.499
Aroclor 1016 #1	2.618	843464	0.003
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.827	547050	0.000
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	4.443	646325	0.001
Aroclor 1260 #1	6.433	681254	0.000
Aroclor 1260 #2	6.947	1326131	0.000
Aroclor 1260 #3	7.448	2009442	0.002
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.250	543655	0.004
SURRDCBPCB	11.427	25733921	85.917
Aroclor 1016		2036839	0.005
Aroclor 1260		4560482	0.007

PCB Analysis Report (1016/1260) ***(Channel B)***

Data File: C:\Instarch\Semi7\Data\111720pcb\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,504392,
Acquired: 11/17/2020 13:40:03
Printed: 11/17/2020 14:44:10

Data Summary: {Data Description}



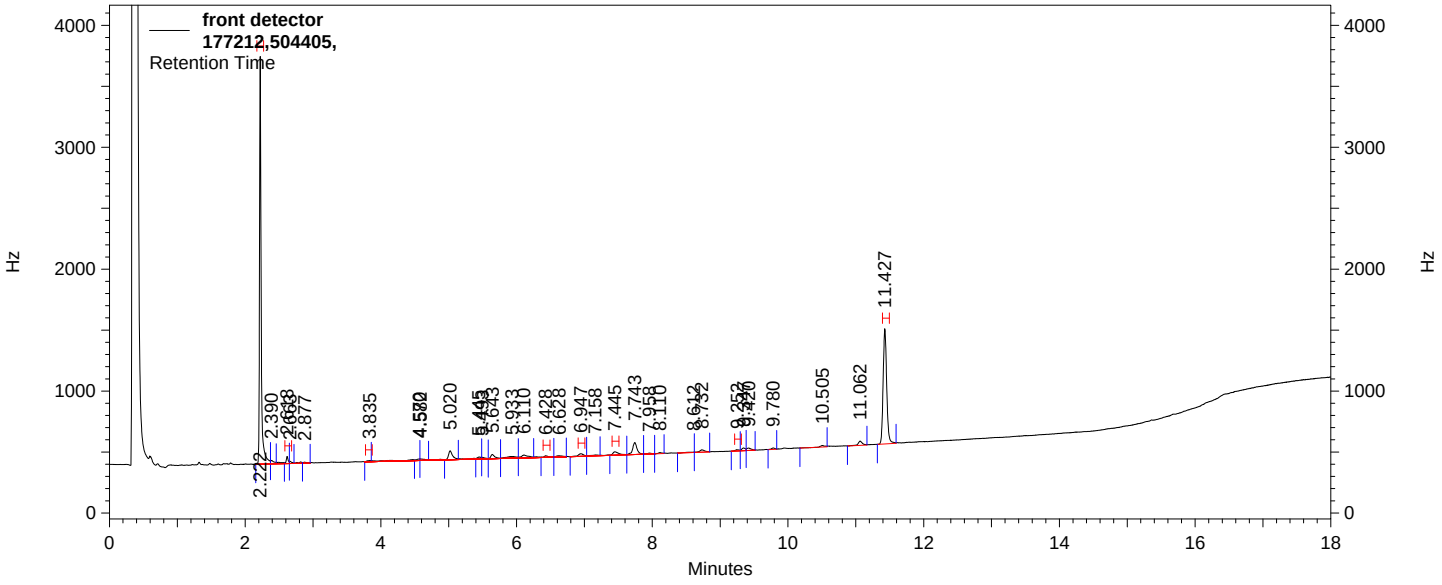
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.708	18031117	97.338
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	5.902	1118416	0.009
Aroclor 1260 #1	8.070	344062	0.001
Aroclor 1260 #2	8.513	421794	0.001
Aroclor 1260 #3	9.375	325294	0.001
Aroclor 1260 #4	9.937	266543	0.000
Aroclor 1260 #5	11.190	594573	0.003
SURRDCBPCB	13.535	9892875	86.150
Aroclor 1016		1118416	0.009
Aroclor 1260		1952266	0.006

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\111720pcb\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,504405,
Acquired: 11/17/2020 14:01:18
Printed: 11/17/2020 14:44:12

Data Summary: {Data Description}



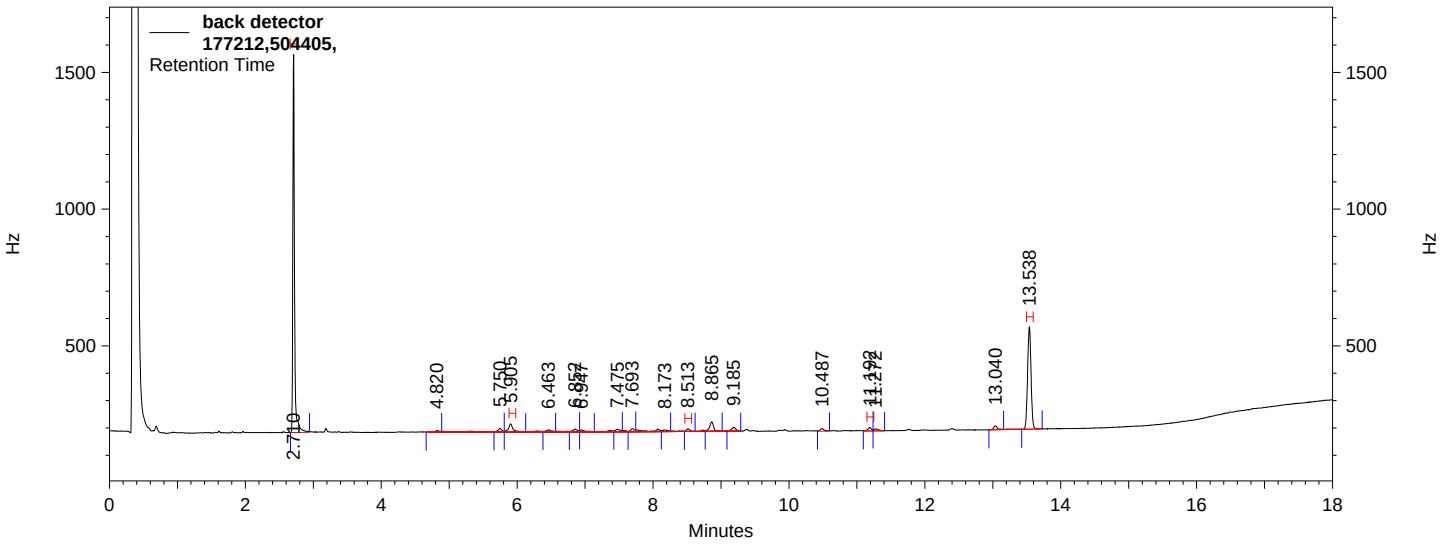
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.222	43269533	94.698
Aroclor 1016 #1	2.618	871488	0.003
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3	3.835	309763	0.000
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1	6.428	430811	0.000
Aroclor 1260 #2	6.947	908268	0.000
Aroclor 1260 #3	7.445	1318452	0.001
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	9.252	338636	0.004
SURRDCBPCB	11.427	26442798	88.306
Aroclor 1016		1181251	0.003
Aroclor 1260		2996167	0.005

PCB Analysis Report (1016/1260) ***(Channel B)***

Data File: C:\Instarch\Semi7\Data\111720pcb\010.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,504405,
Acquired: 11/17/2020 14:01:18
Printed: 11/17/2020 14:44:12

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.710	17950313	96.906
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5	5.905	1141745	0.009
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2	8.513	276946	0.000
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	11.192	334206	0.002
SURRDCBPCB	13.538	10145793	88.384
Aroclor 1016		1141745	0.009
Aroclor 1260		611152	0.002

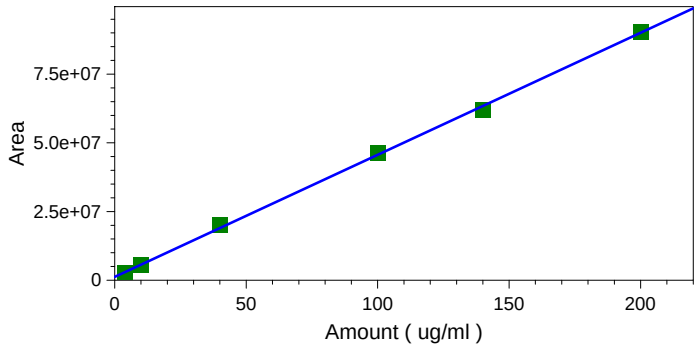
POLYCHLORINATED BIPHENYL
INITIAL CALIBRATION
DOCUMENTS

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:06
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMXPCB (front detector)
Average RF: 501779. RF StDev: 63964.9 RF %RSD: 12.7476
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 444221.x + 1.20283e+006
Goodness of fit (r^2): 0.999343

Peak: SURRTCMXPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	2430125	5442411	20059650	46174111	62014102
RF	607531.25	544241.1	501491.25	461741.11	442957.87142 8571
Last Area Residual	1.23719	0.456136	-2.4492	-1.2363	3.10578
Rep StDev					
Rep %RSD					
Rep 1 Area	2430125	5442411	20059650	46174111	62014102
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	200
Area	90541700

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:06
User: JJY
Instrument: Semi 7 (Offline)

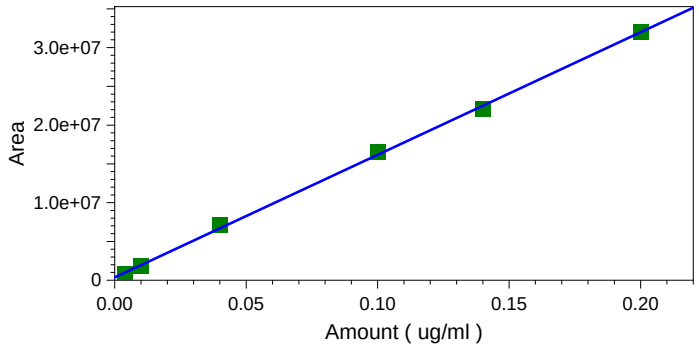
RF	452708.5
Last Area	
Residual	-1.11361
Rep StDev	
Rep %RSD	
Rep 1 Area	90541700
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:08
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #1 (front detector)
Average RF: 1.72289e+008 RF StDev: 1.31965e+007 RF %RSD: 7.65953
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.58101e+008x + 368386.
Goodness of fit (r^2): 0.999340

Peak: Aroclor 1016 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	748783	1869338	7072670	16479665	22063430
RF	187195750	186933800	176816750	164796650	157595928.57 1429
Last Area Residual	0.00159397	0.000506388	-0.002405	-0.00190482	0.00277753
Rep StDev					
Rep %RSD					
Rep 1 Area	748783	1869338	7072670	16479665	22063430
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	32078445

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:08
User: JJY
Instrument: Semi 7 (Offline)

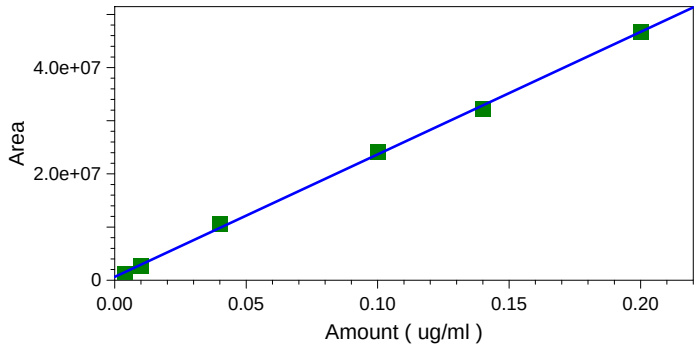
RF	160392225
Last Area	
Residual	-0.000568055
Rep StDev	
Rep %RSD	
Rep 1 Area	32078445
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:09
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #2 (front detector)
Average RF: 2.54227e+008 RF StDev: 2.20287e+007 RF %RSD: 8.66500
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.30391e+008x + 622631.
Goodness of fit (r^2): 0.999244

Peak: Aroclor 1016 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1123901	2765918	10487888	24123307	32257357
RF	280975250	276591800	262197200	241233070	230409692.857143
Last Area Residual	0.00182427	0.000697176	-0.00281963	-0.00200346	0.00269112
Rep StDev					
Rep %RSD					
Rep 1 Area	1123901	2765918	10487888	24123307	32257357
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	46790557

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:09
User: JJY
Instrument: Semi 7 (Offline)

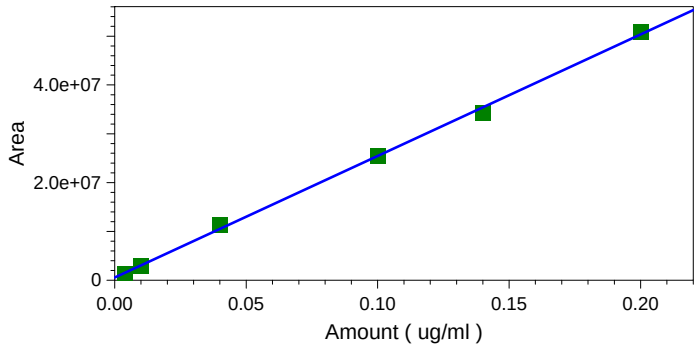
RF	233952785
Last Area	
Residual	-0.000389475
Rep StDev	
Rep %RSD	
Rep 1 Area	46790557
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:11
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #3 (front detector)
Average RF: 2.76052e+008 RF StDev: 2.99428e+007 RF %RSD: 10.8468
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.49058e+008x + 537757.
Goodness of fit (r^2): 0.998860

Peak: Aroclor 1016 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1284848	2994755	11245150	25454302	34321130
RF	321212000	299475500	281128750	254543020	245150928.57 1429
Last Area Residual	0.00100033	0.000134821	-0.00299163	-4.3303e-005	0.00435518
Rep StDev					
Rep %RSD					
Rep 1 Area	1284848	2994755	11245150	25454302	34321130
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	50960812

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:11
User: JJY
Instrument: Semi 7 (Offline)

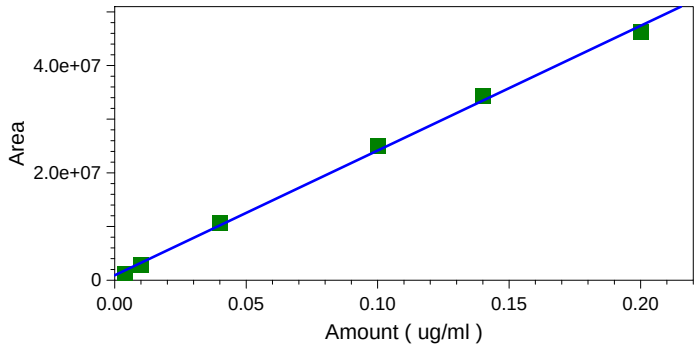
RF	254804060
Last Area	
Residual	-0.0024554
Rep StDev	
Rep %RSD	
Rep 1 Area	50960812
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:12
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #4 (front detector)
Average RF: 2.60504e+008 RF StDev: 2.17063e+007 RF %RSD: 8.33243
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.32423e+008x + 918030.
Goodness of fit (r^2): 0.997911

Peak: Aroclor 1016 #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1142128	2825576	10728766	25034534	34254462
RF	285532000	282557600	268219150	250345340	244674728.57 1429
Last Area Residual	0.00303582	0.00179278	-0.00221071	-0.00376131	-0.00343006
Rep StDev					
Rep %RSD					
Rep 1 Area	1142128	2825576	10728766	25034534	34254462
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	46339629

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:12
User: JJY
Instrument: Semi 7 (Offline)

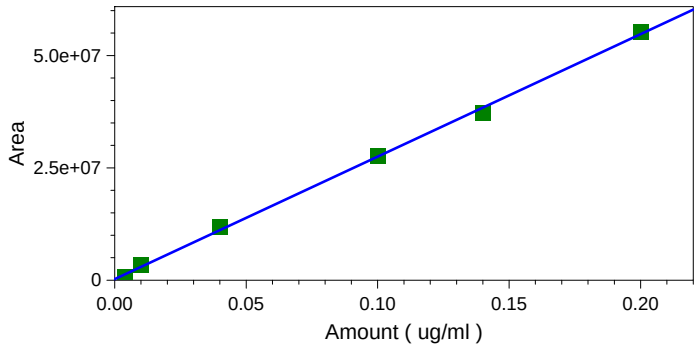
RF	231698145
Last Area	
Residual	0.00457348
Rep StDev	
Rep %RSD	
Rep 1 Area	46339629
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:14
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #5 (front detector)
Average RF: 2.69058e+008 RF StDev: 5.72703e+007 RF %RSD: 21.2855
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.72671e+008x + 242120.
Goodness of fit (r^2): 0.998709

Peak: Aroclor 1016 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	653481	3352439	11824247	27760508	37200990
RF	163370250	335243900	295606175	277605080	265721357.142857
Last Area Residual	0.00249137	-0.00140684	-0.00247651	-0.000921458	0.00445634
Rep StDev					
Rep %RSD					
Rep 1 Area	653481	3352439	11824247	27760508	37200990
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	55360691

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:14
User: JJY
Instrument: Semi 7 (Offline)

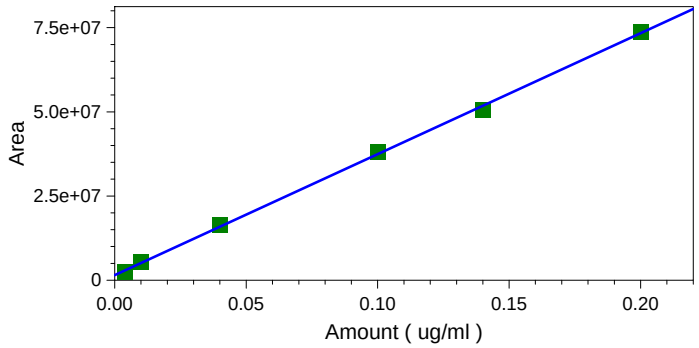
RF	276803455
Last Area	
Residual	-0.00214289
Rep StDev	
Rep %RSD	
Rep 1 Area	55360691
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:15
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #1 (front detector)
Average RF: 4.37050e+008 RF StDev: 9.00293e+007 RF %RSD: 20.5993
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 3.59409e+008x + 1.48475e+006
Goodness of fit (r^2): 0.999154

Peak: Aroclor 1260 #1 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2284691	5281482	16501713	38076070	50451224
RF	571172750	528148200	412542825	380760700	360365885.714286
Last Area Residual	0.00177429	-0.000563816	-0.00178236	-0.00180964	0.00375843
Rep StDev					
Rep %RSD					
Rep 1 Area	2284691	5281482	16501713	38076070	50451224
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	73861461

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:15
User: JJY
Instrument: Semi 7 (Offline)

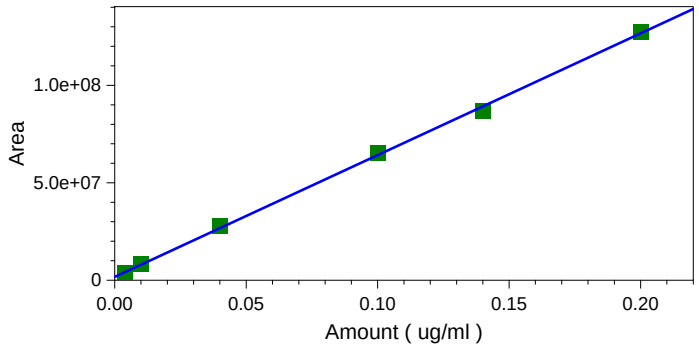
RF	369307305
Last Area	
Residual	-0.0013769
Rep StDev	
Rep %RSD	
Rep 1 Area	73861461
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:17
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #2 (front detector)
Average RF: 7.12513e+008 RF StDev: 1.00606e+008 RF %RSD: 14.1199
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.24837e+008x + 1.69377e+006
Goodness of fit (r^2): 0.999271

Peak: Aroclor 1260 #2 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	3469239	8045680	27755136	65075527	86863155
RF	867309750	804568000	693878400	650755270	620451107.142857
Last Area Residual	0.00115851	-0.000165708	-0.00170908	-0.00143732	0.00369336
Rep StDev					
Rep %RSD					
Rep 1 Area	3469239	8045680	27755136	65075527	86863155
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	127623196

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:17
User: JJY
Instrument: Semi 7 (Offline)

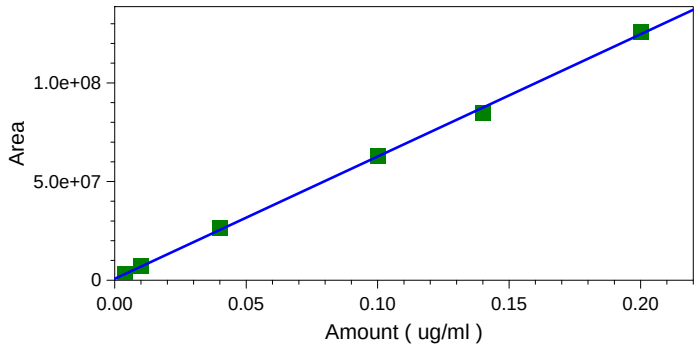
RF	638115980
Last Area Residual	-0.00153976
Rep StDev	
Rep %RSD	
Rep 1 Area	127623196
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:18
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #3 (front detector)
Average RF: 6.56140e+008 RF StDev: 4.14859e+007 RF %RSD: 6.32272
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.19624e+008x + 688601.
Goodness of fit (r^2): 0.999064

Peak: Aroclor 1260 #3 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	2834921	7004682	26402104	63242033	84680612
RF	708730250	700468200	660052600	632420330	604861514.285714
Last Area Residual	0.000536095	-0.000193402	-0.00149853	-0.000953782	0.00444691
Rep StDev					
Rep %RSD					
Rep 1 Area	2834921	7004682	26402104	63242033	84680612
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	126061733

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:18
User: JJY
Instrument: Semi 7 (Offline)

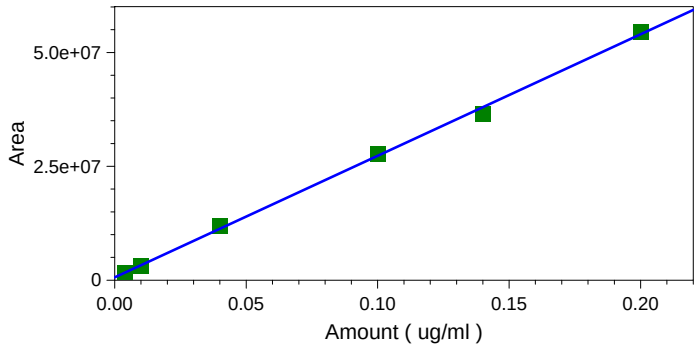
RF	630308665
Last Area	
Residual	-0.00233729
Rep StDev	
Rep %RSD	
Rep 1 Area	126061733
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:20
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #4 (front detector)
Average RF: 2.99287e+008 RF StDev: 3.76835e+007 RF %RSD: 12.5911
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.66790e+008x + 635671.
Goodness of fit (r^2): 0.998640

Peak: Aroclor 1260 #4 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	1449252	3226458	11939138	27775646	36605432
RF	362313000	322645800	298478450	277756460	261467371.428571
Last Area Residual	0.000950478	0.00028903	-0.00236845	-0.00172795	0.00517563
Rep StDev					
Rep %RSD					
Rep 1 Area	1449252	3226458	11939138	27775646	36605432
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	54612235

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:20
User: JJY
Instrument: Semi 7 (Offline)

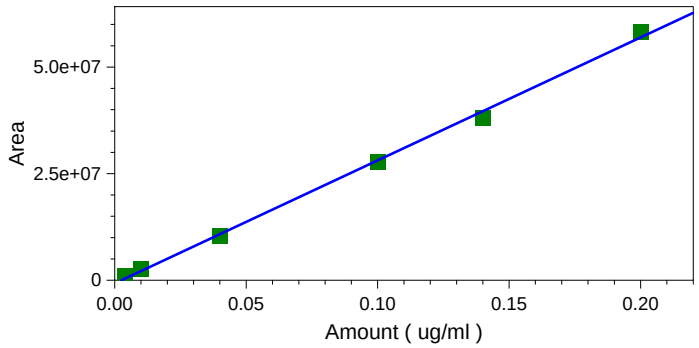
RF	273061175
Last Area	
Residual	-0.00231873
Rep StDev	
Rep %RSD	
Rep 1 Area	54612235
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:21
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #5 (front detector)
Average RF: 2.67696e+008 RF StDev: 1.56417e+007 RF %RSD: 5.84308
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 2.88461e+008x - 740188.
Goodness of fit (r^2): 0.997821

Peak: Aroclor 1260 #5 -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	993679	2555042	10499128	27668065	37976516
RF	248419750	255504200	262478200	276680650	271260828.57 1429
Last Area Residual	-0.00201076	-0.0014235	0.0010369	0.00151772	0.00578164
Rep StDev					
Rep %RSD					
Rep 1 Area	993679	2555042	10499128	27668065	37976516
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	58365956

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:21
User: JJY
Instrument: Semi 7 (Offline)

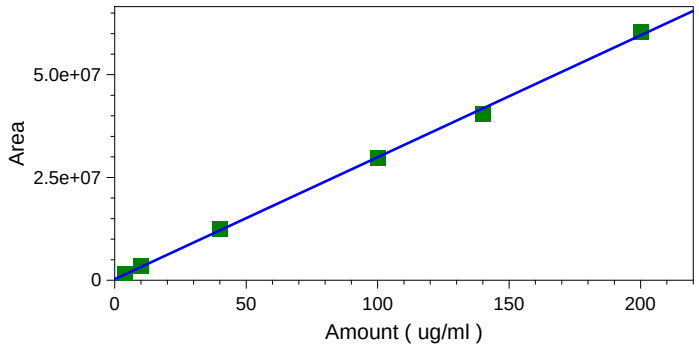
RF	291829780
Last Area	
Residual	-0.004902
Rep StDev	
Rep %RSD	
Rep 1 Area	58365956
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:23
User: JJY
Instrument: Semi 7 (Offline)

SURRDCBPCB (front detector)
Average RF: 317796. RF StDev: 30250.0 RF %RSD: 9.51870
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 296616.x + 249685.
Goodness of fit (r^2): 0.998887

Peak: SURRDCBPCB -- ESTD -- front detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	1480837	3355538	12469538	29830544	40374911
RF	370209.25	335553.8	311738.45	298305.44	288392.22142 8571
Last Area Residual	-0.150661	-0.470957	-1.19755	0.272205	4.72332
Rep StDev					
Rep %RSD					
Rep 1 Area	1480837	3355538	12469538	29830544	40374911
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	200
Area	60515042

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:23
User: JJY
Instrument: Semi 7 (Offline)

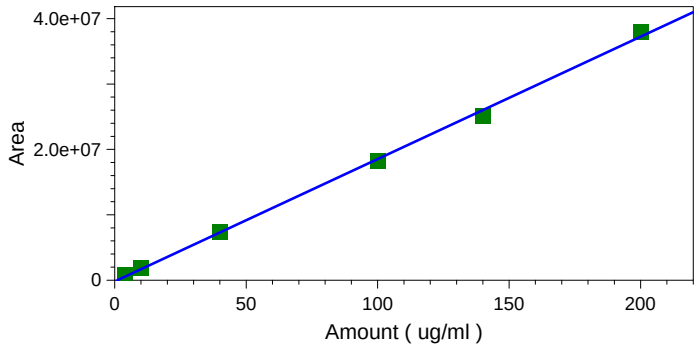
RF	302575.21
Last Area	
Residual	-3.17636
Rep StDev	
Rep %RSD	
Rep 1 Area	60515042
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:28
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMXPCB (back detector)
Average RF: 187789. RF StDev: 8525.58 RF %RSD: 4.53997
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 187082.x - 179087.
Goodness of fit (r^2): 0.998397

Peak: SURRTCMXPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	811013	1895705	7326426	18190110	25082369
RF	202753.25	189570.5	183160.65	181901.1	179159.77857 1429
Last Area Residual	-1.29233	-1.09029	-0.11886	1.81201	4.97114
Rep StDev					
Rep %RSD					
Rep 1 Area	811013	1895705	7326426	18190110	25082369
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	200
Area	38038316

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:28
User: JJY
Instrument: Semi 7 (Offline)

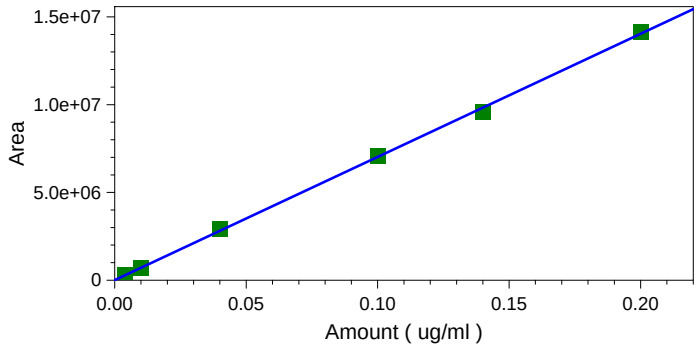
RF	190191.58
Last Area	
Residual	-4.28167
Rep StDev	
Rep %RSD	
Rep 1 Area	38038316
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:30
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #1 (back detector)
Average RF: 6.95935e+007 RF StDev: 2.93322e+006 RF %RSD: 4.21479
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 7.01509e+007x + 9283.34
Goodness of fit (r^2): 0.999347

Peak: Aroclor 1016 #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	258753	694569	2937195	7072312	9578579
RF	64688250	69456900	73429875	70723120	68418421.4285714
Last Area Residual	0.000443813	0.000231261	-0.00173735	-0.000683393	0.0035898
Rep StDev					
Rep %RSD					
Rep 1 Area	258753	694569	2937195	7072312	9578579
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	14168827

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:30
User: JJY
Instrument: Semi 7 (Offline)

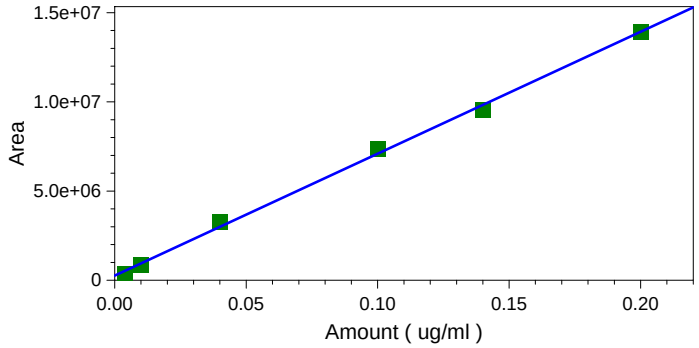
RF	70844135
Last Area	
Residual	-0.00184413
Rep StDev	
Rep %RSD	
Rep 1 Area	14168827
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:31
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #2 (back detector)
Average RF: 7.71720e+007 RF StDev: 7.63733e+006 RF %RSD: 9.89651
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.83793e+007x + 253315.
Goodness of fit (r^2): 0.998232

Peak: Aroclor 1016 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	341392	844487	3276852	7328989	9560275
RF	85348000	84448700	81921300	73289890	68287678.5714286
Last Area Residual	0.00271194	0.00135452	-0.00421714	-0.00347684	0.00389214
Rep StDev					
Rep %RSD					
Rep 1 Area	341392	844487	3276852	7328989	9560275
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	13947269

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:31
User: JJY
Instrument: Semi 7 (Offline)

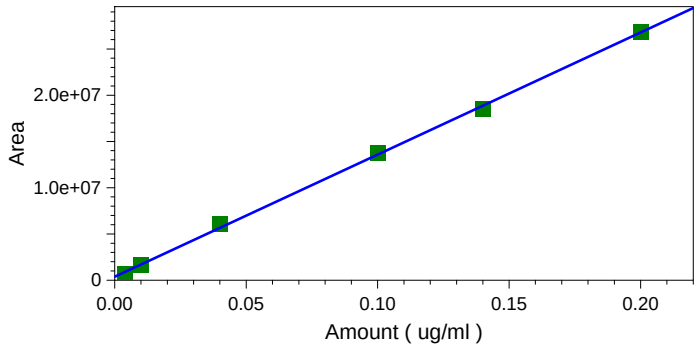
RF	69736345
Last Area	
Residual	-0.000264615
Rep StDev	
Rep %RSD	
Rep 1 Area	13947269
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:33
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #3 (back detector)
Average RF: 1.45949e+008 RF StDev: 1.28930e+007 RF %RSD: 8.83387
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.32057e+008x + 370272.
Goodness of fit (r^2): 0.999089

Peak: Aroclor 1016 #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	628794	1620814	6100896	13761894	18455504
RF	157198500	162081400	152522400	137618940	131825028.57 1429
Last Area Residual	0.00204234	0.00053027	-0.00339514	-0.00140804	0.00304961
Rep StDev					
Rep %RSD					
Rep 1 Area	628794	1620814	6100896	13761894	18455504
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	26889795

Calibration Report

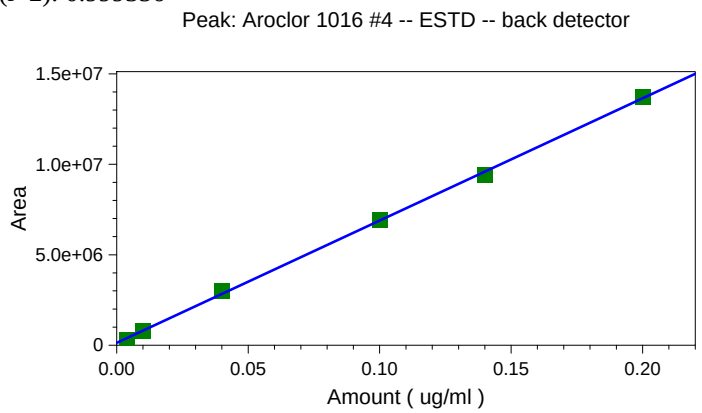
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:33
User: JJY
Instrument: Semi 7 (Offline)

RF	134448975
Last Area	
Residual	-0.000819042
Rep StDev	
Rep %RSD	
Rep 1 Area	26889795
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:35
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #4 (back detector)
Average RF: 7.28277e+007 RF StDev: 5.47259e+006 RF %RSD: 7.51444
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 6.76097e+007x + 127086.
Goodness of fit (r^2): 0.999356



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	303092	813916	2993974	6918426	9382987
RF	75773000	81391600	74849350	69184260	67021335.7142857
Last Area Residual	0.00139673	-0.000158752	-0.0024035	-0.000449188	0.00309804
Rep StDev					
Rep %RSD					
Rep 1 Area	303092	813916	2993974	6918426	9382987
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	13749315

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:35
User: JJY
Instrument: Semi 7 (Offline)

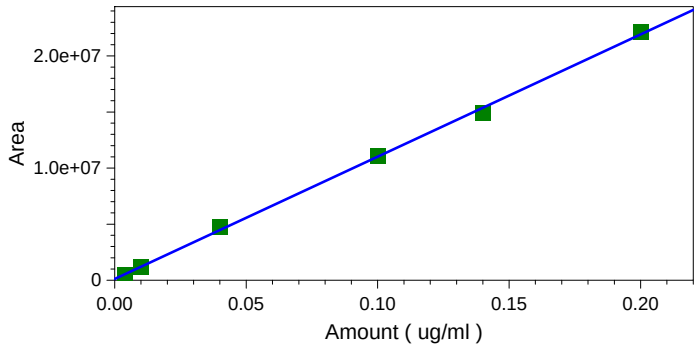
RF	68746575
Last Area	
Residual	-0.00148333
Rep StDev	
Rep %RSD	
Rep 1 Area	13749315
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:36
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1016 #5 (back detector)
Average RF: 1.13653e+008 RF StDev: 5.61504e+006 RF %RSD: 4.94052
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.08976e+008x + 117134.
Goodness of fit (r^2): 0.998955

Peak: Aroclor 1016 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	455913	1216195	4741320	11050303	14895092
RF	113978250	121619500	118533000	110503030	106393514.285714
Last Area Residual	0.000891242	-8.53818e-005	-0.00243321	-0.000326729	0.00439209
Rep StDev					
Rep %RSD					
Rep 1 Area	455913	1216195	4741320	11050303	14895092
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	22177945

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:36
User: JJY
Instrument: Semi 7 (Offline)

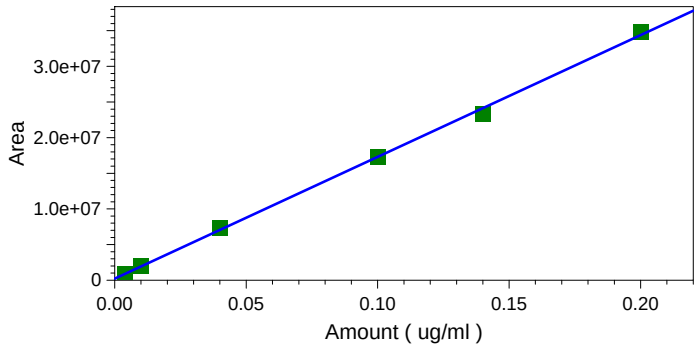
RF	110889725
Last Area	
Residual	-0.00243801
Rep StDev	
Rep %RSD	
Rep 1 Area	22177945
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:38
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #1 (back detector)
Average RF: 1.84460e+008 RF StDev: 1.70279e+007 RF %RSD: 9.23123
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.70833e+008x + 209559.
Goodness of fit (r^2): 0.998833

Peak: Aroclor 1260 #1 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	837525	2009165	7295796	17326193	23288042
RF	209381250	200916500	182394900	173261930	166343157.142857
Last Area Residual	0.000324099	-0.000534292	-0.00148047	-0.000195075	0.00490625
Rep StDev					
Rep %RSD					
Rep 1 Area	837525	2009165	7295796	17326193	23288042
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	34892179

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:38
User: JJY
Instrument: Semi 7 (Offline)

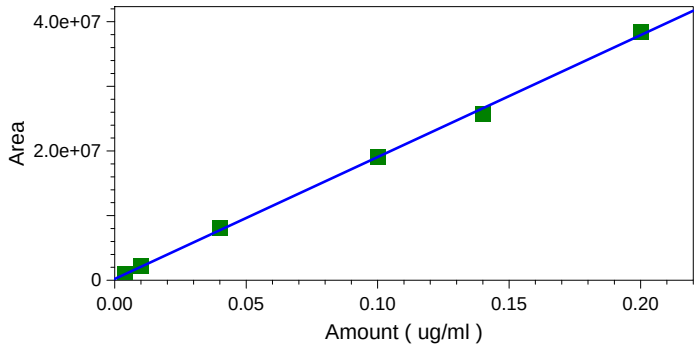
RF	174460895
Last Area	
Residual	-0.00302051
Rep StDev	
Rep %RSD	
Rep 1 Area	34892179
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:39
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #2 (back detector)
Average RF: 2.01473e+008 RF StDev: 1.59394e+007 RF %RSD: 7.91145
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.88693e+008x + 193268.
Goodness of fit (r^2): 0.998887

Peak: Aroclor 1260 #2 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	893071	2181887	8023719	19061952	25714879
RF	223267750	218188700	200592975	190619520	183677707.142857
Last Area Residual	0.000291313	-0.000538917	-0.00149838	3.2228e-006	0.00474527
Rep StDev					
Rep %RSD					
Rep 1 Area	893071	2181887	8023719	19061952	25714879
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	38498403

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:39
User: JJY
Instrument: Semi 7 (Offline)

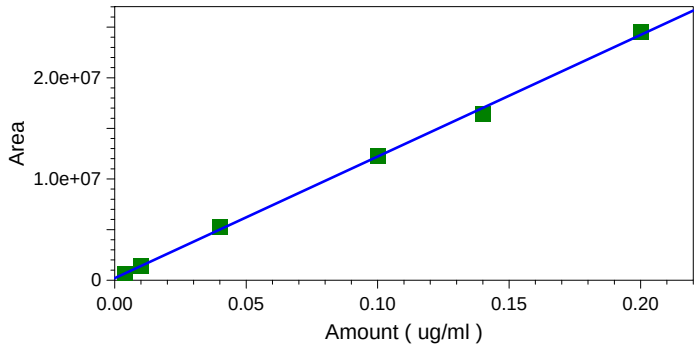
RF	192492015
Last Area	
Residual	-0.0030025
Rep StDev	
Rep %RSD	
Rep 1 Area	38498403
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:41
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #3 (back detector)
Average RF: 1.31308e+008 RF StDev: 1.30618e+007 RF %RSD: 9.94744
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.20171e+008x + 195494.
Goodness of fit (r^2): 0.998837

Peak: Aroclor 1260 #3 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	597891	1447309	5237199	12241664	16441613
RF	149472750	144730900	130929975	122416640	117440092.857143
Last Area Residual	0.000651459	-0.00041697	-0.00195453	-0.000242159	0.00480798
Rep StDev					
Rep %RSD					
Rep 1 Area	597891	1447309	5237199	12241664	16441613
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	24571612

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:41
User: JJY
Instrument: Semi 7 (Offline)

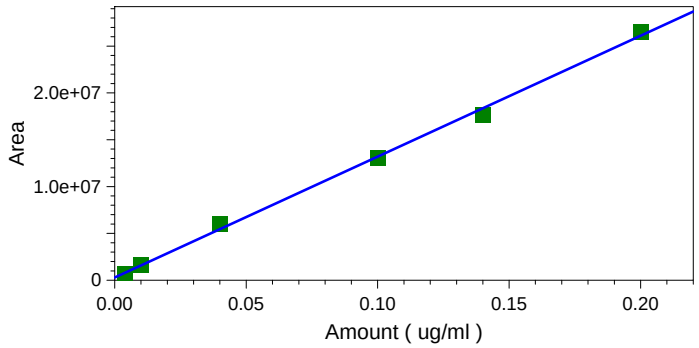
RF	122858060
Last Area	
Residual	-0.00284578
Rep StDev	
Rep %RSD	
Rep 1 Area	24571612
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:42
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #4 (back detector)
Average RF: 1.43778e+008 RF StDev: 1.61533e+007 RF %RSD: 11.2349
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.29124e+008x + 290184.
Goodness of fit (r^2): 0.998041

Peak: Aroclor 1260 #4 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	662725	1578226	5972400	13086309	17662317
RF	165681250	157822600	149310000	130863090	126159407.14 2857
Last Area Residual	0.00111485	2.47567e-005	-0.00400592	0.000900412	0.00546152
Rep StDev					
Rep %RSD					
Rep 1 Area	662725	1578226	5972400	13086309	17662317
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	26566332

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:42
User: JJY
Instrument: Semi 7 (Offline)

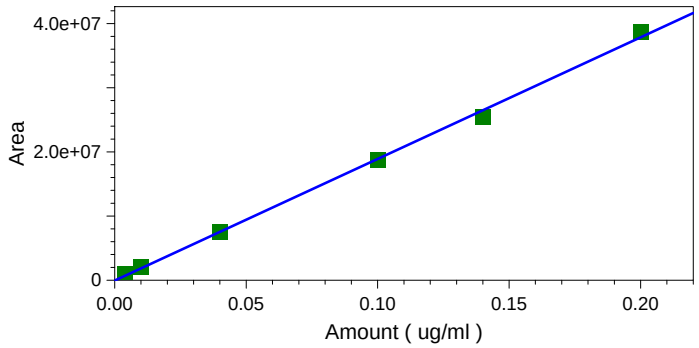
RF	132831660
Last Area	
Residual	-0.00349562
Rep StDev	
Rep %RSD	
Rep 1 Area	26566332
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:44
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1260 #5 (back detector)
Average RF: 1.98939e+008 RF StDev: 1.91271e+007 RF %RSD: 9.61455
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 1.89579e+008x - 45811.2
Goodness of fit (r^2): 0.997936

Peak: Aroclor 1260 #5 -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	0.004	0.01	0.04	0.1	0.14
Area	925042	2123412	7539075	18650510	25366275
RF	231260500	212341200	188476875	186505100	181187678.571429
Last Area Residual	-0.00112111	-0.00144234	-9.18619e-006	0.00137959	0.00595489
Rep StDev					
Rep %RSD					
Rep 1 Area	925042	2123412	7539075	18650510	25366275
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	0.2
Area	38772656

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:44
User: JJY
Instrument: Semi 7 (Offline)

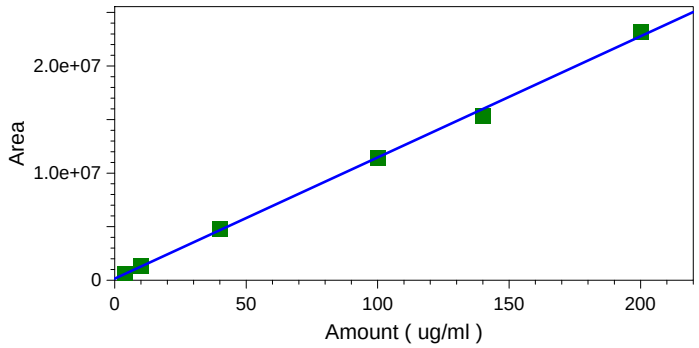
RF	193863280
Last Area	
Residual	-0.00476184
Rep StDev	
Rep %RSD	
Rep 1 Area	38772656
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:46
User: JJY
Instrument: Semi 7 (Offline)

SURRDCBPCB (back detector)
Average RF: 124629. RF StDev: 15790.0 RF %RSD: 12.6696
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Linear
y = 113207.x + 140123.
Goodness of fit (r^2): 0.998352

Peak: SURRDCBPCB -- ESTD -- back detector



	Level 1	Level 2	Level 3	Level 4	Level 5
Amount	4	10	40	100	140
Area	601188	1372668	4818995	11398293	15346498
RF	150297	137266.8	120474.875	113982.93	109617.84285 7143
Last Area Residual	-0.0727729	-0.887568	-1.33037	0.552034	5.67594
Rep StDev					
Rep %RSD					
Rep 1 Area	601188	1372668	4818995	11398293	15346498
Rep 1 User	JJY	JJY	JJY	JJY	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\021.dat	C:\Instarch\Semi7\Data\102920pcbic\022.dat	C:\Instarch\Semi7\Data\102920pcbic\023.dat	C:\Instarch\Semi7\Data\102920pcbic\024.dat	C:\Instarch\Semi7\Data\102920pcbic\025.dat
Rep 1 Sample ID	PCB ICAL 1 PP6261	PCB ICAL 2 PP6262	PCB ICAL 3 PP6263	PCB ICAL 4 PP6264	PCB ICAL 5 PP6265
Rep 1 Calib. Time	10/30/2020 09:59:48	10/30/2020 09:59:58	10/30/2020 10:00:08	10/30/2020 10:00:17	10/30/2020 10:00:28

	Level 6
Amount	200
Area	23227176

Calibration Report

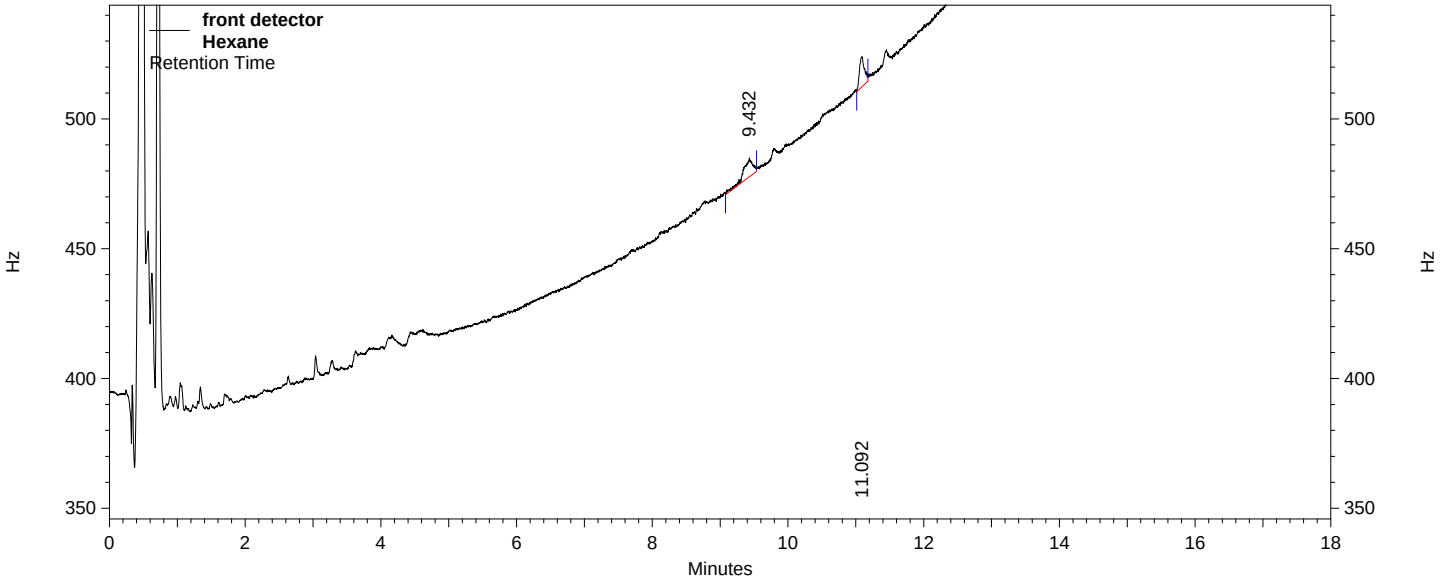
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
Print Time: 10/30/2020 11:50:46
User: JJY
Instrument: Semi 7 (Offline)

RF	116135.88
Last Area	
Residual	-3.93727
Rep StDev	
Rep %RSD	
Rep 1 Area	23227176
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\026.dat
Rep 1 Sample ID	PCB ICAL 6 PP6266
Rep 1 Calib. Time	10/30/2020 10:00:38

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: Hexane
Acquired: 10/29/2020 21:07:25
Printed: 10/30/2020 11:53:39

Data Summary: {Data Description}



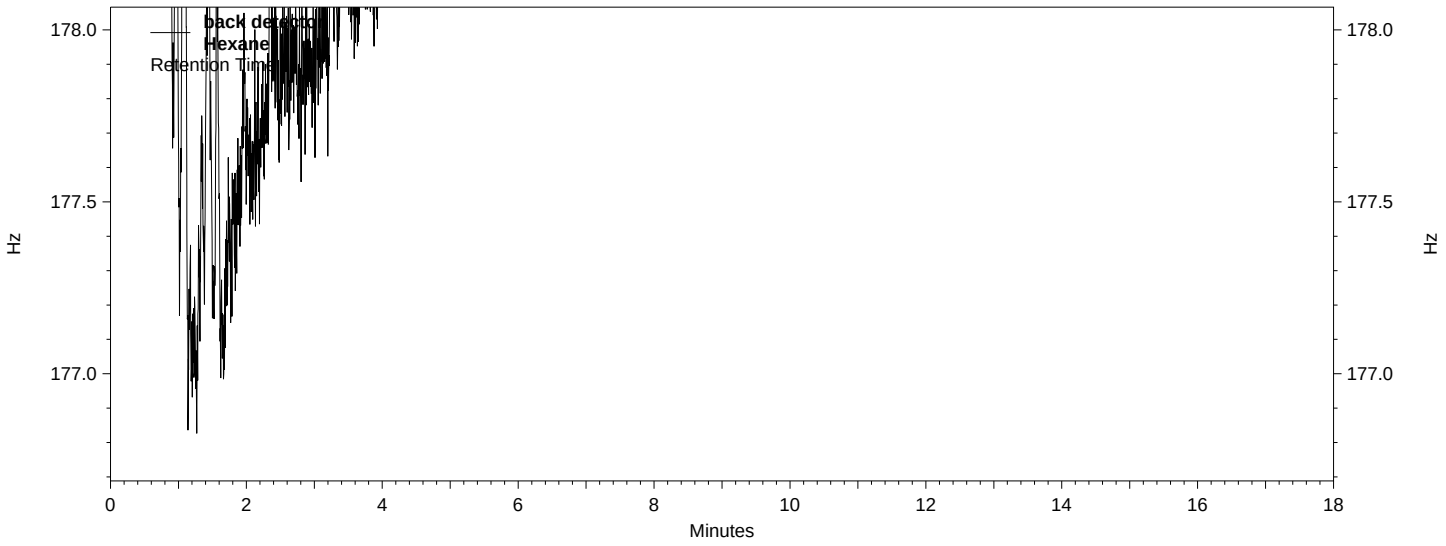
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB			0.000 BDL
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB			0.000 BDL
Aroclor 1016		0	0.000
Aroclor 1260		0	0.000

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\020.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: Hexane
Acquired: 10/29/2020 21:07:25
Printed: 10/30/2020 11:53:39

Data Summary: {Data Description}



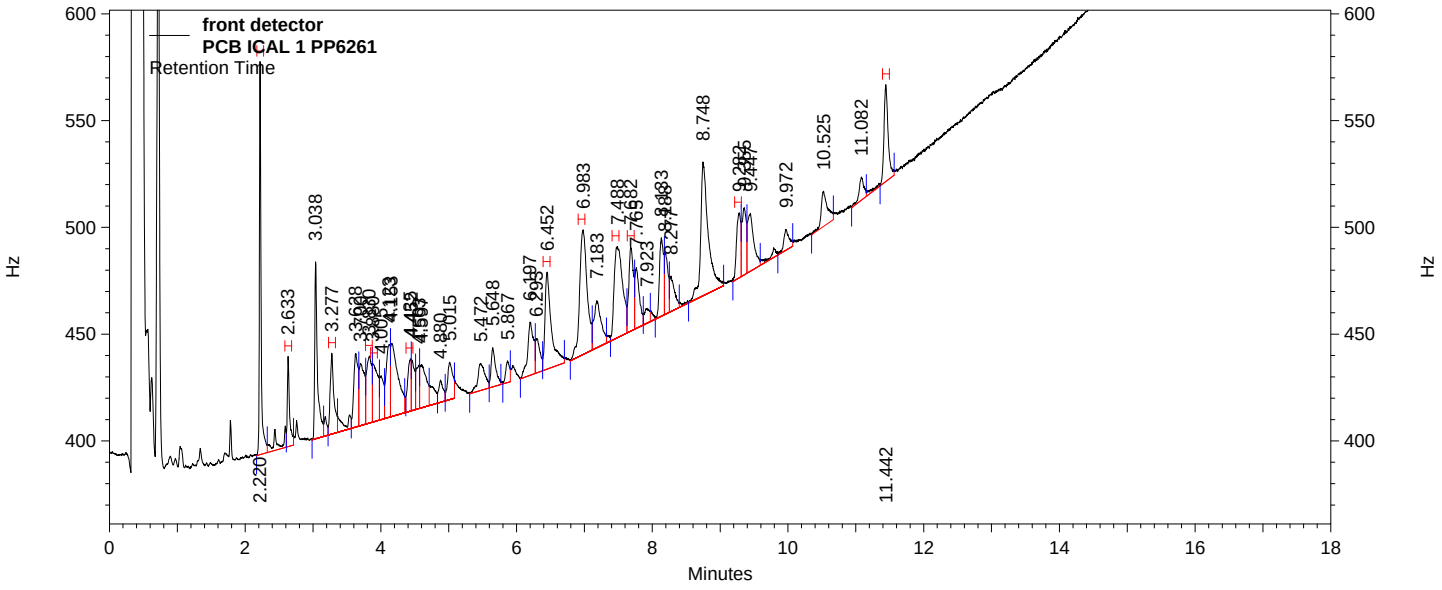
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB			0.000 BDL
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB			0.000 BDL
Aroclor 1016		0	0.000
Aroclor 1260		0	0.000

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 1 PP6261
Acquired: 10/29/2020 21:28:39
Printed: 10/30/2020 11:53:41

Data Summary: {Data Description}



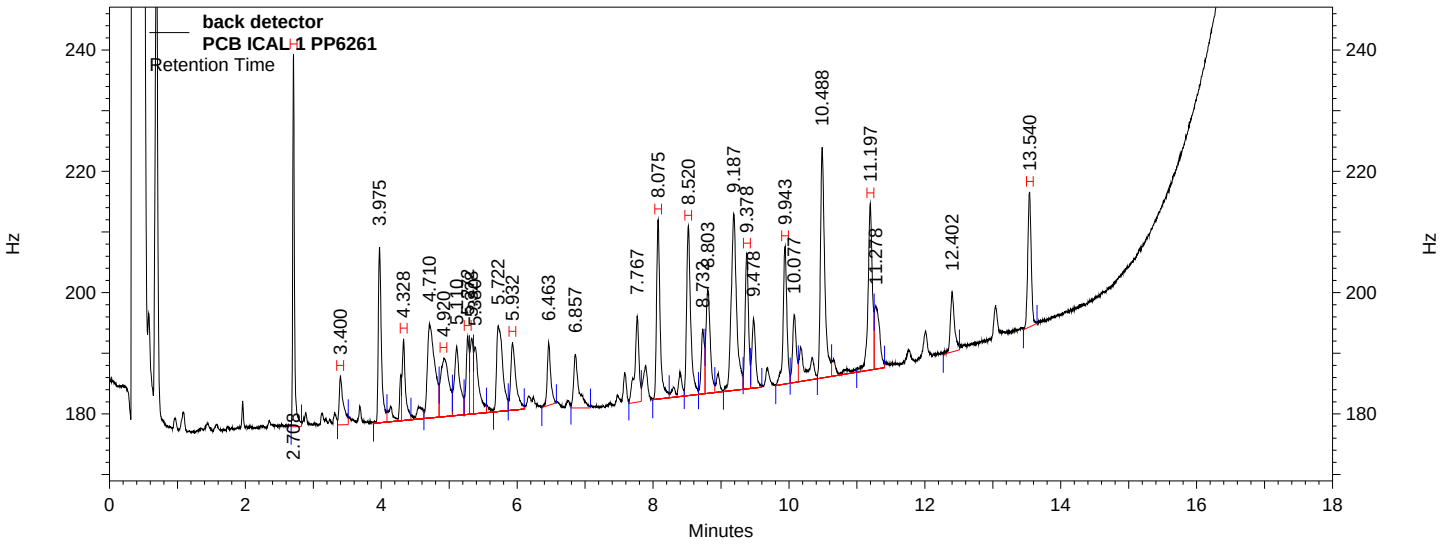
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.220	2430125	4.000 CAL
Aroclor 1016 #1	2.633	748783	0.004 CAL
Aroclor 1016 #2	3.277	1123901	0.004 CAL
Aroclor 1016 #3	3.830	1284848	0.004 CAL
Aroclor 1016 #4	3.880	1142128	0.004 CAL
Aroclor 1016 #5	4.435	653481	0.004 CAL
Aroclor 1260 #1	6.452	2284691	0.004 CAL
Aroclor 1260 #2	6.983	3469239	0.004 CAL
Aroclor 1260 #3	7.488	2834921	0.004 CAL
Aroclor 1260 #4	7.682	1449252	0.004 CAL
Aroclor 1260 #5	9.282	993679	0.004 CAL
SURRDCBPCB	11.442	1480837	4.000 CAL
Aroclor 1016		4953141	0.020 CAL
Aroclor 1260		11031782	0.020 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\021.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 1 PP6261
Acquired: 10/29/2020 21:28:39
Printed: 10/30/2020 11:53:41

Data Summary: {Data Description}



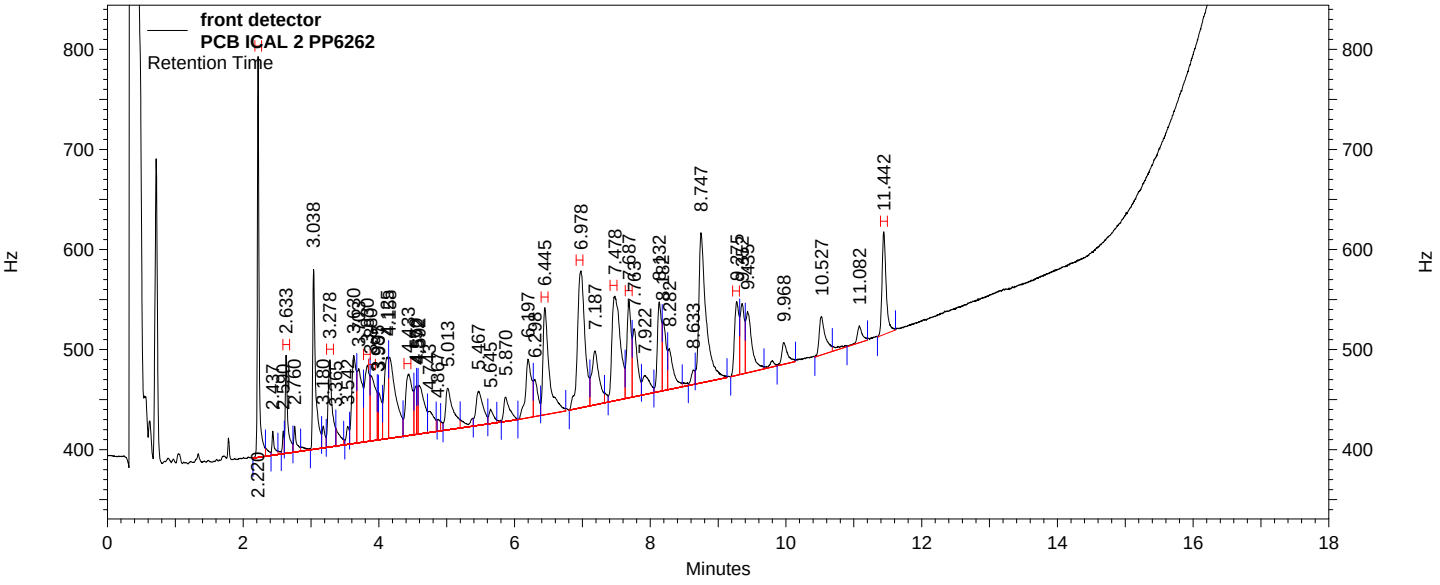
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.708	811013	4.000 CAL
Aroclor 1016 #1	3.400	258753	0.004 CAL
Aroclor 1016 #2	4.328	341392	0.004 CAL
Aroclor 1016 #3	4.920	628794	0.004 CAL
Aroclor 1016 #4	5.272	303092	0.004 CAL
Aroclor 1016 #5	5.932	455913	0.004 CAL
Aroclor 1260 #1	8.075	837525	0.004 CAL
Aroclor 1260 #2	8.520	893071	0.004 CAL
Aroclor 1260 #3	9.378	597891	0.004 CAL
Aroclor 1260 #4	9.943	662725	0.004 CAL
Aroclor 1260 #5	11.197	925042	0.004 CAL
SURRDCBPCB	13.540	601188	4.000 CAL
Aroclor 1016		1987944	0.020 CAL
Aroclor 1260		3916254	0.020 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 2 PP6262
Acquired: 10/29/2020 21:49:50
Printed: 10/30/2020 11:53:44

Data Summary: {Data Description}



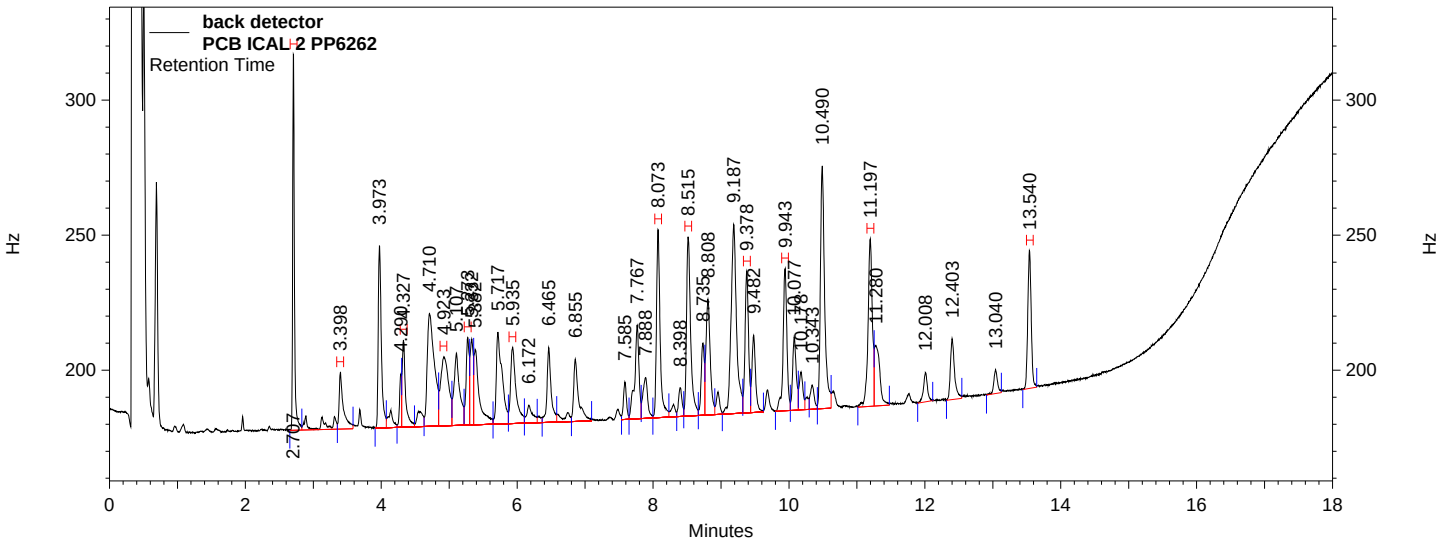
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.220	5442411	10.000 CAL
Aroclor 1016 #1	2.633	1869338	0.010 CAL
Aroclor 1016 #2	3.278	2765918	0.010 CAL
Aroclor 1016 #3	3.830	2994755	0.010 CAL
Aroclor 1016 #4	3.880	2825576	0.010 CAL
Aroclor 1016 #5	4.433	3352439	0.010 CAL
Aroclor 1260 #1	6.445	5281482	0.010 CAL
Aroclor 1260 #2	6.978	8045680	0.010 CAL
Aroclor 1260 #3	7.478	7004682	0.010 CAL
Aroclor 1260 #4	7.687	3226458	0.010 CAL
Aroclor 1260 #5	9.275	2555042	0.010 CAL
SURRDCBPCB	11.442	3355538	10.000 CAL
Aroclor 1016		13808026	0.050 CAL
Aroclor 1260		26113344	0.050 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\022.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 2 PP6262
Acquired: 10/29/2020 21:49:50
Printed: 10/30/2020 11:53:44

Data Summary: {Data Description}



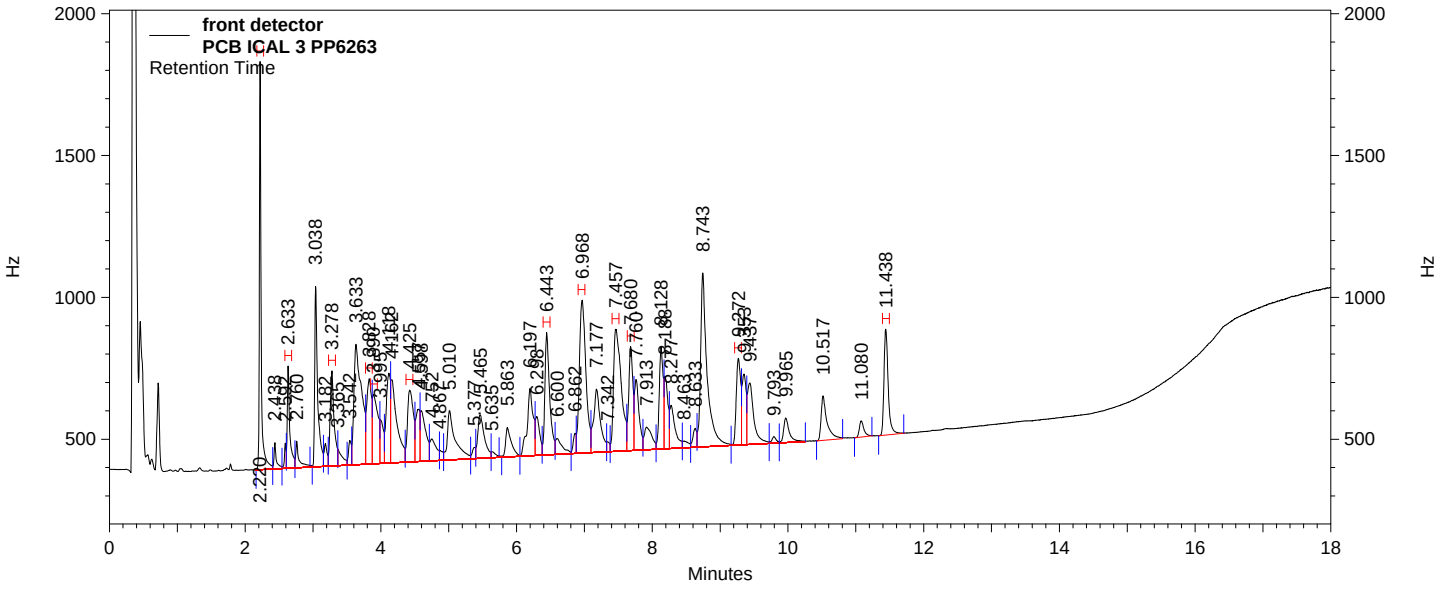
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.707	1895705	10.000 CAL
Aroclor 1016 #1	3.398	694569	0.010 CAL
Aroclor 1016 #2	4.327	844487	0.010 CAL
Aroclor 1016 #3	4.923	1620814	0.010 CAL
Aroclor 1016 #4	5.273	813916	0.010 CAL
Aroclor 1016 #5	5.935	1216195	0.010 CAL
Aroclor 1260 #1	8.073	2009165	0.010 CAL
Aroclor 1260 #2	8.515	2181887	0.010 CAL
Aroclor 1260 #3	9.378	1447309	0.010 CAL
Aroclor 1260 #4	9.943	1578226	0.010 CAL
Aroclor 1260 #5	11.197	2123412	0.010 CAL
SURRDCBPCB	13.540	1372668	10.000 CAL
Aroclor 1016		5189981	0.050 CAL
Aroclor 1260		9339999	0.050 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 3 PP6263
Acquired: 10/29/2020 22:11:04
Printed: 10/30/2020 11:53:46

Data Summary: {Data Description}



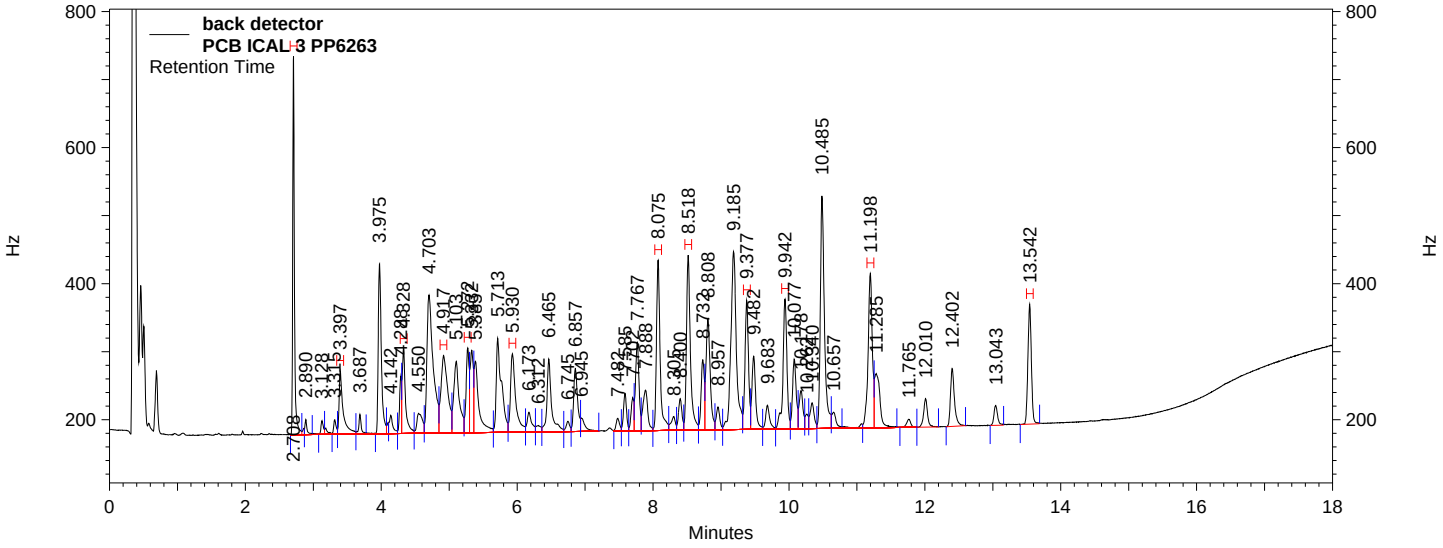
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.220	20059650	40.000 CAL
Aroclor 1016 #1	2.633	7072670	0.040 CAL
Aroclor 1016 #2	3.278	10487888	0.040 CAL
Aroclor 1016 #3	3.828	11245150	0.040 CAL
Aroclor 1016 #4	3.890	10728766	0.040 CAL
Aroclor 1016 #5	4.425	11824247	0.040 CAL
Aroclor 1260 #1	6.443	16501713	0.040 CAL
Aroclor 1260 #2	6.968	27755136	0.040 CAL
Aroclor 1260 #3	7.457	26402104	0.040 CAL
Aroclor 1260 #4	7.680	11939138	0.040 CAL
Aroclor 1260 #5	9.272	10499128	0.040 CAL
SURRDCBPCB	11.438	12469538	40.000 CAL
Aroclor 1016		51358721	0.200 CAL
Aroclor 1260		93097219	0.200 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\023.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 3 PP6263
Acquired: 10/29/2020 22:11:04
Printed: 10/30/2020 11:53:46

Data Summary: {Data Description}



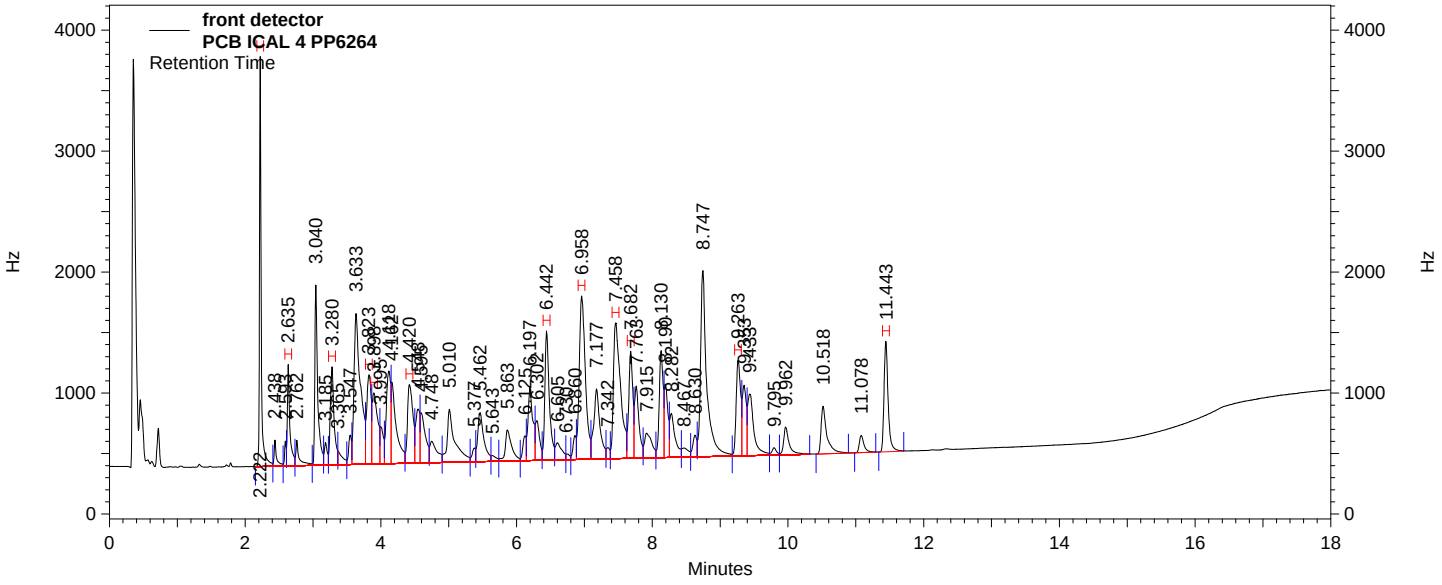
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.708	7326426	40.000 CAL
Aroclor 1016 #1	3.397	2937195	0.040 CAL
Aroclor 1016 #2	4.328	3276852	0.040 CAL
Aroclor 1016 #3	4.917	6100896	0.040 CAL
Aroclor 1016 #4	5.272	2993974	0.040 CAL
Aroclor 1016 #5	5.930	4741320	0.040 CAL
Aroclor 1260 #1	8.075	7295796	0.040 CAL
Aroclor 1260 #2	8.518	8023719	0.040 CAL
Aroclor 1260 #3	9.377	5237199	0.040 CAL
Aroclor 1260 #4	9.942	5972400	0.040 CAL
Aroclor 1260 #5	11.198	7539075	0.040 CAL
SURRDCBPCB	13.542	4818995	40.000 CAL
Aroclor 1016		20050237	0.200 CAL
Aroclor 1260		34068189	0.200 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 4 PP6264
Acquired: 10/29/2020 22:32:15
Printed: 10/30/2020 11:53:49

Data Summary: {Data Description}



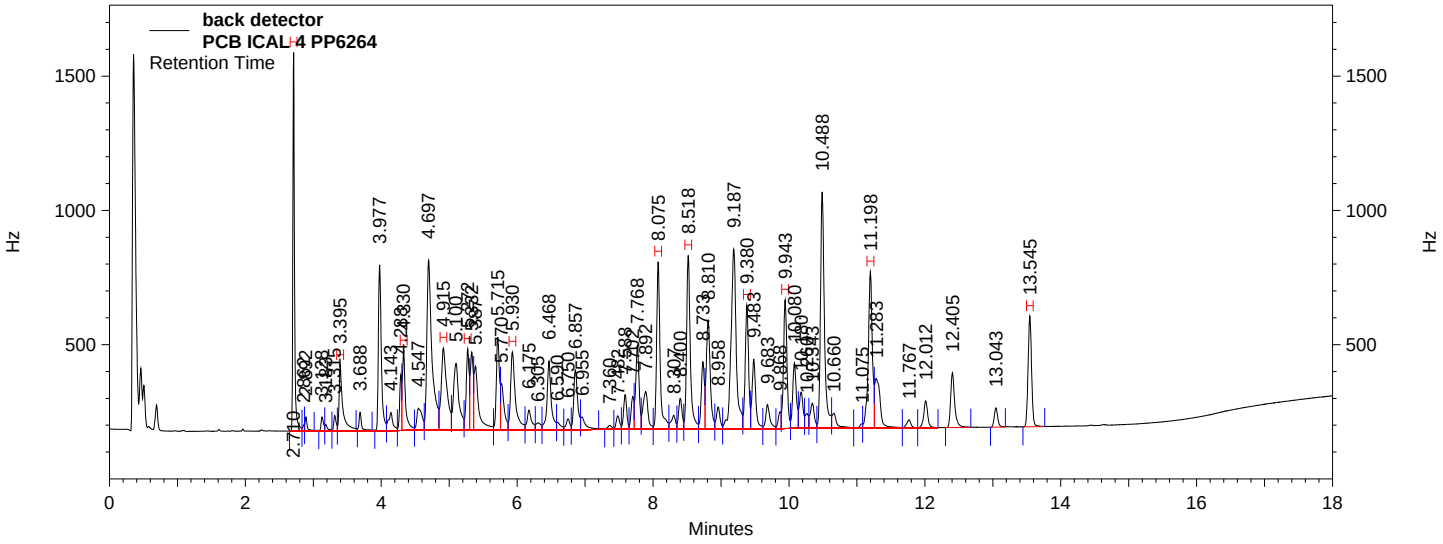
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.222	46174111	100.000 CAL
Aroclor 1016 #1	2.635	16479665	0.100 CAL
Aroclor 1016 #2	3.280	24123307	0.100 CAL
Aroclor 1016 #3	3.823	25454302	0.100 CAL
Aroclor 1016 #4	3.898	25034534	0.100 CAL
Aroclor 1016 #5	4.420	27760508	0.100 CAL
Aroclor 1260 #1	6.442	38076070	0.100 CAL
Aroclor 1260 #2	6.958	65075527	0.100 CAL
Aroclor 1260 #3	7.458	63242033	0.100 CAL
Aroclor 1260 #4	7.682	27775646	0.100 CAL
Aroclor 1260 #5	9.263	27668065	0.100 CAL
SURRDCBPCB	11.443	29830544	100.000 CAL
Aroclor 1016		118852316	0.500 CAL
Aroclor 1260		221837341	0.500 CAL

PCB Analysis Report (1016/1260) ***(Channel B)***

Data File: C:\Instarch\Semi7\Data\102920pcbic\024.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 4 PP6264
Acquired: 10/29/2020 22:32:15
Printed: 10/30/2020 11:53:49

Data Summary: {Data Description}



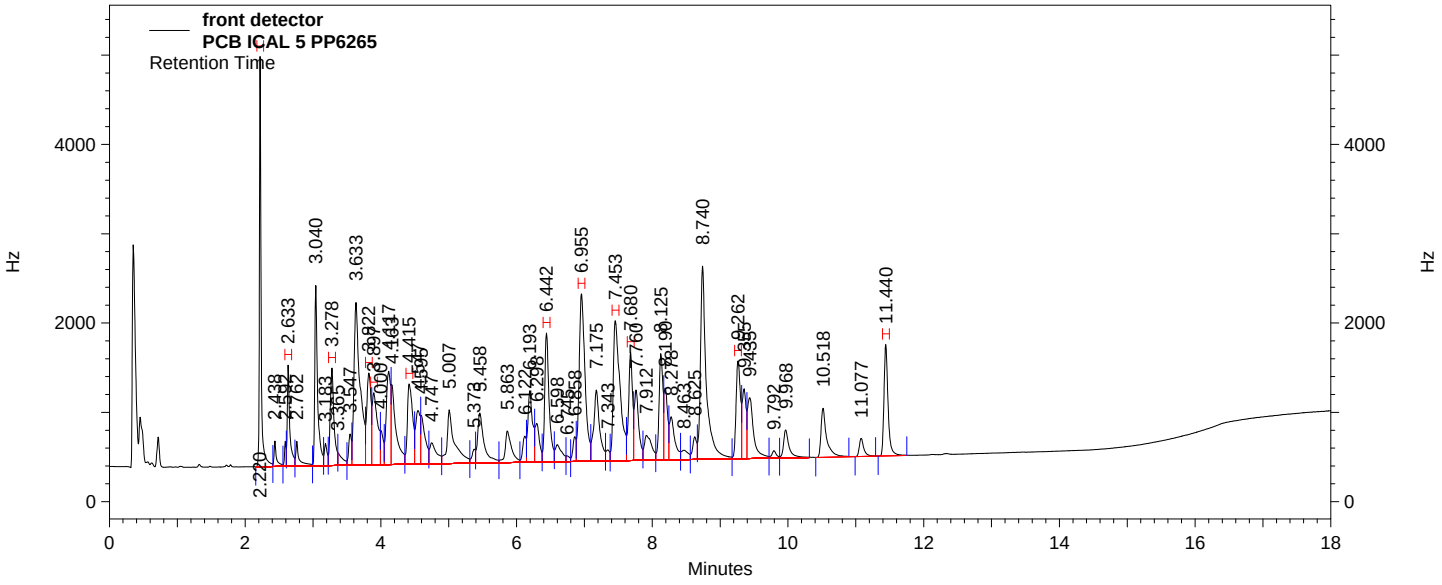
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.710	18190110	100.000 CAL
Aroclor 1016 #1	3.395	7072312	0.100 CAL
Aroclor 1016 #2	4.330	7328989	0.100 CAL
Aroclor 1016 #3	4.915	13761894	0.100 CAL
Aroclor 1016 #4	5.272	6918426	0.100 CAL
Aroclor 1016 #5	5.930	11050303	0.100 CAL
Aroclor 1260 #1	8.075	17326193	0.100 CAL
Aroclor 1260 #2	8.518	19061952	0.100 CAL
Aroclor 1260 #3	9.380	12241664	0.100 CAL
Aroclor 1260 #4	9.943	13086309	0.100 CAL
Aroclor 1260 #5	11.198	18650510	0.100 CAL
SURRDCBPCB	13.545	11398293	100.000 CAL
Aroclor 1016		46131924	0.500 CAL
Aroclor 1260		80366628	0.500 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 5 PP6265
Acquired: 10/29/2020 22:53:27
Printed: 10/30/2020 11:53:51

Data Summary: {Data Description}



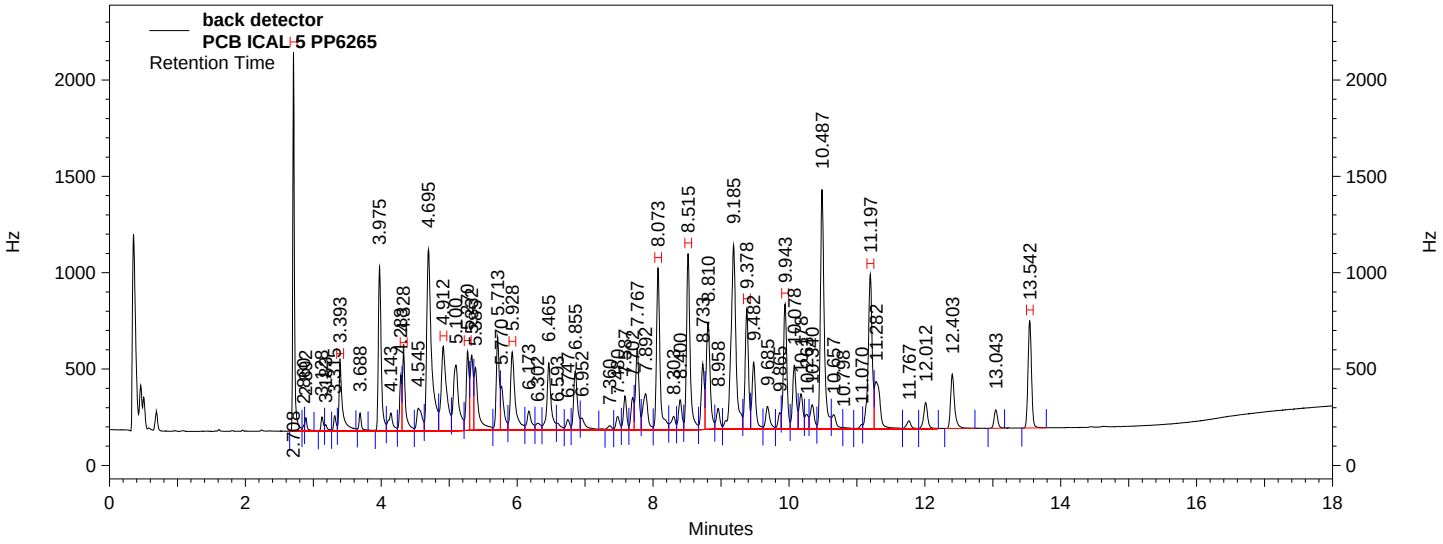
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.220	62014102	140.000 CAL
Aroclor 1016 #1	2.633	22063430	0.140 CAL
Aroclor 1016 #2	3.278	32257357	0.140 CAL
Aroclor 1016 #3	3.822	34321130	0.140 CAL
Aroclor 1016 #4	3.897	34254462	0.140 CAL
Aroclor 1016 #5	4.415	37200990	0.140 CAL
Aroclor 1260 #1	6.442	50451224	0.140 CAL
Aroclor 1260 #2	6.955	86863155	0.140 CAL
Aroclor 1260 #3	7.453	84680612	0.140 CAL
Aroclor 1260 #4	7.680	36605432	0.140 CAL
Aroclor 1260 #5	9.262	37976516	0.140 CAL
SURRDCBPCB	11.440	40374911	140.000 CAL
Aroclor 1016		160097369	0.700 CAL
Aroclor 1260		296576939	0.700 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\025.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 5 PP6265
Acquired: 10/29/2020 22:53:27
Printed: 10/30/2020 11:53:51

Data Summary: {Data Description}



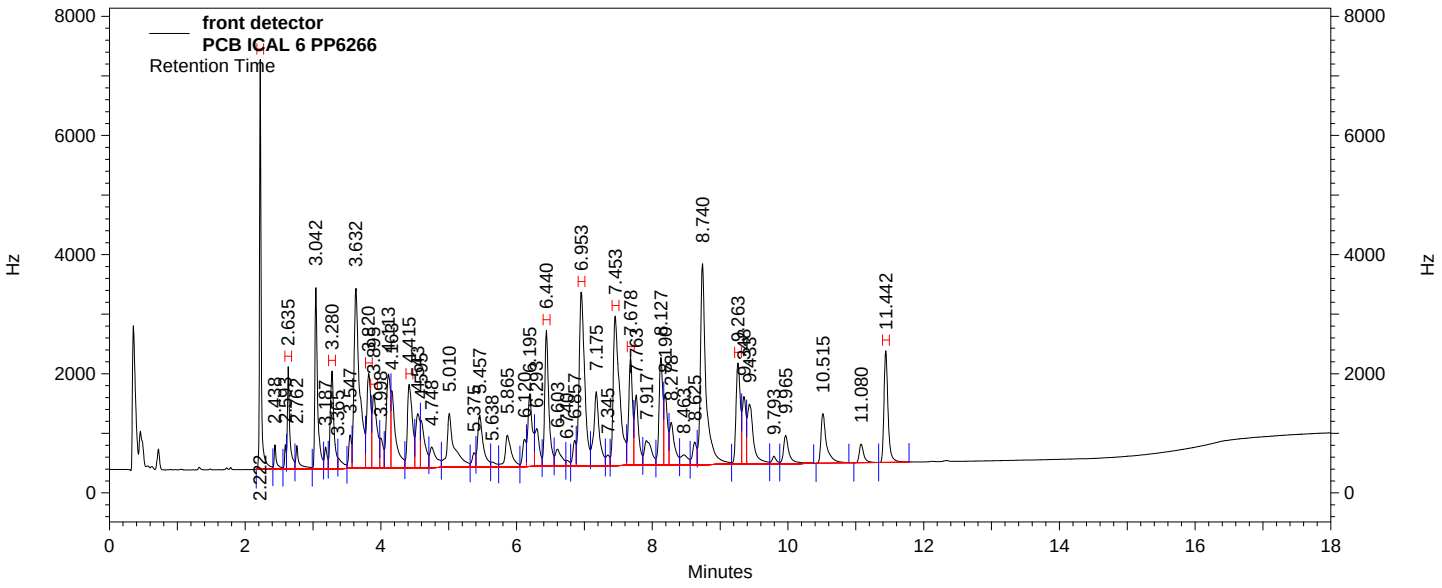
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.708	25082369	140.000 CAL
Aroclor 1016 #1	3.393	9578579	0.140 CAL
Aroclor 1016 #2	4.328	9560275	0.140 CAL
Aroclor 1016 #3	4.912	18455504	0.140 CAL
Aroclor 1016 #4	5.270	9382987	0.140 CAL
Aroclor 1016 #5	5.928	14895092	0.140 CAL
Aroclor 1260 #1	8.073	23288042	0.140 CAL
Aroclor 1260 #2	8.515	25714879	0.140 CAL
Aroclor 1260 #3	9.378	16441613	0.140 CAL
Aroclor 1260 #4	9.943	17662317	0.140 CAL
Aroclor 1260 #5	11.197	25366275	0.140 CAL
SURRDCBPCB	13.542	15346498	140.000 CAL
Aroclor 1016		61872437	0.700 CAL
Aroclor 1260		108473126	0.700 CAL

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 6 PP6266
Acquired: 10/29/2020 23:14:38
Printed: 10/30/2020 11:53:54

Data Summary: {Data Description}



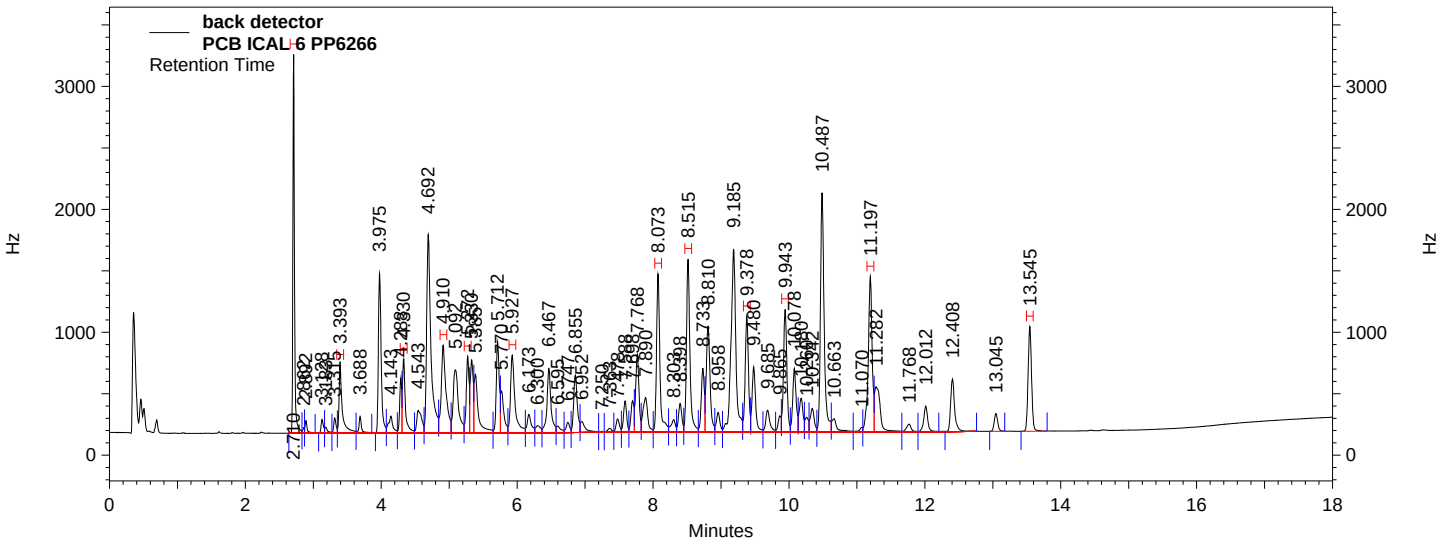
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.222	90541700	200.000 CAL
Aroclor 1016 #1	2.635	32078445	0.200 CAL
Aroclor 1016 #2	3.280	46790557	0.200 CAL
Aroclor 1016 #3	3.820	50960812	0.200 CAL
Aroclor 1016 #4	3.895	46339629	0.200 CAL
Aroclor 1016 #5	4.415	55360691	0.200 CAL
Aroclor 1260 #1	6.440	73861461	0.200 CAL
Aroclor 1260 #2	6.953	127623196	0.200 CAL
Aroclor 1260 #3	7.453	126061733	0.200 CAL
Aroclor 1260 #4	7.678	54612235	0.200 CAL
Aroclor 1260 #5	9.263	58365956	0.200 CAL
SURRDCBPCB	11.442	60515042	200.000 CAL
Aroclor 1016		231530134	1.000 CAL
Aroclor 1260		440524581	1.000 CAL

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\026.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICAL 6 PP6266
Acquired: 10/29/2020 23:14:38
Printed: 10/30/2020 11:53:54

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.710	38038316	200.000 CAL
Aroclor 1016 #1	3.393	14168827	0.200 CAL
Aroclor 1016 #2	4.330	13947269	0.200 CAL
Aroclor 1016 #3	4.910	26889795	0.200 CAL
Aroclor 1016 #4	5.272	13749315	0.200 CAL
Aroclor 1016 #5	5.927	22177945	0.200 CAL
Aroclor 1260 #1	8.073	34892179	0.200 CAL
Aroclor 1260 #2	8.515	38498403	0.200 CAL
Aroclor 1260 #3	9.378	24571612	0.200 CAL
Aroclor 1260 #4	9.943	26566332	0.200 CAL
Aroclor 1260 #5	11.197	38772656	0.200 CAL
SURRDCBPCB	13.545	23227176	200.000 CAL
Aroclor 1016		90933151	1.000 CAL
Aroclor 1260		163301182	1.000 CAL

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:54:01

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\028.dat	PCB ICV PP6276	10/30/2020 11:54:01

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	105.292	5.292	20.000	Passed
Aroclor 1016 #1	0.100	0.101	0.727	20.000	Passed
Aroclor 1016 #2	0.100	0.101	1.132	20.000	Passed
Aroclor 1016 #3	0.100	0.099	0.739	20.000	Passed
Aroclor 1016 #4	0.100	0.102	2.434	20.000	Passed
Aroclor 1016 #5	0.100	0.100	0.374	20.000	Passed
Aroclor 1260 #1	0.100	0.104	3.742	20.000	Passed
Aroclor 1260 #2	0.100	0.102	1.918	20.000	Passed
Aroclor 1260 #3	0.100	0.102	1.882	20.000	Passed
Aroclor 1260 #4	0.100	0.102	1.606	20.000	Passed
Aroclor 1260 #5	0.100	0.098	1.768	20.000	Passed
SURRDCBPCB	100.000	103.250	3.250	20.000	Passed
Aroclor 1016	0.500	0.504	0.785	20.000	Passed
Aroclor 1260	0.500	0.507	1.476	20.000	Passed

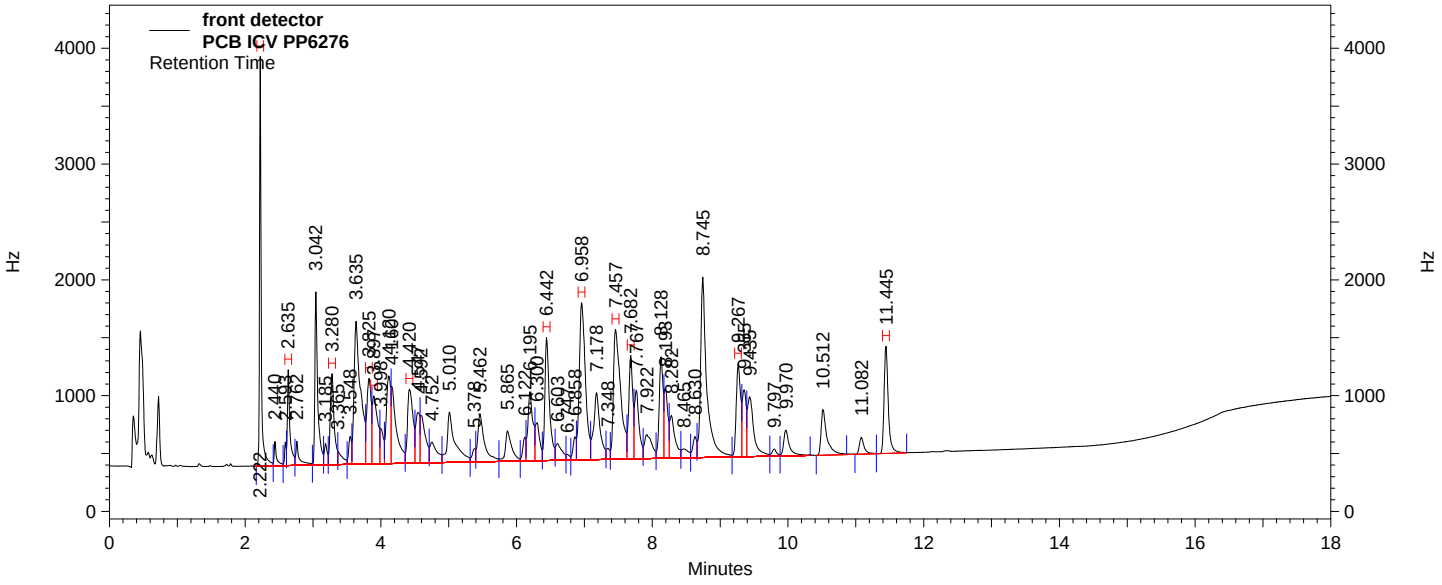
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	102.661	2.661	20.000	Passed
Aroclor 1016 #1	0.100	0.100	0.012	20.000	Passed
Aroclor 1016 #2	0.100	0.101	1.218	20.000	Passed
Aroclor 1016 #3	0.100	0.100	0.459	20.000	Passed
Aroclor 1016 #4	0.100	0.099	1.330	20.000	Passed
Aroclor 1016 #5	0.100	0.100	0.096	20.000	Passed
Aroclor 1260 #1	0.100	0.101	1.097	20.000	Passed
Aroclor 1260 #2	0.100	0.101	0.792	20.000	Passed
Aroclor 1260 #3	0.100	0.101	0.694	20.000	Passed
Aroclor 1260 #4	0.100	0.110	10.471	20.000	Passed
Aroclor 1260 #5	0.100	0.098	2.077	20.000	Passed
SURRDCBPCB	100.000	102.491	2.491	20.000	Passed
Aroclor 1016	0.500	0.500	0.086	20.000	Passed
Aroclor 1260	0.500	0.511	2.196	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\028.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICV PP6276
Acquired: 10/29/2020 23:57:07
Printed: 10/30/2020 11:53:59

Data Summary: {Data Description}



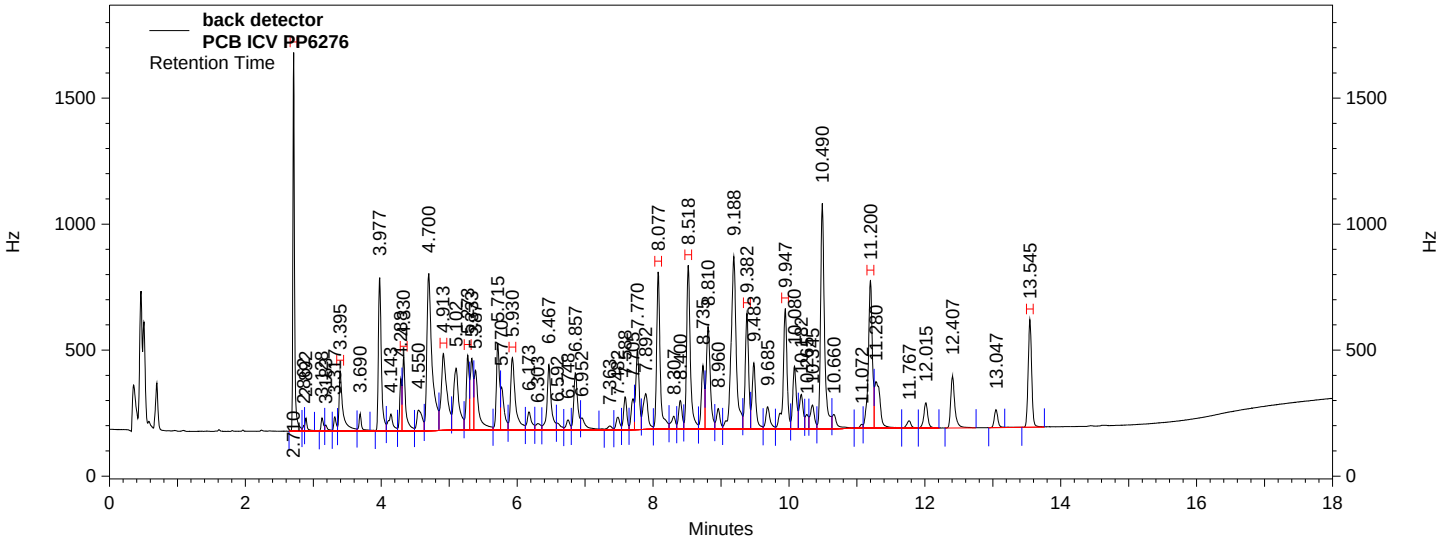
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.222	47975777	105.292
Aroclor 1016 #1	2.635	16293440	0.101
Aroclor 1016 #2	3.280	23922518	0.101
Aroclor 1016 #3	3.825	25259435	0.099
Aroclor 1016 #4	3.897	24725973	0.102
Aroclor 1016 #5	4.420	27611117	0.100
Aroclor 1260 #1	6.442	38770696	0.104
Aroclor 1260 #2	6.958	65376125	0.102
Aroclor 1260 #3	7.457	63816964	0.102
Aroclor 1260 #4	7.682	27743043	0.102
Aroclor 1260 #5	9.267	27595953	0.098
SURRDCBPCB	11.445	30875354	103.250
Aroclor 1016		117812483	0.504
Aroclor 1260		223302781	0.507

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\028.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: PCB ICV PP6276
Acquired: 10/29/2020 23:57:07
Printed: 10/30/2020 11:53:59

Data Summary: {Data Description}



back detector Results

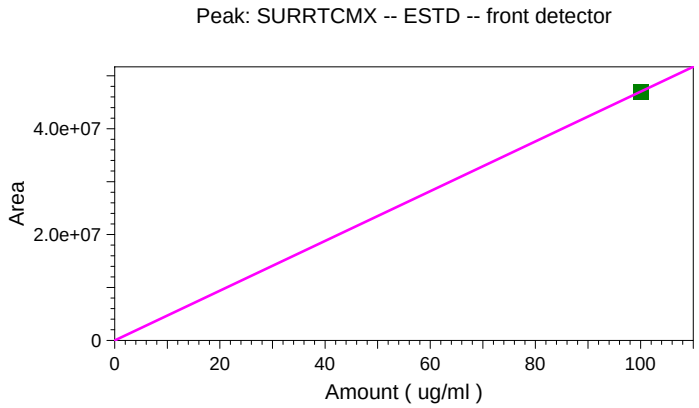
Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.710	19026995	102.661
Aroclor 1016 #1	3.395	7023536	0.100
Aroclor 1016 #2	4.330	7174515	0.101
Aroclor 1016 #3	4.913	13636512	0.100
Aroclor 1016 #4	5.273	6798146	0.099
Aroclor 1016 #5	5.930	11025210	0.100
Aroclor 1260 #1	8.077	17480334	0.101
Aroclor 1260 #2	8.518	19212058	0.101
Aroclor 1260 #3	9.382	12296017	0.101
Aroclor 1260 #4	9.947	14554579	0.110
Aroclor 1260 #5	11.200	18518303	0.098
SURRDCBPCB	13.545	11742759	102.491
Aroclor 1016		45657919	0.500
Aroclor 1260		82061291	0.511

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:41:26
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (front detector)
Average RF: 470047.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 470047.



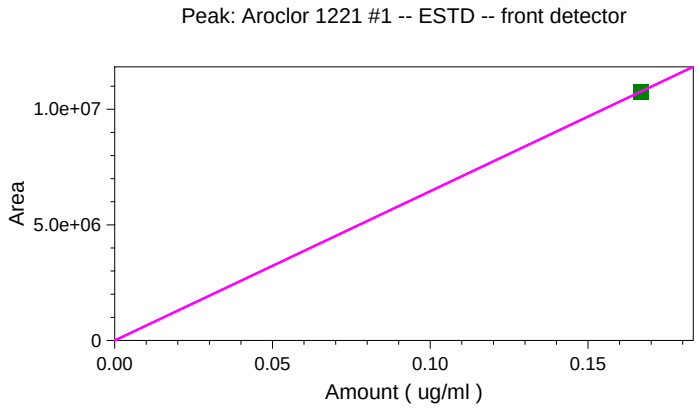
	Level 1
Amount	100
Area	47004683
RF	470046.83
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47004683
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:41:41
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1221 #1 (front detector)
Average RF: 6.45861e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.45861e+007



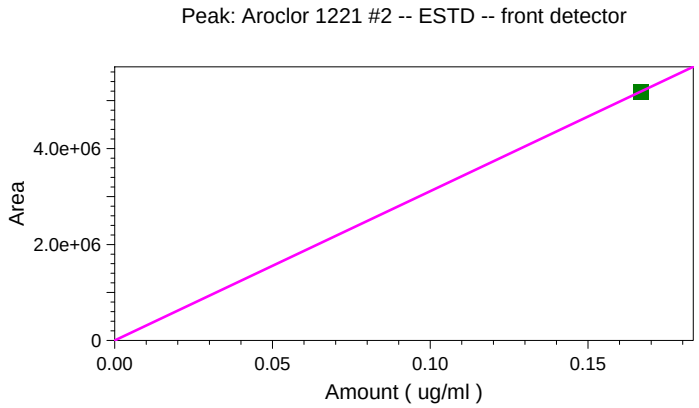
	Level 1
Amount	0.166667
Area	10764353
RF	64586118.00 00026
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10764353
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:41:44
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1221 #2 (front detector)
Average RF: 3.11243e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.11243e+007



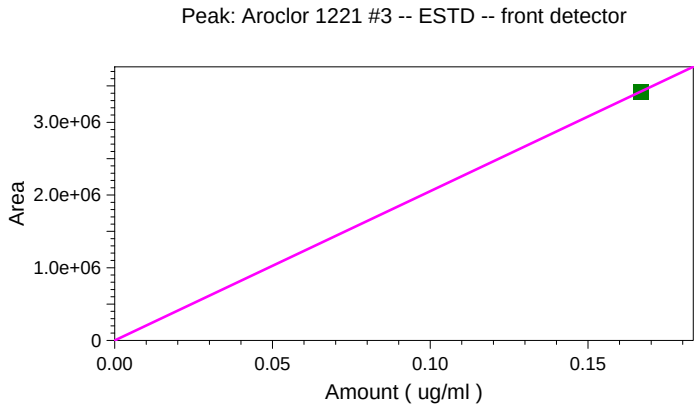
	Level 1
Amount	0.166667
Area	5187384
RF	31124304.00 00012
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5187384
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:41:46
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1221 #3 (front detector)
Average RF: 2.05305e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.05305e+007



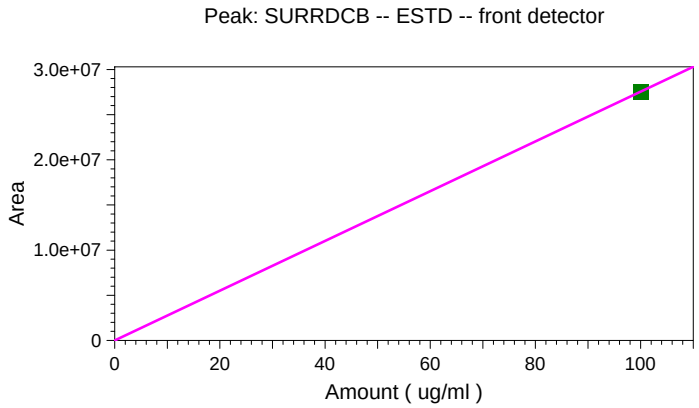
	Level 1
Amount	0.166667
Area	3421757
RF	20530542.00 00008
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	3421757
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:41:48
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (front detector)
Average RF: 275454.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 275454.



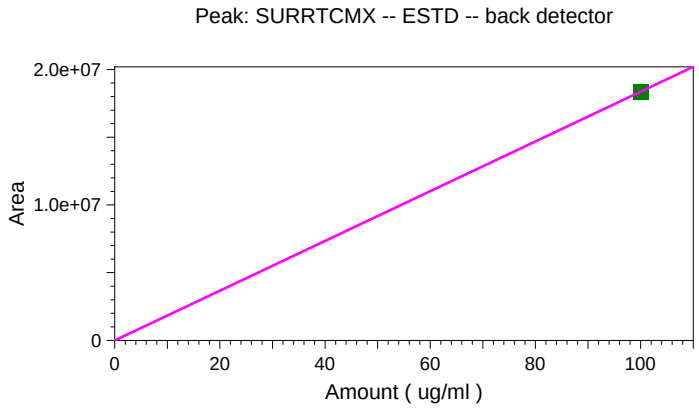
	Level 1
Amount	100
Area	27545420
RF	275454.2
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	27545420
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:42:07
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (back detector)
Average RF: 183624.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 183624.



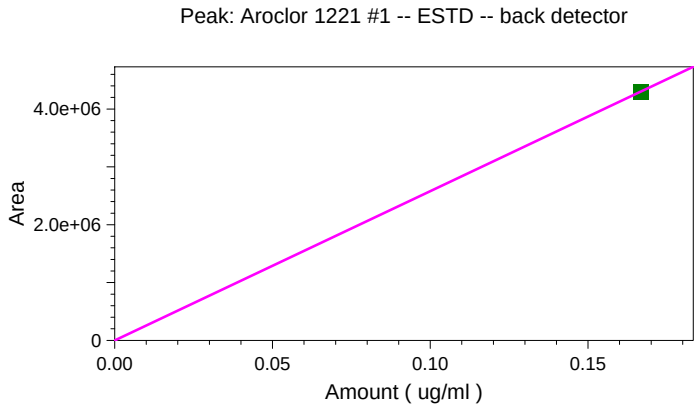
	Level 1
Amount	100
Area	18362350
RF	183623.5
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18362350
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:42:08
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1221 #1 (back detector)
Average RF: 2.58011e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.58011e+007



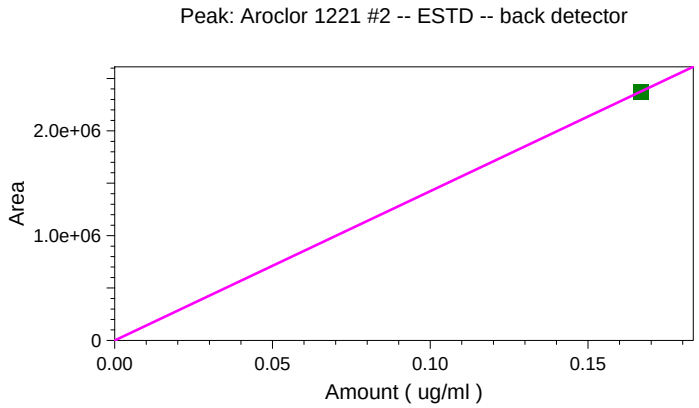
	Level 1
Amount	0.166667
Area	4300189
RF	25801134.000001
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4300189
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:42:10
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1221 #2 (back detector)
Average RF: 1.42462e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.42462e+007



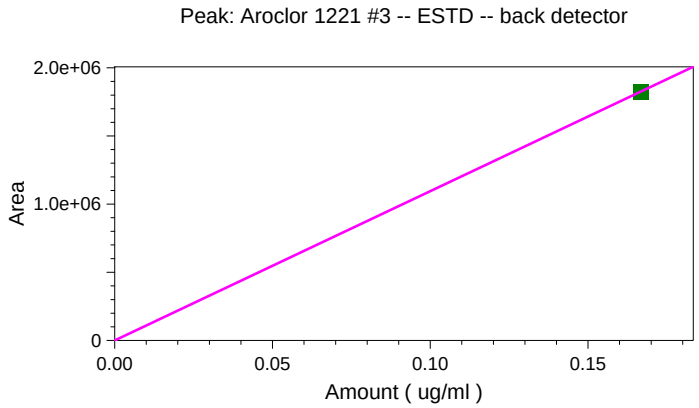
	Level 1
Amount	0.166667
Area	2374367
RF	14246202.00 00006
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	2374367
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:42:12
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1221 #3 (back detector)
Average RF: 1.09498e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.09498e+007



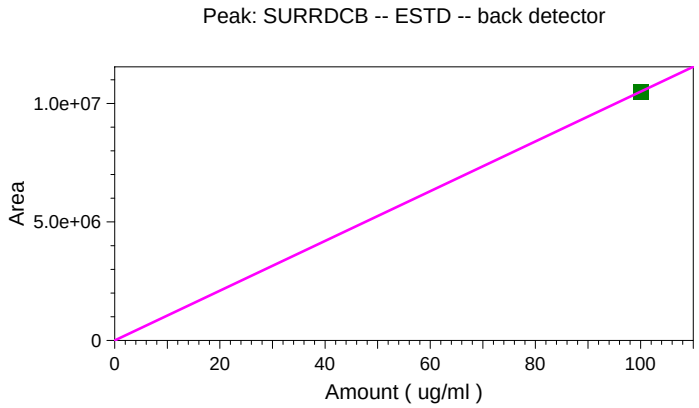
	Level 1
Amount	0.166667
Area	1824964
RF	10949784.00 00004
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	1824964
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
Print Time: 10/30/2020 11:42:13
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (back detector)
Average RF: 104983.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 104983.



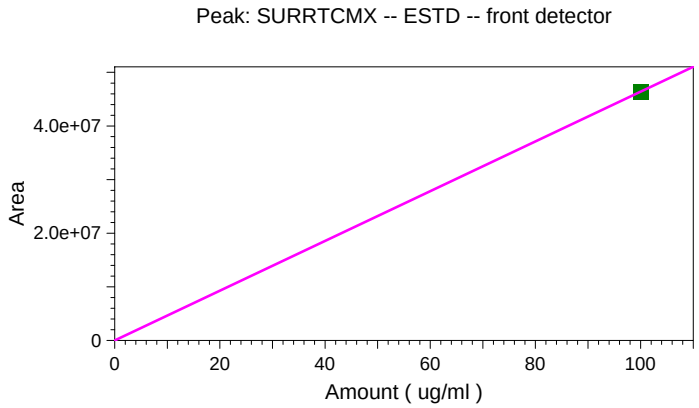
	Level 1
Amount	100
Area	10498285
RF	104982.85
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10498285
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\003.dat
Rep 1 Sample ID	1221 CF PP6268
Rep 1 Calib. Time	10/29/2020 15:35:25

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:05
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (front detector)
Average RF: 464018.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 464018.



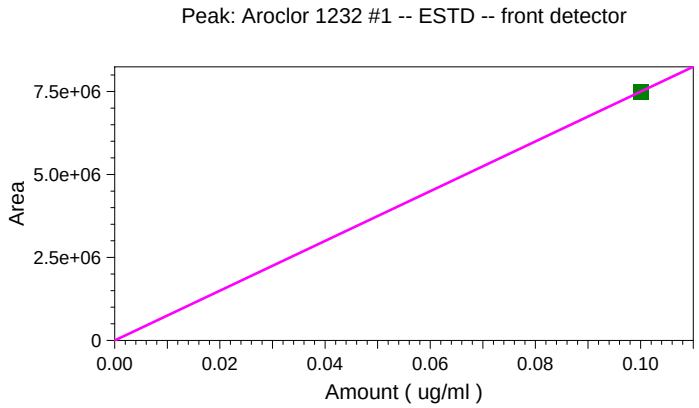
	Level 1
Amount	100
Area	46401752
RF	464017.52
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46401752
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:08
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #1 (front detector)
Average RF: 7.49607e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.49607e+007



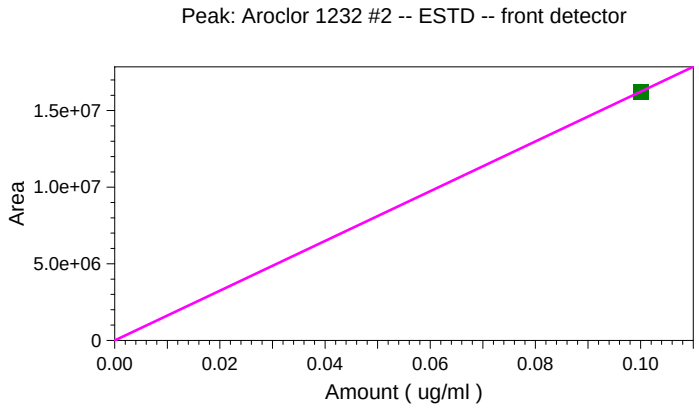
	Level 1
Amount	0.1
Area	7496065
RF	74960650
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	7496065
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:09
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #2 (front detector)
Average RF: 1.62338e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.62338e+008



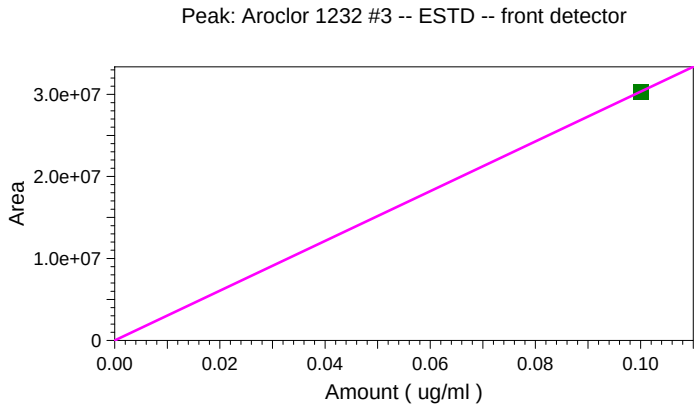
	Level 1
Amount	0.1
Area	16233845
RF	162338450
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	16233845
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:11
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #3 (front detector)
Average RF: 3.03377e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.03377e+008



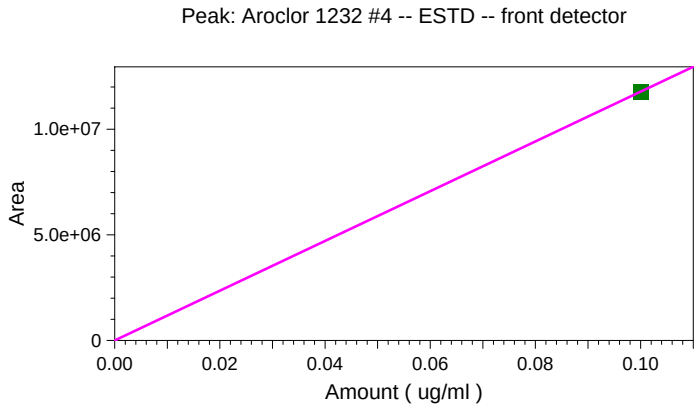
	Level 1
Amount	0.1
Area	30337679
RF	303376790
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30337679
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:13
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #4 (front detector)
Average RF: 1.17781e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.17781e+008



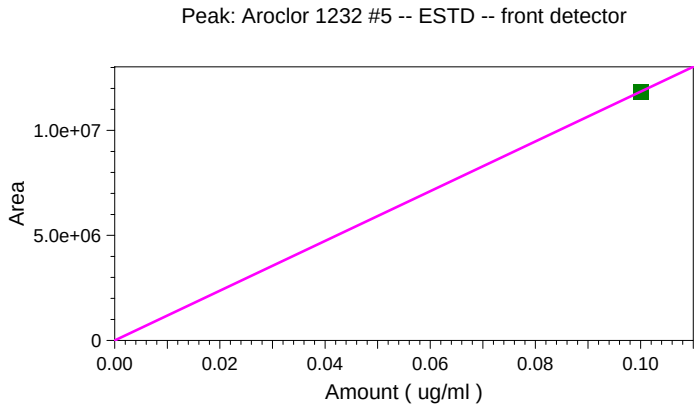
	Level 1
Amount	0.1
Area	11778110
RF	117781100
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11778110
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:14
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #5 (front detector)
Average RF: 1.18458e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.18458e+008



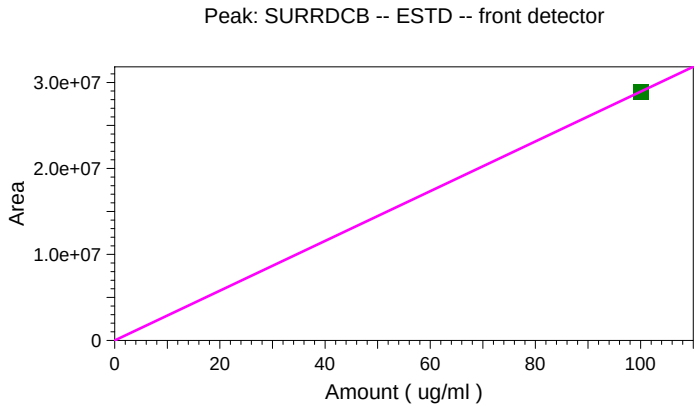
	Level 1
Amount	0.1
Area	11845811
RF	118458110
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11845811
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:16
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (front detector)
Average RF: 289271.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 289271.



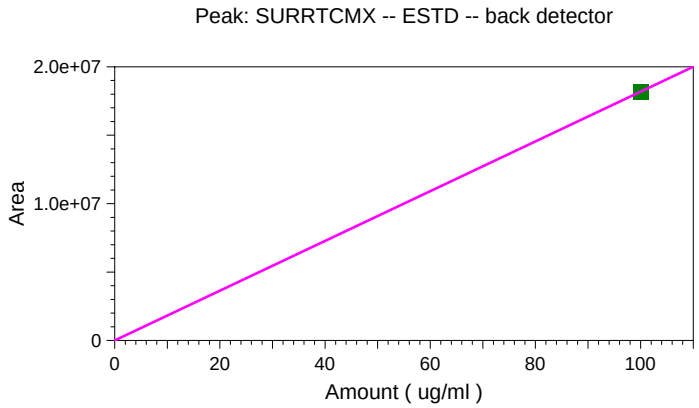
	Level 1
Amount	100
Area	28927076
RF	289270.76
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28927076
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:23
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (back detector)
Average RF: 181860.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 181860.



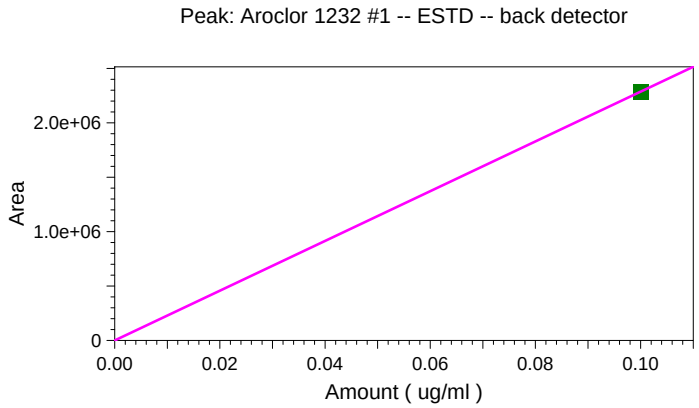
	Level 1
Amount	100
Area	18185999
RF	181859.99
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18185999
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:24
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #1 (back detector)
Average RF: 2.28662e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.28662e+007



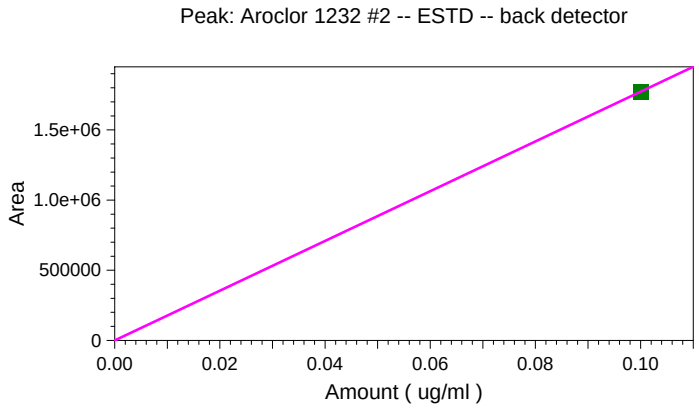
	Level 1
Amount	0.1
Area	2286618
RF	22866180
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	2286618
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:26
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #2 (back detector)
Average RF: 1.77271e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.77271e+007



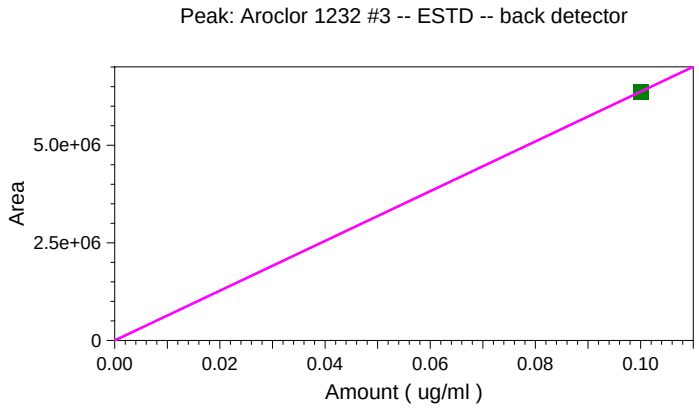
	Level 1
Amount	0.1
Area	1772710
RF	17727100
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	1772710
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:28
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #3 (back detector)
Average RF: 6.37047e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.37047e+007



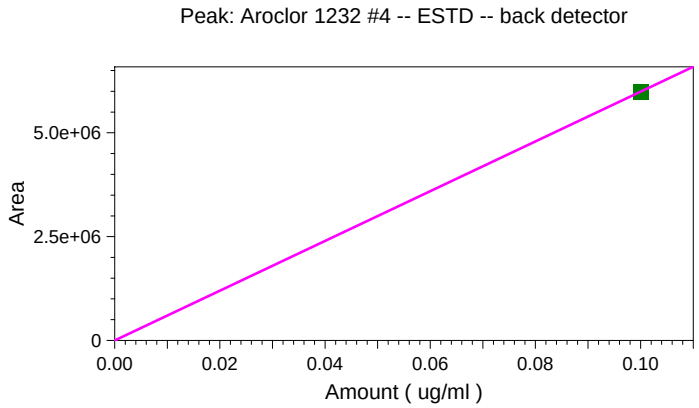
	Level 1
Amount	0.1
Area	6370467
RF	63704670
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6370467
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:29
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #4 (back detector)
Average RF: 5.99167e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.99167e+007



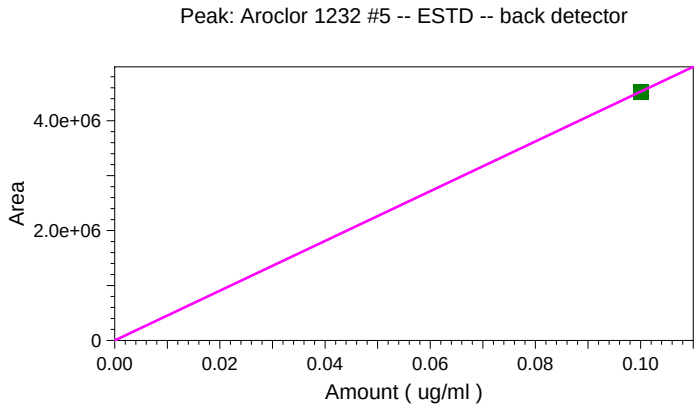
	Level 1
Amount	0.1
Area	5991670
RF	59916700
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5991670
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:31
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1232 #5 (back detector)
Average RF: 4.52919e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.52919e+007



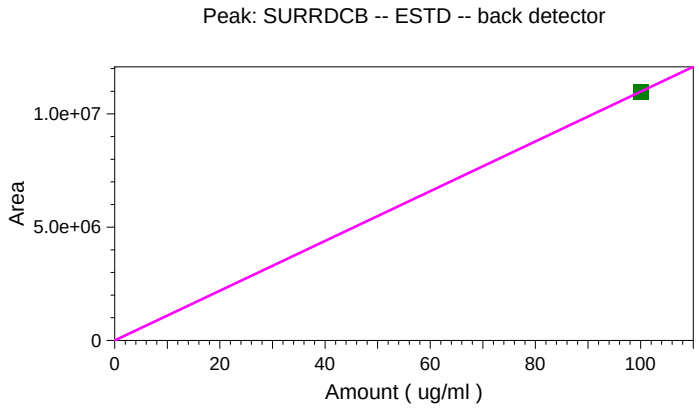
	Level 1
Amount	0.1
Area	4529192
RF	45291920
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4529192
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
Print Time: 10/30/2020 11:43:32
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (back detector)
Average RF: 109842.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 109842.



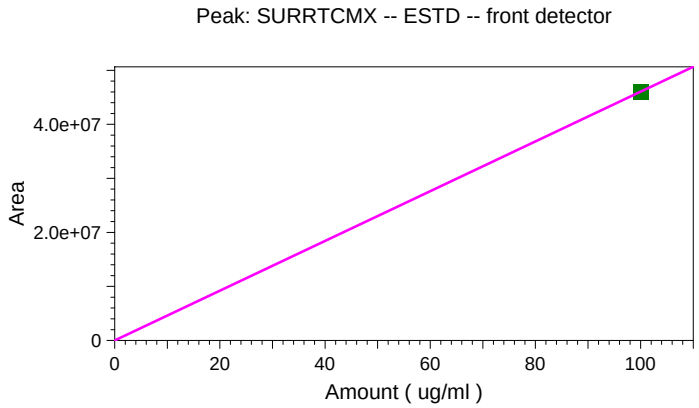
	Level 1
Amount	100
Area	10984159
RF	109841.59
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10984159
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\004.dat
Rep 1 Sample ID	1232 CF PP6269
Rep 1 Calib. Time	10/29/2020 16:07:02

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:11
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (front detector)
Average RF: 460476.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 460476.



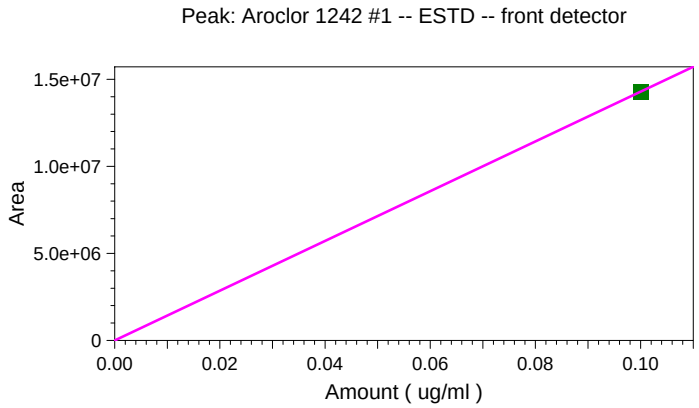
	Level 1
Amount	100
Area	46047593
RF	460475.93
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46047593
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:13
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #1 (front detector)
Average RF: 1.42913e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.42913e+008



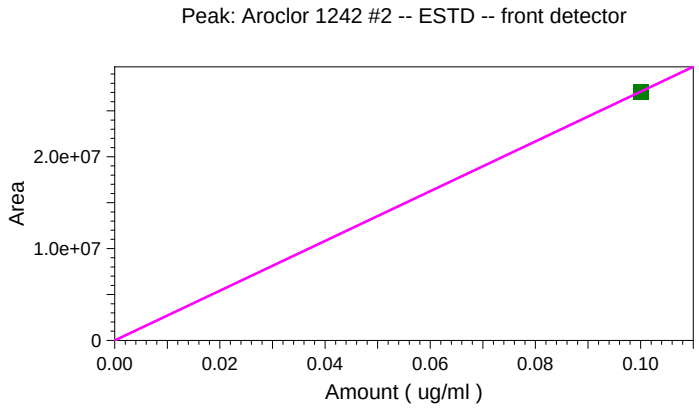
	Level 1
Amount	0.1
Area	14291300
RF	142913000
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14291300
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:15
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #2 (front detector)
Average RF: 2.70858e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.70858e+008



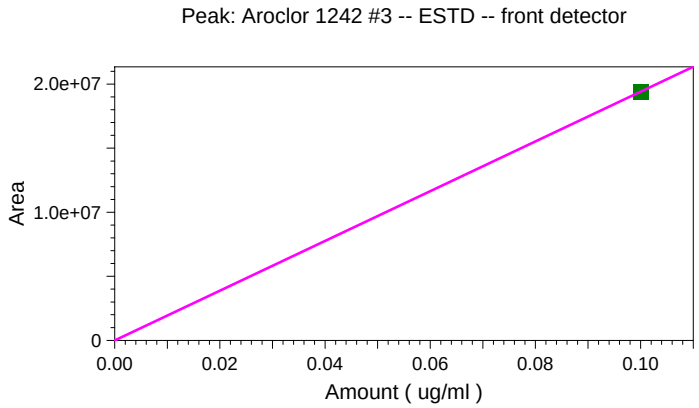
	Level 1
Amount	0.1
Area	27085800
RF	270858000
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	27085800
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:16
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #3 (front detector)
Average RF: 1.94091e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.94091e+008



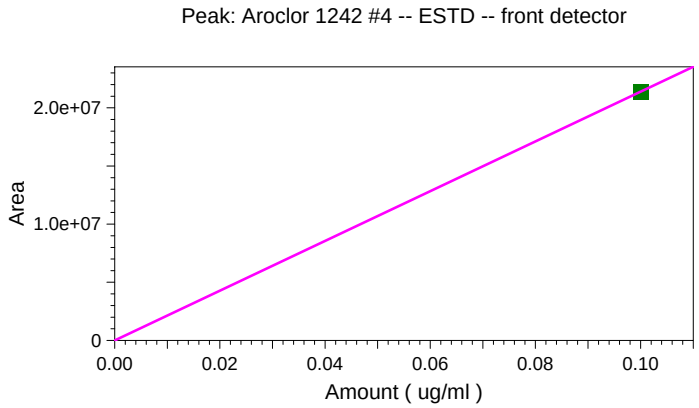
	Level 1
Amount	0.1
Area	19409112
RF	194091120
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19409112
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:18
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #4 (front detector)
Average RF: 2.13917e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.13917e+008



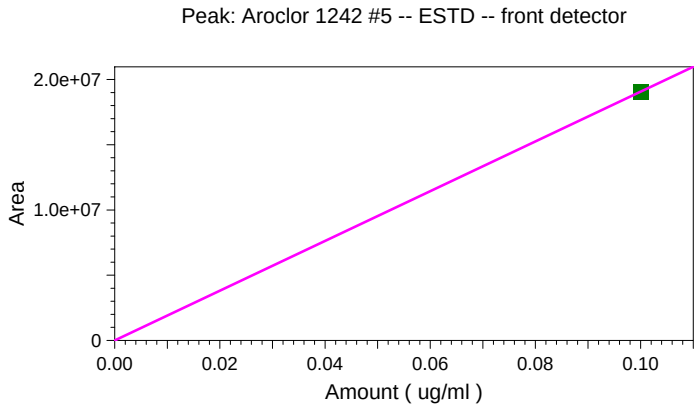
	Level 1
Amount	0.1
Area	21391661
RF	213916610
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21391661
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:19
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #5 (front detector)
Average RF: 1.90676e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.90676e+008



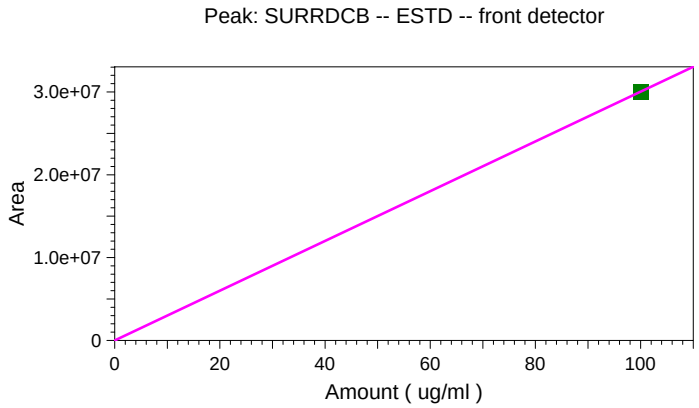
	Level 1
Amount	0.1
Area	19067587
RF	190675870
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19067587
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:21
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (front detector)
Average RF: 300343.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 300343.



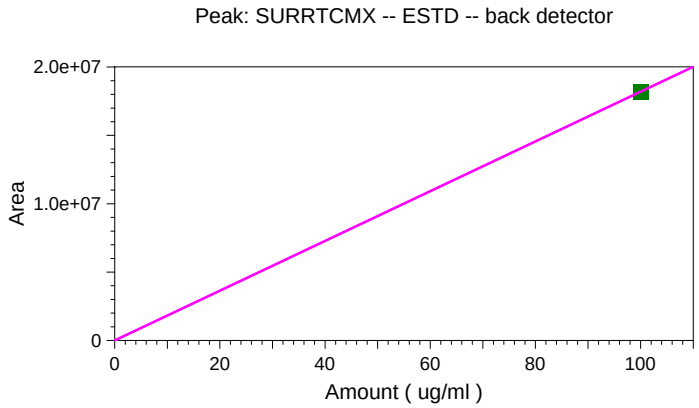
	Level 1
Amount	100
Area	30034338
RF	300343.38
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30034338
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:30
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (back detector)
Average RF: 182014.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 182014.



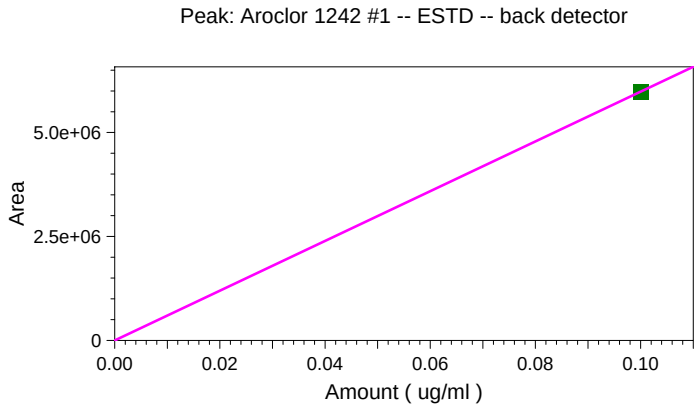
	Level 1
Amount	100
Area	18201425
RF	182014.25
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18201425
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:32
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #1 (back detector)
Average RF: 5.98237e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.98237e+007



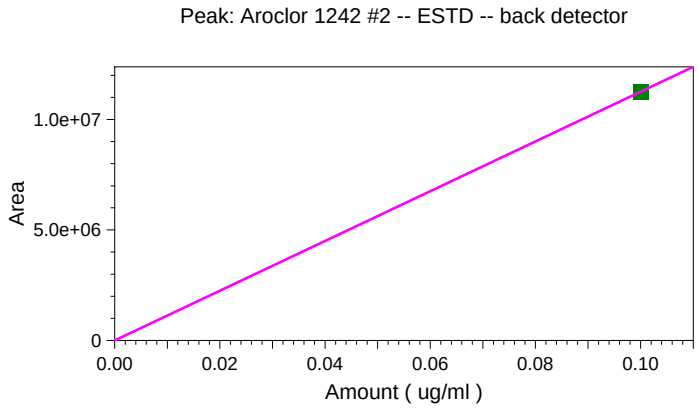
	Level 1
Amount	0.1
Area	5982369
RF	59823690
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5982369
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:34
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #2 (back detector)
Average RF: 1.12605e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.12605e+008



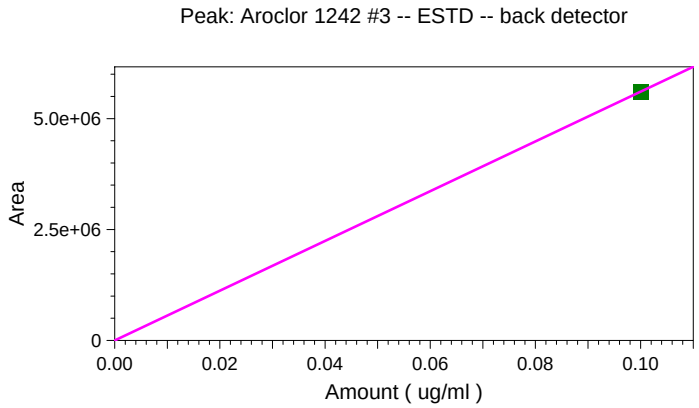
	Level 1
Amount	0.1
Area	11260488
RF	112604880
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11260488
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:35
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #3 (back detector)
Average RF: 5.60718e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.60718e+007



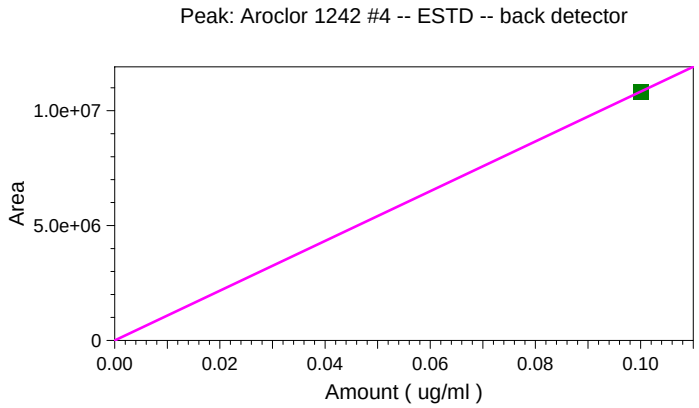
	Level 1
Amount	0.1
Area	5607183
RF	56071830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5607183
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:37
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #4 (back detector)
Average RF: 1.08308e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.08308e+008



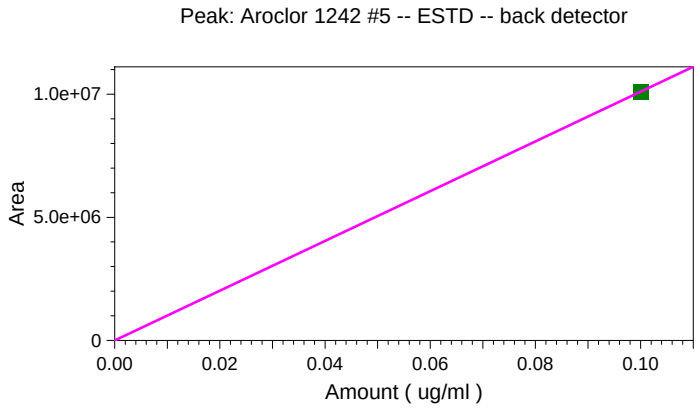
	Level 1
Amount	0.1
Area	10830803
RF	108308030
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10830803
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:38
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1242 #5 (back detector)
Average RF: 1.01020e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.01020e+008



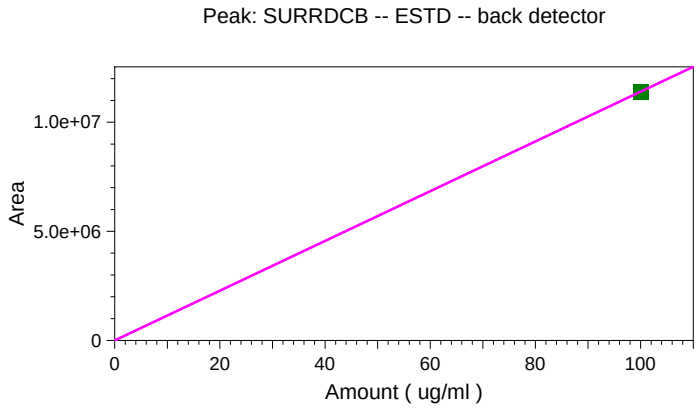
	Level 1
Amount	0.1
Area	10102041
RF	101020410
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10102041
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
Print Time: 10/30/2020 11:44:40
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (back detector)
Average RF: 114022.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 114022.



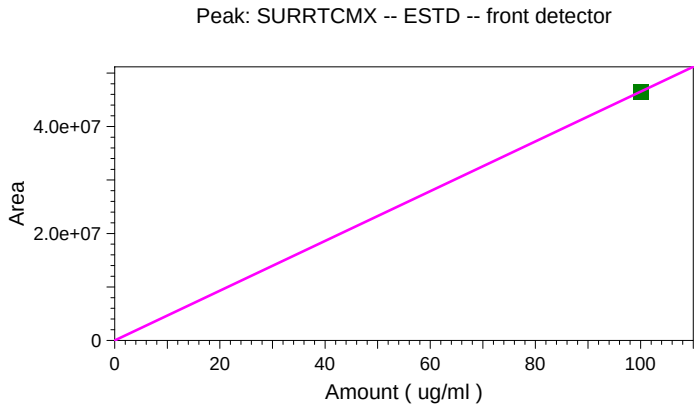
	Level 1
Amount	100
Area	11402192
RF	114021.92
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11402192
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\005.dat
Rep 1 Sample ID	1242 CF PP6270
Rep 1 Calib. Time	10/29/2020 16:09:14

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:19
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (front detector)
Average RF: 465216.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 465216.



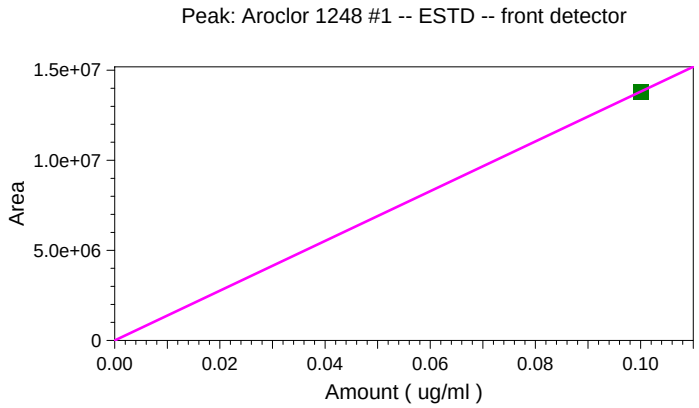
	Level 1
Amount	100
Area	46521636
RF	465216.36
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46521636
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:21
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #1 (front detector)
Average RF: 1.38114e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.38114e+008



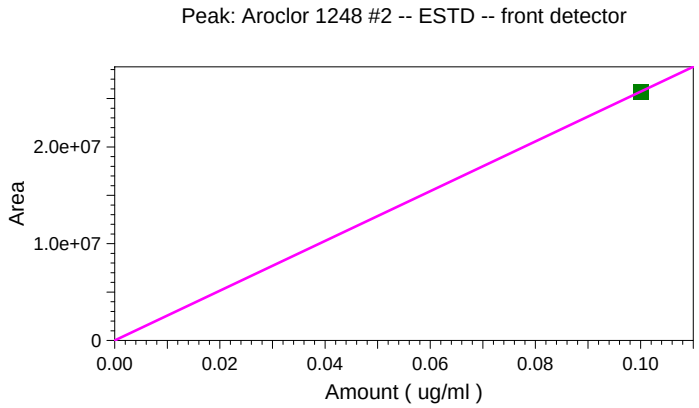
	Level 1
Amount	0.1
Area	13811423
RF	138114230
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13811423
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:22
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #2 (front detector)
Average RF: 2.57108e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.57108e+008



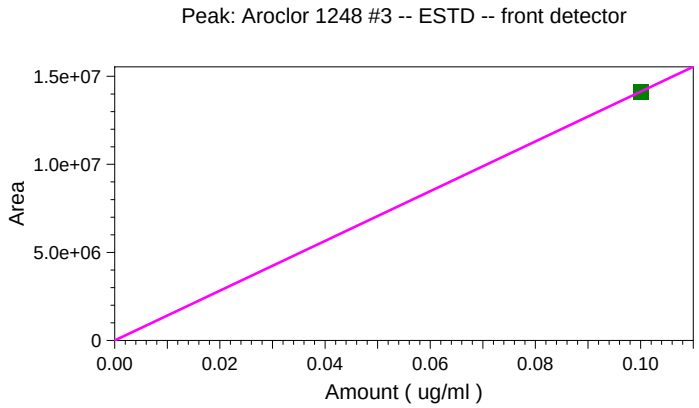
	Level 1
Amount	0.1
Area	25710754
RF	257107540
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25710754
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:24
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #3 (front detector)
Average RF: 1.41301e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.41301e+008



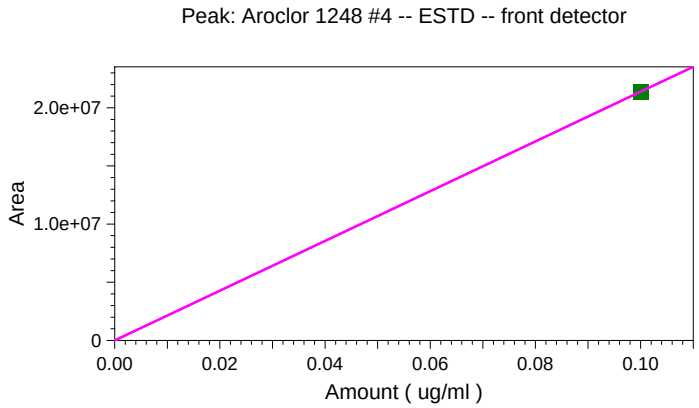
	Level 1
Amount	0.1
Area	14130117
RF	141301170
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14130117
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:25
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #4 (front detector)
Average RF: 2.13847e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.13847e+008



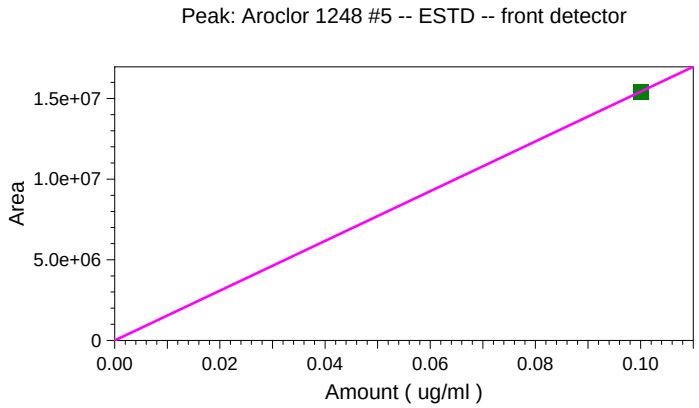
	Level 1
Amount	0.1
Area	21384707
RF	213847070
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21384707
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:27
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #5 (front detector)
Average RF: 1.54247e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.54247e+008



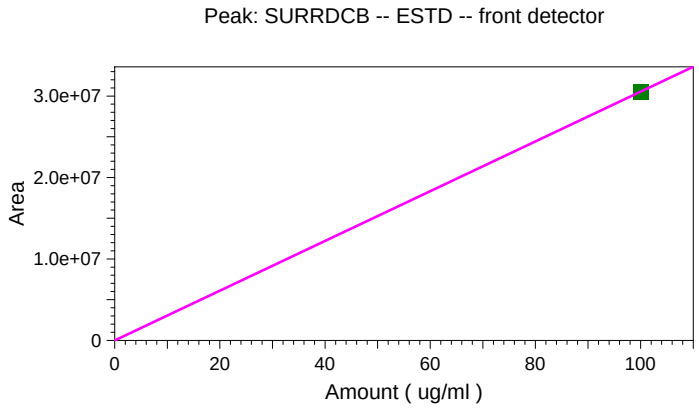
	Level 1
Amount	0.1
Area	15424737
RF	154247370
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	15424737
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:28
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (front detector)
Average RF: 305395.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 305395.



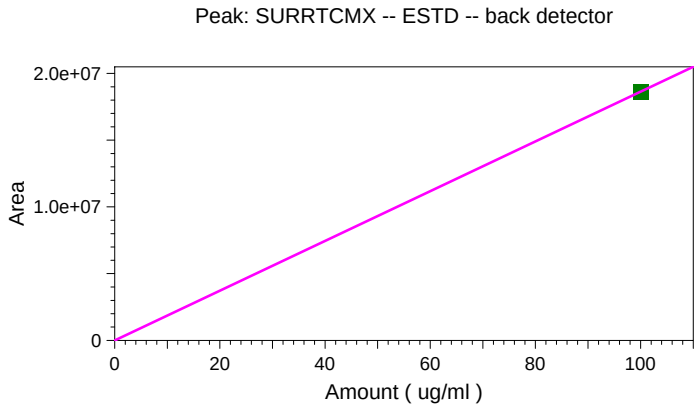
	Level 1
Amount	100
Area	30539513
RF	305395.13
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30539513
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:34
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (back detector)
Average RF: 186337.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 186337.



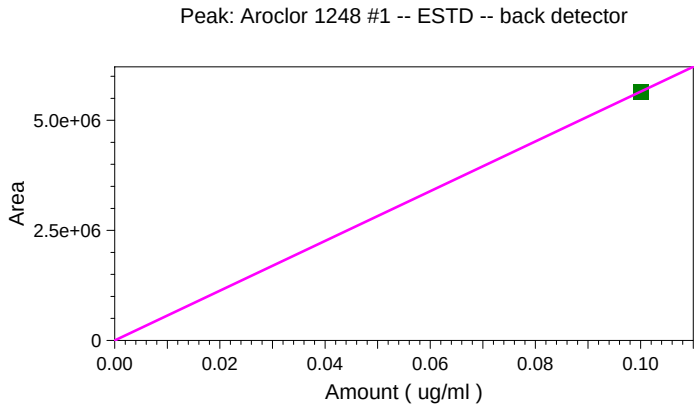
	Level 1
Amount	100
Area	18633695
RF	186336.95
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18633695
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:35
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #1 (back detector)
Average RF: 5.65160e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 5.65160e+007



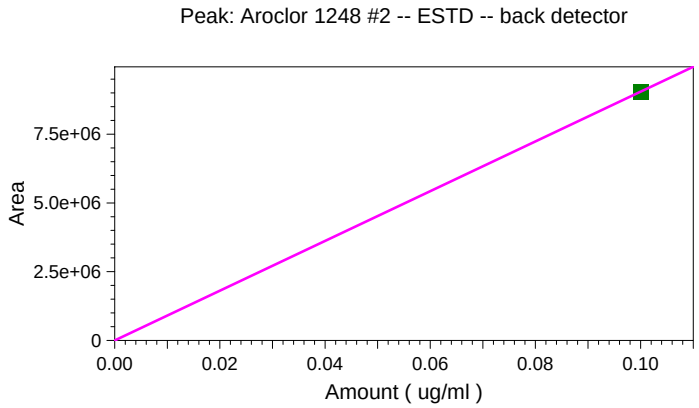
	Level 1
Amount	0.1
Area	5651597
RF	56515970
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	5651597
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:37
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #2 (back detector)
Average RF: 9.04669e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 9.04669e+007



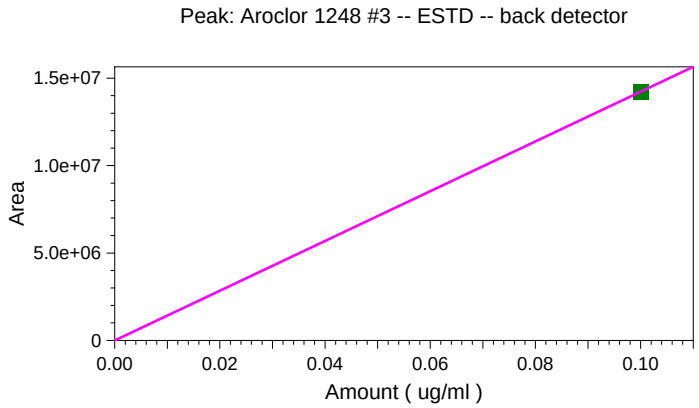
	Level 1
Amount	0.1
Area	9046694
RF	90466940
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	9046694
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:38
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #3 (back detector)
Average RF: 1.42311e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.42311e+008



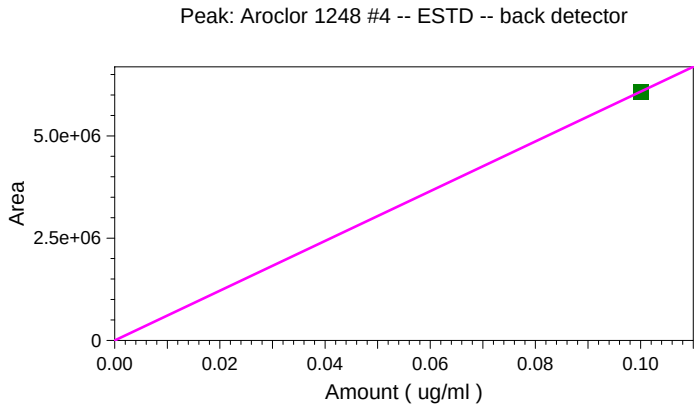
	Level 1
Amount	0.1
Area	14231069
RF	142310690
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14231069
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:40
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #4 (back detector)
Average RF: 6.08094e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.08094e+007



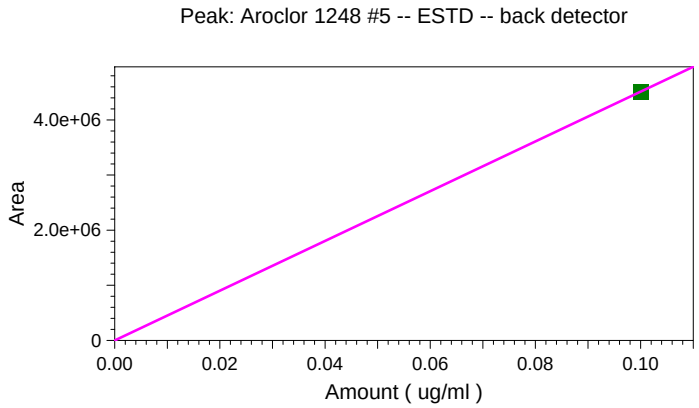
	Level 1
Amount	0.1
Area	6080936
RF	60809360
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6080936
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:41
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1248 #5 (back detector)
Average RF: 4.51201e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.51201e+007



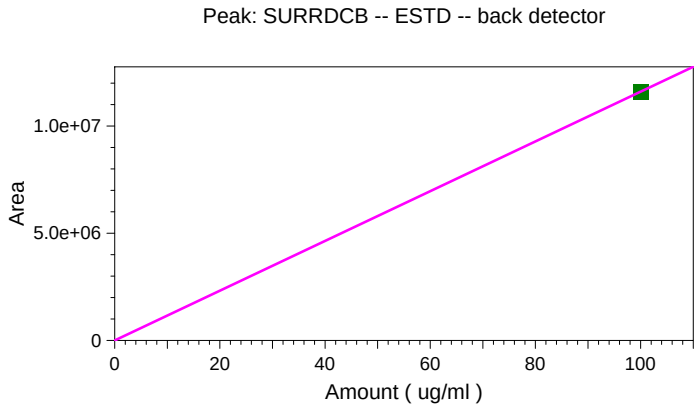
	Level 1
Amount	0.1
Area	4512013
RF	45120130
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	4512013
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
Print Time: 10/30/2020 11:45:43
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (back detector)
Average RF: 116039.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 116039.



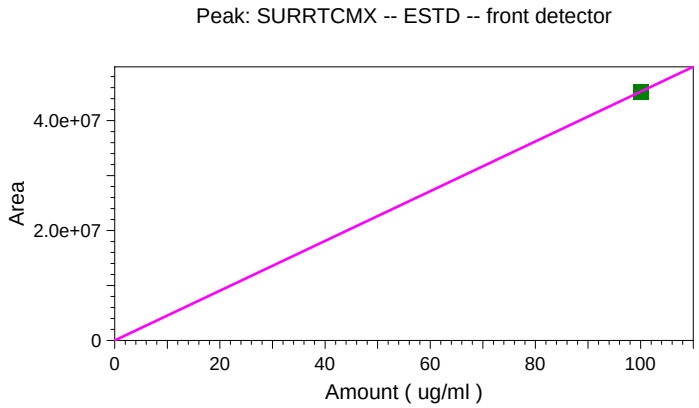
	Level 1
Amount	100
Area	11603872
RF	116038.72
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11603872
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\006.dat
Rep 1 Sample ID	1248 CF PP6271
Rep 1 Calib. Time	10/29/2020 16:49:22

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:31
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (front detector)
Average RF: 452710.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 452710.



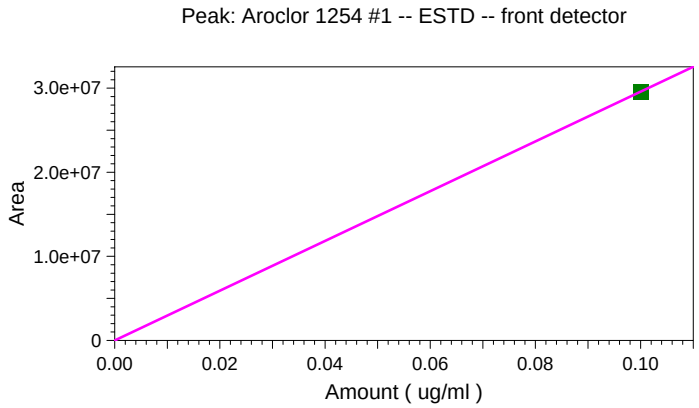
	Level 1
Amount	100
Area	45270973
RF	452709.73
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	45270973
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:33
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #1 (front detector)
Average RF: 2.95841e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.95841e+008



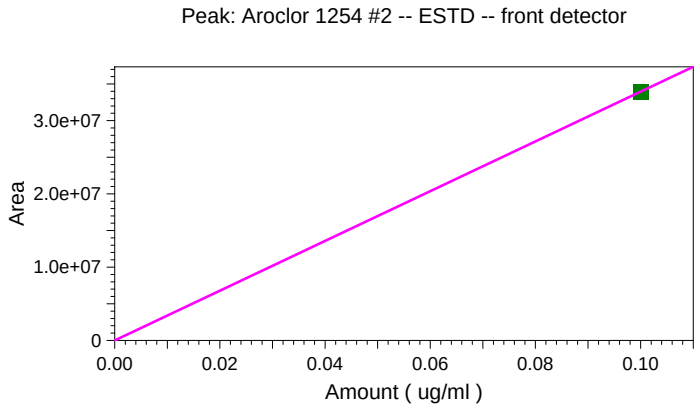
	Level 1
Amount	0.1
Area	29584104
RF	295841040
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29584104
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:34
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #2 (front detector)
Average RF: 3.39556e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.39556e+008



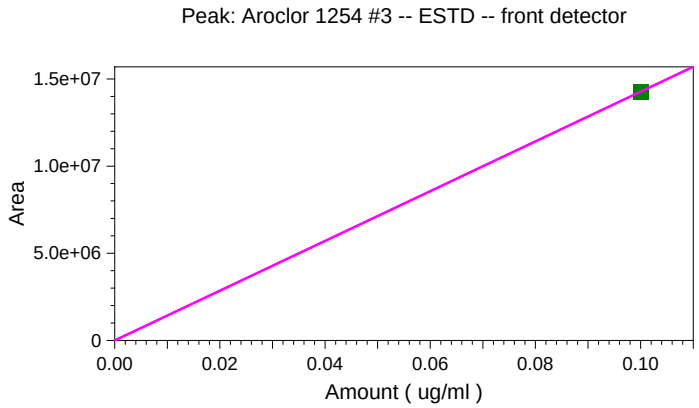
	Level 1
Amount	0.1
Area	33955639
RF	339556390
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	33955639
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:36
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #3 (front detector)
Average RF: 1.42736e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.42736e+008



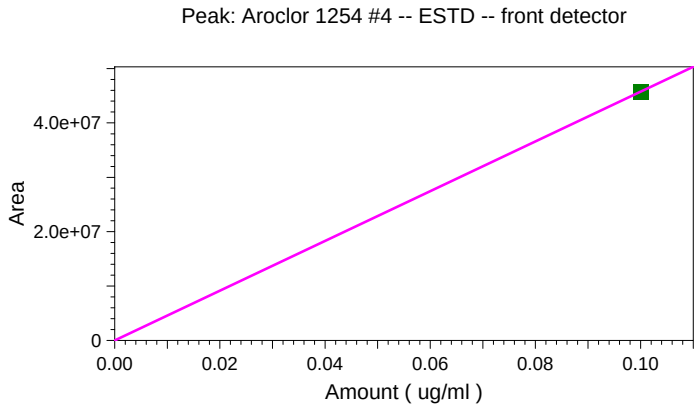
	Level 1
Amount	0.1
Area	14273554
RF	142735540
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	14273554
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:37
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #4 (front detector)
Average RF: 4.57498e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.57498e+008



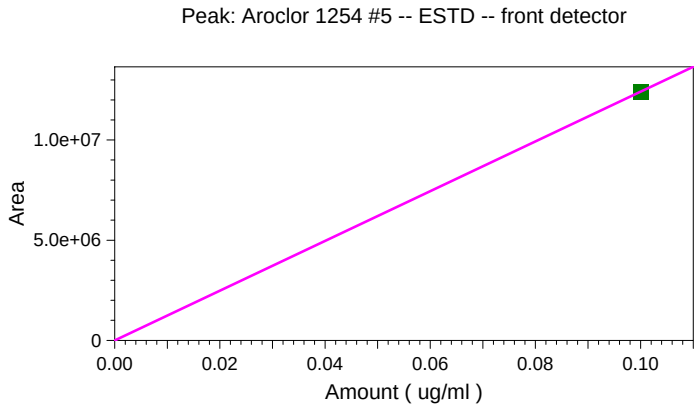
	Level 1
Amount	0.1
Area	45749785
RF	457497850
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	45749785
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:39
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #5 (front detector)
Average RF: 1.24126e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.24126e+008



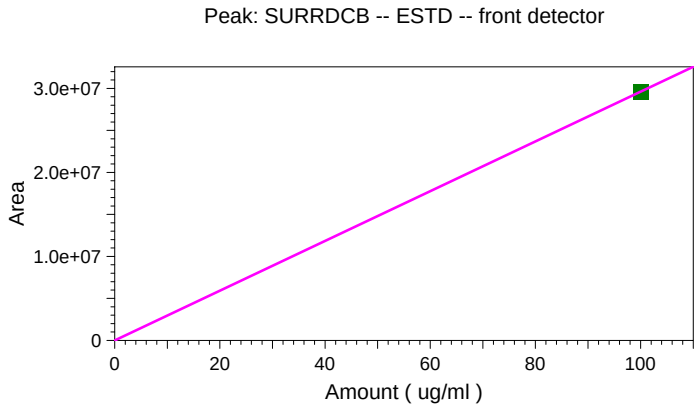
	Level 1
Amount	0.1
Area	12412608
RF	124126080
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12412608
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:40
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (front detector)
Average RF: 296108.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 296108.



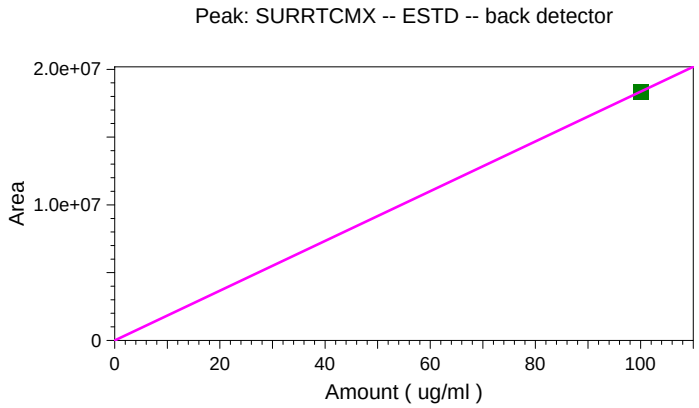
	Level 1
Amount	100
Area	29610790
RF	296107.9
Last Area	
Residual	1.42109e-014
Rep StDev	
Rep %RSD	
Rep 1 Area	29610790
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:46
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (back detector)
Average RF: 183525.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 183525.



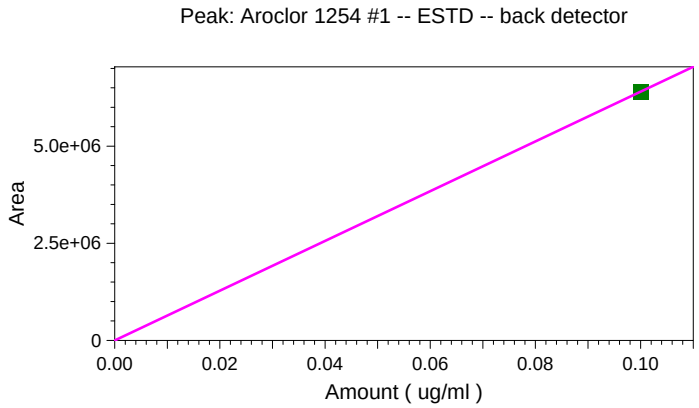
	Level 1
Amount	100
Area	18352521
RF	183525.21
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18352521
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:47
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #1 (back detector)
Average RF: 6.40175e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 6.40175e+007



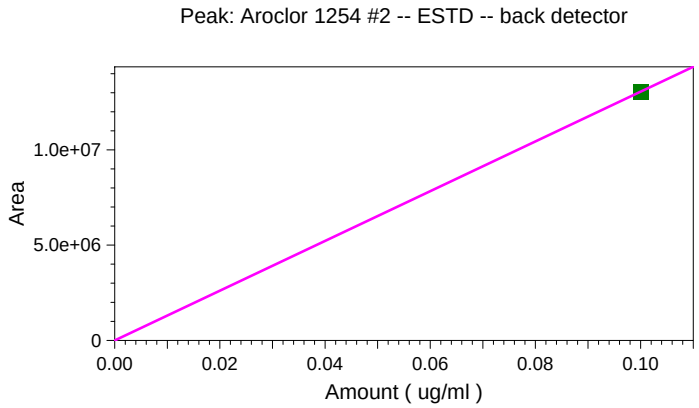
	Level 1
Amount	0.1
Area	6401752
RF	64017520
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	6401752
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:49
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #2 (back detector)
Average RF: 1.30579e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.30579e+008



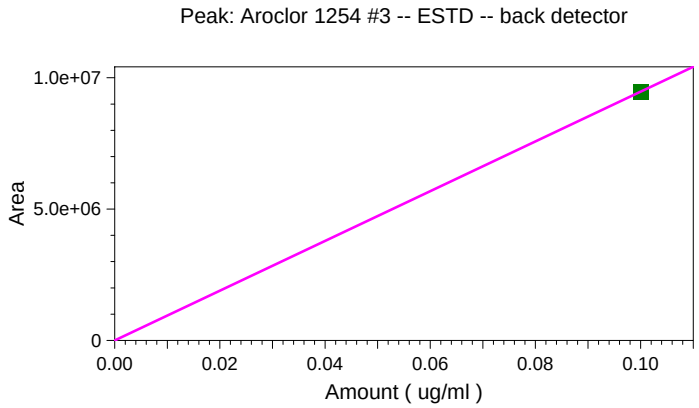
	Level 1
Amount	0.1
Area	13057924
RF	130579240
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13057924
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:51
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #3 (back detector)
Average RF: 9.47231e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 9.47231e+007



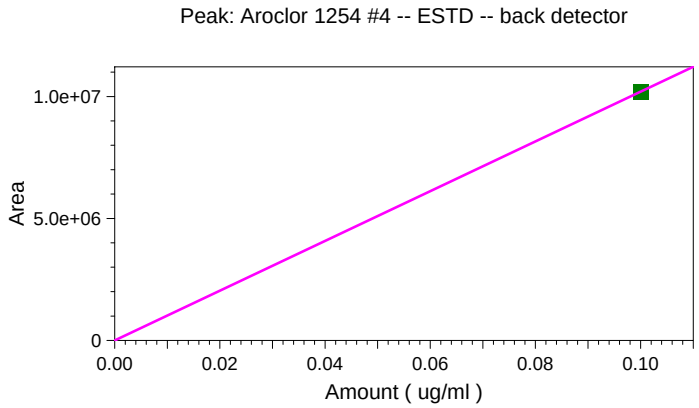
	Level 1
Amount	0.1
Area	9472307
RF	94723070
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	9472307
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:52
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #4 (back detector)
Average RF: 1.01986e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.01986e+008



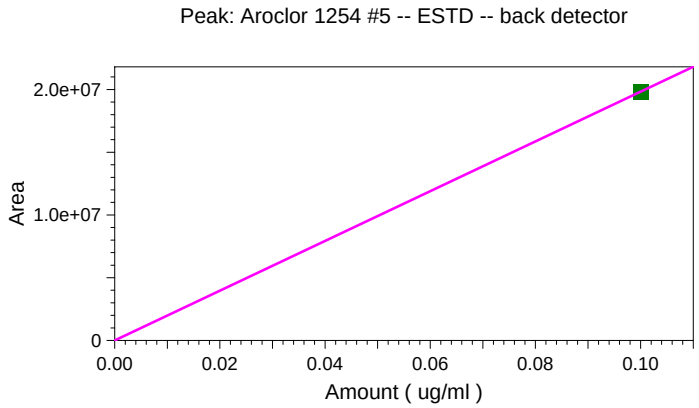
	Level 1
Amount	0.1
Area	10198604
RF	101986040
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	10198604
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:54
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1254 #5 (back detector)
Average RF: 1.98268e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.98268e+008



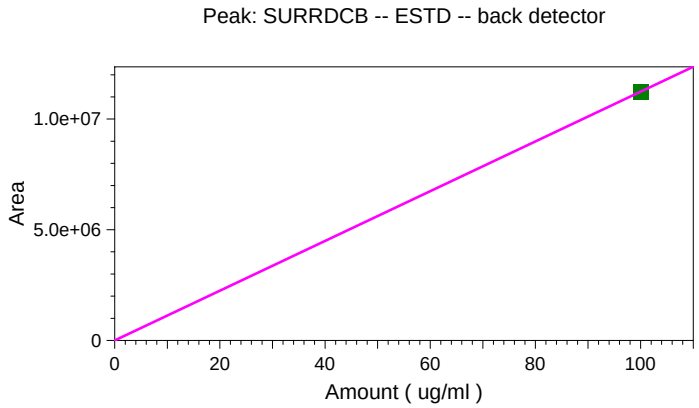
	Level 1
Amount	0.1
Area	19826773
RF	198267730
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	19826773
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
Print Time: 10/30/2020 11:46:55
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (back detector)
Average RF: 112382.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 112382.



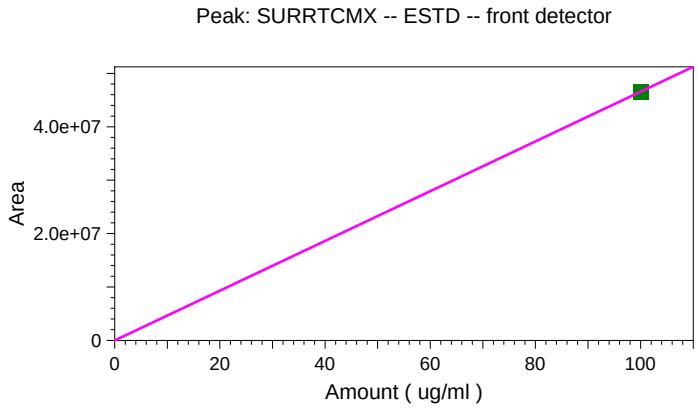
	Level 1
Amount	100
Area	11238174
RF	112381.74
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11238174
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\007.dat
Rep 1 Sample ID	1254 CF PP6272
Rep 1 Calib. Time	10/30/2020 09:50:08

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:42
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (front detector)
Average RF: 465664.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 465664.



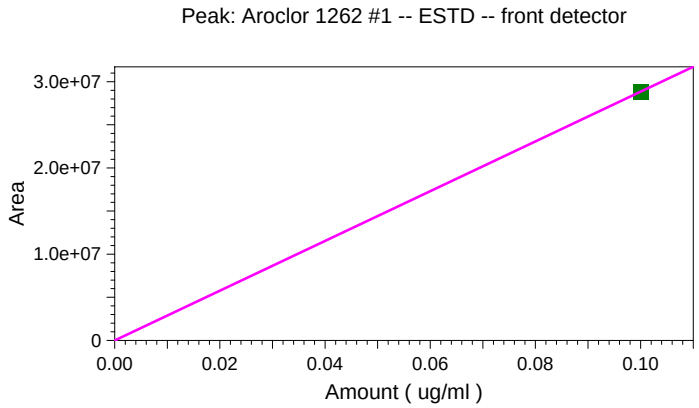
	Level 1
Amount	100
Area	46566360
RF	465663.6
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	46566360
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:44
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #1 (front detector)
Average RF: 2.88422e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.88422e+008



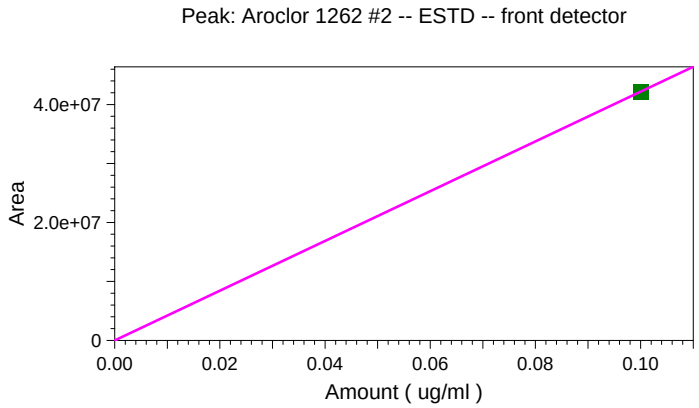
	Level 1
Amount	0.1
Area	28842183
RF	288421830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28842183
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:46
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #2 (front detector)
Average RF: 4.21863e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 4.21863e+008



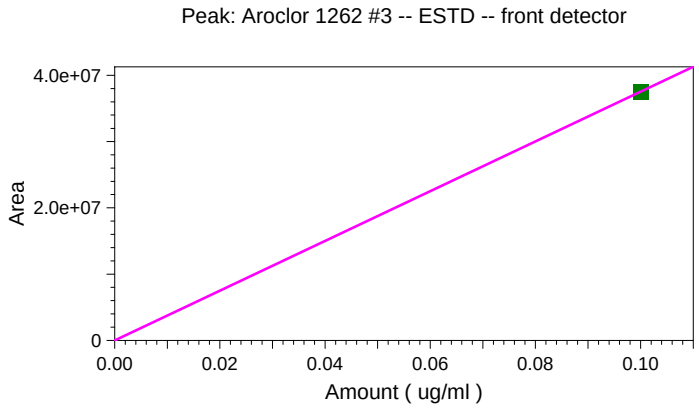
	Level 1
Amount	0.1
Area	42186309
RF	421863090
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	42186309
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:47
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #3 (front detector)
Average RF: 3.75303e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.75303e+008



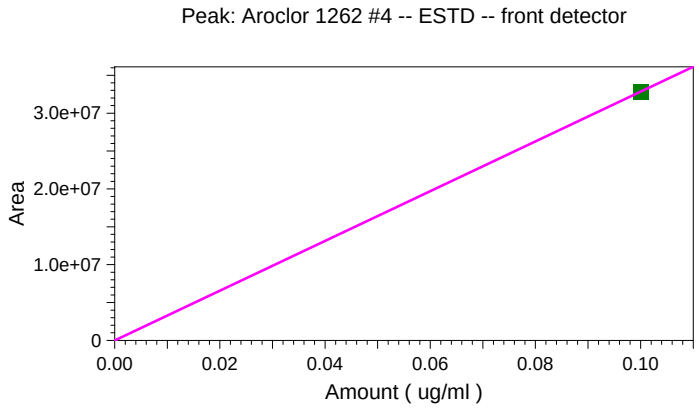
	Level 1
Amount	0.1
Area	37530308
RF	375303080
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	37530308
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:49
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #4 (front detector)
Average RF: 3.28377e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.28377e+008



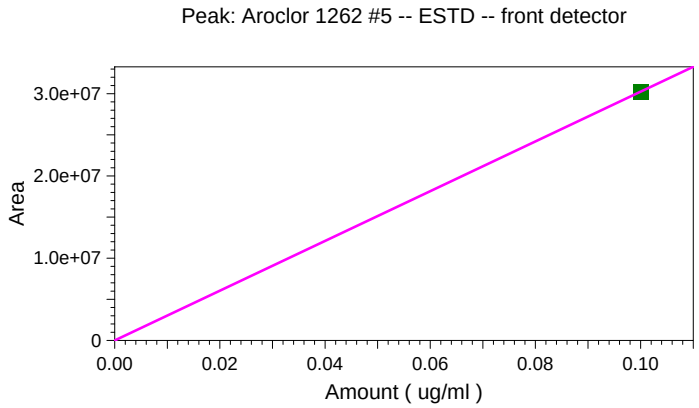
	Level 1
Amount	0.1
Area	32837724
RF	328377240
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	32837724
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:50
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #5 (front detector)
Average RF: 3.02466e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.02466e+008



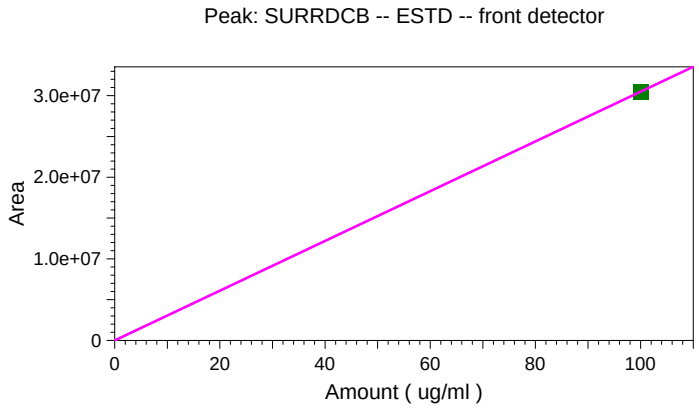
	Level 1
Amount	0.1
Area	30246649
RF	302466490
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30246649
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:52
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (front detector)
Average RF: 304973.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 304973.



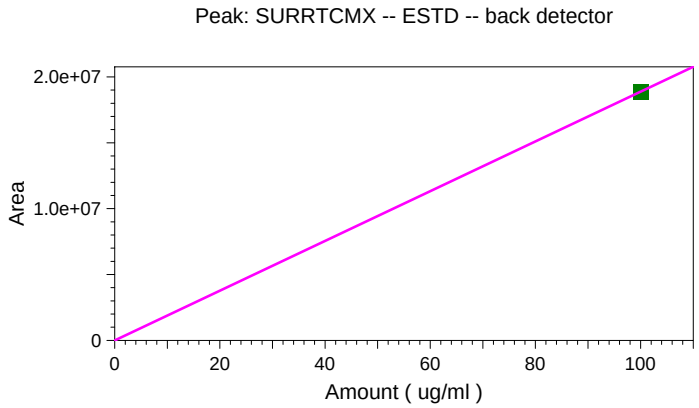
	Level 1
Amount	100
Area	30497326
RF	304973.26
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	30497326
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:57
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (back detector)
Average RF: 188778.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 188778.



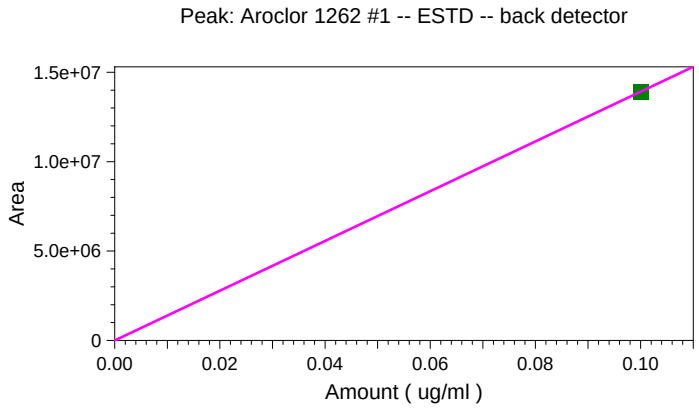
	Level 1
Amount	100
Area	18877783
RF	188777.83
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18877783
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:47:59
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #1 (back detector)
Average RF: 1.39152e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.39152e+008



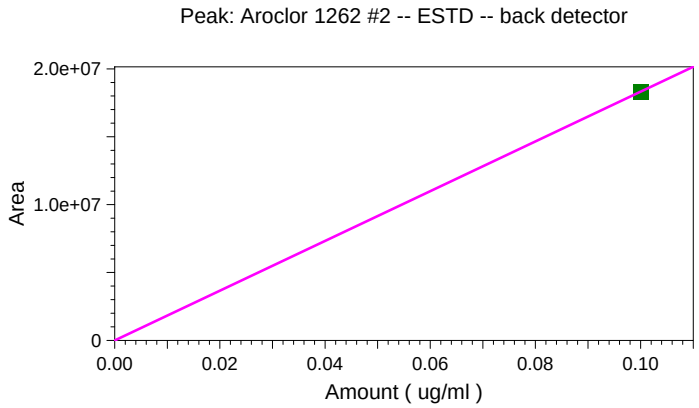
	Level 1
Amount	0.1
Area	13915231
RF	139152310
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	13915231
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:48:00
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #2 (back detector)
Average RF: 1.83204e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.83204e+008



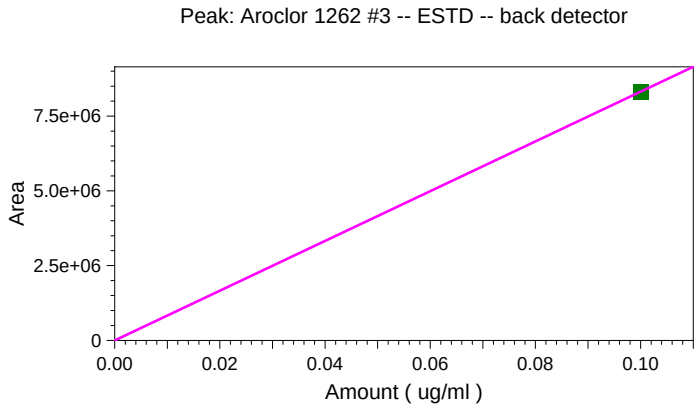
	Level 1
Amount	0.1
Area	18320386
RF	183203860
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18320386
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:48:02
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #3 (back detector)
Average RF: 8.31714e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.31714e+007



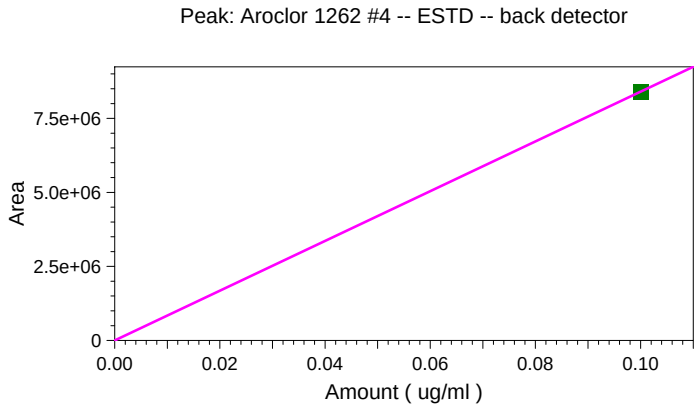
	Level 1
Amount	0.1
Area	8317135
RF	83171350
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8317135
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:48:04
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #4 (back detector)
Average RF: 8.40182e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.40182e+007



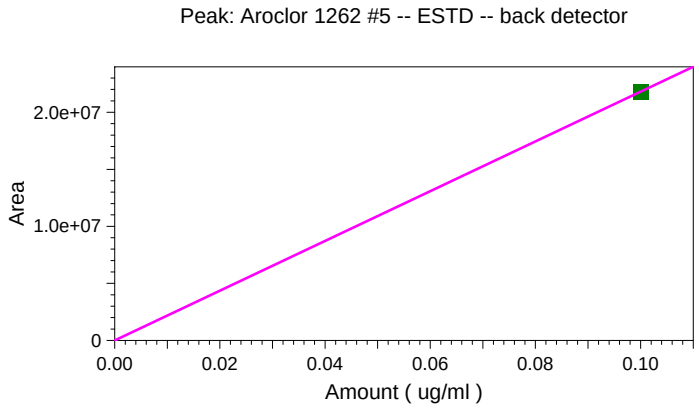
	Level 1
Amount	0.1
Area	8401821
RF	84018210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	8401821
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:48:05
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1262 #5 (back detector)
Average RF: 2.18062e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.18062e+008



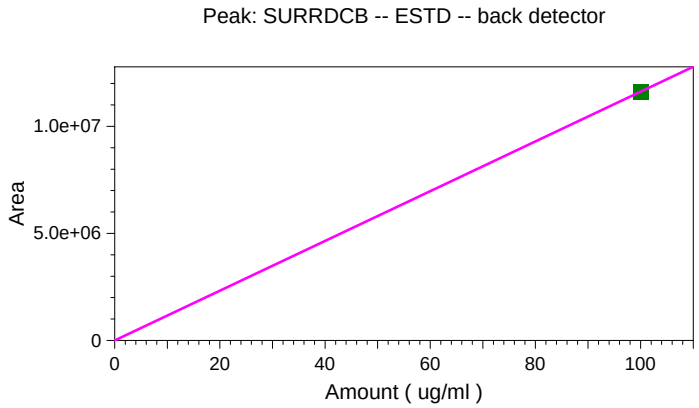
	Level 1
Amount	0.1
Area	21806192
RF	218061920
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	21806192
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
Print Time: 10/30/2020 11:48:07
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (back detector)
Average RF: 116201.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 116201.



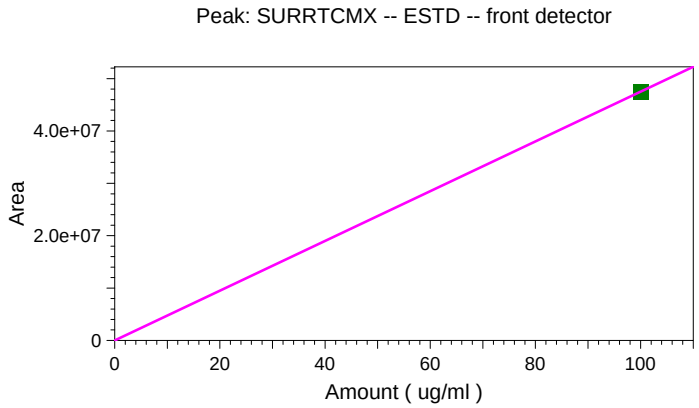
	Level 1
Amount	100
Area	11620101
RF	116201.01
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	11620101
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\008.dat
Rep 1 Sample ID	1262 CF PP6273
Rep 1 Calib. Time	10/29/2020 17:12:42

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:48:50
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (front detector)
Average RF: 475103.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 475103.



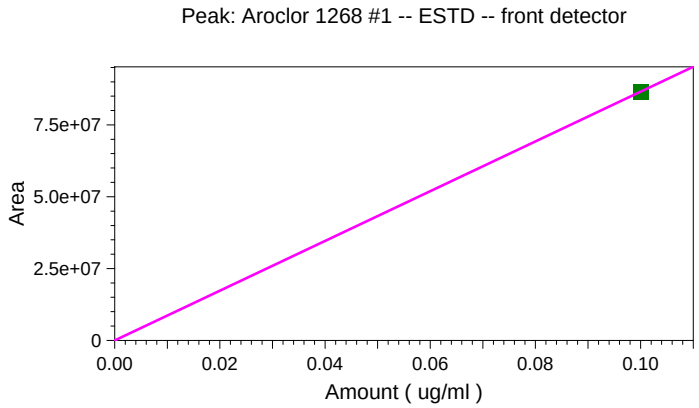
	Level 1
Amount	100
Area	47510283
RF	475102.83
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	47510283
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:48:51
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #1 (front detector)
Average RF: 8.65632e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 8.65632e+008



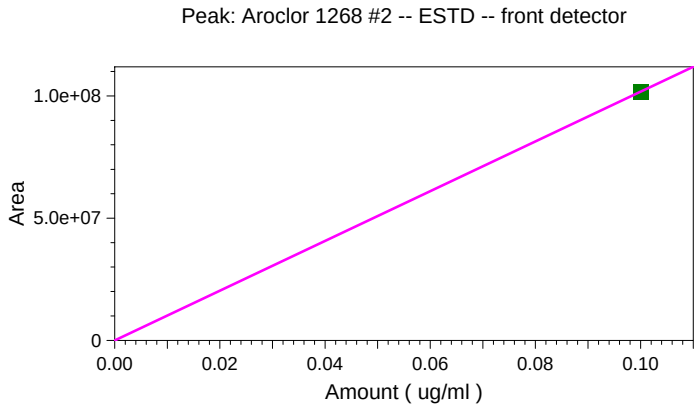
	Level 1
Amount	0.1
Area	86563175
RF	865631750
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	86563175
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:48:53
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #2 (front detector)
Average RF: 1.01764e+009
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.01764e+009



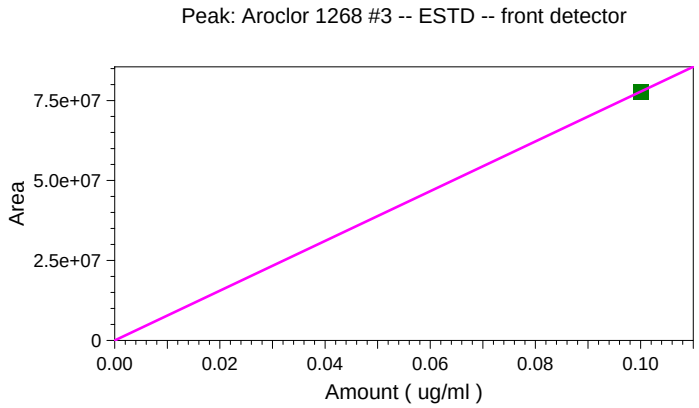
	Level 1
Amount	0.1
Area	101763639
RF	1017636390
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	101763639
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:48:54
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #3 (front detector)
Average RF: 7.77722e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 7.77722e+008



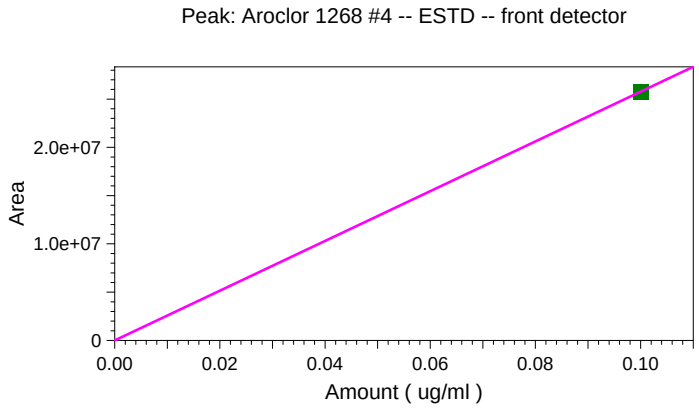
	Level 1
Amount	0.1
Area	77772237
RF	777722370
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	77772237
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:48:56
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #4 (front detector)
Average RF: 2.57703e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.57703e+008



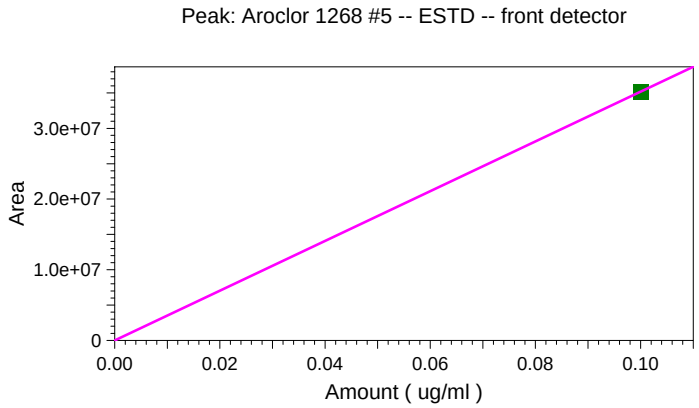
	Level 1
Amount	0.1
Area	25770334
RF	257703340
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	25770334
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:48:57
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #5 (front detector)
Average RF: 3.51904e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.51904e+008



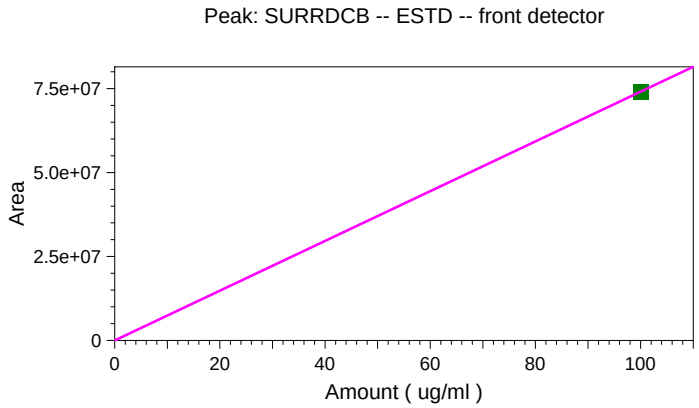
	Level 1
Amount	0.1
Area	35190383
RF	351903830
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	35190383
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:48:58
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (front detector)
Average RF: 740910.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 740910.



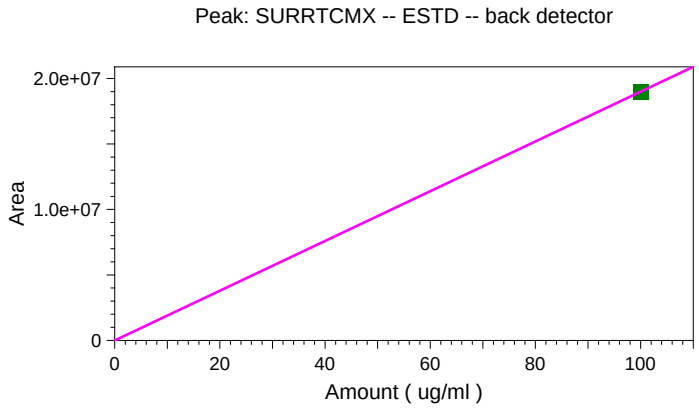
	Level 1
Amount	100
Area	74090963
RF	740909.63
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	74090963
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:49:03
User: JJY
Instrument: Semi 7 (Offline)

SURRTCMX (back detector)
Average RF: 189949.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 189949.



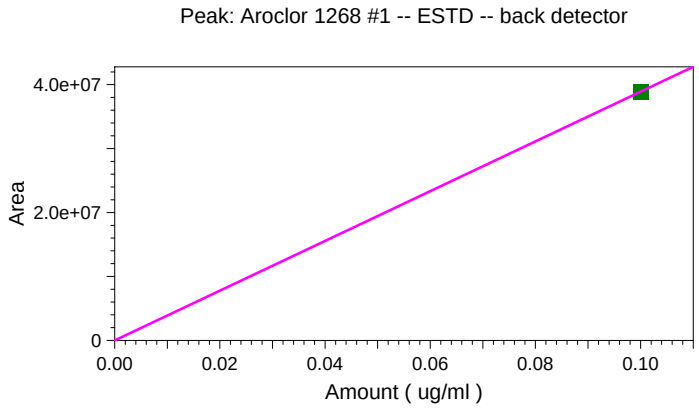
	Level 1
Amount	100
Area	18994859
RF	189948.59
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	18994859
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:49:05
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #1 (back detector)
Average RF: 3.89047e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.89047e+008



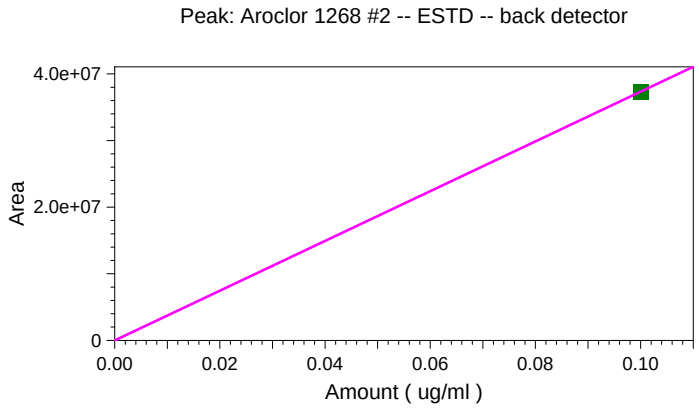
	Level 1
Amount	0.1
Area	38904653
RF	389046530
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	38904653
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:49:06
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #2 (back detector)
Average RF: 3.73320e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 3.73320e+008



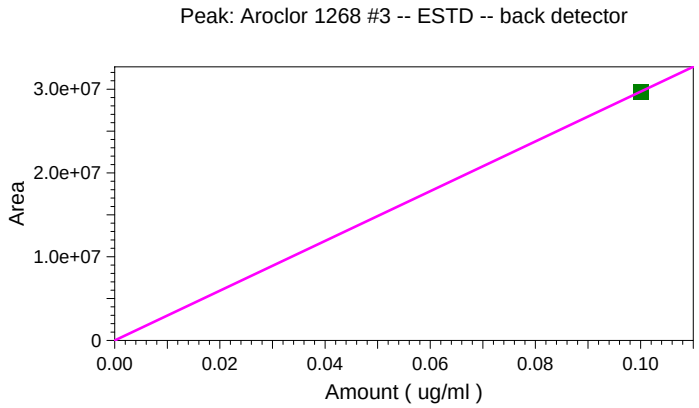
	Level 1
Amount	0.1
Area	37332009
RF	373320090
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	37332009
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:49:07
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #3 (back detector)
Average RF: 2.97038e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 2.97038e+008



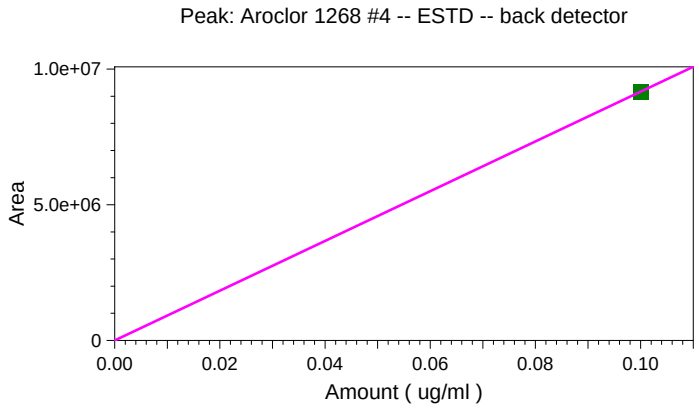
	Level 1
Amount	0.1
Area	29703821
RF	297038210
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	29703821
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:49:09
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #4 (back detector)
Average RF: 9.16820e+007
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 9.16820e+007



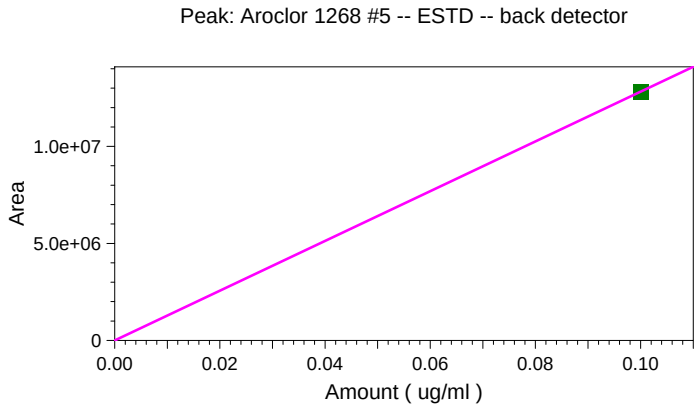
	Level 1
Amount	0.1
Area	9168196
RF	91681960
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	9168196
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:49:10
User: JJY
Instrument: Semi 7 (Offline)

Aroclor 1268 #5 (back detector)
Average RF: 1.28203e+008
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 1.28203e+008



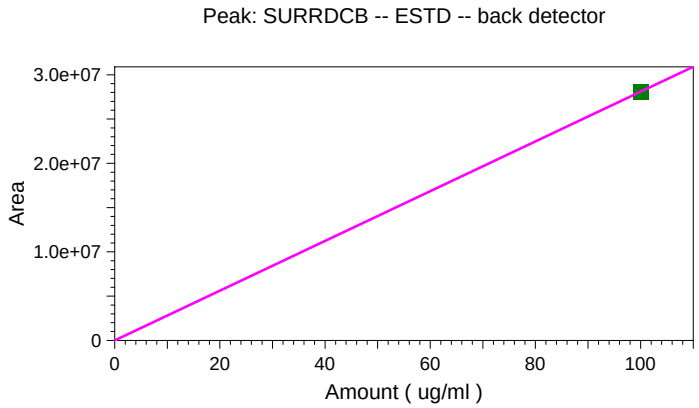
	Level 1
Amount	0.1
Area	12820266
RF	128202660
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	12820266
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

Calibration Report

Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
Print Time: 10/30/2020 11:49:12
User: JJY
Instrument: Semi 7 (Offline)

SURRDCB (back detector)
Average RF: 280920.
Scaling: None LSQ Weighting: None Force Through Zero: Off
Replicate Mode: Replace
Fit Type: Average RF

Average Slope: 280920.

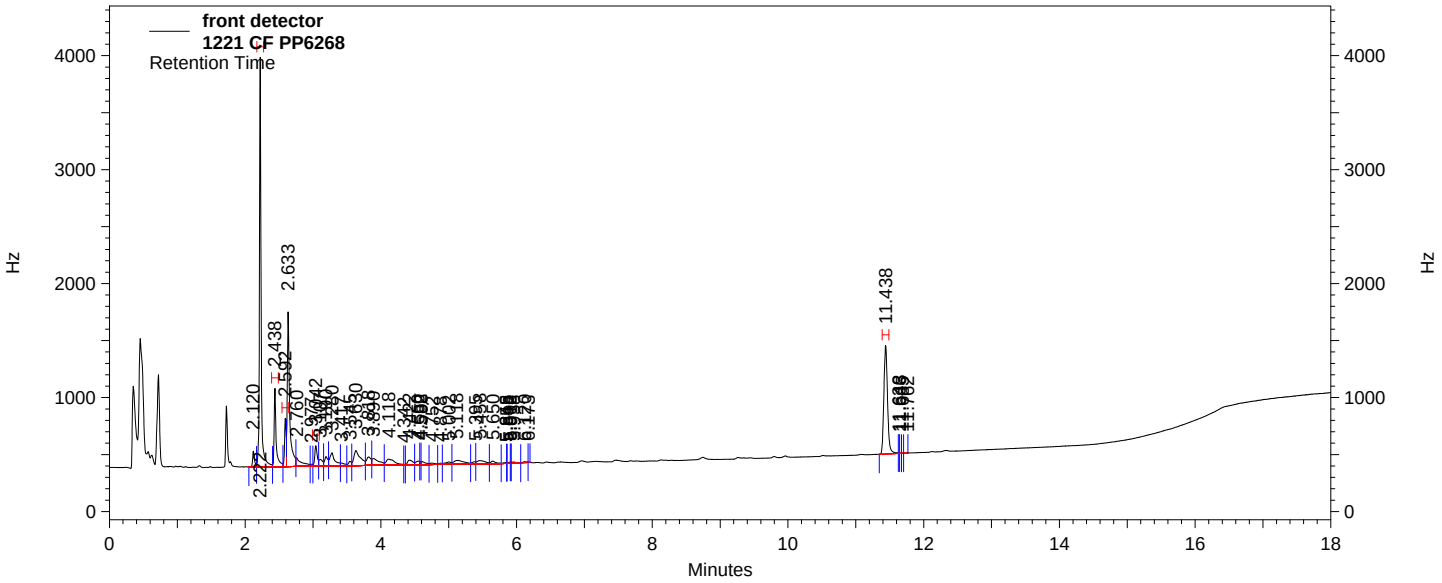


	Level 1
Amount	100
Area	28092017
RF	280920.17
Last Area	
Residual	0
Rep StDev	
Rep %RSD	
Rep 1 Area	28092017
Rep 1 User	JJY
Rep 1 Data File	C:\Instarch\Semi7\Data\102920pcbic\009.dat
Rep 1 Sample ID	1268 CF PP6274
Rep 1 Calib. Time	10/29/2020 17:37:40

PCB Analysis Report (1221) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
User: JJY
Sample ID: 1221 CF PP6268
Acquired: 10/29/2020 15:06:34
Printed: 10/30/2020 11:52:40

Data Summary: {Data Description}



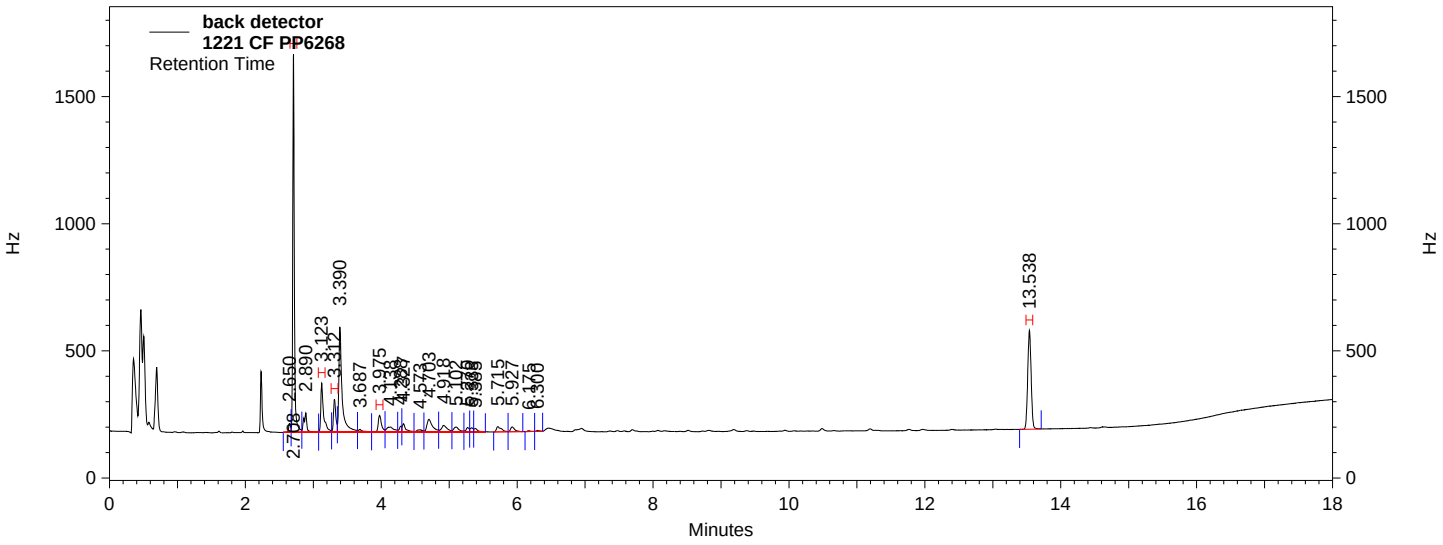
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.222	47004683	100.000 CAL
Aroclor 1221 #1	2.438	10764353	0.167 CAL
Aroclor 1221 #2	2.592	5187384	0.167 CAL
Aroclor 1221 #3	3.042	3421757	0.167 CAL
SURRDCB	11.438	27545420	100.000 CAL
Aroclor 1221		19373494	0.500 CAL

PCB Analysis Report (1221) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
User: JJY
Sample ID: 1221 CF PP6268
Acquired: 10/29/2020 15:06:34
Printed: 10/30/2020 11:52:40

Data Summary: {Data Description}



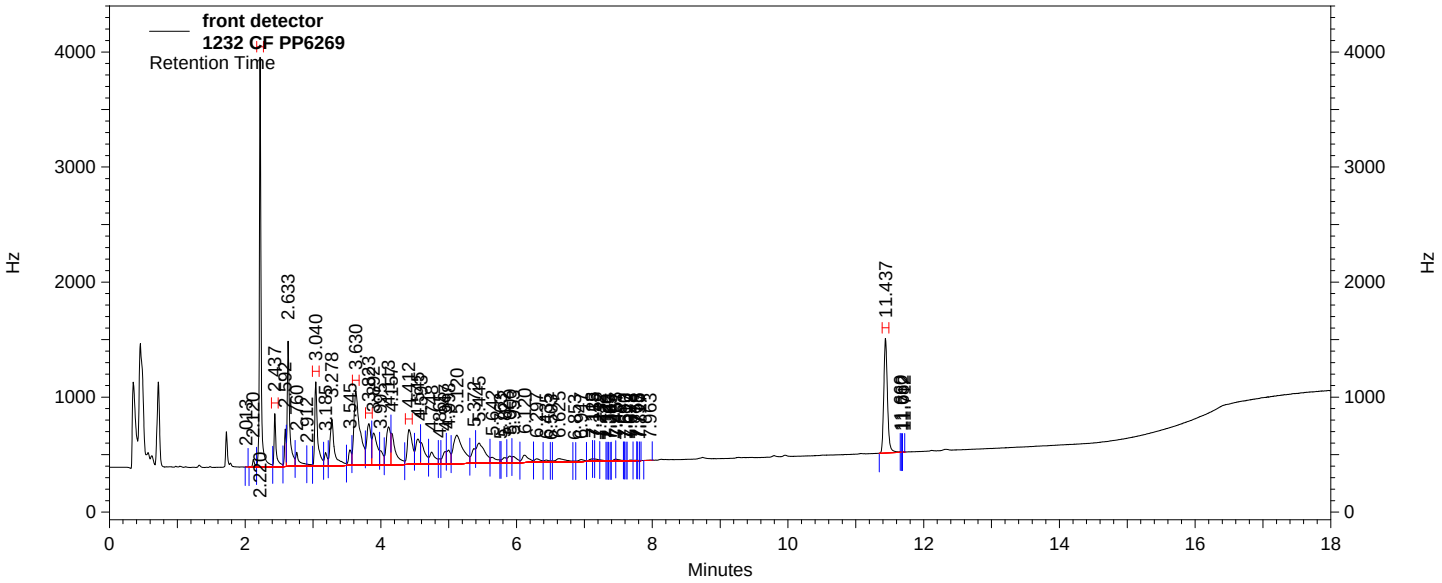
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.708	18362350	100.000 CAL
Aroclor 1221 #1	3.123	4300189	0.167 CAL
Aroclor 1221 #2	3.312	2374367	0.167 CAL
Aroclor 1221 #3	3.975	1824964	0.167 CAL
SURRDCB	13.538	10498285	100.000 CAL
Aroclor 1221		8499520	0.500 CAL

PCB Analysis Report (1232) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
User: JJY
Sample ID: 1232 CF PP6269
Acquired: 10/29/2020 15:27:47
Printed: 10/30/2020 11:52:43

Data Summary: {Data Description}



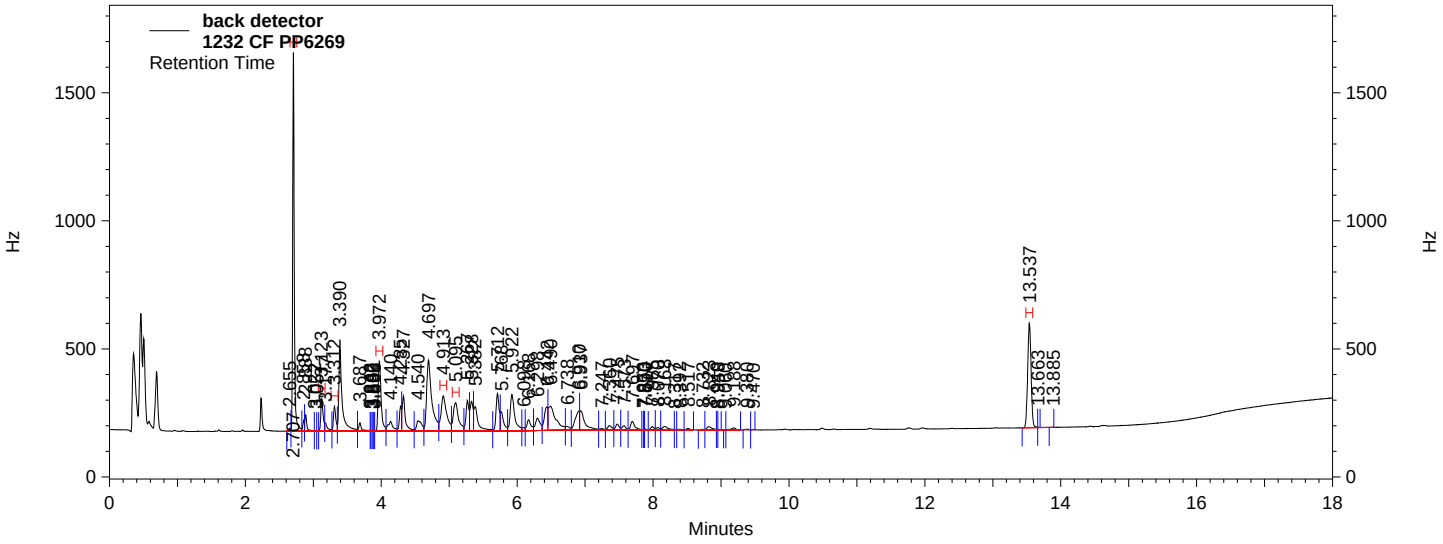
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	46401752	100.000 CAL
Aroclor 1232 #1	2.437	7496065	0.100 CAL
Aroclor 1232 #2	3.040	16233845	0.100 CAL
Aroclor 1232 #3	3.630	30337679	0.100 CAL
Aroclor 1232 #4	3.823	11778110	0.100 CAL
Aroclor 1232 #5	4.412	11845811	0.100 CAL
SURRDCB	11.437	28927076	100.000 CAL
Aroclor 1232		77691510	0.500 CAL

PCB Analysis Report (1232) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\004.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
User: JJY
Sample ID: 1232 CF PP6269
Acquired: 10/29/2020 15:27:47
Printed: 10/30/2020 11:52:43

Data Summary: {Data Description}



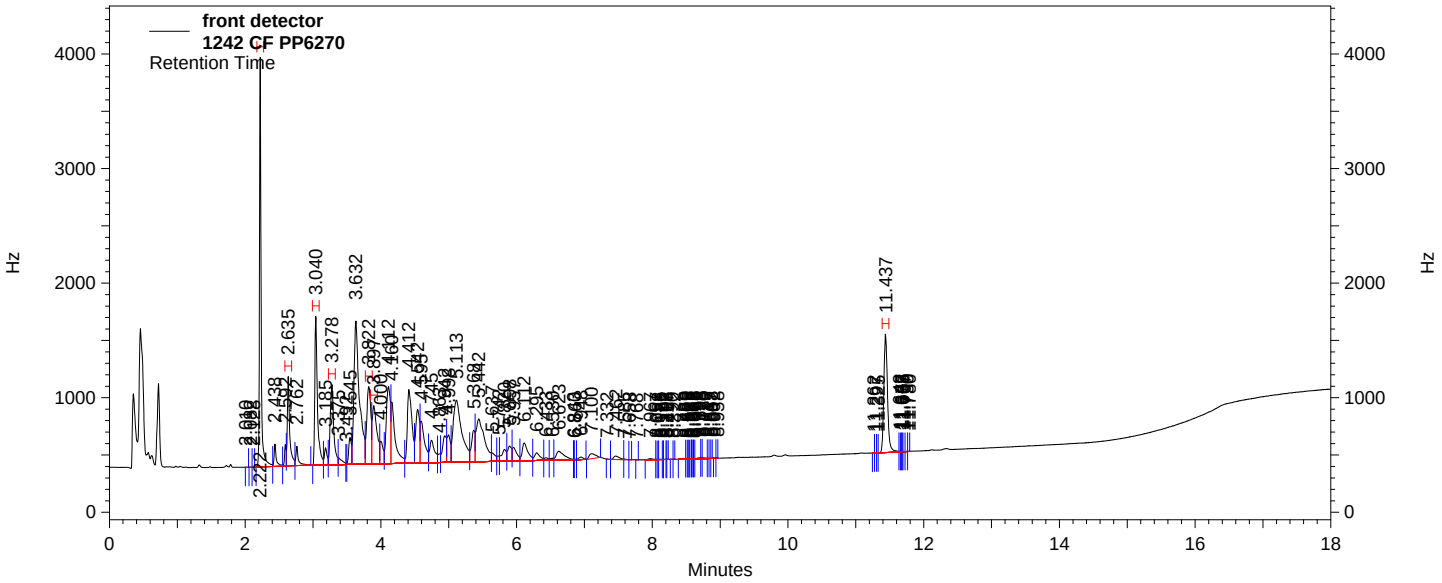
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.707	18185999	100.000 CAL
Aroclor 1232 #1	3.123	2286618	0.100 CAL
Aroclor 1232 #2	3.312	1772710	0.100 CAL
Aroclor 1232 #3	3.972	6370467	0.100 CAL
Aroclor 1232 #4	4.913	5991670	0.100 CAL
Aroclor 1232 #5	5.095	4529192	0.100 CAL
SURRDCB	13.537	10984159	100.000 CAL
Aroclor 1232		20950657	0.500 CAL

PCB Analysis Report (1242) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP6270
Acquired: 10/29/2020 15:49:01
Printed: 10/30/2020 11:52:46

Data Summary: {Data Description}



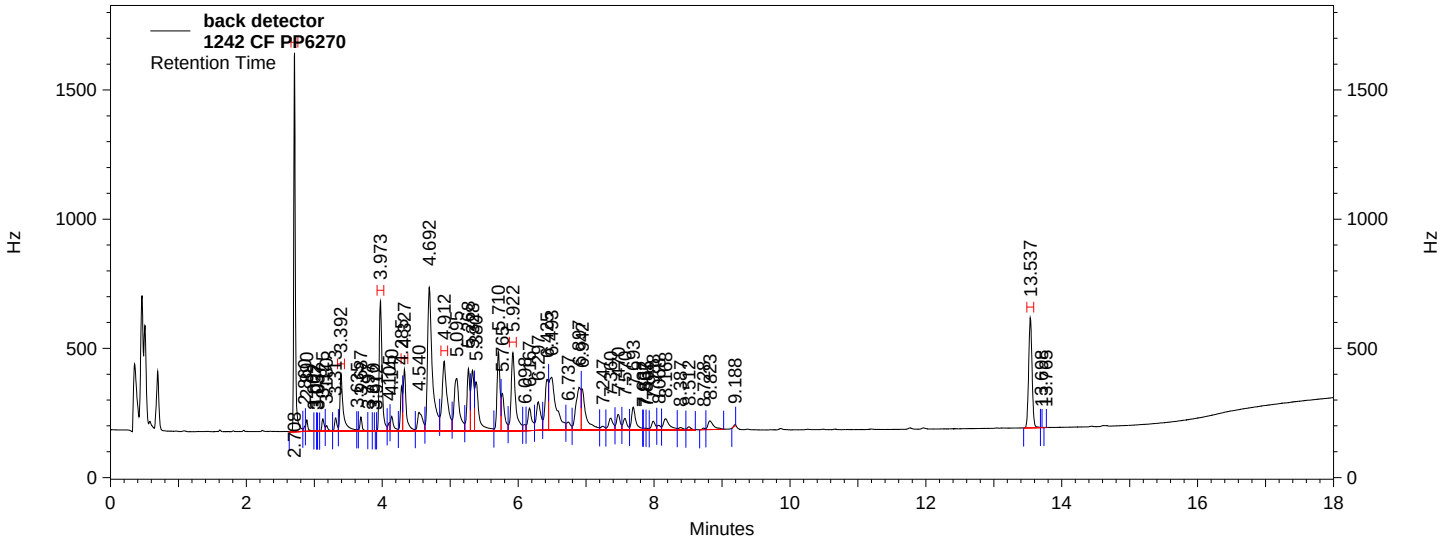
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.222	46047593	100.000 CAL
Aroclor 1242 #1	2.635	14291300	0.100 CAL
Aroclor 1242 #2	3.040	27085800	0.100 CAL
Aroclor 1242 #3	3.278	19409112	0.100 CAL
Aroclor 1242 #4	3.822	21391661	0.100 CAL
Aroclor 1242 #5	3.897	19067587	0.100 CAL
SURRDCB	11.437	30034338	100.000 CAL
Aroclor 1242		101245460	0.500 CAL

PCB Analysis Report (1242) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\005.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
User: JJY
Sample ID: 1242 CF PP6270
Acquired: 10/29/2020 15:49:01
Printed: 10/30/2020 11:52:46

Data Summary: {Data Description}



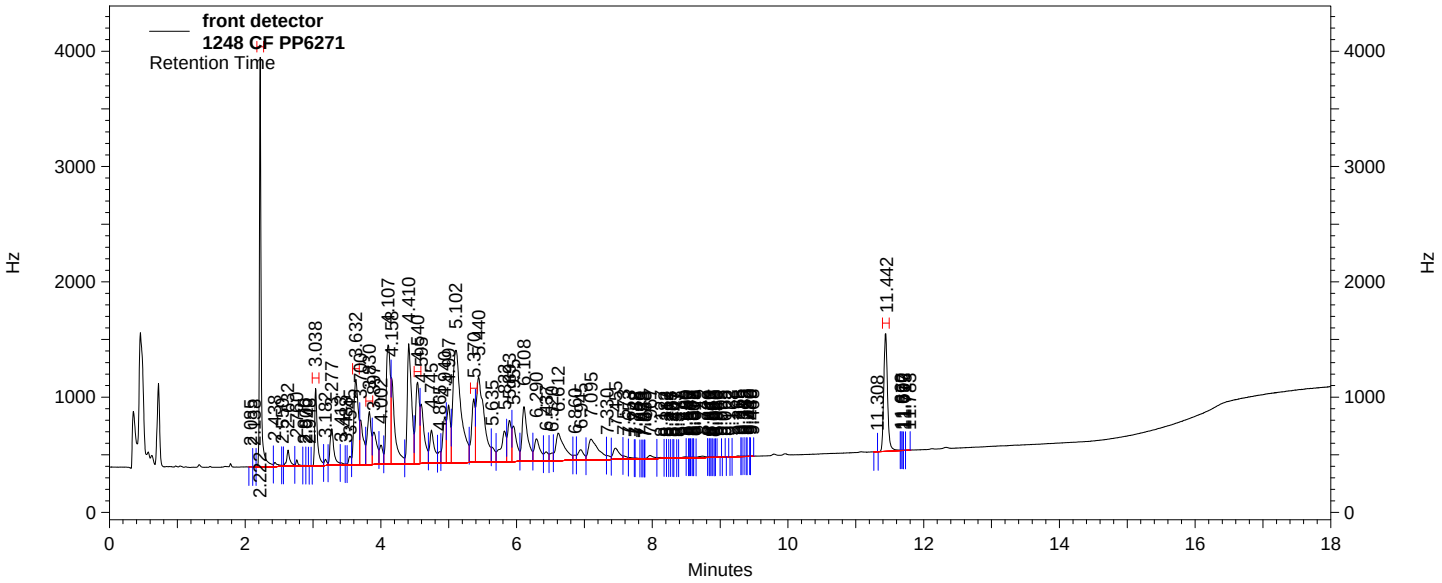
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.708	18201425	100.000 CAL
Aroclor 1242 #1	3.392	5982369	0.100 CAL
Aroclor 1242 #2	3.973	11260488	0.100 CAL
Aroclor 1242 #3	4.327	5607183	0.100 CAL
Aroclor 1242 #4	4.912	10830803	0.100 CAL
Aroclor 1242 #5	5.922	10102041	0.100 CAL
SURRDCB	13.537	11402192	100.000 CAL
Aroclor 1242		43782884	0.500 CAL

PCB Analysis Report (1248) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP6271
Acquired: 10/29/2020 16:10:13
Printed: 10/30/2020 11:52:48

Data Summary: {Data Description}



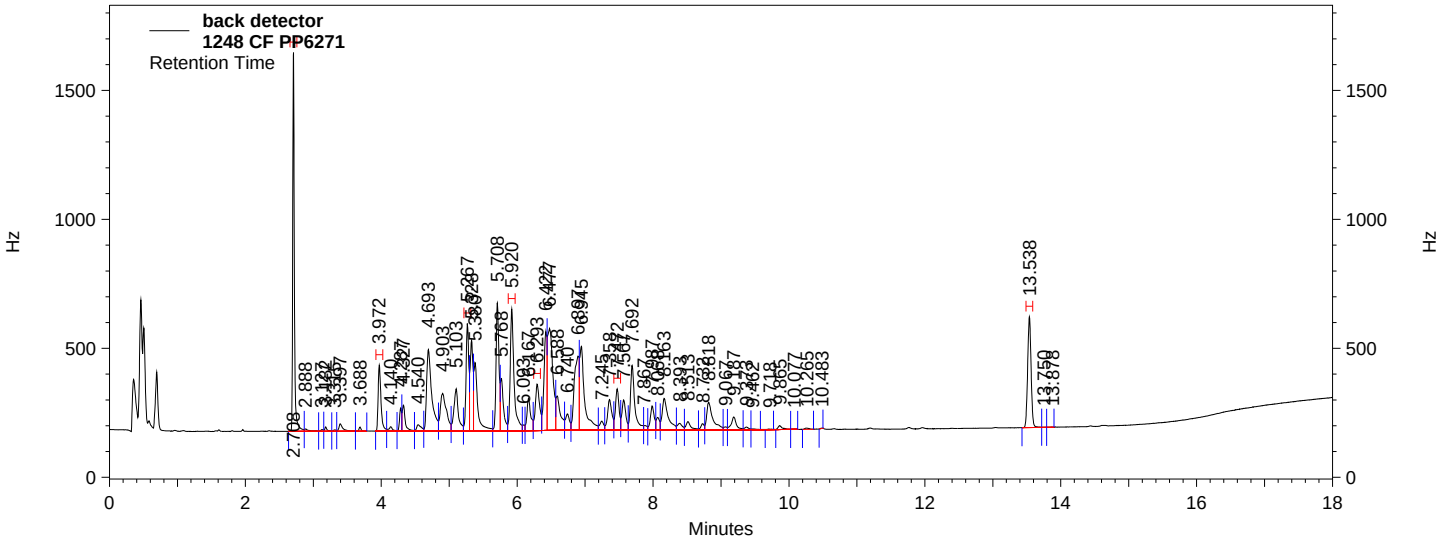
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.222	46521636	100.000 CAL
Aroclor 1248 #1	3.038	13811423	0.100 CAL
Aroclor 1248 #2	3.632	25710754	0.100 CAL
Aroclor 1248 #3	3.830	14130117	0.100 CAL
Aroclor 1248 #4	4.540	21384707	0.100 CAL
Aroclor 1248 #5	5.370	15424737	0.100 CAL
SURRDCB	11.442	30539513	100.000 CAL
Aroclor 1248		90461738	0.500 CAL

PCB Analysis Report (1248) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
User: JJY
Sample ID: 1248 CF PP6271
Acquired: 10/29/2020 16:10:13
Printed: 10/30/2020 11:52:48

Data Summary: {Data Description}



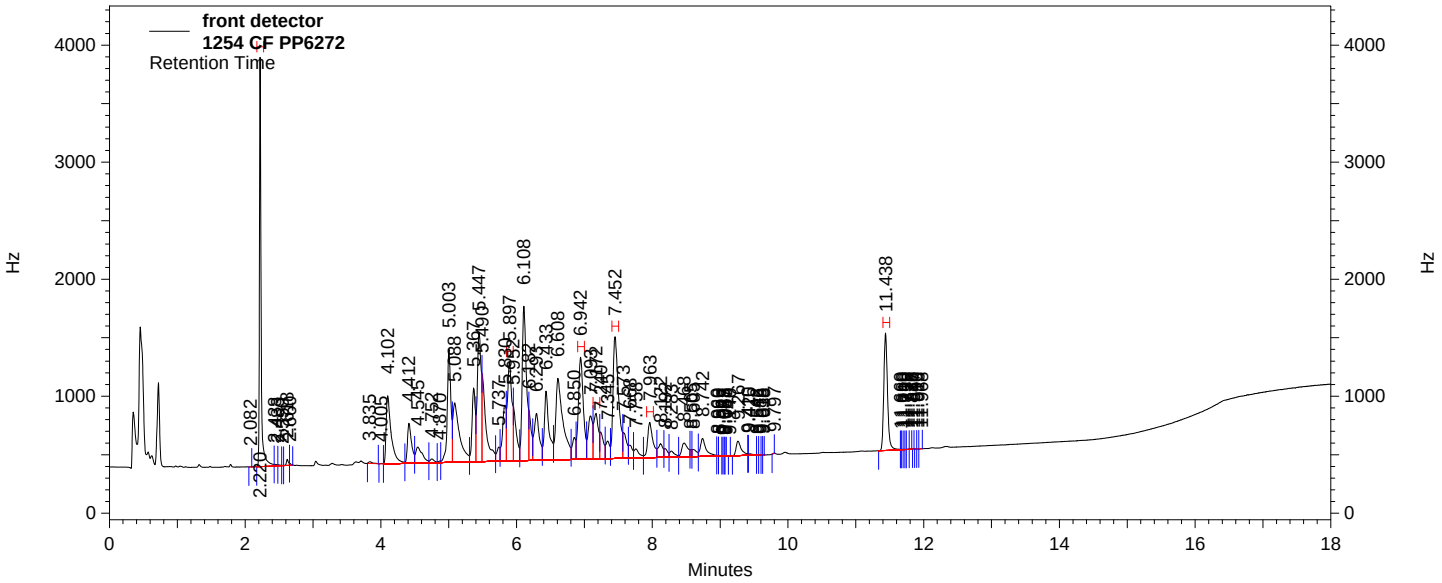
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.708	18633695	100.000 CAL
Aroclor 1248 #1	3.972	5651597	0.100 CAL
Aroclor 1248 #2	5.267	9046694	0.100 CAL
Aroclor 1248 #3	5.920	14231069	0.100 CAL
Aroclor 1248 #4	6.293	6080936	0.100 CAL
Aroclor 1248 #5	7.472	4512013	0.100 CAL
SURRDCB	13.538	11603872	100.000 CAL
Aroclor 1248		39522309	0.500 CAL

PCB Analysis Report (1254) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP6272
Acquired: 10/29/2020 16:31:29
Printed: 10/30/2020 11:52:51

Data Summary: {Data Description}



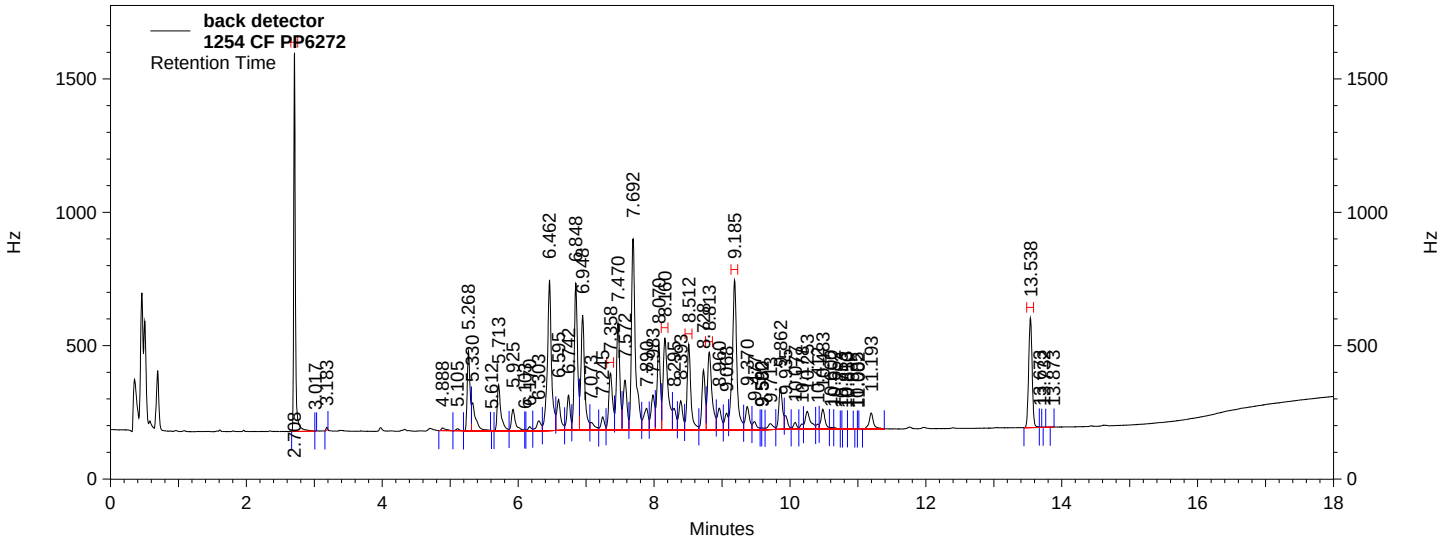
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	45270973	100.000 CAL
Aroclor 1254 #1	5.897	29584104	0.100 CAL
Aroclor 1254 #2	6.942	33955639	0.100 CAL
Aroclor 1254 #3	7.172	14273554	0.100 CAL
Aroclor 1254 #4	7.452	45749785	0.100 CAL
Aroclor 1254 #5	7.963	12412608	0.100 CAL
SURRDCB	11.438	29610790	100.000 CAL
Aroclor 1254		135975690	0.500 CAL

PCB Analysis Report (1254) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
User: JJY
Sample ID: 1254 CF PP6272
Acquired: 10/29/2020 16:31:29
Printed: 10/30/2020 11:52:51

Data Summary: {Data Description}



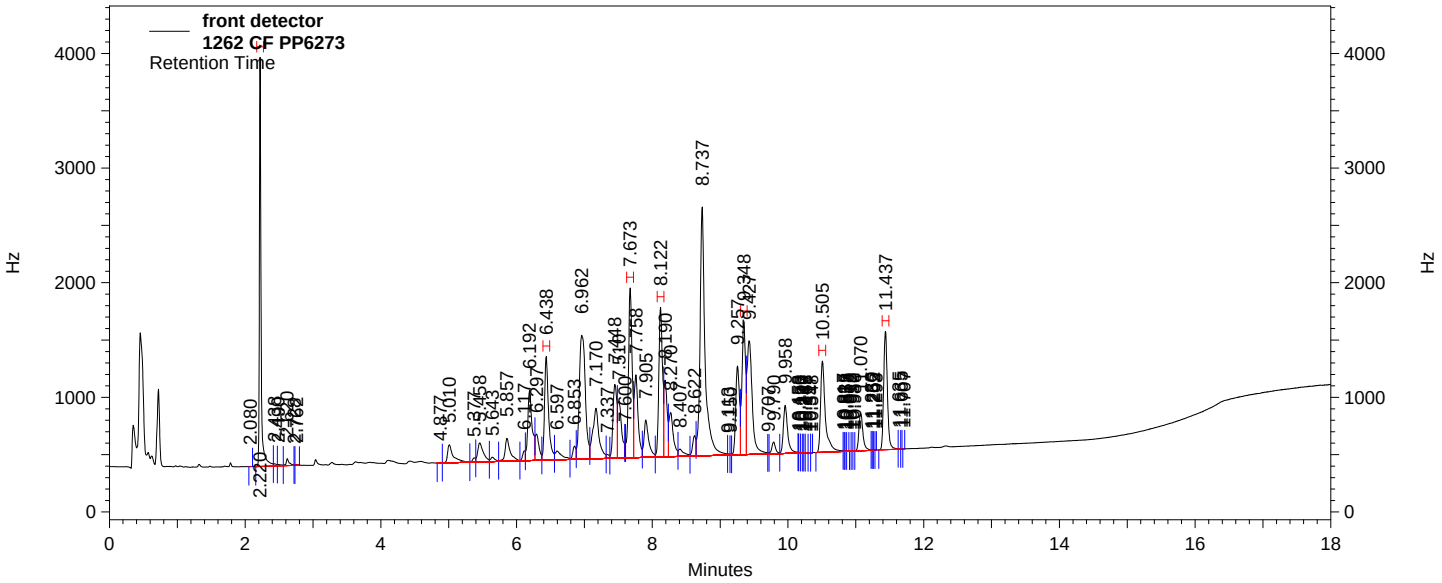
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.708	18352521	100.000 CAL
Aroclor 1254 #1	7.358	6401752	0.100 CAL
Aroclor 1254 #2	8.160	13057924	0.100 CAL
Aroclor 1254 #3	8.512	9472307	0.100 CAL
Aroclor 1254 #4	8.813	10198604	0.100 CAL
Aroclor 1254 #5	9.185	19826773	0.100 CAL
SURRDCB	13.538	11238174	100.000 CAL
Aroclor 1254		58957360	0.500 CAL

PCB Analysis Report (1262) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
User: JJY
Sample ID: 1262 CF PP6273
Acquired: 10/29/2020 16:52:43
Printed: 10/30/2020 11:52:54

Data Summary: {Data Description}



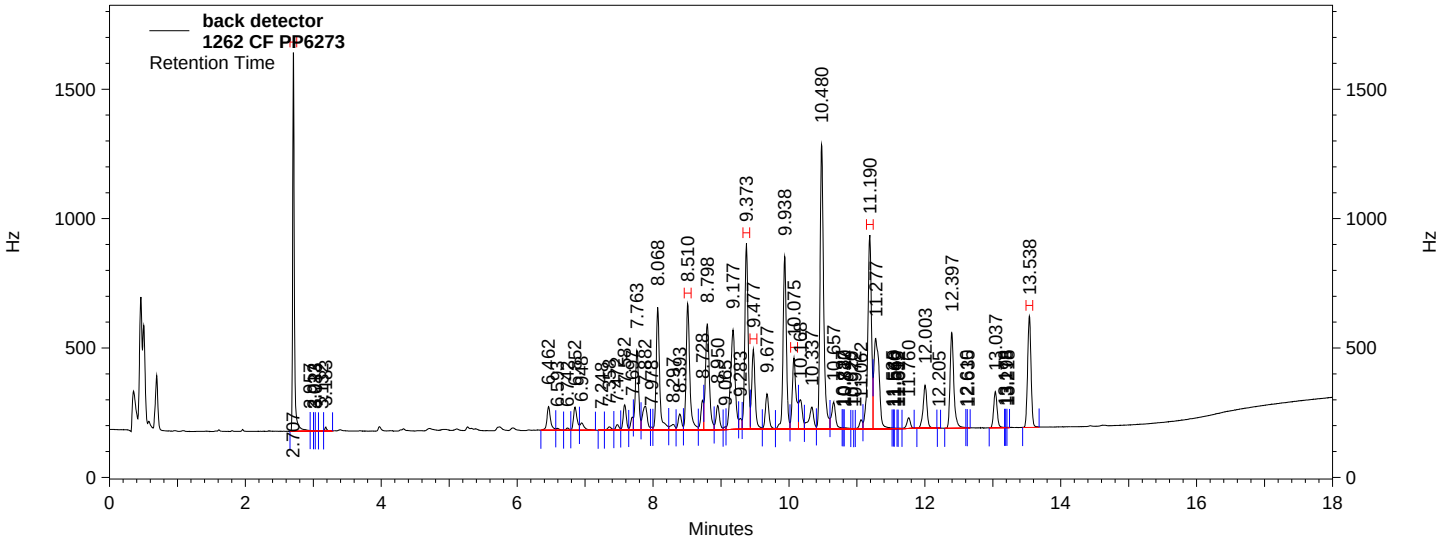
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	46566360	100.000 CAL
Aroclor 1262 #1	6.438	28842183	0.100 CAL
Aroclor 1262 #2	7.673	42186309	0.100 CAL
Aroclor 1262 #3	8.122	37530308	0.100 CAL
Aroclor 1262 #4	9.348	32837724	0.100 CAL
Aroclor 1262 #5	10.505	30246649	0.100 CAL
SURRDCB	11.437	30497326	100.000 CAL
Aroclor 1262		171643173	0.500 CAL

PCB Analysis Report (1262) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\008.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
User: JJY
Sample ID: 1262 CF PP6273
Acquired: 10/29/2020 16:52:43
Printed: 10/30/2020 11:52:54

Data Summary: {Data Description}



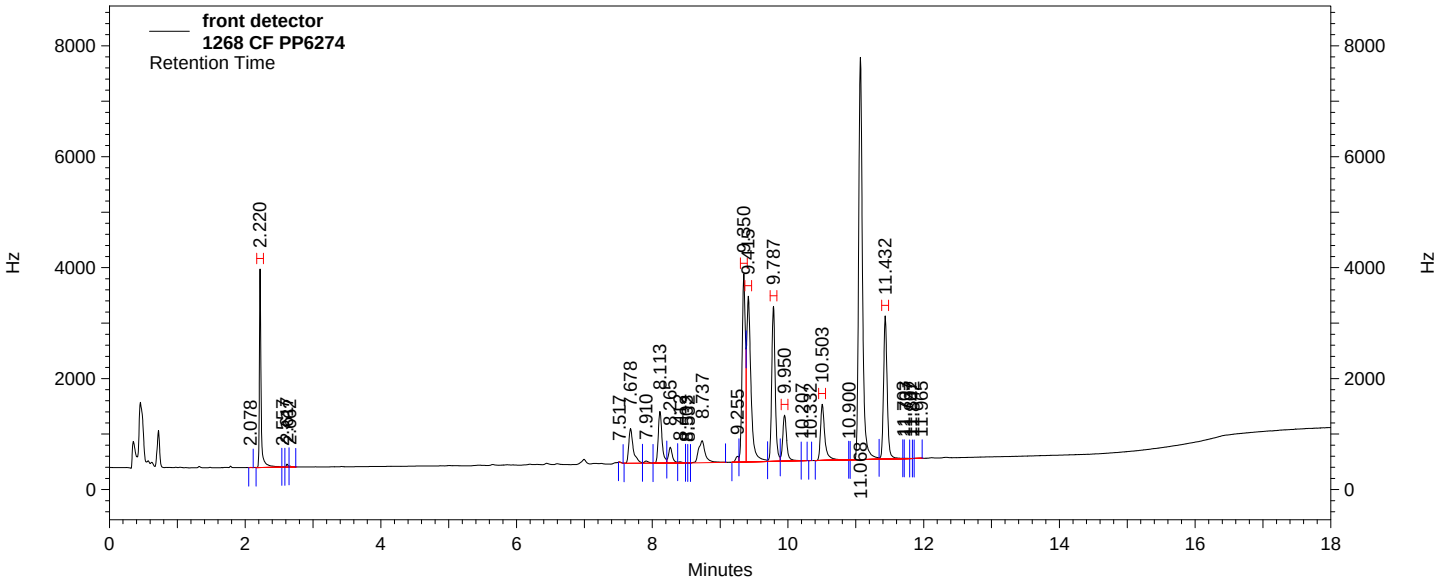
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.707	18877783	100.000 CAL
Aroclor 1262 #1	8.510	13915231	0.100 CAL
Aroclor 1262 #2	9.373	18320386	0.100 CAL
Aroclor 1262 #3	9.477	8317135	0.100 CAL
Aroclor 1262 #4	10.075	8401821	0.100 CAL
Aroclor 1262 #5	11.190	21806192	0.100 CAL
SURRDCB	13.538	11620101	100.000 CAL
Aroclor 1262		70760765	0.500 CAL

PCB Analysis Report (1268) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP6274
Acquired: 10/29/2020 17:13:54
Printed: 10/30/2020 11:52:57

Data Summary: {Data Description}



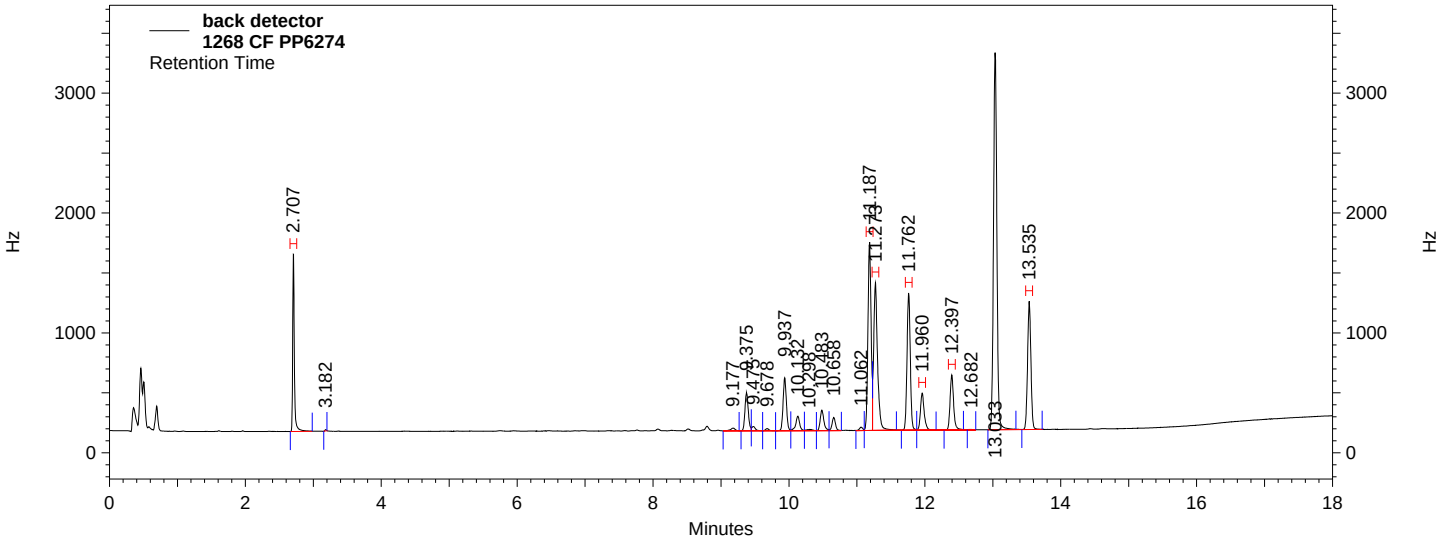
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	47510283	100.000 CAL
Aroclor 1268 #1	9.350	86563175	0.100 CAL
Aroclor 1268 #2	9.415	101763639	0.100 CAL
Aroclor 1268 #3	9.787	77772237	0.100 CAL
Aroclor 1268 #4	9.950	25770334	0.100 CAL
Aroclor 1268 #5	10.503	35190383	0.100 CAL
SURRDCB	11.432	74090963	100.000 CAL
Aroclor 1268		327059768	0.500 CAL

PCB Analysis Report (1268) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\009.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
User: JJY
Sample ID: 1268 CF PP6274
Acquired: 10/29/2020 17:13:54
Printed: 10/30/2020 11:52:57

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.707	18994859	100.000 CAL
Aroclor 1268 #1	11.187	38904653	0.100 CAL
Aroclor 1268 #2	11.273	37332009	0.100 CAL
Aroclor 1268 #3	11.762	29703821	0.100 CAL
Aroclor 1268 #4	11.960	9168196	0.100 CAL
Aroclor 1268 #5	12.397	12820266	0.100 CAL
SURRDCB	13.535	28092017	100.000 CAL
Aroclor 1268		127928945	0.500 CAL

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:53:04

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\011.dat	1221 ICV PP6277	10/30/2020 11:53:04

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	104.416	4.416	20.000	Passed
Aroclor 1221 #1	0.167	0.155	7.262	20.000	Passed
Aroclor 1221 #2	0.167	0.148	11.103	20.000	Passed
Aroclor 1221 #3	0.167	0.148	11.104	20.000	Passed
SURRDCB	100.000	107.673	7.673	20.000	Passed
Aroclor 1221	0.500	0.452	9.643	20.000	Passed

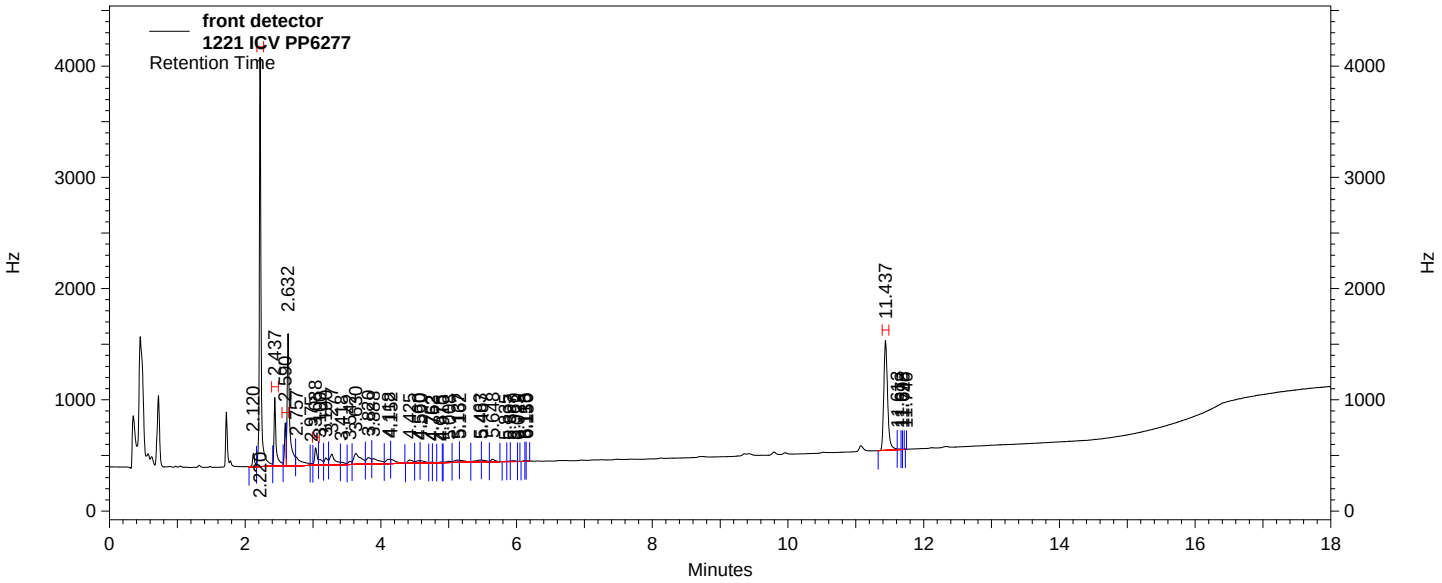
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	104.901	4.901	20.000	Passed
Aroclor 1221 #1	0.167	0.155	6.988	20.000	Passed
Aroclor 1221 #2	0.167	0.151	9.564	20.000	Passed
Aroclor 1221 #3	0.167	0.150	10.006	20.000	Passed
SURRDCB	100.000	108.596	8.596	20.000	Passed
Aroclor 1221	0.500	0.457	8.670	20.000	Passed

PCB Analysis Report (1221) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP6277
Acquired: 10/29/2020 17:56:19
Printed: 10/30/2020 11:53:02

Data Summary: {Data Description}



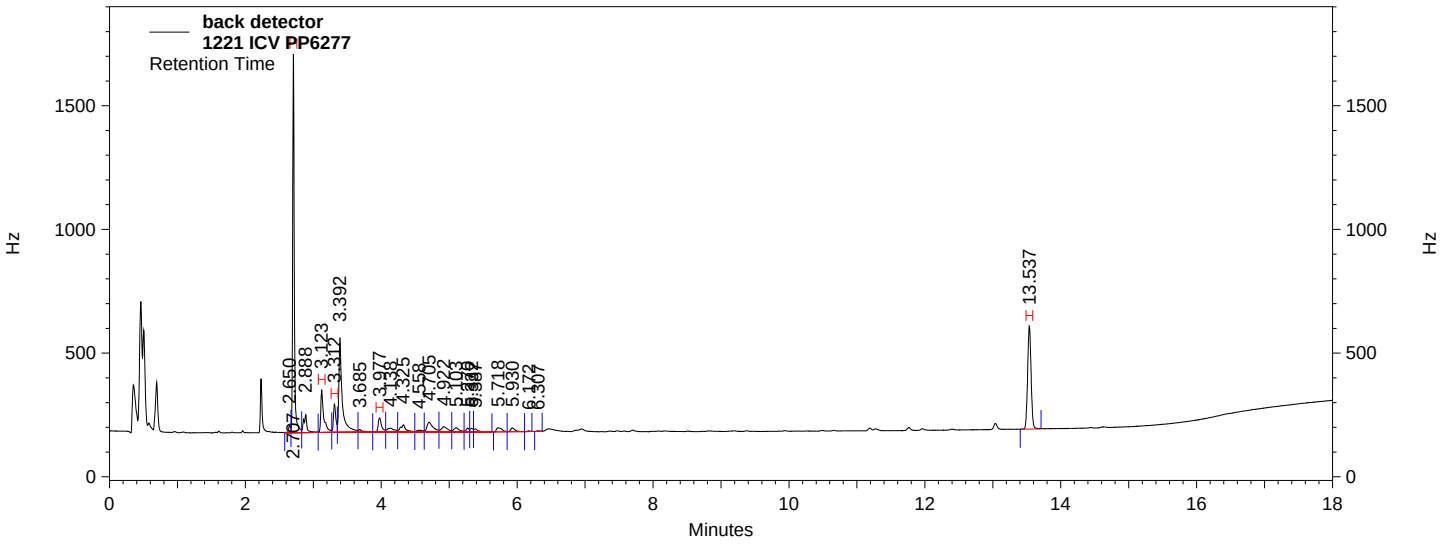
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	49080311	104.416
Aroclor 1221 #1	2.437	10002567	0.155
Aroclor 1221 #2	2.590	4620633	0.148
Aroclor 1221 #3	3.038	3047902	0.148
SURRDCB	11.437	29659056	107.673
Aroclor 1221		17671102	0.452

PCB Analysis Report (1221) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1221.met
User: JJY
Sample ID: 1221 ICV PP6277
Acquired: 10/29/2020 17:56:19
Printed: 10/30/2020 11:53:02

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.707	19262321	104.901
Aroclor 1221 #1	3.123	4007703	0.155
Aroclor 1221 #2	3.312	2151576	0.151
Aroclor 1221 #3	3.977	1645642	0.150
SURRDCB	13.537	11400714	108.596
Aroclor 1221		7804921	0.457

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:53:08

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\012.dat	1232 ICV PP6278	10/30/2020 11:53:08

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	105.669	5.669	20.000	Passed
Aroclor 1232 #1	0.100	0.100	0.444	20.000	Passed
Aroclor 1232 #2	0.100	0.099	0.656	20.000	Passed
Aroclor 1232 #3	0.100	0.096	4.200	20.000	Passed
Aroclor 1232 #4	0.100	0.098	1.765	20.000	Passed
Aroclor 1232 #5	0.100	0.096	3.529	20.000	Passed
SURRDCB	100.000	106.701	6.701	20.000	Passed
Aroclor 1232	0.500	0.489	2.119	20.000	Passed

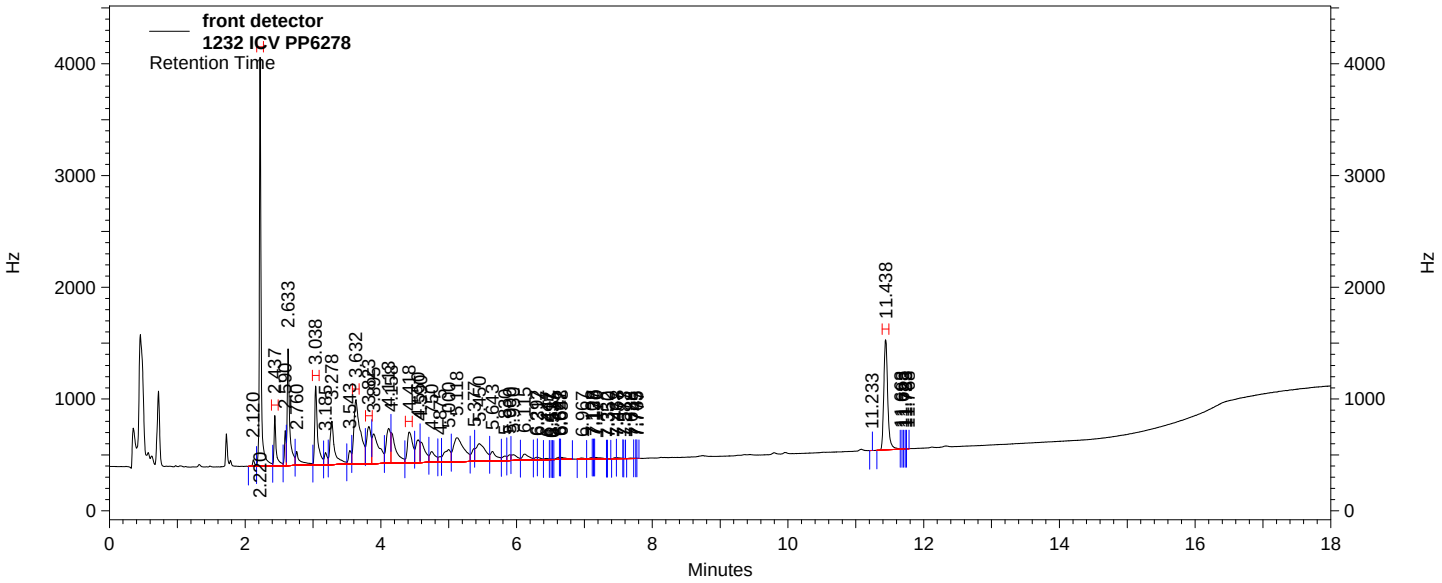
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	106.342	6.342	20.000	Passed
Aroclor 1232 #1	0.100	0.097	3.002	20.000	Passed
Aroclor 1232 #2	0.100	0.098	2.139	20.000	Passed
Aroclor 1232 #3	0.100	0.100	0.041	20.000	Passed
Aroclor 1232 #4	0.100	0.102	1.883	20.000	Passed
Aroclor 1232 #5	0.100	0.102	1.803	20.000	Passed
SURRDCB	100.000	107.128	7.128	20.000	Passed
Aroclor 1232	0.500	0.499	0.283	20.000	Passed

PCB Analysis Report (1232) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
User: JJY
Sample ID: 1232 ICV PP6278
Acquired: 10/29/2020 18:17:33
Printed: 10/30/2020 11:53:07

Data Summary: {Data Description}



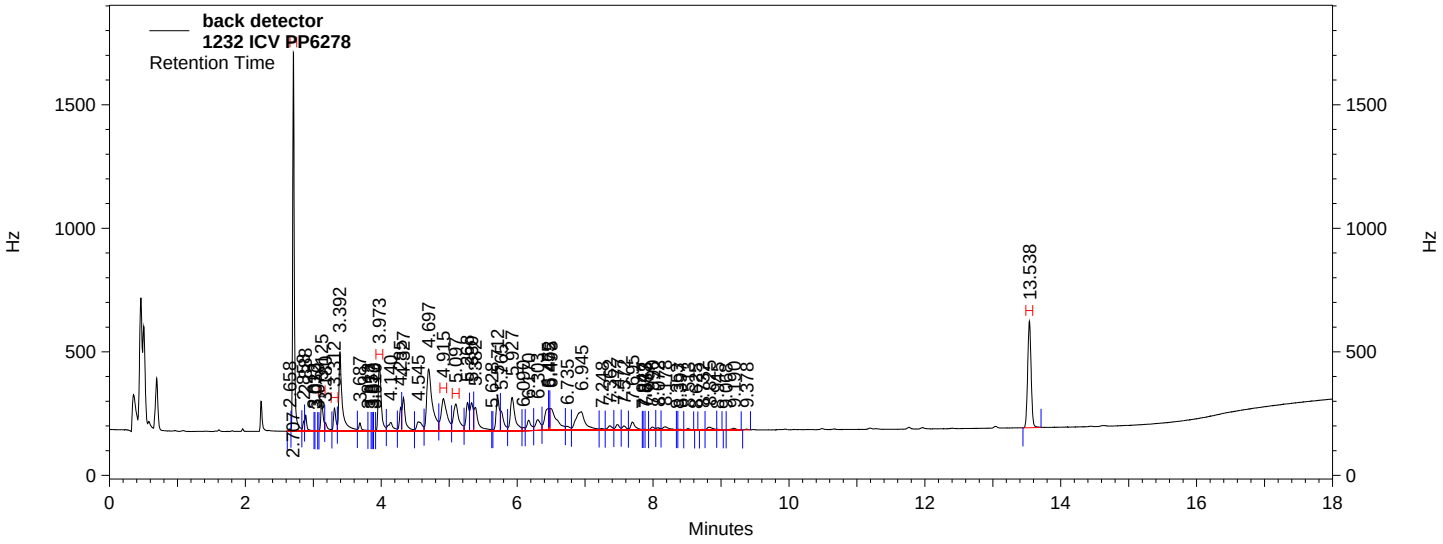
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	49032255	105.669
Aroclor 1232 #1	2.437	7462814	0.100
Aroclor 1232 #2	3.038	16127331	0.099
Aroclor 1232 #3	3.632	29063572	0.096
Aroclor 1232 #4	3.823	11570278	0.098
Aroclor 1232 #5	4.418	11427763	0.096
SURRDCB	11.438	30865485	106.701
Aroclor 1232		75651758	0.489

PCB Analysis Report (1232) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\012.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1232.met
User: JJY
Sample ID: 1232 ICV PP6278
Acquired: 10/29/2020 18:17:33
Printed: 10/30/2020 11:53:07

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.707	19339272	106.342
Aroclor 1232 #1	3.125	2217973	0.097
Aroclor 1232 #2	3.312	1734788	0.098
Aroclor 1232 #3	3.973	6373074	0.100
Aroclor 1232 #4	4.915	6104503	0.102
Aroclor 1232 #5	5.097	4610834	0.102
SURRDCB	13.538	11767156	107.128
Aroclor 1232		21041172	0.499

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:53:13

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\013.dat	1242 ICV PP6279	10/30/2020 11:53:13

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.697	3.697	20.000	Passed
Aroclor 1242 #1	0.100	0.101	0.652	20.000	Passed
Aroclor 1242 #2	0.100	0.101	1.493	20.000	Passed
Aroclor 1242 #3	0.100	0.116	15.988	20.000	Passed
Aroclor 1242 #4	0.100	0.101	0.718	20.000	Passed
Aroclor 1242 #5	0.100	0.099	0.613	20.000	Passed
SURRDCB	100.000	103.017	3.017	20.000	Passed
Aroclor 1242	0.500	0.518	3.647	20.000	Passed

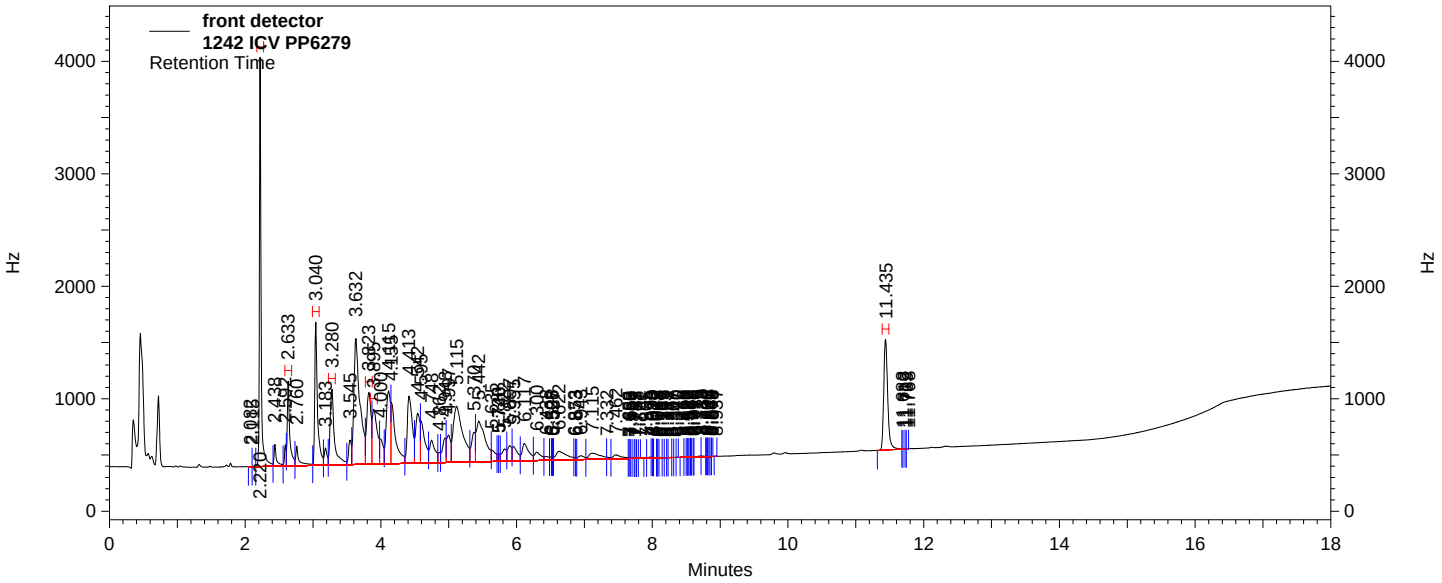
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.778	3.778	20.000	Passed
Aroclor 1242 #1	0.100	0.100	0.379	20.000	Passed
Aroclor 1242 #2	0.100	0.100	0.276	20.000	Passed
Aroclor 1242 #3	0.100	0.102	2.033	20.000	Passed
Aroclor 1242 #4	0.100	0.099	0.609	20.000	Passed
Aroclor 1242 #5	0.100	0.099	0.502	20.000	Passed
SURRDCB	100.000	103.419	3.419	20.000	Passed
Aroclor 1242	0.500	0.500	0.053	20.000	Passed

PCB Analysis Report (1242) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP6279
Acquired: 10/29/2020 18:38:47
Printed: 10/30/2020 11:53:11

Data Summary: {Data Description}



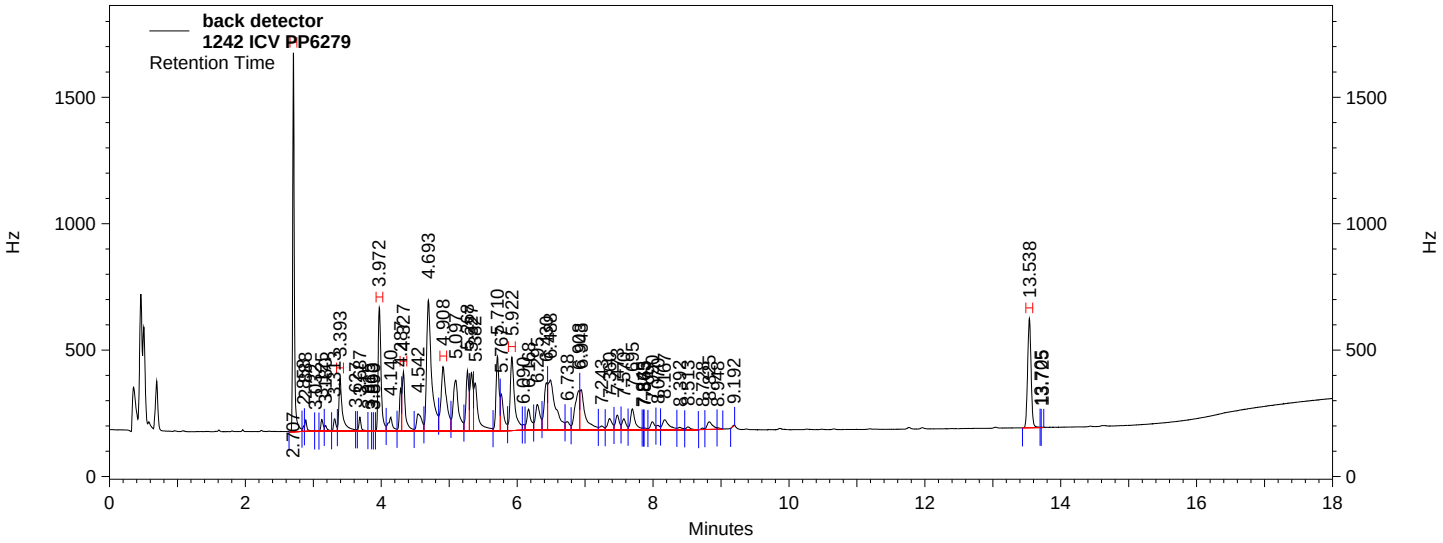
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	47749995	103.697
Aroclor 1242 #1	2.633	14384434	0.101
Aroclor 1242 #2	3.040	27490177	0.101
Aroclor 1242 #3	3.280	22512194	0.116
Aroclor 1242 #4	3.823	21545278	0.101
Aroclor 1242 #5	3.895	18950641	0.099
SURRDCB	11.435	30940422	103.017
Aroclor 1242		104882724	0.518

PCB Analysis Report (1242) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1242.met
User: JJY
Sample ID: 1242 ICV PP6279
Acquired: 10/29/2020 18:38:47
Printed: 10/30/2020 11:53:11

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.707	18889108	103.778
Aroclor 1242 #1	3.393	5959694	0.100
Aroclor 1242 #2	3.972	11229400	0.100
Aroclor 1242 #3	4.327	5721193	0.102
Aroclor 1242 #4	4.908	10764832	0.099
Aroclor 1242 #5	5.922	10051341	0.099
SURRDCB	13.538	11791979	103.419
Aroclor 1242		43726460	0.500

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:53:17

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\014.dat	1248 ICV PP6280	10/30/2020 11:53:17

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	111.755	11.755	20.000	Passed
Aroclor 1248 #1	0.100	0.103	2.643	20.000	Passed
Aroclor 1248 #2	0.100	0.094	5.791	20.000	Passed
Aroclor 1248 #3	0.100	0.100	0.285	20.000	Passed
Aroclor 1248 #4	0.100	0.105	4.772	20.000	Passed
Aroclor 1248 #5	0.100	0.095	4.822	20.000	Passed
SURRDCB	100.000	108.855	8.855	20.000	Passed
Aroclor 1248	0.500	0.497	0.583	20.000	Passed

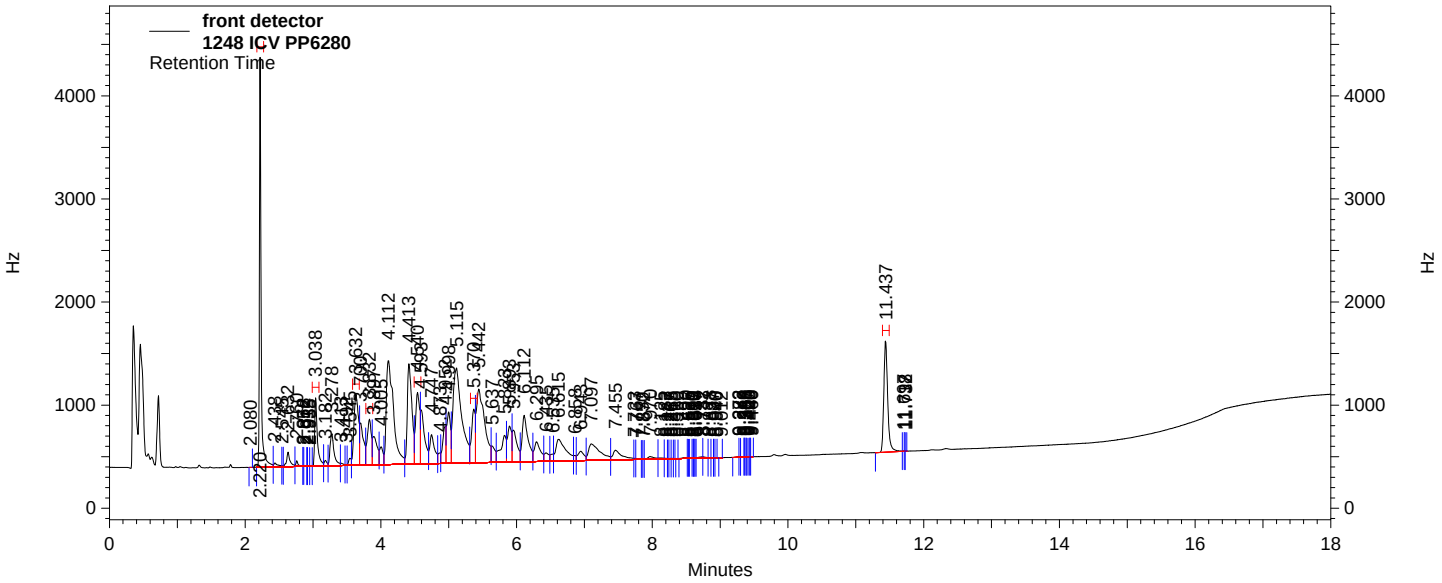
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	112.879	12.879	20.000	Passed
Aroclor 1248 #1	0.100	0.103	3.005	20.000	Passed
Aroclor 1248 #2	0.100	0.102	1.522	20.000	Passed
Aroclor 1248 #3	0.100	0.103	2.984	20.000	Passed
Aroclor 1248 #4	0.100	0.099	1.291	20.000	Passed
Aroclor 1248 #5	0.100	0.102	2.259	20.000	Passed
SURRDCB	100.000	109.279	9.279	20.000	Passed
Aroclor 1248	0.500	0.508	1.696	20.000	Passed

PCB Analysis Report (1248) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
User: JJY
Sample ID: 1248 ICV PP6280
Acquired: 10/29/2020 19:00:01
Printed: 10/30/2020 11:53:15

Data Summary: {Data Description}



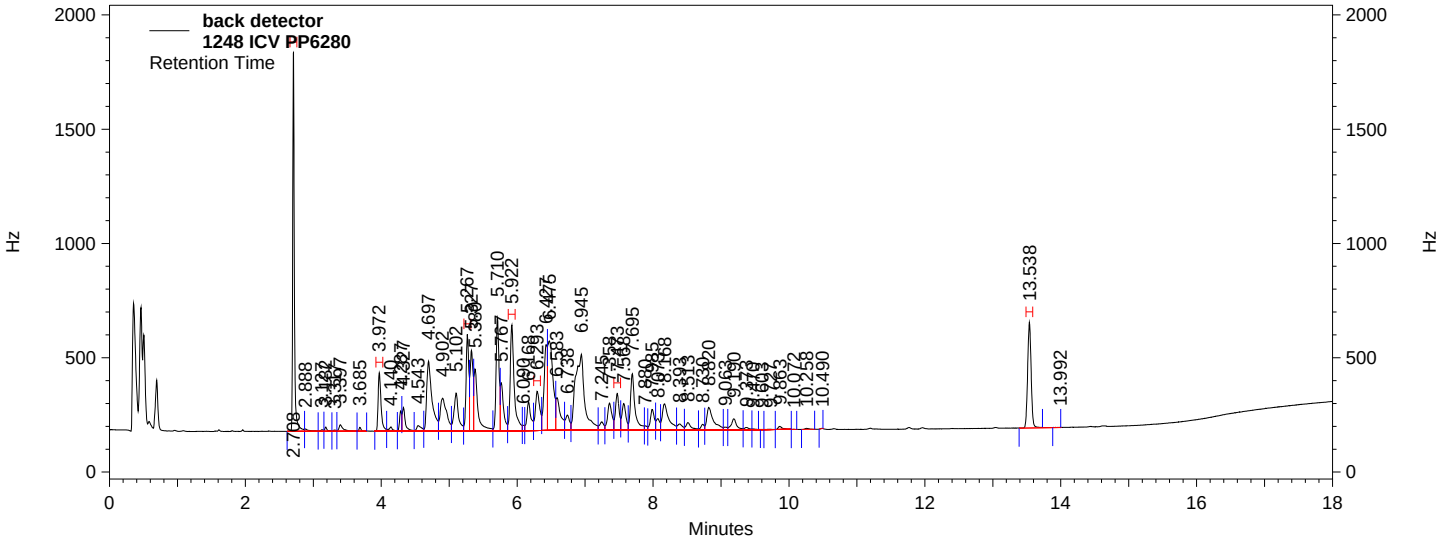
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	51990291	111.755
Aroclor 1248 #1	3.038	14176431	0.103
Aroclor 1248 #2	3.632	24221879	0.094
Aroclor 1248 #3	3.832	14170420	0.100
Aroclor 1248 #4	4.540	22405131	0.105
Aroclor 1248 #5	5.370	14680902	0.095
SURRDCB	11.437	33243694	108.855
Aroclor 1248		89654763	0.497

PCB Analysis Report (1248) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\014.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1248.met
User: JJY
Sample ID: 1248 ICV PP6280
Acquired: 10/29/2020 19:00:01
Printed: 10/30/2020 11:53:15

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.708	21033493	112.879
Aroclor 1248 #1	3.972	5821452	0.103
Aroclor 1248 #2	5.267	9184365	0.102
Aroclor 1248 #3	5.922	14655696	0.103
Aroclor 1248 #4	6.293	6002451	0.099
Aroclor 1248 #5	7.473	4613941	0.102
SURRDCB	13.538	12680554	109.279
Aroclor 1248		40277905	0.508

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:53:22

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\015.dat	1254 ICV PP6281	10/30/2020 11:53:22

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	105.900	5.900	20.000	Passed
Aroclor 1254 #1	0.100	0.101	1.354	20.000	Passed
Aroclor 1254 #2	0.100	0.105	5.127	20.000	Passed
Aroclor 1254 #3	0.100	0.104	4.224	20.000	Passed
Aroclor 1254 #4	0.100	0.103	3.242	20.000	Passed
Aroclor 1254 #5	0.100	0.105	4.833	20.000	Passed
SURRDCB	100.000	107.349	7.349	20.000	Passed
Aroclor 1254	0.500	0.519	3.756	20.000	Passed

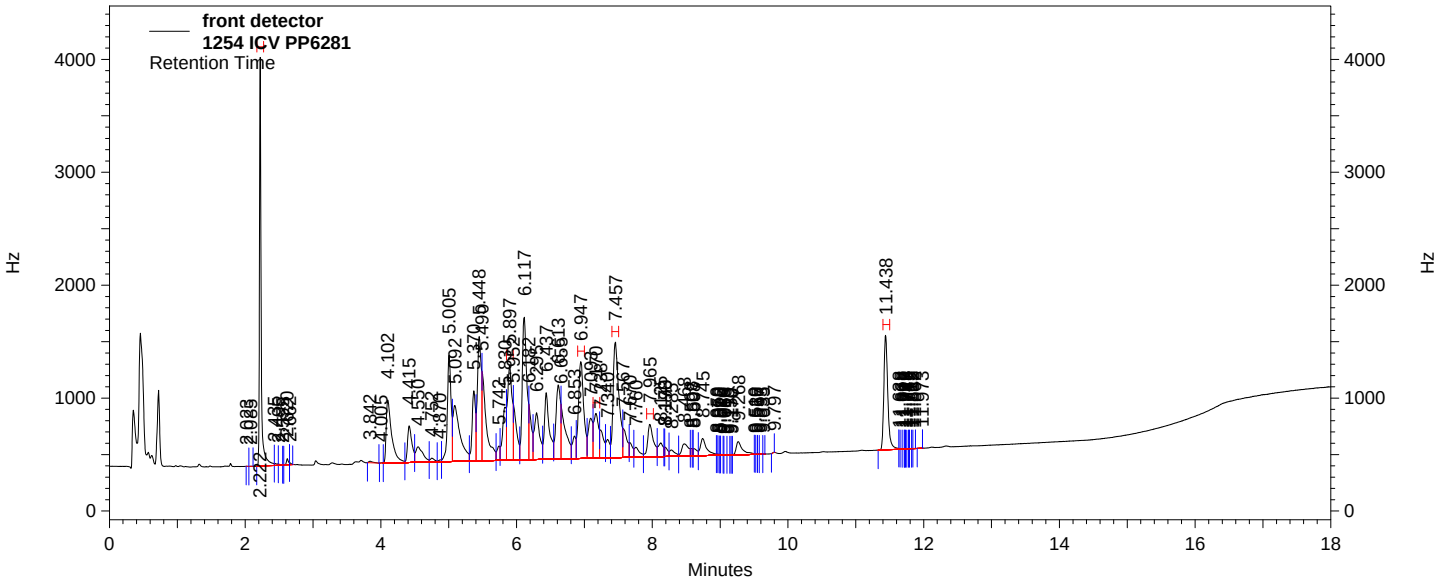
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	106.172	6.172	20.000	Passed
Aroclor 1254 #1	0.100	0.104	4.075	20.000	Passed
Aroclor 1254 #2	0.100	0.103	3.298	20.000	Passed
Aroclor 1254 #3	0.100	0.106	6.464	20.000	Passed
Aroclor 1254 #4	0.100	0.104	3.676	20.000	Passed
Aroclor 1254 #5	0.100	0.105	5.497	20.000	Passed
SURRDCB	100.000	107.670	7.670	20.000	Passed
Aroclor 1254	0.500	0.523	4.602	20.000	Passed

PCB Analysis Report (1254) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP6281
Acquired: 10/29/2020 19:21:15
Printed: 10/30/2020 11:53:20

Data Summary: {Data Description}



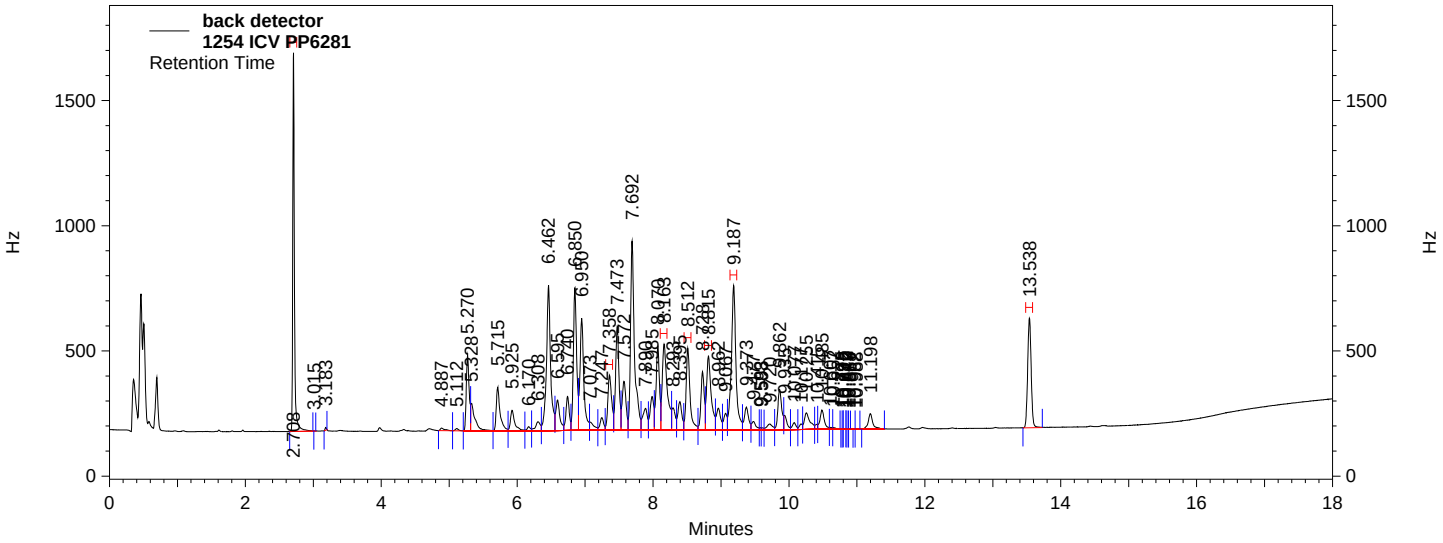
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.222	47941849	105.900
Aroclor 1254 #1	5.897	29984761	0.101
Aroclor 1254 #2	6.947	35696410	0.105
Aroclor 1254 #3	7.170	14876535	0.104
Aroclor 1254 #4	7.457	47233095	0.103
Aroclor 1254 #5	7.965	13012478	0.105
SURRDCB	11.438	31786788	107.349
Aroclor 1254		140803279	0.519

PCB Analysis Report (1254) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\015.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1254.met
User: JJY
Sample ID: 1254 ICV PP6281
Acquired: 10/29/2020 19:21:15
Printed: 10/30/2020 11:53:20

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.708	19485221	106.172
Aroclor 1254 #1	7.358	6662621	0.104
Aroclor 1254 #2	8.163	13488545	0.103
Aroclor 1254 #3	8.512	10084599	0.106
Aroclor 1254 #4	8.815	10573505	0.104
Aroclor 1254 #5	9.187	20916731	0.105
SURRDCB	13.538	12100162	107.670
Aroclor 1254		61726001	0.523

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:53:26

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\016.dat	1262 ICV PP6282	10/30/2020 11:53:26

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	103.481	3.481	20.000	Passed
Aroclor 1262 #1	0.100	0.102	2.057	20.000	Passed
Aroclor 1262 #2	0.100	0.099	0.626	20.000	Passed
Aroclor 1262 #3	0.100	0.095	5.246	20.000	Passed
Aroclor 1262 #4	0.100	0.098	1.992	20.000	Passed
Aroclor 1262 #5	0.100	0.098	2.441	20.000	Passed
SURRDCB	100.000	96.812	3.188	20.000	Passed
Aroclor 1262	0.500	0.492	1.650	20.000	Passed

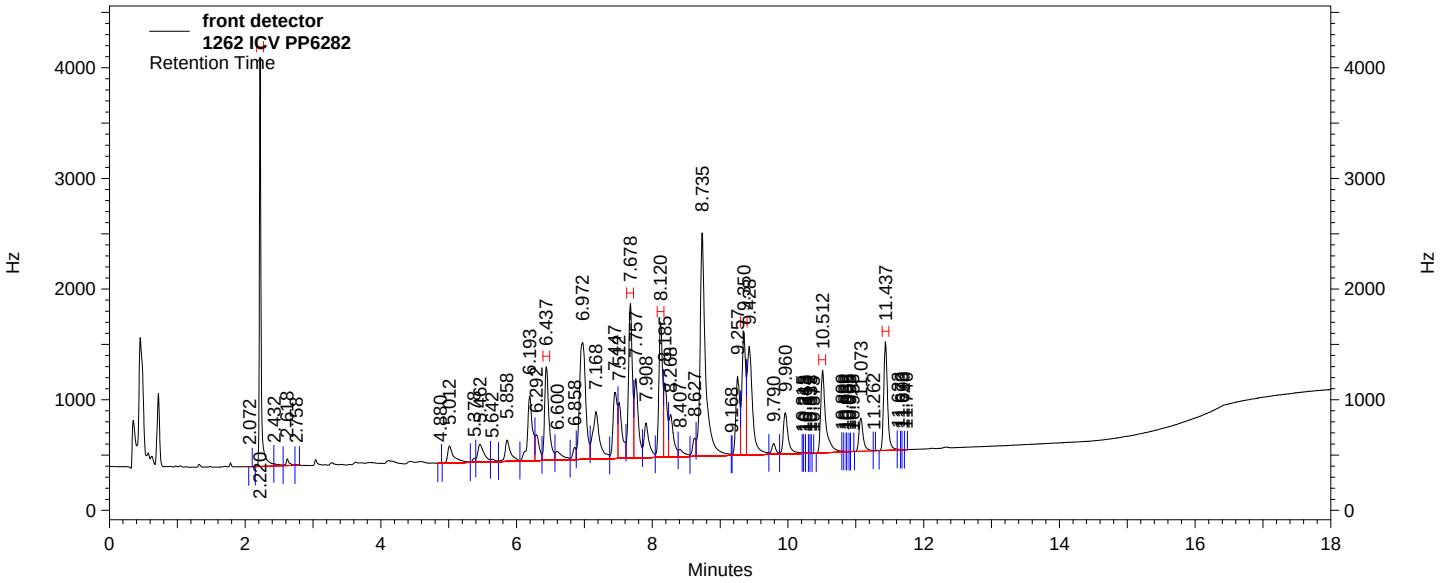
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	104.202	4.202	20.000	Passed
Aroclor 1262 #1	0.100	0.102	1.846	20.000	Passed
Aroclor 1262 #2	0.100	0.101	0.506	20.000	Passed
Aroclor 1262 #3	0.100	0.102	1.745	20.000	Passed
Aroclor 1262 #4	0.100	0.099	0.552	20.000	Passed
Aroclor 1262 #5	0.100	0.098	1.922	20.000	Passed
SURRDCB	100.000	97.125	2.875	20.000	Passed
Aroclor 1262	0.500	0.502	0.325	20.000	Passed

PCB Analysis Report (1262) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
User: JJY
Sample ID: 1262 ICV PP6282
Acquired: 10/29/2020 19:42:31
Printed: 10/30/2020 11:53:25

Data Summary: {Data Description}



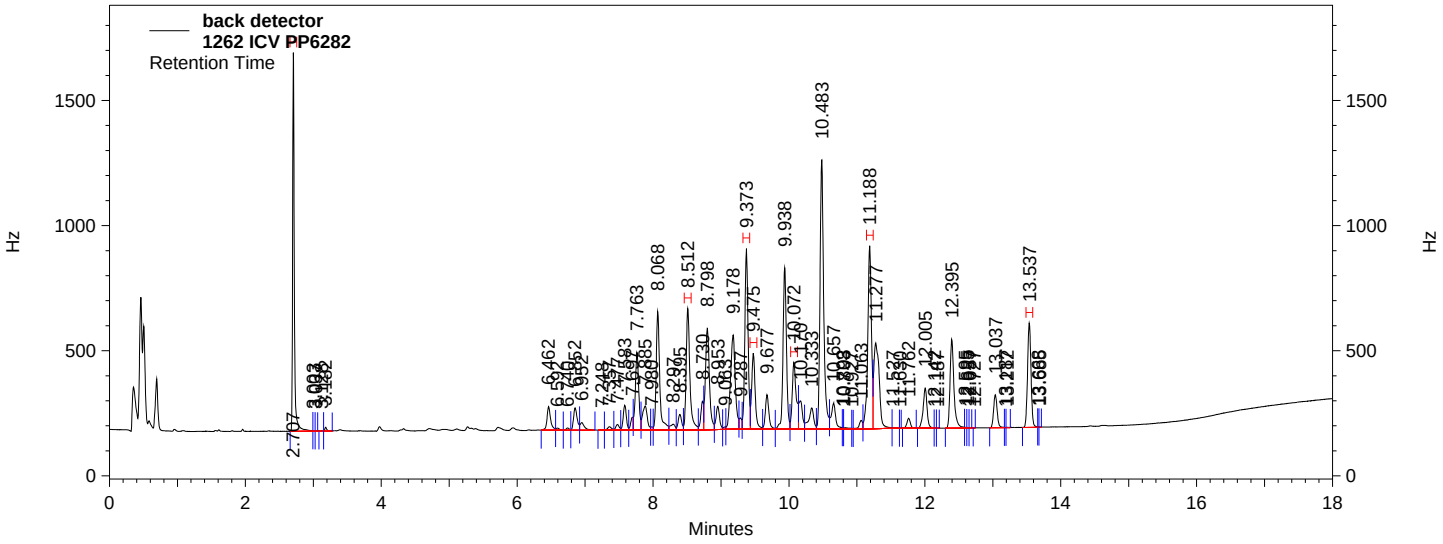
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	48187398	103.481
Aroclor 1262 #1	6.437	29435428	0.102
Aroclor 1262 #2	7.678	41922031	0.099
Aroclor 1262 #3	8.120	35561399	0.095
Aroclor 1262 #4	9.350	32183537	0.098
Aroclor 1262 #5	10.512	29508362	0.098
SURRDCB	11.437	29524936	96.812
Aroclor 1262		168610757	0.492

PCB Analysis Report (1262) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\016.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1262.met
User: JJY
Sample ID: 1262 ICV PP6282
Acquired: 10/29/2020 19:42:31
Printed: 10/30/2020 11:53:25

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.707	19671097	104.202
Aroclor 1262 #1	8.512	14172168	0.102
Aroclor 1262 #2	9.373	18413016	0.101
Aroclor 1262 #3	9.475	8462245	0.102
Aroclor 1262 #4	10.072	8355440	0.099
Aroclor 1262 #5	11.188	21387177	0.098
SURRDCB	13.537	11286029	97.125
Aroclor 1262		70790046	0.502

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\102920pcbic.seq
User : JJY
Printed : 10/30/2020 11:53:31

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\102920pcbic\017.dat	1268 ICV PP6283	10/30/2020 11:53:31

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	102.198	2.198	20.000	Passed
Aroclor 1268 #1	0.100	0.092	7.849	20.000	Passed
Aroclor 1268 #2	0.100	0.110	9.669	20.000	Passed
Aroclor 1268 #3	0.100	0.097	3.264	20.000	Passed
Aroclor 1268 #4	0.100	0.101	1.210	20.000	Passed
Aroclor 1268 #5	0.100	0.087	13.073	20.000	Passed
SURRDCB	100.000	90.429	9.571	20.000	Passed
Aroclor 1268	0.500	0.487	2.661	20.000	Passed

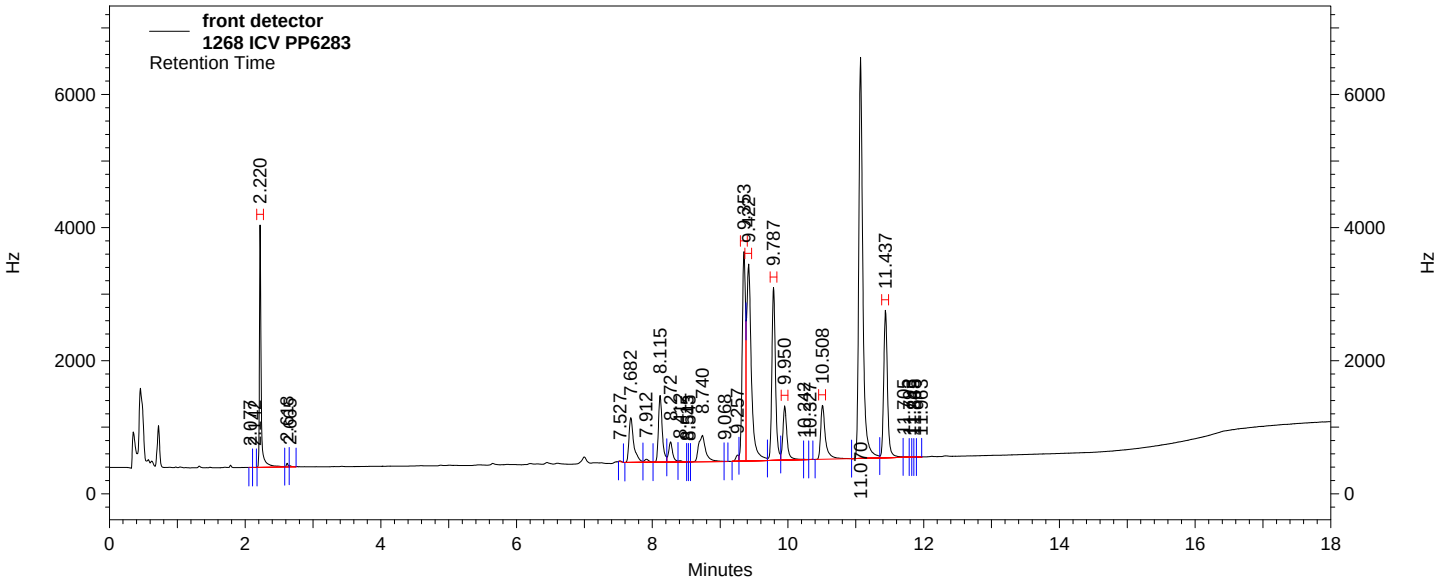
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMX	100.000	102.386	2.386	20.000	Passed
Aroclor 1268 #1	0.100	0.099	0.977	20.000	Passed
Aroclor 1268 #2	0.100	0.105	5.272	20.000	Passed
Aroclor 1268 #3	0.100	0.097	3.438	20.000	Passed
Aroclor 1268 #4	0.100	0.100	0.485	20.000	Passed
Aroclor 1268 #5	0.100	0.087	12.661	20.000	Passed
SURRDCB	100.000	90.142	9.858	20.000	Passed
Aroclor 1268	0.500	0.488	2.458	20.000	Passed

PCB Analysis Report (1268) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP6283
Acquired: 10/29/2020 20:03:46
Printed: 10/30/2020 11:53:29

Data Summary: {Data Description}



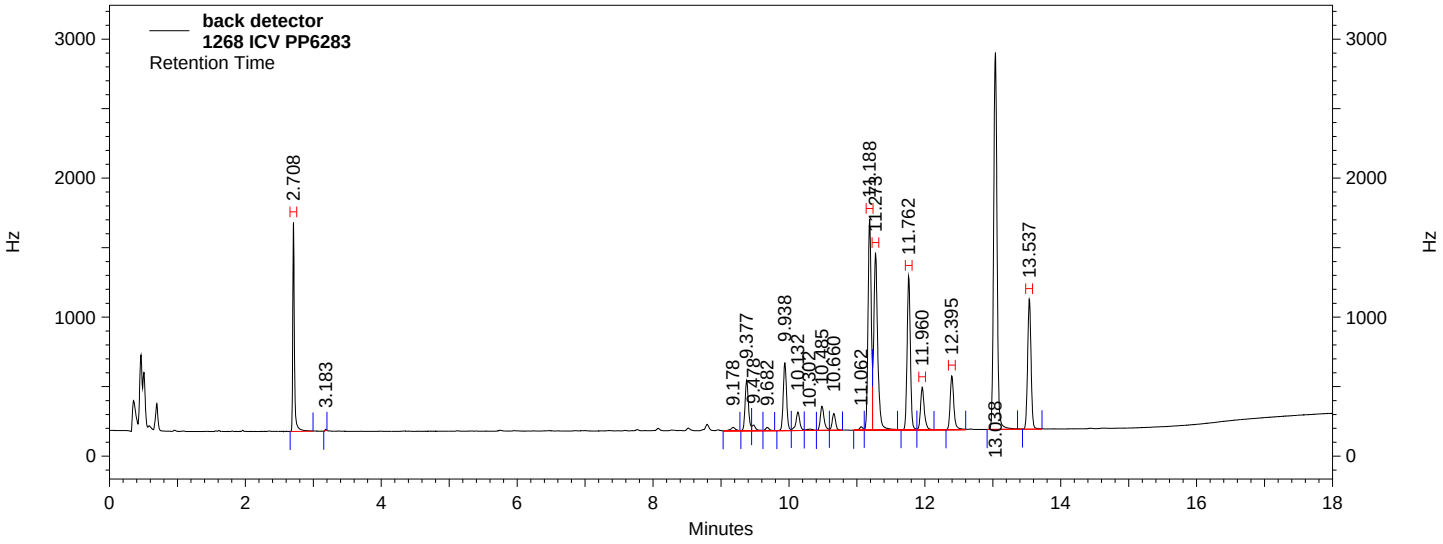
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.220	48554544	102.198
Aroclor 1268 #1	9.353	79768710	0.092
Aroclor 1268 #2	9.422	111603523	0.110
Aroclor 1268 #3	9.787	75233889	0.097
Aroclor 1268 #4	9.950	26082263	0.101
Aroclor 1268 #5	10.508	30589810	0.087
SURRDCB	11.437	66999531	90.429
Aroclor 1268		323278195	0.487

PCB Analysis Report (1268) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\017.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\1268.met
User: JJY
Sample ID: 1268 ICV PP6283
Acquired: 10/29/2020 20:03:46
Printed: 10/30/2020 11:53:29

Data Summary: {Data Description}



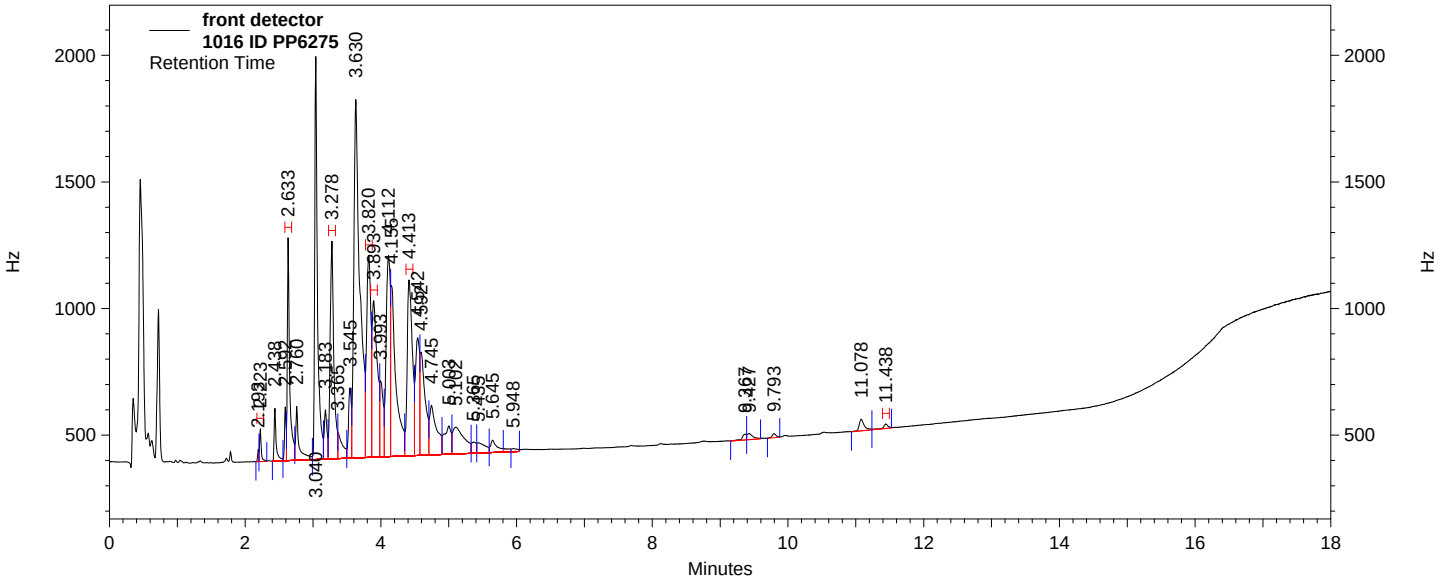
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMX	2.708	19448079	102.386
Aroclor 1268 #1	11.188	38524609	0.099
Aroclor 1268 #2	11.273	39300233	0.105
Aroclor 1268 #3	11.762	28682479	0.097
Aroclor 1268 #4	11.960	9123722	0.100
Aroclor 1268 #5	12.395	11197139	0.087
SURRDCB	13.537	25322632	90.142
Aroclor 1268		126828182	0.488

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: 1016 ID PP6275
Acquired: 10/29/2020 20:46:12
Printed: 10/30/2020 11:53:36

Data Summary: {Data Description}



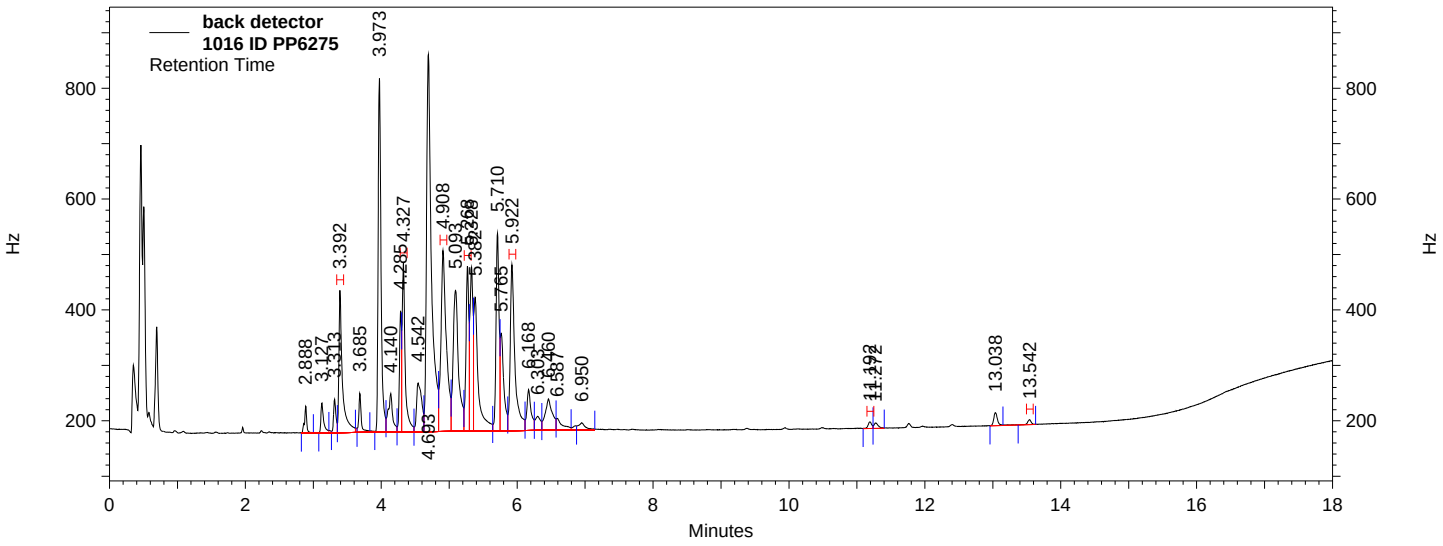
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.223	1715968	1.155
Aroclor 1016 #1	2.633	16029814	0.099
Aroclor 1016 #2	3.278	24998199	0.106
Aroclor 1016 #3	3.820	26947584	0.106
Aroclor 1016 #4	3.893	24666808	0.102
Aroclor 1016 #5	4.413	28297025	0.103
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.438	678312	1.445
Aroclor 1016		120939430	0.516
Aroclor 1260		0	0.000

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\102920pcbic\019.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\102920pcbic.met
User: JJY
Sample ID: 1016 ID PP6275
Acquired: 10/29/2020 20:46:12
Printed: 10/30/2020 11:53:36

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB			0.000 BDL
Aroclor 1016 #1	3.392	7105561	0.101
Aroclor 1016 #2	4.327	7165921	0.101
Aroclor 1016 #3	4.908	13958980	0.103
Aroclor 1016 #4	5.268	6676754	0.097
Aroclor 1016 #5	5.922	11165256	0.101
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5	11.192	336384	0.002
SURRDCBPCB	13.542	255880	1.023
Aroclor 1016		46072472	0.503
Aroclor 1260		336384	0.002

POLYCHLORINATED BIPHENYL CONTINUING AND ENDING STANDARDS DOCUMENTS

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\111720pcb.seq
User : JJY
Printed : 11/17/2020 14:43:51

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111720pcb\003.dat	PCB CCV PP6267	11/17/2020 14:43:50

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	109.510	9.510	20.000	Passed
Aroclor 1016 #1	0.100	0.112	12.407	20.000	Passed
Aroclor 1016 #2	0.100	0.111	10.968	20.000	Passed
Aroclor 1016 #3	0.100	0.114	13.597	20.000	Passed
Aroclor 1016 #4	0.100	0.104	4.230	20.000	Passed
Aroclor 1016 #5	0.100	0.112	12.159	20.000	Passed
Aroclor 1260 #1	0.100	0.108	7.525	20.000	Passed
Aroclor 1260 #2	0.100	0.108	8.097	20.000	Passed
Aroclor 1260 #3	0.100	0.110	10.017	20.000	Passed
Aroclor 1260 #4	0.100	0.108	7.980	20.000	Passed
Aroclor 1260 #5	0.100	0.116	16.273	20.000	Passed
SURRDCBPCB	100.000	103.140	3.140	20.000	Passed
Aroclor 1016	0.500	0.553	10.672	20.000	Passed
Aroclor 1260	0.500	0.550	9.978	20.000	Passed

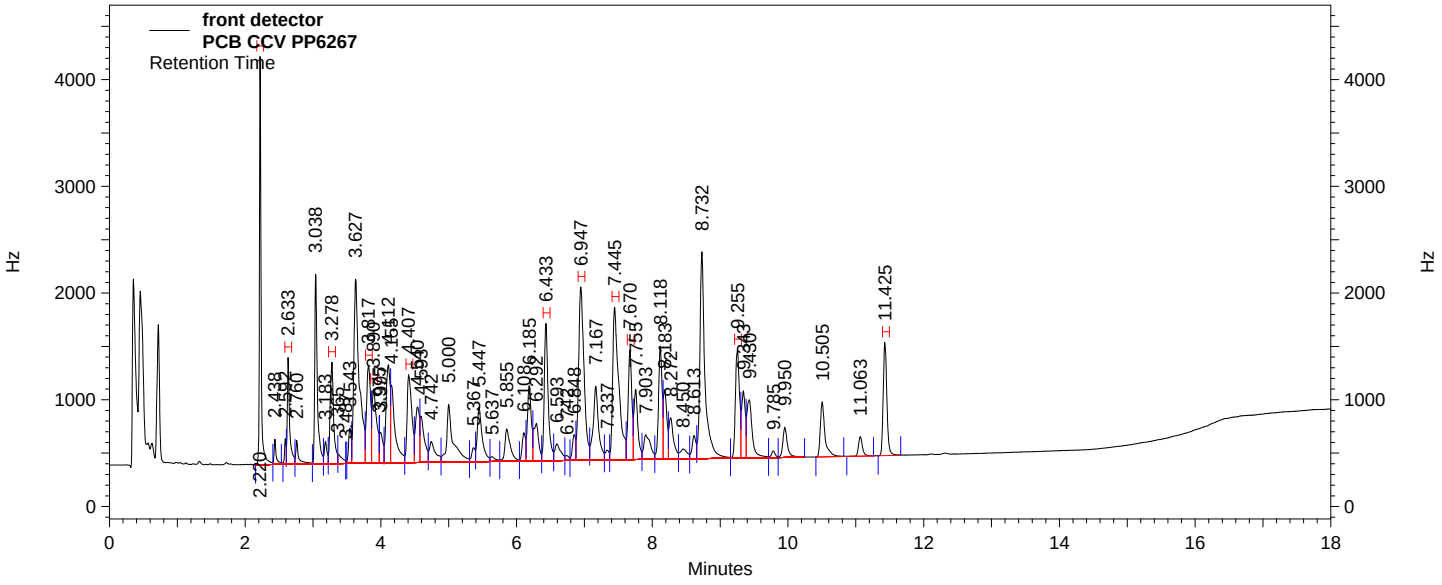
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	108.191	8.191	20.000	Passed
Aroclor 1016 #1	0.100	0.111	10.654	20.000	Passed
Aroclor 1016 #2	0.100	0.108	8.004	20.000	Passed
Aroclor 1016 #3	0.100	0.109	8.653	20.000	Passed
Aroclor 1016 #4	0.100	0.110	10.110	20.000	Passed
Aroclor 1016 #5	0.100	0.110	10.352	20.000	Passed
Aroclor 1260 #1	0.100	0.108	8.282	20.000	Passed
Aroclor 1260 #2	0.100	0.107	7.471	20.000	Passed
Aroclor 1260 #3	0.100	0.105	5.288	20.000	Passed
Aroclor 1260 #4	0.100	0.103	2.963	20.000	Passed
Aroclor 1260 #5	0.100	0.103	3.357	20.000	Passed
SURRDCBPCB	100.000	99.005	0.995	20.000	Passed
Aroclor 1016	0.500	0.548	9.555	20.000	Passed
Aroclor 1260	0.500	0.527	5.472	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\111720pcb\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: PCB CCV PP6267
Acquired: 11/17/2020 11:28:15
Printed: 11/17/2020 14:43:49

Data Summary: {Data Description}



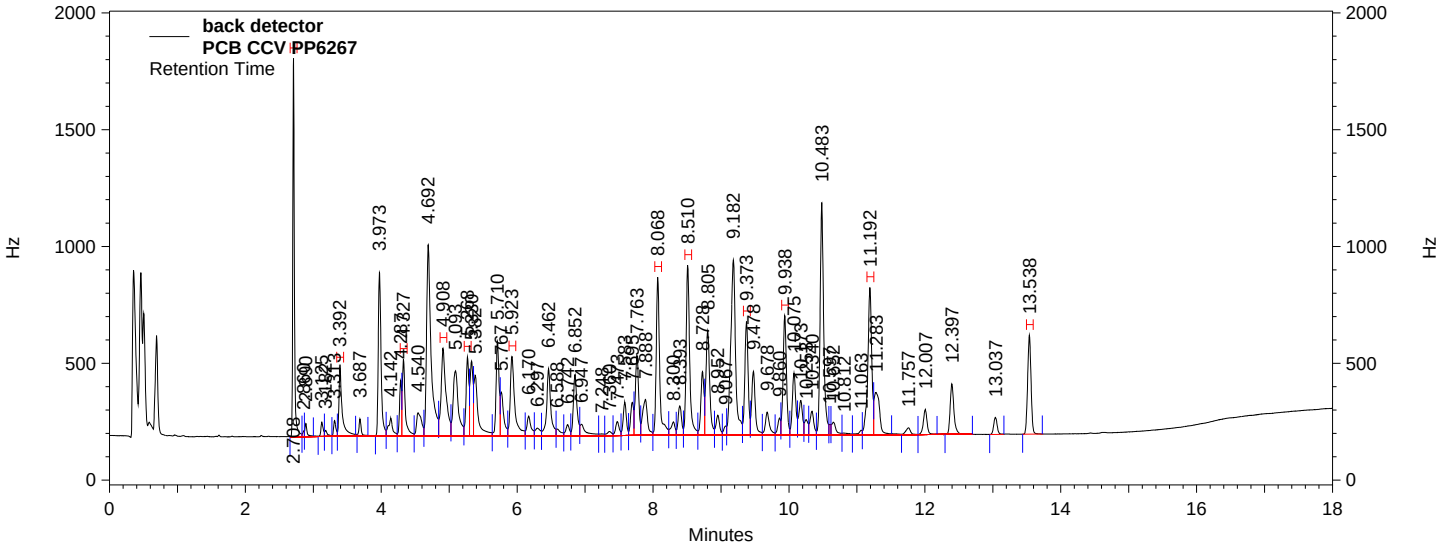
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.220	49849542	109.510
Aroclor 1016 #1	2.633	18140140	0.112
Aroclor 1016 #2	3.278	26188571	0.111
Aroclor 1016 #3	3.817	28830065	0.114
Aroclor 1016 #4	3.890	25143498	0.104
Aroclor 1016 #5	4.407	30824721	0.112
Aroclor 1260 #1	6.433	40130278	0.108
Aroclor 1260 #2	6.947	69236572	0.108
Aroclor 1260 #3	7.445	68857779	0.110
Aroclor 1260 #4	7.670	29443697	0.108
Aroclor 1260 #5	9.255	32799898	0.116
SURRDCBPCB	11.425	30842566	103.140
Aroclor 1016		129126995	0.553
Aroclor 1260		240468224	0.550

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\111720pcb\003.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: PCB CCV PP6267
Acquired: 11/17/2020 11:28:15
Printed: 11/17/2020 14:43:49

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.708	20061414	108.191
Aroclor 1016 #1	3.392	7771751	0.111
Aroclor 1016 #2	4.327	7638531	0.108
Aroclor 1016 #3	4.908	14718662	0.109
Aroclor 1016 #4	5.268	7571599	0.110
Aroclor 1016 #5	5.923	12142807	0.110
Aroclor 1260 #1	8.068	18707743	0.108
Aroclor 1260 #2	8.510	20472378	0.107
Aroclor 1260 #3	9.373	12848036	0.105
Aroclor 1260 #4	9.938	13585116	0.103
Aroclor 1260 #5	11.192	19548499	0.103
SURRDCBPCB	13.538	11348149	99.005
Aroclor 1016		49843350	0.548
Aroclor 1260		85161772	0.527

QC Check Standard Report

Sequence : C:\Instarch\Semi7\Sequence\111720pcb.seq
User : JJY
Printed : 11/17/2020 15:25:05

File	Sample ID	Acquired
C:\Instarch\Semi7\Data\111720pcb\013.dat	PCB CCV PP6267	11/17/2020 15:25:05

front detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	99.469	0.531	20.000	Passed
Aroclor 1016 #1	0.100	0.099	0.669	20.000	Passed
Aroclor 1016 #2	0.100	0.098	1.904	20.000	Passed
Aroclor 1016 #3	0.100	0.098	1.922	20.000	Passed
Aroclor 1016 #4	0.100	0.093	6.718	20.000	Passed
Aroclor 1016 #5	0.100	0.095	5.411	20.000	Passed
Aroclor 1260 #1	0.100	0.095	5.178	20.000	Passed
Aroclor 1260 #2	0.100	0.095	4.942	20.000	Passed
Aroclor 1260 #3	0.100	0.094	5.592	20.000	Passed
Aroclor 1260 #4	0.100	0.095	5.284	20.000	Passed
Aroclor 1260 #5	0.100	0.093	6.781	20.000	Passed
SURRDCBPCB	100.000	93.440	6.560	20.000	Passed
Aroclor 1016	0.500	0.483	3.325	20.000	Passed
Aroclor 1260	0.500	0.472	5.555	20.000	Passed

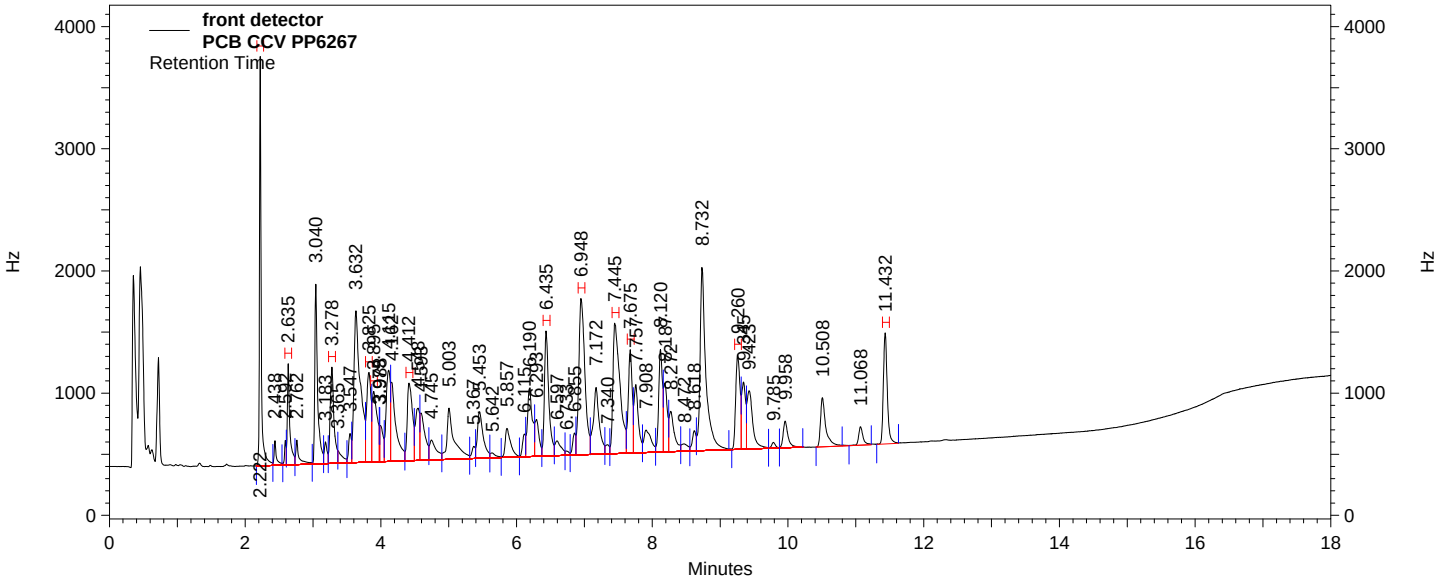
back detector

Compound	Expected Conc.	Actual Conc.	%RD Actual	%RD Limit	Status
SURRTCMXPCB	100.000	98.920	1.080	20.000	Passed
Aroclor 1016 #1	0.100	0.101	0.586	20.000	Passed
Aroclor 1016 #2	0.100	0.103	2.677	20.000	Passed
Aroclor 1016 #3	0.100	0.101	1.080	20.000	Passed
Aroclor 1016 #4	0.100	0.099	0.579	20.000	Passed
Aroclor 1016 #5	0.100	0.100	0.318	20.000	Passed
Aroclor 1260 #1	0.100	0.098	1.803	20.000	Passed
Aroclor 1260 #2	0.100	0.098	2.023	20.000	Passed
Aroclor 1260 #3	0.100	0.097	2.720	20.000	Passed
Aroclor 1260 #4	0.100	0.105	5.330	20.000	Passed
Aroclor 1260 #5	0.100	0.094	6.273	20.000	Passed
SURRDCBPCB	100.000	93.541	6.459	20.000	Passed
Aroclor 1016	0.500	0.503	0.689	20.000	Passed
Aroclor 1260	0.500	0.493	1.498	20.000	Passed

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\111720pcb\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: PCB CCV PP6267
Acquired: 11/17/2020 15:04:58
Printed: 11/17/2020 15:25:01

Data Summary: {Data Description}



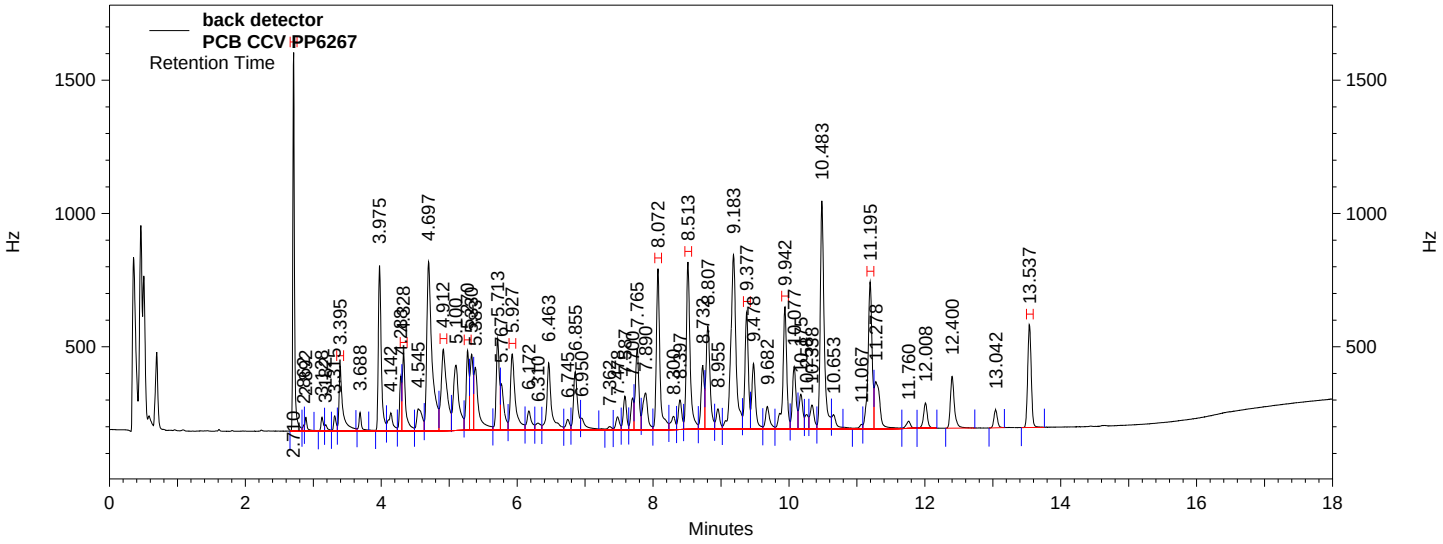
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.222	45388957	99.469
Aroclor 1016 #1	2.635	16072678	0.099
Aroclor 1016 #2	3.278	23223106	0.098
Aroclor 1016 #3	3.825	24964715	0.098
Aroclor 1016 #4	3.895	22598917	0.093
Aroclor 1016 #5	4.412	26033929	0.095
Aroclor 1260 #1	6.435	35564651	0.095
Aroclor 1260 #2	6.948	61089464	0.095
Aroclor 1260 #3	7.445	59185854	0.094
Aroclor 1260 #4	7.675	25904950	0.095
Aroclor 1260 #5	9.260	26149949	0.093
SURRDCBPCB	11.432	27965501	93.440
Aroclor 1016		112893345	0.483
Aroclor 1260		207894868	0.472

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\111720pcb\013.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: PCB CCV PP6267
Acquired: 11/17/2020 15:04:58
Printed: 11/17/2020 15:25:01

Data Summary: {Data Description}



back detector Results

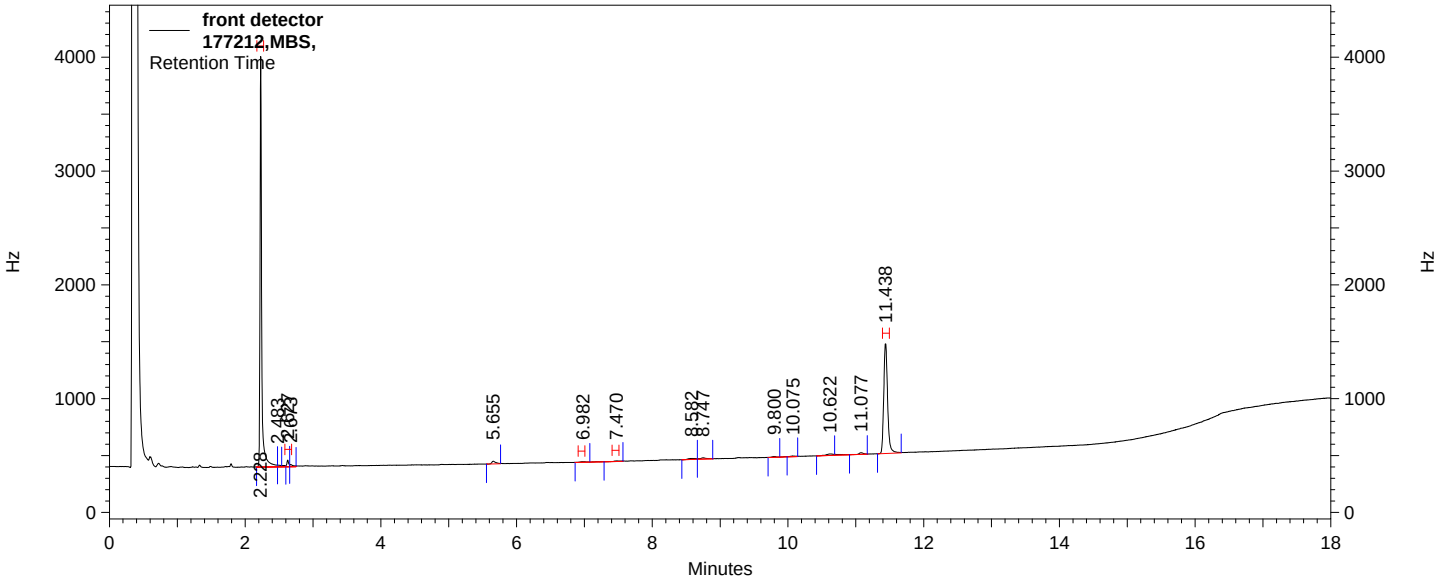
Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.710	18327003	98.920
Aroclor 1016 #1	3.395	7065496	0.101
Aroclor 1016 #2	4.328	7274306	0.103
Aroclor 1016 #3	4.912	13718637	0.101
Aroclor 1016 #4	5.270	6848926	0.099
Aroclor 1016 #5	5.927	10979992	0.100
Aroclor 1260 #1	8.072	16984863	0.098
Aroclor 1260 #2	8.513	18680791	0.098
Aroclor 1260 #3	9.377	11885644	0.097
Aroclor 1260 #4	9.942	13890794	0.105
Aroclor 1260 #5	11.195	17722808	0.094
SURRDCBPCB	13.537	10729641	93.541
Aroclor 1016		45887357	0.503
Aroclor 1260		79164900	0.493

POLYCHLORINATED BIPHENYL QUALITY CONTROL DOCUMENTS

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\111720pcb\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,MBS,
Acquired: 11/17/2020 12:36:26
Printed: 11/17/2020 14:44:00

Data Summary: {Data Description}



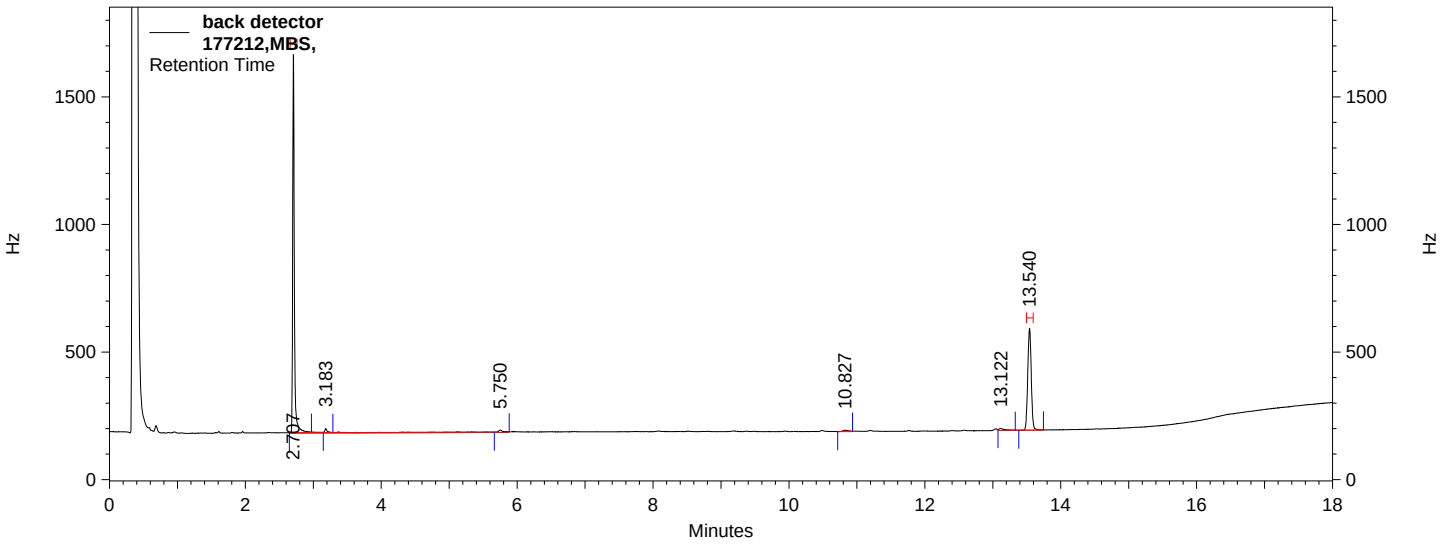
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.228	47306772	103.786
Aroclor 1016 #1	2.627	828262	0.003
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2	6.982	271762	0.000
Aroclor 1260 #3	7.470	265838	0.000
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	11.438	29462679	98.488
Aroclor 1016		828262	0.003
Aroclor 1260		537600	0.000

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\111720pcb\006.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,MBS,
Acquired: 11/17/2020 12:36:26
Printed: 11/17/2020 14:44:00

Data Summary: {Data Description}



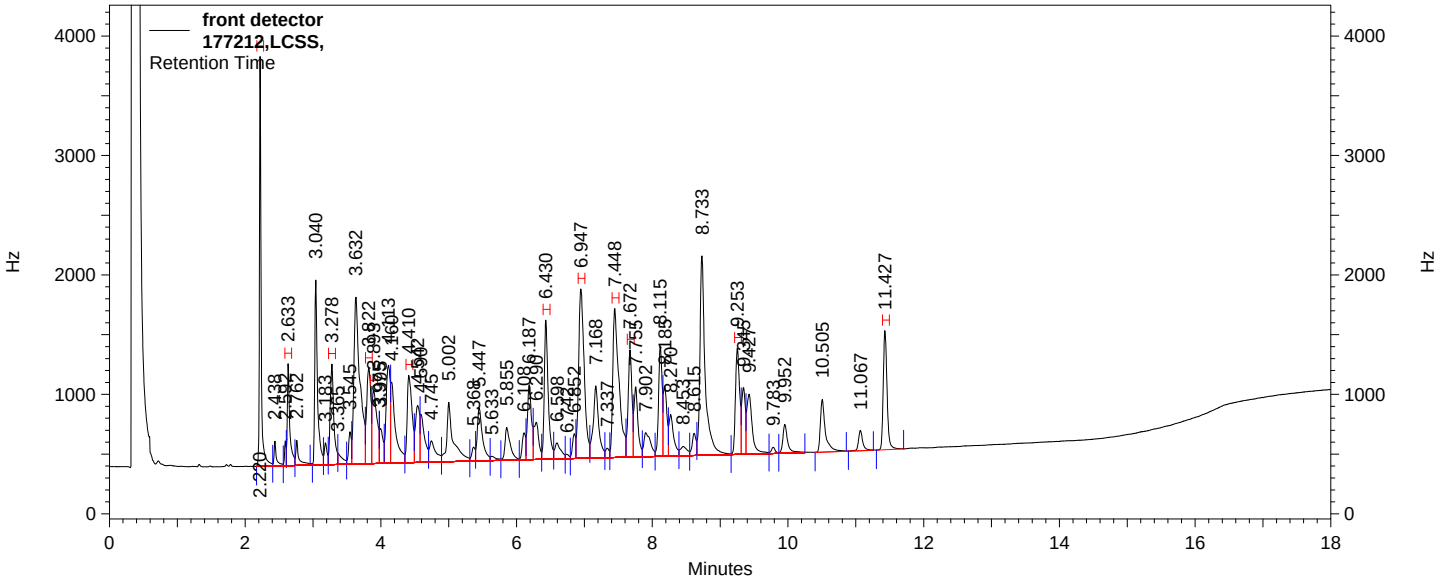
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.707	19146689	103.301
Aroclor 1016 #1			0.000 BDL
Aroclor 1016 #2			0.000 BDL
Aroclor 1016 #3			0.000 BDL
Aroclor 1016 #4			0.000 BDL
Aroclor 1016 #5			0.000 BDL
Aroclor 1260 #1			0.000 BDL
Aroclor 1260 #2			0.000 BDL
Aroclor 1260 #3			0.000 BDL
Aroclor 1260 #4			0.000 BDL
Aroclor 1260 #5			0.000 BDL
SURRDCBPCB	13.540	11078118	96.620
Aroclor 1016		0	0.000
Aroclor 1260		0	0.000

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\111720pcb\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,LCSS,
Acquired: 11/17/2020 12:57:36
Printed: 11/17/2020 14:44:03

Data Summary: {Data Description}



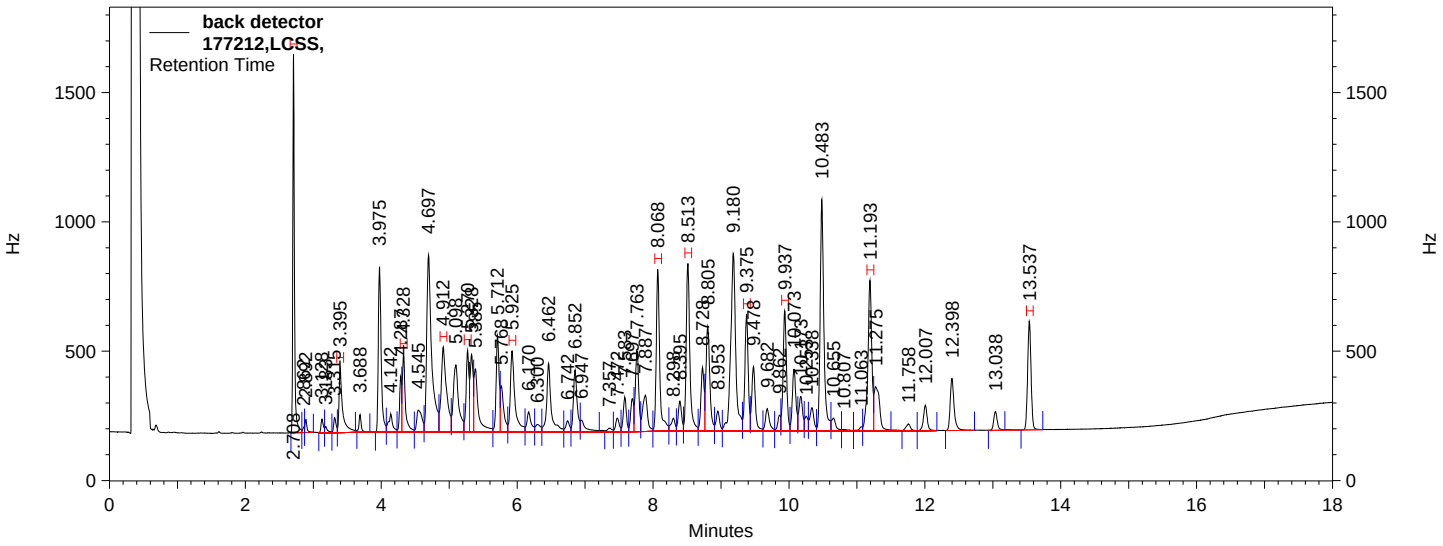
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.220	45928064	100.682
Aroclor 1016 #1	2.633	16512538	0.102
Aroclor 1016 #2	3.278	24197873	0.102
Aroclor 1016 #3	3.822	26597320	0.105
Aroclor 1016 #4	3.893	23129790	0.096
Aroclor 1016 #5	4.410	28165994	0.102
Aroclor 1260 #1	6.430	36320101	0.097
Aroclor 1260 #2	6.947	62510867	0.097
Aroclor 1260 #3	7.448	61199030	0.098
Aroclor 1260 #4	7.672	26590038	0.097
Aroclor 1260 #5	9.253	29259361	0.104
SURRDCBPCB	11.427	30070249	100.536
Aroclor 1016		118603515	0.507
Aroclor 1260		215879397	0.493

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\111720pcb\007.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,LCSS,
Acquired: 11/17/2020 12:57:36
Printed: 11/17/2020 14:44:03

Data Summary: {Data Description}



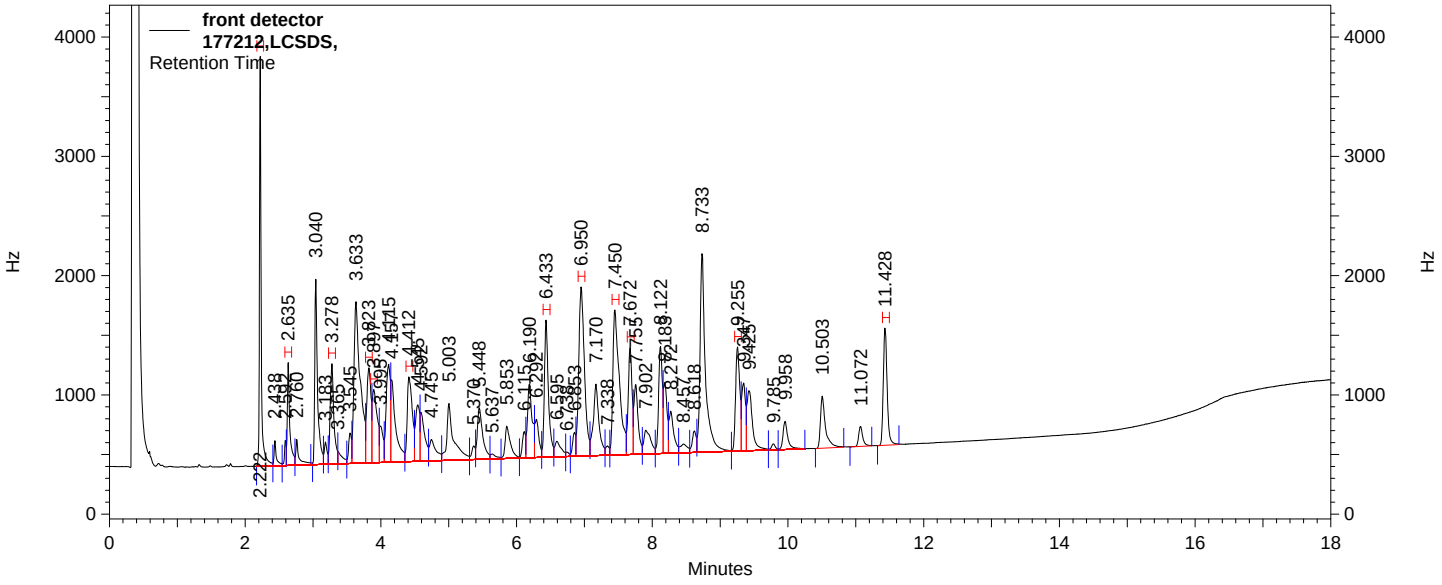
back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.708	18441914	99.534
Aroclor 1016 #1	3.395	6969749	0.099
Aroclor 1016 #2	4.328	7217605	0.102
Aroclor 1016 #3	4.912	13865551	0.102
Aroclor 1016 #4	5.270	7197494	0.105
Aroclor 1016 #5	5.925	11277019	0.102
Aroclor 1260 #1	8.068	17199948	0.099
Aroclor 1260 #2	8.513	18762547	0.098
Aroclor 1260 #3	9.375	11784515	0.096
Aroclor 1260 #4	9.937	12536232	0.095
Aroclor 1260 #5	11.193	17740713	0.094
SURRDCBPCB	13.537	11316032	98.721
Aroclor 1016		46527418	0.510
Aroclor 1260		78023955	0.483

PCB Analysis Report (1016/1260) *(Channel A)*

Data File: C:\Instarch\Semi7\Data\111720pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,LCSDS,
Acquired: 11/17/2020 14:22:32
Printed: 11/17/2020 14:44:16

Data Summary: {Data Description}



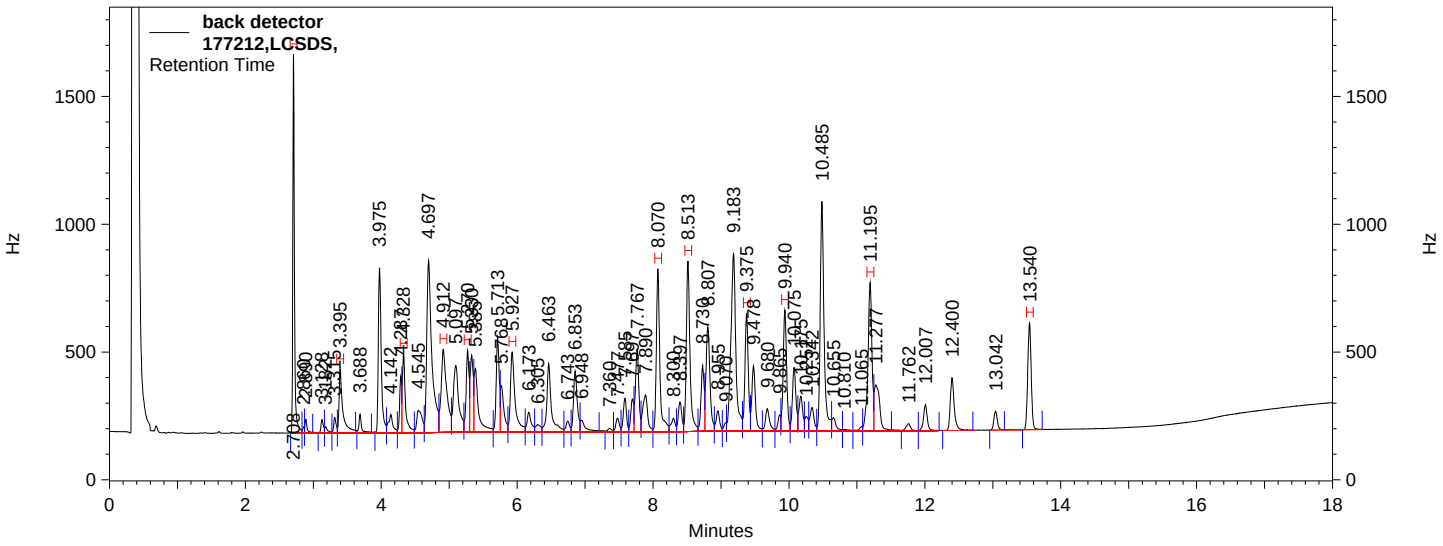
front detector Results

Component	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.222	46751025	102.535
Aroclor 1016 #1	2.635	16774447	0.104
Aroclor 1016 #2	3.278	24578159	0.104
Aroclor 1016 #3	3.823	26619725	0.105
Aroclor 1016 #4	3.897	23405559	0.097
Aroclor 1016 #5	4.412	28443836	0.103
Aroclor 1260 #1	6.433	37022153	0.099
Aroclor 1260 #2	6.950	63787556	0.099
Aroclor 1260 #3	7.450	62458548	0.100
Aroclor 1260 #4	7.672	26845406	0.098
Aroclor 1260 #5	9.255	28691189	0.102
SURRDCBPCB	11.428	29993461	100.277
Aroclor 1016		119821726	0.513
Aroclor 1260		218804852	0.498

PCB Analysis Report (1016/1260) *(Channel B)*

Data File: C:\Instarch\Semi7\Data\111720pcb\011.dat
Method: C:\Instarch\Semi7\Methods\Aroclor\102920pcbic\111720pcb.met
User: JJY
Sample ID: 177212,LCSDS,
Acquired: 11/17/2020 14:22:32
Printed: 11/17/2020 14:44:16

Data Summary: {Data Description}



back detector Results

Name	*Retention Time*	*Area Counts*	*Concentration (ug/ml)*
SURRTCMXPCB	2.708	18845564	101.692
Aroclor 1016 #1	3.395	7314106	0.104
Aroclor 1016 #2	4.328	7554794	0.107
Aroclor 1016 #3	4.912	14356315	0.106
Aroclor 1016 #4	5.270	7468536	0.109
Aroclor 1016 #5	5.927	11604620	0.105
Aroclor 1260 #1	8.070	17685476	0.102
Aroclor 1260 #2	8.513	19281574	0.101
Aroclor 1260 #3	9.375	12212539	0.100
Aroclor 1260 #4	9.940	12933385	0.098
Aroclor 1260 #5	11.195	18246689	0.096
SURRDCBPCB	13.540	11428719	99.717
Aroclor 1016		48298371	0.531
Aroclor 1260		80359663	0.498

POLYCHLORINATED BIPHENYLS
LOGBOOK
DOCUMENTS

S PCB Analytical Run
177212 on 11/16/2020

Date Analyzed: _____ JJY 11/17/20 Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
157958	504392	CONCRETEDC 001-001-CO	11/12/2020 1200		CH2M - JACOBS	RVAAP	PCB QSM 5	79012	S	**4**	Y
157958	504405	CONCRETEDC-002-002-CO	11/12/2020 1200		CH2M - JACOBS	RVAAP	PCB QSM 5	79012	S	**4**	Y
	505017						PCB QSM 5				
				MBS				79012			
	505018						PCB QSM 5				
				LCSS				79012			
	505019						PCB QSM 5				
				LCSDS 505018				79012			

5 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 11/16/2020

Prep Batch **79,012** Date Prepped: 11/16/2020 Prepped By WMB

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	505017	MBS		PCB QSM 5	SOLID	10	10.00			
	505018	LCSS		PCB QSM 5	SOLID	10	10.00			
	505019	LCSDS	505018	PCB QSM 5	SOLID	10	10.00			
157958	504392			PCB QSM 5	SOIL	10	10.13		4	
	504405			PCB QSM 5	SOIL	10	10.15		4	

Notes:_____

Pesticides/PCB Extraction Bench Sheet

(SOP Reference # SV002 & SV004)

3510=WATER
3545=PFE or 3546=Microwave >>
(PFE=Pressurized Fluid Extraction)

Prep Batch #:	79012
Prep Method:	3546/8082
Analyst:	WMB
Date:	11/16/2020
Start Time:	08:30
End Date:	11/16/2020
End Time:	15:30

Analysis Methods
8081 = Pesticides
8082 = PCBs

Matrix: SOIL
Balance Used: SVB02
Ave MW Temp (°C): 110.0

Reagent Lots>>>

NA_2SO_4	MISC0795
Diatomaceous Earth	S4358
Dionex Solution	MISC0783A
Methylene Chloride	EA073US
Acetone	DT903
Hexane	DV300
H_2SO_4	NA

Concentration By: WMB
Concentration Date: 11/16/2020

Microwave Cell #	Sample ID	Comments	(Solids) Sample Weight (g)	(Liquids) Sample Volume (L)	Final Volume (ml)	pH Adj. 5-9 (Yes/No)
21	505017	MB	10.00		10	Y
22	505018	LCS	10.00		10	Y
23	505019	LCSDS	10.00		10	Y
48	504392		10.13		10	Y
49	504405		10.15		10	Y
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
					10	
		(MS) Parent Sample			10	
		(MSD)			10	

MB=Method Blank, LCS=Laboratory Control Sample, MS=Matrix Spike, MSD=Matrix Spike Duplicate, Tox=Toxaphene & Chlor=Technical chlordane

MS/MSD/ LCS Spike Amount (ml): 0.5
Spike Concentration (ug/mL): 10
Spike Reference #: PP6288

Surrogate Spike Amount (ml): 0.5
Surrogate Spike Conc. (ug/mL): 0.5
Surrogate Spike Reference #: PP6333

Tox/Chlor Spike Amount (ml): NA
Tox/Chlor Spike Conc. (ug/mL): NA
Tox/Chlor Spike Reference: NA

Relinquished to: JJY
Date: 11/16/2020

Reviewed By: JJY
Date: 11/16/2020

Semi-Volatiles Sample Cleanup Record Sheet

FSV14-02, FSV25-01, FSV26-01, FSV28-01

Prep Batch Number(s): 78964 79012 _____ _____

GPC

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
$MeCl_2$ Lot:	

Florisil

Cleanup Performed (Y/N):	N
Date:	
Time:	
Analyst Initials:	
Cartridge I.D. Number:	
Hexane Lot:	
Acetone Lot:	

Acid

Cleanup Performed (Y/N):	Y
Date:	11/17/2020
Time:	10:00
Analyst Initials:	JJY
H_2SO_4 Lot:	59274
Number of treatments:	1

Sulfur

Cleanup Performed (Y/N):	Y
Date:	11/17/2020
Time:	11:00
Analyst Initials:	JJY
Copper Lot:	919121-BK

Comments:

FSV4-01

8082 PCB Analysis Data Review Checklist

Analytical Run #: 177212	**Independent Reviewer: AJZ**
Sequence Date: 11/17/2020	**Date of Review: 11/20/2020**
Analyst/Data Interpreter: JJY	**Approval: Yes**

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question. Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirements:	Acceptance Criteria	Analyst Review		Independent Review		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
1. INITIAL CALIBRATION (ICAL)						
a. Was the PCB initial calibration performed using a minimum of five varying standard concentration levels on two dissimilar columns?	Lowest standard at or near MRL	X		X		
b. Is the variation between calibration response factors for all concentration levels <20% RSD, is r^2 >.990, or r > 0.990 for the regression line?	RSD<20%, r^2>0.990, or r>0.990	X		X		
c. Was each ICAL uniquely identified (i.e. Standard Number)?		X		X		
d. Were there Calibration Factors (CF) established for the remaining Aroclors?		X		X		
e. Was an initial calibration blank (ICB) analyzed?		X		X		
2. INITIAL CALIBRATION VERIFICATION (ICV)						
a. Were there second source ICVs for all Aroclors analyzed after the initial calibration and prior to analysis of any samples?		X		X		
b. Were the recoveries for the ICVs within program limits?	Second source	X		X		
c. Was the ICVs uniquely identified (i.e. Standard Number)?	%Recovery	X		X		
3. CONTINUING CALIBRATION VERIFICATION (CCV)						
a. Were CCVs analyzed at the beginning of the sequence, after every 12 hours or every 20 samples (which ever comes first) and at the end of the analytical run? QSM = every ten sample injections.		X		X		
b. Were the recoveries for the CCVs within program limits?	%Recovery	X		X		
c. Were confirmed Aroclor detects processed using the appropriate Aroclor method?		X		X		
d. Was each CCV uniquely identified (i.e. Standard Number)?		X		X		

Additional Comments:

Analytical Run #: 177212

FORM #: FSV4-01
Rev. #: 2.0
Effective Date: 02/25/15

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
4. BLANKS						
a. Was the method blank (MB) analyzed prior to the analysis of samples?		X		X		
b. Was the MB result less than ½ the reporting limit (RL) or 5% of the sample amount?	In-house limits or client specified limits	X		X		
c. Was a MB prepped and analyzed at a frequency of one per Prep Batch?	Batch <20 samples	X		X		
5. LABORATORY CONTROL SAMPLE (LCS)						
a. Was a LCS analyzed at a frequencey of one per Prep Batch?	In-house limits or client specified limits	X		X		
b. Were the LCS recoveries in each LCS within the acceptance criteria?	Batch <20 samples	X		X		
6. MATRIX SPIKES						
a. Was a matrix spiked (MS) sample analyzed at a frequency one per Prep Batch? If no due to insufficient sample received, qualify all samples in batch with a "W".	Batch <20 samples	X		X		
b. Were MS recoveries in each MS within the acceptance criteria?	In-house limits or client specified limits	X		X		
7. LABORATORY CONTROL SPIKE / MATRIX SPIKE DUPLICATE						
a. Was a duplicate matrix spike or laboratory control spike sample analyzed at a . frequency one per Prep Batch?	Batch <20 samples	X		X		
b. Were MSD recoveries within the acceptance criteria?	In-house limits or client specified limits	X		X		
c. Is the relative percent difference (RPD) between a matrix spike (MS) and its duplicate (MSD) within the acceptance criteria?	In-house limits or client specified limits	X		X		

Additional Comments:

Analytical Run #: 177212

FSV4-01

8082 PCB Analysis Data Review Checklist

Requirements:	Acceptance Criteria	Analyst		Independent		Comments (indicate reference to an attachment if necessary)
		Yes	No	Yes	No	
8. SAMPLES (INCLUDING BLANKS, STANDARDS, AND QC SAMPLES)						
a. Are chromatogram characteristics, including peak shapes and areas, consistent with those of the CCV?		X		X		
b. Are surrogate recoveries for all samples, blanks, standards, and QC samples within acceptance criteria?		X		X		
c. Were all samples having analytes detected in amounts exceeding the calibration range diluted and reanalyzed?		X		X		
d. Were all samples extracted within holding times and analyzed within 40 days of extracting?	Analysis within 40 days of extraction	X		X		
e. Did the samples require additional cleanup steps? (i.e. acid treatment, florisil, GPC, and sulfur treatment)	Florisil, GPC, Acid, Sulfur Treatments	X		X		Acid, sulfur.
f. Was there a hexane injection performed prior to sample analysis?		X		X		
g. Was there a priming standard injected prior to sample analysis?		X		X		
9. RECORDS AND REPORTING						
a. Is the Analytical Run, Prep Batch and Extraction sheets, Summary sheets, Sequence file, analytical data, and method transfer to PDF format?		X		X		
b. Are all manually integrated chromatograms stamped with initials and date?		X		X		
c. Are reported results whose amounts exceeded the acceptance criteria flagged with an appropriate qualifier in LIMS and, if needed, a NCR completed?		X		X		
d. Do all values, dilution factors and qualifiers listed on the raw reports match the LIMS data?		X		X		
e. Is the ICAL method referenced on the Raw Data?		X		X		

Additional Comments:

Summary Report

Instrument I... **Semi 7**
Data Path: **C:\Instarch\Semi7\Sequence\102920pcbic.seq**
User ID: **JJY**
Printed Date: **10/30/2020 10:01:43**

JJY
11/10/20

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	PCB PRIME PP6253 1:10	001.dat	102920pcbic.met	10/29/2020 14:24:04	
2	Hexane	002.dat	102920pcbic.met	10/29/2020 14:45:20	
3	1221 CF PP6268	003.dat	1221.met	10/29/2020 15:06:34	
4	1232 CF PP6269	004.dat	1232.met	10/29/2020 15:27:47	
5	1242 CF PP6270	005.dat	1242.met	10/29/2020 15:49:01	
6	1248 CF PP6271	006.dat	1248.met	10/29/2020 16:10:13	
7	1254 CF PP6272	007.dat	1254.met	10/29/2020 16:31:29	
8	1262 CF PP6273	008.dat	1262.met	10/29/2020 16:52:43	
9	1268 CF PP6274	009.dat	1268.met	10/29/2020 17:13:54	
10	Hexane	010.dat	102920pcbic.met	10/29/2020 17:35:08	
11	1221 ICV PP6277	011.dat	1221.met	10/29/2020 17:56:19	
12	1232 ICV PP6278	012.dat	1232.met	10/29/2020 18:17:33	
13	1242 ICV PP6279	013.dat	1242.met	10/29/2020 18:38:47	
14	1248 ICV PP6280	014.dat	1248.met	10/29/2020 19:00:01	
15	1254 ICV PP6281	015.dat	1254.met	10/29/2020 19:21:15	
16	1262 ICV PP6282	016.dat	1262.met	10/29/2020 19:42:31	
17	1268 ICV PP6283	017.dat	1268.met	10/29/2020 20:03:46	
18	Hexane	018.dat	102920pcbic.met	10/29/2020 20:24:58	
19	1016 ID PP6275	019.dat	102920pcbic.met	10/29/2020 20:46:12	
20	Hexane	020.dat	102920pcbic.met	10/29/2020 21:07:25	
21	PCB ICAL 1 PP6261	021.dat	102920pcbic.met	10/29/2020 21:28:39	
22	PCB ICAL 2 PP6262	022.dat	102920pcbic.met	10/29/2020 21:49:50	
23	PCB ICAL 3 PP6263	023.dat	102920pcbic.met	10/29/2020 22:11:04	
24	PCB ICAL 4 PP6264	024.dat	102920pcbic.met	10/29/2020 22:32:15	
25	PCB ICAL 5 PP6265	025.dat	102920pcbic.met	10/29/2020 22:53:27	
26	PCB ICAL 6 PP6266	026.dat	102920pcbic.met	10/29/2020 23:14:38	
27	Hexane	027.dat	102920pcbic.met	10/29/2020 23:35:53	
28	PCB ICV PP6276	028.dat	102920pcbic.met	10/29/2020 23:57:07	
29	Hexane	029.dat	102920pcbic.met	10/30/2020 00:18:21	
30	Hexane	030.dat	1254ic.met	10/30/2020 10:33:56	
31	1254 ICAL 1 PP6337	031.dat	1254ic.met	10/30/2020 10:55:09	
32	1254 ICAL 2 PP6338	032.dat	1254ic.met	10/30/2020 11:16:20	
33	1254 ICAL 3 PP6339	033.dat	1254ic.met	10/30/2020 11:37:34	
34	1254 ICAL 4 PP6340	034.dat	1254ic.met	10/30/2020 11:58:48	
35	1254 ICAL 5 PP6341	035.dat	1254ic.met	10/30/2020 12:20:02	
36	1254 ICAL 6 PP6342	036.dat	1254ic.met	10/30/2020 12:41:17	
37	Hexane	037.dat	1254ic.met	10/30/2020 13:02:30	
38	1254 ICV PP6281	038.dat	1254ic.met	10/30/2020 13:23:45	
39	Hexane	039.dat	102920pcbic.met	10/30/2020 13:44:58	

Summary Report

Instrument I... **Semi 7 (Offline)**
Data Path: **C:\Instarch\Semi7\Sequence\111720pcb.seq**
User ID: **JJY**
Printed Date: **11/17/2020 14:43:30**

JJY
11/17/20

Run Number	Sample ID	Data Filename	Method Filename	Analysis Date	Data Description
1	PCB PRIME PP6253 1:10	001.dat	111720pcb.met	11/17/2020 10:45:54	
2	Hexane	002.dat	111720pcb.met	11/17/2020 11:07:02	
3	PCB CCV PP6267	003.dat	111720pcb.met	11/17/2020 11:28:15	
4	Hexane	004.dat	111720pcb.met	11/17/2020 11:49:27	
5	Hexane	005.dat	111720pcb.met	11/17/2020 12:10:38	
6	177212,MBS,	006.dat	111720pcb.met	11/17/2020 12:36:26	
7	177212,LCSS,	007.dat	111720pcb.met	11/17/2020 12:57:36	
8	Hexane	008.dat	111720pcb.met	11/17/2020 13:18:49	
9	177212,504392,	009.dat	111720pcb.met	11/17/2020 13:40:03	
10	177212,504405,	010.dat	111720pcb.met	11/17/2020 14:01:18	
11	177212,LCSDS,	011.dat	111720pcb.met	11/17/2020 14:22:32	
12	Hexane	012.dat	111720pcb.met	11/17/2020 14:43:44	
13	PCB CCV PP6267	013.dat	111720pcb.met	11/17/2020 15:04:58	
14	Hexane	014.dat	111720pcb.met	11/17/2020 15:26:12	

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 81
Page is Unlocked
Page is not Witnessed
Project: Unassigned
Page Title: 051820

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6248	Pest/PCB Surrogates	Acetone ChemPure lot DR774	JJY	05/18/2020	11/18/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4144C	200	ut/ml	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6249	Pest/PCB Surrogates	Acetone ChemPure lot DR774	JJY	05/18/2020	11/18/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4144C	200	ug/ml	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6250	Pest/PCB Surrogates	Acetone ChemPure lot DR774	JJY	05/18/2020	11/18/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4144C	200	ug/ml	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6251	Pest/PCB Surrogates	Acetone ChemPure lot DR774	JJY	05/18/2020	11/18/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4144C	200	ug/ml	0.250	100	0.500

1

CT Laboratories, LLC

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 82

Page is Unlocked

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Project: Unassigned

Page Title: 060920

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6252	Pest/PCB Surrogate Intermediate Std	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4144D	200	ug/ml	0.250	10.0	5.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6253	PCB Stock (1016 1260)	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4202	1000	ug/ml	0.100	10.0	10.0
S4208	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6254	Aroclor 1221 Stock	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4203	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6255	Aroclor 1232 Stock	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4204	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6256	Aroclor 1242 Stock	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4205	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6257	Aroclor 1248 Stock	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4206	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6258	Aroclor 1254 Stock	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4207	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6259	Aroclor 1262 Stock	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4209	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6260	Aroclor 1268 Stock	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4210	1000	ug/ml	0.100	10.0	10.0
S4144D	200	ug/ml	0.025	10.0	0.50

PCB CURVE	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PCB ICAL	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

Standard Number	Standard Description	Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
PP6261	PCB ICAL PT 1	PP6253	10.0	ug/ml	0.020	10.0	0.02
PP6262	PCB ICAL PT 2	PP6253	10.0	ug/ml	0.050	10.0	0.05
PP6263	PCB ICAL PT 3	PP6253	10.0	ug/ml	0.200	10.0	0.20
PP6264	PCB ICAL PT 4	PP6253	10.0	ug/ml	0.500	10.0	0.50
PP6265	PCB ICAL PT 5	PP6253	10.0	ug/ml	0.700	10.0	0.70
PP6266	PCB ICAL PT 6	PP6253	10.0	ug/ml	1.000	10.0	1.00
PP6267	PCB CCV	PP6253	10.0	ug/ml	0.500	10.0	0.50
PP6268	1221 CF	PP6254	10.0	ug/ml	0.500	10.0	0.50
PP6269	1232 CF	PP6255	10.0	ug/ml	0.500	10.0	0.50
PP6270	1242 CF	PP6256	10.0	ug/ml	0.500	10.0	0.50
PP6271	1248 CF	PP6257	10.0	ug/ml	0.500	10.0	0.50
PP6272	1254 CF	PP6258	10.0	ug/ml	0.500	10.0	0.50
PP6273	1262 CF	PP6259	10.0	ug/ml	0.500	10.0	0.50
PP6274	1268 CF	PP6260	10.0	ug/ml	0.500	10.0	0.50
PP6275	1016 Pattern ID	S4202	1000	ug/ml	0.005	10.0	0.50

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6276	PCB ICV (1016 and 1260)	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4211	100	ug/ml	0.050	10.0	0.50
S4217	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6277	Aroclor 1221 ICV	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4212	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6278	Aroclor 1232 ICV	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4213	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6279	Aroclor 1242 ICV	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4214	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6280	Aroclor 1248 ICV	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4215	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6281	Aroclor 1254 ICV	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4216	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6282	Aroclor 1262 ICV	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4218	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6283	Aroclor 1268 ICV	Hexane ChemPure lot DV300-US	JJY	06/09/2020	12/09/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4219	100	ug/ml	0.050	10.0	0.50
PP6252	5.0	ug/ml	0.050	10.0	0.025

1

CT Laboratories, LLC

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 84

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Project: Unassigned

Page Title: 072420

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6285	Acid Herbicides Stock (Derivatized)	Hexane ChemPure lot DT601	JJY	07/24/2020	07/24/2021

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4243B	1000	ug/ml	0.100	10.0	10.0
S4245	1000	ug/ml	0.100	10.0	10.0
S4132B	1000	ug/ml	0.020	10.0	2.00

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6286	Acid Herbicide Surrogate	Acetone ChemPure lot DR774	JJY	07/24/2020	09/24/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4243B	1000	ug/ml	0.250	50.0	5.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6287	Acid Herbicide Spike	Acetone ChemPure lot DR774	JJY	07/24/2020	09/24/2020

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4132B	1000	ug/ml	0.050	50.0	1.0
S4245	1000	ug/ml	0.250	50.0	5.0

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6288	PCB Spike	Acetone ChemPure lot DR774	JJY	07/24/2020	01/2/42021

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4220A	1000	ug/ml	0.500	50.0	10.0
S4221A	1000	ug/ml	0.500	50.0	10.0

1

PEST-PCB-LOGBOOK-02

SV Prep Logbook

Logbook created: 09/21/17

NOTEBOOK VIEW: LTN_PEST_PCB_LOGBOOK_02_Default, NOTEBOOK: PEST_PCB_LOGBOOK_02, PAGE: 88
Page is Unlocked
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Project: Unassigned
Page Title: 101220

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6333	Pest/PCB Surrogates	Acetone ChemPure lot DU033-US	JJY	10/12/2020	04/12/2021

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4297A	200	ug/ml	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6334	Pest/PCB Surrogates	Acetone ChemPure lot DU033-US	JJY	10/12/2020	04/12/2021

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4297A	200	ug/ml	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6335	Pest/PCB Surrogates	Acetone ChemPure lot DU033-US	JJY	10/12/2020	04/12/2021

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4297A	200	ug/ml	0.250	100	0.500

Standard Number	Standard Description	Solvent Manufacturer Lot	Analyst	Prep Date	Expiration Date
PP6336	Pest/PCB Surrogates	Acetone ChemPure lot DU033-US	JJY	10/12/2020	04/12/2021

STD Parent ID	Parent Concentration	Units	Standard Volume (ml)	Final Volume (ml)	Final Concentration (ug/ml)
S4297A	200	ug/ml	0.250	100	0.500

1

CT Laboratories, LLC

METALS
CLP FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

CONCRETEDC 001-001-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix (soil/water):	SOIL	SDG No.:	157958
% Solids:	89.7	Lab Sample ID:	504392
Analytical Method:	EPA 7471B	Date Received:	11/13/2020
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	177246	Analysis Date/Time	11/18/2020 09:39
Analytical Prep Batch #:	79008	Prep. Date/Time:	11/17/2020 10:40
ICAL Calibration #:	11182020	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.010		0.0024	0.0048	0.0096	0.0096

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

CONCRETEDC 001-001-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix (soil/water):	SOIL	SDG No.:	157958
% Solids:	89.7	Lab Sample ID:	504392
Analytical Method:	EPA 6010C	Date Received:	11/13/2020
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	177205	Analysis Date/Time	11/17/2020 12:58
Analytical Prep Batch #:	79000	Prep. Date/Time:	11/16/2020 11:19
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	4.4		0.15	0.46	0.91	0.91
7440-39-3	Barium	98.6		0.010	0.029	0.057	0.057
7440-43-9	Cadmium	0.18		0.0069	0.023	0.046	0.046
7440-47-3	Chromium	7.5		0.026	0.080	0.16	0.16
7439-92-1	Lead	4.6		0.046	0.14	0.29	0.29
7782-49-2	Selenium	0.35	J	0.069	0.23	0.46	0.46
7440-22-4	Silver	0.057	U	0.019	0.057	0.11	0.11

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

CONCRETEDC-002-002-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix (soil/water):	SOIL	SDG No.:	157958
% Solids:	90.9	Lab Sample ID:	504405
Analytical Method:	EPA 7471B	Date Received:	11/13/2020
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	177246	Analysis Date/Time	11/18/2020 09:42
Analytical Prep Batch #:	79008	Prep. Date/Time:	11/17/2020 10:40
ICAL Calibration #:	11182020	Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-97-6	Mercury	0.0042	J	0.0023	0.0046	0.0091	0.0091

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

CONCRETEDC-002-002-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix (soil/water):	SOIL	SDG No.:	157958
% Solids:	90.9	Lab Sample ID:	504405
Analytical Method:	EPA 6010C	Date Received:	11/13/2020
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	177205	Analysis Date/Time	11/17/2020 13:22
Analytical Prep Batch #:	79000	Prep. Date/Time:	11/16/2020 11:19
ICAL Calibration #:		Concentration Units:	mg/kg

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7440-38-2	Arsenic	5.3		0.15	0.45	0.91	0.91
7440-39-3	Barium	109		0.010	0.028	0.057	0.057
7440-43-9	Cadmium	0.17		0.0068	0.023	0.045	0.045
7440-47-3	Chromium	7.5		0.026	0.079	0.16	0.16
7439-92-1	Lead	4.0		0.045	0.14	0.28	0.28
7782-49-2	Selenium	0.60		0.068	0.23	0.45	0.45
7440-22-4	Silver	0.058	J	0.019	0.057	0.11	0.11

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177246 Lab Sample ID: 506700

ICAL Calibration #: 11182020 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/18/20 09:20	3.00	2.92	97	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

ICV

2A-1

INITIAL CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506671

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/20	11:14	12000	11300	94	90	110
Antimony	11/17/20	11:14	500.0	508.0	102	90	110
Arsenic	11/17/20	11:14	2000	2040	102	90	110
Barium	11/17/20	11:14	2000	1900	95	90	110
Beryllium	11/17/20	11:14	50.00	48.10	96	90	110
Cadmium	11/17/20	11:14	50.00	49.90	100	90	110
Calcium	11/17/20	11:14	10000	9980	100	90	110
Chromium	11/17/20	11:14	200.0	204.0	102	90	110
Cobalt	11/17/20	11:14	500.0	497.0	99	90	110
Copper	11/17/20	11:14	250.0	246.0	98	90	110
Iron	11/17/20	11:14	5000	4930	99	90	110
Lead	11/17/20	11:14	500.0	495.0	99	90	110
Magnesium	11/17/20	11:14	10000	10300	103	90	110
Manganese	11/17/20	11:14	500.0	492.0	98	90	110
Nickel	11/17/20	11:14	500.0	520.0	104	90	110
Selenium	11/17/20	11:14	2000	2140	107	90	110
Silver	11/17/20	11:14	50.00	47.80	96	90	110
Thallium	11/17/20	11:14	2000	2000	100	90	110
Vanadium	11/17/20	11:14	500.0	512.0	102	90	110
Zinc	11/17/20	11:14	500.0	518.0	104	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506672

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/20	11:20	1200	1250	104	80	120
Antimony	11/17/20	11:20	60.00	67.70	113	80	120
Arsenic	11/17/20	11:20	60.00	68.70	114	80	120
Barium	11/17/20	11:20	30.00	33.00	110	80	120
Beryllium	11/17/20	11:20	12.00	12.90	108	80	120
Cadmium	11/17/20	11:20	15.00	16.60	111	80	120
Calcium	11/17/20	11:20	1500	1650	110	80	120
Chromium	11/17/20	11:20	30.00	33.40	111	80	120
Cobalt	11/17/20	11:20	30.00	32.40	108	80	120
Copper	11/17/20	11:20	30.00	33.40	111	80	120
Iron	11/17/20	11:20	900.0	970.0	108	80	120
Lead	11/17/20	11:20	30.00	32.20	107	80	120
Magnesium	11/17/20	11:20	1500	1620	108	80	120
Manganese	11/17/20	11:20	30.00	34.10	114	80	120
Nickel	11/17/20	11:20	30.00	34.50	115	80	120
Selenium	11/17/20	11:20	60.00	64.50	108	80	120
Thallium	11/17/20	11:20	60.00	63.80	106	80	120
Vanadium	11/17/20	11:20	30.00	33.50	112	80	120
Zinc	11/17/20	11:20	30.00	35.00	117	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

LLQC

2A-1

LOWER LIMIT OF QUANTITATION CHECK (LLQC)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506676

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Silver	11/17/20 12:04	10.00	9.49	95	80	120

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506677

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/20	13:04	5000	4990	100	90	110
Antimony	11/17/20	13:04	5000	5120	102	90	110
Arsenic	11/17/20	13:04	5000	5110	102	90	110
Barium	11/17/20	13:04	5000	4790	96	90	110
Beryllium	11/17/20	13:04	500.0	491.0	98	90	110
Cadmium	11/17/20	13:04	500.0	503.0	101	90	110
Calcium	11/17/20	13:04	5000	5070	101	90	110
Chromium	11/17/20	13:04	5000	5060	101	90	110
Cobalt	11/17/20	13:04	5000	5060	101	90	110
Copper	11/17/20	13:04	5000	4830	97	90	110
Iron	11/17/20	13:04	5000	5010	100	90	110
Lead	11/17/20	13:04	5000	5130	103	90	110
Magnesium	11/17/20	13:04	5000	5330	107	90	110
Manganese	11/17/20	13:04	5000	4970	99	90	110
Nickel	11/17/20	13:04	5000	5040	101	90	110
Selenium	11/17/20	13:04	5000	5260	105	90	110
Silver	11/17/20	13:04	500.0	474.0	95	90	110
Thallium	11/17/20	13:04	5000	4700	94	90	110
Vanadium	11/17/20	13:04	5000	5200	104	90	110
Zinc	11/17/20	13:04	5000	4970	99	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506678

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/20	13:09	500.0	522.0	104	90	110
Antimony	11/17/20	13:09	500.0	533.0	107	90	110
Arsenic	11/17/20	13:09	500.0	502.0	100	90	110
Barium	11/17/20	13:09	500.0	503.0	101	90	110
Beryllium	11/17/20	13:09	50.00	50.20	100	90	110
Cadmium	11/17/20	13:09	50.00	50.90	102	90	110
Calcium	11/17/20	13:09	500.0	512.0	102	90	110
Chromium	11/17/20	13:09	500.0	519.0	104	90	110
Cobalt	11/17/20	13:09	500.0	511.0	102	90	110
Copper	11/17/20	13:09	500.0	513.0	103	90	110
Iron	11/17/20	13:09	500.0	508.0	102	90	110
Lead	11/17/20	13:09	500.0	510.0	102	90	110
Magnesium	11/17/20	13:09	500.0	503.0	101	90	110
Manganese	11/17/20	13:09	500.0	507.0	101	90	110
Nickel	11/17/20	13:09	500.0	530.0	106	90	110
Selenium	11/17/20	13:09	500.0	519.0	104	90	110
Silver	11/17/20	13:09	50.00	50.10	100	90	110
Thallium	11/17/20	13:09	500.0	517.0	103	90	110
Vanadium	11/17/20	13:09	500.0	520.0	104	90	110
Zinc	11/17/20	13:09	500.0	515.0	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

CCV High Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 1 - HIGH RANGE)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506682

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/20	14:25	5000	5070	101	90	110
Antimony	11/17/20	14:25	5000	5160	103	90	110
Arsenic	11/17/20	14:25	5000	5130	103	90	110
Barium	11/17/20	14:25	5000	4830	97	90	110
Beryllium	11/17/20	14:25	500.0	491.0	98	90	110
Cadmium	11/17/20	14:25	500.0	511.0	102	90	110
Calcium	11/17/20	14:25	5000	5030	101	90	110
Chromium	11/17/20	14:25	5000	5160	103	90	110
Cobalt	11/17/20	14:25	5000	5040	101	90	110
Copper	11/17/20	14:25	5000	4870	97	90	110
Iron	11/17/20	14:25	5000	5010	100	90	110
Lead	11/17/20	14:25	5000	5150	103	90	110
Magnesium	11/17/20	14:25	5000	5400	108	90	110
Manganese	11/17/20	14:25	5000	4920	98	90	110
Nickel	11/17/20	14:25	5000	5070	101	90	110
Selenium	11/17/20	14:25	5000	5320	106	90	110
Silver	11/17/20	14:25	500.0	472.0	94	90	110
Thallium	11/17/20	14:25	5000	4750	95	90	110
Vanadium	11/17/20	14:25	5000	5150	103	90	110
Zinc	11/17/20	14:25	5000	5020	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

CCV Low Level

2A-2

CONTINUING CALIBRATION VERIFICATION (LEVEL 2 - LOW RANGE)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506683

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time		Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/20	14:30	500.0	526.0	105	90	110
Antimony	11/17/20	14:30	500.0	533.0	107	90	110
Arsenic	11/17/20	14:30	500.0	498.0	100	90	110
Barium	11/17/20	14:30	500.0	499.0	100	90	110
Beryllium	11/17/20	14:30	50.00	49.40	99	90	110
Cadmium	11/17/20	14:30	50.00	50.70	101	90	110
Calcium	11/17/20	14:30	500.0	528.0	106	90	110
Chromium	11/17/20	14:30	500.0	494.0	99	90	110
Cobalt	11/17/20	14:30	500.0	513.0	103	90	110
Copper	11/17/20	14:30	500.0	512.0	102	90	110
Iron	11/17/20	14:30	500.0	517.0	103	90	110
Lead	11/17/20	14:30	500.0	514.0	103	90	110
Magnesium	11/17/20	14:30	500.0	485.0	97	90	110
Manganese	11/17/20	14:30	500.0	497.0	99	90	110
Nickel	11/17/20	14:30	500.0	528.0	106	90	110
Selenium	11/17/20	14:30	500.0	524.0	105	90	110
Silver	11/17/20	14:30	50.00	48.60	97	90	110
Thallium	11/17/20	14:30	500.0	519.0	104	90	110
Vanadium	11/17/20	14:30	500.0	507.0	101	90	110
Zinc	11/17/20	14:30	500.0	515.0	103	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No.

CCV

2A-2

CONTINUING CALIBRATION VERIFICATION

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177246 Lab Sample ID: 506702

ICAL Calibration #: 11182020 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R**	Lower Limit (1)	Upper Limit (1)
Mercury	11/18/20 10:01	3.00	3.01	100	90	110

Default Limits (not applicable to MDL Check) **No percent recovery is calculated for MDL checks. The check is simply whether the analyte is detected.

(1) Control Limits: 70-130

CT LABORATORIES
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Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177246 Lab Sample ID: 506701

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 11182020 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/18/2020 09:27	0	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

ICB

3-1

INITIAL CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506673

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/17/2020 11:33	-1.66	U	6	4.8
Antimony	11/17/2020 11:33	1.36	U	2.0	16
Arsenic	11/17/2020 11:33	-2.57	U	4	16
Barium	11/17/2020 11:33	-0.187	U	0.29	1.0
Beryllium	11/17/2020 11:33	-0.170	U	0.10	0.48
Cadmium	11/17/2020 11:33	0.161	U	0.3	0.8
Calcium	11/17/2020 11:33	0.128	U	17	28
Chromium	11/17/2020 11:33	-0.136	U	0.6	2.8
Cobalt	11/17/2020 11:33	-0.100	U	0.7	4.8
Copper	11/17/2020 11:33	-0.379	U	1.2	8.0
Iron	11/17/2020 11:33	0.0140	U	16	36
Lead	11/17/2020 11:33	-0.150	U	1.4	5.0
Magnesium	11/17/2020 11:33	-0.215	U	6	16
Manganese	11/17/2020 11:33	0.0610	U	0.7	3.0
Nickel	11/17/2020 11:33	-0.292	U	1.0	2.4
Selenium	11/17/2020 11:33	-0.154	U	2.2	8.0
Silver	11/17/2020 11:33	0.423	U	0.7	2.0
Thallium	11/17/2020 11:33	1.48	U	2.5	9.6
Vanadium	11/17/2020 11:33	-0.106	U	0.8	1.6
Zinc	11/17/2020 11:33	-0.0320	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177246 Lab Sample ID: 506703

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: 11182020 Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/18/2020 10:08	0.00100	U	0.03	0.10

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was
less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506679

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/17/2020 13:15	-1.26	U	6	4.8
Antimony	11/17/2020 13:15	-0.323	U	2.0	16
Arsenic	11/17/2020 13:15	-3.10	U	4	16
Barium	11/17/2020 13:15	-0.0930	U	0.29	1.0
Beryllium	11/17/2020 13:15	-0.111	U	0.10	0.48
Cadmium	11/17/2020 13:15	0.0740	U	0.3	0.8
Calcium	11/17/2020 13:15	0.246	U	17	28
Chromium	11/17/2020 13:15	-0.388	U	0.6	2.8
Cobalt	11/17/2020 13:15	-0.106	U	0.7	4.8
Copper	11/17/2020 13:15	-1.05	U	1.2	8.0
Iron	11/17/2020 13:15	1.50	U	16	36
Lead	11/17/2020 13:15	1.02	U	1.4	5.0
Magnesium	11/17/2020 13:15	-0.302	U	6	16
Manganese	11/17/2020 13:15	0.0410	U	0.7	3.0
Nickel	11/17/2020 13:15	-0.333	U	1.0	2.4
Selenium	11/17/2020 13:15	2.07	U	2.2	8.0
Silver	11/17/2020 13:15	-0.490	U	0.7	2.0
Thallium	11/17/2020 13:15	2.72		2.5	9.6
Vanadium	11/17/2020 13:15	-0.0780	U	0.8	1.6
Zinc	11/17/2020 13:15	-0.0200	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

CCB

3-2

CONTINUING CALIBRATION BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 506684

Analytical Prep Batch # 0 Preparation Date/Time:

ICAL Calibration #: Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Aluminum	11/17/2020 14:36	-1.64	U	6	4.8
Antimony	11/17/2020 14:36	0.894	U	2.0	16
Arsenic	11/17/2020 14:36	0.841	U	4	16
Barium	11/17/2020 14:36	-0.259	U	0.29	1.0
Beryllium	11/17/2020 14:36	-0.0580	U	0.10	0.48
Cadmium	11/17/2020 14:36	0.0780	U	0.3	0.8
Calcium	11/17/2020 14:36	1.32	U	17	28
Chromium	11/17/2020 14:36	0.595	U	0.6	2.8
Cobalt	11/17/2020 14:36	-0.155	U	0.7	4.8
Copper	11/17/2020 14:36	-2.14	U	1.2	8.0
Iron	11/17/2020 14:36	-0.208	U	16	36
Lead	11/17/2020 14:36	-0.542	U	1.4	5.0
Magnesium	11/17/2020 14:36	-0.0410	U	6	16
Manganese	11/17/2020 14:36	-0.00300	U	0.7	3.0
Nickel	11/17/2020 14:36	-0.394	U	1.0	2.4
Selenium	11/17/2020 14:36	-0.651	U	2.2	8.0
Silver	11/17/2020 14:36	0.254	U	0.7	2.0
Thallium	11/17/2020 14:36	2.55		2.5	9.6
Vanadium	11/17/2020 14:36	0.0190	U	0.8	1.6
Zinc	11/17/2020 14:36	0.0290	U	1.6	6.0

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177246 Lab Sample ID: 504954

Analytical Prep Batch # 79008 Preparation Date/Time: 11/17/2020 10:40

ICAL Calibration #: 11182020 Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Mercury	11/18/2020 09:36	-0.000042	U	0.0021	0.00415

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177204 Lab Sample ID: 504885

Analytical Prep Batch # 79000 Preparation Date/Time: 11/16/2020 11:19

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	11/17/2020 12:51	5.0	U	11	33
Sodium	11/17/2020 12:51	0.065	U	4	12

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
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Sample No

MB

3-3

METHOD BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177204 Lab Sample ID: 504885

Analytical Prep Batch # 79000 Preparation Date/Time: 11/16/2020 11:19

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit
Potassium	11/17/2020 12:51	5.0	U	11	33
Sodium	11/17/2020 12:51	0.065	U	4	12

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No

3-3

MB

METHOD BLANKS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Analytical Run #: 177205 Lab Sample ID: 504885

Analytical Prep Batch # 79000 Preparation Date/Time: 11/16/2020 11:19

ICAL Calibration #: Concentration Units: mg/kg

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Measured Concentration	C***	Detection Limit**	Control Limit	
Aluminum	11/17/2020 12:51	0.063		0.04	0.12	FAIL
Antimony	11/17/2020 12:51	-0.012	U	0.13	0.40	
Arsenic	11/17/2020 12:51	0.038	U	0.13	0.40	
Barium	11/17/2020 12:51	0.0061	U	0.009	0.025	
Beryllium	11/17/2020 12:51	-0.0023	U	0.004	0.020	
Cadmium	11/17/2020 12:51	0.00030	U	0.006	0.020	
Calcium	11/17/2020 12:51	0.60		0.24	0.70	FAIL
Chromium	11/17/2020 12:51	-0.016	U	0.023	0.125	
Cobalt	11/17/2020 12:51	-0.0063	U	0.04	0.12	
Copper	11/17/2020 12:51	0.014	U	0.07	0.20	
Iron	11/17/2020 12:51	0.35		0.3	0.9	FAIL
Lead	11/17/2020 12:51	0.014	U	0.04	0.125	
Magnesium	11/17/2020 12:51	0.14		0.14	0.40	FAIL
Manganese	11/17/2020 12:51	0.0044	U	0.025	0.075	
Nickel	11/17/2020 12:51	-0.0091	U	0.021	0.060	
Selenium	11/17/2020 12:51	-0.015	U	0.06	0.20	
Silver	11/17/2020 12:51	0.0082	U	0.017	0.050	
Thallium	11/17/2020 12:51	0.038	U	0.08	0.24	
Vanadium	11/17/2020 12:51	0.0041	U	0.012	0.040	
Zinc	11/17/2020 12:51	0.0047	U	0.05	0.15	

** Detection Limit only reported if value was less than the control limit.
***A "U" indicates the analyte was not detected in the method blank at the detection limit or the Control Limit whichever was less.

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-1

ICP INTERFERENCE CHECK SAMPLE (SOL. A)

ICSA

Lab Name: CT Laboratories
Contract: CH2M - JACOBS-RVAAP
ICP ID Number: TJA 6000
SDG No.: 157958
ICS Source: SPEX

Analytical Run #: 177205
Lab Sample ID: 506674
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/2020 11:45	500000	477000	95	80	120
Antimony	11/17/2020 11:45	0	3.77		-10	10
Arsenic	11/17/2020 11:45	0	-0.0380		-20	20
Barium	11/17/2020 11:45	0	0.539		-1.7	1.7
Beryllium	11/17/2020 11:45	0	0		-0.7	0.7
Cadmium	11/17/2020 11:45	0	0		-1.3	1.3
Calcium	11/17/2020 11:45	500000	469000	94	80	120
Chromium	11/17/2020 11:45	0	2.10		-13	13
Cobalt	11/17/2020 11:45	0	-1.11		-2	2
Copper	11/17/2020 11:45	0	-1.51		-7	7
Iron	11/17/2020 11:45	500000	443000	89	80	120
Lead	11/17/2020 11:45	0	0.412		-4.7	4.7
Magnesium	11/17/2020 11:45	500000	497000	99	80	120
Manganese	11/17/2020 11:45	0	-3.59		-7.3	7.3
Nickel	11/17/2020 11:45	0	-6.40		-7	7
Selenium	11/17/2020 11:45	0	-0.423		-13	13
Silver	11/17/2020 11:45	0	-0.398		-7.3	7.3
Thallium	11/17/2020 11:45	0	-4.71		-7.3	7.3
Vanadium	11/17/2020 11:45	20000	21300		16000	24000
Zinc	11/17/2020 11:45	0	-14.7		-20	20

CT LABORATORIES
delivering more than data from your environmental analyses

Sample No:

4-2

ICP INTERFERENCE CHECK SAMPLE (SOL. AB)

ICSAB

Lab Name: CT Laboratories
Contract: CH2M - JACOBS-RVAAP
ICP ID Number: TJA 6000
SDG No.: 157958
ICS Source: SPEX, Ultra

Analytical Run #: 177205
Lab Sample ID: 506675
Inorganics MRL Standard Source: SPEX, Ultra,Inorganic Ventures and Mallinkrodt
ICAL Calibration #:
Concentration Units: ug/L

Analysis Type: Initial Analysis

Analyte	Analysis Date/Time	Spiked Conc.	Measured Conc.	%R	Lower Limit (1)	Upper Limit (1)
Aluminum	11/17/2020 11:52	500000	503000	101	80	120
Antimony	11/17/2020 11:52	500.0	519.0	104	80	120
Arsenic	11/17/2020 11:52	500.0	534.0	107	80	120
Barium	11/17/2020 11:52	500.0	512.0	102	80	120
Beryllium	11/17/2020 11:52	500.0	522.0	104	80	120
Cadmium	11/17/2020 11:52	500.0	532.0	106	80	120
Calcium	11/17/2020 11:52	500000	491000	98	80	120
Chromium	11/17/2020 11:52	500.0	533.0	107	80	120
Cobalt	11/17/2020 11:52	500.0	502.0	100	80	120
Copper	11/17/2020 11:52	500.0	527.0	105	80	120
Iron	11/17/2020 11:52	500000	482000	96	80	120
Lead	11/17/2020 11:52	500.0	474.0	95	80	120
Magnesium	11/17/2020 11:52	500000	522000	104	80	120
Manganese	11/17/2020 11:52	500.0	517.0	103	80	120
Nickel	11/17/2020 11:52	500.0	506.0	101	80	120
Selenium	11/17/2020 11:52	500.0	510.0	102	80	120
Silver	11/17/2020 11:52	500.0	436.0	87	80	120
Thallium	11/17/2020 11:52	500.0	593.0	119	80	120
Vanadium	11/17/2020 11:52	500.0	545.0	109	80	120
Zinc	11/17/2020 11:52	500.0	530.0	106	80	120

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5A

SPIKE SAMPLE RECOVERY

Sample Description

CONCRETEDC-002-002-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix:	SOLID	SDG No.:	157958
% Solids for Sample:	90.9	Concentration Units:	mg/kg
Sample No	504958	Parent Sample No.:	504405
Analytical Prep Batch #	79008	Analytical Preparation Date/Time:	11/17/2020 10:40
Analytical Run #:	177246	ICAL Calibration #:	11182020

Analysis Type *Initial Analysis* Analysis Date: ----- 11/18/2020 Analysis Time: -------- 09:52

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	82-124	0.092		0.0042	J	0.093	94		CV

BDL = analyte concentration was below detection limit

CT LABORATORIES
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5C

Sample Description

CONCRETEDC-002-002-CO

SPIKE DUPLICATE SAMPLE RECOVERY

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix:	SOLID	SDG No.:	157958
% Solids for Sample:	90.9	Concentration Units:	mg/kg
Sample No	504959	Parent Sample No.:	504958
Analytical Prep Batch #	79008	Analytical Preparation Date/Time:	11/17/2020 10:40
Analytical Run #:	177246	ICAL Calibration #:	11182020

Analysis Type	*Initial Analysis*	Analysis Date: -----	11/18/2020	Analysis Time: --------	09:55

Analyte	Control Limit (%R)	Spike Result	C (Spike)	Parent Result	C (Parent)	Spike Amount	%R	Q	M
Mercury	82-124	0.092		0.0042	J	0.092	95		CV

BDL = analyte concentration was below detection limit

CT LABORATORIES
delivering more than data from your environmental analyses

6

DUPLICATES

Sample Description

CONCRETEDC-002-002-CO

Lab Name: CT Laboratories
Contract: CH2M - JACOBS-RVAAP
Matrix: SOLID
SDG No.: 157958
% Solid for Sample: 90.9
Concentration Units: mg/kg
Analytical Prep Batch # 1
Analytical Preparation Date/Time 79008
Analytical Run #: 177246
ICAL Calibration #: 11182020
Sample #: 504956
Parent Sample #: 504405

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M	
Mercury	11/18/2020	09:45	20	0.0042	J	0.0070	J	50		CV	*FAIL*

CT LABORATORIES
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6A

MATRIX SPIKE DUPLICATES

Sample Description

CONCRETEDC-002-002-CO

Lab Name: CT Laboratories | Contract: CH2M - JACOBS-RVAAP

Matrix: SOLID | SDG No.: 157958

% Solid for Sample: 90.9 | Concentration Units: mg/kg

Analytical Prep Batch #: 79008 | Analytical Preparation Date/Time: 11/17/2020 10:40

Analytical Run #: 177246 | ICAL Calibration #: 11182020

Sample #: 504959 | Parent Sample #: 504958

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Matrix Spik Parent Conc. (S)	C	Matrix Spike Duplicate Conc. (D)	C	RPD	Q	M
Mercury	11/18/2020	09:55	20	0.092		0.092		2		CV

CT LABORATORIES
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7-2

Sample No:

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

LCS Source: SPEX and Ultra SDG No.: 157958

Concentration Units: mg/kg

Analytical Run #: 177246 Sample No.:#: 504955

Analytical Prep Batch #: 79008 Preparation Date/Time: 11/17/2020 10:40

ICAL Calibration #: 11182020

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Mercury	11/18/2020 09:30	82-124	0.082		0.083	99		CV

CT LABORATORIES
delivering more than data from your environmental analyses

7-2

Sample No:

LABORATORY CONTROL SAMPLE - SOLID

LCS

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

LCS Source: SPEX and Ultra SDG No.: 157958

Concentration Units: mg/kg

Analytical Run #: 177204 Sample No.:#: 504886

Analytical Prep Batch #: 79000 Preparation Date/Time: 11/16/2020 11:19

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Potassium	11/17/2020 12:45	81-116	2460		2500	98		P
Sodium	11/17/2020 12:45	83-118	2490		2500	100		P

CT LABORATORIES
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7-2

Sample No:

LCS

LABORATORY CONTROL SAMPLE - SOLID

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

LCS Source: SPEX and Ultra SDG No.: 157958

Concentration Units: mg/kg

Analytical Run #: 177205 Sample No.:#: 504886

Analytical Prep Batch #: 79000 Preparation Date/Time: 11/16/2020 11:19

ICAL Calibration #:

Analysis Type ---------- Initial Analysis

Analyte	Analysis Date/Time	Control Limit (%R)	Spike Result	C	Spike Amount	%R	Q	M
Aluminum	11/17/2020 12:45	74-119	98.8		100	99		P
Antimony	11/17/2020 12:45	79-114	26.0		25.0	104		P
Arsenic	11/17/2020 12:45	82-111	105		100	105		P
Barium	11/17/2020 12:45	83-113	96.0		100	96		P
Beryllium	11/17/2020 12:45	83-113	2.4		2.5	96		P
Cadmium	11/17/2020 12:45	82-113	2.4		2.5	96		P
Calcium	11/17/2020 12:45	81-116	4950		5000	99		P
Chromium	11/17/2020 12:45	85-113	10.1		10.0	101		P
Cobalt	11/17/2020 12:45	85-112	24.3		25.0	97		P
Copper	11/17/2020 12:45	81-117	12.2		12.5	98		P
Iron	11/17/2020 12:45	81-118	50.3		50.0	101		P
Lead	11/17/2020 12:45	81-112	24.0		25.0	96		P
Magnesium	11/17/2020 12:45	78-115	2500		2500	100		P
Manganese	11/17/2020 12:45	84-114	24.0		25.0	96		P
Nickel	11/17/2020 12:45	83-113	25.0		25.0	100		P
Selenium	11/17/2020 12:45	78-111	106		100	106		P
Silver	11/17/2020 12:45	82-112	2.4		2.5	96		P
Thallium	11/17/2020 12:45	83-111	91.3		100	91		P
Vanadium	11/17/2020 12:45	82-114	25.5		25.0	102		P
Zinc	11/17/2020 12:45	82-113	25.3		25.0	101		P

CT LABORATORIES
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10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

SDG No.: 157958

Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Mercury	253.7			0.0021	CV

CT LABORATORIES
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10

METHOD DETECTION LIMITS (ANNUALLY)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

ICP ID Number: TJA SDG No.: 157958

Matrix: SOLID

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	MDL (mg/k)	M
Arsenic	193.7			0.13	P
Barium	455.4			0.009	P
Cadmium	226.502			0.006	P
Chromium	267.716			0.023	P
Lead	220.35			0.04	P
Selenium	196.02			0.06	P
Silver	328.068			0.017	P

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	2	Fe	0.000006	0.000000	No
			Ce	0.000000	0.000000	No
Ag 338.289 {100}	☒	1	Fe	0.000906	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	1	Al	0.001713	0.000000	No
As 197.262 {471}	☒	1	Al	-0.000113	0.000000	No
Ba 233.527 {445}	☒	3	Fe	-0.000038	0.000000	No
			V	0.000180	0.000000	No
			Al	0.000000	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000029	0.000000	No
Be 313.042 {108}	☒	1	Fe	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000016	0.000000	No
Ca 315.887 {107}	☒	None				
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	1	Cu	0.000000	0.000000	No
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	2	Fe	0.000090	0.000000	No
			Al	0.000000	0.000000	No
Cd 228.802 {147}	☒	None				
Co 228.616 {447}	☒	5	Fe	0.000009	0.000000	No
			Ti	0.003000	0.000000	No
			Ba	-0.001300	0.000000	No
			Ni	0.000040	0.000000	No
			Al	0.000001	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000188	0.000000	No
Cr 205.560 {464}	☒	1	Fe	-0.000004	0.000000	No
Cr 267.716 {126}	☒	1	Fe	-0.000014	0.000000	No
Cu 224.700 {450}	☒	5	Fe	0.000274	0.000000	No
			Mo	0.001320	0.000000	No
			Ni	-0.006000	0.000000	No
			Pb	0.003030	0.000000	No
			Al	0.000000	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000136	0.000000	No
Cu 327.396 {103}	☒	1	Fe	0.000069	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	-0.000086	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mn 259.373 {130}	☒	1	Mg	0.001339	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000011	0.000000	No
Mo 203.844 {465}	☒	1	Fe	-0.000020	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000036	0.000000	No
Ni 221.647 {452}	☒	1	Ca	0.000021	0.000000	No
Ni 231.604 {445}	☒	3	Fe	0.000012	0.000000	No
			Co	0.000000	0.000000	No
			Mo	0.000000	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.001241	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	3	Si	0.000000	0.000000	No
			Al	0.000001	0.000000	No
			Fe	0.000018	0.000000	No
Pb 220.353 {153}	☒	1	Al	-0.000040	0.000000	No
Sb 206.833 {463}	☒	1	Fe	0.000009	0.000000	No
Sb 217.581 {455}	☒	3	Fe	-0.000069	0.000000	No
			V	0.002070	0.000000	No
			Pb	-0.001040	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000360	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.001308	0.000000	No
Tl 190.856 {476}	☒	5	Fe	0.000024	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000050	0.000000	No
			Cr	0.000251	0.000000	No
			V	-0.003800	0.000000	No
Tl 190.856 {477}	☒	1	Fe	-0.000048	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000073	0.000000	No
V 292.402 {115}	☒	3	Fe	0.000020	0.000000	No
			Cr	-0.000400	0.000000	No
			Al	0.000000	0.000000	No
Zn 202.548 {466}	☒	1	Fe	-0.000239	0.000000	No
Zn 206.200 {463}	☒	1	Fe	-0.000003	0.000000	No
Zn 213.856 {457}	☒	2	Fe	0.000167	0.000000	No
			Cu	0.007413	0.000000	No
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Y 224.306 {451}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000106	0.000000	No
Si 251.611 {134}	☒	2	Fe	-0.000105	0.000000	No
			Mo	0.005400	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000036	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000052	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000014	0.000000	No
Sr 421.552 { 80}	☒	1	Fe	0.000014	0.000000	No

ICP INTERELEMENT CORRECTION FACTORS (ANNUAL)
ICP ID NUMBER: TA ICAP6000 / ICAP6500

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Sn 189.989 {477}	☒	1	Fe	0.000013	0.000000	No
B 249.678 {135}	☒	2	Fe	0.000001	0.000000	No
			Co	0.003970	0.000000	No
B 249.773 {135}	☒	1	Fe	0.000357	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000011	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000216	0.000000	No
P 213.618 {457}	☒	1	Fe	-0.000079	0.000000	No
S 182.034 {485}	☒	1	Mg	0.000100	0.000000	No
Hg 184.950 {482}	☒	1	Fe	0.000001	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

ICP LINEAR RANGES (QUARTERLY)

Lab Name: CT Laboratories Contract: CH2M - JACOBS-RVAAP

ICP ID Number: TA SDG No.: 157958

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	M
Aluminum	15.00	1000000	P
Antimony	15.00	10000	P
Arsenic	15.00	10000	P
Barium	15.00	10000	P
Beryllium	15.00	1000	P
Boron	15.00	1000	P
Cadmium	15.00	1000	P
Calcium	15.00	1000000	P
Chromium	15.00	100000	P
Cobalt	15.00	10000	P
Copper	15.00	100000	P
Iron	15.00	1000000	P
Lead	15.00	100000	P
Lithium	15.00	10000	P
Magnesium	15.00	1000000	P
Manganese	15.00	100000	P
Molybdenum	15.00	10000	P
Nickel	15.00	10000	P
Potassium	15.00	200000	P
Selenium	15.00	10000	P
Silicon	15.00	1000	P
Silver	15.00	100	P
Sodium	15.00	200000	P
Strontium	15.00	10000	P
Thallium	15.00	10000	P
Tin	15.00	10000	P
Titanium	15.00	1000	P
Tungsten	15.00	10000	P
Vanadium	15.00	10000	P
Zinc	15.00	100000	P

CT LABORATORIES
delivering more than data from your environmental analyses

13

PREPARATION LOG

Lab Name: CT Laboratories

Project: CH2M - JACOBS-RVAAP

Method: EPA 3050B

SDG No.: 157958

Preparation Batch #: 79000

Preparation Date/Time: 11/16/2020 / 11:19

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
504392	Normal Sample	CONCRETEDC 001-001-CO	SOIL	1.95
504405	Normal Sample	CONCRETEDC-002-002-C	SOIL	1.94
504477	Normal Sample	OFFSS-001-001-CO	SOIL	1.92
504882	Lab Duplicate	OFFSS-001-001-CO	SOIL	1.93
504883	Matrix Spike	OFFSS-001-001-CO	SOIL	1.92
504884	Matrix Spike Duplicate	OFFSS-001-001-CO	SOIL	1.93
504885	Method Blank		SOLID	2.00
504886	Lab Control Spike		SOLID	2.00

CT LABORATORIES
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13

PREPARATION LOG

Lab Name: CT Laboratories

Project: CH2M - JACOBS-RVAAP

Method: EPA 7471A

SDG No.: 157958

Preparation Batch #: 79008

Preparation Date/Time: 11/17/2020 / 10:40

Lab Sample #	QC Type	Sample Description	Matrix	**Weight (g for solid/soil) or Volume (mL for liquid/aqueous)**
504392	Normal Sample	CONCRETEDC 001-001-CO	SOIL	0.58
504405	Normal Sample	CONCRETEDC-002-002-C	SOIL	0.60
504477	Normal Sample	OFFSS-001-001-CO	SOIL	0.60
504954	Method Blank		SOLID	0.60
504955	Lab Control Spike		SOLID	0.60
504956	Lab Duplicate	CONCRETEDC-002-002-C	SOIL	0.59
504958	Matrix Spike	CONCRETEDC-002-002-C	SOIL	0.59
504959	Matrix Spike Duplicate	CONCRETEDC-002-002-C	SOIL	0.60

CT LABORATORIES
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14

ANALYSIS RUN LOG

Lab Name: CT Laboratories
Contract: CH2M - JACOBS-RVAAP

Lab Code: CTL
SDG No.: 157958

Instrument ID Number: CETAC
Method Number: CV

Start & End Date: 11/18/2020 to 11/18/2020
Analytical Run #: 177246

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
506700	ICV	1.00	11/18 09:20																X													
506701	ICB	1.00	11/18 09:27																X													
504955	LCSS	1.00	11/18 09:30																X													
504954	MBS	1.00	11/18 09:36																X													
504392	Initial	1.00	11/18 09:39																X													
504405	Initial	1.00	11/18 09:42																X													
504956	DUP	1.00	11/18 09:45																X													
504477	Initial	1.00	11/18 09:49																X													
504958	MSS	1.00	11/18 09:52																X													
504959	MSDS	1.00	11/18 09:55																X													
506702	CCV	1.00	11/18 10:01																X													
506703	CCB	1.00	11/18 10:08																X													

CT LABORATORIES
delivering more than data from your environmental analyses

14

ANALYSIS RUN LOG

Lab Name: CT Laboratories | Contract: CH2M - JACOBS-RVAAP

Lab Code: CTL | SDG No.: 157958

Instrument ID Number: TJA | Method Number: P

Start & End Date: 11/17/2020 to 11/17/2020 | Analytical Run #: 177205

Sample Number	Analysis or QC Type	DF	Analysis Date/ Time	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Hg	Mo	Li	Ni	K	Se	Si	Ag	Na	Sr	Tl	Sn	W	V	Zn
506671	ICV	1.00	11/17 11:14	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506672	ICVLL	1.00	11/17 11:20	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X					X			X	X
506673	ICB	1.00	11/17 11:33	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506674	ICSA	1.00	11/17 11:45	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506675	ICSAB	1.00	11/17 11:52	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506676	ICVLL	1.00	11/17 12:04																							X							
504886	LCSS	1.00	11/17 12:45	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
504885	MBS	1.00	11/17 12:51	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
504392	Initial	1.00	11/17 12:58			X	X			X		X				X								X		X							
506677	CCV1	1.00	11/17 13:04	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506678	CCV2	1.00	11/17 13:09	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506679	CCB	1.00	11/17 13:15	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
504405	Initial	1.00	11/17 13:22			X	X			X		X				X								X		X							
504477	Initial	1.00	11/17 13:28	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506680	L	5	11/17 13:35	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
504882	DUP	1.00	11/17 13:42	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
504883	MSS	1.00	11/17 13:48	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
504884	MSDS	1.00	11/17 13:54	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506681	PDSS	1.00	11/17 14:00	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506682	CCV1	1.00	11/17 14:25	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506683	CCV2	1.00	11/17 14:30	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X
506684	CCB	1.00	11/17 14:36	X	X	X	X	X		X	X	X	X	X	X	X	X	X				X		X		X			X			X	X

METALS
RAW DATA
DOCUMENTS

Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
Ag 328.068 {103}	11/19/2020 10:39:56	11/17/2020 10:16:27	Linear	1/Conc	0.000006	0.000002	0.000000	1.000000	0.999992	0.000000	0.959143	3.197145
Ag 338.289 {100}	11/19/2020 10:39:56	11/17/2020 11:01:46	Linear	1/Var	0.000003	0.000001	0.000000	1.000000	0.998757	0.000010	8.639040	28.796801
Al 167.079 {501}	11/19/2020 10:39:56	11/17/2020 10:22:03	Linear	1/Var	0.000010	0.000003	0.000000	1.000000	0.999682	0.000009	0.566828	1.889427
Al 308.215 {109}	11/19/2020 10:39:56	11/17/2020 10:41:31	Linear	1/Var	0.000063	0.000000	0.000000	1.000000	0.999333	0.000047	33.007241	110.02413
Al 396.152 { 85}	11/19/2020 10:39:56	11/17/2020 10:55:07	Curvili	1/Conc	-0.000058	0.000002	0.000000	1.000000	0.999903	0.000052	9.131292	30.437640
As 193.759 {474}	11/19/2020 10:39:56	11/17/2020 10:22:03	Linear	1/Conc	0.000006	0.000001	0.000000	1.000000	0.998976	0.000000	5.741010	19.136699
As 197.262 {471}	11/19/2020 10:39:56	11/17/2020 10:28:02	Linear	None	0.000001	0.000001	0.000000	1.000000	0.999999	0.000003	6.703809	22.346029
Ba 233.527 {445}	11/19/2020 10:39:56	11/17/2020 10:22:04	Linear	1/Conc	-0.000000	0.000005	0.000000	1.000000	0.999404	0.000000	0.578366	1.927888
Ba 455.403 { 74}	11/19/2020 10:39:56	11/17/2020 10:28:02	Linear	1/Conc	0.000206	0.000023	0.000000	1.000000	0.999692	0.000002	0.629074	2.096913
Ba 493.409 { 68}	11/19/2020 10:39:56	11/17/2020 11:01:46	Linear	1/Var	0.009349	0.000042	0.000000	1.000000	0.997708	0.000443	0.934595	3.115315
Be 313.042 {108}	11/19/2020 10:39:56	11/17/2020 10:22:04	Linear	1/Var	-0.000066	0.000061	0.000000	1.000000	0.997481	0.000022	0.031714	0.105713
Be 234.861 {144}	11/19/2020 10:39:56	11/17/2020 10:22:04	Linear	1/Conc	0.000001	0.000004	0.000000	1.000000	0.999969	0.000001	0.633293	2.110976
Ca 315.887 {107}	11/19/2020 10:39:56	11/17/2020 10:55:07	Curvili	1/Var	0.000063	0.000000	0.000000	1.000000	0.999869	0.000025	8.871150	29.570500
Ca 317.933 {106}	11/19/2020 10:39:56	11/17/2020 10:55:07	Linear	1/Var	0.002225	0.000002	0.000000	1.000000	0.999531	0.000221	3.604677	12.015589
Ca 393.366 { 86}	11/19/2020 10:39:56	11/17/2020 10:22:05	Linear	1/Var	0.000050	0.000120	0.000000	1.000000	0.999548	0.000059	0.088905	0.296350
Ca 396.847 { 85}	11/19/2020 10:39:56	11/17/2020 10:28:03	Linear	1/Conc	0.000007	0.000095	0.000000	1.000000	0.999976	0.000031	0.121504	0.405012
Cd 226.502 {449}	11/19/2020 10:39:56	11/17/2020 10:22:05	Linear	1/Conc	-0.000000	0.000017	0.000000	1.000000	0.999669	0.000000	0.284598	0.948659
Cd 228.802 {447}	11/19/2020 10:39:56	11/17/2020 10:22:05	Curvili	1/Conc	0.000012	0.000045	-0.000000	1.000000	0.999410	0.000001	0.153903	0.513009
Co 228.616 {447}	11/19/2020 10:39:56	11/17/2020 10:28:03	Linear	1/Conc	0.000013	0.000022	0.000000	1.000000	0.998779	0.000001	0.272152	0.907173
Co 238.892 {141}	11/19/2020 10:39:56	11/17/2020 10:28:03	Linear	1/Conc	0.000004	0.000002	0.000000	1.000000	0.999918	0.000001	0.710941	2.369805
Cr 205.560 {464}	11/19/2020 10:39:56	11/17/2020 10:35:01	Linear	1/Var	0.000013	0.000015	0.000000	1.000000	0.999216	0.000037	0.278277	0.927591
Cr 267.716 {126}	11/19/2020 10:39:56	11/17/2020 10:28:04	Linear	1/Conc	0.000001	0.000003	0.000000	1.000000	0.999742	0.000001	0.778625	2.595415
Cu 224.700 {450}	11/19/2020 10:39:56	11/17/2020 10:35:01	Linear	1/Conc	-0.000002	0.000005	0.000000	1.000000	0.999163	0.000012	0.470278	1.567592
Cu 324.754 {104}	11/19/2020 10:39:56	11/17/2020 10:35:01	Linear	1/Conc	0.000317	0.000002	0.000000	1.000000	0.999668	0.000002	3.449633	11.498777
Cu 327.396 {103}	11/19/2020 10:39:56	11/17/2020 10:28:04	Linear	1/Var	0.000006	0.000001	0.000000	1.000000	0.999387	0.000008	8.941153	29.803844
Cu 223.008 {451}	11/19/2020 10:39:56	11/17/2020 10:22:06	Linear	1/Conc	0.000006	0.000005	0.000000	1.000000	0.999977	0.000000	1.152722	3.842407
Fe 234.349 {144}	11/19/2020 10:39:56	11/17/2020 10:41:31	Linear	1/Var	0.000016	0.000000	0.000000	1.000000	0.999950	0.000002	1.383555	4.611851
Fe 239.562 {140}	11/19/2020 10:39:56	11/17/2020 10:55:08	Linear	1/Var	0.000007	0.000001	0.000000	1.000000	0.999784	0.000036	4.721953	15.739844
Fe 259.940 {129}	11/19/2020 10:39:56	11/17/2020 10:48:08	Linear	1/Var	0.000001	0.000001	0.000000	1.000000	0.999267	0.000047	3.085088	10.283627
Mg 202.582 {466}	11/19/2020 10:39:56	11/17/2020 10:55:08	Full Fit	None	0.000049	0.000000	0.000000	1.040000	1.000000	0.000102	4.689928	15.633093
Mg 279.079 {121}	11/19/2020 10:39:56	11/17/2020 10:55:08	Linear	1/Var	-0.000039	0.000000	0.000000	1.000000	0.996432	0.000054	30.465207	101.55069
Mg 280.270 {120}	11/19/2020 10:39:56	11/17/2020 10:28:06	Linear	1/Conc	0.000166	0.000034	0.000000	1.000000	0.999963	0.000005	0.031912	0.106374
Mn 257.610 {131}	11/19/2020 10:39:56	11/17/2020 10:28:06	Linear	1/Conc	-0.000002	0.000009	0.000000	1.000000	0.998355	0.000002	0.103518	0.345061
Mn 259.373 {130}	11/19/2020 10:39:56	11/17/2020 10:35:02	Linear	1/Var	-0.000001	0.000006	0.000000	1.000000	0.999526	0.000018	0.846479	2.821597
Mo 202.030 {466}	11/19/2020 10:39:56	11/17/2020 10:22:08	Linear	1/Conc	0.000003	0.000007	0.000000	1.000000	0.998782	0.000001	0.532533	1.775110
Mo 203.844 {465}	11/19/2020 10:39:56	11/17/2020 10:22:08	Linear	1/Conc	0.000000	0.000006	0.000000	1.000000	0.998667	0.000001	0.749102	2.497006
Mo 204.598 {464}	11/19/2020 10:39:56	11/17/2020 10:28:07	Linear	1/Conc	-0.000002	0.000004	0.000000	1.000000	0.999790	0.000001	0.987362	3.291206
Ni 221.647 {452}	11/19/2020 10:39:56	11/17/2020 10:28:07	Linear	1/Conc	-0.000011	0.000011	0.000000	1.000000	0.999920	0.000007	0.585581	1.951937
Ni 231.604 {445}	11/19/2020 10:39:56	11/17/2020 10:28:07	Linear	1/Conc	-0.000022	0.000014	0.000000	1.000000	0.999705	0.000001	0.521178	1.737261
Pb 216.999 {455}	11/19/2020 10:39:56	11/17/2020 10:35:02	Curvili	1/Var	0.000021	0.000001	0.000000	1.000000	0.999961	0.000033	5.881195	19.603983
Pb 220.353 {453}	11/19/2020 10:39:56	11/17/2020 10:22:09	Linear	1/Conc	0.000020	0.000002	0.000000	1.000000	0.999722	0.000000	2.761316	9.204385
Pb 216.999 {456}	11/19/2020 10:39:56	11/17/2020 10:35:02	Curvili	1/Var	0.000002	0.000000	0.000000	1.000000	0.999976	0.000005	17.782874	59.276246
Pb 220.353 {153}	11/19/2020 10:39:56	11/17/2020 10:35:02	Linear	1/Conc	0.000002	0.000000	0.000000	1.000000	0.999716	0.000000	5.928889	19.762964
Sb 206.833 {463}	11/19/2020 10:39:56	11/17/2020 10:28:08	Linear	1/Conc	-0.000006	0.000002	0.000000	1.000000	0.999809	0.000000	2.652569	8.841898

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Ag 328.068 {103}	OK.	1.000000	0.000000	1	0
	Ag 338.289 {100}	OK.	1.000000	0.000000	1	0
	Al 167.079 {501}	OK.	1.000000	0.000000	1	0
	Al 308.215 {109}	OK.	1.000000	0.000000	1	0
	Al 396.152 { 85}	OK.	1.000000	0.000000	1	0
	As 193.759 {474}	OK.	1.000000	0.000000	1	0
	As 197.262 {471}	OK.	1.000000	0.000000	1	0
	Ba 233.527 {445}	OK.	1.000000	0.000000	1	0
	Ba 455.403 { 74}	OK.	1.000000	0.000000	1	0
	Ba 493.409 { 68}	OK.	1.000000	0.000000	1	0
	Be 313.042 {108}	OK.	1.000000	0.000000	1	0
	Be 234.861 {144}	OK.	1.000000	0.000000	1	0
	Ca 315.887 {107}	OK.	1.000000	0.000000	1	0
	Ca 317.933 {106}	OK.	1.000000	0.000000	1	0
	Ca 393.366 { 86}	OK.	1.000000	0.000000	1	0
	Ca 396.847 { 85}	OK.	1.000000	0.000000	1	0
	Cd 226.502 {449}	OK.	1.000000	0.000000	1	0
	Cd 228.802 {447}	OK.	1.000000	0.000000	1	0
	Co 228.616 {447}	OK.	1.000000	0.000000	1	0
	Co 238.892 {141}	OK.	1.000000	0.000000	1	0
	Cr 205.560 {464}	OK.	1.000000	0.000000	1	0
	Cr 267.716 {126}	OK.	1.000000	0.000000	1	0
	Cu 224.700 {450}	OK.	1.000000	0.000000	1	0
	Cu 324.754 {104}	OK.	1.000000	0.000000	1	0
	Cu 327.396 {103}	OK.	1.000000	0.000000	1	0
	Cu 223.008 {451}	OK.	1.000000	0.000000	1	0
	Fe 234.349 {144}	OK.	1.000000	0.000000	1	0
	Fe 239.562 {140}	OK.	1.000000	0.000000	1	0
	Fe 259.940 {129}	OK.	1.000000	0.000000	1	0
	Mg 202.582 {466}	OK.	1.000000	0.000000	1	0
	Mg 279.079 {121}	OK.	1.000000	0.000000	1	0
	Mg 280.270 {120}	OK.	1.000000	0.000000	1	0
	Mn 257.610 {131}	OK.	1.000000	0.000000	1	0
	Mn 259.373 {130}	OK.	1.000000	0.000000	1	0
	Mo 202.030 {466}	OK.	1.000000	0.000000	1	0
	Mo 203.844 {465}	OK.	1.000000	0.000000	1	0
	Mo 204.598 {464}	OK.	1.000000	0.000000	1	0
	Ni 221.647 {452}	OK.	1.000000	0.000000	1	0
	Ni 231.604 {445}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {455}	Warnin	1.000000	0.000000	1	0
	Pb 220.353 {453}	OK.	1.000000	0.000000	1	0
	Pb 216.999 {456}	OK.	1.000000	0.000000	1	0
	Pb 220.353 {153}	OK.	1.000000	0.000000	1	0
	Sb 206.833 {463}	OK.	1.000000	0.000000	1	0

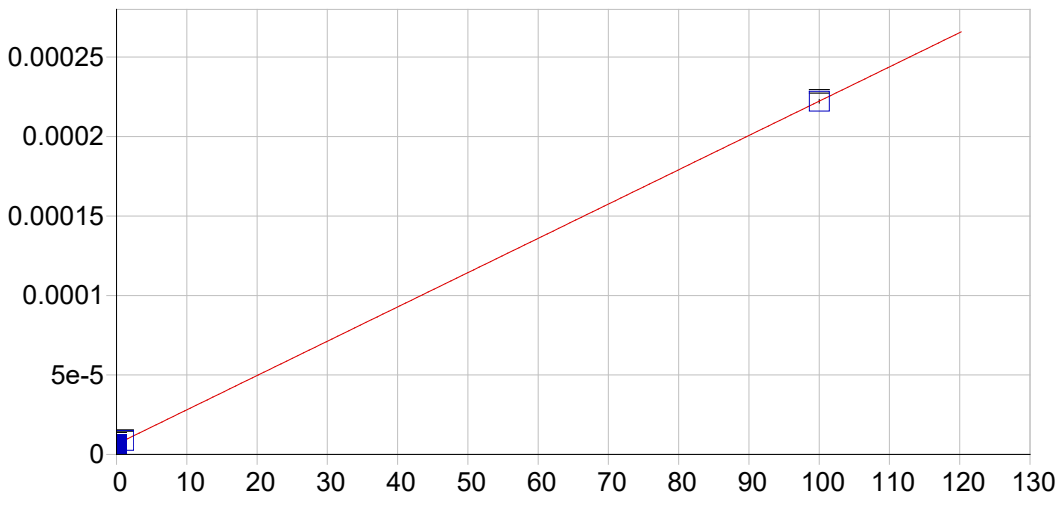
	Element, Wavelength and Order	Date of Fit	Date of Cal.	Type of Fit	Weighting	A0	A1	A2	n (Exponent)	Correlation	Std Error of Est	Predicted MDL	Predicted MQL
	Sb 217.581 {455}	11/19/2020 10:39:56	11/17/2020 10:28:08	Linear	1/Conc	0.000005	0.000002	0.000000	1.000000	0.999834	0.000000	2.926846	9.756155
	Se 196.090 {472}	11/19/2020 10:39:56	11/17/2020 10:22:09	Linear	1/Var	0.000000	0.000001	0.000000	1.000000	0.999988	0.000002	4.097337	13.657791
	Se 203.985 {465}	11/19/2020 10:39:56	11/17/2020 10:22:10	Linear	1/Var	-0.000003	0.000001	0.000000	1.000000	0.999898	0.000003	8.297010	27.656701
	Se 206.279 {463}	11/19/2020 10:39:56	11/17/2020 10:28:09	Linear	1/Var	-0.000003	0.000000	0.000000	1.000000	0.999946	0.000007	23.769290	79.230966
	Tl 190.856 {476}	11/19/2020 10:39:56	11/17/2020 10:22:10	Linear	1/Conc	0.000003	0.000002	0.000000	1.000000	0.999868	0.000000	2.032376	6.774587
	Tl 190.856 {477}	11/19/2020 10:39:56	11/17/2020 10:28:09	Linear	1/Conc	-0.000004	0.000001	0.000000	1.000000	0.999650	0.000000	3.767822	12.559406
	V 290.882 {116}	11/19/2020 10:39:56	11/17/2020 10:28:09	Linear	1/Conc	0.000009	0.000001	0.000000	1.000000	0.999975	0.000000	5.425853	18.086177
	V 292.402 {115}	11/19/2020 10:39:56	11/17/2020 10:28:09	Linear	1/Conc	-0.000002	0.000005	0.000000	1.000000	0.999900	0.000001	0.657620	2.192067
	Zn 206.200 {463}	11/19/2020 10:39:56	11/17/2020 10:35:02	Curvili	1/Var	0.000014	0.000021	-0.000000	1.000000	0.999795	0.000027	0.224283	0.747609
	Zn 213.856 {457}	11/19/2020 10:39:56	11/17/2020 10:22:11	Linear	1/Conc	0.000023	0.000040	0.000000	1.000000	0.999756	0.000004	0.130472	0.434908
	Y 224.306 {450}*	11/19/2020 10:39:56	11/17/2020 09:32:23	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 324.228 {104}*	11/19/2020 10:39:56	11/17/2020 09:32:23	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Y 371.030 { 91}*	11/19/2020 10:39:56	11/17/2020 09:32:23	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	-1.000000	-1.000000
	Na 588.995 { 57}	11/19/2020 10:39:56	11/17/2020 10:41:32	Linear	1/Var	0.008611	0.000007	0.000000	1.000000	0.999778	0.000261	6.498626	21.662088
	Na 589.592 { 57}	11/19/2020 10:39:56	11/17/2020 10:55:08	Linear	1/Var	0.000101	0.000004	0.000000	1.000000	0.999793	0.000075	7.751031	25.836772
	Si 251.611 {134}	11/19/2020 10:39:56	11/17/2020 10:28:10	Linear	1/Conc	0.000002	0.000001	0.000000	1.000000	1.000000	0.000000	8.819422	29.398073
	Ti 323.452 {104}	11/19/2020 10:39:56	11/17/2020 10:28:10	Linear	1/Conc	0.000293	0.000007	0.000000	1.000000	0.999645	0.000002	1.461048	4.870159
	Ti 334.941 {101}	11/19/2020 10:39:56	11/17/2020 10:28:11	Linear	1/Conc	0.000001	0.000005	0.000000	1.000000	0.999798	0.000001	1.462631	4.875436
	Sr 407.771 { 83}	11/19/2020 10:39:56	11/17/2020 10:28:11	Linear	1/Conc	6.353866	22.558341	0.000000	1.000000	0.999917	1.148357	0.166335	0.554448
	Sr 421.552 { 80}	11/19/2020 10:39:56	11/17/2020 10:28:11	Linear	1/Conc	-0.000003	0.000088	0.000000	1.000000	0.999907	0.000005	0.161935	0.539782
	Sn 189.989 {477}	11/19/2020 10:39:56	11/17/2020 10:28:11	Linear	1/Conc	0.000004	0.000004	0.000000	1.000000	0.999899	0.000001	0.879570	2.931901
	B 249.678 {135}	11/19/2020 10:39:56	11/17/2020 10:28:12	Linear	1/Var	0.000005	0.000002	0.000000	1.000000	0.999953	0.000003	1.117530	3.725101
	B 249.773 {135}	11/19/2020 10:39:56	11/17/2020 10:28:12	Linear	1/Var	0.000000	0.000002	0.000000	1.000000	0.999856	0.000006	0.699092	2.330306
	Li 670.784 { 50}	11/19/2020 10:39:56	11/17/2020 10:28:12	Linear	1/Conc	-0.000043	0.000023	0.000000	1.000000	0.999939	0.000003	1.488425	4.961418
	K 766.490 { 44}	11/19/2020 10:39:56	11/17/2020 10:55:08	Curvili	1/Conc	-0.000053	0.000001	0.000000	1.000000	0.999997	0.000003	44.017741	146.72580
	K 769.896 { 44}	11/19/2020 10:39:56	11/17/2020 10:55:09	Curvili	1/Conc	0.000117	0.000000	0.000000	1.000000	0.999999	0.000001	85.809565	286.03188
	P 213.618 {457}	11/19/2020 10:39:56	11/17/2020 10:55:09	Linear	1/Conc	-0.000018	0.000001	0.000000	1.000000	0.999988	0.000008	4.009513	13.365043
	S 182.034 {485}	11/19/2020 10:39:56	11/17/2020 10:55:09	Linear	1/Conc	0.000006	0.000001	0.000000	1.000000	0.999979	0.000005	4.658267	15.527556
	Hg 184.950 {482}	11/19/2020 10:39:56	11/17/2020 10:22:13	Linear	1/Conc	0.000000	0.000000	0.000000	1.000000	0.999806	0.000000	0.938654	3.128847
	Ce 404.076 { 83}	11/19/2020 10:39:56	11/17/2020 10:22:14	Linear	1/Conc	0.000024	0.000000	0.000000	1.000000	1.000000	0.000000	27.494708	91.649026

	Element, Wavelength and Order	Status	Reslope		QC Norm	
			Slope	Y-int	Slope factor	Offset
	Sb 217.581 {455}	OK.	1.000000	0.000000	1	0
	Se 196.090 {472}	OK.	1.000000	0.000000	1	0
	Se 203.985 {465}	OK.	1.000000	0.000000	1	0
	Se 206.279 {463}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {476}	OK.	1.000000	0.000000	1	0
	Tl 190.856 {477}	OK.	1.000000	0.000000	1	0
	V 290.882 {116}	OK.	1.000000	0.000000	1	0
	V 292.402 {115}	OK.	1.000000	0.000000	1	0
	Zn 206.200 {463}	OK.	1.000000	0.000000	1	0
	Zn 213.856 {457}	OK.	1.000000	0.000000	1	0
	Y 224.306 {450}*	Warnin	1.000000	0.000000	1	0
	Y 324.228 {104}*	Warnin	1.000000	0.000000	1	0
	Y 371.030 { 91}*	Warnin	1.000000	0.000000	1	0
	Na 588.995 { 57}	OK.	1.000000	0.000000	1	0
	Na 589.592 { 57}	OK.	1.000000	0.000000	1	0
	Si 251.611 {134}	OK.	1.000000	0.000000	1	0
	Ti 323.452 {104}	OK.	1.000000	0.000000	1	0
	Ti 334.941 {101}	OK.	1.000000	0.000000	1	0
	Sr 407.771 { 83}	OK.	1.000000	0.000000	1	0
	Sr 421.552 { 80}	OK.	1.000000	0.000000	1	0
	Sn 189.989 {477}	OK.	1.000000	0.000000	1	0
	B 249.678 {135}	OK.	1.000000	0.000000	1	0
	B 249.773 {135}	OK.	1.000000	0.000000	1	0
	Li 670.784 { 50}	OK.	1.000000	0.000000	1	0
	K 766.490 { 44}	OK.	1.000000	0.000000	1	0
	K 769.896 { 44}	OK.	1.000000	0.000000	1	0
	P 213.618 {457}	OK.	1.000000	0.000000	1	0
	S 182.034 {485}	OK.	1.000000	0.000000	1	0
	Hg 184.950 {482}	OK.	1.000000	0.000000	1	0
	Ce 404.076 { 83}	OK.	1.000000	0.000000	1	0

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Ag 328.068 {103}	☒	1	Ce	-0.003892	0.000000	No
Ag 338.289 {100}	☒	3	Fe	0.000601	0.000000	No
			Ti	0.002000	0.000000	No
			Ce	0.000000	0.000000	No
Al 167.079 {501}	☒	None				
Al 308.215 {109}	☒	None				
Al 396.152 { 85}	☒	None				
As 193.759 {474}	☒	4	Al	0.001503	0.000000	No
			Mn	-0.000003	0.000000	No
			Ni	-0.000722	0.000000	No
			Cr	0.000734	0.000000	No
As 197.262 {471}	☒	1	Al	0.000112	0.000000	No
Ba 233.527 {445}	☒	1	Fe	0.000038	0.000000	No
Ba 455.403 { 74}	☒	1	Fe	0.000002	0.000000	No
Ba 493.409 { 68}	☒	1	Fe	0.000009	0.000000	No
Be 313.042 {108}	☒	2	Fe	0.000016	0.000000	No
			Ni	0.000000	0.000000	No
Be 234.861 {144}	☒	1	Fe	-0.000013	0.000000	No
Ca 315.887 {107}	☒	1	Fe	0.000000	0.000000	No
Ca 317.933 {106}	☒	None				
Ca 393.366 { 86}	☒	None				
Ca 396.847 { 85}	☒	None				
Cd 226.502 {449}	☒	1	Fe	0.000186	0.000000	No
Cd 228.802 {447}	☒	1	Fe	-0.000005	0.000000	No
Co 228.616 {447}	☒	3	Fe	0.000000	0.000000	No
			Ba	-0.001175	0.000000	No
			Ti	0.001700	0.000000	No
Co 238.892 {141}	☒	1	Fe	0.000226	0.000000	No
Cr 205.560 {464}	☒	1	Fe	0.000000	0.000000	No
Cr 267.716 {126}	☒	4	Fe	0.000005	0.000000	No
			Mn	0.000157	0.000000	No
			Ti	0.000100	0.000000	No
			V	-0.000002	0.000000	No
Cu 224.700 {450}	☒	2	Fe	0.003134	0.000000	No
			Ni	-0.007040	0.000000	No
Cu 324.754 {104}	☒	1	Fe	-0.000081	0.000000	No
Cu 327.396 {103}	☒	2	Fe	-0.000028	0.000000	No
			Mo	-0.000319	0.000000	No
Cu 223.008 {451}	☒	2	Fe	0.000002	0.000000	No
			Mo	0.008000	0.000000	No
Fe 234.349 {144}	☒	None				
Fe 239.562 {140}	☒	None				
Fe 259.940 {129}	☒	None				
Mg 202.582 {466}	☒	None				

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
Mg 279.079 {121}	☒	None				
Mg 280.270 {120}	☒	None				
Mn 257.610 {131}	☒	1	Al	0.000004	0.000000	No
Mn 259.373 {130}	☒	1	Mg	0.001207	0.000000	No
Mo 202.030 {466}	☒	1	Fe	-0.000015	0.000000	No
Mo 203.844 {465}	☒	1	Fe	0.000003	0.000000	No
Mo 204.598 {464}	☒	1	Fe	0.000052	0.000000	No
Ni 221.647 {452}	☒	2	Ca	-0.000003	0.000000	No
			Mg	-0.000003	0.000000	No
Ni 231.604 {445}	☒	6	Fe	-0.000042	0.000000	No
			Co	-0.000134	0.000000	No
			Mo	0.000840	0.000000	No
			Al	0.000003	0.000000	No
			Mn	0.000019	0.000000	No
			Be	-0.000294	0.000000	No
Pb 216.999 {455}	☒	2	Al	0.003419	0.000000	No
			Na	0.000000	0.000000	No
Pb 220.353 {453}	☒	6	Si	0.000000	0.000000	No
			Al	-0.000009	0.000000	No
			Ni	0.000106	0.000000	No
			Mo	-0.001644	0.000000	No
			V	-0.000018	0.000000	No
			Mn	0.000094	0.000000	No
Pb 216.999 {456}	☒	1	Al	0.003022	0.000000	No
Pb 220.353 {153}	☒	1	Fe	-0.000011	0.000000	No
Sb 206.833 {463}	☒	2	Fe	-0.000097	0.000000	No
			Cr	0.000000	0.000000	No
Sb 217.581 {455}	☒	2	Fe	-0.000023	0.000000	No
			Ni	0.000133	0.000000	No
Se 196.090 {472}	☒	1	Fe	-0.000153	0.000000	No
Se 203.985 {465}	☒	1	Fe	-0.000160	0.000000	No
Se 206.279 {463}	☒	1	Fe	0.000965	0.000000	No
Tl 190.856 {476}	☒	7	Fe	-0.000280	0.000000	No
			Be	-0.000013	0.000000	No
			Ti	0.000000	0.000000	No
			Mn	0.000000	0.000000	No
			Ni	0.000000	0.000000	No
			Co	0.002495	0.000000	No
			Cr	0.000220	0.000000	No
Tl 190.856 {477}	☒	2	Fe	-0.000126	0.000000	No
			Cr	0.000000	0.000000	No
V 290.882 {116}	☒	1	Fe	0.000207	0.000000	No
V 292.402 {115}	☒	5	Fe	0.000045	0.000000	No
			Cr	-0.000051	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Al	0.000000	0.000000	No
			Ti	0.000420	0.000000	No
			Mo	-0.000481	0.000000	No
Zn 206.200 {463}	☒	1	Fe	0.000032	0.000000	No
Zn 213.856 {457}	☒	8	Fe	0.000163	0.000000	No
			Al	0.000000	0.000000	No
			Mn	0.000094	0.000000	No
			Ni	0.004500	0.000000	No
			Ti	-0.000307	0.000000	No
			Mg	0.000026	0.000000	No
			Mo	0.000034	0.000000	No
			Ca	0.000000	0.000000	No
Y 224.306 {450}*	☒	None				
Y 324.228 {104}*	☒	None				
Y 371.030 { 91}*	☒	None				
Na 588.995 { 57}	☒	1	Fe	0.000109	0.000000	No
Na 589.592 { 57}	☒	1	Fe	0.000106	0.000000	No
Si 251.611 {134}	☒	1	Fe	-0.000024	0.000000	No
Ti 323.452 {104}	☒	1	Fe	0.000008	0.000000	No
Ti 334.941 {101}	☒	1	Fe	0.000082	0.000000	No
Sr 407.771 { 83}	☒	1	Fe	0.000015	0.000000	No
Sr 421.552 { 80}	☒	1	Ca	0.000013	0.000000	No
Sn 189.989 {477}	☒	1	Fe	0.000042	0.000000	No
B 249.678 {135}	☒	1	Fe	0.000002	0.000000	No
B 249.773 {135}	☒	1	Fe	0.001833	0.000000	No
Li 670.784 { 50}	☒	1	Fe	0.000016	0.000000	No
K 766.490 { 44}	☒	1	Fe	0.000112	0.000000	No
K 769.896 { 44}	☒	1	Fe	0.001120	0.000000	No
P 213.618 {457}	☒	1	Fe	-0.000011	0.000000	No
S 182.034 {485}	☒	2	Mn	0.002145	0.000000	No
			Fe	0.001405	0.000000	No
Hg 184.950 {482}	☒	1	Fe	0.000009	0.000000	No
Ce 404.076 { 83}	☒	1	Fe	0.000227	0.000000	No

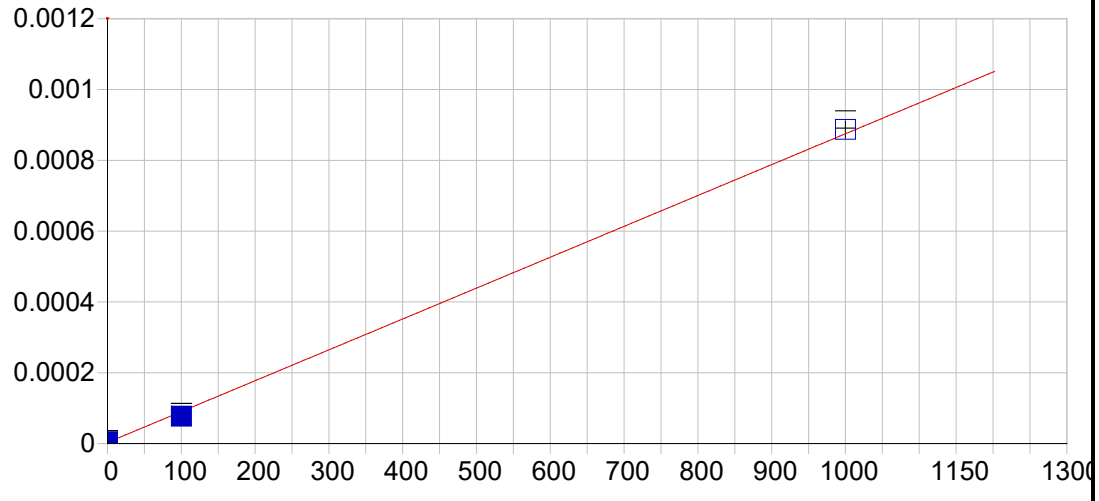


Ag 328.068 {103}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999992	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.959143		
Predicted MQL:	3.197145		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00004	-.000	.000	.00001	.000	1
CalStd8=100	100.00	99.960	-.040	-.040	.00022	.000	1
CalStd3=1	1.0000	1.0402	.040	4.02	.00001	.000	1

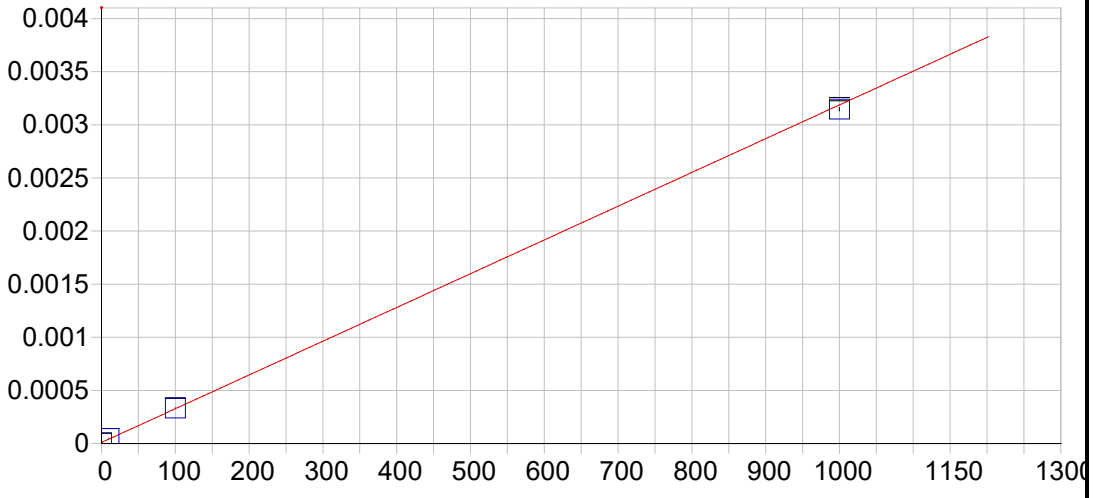


Ag 338.289 {100}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998757	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	8.639040		
Predicted MQL:	28.796801		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.2832	2.28	.000	.00001	.000	1
CalStd8=100	100.00	84.695	-15.3	-15.3	.00008	.000	1
Ag Ba 1000,	1000.0	1013.8	13.8	1.38	.00089	.000	1

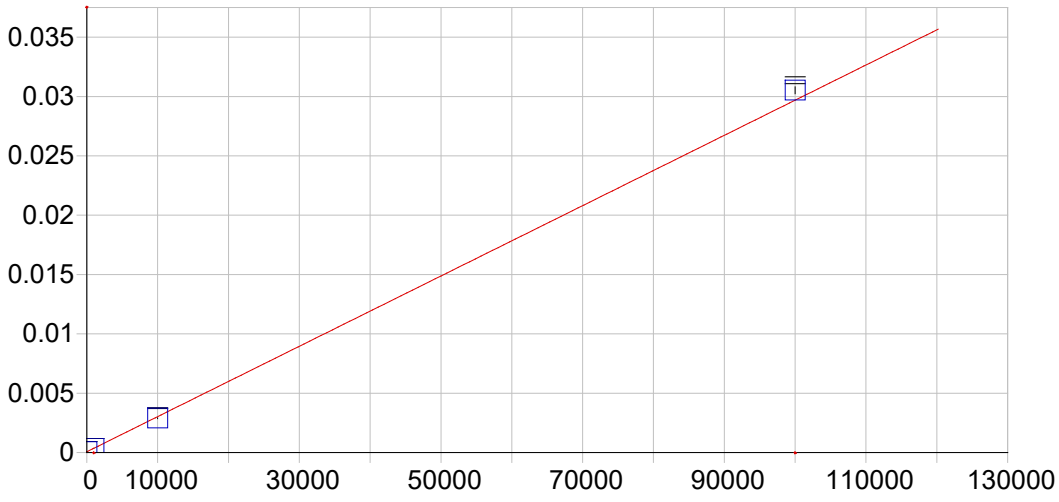


Al 167.079 {501}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000010	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999682	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.566828		
Predicted MQL:	1.889427		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.8878	-1.89	.000	.00000	.000	1
CalStd9=100	1000.0	987.31	-12.7	-1.27	.00315	.000	1
CalStd5=10	10.000	11.725	1.72	17.2	.00005	.000	1
CalStd8=100	100.00	101.60	1.60	1.60	.00033	.000	1

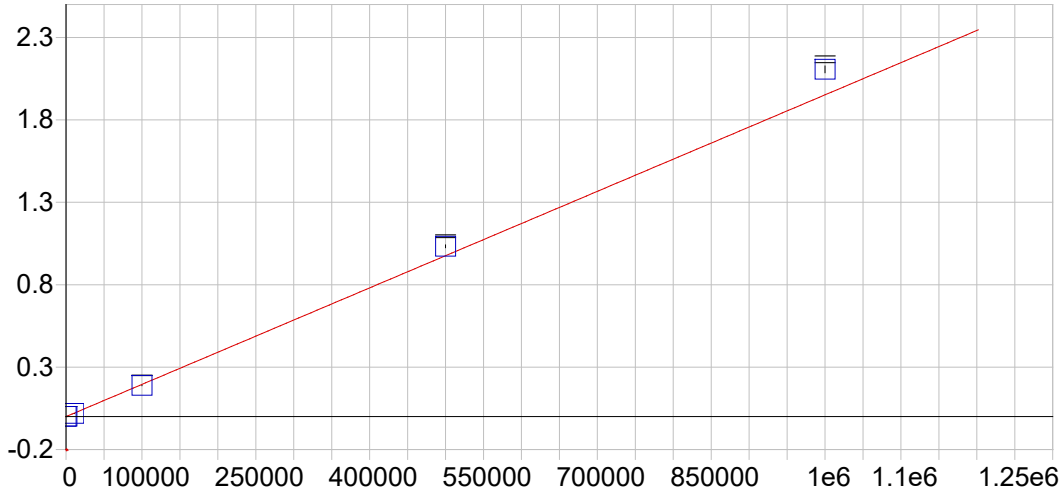


Al 308.215 {109}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000063	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999333	Status:	OK.
Std Error of Est:	0.000047		
Predicted MDL:	33.007241		
Predicted MQL:	110.024137		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	28.162	28.2	.000	.00007	.000	1
CalStd10=10	10000.	9559.1	-441.	-4.41	.00290	.000	1
CalStd9=100	1000.0	988.95	-11.1	-1.11	.00036	.000	1
CalStd13=10	100000.	102830.	2830.	2.83	.03053	.000	1

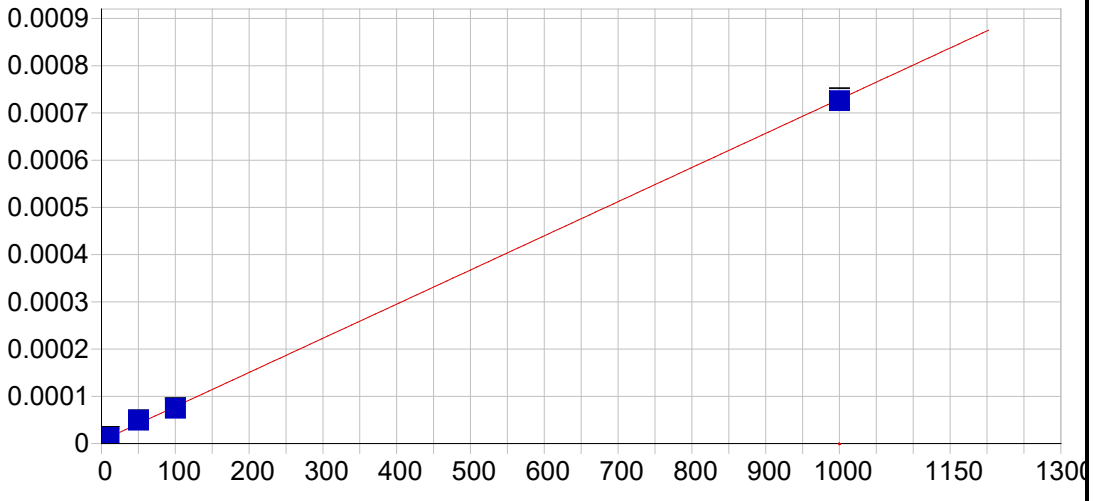


Al 396.152 { 85}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000058	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999903	Status:	OK.
Std Error of Est:	0.000052		
Predicted MDL:	9.131292		
Predicted MQL:	30.437640		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.13212	.132	.000	-.00006	.000	1
CalStd14=50	500000.	529200.	29200.	5.84	1.0329	.008	1
CalStd13=10	100000.	96845.	-3160.	-3.16	.18898	.002	1
CalStd10=10	10000.	9401.5	-598.	-5.98	.01829	.000	1
CalStd9=100	1000.0	955.38	-44.6	-4.46	.00181	.000	1
CalibStd15=	1000000.	1079100.	79100.	7.91	2.1063	.020	1

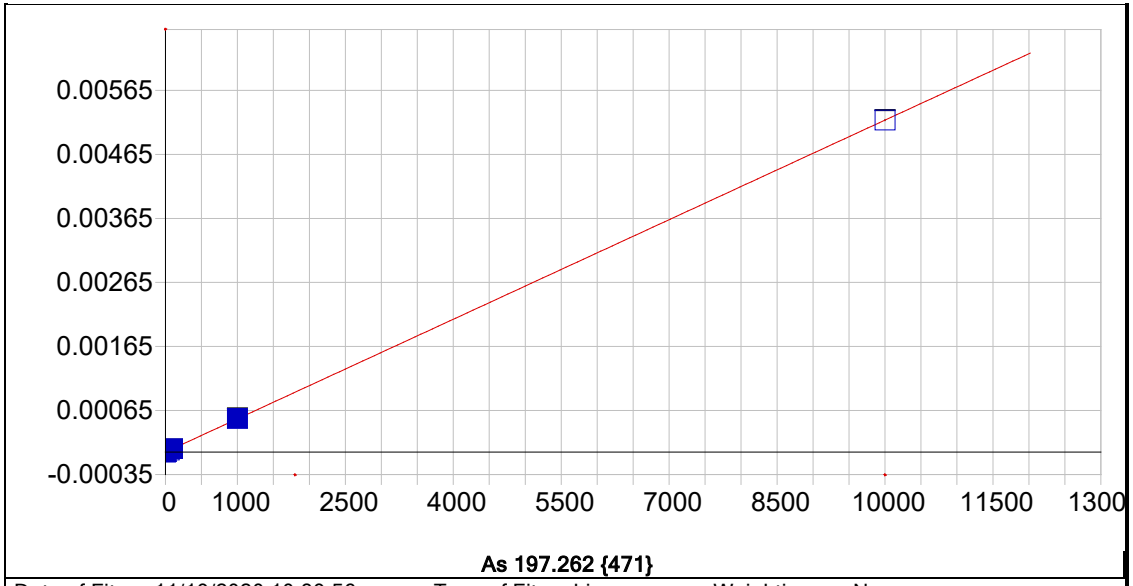


As 193.759 {474}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998976	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	5.741010		
Predicted MQL:	19.136699		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00106	-.001	.000	.00001	.000	1
CalStd9=100	1000.0	995.49	-4.51	-.451	.00073	.000	1
CalStd7=50	50.000	60.183	10.2	20.4	.00005	.000	1
CalStd5=10	10.000	9.5980	-.402	-4.02	.00001	.000	1
CalStd8=100	100.00	94.742	-5.26	-5.26	.00007	.000	1

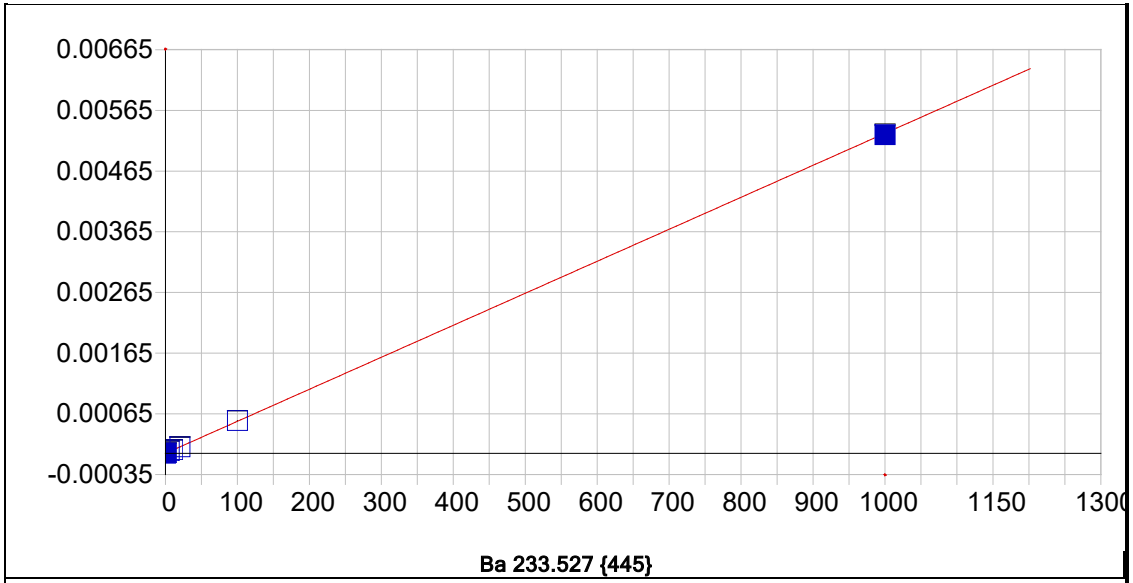


As 197.262 {471}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	None

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	6.703809		
Predicted MQL:	22.346029		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-4.1186	-4.12	.000	-.00000	.000	1
CalStd9=100	1000.0	1007.6	7.60	.760	.00052	.000	1
CalStd7=50	50.000	54.075	4.08	8.15	.00003	.000	1
CalStd5=10	10.000	6.1512	-3.85	-38.5	.00000	.000	1
CalStd8=100	100.00	97.036	-2.96	-2.96	.00005	.000	1
CalStd10=10	10000.	9999.3	-.747	-.007	.00518	.000	1

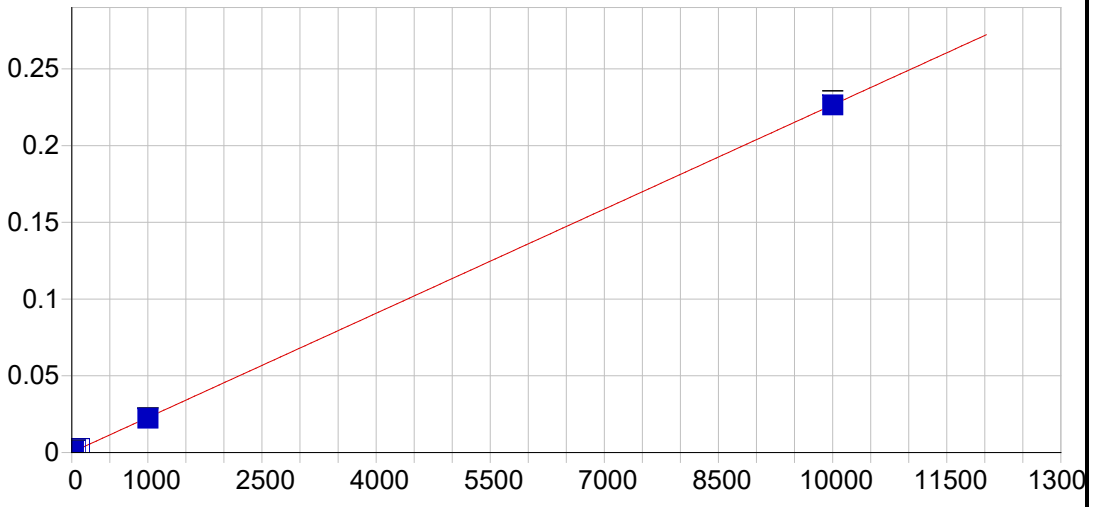


Ba 233.527 {445}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999404	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.578366		
Predicted MQL:	1.927888		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00075	-.001	.000	-.00000	.000	1
CalStd5=10	10.000	10.714	.714	7.14	.00006	.000	1
CalStd6=20	20.000	19.749	-.251	-1.26	.00010	.000	1
CalStd8=100	100.00	101.97	1.97	1.97	.00054	.000	1
CalStd4=5	5.0000	7.4510	2.45	49.0	.00004	.000	1
CalStd9=100	1000.0	994.93	-5.07	-.507	.00525	.000	1
CalStd3=1	1.0000	1.1858	.186	18.6	.00001	.000	1

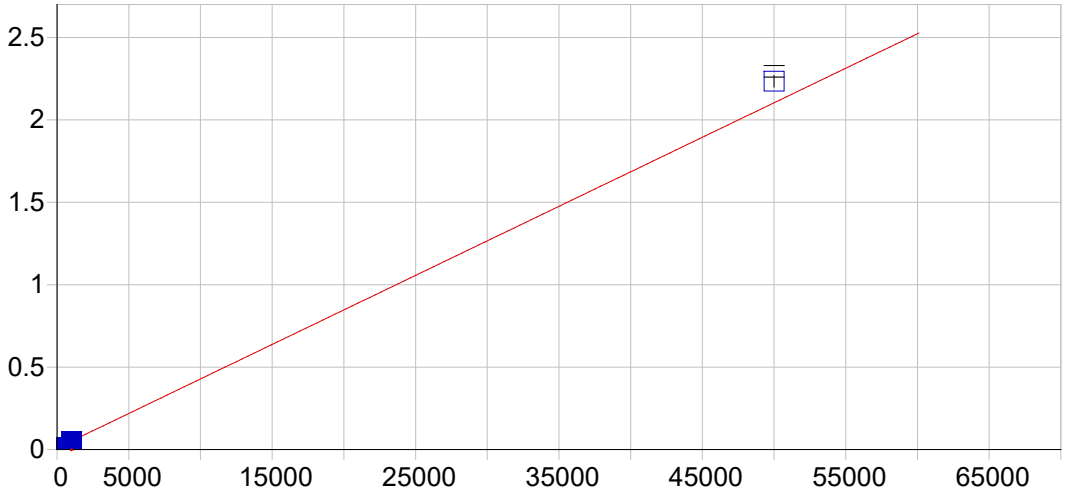


Ba 455.403 { 74}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000206	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999692	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.629074		
Predicted MQL:	2.096913		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00182	-.002	.000	.00021	.000	1
CalStd7=50	50.000	62.886	12.9	25.8	.00163	.000	1
CalStd5=10	10.000	11.968	1.97	19.7	.00048	.000	1
CalStd6=20	20.000	21.113	1.11	5.56	.00068	.000	1
CalStd8=100	100.00	102.64	2.64	2.64	.00253	.000	1
CalStd4=5	5.0000	8.3228	3.32	66.5	.00039	.000	1
CalStd9=100	1000.0	979.03	-21.0	-2.10	.02236	.000	1
CalStd3=1	1.0000	1.6411	.641	64.1	.00024	.000	1
CalStd10=10	10000.	9998.4	-1.61	-.016	.22649	.003	1

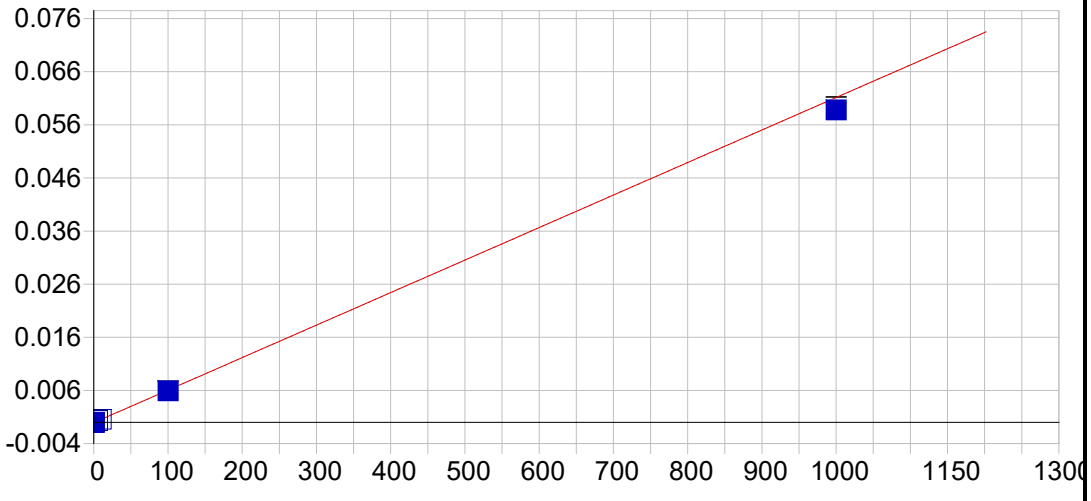


Ba 493.409 { 68}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.009349	Re-Slope:	1.000000
A1 (Gain):	0.000042	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997708	Status:	OK.
Std Error of Est:	0.000443		
Predicted MDL:	0.934595		
Predicted MQL:	3.115315		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.15827	.158	.000	.00936	.000	1
CalStd9=100	1000.0	920.68	-79.3	-7.93	.04792	.001	1
CalStd8=100	100.00	101.90	1.90	1.90	.01362	.000	1
Ag Ba 1000,	50000.	53108.	3110.	6.22	2.2341	.035	1

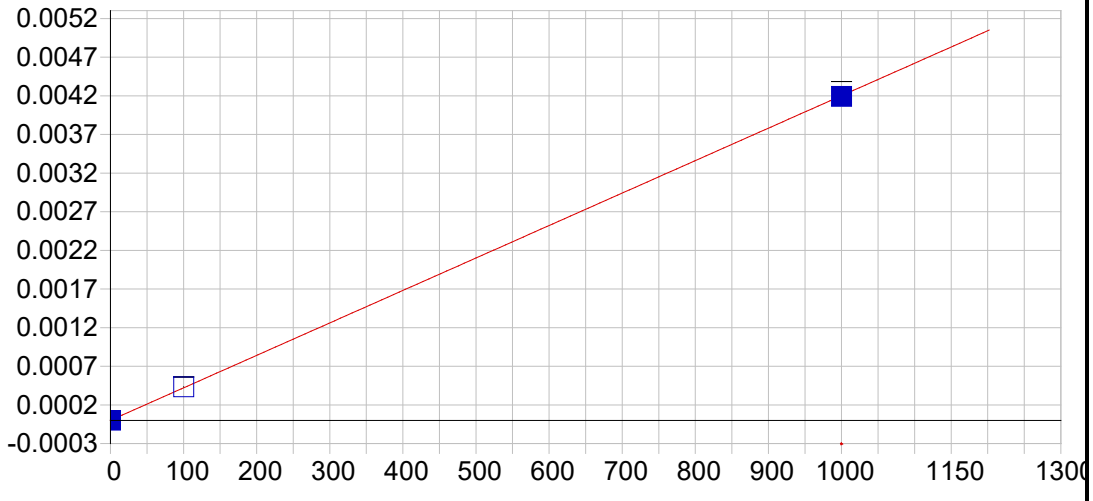


Be 313.042 {108}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000066	Re-Slope:	1.000000
A1 (Gain):	0.000061	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997481	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.031714		
Predicted MQL:	0.105713		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.22219	-.222	.000	-.00008	.000	1
CalStd5=10	10.000	10.043	.043	.433	.00055	.000	1
CalStd8=100	100.00	97.210	-2.79	-2.79	.00588	.000	1
CalStd2=0.5	.50000	.31569	-.184	-36.9	-.00005	.000	1
CalStd4=5	5.0000	5.8332	.833	16.7	.00029	.000	1
CalStd9=100	1000.0	961.45	-38.5	-3.85	.05879	.001	1
CalStd3=1	1.0000	.93166	-.068	-6.83	-.00001	.000	1

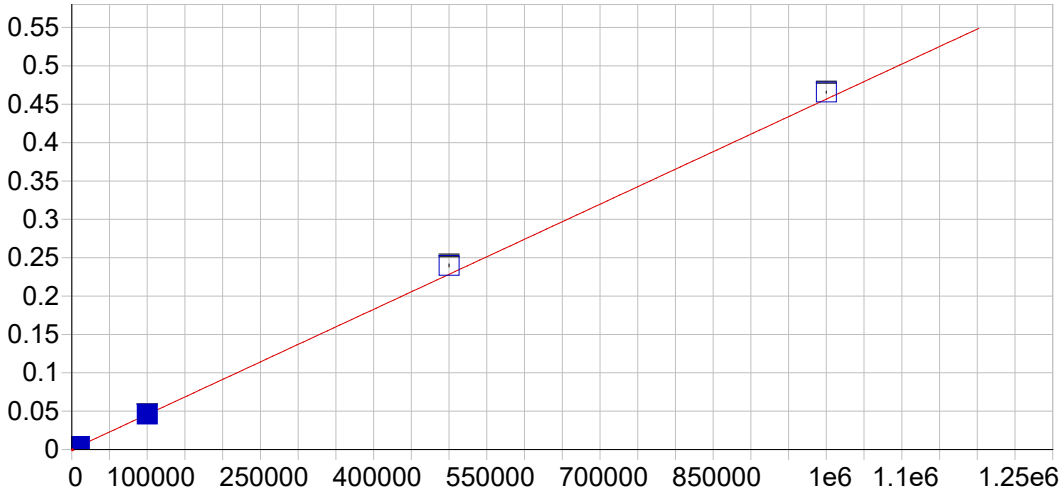


Be 234.861 {144}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999969	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.633293		
Predicted MQL:	2.110976		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00225	-.002	.000	.00000	.000	1
CalStd9=100	1000.0	997.50	-2.50	-.250	.00419	.000	1
CalStd8=100	100.00	102.50	2.50	2.50	.00043	.000	1

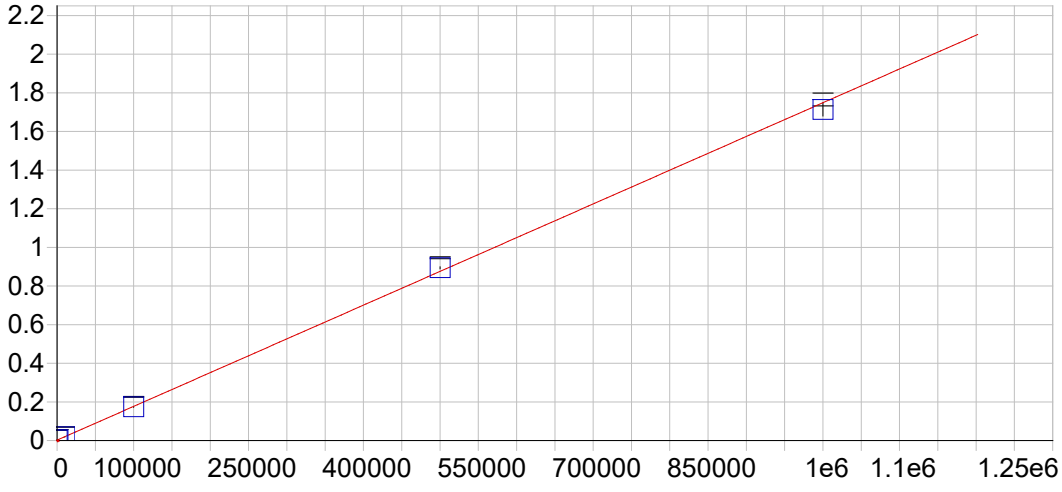


Ca 315.887 {107}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000063	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999869	Status:	OK.
Std Error of Est:	0.000025		
Predicted MDL:	8.871150		
Predicted MQL:	29.570500		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	8.5584	8.56	.000	.00007	.000	1
CalStd10=10	10000.	9555.5	-444.	-4.44	.00443	.000	1
CalStd13=10	100000.	101040.	1040.	1.04	.04620	.000	1
CalStd14=50	500000.	525190.	25200.	5.04	.23988	.002	1
CalStd9=100	1000.0	959.04	-41.0	-4.10	.00050	.000	1
CalibStd15=	1000000.	1020100.	20100.	2.01	.46586	.001	1

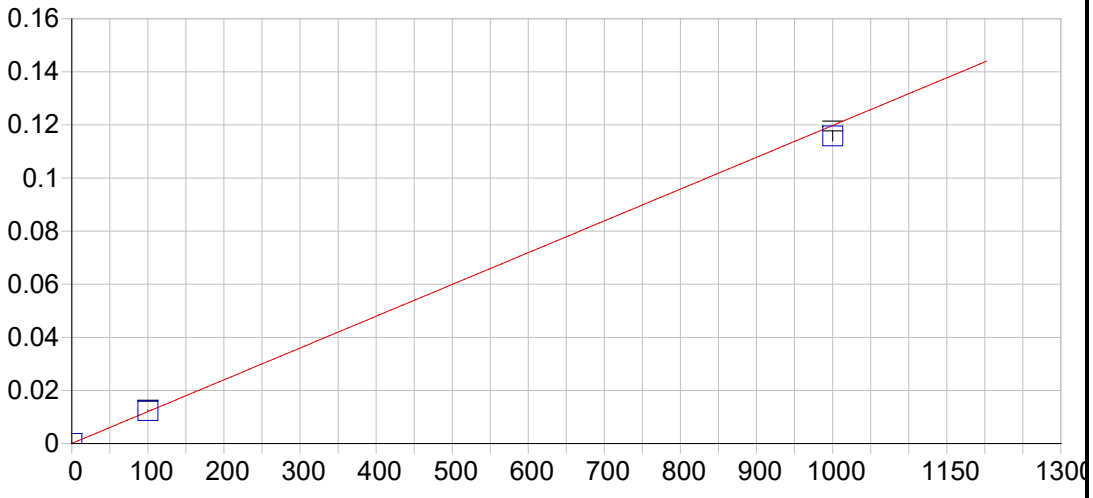


Ca 317.933 {106}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.002225	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999531	Status:	OK.
Std Error of Est:	0.000221		
Predicted MDL:	3.604677		
Predicted MQL:	12.015589		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	37.890	37.9	.000	.00229	.000	1
CalStd10=10	10000.	9352.7	-647.	-6.47	.01856	.000	1
CalStd13=10	100000.	98565.	-1430.	-1.43	.17436	.002	1
CalStd14=50	500000.	510620.	10600.	2.12	.89396	.005	1
CalStd9=100	1000.0	956.90	-43.1	-4.31	.00390	.000	1
CalibStd15=	1000000.	979790.	-20200.	-2.02	1.7133	.034	1

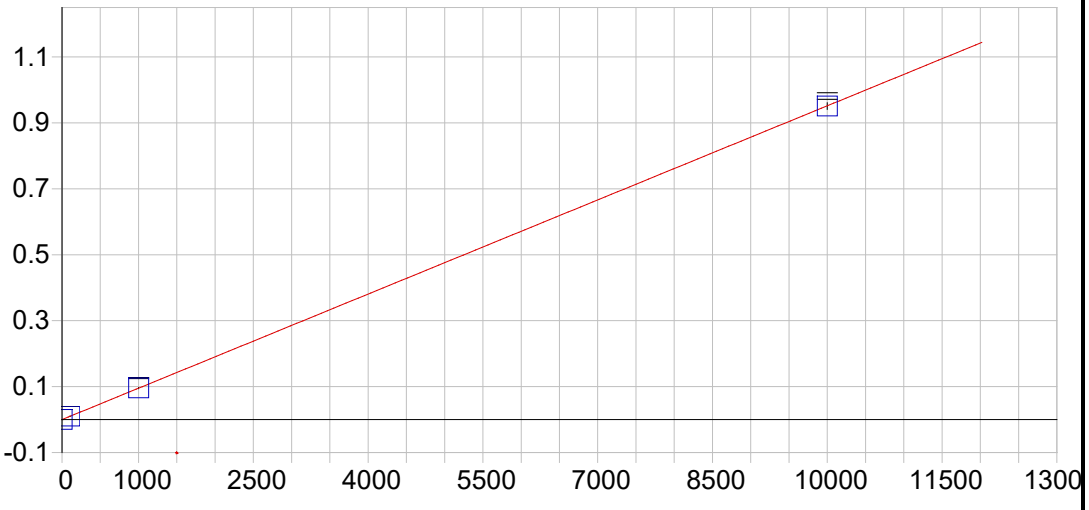


Ca 393.366 { 86}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000050	Re-Slope:	1.000000
A1 (Gain):	0.000120	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999548	Status:	OK.
Std Error of Est:	0.000059		
Predicted MDL:	0.088905		
Predicted MQL:	0.296350		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.01226	-.012	.000	.00005	.000	1
CalStd9=100	1000.0	966.94	-33.1	-3.31	.11583	.002	1
CalStd8=100	100.00	102.72	2.72	2.72	.01235	.000	1

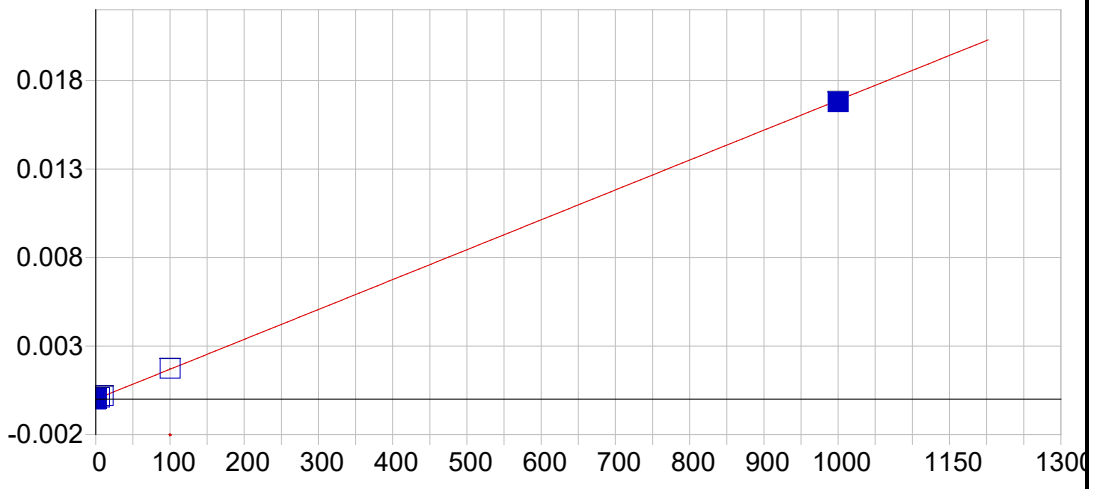


Ca 396.847 { 85}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000095	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.121504		
Predicted MQL:	0.405012		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00738	-.007	.000	.00001	.000	1
CalStd10=10	10000.	9989.3	-10.7	-.107	.95083	.010	1
CalStd8=100	100.00	107.13	7.13	7.13	.01020	.000	1
CalStd9=100	1000.0	1003.6	3.60	.360	.09554	.002	1

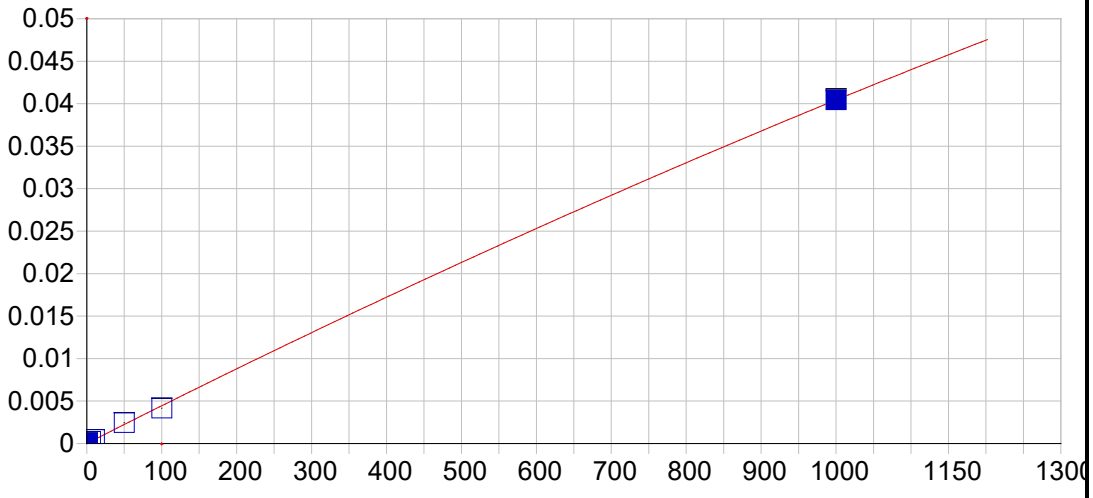


Cd 226.502 {449}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000017	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999669	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.284598		
Predicted MQL:	0.948659		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00059	-.001	.000	-.00000	.000	1
CalStd3=1	1.0000	1.3999	.400	40.0	.00002	.000	1
CalStd2=0.5	.50000	.70488	.205	41.0	.00001	.000	1
CalStd4=5	5.0000	6.2677	1.27	25.4	.00011	.000	1
CalStd8=100	100.00	102.59	2.59	2.59	.00173	.000	1
CalStd5=10	10.000	10.881	.881	8.81	.00018	.000	1
CalStd9=100	1000.0	994.66	-5.34	-.534	.01680	.000	1

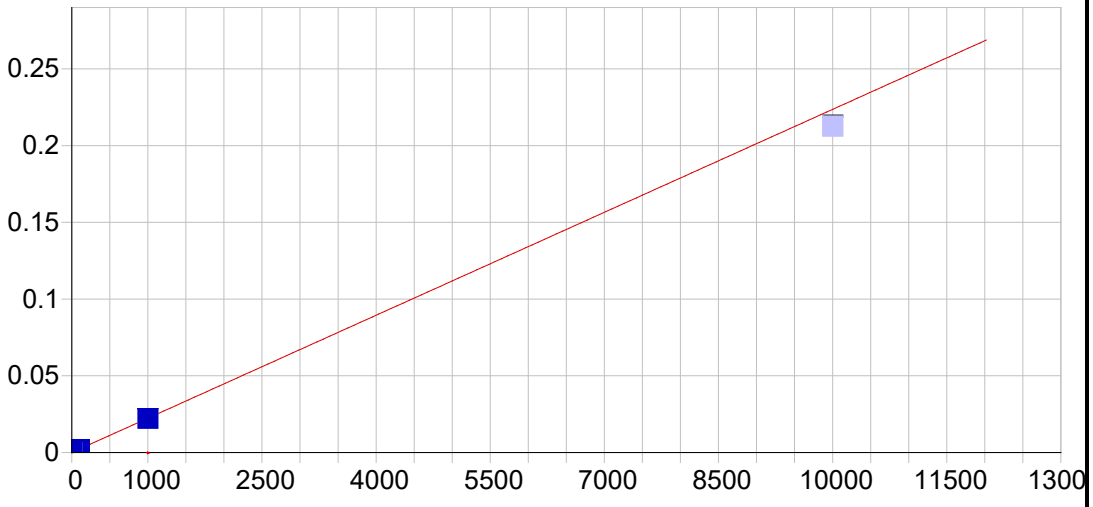


Cd 228.802 {447}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000012	Re-Slope:	1.000000
A1 (Gain):	0.000045	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999410	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.153903		
Predicted MQL:	0.513009		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00031	-.000	.000	.00001	.000	1
CalStd7=50	50.000	55.001	5.00	10.0	.00246	.000	1
CalStd3=1	1.0000	1.3118	.312	31.2	.00007	.000	1
CalStd2=0.5	.50000	.55155	.052	10.3	.00004	.000	1
CalStd4=5	5.0000	5.8537	.854	17.1	.00027	.000	1
CalStd8=100	100.00	93.411	-6.59	-6.59	.00416	.000	1
CalStd5=10	10.000	9.9038	-.096	-.962	.00045	.000	1
CalStd9=100	1000.0	1000.5	.491	.049	.04045	.000	1

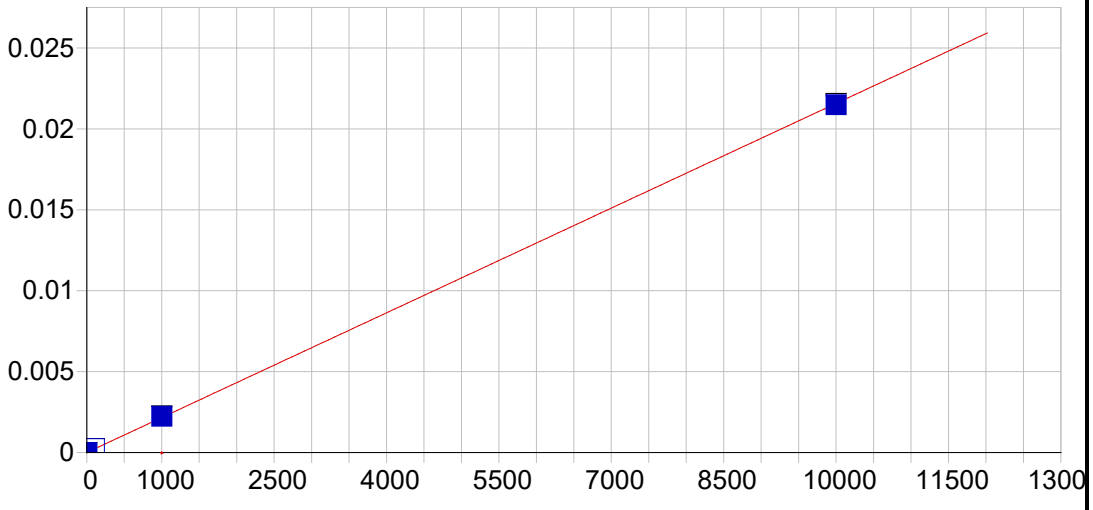


Co 228.616 {447}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000022	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998779	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.272152		
Predicted MQL:	0.907173		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00058	-.001	.000	.00001	.000	1
CalStd7=50	50.000	59.502	9.50	19.0	.00135	.000	1
CalStd5=10	10.000	10.360	.360	3.60	.00024	.000	1
CalStd4=5	5.0000	7.0941	2.09	41.9	.00017	.000	1
CalStd8=100	100.00	100.54	.535	.535	.00226	.000	1
CalStd9=100	1000.0	987.55	-12.4	-1.24	.02211	.000	1
CalStd3=1	1.0000	.94618	-.054	-5.38	.00003	.000	1
CalStd10=10	10000.	9499.2	-501.	-5.01	.21281	.001	0

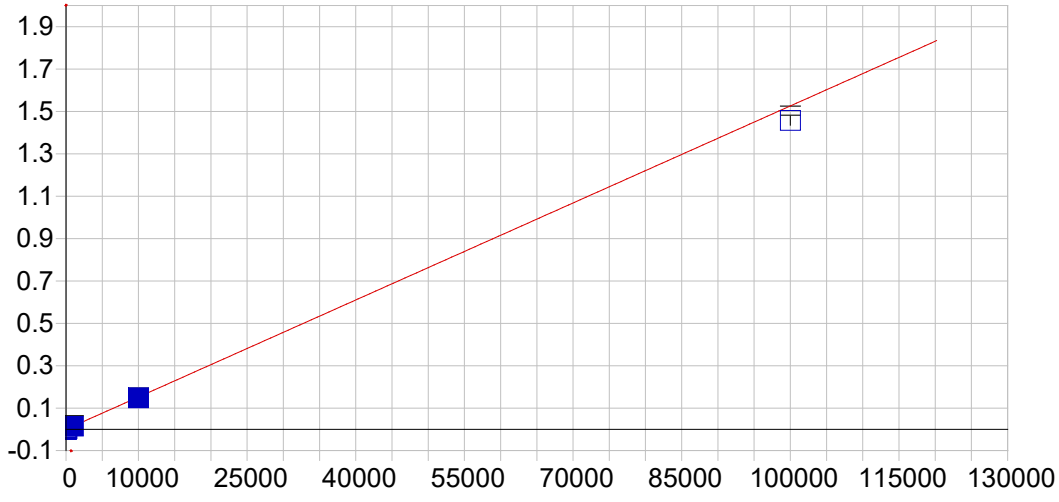


Co 238.892 {141}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999918	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.710941		
Predicted MQL:	2.369805		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00990	-.010	.000	.00000	.000	1
CalStd9=100	1000.0	1034.2	34.2	3.42	.00224	.000	1
CalStd10=10	10000.	9958.9	-41.1	-.411	.02149	.000	1
CalStd8=100	100.00	106.90	6.90	6.90	.00023	.000	1

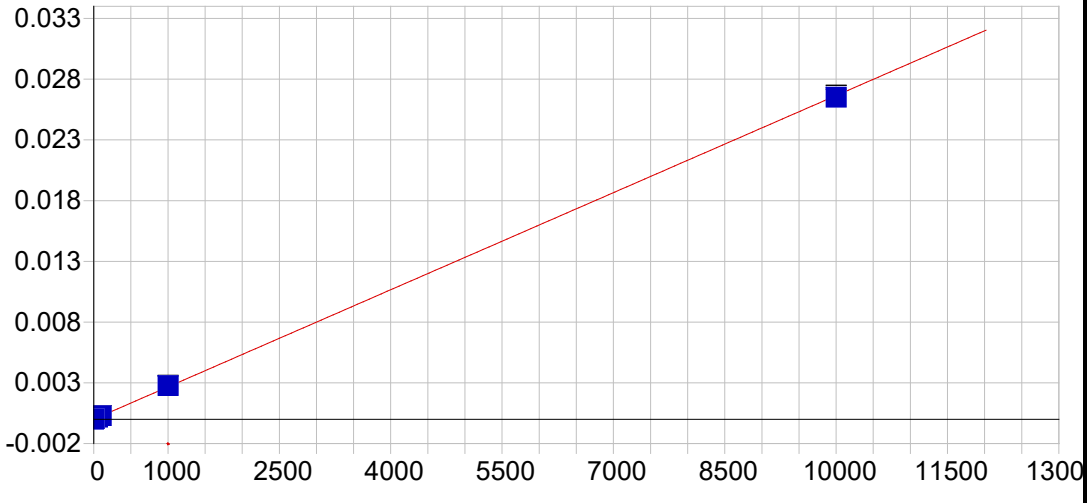


Cr 205.560 {464}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000013	Re-Slope:	1.000000
A1 (Gain):	0.000015	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999216	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.278277		
Predicted MQL:	0.927591		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.4246	-1.42	.000	-.00001	.000	1
CalStd5=10	10.000	9.5934	-.407	-4.07	.00016	.000	1
CalStd7=50	50.000	59.273	9.27	18.5	.00092	.000	1
CalStd9=100	1000.0	1008.7	8.68	.868	.01541	.000	1
CalStd8=100	100.00	100.60	.603	.603	.00155	.000	1
CalStd4=5	5.0000	6.3701	1.37	27.4	.00011	.000	1
CalStd3=1	1.0000	.82517	-.175	-17.5	.00003	.000	1
CalStd10=10	10000.	9712.5	-288.	-2.88	.14824	.000	1
CalStd12=10	100000.	95456.	-4540.	-4.54	1.4568	.022	1

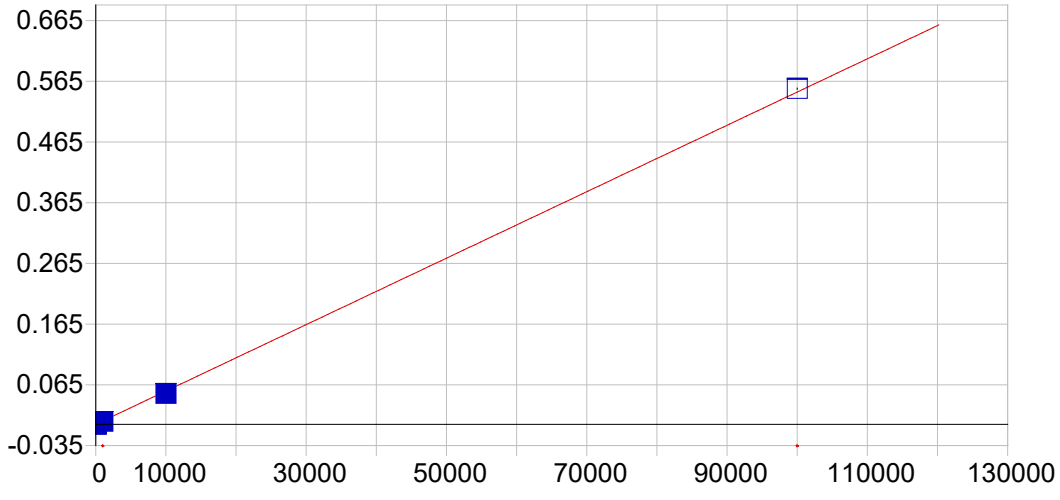


Cr 267.716 {126}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999742	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.778625		
Predicted MQL:	2.595415		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00456	-.005	.000	.00000	.000	1
CalStd5=10	10.000	10.801	.801	8.01	.00003	.000	1
CalStd7=50	50.000	61.214	11.2	22.4	.00016	.000	1
CalStd9=100	1000.0	1034.6	34.6	3.46	.00276	.000	1
CalStd8=100	100.00	105.91	5.91	5.91	.00028	.000	1
CalStd4=5	5.0000	7.5951	2.60	51.9	.00002	.000	1
CalStd10=10	10000.	9944.9	-55.1	-.551	.02651	.000	1

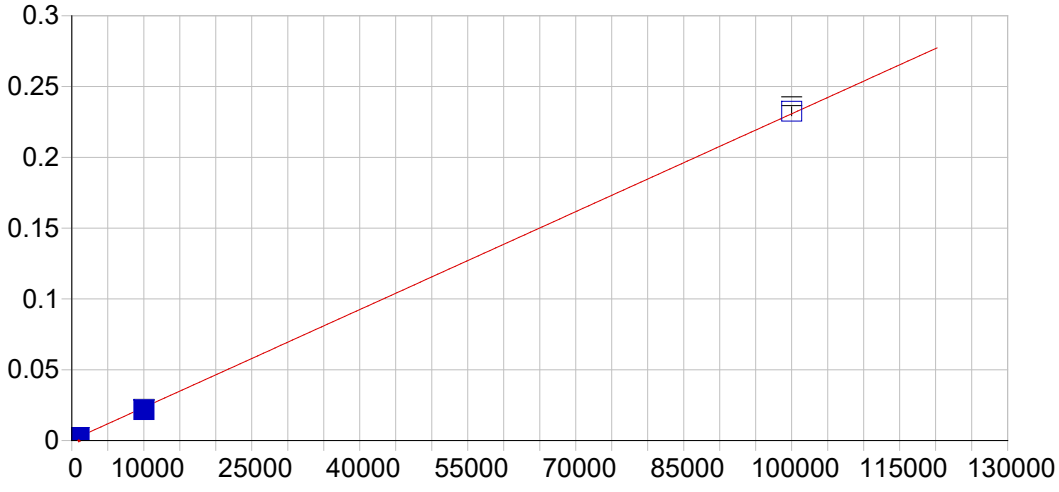


Cu 224.700 {450}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999163	Status:	OK.
Std Error of Est:	0.000012		
Predicted MDL:	0.470278		
Predicted MQL:	1.567592		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.05221	.052	.000	-.00000	.000	1
CalStd9=100	1000.0	866.38	-134.	-13.4	.00472	.000	1
CalStd7=50	50.000	8.0363	-42.0	-83.9	.00004	.000	1
CalStd8=100	100.00	27.494	-72.5	-72.5	.00014	.000	1
CalStd6=20	20.000	3.0382	-17.0	-84.8	.00001	.000	1
CalStd12=10	100000.	101010.	1010.	1.01	.55279	.001	1
CalStd10=10	10000.	9252.2	-748.	-7.48	.05042	.000	1

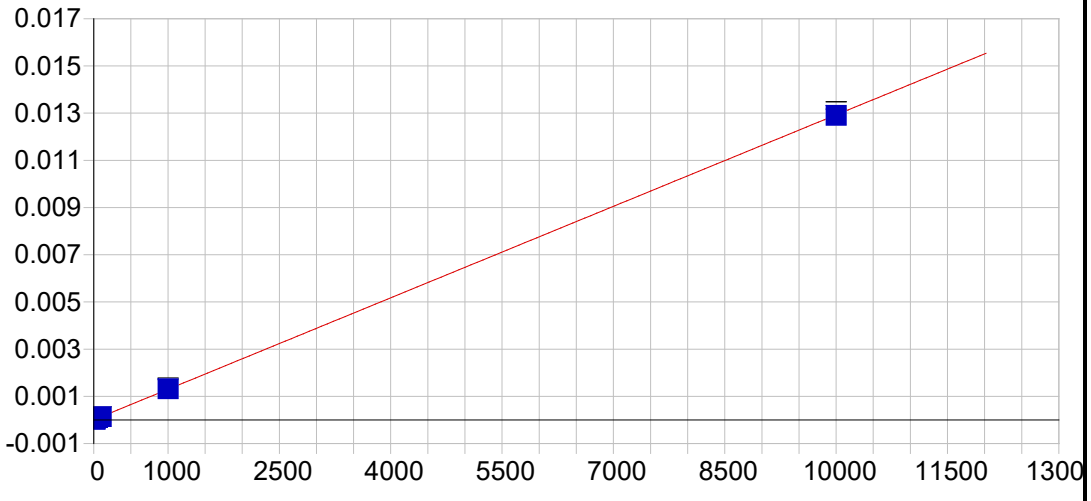


Cu 324.754 {104}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000317	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999668	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	3.449633		
Predicted MQL:	11.498777		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00971	-.010	.000	.00032	.000	1
CalStd9=100	1000.0	936.84	-63.2	-6.32	.00248	.000	1
CalStd8=100	100.00	101.38	1.38	1.38	.00055	.000	1
CalStd10=10	10000.	9267.7	-732.	-7.32	.02167	.000	1
CalStd12=10	100000.	100770.	766.	.766	.23253	.003	1
CalStd5=10	10.000	13.161	3.16	31.6	.00035	.000	1
CalStd6=20	20.000	28.850	8.85	44.2	.00038	.000	1
CalStd7=50	50.000	66.374	16.4	32.7	.00047	.000	1

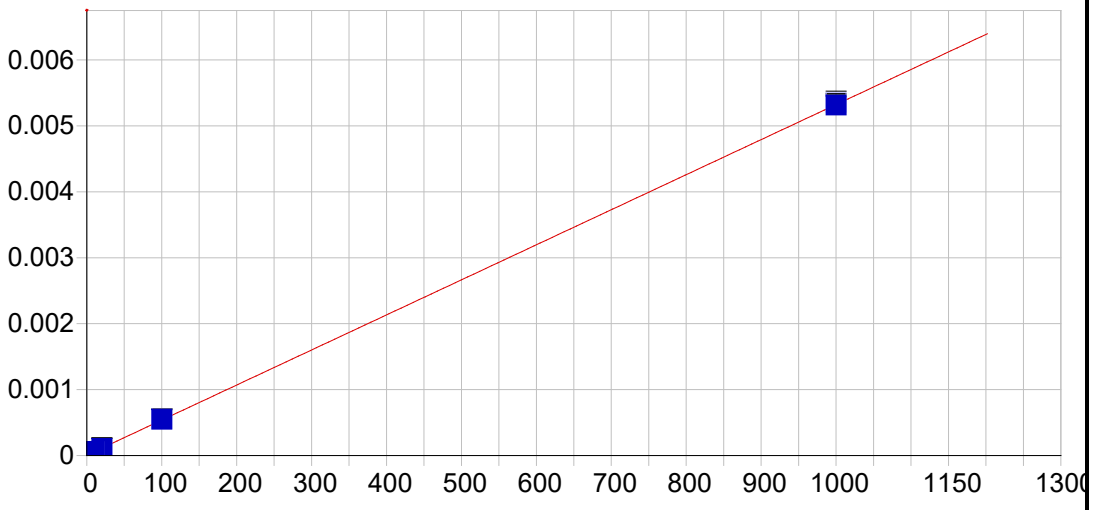


Cu 327.396 {103}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999387	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	8.941153		
Predicted MQL:	29.803844		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.08824	.088	.000	.00001	.000	1
CalStd6=20	20.000	15.809	-4.19	-21.0	.00003	.000	1
CalStd7=50	50.000	60.072	10.1	20.1	.00008	.000	1
CalStd8=100	100.00	98.615	-1.38	-1.38	.00013	.000	1
CalStd9=100	1000.0	1013.0	13.0	1.30	.00131	.000	1
CalStd10=10	10000.	9979.5	-20.5	-.205	.01290	.000	1
CalStd4=5	5.0000	14.079	9.08	182.	.00002	.000	1
CalStd5=10	10.000	9.2508	-.749	-7.49	.00002	.000	1

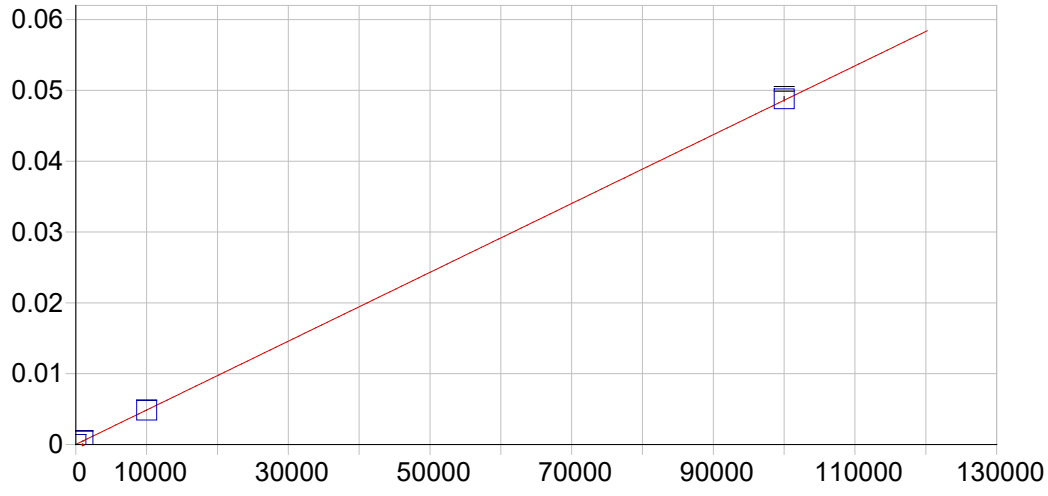


Cu 223.008 {451}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999977	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	1.152722		
Predicted MQL:	3.842407		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00018	-.000	.000	.00001	.000	1
CalStd9=100	1000.0	998.12	-1.88	-.188	.00536	.000	1
CalStd8=100	100.00	102.05	2.05	2.05	.00055	.000	1
CalStd6=20	20.000	19.682	-.318	-1.59	.00011	.000	1
CalStd5=10	10.000	10.157	.157	1.57	.00006	.000	1

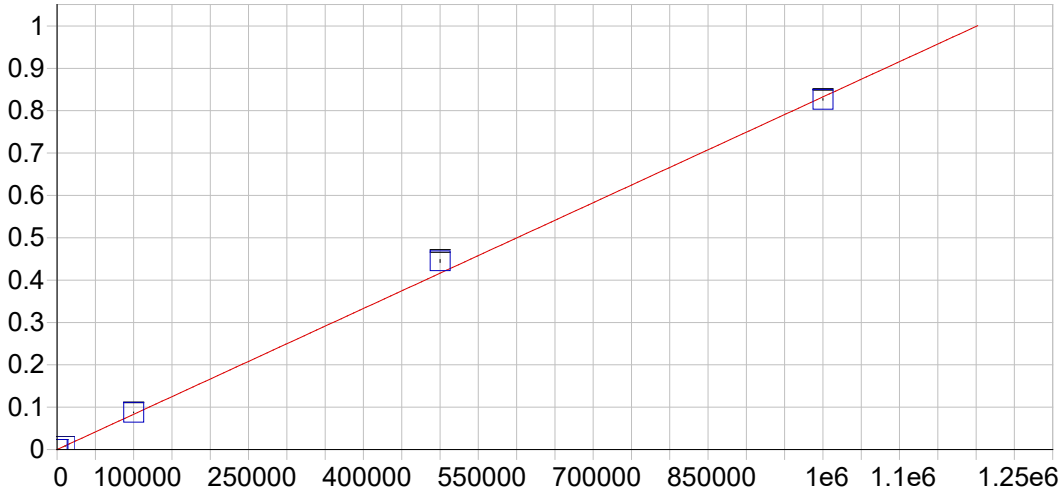


Fe 234.349 {144}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000016	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999950	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.383555		
Predicted MQL:	4.611851		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.23630	-.236	.000	.00002	.000	1
CalStd10=10	10000.	9917.5	-82.5	-.825	.00483	.000	1
CalStd13=10	100000.	100400.	395.	.395	.04880	.000	1
CalStd9=100	1000.0	1021.4	21.4	2.14	.00051	.000	1

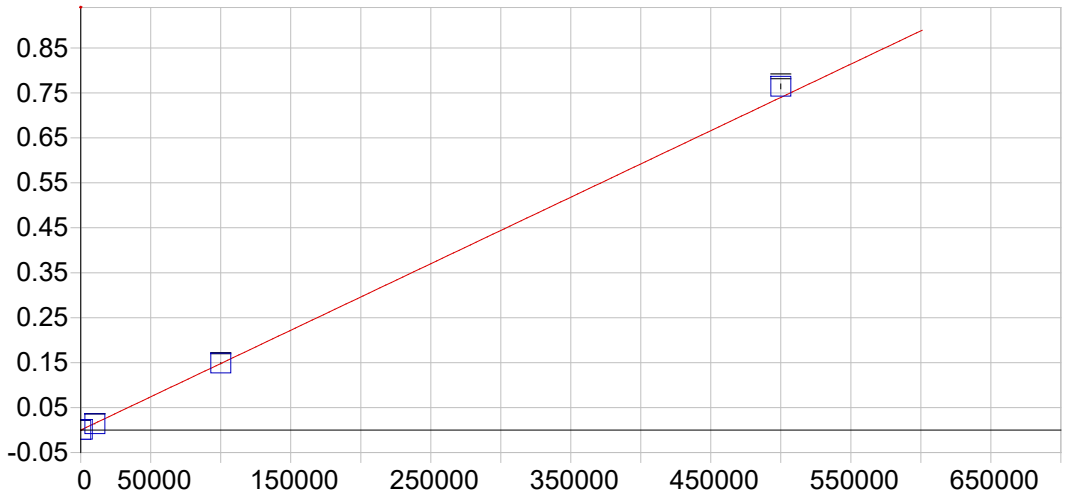


Fe 239.562 {140}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000007	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999784	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	4.721953		
Predicted MQL:	15.739844		

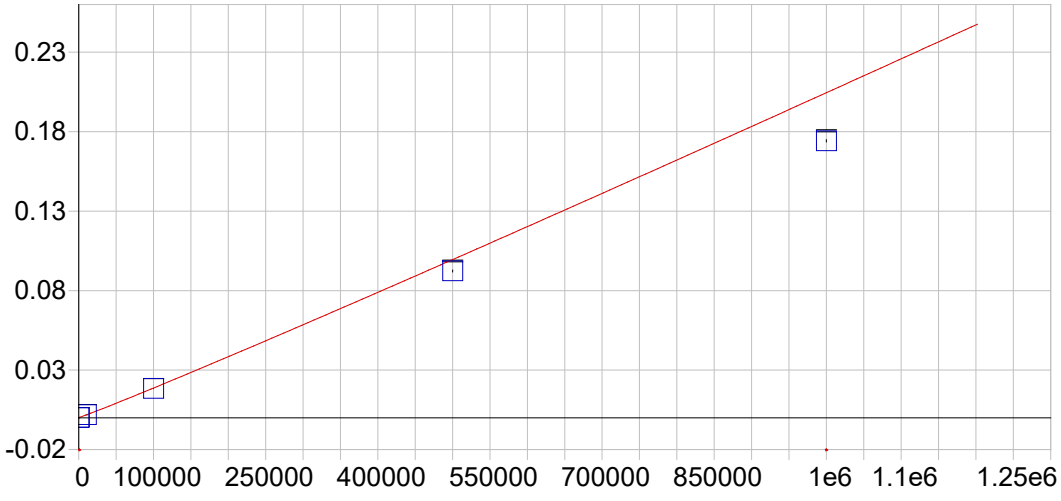
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.29593	-.296	.000	.00001	.000	1
CalStd10=10	10000.	9987.9	-12.1	-.121	.00832	.000	1
CalStd13=10	100000.	105140.	5140.	5.14	.08754	.001	1
CalStd14=50	500000.	534910.	34900.	6.98	.44535	.003	1
CalStd9=100	1000.0	1003.1	3.07	.307	.00084	.000	1
CalibStd15=	1000000.	992850.	-7150.	-.715	.82661	.002	1



Fe 259.940 {129}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var
A0 (Offset):	0.000001		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999267		Status:	OK.	
Std Error of Est:	0.000047				
Predicted MDL:	3.085088				
Predicted MQL:	10.283627				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	2.1017	2.10	.000	.00000	.000	1
CalStd10=10	10000.	9374.2	-626.	-6.26	.01388	.000	1
CalStd13=10	100000.	100470.	470.	.470	.14870	.001	1
CalStd14=50	500000.	516500.	16500.	3.30	.76447	.005	1
CalStd9=100	1000.0	951.66	-48.3	-4.83	.00141	.000	1

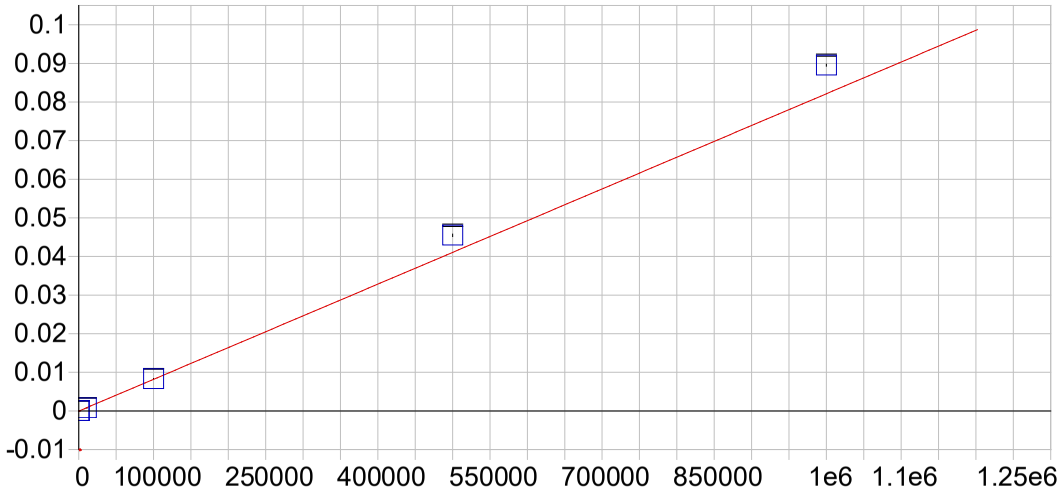


Mg 202.582 {466}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Full Fit	Weighting:	None

A0 (Offset):	0.000049	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.040000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000102		
Predicted MDL:	4.689928		
Predicted MQL:	15.633093		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	-.00000	.000	1
CalStd13=10	100000.	98304.	-1700.	-1.70	.01837	.000	1
CalStd10=10	10000.	10604.	604.	6.04	.00186	.000	1
CalStd14=50	500000.	465420.	-34600.	-6.92	.09235	.001	1
CalStd9=100	1000.0	1001.3	1.33	.133	.00020	.000	1
CalibStd15=	1000000.	857120.	-143000.	-14.3	.17423	.001	1

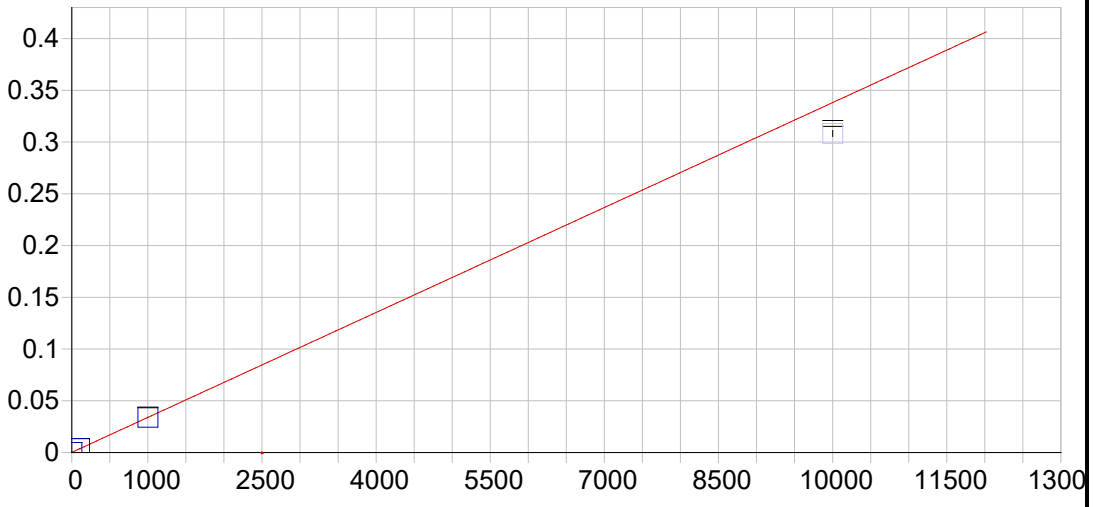


Mg 279.079 {121}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000039	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996432	Status:	OK.
Std Error of Est:	0.000054		
Predicted MDL:	30.465207		
Predicted MQL:	101.550691		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	470.09	470.	.000	-.00000	.000	1
CalStd13=10	100000.	101600.	1600.	1.60	.00831	.000	1
CalStd10=10	10000.	9676.5	-324.	-3.24	.00076	.000	1
CalStd14=50	500000.	553970.	54000.	10.8	.04549	.000	1
CalStd9=100	1000.0	1393.1	393.	39.3	.00008	.000	1
CalibStd15=	1000000.	1090100.	90100.	9.01	.08954	.000	1

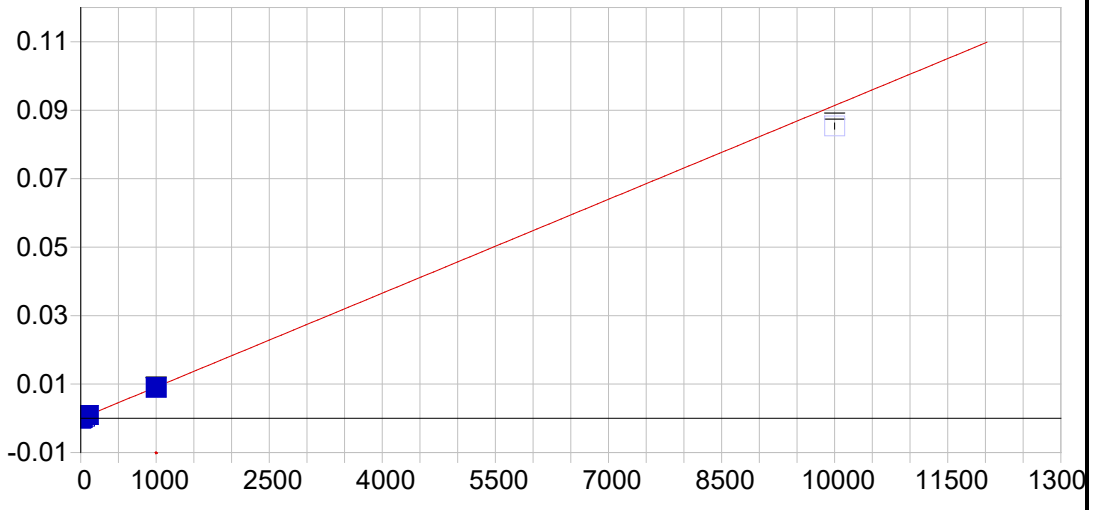


Mg 280.270 {120}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000166	Re-Slope:	1.000000
A1 (Gain):	0.000034	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999963	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.031912		
Predicted MQL:	0.106374		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00244	-.002	.000	.00017	.000	1
CalStd9=100	1000.0	997.29	-2.71	-.271	.03387	.000	1
CalStd10=10	10000.	9117.2	-883.	-8.83	.30829	.003	0
CalStd8=100	100.00	102.71	2.71	2.71	.00364	.000	1

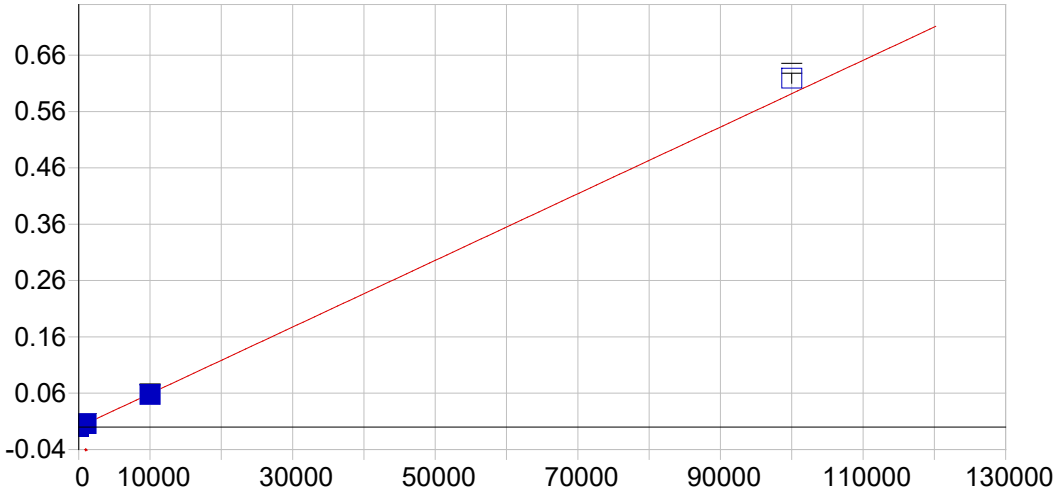


Mn 257.610 {131}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000009	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998355	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	0.103518		
Predicted MQL:	0.345061		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00400	-.004	.000	-.00000	.000	1
CalStd5=10	10.000	10.822	.822	8.22	.00010	.000	1
CalStd7=50	50.000	60.328	10.3	20.7	.00055	.000	1
CalStd6=20	20.000	19.471	-.529	-2.65	.00018	.000	1
CalStd8=100	100.00	101.62	1.62	1.62	.00093	.000	1
CalStd4=5	5.0000	7.6832	2.68	53.7	.00007	.000	1
CalStd9=100	1000.0	985.08	-14.9	-1.49	.00900	.000	1
CalStd10=10	10000.	9342.1	-658.	-6.58	.08537	.001	0

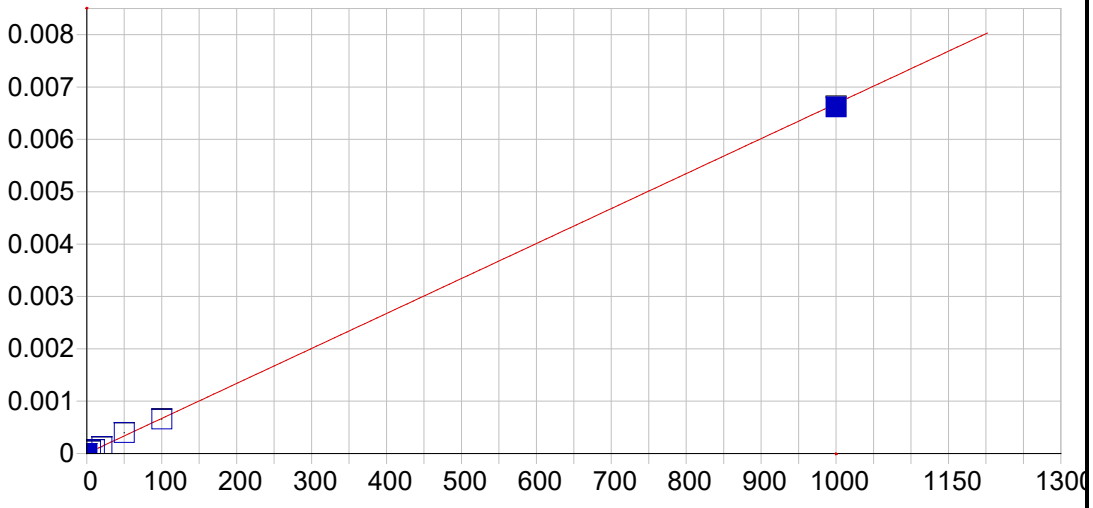


Mn 259.373 {130}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999526	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.846479		
Predicted MQL:	2.821597		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01052	.011	.000	-.00000	.000	1
CalStd10=10	10000.	9720.8	-279.	-2.79	.05759	.001	1
CalStd9=100	1000.0	996.27	-3.73	-.373	.00590	.000	1
CalStd12=10	100000.	104640.	4640.	4.64	.61914	.009	1

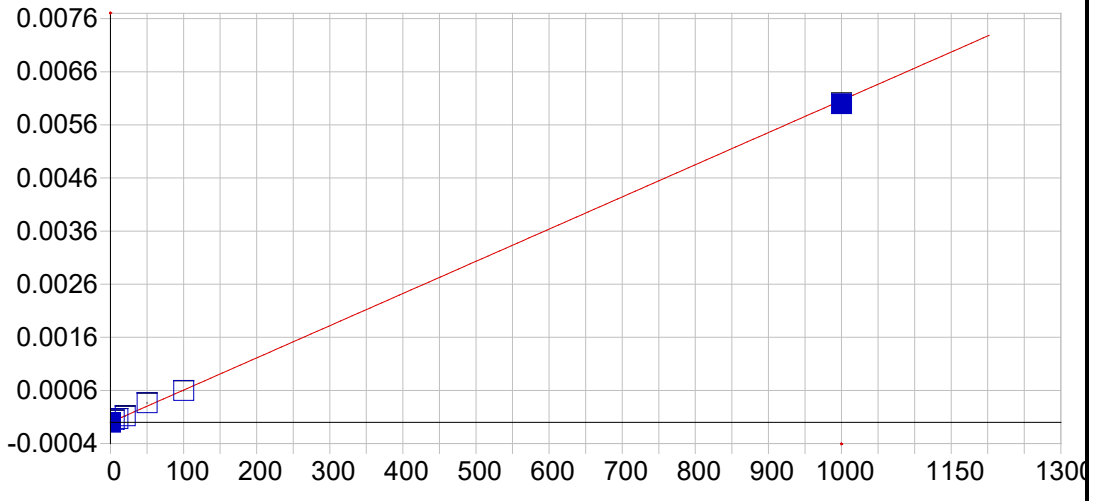


Mo 202.030 {466}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998782	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.532533		
Predicted MQL:	1.775110		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00312	-.003	.000	.00000	.000	1
CalStd7=50	50.000	59.181	9.18	18.4	.00040	.000	1
CalStd6=20	20.000	19.041	-.959	-4.79	.00013	.000	1
CalStd5=10	10.000	10.708	.708	7.08	.00007	.000	1
CalStd8=100	100.00	98.168	-1.83	-1.83	.00066	.000	1
CalStd4=5	5.0000	7.2213	2.22	44.4	.00005	.000	1
CalStd9=100	1000.0	990.68	-9.32	-.932	.00662	.000	1

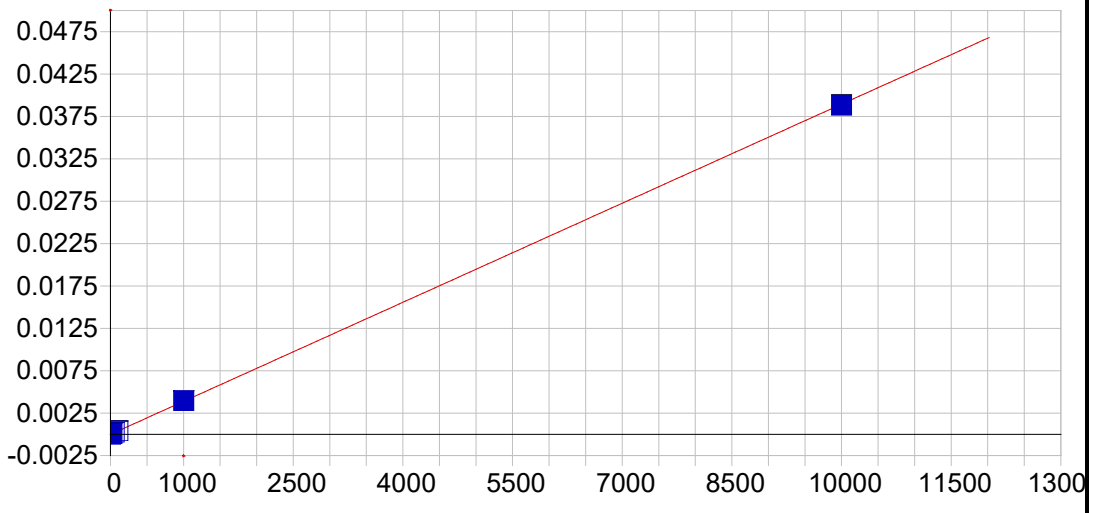


Mo 203.844 {465}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000006	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998667	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.749102		
Predicted MQL:	2.497006		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00335	-.003	.000	.00000	.000	1
CalStd7=50	50.000	60.013	10.0	20.0	.00036	.000	1
CalStd6=20	20.000	19.464	-.536	-2.68	.00012	.000	1
CalStd5=10	10.000	11.039	1.04	10.4	.00007	.000	1
CalStd8=100	100.00	98.258	-1.74	-1.74	.00060	.000	1
CalStd4=5	5.0000	7.1049	2.10	42.1	.00004	.000	1
CalStd9=100	1000.0	989.12	-10.9	-1.09	.00600	.000	1

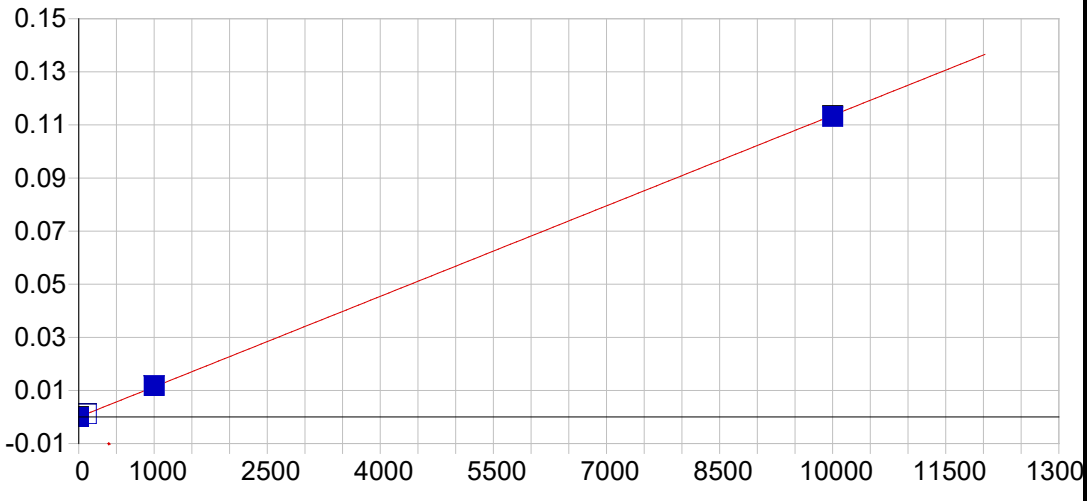


Mo 204.598 {464}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999790	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.987362		
Predicted MQL:	3.291206		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00386	-.004	.000	-.00000	.000	1
CalStd7=50	50.000	61.038	11.0	22.1	.00024	.000	1
CalStd6=20	20.000	18.816	-1.18	-5.92	.00007	.000	1
CalStd5=10	10.000	9.9564	-.044	-.436	.00004	.000	1
CalStd8=100	100.00	101.42	1.42	1.42	.00039	.000	1
CalStd4=5	5.0000	7.9275	2.93	58.6	.00003	.000	1
CalStd9=100	1000.0	1018.4	18.4	1.84	.00397	.000	1
CalStd10=10	10000.	9967.4	-32.6	-.326	.03882	.000	1

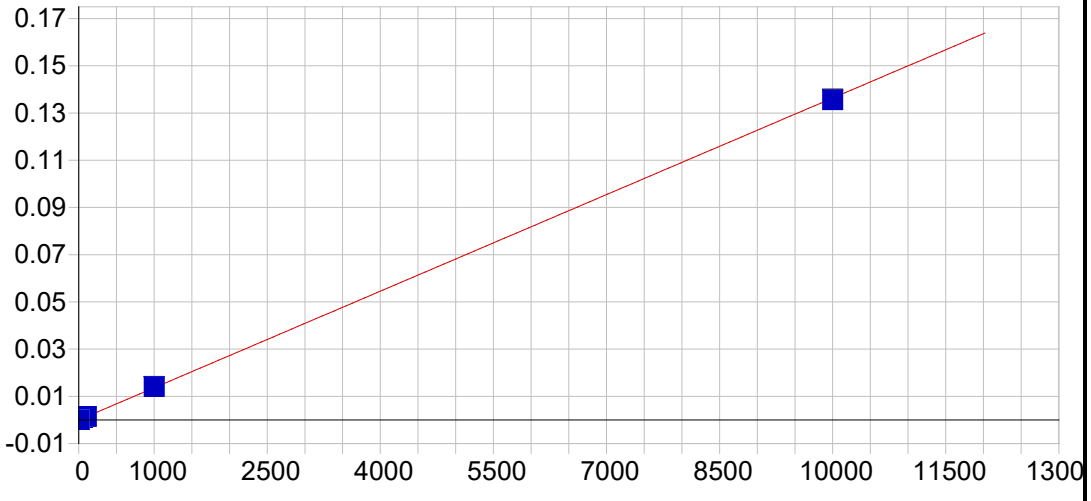


Ni 221.647 {452}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000011	Re-Slope:	1.000000
A1 (Gain):	0.000011	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999920	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.585581		
Predicted MQL:	1.951937		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00848	-.008	.000	-.00001	.000	1
CalStd10=10	10000.	9958.4	-41.6	-.416	.11314	.000	1
CalStd8=100	100.00	105.27	5.27	5.27	.00119	.000	1
CalStd9=100	1000.0	1036.3	36.3	3.63	.01176	.000	1

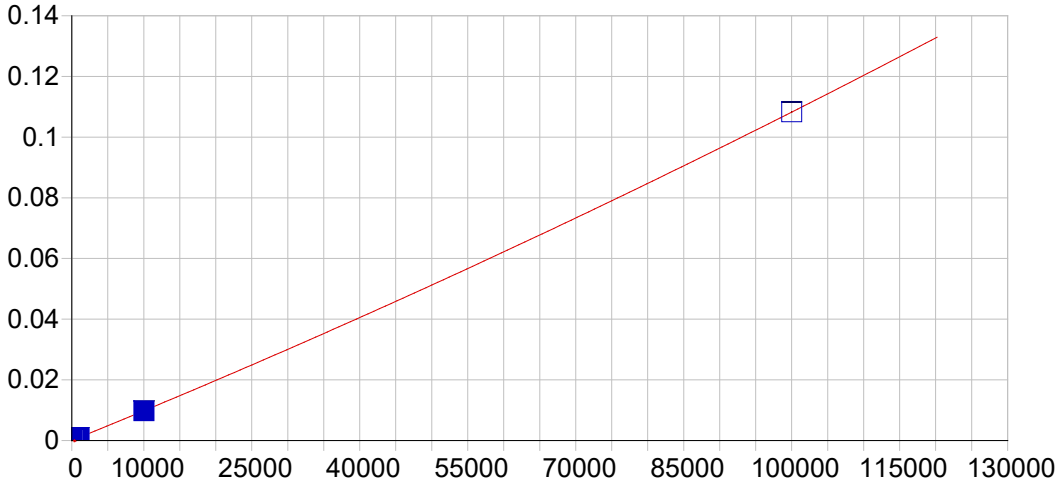


Ni 231.604 {445}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000022	Re-Slope:	1.000000
A1 (Gain):	0.000014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999705	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.521178		
Predicted MQL:	1.737261		

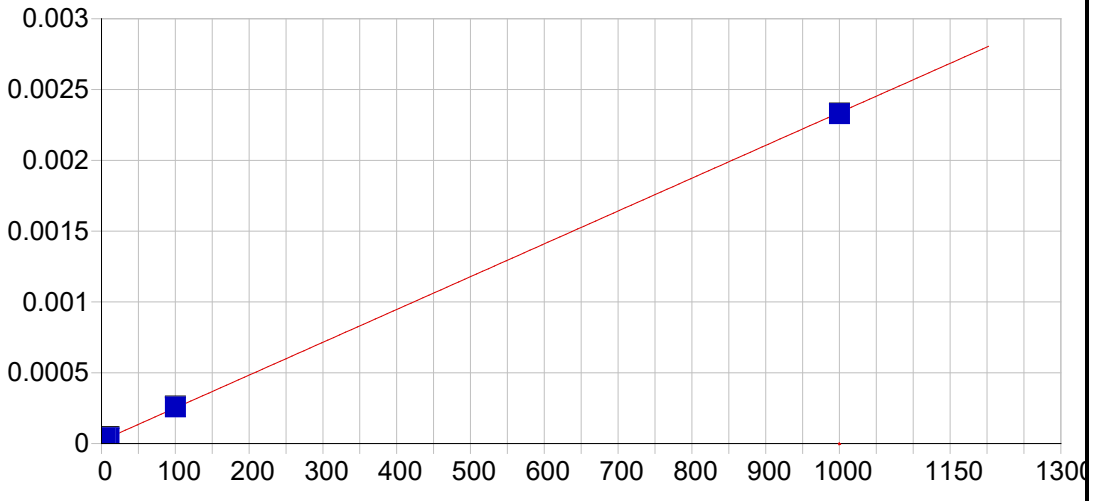
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00052	-.001	.000	-.00002	.000	1
CalStd7=50	50.000	62.739	12.7	25.5	.00083	.000	1
CalStd5=10	10.000	10.954	.954	9.54	.00013	.000	1
CalStd8=100	100.00	106.19	6.19	6.19	.00143	.000	1
CalStd4=5	5.0000	7.3018	2.30	46.0	.00008	.000	1
CalStd9=100	1000.0	1036.2	36.2	3.62	.01412	.000	1
CalStd3=1	1.0000	.61236	-.388	-38.8	-.00001	.000	1
CalStd10=10	10000.	9941.9	-58.1	-.581	.13554	.000	1



Pb 216.999 {455}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000021		Re-Slope:	1.000000	
A1 (Gain):	0.000001		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999961		Status:	Warning	Positive Curvature
Std Error of Est:	0.000033				
Predicted MDL:	5.881195				
Predicted MQL:	19.603983				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-12.499	-12.5	.000	.00001	.000	1
CalStd9=100	1000.0	1062.9	62.9	6.29	.00105	.000	1
CalStd10=10	10000.	9975.1	-24.9	-.249	.00978	.000	1
CalStd8=100	100.00	102.23	2.23	2.23	.00012	.000	1
CalStd5=10	10.000	-.20033	-10.2	-102.	.00002	.000	1
CalStd12=10	100000.	100020.	17.8	.018	.10826	.000	1

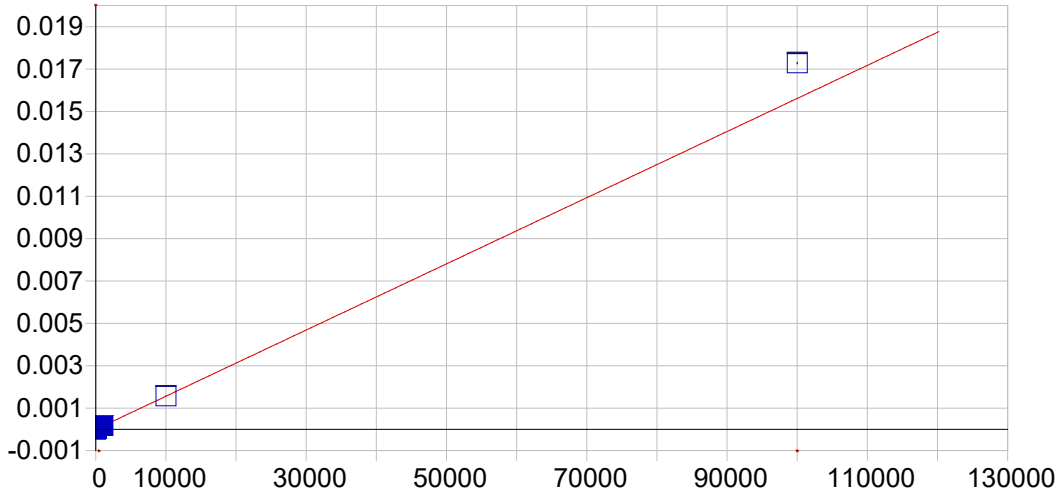


Pb 220.353 {453}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000020	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999722	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.761316		
Predicted MQL:	9.204385		

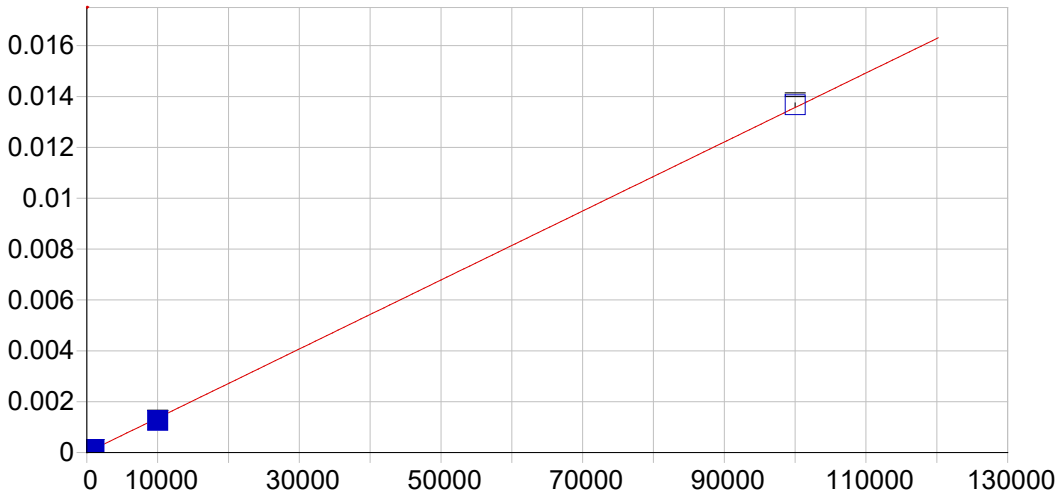
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00114	-.001	.000	.00002	.000	1
CalStd5=10	10.000	9.0726	-.927	-9.27	.00004	.000	1
CalStd8=100	100.00	102.86	2.86	2.86	.00026	.000	1
CalStd4=5	5.0000	6.4807	1.48	29.6	.00003	.000	1
CalStd9=100	1000.0	996.59	-3.41	-.341	.00233	.000	1



Pb 216.999 {456}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Var
A0 (Offset):	0.000002		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999976		Status:	OK.	
Std Error of Est:	0.000005				
Predicted MDL:	17.782874				
Predicted MQL:	59.276246				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.3201	-3.32	.000	.00000	.000	1
CalStd9=100	1000.0	1063.1	63.1	6.31	.00017	.000	1
CalStd10=10	10000.	10066.	65.7	.657	.00157	.000	1
CalStd8=100	100.00	89.662	-10.3	-10.3	.00002	.000	1
CalStd5=10	10.000	-2.4501	-12.5	-125.	.00000	.000	1
CalStd12=10	100000.	110720.	10700.	10.7	.01729	.000	1

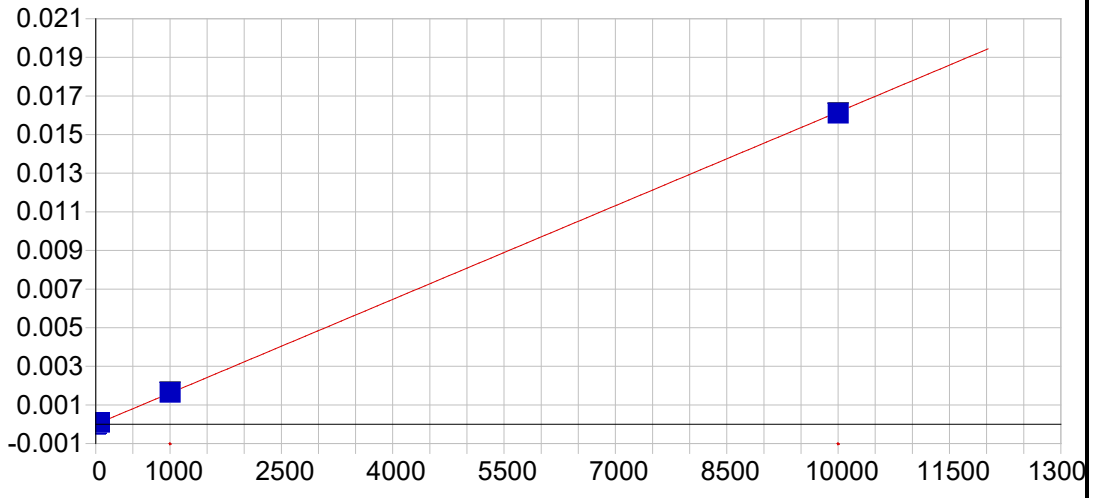


Pb 220.353 {153}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999716	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	5.928889		
Predicted MQL:	19.762964		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.01032	.010	.000	.00000	.000	1
CalStd9=100	1000.0	956.78	-43.2	-4.32	.00013	.000	1
CalStd10=10	10000.	9258.1	-742.	-7.42	.00126	.000	1
CalStd8=100	100.00	100.63	.631	.631	.00002	.000	1
CalStd12=10	100000.	100780.	784.	.784	.01367	.000	1

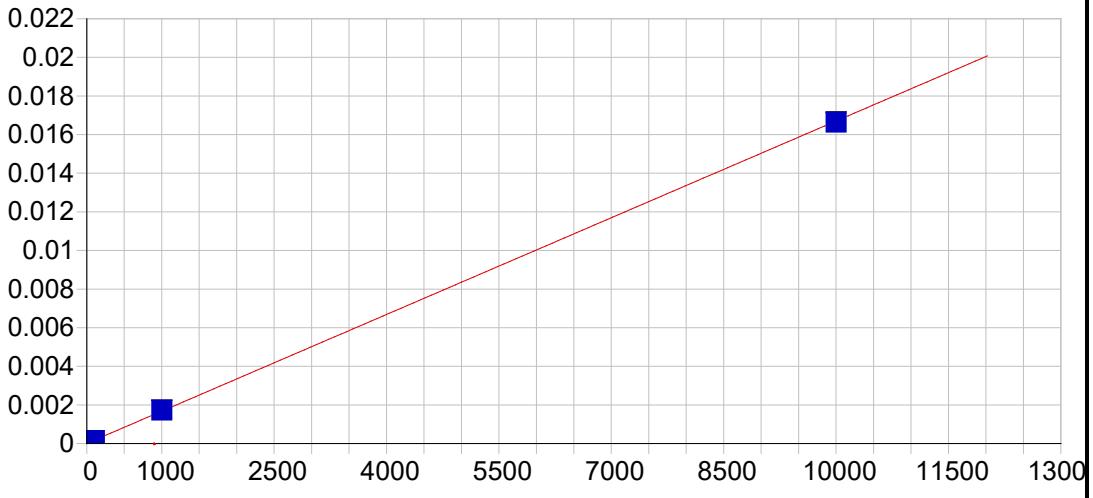


Sb 206.833 {463}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999809	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.652569		
Predicted MQL:	8.841898		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00501	-.005	.000	-.00001	.000	1
CalStd9=100	1000.0	1024.7	24.7	2.47	.00165	.000	1
CalStd5=10	10.000	12.401	2.40	24.0	.00001	.000	1
CalStd7=50	50.000	62.019	12.0	24.0	.00009	.000	1
CalStd10=10	10000.	9960.8	-39.2	-.392	.01611	.000	1

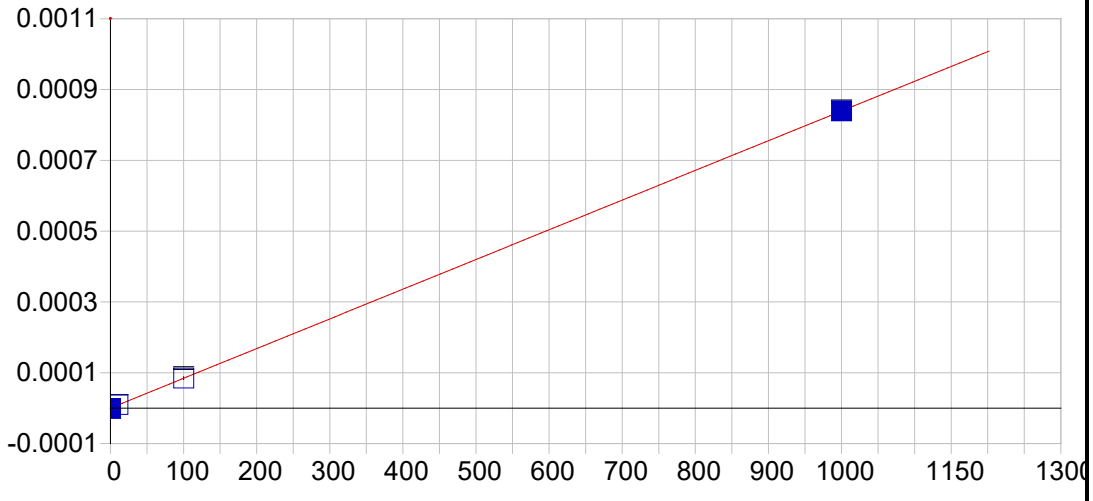


Sb 217.581 {455}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999834	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.926846		
Predicted MQL:	9.756155		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00421	-.004	.000	.00001	.000	1
CalStd9=100	1000.0	1028.6	28.6	2.86	.00172	.000	1
CalStd6=20	20.000	19.684	-.316	-1.58	.00004	.000	1
CalStd5=10	10.000	11.004	1.00	10.0	.00002	.000	1
CalStd8=100	100.00	105.95	5.95	5.95	.00018	.000	1
CalStd4=5	5.0000	8.3705	3.37	67.4	.00002	.000	1
CalStd10=10	10000.	9961.4	-38.6	-.386	.01664	.000	1

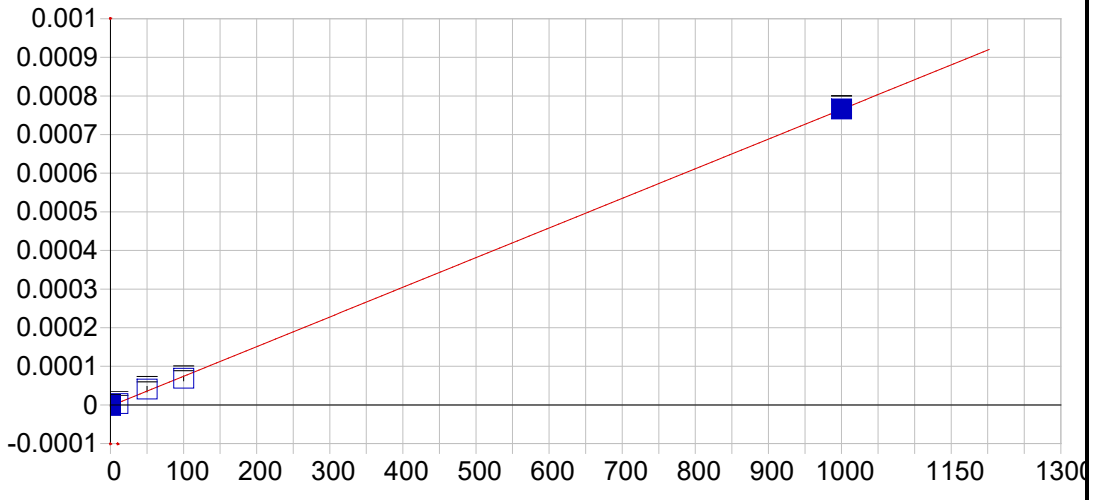


Se 196.090 {472}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	4.097337		
Predicted MQL:	13.657791		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-2.4047	-2.40	.000	-.00000	.000	1
CalStd9=100	1000.0	999.92	-.075	-.008	.00084	.000	1
CalStd5=10	10.000	11.470	1.47	14.7	.00001	.000	1
CalStd8=100	100.00	100.50	.503	.503	.00008	.000	1

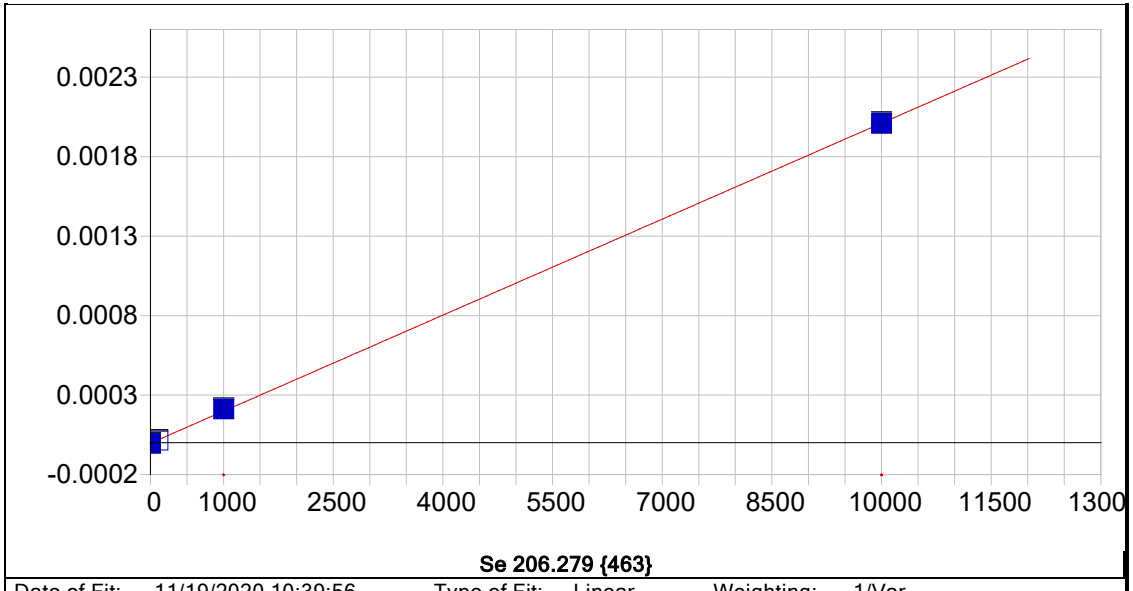


Se 203.985 {465}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999898	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	8.297010		
Predicted MQL:	27.656701		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	1.0202	1.02	.000	-.00000	.000	1
CalStd7=50	50.000	56.204	6.20	12.4	.00004	.000	1
CalStd9=100	1000.0	1001.0	.996	.100	.00077	.000	1
CalStd5=10	10.000	7.3027	-2.70	-27.0	.00000	.000	1
CalStd8=100	100.00	92.817	-7.18	-7.18	.00007	.000	1

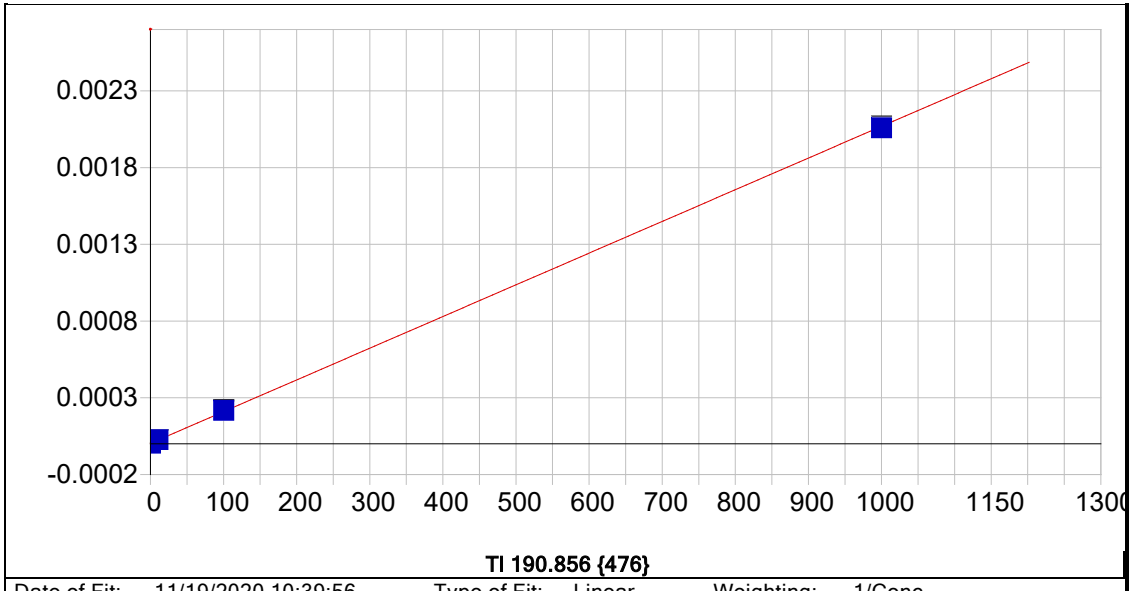


Se 206.279 {463}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999946	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	23.769290		
Predicted MQL:	79.230966		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-7.0784	-7.08	.000	-.00000	.000	1
CalStd9=100	1000.0	1068.4	68.4	6.84	.00021	.000	1
CalStd10=10	10000.	9987.0	-13.0	-.130	.00201	.000	1
CalStd8=100	100.00	89.672	-10.3	-10.3	.00002	.000	1

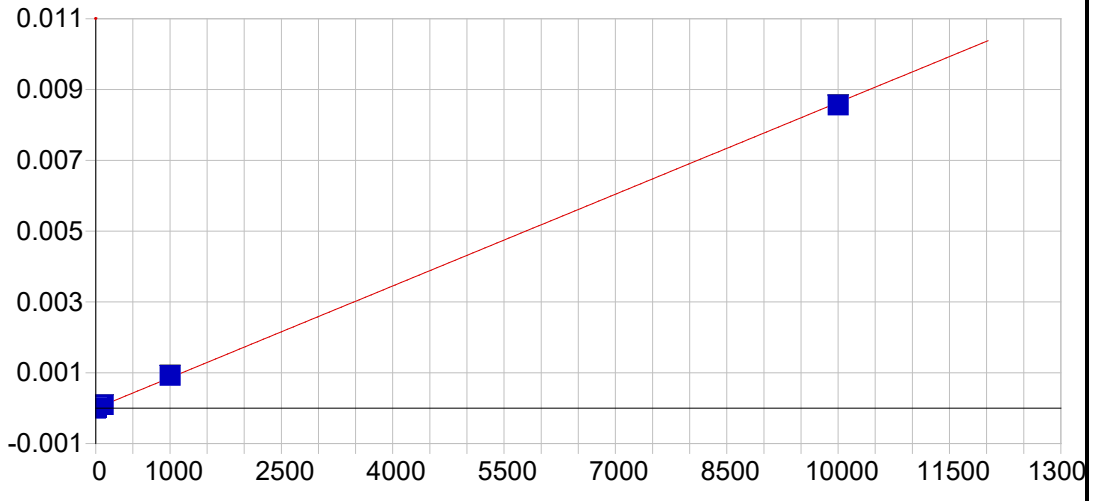


Tl 190.856 {476}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999868	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	2.032376		
Predicted MQL:	6.774587		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00144	-.001	.000	.00000	.000	1
CalStd9=100	1000.0	995.05	-4.95	-.495	.00206	.000	1
CalStd8=100	100.00	103.84	3.84	3.84	.00022	.000	1
CalStd5=10	10.000	11.104	1.10	11.0	.00003	.000	1

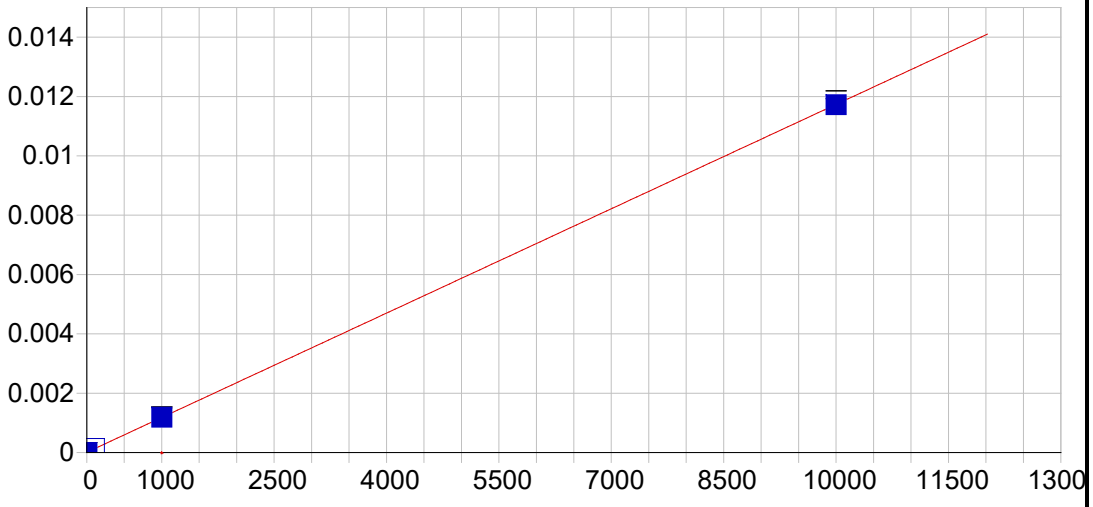


Tl 190.856 {477}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999650	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	3.767822		
Predicted MQL:	12.559406		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00388	-.004	.000	-.00000	.000	1
CalStd9=100	1000.0	1073.8	73.8	7.38	.00092	.000	1
CalStd8=100	100.00	110.51	10.5	10.5	.00009	.000	1
CalStd5=10	10.000	12.173	2.17	21.7	.00001	.000	1
CalStd10=10	10000.	9913.5	-86.5	-.865	.00856	.000	1

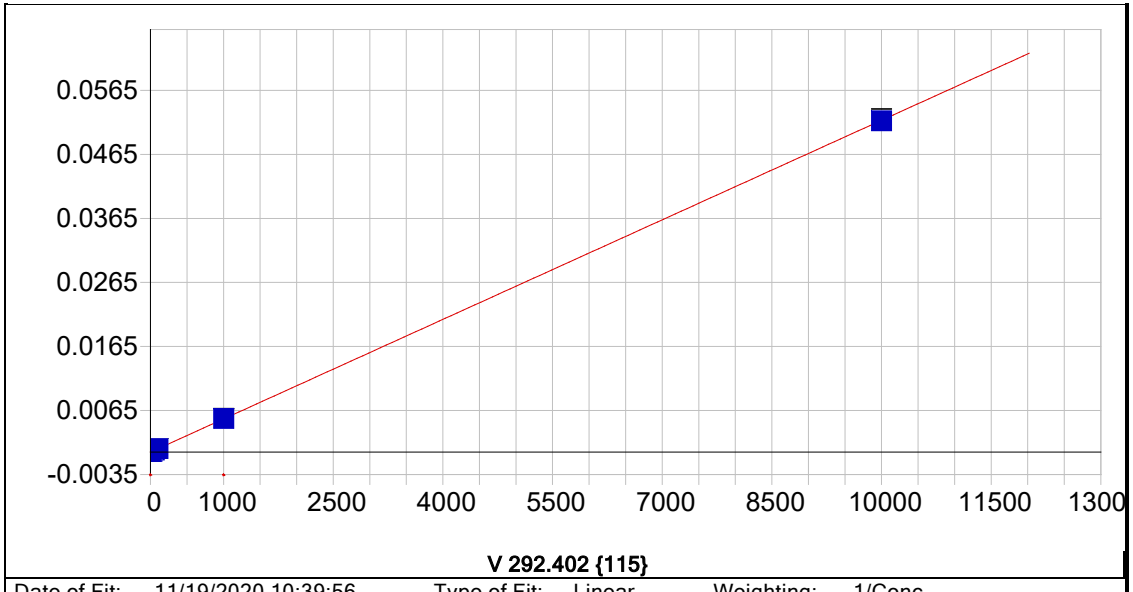


V 290.882 {116}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999975	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	5.425853		
Predicted MQL:	18.086177		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00757	-.008	.000	.00001	.000	1
CalStd9=100	1000.0	1004.1	4.12	.412	.00119	.000	1
CalStd10=10	10000.	9988.6	-11.4	-.114	.01172	.000	1
CalStd8=100	100.00	107.27	7.27	7.27	.00013	.000	1

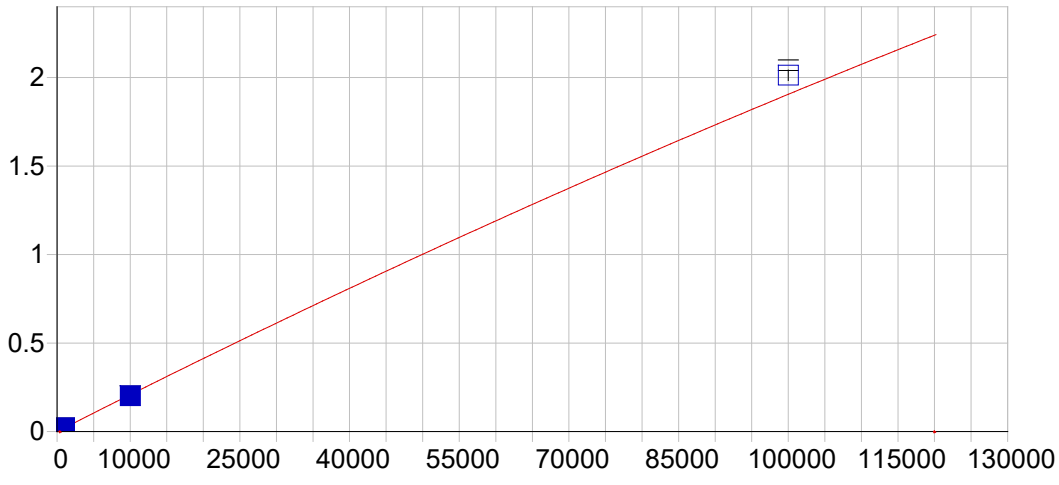


V 292.402 {115}

Date of Fit:	11/19/2020 10:39:56	Type of Fit: Linear	Weighting: 1/Conc

A0 (Offset):	-0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999900	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.657620		
Predicted MQL:	2.192067		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00222	-.002	.000	-.00000	.000	1
CalStd7=50	50.000	59.969	9.97	19.9	.00031	.000	1
CalStd9=100	1000.0	1009.5	9.47	.947	.00523	.000	1
CalStd6=20	20.000	19.110	-.890	-4.45	.00010	.000	1
CalStd5=10	10.000	10.323	.323	3.23	.00005	.000	1
CalStd8=100	100.00	102.71	2.71	2.71	.00053	.000	1
CalStd10=10	10000.	9978.4	-21.6	-.216	.05173	.000	1

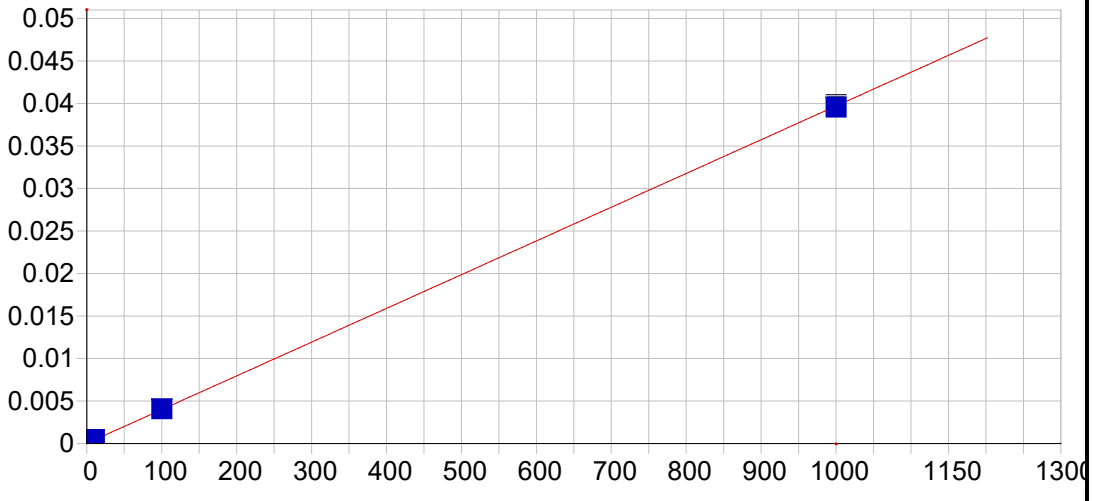


Zn 206.200 {463}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Var

A0 (Offset):	0.000014	Re-Slope:	1.000000
A1 (Gain):	0.000021	Y-int:	0.000000
A2 (Curvature):	-0.000000		
n (Exponent):	1.000000		
Correlation:	0.999795	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	0.224283		
Predicted MQL:	0.747609		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
CalStd10=10	10000.	9704.0	-296.	-2.96	.20205	.001	1
Blank	.00000	-.28228	-.282	.000	.00001	.000	1
CalStd9=100	1000.0	997.53	-2.47	-.247	.02095	.000	1
CalStd12=10	100000.	106320.	6320.	6.32	2.0126	.030	1
CalStd5=10	10.000	11.698	1.70	17.0	.00026	.000	1
CalStd8=100	100.00	100.89	.886	.886	.00213	.000	1

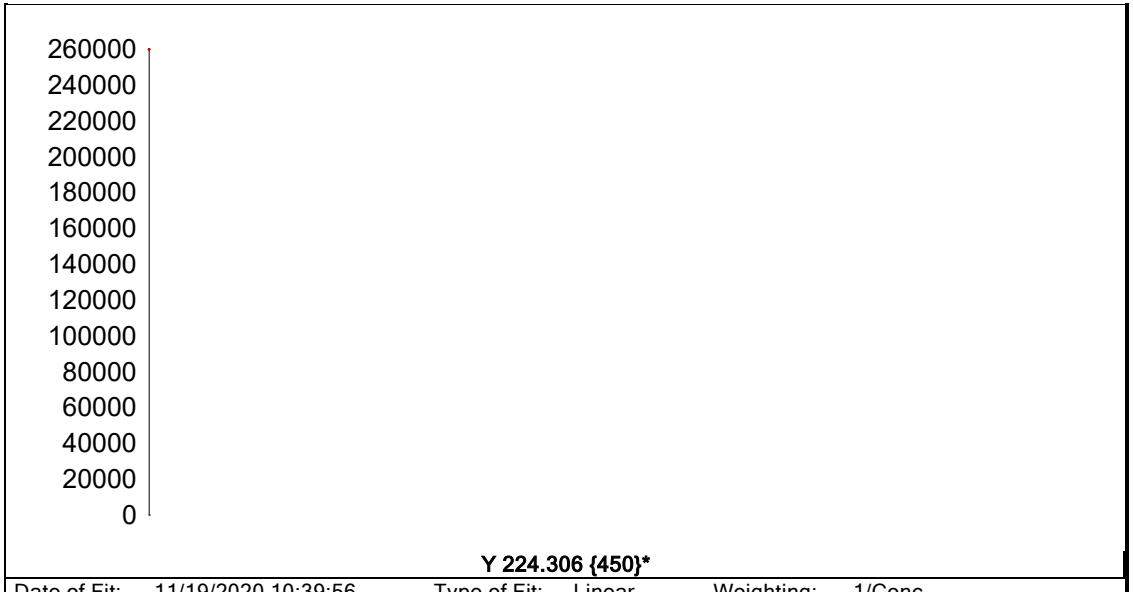


Zn 213.856 {457}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000023	Re-Slope:	1.000000
A1 (Gain):	0.000040	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999756	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.130472		
Predicted MQL:	0.434908		

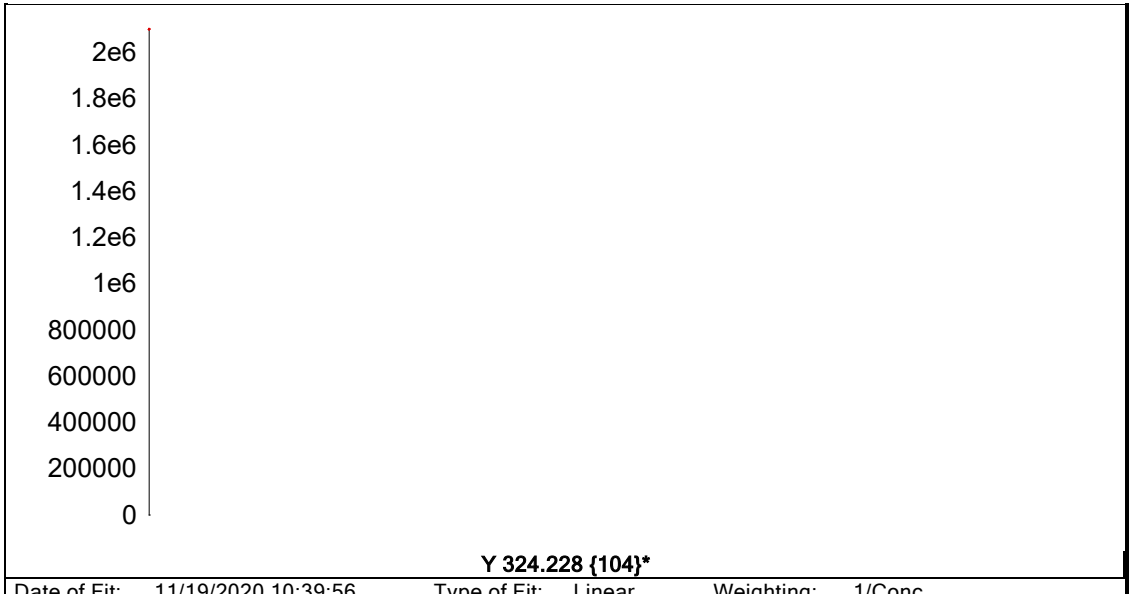
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00237	-.002	.000	.00002	.000	1
CalStd9=100	1000.0	995.81	-4.19	-.419	.03972	.000	1
CalStd5=10	10.000	12.210	2.21	22.1	.00051	.000	1
CalStd8=100	100.00	102.00	2.00	2.00	.00409	.000	1



Y 224.306 {450}*

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

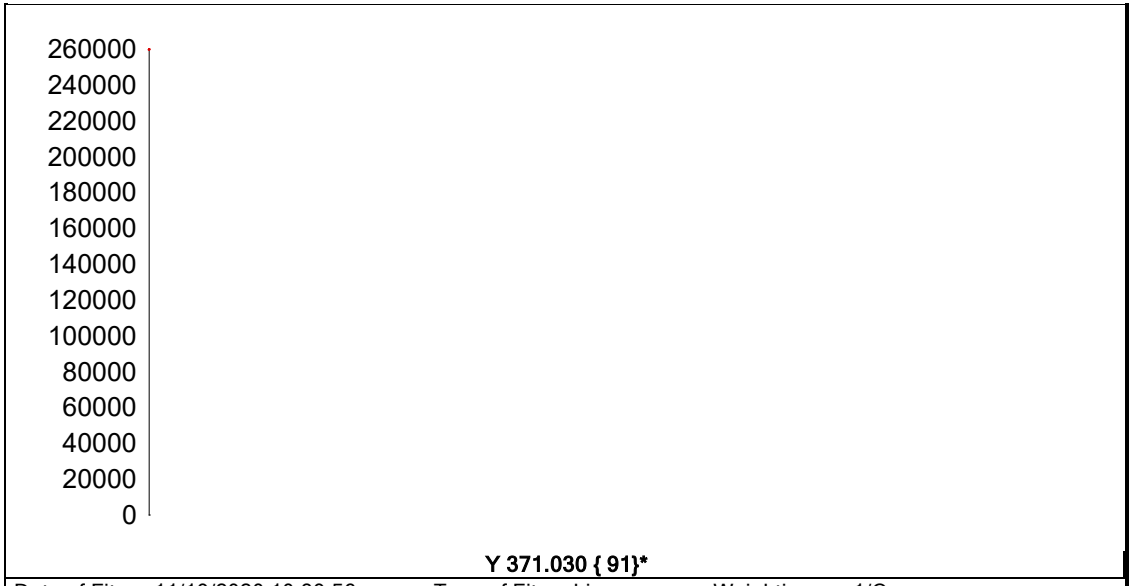
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	239940.	371.	1



Y 324.228 {104}*

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

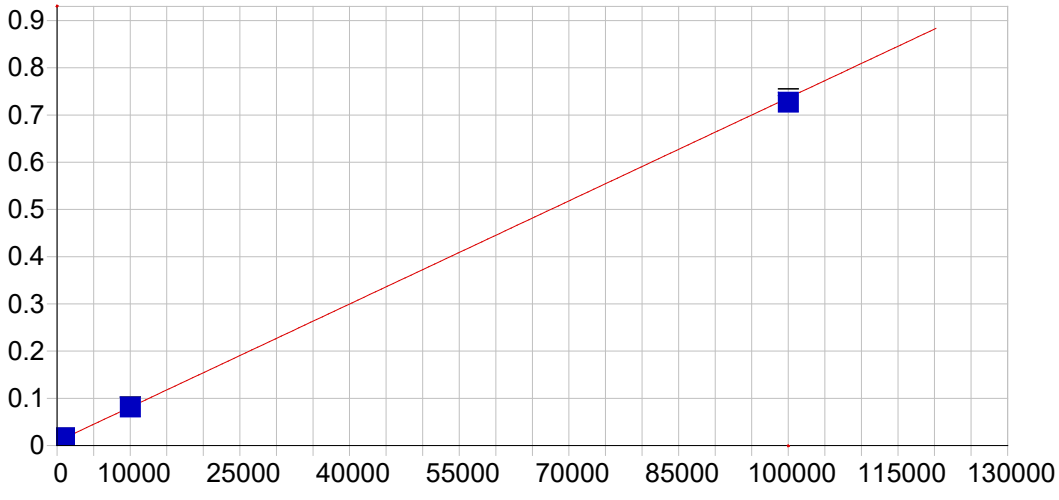
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	1955700.	20200.	1



Y 371.030 { 91}*

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.000000		Status:	Warning	Zero Gain
Std Error of Est:	0.000000				
Predicted MDL:	n/a				
Predicted MQL:	n/a				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	245800.	1290.	1

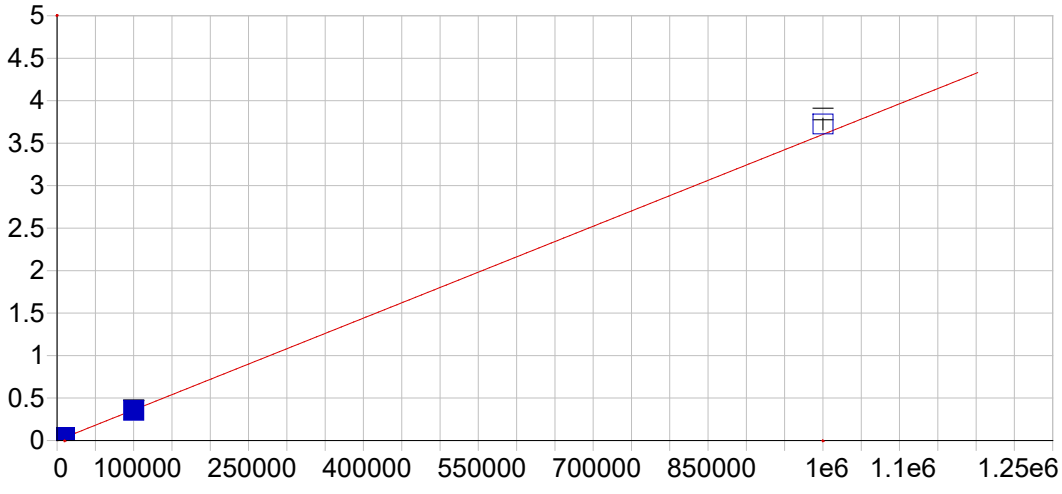


Na 588.995 { 57}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.008611	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999778	Status:	OK.
Std Error of Est:	0.000261		
Predicted MDL:	6.498626		
Predicted MQL:	21.662088		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-20.824	-20.8	.000	.00846	.000	1
CalStd9=100	1000.0	1024.0	24.0	2.40	.01606	.000	1
CalStd10=10	10000.	9998.6	-1.43	-.014	.08139	.001	1
CalStd13=10	100000.	98702.	-1300.	-1.30	.72704	.007	1

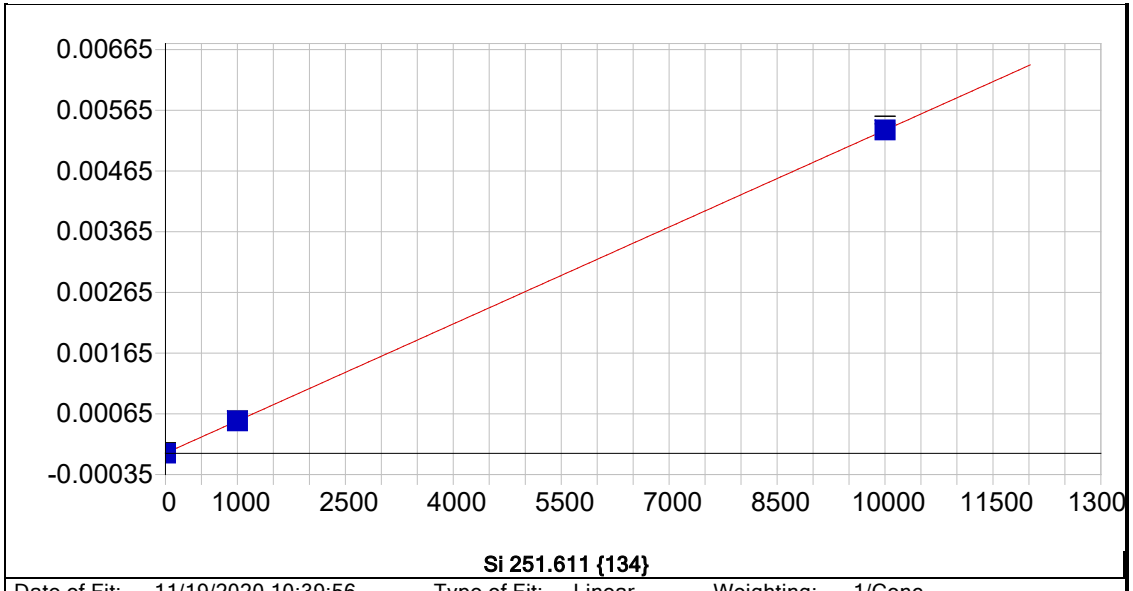


Na 589.592 { 57}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000101	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999793	Status:	OK.
Std Error of Est:	0.000075		
Predicted MDL:	7.751031		
Predicted MQL:	25.836772		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-3.1966	-3.20	.000	.00009	.000	1
CalStd9=100	1000.0	1030.2	30.2	3.02	.00381	.000	1
CalStd10=10	10000.	9964.3	-35.7	-.357	.03600	.000	1
CalibStd15=	1000000.	1033900.	33900.	3.39	3.7250	.069	1
CalStd13=10	100000.	98408.	-1590.	-1.59	.35468	.003	1

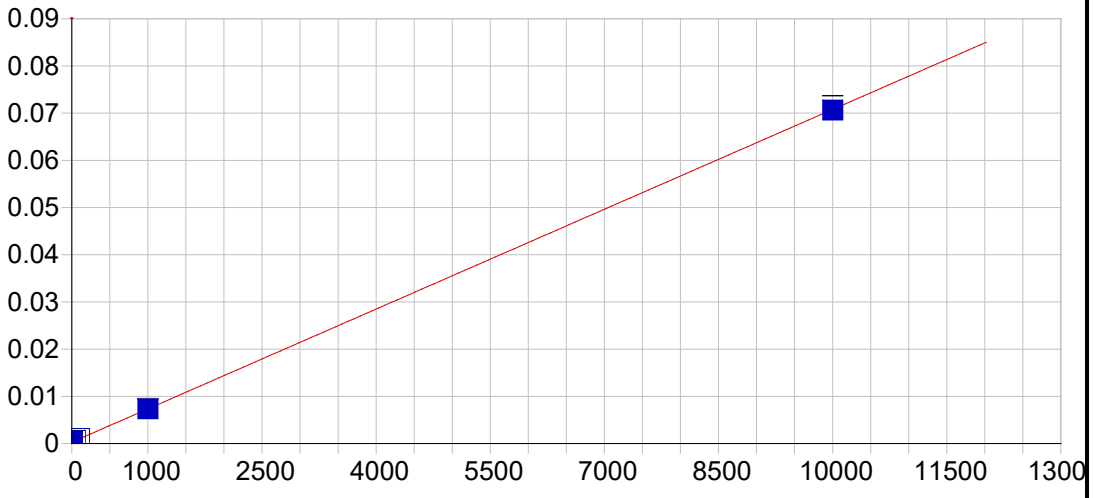


Si 251.611 {134}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000002	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	8.819422		
Predicted MQL:	29.398073		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00278	.003	.000	.00000	.000	1
CalStd9=100	1000.0	996.92	-3.08	-.308	.00053	.000	1
CalStd10=10	10000.	10003.	3.08	.031	.00532	.000	1

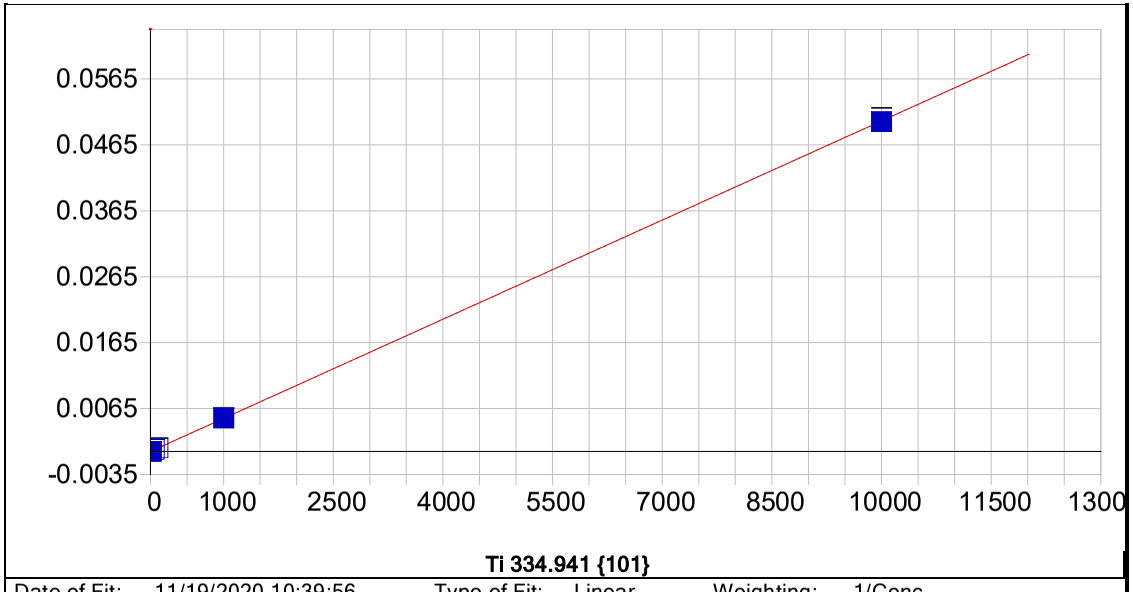


Ti 323.452 {104}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000293	Re-Slope:	1.000000
A1 (Gain):	0.000007	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999645	Status:	OK.
Std Error of Est:	0.000002		
Predicted MDL:	1.461048		
Predicted MQL:	4.870159		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00707	-.007	.000	.00029	.000	1
CalStd5=10	10.000	12.294	2.29	22.9	.00038	.000	1
CalStd8=100	100.00	105.68	5.68	5.68	.00104	.000	1
CalStd9=100	1000.0	996.93	-3.07	-.307	.00732	.000	1
CalStd10=10	10000.	9978.2	-21.8	-.218	.07063	.001	1
CalStd7=50	50.000	62.468	12.5	24.9	.00073	.000	1
CalStd4=5	5.0000	9.4225	4.42	88.4	.00036	.000	1

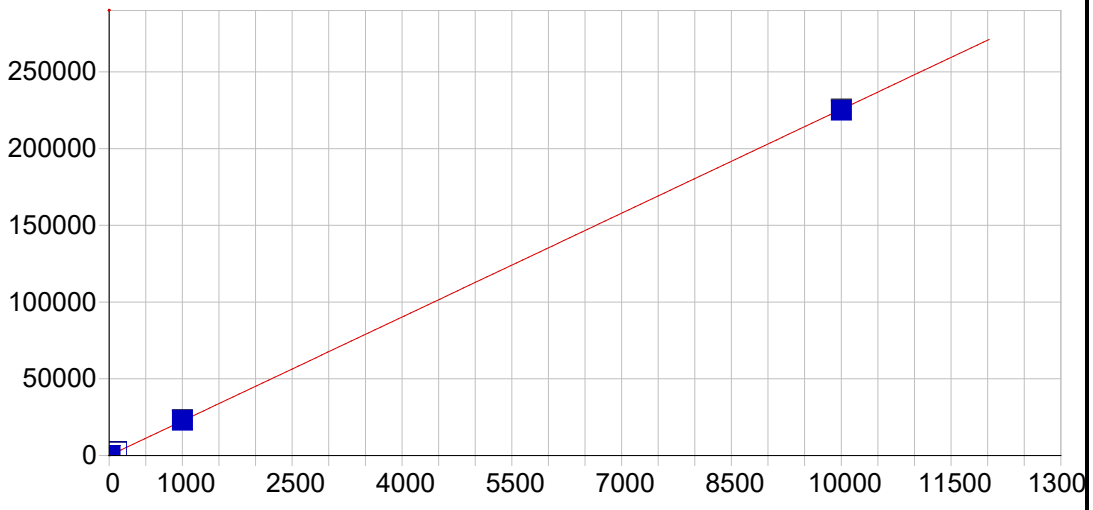


Ti 334.941 {101}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000001	Re-Slope:	1.000000
A1 (Gain):	0.000005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999798	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	1.462631		
Predicted MQL:	4.875436		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00459	-.005	.000	.00000	.000	1
CalStd5=10	10.000	10.309	.309	3.09	.00005	.000	1
CalStd8=100	100.00	103.66	3.66	3.66	.00052	.000	1
CalStd9=100	1000.0	1007.8	7.84	.784	.00505	.000	1
CalStd10=10	10000.	9974.5	-25.5	-.255	.05001	.001	1
CalStd7=50	50.000	60.565	10.6	21.1	.00030	.000	1
CalStd4=5	5.0000	8.1693	3.17	63.4	.00004	.000	1

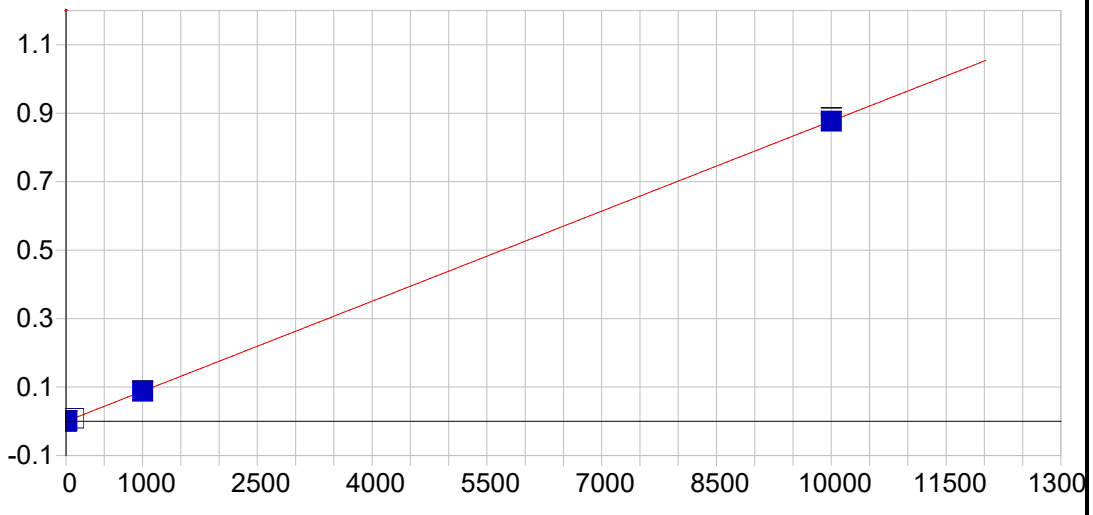


Sr 407.771 { 83}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	6.353866	Re-Slope:	1.000000
A1 (Gain):	22.558341	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999917	Status:	OK.
Std Error of Est:	1.148357		
Predicted MDL:	0.166335		
Predicted MQL:	0.554448		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00079	-.001	.000	6.3360	4.24	1
CalStd3=1	1.0000	1.1543	.154	15.4	32.392	2.01	1
CalStd4=5	5.0000	7.5177	2.52	50.4	175.94	1.54	1
CalStd5=10	10.000	10.775	.775	7.75	249.41	1.13	1
CalStd8=100	100.00	104.06	4.06	4.06	2353.8	13.8	1
CalStd9=100	1000.0	1016.7	16.7	1.67	22941.	172.	1
CalStd10=10	10000.	9975.8	-24.2	-.242	225050.	588.	1

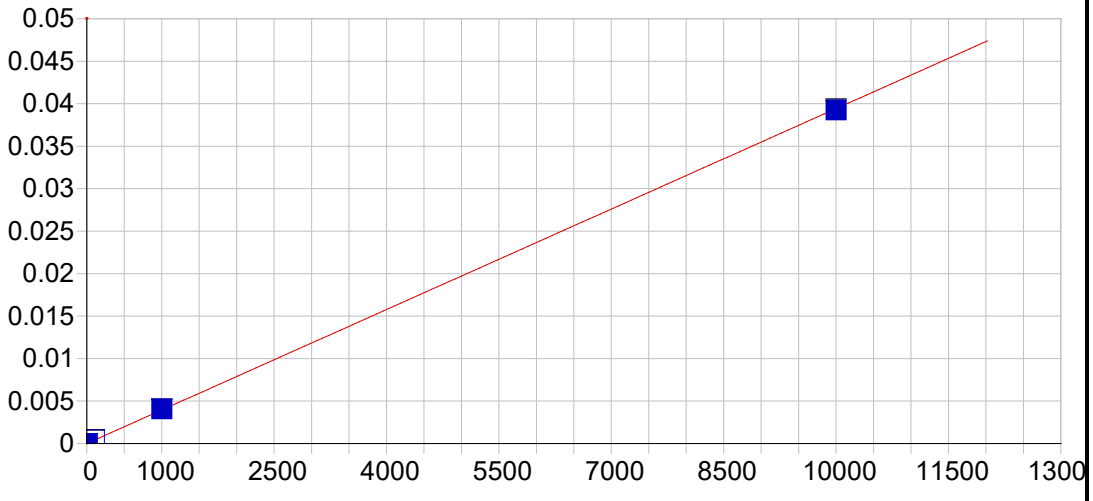


Sr 421.552 { 80}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.000088	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999907	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	0.161935		
Predicted MQL:	0.539782		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00108	-.001	.000	-.00000	.000	1
CalStd3=1	1.0000	1.3641	.364	36.4	.00012	.000	1
CalStd4=5	5.0000	7.8998	2.90	58.0	.00069	.000	1
CalStd5=10	10.000	11.062	1.06	10.6	.00097	.000	1
CalStd8=100	100.00	103.62	3.62	3.62	.00909	.000	1
CalStd9=100	1000.0	997.21	-2.79	-.279	.08746	.002	1
CalStd10=10	10000.	9994.8	-5.16	-.052	.87664	.010	1

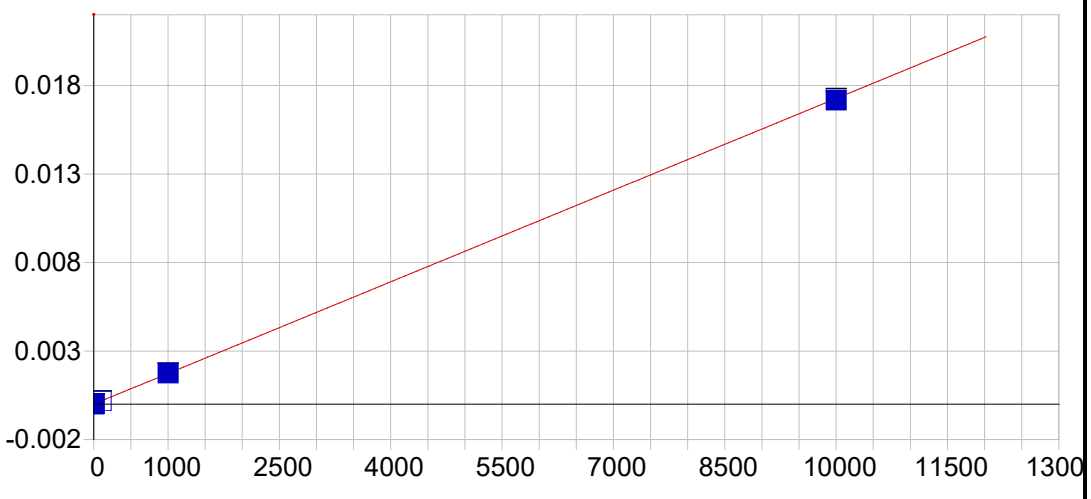


Sn 189.989 {477}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000004	Re-Slope:	1.000000
A1 (Gain):	0.000004	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999899	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.879570		
Predicted MQL:	2.931901		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00256	-.003	.000	.00000	.000	1
CalStd10=10	10000.	9956.6	-43.4	-.434	.03925	.000	1
CalStd9=100	1000.0	1033.3	33.3	3.33	.00408	.000	1
CalStd8=100	100.00	108.69	8.69	8.69	.00043	.000	1
CalStd5=10	10.000	11.404	1.40	14.0	.00005	.000	1

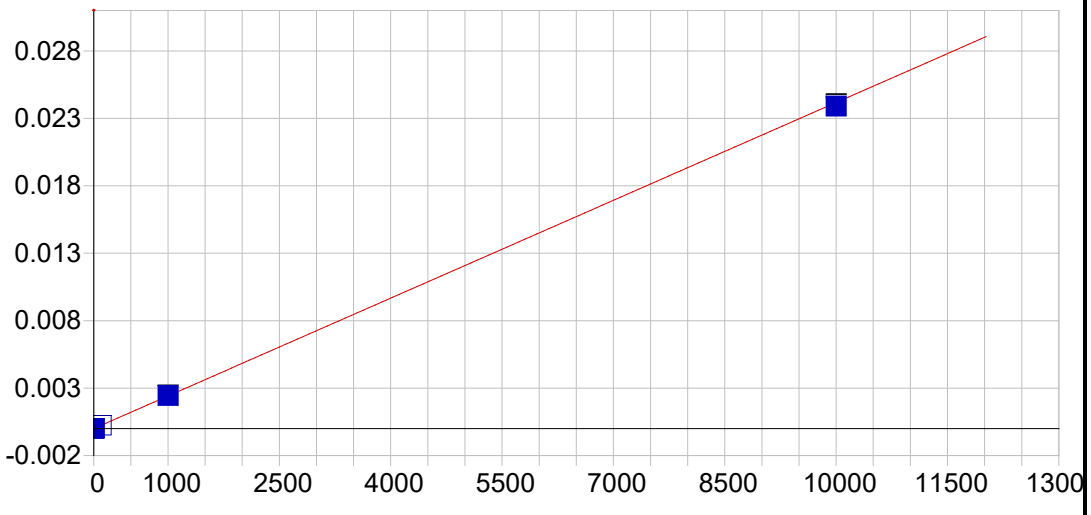


B 249.678 {135}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000005	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999953	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	1.117530		
Predicted MQL:	3.725101		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.5023	-1.50	.000	.00000	.000	1
CalStd8=100	100.00	100.97	.967	.967	.00018	.000	1
CalStd5=10	10.000	9.9828	-.017	-.172	.00002	.000	1
CalStd9=100	1000.0	1013.4	13.4	1.34	.00175	.000	1
CalStd10=10	10000.	9946.0	-54.0	-.540	.01718	.000	1

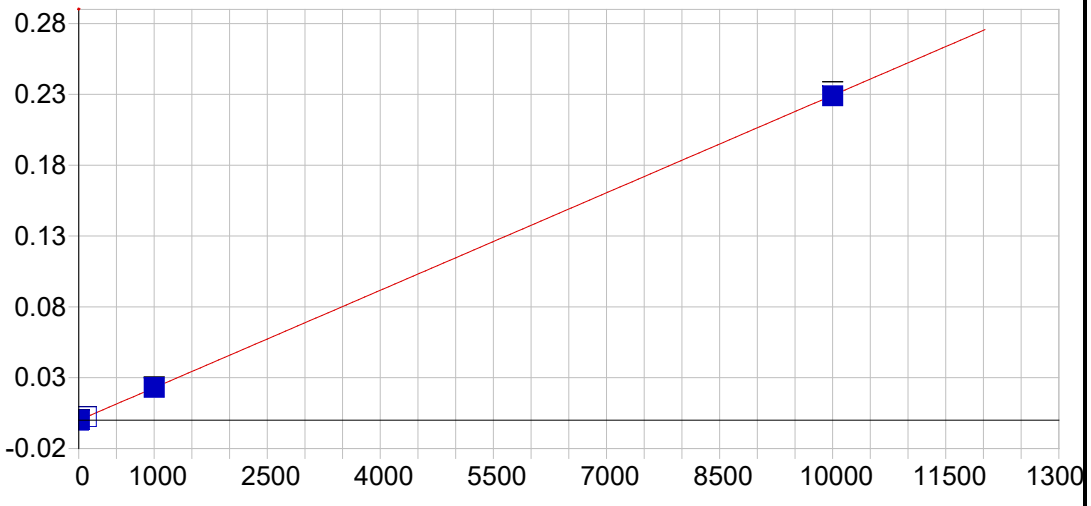


B 249.773 {135}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Var

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999856	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.699092		
Predicted MQL:	2.330306		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-1.2292	-1.23	.000	-.00000	.000	1
CalStd8=100	100.00	102.42	2.42	2.42	.00025	.000	1
CalStd5=10	10.000	10.177	.177	1.77	.00003	.000	1
CalStd9=100	1000.0	1011.8	11.8	1.18	.00245	.000	1
CalStd10=10	10000.	9885.2	-115.	-1.15	.02395	.000	1

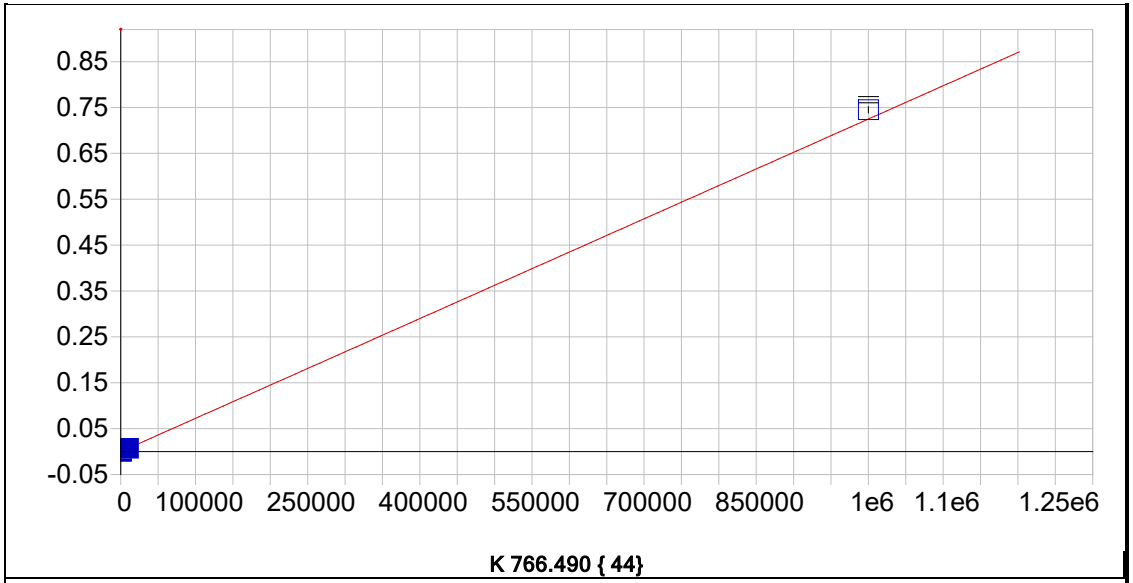


Li 670.784 { 50}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000043	Re-Slope:	1.000000
A1 (Gain):	0.000023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999939	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	1.488425		
Predicted MQL:	4.961418		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.00352	-.004	.000	-.00004	.000	1
CalStd5=10	10.000	12.766	2.77	27.7	.00025	.000	1
CalStd8=100	100.00	106.91	6.91	6.91	.00241	.000	1
CalStd9=100	1000.0	1008.7	8.66	.866	.02310	.000	1
CalStd10=10	10000.	9981.7	-18.3	-.183	.22894	.003	1

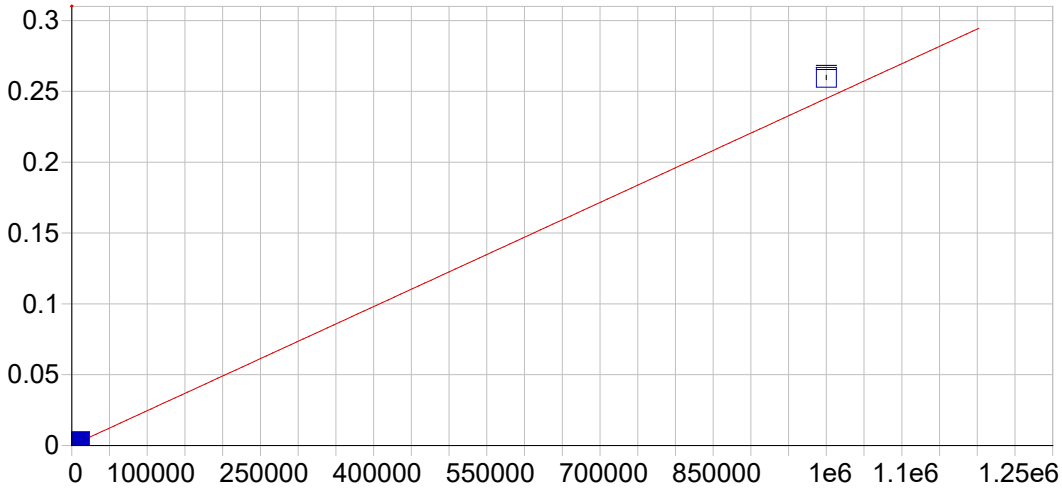


K 766.490 { 44}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	-0.000053	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999997	Status:	OK.
Std Error of Est:	0.000003		
Predicted MDL:	44.017741		
Predicted MQL:	146.725805		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.06381	.064	.000	-.00005	.000	1
CalStd9=100	1000.0	929.06	-70.9	-7.09	.00062	.000	1
CalStd10=10	10000.	10074.	74.4	.744	.00725	.000	1
CalibStd15=	1000000.	1027900.	27900.	2.79	.74512	.007	1

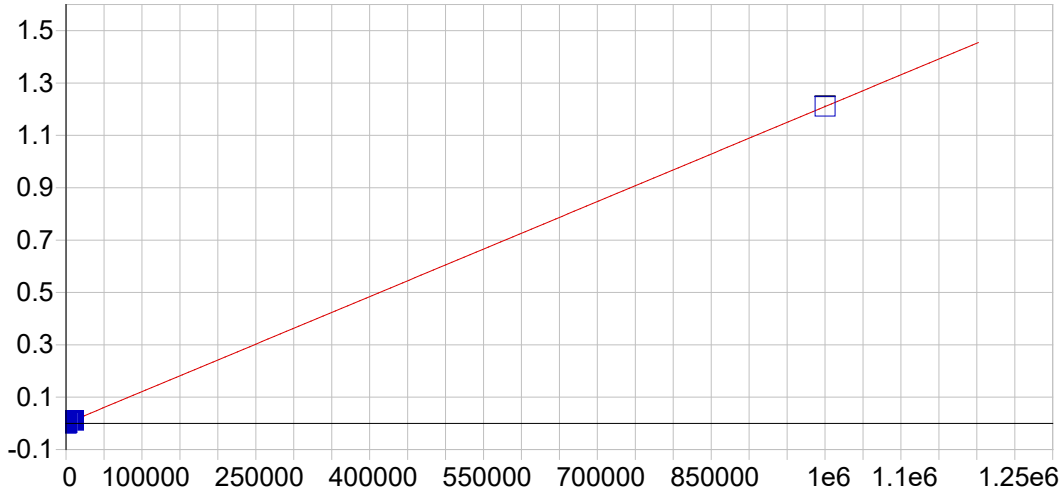


K 769.896 { 44}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Curvilinear	Weighting:	1/Conc

A0 (Offset):	0.000117	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999999	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	85.809565		
Predicted MQL:	286.031884		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	-.03103	-.031	.000	.00012	.000	1
CalStd9=100	1000.0	1034.6	34.6	3.46	.00037	.000	1
CalStd10=10	10000.	9971.2	-28.8	-.288	.00256	.000	1
CalibStd15=	1000000.	1060300.	60300.	6.03	.25982	.001	1

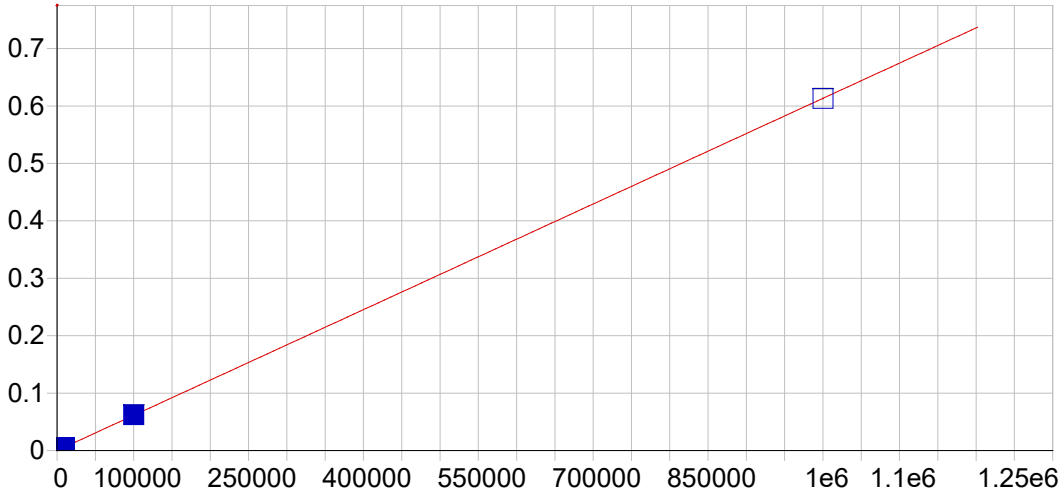


P 213.618 {457}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000018	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999988	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	4.009513		
Predicted MQL:	13.365043		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.08905	.089	.000	-.00002	.000	1
CalStd10=10	10000.	9535.4	-465.	-4.65	.01152	.000	1
CalStd9=100	1000.0	956.90	-43.1	-4.31	.00114	.000	1
CalibStd15=	1000000.	1000500.	508.	.051	1.2109	.001	1

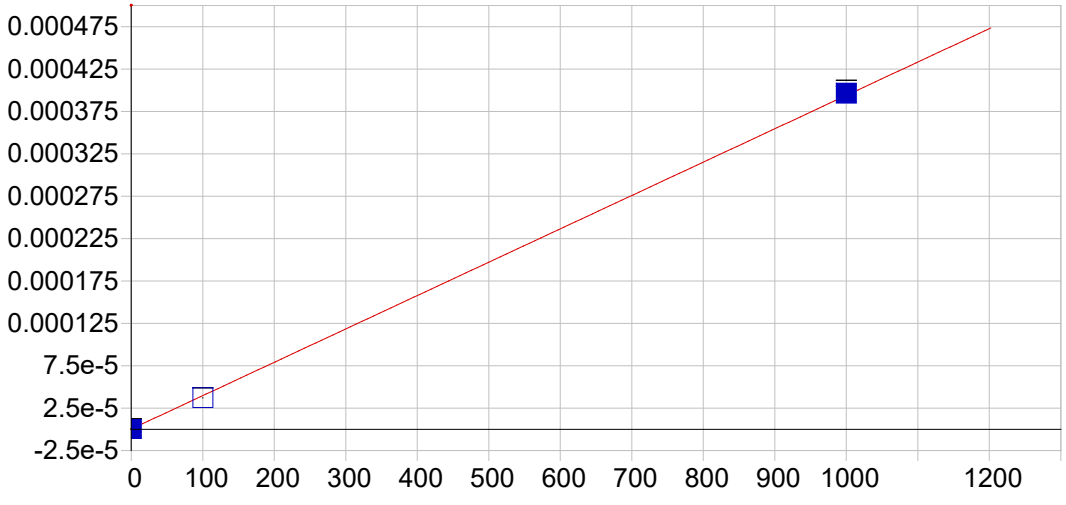


S 182.034 {485}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000006	Re-Slope:	1.000000
A1 (Gain):	0.000001	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000005		
Predicted MDL:	4.658267		
Predicted MQL:	15.527556		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.07972	.080	.000	.00001	.000	1
CalStd9=100	1000.0	956.28	-43.7	-4.37	.00059	.000	1
CalStd10=10	10000.	9509.3	-491.	-4.91	.00586	.000	1
CalibStd15=	1000000.	999140.	-858.	-.086	.61284	.000	1
CalStd13=10	100000.	101390.	1390.	1.39	.06228	.000	1

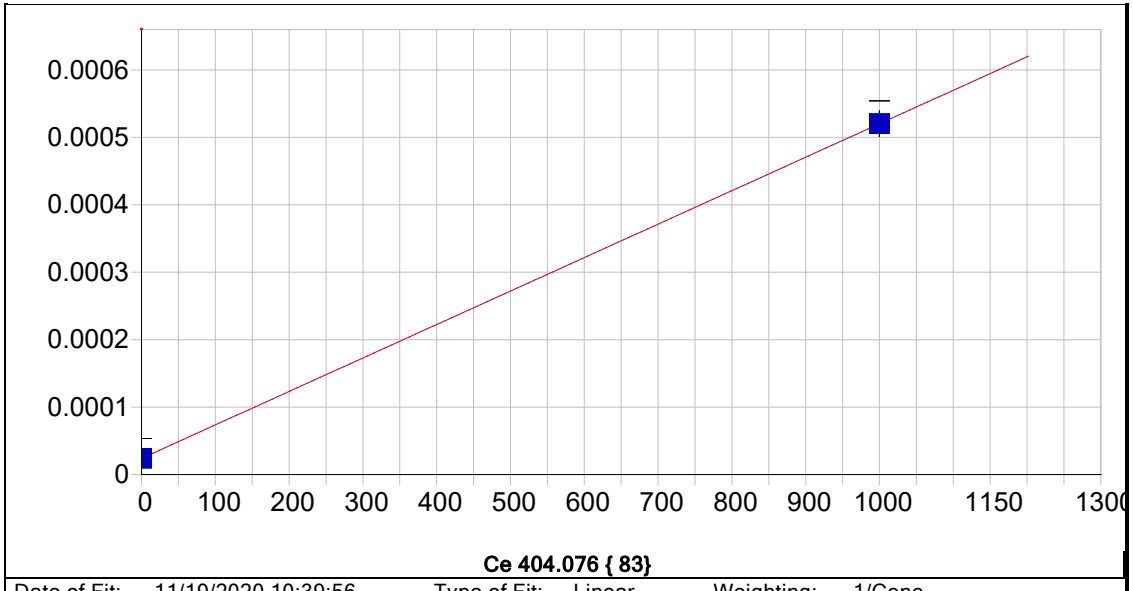


Hg 184.950 {482}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000000	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999806	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	0.938654		
Predicted MQL:	3.128847		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00561	.006	.000	.00000	.000	1
CalStd8=100	100.00	93.770	-6.23	-6.23	.00004	.000	1
CalStd9=100	1000.0	1006.2	6.23	.623	.00040	.000	1



Ce 404.076 { 83}

Date of Fit:	11/19/2020 10:39:56	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000024	Re-Slope:	1.000000
A1 (Gain):	0.000000	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	1.000000	Status:	OK.
Std Error of Est:	0.000000		
Predicted MDL:	27.494708		
Predicted MQL:	91.649026		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
Blank	.00000	.00000	.000	.000	.00002	.000	1
CalStd9=100	1000.0	1000.0	.000	.000	.00052	.000	1

Sample Name: Blank Acquired: 11/17/2020 09:26:01 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be2348	Ca3158	Ca3933	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**.009**	**-.000**	**.000**	**.000**	**.000**	**-.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	17.4	38.3	22.9	58.3	575.	2590.	.630	2.45	299.	4.24	24.9	1580.

Elem	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2247	Cu3247	Cu2230	Fe2599	Mg2790	Mg2802	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	42.3	23.9	13.5	27.2	333.	99.8	1.92	27.4	120.	548.	.741	58.0

Elem	Mn2593	Mo2020	Mo2038	Mo2045	Ni2316	Pb2203	Pb2169	Sb2068	Sb2175	Se1960	Se2062	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**	**-.000**	**-.000**	**.000**	**.000**	**-.000**	**.000**	**-.000**	**-.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	353.	44.6	9540.	159.	11.2	19.0	92.6	47.7	77.3	104.	56.1	122.

Elem	V_2908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	B_2497	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**-.000**	**.000**	**.000**	**.008**	**.000**	**6.34**	**-.000**	**-.000**
Stddev	.000	.000	.000	.000	.000	.000	4.24	.000	.000
%RSD	25.0	132.	21.1	24.9	1.07	21.5	67.0	63.9	70.1

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**239940.**	**1955700.**	**245800.**
Stddev	371.	20237.	1289.
%RSD	.15482	1.0347	.52428

Sample Name: CalStd2=0.5 Acquired: 11/17/2020 09:32:28 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Be3130	Cd2265	Cd2288
Units	Cts/S	Cts/S	Cts/S
Avg	**-.000**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	4.19	29.8	15.0

Int. Std.	Y_2243	Y_3242
Units	Cts/S	Cts/S
Avg	**231710.**	**1893900.**
Stddev	416.	8176.
%RSD	.17970	.43171

Sample Name: CalStd3=1 Acquired: 11/17/2020 09:38:50 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Ni2316	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**-.000**	**.000**	**.000**	**.000**	**.000**	**-.000**	**32.4**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	2.0
%RSD	4.46	34.8	8.54	15.9	7.64	18.7	19.1	57.4	6.21

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**232060.**	**1906000.**	**237410.**
Stddev	621.	3204.	863.
%RSD	.26782	.16809	.36332

Sample Name: CalStd4=5 Acquired: 11/17/2020 09:45:11 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Mn2576	Mo2020	Mo2038	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	8.09	.656	1.37	3.30	2.13	3.07	10.3	1.35	4.61	5.18	3.93	6.94

Elem	Pb2203	Sb2175	Sr4077
Units	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**176.**
Stddev	.000	.000	2.
%RSD	16.2	14.0	.875

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**230760.**	**1898400.**	**236850.**
Stddev	224.	11364.	1758.
%RSD	.09703	.59861	.74227

Sample Name: CalStd5=10 Acquired: 11/17/2020 09:51:30 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al1670	As1937	As1972	Ba2335	Be3130	Cd2265	Cd2288	Co2286	Cr2055	Cr2677	Cu3247	Cu2230
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	4.34	15.3	46.9	3.09	.498	2.44	1.09	1.91	2.30	4.53	1.71	4.62

Elem	Mn2576	Mo2020	Mo2038	Mo2045	Ni2316	Pb2203	Pb2169	Sb2068	Sb2175	Se1960	Tl1908	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.446	3.58	3.09	6.06	2.48	14.3	124.	14.2	18.6	13.2	8.99	5.73

Elem	Zn2062	Zn2138	Sr4077	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.001**	**249.**	**.000**
Stddev	.000	.000	1.	.000
%RSD	2.23	.890	.452	7.86

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**230370.**	**1910500.**	**236350.**
Stddev	383.	7228.	1333.
%RSD	.16611	.37832	.56395

Sample Name: CalStd6=20 Acquired: 11/17/2020 09:57:52 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba2335	Cu2247	Cu3247	Cu2230	Mn2576	Mo2020	Mo2038	Mo2045	Sb2175	V_2924
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	2.09	9.24	1.57	3.63	.315	.424	5.50	4.11	3.40	1.74

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**231280.**	**1908800.**	**231890.**
Stddev	503.	3893.	3278.
%RSD	.21756	.20395	1.4135

Sample Name: CalStd7=50 Acquired: 11/17/2020 10:04:09 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	As1937	As1972	Cd2288	Co2286	Cr2055	Cr2677	Cu2247	Cu3247	Mn2576	Mo2020	Mo2038	Mo2045
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.002**	**.001**	**.001**	**.000**	**.000**	**.000**	**.001**	**.000**	**.000**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.42	15.9	.588	.861	.979	1.63	4.20	1.26	.826	.932	.915	1.70

Elem	Ni2316	Sb2068	V_2924
Units	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.000**	**.000**
Stddev	.000	.000	.000
%RSD	.913	.720	1.65

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**230690.**	**1896900.**	**234860.**
Stddev	687.	18330.	1524.
%RSD	.29783	.96628	.64877

Sample Name: CalStd8=100 Acquired: 11/17/2020 10:10:25 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	As1972	Ba2335	Ba4934	Be3130	Be2348	Ca3933	Cd2265	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.001**	**.014**	**.006**	**.000**	**.012**	**.002**	**.004**	**.002**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.495	.535	2.33	3.70	.442	1.08	.293	.518	1.37	.292	.105	.502

Elem	Co2388	Cr2055	Cr2677	Cu2247	Cu3247	Cu2230	Mg2802	Mn2576	Mo2020	Mo2038	Mo2045	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.002**	**.000**	**.000**	**.001**	**.001**	**.004**	**.001**	**.001**	**.001**	**.000**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.429	.282	1.09	3.66	2.31	1.38	.473	.337	.724	.498	1.78	.903

Elem	Pb2203	Pb2169	Sb2175	Se1960	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Sr4077	B_2497
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.000**	**.001**	**.002**	**.004**	**2350.**	**.000**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	14.	.000
%RSD	2.11	20.6	1.46	4.45	29.5	1.78	3.82	.835	.194	.205	.588	.995

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**232280.**	**1895600.**	**237080.**
Stddev	45.	6519.	2301.
%RSD	.01932	.34388	.97072

Sample Name: CalStd9=1000 Acquired: 11/17/2020 10:16:39 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al1670	Al3961	As1937	As1972	Ba2335	Ba4934	Be3130	Be2348	Ca3158	Ca3933	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.003**	**.002**	**.001**	**.001**	**.005**	**.048**	**.059**	**.004**	**.001**	**.116**	**.017**
Stddev	.000	.000	.000	.000	.000	.001	.001	.000	.000	.002	.000
%RSD	.484	.846	.683	1.24	.232	1.60	.958	1.50	1.30	1.61	.133

Elem	Cd2288	Co2286	Co2388	Cr2055	Cr2677	Cu2247	Cu3247	Cu2230	Fe2599	Mg2790	Mg2802
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.040**	**.022**	**.002**	**.015**	**.003**	**.005**	**.002**	**.005**	**.001**	**.000**	**.034**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	.265	.242	.962	.319	1.13	.469	1.28	.353	1.79	2.52	1.10

Elem	Mn2576	Mn2593	Mo2020	Mo2038	Mo2045	Ni2316	Pb2203	Pb2169	Sb2068	Sb2175	Se1960
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.009**	**.006**	**.007**	**.006**	**.004**	**.014**	**.002**	**.000**	**.002**	**.002**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
%RSD	1.08	1.47	.229	.253	.312	.182	.174	1.60	.332	.388	.300

Elem	Se2062	Tl1908	V_2908	V_2924	Zn2062	Zn2138	Na5889	Na5895	Sr4077	B_2497	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.000**	**.002**	**.001**	**.005**	**.021**	**.040**	**.016**	**.004**	**22900.**	**.002**	**.001**
Stddev	.000	.000	.000	.000	.000	.000	.000	.000	172.	.000	.000
%RSD	2.72	.335	1.69	.793	.358	.309	.601	1.53	.749	.881	2.32

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**231330.**	**1906100.**	**241400.**
Stddev	722.	12025.	2569.
%RSD	.31227	.63086	1.0642

Sample Name: CalStd10=10000 Acquired: 11/17/2020 10:22:17 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	As1972	Ca3158	Co2286	Co2388	Cr2055	Cr2677	Cu2247	Cu3247	Fe2599
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.018**	**.005**	**.004**	**.213**	**.021**	**.148**	**.027**	**.050**	**.022**	**.014**
Stddev	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000
%RSD	1.23	.133	1.44	.246	.378	.333	.607	.196	1.40	1.13

Elem	Mg2790	Mg2802	Mn2576	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Sb2175	Se2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.001**	**.308**	**.085**	**.058**	**.039**	**.136**	**.002**	**.016**	**.017**	**.002**
Stddev	.000	.003	.001	.001	.000	.000	.000	.000	.000	.000
%RSD	.193	.913	1.04	1.23	.208	.189	.424	.109	.153	.401

Elem	V_2908	V_2924	Zn2062	Na5889	Na5895	Sr4077	B_2497	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.012**	**.052**	**.202**	**.081**	**.036**	**225000.**	**.024**	**.007**
Stddev	.000	.000	.001	.001	.000	588.	.000	.000
%RSD	1.13	.581	.350	1.30	1.24	.261	.553	1.47

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**228160.**	**1869500.**	**237250.**
Stddev	529.	9723.	2909.
%RSD	.23187	.52010	1.2260

Sample Name: CalStd12=100K Acquired: 11/17/2020 10:28:17 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Cr2055	Cu2247	Cu3247	Mn2593	Pb2169	Zn2062
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.46**	**.553**	**.233**	**.619**	**.017**	**2.01**
Stddev	.02	.001	.003	.009	.000	.03
%RSD	1.48	.159	1.31	1.41	.192	1.47

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**227800.**	**1890200.**	**235940.**
Stddev	790.	4305.	2391.
%RSD	.34678	.22775	1.0133

Sample Name: CalStd13=100000 Acquired: 11/17/2020 10:35:07 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2599	Mg2790	Na5889	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.189**	**.046**	**.149**	**.008**	**.727**	**.355**
Stddev	.002	.000	.001	.000	.007	.003
%RSD	.881	.863	.897	.974	.980	.941

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**220850.**	**1823800.**	**235330.**
Stddev	420.	1460.	2351.
%RSD	.19006	.08006	.99918

Sample Name: CalStd14=500000 Acquired: 11/17/2020 10:41:37 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.03**	**.240**	**.764**	**.045**
Stddev	.01	.002	.005	.000
%RSD	.761	.732	.684	.704

Int. Std.	Y_3242	Y_3710
Units	Cts/S	Cts/S
Avg	**1702900.**	**228450.**
Stddev	12033.	1559.
%RSD	.70658	.68232

Sample Name: CalibStd15=1000k Acquired: 11/17/2020 10:48:13 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Al3961	Ca3158	Mg2790	Na5895	K_7664
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.11**	**.466**	**.090**	**3.72**	**.745**
Stddev	.02	.001	.000	.07	.007
%RSD	.962	.265	.316	1.84	.913

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**184220.**	**1515700.**	**217950.**
Stddev	272.	6477.	756.
%RSD	.14744	.42735	.34699

Sample Name: Ag Ba 1000, 50000 Acquired: 11/17/2020 10:55:13 Type: Cal
Method: DOD Calibration Updated 060614(v4145) Mode: IR Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ba4934
Units	Cts/S
Avg	**2.23**
Stddev	.04
%RSD	1.57

Int. Std.	Y_3710
Units	Cts/S
Avg	**249210.**
Stddev	2829.
%RSD	1.1353

Sample Name: icv Acquired: 11/17/2020 11:14:22 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2790
Avg	**47.8**	**11300.**	**2040.**	**1900.**	**48.1**	**9980.**	**49.9**	**497.**	**204.**	**246.**	**4930.**	**10300.**
Stddev	.6	54.	28.	6.	.6	39.	.3	2.	2.	1.	25.	74.
%RSD	1.34	.475	1.37	.330	1.33	.393	.634	.356	1.15	.334	.512	.719
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Pb2169	Sb2175	Se1960	Se2062	Tl1908	V_2924	Zn2062
Avg	**492.**	**522.**	**524.**	**520.**	**495.**	**502.**	**508.**	**2010.**	**2140.**	**2000.**	**512.**	**519.**
Stddev	6.	1.	.	3.	6.	14.	2.	5.	34.	5.	5.	2.
%RSD	1.16	.259	.005	.581	1.22	2.80	.444	.272	1.58	.263	.986	.425
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Zn2138	Na5889	Sr4077	B_2497	K_7664
Avg	**518.**	**5090.**	**531.**	**525.**	**5060.**
Stddev	1.	24.	3.	5.	20.
%RSD	.147	.473	.510	.900	.389
Check ?	None	None	None	None	None
Value					
Range					

Sample Name: icv Acquired: 11/17/2020 11:14:22 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**229430.**	**1910500.**	**236720.**
Stddev	460.	19300.	1656.
%RSD	.20070	1.0102	.69965

Sample Name: ICVLL Acquired: 11/17/2020 11:20:35 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	Al3961	As1937	Ba2335	Be3130	Ca3158	Ca3933	Cd2265	Co2286	Cr2677	Cu2230
Avg	F **37.2**	**1300.**	**1250.**	**68.7**	**33.0**	**12.9**	**1650.**	**1650.**	**16.6**	**32.4**	**33.4**	**33.4**
Stddev	1.3	5.	28.	2.4	.6	.1	46.	45.	.2	.3	1.1	1.4
%RSD	3.43	.370	2.25	3.44	1.76	.654	2.77	2.70	.987	.992	3.28	4.27
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	60.0											
Range	-30.0%											

Elem	Fe2599	Mg2802	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138
Avg	**970.**	**1620.**	**34.1**	**35.9**	**36.1**	**34.5**	**32.2**	**67.7**	**64.5**	**63.8**	**33.5**	**35.0**
Stddev	21.	25.	.3	.6	.5	.4	1.5	2.5	1.9	.9	.9	.3
%RSD	2.18	1.52	.951	1.80	1.50	1.22	4.70	3.64	2.91	1.35	2.66	.875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Na5889	Sr4077	B_2497	K_7664
Avg	**3230.**	**34.8**	**68.5**	**15600.**
Stddev	97.	.3	.9	441.
%RSD	3.01	.846	1.33	2.82
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ICVLL Acquired: 11/17/2020 11:20:35 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**230100.**	**1895300.**	**238270.**
Stddev	516.	23705.	5543.
%RSD	.22434	1.2508	2.3262

Sample Name: icb Acquired: 11/17/2020 11:33:14 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Avg	**.423**	**-1.66**	**-2.57**	**-.187**	**-.170**	**.128**	**.161**	**-.100**	**-.136**	**-.379**	**.014**	**-.215**
Stddev	.479	.36	3.70	.690	.023	.103	.134	.234	.804	1.10	3.08	.074
%RSD	113.	21.5	144.	370.	13.5	80.7	83.3	234.	589.	292.	22300.	34.3
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Sr4077
Avg	**.061**	**.087**	**-.473**	**-.292**	**-.150**	**1.36**	**-.154**	**1.48**	**-.106**	**-.032**	**-74.9**	**-.139**
Stddev	.076	.582	.778	.378	1.34	3.90	.789	.33	.486	.086	12.5	.107
%RSD	125.	672.	164.	129.	893.	287.	512.	22.3	458.	266.	16.7	77.5
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	B_2497	K_7664
Avg	**.714**	**77.1**
Stddev	.487	24.1
%RSD	68.2	31.2
Check ?	None	None
Value		
Range		

Sample Name: icb Acquired: 11/17/2020 11:33:14 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**241700.**	**1984900.**	**252880.**
Stddev	485.	6310.	2254.
%RSD	.20051	.31791	.89148

Sample Name: MRL/LLOQ Acquired: 11/17/2020 11:39:34 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Avg	F **32.6**	**423.**	**24.4**	**10.7**	**3.93**	**511.**	**5.24**	**10.3**	**10.0**	**9.65**	**312.**	**509.**
Stddev	.7	3.	4.3	.5	.03	8.	.27	.2	.3	.55	4.	3.
%RSD	2.25	.729	17.8	4.38	.798	1.49	5.05	2.22	3.29	5.74	1.40	.542
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value	20.0											
Range	30.0%											

Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Sr4077
Avg	**10.6**	**11.4**	**11.6**	**10.4**	**10.7**	**21.2**	**21.1**	**22.1**	**10.4**	**11.1**	**962.**	**11.1**
Stddev	.1	.4	.4	.2	4.1	2.8	2.5	.9	.8	.1	22.	.1
%RSD	1.06	3.18	3.21	2.34	38.6	13.1	11.6	3.88	7.51	.668	2.25	1.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	B_2497	K_7664
Avg	**21.2**	**4930.**
Stddev	.4	44.
%RSD	1.96	.891
Check ?	Chk Pass	Chk Pass
Value		
Range		

Sample Name: MRL/LLOQ Acquired: 11/17/2020 11:39:34 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**230350.**	**1922300.**	**241790.**
Stddev	271.	8623.	3111.
%RSD	.11746	.44857	1.2866

Sample Name: ICSA Acquired: 11/17/2020 11:45:50 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Avg	**-.398**	**477000.**	**-.038**	**.539**	**-.000**	**469000.**	**.000**	**-1.11**	**2.10**	**-1.51**	**443000.**
Stddev	1.06	7510.	9.00	.361	.149	6750.	1.53	.51	1.28	1.90	7260.
%RSD	267.	1.57	23900.	67.1	20e6	1.44	653000.	46.2	60.9	126.	1.64
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit											
Low Limit											

Elem	Mg2790	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2908	Zn2138
Avg	**497000.**	**-3.59**	**-2.47**	**.011**	**-6.40**	**.412**	**3.77**	**-.423**	**-4.71**	**21300.**	**-14.7**
Stddev	7050.	.14	.86	1.91	.47	5.48	5.61	3.30	6.89	391.	1.3
%RSD	1.42	3.90	34.7	17200.	7.28	1330.	149.	781.	146.	1.83	8.93
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
High Limit											
Low Limit											

Elem	Na5889	Sr4077	B_2497	K_7664
Avg	**12.7**	**.571**	**.169**	**38.7**
Stddev	11.1	.149	13.8	20.6
%RSD	87.9	26.1	8140.	53.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Sample Name: ICSA Acquired: 11/17/2020 11:45:50 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**205200.**	**1734200.**	**227600.**
Stddev	307.	12111.	2549.
%RSD	.14975	.69837	1.1201

Sample Name: ICSAB Acquired: 11/17/2020 11:52:16 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3382	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2288	Co2286	Cr2677	Cu2230	Fe2599
Avg	**436.**	**503000.**	**534.**	**512.**	**522.**	**491000.**	**532.**	**502.**	**533.**	**527.**	**482000.**
Stddev	22.	4360.	13.	1.	2.	4180.	3.	2.	4.	3.	3380.
%RSD	4.96	.867	2.50	.233	.388	.851	.474	.389	.702	.618	.701
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Mg2790	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Avg	**522000.**	**517.**	**541.**	**534.**	**506.**	**474.**	**519.**	**510.**	**593.**	**545.**	**500.**
Stddev	4780.	3.	2.	3.	1.	9.	3.	1.	8.	3.	1.
%RSD	.915	.484	.311	.578	.220	1.87	.570	.214	1.37	.607	.174
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value											
Range											

Elem	Zn2138	Na5889	Na5895	Sr4077	B_2497	K_7664
Avg	**530.**	**55700.**	**55400.**	**546.**	**584.**	**54000.**
Stddev	2.	516.	532.	1.	11.	482.
%RSD	.417	.928	.960	.100	1.93	.893
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB Acquired: 11/17/2020 11:52:16 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**204350.**	**1704900.**	**227130.**
Stddev	445.	10902.	1697.
%RSD	.21794	.63945	.74701

Sample Name: ICVLL ag mn Acquired: 11/17/2020 12:04:22 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**9.49**	**3.60**	**-4.69**	**.128**	**-.117**	**5.49**	**-.005**	**-.207**	**-.322**	**-.472**	**187.**	**3.00**
Stddev	.76	.56	3.47	.253	.015	.27	.098	.249	.225	.800	34.	.05
%RSD	7.99	15.5	73.9	197.	12.5	4.86	1840.	120.	69.8	169.	18.2	1.80

Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Sr4077
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**9.49**	**.489**	**.521**	**-.357**	**.878**	**.246**	**.358**	**.392**	**-.112**	**.205**	**-24.5**	**.037**
Stddev	.07	.574	.884	.256	2.47	1.82	4.43	1.14	.375	.083	13.6	.073
%RSD	.755	117.	170.	71.8	281.	737.	1240.	290.	335.	40.3	55.6	198.

Elem	B_2497	K_7664
Units	ug/L	ug/L
Avg	**.453**	**86.4**
Stddev	.378	40.6
%RSD	83.4	47.0

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**230290.**	**1908200.**	**238450.**
Stddev	741.	9470.	1664.
%RSD	.32155	.49627	.69773

Sample Name: lcss79000 Acquired: 11/17/2020 12:45:53 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**97.0**	**3950.**	**4190.**	**3840.**	**97.4**	**198000.**	**96.3**	**971.**	**403.**	**487.**	**2010.**
Stddev	.4	35.	10.	38.	.4	1680.	.4	2.	3.	2.	24.
%RSD	.451	.897	.234	.982	.454	.850	.423	.255	.700	.477	1.20

Elem	Mg2790	Mn2576	Mo2045	Ni2316	Pb2203	Pb2169	Sb2068	Se1960	Se2062	Tl1908	V_2908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**100000.**	**960.**	**2240.**	**1000.**	**960.**	**1000.**	**1040.**	**3980.**	**4240.**	**3650.**	**1020.**
Stddev	947.	3.	7.	4.	5.	29.	3.	13.	14.	10.	9.
%RSD	.944	.327	.322	.363	.491	2.89	.301	.313	.329	.273	.846

Elem	Zn2062	Na5889	Na5895	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1010.**	**99100.**	**99400.**	**3.33**	**-.484**	**98300.**
Stddev	4.	1070.	1090.	.07	.316	852.
%RSD	.372	1.08	1.10	2.24	65.3	.866

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**213730.**	**1789000.**	**230990.**
Stddev	459.	5492.	1967.
%RSD	.21454	.30697	.85141

Sample Name: mbs79000 Acquired: 11/17/2020 12:51:43 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.326**	**2.52**	**1.53**	**.242**	**-.092**	**23.9**	**.012**	**-.252**	**-.647**	**.549**	**14.1**	**5.53**
Stddev	.983	.08	3.20	.331	.044	2.7	.158	.158	.153	.638	.9	.17
%RSD	302.	3.23	208.	137.	48.2	11.5	1330.	62.6	23.7	116.	6.74	3.05

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Sr4077	B_2497
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.174**	**1.13**	**-.363**	**.577**	**-.498**	**-.583**	**1.52**	**.162**	**.189**	**2.59**	**-.096**	**.264**
Stddev	.111	.50	.498	3.65	2.20	1.66	2.16	.744	.155	13.0	.124	.356
%RSD	63.6	44.2	137.	633.	442.	284.	142.	459.	82.2	504.	129.	135.

Elem	K_7664
Units	ug/L
Avg	**201.**
Stddev	23.
%RSD	11.6

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**226400.**	**1899700.**	**236050.**
Stddev	441.	11962.	3201.
%RSD	.19471	.62966	1.3559

Sample Name: 504392 Acquired: 11/17/2020 12:58:01 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**.471**	**412000.**	**154.**	**3450.**	**43.3**	**6.20**	**57.2**	**262.**	**298.**	**201000.**	**234000.**
Stddev	1.07	7440.	4.	67.	.4	1.00	.3	3.	3.	2890.	3890.
%RSD	226.	1.80	2.45	1.93	.974	16.0	.523	1.10	.932	1.44	1.66

Elem	Mn2593	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**37700.**	**14.3**	**9.50**	**220.**	**161.**	**-16.6**	**12.4**	**67.0**	**301.**	**1320.**	**10700.**
Stddev	640.	.7	.90	1.	4.	1.6	11.1	2.3	2.	5.	222.
%RSD	1.70	5.02	9.52	.609	2.38	9.64	89.4	3.38	.579	.374	2.07

Elem	Na5895	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avg	**10800.**	**7570.**	**1050.**	**25800.**
Stddev	216.	42.	10.	378.
%RSD	2.00	.560	.923	1.46

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**191220.**	**1592900.**	**220950.**
Stddev	183.	6326.	3241.
%RSD	.09577	.39714	1.4669

Sample Name: ccv1 Acquired: 11/17/2020 13:04:41 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2247	Cu3247	Fe2599
Avg	**474.**	**4990.**	**5110.**	**4790.**	**491.**	**5070.**	**503.**	**5060.**	**5060.**	**4700.**	**4830.**	**5010.**
Stddev	2.	40.	32.	43.	4.	91.	2.	41.	19.	27.	29.	66.
%RSD	.326	.809	.627	.900	.724	1.79	.389	.808	.368	.583	.594	1.32
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2790	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Se1960	Se2062	Tl1908	V_2908	Zn2062	Na5889
Avg	**5330.**	**4970.**	**5160.**	**5040.**	**5130.**	**5120.**	**4950.**	**5260.**	**4700.**	**5200.**	**4970.**	**49700.**
Stddev	39.	57.	21.	24.	57.	9.	17.	19.	15.	61.	25.	456.
%RSD	.732	1.16	.412	.474	1.12	.180	.345	.358	.326	1.17	.508	.917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Na5895	Sr4077	B_2497	K_7664
Avg	**49400.**	**5200.**	**5070.**	**48300.**
Stddev	363.	11.	34.	427.
%RSD	.735	.220	.675	.884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ccv1 Acquired: 11/17/2020 13:04:41 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**224310.**	**1873700.**	**234440.**
Stddev	636.	6887.	1917.
%RSD	.28337	.36758	.81762

Sample Name: ccv2 Acquired: 11/17/2020 13:09:55 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Avg	**50.1**	**522.**	**502.**	**503.**	**50.2**	**512.**	**50.9**	**511.**	**519.**	**513.**	**508.**	**503.**
Stddev	.8	4.	7.	2.	.3	6.	.6	2.	5.	1.	7.	4.
%RSD	1.52	.711	1.41	.487	.640	1.22	1.09	.390	.980	.266	1.33	.766
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Avg	**507.**	**515.**	**518.**	**530.**	**510.**	**537.**	**533.**	**519.**	**517.**	**520.**	**514.**	**515.**
Stddev	3.	1.	2.	2.	2.	7.	5.	5.	2.	5.	2.	2.
%RSD	.622	.203	.373	.465	.429	1.39	.953	.997	.412	1.05	.429	.325
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Na5889	Sr4077	B_2497	K_7664
Avg	**5040.**	**539.**	**528.**	**5080.**
Stddev	53.	2.	4.	51.
%RSD	1.04	.408	.811	1.00
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ccv2 Acquired: 11/17/2020 13:09:55 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**227820.**	**1898200.**	**240070.**
Stddev	142.	14946.	1707.
%RSD	.06252	.78738	.71120

Sample Name: ccb Acquired: 11/17/2020 13:15:42 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Avg	**-.490**	**-1.26**	**-3.10**	**-.093**	**-.111**	**.246**	**.074**	**-.106**	**-.388**	**-1.05**	**1.50**	**-.302**
Stddev	.685	.45	3.67	.516	.026	.066	.071	.272	.567	.71	3.26	.045
%RSD	140.	36.0	119.	555.	23.9	27.0	97.1	256.	146.	67.9	217.	14.7
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Sr4077
Avg	**.041**	**.663**	**.505**	**-.333**	**1.02**	**-.323**	**2.07**	**2.72**	**-.078**	**-.020**	**-75.7**	**-.025**
Stddev	.060	.435	.605	.658	1.02	1.52	3.02	2.70	.559	.025	4.7	.173
%RSD	147.	65.6	120.	198.	100.0	471.	146.	99.4	716.	125.	6.19	683.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	B_2497	K_7664
Avg	**2.24**	**88.2**
Stddev	.86	23.4
%RSD	38.3	26.5
Check ?	None	None
Value		
Range		

Sample Name: ccb Acquired: 11/17/2020 13:15:42 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**237530.**	**1986300.**	**248480.**
Stddev	690.	4155.	1824.
%RSD	.29039	.20917	.73421

Sample Name: 504405 Acquired: 11/17/2020 13:22:02 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2790
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**2.03**	**495000.**	**187.**	**3850.**	**51.0**	**5.99**	**61.5**	**266.**	**259.**	**216000.**	**286000.**
Stddev	.15	6580.	11.	54.	.1	.32	.2	2.	1.	2020.	3920.
%RSD	7.23	1.33	6.07	1.39	.223	5.36	.331	.768	.431	.935	1.37

Elem	Mn2593	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Na5889
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**47000.**	**14.4**	**9.96**	**218.**	**140.**	**-21.5**	**21.0**	**71.7**	**325.**	**1010.**	**13200.**
Stddev	406.	.4	.93	1.	7.	5.0	6.7	3.4	3.	6.	159.
%RSD	.864	2.86	9.37	.522	4.80	23.0	31.8	4.78	.889	.572	1.20

Elem	Na5895	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avg	**13300.**	**9220.**	**1130.**	**31500.**
Stddev	199.	41.	9.	388.
%RSD	1.50	.447	.756	1.23

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**188880.**	**1580000.**	**221840.**
Stddev	722.	10052.	2890.
%RSD	.38227	.63619	1.3027

Sample Name: 504477 Acquired: 11/17/2020 13:28:44 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-2.57**	**249000.**	**427.**	**1220.**	**3.49**	**51000.**	**2.92**	**273.**	**355.**	**534.**	**645000.**
Stddev	.61	2000.	16.	11.	.21	467.	1.17	1.	3.	2.	8130.
%RSD	23.8	.805	3.74	.931	6.13	.917	40.0	.355	.759	.437	1.26

Elem	Mg2790	Mn2593	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**73800.**	**11300.**	**30.9**	**19.8**	**539.**	**408.**	**-62.3**	**.401**	**196.**	**459.**	**1730.**
Stddev	517.	129.	.3	.8	1.	2.	2.7	2.36	4.	4.	3.
%RSD	.700	1.14	.886	4.12	.164	.609	4.31	588.	2.28	.844	.184

Elem	Na5889	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avg	**884.**	**269.**	**120.**	**12100.**
Stddev	17.	2.	25.	123.
%RSD	1.91	.685	21.0	1.02

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**219350.**	**1827200.**	**240140.**
Stddev	502.	12267.	1798.
%RSD	.22869	.67135	.74868

Sample Name: I504477 Acquired: 11/17/2020 13:35:20 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba2335	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-1.43**	**61700.**	**98.6**	**300.**	**.606**	**12900.**	**-1.65**	**67.7**	**84.2**	**131.**	**169000.**
Stddev	.55	1050.	4.0	2.	.066	217.	.71	.7	1.3	1.	3080.
%RSD	38.4	1.70	4.03	.540	10.8	1.69	43.3	.997	1.52	.513	1.83

Elem	Mg2790	Mn2593	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**18800.**	**2850.**	**7.71**	**4.57**	**132.**	**105.**	**-13.5**	**3.78**	**53.5**	**108.**	**437.**
Stddev	339.	54.	.37	.54	1.	3.	2.2	3.76	1.0	1.	3.
%RSD	1.81	1.88	4.77	11.7	.847	2.58	16.6	99.4	1.93	1.11	.576

Elem	Zn2138	Na5889	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**441.**	**177.**	**67.1**	**19.5**	**3050.**
Stddev	3.	20.	.6	4.5	84.
%RSD	.726	11.1	.885	22.8	2.76

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**229070.**	**1931000.**	**240590.**
Stddev	979.	9190.	4385.
%RSD	.42744	.47592	1.8227

Sample Name: dup504477 Acquired: 11/17/2020 13:42:01 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1937	Ba4934	Be3130	Ca3158	Cd2265	Co2286	Cr2677	Cu2230	Fe2599
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**-2.61**	**261000.**	**365.**	**1320.**	**3.27**	**364000.**	**5.28**	**245.**	**369.**	**520.**	**619000.**
Stddev	1.32	2630.	2.	16.	.05	3710.	1.58	2.	4.	3.	10300.
%RSD	50.5	1.01	.676	1.21	1.58	1.02	29.9	.632	1.01	.646	1.67

Elem	Mg2790	Mn2593	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2062
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**159000.**	**10900.**	**34.1**	**24.1**	**547.**	**367.**	**-58.0**	**-.364**	**187.**	**463.**	**1720.**
Stddev	1470.	116.	.8	.9	3.	4.	3.3	7.37	1.	4.	11.
%RSD	.926	1.07	2.30	3.84	.524	.992	5.64	2020.	.283	.911	.638

Elem	Na5889	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L
Avg	**1440.**	**1400.**	**104.**	**15800.**
Stddev	31.	2.	8.	157.
%RSD	2.13	.176	8.05	.997

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**210130.**	**1780700.**	**234390.**
Stddev	651.	2972.	2386.
%RSD	.30959	.16692	1.0180

Sample Name: mss504477 Acquired: 11/17/2020 13:48:21 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2388	Cr2055	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**96.9**	**265000.**	**4020.**	**5230.**	**101.**	**621000.**	**97.5**	**120.**	**1170.**	**780.**	**729.**
Stddev	.3	4320.	10.	89.	.	9290.	1.7	1.	9.	4.	4.
%RSD	.300	1.63	.239	1.70	.408	1.50	1.71	.519	.749	.452	.504

Elem	Cu2230	Fe2599	Mg2790	Mn2593	Mo2045	Ni2316	Pb2169	Sb2175	Se1960	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**951.**	**577000.**	**243000.**	**12100.**	**1660.**	**1470.**	**1230.**	**89.2**	**2920.**	**3000.**	**3280.**
Stddev	4.	12100.	3960.	174.	3.	3.	32.	3.8	15.	38.	11.
%RSD	.471	2.10	1.63	1.44	.176	.235	2.60	4.23	.498	1.28	.334

Elem	V_2908	Zn2062	Na5895	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1370.**	**2390.**	**104000.**	**2430.**	**106.**	**113000.**
Stddev	31.	8.	1690.	6.	14.	1800.
%RSD	2.24	.331	1.63	.247	13.7	1.59

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**201780.**	**1720400.**	**229460.**
Stddev	323.	4901.	3523.
%RSD	.16011	.28488	1.5353

Sample Name: msds504477 Acquired: 11/17/2020 13:54:34 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2388	Cr2055	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**95.5**	**254000.**	**4120.**	**5110.**	**97.7**	**301000.**	**95.2**	**119.**	**1140.**	**756.**	**705.**
Stddev	.8	3190.	15.	66.	.5	3390.	.6	1.	6.	6.	4.
%RSD	.853	1.26	.354	1.29	.474	1.13	.590	.450	.500	.743	.555

Elem	Cu2230	Fe2599	Mg2790	Mn2593	Mo2045	Ni2316	Pb2169	Sb2175	Se1960	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**981.**	**586000.**	**190000.**	**11400.**	**1640.**	**1460.**	**1190.**	**90.4**	**3120.**	**3210.**	**3380.**
Stddev	4.	5920.	2210.	127.	12.	8.	27.	1.3	14.	46.	17.
%RSD	.443	1.01	1.16	1.11	.741	.568	2.28	1.41	.439	1.43	.516

Elem	V_2908	Zn2062	Na5895	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1340.**	**2530.**	**100000.**	**883.**	**109.**	**108000.**
Stddev	12.	17.	1190.	3.	19.	1240.
%RSD	.894	.652	1.19	.375	17.1	1.15

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**205970.**	**1763400.**	**230540.**
Stddev	850.	7224.	2393.
%RSD	.41284	.40967	1.0379

Sample Name: pdss504477 Acquired: 11/17/2020 14:00:43 Type: Unk
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2265	Cd2288	Co2388	Cr2055	Cr2677
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**91.5**	**261000.**	**4240.**	**5100.**	**94.0**	**713000.**	**90.0**	**115.**	**1090.**	**753.**	**703.**
Stddev	1.1	3060.	33.	61.	.8	3100.	1.8	1.	7.	5.	5.
%RSD	1.22	1.17	.769	1.20	.819	.435	2.02	.712	.619	.611	.736

Elem	Cu2230	Fe2599	Mg2790	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Se1960	Se2062	Tl1908
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**951.**	**601000.**	**347000.**	**11000.**	**1980.**	**1390.**	**1130.**	**1040.**	**3600.**	**3730.**	**3230.**
Stddev	7.	12500.	2020.	129.	12.	8.	31.	8.	24.	35.	19.
%RSD	.712	2.07	.582	1.17	.620	.559	2.74	.799	.670	.933	.587

Elem	V_2908	Zn2062	Na5895	Sr4077	B_2497	K_7664
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avg	**1390.**	**2490.**	**196000.**	**3090.**	**1980.**	**108000.**
Stddev	18.	17.	3870.	40.	18.	1700.
%RSD	1.32	.673	1.98	1.30	.910	1.57

Int. Std.	Y_2243	Y_3242	Y_3710
Units	Cts/S	Cts/S	Cts/S
Avg	**198640.**	**1692900.**	**223760.**
Stddev	656.	12354.	2417.
%RSD	.33012	.72975	1.0802

Sample Name: ccv1 Acquired: 11/17/2020 14:25:29 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al3961	As1972	Ba4934	Be3130	Ca3158	Cd2288	Co2388	Cr2055	Cu2247	Cu3247	Fe2599
Avg	**472.**	**5070.**	**5130.**	**4830.**	**491.**	**5030.**	**511.**	**5040.**	**5160.**	**4740.**	**4870.**	**5010.**
Stddev	3.	40.	41.	24.	3.	35.	3.	39.	36.	33.	17.	63.
%RSD	.731	.786	.806	.498	.606	.685	.614	.766	.699	.688	.339	1.27
Check ?	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mg2790	Mn2593	Mo2045	Ni2316	Pb2169	Sb2068	Se1960	Se2062	Tl1908	V_2908	Zn2062	Na5889
Avg	**5400.**	**4920.**	**5240.**	**5070.**	**5150.**	**5160.**	**5010.**	**5320.**	**4750.**	**5150.**	**5020.**	**49500.**
Stddev	119.	38.	31.	27.	59.	30.	36.	32.	31.	40.	25.	240.
%RSD	2.20	.771	.597	.536	1.15	.584	.724	.602	.650	.768	.499	.484
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Na5895	Sr4077	B_2497	K_7664
Avg	**49800.**	**5230.**	**5050.**	**48400.**
Stddev	175.	17.	47.	299.
%RSD	.351	.326	.921	.618
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ccv1 Acquired: 11/17/2020 14:25:29 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**221880.**	**1878900.**	**232930.**
Stddev	906.	8601.	1735.
%RSD	.40836	.45777	.74471

Sample Name: ccv2 Acquired: 11/17/2020 14:30:44 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Avg	**48.6**	**526.**	**498.**	**499.**	**49.4**	**528.**	**50.7**	**513.**	**494.**	**512.**	**517.**	**485.**
Stddev	.7	3.	7.	5.	.4	3.	.5	4.	3.	3.	3.	3.
%RSD	1.43	.637	1.37	.985	.725	.638	.901	.788	.697	.505	.594	.673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Pb2169	Sb2175	Se1960	Tl1908	V_2924	Zn2062	Zn2138
Avg	**497.**	**519.**	**524.**	**528.**	**514.**	**538.**	**533.**	**524.**	**519.**	**507.**	**512.**	**515.**
Stddev	4.	1.	3.	4.	5.	12.	2.	6.	4.	4.	4.	4.
%RSD	.782	.278	.637	.680	.921	2.24	.366	1.22	.788	.823	.731	.714
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value												
Range												

Elem	Na5889	Sr4077	B_2497	K_7664
Avg	**5150.**	**540.**	**516.**	**5170.**
Stddev	50.	3.	5.	32.
%RSD	.979	.602	.996	.619
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ccv2 Acquired: 11/17/2020 14:30:44 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**225970.**	**1924900.**	**234970.**
Stddev	422.	13413.	2440.
%RSD	.18671	.69682	1.0385

Sample Name: ccb Acquired: 11/17/2020 14:36:30 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Elem	Ag3280	Al1670	As1937	Ba2335	Be3130	Ca3933	Cd2265	Co2286	Cr2677	Cu2230	Fe2599	Mg2802
Avg	**.254**	**-1.64**	**.841**	**-.259**	**-.058**	**1.32**	**.078**	**-.155**	**.595**	**-2.14**	**-.208**	**-.041**
Stddev	.338	.41	1.82	.856	.007	.24	.047	.198	.561	1.19	2.76	.054
%RSD	133.	25.3	216.	331.	12.0	18.5	60.5	128.	94.2	55.7	1320.	133.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

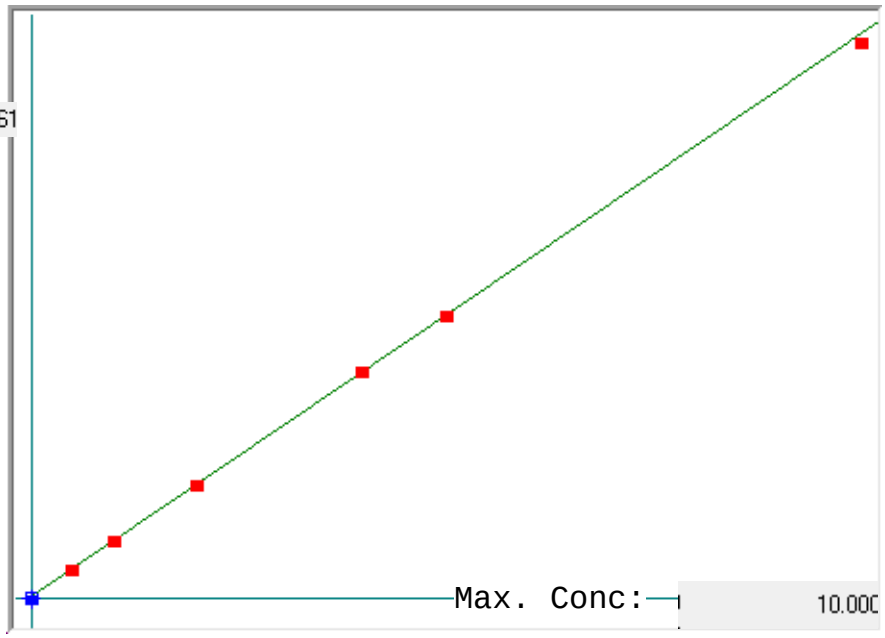
Elem	Mn2576	Mo2020	Mo2038	Ni2316	Pb2203	Sb2175	Se1960	Tl1908	V_2924	Zn2138	Na5889	Sr4077
Avg	**-.003**	**.996**	**.899**	**-.394**	**-.542**	**.894**	**-.651**	**2.55**	**.019**	**.029**	**-56.6**	**-.150**
Stddev	.059	.349	.468	.387	2.25	2.29	2.18	.04	.479	.144	6.0	.180
%RSD	2250.	35.0	52.1	98.3	415.	257.	335.	1.62	2510.	501.	10.7	120.
Check ?	None	None	None	None	None	None	None	None	None	None	None	None
Value												
Range												

Elem	B_2497	K_7664
Avg	**2.18**	**111.**
Stddev	1.34	6.
%RSD	61.4	5.13
Check ?	None	None
Value		
Range		

Sample Name: ccb Acquired: 11/17/2020 14:36:30 Type: QC
Method: DOD Calibration Updated 060614(v4145) Mode: CONC Corr. Factor: 1.000000
User: NAH ICAP6500: PrepBatch: Post Digestion dilution: 1
Comment:

Int. Std.	Y_2243	Y_3242	Y_3710
Avg	**235560.**	**2016200.**	**246860.**
Stddev	466.	13819.	1544.
%RSD	.19762	.68543	.62527

Hg SOLIDS



A= 0.0000e+000

B= 1.5416e-004

C= -2.6305e-002

Rho= 0.9999704

Accept= Accepted

Accepted Date=

11/18/20 09:20

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
CALIBRATION BLANK	0.000	-0.000	-0.000	170	6.727	161	168	179	174	
0.5	0.500	0.503	0.003	3432	2.8 %	3300	3392	3478	3558	
1.0	1.000	1.007	0.007	6702	2.6 %	6451	6642	6796	6922	
2.0	2.000	1.990	-0.010	13079	2.6 %	12603	12954	13253	13507	
4.0	4.000	4.009	0.009	26175	2.2 %	25423	25913	26392	26975	
5.0	5.000	5.028	0.028	32786	2.4 %	31720	32448	33150	33829	
10.0	10.000	9.849	-0.151	64061	2.6 %	61758	63349	64920	66218	

111820s

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
CALIBRATION BLANK	18 Nov 2020 08:58:33	Hg			170.500
0.5	18 Nov 2020 09:01:42	Hg			3432.000
1.0	18 Nov 2020 09:04:54	Hg			6702.750
2.0	18 Nov 2020 09:08:05	Hg			13079.250
4.0	18 Nov 2020 09:11:16	Hg			26175.750
5.0	18 Nov 2020 09:14:27	Hg			32786.750
10.0	18 Nov 2020 09:17:36	Hg			64061.250
ICV	18 Nov 2020 09:20:46	Hg			2.924
ICB	18 Nov 2020 09:27:05	Hg			0.000
504955lcss 79008	18 Nov 2020 09:30:14	Hg			1.973
504954mbs 79008	18 Nov 2020 09:36:32	Hg			-0.001
504392	18 Nov 2020 09:39:41	Hg			0.213
504405	18 Nov 2020 09:42:50	Hg			0.091
504956dup 504405	18 Nov 2020 09:45:59	Hg			0.150
504477	18 Nov 2020 09:49:09	Hg			0.399
504958mss 504405	18 Nov 2020 09:52:18	Hg			1.969
504959msds 504405	18 Nov 2020 09:55:29	Hg			2.013
504326lcss 78989	18 Nov 2020 09:58:39	Hg			1.942
CCV	18 Nov 2020 10:01:49	Hg			3.009
CCB	18 Nov 2020 10:08:08	Hg			0.001
504325mbs 78989	18 Nov 2020 10:11:17	Hg			-0.000
503709	18 Nov 2020 10:14:28	Hg			0.042
503727	18 Nov 2020 10:17:39	Hg			0.122
503729	18 Nov 2020 10:20:48	Hg			0.450
503730	18 Nov 2020 10:23:57	Hg			0.515
504327dup 503730	18 Nov 2020 10:27:07	Hg			1.028
503731	18 Nov 2020 10:30:16	Hg			2.653
503732	18 Nov 2020 10:33:26	Hg			0.622
503733	18 Nov 2020 10:36:36	Hg			0.534
503734	18 Nov 2020 10:39:46	Hg			0.832
CCV	18 Nov 2020 10:42:56	Hg			3.029
CCB	18 Nov 2020 10:49:15	Hg			-0.001
503735	18 Nov 2020 10:52:24	Hg			0.617
503736	18 Nov 2020 10:55:34	Hg			1.055
503737	18 Nov 2020 10:58:45	Hg			0.232
503738	18 Nov 2020 11:01:56	Hg			2.552
503751	18 Nov 2020 11:05:08	Hg			0.503
503752	18 Nov 2020 11:08:18	Hg			0.404
503753	18 Nov 2020 11:11:27	Hg			0.581
503754	18 Nov 2020 11:14:37	Hg			0.068
503755	18 Nov 2020 11:17:47	Hg			8.811
503756	18 Nov 2020 11:20:56	Hg			5.812
CCV	18 Nov 2020 11:24:06	Hg			3.117
CCB	18 Nov 2020 11:30:25	Hg			-0.003
503795	18 Nov 2020 11:33:34	Hg			1.838
503799	18 Nov 2020 11:36:44	Hg			5.648
504328mss 503730	18 Nov 2020 11:39:54	Hg			2.487
504329msds 503730	18 Nov 2020 11:43:05	Hg			2.479
504331lcss 78990	18 Nov 2020 11:46:15	Hg			1.974
504330mbs 78990	18 Nov 2020 11:52:37	Hg			-0.002
503800	18 Nov 2020 11:55:47	Hg			0.084
503801	18 Nov 2020 11:58:57	Hg			0.077
503802	18 Nov 2020 12:02:06	Hg			0.236
CCV	18 Nov 2020 12:05:16	Hg			3.072
CCB	18 Nov 2020 12:11:35	Hg			-0.001
503803	18 Nov 2020 12:14:44	Hg			0.372
503804	18 Nov 2020 12:17:54	Hg			0.160
503805	18 Nov 2020 12:21:03	Hg			0.309
503806	18 Nov 2020 12:24:13	Hg			0.270
503807	18 Nov 2020 12:27:24	Hg			1.908
503808	18 Nov 2020 12:30:34	Hg			0.252
503809	18 Nov 2020 12:33:44	Hg			0.313
503814	18 Nov 2020 12:36:55	Hg			0.098
503816	18 Nov 2020 12:40:07	Hg			0.109
503817	18 Nov 2020 12:43:17	Hg			0.327

111820s

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	LT Mean Conc
CCV	18 Nov 2020 12:46:27	Hg			3.093
CCB	18 Nov 2020 12:52:45	Hg			0.002
503818	18 Nov 2020 12:55:55	Hg			0.564
504198	18 Nov 2020 12:59:04	Hg		5	0.034
504332mss 503803	18 Nov 2020 13:02:14	Hg			2.456
504333msds 503803	18 Nov 2020 13:05:23	Hg			2.405
503679lcss 78965	18 Nov 2020 13:08:33	Hg			2.009
503678mbs 78965	18 Nov 2020 13:14:52	Hg			-0.001
502821	18 Nov 2020 13:18:03	Hg			0.029
502823	18 Nov 2020 13:21:13	Hg		20	0.002
502966	18 Nov 2020 13:24:24	Hg			0.093
CCV	18 Nov 2020 13:27:36	Hg			2.992
CCB	18 Nov 2020 13:33:54	Hg			-0.001
502968	18 Nov 2020 13:37:03	Hg			0.043
502970	18 Nov 2020 13:40:13	Hg			0.023
502971	18 Nov 2020 13:43:23	Hg			0.036
502973	18 Nov 2020 13:46:33	Hg			0.031
502975	18 Nov 2020 13:49:44	Hg			0.026
502977	18 Nov 2020 13:52:54	Hg			0.077
502979	18 Nov 2020 13:56:04	Hg			0.279
502981	18 Nov 2020 13:59:15	Hg			1.953
502993	18 Nov 2020 14:02:25	Hg			-0.010
503007	18 Nov 2020 14:05:35	Hg			1.283
CCV	18 Nov 2020 14:08:45	Hg			3.068
CCB	18 Nov 2020 14:15:04	Hg			-0.002
503008	18 Nov 2020 14:18:13	Hg			-0.004
503159	18 Nov 2020 14:21:24	Hg			0.614
503160	18 Nov 2020 14:24:35	Hg			0.570
503619	18 Nov 2020 14:27:45	Hg			0.171
504198	18 Nov 2020 14:30:55	Hg			0.164
503680mss 502970	18 Nov 2020 14:34:06	Hg			1.949
503681msds 502970	18 Nov 2020 14:37:16	Hg			1.969
503682mss 503007	18 Nov 2020 14:40:27	Hg			2.926
503683msds 503007	18 Nov 2020 14:43:38	Hg			2.509
CCV	18 Nov 2020 14:46:48	Hg			3.122
CCB	18 Nov 2020 14:53:07	Hg			0.003

111820s detailed

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CALIBRATION BLANK - 1	18 Nov 2020 08:58:33	Hg			161	-
CALIBRATION BLANK - 2	18 Nov 2020 08:58:33	Hg			168	-
CALIBRATION BLANK - 3	18 Nov 2020 08:58:33	Hg			179	-
CALIBRATION BLANK - 4	18 Nov 2020 08:58:33	Hg			174	-
0.5 - 1	18 Nov 2020 09:01:42	Hg			3300	-
0.5 - 2	18 Nov 2020 09:01:42	Hg			3392	-
0.5 - 3	18 Nov 2020 09:01:42	Hg			3478	-
0.5 - 4	18 Nov 2020 09:01:42	Hg			3558	-
1.0 - 1	18 Nov 2020 09:04:54	Hg			6451	-
1.0 - 2	18 Nov 2020 09:04:54	Hg			6642	-
1.0 - 3	18 Nov 2020 09:04:54	Hg			6796	-
1.0 - 4	18 Nov 2020 09:04:54	Hg			6922	-
2.0 - 1	18 Nov 2020 09:08:05	Hg			12603	-
2.0 - 2	18 Nov 2020 09:08:05	Hg			12954	-
2.0 - 3	18 Nov 2020 09:08:05	Hg			13253	-
2.0 - 4	18 Nov 2020 09:08:05	Hg			13507	-
4.0 - 1	18 Nov 2020 09:11:16	Hg			25423	-
4.0 - 2	18 Nov 2020 09:11:16	Hg			25913	-
4.0 - 3	18 Nov 2020 09:11:16	Hg			26392	-
4.0 - 4	18 Nov 2020 09:11:16	Hg			26975	-
5.0 - 1	18 Nov 2020 09:14:27	Hg			31720	-
5.0 - 2	18 Nov 2020 09:14:27	Hg			32448	-
5.0 - 3	18 Nov 2020 09:14:27	Hg			33150	-
5.0 - 4	18 Nov 2020 09:14:27	Hg			33829	-
10.0 - 1	18 Nov 2020 09:17:36	Hg			61758	-
10.0 - 2	18 Nov 2020 09:17:36	Hg			63349	-
10.0 - 3	18 Nov 2020 09:17:36	Hg			64920	-
10.0 - 4	18 Nov 2020 09:17:36	Hg			66218	-
ICV - 1	18 Nov 2020 09:20:46	Hg			18562	94.5% 2.835
ICV - 2	18 Nov 2020 09:20:46	Hg			18993	96.7% 2.902
ICV - 3	18 Nov 2020 09:20:46	Hg			19350	98.6% 2.957
ICV - 4	18 Nov 2020 09:20:46	Hg			19646	100.1% 3.002
ICB - 1	18 Nov 2020 09:27:05	Hg			166	-0.001
ICB - 2	18 Nov 2020 09:27:05	Hg			171	0.000
ICB - 3	18 Nov 2020 09:27:05	Hg			177	0.001
ICB - 4	18 Nov 2020 09:27:05	Hg			178	0.001
504955lcss 79008 - 1	18 Nov 2020 09:30:14	Hg			12509	1.902
504955lcss 79008 - 2	18 Nov 2020 09:30:14	Hg			12841	1.953
504955lcss 79008 - 3	18 Nov 2020 09:30:14	Hg			13143	2.000
504955lcss 79008 - 4	18 Nov 2020 09:30:14	Hg			13383	2.037
504954mbs 79008 - 1	18 Nov 2020 09:36:32	Hg			149	-0.003 [ ]
504954mbs 79008 - 2	18 Nov 2020 09:36:32	Hg			163	-0.001 [ ]
504954mbs 79008 - 3	18 Nov 2020 09:36:32	Hg			172	0.000
504954mbs 79008 - 4	18 Nov 2020 09:36:32	Hg			172	0.000
504392 - 1	18 Nov 2020 09:39:41	Hg			1500	0.205
504392 - 2	18 Nov 2020 09:39:41	Hg			1536	0.210
504392 - 3	18 Nov 2020 09:39:41	Hg			1572	0.216
504392 - 4	18 Nov 2020 09:39:41	Hg			1611	0.222
504405 - 1	18 Nov 2020 09:42:50	Hg			738	0.087
504405 - 2	18 Nov 2020 09:42:50	Hg			754	0.090
504405 - 3	18 Nov 2020 09:42:50	Hg			770	0.092
504405 - 4	18 Nov 2020 09:42:50	Hg			789	0.095
504956dup 504405 - 1	18 Nov 2020 09:45:59	Hg			1103	0.144
504956dup 504405 - 2	18 Nov 2020 09:45:59	Hg			1121	0.147
504956dup 504405 - 3	18 Nov 2020 09:45:59	Hg			1157	0.152
504956dup 504405 - 4	18 Nov 2020 09:45:59	Hg			1183	0.156
504477 - 1	18 Nov 2020 09:49:09	Hg			2671	0.385
504477 - 2	18 Nov 2020 09:49:09	Hg			2728	0.394
504477 - 3	18 Nov 2020 09:49:09	Hg			2794	0.404
504477 - 4	18 Nov 2020 09:49:09	Hg			2854	0.414
504958mss 504405 - 1	18 Nov 2020 09:52:18	Hg			12516	1.903
504958mss 504405 - 2	18 Nov 2020 09:52:18	Hg			12817	1.950
504958mss 504405 - 3	18 Nov 2020 09:52:18	Hg			13096	1.993
504958mss 504405 - 4	18 Nov 2020 09:52:18	Hg			13344	2.031
504959msds 504405 - 1	18 Nov 2020 09:55:29	Hg			12746	1.939
504959msds 504405 - 2	18 Nov 2020 09:55:29	Hg			13115	1.996
504959msds 504405 - 3	18 Nov 2020 09:55:29	Hg			13416	2.042
504959msds 504405 - 4	18 Nov 2020 09:55:29	Hg			13643	2.077
504326lcss 78989 - 1	18 Nov 2020 09:58:39	Hg			12314	1.872
504326lcss 78989 - 2	18 Nov 2020 09:58:39	Hg			12620	1.919
504326lcss 78989 - 3	18 Nov 2020 09:58:39	Hg			12934	1.968
504326lcss 78989 - 4	18 Nov 2020 09:58:39	Hg			13215	2.011
CCV - 1	18 Nov 2020 10:01:49	Hg			19054	97.0% 2.911
CCV - 2	18 Nov 2020 10:01:49	Hg			19487	99.3% 2.978
CCV - 3	18 Nov 2020 10:01:49	Hg			19910	101.4% 3.043
CCV - 4	18 Nov 2020 10:01:49	Hg			20306	103.5% 3.104
CCB - 1	18 Nov 2020 10:08:08	Hg			175	0.001
CCB - 2	18 Nov 2020 10:08:08	Hg			182	0.002
CCB - 3	18 Nov 2020 10:08:08	Hg			181	0.002

111820s detailed

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
CCB - 4	18 Nov 2020 10:08:08	Hg			178	0.001
504325mbs 78989 - 1	18 Nov 2020 10:11:17	Hg			153	-0.003 [ ]
504325mbs 78989 - 2	18 Nov 2020 10:11:17	Hg			164	-0.001 [ ]
504325mbs 78989 - 3	18 Nov 2020 10:11:17	Hg			177	0.001
504325mbs 78989 - 4	18 Nov 2020 10:11:17	Hg			176	0.001
503709 - 1	18 Nov 2020 10:14:28	Hg			425	0.039
503709 - 2	18 Nov 2020 10:14:28	Hg			438	0.041
503709 - 3	18 Nov 2020 10:14:28	Hg			444	0.042
503709 - 4	18 Nov 2020 10:14:28	Hg			455	0.044
503727 - 1	18 Nov 2020 10:17:39	Hg			924	0.116
503727 - 2	18 Nov 2020 10:17:39	Hg			951	0.120
503727 - 3	18 Nov 2020 10:17:39	Hg			977	0.124
503727 - 4	18 Nov 2020 10:17:39	Hg			994	0.127
503729 - 1	18 Nov 2020 10:20:48	Hg			2986	0.434
503729 - 2	18 Nov 2020 10:20:48	Hg			3064	0.446
503729 - 3	18 Nov 2020 10:20:48	Hg			3120	0.455
503729 - 4	18 Nov 2020 10:20:48	Hg			3176	0.463
503730 - 1	18 Nov 2020 10:23:57	Hg			3380	0.495
503730 - 2	18 Nov 2020 10:23:57	Hg			3470	0.509
503730 - 3	18 Nov 2020 10:23:57	Hg			3560	0.523
503730 - 4	18 Nov 2020 10:23:57	Hg			3641	0.535
504327dup 503730 - 1	18 Nov 2020 10:27:07	Hg			6490	0.974
504327dup 503730 - 2	18 Nov 2020 10:27:07	Hg			6720	1.010
504327dup 503730 - 3	18 Nov 2020 10:27:07	Hg			6972	1.049
504327dup 503730 - 4	18 Nov 2020 10:27:07	Hg			7177	1.080
503731 - 1	18 Nov 2020 10:30:16	Hg			16776	2.560
503731 - 2	18 Nov 2020 10:30:16	Hg			17289	2.639
503731 - 3	18 Nov 2020 10:30:16	Hg			17619	2.690
503731 - 4	18 Nov 2020 10:30:16	Hg			17844	2.725
503732 - 1	18 Nov 2020 10:33:26	Hg			4035	0.596
503732 - 2	18 Nov 2020 10:33:26	Hg			4144	0.613
503732 - 3	18 Nov 2020 10:33:26	Hg			4264	0.631
503732 - 4	18 Nov 2020 10:33:26	Hg			4379	0.649
503733 - 1	18 Nov 2020 10:36:36	Hg			3494	0.512
503733 - 2	18 Nov 2020 10:36:36	Hg			3600	0.529
503733 - 3	18 Nov 2020 10:36:36	Hg			3685	0.542
503733 - 4	18 Nov 2020 10:36:36	Hg			3766	0.554
503734 - 1	18 Nov 2020 10:39:46	Hg			5390	0.805
503734 - 2	18 Nov 2020 10:39:46	Hg			5522	0.825
503734 - 3	18 Nov 2020 10:39:46	Hg			5638	0.843
503734 - 4	18 Nov 2020 10:39:46	Hg			5728	0.857
CCV - 1	18 Nov 2020 10:42:56	Hg			19149	97.5% 2.926
CCV - 2	18 Nov 2020 10:42:56	Hg			19594	99.8% 2.994
CCV - 3	18 Nov 2020 10:42:56	Hg			20057	102.2% 3.066
CCV - 4	18 Nov 2020 10:42:56	Hg			20485	104.4% 3.132
CCB - 1	18 Nov 2020 10:49:15	Hg			163	-0.001
CCB - 2	18 Nov 2020 10:49:15	Hg			167	-0.001
CCB - 3	18 Nov 2020 10:49:15	Hg			168	-0.000
CCB - 4	18 Nov 2020 10:49:15	Hg			169	-0.000
503735 - 1	18 Nov 2020 10:52:24	Hg			4052	0.598
503735 - 2	18 Nov 2020 10:52:24	Hg			4127	0.610
503735 - 3	18 Nov 2020 10:52:24	Hg			4208	0.622
503735 - 4	18 Nov 2020 10:52:24	Hg			4307	0.638
503736 - 1	18 Nov 2020 10:55:34	Hg			6720	1.010
503736 - 2	18 Nov 2020 10:55:34	Hg			6919	1.040
503736 - 3	18 Nov 2020 10:55:34	Hg			7130	1.073
503736 - 4	18 Nov 2020 10:55:34	Hg			7300	1.099
503737 - 1	18 Nov 2020 10:58:45	Hg			1615	0.223
503737 - 2	18 Nov 2020 10:58:45	Hg			1663	0.230
503737 - 3	18 Nov 2020 10:58:45	Hg			1695	0.235
503737 - 4	18 Nov 2020 10:58:45	Hg			1721	0.239
503738 - 1	18 Nov 2020 11:01:56	Hg			16027	2.444
503738 - 2	18 Nov 2020 11:01:56	Hg			16476	2.514
503738 - 3	18 Nov 2020 11:01:56	Hg			16987	2.592
503738 - 4	18 Nov 2020 11:01:56	Hg			17399	2.656
503751 - 1	18 Nov 2020 11:05:08	Hg			3315	0.485
503751 - 2	18 Nov 2020 11:05:08	Hg			3410	0.499
503751 - 3	18 Nov 2020 11:05:08	Hg			3476	0.510
503751 - 4	18 Nov 2020 11:05:08	Hg			3530	0.518
503752 - 1	18 Nov 2020 11:08:18	Hg			2694	0.389
503752 - 2	18 Nov 2020 11:08:18	Hg			2764	0.400
503752 - 3	18 Nov 2020 11:08:18	Hg			2827	0.410
503752 - 4	18 Nov 2020 11:08:18	Hg			2880	0.418
503753 - 1	18 Nov 2020 11:11:27	Hg			3803	0.560
503753 - 2	18 Nov 2020 11:11:27	Hg			3911	0.577
503753 - 3	18 Nov 2020 11:11:27	Hg			3999	0.590
503753 - 4	18 Nov 2020 11:11:27	Hg			4054	0.599
503754 - 1	18 Nov 2020 11:14:37	Hg			585	0.064
503754 - 2	18 Nov 2020 11:14:37	Hg			601	0.066

111820s detailed

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
503754 - 3	18 Nov 2020 11:14:37	Hg			617	0.069
503754 - 4	18 Nov 2020 11:14:37	Hg			636	0.072
503755 - 1	18 Nov 2020 11:17:47	Hg			55096	8.467
503755 - 2	18 Nov 2020 11:17:47	Hg			56941	8.752
503755 - 3	18 Nov 2020 11:17:47	Hg			58206	8.947
503755 - 4	18 Nov 2020 11:17:47	Hg			59048	9.077
503756 - 1	18 Nov 2020 11:20:56	Hg			36481	5.598
503756 - 2	18 Nov 2020 11:20:56	Hg			37366	5.734
503756 - 3	18 Nov 2020 11:20:56	Hg			38297	5.878
503756 - 4	18 Nov 2020 11:20:56	Hg			39341	6.039
CCV - 1	18 Nov 2020 11:24:06	Hg			19641	100.1% 3.002
CCV - 2	18 Nov 2020 11:24:06	Hg			20216	103.0% 3.090
CCV - 3	18 Nov 2020 11:24:06	Hg			20690	105.4% 3.163
CCV - 4	18 Nov 2020 11:24:06	Hg			21017	107.1% 3.214
CCB - 1	18 Nov 2020 11:30:25	Hg			147	-0.004
CCB - 2	18 Nov 2020 11:30:25	Hg			155	-0.002
CCB - 3	18 Nov 2020 11:30:25	Hg			152	-0.003
CCB - 4	18 Nov 2020 11:30:25	Hg			153	-0.003
503795 - 1	18 Nov 2020 11:33:34	Hg			11614	1.764
503795 - 2	18 Nov 2020 11:33:34	Hg			11973	1.819
503795 - 3	18 Nov 2020 11:33:34	Hg			12288	1.868
503795 - 4	18 Nov 2020 11:33:34	Hg			12509	1.902
503799 - 1	18 Nov 2020 11:36:44	Hg			35187	5.398
503799 - 2	18 Nov 2020 11:36:44	Hg			36320	5.573
503799 - 3	18 Nov 2020 11:36:44	Hg			37408	5.741
503799 - 4	18 Nov 2020 11:36:44	Hg			38309	5.879
504328mss 503730 - 1	18 Nov 2020 11:39:54	Hg			15729	2.399
504328mss 503730 - 2	18 Nov 2020 11:39:54	Hg			16149	2.463
504328mss 503730 - 3	18 Nov 2020 11:39:54	Hg			16516	2.520
504328mss 503730 - 4	18 Nov 2020 11:39:54	Hg			16831	2.568
504329msds 503730 - 1	18 Nov 2020 11:43:05	Hg			15568	2.374
504329msds 503730 - 2	18 Nov 2020 11:43:05	Hg			16101	2.456
504329msds 503730 - 3	18 Nov 2020 11:43:05	Hg			16492	2.516
504329msds 503730 - 4	18 Nov 2020 11:43:05	Hg			16844	2.570
504331lcss 78990 - 1	18 Nov 2020 11:46:15	Hg			12567	1.911
504331lcss 78990 - 2	18 Nov 2020 11:46:15	Hg			12839	1.953
504331lcss 78990 - 3	18 Nov 2020 11:46:15	Hg			13122	1.997
504331lcss 78990 - 4	18 Nov 2020 11:46:15	Hg			13380	2.036
504330mbs 78990 - 1	18 Nov 2020 11:52:37	Hg			161	-0.001 [ ]
504330mbs 78990 - 2	18 Nov 2020 11:52:37	Hg			158	-0.002 [ ]
504330mbs 78990 - 3	18 Nov 2020 11:52:37	Hg			153	-0.003 [ ]
504330mbs 78990 - 4	18 Nov 2020 11:52:37	Hg			154	-0.003 [ ]
503800 - 1	18 Nov 2020 11:55:47	Hg			685	0.079
503800 - 2	18 Nov 2020 11:55:47	Hg			705	0.082
503800 - 3	18 Nov 2020 11:55:47	Hg			731	0.086
503800 - 4	18 Nov 2020 11:55:47	Hg			751	0.089
503801 - 1	18 Nov 2020 11:58:57	Hg			645	0.073
503801 - 2	18 Nov 2020 11:58:57	Hg			659	0.075
503801 - 3	18 Nov 2020 11:58:57	Hg			676	0.078
503801 - 4	18 Nov 2020 11:58:57	Hg			691	0.080
503802 - 1	18 Nov 2020 12:02:06	Hg			1637	0.226
503802 - 2	18 Nov 2020 12:02:06	Hg			1683	0.233
503802 - 3	18 Nov 2020 12:02:06	Hg			1722	0.239
503802 - 4	18 Nov 2020 12:02:06	Hg			1754	0.244
CCV - 1	18 Nov 2020 12:05:16	Hg			19277	98.2% 2.945
CCV - 2	18 Nov 2020 12:05:16	Hg			19846	101.1% 3.033
CCV - 3	18 Nov 2020 12:05:16	Hg			20417	104.0% 3.121
CCV - 4	18 Nov 2020 12:05:16	Hg			20859	106.3% 3.189
CCB - 1	18 Nov 2020 12:11:35	Hg			160	-0.002
CCB - 2	18 Nov 2020 12:11:35	Hg			158	-0.002
CCB - 3	18 Nov 2020 12:11:35	Hg			166	-0.001
CCB - 4	18 Nov 2020 12:11:35	Hg			171	0.000
503803 - 1	18 Nov 2020 12:14:44	Hg			2487	0.357
503803 - 2	18 Nov 2020 12:14:44	Hg			2556	0.368
503803 - 3	18 Nov 2020 12:14:44	Hg			2622	0.378
503803 - 4	18 Nov 2020 12:14:44	Hg			2679	0.387
503804 - 1	18 Nov 2020 12:17:54	Hg			1167	0.154
503804 - 2	18 Nov 2020 12:17:54	Hg			1198	0.158
503804 - 3	18 Nov 2020 12:17:54	Hg			1218	0.161
503804 - 4	18 Nov 2020 12:17:54	Hg			1240	0.165
503805 - 1	18 Nov 2020 12:21:03	Hg			2106	0.298
503805 - 2	18 Nov 2020 12:21:03	Hg			2153	0.306
503805 - 3	18 Nov 2020 12:21:03	Hg			2197	0.312
503805 - 4	18 Nov 2020 12:21:03	Hg			2249	0.320
503806 - 1	18 Nov 2020 12:24:13	Hg			1860	0.260
503806 - 2	18 Nov 2020 12:24:13	Hg			1902	0.267
503806 - 3	18 Nov 2020 12:24:13	Hg			1942	0.273
503806 - 4	18 Nov 2020 12:24:13	Hg			1973	0.278
503807 - 1	18 Nov 2020 12:27:24	Hg			12029	1.828

111820s detailed

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
503807 - 2	18 Nov 2020 12:27:24	Hg			12396	1.885
503807 - 3	18 Nov 2020 12:27:24	Hg			12748	1.939
503807 - 4	18 Nov 2020 12:27:24	Hg			13005	1.979
503808 - 1	18 Nov 2020 12:30:34	Hg			1756	0.244
503808 - 2	18 Nov 2020 12:30:34	Hg			1795	0.250
503808 - 3	18 Nov 2020 12:30:34	Hg			1824	0.255
503808 - 4	18 Nov 2020 12:30:34	Hg			1854	0.260
503809 - 1	18 Nov 2020 12:33:44	Hg			2121	0.301
503809 - 2	18 Nov 2020 12:33:44	Hg			2176	0.309
503809 - 3	18 Nov 2020 12:33:44	Hg			2230	0.317
503809 - 4	18 Nov 2020 12:33:44	Hg			2281	0.325
503814 - 1	18 Nov 2020 12:36:55	Hg			784	0.095
503814 - 2	18 Nov 2020 12:36:55	Hg			802	0.097
503814 - 3	18 Nov 2020 12:36:55	Hg			815	0.099
503814 - 4	18 Nov 2020 12:36:55	Hg			826	0.101
503816 - 1	18 Nov 2020 12:40:07	Hg			849	0.105
503816 - 2	18 Nov 2020 12:40:07	Hg			873	0.108
503816 - 3	18 Nov 2020 12:40:07	Hg			890	0.111
503816 - 4	18 Nov 2020 12:40:07	Hg			901	0.113
503817 - 1	18 Nov 2020 12:43:17	Hg			2193	0.312
503817 - 2	18 Nov 2020 12:43:17	Hg			2252	0.321
503817 - 3	18 Nov 2020 12:43:17	Hg			2322	0.332
503817 - 4	18 Nov 2020 12:43:17	Hg			2392	0.342
CCV - 1	18 Nov 2020 12:46:27	Hg			19410	98.9% 2.966
CCV - 2	18 Nov 2020 12:46:27	Hg			19963	101.7% 3.051
CCV - 3	18 Nov 2020 12:46:27	Hg			20527	104.6% 3.138
CCV - 4	18 Nov 2020 12:46:27	Hg			21031	107.2% 3.216
CCB - 1	18 Nov 2020 12:52:45	Hg			182	0.002
CCB - 2	18 Nov 2020 12:52:45	Hg			182	0.002
CCB - 3	18 Nov 2020 12:52:45	Hg			187	0.003
CCB - 4	18 Nov 2020 12:52:45	Hg			185	0.002
503818 - 1	18 Nov 2020 12:55:55	Hg			3688	0.542
503818 - 2	18 Nov 2020 12:55:55	Hg			3776	0.556
503818 - 3	18 Nov 2020 12:55:55	Hg			3881	0.572
503818 - 4	18 Nov 2020 12:55:55	Hg			3973	0.586
504198 - 1	18 Nov 2020 12:59:04	Hg		5	375	0.032
504198 - 2	18 Nov 2020 12:59:04	Hg		5	392	0.034
504198 - 3	18 Nov 2020 12:59:04	Hg		5	400	0.035
504198 - 4	18 Nov 2020 12:59:04	Hg		5	408	0.037
504332mss 503803 - 1	18 Nov 2020 13:02:14	Hg			15488	2.361
504332mss 503803 - 2	18 Nov 2020 13:02:14	Hg			16000	2.440
504332mss 503803 - 3	18 Nov 2020 13:02:14	Hg			16367	2.497
504332mss 503803 - 4	18 Nov 2020 13:02:14	Hg			16551	2.525
504333msds 503803 - 1	18 Nov 2020 13:05:23	Hg			15140	2.308
504333msds 503803 - 2	18 Nov 2020 13:05:23	Hg			15623	2.382
504333msds 503803 - 3	18 Nov 2020 13:05:23	Hg			15990	2.439
504333msds 503803 - 4	18 Nov 2020 13:05:23	Hg			16325	2.490
503679lcss 78965 - 1	18 Nov 2020 13:08:33	Hg			12743	1.938
503679lcss 78965 - 2	18 Nov 2020 13:08:33	Hg			13029	1.982
503679lcss 78965 - 3	18 Nov 2020 13:08:33	Hg			13353	2.032
503679lcss 78965 - 4	18 Nov 2020 13:08:33	Hg			13682	2.083
503678mbs 78965 - 1	18 Nov 2020 13:14:52	Hg			154	-0.003 [ ]
503678mbs 78965 - 2	18 Nov 2020 13:14:52	Hg			160	-0.002 [ ]
503678mbs 78965 - 3	18 Nov 2020 13:14:52	Hg			165	-0.001 [ ]
503678mbs 78965 - 4	18 Nov 2020 13:14:52	Hg			166	-0.001 [ ]
502821 - 1	18 Nov 2020 13:18:03	Hg			344	0.027
502821 - 2	18 Nov 2020 13:18:03	Hg			352	0.028
502821 - 3	18 Nov 2020 13:18:03	Hg			368	0.030
502821 - 4	18 Nov 2020 13:18:03	Hg			370	0.031
502823 - 1	18 Nov 2020 13:21:13	Hg		20	177	0.001
502823 - 2	18 Nov 2020 13:21:13	Hg		20	183	0.002
502823 - 3	18 Nov 2020 13:21:13	Hg		20	187	0.003
502823 - 4	18 Nov 2020 13:21:13	Hg		20	193	0.003
502966 - 1	18 Nov 2020 13:24:24	Hg			738	0.087
502966 - 2	18 Nov 2020 13:24:24	Hg			764	0.091
502966 - 3	18 Nov 2020 13:24:24	Hg			788	0.095
502966 - 4	18 Nov 2020 13:24:24	Hg			800	0.097
CCV - 1	18 Nov 2020 13:27:36	Hg			18903	96.3% 2.888
CCV - 2	18 Nov 2020 13:27:36	Hg			19350	98.6% 2.957
CCV - 3	18 Nov 2020 13:27:36	Hg			19796	100.8% 3.025
CCV - 4	18 Nov 2020 13:27:36	Hg			20258	103.2% 3.097
CCB - 1	18 Nov 2020 13:33:54	Hg			157	-0.002
CCB - 2	18 Nov 2020 13:33:54	Hg			154	-0.003
CCB - 3	18 Nov 2020 13:33:54	Hg			165	-0.001
CCB - 4	18 Nov 2020 13:33:54	Hg			173	0.000
502968 - 1	18 Nov 2020 13:37:03	Hg			438	0.041
502968 - 2	18 Nov 2020 13:37:03	Hg			447	0.043
502968 - 3	18 Nov 2020 13:37:03	Hg			454	0.044
502968 - 4	18 Nov 2020 13:37:03	Hg			467	0.046

111820s detailed

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
502970 - 1	18 Nov 2020 13:40:13	Hg			309	0.021
502970 - 2	18 Nov 2020 13:40:13	Hg			310	0.021
502970 - 3	18 Nov 2020 13:40:13	Hg			325	0.024
502970 - 4	18 Nov 2020 13:40:13	Hg			325	0.024
502971 - 1	18 Nov 2020 13:43:23	Hg			387	0.033
502971 - 2	18 Nov 2020 13:43:23	Hg			402	0.036
502971 - 3	18 Nov 2020 13:43:23	Hg			408	0.037
502971 - 4	18 Nov 2020 13:43:23	Hg			419	0.038
502973 - 1	18 Nov 2020 13:46:33	Hg			360	0.029
502973 - 2	18 Nov 2020 13:46:33	Hg			371	0.031
502973 - 3	18 Nov 2020 13:46:33	Hg			373	0.031
502973 - 4	18 Nov 2020 13:46:33	Hg			380	0.032
502975 - 1	18 Nov 2020 13:49:44	Hg			328	0.024
502975 - 2	18 Nov 2020 13:49:44	Hg			338	0.026
502975 - 3	18 Nov 2020 13:49:44	Hg			350	0.028
502975 - 4	18 Nov 2020 13:49:44	Hg			349	0.027
502977 - 1	18 Nov 2020 13:52:54	Hg			649	0.074
502977 - 2	18 Nov 2020 13:52:54	Hg			668	0.077
502977 - 3	18 Nov 2020 13:52:54	Hg			679	0.078
502977 - 4	18 Nov 2020 13:52:54	Hg			696	0.081
502979 - 1	18 Nov 2020 13:56:04	Hg			1883	0.264
502979 - 2	18 Nov 2020 13:56:04	Hg			1943	0.273
502979 - 3	18 Nov 2020 13:56:04	Hg			2016	0.284
502979 - 4	18 Nov 2020 13:56:04	Hg			2076	0.294
502981 - 1	18 Nov 2020 13:59:15	Hg			12460	1.895
502981 - 2	18 Nov 2020 13:59:15	Hg			12699	1.931
502981 - 3	18 Nov 2020 13:59:15	Hg			12942	1.969
502981 - 4	18 Nov 2020 13:59:15	Hg			13247	2.016
502993 - 1	18 Nov 2020 14:02:25	Hg			108	-0.010 [ ]
502993 - 2	18 Nov 2020 14:02:25	Hg			101	-0.011 [ ]
502993 - 3	18 Nov 2020 14:02:25	Hg			103	-0.010 [ ]
502993 - 4	18 Nov 2020 14:02:25	Hg			105	-0.010 [ ]
503007 - 1	18 Nov 2020 14:05:35	Hg			8133	1.227
503007 - 2	18 Nov 2020 14:05:35	Hg			8407	1.270
503007 - 3	18 Nov 2020 14:05:35	Hg			8605	1.300
503007 - 4	18 Nov 2020 14:05:35	Hg			8826	1.334
CCV - 1	18 Nov 2020 14:08:45	Hg			19226	97.9% 2.938
CCV - 2	18 Nov 2020 14:08:45	Hg			19855	101.2% 3.035
CCV - 3	18 Nov 2020 14:08:45	Hg			20421	104.1% 3.122
CCV - 4	18 Nov 2020 14:08:45	Hg			20795	106.0% 3.179
CCB - 1	18 Nov 2020 14:15:04	Hg			149	-0.003
CCB - 2	18 Nov 2020 14:15:04	Hg			146	-0.004
CCB - 3	18 Nov 2020 14:15:04	Hg			159	-0.002
CCB - 4	18 Nov 2020 14:15:04	Hg			164	-0.001
503008 - 1	18 Nov 2020 14:18:13	Hg			145	-0.004 [ ]
503008 - 2	18 Nov 2020 14:18:13	Hg			145	-0.004 [ ]
503008 - 3	18 Nov 2020 14:18:13	Hg			147	-0.004 [ ]
503008 - 4	18 Nov 2020 14:18:13	Hg			153	-0.003 [ ]
503159 - 1	18 Nov 2020 14:21:24	Hg			3974	0.586
503159 - 2	18 Nov 2020 14:21:24	Hg			4115	0.608
503159 - 3	18 Nov 2020 14:21:24	Hg			4223	0.625
503159 - 4	18 Nov 2020 14:21:24	Hg			4289	0.635
503160 - 1	18 Nov 2020 14:24:35	Hg			3709	0.545
503160 - 2	18 Nov 2020 14:24:35	Hg			3816	0.562
503160 - 3	18 Nov 2020 14:24:35	Hg			3927	0.579
503160 - 4	18 Nov 2020 14:24:35	Hg			4010	0.592
503619 - 1	18 Nov 2020 14:27:45	Hg			1241	0.165
503619 - 2	18 Nov 2020 14:27:45	Hg			1271	0.170
503619 - 3	18 Nov 2020 14:27:45	Hg			1295	0.173
503619 - 4	18 Nov 2020 14:27:45	Hg			1321	0.177
504198 - 1	18 Nov 2020 14:30:55	Hg			1192	0.157
504198 - 2	18 Nov 2020 14:30:55	Hg			1223	0.162
504198 - 3	18 Nov 2020 14:30:55	Hg			1255	0.167
504198 - 4	18 Nov 2020 14:30:55	Hg			1269	0.169
503680mss 502970 - 1	18 Nov 2020 14:34:06	Hg			12370	1.881
503680mss 502970 - 2	18 Nov 2020 14:34:06	Hg			12653	1.924
503680mss 502970 - 3	18 Nov 2020 14:34:06	Hg			12955	1.971
503680mss 502970 - 4	18 Nov 2020 14:34:06	Hg			13264	2.018
503681msds 502970 - 1	18 Nov 2020 14:37:16	Hg			12421	1.889
503681msds 502970 - 2	18 Nov 2020 14:37:16	Hg			12760	1.941
503681msds 502970 - 3	18 Nov 2020 14:37:16	Hg			13115	1.996
503681msds 502970 - 4	18 Nov 2020 14:37:16	Hg			13473	2.051
503682mss 503007 - 1	18 Nov 2020 14:40:27	Hg			18268	2.790
503682mss 503007 - 2	18 Nov 2020 14:40:27	Hg			18941	2.894
503682mss 503007 - 3	18 Nov 2020 14:40:27	Hg			19453	2.973
503682mss 503007 - 4	18 Nov 2020 14:40:27	Hg			19942	3.048
503683msds 503007 - 1	18 Nov 2020 14:43:38	Hg			15713	2.396
503683msds 503007 - 2	18 Nov 2020 14:43:38	Hg			16292	2.485
503683msds 503007 - 3	18 Nov 2020 14:43:38	Hg			16723	2.552

111820s detailed

Method: Hg SOLIDS Operator: Admin Date of Analysis: 18 Nov 2020 08:06:49

Sample ID	Date	Element	Units	Extended ID	µ Abs.	Conc.
503683msds 503007 - 4	18 Nov 2020 14:43:38	Hg			17050	2.602
CCV - 1	18 Nov 2020 14:46:48	Hg			19600	99.8% 2.995
CCV - 2	18 Nov 2020 14:46:48	Hg			20165	102.7% 3.082
CCV - 3	18 Nov 2020 14:46:48	Hg			20737	105.7% 3.171
CCV - 4	18 Nov 2020 14:46:48	Hg			21178	108.0% 3.239
CCB - 1	18 Nov 2020 14:53:07	Hg			183	0.002
CCB - 2	18 Nov 2020 14:53:07	Hg			190	0.003
CCB - 3	18 Nov 2020 14:53:07	Hg			195	0.004
CCB - 4	18 Nov 2020 14:53:07	Hg			194	0.004

METALS
LOGBOOK
DOCUMENTS

MICP SOIL QSM Analytical Run
177205 on 11/19/2020

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	506671							MICP SOIL QSM				
				ICV					0			
	506672							MICP SOIL QSM				
				ICVLL					0			
	506673							MICP SOIL QSM				
				ICB					0			
	506674							MICP SOIL QSM				
				ICSA					0			
	506675							MICP SOIL QSM				
				ICSAB					0			
	506676							MICP SOIL QSM				
				ICVLL					0			
	504886							ICP QSM 5.0				
				LCSS					79000			
	504885							ICP QSM 5.0				
				MBS					79000			
157958	504392		11/12/2020 1200			CH2M - JACOBS	RVAAP	ICP QSM 5.0		S	**4**	Y
		CONCRETEDC 001-001-CO							79000			
	506677							MICP SOIL QSM				
				CCV1					0			
	506678							MICP SOIL QSM				
				CCV2					0			
	506679							MICP SOIL QSM				
				CCB					0			
157958	504405		11/12/2020 1200			CH2M - JACOBS	RVAAP	ICP QSM 5.0		S	**4**	Y
		CONCRETEDC-002-002-CO							79000			
157970	504477		11/11/2020 1230			CH2M - JACOBS	RVAAP	ICP QSM 5.0		S	**4**	
		OFFSS-001-001-CO							79000			
	506680							ICP QSM 5.0				
				L	504477				0			
	504882		11/11/2020 1230					ICP QSM 5.0				
		OFFSS-001-001-CO		DUP	504477				79000			
	504883		11/11/2020 1230					ICP QSM 5.0				
		OFFSS-001-001-CO		MSS	504477				79000			
	504884		11/11/2020 1230					ICP QSM 5.0				
		OFFSS-001-001-CO		MSDS	504883				79000			
	506681							ICP QSM 5.0				
				PDSS	504477				0			

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MICP SOIL QSM Analytical Run
177205 on 11/19/2020

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	506682						MICP SOIL QSM				
				CCV1				0			
	506683						MICP SOIL QSM				
				CCV2				0			
	506684						MICP SOIL QSM				
				CCB				0			

22 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

MERCURY QSM SOIL 5.0 Analytical Run
177246 on 12/07/2020

Date Analyzed: _____ Date Reviewed: _____

Date Entered: _____ Date Validated: _____

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)		CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
	506700							MERCURY QSM SOIL 5.0				
				ICV					0			
	506701							MERCURY QSM SOIL 5.0				
				ICB					0			
	504955							MERCURY QSM 5.0				
				LCSS					79008			
	504954							MERCURY QSM 5.0				
				MBS					79008			
157958	504392		11/12/2020 1200			CH2M - JACOBS	RVAAP	MERCURY QSM 5.0		S	**4**	Y
		CONCRETEDC 001-001-CO							79008			
157958	504405		11/12/2020 1200			CH2M - JACOBS	RVAAP	MERCURY QSM 5.0		S	**4**	Y
		CONCRETEDC-002-002-CO							79008			
	504956		11/12/2020 1200					MERCURY QSM 5.0				
		CONCRETEDC-002-002-CO		DUP	504405				79008			
157970	504477		11/11/2020 1230			CH2M - JACOBS	RVAAP	MERCURY QSM 5.0		S	**4**	
		OFFSS-001-001-CO							79008			
	504958		11/12/2020 1200					MERCURY QSM 5.0				
		CONCRETEDC-002-002-CO		MSS	504405				79008			
	504959		11/12/2020 1200					MERCURY QSM 5.0				
		CONCRETEDC-002-002-CO		MSDS	504958				79008			
	506702							MERCURY QSM SOIL 5.0				
				CCV					0			
	506703							MERCURY QSM SOIL 5.0				
				CCB					0			

12 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

PREP WORKSHEET
on 11/19/2020

Prep Batch **79,000** Date Prepped: 11/16/2020 Prepped By NAH

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	504885	MBS		ICP K QSM 5.0	SOLID	50	2.00			
	504885	MBS		ICP NA QSM 5.0	SOLID	50	2.00			
	504885	MBS		ICP QSM 5.0	SOLID	50	2.00			
	504886	LCSS		ICP K QSM 5.0	SOLID	50	2.00			
	504886	LCSS		ICP NA QSM 5.0	SOLID	50	2.00			
	504886	LCSS		ICP QSM 5.0	SOLID	50	2.00			
157958	504392			ICP QSM 5.0	SOIL	50	1.95		4	
	504405			ICP QSM 5.0	SOIL	50	1.94		4	
157970	504477			ICP NA QSM 5.0	SOIL	50	1.92		4	
	504477			ICP QSM 5.0	SOIL	50	1.92		4	
	504477			ICP K QSM 5.0	SOIL	50	1.92		4	
	504882	DUP	504477	ICP K QSM 5.0	SOIL	50	1.93			
	504882	DUP	504477	ICP NA QSM 5.0	SOIL	50	1.93			
	504882	DUP	504477	ICP QSM 5.0	SOIL	50	1.93			
	504883	MSS	504477	ICP K QSM 5.0	SOIL	50	1.92			
	504883	MSS	504477	ICP NA QSM 5.0	SOIL	50	1.92			
	504883	MSS	504477	ICP QSM 5.0	SOIL	50	1.92			

PREP WORKSHEET
on 11/19/2020

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	504884	MSDS	504883	ICP K QSM 5.0	SOIL	50	1.93			
	504884	MSDS	504883	ICP NA QSM 5.0	SOIL	50	1.93			
	504884	MSDS	504883	ICP QSM 5.0	SOIL	50	1.93			

Notes:_____

PREP WORKSHEET
on 12/07/2020

Prep Batch **79,008** Date Prepped: 11/17/2020 Prepped By MDS

Folder #	Order	QC Type	Link	Test	Matrix	Volume	Weight	Initial Volume	SDG Level	Notes
	504954	MBS		MERCURY QSM 5.0	SOLID	25	0.60			
	504955	LCSS		MERCURY QSM 5.0	SOLID	25	0.60			
157958	504392			MERCURY QSM 5.0	SOIL	25	0.58		4	
	504405			MERCURY QSM 5.0	SOIL	25	0.60		4	
157970	504477			MERCURY QSM 5.0	SOIL	25	0.60		4	
	504956	DUP	504405	MERCURY QSM 5.0	SOIL	25	0.59			
	504958	MSS	504405	MERCURY QSM 5.0	SOIL	25	0.59			
	504959	MSDS	504958	MERCURY QSM 5.0	SOIL	25	0.60			

Notes:_____

Metals Digestion Bench Sheet

Program: QSM
*Matrix: SOIL

Prep Methods:
200.2= ICP/GFAA Liquids
3010= ICP Liquids
3020= GFAA Liquids
3005= Sb Liquids
3050= ICP/GFAA Solids
7060/7740= GFAA, As & Se Liquids

Prep Batch #:	79000
Prep Method:	3050
Analyst:	NAH
Date:	11/16/2020
Start Time:	11:19

Prep Analyst: BMM
Balance ID: VOB01

End Date: 11/16/2020
End Time: 13:44

Reagent:	Ref. #
Nitric Acid:	AB.700
Hydrochloric Acid:	AB.701
Hydrogen Peroxide:	AB.699

Digestion Tube Lot #: 3375
Block Used: D1
Cell Position for Temp. Check: 60
Initial-DigestionTemp (ºC): 91
Final-Digestion Temp (ºC): 91

Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
504885	(MB)		2.00		50
504886	(LCS)		2.00		50
504392			1.95		50
504405	Comments:		1.94		50
504477			1.92		50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
					50
504882	(DUP)		1.93		50
504883	(MS)	Parent Sample	1.92		50
504884	(MSD)	504477	1.93		50
	(DUP)				50
	(MS)	Parent Sample			50
	(MSD)				50
Leave >>	(DUP) if applicable				50
blank	(MS)	Parent Sample			50
if N/A	(MSD)				50

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

MS/MSD Spike Amount (ml)	Spike Ref. #
1	M14518
0.5	M14467

LCS Spike Amount (ml)	Spike Ref. #
1	M14518
0.5	M14467

Reviewed X

~~11/19/202011:58~~

FMT12-03

Mercury Digestion Bench Sheet

(Prep Methods 7470A & 7471A)

CCV ID: M14590
ICV/LCSW ID: M14591

*Matrix: SOIL
Balance ID: VOB01

7470A= Hg Liquids
7471A= Hg Solids

Prep Batch #:	79008
Prep Method:	7471A
Analyst:	MDS
Date:	11/17/2020
Start Time:	10:40

End Date: 11/17/2020
End Time: 11:10
Digestion Tube Lot #: 15020022
Block Used: B
Cell Position for Temp. Check: F-3
Initial-DigestionTemp (ºC): 91.9
Final-Digestion Temp (ºC): 91.9
Additional KMnO4 added (ml):
Aqua Regia added (ml)
Calibration Stds: M14589

Reagent:	Ref. #
HNO3:	
H2SO4:	
NaCl/Hydrox.SO4:	M14595
KMnO4:	M14592
K2S2O8:	
Aqua-Regia:	M14594

	Sample ID			(Solids) Sample Weight (g)	(Liquids) Sample Volume (ml)	Final Volume (ml)
	504954	(MB)		0.60		25
	504955	(LCS)		0.60		25
	504392			0.58		25
	504405			0.60		25
	504477			0.60		25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
						25
	504956	(DUP)		0.59		25
	504958	(MS)	Parent Sample	0.59		25
	504959	(MSD)	504405	0.60		25
Leave >>		(DUP)				25
blank		(MS)	Parent Sample			25
		(MSD)				25
		(DUP)				25
		(MS)	Parent Sample			25
if N/A		(MSD)				25

MB=Method Blank, LCS=Laboratory Control Sample, DUP=Duplicate, MS=Matrix Spike & MSD=Matrix Spike Duplicate
*Matrix: Soil, Sludge, Waste, GW=Groundwater, WW=Wastewater, Tissue, TLCP, SPLP, ASTM or other.

A: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #
0.5	100	M14591

B: Spike Amount (ml)	Spike Conc. (ug/L)	Spike Ref. #

Reviewed By/Date: x

iCAP 6000 / 6500 Data Review Checklist	Analysis Date: 11/17/2020	Data File: DOD Metals	Date of review: 11/19/2020
Cal Std ID: M14335 LIMS # : 17 7205,04	Analyst: [illegible]	Reviewer: MDS	Approved? (Yes) No

Is Audit Trail turned on or Manual Manipulations addressed? (Yes) / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Prep Batch Check X

QC Parameters : 6010 / 200.7 / (QSM) / Other	YES	NO	YES	NO	Comments:
1) Calibration linearity: (r > 0.995) / r > 0.998	✓		✓		
2) ICV: (90-110%) / 95-105%	✓		✓		
2) ICVLL: ~~70-130%~~ / 80-120%	✓		✓		
3) ICB: < 3X IDL / <LOD / <LOQ	✓		✓		
4) ICSA: < ABS LOD	✓		✓		
5) ICSAB: ~~80-120%~~	✓		✓		
6) MRL: (70-130%) / 80-120%	✓		✓		
7) MDL Check: >LOD					
8) CCV1/CCB1 (CCV: 90-110%)	✓		✓		
9) CCV2/CCB2 (CCB: < 3X IDL / <LOD / <LOQ)					
10) CCV3/CCB3					
11) CCV4/CCB4					
12) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 79000 Dig. Meth.______	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD or ≤ ½ RL	✓	✓	✓	✓	Al, Ca, Fe, Mg >LOD <½ RL "B"
Spiked samples in batch:					
a) 504427 matrix = S	✓	✓	✓	✓	Ca, Mg "J"
b)______ matrix = ______					
c)______ matrix = ______					MS, MSD – Al, ~~Sb~~ Fe, Mg, Mn, ~~Se~~ Tl, Zn Pb
PDS: ±15% / 20% / 25% Sample#:______					
Prep Batch ID#:______ Dig. Meth.______					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)______ matrix = ______					(Al) Sb Cd (Ca) (Fe) (Mg) (Mn) Se (Tl) (Zn) (Pb)
b)______ matrix = ______					
c)______ matrix = ______					
PDS: ±15% / 20% / 25% Sample#:______					
Prep Batch ID#:______ Dig. Meth.______					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)______ matrix = ______					
b)______ matrix = ______					
c)______ matrix = ______					
PDS: ±15% / 20% / 25% Sample#:______					
Prep Batch ID#:______ Dig. Meth.______					
LCS - generated limits or project specific limits					
MB - <LOD or ≤ ½ RL					
Spiked samples in batch:					
a)______ matrix = ______					
b)______ matrix = ______					
c)______ matrix = ______					
PDS: ±15% / 20% / 25% Sample#:______					

FORM #: FMT9-01
Rev. #: 1.0
Effective Date: 05/14/2014

GFAA / FLAA / CVAA Data Review checklist		Method: 200.9	7000 series AA	245.1 & 245.2	245.7	7470a / 7471a
Instrumentation:	THERMO M SERIES AA			Hydra II Hg ANALYZER		
Analysis Date: 11/18/2020	Data File: 111820s		Date Review: 11/19/2020	Analyte: Hg		
Cal Std ID: M14589	LIMS # : 177246	Analyst: MES	Reviewer:	Approved? Yes	No	

Prep Batch Check ✓

Is Audit Trail turned on or Manual Manipulations addressed? Yes / No (If no, any manual manipulations must be initialed, dated, and reason(s) stated for change)

Calibration Parameters -	YES	NO	YES	NO	Comments:
1) Calibration linearity - r > 0.995	✓		✓		
2) ICV: 90-110% 95-105%	✓		✓		
2) ICVLL: 70-130% 80-120%					
3) ICB: <IDL / <LOD / <LOQ / <½ RL	✓		✓		
6) MRL: 70-130%					
7) CCV1/CCB1- (CCV: 90-110% / 80-120%)	✓		✓		
8) CCV2/CCB2 (CCB: <IDL / <LOD / <LOQ / <½ RL)					
9) CCV3/CCB3					
10) CCV4/CCB4					
11) CCV5/CCB5					
Preparation Batch Parameters	**YES**	**NO**	**YES**	**NO**	
Prep Batch ID#: 79008 Dig. Meth. 7471a	✓		✓		
LCS - generated limits or project specific limits	✓		✓		
MB - <LOD / <2.2X LOD / ≤ ½RL	✓		✓		
Spiked samples in batch:					
a) 504405 matrix = S	✓	✓	✓	✓	Dup invalid
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					
MSA Performed? Yes No					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					
MSA Performed? Yes No					
Prep Batch ID#: Dig. Meth.					
LCS - generated limits or project specific limits					
MB - <LOD / <2.2X LOD / ≤ ½RL					
Spiked samples in batch:					
a) matrix =					
b) matrix =					
c) matrix =					
d) matrix =					
e) matrix =					
PDS: ±15% / 20% / 25% Sample#					
MSA Performed? Yes No					

CT Laboratories, LLC

ICP-6500 Instrument Run Logbook

Date	Time: Start / End	Analyst	Analytes / Sequence I.D.	Method	LIMS # or Sample Description	Nebulizer Pressure (kpa)	Calib. Std ID	Version	Comments
10/26/2020	0914 / 10/27 0504	[illegible]	10/26/2020	DODCal u	176384 176415 176371 176373 176418 176390 176374 176372 176414 176377 176372 176392,93	270	m14335 m14230 m14342	V4103	m14240 m14173 m14961 m14943
10/27/2020	~~1400~~ 1354 ~~0932~~ / 1704	[illegible]	10/27/2020	DOD Cal u	176057	270	m14335 m14350 m14342	V4104	m14240 m14173 m14961 m14943
10/28/2020	1525 / 1413	[illegible]	10/28/2020	DODCal u	176554 176474 176506 176470 176546 176472	270	m14335 m14230 m14342	V4123 V4117 V4116	m14240 m14173 m14961 m14943
10/29/2020	1420 / 11/1 1455	[illegible]	10/29/2020	DOD Cal u	176481 176486 176487 176370 176490 176480 176479 176539 176491 176481 176482 176531	270	m14335 m14230 m14342	V4120,21,22 V4113 V4118	m14240 14173 m14961 m14943
11/4/2020	1210 / 11/5 1506	[illegible]	11/4/2020	DODCal u	176370 176544 176449 176387 ~~176586~~ 176674 176417 176775 176474 176424 176771 176773	270	M14335 m14323 m14342	~~V4118~~ ~~V4119~~ V4131	m14240 M14173 m14961 m14943
11/5/2020	1514 / 0714	[illegible]	11/5/2020	DOD Cal u	176779 176817 176764 176781 176816 176763 176815 176894 176765 176813 176777	270	m14335 m14325 m14342	V4125 V4124 V4133 V4119 V4128	m14240 M14173 m14961 m14943
11/6/2020	0735 / 2152	[illegible]	11/6/2020	DODCal u	176838 176810 176644,45 176398 174761 176383 176855	270	m14335 m14325 m14342	V4128,29 V4127 V4130 V4126	m14240 M14173 m14961 m14943
11/12/2020	0856 / 11/13 1103	[illegible]	11/12/2020	DODCal u	177010, 177012 177028, 177029,21 178841 177013,14, 177008 177031 177030 177009, 177024,25 177081,87 177033 177035	270	m14335 m14325 m14342	V4136 V4130 V4137 V4141	m14240 m14173 m14961 m14943
11/13/2020	1213 / 0156	[illegible]	11/13/2020	DODCal u	177079, 177065,24,25,26 177029 177072 177125 177127 177123 177126 177122	270	m14335 m14325 m14342	V4142 V4148 V4141	m14240 m14173 m14961 m14943
11/17/2020	0926 / 11/18 1159	[illegible]	11/17/2020	DOD Cal u	177206 177155 177199 177200 177151 177205 177207 177153 177152 177204 177201 177156	270	m14335 m14325 m14342	V4146 V4145 V4143	m14240 m14173 m14961 m14943
11/23/2020	0954 / 0024	[illegible]	11/23/2020	DOD Cal u	177202 177203 177226 177256 177284 177379 177375 177257 177343 177342 177317 177330 177199,200 177242 177246 177255	270	M14335 m14323 m14342	V4150	m14240 m14173 m14961 m14943
11/30/2020	0746 / 2328	[illegible]	11/30/2020	DOD Cal u	177345 177466 177473 177465 177328 177444	270	m14335 m14323 m14342	V4151	m14240 m14173 m14961 m14943

Comments: * 11-12-2020 [illegible]

Checked By / Date: ____________________

CT Laboratories

Mercury Analyzer Instrument Run Log

Instrument ID: Cetac M-6000A

Analysis Date	Start Time	End Time	Analyst	LIMS Run # (s)	Method File ID #	Cal. Std. ID #	Lamp Current (mA)	Analysis Tube Lot #	Comments
10/5/2020	1358	2112	MDS	175276 175273, 175272, 175274, 175275	100520S	M14511	—	370075-4757	$SnCl_2$: M14517
10/6/2020	0834	1332	MDS	175724, 175725, 175726	100620S	M14511	9.963	370075-4757	$SnCl_2$: M14517
10/8/2020	0853	1451	MDS	175830, 175827, 175828, 175829 175822, 175823, 175824, 175825, 175826,	100820W	M14511	10.003	370075-4757	$SnCl_2$: M14520
10/9/2020	0757	0906	MDS	175869	100920S	M14511	—	370075-4757	$SnCl_2$: M14520
10/9/2020	1123	1433	MDS	175869, 175870	100920bS	M14511	9.941 ~~9.941~~ mA 10/9/2020	370075-4757	$SnCl_2$: M14520
10/13/2020	1037	1955	MDS	175993, 175994, 175995, 175996, 175997	101320S	M14523	—	370075-4757	$SnCl_2$: M14529
10/14/2020	1055	1443	MDS	175995, 175996, 176021, 176022	101420S	M14523	—	370075-4757	$SnCl_2$: M14532
10/15/2020	0742	1111	MDS	176060, 176063 176061, 176062, 176058, 176059	101520W	M14523	10.077	370075-4757	$SnCl_2$: M14532
10/21/2020	0809	0918	MDS	176252, 176253	102120S	M14536	9.985	370075-4757	$SnCl_2$: M14543
10/21/2020	1009	1135	MDS	176253	102120bS	M14536	10.003	370075-4757	$SnCl_2$: M14543
10/21/2020	1209	1516	MDS	176254, 176255, 176256, 176257	102120W	M14536	10.018	370075-4757	$SnCl_2$: M14543
10/29/2020	1036	1253	MDS	176550, 176549	102920bS	M14548	10.197	370075-4757	$SnCl_2$: M14555
10/29/2020	1329	1712	MDS	176591, 176592, 176593, 176589	102920W	M14548	—	370075-4757	$SnCl_2$: M14555
10/30/2020	0839	1008	MDS	176594, 176595, 176590	103020W	M14548	10.129	370075-4757	$SnCl_2$: M14555
11/5/2020	1255	1526	MDS	176860, 176861, 176862, 176863	110520W	M14560	—	370075-4757	$SnCl_2$: M14566
11/5/2020	1543	1918	MDS	176864, 176869, 176865, 176866, 176867 176860, 176861, 176862, 176863, 176868,	110520bW	M14560	—	370075-4757	$SnCl_2$: M14566
11/12/2020	0821	1037	MDS	177077, 177076	111220S	M14573	10.033	370075-4757	$SnCl_2$: M14580
11/12/2020	1057	1434	MDS	177084, 177085 176869, 177083, 177082, 177081	111220W	M14573	9.974	370075-4757	$SnCl_2$: M14580
11/18/2020	0858	1453	MDS	177246, 177247, 177249, 177249	111820S	M14589	10.033	380450-4851	$SnCl_2$: M14596
11/19/2020	1019	1538	MDS	177298 177294, 177295, 177296, 177297	111920W	M14589	9.809	380450-4851	$SnCl_2$: M14596
12/2/2020	1013	1313	MDS	177547, 177548, 177549, 177550, 177545	120220W	M14602	10.044	380450-4851	$SnCl_2$: M14609
12/2/2020	1330	1712	MDS	177556, 177554, 177555	120220S	M14602	—	380450-4851	$SnCl_2$: M14609
12/3/2020	0840	1140	MDS	177557, 177558, 177555	120320S	M14602	—	380450-4851	$SnCl_2$: M14609

Reviewed By/Date:_____

Type	Date/Time	Message	User name	Application	Sequence Name
	11/14/2020 00:10:15	Running 502876 (69)	NAH	Analyst	S_DOD Calibration
	11/14/2020 00:17:01	Running 503031 (70)	NAH	Analyst	S_DOD Calibration
	11/14/2020 00:23:48	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/14/2020 00:29:05	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/14/2020 00:34:53	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/14/2020 00:41:17	Running 503134 (71)	NAH	Analyst	S_DOD Calibration
	11/14/2020 00:48:02	Running lcsw78954 53 (72)	NAH	Analyst	S_DOD Calibration
	11/14/2020 00:54:10	Running mbw7854 53 (73)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:00:31	Running 503025 (74)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:07:11	Running l503025 (75)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:13:56	Running dup503025 (76)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:20:37	Running msw503025 (77)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:26:43	Running msdw503025 (78)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:32:49	Running pdsw503025 (79)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:38:47	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:45:04	Running ccv1 (28)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:50:20	Running ccv2 (26)	NAH	Analyst	S_DOD Calibration
	11/14/2020 01:56:10	Running ccb (27)	NAH	Analyst	S_DOD Calibration
	11/14/2020 02:02:31	Plasma off	NAH	iTEVA Control Center	
	11/14/2020 02:02:32	Plasma extinguished successfully	NAH	Analyst	
	11/14/2020 02:02:34	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/16/2020 06:50:57	Plasma On	NAH	iTEVA Control Center	
	11/16/2020 06:51:02	Plasma ignition successful	NAH	Analyst	
	11/16/2020 06:51:41	D33534 - Debug:Wavelength check : x = 0.878, y =-0.835	NAH	Analyst	
	11/16/2020 14:10:22	Plasma off	NAH	iTEVA Control Center	
	11/16/2020 14:10:22	Plasma extinguished successfully	NAH	Analyst	
	11/17/2020 06:42:37	Plasma On	NAH	iTEVA Control Center	
	11/17/2020 06:42:42	Plasma ignition successful	NAH	Analyst	
	11/17/2020 06:43:21	D33534 - Debug:Wavelength check : x = 0.710, y =-0.867	NAH	Analyst	
	11/17/2020 09:18:53	Autosampler Run Started	NAH	Analyst	
	11/17/2020 09:18:53	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:19:14	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:25:15	Autosampler Run Completed	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:25:40	Sequence Started	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:25:40	Autosampler Run Started	NAH	Analyst	
	11/17/2020 09:25:53	Closing will close the method and all associated samples.	NAH	Analyst	
	11/17/2020 09:26:01	Running Blank (1)	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:32:28	Running CalStd2=0.5 (2)	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:38:50	Running CalStd3=1 (3)	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:45:11	Running CalStd4=5 (4)	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:51:30	Running CalStd5=10 (5)	NAH	Analyst	S_DOD Calibration
	11/17/2020 09:57:52	Running CalStd6=20 (6)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:04:09	Running CalStd7=50 (7)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:10:25	Running CalStd8=100 (8)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:16:39	Running CalStd9=1000 (9)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:22:17	Running CalStd10=10000 (10)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:28:17	Running CalStd12=100K (11)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:35:07	Running CalStd13=100000 (12)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:41:37	Running CalStd14=500000 (13)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:48:13	Running CalibStd15=1000k (14)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:55:13	Running Ag Ba 1000, 50000 (15)	NAH	Analyst	S_DOD Calibration
	11/17/2020 10:57:03	Closing will close the method and all associated samples.	NAH	Analyst	

Type	Date/Time	Message	User name	Application	Sequence Name
	11/17/2020 11:01:52	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:08:09	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:14:22	Running icv (16)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:20:35	Running ICVLL (24)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:26:54	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:33:14	Running icb (17)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:39:34	Running MRL/LLOQ (25)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:45:50	Running ICSA (20)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:52:16	Running ICSAB (21)	NAH	Analyst	S_DOD Calibration
	11/17/2020 11:58:07	Running blkrinse (22)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:02:59	Closing will close the method and all associated samples.	NAH	Analyst	
	11/17/2020 12:04:22	Running ICVLL ag mn (1)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:10:40	Running lcss79014 (2)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:16:29	Running mbs79014 (3)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:22:45	Running 496674 (4)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:28:58	Running mss496674 (5)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:34:33	Running msds496674 (6)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:40:09	Running pdss496674 (7)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:45:53	Running lcss79000 (8)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:51:43	Running mbs79000 (9)	NAH	Analyst	S_DOD Calibration
	11/17/2020 12:58:01	Running 504392 (10)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:04:41	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:09:55	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:12:40	Closing will close the method and all associated samples.	NAH	Analyst	
	11/17/2020 13:15:42	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:22:02	Running 504405 (11)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:28:44	Running 504477 (12)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:35:20	Running l504477 (13)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:37:15	Closing will close the method and all associated samples.	NAH	Analyst	
	11/17/2020 13:42:01	Running dup504477 (14)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:47:24	Closing will close the method and all associated samples.	NAH	Analyst	
	11/17/2020 13:48:21	Running mss504477 (15)	NAH	Analyst	S_DOD Calibration
	11/17/2020 13:54:34	Running msds504477 (16)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:00:43	Running pdss504477 (17)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:07:02	Running lcss78982 (18)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:12:45	Running mbs78982 (19)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:19:03	Running 503619 (20)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:25:29	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:30:44	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:36:30	Running ccb (19)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:42:50	Running mss503619 (21)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:48:56	Running msds503619 (22)	NAH	Analyst	S_DOD Calibration
	11/17/2020 14:55:30	Running pdss503619 (23)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:01:52	Running 504198 (24)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:08:50	Running lcss78998 (25)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:14:39	Running mbs78998 (26)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:20:58	Running 504383 (27)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:27:32	Running mss504383 (28)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:33:19	Running msds504383 (29)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:39:04	Running pdss504383 (30)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:45:02	Running ccv1 (23)	NAH	Analyst	S_DOD Calibration
	11/17/2020 15:50:18	Running ccv2 (18)	NAH	Analyst	S_DOD Calibration

Standard Log #:	M14605	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	12/01/2020	Expiration Date:	01/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14606	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	12/01/2020	Expiration Date:	01/01/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14600 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14607	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	12/01/2020	Expiration Date:	12/02/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.700 in a hood.		

Standard Log #:	M14608	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	12/02/2020	Expiration Date:	01/02/2021
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14609	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/02/2020	Expiration Date:	01/02/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14510 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14602	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/01/2020	Expiration Date:	05/02/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14603	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/01/2020	Expiration Date:	05/02/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14604	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/01/2020	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14600	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate ACS
Date Received:	11/30/2020	Lot #:	A0412553
Expiration Date (if any):		Catalog #:	424185000

Standard Log #:	M14601	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/30/2020	Expiration Date:	11/30/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard ID#:	M14597	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	11/19/2020	Lot #:	K309-14
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14598	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	11/19/2020	Lot #:	K309-14
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14599	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	11/19/2020	Lot #:	225022
Expiration Date (if any):	03/31/2022	Catalog #:	39043

Standard Log #:	M14592	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/17/2020	Expiration Date:	12/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14593	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/17/2020	Expiration Date:	12/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14479 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14594	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/17/2020	Expiration Date:	11/18/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14595	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/18/2020	Expiration Date:	12/18/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14596	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/18/2020	Expiration Date:	12/18/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14510 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14589	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/17/2020	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14590	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/17/2020	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14591	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/17/2020	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14586	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	11/17/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14587	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	11/17/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14588	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	11/17/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M14582	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	11/13/2020	Expiration Date:	07/20/2021
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M14126 and Na (10,000 mg/L) M14473 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M14583	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	11/13/2020	Expiration Date:	07/20/2021
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M14473 and **0.15 mL** K (10,000 µg/mL) M14126 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M14584	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	11/13/2020	Expiration Date:	07/20/2021
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M14359, **2.5 mL** of K (10,000 mg/L) M14126, **2.5 mL** of Na (10,000 mg/L) M14473 and **7.5 mL** of Fe (10,000 mg/L) M14101 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

Standard ID#:	M14585	Vendor:	Environmental Epress
Analyst:	BMM	Chemical:	Acid washed TCLP Filters
Date Received:	10/29/2020	Lot #:	400157-0277-D
Expiration Date (if any):	xxxxx	Catalog #:	FG77150MM

Standard Log #:	M14579	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/12/2020	Expiration Date:	12/12/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14580	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/12/2020	Expiration Date:	12/12/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14510 and brought up to volume.		

Standard ID#:	M14581	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	11/12/2020	Lot #:	55-080CR
Expiration Date (if any):	11/30/2021	Catalog #:	XSPIKE-1-250

Standard Log #:	M14576	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/11/2020	Expiration Date:	12/11/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14577	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/11/2020	Expiration Date:	12/11/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14578	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	11/11/2020	Expiration Date:	11/12/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14573	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/11/2020	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14574	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/11/2020	Expiration Date:	05/02/2022
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14571 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14575	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/11/2020	Expiration Date:	11/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14572 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14571	Vendor:	CPI International
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	11/05/2020	Lot #:	1084154-12
Expiration Date (if any):	05/02/2022	Catalog #:	S4400-1000331

Standard ID#:	M14572	Vendor:	SPEX Certiprep
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	11/05/2020	Lot #:	CL12-01HGY
Expiration Date (if any):	11/30/2021	Catalog #:	CLHG4-2Y

Standard ID#:	M14567	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	11/05/2020	Lot #:	1047570-22
Expiration Date (if any):	05/2022	Catalog #:	S4400-1000504F

Standard ID#:	M14568	Vendor:	CPI
Analyst:	NAH	Chemical:	Ba 1000 mg/L
Date Received:	11/05/2020	Lot #:	994634-121
Expiration Date (if any):	05/2022	Catalog #:	S4400-100041

Standard ID#:	M14569	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	11/05/2020	Lot #:	1075718-2
Expiration Date (if any):	05/2022	Catalog #:	S4400-1000343

Standard ID#:	M14570	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	11/05/2020	Lot #:	1050965-25
Expiration Date (if any):	05/2022	Catalog #:	4400-10M544

Standard Log #:	M14563	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	11/05/2020	Expiration Date:	12/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14564	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	11/05/2020	Expiration Date:	12/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

Standard Log #:	M14565	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	11/05/2020	Expiration Date:	12/05/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14566	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/05/2020	Expiration Date:	12/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14509 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14560	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14561	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14562	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/05/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6000
Standard Log #:	M14556	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	11/03/2020	Expiration Date:	02/2022
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M14471 and K (1000 µg/mL) M14475 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M14557	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	11/03/2020	Expiration Date:	02/2022
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M14471 and **0.5 mL** K (1000 µg/mL) M14475 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard ID#:	M14558	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	11/04/2020	Lot #:	997484-34
Expiration Date (if any):	02/2022	Catalog #:	4400-10M671

Standard ID#:	M14559	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 mg/L
Date Received:	11/04/20020	Lot #:	1055526-11
Expiration Date (if any):	02/2022	Catalog #:	4400-10M521

Standard Log #:	M14554	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/29/2020	Expiration Date:	11/29/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14555	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/29/2020	Expiration Date:	11/29/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14509 and brought up to volume.		

Standard Log #:	M14551	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/28/2020	Expiration Date:	11/28/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14552	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/28/2020	Expiration Date:	11/28/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14553	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/28/2020	Expiration Date:	10/29/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14548	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/28/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14549	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/28/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14550	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/28/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14545	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	10/26/2020	Expiration Date:	03/26/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC44 and brought up to volume.		

Standard Log #:	M14546	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/26/2020	Expiration Date:	10/26/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

Standard Log #:	M14547	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/26/2020	Expiration Date:	10/26/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14545. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M14543	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/21/2020	Expiration Date:	11/21/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14509 and brought up to volume.		

Standard ID#:	M14544	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Sodium Chloride
Date Received:	10/19/2020	Lot #:	202332
Expiration Date (if any):		Catalog #:	S271-3

Standard Log #:	M14539	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/20/2020	Expiration Date:	11/20/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14540	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/20/2020	Expiration Date:	11/20/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14541	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/20/2020	Expiration Date:	10/21/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14542	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/21/2020	Expiration Date:	11/21/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14536	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/20/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14537	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/20/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14538	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/20/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14533	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/19/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14534	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/19/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14535	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/19/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	CETAC
Standard Log #:	M14530	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/14/2020	Expiration Date:	10/15/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14531	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/14/2020	Expiration Date:	11/14/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14532	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/14/2020	Expiration Date:	11/14/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14509 and brought up to volume.		

Standard Log #:	M14526	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/13/2020	Expiration Date:	11/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14527	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/13/2020	Expiration Date:	10/14/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14528	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/13/2020	Expiration Date:	11/13/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14529	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/13/2020	Expiration Date:	11/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14509 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14523	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/13/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14524	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/13/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14525	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/13/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14521	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/08/2020	Expiration Date:	10/09/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14522	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/09/2020	Expiration Date:	04/2021
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M14508 and **10 mL** Mg (10,000 mg/L) M13984 and brought up to volume.		

Standard Log #:	M14519	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	10/07/2020	Expiration Date:	11/07/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14520	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/08/2020	Expiration Date:	11/08/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14461 and brought up to volume.		

Standard Log #:	M14514	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	10/05/2020	Expiration Date:	11/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14515	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	10/05/2020	Expiration Date:	10/06/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14516	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	10/05/2020	Expiration Date:	11/05/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14446 and **60 g** hydroxylamine sulfate M14507 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14517	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/06/2020	Expiration Date:	11/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14461 and brought up to volume.		

Standard ID#:	M14518	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std.
Date Received:	10/05/2020	Lot #:	55-031CR
Expiration Date (if any):	09/30/2021	Catalog #:	XSPIKE-1-250

		Instrument:	HydraII
Standard Log #:	M14511	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14512	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14513	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/05/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14508	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	Palladium (Matrix Modifier)
Date Received:	10/02/2020	Lot #:	2003608-100
Expiration Date (if any):	09/30/2021	Catalog #:	HP1900-100

Standard ID#:	M14509	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	10/05/2020	Lot #:	K269-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14510	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	10/05/2020	Lot #:	K269-06
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14507	Vendor:	Fisher
Analyst:	NAH	Chemical:	Hydroxylamine Sulfate
Date Received:	09/29/2020	Lot #:	189407A
Expiration Date (if any):	05/2024	Catalog #:	H331

Standard Log #:	M14502	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/21/2020	Expiration Date:	10/21/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14503	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/21/2020	Expiration Date:	10/21/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14504	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/21/2020	Expiration Date:	09/22/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14505	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/23/2020	Expiration Date:	10/23/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14506	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/23/2020	Expiration Date:	10/23/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14461 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14499	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/21/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14500	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/21/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14501	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/21/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14497	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/16/2020	Expiration Date:	09/16/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

Standard Log #:	M14498	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/16/2020	Expiration Date:	09/16/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

Standard Log #:	M14492	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/15/2020	Expiration Date:	10/15/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14493	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/15/2020	Expiration Date:	10/15/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14494	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/15/2020	Expiration Date:	09/16/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14495	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/16/2020	Expiration Date:	10/16/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14496	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/16/2020	Expiration Date:	10/16/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14460 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14489	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/15/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14490	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/15/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14491	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/15/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14487	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/09/2020	Expiration Date:	10/09/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14416 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14488	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/09/2020	Expiration Date:	10/09/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14460 and brought up to volume.		

Standard Log #:	M14483	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/08/2020	Expiration Date:	10/08/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14484	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	09/08/2020	Expiration Date:	10/08/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14485	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/08/2020	Expiration Date:	09/09/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard ID#:	M14486	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	09/04/2020	Lot #:	1933801-500
Expiration Date (if any):	03/31/2022	Catalog #:	HP10M67-1-500

Standard ID#:	M14479	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	09/03/2020	Lot #:	A0410243
Expiration Date (if any):		Catalog #:	202015000

		Instrument:	HydraII
Standard Log #:	M14480	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/08/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14481	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/08/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14482	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/08/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14478	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	09/01/2020	Lot #:	992536-34
Expiration Date (if any):	02/2022	Catalog #:	4400-10M11

Standard ID#:	M14471	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 1000 mg/L
Date Received:	09/01/2020	Lot #:	1038021-64
Expiration Date (if any):	02/2022	Catalog #:	4400-1000521-500

Standard ID#:	M14472	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	09/01/2020	Lot #:	1013353-76
Expiration Date (if any):	02/2022	Catalog #:	4400-10m311

Standard ID#:	M14473	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 mg/L
Date Received:	09/01/2020	Lot #:	1055526-11
Expiration Date (if any):	02/2022	Catalog #:	4400-10M521

Standard ID#:	M14474	Vendor:	CPI
Analyst:	NAH	Chemical:	P 10000 mg/L
Date Received:	09/01/2020	Lot #:	1079898-2
Expiration Date (if any):	02/2022	Catalog #:	S4400-10M391

Standard ID#:	M14475	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	09/01/2020	Lot #:	1023166-47
Expiration Date (if any):	02/2022	Catalog #:	4400-1000411-500

Standard ID#:	M14476	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	09/01/2020	Lot #:	1072921-5
Expiration Date (if any):	02/2022	Catalog #:	4400-10M91

Standard ID#:	M14477	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	09/01/2020	Lot #:	1047570-22
Expiration Date (if any):	02/2022	Catalog #:	S4400-1000504F

Standard Log #:	M14466	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	09/01/2020	Expiration Date:	10/01/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14467	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	09/01/2020	Expiration Date:	10/01/2020
Prep:	Carefully mixed **3** parts HCl AB.698 with **1** part HNO_3 AB.694 in a hood.		

Standard Log #:	M14468	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	09/02/2020	Expiration Date:	10/02/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14469	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/02/2020	Expiration Date:	10/02/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.698 and dissolved **100 g** Stannous chloride M14460 and brought up to volume.		

Standard ID#:	M14470	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	09/01/2020	Lot #:	1034257-21
Expiration Date (if any):	02/2022	Catalog #:	4400-10m261

		Instrument:	HydraII
Standard Log #:	M14463	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/01/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14464	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/01/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14465	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/01/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14460	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	08/26/2020	Lot #:	K196-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14461	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	08/26/2020	Lot #:	K196-02
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14462	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/31/2020	Lot #:	2-155mf
Expiration Date (if any):	08/31/2021	Catalog #:	XCTWI-1-500

Standard Log #:	M14457	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/26/2020	Expiration Date:	09/26/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14458	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/26/2020	Expiration Date:	09/26/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14355 and brought up to volume.		

Standard Log #:	M14459	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/26/2020	Expiration Date:	09/26/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14453	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/25/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14454	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/25/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14455	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/25/2020	Expiration Date:	09/25/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14456	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/25/2020	Expiration Date:	08/26/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.694 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M14450	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	08/24/2020	Expiration Date:	06/30/2021
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M14359, **2.5 mL** of K (10,000 mg/L) M14126, **2.5 mL** of Na (10,000 mg/L) M14103 and **7.5 mL** of Fe (10,000 mg/L) M14101 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M14451	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	08/24/2020	Expiration Date:	10/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13808 and **0.5 mL** K (1000 µg/mL) M13809 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	HydraII
Standard Log #:	M14452	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/25/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

Standard ID#:	M14446	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Sodium Chloride
Date Received:	08/24/2020	Lot #:	197591
Expiration Date (if any):		Catalog #:	S271-500

		Instrument:	ICP 6000
Standard Log #:	M14447	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	08/24/2020	Expiration Date:	10/2020
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13808 and K (1000 µg/mL) M13809 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M14448	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	08/24/2020	Expiration Date:	07/2021
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M14126 and Na (10,000 mg/L) M14103 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M14449	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	08/24/2020	Expiration Date:	07/2021
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M14103 and **0.15 mL** K (10,000 µg/mL) M14126 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard ID#:	M14445	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/21/2020	Lot #:	2-140MF
Expiration Date (if any):	08/30/2021	Catalog #:	XCTWI-5-500

Standard Log #:	M14440	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/19/2020	Expiration Date:	09/19/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14441	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/19/2020	Expiration Date:	09/19/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14442	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/19/2020	Expiration Date:	08/20/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.693 in a hood.		

Standard Log #:	M14443	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/20/2020	Expiration Date:	09/20/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14444	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/20/2020	Expiration Date:	09/20/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14355 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14437	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/19/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14438	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/19/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14439	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/19/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14434	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	08/17/2020	Lot #:	997484-34
Expiration Date (if any):	02/2022	Catalog #:	4400-10M671

Standard ID#:	M14435	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 mg/L
Date Received:	08/17/2020	Lot #:	1047570-22
Expiration Date (if any):	02/2022	Catalog #:	S4400-1000504F

Standard ID#:	M14436	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	08/17/2020	Lot #:	1053109-27
Expiration Date (if any):	02/2022	Catalog #:	4400-10M411-500

Standard Log #:	M14429	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/12/2020	Expiration Date:	09/12/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14430	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/12/2020	Expiration Date:	09/12/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

Standard Log #:	M14431	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/13/2020	Expiration Date:	09/13/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14432	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/13/2020	Expiration Date:	08/14/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.693 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14433	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/13/2020	Expiration Date:	09/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14355 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14426	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/12/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14427	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/12/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14428	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/12/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14425	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/10/2020	Expiration Date:	08/10/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

Standard Log #:	M14420	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	08/05/2020	Expiration Date:	09/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14421	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	08/05/2020	Expiration Date:	09/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14422	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	08/06/2020	Expiration Date:	08/07/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.693 in a hood.		

Standard Log #:	M14423	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	08/06/2020	Expiration Date:	09/06/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14424	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/06/2020	Expiration Date:	09/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14356 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14417	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14418	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14419	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/05/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14416	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	08/03/2020	Lot #:	189407A
Expiration Date (if any):		Catalog #:	H331

		Instrument:	GFAA
Standard Log #:	M14413	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	07/30/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14414	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	07/30/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14415	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	07/30/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14408	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/28/2020	Expiration Date:	08/28/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14409	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/28/2020	Expiration Date:	08/28/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14410	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/28/2020	Expiration Date:	07/29/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.693 in a hood.		

Standard Log #:	M14411	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/29/2020	Expiration Date:	08/29/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14346 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14412	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/29/2020	Expiration Date:	08/29/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14356 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14405	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/28/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14406	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/28/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14407	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/28/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14404	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	07/24/2020	Lot #:	54-207CR
Expiration Date (if any):	07/30/2020	Catalog #:	XSPIKE-1-250

Standard Log #:	M14399	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/21/2020	Expiration Date:	08/21/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14400	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/21/2020	Expiration Date:	08/21/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

Standard Log #:	M14401	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/22/2020	Expiration Date:	08/22/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14402	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/22/2020	Expiration Date:	07/23/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.693 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14403	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/22/2020	Expiration Date:	08/22/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14356 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14396	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/21/2020	Expiration Date:	07/21/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14397	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/21/2020	Expiration Date:	07/21/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14398	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/21/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14395	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	07/20/2020	Expiration Date:	09/30/2020
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13954 and **10 mL** Mg (10,000 mg/L) M13984 and brought up to volume.		

Standard Log #:	M14394	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	07/17/2020	Expiration Date:	07/17/2021
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.693 in a hood.		

Standard Log #:	M14389	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/13/2020	Expiration Date:	08/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14390	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/13/2020	Expiration Date:	08/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14391	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/13/2020	Expiration Date:	07/14/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.693 in a hood.		

Standard Log #:	M14392	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/14/2020	Expiration Date:	08/14/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14306 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14393	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/14/2020	Expiration Date:	08/14/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14356 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14386	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/13/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14387	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/13/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14388	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/13/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14384	Vendor:	Environmantal Express
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	07/08/2020	Lot #:	1933801-500
Expiration Date (if any):	01/31/2022	Catalog #:	HP10M67-1-500

Standard Log #:	M14385	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	12 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	07/08/2020	Expiration Date:	12/2020

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13863	10,000
Pb	0.1	10,000	M14202	10,000
Tl	1	1000	M14207	10,000
Se	1	1000	M13948	10,000
Sb	1	1000	M13950	10,000
Ag	0.1	1000	M13951	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.2	10,000	12
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

Standard Log #:	M14383	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	07/07/2020	Expiration Date:	07/07/2021
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.685 and brought up to volume.		

Standard Log #:	M14381	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	07/03/2020	Expiration Date:	08/03/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14382	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/03/2020	Expiration Date:	08/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14278 and brought up to volume.		

Standard Log #:	M14378	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	07/02/2020	Expiration Date:	08/02/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14379	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	07/02/2020	Expiration Date:	08/02/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14380	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/02/2020	Expiration Date:	07/03/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.693 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14375	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/02/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14376	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	07/02/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14377	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/02/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14373	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/01/2020	Expiration Date:	07/01/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

Standard ID#:	M14374	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	ACID WASHED TCLP FILTERS
Date Received:	06/18/2020	Lot #:	400169-0154-AG
Expiration Date (if any):	N/A	Catalog #:	FG77150MM

Standard ID#:	M14368	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	06/30/2020	Lot #:	987189-75
Expiration Date (if any):	12/2021	Catalog #:	S4400-1000343

Standard ID#:	M14369	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	06/30/2020	Lot #:	1053109-22
Expiration Date (if any):	12/2021	Catalog #:	S4400-10M411-500

Standard ID#:	M14370	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	06/30/2020	Lot #:	1053109-8
Expiration Date (if any):	12/2021	Catalog #:	4400-10M411

Standard ID#:	M14371	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	06/30/2020	Lot #:	1047570-9
Expiration Date (if any):	12/2021	Catalog #:	S4400-1000504F

Standard ID#:	M14372	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	06/30/2020	Lot #:	1050965-10
Expiration Date (if any):	12/2021	Catalog #:	4400-10M544

Standard Log #:	M14363	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/24/2020	Expiration Date:	07/24/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14364	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/24/2020	Expiration Date:	07/24/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14365	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/24/2020	Expiration Date:	06/25/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

Standard Log #:	M14366	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/25/2020	Expiration Date:	07/25/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14367	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/25/2020	Expiration Date:	07/25/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14278 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14360	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/24/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14361	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/24/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14362	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/24/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14358	Vendor:	Spex Certprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/22/2020	Lot #:	54-161CR
Expiration Date (if any):	06/30/2021	Catalog #:	XSOIKE-1-250

Standard ID#:	M14359	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/23/2020	Lot #:	52-213CRX
Expiration Date (if any):	06/30/2021	Catalog #:	INT-A1

Standard ID#:	M14355	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	06/17/2020	Lot #:	K111-25
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14356	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	06/17/2020	Lot #:	K111-25
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14357	Vendor:	Mettler toledo
Analyst:	NAH	Chemical:	Electrolyte Friscolyt-b
Date Received:	06/17/2020	Lot #:	1F091L
Expiration Date (if any):	03/31/2023	Catalog #:	51340053

Standard Log #:	M14350	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/16/2020	Expiration Date:	07/16/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14351	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/16/2020	Expiration Date:	07/16/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14352	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/16/2020	Expiration Date:	06/17/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

Standard Log #:	M14353	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/17/2020	Expiration Date:	07/17/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14354	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/17/2020	Expiration Date:	07/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14278 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14347	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/16/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14348	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/16/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14349	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/16/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14346	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Sodium Chloride
Date Received:	06/16/2020	Lot #:	196616
Expiration Date (if any):		Catalog #:	S271-500

Standard Log #:	M14344	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/12/2020	Expiration Date:	06/12/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

Standard Log #:	M14345	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/12/2020	Expiration Date:	06/12/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

		Instrument:	ICP 6500
Standard Log #:	M14342	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	06/11/2020	Expiration Date:	01/30/2021
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14214, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14120, **0.5 mL** Mo (1000 mg/L) M14121, **0.5 mL** B (1000 mg/L) M14131, **0.5 mL** Sr (1000 mg/L) M14007, **0.5 mL** Li (1000 mg/L) M14127, **0.5 mL** Sn (1000 mg/L) M14008 and **0.5 mL** Ti (1000 mg/L) M14009.		

		Instrument:	ICP 6500
Standard Log #:	M14343	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	06/11/2020	Expiration Date:	01/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14120, **15 mL** Fe (10,000 mg/L) M14101, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195 and **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14215 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14340	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	06/11/2020	Expiration Date:	03/20/2021
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14215 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14195 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14341	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	06/11/2020	Expiration Date:	03/20/2021
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14215 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M14195 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14337	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	06/11/2020	Expiration Date:	04/21
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M14196 5.0 **mL** 10000 mg/L Ti M14009 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14338	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ba, Be, and Sn
Prep Date:	06/11/2020	Expiration Date:	04/21
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M14130 5.0 **mL** 10000 mg/L Be M14203 5.0 **mL** 10000 mg/L Sn M14008 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14339	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	06/11/2020	Expiration Date:	07/21
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M14205 0.5 **mL** 10000 mg/L Cu M14199 5.0 **mL** 1000 mg/L Co M14204 5.0 **mL** 1000 mg/L Mo M14129 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14335	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	06/11/2020	Expiration Date:	12/2020
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14215, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M14195 and **1 mL** of Si (1000 mg/L) M14006 and 1 mL M13859 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14104. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M14199, **10 mL** of Mn (10,000 mg/L) M14200, **10 mL** of Cr (10,000 mg/L) M14205, **10 mL** Pb (10,000 mg/L) M14202, **10 mL** of Zn (10,000 mg/L) M14197 and **10 mL** of Na (10,000 mg/L) M14103. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M13984, **10 mL** of Fe (10,000 mg/L) M14004, **10 mL** of Ca (10,000 mg/L) M13985 and **10 mL** Al (10,000 mg/L) M14105. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

		Instrument:	ICP 6500
Standard Log #:	M14336	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	06/11/2020	Expiration Date:	04/21
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M14200 brought up to volume with milli-Q H_2O.		

		Instrument:	GFAA
Standard Log #:	M14332	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/11/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14333	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/11/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14334	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/11/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M14327	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/09/2020	Expiration Date:	07/09/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14328	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/09/2020	Expiration Date:	07/09/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M14246 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14329	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/10/2020	Expiration Date:	07/10/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14278 and brought up to volume.		

Standard Log #:	M14330	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/10/2020	Expiration Date:	07/10/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14331	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/10/2020	Expiration Date:	06/11/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14324	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/09/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14325	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/09/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14326	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/09/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14323	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	06/08/2020	Lot #:	216646
Expiration Date (if any):	11/30/2021	Catalog #:	39043

Standard Log #:	M14318	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	06/03/2020	Expiration Date:	07/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14319	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	06/03/2020	Expiration Date:	07/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14320	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	06/03/2020	Expiration Date:	06/04/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14321	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	06/04/2020	Expiration Date:	07/04/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14277 and brought up to volume.		

Standard Log #:	M14322	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	06/04/2020	Expiration Date:	07/04/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14315	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	06/03/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14316	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	06/03/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14317	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	06/03/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14310	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/27/2020	Expiration Date:	06/27/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14311	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/27/2020	Expiration Date:	06/27/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14312	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/28/2020	Expiration Date:	06/28/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14276 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14313	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	05/28/2020	Expiration Date:	05/29/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14314	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/28/2020	Expiration Date:	06/28/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14277 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14307	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/27/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14308	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/27/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14309	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/27/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14304	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/27/2020	Expiration Date:	05/27/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

Standard Log #:	M14305	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/27/2020	Expiration Date:	05/27/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14287. Dilute to 20 L and mix.		

Standard ID#:	M14306	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Hydroxylamine Sulfate
Date Received:	05/27/2020	Lot #:	189407A
Expiration Date (if any):		Catalog #:	H331-500

Standard Log #:	M14299	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/19/2020	Expiration Date:	06/19/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14300	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/19/2020	Expiration Date:	06/19/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14301	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/20/2020	Expiration Date:	06/20/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14302	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/19/2020	Expiration Date:	05/20/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14303	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/20/2020	Expiration Date:	06/20/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14277 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14296	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/19/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14297	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/19/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14298	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/19/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14291	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/12/2020	Expiration Date:	06/12/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14292	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/12/2020	Expiration Date:	06/12/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14293	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/12/2020	Expiration Date:	06/12/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M14193 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14294	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/12/2020	Expiration Date:	05/13/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14295	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/12/2020	Expiration Date:	06/12/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14157 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14288	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/12/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14289	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/12/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14290	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/12/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14287	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	05/08/2020	Expiration Date:	05/08/2021
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH WC07 and brought up to volume.		

Standard Log #:	M14282	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	05/05/2020	Expiration Date:	06/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14283	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	05/05/2020	Expiration Date:	06/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14284	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	05/06/2020	Expiration Date:	06/06/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14285	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	05/05/2020	Expiration Date:	05/06/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14286	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	05/06/2020	Expiration Date:	06/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14157 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14279	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14280	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	05/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14281	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/05/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14277	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	05/05/2020	Lot #:	K111-25
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14278	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	05/05/2020	Lot #:	K111-25
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14276	Vendor:	Fisher Chemical
Analyst:	MDS	Chemical:	Sodium Chloride
Date Received:	05/01/2020	Lot #:	195918
Expiration Date (if any):		Catalog #:	S271-500

		Instrument:	CETAC
Standard Log #:	M14275	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/29/2020	Expiration Date:	04/30/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

Standard Log #:	M14271	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/27/2020	Expiration Date:	05/27/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14272	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/27/2020	Expiration Date:	05/27/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14273	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/28/2020	Expiration Date:	05/28/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14274	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/28/2020	Expiration Date:	05/28/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14157 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14268	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/27/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14269	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/27/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14270	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/27/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14266	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/22/2020	Expiration Date:	05/22/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M13463 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14267	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/22/2020	Expiration Date:	05/22/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14157 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14262	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/21/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14263	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/21/2020	Expiration Date:	
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14264	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/21/2020	Expiration Date:	
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14265	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/21/2020	Expiration Date:	04/22/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

Standard Log #:	M14259	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/21/2020	Expiration Date:	04/21/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14002. Dilute to 20 L and mix.		

		Instrument:	HydraII
Standard Log #:	M14260	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/21/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14261	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/21/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

Standard Log #:	M14254	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/14/2020	Expiration Date:	05/14/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14255	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/14/2020	Expiration Date:	05/14/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14256	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/15/2020	Expiration Date:	05/15/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14257	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/15/2020	Expiration Date:	05/15/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14157 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14258	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/14/2020	Expiration Date:	04/15/20220
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.691 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14251	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/14/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14252	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/14/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14253	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/14/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14250	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL DOD Metals Spiking soln
Prep Date:	04/14/2020	Expiration Date:	12/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	40	M13951	1000	2
Al	800	M13982	**10000**	4
As	40	M13863	1000	2
Ba	20	M14130	1000	1
Be	8	M14203	1000	0.4
Ca	1000	M13985	**10000**	5
Cd	10	M14201	1000	0.5
Co	20	M14204	1000	1
Cr	20	M14205	**10000**	0.1
Cu	20	M14199	**10000**	0.1
Fe	600	M14101	**10000**	3
Mg	1000	M14108	**10000**	5
Mn	20	M14200	**10000**	0.1
Mo	20	M14129	1000	1
Ni	20	M14196	1000	1
Pb	20	M14202	**10000**	0.1
Sb	40	M13950	1000	2
Se	40	M13948	1000	2
Tl	40	M14207	1000	2
V	20	M14198	1000	1
Zn	20	M14197	**10000**	0.1
Na	10000	M14103	**10000**	50
K	10000	M14104	**10000**	50
B	40	M13947	1000	2
Si	200	M14106	1000	10
S	2000	M14102	**10000**	10
Li	40	M14127	1000	2
Sr	20	M14007	1000	1
Sn	100	M14008	1000	5
Ti	20	M14009	1000	10

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M14247	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/10/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14248	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/10/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M14227 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14249	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/10/2020	Expiration Date:	04/10/2021
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M14228 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M14246	Vendor:	Acros Organics
Analyst:	MDS	Chemical:	Potassium Persulfate
Date Received:	04/08/2020	Lot #:	A0412553
Expiration Date (if any):		Catalog #:	424185000

Standard Log #:	M14242	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	04/06/2020	Expiration Date:	05/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14243	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	04/06/2020	Expiration Date:	05/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14244	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/07/2020	Expiration Date:	05/07/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M13994 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14245	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/07/2020	Expiration Date:	05/07/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14081 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14239	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	04/06/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14240	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	04/06/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14241	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	04/06/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14234	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/31/2020	Expiration Date:	04/30/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14235	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/31/2020	Expiration Date:	04/30/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14236	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	04/01/2020	Expiration Date:	05/01/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M13994 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14237	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	04/01/2020	Expiration Date:	05/01/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14158 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14238	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	04/01/2020	Expiration Date:	04/02/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.686 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14231	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/31/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14232	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/31/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14233	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/31/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

MRL BASE STD M14230

Analyst NAH

Prep Date 03/27/2020

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M13951	1000	1	02/2021
Al	400	M14105	10000	2	07/2021
Ba	10	M14130	1000	0.5	07/2021
Be	4	M14203	1000	0.2	09/2021
Cd	5	M14201	1000	0.25	09/2021
Co	10	M14204	1000	0.5	09/2021
Cr	10	M14205	10000	0.05	09/2021
Cu	10	M14199	10000	0.05	09/2021
Mg	500	M14108	10000	2.5	07/2021
Mn	10	M14200	10000	0.05	09/2021
Mo	10	M14129	1000	0.5	07/2021
Ni	10	M14196	1000	0.5	09/2021
Pb	10	M14202	10000	0.05	09/2021
Sb	20	M13950	1000	1	02/2021
V	10	M14198	1000	0.5	09/2021
Zn	10	M14197	10000	0.05	09/2021
K	1000	M14104	10000	5	07/2021
Na	1000	M14103	10000	5	07/2021
As	20	M13863	1000	1	12/2020
Ca	500	M14107	10000	2.5	07/2021
Fe	300	M14101	10000	1.5	07/2021
Se	20	M13948	1000	1	02/2021
Tl	20	M14207	1000	1	09/2021
Si	100	M14106	1000	5	07/2021
B	20	M14131	1000	1	07/2021
Li	20	M14127	1000	1	07/2021
W	50	xxxxxxxd	1000	2.5	xxxxxxx
Ti	10	M14009	1000	0.5	04/2021
Sr	10	M14007	1000	0.5	04/2021
Sn	50	M14008	1000	2.5	04/2021
S	300	M14102	10000	1.5	07/2021

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M14224	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/25/2020	Expiration Date:	04/25/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M14194 and **60 g** hydroxylamine sulfate M13994 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14225	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/25/2020	Expiration Date:	04/25/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14158 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14226	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/25/2020	Expiration Date:	03/26/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.686 in a hood.		

Standard ID#:	M14227	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV
Date Received:	03/25/2020	Lot #:	R2-MEB691217
Expiration Date (if any):		Catalog #:	CTI-SPK-1

Standard ID#:	M14228	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE
Date Received:	03/25/2020	Lot #:	R2-MEB691216
Expiration Date (if any):		Catalog #:	CTI-GFCAL-1

Standard ID#:	M14229	Vendor:	HACH
Analyst:	NAH	Chemical:	StablCal Standard 200 NTU
Date Received:	03/25/2020	Lot #:	A0038
Expiration Date (if any):	02/2022	Catalog #:	2660449

Standard Log #:	M14222	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/24/2020	Expiration Date:	04/24/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14223	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/24/2020	Expiration Date:	04/24/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14219	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/24/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14220	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/24/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14221	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/24/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14218	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std.
Date Received:	03/19/2020	Lot #:	54-035CR
Expiration Date (if any):	03/30/2021	Catalog #:	XCTWI-1-500

		Instrument:	CETAC
Standard Log #:	M14216	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	03/18/2020	Expiration Date:	03/19/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.686 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14217	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/18/2020	Expiration Date:	04/18/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14158 and brought up to volume.		

Standard Log #:	M14211	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/17/2020	Expiration Date:	04/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14212	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/17/2020	Expiration Date:	04/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14213	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/17/2020	Expiration Date:	04/17/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13994 and brought up to volume.		

Standard ID#:	M14214	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std.
Date Received:	03/17/2020	Lot #:	54-027CR
Expiration Date (if any):	03/30/2021	Catalog #:	XSPIKE-1-250

Standard ID#:	M14215	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std.
Date Received:	03/17/2020	Lot #:	54-028CR
Expiration Date (if any):	03/30/2021	Catalog #:	XCTWI-5-500

		Instrument:	HydraII
Standard Log #:	M14208	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/17/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14209	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/17/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14210	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/17/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14201	Vendor:	CPI
Analyst:	NAH	Chemical:	Cd 1000 mg/L
Date Received:	03/11/2020	Lot #:	996631-64
Expiration Date (if any):	09/2021	Catalog #:	S4400-100081

Standard ID#:	M14202	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10000
Date Received:	03/11/2020	Lot #:	168223-44
Expiration Date (if any):	09/2021	Catalog #:	4400-10M281

Standard ID#:	M14203	Vendor:	CPI
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	03/11/2020	Lot #:	998969-61
Expiration Date (if any):	09/2021	Catalog #:	S4400-100051

Standard ID#:	M14204	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 mg/L
Date Received:	03/11/2020	Lot #:	1024904-44
Expiration Date (if any):	09/2021	Catalog #:	S4400-1000131

Standard ID#:	M14205	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10000 mg/L
Date Received:	03/11/2020	Lot #:	880115-56
Expiration Date (if any):	09/2021	Catalog #:	S4400-10M121

Standard ID#:	M14206	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	03/11/2020	Lot #:	997484-19
Expiration Date (if any):	09/2021	Catalog #:	4400-10M671

Standard ID#:	M14207	Vendor:	CPI
Analyst:	NAH	Chemical:	Tl 1000 mg/L
Date Received:	03/11/2020	Lot #:	991734-85
Expiration Date (if any):	09/2021	Catalog #:	S4400-1000581

Standard ID#:	M14195	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	03/09/2020	Lot #:	54-005CR
Expiration Date (if any):	3/30/2021	Catalog #:	XCTWI-4-500

Standard ID#:	M14196	Vendor:	CPI
Analyst:	NAH	Chemical:	Ni 1000 mg/L
Date Received:	03/11/2020	Lot #:	984273-111
Expiration Date (if any):	09/2021	Catalog #:	S4400-1000361

Standard ID#:	M14197	Vendor:	CPI
Analyst:	NAH	Chemical:	Zn 10000 mg/L
Date Received:	03/11/2020	Lot #:	1025267-1
Expiration Date (if any):	09/2021	Catalog #:	4400-10M681

Standard ID#:	M14198	Vendor:	CPI
Analyst:	NAH	Chemical:	V 1000 mg/L
Date Received:	03/11/2020	Lot #:	990117-98
Expiration Date (if any):	09/2021	Catalog #:	S4400-1000651

Standard ID#:	M14199	Vendor:	CPI
Analyst:	NAH	Chemical:	Cu 10000 mg/L
Date Received:	03/11/2020	Lot #:	982824-45
Expiration Date (if any):	09/2021	Catalog #:	S4400-10M141

Standard ID#:	M14200	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10000 mg/L
Date Received:	03/11/2020	Lot #:	985851-17
Expiration Date (if any):	09/2021	Catalog #:	S4400-10M321

Standard ID#:	M14193	Vendor:	Fisher
Analyst:	NAH	Chemical:	Hydroxylamine Sulfate
Date Received:	03/09/2020	Lot #:	189407
Expiration Date (if any):		Catalog #:	H331-500

Standard ID#:	M14194	Vendor:	Fisher
Analyst:	NAH	Chemical:	Sodium Chloride
Date Received:	03/09/2020	Lot #:	193465
Expiration Date (if any):		Catalog #:	S271-500

		Instrument:	CETAC
Standard Log #:	M14189	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/10/2020	Expiration Date:	04/10/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14081 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M14190	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/09/2020	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14191	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/09/2020	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14192	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/09/2020	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	HydraII
Standard Log #:	M14186	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/09/2020	Expiration Date:	04/09/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14187	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/09/2020	Expiration Date:	04/09/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14188	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/09/2020	Expiration Date:	04/09/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14182	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	03/06/2020	Expiration Date:	04/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14081 and brought up to volume.		

Standard Log #:	M14183	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	MDS		
Prep Date:	03/06/2020	Expiration Date:	04/06/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13994 and brought up to volume.		

Standard Log #:	M14184	Reagent:	Potassium Persulfate Solution
Analyst:	MDS		
Prep Date:	03/09/2020	Expiration Date:	04/09/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14185	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/09/2020	Expiration Date:	04/09/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14180	Reagent:	Potassium Permanganate Solution
Analyst:	MDS		
Prep Date:	03/04/2020	Expiration Date:	04/04/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14181	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	03/04/2020	Expiration Date:	03/05/2020
Prep:	Carefully mixed **3** parts HCl AB.685 with **1** part HNO_3 AB.686 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14177	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/04/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14178	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	03/04/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14179	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/04/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14175	Vendor:	COLE-PARMER
Analyst:	BMM	Chemical:	Acid Washed TCLP Filters
Date Received:	03/02/2020	Lot #:	400168
Expiration Date (if any):		Catalog #:	FG77150MM

Standard Log #:	M14176	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/03/2020	Expiration Date:	03/03/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14002. Dilute to 20 L and mix.		

		Instrument:	ICP 6500
Standard Log #:	M14172	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	02/25/2020	Expiration Date:	05/30/2020
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14121 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M13827 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14173	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	02/25/2020	Expiration Date:	01/30/2021
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M14137 and 15 **mL** 10000 mg/L Fe M14004 5.0 **mL** 1000 mg/L V M13578 5.0 **mL** 1000 mg/L Ce M13859 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M14174	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn, K, Na, S, **50000 ug/L** Si **1000 ug/L.**
Prep Date:	02/25/2020	Expiration Date:	05/30/2020
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14137, **15 mL** Fe (10,000 mg/L) M14004, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13827, **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn), M14121, **2.5 mLs Na 10,000 ug/mL** M14103 ,**2.5 mLs k 10,000 ug/mL** M14126 **2.5 mLs S 10,000 ug/mL** M14102, **0.5 mls Si 1000 ug/mL** M13981 and brought up to volume with milli-Q .		

		Instrument:	ICP 6500
Standard Log #:	M14170	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	02/25/2020	Expiration Date:	01/30/2021
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14138, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14137, **0.5 mL** Mo (1000 mg/L) M14129, **0.5 mL** B (1000 mg/L) M14131, **0.5 mL** Sr (1000 mg/L) M14007, **0.5 mL** Li (1000 mg/L) M14127, **0.5 mL** Sn (1000 mg/L) M14008, **0.5 mL** Ti (1000 mg/L) M141009, **0.5 mL** W (1000 mg/L) Mxxxx, **0.5 mL** Si (1000 mg/L) M14106, **0.5 mL** S (10000 mg/L) M14102, **0.5 mL** K (10000 mg/L) M14126, and **0.5 mL** Na (10000 mg/L) M14103		

		Instrument:	ICP 6500
Standard Log #:	M14171	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	02/25/2020	Expiration Date:	05/30/2020
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14121 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M13827 and brought up to volume with milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M14168	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/24/2020	Expiration Date:	
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14081 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M14169	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	02/25/2020	Expiration Date:	05/30/2020
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M14121, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13827 and **1 mL** of Si (1000 mg/L) M14106 and 1 mL M13859 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M14104. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M13618, **10 mL** of Mn (10,000 mg/L) M13616, **10 mL** of Cr (10,000 mg/L) M13617, **10 mL** Pb (10,000 mg/L) M13615, **10 mL** of Zn (10,000 mg/L) M13610 and **10 mL** of Na (10,000 mg/L) M14103. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M14108, **10 mL** of Fe (10,000 mg/L) M14004, **10 mL** of Ca (10,000 mg/L) M14107 and **10 mL** Al (10,000 mg/L) M14105. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

		Instrument:	HydraII
Standard Log #:	M14165	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/24/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14166	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/24/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14167	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/24/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6000
Standard Log #:	M14163	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	02/21/2020	Expiration Date:	07/2021
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M14103 and **0.15 mL** K (10,000 µg/mL) M14109 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M14164	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	02/21/2020	Expiration Date:	01/30/2021
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M14120, **2.5 mL** of K (10,000 mg/L) M14109, **2.5 mL** of Na (10,000 mg/L) M14103 and **7.5 mL** of Fe (10,000 mg/L) M14101 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	CETAC
Standard Log #:	M14159	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/20/2020	Expiration Date:	
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14081 and brought up to volume.		

		Instrument:	ICP 6000
Standard Log #:	M14160	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	02/21/2020	Expiration Date:	10/2020
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13808 and K (1000 µg/mL) M13809 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M14161	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	02/21/2020	Expiration Date:	10/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13808 and **0.5 mL** K (1000 µg/mL) M13809 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M14162	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	02/21/2020	Expiration Date:	07/2021
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M14109 and Na (10,000 mg/L) M14103 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6500
Standard Log #:	M14156	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	02/19/2020	Expiration Date:	01/30/21
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M14138, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M14120, **0.5 mL** Mo (1000 mg/L) M14129, **0.5 mL** B (1000 mg/L) M14131, **0.5 mL** Sr (1000 mg/L) M14007, **0.5 mL** Li (1000 mg/L) M14127, **0.5 mL** Sn (1000 mg/L) M141008, **0.5 mL** Ti (1000 mg/L) M14009, **0.5 mL** W (1000 mg/L) Mxxxxxxx, **0.5 mL** Si (1000 mg/L) M13981, **0.5 mL** S (10000 mg/L) M14102, **0.5 mL** K (10000 mg/L) M14109, and **0.5 mL** Na (10000 mg/L) M14103		

Standard ID#:	M14157	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	02/19/2020	Lot #:	J347-07
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14158	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	02/19/2020	Lot #:	J347-07
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	CETAC
Standard Log #:	M14148	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/13/2020	Expiration Date:	
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14081 and brought up to volume.		

Standard Log #:	M14152	Reagent:	Potassium Permanganate Solution
Analyst:	BMM		
Prep Date:	02/13/2020	Expiration Date:	07/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14153	Reagent:	Potassium Permanganate Solution
Analyst:	BMM		
Prep Date:	02/13/2020	Expiration Date:	07/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M14154	Reagent:	Potassium Persulfate Solution
Analyst:	BMM		
Prep Date:	02/13/2020	Expiration Date:	07/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14155	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	BMM		
Prep Date:	02/13/2020	Expiration Date:	07/13/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13994 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14149	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/17/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14150	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/17/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14151	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/17/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	HydraII
Standard Log #:	M14145	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/11/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14146	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/11/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14147	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/11/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14144	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	02/06/2020	Expiration Date:	03/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14080 and brought up to volume.		

Standard Log #:	M14142	Reagent:	Potassium Permanganate Solution
Analyst:	BMM		
Prep Date:	02/05/2020	Expiration Date:	07/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14143	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	02/05/2020	Expiration Date:	02/06/2020
Prep:	Carefully mixed **3** parts HCl AB.682 with **1** part HNO_3 AB.681 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14139	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	02/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14140	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	02/05/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14141	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	02/05/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14137	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/04/2020	Lot #:	53-196CR
Expiration Date (if any):	01/30/2021	Catalog #:	XCTIWI-1-500

Standard ID#:	M14138	Vendor:	SpexCertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02/04/2020	Lot #:	XSPIKE-1-250
Expiration Date (if any):	01/30/2021	Catalog #:	53-197CR

		Instrument:	CETAC
Standard Log #:	M14136	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/30/2020	Expiration Date:	01/30/2021
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14080 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14132	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/29/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14133	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/29/2020	Expiration Date:	07/20/2021
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M14125 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14134	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/29/2020	Expiration Date:	01/30/2021
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M14119 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14135	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	01/29/2020	Expiration Date:	01/30/2020
Prep:	Carefully mixed **3** parts HCl AB.682 with **1** part HNO_3 AB.681 in a hood.		

Standard ID#:	M14125	Vendor:	CPI International
Analyst:	MDS	Chemical:	Mercury 1000 µg/mL
Date Received:	01/24/2020	Lot #:	1009904-41
Expiration Date (if any):	07/20/2021	Catalog #:	S4400-1000331

Standard ID#:	M14126	Vendor:	CPI International
Analyst:	MDS	Chemical:	Potassium 10,000 µg/mL
Date Received:	01/24/2020	Lot #:	980507-31
Expiration Date (if any):	07/20/2021	Catalog #:	4400-10M411

Standard ID#:	M14127	Vendor:	CPI International
Analyst:	MDS	Chemical:	Lithium 1000 µg/mL
Date Received:	01/24/2020	Lot #:	1017511-7
Expiration Date (if any):	07/20/2021	Catalog #:	S4400-1000291

Standard ID#:	M14128	Vendor:	CPI International
Analyst:	MDS	Chemical:	Phosphorus 10,000 µg/mL
Date Received:	01/24/2020	Lot #:	979480-24
Expiration Date (if any):	07/20/2021	Catalog #:	S4400-10M391

Standard ID#:	M14129	Vendor:	CPI International
Analyst:	MDS	Chemical:	Molybdenum 1000 µg/mL
Date Received:	01/24/2020	Lot #:	987189-55
Expiration Date (if any):	07/20/2021	Catalog #:	S4400-1000343

Standard ID#:	M14130	Vendor:	CPI International
Analyst:	MDS	Chemical:	Barium 1000 µg/mL
Date Received:	01/24/2020	Lot #:	994634-53
Expiration Date (if any):	07/20/2021	Catalog #:	S4400-100041

Standard ID#:	M14131	Vendor:	CPI International
Analyst:	MDS	Chemical:	Boron 1000 µg/mL
Date Received:	01/24/2020	Lot #:	1024903-6
Expiration Date (if any):	07/20/2021	Catalog #:	S4400-100074

		Instrument:	HydraII
Standard Log #:	M14122	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/23/2020	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14123	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/23/2020	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14124	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/23/2020	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14119	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Hg 1000 ug/mL
Date Received:	01/21/2020	Lot #:	CL11-96HGY
Expiration Date (if any):	01/30/2021	Catalog #:	CLHG4-2Y

Standard ID#:	M14120	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Interference A
Date Received:	01/21/2020	Lot #:	2-96JX
Expiration Date (if any):	01/30/2021	Catalog #:	INT-A1

Standard ID#:	M14121	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	01/21/2020	Lot #:	1-008DMP
Expiration Date (if any):	01/21/2021	Catalog #:	XCTWI-5-500

		Instrument:	CETAC
Standard Log #:	M14117	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/17/2020	Expiration Date:	02/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.685 and dissolved **100 g** Stannous chloride M14080 and brought up to volume.		

Standard Log #:	M14118	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	01/17/2020	Expiration Date:	02/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M13951	1000	0.01
As	2	M13863	1000	0.1
Pb	2	M13615	10000	0.01
Sb	2	M13950	1000	0.1
Se	2	M13948	1000	0.1
Tl	2	M13583	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	HydraII
Standard Log #:	M14114	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/16/2020	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14115	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/16/2020	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14116	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/16/2020	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M14111	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/13/2020	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14112	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/13/2020	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14113	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/13/2020	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M14106	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	01/13/2020	Lot #:	175213-60
Expiration Date (if any):	07/2021	Catalog #:	S4400-1000504F

Standard ID#:	M14107	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 ug/mL
Date Received:	01/13/2020	Lot #:	855297-68
Expiration Date (if any):	07/2021	Catalog #:	4400-10M91

Standard ID#:	M14108	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 ug/mL
Date Received:	01/13/2020	Lot #:	1013353-36
Expiration Date (if any):	07/2021	Catalog #:	4400-10M311

Standard ID#:	M14109	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000ug/mL
Date Received:	01/13/2020	Lot #:	980507-79
Expiration Date (if any):	07/2021	Catalog #:	4400-10M411

Standard Log #:	M14110	Reagent:	TCLP EXTRACTION FLUID #2
Analyst:	BMM	pH:	2.88 ± 0.05
Prep Date:	01/14/2020	Expiration Date:	01/14/2021
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 . Dilute to 20 L and mix.		

Standard ID#:	M14100	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 ug/mL
Date Received:	01/10/2020	Lot #:	1905324-500
Expiration Date (if any):	07/31/2021	Catalog #:	HP10M67-1-500

Standard ID#:	M14101	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 ug/mL
Date Received:	01/13/2020	Lot #:	998527-45
Expiration Date (if any):	07/2021	Catalog #:	4400-10M261

Standard ID#:	M14102	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10000 ug/mL
Date Received:	01/13/2020	Lot #:	9987745-28
Expiration Date (if any):	07/2021	Catalog #:	4400-10M544

Standard ID#:	M14103	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 10000 ug/mL
Date Received:	01/13/2020	Lot #:	752887-79
Expiration Date (if any):	01/2021	Catalog #:	4400-40M521

Standard ID#:	M14104	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10000 ug/mL
Date Received:	01/13/2020	Lot #:	980507-31
Expiration Date (if any):	07/2021	Catalog #:	4400-10M411

Standard ID#:	M14105	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 ug/mL
Date Received:	01/13/2020	Lot #:	992536-34
Expiration Date (if any):	07/2021	Catalog #:	4400-10M11

Standard Log #:	M14099revised below	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL DOD Metals Spiking soln
Prep Date:	01/09/2020	Expiration Date:	02/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M13951	1000	0.25
Al	10	M13962	**10000**	0.05
As	20	M13863	1000	1
Ba	2	M13949	1000	0.1
Be	0.5	M13579	1000	0.025
Ca	50	M13841	**10000**	0.25
Cd	0.5	M13570	1000	0.025
Co	2.5	M13575	1000	0.125
Cr	5.0	M13617	**10000**	0.025
Cu	10	M13618	**10000**	0.05
Fe	40	M13963	**10000**	0.2
Mg	25	M13752	**10000**	0.125
Mn	5	M13616	**10000**	0.025
Mo	2.5	M13860	1000	0.125
Ni	5	M13569	1000	0.25
Pb	10	M13615	**10000**	0.05
Sb	20	M13950	1000	1
Se	20	M13948	1000	1
Tl	20	M13583	1000	1
V	5	M13578	1000	0.25
Zn	5	M13610	**10000**	0.025

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14099	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL DOD Metals Spiking soln
Prep Date:	01/09/2020	Expiration Date:	02/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M13951	1000	0.25
Al	10	M13962	**10000**	0.05
As	20	M13863	1000	1
Ba	2	M13949	1000	0.1
Be	0.5	M13579	1000	0.025
Ca	50	M13841	**10000**	0.25
Cd	0.5	M13570	1000	0.025
Co	2.5	M13575	1000	0.125
Cr	5.0	M13617	**10000**	0.025
Cu	10	M13618	**10000**	0.05
Fe	40	M13963	**10000**	0.2
Mg	25	M13752	**10000**	0.125
Mn	5	M13616	**10000**	0.025
Mo	2.5	M13860	1000	0.125
Ni	5	M13569	1000	0.25
Pb	10	M13615	**10000**	0.05
Sb	20	M13950	1000	1
Se	20	M13948	1000	1
Tl	20	M13583	1000	1
V	5	M13578	1000	0.25
Zn	5	M13610	**10000**	0.025
Na	500	M13862	**10000**	2.5
K	500	M14003	**10000**	2.5
B	20	M13947	1000	1
Si	100	M13981	1000	5
S	200	M13696	**10000**	1
Li	20	M13577	1000	1
Sr	20	M14007	1000	1
Sn	20	M14008	1000	1
Ti	20	M14009	1000	1

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M14097	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	01/09/2020	Expiration Date:	02/09/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.682 and dissolved **100 g** Stannous chloride M14080 and brought up to volume.		

Standard Log #:	M14098	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 S Spiking Solution
Prep Date:	01/09/2020	Expiration Date:	06/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	240	M13696	10000	1.2

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M14096	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	01/08/2020	Expiration Date:	01/09/2020
Prep:	Carefully mixed **3** parts HCl AB.682 with **1** part HNO_3 AB.681 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14093	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	01/08/2020	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14094	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	01/08/2020	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14095	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	01/08/2020	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14092	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/26/2019	Expiration Date:	01/26/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.682 and dissolved **100 g** Stannous chloride M14080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14088	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/20/2019	Expiration Date:	01/20/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.682 and dissolved **100 g** Stannous chloride M14016 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14089	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/24/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14090	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/24/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14091	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/24/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14086	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	12/19/2019	Expiration Date:	12/20/2019
Prep:	Carefully mixed **3** parts HCl AB.862 with **1** part HNO_3 AB.861 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14087	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	12/24/2019	Expiration Date:	12/25/2019
Prep:	Carefully mixed **3** parts HCl AB.862 with **1** part HNO_3 AB.861 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14083	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/18/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14084	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/18/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14085	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/18/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14082	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	Acid Washed TCLP Filters
Date Received:	12/11/2019	Lot #:	400168-9329-CM
Expiration Date (if any):		Catalog #:	FG77150MM

Standard ID#:	M14079	Vendor:	Thermofisher Scientific
Analyst:	MDS	Chemical:	GFAA Nickel Nitrate Modifier
Date Received:	12/12/2019	Lot #:	9192422
Expiration Date (if any):	04/30/2021	Catalog #:	39043

Standard ID#:	M14080	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/12/2019	Lot #:	J267-10
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14081	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	12/12/2019	Lot #:	J267-10
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M14078A	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 B&Si Spiking Solution
Prep Date:	12/11/2019	Expiration Date:	02/21

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	16	M13947	1000	0.8
Si	200	M13810	1000	10

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14078b Combined with	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 S Spiking Solution
Prep Date:	12/11/2019	Expiration Date:	03/201

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	200	M13604	10000	1.0

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14077	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3010 DOD Metals Spiking S
Prep Date:	12/11/2019	Expiration Date:	02/20

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13851	1000	0.2
Al	36	M13982	**10000**	0.18
As	24	M13863	1000	1.2
Ba	1.8	M13949	1000	0.09
Be	0.6	M13579	1000	0.03
Ca	100	M13841	**10000**	0.5
Cd	2.0	M13570	1000	0.1
Co	4	M13575	1000	0.2
Cr	4	M13617	**10000**	0.02
Cu	7	M13618	**10000**	0.035
Fe	100	M13983	**10000**	0.5
Mg	40	M13752	**10000**	0.2
Mn	4	M13616	**10000**	0.02
Mo	7	M13860	1000	0.35
Ni	6	M13569	1000	0.2
Pb	4	M13615	**10000**	0.02
Sb	12	M13950	1000	0.6
Se	13	M13948	1000	0.65
Tl	20	M13583	1000	0.75
V	5	M13578	1000	0.25
Zn	10	M13610	**10000**	0.05

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M14076	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3050 DOD Metals Spiking S
Prep Date:	12/10/2019	Expiration Date:	02/20

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13951	1000	0.2
Al	9.6	M13982	**10000**	0.048
As	32	M13863	1000	1.6
Ba	2	M13949	1000	0.1
Be	1.6	M13579	1000	0.08
Ca	56	M13841	**10000**	0.28
Cd	1.6	M13570	1000	0.08
Co	9.6	M13575	1000	0.48
Cr	5.6	M13617	**10000**	0.028
Cu	16	M13618	**10000**	0.08
Fe	72	M13983	**10000**	0.36
Mg	32	M13752	**10000**	0.16
Mn	6	M13616	**10000**	0.03
Mo	9.6	M13860	1000	0.48
Ni	4.8	M13569	1000	0.24
Pb	10	M13615	**10000**	0.05
Sb	32	M13950	1000	1.6
Se	16	M13948	1000	0.8
Tl	19	M13583	1000	0.95
V	3.2	M13578	1000	0.16
Zn	12	M13610	**10000**	0.06

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M14074	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	12/10/2019	Expiration Date:	02/2021
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13951 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M14075	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	12/10/2019	Expiration Date:	12/11/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.681 in a hood.		

		Instrument:	GFAA
Standard Log #:	M14072	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	12/10/2019	Expiration Date:	02/2020
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) M13950 **3.2 mL** of As (1000 mg/L) M13863 **3.2 mL** of Se (1000 mg/L) M13948 **0.08 mL** of Pb (10,000 mg/L) M13615 **1.0 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M14073	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	12/10/2019	Expiration Date:	02/2020
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M13950 **1.0 mL** of As (1000 mg/L) M13863 **2.0 mL** of Se (1000 mg/L) M13948 **0.045 mL** of Pb (10,000 mg/L) M13615 **0.4 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

Standard Log #:	M14071	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	12 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	12/10/2019	Expiration Date:	02/2020

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13863	10,000
Pb	0.1	10,000	M13615	10,000
Tl	1	1000	M13583	10,000
Se	1	1000	M13948	10,000
Sb	1	1000	M13950	10,000
Ag	0.1	1000	M13951	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.2	10,000	12
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

		Instrument:	HydraII
Standard Log #:	M14068	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/10/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14069	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	12/10/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13734 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M14070	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/10/2019	Expiration Date:	01/10/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.682 and dissolved **100 g** Stannous chloride M14016 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14065	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/05/2019	Expiration Date:	01/05/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.682 and dissolved **100 g** Stannous chloride M14016 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14066	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/06/2019	Expiration Date:	01/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.682 and dissolved **100 g** Stannous chloride M14016 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14067	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/10/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M14063	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	12/03/2019	Expiration Date:	01/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.682 and dissolved **100 g** Stannous chloride M14016 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14064	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	12/04/2019	Expiration Date:	12/05/2019
Prep:	Carefully mixed **3** parts HCl AB.682 with **1** part HNO_3 AB.681 in a hood.		

		Instrument:	HydraII
Standard Log #:	M14061	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	12/02/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M14062	Vendor:	ENVIROMENTAL EXPRESS
Analyst:	BMM	Chemical:	Acid Washed TCLP Filters
Date Received:	12/02/2019	Lot #:	400168-9305-CM
Expiration Date (if any):		Catalog #:	

		Instrument:	CETAC
Standard Log #:	M14058	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/20/2019	Expiration Date:	12/20/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M14017 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14059	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	12/02/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14060	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	12/02/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

Standard Log #:	M14056	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/26/2019	Expiration Date:	11/26/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14002. Dilute to 20 L and mix.		

Standard Log #:	M14057	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/26/2019	Expiration Date:	11/26/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M14002. Dilute to 20 L and mix.		

Standard ID#:	M14054	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/20/2019	Lot #:	53-042CR
Expiration Date (if any):	11/30/2020	Catalog #:	XCTWI-5-500

Standard ID#:	M14055	Vendor:	Spex Certi Prep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	11/20/2019	Lot #:	53-041CR
Expiration Date (if any):	11/30/2019	Catalog #:	XSPIKE-1-250

		Instrument:	GFAA
Standard Log #:	M14051	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	11/20/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14052	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	11/20/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M14053	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	11/20/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	HydraII
Standard Log #:	M14048	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/19/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14049	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/19/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14050	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	11/19/2019	Expiration Date:	11/20/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14045	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/11/2019	Expiration Date:	05/11/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.681 and dissolved **100 g** Stannous chloride M14017 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M14046	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/13/19	Expiration Date:	05/13/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.681 and dissolved **100 g** Stannous chloride M14017 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14047	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/19/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

Standard Log #:	M14044	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/13/2019	Expiration Date:	11/13/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.684 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M14041	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	11/09/2019	Expiration Date:	11/10/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M14042	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	11/12/2019	Expiration Date:	11/13/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M14043	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	BMM		
Prep Date:	11/12/2019	Expiration Date:	04/12/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13993 and **60 g** hydroxylamine sulfate M13874 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14038	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/07/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14039	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	11/07/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14040	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/07/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	ICP 6000
Standard Log #:	M14035	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	11/04/2019	Expiration Date:	02/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of the following and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) Li (1000 µg/mL) M13577 Sn (1000 µg/mL) M14008 Sr (1000 µg/mL) M14007 Ti (1000 µg/mL) M14009 W (1000 µg/mL) MXXXXX		

		Instrument:	ICP 6000
Standard Log #:	M14036	Standard:	List 2 MRL/ICVLL Prep Solution
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)
Prep Date:	11/04/2019	Expiration Date:	02/2020

Prep:

Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date
Li	20/60	M13577	1000	1	02/2020
W	100/300	MXXXX	1000	5	XX/XXXX
Ti	10/30	M14009	1000	0.5	04/2021
Sr	10/30	M14007	1000	0.5	04/2021
Sn	20/60	M14008	1000	1	04/2021

Pipette **10 mL** into a 500 mL volumetric flask to create a working MRL std. or **1 mL** into a 50 mL digestion tube for a digested MRL standard. Pipette **30 mL** into 500 mL for a working ICVLL std. or **3 mL** into a 50 mL digestion tube for a digested ICVLL standard.

(0.5% HNO_3, 0.5% HCl)

		Instrument:	CETAC
Standard Log #:	M14037	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	11/04/2019	Expiration Date:	05/04/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13922 and brought up to volume.		

		Instrument:	ICP
Standard Log #:	M14033	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	11/04/2019	Expiration Date:	05/30/2020

Prep:

Standard Conc. (ug/L)	Pipette the following:
1	**0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13839 and **0.001 mL** W (1000 µg/mL) MXXXXX into 1L = *1 µg/L*
10	**0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13839 and **0.01 mL** W (1000 µg/mL) MXXXXX into 1L = *10 µg/L*
100	**1 mL** of Custom Assurance Standard XCTWI-5-500 M13839 and **0.1 mL** W (1000 µg/mL) MXXXXX into 1L = *100 µg/L*
1000 (CCV)	**2 mL** of Custom Assurance Standard XCTWI-5-500 M13839 and **0.2 mL** W (1000 µg/mL) MXXXXX into 200mL = *1000 µg/L*
10000	**20 mL** of Custom Assurance Standard XCTWI-5-500 M13839 and **2 mL** W (1000 µg/mL) MXXXXX into 200mL = *10000 µg/L*

		Instrument:	ICP 6000
Standard Log #:	M14034	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	11/04/2019	Expiration Date:	02/28/2020

Prep:

Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13738, **6 mL** of Fe (10,000 mg/L) M13751, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M14008, **0.1 mL** of Sr (1000 µg/mL) M14007, **0.1 mL** of Ti (1000 µg/mL) M14009, and **0.1 mL** of W (1000 µg/mL) MXXXXX and brought up to volume using Milli-Q H_2O.
(0.5% HNO_3, 0.5% HCl)

		Instrument:	CETAC
Standard Log #:	M14032	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	10/31/2019	Expiration Date:	10/31/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M14028	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	10/30/2019	Expiration Date:	10/2020
Prep:	Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M13947 and Si (1000 mg/L) M13810 and brought up to volume using milli-Q H_2O. *50 ug/L std.* - **0.05 mL** of each *200 ug/L std.* - **0.2 mL** of each *1000 ug/L std.* -**1.0 mL** of each, also used for Continuing Calibration Verification *2000 ug/L std.* - **2.0 mL** of each *10,000 ug/L std.* -**10 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M14029	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	10/30/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13738, **0.05 mL** of B (1000 µg/mL) M13947, **0.05 mL** of Si (1000 µg/mL) M13810 and **3 mL** of Fe (10,000 mg/L) M13751 and brought up to volume using Milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M14030	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	10/30/2019	Expiration Date:	05/30/2020
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13839 and **1.0 mL** Si (1000 mg/L) M13981 and brought up to volume using milli-Q H_2O.		

Standard ID#:	M14031	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Acid Washed TCLP filters
Date Received:	10/31/2019	Lot #:	400165
Expiration Date (if any):		Catalog #:	FG77150MM

		Instrument:	HydraII
Standard Log #:	M14024	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/29/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14025	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/29/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14026	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/29/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M14027	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/30/2019	Expiration Date:	04/30/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13922 and brought up to volume.		

MRL BASE STD M14024 Analyst NAH

Prep Date 10/30/2019

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M13951	1000	1	02/2021
Al	400	M13690	10000	2	06/2020
Ba	10	M13949	1000	0.5	02/2021
Be	4	M13579	1000	0.2	02/2020
Cd	5	M13570	1000	0.25	01/2020
Co	10	M13575	1000	0.5	01/2020
Cr	10	M13617	10000	0.05	03/2020
Cu	10	M13618	10000	0.05	03/2020
Mg	500	M13752	10000	2.5	09/2020
Mn	10	M13616	10000	0.05	03/2020
Mo	10	M13860	1000	0.5	12/2020
Ni	10	M13569	1000	0.5	01/2020
Pb	10	M13615	10000	0.05	03/2020
Sb	20	M13950	1000	1	02/2021
V	10	M13578	1000	0.5	02/2020
Zn	10	M13610	10000	0.05	03/2020
K	1000	M14003	10000	5	04/2021
Na	1000	M13862	10000	5	12/2020
As	20	M13763	1000	1	12/2020
Ca	500	M13985	10000	2.5	04/2021
Fe	300	M13751	10000	1.5	09/2020
Se	20	M13948	1000	1	02/2021
Tl	20	M13583	1000	1	02/2020
Si	100	M13810	1000	5	10/2020
B	20	M13947	1000	1	02/2021
Li	20	M13577	1000	1	02/2020
W	50	Mxxxxxx	1000	2.5	xxxxxxxx
Ti	10	M14009	1000	0.5	04/2021
Sr	10	M14007	1000	0.5	03/2020
Sn	50	M14008	1000	2.5	04/2021
S	300	M13604	10000	1.5	03/2020

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M14022	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/23/2019	Expiration Date:	04/23/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13922 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M14023	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	10/30/2019	Expiration Date:	02/2020
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M13738 and 15 **mL** 10000 mg/L Fe M14004 5.0 **mL** 1000 mg/L V M13578 5.0 **mL** 1000 mg/L Ce M13859 and brought up to volume with milli-Q H_2O.		

Standard Log #:	M14020	Reagent:	Potassium Persulfate Solution
Analyst:	BMM		
Prep Date:	10/23/2019	Expiration Date:	04/23/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13714 and brought up to volume.		

Standard Log #:	M14021	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	BMM		
Prep Date:	10/23/2019	Expiration Date:	04/23/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13993 and **60 g** hydroxylamine sulfate M13874 and brought up to volume.		

Standard ID#:	M14016	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	10/23/2019	Lot #:	J267-10
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M14017	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride
Date Received:	10/23/2019	Lot #:	J267-10
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	CETAC
Standard Log #:	M14018	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	10/23/2019	Expiration Date:	10/24/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M14019	Reagent:	Potassium Permanganate Solution
Analyst:	BMM		
Prep Date:	10/23/2019	Expiration Date:	04/23/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M14012	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/21/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M14013	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/21/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M14014	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/21/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M14015	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/22/2019	Expiration Date:	09/30/2020
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13954 and **10 mL** Mg (10,000 mg/L) M13752 and brought up to volume.		

Standard Log #:	M14010	Reagent:	SPLP ACID MIX
Analyst:	BMM		60/40 H_2SO_4 - HNO_3
Prep Date:	10/21/2019	Expiration Date:	10/21/2020
Prep:	Into a 200 mL volumetric flask, partially filled with DI H_2O, add **12 g** H_2SO_4 AB.674 and **8 g** HNO_3 AB.677 and bring up to volume using DI H_2O.		

Standard Log #:	M14011	Reagent:	SPLP EXTRACTION FLUID EAST #
Analyst:	BMM	pH:	4.20 ± 0.05
Prep Date:	10/21/2019	Expiration Date:	10/21/2020
Prep:	Into a 20 L carboy filled with DI H_2O, adjust pH to 4.20 ± 0.05 using 60/40 HNO_3 - H_2SO_4 M14010.		

Standard ID#:	M14005	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	10/17/2019	Lot #:	168189-30
Expiration Date (if any):	04/2021	Catalog #:	4400-110M671

Standard ID#:	M14006	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	10/17/2019	Lot #:	1004985-62
Expiration Date (if any):	04/2021	Catalog #:	S4400-1000504F

Standard ID#:	M14007	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	10/17/2019	Lot #:	168227-95
Expiration Date (if any):	04/2021	Catalog #:	S4400-1000531

Standard ID#:	M14008	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/L
Date Received:	10/17/2019	Lot #:	977645-2
Expiration Date (if any):	04/2021	Catalog #:	S4400-1000613

Standard ID#:	M14009	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	10/17/2019	Lot #:	987438-36
Expiration Date (if any):	04/2021	Catalog #:	S4400-1000623

		Instrument:	CETAC
Standard Log #:	M14000	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/16/2019	Expiration Date:	04/16/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13923 and brought up to volume.		

Standard ID#:	M14001	Vendor:	ThermoFisher
Analyst:	MDS	Chemical:	Nickel Nitrate Matrix Modifier
Date Received:	10/17/2019	Lot #:	9192422
Expiration Date (if any):	04/30/2021	Catalog #:	39043

Standard Log #:	M14002	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	10/17/2019	Expiration Date:	10/17/2020
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH W47366 and brought up to volume.		

Standard ID#:	M14003	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	10/17/2019	Lot #:	980507-31
Expiration Date (if any):	04/2021	Catalog #:	4400-10M411

Standard ID#:	M14004	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	10/17/2019	Lot #:	998527-45
Expiration Date (if any):	04/2021	Catalog #:	4400-10M261

		Instrument:	GFAA
Standard Log #:	M13997	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/16/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13998	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/16/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13999	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/16/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard ID#:	M13993	Vendor:	Thermo fisher Scientific
Analyst:	NAH	Chemical:	Sodium Chloride
Date Received:	10/15/2019	Lot #:	193463
Expiration Date (if any):	06/2024	Catalog #:	S271-500

Standard ID#:	M13994	Vendor:	Thermo Fisher Scientific
Analyst:	NAH	Chemical:	Hydroxylamine Sulfate
Date Received:	10/15/2019	Lot #:	189407
Expiration Date (if any):	05/2024	Catalog #:	H331-500

		Instrument:	CETAC
Standard Log #:	M13995	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	10/15/2019	Expiration Date:	10/16/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M13996	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/16/2019	Expiration Date:	10/16/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

		Instrument:	ICP 6000
Standard Log #:	M13992	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	10/15/2019	Expiration Date:	01/2020
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13738, **6 mL** of Fe (10,000 mg/L) M13751, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) MXXXXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

		Instrument:	ICP 6000
Standard Log #:	M13989	Standard:	Sulfur ICAL
Analyst:	MDS	Concentrations:	1000 10,000 100,000 1000K µg/L (S)
Prep Date:	10/14/2019	Expiration Date:	06/2020
Prep:	Into four, 100 mL volumetric flasks, pipetted the following from stock standard S (10,000 µg/mL) M13696 and brought up to volume using milli-Q H_2O. *1000 ug/L std.* - **0.01 mL** *10,000 ug/L std.* - **0.1 mL** *100,000 ug/L std.* -**1.0 mL**, also used as the CCV *1000K ug/L std.* - **10 mL**		

		Instrument:	ICP 6000
Standard Log #:	M13990	Standard:	Sulfur ICV
Analyst:	MDS	Concentrations:	100,000 µg/L (S)
Prep Date:	10/14/2019	Expiration Date:	03/2020
Prep:	Into a 100 mL volumetric flask, pipetted **1.0 mL** of S (10,000 µg/mL) M13604 and brought up to volume using Milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13991	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	10/14/2019	Expiration Date:	12/2019
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13738, **0.05 mL** of B (1000 µg/mL) M13531, **0.05 mL** of Si (1000 µg/mL) M13861 and **3 mL** of Fe (10,000 mg/L) M13751 and brought up to volume using Milli-Q H_2O.		

		Instrument:	HydraII
Standard Log #:	M13986	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/15/2019	Expiration Date:	04/15/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13987	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/15/2019	Expiration Date:	04/15/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13988	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/15/2019	Expiration Date:	04/15/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M13982	Vendor:	CPI
Analyst:	NAH	Chemical:	Aluminum 10000 mg/L
Date Received:	10/09/2019	Lot #:	992536-16
Expiration Date (if any):	04/2021	Catalog #:	4400-10M11

Standard ID#:	M13983	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	10/09/2019	Lot #:	998527-45
Expiration Date (if any):	04/2021	Catalog #:	4400-10M261

Standard ID#:	M13984	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	10/09/2019	Lot #:	1013353-4
Expiration Date (if any):	04/2021	Catalog #:	4400-10M311

Standard ID#:	M13985	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	10/09/2019	Lot #:	855297-68
Expiration Date (if any):	04/2021	Catalog #:	4400-10M91

		Instrument:	CETAC
Standard Log #:	M13978	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/08/2019	Expiration Date:	04/08/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13923 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13979	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	10/09/2019	Expiration Date:	04/09/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13923 and brought up to volume.		

Standard ID#:	M13980	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	10/08/2019	Lot #:	52-248CR
Expiration Date (if any):	10/30/2020	Catalog #:	XSPIKE-1-250

Standard ID#:	M13981	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 mg/l
Date Received:	10/09/2019	Lot #:	1004985-62
Expiration Date (if any):	04/2021	Catalog #:	S4400-1000504F

		Instrument:	HydraII
Standard Log #:	M13976	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	10/07/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13975 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13977	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	10/07/2019	Expiration Date:	10/07/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13973	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/07/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13974	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/07/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13975	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/07/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M13970	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/07/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13971	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/07/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13972	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/07/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13969	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	10/02/2019	Expiration Date:	10/02/2020
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.681 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13967	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	10/01/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13966 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13968	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	10/01/2019	Expiration Date:	10/01/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13964	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	10/01/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13965	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	10/01/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13966	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	10/01/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M13963	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/30/2019	Expiration Date:	09/30/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

Standard ID#:	M13961	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std.
Date Received:	09/24/2019	Lot #:	7-093AB
Expiration Date (if any):	09/30/2020	Catalog #:	XCTWI-1-500

		Instrument:	CETAC
Standard Log #:	M13962	Reagent:	Stannous Chloride Solution
Analyst:	NAH		
Prep Date:	09/25/2019	Expiration Date:	09/25/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13923 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13960	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/19/2019	Expiration Date:	03/19/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.678 and dissolved **100 g** Stannous chloride M13889 and brought up to volume.		

		Instrument:	HydraII
Standard Log #:	M13958	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/17/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	HydraII
Standard Log #:	M13959	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	09/17/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13958 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13955	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	09/17/2019	Expiration Date:	09/17/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13956	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/17/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13957	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/17/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

Standard Log #:	M13952	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/13/2019	Expiration Date:	09/13/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

Standard Log #:	M13953	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/13/2019	Expiration Date:	09/13/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

Standard ID#:	M13954	Vendor:	Environmental Expresss
Analyst:	MDS	Chemical:	1% Pd Matrix Modifier
Date Received:	09/13/2019	Lot #:	1925215
Expiration Date (if any):	09/30/2020	Catalog #:	HP1900-100

		Instrument:	CETAC
Standard Log #:	M13946	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/10/2019	Expiration Date:	03/10/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13889 and brought up to volume.		

Standard ID#:	M13947	Vendor:	CPI
Analyst:	NAH	Chemical:	Boron 1000 mg/lL
Date Received:	09/10/2019	Lot #:	982524-80
Expiration Date (if any):	02/2021	Catalog #:	S4400-100074

Standard ID#:	M13948	Vendor:	CPI
Analyst:	NAH	Chemical:	Selenium 1000 mg/L
Date Received:	09/10/2019	Lot #:	982461-61
Expiration Date (if any):	02/2021	Catalog #:	S4400-1000491

Standard ID#:	M13949	Vendor:	CPI
Analyst:	NAH	Chemical:	Barium 1000 mg/L
Date Received:	09/10/2019	Lot #:	994634-28
Expiration Date (if any):	02/2021	Catalog #:	S4400-100041

Standard ID#:	M13950	Vendor:	CPI
Analyst:	NAH	Chemical:	Antimony 1000 mg/L
Date Received:	09/10/2019	Lot #:	1013797-3
Expiration Date (if any):	02/2019	Catalog #:	S4400-100023

Standard ID#:	M13951	Vendor:	CPI
Analyst:	NAH	Chemical:	Silver 1000 mg/L
Date Received:	09/10/2019	Lot #:	975475-71
Expiration Date (if any):	02/2021	Catalog #:	S4400-1000511

		Instrument:	HydraII
Standard Log #:	M13944	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	09/09/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13943 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13945	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	09/09/2019	Expiration Date:	09/09/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13941	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/09/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13942	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/09/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13943	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/09/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M13938	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	09/09/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13939	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	09/09/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13940	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	09/09/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13937	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	09/06/2019	Expiration Date:	02/28/2020
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13738, **2.5 mL** of K (10,000 mg/L) M13755, **2.5 mL** of Na (10,000 mg/L) M13691 and **7.5 mL** of Fe (10,000 mg/L) M13695 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13933	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	09/06/2019	Expiration Date:	03/2020
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13607 and K (1000 µg/mL) M13606 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13934	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	09/06/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13607 and **0.5 mL** K (1000 µg/mL) M13606 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13935	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	09/06/2019	Expiration Date:	06/2020
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13755 and Na (10,000 mg/L) M13691 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13936	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	09/06/2019	Expiration Date:	06/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M13691 and **0.15 mL** K (10,000 µg/mL) M13755 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	HydraII
Standard Log #:	M13929	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13928 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13930	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	09/03/2019	Expiration Date:	10/03/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13889 and brought up to volume.		

Standard Log #:	M13931	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/03/2019	Expiration Date:	09/03/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

Standard Log #:	M13932	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/03/2019	Expiration Date:	09/03/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13877. Dilute to 20 L and mix.		

		Instrument:	HydraII
Standard Log #:	M13926	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13927	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13928	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	09/03/2019	Expiration Date:	03/03/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard ID#:	M13924	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 mg/L
Date Received:	08/29/2019	Lot #:	1833905
Expiration Date (if any):	02/28/2021	Catalog #:	HP10M67-1

		Instrument:	HydraII
Standard Log #:	M13920	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/27/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13919 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13921	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/28/2019	Expiration Date:	09/28/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13889 and brought up to volume.		

Standard ID#:	M13922	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	08/28/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M13923	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	08/28/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	HydraII
Standard Log #:	M13917	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/27/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13918	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/27/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13919	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/27/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	GFAA
Standard Log #:	M13916	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	08/26/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

		Instrument:	GFAA
Standard Log #:	M13914	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	08/26/2019	Expiration Date:	10/2019
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) M13459 **3.2 mL** of As (1000 mg/L) M13863 **3.2 mL** of Se (1000 mg/L) M13460 **0.08 mL** of Pb (10,000 mg/L) M13615 **1.0 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M13915	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	08/26/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M13459 **1.0 mL** of As (1000 mg/L) M13863 **2.0 mL** of Se (1000 mg/L) M13460 **0.045 mL** of Pb (10,000 mg/L) M13615 **0.4 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

Standard Log #:	M13913 (A)	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 B&Si Spiking Solution
Prep Date:	08/26/2019	Expiration Date:	12/19/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	16	M13531	1000	0.8
Si	200	M13861	1000	10

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13913 combined with A	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 S Spiking Solution
Prep Date:	08/26/2019	Expiration Date:	06/20/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	200	M13696	10000	1.0

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M13911	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/21/2019	Expiration Date:	02/21/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13912	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	08/21/2019	Expiration Date:	08/21/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13909	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/20/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13908 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13910	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	08/20/2019	Expiration Date:	08/20/2020
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.655 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13906	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/20/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13907	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/20/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13908	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/20/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

Standard Log #:	M13904	Reagent:	Potassium Persulfate Solution
Analyst:	BMM		
Prep Date:	08/19/2019	Expiration Date:	08/19/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

Standard Log #:	M13905	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	BMM		
Prep Date:	08/19/2019	Expiration Date:	08/19/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13728 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13902	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/15/2019	Expiration Date:	02/15/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

Standard ID#:	M13903	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/15/2019	Lot #:	52-161Cr
Expiration Date (if any):	8/30/2020	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13898	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	08/13/2019	Expiration Date:	08/13/2020
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	HydraII
Standard Log #:	M13899	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/13/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	HydraII
Standard Log #:	M13900	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/13/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	HydraII
Standard Log #:	M13901	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/13/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13734 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13897	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	12 µg/L As 6 µg/L Pb 10 µg/L Sb 20 µg/L Se 10 µg/L Tl 0.6 µg/L Ag
Prep Date:	08/12/2019	Expiration Date:	10/2019

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13863	10,000
Pb	0.1	10,000	M13615	10,000
Tl	1	1000	M13583	10,000
Se	1	1000	M13460	10,000
Sb	1	1000	M13459	10,000
Ag	0.1	1000	M13458	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.2	10,000	12
Pb	0.6	10,000	6
Tl	1.0	10,000	10
Se	2.0	10,000	20
Sb	1.0	10,000	10
Ag	0.6	1000	0.6

Standard Log #:	M13896	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	08/09/2019	Expiration Date:	08/09/2020
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13895	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	08/06/2019	Expiration Date:	02/06/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13894	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	08/05/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13893 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13891	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	08/05/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13892	Standard:	Hg CCV
Analyst:	MDS	Concentration:	3.0 ug/L Hg
Prep Date:	08/05/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13893	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	08/05/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13890	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/29/2019	Expiration Date:	01/29/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13888 and brought up to volume.		

Standard ID#:	M13888	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	07/25/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

Standard ID#:	M13889	Vendor:	LabChem
Analyst:	MDS	Chemical:	Stannous Chloride Dihydrate
Date Received:	07/25/2019	Lot #:	J142-19
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	CETAC
Standard Log #:	M13884	Reagent:	Hg Aqua Regia
Analyst:	BMM		
Prep Date:	07/22/2019	Expiration Date:	
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13885	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	07/22/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13886	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	07/22/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13887	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	07/22/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	CETAC
Standard Log #:	M13883	Reagent:	Stannous Chloride Solution
Analyst:	MDS		
Prep Date:	07/18/2019	Expiration Date:	01/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13879	Reagent:	Hg Aqua Regia
Analyst:	MDS		
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13880	Standard:	Hg ICAL
Analyst:	MDS	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	07/18/2019	Expiration Date:	01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13881	Standard:	Alt. Source Working Std.
Analyst:	MDS	Concentrations:	10,000 and 100 ug/L
Prep Date:	07/18/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13882	Standard:	Hg ICV/LCS
Analyst:	MDS	Concentration:	3 ug/L
Prep Date:	07/18/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13881 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13876	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13877	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH W45383 and brought up to volume.		

Standard Log #:	M13878	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M45383. Dilute to 20 L and mix.		

Standard Log #:	M13873	Reagent:	Potassium Permanganate Solution
Analyst:	NAH		
Prep Date:	07/17/2019	Expiration Date:	07/17/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard ID#:	M13874	Vendor:	Fisher
Analyst:	NAH	Chemical:	Hydroxylamine Sulfate
Date Received:	07/17/2019	Lot #:	175511
Expiration Date (if any):		Catalog #:	H331-500

Standard Log #:	M13875	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	NAH		
Prep Date:	07/18/2019	Expiration Date:	07/18/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13728 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13872	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/12/2019	Expiration Date:	07/12/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13871	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/11/2019	Expiration Date:	07/11/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13870	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/10/2019	Expiration Date:	07/10/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13869	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/08/2019	Expiration Date:	07/08/2019
Prep:	Carefully mixed **3** parts HCl AB.680 with **1** part HNO_3 AB.679 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13868	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	07/03/2019	Expiration Date:	01/03/2020
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.680 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13864	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	07/02/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M13865	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	01/02/2020
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13728 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

Standard Log #:	M13866	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	01/02/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M13867	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	07/02/2019	Expiration Date:	01/02/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13858	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/26/2019	Expiration Date:	06/26/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13859	Vendor:	CPI
Analyst:	NAH	Chemical:	Ce 1000 mg/L
Date Received:	06-26-2019	Lot #:	171633-12
Expiration Date (if any):	12/2020	Catalog #:	S4400-1000101

Standard ID#:	M13860	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	06-26-2019	Lot #:	987189-17
Expiration Date (if any):	12/2020	Catalog #:	S4400-1000343

Standard ID#:	M13861	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	06-26-2019	Lot #:	175213-60
Expiration Date (if any):	12/2020	Catalog #:	S4400-1000504F

Standard ID#:	M13862	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 mg/L
Date Received:	06-26-2019	Lot #:	752887-32
Expiration Date (if any):	12/2020	Catalog #:	4400-10M521

Standard ID#:	M13863	Vendor:	CPI
Analyst:	NAH	Chemical:	As 1000 mg/L
Date Received:	06-26-2019	Lot #:	175385-105
Expiration Date (if any):	12/2020	Catalog #:	S4400-100031

Standard Log #:	M13856	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/21/2019	Expiration Date:	06/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13857	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	06/21/2019	Expiration Date:	06/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M13855	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/19/2019	Expiration Date:	06/19/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13851	Vendor:	CPI
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06-19-2019	Lot #:	52-082CR
Expiration Date (if any):	06/30/2020	Catalog #:	XSPIKE-1-250

		Instrument:	GFAA
Standard Log #:	M13852	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	06/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. ($1\% HNO_3$)		

		Instrument:	GFAA
Standard Log #:	M13853	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	06/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. ($1\% HNO_3$)		

		Instrument:	GFAA
Standard Log #:	M13854	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	06/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. ($1\% HNO_3$)		

		Instrument:	CETAC
Standard Log #:	M13850	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/14/2019	Expiration Date:	06/14/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M13849	Instrument:	GFAA
Analyst:	MDS	Standard:	MDL Spiking Solution
Prep Date:	06/13/2019	Expiration Date:	07/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (2% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Ag	0.2	M13458	1000	0.01
As	2	M13392	1000	0.1
Pb	2	M13615	10000	0.01
Sb	2	M13459	1000	0.1
Se	2	M13460	1000	0.1
Tl	2	M13583	1000	0.1

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13848	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3010 DOD Metals Spiking S
Prep Date:	06/11/2019	Expiration Date:	10/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	36	M13611	**10000**	0.18
As	24	M13753	1000	1.2
Ba	1.8	M13457	1000	0.09
Be	0.6	M13579	1000	0.03
Ca	100	M13692	**10000**	0.5
Cd	2.0	M13570	1000	0.1
Co	4	M13575	1000	0.2
Cr	4	M13697	**10000**	0.02
Cu	7	M13618	**10000**	0.035
Fe	100	M13609	**10000**	0.5
Mg	40	M13694	**10000**	0.2
Mn	4	M13616	**10000**	0.02
Mo	7	M13697	1000	0.35
Ni	6	M13569	1000	0.2
Pb	4	M13615	**10000**	0.02
Sb	12	M13459	1000	0.6
Se	13	M13460	1000	0.65
Tl	20	M13583	1000	0.75
V	5	M13578	1000	0.25
Zn	10	M13610	**10000**	0.05

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13847	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3050 DOD Metals Spiking S
Prep Date:	06/11/2019	Expiration Date:	10/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	9.6	M13611	**10000**	0.048
As	32	M13753	1000	1.6
Ba	2	M13457	1000	0.1
Be	1.6	M13579	1000	0.08
Ca	56	M13692	**10000**	0.28
Cd	1.6	M13570	1000	0.08
Co	9.6	M13575	1000	0.48
Cr	5.6	M13697	**10000**	0.028
Cu	16	M13618	**10000**	0.08
Fe	72	M13609	**10000**	0.36
Mg	32	M13694	**10000**	0.16
Mn	6	M13616	**10000**	0.03
Mo	9.6	M13697	1000	0.48
Ni	4.8	M13569	1000	0.24
Pb	10	M13615	**10000**	0.05
Sb	32	M13459	1000	1.6
Se	16	M13460	1000	0.8
Tl	19	M13583	1000	0.95
V	3.2	M13578	1000	0.16
Zn	12	M13610	**10000**	0.06

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13845	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 k&na Spiking Solution
Prep Date:	06/11/2019	Expiration Date:	06/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
K	500	M13811	10000	2.5
Na	600	M13691	10000	3

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13846	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 k&na Spiking Solution
Prep Date:	06/11/2019	Expiration Date:	06/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
K	2640	M13811	10000	13.2
Na	960	M13691	10000	4.8

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M13839	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/11/2019	Lot #:	52-038CR
Expiration Date (if any):	05/30/2020	Catalog #:	XCTWI-5-500

Standard ID#:	M13840	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/11/2019	Lot #:	5-244AB
Expiration Date (if any):	06/30/2020	Catalog #:	XCTWWI-1-500

Standard ID#:	M13841	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10,000 mg/L
Date Received:	06/11/2019	Lot #:	855297-41
Expiration Date (if any):	11/2020	Catalog #:	4400-10M91

Standard ID#:	M13842	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10,000 mg/L
Date Received:	06/11/2019	Lot #:	169484-36
Expiration Date (if any):	11/2020	Catalog #:	4400-10M11

Standard ID#:	M13843	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	06/11/2019	Lot #:	168189-30
Expiration Date (if any):	11/20	Catalog #:	4400-10M671

Standard ID#:	M13844	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	06/11/2019	Lot #:	175213-60
Expiration Date (if any):	11/2020	Catalog #:	S4400-1000504F

		Instrument:	GFAA
Standard Log #:	M13838	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	06/07/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

		Instrument:	GFAA
Standard Log #:	M13836	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	06/07/2019	Expiration Date:	07/2019
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) M13459 **3.2 mL** of As (1000 mg/L) M13392 **3.2 mL** of Se (1000 mg/L) M13460 **0.08 mL** of Pb (10,000 mg/L) M13615 **1.0 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M13837	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	06/07/2019	Expiration Date:	07/2019
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M13459 **1.0 mL** of As (1000 mg/L) M13392 **2.0 mL** of Se (1000 mg/L) M13460 **0.045 mL** of Pb (10,000 mg/L) M13615 **0.4 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

		Instrument:	CETAC
Standard Log #:	M13835	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/06/2019	Expiration Date:	06/06/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	ICP 6500
Standard Log #:	M13832	Standard:	CCV1
Analyst:	NAH	Concentrations:	**5000 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **500 µg/L** Ag, Be, Cd
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Into a 1 L volumetric flask, pipetted **50 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and **5.0 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M13827 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13833	Standard:	CCV2
Analyst:	NAH	Concentrations:	**500 µg/L** Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn **50 µg/L** Ag, Be, Cd
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** Custom Assurance Standard #23 XCTWI-5-500 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and **0.5 mL** of Custom Assurance Std. #3 XCTWI-4-500 (100 mg/L Ag, Be, Cd) M13827 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13834	Standard:	ICSAB
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **500 ug/L** Ag, As, Ba, Be, Cd, Co, Cr, Cu, Mn, Mo, Ni, Pb, Sb, Se, Tl, V, Zn
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M13738, **15 mL** Fe (10,000 mg/L) M13751, **2.5 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13827 and **2.5 mL** Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and brought up to volume with milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M13830	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	06/03/2019	Expiration Date:	12/03/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M13831	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	06/03/2019	Expiration Date:	02/20
Prep:	Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (5% HNO_3, 5% HCl) *1000 ug/L Std.* - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741, **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13827 and **1 mL** of Si (1000 mg/L) M13810 and 1 mL M13703 Ce *0.25 ug/L Std.* - **0.25 mL** of the 1000 ug/L Std. *0.5 ug/L Std.* - **0.5 mL** of the 1000 ug/L Std. *1 ug/L Std.* - **1 mL** of the 1000 ug/L Std. *5 ug/L Std.* - **5 mL** of the 1000 ug/L Std. *10 ug/L Std.* - **10 mL** of the 1000 ug/L Std. *20 ug/L Std.* - **20 mL** of the 1000 ug/L Std. *50 ug/L Std.* - **50 mL** of the 1000 ug/L Std. *100 ug/L Std.* - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3 *10,000 ug/L Std.* - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M13811. *100k ug/L Std.* - **10 mL** of Cu (10,000 mg/L) M13618, **10 mL** of Mn (10,000 mg/L) M13616, **10 mL** of Cr (10,000 mg/L) M13617, **10 mL** Pb (10,000 mg/L) M13610, **10 mL** of Zn (10,000 mg/L) M13615 and **10 mL** of Na (10,000 mg/L) M13691. *100,000 ug/L Std.* - **10 mL** of Mg (10,000 mg/L) M13752, **10 mL** of Fe (10,000 mg/L) M13751, **10 mL** of Ca (10,000 mg/L) M13690 and **10 mL** Al (10,000 mg/L) M13693. *500,000 ug/L Std.* - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L) *1000k ug/L Std.* - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)		

		Instrument:	CETAC
Standard Log #:	M13829	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/31/2019	Expiration Date:	05/31/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13828	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/30/2019	Expiration Date:	05/30/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13827	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05-29-2019	Lot #:	XCTWI-4-500
Expiration Date (if any):	5/30/2020	Catalog #:	5-116AB

		Instrument:	CETAC
Standard Log #:	M13823	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	05/24/2019	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13824	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	05/24/2019	Expiration Date:	11/24/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

Standard Log #:	M13825	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	05/24/2019	Expiration Date:	11/24/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

Standard Log #:	M13826	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/24/2019	Expiration Date:	11/24/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13820	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	05/24/2019	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13821	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	05/24/2019	Expiration Date:	02/28/2020
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13734 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13822	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	05/24/2019	Expiration Date:	02/28/2020
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13734 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13818	Reagent:	TCLP 1 N HCL
Analyst:	BMM		
Prep Date:	05/22/2019	Expiration Date:	05/23/2020
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, added 83 mL HCL AB.676 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13819	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/22/2019	Expiration Date:	05/22/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13817	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/16/2019	Expiration Date:	05/16/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard Log #:	M13813	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	05/14/2019	Expiration Date:	09/30/2019
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13600 and **10 mL** Mg (10,000 mg/L) M13694 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M13814	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	05/14/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13815	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	05/14/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13816	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	05/14/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13812	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/13/2019	Expiration Date:	11/13/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard ID#:	M13808	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 ug/mL
Date Received:	05-09-2019	Lot #:	158237-121
Expiration Date (if any):	10/20	Catalog #:	4400-1000521-500

Standard ID#:	M13809	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 ug/mL
Date Received:	05-09-2019	Lot #:	832313-110
Expiration Date (if any):	10/20	Catalog #:	4400-1000411-500

Standard ID#:	M13810	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	05-09-2019	Lot #:	175213-60
Expiration Date (if any):	10/20	Catalog #:	S400-1000504F

Standard ID#:	M13811	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 ug/mL
Date Received:	05-09-2019	Lot #:	980507-14
Expiration Date (if any):	10/20	Catalog #:	4400-10M411-500

		Instrument:	CETAC
Standard Log #:	M13805	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/07/2019	Expiration Date:	05/07/2019
Prep:	Carefully mixed **3** parts HCl AB.677 with **1** part HNO_3 AB.676 in a hood.		

Standard Log #:	M13806	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/07/2019	Expiration Date:	05/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13807	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	05/07/2019	Expiration Date:	05/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

MRL BASE STD M13804 Analyst NAH

Prep Date 05/07/2019

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M13458	1000	1	10/19
Al	400	M13611	10000	2	3/20
Ba	10	M13457	1000	0.5	10/19
Be	4	M13579	1000	0.2	2/20
Cd	5	M13570	1000	0.25	1/20
Co	10	M13575	1000	0.5	1/20
Cr	10	M13617	10000	0.05	3/20
Cu	10	M13618	10000	0.05	3/20
Mg	500	M13694	10000	2.5	6/20
Mn	10	M13616	10000	0.05	3/20
Mo	10	M13697	1000	0.5	6/20
Ni	10	M13569	1000	0.5	1/20
Pb	10	M13615	10000	0.05	3/20
Sb	20	M13579	1000	1	10/19
V	10	M13578	1000	0.5	2/20
Zn	10	M13610	10000	0.05	3/20
K	1000	M13755	10000	5	9/20
Na	1000	M13691	10000	5	6/20
As	20	M13753	1000	1	10000 std 0.1, 9/20
Ca	500	M13692	10000	2.5	6/20
Fe	300	M13695	10000	1.5	6/20
Se	20	M13460	1000	1	10/19
Tl	20	M13583	1000	1	2/20
Si	100	M13754	1000	5	9/20
B	20	M13531	1000	1	12/19
Li	20	M13577	1000	1	2/20
W	50	xxxx	1000	2.5	xxxx
Ti	10	M13573	1000	0.5	1/20
Sr	10	M13580	1000	0.5	2/20
Sn	50	M13572	1000	2.5	1/20
S	300	M13604	10000	1.5	3/20

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Expiration Date: 10/19

		Instrument:	CETAC
Standard Log #:	M13800	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	05/06/2019	Expiration Date:	11/06/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	ICP 6000
Standard Log #:	M13801	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	05/06/2019	Expiration Date:	12/2019
Prep:	Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M13531 and Si (1000 mg/L) M13731 and brought up to volume using milli-Q H_2O. *50 ug/L std.* - **0.05 mL** of each *200 ug/L std.* - **0.2 mL** of each *1000 ug/L std.* -**1.0 mL** of each, also used for Continuing Calibration Verification *2000 ug/L std.* - **2.0 mL** of each *10,000 ug/L std.* -**10 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13802	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	05/06/2019	Expiration Date:	02/28/2020
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13741 and **1.0 mL** Si (1000 mg/L) M13754 and brought up to volume using milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13803	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	05/06/2019	Expiration Date:	09/30/2019
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **0.05 mL** of B (1000 µg/mL) M13531, **0.05 mL** of Si (1000 µg/mL) M13731 and **3 mL** of Fe (10,000 mg/L) M13609 and brought up to volume using Milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13798	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	05/03/2019	Expiration Date:	01/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of the following and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) Li (1000 µg/mL) M13577 Sn (1000 µg/mL) M13572 Sr (1000 µg/mL) M13580 Ti (1000 µg/mL) M13573 W (1000 µg/mL) MXXXXX		

		Instrument:	ICP 6000
Standard Log #:	M13799	Standard:	List 2 MRL/ICVLL Prep Solution
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)
Prep Date:	05/03/2019	Expiration Date:	01/2020

Prep:

Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date
Li	20/60	M13577	1000	1	02/2020
W	100/300	MXXXXX	1000	5	XX/XXXX
Ti	10/30	M13573	1000	0.5	01/2020
Sr	10/30	M13580	1000	0.5	02/2020
Sn	20/60	M13572	1000	1	01/2020

Pipette **10 mL** into a 500 mL volumetric flask to create a working MRL std. or **1 mL** into a 50 mL digestion tube for a digested MRL standard. Pipette **30 mL** into 500 mL for a working ICVLL std. or **3 mL** into a 50 mL digestion tube for a digested ICVLL standard.

(0.5% HNO_3, 0.5% HCl)

		Instrument:	CETAC
Standard Log #:	M13795	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	05/03/2019	Expiration Date:	05/03/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

		Instrument:	ICP
Standard Log #:	M13796	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	05/03/2019	Expiration Date:	02/28/2020
Prep:	Standard Conc. (ug/L) — Pipette the following: 1 — **0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.001 mL** W (1000 µg/mL) MXXXXX into 1L = *1 µg/L* 10 — **0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.01 mL** W (1000 µg/mL) MXXXXX into 1L = *10 µg/L* 100 — **1 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.1 mL** W (1000 µg/mL) MXXXXX into 1L = *100 µg/L* 1000 (CCV) — **2 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **0.2 mL** W (1000 µg/mL) MXXXXX into 200mL = *1000 µg/L* 10000 — **20 mL** of Custom Assurance Standard XCTWI-5-500 M13741 and **2 mL** W (1000 µg/mL) MXXXXX into 200mL = *10000 µg/L*		

		Instrument:	ICP 6000
Standard Log #:	M13797	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	05/03/2019	Expiration Date:	09/30/2019
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **6 mL** of Fe (10,000 mg/L) M13609, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) MXXXXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

Standard Log #:	M13793	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	05/02/2019	Expiration Date:	11/02/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13793 and brought up to volume.		

Standard Log #:	M13794	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	05/02/2019	Expiration Date:	11/02/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13511 and **60 g** hydroxylamine sulfate M13727 and brought up to volume.		

Standard ID#:	M13790	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	04/29/2019	Lot #:	1833905
Expiration Date (if any):	10/31/2020	Catalog #:	HP10M67-1

Standard ID#:	M13791	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	04/29/2019	Lot #:	51-239CR
Expiration Date (if any):	02/28/2020	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13792	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/29/2019	Expiration Date:	04/29/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.677 in a hood.		

Standard ID#:	M13785	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICAL/CCV BASE STD
Date Received:	04/19/2019	Lot #:	P2-MEB678822
Expiration Date (if any):	04/19/2020	Catalog #:	CTI-SPK-1

Standard ID#:	M13786	Vendor:	Inorganic Ventures
Analyst:	MDS	Chemical:	GFAA ICV/SPIKE BASE STD
Date Received:	04/19/2019	Lot #:	P2-MEB678821
Expiration Date (if any):	04/19/2020	Catalog #:	CTI-GFCAL-1

		Instrument:	GFAA
Standard Log #:	M13787	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	04/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q H_2O. ($1\% HNO_3$)		

		Instrument:	GFAA
Standard Log #:	M13788	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	04/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13785 and brought to volume with Milli-Q DI H_2O. ($1\% HNO_3$)		

		Instrument:	GFAA
Standard Log #:	M13789	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	04/19/2019	Expiration Date:	04/19/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13786 and brought to volume with Milli-Q DI H_2O. ($1\% HNO_3$)		

Standard Log #:	M13782	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	04/18/2019	Expiration Date:	04/18/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard ID#:	M13783	Vendor:	Alfa Aesar
Analyst:	MDS	Chemical:	GFAA 1% Nickel Nitrate Matrix Mod.
Date Received:	04/18/2019	Lot #:	9166009
Expiration Date (if any):	09/30/2020	Catalog #:	39043

Standard Log #:	M13784	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	04/18/2019	Expiration Date:	10/18/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M13780	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	04/17/2019	Expiration Date:	10/17/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13781	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/17/2019	Expiration Date:	04/17/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M13779	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	04/12/2019	Expiration Date:	09/30/2019
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **2.5 mL** of K (10,000 mg/L) M13693, **2.5 mL** of Na (10,000 mg/L) M13605 and **7.5 mL** of Fe (10,000 mg/L) M13609 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

Standard Log #:	M13778	Reagent:	1:3 HNO3
Analyst:	MDS		
Prep Date:	04/11/2019	Expiration Date:	04/11/2020
Prep:	Carefully mixed **3** parts DI with **1** part HNO_3 AB.672 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13777	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/09/2019	Expiration Date:	04/09/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

Standard Log #:	M13775	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	04/02/2019	Expiration Date:	09/30/2019
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13600 and **10 mL** Mg (10,000 mg/L) M13614 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13776	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/03/2019	Expiration Date:	04/03/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13771	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	03/26/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13772	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	03/26/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13773	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	03/26/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13774	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	03/26/2019	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	CETAC
Standard Log #:	M13770	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	03/25/2019	Expiration Date:	03/25/2019
Prep:	Carefully mixed **3** parts HCl AB.676 with **1** part HNO_3 AB.675 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13768	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	03/21/2019	Expiration Date:	01/01/2019
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13769	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	03/21/2019	Expiration Date:	09/21/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.676 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13765	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	03/21/2019	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13766	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	03/21/2019	Expiration Date:	04/30/2019
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13444 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13767	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	03/21/2019	Expiration Date:	04/30/2019
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13444 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

Standard Log #:	M13763	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/20/2019	Expiration Date:	03/20/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

Standard Log #:	M13764	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	03/20/2019	Expiration Date:	03/20/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13750. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M13761	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	03/19/2019	Expiration Date:	03/19/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard Log #:	M13762	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	03/19/2019	Expiration Date:	09/19/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13511 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	ICP 6500
Standard Log #:	M13758	Standard:	ICSA4_Ni_Ti
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ni and Ti
Prep Date:	03/13/2019	Expiration Date:	01/2020
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ni M13569 5.0 **mL** 10000 mg/L Ti M13573 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13759	Standard:	ICSA2_Ba_Be_Sn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Ba, Be, and Sn
Prep Date:	03/13/2019	Expiration Date:	10/2019
Prep:	Into a 500 mL volumetric flask, pipetted 5.0 **mL** 1000 mg/L Ba M13457 5.0 **mL** 10000 mg/L Be M13579 5.0 **mL** 10000 mg/L Sn M13572 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13760	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg **10,000** V, Ce
Prep Date:	03/13/2019	Expiration Date:	09/2019
Prep:	Into a 500 mL volumetric flask, pipetted 50 **mL** Interference A std M13635 and 15 **mL** 10000 mg/L Fe M13609 5.0 **mL** 1000 mg/L V M13578 5.0 **mL** 1000 mg/L Ce M13203 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13756	Standard:	ICSA1_Mn
Analyst:	NAH	Concentrations:	**10,000 ug/L** Mn
Prep Date:	03/13/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L mn M13616 brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13757	Standard:	ICSA3_Cr_Cu_Co_Mo
Analyst:	NAH	Concentrations:	**10,000 ug/L** Cr, Cu, Co and Mo
Prep Date:	03/13/2019	Expiration Date:	01/20
Prep:	Into a 500 mL volumetric flask, pipetted 0.5 **mL** 10000 mg/L Cr M13617 0.5 **mL** 10000 mg/L Cu M13618 5.0 **mL** 1000 mg/L Co M13575 5.0 **mL** 1000 mg/L Mo M13697 brought up to volume with milli-Q H_2O.		

Standard ID#:	M13751	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	03/12/2019	Lot #:	998527-19
Expiration Date (if any):	09/2020	Catalog #:	4400-10M261

Standard ID#:	M13752	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	03/12/2019	Lot #:	982185-12
Expiration Date (if any):	09/2020	Catalog #:	4400-10M311

Standard ID#:	M13753	Vendor:	CPI
Analyst:	NAH	Chemical:	As 10000 mg/L
Date Received:	03/12/2019	Lot #:	166531-32
Expiration Date (if any):	09/2020	Catalog #:	S4400--10M31

Standard ID#:	M13754	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	03/12/2019	Lot #:	175213-60
Expiration Date (if any):	09/2020	Catalog #:	S4400-1000504F

Standard ID#:	M13755	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	03/12/2019	Lot #:	172053-77
Expiration Date (if any):	09/2020	Catalog #:	4400-10M411

		Instrument:	CETAC
Standard Log #:	M13749	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	03/08/2019	Expiration Date:	03/08/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard Log #:	M13750	Reagent:	10N NaOH
Analyst:	BMM		
Prep Date:	03/08/2019	Expiration Date:	03/08/2020
Prep:	Into a 1 L volumetric flask, added **400 g** NaOH W45383 and brought up to volume.		

Standard ID#:	M13748	Vendor:	Potters Ind. LLC (Gainger)
Analyst:	NAH	Chemical:	Glass beads Extra Fine
Date Received:	03/07/2019	Lot #:	
Expiration Date (if any):	XXXXXX	Catalog #:	6ZC13

		Instrument:	ICP
Standard Log #:	M13746	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	03/04/2019	Expiration Date:	09/30/2019
Prep:	Standard Conc. (ug/L) — Pipette the following: 1 — **0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.001 mL** W (1000 µg/mL) XXXXXX into 1L = *1 µg/L* 10 — **0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.01 mL** W (1000 µg/mL) XXXXXX into 1L = *10 µg/L* 100 — **1 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.1 mL** W (1000 µg/mL) XXXXXX into 1L = *100 µg/L* 1000 (CCV) — **2 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **0.2 mL** W (1000 µg/mL) XXXXXX into 200mL = *1000 µg/L* 10000 — **20 mL** of Custom Assurance Standard XCTWI-5-500 M13602 and **2 mL** W (1000 µg/mL) XXXXXX into 200mL = *10000 µg/L*		

		Instrument:	ICP 6000
Standard Log #:	M13747	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	03/04/2019	Expiration Date:	09/30/2019
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **6 mL** of Fe (10,000 mg/L) M13609, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) XXXXXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

Standard Log #:	M13743	Instrument:	ICP 6500
Analyst:	NAH	Standard:	MDL DOD Metals Spiking soln
Prep Date:	02/26/2019	Expiration Date:	10/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	5	M13458	1000	0.25
Al	10	M13611	**10000**	0.05
As	20	M13392	1000	1
Ba	2	M13457	1000	0.1
Be	0.5	M13579	1000	0.025
Ca	50	M13692	**10000**	0.25
Cd	0.5	M13570	1000	0.025
Co	2.5	M13575	1000	0.125
Cr	5.0	M13617	**10000**	0.025
Cu	10	M13618	**10000**	0.05
Fe	40	M13609	**10000**	0.2
Mg	25	M13694	**10000**	0.125
Mn	5	M13616	**10000**	0.025
Mo	2.5	M13697	1000	0.125
Ni	5	M13569	1000	0.25
Pb	10	M13615	**10000**	0.05
Sb	20	M13459	1000	1
Se	20	M13460	1000	1
Tl	20	M13583	1000	1
V	5	M13578	1000	0.25
Zn	5	M13610	**10000**	0.025
Na	500	M13605	**10000**	2.5
K	500	M13733	**10000**	2.5
B	20	M13531	1000	1
Si	100	M13731	1000	5
S	200	M13604	**10000**	1
Li	20	M13537	1000	1
Sr	20	M13572	1000	1
Sn	20	M13580	1000	1
Ti	20	M13573	1000	1

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	ICP 6000
Standard Log #:	M13740	Standard:	Sulfur ICV
Analyst:	MDS	Concentrations:	100,000 µg/L (S)
Prep Date:	02/26/2019	Expiration Date:	03/2020
Prep:	Into a 100 mL volumetric flask, pipetted **1.0 mL** of S (10,000 µg/mL) M13604 and brought up to volume using Milli-Q H_2O.		

Standard ID#:	M13741	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	02-26-2019	Lot #:	3-153AB
Expiration Date (if any):	02/28/2020	Catalog #:	XCTWI-5-500

Standard ID#:	M13742	Vendor:	IKOHE Blasting Media
Analyst:	NAH	Chemical:	Glass Neads X-fine-20u
Date Received:	02/26/2019	Lot #:	52-144
Expiration Date (if any):	*********	Catalog #:	UL-49/52-1544

		Instrument:	CETAC
Standard Log #:	M13739	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/22/2019	Expiration Date:	02/22/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard ID#:	M13734	Vendor:	SPEX CERTIPREP
Analyst:	LJF	Chemical:	HG 1000 ug/mL
Date Received:	02/21/2019	Lot #:	CL10-136HGY
Expiration Date (if any):	02/28/2020	Catalog #:	CLHG4-2Y

Standard Log #:	M13735	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/21/2019	Expiration Date:	02/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13736	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/21/2019	Expiration Date:	02/21/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13737	Vendor:	SPEX CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	02/21/2019	Lot #:	51-117CR
Expiration Date (if any):	02/28/2020	Catalog #:	XSPIKE-1-250

Standard ID#:	M13738	Vendor:	SPEX CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	02/21/2019	Lot #:	2-230SGX
Expiration Date (if any):	02/28/2020	Catalog #:	INT-A1

		Instrument:	CETAC
Standard Log #:	M13730	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/14/2019	Expiration Date:	02/14/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard ID#:	M13731	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/mL
Date Received:	02/14/2019	Lot #:	175213-60
Expiration Date (if any):	08/20	Catalog #:	S4400-1000504F

Standard ID#:	M13732	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10000 ug/mL
Date Received:	02/14/2019	Lot #:	139448-54
Expiration Date (if any):	08/20	Catalog #:	4400-10M671

Standard ID#:	M13733	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10000 ug/mL
Date Received:	02/14/2019	Lot #:	172053-36
Expiration Date (if any):	08/20	Catalog #:	4400-10M411

Standard ID#:	M13727	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	02/08/2019	Lot #:	175511
Expiration Date (if any):		Catalog #:	H331-500

Standard ID#:	M13728	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	02/08/2019	Lot #:	186819
Expiration Date (if any):		Catalog #:	S271-500

Standard Log #:	M13729	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	02/11/2019	Expiration Date:	08/11/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M13059 and brought up to volume.		

Standard Log #:	M13724	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/07/2019	Expiration Date:	02/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13725	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	02/07/2019	Expiration Date:	02/07/2020
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.673 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13726	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	02/07/2019	Expiration Date:	08/07/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13721	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	02/05/2019	Expiration Date:	02/05/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

Standard Log #:	M13722	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	02/05/2019	Expiration Date:	08/05/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13723	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	02/05/2019	Expiration Date:	08/05/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.671 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13720	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	01/31/2019	Expiration Date:	01/31/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13716	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	01/30/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13717	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	01/30/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13718	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	01/30/2019	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13719	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	01/30/2019	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13713	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	01/29/2019	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

Standard ID#:	M13714	Vendor:	ACROS ORGANICS
Analyst:	LJF	Chemical:	POTASSIUM PERSULFATE
Date Received:	01/29/2019	Lot #:	A0391673
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M13715	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	1/29/2019	Lot #:	51-013CR
Expiration Date (if any):	01/30/2020	Catalog #:	XCTWI-1-500

		Instrument:	GFAA
Standard Log #:	M13711	Standard:	LODS/LOQS Spiking Sol'n
Analyst:	MDS	Concentrations:	60 ug/L (Sb) 160 ug/L (As,Se) 40 ug/L (Pb) 50 ug/L (Tl)
Prep Date:	01/29/2019	Expiration Date:	07/2019
Prep:	Into a 200 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.2 mL** of Sb (1000 mg/L) M13459 **3.2 mL** of As (1000 mg/L) M13392 **3.2 mL** of Se (1000 mg/L) M13460 **0.08 mL** of Pb (10,000 mg/L) M13615 **1.0 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (1.2 *ug/L* Sb, *3.2 ug/L* As, *3.2 ug/L* Se, *0.8 ug/L* Pb, *1 ug/L* Tl) and **2 mL** spiking solution for LOQ (2.4 *ug/L* Sb, *6.4 ug/L* As, *6.4 ug/L* Se, *1.6 ug/L* Pb, *2 ug/L* Tl)		

		Instrument:	GFAA
Standard Log #:	M13712	Standard:	LODW/LOQW Spiking Sol'n
Analyst:	MDS	Concentrations:	150 ug/L (Sb) 100 ug/L (As) 200 ug/L (Se) 45 ug/L (Pb) 40 ug/L (Tl)
Prep Date:	01/29/2019	Expiration Date:	07/2019
Prep:	Into a 100 mL volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. **1.5 mL** of Sb (1000 mg/L) M13459 **1.0 mL** of As (1000 mg/L) M13392 **2.0 mL** of Se (1000 mg/L) M13460 **0.045 mL** of Pb (10,000 mg/L) M13615 **0.4 mL** of Tl (1000 mg/L) M13583 From this diluted standard solution, pipetted **10 mL** into a 1 L volumetric flask and brought up to volume with Milli-Q H_2O to make the spiking solution. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*3 ug/L* Sb, *2 ug/L* As, *4 ug/L* Se, *0.9 ug/L* Pb, *0.8 ug/L* Tl) and **2 mL** spiking solution for LOQ (*6 ug/L* Sb, *4 ug/L* As, *8 ug/L* Se, *1.8 ug/L* Pb, *1.6 ug/L* Tl)		

		Instrument:	CETAC
Standard Log #:	M13710	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	01/22/2019	Expiration Date:	01/22/2019
Prep:	Carefully mixed **3** parts HCl AB.671 with **1** part HNO_3 AB.672 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M13709	Standard:	NaK ICSAB
Analyst:	MDS	Concentrations:	500 mg/L (Al, Ca, Fe, Mg) 100 mg/L (Na, K)
Prep Date:	01/10/2019	Expiration Date:	09/30/2019
Prep:	Into a 250 mL volumetric flask, pipetted **25 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13635, **2.5 mL** of K (10,000 mg/L) M13689, **2.5 mL** of Na (10,000 mg/L) M13605 and **7.5 mL** of Fe (10,000 mg/L) M13609 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13705	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13607 and K (1000 µg/mL) M13606 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13706	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13607 and **0.5 mL** K (1000 µg/mL) M13606 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13707	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13689 and Na (10,000 mg/L) M13605 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13708	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	01/10/2019	Expiration Date:	03/2020
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M13605 and **0.15 mL** K (10,000 µg/mL) M13689 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard Log #:	M13703	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/20/2018	Expiration Date:	12/20/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13704	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	12/20/2018	Expiration Date:	12/20/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13701	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	12/13/2018	Expiration Date:	06/13/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

Standard ID#:	M13696	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10,000 mg/L
Date Received:	12/11/2018	Lot #:	167967-42
Expiration Date (if any):	06/20	Catalog #:	4400-10M544

Standard ID#:	M13697	Vendor:	CPI
Analyst:	NAH	Chemical:	Moybdenum 1000 mg/L
Date Received:	12/11/2018	Lot #:	169424-59
Expiration Date (if any):	06/20	Catalog #:	4400-1000343

Standard ID#:	M13698	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 mg/L
Date Received:	12/11/2018	Lot #:	175213-60
Expiration Date (if any):	06/20	Catalog #:	S4400-10005044F

Standard ID#:	M13699	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	12/11/2018	Lot #:	50-120CR
Expiration Date (if any):	12/30/2019	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13700	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	12/12/2018	Expiration Date:	12/12/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

Standard ID#:	M13689	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	169484-36
Expiration Date (if any):	06/20	Catalog #:	4400-10M11

Standard ID#:	M13690	Vendor:	CPI
Analyst:	NAH	Chemical:	Aluminum 10,000 mg/L
Date Received:	12/11/2018	Lot #:	169484-36
Expiration Date (if any):	06/20	Catalog #:	4400-10M11

Standard ID#:	M13691	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	752887-32
Expiration Date (if any):	06/20	Catalog #:	4400-10M521

Standard ID#:	M13692	Vendor:	CPI
Analyst:	NAH	Chemical:	Calcium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	855297-1
Expiration Date (if any):	06/20	Catalog #:	4400-10M91

Standard ID#:	M13693	Vendor:	CPI
Analyst:	NAH	Chemical:	Potassium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	156651-78
Expiration Date (if any):	06/20	Catalog #:	4400-10M261

Standard ID#:	M13694	Vendor:	CPI
Analyst:	NAH	Chemical:	Magnesium 10,000 mg/L
Date Received:	12/11/2018	Lot #:	148250-72
Expiration Date (if any):	06/20	Catalog #:	4400-10M311

Standard ID#:	M13695	Vendor:	CPI
Analyst:	NAH	Chemical:	Iron 10,000 mg/L
Date Received:	12/11/2018	Lot #:	156651-78
Expiration Date (if any):	06/20	Catalog #:	4400-10M261

		Instrument:	GFAA
Standard Log #:	M13686	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	12/07/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13687	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	12/07/2018	Expiration Date:	05/17/2018
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13688	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	12/07/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13684	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	12/04/2018	Expiration Date:	06/04/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard ID#:	M13683	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	10000 mg/L
Date Received:	11/30/2018	Lot #:	1805105
Expiration Date (if any):	5/31/2020	Catalog #:	HP10M67-1

Standard Log #:	M13681	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 B&Si Spiking Solution
Prep Date:	11/29/2018	Expiration Date:	02/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	52	M13531	1000	2.6
Si	192	M13394	1000	9.6

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M13682	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/29/2018	Expiration Date:	11/29/2018

Prep: Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.

Standard Log #:	M13679	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 L2 Spiking Solution
Prep Date:	11/29/2018	Expiration Date:	02/2020

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
Li	14.4	M13517	1000	0.72
Sn	20	M13572	1000	1
Sr	3.2	M13586	1000	0.16
Ti	9.6	M13573	1000	0.48
W	24	xxxxxxxx	1000	1.2

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13680	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3010 B&Si Spiking Solution
Prep Date:	11/29/2018	Expiration Date:	07/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	16	M13531	1000	0.8
Si	200	M13394	1000	10

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13677	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3050 DOD Metals Spiking S
Prep Date:	11/29/2018	Expiration Date:	04/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	9.6	M13562	**10000**	0.048
As	32	M13392	1000	1.6
Ba	2	M13457	1000	0.1
Be	1.6	M13579	1000	0.08
Ca	56	M13324	**10000**	0.28
Cd	1.6	M13570	1000	0.08
Co	9.6	M13575	1000	0.48
Cr	5.6	M13617	**10000**	0.028
Cu	16	M13618	**10000**	0.08
Fe	72	M13463	**10000**	0.36
Mg	32	M13319	**10000**	0.16
Mn	6	M13616	**10000**	0.03
Mo	9.6	M13608	1000	0.48
Ni	4.8	M13569	1000	0.24
Pb	10	M13610	**10000**	0.05
Sb	32	M13459	1000	1.6
Se	16	M13460	1000	0.8
Tl	19	M13583	1000	0.95
V	3.2	M13578	1000	0.16
Zn	12	M13610	**10000**	0.06

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13676	Instrument:	ICP 6500
Analyst:	NAH	Standard:	LOQ 3010 DOD Metals Spiking S
Prep Date:	11/29/2018	Expiration Date:	04/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3, 5% HCl)

Analyte	MDL Conc. (ug/L)	Std. ID #	Std Conc	Volume (mL) pipetted into 1 L
Ag	4	M13458	1000	0.2
Al	36	M13462	**10000**	0.18
As	24	M13392	1000	1.2
Ba	1.8	M13457	1000	0.09
Be	0.6	M13579	1000	0.03
Ca	100	M13324	**10000**	0.5
Cd	2.0	M13570	1000	0.1
Co	4	M13575	1000	0.2
Cr	4	M13617	**10000**	0.02
Cu	7	M13618	**10000**	0.035
Fe	100	M13463	**10000**	0.5
Mg	40	M13319	**10000**	0.2
Mn	4	M13616	**10000**	0.02
Mo	7	M13608	1000	0.35
Ni	6	M13569	1000	0.2
Pb	4	M13610	**10000**	0.02
Sb	12	M13459	1000	0.6
Se	13	M13460	1000	0.65
Tl	20	M13583	1000	0.75
V	5	M13578	1000	0.25
Zn	10	M13610	**10000**	0.05

Of this Base standard, pipet **10 mL** into a 500 mL volumetric flask to create a working std or **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	CETAC
Standard Log #:	M13675	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/26/2018	Expiration Date:	11/26/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

		Instrument:	CETAC
Standard Log #:	M13671	Standard:	Hg CCV
Analyst:	LJF	Concentration:	3.0 ug/L Hg
Prep Date:	11/21/2018	Expiration Date:	01/01/2020
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *3.0 ug/L Std.* (CCV) - **3.0 mL** Hg (*100 ug/L*)		

		Instrument:	CETAC
Standard Log #:	M13672	Reagent:	Stannous Chloride Solution
Analyst:	LJF		
Prep Date:	11/21/2018	Expiration Date:	05/21/2019
Prep:	Into a 1 L volumetric flask, partially filled with 400 mL milli-Q H_2O, added **70 mL** hydrochloric acid AB.668 and dissolved **100 g** Stannous chloride M13648 and brought up to volume.		

Standard Log #:	M13673	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	11/21/2018	Expiration Date:	05/21/2018
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13080 and brought up to volume.		

Standard Log #:	M13674	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	11/21/2018	Expiration Date:	05/21/2018
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13620 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	CETAC
Standard Log #:	M13668	Standard:	Hg ICAL
Analyst:	LJF	Concentrations:	10,000, 100, 0.5, 1, 2, 4, 5, 10 ug/L
Prep Date:	11/21/2018	Expiration Date:	01/01/2019
Prep:	Using 100 mL volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** Hg (1000 mg/L) M13574 *100 ug/L Std.* - **1 mL** Hg (*10,000 ug/L*) *0.5 ug/L Std.* - **0.5 mL** Hg (*100 ug/L*) *1 ug/L Std.* - **1 mL** Hg (*100 ug/L*) *2 ug/L Std.* - **2 mL** Hg (*100 ug/L*) *4 ug/L Std.* - **4 mL** Hg (*100 ug/L*) *5 ug/L Std.* - **5 mL** Hg (*100 ug/L*) *10 ug/L Std.* - **10 mL** Hg *(100 ug/L)*		

		Instrument:	CETAC
Standard Log #:	M13669	Standard:	Alt. Source Working Std.
Analyst:	LJF	Concentrations:	10,000 and 100 ug/L
Prep Date:	11/21/2018	Expiration Date:	04/30/2019
Prep:	Into two, 100 mL volumetric flasks, pipetted the following and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl) *10,000 ug/L Std.* - **1 mL** of Hg (1000 mg/L) M13444 *100 ug/L Std.* - **1 mL** of Hg (*10,000 ug/L working Std.*)		

		Instrument:	CETAC
Standard Log #:	M13670	Standard:	Hg ICV/LCS
Analyst:	LJF	Concentration:	3 ug/L
Prep Date:	11/21/2018	Expiration Date:	04/30/2019
Prep:	Into a 100 mL volumetric flask, pipetted **3 mL** of Hg (*100 ug/L working Std.*) M13444 and brought up to volume using Milli-Q H_2O. (0.2% HNO_3, 0.2% HCl)		

		Instrument:	ICP
Standard Log #:	M13666	Standard:	As Pb ICV1
Analyst:	MDS	Concentrations:	5000 ug/L (As,Pb)
Prep Date:	11/19/2018	Expiration Date:	07/2019
Prep:	Into a 1 L volumetric flask, pipetted **5 mL** of As (1000 mg/L) M13392 and **0.5 mL** Pb (10,000 mg/L) M13615 and brought to volume with Milli-Q H_2O. (2% HNO_3, 2% HCl)		

		Instrument:	CETAC
Standard Log #:	M13667	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/19/2018	Expiration Date:	11/19/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

Standard Log #:	M13664	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/16/2018	Expiration Date:	11/16/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13665	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	11/16/2018	Expiration Date:	11/16/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

		Instrument:	CETAC
Standard Log #:	M13659	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	11/01/2018	Expiration Date:	11/01/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

		Instrument:	ICP 6500
Standard Log #:	M13660	Standard:	ICSA
Analyst:	NAH	Concentrations:	**500,000 ug/L** Al, Ca, Fe, Mg
Prep Date:	11/01/2018	Expiration Date:	09/19
Prep:	Into a 500 mL volumetric flask, pipetted **50 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M13635 and **15 mL** Fe (10000 mg/L) M13609 and brought up to volume with milli-Q H_2O.		

		Instrument:	ICP 6500
Standard Log #:	M13661	Standard:	ICV Std.
Analyst:	NAH	Concentrations:	**12,000 mg/L** Al **10,000 mg/L** Ca, Mg **5000 mg/L** Fe **2000 mg/L** As, Ba, Se, Tl **500 mg/L** B, Co, Li, Mn, Mo, Ni, Pb, Sb, Sn, Sr, Ti, V, Zn **250 mg/L** Cu **200 mg/L** Cr **50 mg/L** Ag, Be, Cd
Prep Date:	11/06/2018	Expiration Date:	10/19
Prep:	Into a 1 L volumetric flask, pipetted the following and brought up to volume with milli-Q H_2O. **10 mL** Custom Assurance Standard #18 ((200 mg/L Al, As, Ba, Se, Tl) (100 mg/L Fe) (50 mg/L Co, Mn, Ni, Pb, Sb, V, Zn) (25 mg/L Cu) (20 mg/L Cr) (5 mg/L Ag, Be, Cd)) M13637, **2 mL** Interferents A Standard ((5000 mg/L Al, Ca, Mg) (2000 mg/L Fe)) M13635, **0.5 mL** Mo (1000 mg/L) M13608, **0.5 mL** B (1000 mg/L) M13531, **0.5 mL** Sr (1000 mg/L) M13580, **0.5 mL** Li (1000 mg/L) M13577, **0.5 mL** Sn (1000 mg/L) M13572, **0.5 mL** Ti (1000 mg/L) M13573, **0.5 mL** W (1000 mg/L) Mxxxxx, **0.5 mL** Si (1000 mg/L) M13571, **0.5 mL** S (10000 mg/L) M13530, **0.5 mL** K (10000 mg/L) M13612, and **0.5 mL** K (10000 mg/L)		

		Instrument:	ICP 6000
Standard Log #:	M13657	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	11/2/2018	Expiration Date:	01/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of the following and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) Li (1000 µg/mL) M13577 Sn (1000 µg/mL) M13572 Sr (1000 µg/mL) M13580 Ti (1000 µg/mL) M13573 W (1000 µg/mL) XXX		

		Instrument:	ICP 6000
Standard Log #:	M13658	Standard:	List 2 MRL/ICVLL Prep Solution
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)
Prep Date:	11/2/2018	Expiration Date:	01/2020

Prep:

Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date
Li	20/60	M13577	1000	1	02/2020
W	100/300	XXX	1000	5	XXX
Ti	10/30	M13573	1000	0.5	01/2020
Sr	10/30	M13580	1000	0.5	02/2020
Sn	20/60	M13572	1000	1	01/2020

Pipette **10 mL** into a 500 mL volumetric flask to create a working MRL std. or **1 mL** into a 50 mL digestion tube for a digested MRL standard. Pipette **30 mL** into 500 mL for a working ICVLL std. or **3 mL** into a 50 mL digestion tube for a digested ICVLL standard.

(0.5% HNO_3, 0.5% HCl)

		Instrument:	ICP
Standard Log #:	M13655	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	11/2/2018	Expiration Date:	02/28/2019
Prep:	Standard Conc. (ug/L) — Pipette the following: 1 — **0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.001 mL** W (1000 µg/mL) xxx into 1L = *1 µg/L* 10 — **0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.01 mL** W (1000 µg/mL) xxx into 1L = *10 µg/L* 100 — **1 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.1 mL** W (1000 µg/mL) xxx into 1L = *100 µg/L* 1000 (CCV) — **2 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.2 mL** W (1000 µg/mL) xxx into 200mL = *1000 µg/L* 10000 — **20 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **2 mL** W (1000 µg/mL) xxx into 200mL = *10000 µg/L*		

		Instrument:	ICP 6000
Standard Log #:	M13656	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	11/2/2018	Expiration Date:	02/28/2019
Prep:	Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13410, **6 mL** of Fe (10,000 mg/L) M13529, **0.1 mL** of Li (1000 µg/mL) M13577, **0.1 mL** of Sn (1000 µg/mL) M13572, **0.1 mL** of Sr (1000 µg/mL) M13580, **0.1 mL** of Ti (1000 µg/mL) M13573, and **0.1 mL** of W (1000 µg/mL) XXX and brought up to volume using Milli-Q H_2O. (0.5% HNO_3, 0.5% HCl)		

		Instrument:	GFAA
Standard Log #:	M13651	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	10/29/2018	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13652	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	10/29/2018	Expiration Date:	10/2019
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13612 and Na (10,000 mg/L) M13461 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

Standard ID#:	M13653	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance std
Date Received:	10/29/2018	Lot #:	2-036AB
Expiration Date (if any):	10/30/2019	Catalog #:	XCTWI-1-500

		Instrument:	ICP 6000
Standard Log #:	M13648	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	10/26/2018	Expiration Date:	07/2019
Prep:	Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M13390 and Si (1000 mg/L) M13528 and brought up to volume using milli-Q H_2O. *50 ug/L std.* - **0.05 mL** of each *200 ug/L std.* - **0.2 mL** of each *1000 ug/L std.* -**1.0 mL** of each, also used for Continuing Calibration Verification *2000 ug/L std.* - **2.0 mL** of each *10,000 ug/L std.* -**10 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13649	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	10/26/2018	Expiration Date:	07/30/2019
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13576 and **1.0 mL** Si (1000 mg/L) M13571 and brought up to volume using milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13650	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	10/27/2018	Expiration Date:	02/28/2019
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13410 , **0.05 mL** of B (1000 µg/mL) M13390 , **0.05 mL** of Si (1000 µg/mL) M13528 and **3 mL** of Fe (10,000 mg/L) M13529 and brought up to volume using Milli-Q H_2O.		

		Instrument:	CETAC
Standard Log #:	M13645	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/24/2018	Expiration Date:	10/24/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.669 in a hood.		

Standard ID#:	M13646	Vendor:	Alfa Aesar
Analyst:	MDS	Chemical:	1% Nickel Nitrate Matrix Modifier
Date Received:	10/25/2018	Lot #:	8137324
Expiration Date (if any):	12/31/2019	Catalog #:	39043

Standard ID#:	M13647	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	10/24/2018	Lot #:	H226-02
Expiration Date (if any):		Catalog #:	LC251701

Standard Log #:	M13643	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/24/2018	Expiration Date:	10/24/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13644	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/24/2018	Expiration Date:	10/24/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

		Instrument:	GFAA
Standard Log #:	M13639	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	10/24/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13640	Standard:	CCV Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.5 ug/L (Ag)
Prep Date:	10/24/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.1 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13641	Standard:	ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 ug/L (As, Pb, Sb, Se, Tl) 1.0 ug/L (Ag)
Prep Date:	10/24/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of GFAA Custom Stock Std. ((10 ug/mL As, Pb, Sb, Se, Tl) (1.0 ug/mL Ag)) M13498 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

Standard Log #:	M13642	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/24/2018	Expiration Date:	10/24/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13638	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 12 µg/L Sb 20 µg/L Se 14 µg/L Tl 0.6 µg/L Ag
Prep Date:	10/23/2018	Expiration Date:	07/2019

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13392	10,000
Pb	0.1	10,000	M13615	10,000
Tl	1	1000	M13583	10,000
Se	1	1000	M13460	10,000
Sb	1	1000	M13459	10,000
Ag	0.1	1000	M13458	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.4	10,000	14
Se	2.0	10,000	20
Sb	1.2	10,000	12
Ag	0.6	1000	0.6

Standard ID#:	M13634	Vendor:	CPI
Analyst:	NAH	Chemical:	Yttrium 10,0000 mg/L
Date Received:	10/18/2018	Lot #:	139448-54
Expiration Date (if any):	04/20	Catalog #:	4400-10m671

Standard ID#:	M13635	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Interference A
Date Received:	10/18/2018	Lot #:	2-230sgx
Expiration Date (if any):	09/30/2019	Catalog #:	INT-A1

		Instrument:	CETAC
Standard Log #:	M13636	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/18/2018	Expiration Date:	10/18/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.665 in a hood.		

Standard ID#:	M13637	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance standard
Date Received:	10/18/2018	Lot #:	50-0007CR
Expiration Date (if any):	10/30/2019	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13633	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	10/16/2018	Expiration Date:	10/16/2018
Prep:	Carefully mixed **3** parts HCl AB.668 with **1** part HNO_3 AB.665 in a hood.		

		Instrument:	GFAA
Standard Log #:	M13632	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	10/16/2018	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

Standard Log #:	M13627	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/03/2018	Expiration Date:	10/03/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13628	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	10/03/2018	Expiration Date:	10/03/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

MRL BASE STD M13626

Analyst NAH

Prep Date 10/01/2018

Into a 1000 mL Volumetric Flask, pipet the following:

Analyte	(ug/L)	Std ID #	Std Conc (mg/L)	Amount (mL) to pipet into 1 L	Expiration Date
Ag	20	M13458	1000	1	10/2019
Al	400	M13462	10000	2	10/2019
Ba	10	M13457	1000	0.5	10/2019
Be	4	M13579	1000	0.2	02/20
Cd	5	M13570	1000	0.25	01/20
Co	10	M13575	1000	0.5	01/20
Cr	10	M13617	10000	0.05	03/20
Cu	10	M13618	10000	0.05	03/20
Mg	500	M13319	10000	2.5	04/19
Mn	10	M13616	10000	0.05	03/20
Mo	10	M13608	1000	0.5	03/20
Ni	10	M13569	1000	0.5	03/20
Pb	10	M13610	10000	0.05	03/20
Sb	20	M13459	1000	1	03/20
V	10	M13578	1000	0.5	02/20
Zn	10	M13610	10000	0.05	02/20
K	1000	M13341	10000	5	05/19
Na	1000	M13402	10000	5	08/19
As	20	M13392	1000	1	07/19
Ca	500	M13324	10000	2.5	04/19
Fe	300	M13463	10000	1.5	10/19
Se	20	M13460	1000	1	10/19
Tl	20	M13583	1000	1	02/20
Si	100	M13394	1000	5	07/19
B	20	M13531	1000	1	07/19
Li	20	M13517	1000	1	02/20
W	50	xxxxxxx	1000	2.5	xxxxxxx
Ti	10	M13573	1000	0.5	02/20
Sr	10	M13586	1000	0.5	02/20
Sn	50	M13572	1000	2.5	02/20
S	300	M13391	10000	1.5	07/19

Of this Base standard, pipet 10 mls into 500 ml volumetric to create a working std or 1 ml into 50 ml digestion tube for a digested working standard.

Standard Log #:	M13625	Instrument:	GFAA
Analyst:	MDS	Reagent:	Pd/Mg Matrix Modifier
Prep Date:	10/03/2018	Expiration Date:	09/30/2019
Prep:	Into a 50 mL volumetric flask, partially filled with milli-Q H_2O, pipetted **15 mL** Pd Modifier M13600 and **10 mL** Mg (10,000 mg/L) M13464 and brought up to volume.		

Standard ID#:	M13618	Vendor:	CPI
Analyst:	NAH	Chemical:	Cu 10000 mg/L
Date Received:	09/20/2018	Lot #:	148796-39
Expiration Date (if any):	03/2020	Catalog #:	S4400-10M141

		Instrument:	CETAC
Standard Log #:	M13619	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	09/19/2018	Expiration Date:	09/19/2018
Prep:	Carefully mixed **3** parts HCl AB.664 with **1** part HNO_3 AB.665 in a hood.		

Standard ID#:	M13620	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	09/04/2018	Lot #:	177409
Expiration Date (if any):		Catalog #:	S271-500

Standard ID#:	M13611	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	09/20/2018	Lot #:	169484-18
Expiration Date (if any):	03/2020	Catalog #:	4400-10M11

Standard ID#:	M13612	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	09/20/2018	Lot #:	172053-36
Expiration Date (if any):	03/2020	Catalog #:	440010M411

Standard ID#:	M13613	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	09/20/2018	Lot #:	855297-1
Expiration Date (if any):	03/2020	Catalog #:	4400-10M91

Standard ID#:	M13614	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	09/20/2018	Lot #:	148250-72
Expiration Date (if any):	03/2020	Catalog #:	4400-10M311

Standard ID#:	M13615	Vendor:	CPI
Analyst:	NAH	Chemical:	Pb 10000 mg/L
Date Received:	09/20/2018	Lot #:	168223-17
Expiration Date (if any):	03/2020	Catalog #:	4400-10M281

Standard ID#:	M13616	Vendor:	CPI
Analyst:	NAH	Chemical:	Mn 10000 mg/L
Date Received:	09/20/2018	Lot #:	167540-6
Expiration Date (if any):	03/2020	Catalog #:	S4400-10M321

Standard ID#:	M13617	Vendor:	CPI
Analyst:	NAH	Chemical:	Cr 10000 mg/L
Date Received:	09/20/2018	Lot #:	158236-7
Expiration Date (if any):	03/2020	Catalog #:	s4400-10M121

Standard ID#:	M13604	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10000 mg/L
Date Received:	09/20/2018	Lot #:	167967-37
Expiration Date (if any):	03/2020	Catalog #:	4400-10M544

Standard ID#:	M13605	Vendor:	CPI
Analyst:	NAH	Chemical:	Sodium 10000 mg/L
Date Received:	09/20/2018	Lot #:	752887-3
Expiration Date (if any):	03/2020	Catalog #:	4400-10M521

Standard ID#:	M13606	Vendor:	CPI
Analyst:	NAH	Chemical:	K 1000 mg/L
Date Received:	09/20/2018	Lot #:	144467-179
Expiration Date (if any):	03/2020	Catalog #:	4400-1000411-500

Standard ID#:	M13607	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 1000 mg/L
Date Received:	09/20/2018	Lot #:	158237-113
Expiration Date (if any):	03/2020	Catalog #:	4400-1000521-500

Standard ID#:	M13608	Vendor:	CPI
Analyst:	NAH	Chemical:	Mo 1000 mg/L
Date Received:	09/20/2018	Lot #:	169424-37
Expiration Date (if any):	03/2020	Catalog #:	S4400-1000343

Standard ID#:	M13609	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	09/20/2018	Lot #:	156651-53
Expiration Date (if any):	03/2020	Catalog #:	4400-10M261

Standard ID#:	M13610	Vendor:	CPI
Analyst:	NAH	Chemical:	Zn 10000 mg/L
Date Received:	09/20/2018	Lot #:	979871-2
Expiration Date (if any):	03/2020	Catalog #:	4400-10M681

Standard Log #:	M13601	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/12/2018	Expiration Date:	09/12/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13602	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	09-12-2018	Lot #:	1-124AB
Expiration Date (if any):	09-30-2019	Catalog #:	XCTWI-5-500

Standard ID#:	M13600	Vendor:	Environmental Express
Analyst:	MDS	Chemical:	1% Pd Matrix Modifier
Date Received:	09/11/2018	Lot #:	1808015
Expiration Date (if any):	09/30/2019	Catalog #:	HP1900-100

Standard Log #:	M13599	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	09/08/2018	Expiration Date:	09/08/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13595	Vendor:	SPEX CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Std
Date Received:	08/29/2018	Lot #:	49-151CR
Expiration Date (if any):	08/30/2019	Catalog #:	XSPIKE-1-250

		Instrument:	CETAC
Standard Log #:	M13596	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	08/30/2018	Expiration Date:	08/30/2018
Prep:	Carefully mixed **3** parts HCl AB.664 with **1** part HNO_3 AB.665 in a hood.		

		Instrument:	ICP 6000
Standard Log #:	M13597	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	08/30/2018	Expiration Date:	05/2019
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13339 and K (1000 µg/mL) M13340 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13598	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	08/30/2018	Expiration Date:	05/2019
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13339 and **0.5 mL** K (1000 µg/mL) M13340 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard Log #:	M13588	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/21/2018	Expiration Date:	08/21/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard Log #:	M13589	Reagent:	TCLP EXTRACTION FLUID #1
Analyst:	BMM	pH:	4.93 ± 0.05
Prep Date:	08/21/2018	Expiration Date:	08/21/2019
Prep:	Into a 20 L carboy filled with 19 L of DI H_2O, add **114 mL** Glacial acetic acid AB.659 and **128.6 mL** 10N NaOH M13514. Dilute to 20 L and mix.		

Standard ID#:	M13590	Vendor:	AMCO Clear
Analyst:	NAH	Chemical:	turbidity std 2.0 ntu
Date Received:	08/21/2018	Lot #:	18272791
Expiration Date (if any):	08/2019	Catalog #:	8008

		Instrument:	ICP 6000
Standard Log #:	M13586	Standard:	L2 ICV
Analyst:	MDS	Concentrations:	1000 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	08/20/2018	Expiration Date:	01/2020
Prep:	Into a 1 L volumetric flask, pipetted **1.0 mL** of the following and brought up to volume using milli-Q H_2O. (0.5% HNO_3, 0.5% HCl) Li (1000 µg/mL) M13577 Sn (1000 µg/mL) M13572 Sr (1000 µg/mL) M13580 Ti (1000 µg/mL) M13573 W (1000 µg/mL) MXXX		

		Instrument:	ICP 6000
Standard Log #:	M13587	Standard:	List 2 MRL/ICVLL Prep Solution
Analyst:	MDS	Concentrations:	5000 µg/L (W) 1000 µg/L (Li, Sn) 500 µg/L (Ti, Sr)
Prep Date:	08/20/2018	Expiration Date:	01/2020

Prep:

Analyte	MRL/ICVLL Conc. (µg/L)	Standard ID	Std. Conc. (µg/mL)	Volume (mL) Pipetted into 1 L	Expiration Date
Li	20/60	M13577	1000	1	02/2020
W	100/300	XXX	1000	5	XXX
Ti	10/30	M13573	1000	0.5	01/2020
Sr	10/30	M13580	1000	0.5	02/2020
Sn	20/60	M13572	1000	1	01/2020

Pipette **10 mL** into a 500 mL volumetric flask to create a working MRL std. or **1 mL** into a 50 mL digestion tube for a digested MRL standard. Pipette **30 mL** into 500 mL for a working ICVLL std. or **3 mL** into a 50 mL digestion tube for a digested ICVLL standard.

(0.5% HNO_3, 0.5% HCl)

		Instrument:	ICP
Standard Log #:	M13584	Standard:	L2 ICAL
Analyst:	MDS	Concentrations:	1 (µg/L) 10 (µg/L) 100 (µg/L) 1000 (µg/L) 10,000 (µg/L)
Prep Date:	08/20/2018	Expiration Date:	07/30/2019

Prep:

Standard Conc. (ug/L)	Pipette the following:
1	**0.01 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.001 mL** W (1000 µg/mL) MXXX into 1L = *1 µg/L*
10	**0.10 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.01 mL** W (1000 µg/mL) MXXX into 1L = *10 µg/L*
100	**1 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.1 mL** W (1000 µg/mL) MXXX into 1L = *100 µg/L*
1000 (CCV)	**2 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **0.2 mL** W (1000 µg/mL) MXXX into 200mL = *1000 µg/L*
10000	**20 mL** of Custom Assurance Standard XCTWI-5-500 M13576 and **2 mL** W (1000 µg/mL) MXXX into 200mL = *10000 µg/L*

		Instrument:	ICP 6000
Standard Log #:	M13585	Standard:	List 2 ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (Li, Sn, Sr, Ti, W)
Prep Date:	08/20/2018	Expiration Date:	

Prep:

Into a 200 mL volumetric flask, pipetted **20 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13410 , **6 mL** of Fe (10,000 mg/L) M13463 , **0.1 mL** of Li (1000 µg/mL) M13577 , **0.1 mL** of Sn (1000 µg/mL) M13572 , **0.1 mL** of Sr (1000 µg/mL) M13580 , **0.1 mL** of Ti (1000 µg/mL) M13573 , and **0.1 mL** of W (1000 µg/mL) MXXX and brought up to volume using Milli-Q H_2O.
(0.5% HNO_3, 0.5% HCl)

Standard ID#:	M13577	Vendor:	CPI
Analyst:	NAH	Chemical:	Li 1000 mg/L
Date Received:	08/17/2018	Lot #:	751942-25
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000291

Standard ID#:	M13578	Vendor:	CPI
Analyst:	NAH	Chemical:	V 1000 mg/L
Date Received:	08/17/2018	Lot #:	152207-68
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000651

Standard ID#:	M13579	Vendor:	CPI
Analyst:	NAH	Chemical:	Be 1000 mg/L
Date Received:	08/17/2018	Lot #:	660981-5
Expiration Date (if any):	02/2020	Catalog #:	S4400-100051

Standard ID#:	M13580	Vendor:	CPI
Analyst:	NAH	Chemical:	Sr 1000 mg/L
Date Received:	08/17/2018	Lot #:	168227-29
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000531

Standard ID#:	M13581	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	08/17/2018	Lot #:	172053-36
Expiration Date (if any):	02/2020	Catalog #:	4400-10411

Standard ID#:	M13582	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Y 10000 mg/L
Date Received:	08/17/2018	Lot #:	1805105
Expiration Date (if any):	02/2020	Catalog #:	HP10M67-1

Standard ID#:	M13583	Vendor:	CPI
Analyst:	NAH	Chemical:	Tl 1000 mg/L
Date Received:	08/17/2018	Lot #:	148983-70
Expiration Date (if any):	02/2020	Catalog #:	S4400-1000581

Standard ID#:	M13576	Vendor:	Spex Certiprep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	08/04/2018	Lot #:	49-045CR
Expiration Date (if any):	07/30/2019	Catalog #:	XCTWI-5-500

Standard ID#:	M13569	Vendor:	CPI
Analyst:	NAH	Chemical:	Ni 1000 mg/L
Date Received:	07/27/2018	Lot #:	166665-86
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000361

Standard ID#:	M13570	Vendor:	CPI
Analyst:	NAH	Chemical:	Cd 1000 mg/L
Date Received:	07/27/2018	Lot #:	160499-32
Expiration Date (if any):	01/2020	Catalog #:	s4400-100081

Standard ID#:	M13571	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 mg/L
Date Received:	07/27/2018	Lot #:	175213-28
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000504F

Standard ID#:	M13572	Vendor:	CPI
Analyst:	NAH	Chemical:	Sn 1000 mg/L
Date Received:	07/27/2018	Lot #:	144466-74
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000613

Standard ID#:	M13573	Vendor:	CPI
Analyst:	NAH	Chemical:	Ti 1000 mg/L
Date Received:	07/27/2018	Lot #:	152616-55
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000623

Standard ID#:	M13574	Vendor:	CPI
Analyst:	NAH	Chemical:	Hg 1000 mg/L
Date Received:	07/27/2018	Lot #:	175191-22
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000331

Standard ID#:	M13575	Vendor:	CPI
Analyst:	NAH	Chemical:	Co 1000 mg/L
Date Received:	07/27/2018	Lot #:	161693-10
Expiration Date (if any):	01/2020	Catalog #:	s4400-1000131

Standard Log #:	M13563	Instrument:	ICP
Analyst:	LJF	Standard:	LOQ 3050 S Spiking Solution
Prep Date:	07/19/2018	Expiration Date:	10/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	240	M13466	10000	1.2

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard ID#:	M13557	Vendor:	Alfa Aesar Specpure
Analyst:	MDS	Chemical:	1% Nickel Nitrate Matrix Modifier
Date Received:	07/17/2018	Lot #:	8137324
Expiration Date (if any):	12/31/2019	Catalog #:	39043

		Instrument:	ICP 6000
Standard Log #:	M13558	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	07/17/2018	Expiration Date:	05/2019
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13518 and **1.0 mL** Si (1000 mg/L) M13338 and brought up to volume using milli-Q H_2O.		

Standard Log #:	M13559	Reagent:	Potassium Permanganate Solution
Analyst:	LJF		
Prep Date:	07/17/2018	Expiration Date:	01/17/2019
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium permanganate M13559 and brought up to volume.		

Standard Log #:	M13554	Instrument:	ICP
Analyst:	LJF	Standard:	LOQ 3010 B&Si Spiking Solution
Prep Date:	07/13/2018	Expiration Date:	05/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	16	M13390	1000	0.8
Si	200	M13338	1000	10

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Standard Log #:	M13555	Instrument:	ICP
Analyst:	LJF	Standard:	LOQ 3010 S Spiking Solution
Prep Date:	07/13/2018	Expiration Date:	10/2019

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
S	200	M13466	10000	1.0

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

		Instrument:	GFAA
Standard Log #:	M13553	Standard:	Sb ICV/LCS Std.
Analyst:	MDS	Concentrations:	10 µg/L (Sb)
Prep Date:	07/12/2018	Expiration Date:	10/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.01 mL** of Antimony Stock Std. (1000 µg/mL Sb) M13459 and brought to volume with Milli-Q DI H_2O. (1% HNO_3)		

		Instrument:	GFAA
Standard Log #:	M13547	Standard:	LODW/LOQW Ag Spiking Sol'n
Analyst:	MDS	Concentrations:	10 ug/L (Ag)
Prep Date:	07/09/2018	Expiration Date:	10/2019
Prep:	Into a 100 mL volumetric flask, pipetted **0.1 mL** of Ag (1000mg/L) M13458 and brought to volume with Milli-Q H_2O to make a 1000 ug/L Ag std. Into a 1 L volumetric flask, pipetted **10 mL** of Ag (*1000 ug/L*) std. and brought to volume with Milli-Q H_2O. (1% HNO_3) *Pipette **1 mL** spiking solution into 50 mL H_2O for LOD (*0.2 ug/L*) and **2 mL** spiking solution for LOQ (*0.4 ug/L*)		

Standard Log #:	M13548	Reagent:	NaCl Hydroxylamine Sulfate
Analyst:	LJF		
Prep Date:	07/10/2018	Expiration Date:	01/10/2019
Prep:	Into a 500 mL volumetric flask, partially filled with milli-Q H_2O, dissolved **60 g** NaCl M13226 and **60 g** hydroxylamine sulfate M13468 and brought up to volume.		

		Instrument:	GFAA
Standard Log #:	M13549	Standard:	Calibration Std.
Analyst:	MDS	Concentrations:	25 ug/L (As, Pb, Sb, Se, Tl) 3.75 ug/L (Ag)
Prep Date:	07/10/2018	Expiration Date:	05/17/2019
Prep:	Into a 1 L volumetric flask, pipetted **0.25 mL** of GFAA Custom Stock Std. ((100 ug/mL As, Pb, Sb, Se, Tl) (15 ug/mL Ag)) M13497 and brought to volume with Milli-Q H_2O. (1% HNO_3)		

Standard Log #:	M13534	Standard:	GFAA Instrument Check
Analyst:	MDS	Final Concentration:	10 µg/L As 6 µg/L Pb 12 µg/L Sb 20 µg/L Se 14 µg/L Tl 0.6 µg/L Ag
Prep Date:	07/02/2018	Expiration Date:	09/16/2018

Into six, 100 mL volumetric flasks, add the following and bring up to volume with milli-Q H_2O.

Element	Volume Pipetted (mL)	Standard Conc. (µg/mL)	Standard ID	New Conc. (µg/L)
As	1	1000	M13392	10,000
Pb	0.1	10,000	M13169	10,000
Tl	1	1000	M13124	10,000
Se	1	1000	M13460	10,000
Sb	1	1000	M13459	10,000
Ag	0.1	1000	M13458	1000

Into a 1 L volumetric flask, add the following and bring up to volume with Milli-Q H_20. (1% HNO_3)

Element	Volume Pipetted (mL)	Standard Conc. (µg/L)	New Conc. (µg/L)
As	1.0	10,000	10
Pb	0.6	10,000	6
Tl	1.4	10,000	14
Se	2.0	10,000	20
Sb	1.2	10,000	12
Ag	0.6	1000	0.6

Standard ID#:	M13535	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	07/02/2018	Lot #:	48-179CR
Expiration Date (if any):	06/30/2019	Catalog #:	XSPIKE-1-250

Standard ID#:	M13526	Vendor:	CPI
Analyst:	NAH	Chemical:	YTTRIUM 10,000 ug/mL
Date Received:	06/22/2018	Lot #:	138448-54
Expiration Date (if any):	12/2019	Catalog #:	4400-10M671

Standard ID#:	M13527	Vendor:	CPI
Analyst:	NAH	Chemical:	POTASSIUM 10,000
Date Received:	06/22/2018	Lot #:	172053-32
Expiration Date (if any):	12/2019	Catalog #:	4400-104411

Standard ID#:	M13528	Vendor:	CPI
Analyst:	NAH	Chemical:	Si 1000 ug/mL
Date Received:	06/22/2018	Lot #:	142610-115
Expiration Date (if any):	12/2019	Catalog #:	S4400-1000504F

Standard ID#:	M13529	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10,000 ug/mL
Date Received:	06/22/2018	Lot #:	156651-42
Expiration Date (if any):	12/2019	Catalog #:	4400-10M261

Standard ID#:	M13530	Vendor:	CPI
Analyst:	NAH	Chemical:	SULFUR 10,000ug/mL
Date Received:	06/22/2018	Lot #:	129880-46
Expiration Date (if any):	12/2019	Catalog #:	4400-10M544

Standard ID#:	M13531	Vendor:	CPI
Analyst:	NAH	Chemical:	BORON 1000 ug/mL
Date Received:	06/22/2018	Lot #:	158372-91
Expiration Date (if any):	12/2019	Catalog #:	S4400-100074

Standard ID#:	M13532	Vendor:	CPI
Analyst:	NAH	Chemical:	CUSTOM ASSURANCE STANDARD
Date Received:	06/22/2018	Lot #:	48-146CR
Expiration Date (if any):	06/30/2019	Catalog #:	XCTWI-1-500

Standard ID#:	M13520	Vendor:	FRISCOLYT
Analyst:	NAH	Chemical:	Electrolyte Solution
Date Received:	06/13/2018	Lot #:	1DO71H
Expiration Date (if any):	12/03/2021	Catalog #:	51 340 053

		Instrument:	ICP
Standard Log #:	M13521	Standard:	As Pb ICV1
Analyst:	MDS	Concentrations:	5000 ug/L (As,Pb)
Prep Date:	06/13/2018	Expiration Date:	10/20/2018
Prep:	Into a 1 L volumetric flask, pipetted **0.5 mL** of As (10,000 mg/L) M13392 and **0.5 mL** Pb (10,000 mg/L) M13169 and brought to volume with Milli-Q H_2O. (2% HNO_3, 2% HCl)		

Standard ID#:	M13518	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	06/11/2018	Lot #:	48-060CR
Expiration Date (if any):	06/30/2019	Catalog #:	XCTWI-5-500

		Instrument:	ICP 6500
Standard Log #:	M13519	Standard:	ICAL
Analyst:	NAH	Concentrations:	0.25, 0.5, 1, 5, 10, 20, 50, 100, 1000, 10,000, 100k, 100,000, 500,000 and 1000k (ug/L)
Prep Date:	06/11/2018	Expiration Date:	06/30/2019

Prep:

Using 1 L volumetric flasks, pipetted the following and brought up to volume using milli-Q H_2O.
(5% HNO_3, 5% HCl)
1000 ug/L Std. - **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, B, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13518 , **10 mL** of Custom Assurance Std. #3 (100 mg/L Ag, Be, Cd) M13506 and **1 mL** of Si (1000 mg/L) M13394 and 1 mL M13203 Ce
0.25 ug/L Std. - **0.25 mL** of the 1000 ug/L Std.
0.5 ug/L Std. - **0.5 mL** of the 1000 ug/L Std.
1 ug/L Std. - **1 mL** of the 1000 ug/L Std.
5 ug/L Std. - **5 mL** of the 1000 ug/L Std.
10 ug/L Std. - **10 mL** of the 1000 ug/L Std.
20 ug/L Std. - **20 mL** of the 1000 ug/L Std.
50 ug/L Std. - **50 mL** of the 1000 ug/L Std.
100 ug/L Std. - **1 mL** of Custom Assurance Std. (CAS) #23 and **1 mL** of CAS #3
10,000 ug/L Std. - **100 mL** CAS #23, **100 mL** CAS #3 and **1 mL** of K (10,000 mg/L) M13465 .
100k ug/L Std. - **10 mL** of Cu (10,000 mg/L) M13166 , **10 mL** of Mn (10,000 mg/L) M13167 , **10 mL** of Cr (10,000 mg/L) M13165 , **10 mL** Pb (10,000 mg/L) M13169 , **10 mL** of Zn (10,000 mg/L) M13168 and **10 mL** of Na (10,000 mg/L) M13461 .
100,000 ug/L Std. - **10 mL** of Mg (10,000 mg/L) M13319 , **10 mL** of Fe (10,000 mg/L) M13463 , **10 mL** of Ca (10,000 mg/L) M13467 and **10 mL** Al (10,000 mg/L) M13462 .
500,000 ug/L Std. - **50 mL** of Mg (10,000 mg/L), **50 mL** of Fe (10,000 mg/L), **50 mL** of Ca (10,000 mg/L) and **50 mL** of Al (10,000 mg/L)
1000k ug/L Std. - **100 mL** of Mg (10,000 mg/L), **100 mL** of Fe (10,000 mg/L), **100 mL** of Ca (10,000 mg/L) and **100 mL** of Al (10,000 mg/L)

		Instrument:	CETAC
Standard Log #:	M13510	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	06/01/2018	Expiration Date:	06/01/2018
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.655 in a hood.		

Standard ID#:	M13511	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	06/04/2018	Lot #:	176877
Expiration Date (if any):		Catalog #:	S271-500

Standard ID#:	M13506	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/22/2018	Lot #:	48-042CR
Expiration Date (if any):	05/30/2019	Catalog #:	XCTWI-4-500

Standard ID#:	M13507	Vendor:	Spex CertiPrep
Analyst:	NAH	Chemical:	Custom Assurance Standard
Date Received:	05/22/2018	Lot #:	48-041CR
Expiration Date (if any):	05/30/2019	Catalog #:	XSPIKE-1-250

Standard ID#:	M13508	Vendor:	RESTEK
Analyst:	NAH	Chemical:	Diatomaceous earth (Celite 566)
Date Received:	05/22/2018	Lot #:	811030-BG
Expiration Date (if any):	N/A	Catalog #:	26033

Standard ID#:	M13495	Vendor:	LabChem
Analyst:	LJF	Chemical:	STANNOUS CHLORIDE
Date Received:	05/15/2018	Lot #:	H052-17
Expiration Date (if any):		Catalog #:	LC251701

		Instrument:	ICP 6000
Standard Log #:	M13485	Standard:	Na & K ICAL
Analyst:	MDS	Concentrations:	0.5, 1, 5, 10, 50, 100, and 200 mg/L (Na,K)
Prep Date:	05/07/2018	Expiration Date:	05/2019
Prep:	Into seven, 200 mL volumetric flasks, pipetted the following from Na (1000 µg/mL) M13339 and K (1000 µg/mL) M13340 and brought up to volume using milli-Q H_2O. (2% HNO_3) *0.5 mg/L std.* - **0.1 mL** of each *1.0 mg/L std.* - **0.2 mL** of each *5.0 mg/L std.* - **1.0 mL** of each *10 mg/L std.* - **2.0 mL** of each *50 mg/L std.* - **10 mL** of each *100 mg/L std.* -**20 mL** of each, also used for Continuing Calibration Verification *200 mg/L std.* - **40 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13486	Standard:	NaK ICV
Analyst:	MDS	Concentrations:	100 mg/L (Na, K)
Prep Date:	05/07/2018	Expiration Date:	08/2019
Prep:	Into a 250 mL volumetric flask, pipetted **2.5 mL** of K (10,000 mg/L) M13400 and Na (10,000 mg/L) M13402 and brought up to volume using Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13487	Standard:	Na,K ICVLL
Analyst:	MDS	Concentrations:	3 mg/L (Na,K)
Prep Date:	05/07/2018	Expiration Date:	08/2019
Prep:	Into a 500 mL volumetric flask, pipetted **0.15 mL** of Na (10,000 µg/mL) M13402 and **0.15 mL** K (10,000 µg/mL) M13400 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

		Instrument:	ICP 6000
Standard Log #:	M13488	Standard:	Na,K MRL
Analyst:	MDS	Concentrations:	1 mg/L (Na,K)
Prep Date:	05/07/2018	Expiration Date:	05/2019
Prep:	Into a 500 mL volumetric flask, pipetted **0.5 mL** of Na (1000 µg/mL) M13339 and **0.5 mL** K (1000 µg/mL) M13340 and brought to volume with Milli-Q H_2O. (2% HNO_3)		

Standard ID#:	M13484	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Y 10,000 mg/L
Date Received:	05/03/2018	Lot #:	1805105
Expiration Date (if any):	10/31/2019	Catalog #:	HP10M67-1

		Instrument:	ICP 6000
Standard Log #:	M13471	Standard:	B&Si ICAL
Analyst:	MDS	Concentrations:	50, 200, 1000, 2000 and 10,000 ug/L (B, Si)
Prep Date:	04/26/2018	Expiration Date:	07/2019
Prep:	Into five, 1 L volumetric flasks, pipetted the following from stock standards B (1000 mg/L) M13390 and Si (1000 mg/L) M13394 and brought up to volume using milli-Q H_2O. *50 ug/L std.* - **0.05 mL** of each *200 ug/L std.* - **0.2 mL** of each *1000 ug/L std.* -**1.0 mL** of each, also used for Continuing Calibration Verification *2000 ug/L std.* - **2.0 mL** of each *10,000 ug/L std.* -**10 mL** of each		

		Instrument:	ICP 6000
Standard Log #:	M13472	Standard:	B&Si ICV
Analyst:	MDS	Concentrations:	1000 ug/L (B, Si)
Prep Date:	04/26/2018	Expiration Date:	07/02/2018
Prep:	Into a 1 L volumetric flask, pipetted **10 mL** of Custom Assurance Std. #23 (100 mg/L Al, As, **B**, Ba, Ca, Co, Cr, Cu, Fe, Li, Mg, Mn, Mo, Ni, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn) M13364 and **1.0 mL** Si (1000 mg/L) M13085 and brought up to volume using milli-Q H_2O.		

		Instrument:	ICP 6000
Standard Log #:	M13473	Standard:	B & Si ICSAB
Analyst:	MDS	Concentrations:	500,000 µg/L (Al, Ca, Fe, Mg) 500 µg/L (B,Si)
Prep Date:	04/26/2018	Expiration Date:	10/30/2018
Prep:	Into a 100 mL volumetric flask, pipetted **10 mL** of Interferents A custom stock (5000 mg/L Al, Ca, Mg and 2000 mg/L Fe) M13305 , **0.05 mL** of B (1000 µg/mL) M13390 , **0.05 mL** of Si (1000 µg/mL) M13394 and **3 mL** of Fe (10,000 mg/L) M13321 and brought up to volume using Milli-Q H_2O.		

Standard ID#:	M13467	Vendor:	CPI
Analyst:	NAH	Chemical:	Ca 10000 mg/L
Date Received:	04/20/2018	Lot #:	147497-47
Expiration Date (if any):	10/2019	Catalog #:	4400-10M91

Standard ID#:	M13468	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	04/24/2018	Lot #:	174236
Expiration Date (if any):		Catalog #:	H331-500

		Instrument:	CETAC
Standard Log #:	M13469	Reagent:	Hg Aqua Regia
Analyst:	LJF		
Prep Date:	04/24/2018	Expiration Date:	04/24/2018
Prep:	Carefully mixed **3** parts HCl AB.656 with **1** part HNO_3 AB.655 in a hood.		

Standard ID#:	M13462	Vendor:	CPI
Analyst:	NAH	Chemical:	Al 10000 mg/L
Date Received:	04/20/2018	Lot #:	158058-23
Expiration Date (if any):	10/2019	Catalog #:	4400-10M11

Standard ID#:	M13463	Vendor:	CPI
Analyst:	NAH	Chemical:	Fe 10000 mg/L
Date Received:	04/20/2018	Lot #:	156651-18
Expiration Date (if any):	10/2019	Catalog #:	4400-10M261

Standard ID#:	M13464	Vendor:	CPI
Analyst:	NAH	Chemical:	Mg 10000 mg/L
Date Received:	04/20/2018	Lot #:	148250-67
Expiration Date (if any):	10/2019	Catalog #:	4400-10M311

Standard ID#:	M13465	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10000 mg/L
Date Received:	04/20/2018	Lot #:	172053-2
Expiration Date (if any):	10/2019	Catalog #:	4400-10M411

Standard ID#:	M13466	Vendor:	CPI
Analyst:	NAH	Chemical:	S 10000 mg/L
Date Received:	04/20/2018	Lot #:	129880-37
Expiration Date (if any):	10/2019	Catalog #:	4400-10M544

Standard ID#:	M13457	Vendor:	CPI
Analyst:	NAH	Chemical:	Barium 1000 mg/L
Date Received:	04/20/2018	Lot #:	158364-3
Expiration Date (if any):	10/2019	Catalog #:	S4400-100041

Standard ID#:	M13458	Vendor:	CPI
Analyst:	NAH	Chemical:	Ag 1000 mg/L
Date Received:	04/20/2018	Lot #:	162712-9
Expiration Date (if any):	10/2019	Catalog #:	S4400-1000511

Standard ID#:	M13459	Vendor:	CPI
Analyst:	NAH	Chemical:	Sb 1000 mg/L
Date Received:	04/20/2018	Lot #:	153992-1
Expiration Date (if any):	10/2019	Catalog #:	S4400-100023

Standard ID#:	M13460	Vendor:	CPI
Analyst:	NAH	Chemical:	Se 1000 mg/L
Date Received:	04/20/2018	Lot #:	154366-16
Expiration Date (if any):	10/2019	Catalog #:	S4400-1000491

Standard ID#:	M13461	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10000 mg/L
Date Received:	04/20/2018	Lot #:	107139-108
Expiration Date (if any):	10/2019	Catalog #:	4400-10M521

Standard Log #:	M13445	Reagent:	Potassium Persulfate Solution
Analyst:	LJF		
Prep Date:	04/19/2018	Expiration Date:	10/19/2018
Prep:	Into a 1 L volumetric flask, partially filled with milli-Q H_2O, dissolved **50 g** potassium persulfate M12652 and brought up to volume.		

		Instrument:	Hach 2100 turbidity meter
Standard Log #:	M13446	Standard:	Turbity ICAL
Analyst:	NAH	Concentrations:	20, 100, 200 ntu
Prep Date:	04/19/2018	Expiration Date:	12/2019
Prep:	Using the hach vials , pipet the following: *20 ntu Std.* = **1 ml** M13436 and 9 mls DI H20. *100 ntu Std.* = **5 mls** M13436 and 5 mls DI H20. *200 ntu Std.* = ***10 mls*** M13436 *and* 0 mls DI H20.		

LPMT1-04
Metals Reagents and Standards
Prep Logbook
Created: 12/19/17

NOTEBOOK VIEW: LTN_LPMT1_04_Default, NOTEBOOK: LPMT1_04, PAGE: 35
Page is Locked
Author: nhenn on: 4/19/2018 11:15:48 AM
Page is not Witnessed
Project: Unassigned
Page Title: 041118

		Instrument:	ICP 6000
Standard Log #:	M13438	Standard:	Sulfur ICAL
Analyst:	MDS	Concentrations:	1000 10,000 100,000 1000K µg/L (S)
Prep Date:	04/11/2018	Expiration Date:	07/2019
Prep:	Into four, 100 mL volumetric flasks, pipetted the following from stock standard S (10,000 µg/mL) M13391 and brought up to volume using milli-Q H_2O. *1000 ug/L std.* - **0.01 mL** *10,000 ug/L std.* - **0.1 mL** *100,000 ug/L std.* -**1.0 mL**, also used as the CCV *1000K ug/L std.* - **10 mL**		

		Instrument:	ICP 6000
Standard Log #:	M13439	Standard:	Sulfur ICV
Analyst:	MDS	Concentrations:	100,000 µg/L (S)
Prep Date:	04/11/2018	Expiration Date:	01/19/2019
Prep:	Into a 100 mL volumetric flask, pipetted **1.0 mL** of S (10,000 µg/mL) M13280 and brought up to volume using Milli-Q H_2O.		

Standard Log #:	M13437	Instrument:	ICP
Analyst:	NAH	Standard:	LOQ 3050 B&Si Spiking Solution
Prep Date:	04/10/2018	Expiration Date:	07/19

Prep:

Into a 1 L volumetric flask, pipetted the following and brought up to volume with Milli-Q H_2O. (5% HNO_3)

Analyte	Final MDL Conc. (ug/L)	Std. ID #	Std. Conc. (mg/L)	Volume (mL) pipetted
B	52	M13390	1000	2.6
Si	192	M13394	1000	9.6

Of this base standard, pipetted **1 mL** into a 50 mL digestion tube for a digested working standard.

Content below was appended to locked page by mszymanski on 4/19/2018 12:20:57 PM

Standard ID#:	M13436a	Vendor:	HACH
Analyst:	NAH	Chemical:	StablCal 200 NTU
Date Received:	04/10/2018	Lot #:	A7354
Expiration Date (if any):	12/2019	Catalog #:	2660449

Standard ID#:	M13400	Vendor:	CPI
Analyst:	NAH	Chemical:	K 10,000 ug/mL
Date Received:	02/15/2018	Lot #:	106958-116
Expiration Date (if any):	08/2019	Catalog #:	4400-10M411

Standard ID#:	M13401	Vendor:	CPI
Analyst:	NAH	Chemical:	Y 10,000 ug/mL
Date Received:	02/15/2018	Lot #:	139448-54
Expiration Date (if any):	08/2019	Catalog #:	4400-10M671

Standard ID#:	M13402	Vendor:	CPI
Analyst:	NAH	Chemical:	Na 10,000 ug/mL
Date Received:	02/15/2018	Lot #:	107139-126
Expiration Date (if any):	08/2019	Catalog #:	4400-10M521

Standard Log #:	M13388	Reagent:	SPLP EXTRACTION FLUID EAST #
Analyst:	BMM	pH:	4.20 ± 0.05
Prep Date:	01/23/2018	Expiration Date:	01/23/2019
Prep:	Into a 20 L carboy filled with DI H_2O, adjust pH to 4.20 ± 0.05 using 60/40 SPLP extraction fluid acid mixture M12457 .		

Standard Log #:	M13389	Reagent:	SPLP EXTRACTION FLUID WEST #
Analyst:	BMM	pH:	5.00 ± 0.05
Prep Date:	01/23/2018	Expiration Date:	01/23/2019
Prep:	Into a 20 L carboy filled with DI H_2O, adjust pH to 5.00 ± 0.05 using 60/40 SPLP extraction fluid acid mixture M12457 .		

Standard ID#:	M13390	Vendor:	CPI
Analyst:	NAH	Chemical:	Boron 1000 ug/mL
Date Received:	01/23/2018	Lot #:	158372-29
Expiration Date (if any):	07/2019	Catalog #:	S4400-100074

Standard ID#:	M13391	Vendor:	CPI
Analyst:	NAH	Chemical:	Sulfur 10000 ug/mL
Date Received:	01/23/2018	Lot #:	129880-28
Expiration Date (if any):	07/2019	Catalog #:	4400-10M544

Standard ID#:	M13392	Vendor:	CPI
Analyst:	NAH	Chemical:	Arsenic 1000 ug/mL
Date Received:	01/23/2018	Lot #:	143356-61
Expiration Date (if any):	07/2019	Catalog #:	S4400-100031

Standard ID#:	M13393	Vendor:	CPI
Analyst:	NAH	Chemical:	Molybdenum 1000 ug/mL
Date Received:	01/23/2018	Lot #:	134169R-102
Expiration Date (if any):	07/2019	Catalog #:	S4400-1000343

Standard ID#:	M13394	Vendor:	CPI
Analyst:	NAH	Chemical:	Silicon 1000 ug/mL
Date Received:	01/23/2018	Lot #:	142610-58
Expiration Date (if any):	07/2019	Catalog #:	S4400-1000504F

Standard ID#:	M13350	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10000 mg/L
Date Received:	12/12/2017	Lot #:	1729606
Expiration Date (if any):	06//2019	Catalog #:	10M67-1

Standard ID#:	M13226	Vendor:	FISHER
Analyst:	LJF	Chemical:	SODIUM CHLORIDE
Date Received:	07/21/2017	Lot #:	170229
Expiration Date (if any):		Catalog #:	S271-500

Standard ID#:	M13199	Vendor:	National Institute of Standards and Te
Analyst:	NAH	Chemical:	SRM Montana I soil
Date Received:	05/15/2017	Lot #:	2710a
Expiration Date (if any):		Catalog #:	

Standard ID#:	M13200	Vendor:	National Institute of Standards and Te
Analyst:	NAH	Chemical:	SRM Montana II soil
Date Received:	05/15/2017	Lot #:	2711a
Expiration Date (if any):		Catalog #:	

Standard ID#:	M13186	Vendor:	FISHER
Analyst:	LJF	Chemical:	HYDROXYLAMINE SULFATE
Date Received:	05/22/2017	Lot #:	166161
Expiration Date (if any):		Catalog #:	H331-500

Standard ID#:	M13187	Vendor:	Environmental Express
Analyst:	NAH	Chemical:	Yttrium 10,000 ug/mL
Date Received:	05/22/2017	Lot #:	1705408
Expiration Date (if any):	11/16/2018	Catalog #:	HP10M67-1

Standard ID#:	M13080	Vendor:	FISHER
Analyst:	LJF	Chemical:	POTASSIUM PERMANGANATE
Date Received:	01/30/2017	Lot #:	164080
Expiration Date (if any):		Catalog #:	P279-212

Standard ID#:	M13059	Vendor:	ACROS ORGANICS
Analyst:	LJF	Chemical:	POTASSIUM PERSULFATE
Date Received:	12/19/2016	Lot #:	A0375670
Expiration Date (if any):		Catalog #:	424185000

Standard ID#:	M13024	Vendor:	METTLER TOLEDO
Analyst:	LJF	Chemical:	FRISCOLYT
Date Received:	11/01/2016	Lot #:	1B167D
Expiration Date (if any):		Catalog #:	51340053

INORGANIC
CLP FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

1

INORGANIC ANALYSIS DATA SHEET

Sample Description

CONCRETEDC 001-001-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix (soil/water):	SOIL	SDG No.:	157958
% Solids:	89.7	Lab Sample ID:	504392
Analytical Method:	EPA 8000C	Date Received:	11/13/2020
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	177141	Analysis Date/Time	11/18/2020 14:22
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	89.7		0.1	0.1	0.1	0.1

CT LABORATORIES
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1

INORGANIC ANALYSIS DATA SHEET

Sample Description

CONCRETEDC-002-002-CO

Lab Name:	CT Laboratories	Contract:	CH2M - JACOBS-RVAAP
Matrix (soil/water):	SOIL	SDG No.:	157958
% Solids:	90.9	Lab Sample ID:	504405
Analytical Method:	EPA 8000C	Date Received:	11/13/2020
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:	
Analytical Run #:	177141	Analysis Date/Time	11/18/2020 14:22
Analytical Prep Batch #:		Prep. Date/Time:	
ICAL Calibration #:		Concentration Units:	%

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
SOLID	Solids, Percent	90.9		0.1	0.1	0.1	0.1

CT LABORATORIES
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6

DUPLICATES

Sample Description

CONCRETEDC 001-001-CO

Lab Name: CT Laboratories
Contract: CH2M - JACOBS-RVAAP
Matrix: SOLID
SDG No.: 157958
% Solid for Sample: 89.7
Concentration Units: %
Analytical Prep Batch #: 1
Analytical Preparation Date/Time: 0
Analytical Run #: 177141
ICAL Calibration #:
Sample #: 506970
Parent Sample #: 504392

Analysis Type *Initial Analysis*

Analyte	Analysis Date/Tim		RPD Limit	Original Parent Conc. (S)	C	Duplicate Conc. (D)	C	RPD	Q	M
Solids, Percent	11/18/2020	14:22	8	89.7		89.9		0		GRA

INORGANICS
RAW DATA
DOCUMENTS

TOTAL SOLIDS (PERCENT)

LIMS #: 177141

Start Date:	**11/18/2020**	**Start Time:**	14:22		**Analyst:**	BMM
	Sample ID#	**Dish#**	**Tared Weight g *(D)***	**Wet Weight g *(E)***	**Dry Weight g *(F)***	**RESULTS % TOTAL SOLIDS**
1)	504405	T811	2.54	13.57	12.57	90.9%
2)						0.0%
3)						0.0%
4)						0.0%
5)						0.0%
6)						0.0%
7)						0.0%
8)						0.0%
9)						0.0%
10)						0.0%
11)						0.0%
12)						0.0%
13)						0.0%
14)						0.0%
15)						0.0%
16)						0.0%
17)						0.0%
18)						0.0%
19)						0.0%
*20)	504392	T992	2.54	13.46	12.34	89.7%
Dup 20)	504392	T812	2.55	13.74	12.61	89.9%

Dry Weight = Sample + Dish (gms)

Wet Weight = Sample + Dish (gms)

*** 2nd Reading,** 12.34

Set RPD: 0.2%

Balance: VOB-01

*mg Differen 0

Stop Date: 11/19/2020

Stop Time: 11:42

*2nd reading must be within 50mg of the 1st

Calculations

% Total Solids = ((*F-D*)/(*E-D*))*100

RPD, % = Absolute value of…((Sample-Dup % TS)/(Average%TS))*100

INORGANICS
LOGBOOK
DOCUMENTS

WSOLIDS Analytical Run
177141 on 11/19/2020

Date Analyzed: 11/18/2020 BMM

Date Entered: 11/19/2020 BMM

Date Reviewed:

Date Validated: RJ 11/20/2020

COC	ORDER	SAMPLE DECRIPTION	SAMPLE DATE/ TIME	QC TYPE (Parent Sample)	CLIENT	PROJECT	TEST	PREP BATCH	MATRIX	DEL	RUSH
157958	504392	CONCRETEDC 001-001-CO	11/12/2020 1200		CH2M - JACOBS	RVAAP	SOLIDS, PERCENT		S	**4**	Y
157958	504405	CONCRETEDC-002-002-CO	11/12/2020 1200		CH2M - JACOBS	RVAAP	SOLIDS, PERCENT		S	**4**	Y
	506970	CONCRETEDC 001-001-CO	11/12/2020 1200	DUP 504392			SOLIDS, PERCENT	0			

3 SAMPLE COUNT ON RUN, INCLUDING METHOD AND INSTRUMENT QC

Matrix: S-Soil Slg-Sludge GW-GroundWater M-Misc Waste SW-Surface Water A-Air WW-WasteWater DW-Drinking Water SD=Sediment Leachate=LE

FWC26-10 Data Review Checklist

		Method: Percent Solids SW846-8000C	Independent Data Review Checklist		Balance: VOB-01
LIMS Run #(s)	**Analysis Date**	**Analyst / Data Interpreter**	**Independent Reviewer**	**Date of Review**	**Approved? (Yes or No)**
177136, 177138, 177140, 177141, 177142, 177143, 177144,	11/18/2020	BMM	RLD	11/20/2020	Yes

Instructions: Complete one checklist per *analytical run* . Enter the appropriate response for each question.
Each "No" response requires an explanation in the Comments section, and may require the initiation of a Nonconformance Report.

Requirement:	**Acceptance Criteria**	**Analyst Review**		**Independent Review**		**Comments:**
		Yes	No	Yes	No	(indicate reference to an attachment if necessary)
1. Were samples analyzed within hold time?	14 days or program/project specific	Yes		Yes		Qualify data prepared after hold time
2. Were samples dried overnight?	> 8hours	Yes		Yes		If No: place samples back into oven for mimium of 8 hours of total dry time.
3. Were drying start and stop times recorded?	---	Yes		Yes		If No: record times and temperatures
4. Were duplicates analyzed at the appropriate frequency?	1 per 20 of similar matrix or at program/project specific frequency	Yes		Yes		If No: reprep samples with appropreate frequency for a duplicate.
5. Were the duplicates within acceptable limits?	Within in-house or program/project specific QC limits	Yes		Yes		If No: reprep and reanalyze samples or qualify parent sample result (Y).
6. Are all samples on the job lists accounted for?	---	Yes		Yes		If No: analyze samples that were were missed.
7. Were nonconformities (if applicable) documented in the NCR spreadsheet?		Yes		Yes		If No: Enter nonformities into the NCR spreadsheet before data review/validation.

CHAIN OF CUSTODY,
PM CONFIRMATION
AND
SAMPLE CONDITION FORMS
DOCUMENTS

CT LABORATORIES
delivering more than data from your environmental analyses

Sample Condition Report

Folder #: 157958
Client: CH2M - JACOBS

Print Date / Time: 11/13/2020 10:41
Received Date / Time / By: 11/13/2020 10:14 EKB

Project Name: RVAAP
Project Phase: LL 1-4 & 12

Log-In Date / Time / By: 11/13/2020 10:41 EKB
Project #: D32949.00.K.PN.TPE.05.01 PM: ETK

Coolers: 6252
Custody Seals Present : **Y**

Temperature: 1.7 C On Ice: **Y**
COC Present:? **Y** Complete? **Y**

Seal Intact? **Y**
Ship Method: FEDEX OVERNIGNT
Adequate Packaging: **Y**

Numbers: DATED AND SIGNED
Tracking Number: 398866523269
Temp Blank Enclosed? **Y**

Notes: RECEIVED SAMPLES ON ICE IN GOOD CONDITION.
2 CUSTODY SEALS PRESENT AND INTACT DATED 11/12/2020 & SIGNED.

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
504392 CONCRETEDC 001-001-CO				
	SOLIDS	1	/	%SOL
	Total # of Containers of Type (*SOLIDS*) = 1			
504392 CONCRETEDC 001-001-CO				
	UNPRES GL	1	/	PCB
	Total # of Containers of Type (*UNPRES GL*) = 1			

Sample ID / Description	Container Type	Cond. Code	pH OK?/Filtered?	Tests
504405 CONCRETEDC-002-002-CO				
	SOLIDS	1	/	%SOL,HG,ICP
	Total # of Containers of Type (*SOLIDS*) = 1			

Condition Code	*Condition Description*
1	Sample Received OK

Rev. 02/2017

Page 2 of 2

Folder #: 157958
Company: CH2M - JACOBS
Project: RVAAP
Logged By: EKB PM: ET

157958

Company: CH2M Hill, Inc.
Project Contact: Sarah Meyers
Telephone: 571-212-6989
Project Name: RVAAP LL1-4 & 12
Project #: D32949.00.K.PN. TPE, 05.01
Location: RVAAP LL1-4 & 12
Sampled By: Fred Williams

1230 Lange Court, Baraboo, WI 53913
608-356-2760 Fax 608-356-2766
www.ctlaboratories.com

Program:
QSM RCRA SDWA NPDES
Solid Waste Other _____

PO # 1480018640

Report To: Shane.lowe@jacobs.com
EMAIL: Sarah.Meyers@jacobs.com
Company: CH2M Hill, Inc
Address:

Invoice To:* CH2M Hill, Inc
EMAIL: USAPInvoices@jacobs.com
Company: CH2M Hill, Inc.
Address: do not mail invoices

*Party listed is responsible for payment of invoice as per CT Laboratories' terms and conditions

Client Special Instructions

Matrix:
GW – groundwater SW - surface water WW - wastewater DW - drinking water
S - soil/sediment SL - sludge A - air M - misc/waste

ANALYSES REQUESTED

Turnaround Time
Normal RUSH*
Date Needed: 7days
Rush analysis requires prior CT Laboratories' approval
Surcharges:
24 hr 200%
2-3 days 100%
4-9 days 50%

Collection Date	Collection Time	Matrix	Grab/ Comp	Sample #	Sample ID Description	Filtered? Y/N	TCL PCB (SW8082A)	8 RCRA Metals (SW6010/SW7470A)	Total # Containers	Designated MS/MSD	CT Lab ID # (Lab use only)
							Fill in Spaces with Bottles per Test				
11-12-2020	1200	M	Comp		concretedc 001-001-CO	N	1	1	1		504392
11-12-2020	1200	M	Comp		Concretedc-002-002-CO	N	1	1	1		504405

Relinquished By	Date/Time	Received By	Date/Time
Fred Williams	11-12-2020 1330	ells	11-13-2020 10:14
Received by:	Date/Time	Received for Laboratory by:	Date/Time
		ells	11-13-2020

Lab Use Only
Ice Present (Yes) No
Temp 1.4-1.7 IR Gun 98
Cooler # 6252

Page 872

Cooler Receipt Form

Ice Present (YES) NO

Observed Temperature 1.4

Actual Temperature 1.7

IR Gun # 28

Initials ells

Date 11-13-2020 Time 10:14

Cooler #: 6252

CUSTODY SEAL
DATE 11-12-2020
SIGNATURE Rick Williams
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

CUSTODY SEAL
DATE 11-12-2020
SIGNATURE Rick Williams
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

ORIGIN ID:CAKA (317) 945-2039
CH2M HILL
8451 STATE ROUTE 5
BLDG 1086
RAVENNA, OH 44266
UNITED STATES US

SHIP DATE: 12NOV20
ACTWGT: 30.45 LB
CAD: 6990584/SSF02121
DIMS: 17x15x11 IN
BILL CREDIT CARD

Part # 156297-435 ARDB EXP 06/21

TO
CT LABORATORIES
1230 LANGE CT

BARABOO WI 53913
(608) 356-2760 REF:
INV:
PO: DEPT:

FedEx Express

FRI - 13 NOV 4:30P
TRK# 0201 3988 6652 3269 STANDARD OVERNIGHT
AHS
53913
NA LNRA WI-US MSN

Korthals, Eric T

From: Lowe, Shane/STL <Shane.Lowe@jacobs.com>
Sent: 11/16/2020 09:21
To: Korthals, Eric T; Scott, Doug/DEN
Cc: Meyers, Sarah/WDC
Subject: RE: 157958 sample receipt - RVAAP
Attachments: 157958scf.pdf; 157958_COC_rev.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Good morning Eric,
We have some corrections to the concrete COC….Please note both samples should be analyzed for PCBs and metals and I wanted to clarify we are requesting 7 day TAT.

Thank you,

Shane M Lowe | Jacobs |Project Chemist |Global Environmental Solutions |O: + 1.314.335.5075
|M: + 1.618.410.1263 | Shane.Lowe@jacobs.com

Upcoming PTO: 11/27

From: Korthals, Eric T <EKorthals@ctlaboratories.com>
Sent: Monday, November 16, 2020 8:56 AM
To: Lowe, Shane/STL <Shane.Lowe@jacobs.com>; Scott, Doug/DEN <Doug.Scott@jacobs.com>
Subject: [EXTERNAL] 157958 sample receipt - RVAAP

Eric T. Korthals
Project Manager
CT Laboratories, LLC
1230 Lange Ct
Baraboo, WI 53913
608-356-2760 ext. 19
EKorthals@ctlaboratories.com

NOTE: CT Laboratories has been designated an Essential Services provider under Wisconsin Emergency Order #12, Section 10, Essential Infrastructure, and will remain open through the current coronavirus Public Health Emergency, unless otherwise restricted through future revisions or changes in regulation

*Let us know how we're doing. Click **Here** to take our Customer Survey.*

Folder #: 157958

PM LOGIN CONFIRMATION

Contract #: 3396

Company: CH2M - JACOBS **Project:** RVAAP **Proj #:** D32949.00.K.PN.TPE.0

Project Phase: LL 1-4 & 12 **PO Number:** 148018640 **Invoice #:** 158627

Project Manager: *ETK* **Date Received:** 11/13/20 **Log Date:** 11/13/2020

*****RUSH PROJECT*****
REPORT DUE 11/20/2020

Report To: DOUG SCOTT CC: doug.scott@jacobs.com Invoice To :ACCOUNTS PAYABLE CC: CH2M POC: DOUG SCOTT

59 LILAC CT PO BOX 214329

PAGOSA SPRINGS, CO 81147 DENVER, CO 80224

Phone: 720-445-2278: Fax: Phone: Fax:

Rep. E-Mail doug.scott@jacobs.com EMail:

Collected By: Arrival Temperature: 1.7 oC

Collector's Phone: 720-445-2278

SAMPLE #: 504392 DESCR: CONCRETEDC 001-001-CO **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED: 11/12/2020 Time: 1200**

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS, PERCENT	(EPA 8000C)				11/26/2020	11/20/2020	*Y*	Logged
1191	ICP QSM 5.0	(EPA 6010C)				05/11/2021	11/20/2020	*Y*	NeedPrep
			Arsenic						
			Barium						
			Cadmium						
			Chromium						
			Lead						
			Selenium						
			Silver						
1206	MERCURY QSM 5.0	(EPA 7471B)				12/10/2020	11/20/2020	*Y*	NeedPrep
1236	PCB QSM 5	(EPA 8082A)					11/20/2020	*Y*	NeedPrep

Folder #: 157958 **Company:** *CH2M - JACOBS* **Project:** RVAAP

SAMPLE #: 504405 **DESCR:** CONCRETEDC-002-002-CO **PRIMARY / DETAILED MATRIX:** SOLID / SOIL **SAMPLED:** 11/12/2020 **Time:** 1200

CLIENT SAMPLE #: **DETAILED SITE/POINT ID INFORMATION:**

TEST#	TEST	TEST METHOD	ANALYTE	TEST GROUP	SPECIAL REQUIREMENTS	HOLD DATE	ANALYSIS DUE	RUSH	STATUS
8	SOLIDS, PERCENT	(EPA 8000C)				11/26/2020	11/20/2020	*Y*	Logged
1191	ICP QSM 5.0	(EPA 6010C)				05/11/2021	11/20/2020	*Y*	NeedPrep
			Arsenic						
			Barium						
			Cadmium						
			Chromium						
			Lead						
			Selenium						
			Silver						
1206	MERCURY QSM 5.0	(EPA 7471B)				12/10/2020	11/20/2020	*Y*	NeedPrep
1236	PCB QSM 5	(EPA 8082A)					11/20/2020	*Y*	NeedPrep

Invoice Number: 158627 **Preliminary Invoice Estimate:** $ 444.00

Item	Matrix	Quantity	Price	Expedited TAT Surcharge	Total
Add Charges		2	$ 100.00	0.00	$ 200.00
ICP QSM 5.0 Arsenic	SOIL	2	$ 4.00	0.00	$ 8.00
ICP QSM 5.0 Barium	SOIL	2	$ 4.00	0.00	$ 8.00
ICP QSM 5.0 Cadmium	SOIL	2	$ 4.00	0.00	$ 8.00
ICP QSM 5.0 Chromium	SOIL	2	$ 4.00	0.00	$ 8.00
ICP QSM 5.0 Lead	SOIL	2	$ 4.00	0.00	$ 8.00
ICP QSM 5.0 Selenium	SOIL	2	$ 4.00	0.00	$ 8.00
ICP QSM 5.0 Silver	SOIL	2	$ 4.00	0.00	$ 8.00
MERCURY QSM 5.0	SOIL	2	$ 24.00	0.00	$ 48.00
PCB QSM 5	SOIL	2	$ 70.00	0.00	$ 140.00
SOLIDS, PERCENT	SOIL	2	$ 0.00	0.00	$ 0.00
Temporary Fuel Surcharge on lab supplies and services (if applicable):					$ 0.00

Bottle Information

Container	# Containers	Tests
SOLIDS	**2**	%SOL,HG,ICP
UNPRES GL	**1**	PCB