TETRA TECH, INC.

July 31, 2020

Lynn Nakashima
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200C
Berkeley, California 94710

Subject: **Soil Sampling Results**
Building 280 Pavement Project
Richmond Field Station
University of California, Berkeley

Dear Ms. Nakashima:

Tetra Tech, Inc. was contracted by the University of California (UC) Berkeley to conduct sampling activities at the Richmond Field Station (RFS). The objective of the sampling effort was to characterize soil within a trench to be excavated adjacent to the north of Lark Drive; the project is referred to as the Building 280 Pavement Project. Soil results were used to evaluate soil conditions that RFS workers could be exposed to while installing a fiber optics cable within the 30 inch-deep trench. The trenching, fiber optic cable placement, and backfilling was completed on July 16, 2020.

The sampling strategy was provided to DTSC on June 19, 2020, clarifications provided on June 23, 2020, and approval provided by DTSC on June 23, 2020. This letter provides the rationale for the selected sampling location, a summary of field sampling protocols, and sample results.

Sample Location

Incremental sampling methodology was selected for this project to provide a comprehensive and thorough evaluation of chemical concentrations in a specific area of potential exposure, or decision unit. The rationale for this project was based on selecting a decision unit to best represent potential exposure to RFS workers excavating the trench and installing the fiber optic cable within the trench. The decision unit is shown on the attached figure.

Field Sampling Protocols

The decision unit boundary was identified in the field based on the location of the trench as identified by the Building 280 Pavement Project team. One multi-increment soil sample composed of 30 increments spaced evenly throughout the decision unit was collected on June 25, 2020.

The precise location of each increment location is not critical as long as they are distributed throughout the decision unit. The samples were collected using a decontaminated 36-inch long, 1-inch diameter drill bit into a decontaminated bucket. The drill was forwarded through a hole in the bottom of the bucket to 30 inches deep, and thereby displacing the top 30 inches of soil directly into the bucket.

1999 Harrison Street, Suite 500, Oakland, CA 94612
Tel 510.302.6300 Fax 510.433.0830
www.ttemi.com

Approximately 2 kilograms of soil mass was collected and placed into a sample container. Following collection, the sample was labeled, wrapped with protective bubble wrap material, and placed into a sealable container. The sample was shipped to APPL Labs in Clovis, California. A copy of the chain-of-custody form is presented within the laboratory results attachment. The soil sample was collected on June 25, 2020.

Analytical Methods and Results

Upon receipt of the sample, APPL Labs implemented their subsampling protocol for reducing the 2 kilograms of soil mass to the desired mass appropriate for each analysis. Their protocol entails drying, sieving, and grinding the 2 kilograms of soil mass, followed by subsampling the mass with 30 increments to reach the desired mass.

The soil subsample was then analyzed for arsenic, lead, mercury, and polychlorinated biphenyls (PCB) using the methods listed below.

- Arsenic and Lead analyses by EPA Method 6010; Mercury by EPA Method 7471
- PCB analysis by EPA Method 8082, Soxhlet extraction by EPA Method 3650

Analytical results were compared to Category I, Category II, and Maintenance Worker Screening Criteria presented in the *Final Soil Management Plan, Revision 1*, dated April 10, 2017. No results exceeded any of the criteria.

Analytical summary tables for detected concentrations are presented in the Tables 1 and 2 following this letter. Complete analytical results are presented as an attachment.

If you have any questions or comments regarding this submittal, please call me at (415) 497-9060.

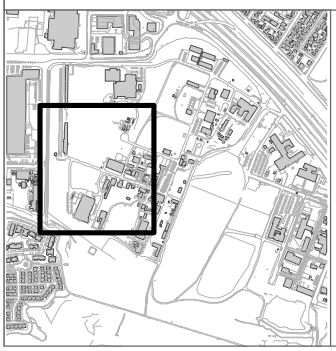
Sincerely,

Jason Brodersen, PG
Project Manager

cc: Alicia Bihler, UC Berkeley

Attachments: Sample Map Figure
Sample Results Tables
Analytical Results

1999 Harrison Street, Suite 500, Oakland, CA 94612
Tel 510.302.6300 Fax 510.433.0830
www.ttemi.com



Decision Unit Boundary

TETRA TECH EM INC.

Richmond Field Station
University of California, Berkeley

BUILDILNG 280
PAVEMENT PROJECT
SAMPLE LOCATION MAP

Table 1 Metals Summary
Building 280 Pavement Project
University of California, Berkeley, Richmond Field Station

Sample ID	Sample Location	Depth (feet bgs)	Units	ARSENIC	LEAD	MERCURY
Category I Criteria				16	320	77
Category II On-Site Management Criteria				16	800	187
Maintenance Worker Screening Criteria				16	320	1,920
Ambient/Background Concentration				16	-	-
RFS-B280-PAVE-ISM	B280	0.0 - 2.5	mg/kg	4.2	18.4	0.52

-	Not applicable
bgs	Below ground surface
mg/kg	Milligrams per kilogram

Table 2 Detected PCB Summary

Building 280 Pavement Project
University of California, Berkeley, Richmond Field Station

Sample ID	Sample Location	Depth (feet bgs)	Units	AROCLOR-1248	TOTAL AROCLORS
TSCA PCB Screening Level				1	1
RFS-B280-PAVE-ISM	B280	0.0 - 2.5	mg/kg	0.63	0.63

Chemicals that were not detected in any samples were excluded from this table. See attachment for full analytical results.

bgs	Below ground surface
mg/kg	Milligrams per kilogram
PCB	Polychlorinated biphenyl
TSCA	Toxic Substances Control Act

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validation Package

July 16, 2020

Tetra Tech, Inc.
1999 Harrison St., Suite 500
Oakland, California 94612
Attn: Jason Brodersen

Title: Report of Data: Case 92647

Project: 10355823.02.01 B280 Pavement

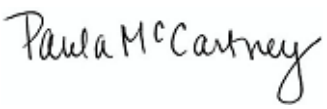
Dear Mr. Brodersen:

One soil sample was received June 26, 2020. Written results for the requested analysis are being provided on this July 16, 2020.

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

If you have any questions or require further information, please contact your APPL Project Manager, Gregory Salata, gsalata@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.



Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
10355823.02.01 B280 Pavement
ARF 92647

TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 92647

Project: 10355823.02.01 B280 Pavement

Sample Receipt Information:

One soil sample was received June 26, 2020, at 26.2°C. The sample was assigned Analytical Request Form (ARF) 92647. The sample number and requested analyses were compared to the chain of custody and e-mail correspondence. No exceptions were encountered.

Sample Preparation and Analysis:

The sample was prepared using multi-incremental sampling techniques.

For the EPA 8082 analysis, the sample was extracted by EPA method 3540C.

For the EPA 6020A analysis, the sample was digested according to EPA method 3050B.

For the EPA 7471A analysis, the sample was digested according to the method.

Percent moisture was determined using ISM02.2, Exhibit D, section 10.0.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Exceptions, Abnormalities and Deviations:

EPA 8082A: The surrogate Decachlorobiphenyl recovered above the upper control limit in the Method Blank. No target analytes were detected.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description	Prep DateTime	Analysis DateTime
92647	06/26/20	RFS-B280-PAVE-ISM	BA13967	06/25/20 12:00:00 PM	SOIL	6020A/3050B	EPA 6020A IS SOIL	07/07/20 8:43:00 AM	07/13/20 10:48:04 PM
92647	06/26/20	RFS-B280-PAVE-ISM	BA13967	06/25/20 12:00:00 PM	SOIL	EPA 8082A	EPA 8082A ISM SOIL	07/01/20 1:30:00 PM	07/07/20 7:43:00 PM
92647	06/26/20	RFS-B280-PAVE-ISM	BA13967	06/25/20 12:00:00 PM	SOIL	EPA 7471B	MERCURY BY EPA 7471B MIS	07/07/20 2:00:00 PM	07/08/20 11:07:17 AM
92647	06/26/20	RFS-B280-PAVE-ISM	BA13967	06/25/20 12:00:00 PM	SOIL	CLP MOIST	Moisture	07/01/20 3:20:00 PM	07/02/20 3:37:00 PM

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

SAMPLE MANAGEMENT RECORDS

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 92647

Client: **Tetra Tech, Inc.**
Address: **1999 Harrison St., Suite 500**
Oakland, CA 94612
Attn: **Jason Brodersen**
Phone: **415-497-9060** Fax:
Job: **10355823.02.01 B280 PAVEMENT**
PO #: **NA**
Chain of Custody (Y/N): **Y** # **062520**
RAD Screen (Y/N): **Y** pH (Y/N): **N**
Turn Around Type: **STD**

Received by: **RBR**
Date Received: **06/26/20** Time: **10:20**
Delivered by: **FEDEX**
Shuttle Custody Seals (Y/N): **N** Time Zone: **NA**
Chest Temp(s): **26.2°C**
Color: **M-PurplePink**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Greg Salata**
QC Report Type: **DVP3/EDD/CA**
Due Date: **07/17/20**

Comments:
AN: 'U' Prints MDL report, DVP3.
Login to Jason.Brodersen@tetratech.com
Dry, sieve, and grind prior to MIS (30 subsamples)
PCB: Prep using Soxhlet
FR: PDF to Jason.Broderen@tetratech.com
EDD: Excel to Jason.Brodersen@tetratech.com

Sample Distribution:
GC: 1-$82ADOD51SMI, 1-$PCBS
Extractions: 1-_SOX005MIS
Metals: 1-$62ADOD5IS(As,Pb), 1-$HGDOD5MIS
Wetlab: 1-MOIST
Other: 1-_M3050MIS, 1-_M7471MIS

Charges:

Invoice To:

	Client ID	APPL ID	Sampled	Analyses Requested
1.	RFS-B280-PAVE-ISM	BA13967S	06/25/20 12:00	$62ADOD5IS(As,Pb), $82ADOD51SMI, $HGDOD5MIS, $PCBS, MOIST

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: NA

APPL Sample Receipt Form

ARF# **92647**

Sample	Container Type	Count	p	Sample	Container Type	Count	p
BA13967	[35] Plastic Bag	1	NA				

IR @ +1.6°C
24.6/26.2°C

92647

CHAIN OF CUSTODY

Curtis & Tompkins Laboratories
ENVIRONMENTAL ANALYTICAL TESTING LABORATORY
In Business Since 1878

2323 Fifth Street
Berkeley, CA 94710

Phone (510) 486-0900
Fax (510) 486-0532

Page 1 of 1

Chain of Custody # _____

C&T LOGIN # _____

Project No: 10355823.02.01 Sampler: J. BRODERSON

Project Name: B280 PAVEMENT Report To:

Project P. O. No: Company: TETRA TECH

EDD Format: Report Level ☐ II ☒ III ☐ IV Telephone: 415 497 9060

Turnaround Time: ☐ RUSH * ☐ Standard Email:

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST																		
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	ARSENIC, LEAD 6010	MERCURY 7471	PCBs w/SOXHLET 8082		ISM SIEVE/GRIND													
	RFS-B280-PAVE-ISM	6/25/20	1200		X			1						X	X	X		X													

Notes:
* WILL CONTACT RE: TAT

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 6/25 TIME: 12:30
DATE: TIME:
DATE: TIME:

RECEIVED BY:
DATE: TIME:
DATE: TIME:
DATE: 6/26/20 TIME: 10 20

COOLER RECEIPT FORM **ARF: 92647**

1) Project: 10355823.02.01 B280 PAVEMENT Date Received: 06/26/20

2) Coolers: Number of Coolers: 1

3) No Were custody seals present and intact?
How many? 0 Name/Date on seal? _____

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
__ wet ice __ dry ice __ no ice __ gel ice

6) No Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use IR @ +1.6°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp
1: 24.6/26.2 2: _____ 3: _____ 4: _____ 5: _____ 6: _____
7: _____ 8: _____ 9: _____ 10: _____ 11: _____ 12: _____

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) NA Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea: _____
Smaller than a pea: _____

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) NA Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) NA Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of the "basic" preserved samples for Cyanide > 12, Sulfide >9, Hexchrom >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: _____
Lab notified if pH was not adequate: _____

Notes/Deficiencies:
Received out of temp @ 26.2°C.

Personnel receiving samples: RB Second reviewer:
Personnel labeling samples: RB
Project manager notified: RB Date/Time of notification 06/26/20
Name of client notified: _____ Date/Time of notification _____

SAMPLE RESULTS

EPA 8082A ISM SOIL

Tetra Tech, Inc.
1999 Harrison St., Suite 500
Oakland, CA 94612

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Jason Brodersen

Project: 10355823.02.01 B280 PAVEMENT

ARF: 92647

Sample ID: RFS-B280-PAVE-ISM

APPL ID: BA13967

Sample Collection Date: 06/25/20

QCG: #82ADO-200701A-254492

Method	Analyte	Result	RL	MDL	Units	Extraction Date	Analysis Date
EPA 8082A	AROCLOR 1016	0.010 U	0.05	0.010	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1221	0.006 U	0.05	0.006	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1232	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1242	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1248	0.63	0.05	0.004	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1254	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1260	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1262	0.006 U	0.05	0.006	mg/kg	07/01/20	07/07/20
EPA 8082A	AROCLOR 1268	0.006 U	0.05	0.006	mg/kg	07/01/20	07/07/20
EPA 8082A	TOTAL PCBS	0.63	0.05	0.004	mg/kg	07/01/20	07/07/20
EPA 8082A	SURROGATE: DECACHLOROBIPHEN	101	60-125		%	07/01/20	07/07/20

Quant Method:	PCB0702.M
Run #:	0702051
Instrument:	Lucy
Sequence:	200702
Dilution Factor:	1
Initials:	BTI

Printed: 07/15/20 3:11:45 PM
APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

Tetra Tech, Inc.
1999 Harrison St., Suite 500
Oakland, CA 94612

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Jason Brodersen
Project: 10355823.02.01 B280 PAVEMENT
ARF: 92647
Sample ID: RFS-B280-PAVE-ISM
APPL ID: BA13967
Sample Collection Date: 06/25/20

Method	Analyte	Result	RL	MDL	Units	DF	Prep Date	Analysis Date
6020A/3050B	ARSENIC (AS)	4.2	0.5	0.07	mg/Kg	1	07/07/20	07/13/20
6020A/3050B	LEAD (PB)	18.4	0.1	0.02	mg/Kg	1	07/07/20	07/13/20
EPA 7471B	MERCURY (HG)	0.52	0.2	0.02	mg/Kg	2	07/07/20	07/08/20

Printed: 07/14/20 8:07:54 PM
APPL-F1-SC-NoMC-REG MDLs

Wetlab Results

ARF: 92647

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Tetra Tech, Inc.
1999 Harrison St., Suite 500
Oakland, CA 94612

Attn: Jason Brodersen

Method	Analyte	Result	PQL	MDL	Units	Prep Date	Analysis Date
APPL ID: BA13967	-Client Sample ID: RFS-B280-PAVE-ISM		-Sample Collection Date: 06/25/20			Project: 10355823.02.01 B280 P	
CLP MOIST	MOISTURE	3.8	2.0		%	07/01/20	07/02/20

Printed: 07/06/20 11:08:34 AM

QC FORMS

EPA 8082A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 92647

Case No: 92647 Date Analyzed: 07/07/20

Matrix: SOIL Instrument: Lucy

APPL ID.	Client Sample No.	SURROGATE: DECACHLOROBIPHENYL (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
200701A-BLK	Blank	60-125	161	#			
200701A-LCS	Lab Control Spike	60-125	116				
BA13967	RFS-B280-PAVE-ISM	60-125	101				

Comments: Batch: #82ADO-200701A

= Recovery outside of Control Limits on Sample.

EPA 8082A

Form 4

Blank Summary

Lab Name:	APPL, Inc.	SDG No:	92647
Case No:	92647	Date Analyzed:	07/07/20
Matrix:	SOIL	Instrument:	Lucy
Blank ID:	200701A-BLK	Time Analyzed:	1852

APPL ID.	Client Sample No.	File ID.	Date Analyzed
200701A-BLK	Blank	0702048	07/07/20 1852
200701A-LCS	Lab Control Spike	0702049	07/07/20 1909
BA13967	RFS-B280-PAVE-ISM	0702051	07/07/20 1943

Comments: Batch: #82ADO-200701A

Method Blank
EPA 8082A ISM SOIL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **200701S-13967 - 254492**
Batch ID: #82ADO-200701A

Sample Type	Analyte	Result	RL	MDL	Units	Extraction Date	Analysis Date
BLANK	AROCLOR 1016	0.010 U	0.05	0.010	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1221	0.006 U	0.05	0.006	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1232	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1242	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1248	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1254	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1260	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1262	0.006 U	0.05	0.006	mg/kg	07/01/20	07/07/20
BLANK	AROCLOR 1268	0.006 U	0.05	0.006	mg/kg	07/01/20	07/07/20
BLANK	TOTAL PCBS	0.004 U	0.05	0.004	mg/kg	07/01/20	07/07/20
BLANK	SURROGATE: DECACHLOROBIPHEN	161 #	60-125		%	07/01/20	07/07/20

= Recovery (or RPD) is outside QC limits.

Quant Method: PCB0702.M
Run #: 0702048
Instrument: Lucy
Sequence: 200702
Initials: BTI

GC SC-Blank-REG MDLs
Printed: 07/15/20 3:11:45 PM

EPA 8082A

Form 4

LCS Summary

Lab Name:	APPL, Inc.	SDG No:	92647
Case No:	92647	Date Analyzed:	07/07/20
Matrix:	SOIL	Instrument:	Lucy
LCS ID:	200701A-LCS	Time Analyzed:	1909

APPL ID.	Client Sample No.	File ID.	Date Analyzed
200701A-BLK	Blank	0702048	07/07/20 1852
200701A-LCS	Lab Control Spike	0702049	07/07/20 1909
BA13967	RFS-B280-PAVE-ISM	0702051	07/07/20 1943

Comments: Batch: #82ADO-200701A

Laboratory Control Spike Recovery
EPA 8082A ISM SOIL

APPL ID: **200701S-13967 LCS - 254492**
Batch ID: #82ADO-200701A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
AROCLOR 1016	1.25	1.32	106	47-134
AROCLOR 1260	1.25	1.42	114	53-140
SURROGATE: DECACHLOROBIPHENYL	0.500	0.582	116	60-125

Comments:

Primary	SPK
Quant Method :	PCB0702.M
Extraction Date :	07/01/20
Analysis Date :	07/07/20
Instrument :	Lucy
Run :	0702049
Initials :	BTI

Printed: 07/15/20 3:11:47 PM
APPL Standard LCS

6020A/3050B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 92647

Case No: 92647 Date Analyzed: 07/13/20

Matrix: SOIL Instrument: Megatron

Blank ID: 200707A1-BLK Time Analyzed: 2227

APPL ID.	Client Sample No.	File ID.	Date Analyzed
200707A1-LCSD	Lab Control SpikeD	200713A	07/13/20 2241
200707A1-LCS	Lab Control Spike	200713A	07/13/20 2234
200707A1-BLK	Blank	200713A	07/13/20 2227
BA13967	RFS-B280-PAVE-ISM	200713A	07/13/20 2248

Comments: Batch: #62ADO-200707A1

EPA 7471B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 92647

Case No: 92647 Date Analyzed: 07/08/20

Matrix: SOIL Instrument: Freddie

Blank ID: 200707A-BLK Time Analyzed: 1052

APPL ID.	Client Sample No.	File ID.	Date Analyzed
200707A-LCSD	Lab Control SpikeD	200708S	07/08/20 1056
200707A-LCS	Lab Control Spike	200708S	07/08/20 1054
BA13967	RFS-B280-PAVE-ISM	200708S	07/08/20 1107
200707A-BLK	Blank	200708S	07/08/20 1052

Comments: Batch: #HGDOD-200707A

Printed: 07/14/20 8:08:01 PM
Form 4, Blank Summary

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	RL	MDL	Units	Prep Date	Analysis Date	QC Group
6020A	ARSENIC (AS)	0.07 U	0.5	0.07	mg/Kg	07/07/20	07/13/20	ǂ62ADO-200707A1-BA13967
6020A	LEAD (PB)	0.02 U	0.1	0.02	mg/Kg	07/07/20	07/13/20	ǂ62ADO-200707A1-BA13967
EPA 7471	MERCURY (HG)	0.01 U	0.1	0.01	mg/Kg	07/07/20	07/08/20	#HGDOD-200707A-BA13445

Metals SC-Blank-REG MDLs
Printed: 07/14/20 8:08:06 PM

6020A/3050B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 92647

Case No: 92647 Date Analyzed: 07/13/20

Matrix: SOIL Instrument: Megatron

LCS ID: 200707A1-LCS Time Analyzed: 2234

APPL ID.	Client Sample No.	File ID.	Date Analyzed
200707A1-LCSD	Lab Control SpikeD	200713A	07/13/20 2241
200707A1-LCS	Lab Control Spike	200713A	07/13/20 2234
200707A1-BLK	Blank	200713A	07/13/20 2227
BA13967	RFS-B280-PAVE-ISM	200713A	07/13/20 2248

Comments: Batch: #62ADO-200707A1

EPA 7471B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 92647

Case No: 92647 Date Analyzed: 07/08/20

Matrix: SOIL Instrument: Freddie

LCS ID: 200707A-LCS Time Analyzed: 1054

APPL ID.	Client Sample No.	File ID.	Date Analyzed
200707A-LCSD	Lab Control SpikeD	200708S	07/08/20 1056
200707A-LCS	Lab Control Spike	200708S	07/08/20 1054
BA13967	RFS-B280-PAVE-ISM	200708S	07/08/20 1107
200707A-BLK	Blank	200708S	07/08/20 1052

Comments: Batch: #HGDOD-200707A

Laboratory Control Spike Recoveries

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 6020A	ARSENIC (AS)	2.50	2.2	2.2	88.0	88.0	0.0	20	82-118	07/07/20	07/13/20	07/07/20	07/13/20	#62ADO-200707A1-BA139
EPA 6020A	LEAD (PB)	2.50	2.2	2.2	88.0	88.0	0.0	20	84-118	07/07/20	07/13/20	07/07/20	07/13/20	#62ADO-200707A1-BA139
EPA 7471B	MERCURY (HG)	0.160	0.18	0.19	113	119	5.4	20	80-124	07/07/20	07/08/20	07/07/20	07/08/20	#HGDOD-200707A-BA134

Comments:

ORGANICS

Calibration Data

EPA 8082
PCB0702

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 07/02/20
Matrix: Water Instrument: Lucy

Initials:

			0702003.D	0702004.D	0702005.D	0702006.D	0702007.D	0702002.D					Avg	%RSD	Type	r^2	Q
		Compound	1	2	3	4	5	1A									
1	SAL	TCmX	351772986	321925823	322404821	325062698	359034617	146850976					304508654	26	SA	0.998	
2	SAL	DBC	244151714	245027599	237575551	247117621	273338313	118510528					227620221	24	SA	0.998	
3	SAL	DECA	251073429	230421442	221704965	210621442	214812752	119649265					208047216	22	SA	1.000	
4	BNMC	Total AR1016	41391750	38280141	35577574	33611578	36245498	53371343					39746314	18	BNMC		
5	L3BKCL	AR 1016	5594501	5425944	5158279	4787087	5145267	14813472					6820758	58	L3BKC	0.999	
6	L3BKC	AR 1016 {2}	9804591	9257333	8659001	8291982	8883016	5206556					8350413	19	L3BKC		
7	L3BKC	AR 1016 {3}	10342235	9504049	8817344	8467383	8952812	12972657					9842747	17	L3BKC		
8	L3BKCL	AR 1016 {4}	7459105	7013196	5914381	5494582	5792104	9515366					6864789	22	L3BKC	0.999	
9	L3BKC	AR 1016 {5}	8191319	7079620	7028569	6570544	7472299	10863292					7867607	20	L3BKC		
10	BNMC	Total AR1260	87060424	77235896	70424014	69161704	72079245	95435923					78566201	13	BNMC		
11	L9BKCL	AR 1260	14883101	12635708	11841531	11298392	12003361	20672003					13889016	26	L9BKC	0.999	
12	L9BKC	AR 1260 {2}	27399484	23199663	20678692	20246295	21021146	16064583					21434977	17	L9BKC		
13	L9BKC	AR 1260 {3}	11057944	11260456	9793947	9895648	9913694	14626019					11091285	17	L9BKC		
14	L9BKCL	AR 1260 {4}	24320019	21622532	20259873	19898592	21182133	34365274					23608071	23	L9BKC	0.999	
15	L9BKC	AR 1260 {5}	9399876	8517536	7849972	7822776	7958911	9708044					8542853	9.7	L9BKC		
16		Signal #2											0	0			
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9.479199

PCB0702 ICAL.xls

APPL 07/06/20 10:23 AM

EPA 8082
PCB0702

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 07/02/20
Matrix: Water Instrument: Lucy
Initials:

0702003.D 0702004 D 0702005.D 0702006 D 0702007 D 0702002.D

		Compound	1	2	3	4	5	1A					Avg	%RSD	Type	r^2	Q
36	SAL	TCmX #2	508650457	492756530	501631491	495505964	532918726	214481423					457657432	26	SA	0.999	
37	SAL	DBC #2	341935246	323185184	303228006	295158507	302202598	150775062					286080767	24	SA	1.000	
38	SAL	DECA #2	301420656	263385169	251783606	236494238	238140406	141896063					238853356	22	SA	1.000	
39	BNMCL	Total AR1016 #2	52890100	46610173	43006607	39431485	40548232	78266315					50125485	29	BNMC	1.000	
40	L3BKCL	AR 1016 #2	9489459	7997579	7617454	6976443	7082598	14665549					8971514	33	L3BKC	1.000	
41	L3BKCL	AR 1016 {2} #2	11296155	9767492	8712701	7832805	8180910	15613545					10233935	29	L3BKC	0.999	
42	L3BKC	AR 1016 {3} #2	9190351	9364316	8699638	8285072	8883716	9723374					9024411	5.7	L3BKC		
43	L3BKC	AR 1016 {4} #2	9751109	9442633	8734808	8003439	8007148	10044670					8997301	9.8	L3BKC		
44	L3BKCL	AR 1016 {5} #2	13163025	10038153	9242006	8333726	8393860	28219177					12898324	60	L3BKC	1.000	
45	BNMC	Total AR1260 #2	64335192	60671109	56727784	52816958	52582266	78121263					60875762	16	BNMC		
46	L9BKC	AR 1260 #2	17432353	16112693	15229890	14292491	14257059	21154918					16413234	16	L9BKC		
47	L9BKCL	AR 1260 {2} #2	8697740	8271156	7798018	6935092	7057751	11773246					8422167	21	L9BKC	0.999	
48	L9BKC	AR 1260 {3} #2	7094698	7084937	6316245	5822802	5619902	8032272					6661809	14	L9BKC		
49	L9BKC	AR 1260 {4} #2	21839690	20117669	18747775	17699926	17817049	25287694					20251634	14	L9BKC		
50	L9BKC	AR 1260 {5} #2	9270712	9084654	8635855	8066646	7830504	11873133					9126918	16	L9BKC		
51																	
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9.567838

EPA 8082
PCB0702

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 07/02/20
Instrument: Lucy
Initial Cal. Date: 07/02/20
Data File: 0702008.D

		Compound	MEAN	CCRF	%D		%Drift
1	BNMC	Total AR1016	39746300	42221700	6.2	BNMC	
2	L3BKC	AR 1016	6820760	6202860	9.1	L3BKCL	22
3	L3BKC	AR 1016 {2}	8350410	10456700	25	L3BKC	
4	L3BKC	AR 1016 {3}	9842750	10590600	7.6	L3BKC	
5	L3BKC	AR 1016 {4}	6864790	6936300	1.0	L3BKCL	19
6	L3BKC	AR 1016 {5}	7867610	8035200	2.1	L3BKC	
7	BNMC	Total AR1260	78566200	79082400	0.66	BNMC	
8	L9BKC	AR 1260	13889000	13443000	3.2	L9BKCL	13
9	L9BKC	AR 1260 {2}	21435000	25443500	19	L9BKC	
10	L9BKC	AR 1260 {3}	11091300	9484660	14	L9BKC	
11	L9BKC	AR 1260 {4}	23608100	23171200	1.9	L9BKCL	12
12	L9BKC	AR 1260 {5}	8542850	7540030	12	L9BKC	
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		Average			8.5		

EPA 8082
PCB0702

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 07/02/20
Instrument: Lucy
Cal. Date: 07/02/20
Data File: 0702008.D

		Compound	MEAN	CCRF	%D		%Drift
41	BNMC	Total AR1016	50125500	43161200	14	BNMCL	3.9
42	L3BKC	AR 1016	8971510	8856090	1.3	L3BKCL	22
43	L3BKC	AR 1016 {2}	10233900	3587880	65	L3BKCL	60
44	L3BKC	AR 1016 {3}	9024410	10481000	16	L3BKC	
45	L3BKC	AR 1016 {4}	8997300	9841630	9.4	L3BKC	
46	L3BKC	AR 1016 {5}	12898300	10394700	19	L3BKCL	19
47	BNMC	Total AR1260	60875800	59229800	2.7	BNMC	
48	L9BKC	AR 1260	16413200	14985400	8.7	L9BKC	
49	L9BKC	AR 1260 {2}	8422170	8413670	0.10	L9BKCL	16
50	L9BKC	AR 1260 {3}	6661810	7271430	9.2	L9BKC	
51	L9BKC	AR 1260 {4}	20251600	20671700	2.1	L9BKC	
52	L9BKC	AR 1260 {5}	9126920	7887580	14	L9BKC	
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		Average			13.5		

EPA 8082
PCB0702

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 07/07/20
Instrument: Lucy
Initial Cal. Date: 07/02/20
Data File: 0702047.D

		Compound	MEAN	CCRF	%D		%Drift
1	SAL	TCmX	304509000	366127000	20	SAL	8.8
2	SAL	DBC	227620000	283558000	25	SAL	11
3	SAL	DECA	208047000	242159000	16	SAL	12
4	BNMC	Total AR1016	39746300	42497700	6.9	BNMC	
5	L3BKC	AR 1016	6820760	5856510	14	L3BKCL	15
6	L3BKC	AR 1016 {2}	8350410	10218800	22	L3BKC	
7	L3BKC	AR 1016 {3}	9842750	10593000	7.6	L3BKC	
8	L3BKC	AR 1016 {4}	6864790	7094960	3.4	L3BKCL	21
9	L3BKC	AR 1016 {5}	7867610	8734450	11	L3BKC	
10	BNMC	Total AR1260	78566200	85132700	8.4	BNMC	
11	L9BKC	AR 1260	13889000	14610700	5.2	L9BKCL	23
12	L9BKC	AR 1260 {2}	21435000	25193600	18	L9BKC	
13	L9BKC	AR 1260 {3}	11091300	12007100	8.3	L9BKC	
14	L9BKC	AR 1260 {4}	23608100	24380600	3.3	L9BKCL	17
15	L9BKC	AR 1260 {5}	8542850	8940630	4.7	L9BKC	
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		Average			11.6		

EPA 8082
PCB0702

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 07/07/20
Instrument: Lucy
Cal. Date: 07/02/20
Data File: 0702047.D

		Compound	MEAN	CCRF	%D		%Drift	
41	SAL	TCmX	457657000	601800000	31	SAL	18	
42	SAL	DBC	286081000	347975000	22	SAL	16	
43	SAL	DECA	238853000	268396000	12	SAL	11	
44	BNMC	Total AR1016	50125500	52397900	4.5	BNMCL	27	*see front
45	L3BKC	AR 1016	8971510	9158650	2.1	L3BKCL	26	
46	L3BKC	AR 1016 {2}	10233900	11025000	7.7	L3BKCL	33	
47	L3BKC	AR 1016 {3}	9024410	10937400	21	L3BKC		
48	L3BKC	AR 1016 {4}	8997300	10388300	15	L3BKC		
49	L3BKC	AR 1016 {5}	12898300	10888600	16	L3BKCL	24	
50	BNMC	Total AR1260	60875800	64893900	6.6	BNMC		
51	L9BKC	AR 1260	16413200	17627500	7.4	L9BKC		
52	L9BKC	AR 1260 {2}	8422170	8850080	5.1	L9BKCL	22	
53	L9BKC	AR 1260 {3}	6661810	7323930	9.9	L9BKC		
54	L9BKC	AR 1260 {4}	20251600	21486400	6.1	L9BKC		
55	L9BKC	AR 1260 {5}	9126920	9605930	5.2	L9BKC		
56								
57								
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80								
		Average			11.4			

EPA 8082
PCB0702

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 07/07/20
Instrument: Lucy
Initial Cal. Date: 07/02/20
Data File: 0702052.D

		Compound	MEAN	CCRF	%D	%Drift	
1	SAL	TCmX	304509000	353808000	16	SAL	5.4
2	SAL	DBC	227620000	240197000	5.5	SAL	4.6
3	SAL	DECA	208047000	217211000	4.4	SAL	0.62
4	BNMC	Total AR1016	39746300	40832300	2.7	BNMC	
5	L3BKC	AR 1016	6820760	5769110	15	L3BKCL	13
6	L3BKC	AR 1016 {2}	8350410	10032400	20	L3BKC	
7	L3BKC	AR 1016 {3}	9842750	10154000	3.2	L3BKC	
8	L3BKC	AR 1016 {4}	6864790	6790490	1.1	L3BKCL	16
9	L3BKC	AR 1016 {5}	7867610	8086230	2.8	L3BKC	
10	BNMC	Total AR1260	78566200	78151900	0.53	BNMC	
11	L9BKC	AR 1260	13889000	13429500	3.3	L9BKCL	13
12	L9BKC	AR 1260 {2}	21435000	23572900	10	L9BKC	
13	L9BKC	AR 1260 {3}	11091300	11257300	1.5	L9BKC	
14	L9BKC	AR 1260 {4}	23608100	21918700	7.2	L9BKCL	5.7
15	L9BKC	AR 1260 {5}	8542850	7973600	6.7	L9BKC	
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40							
		Average			6.7		

EPA 8082
PCB0702

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 07/07/20
Instrument: Lucy
Cal. Date: 07/02/20
Data File: 0702052.D

		Compound	MEAN	CCRF	%D	%Drift		
41	SAL	TCmX	457657000	583118000	27	SAL	14	
42	SAL	DBC	286081000	331980000	16	SAL	10	
43	SAL	DECA	238853000	255490000	7.0	SAL	5.4	
44	BNMC	Total AR1016	50125500	50301600	0.35	BNMCL	22	*see front
45	L3BKC	AR 1016	8971510	8853440	1.3	L3BKCL	22	
46	L3BKC	AR 1016 {2}	10233900	11009000	7.6	L3BKCL	32	
47	L3BKC	AR 1016 {3}	9024410	10526400	17	L3BKC		
48	L3BKC	AR 1016 {4}	8997300	9773080	8.6	L3BKC		
49	L3BKC	AR 1016 {5}	12898300	10139800	21	L3BKCL	15	
50	BNMC	Total AR1260	60875800	61759700	1.5	BNMC		
51	L9BKC	AR 1260	16413200	16884800	2.9	L9BKC		
52	L9BKC	AR 1260 {2}	8422170	8604410	2.2	L9BKCL	18	
53	L9BKC	AR 1260 {3}	6661810	6952970	4.4	L9BKC		
54	L9BKC	AR 1260 {4}	20251600	20070200	0.90	L9BKC		
55	L9BKC	AR 1260 {5}	9126920	9247370	1.3	L9BKC		
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80								
		Average			7.9			

Quantitation Report (Not Reviewed)

Signal #1 : G:\LUCY\DATA\200702\0702119.D\ECD1A.CH Vial: 19
Signal #2 : G:\LUCY\DATA\200702\0702119.D\ECD2B.CH
Acq On : 7-14-20 13:38:08 Operator: MA,SS
Sample : AR1248 5/28/19 1.0 ug/mL Inst : Lucy
Misc : water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 14 16:02 2020 Quant Results File: AR1248A.RES

Quant Method : G:\LUCY\DATA\200702\AR1248A.M (Chemstation Integrator)
Title : 8082
Last Update : Tue Jul 14 15:59:34 2020
Response via : Continuing Cal File: G:\LUCY\DATA\200702\0702119.D
DataAcq Meth : EPA8081N.M

Volume Inj. : 1uL
Signal #1 Phase : DB-35ms Signal #2 Phase: DB-XLB
Signal #1 Info : 0.32 Signal #2 Info : 0.32

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	Target Compounds						
1)	BNMC Total AR1248	0.00	0.00	69301031	108.7E6	1.000m	1.000m
2)	L3BKC AR 1248	4.40	5.46	17923776	23554732	1.000	1.000
3)	L3BKC AR 1248 {2}	4.69	5.67	14563257	27474564	1.000	1.000
4)	L3BKC AR 1248 {3}	4.95	6.32	16854521	30901491	1.000	1.000
5)	L3BKC AR 1248 {4}	5.49	6.38	8053913	15432507	1.000	1.000
6)	L3BKC AR 1248 {5}	5.95	7.13	11905563	11385256	1.000	1.000

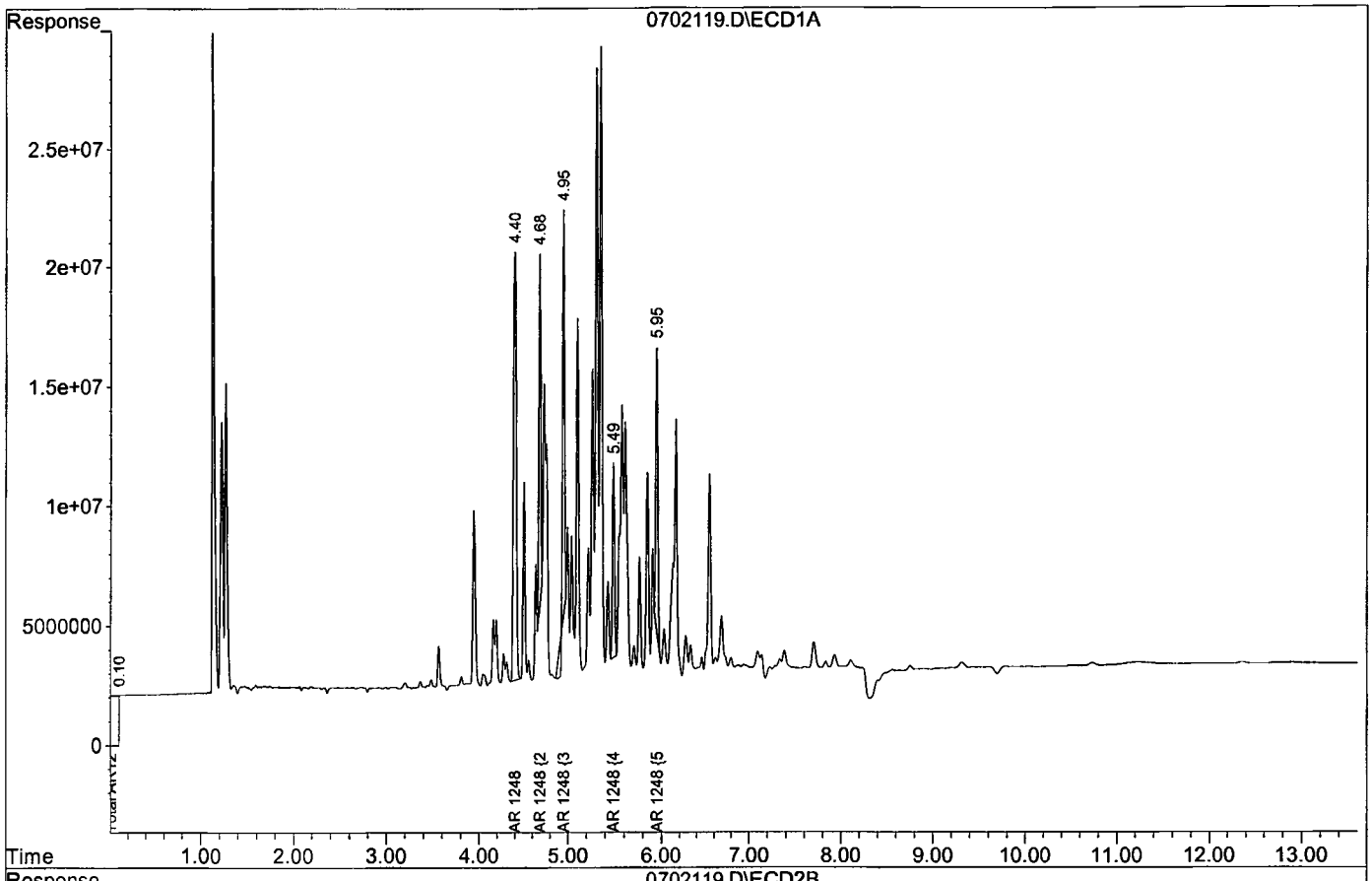
Target Compounds

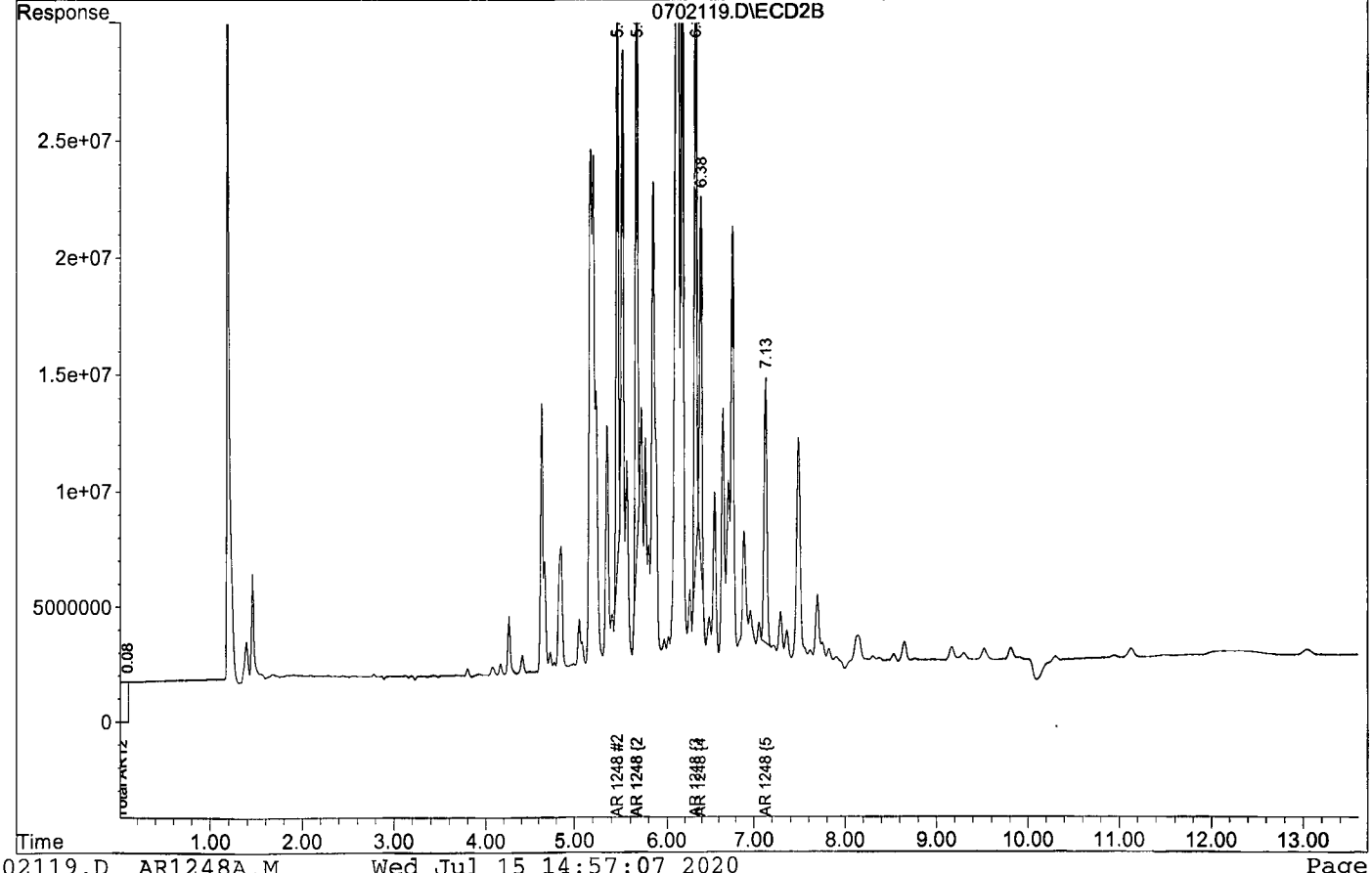
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\LUCY\DATA\200702\0702119.D
Acq On : 7-14-20 13:38:08
Sample : AR1248 5/28/19 1.0 ug/mL
Misc : water
Quant Method : G:\LUCY\DATA\200702\AR1248A.M

Vial: 19
Operator: MA,SS
Inst : Lucy
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\LUCY\DATA\200702\0702124.D\ECD1A.CH Vial: 24
Signal #2 : G:\LUCY\DATA\200702\0702124.D\ECD2B.CH
Acq On : 7-14-20 15:02:15 Operator: MA,SS
Sample : AR1248 5/28/19 0.1ug/mL Inst : Lucy
Misc : water Multiplr: 1.00
IntFile Signal #1: events.e IntFile Signal #2: events2.e
Quant Time: Jul 14 16:05 2020 Quant Results File: AR1248A.RES

Quant Method : G:\LUCY\DATA\200702\AR1248A.M (Chemstation Integrator)
Title : 8082
Last Update : Tue Jul 14 15:59:34 2020
Response via : Continuing Cal File: G:\LUCY\DATA\200702\0702119.D
DataAcq Meth : EPA8081N.M

Volume Inj. : 1uL
Signal #1 Phase : DB-35ms Signal #2 Phase: DB-XLB
Signal #1 Info : 0.32 Signal #2 Info : 0.32

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
Target Compounds						
1) BNMC Total AR1248	0.00	0.00	10806665	10451438	0.156m	0.096m#
2) L3BKC AR 1248	4.40	5.46	2283669	2438932	0.127	0.104
3) L3BKC AR 1248 {2}	4.69	5.67	2300319	2658530	0.158	0.097 #
4) L3BKC AR 1248 {3}	4.95	6.32	2204424	2922969	0.131	0.095 #
5) L3BKC AR 1248 {4}	5.49	6.38	2687926	1395406	0.334	0.090 #
6) L3BKC AR 1248 {5}	5.95	7.13	1330327	1035601	0.112	0.091

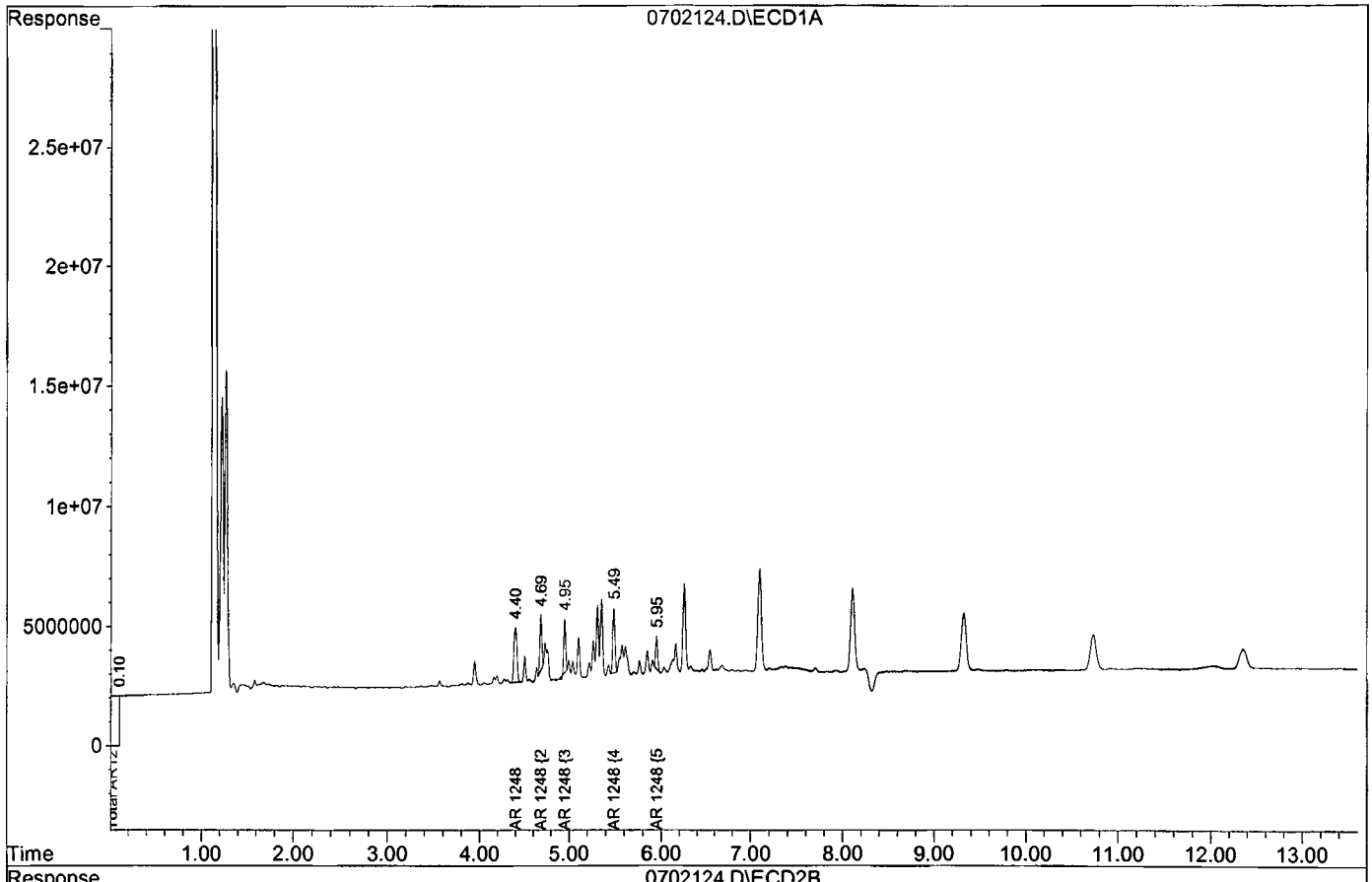
Target Compounds

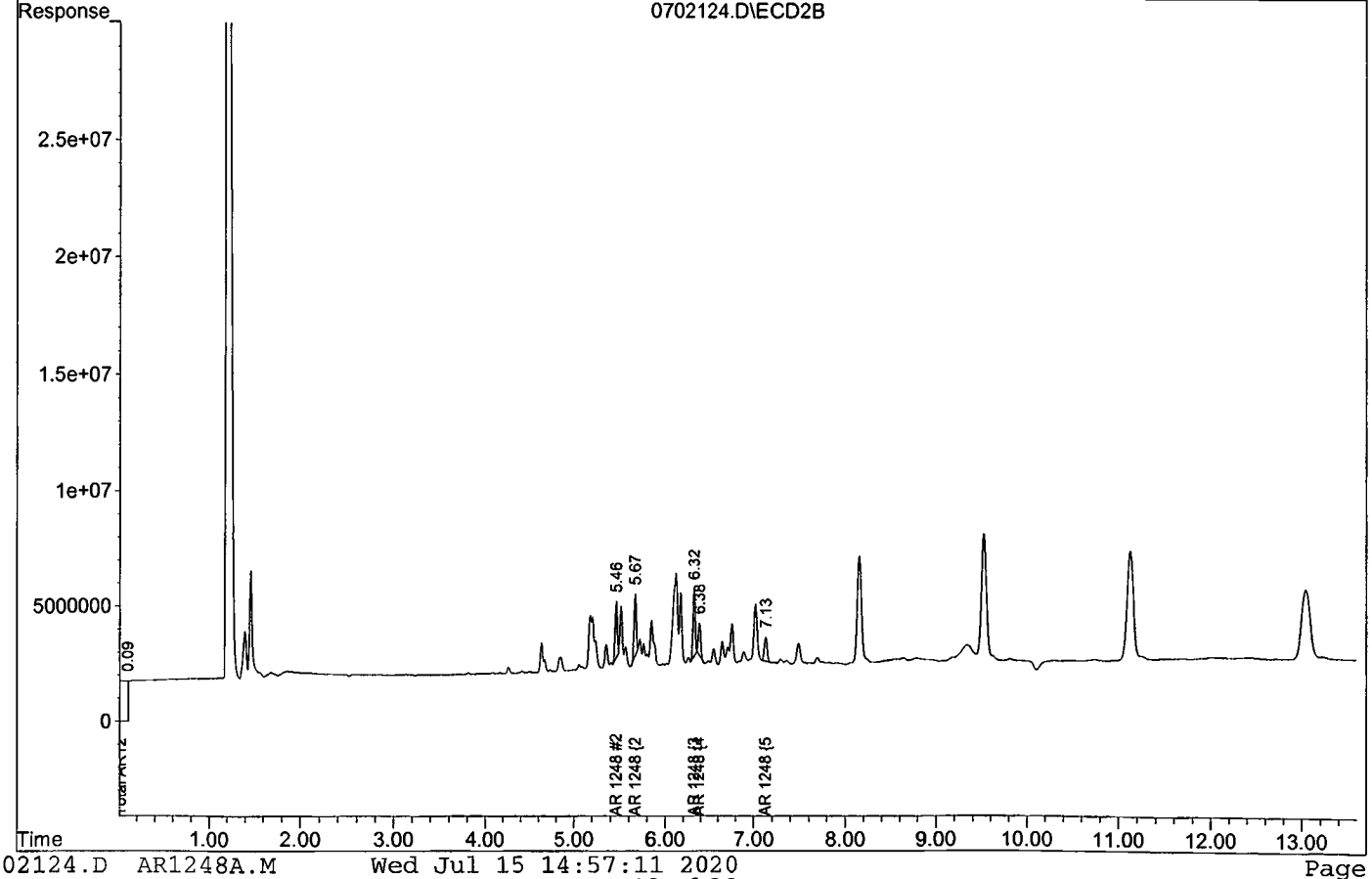
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\LUCY\DATA\200702\0702124.D
Acq On : 7-14-20 15:02:15
Sample : AR1248 5/28/19 0.1ug/mL
Misc : water
Quant Method : G:\LUCY\DATA\200702\AR1248A.M

Vial: 24
Operator: MA,SS
Inst : Lucy
Multiplr: 1.00





ORGANICS

Raw Data

Organic Extraction Worksheet

Method	OCL/OP/Triaz Sox Extra 3540C (MULT INCS)	Extraction Set	200701A	Extraction Method	SOX005MIS	Units	mL

Spiked ID 1	PCB Spike 4-22-20 4-22-21		Surrogate ID 1	OCL/OP Soil Surrogate	
Spiked ID 2	PCB Spike 7-1-20 7-1-21		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	NO	
Spiked ID 7			Ext. Start Time:	07/01/20 14:50	
Spiked ID 8			Ext. End Time:	07/02/20 10:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	33/36.5 °C
pH2			Water Bath Temp 2 °C	36/35.5
pH3			Water Bath Temp 3 °C	34/33.4 °C

Spiked By: KY **Date** 07/01/20 **Witnessed By:** DL **Date** 07/01/20

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	200701A Blk				0.250	1	10.66	5	NA	07/01/20 13:30	
						equip	E-HP30 E-WB2				
2	200701A LCS-1		1	1	0.250	1	10.53	5	NA	07/01/20 13:30	
						equip	E-HP29 E-WB1				
3	200701A LCSD-1		1	1	0.250	1	10.65	5	NA	07/01/20 13:30	
						equip	E-HP28 E-WB3				
4	BA13967	BA13967S01			0.250	1	10.11	5	NA	07/01/20 13:30	92647
						equip	E-HP27 E-WB2				
5	Grinder Blk				0.250	1	10.01	5	NA	07/01/20 13:30	
						equip	E-HP26 E-WB1				
6	Grinder LCS-1		1	2	0.250	1	10.76	5	NA	07/01/20 13:30	
						equip	E-HP25 E-WB3				
7	Grinder LCSD-1		1	2	0.250	1	10.69	5	NA	07/01/20 13:30	
						equip	E-HP47 E-WB2				

Solvent and Lot#	
SCALE BALANCE ID	EB1
DCM:Acetone MIX	6-20-20
THIMBLE	1701851302/17
SAND	19H025201
FILTER PAPER	400178
Na2SO4	2019020631
hexane	244297
SULFURIC ACID (*)	231834

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	CD
Date	7/6/20
Time	7:13am
Refrigerator	HOBART

	Technician's Initials
Scanned By	ERR
Sample Preparation	ERR,DL
Extraction	ERR,DL
Concentration	ERR

Modified	07/08/20 8:59:51 AM

Reviewed By: KY **Date** 07/08/20

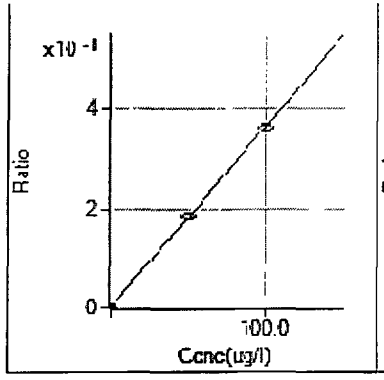
Injection Log

Directory: G:\LUCY\DATA\200702\

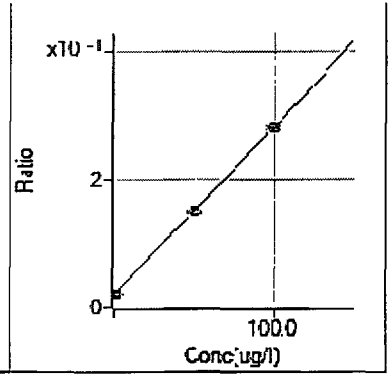
Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	0702002.D	1	PCB - 1A 3/12/20	water	7-2-20 16:46:26
2	3	0702003.D	1	PCB - 1 3/12/20	water	7-2-20 17:03:18
3	4	0702004.D	1	PCB - 2 3/12/20	water	7-2-20 17:20:09
4	5	0702005.D	1	PCB - 3 3/12/20	water	7-2-20 17:37:01
5	6	0702006.D	1	PCB - 4 3/12/20	water	7-2-20 17:54:01
6	7	0702007.D	1	PCB - 5 3/12/20	water	7-2-20 18:10:51
7	8	0702008.D	1	PCB Second Source 7/2/20	water	7-2-20 18:27:39
8	9	0702009.D	1	AR1221 5/22/19 0.1ug/mL	water	7-2-20 18:44:30
9	10	0702010.D	1	AR1232 4/23/19 0.1ug/mL	water	7-2-20 19:01:28
10	11	0702011.D	1	AR1242 2/14/19 0.1ug/mL	water	7-2-20 19:18:22
11	12	0702012.D	1	AR1248 5/28/19 0.1ug/mL	water	7-2-20 19:35:14
12	13	0702013.D	1	AR1254 5/8/19 0.1ug/mL	water	7-2-20 19:52:07
13	14	0702014.D	1	AR1262 2/14/19 0.1ug/mL	water	7-2-20 20:09:03
14	15	0702015.D	1	AR1268 2/14/19 0.1ug/mL	water	7-2-20 20:25:53
15	47	0702047.D	1	PCB - 3 3/12/20	water	7-7-20 18:35:34
16	48	0702048.D	4690.43	200701A BLK 5/10.66 DF5 AC	soil	7-7-20 18:52:24
17	49	0702049.D	4748.34	200701A LCS-1 5/10.53 DF5 AC	soil	7-7-20 19:09:14
18	51	0702051.D	4945.6	BA13967S01 5/10.11 DF5 AC	soil	7-7-20 19:43:05
19	52	0702052.D	1	PCB - 3 3/12/20	water	7-7-20 19:59:54
20	19	0702119.D	1	AR1248 5/28/19 1.0 ug/mL	water	7-14-20 13:38:08
21	23	0702123.D	4945.6	BA13967S01 5/10.11G DF5 AC	soil	7-14-20 14:45:26
22	24	0702124.D	1	AR1248 5/28/19 0.1ug/mL	water	7-14-20 15:02:15

METALS

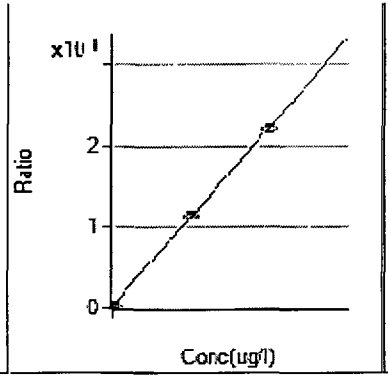
Calibration Data



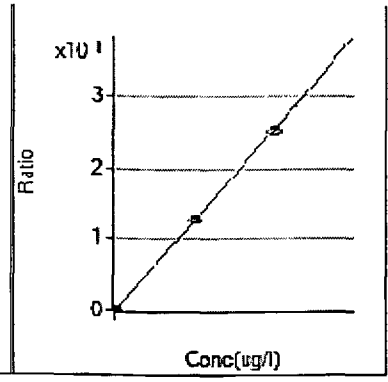
9 Be [NoGas]
ISTD: 45 Sc
y = 3.647E-3 x + 2.817E-4
R 1.0000
DL 0.06956
BEC 0.07722



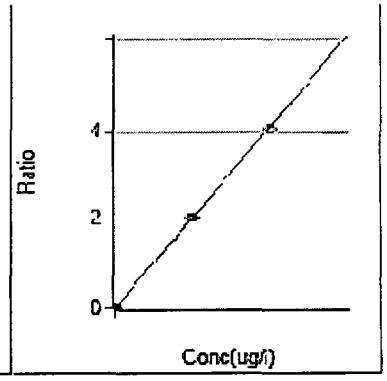
11 B [NoGas]
ISTD: 45 Sc
y = 2.626E-3 x + 2.143E-2
R 1.0000
DL 0.3432
BEC 8.158



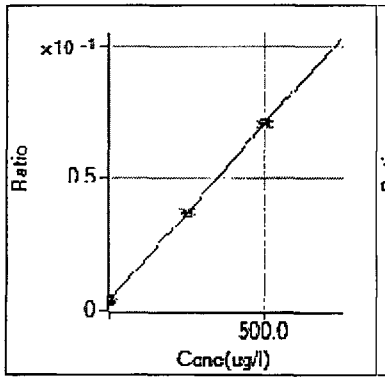
23 Na [He]
ISTD: 45 Sc
y = 8.847E-3 x + 3.098E-1
R 1.0000
DL 0.5103
BEC 35.02



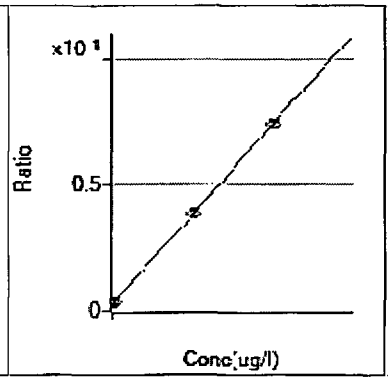
24 Mg [He]
ISTD: 45 Sc
y = 5.077E-3 x + 2.698E-2
R 1.0000
DL 0.3082
BEC 5.314



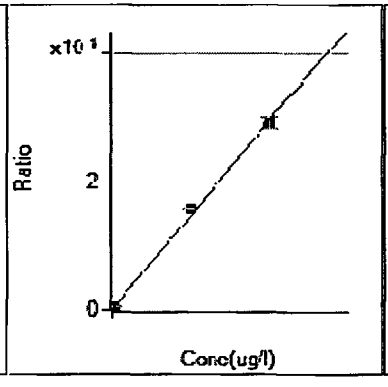
27 Al [He]
ISTD: 45 Sc
y = 2.033E-3 x + 3.250E-3
R 1.0000
DL 0.6056
BEC 1.599



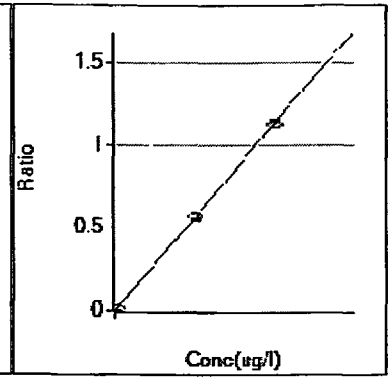
31 P [He]
ISTD: 45 Sc
y = 1.327E-4 x + 3.435E-3
R 1.0000
DL 15.21
BEC 25.88



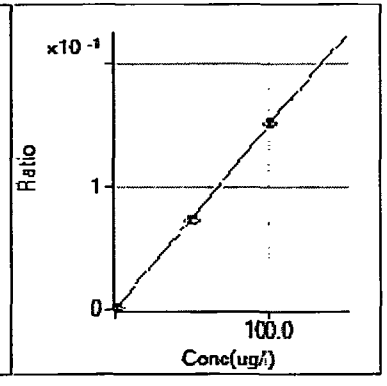
39 K [He]
ISTD: 45 Sc
y = 3.563E-3 x + 3.001E-1
R 1.0000
DL 1.12
BEC 84.24



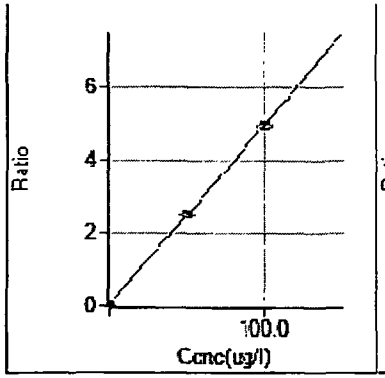
40 Ca [H2]
ISTD: 45 Sc
y = 5.906E-3 x + 2.556E-2
R 0.9990
DL 1.206
BEC 4.328



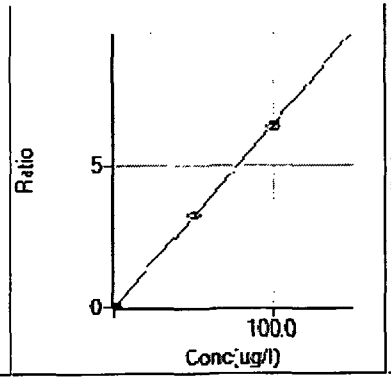
44 Ca [He]
ISTD: 45 Sc
y = 2.261E-4 x + 1.011E-3
R 1.0000
DL 3.669
BEC 4.471



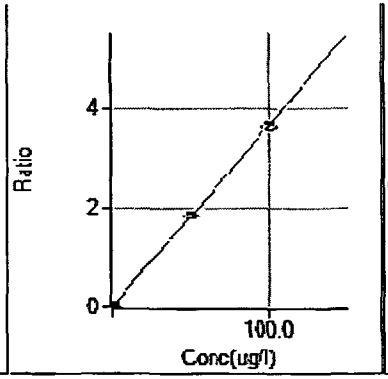
47 Ti [He]
ISTD: 45 Sc
y = 1.509E-3 x + 1.789E-5
R 0.9999
DL 0.06159
BEC 0.01185



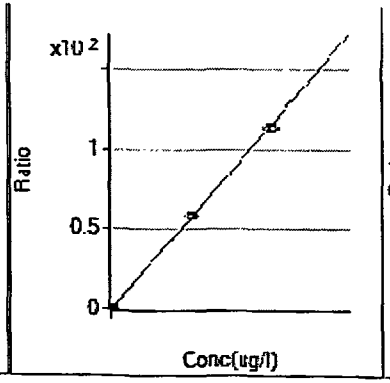
51 V [He]
ISTD: 45 Sc
y = 4.988E-2 x + 9.828E-3
R 1.0000
DL 0.06126
BEC 0.197



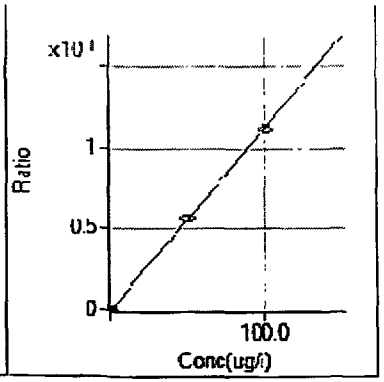
52 Cr [He]
ISTD: 45 Sc
y = 6.391E-2 x + 6.410E-3
R 1.0000
DL 0.02361
BEC 0.1003



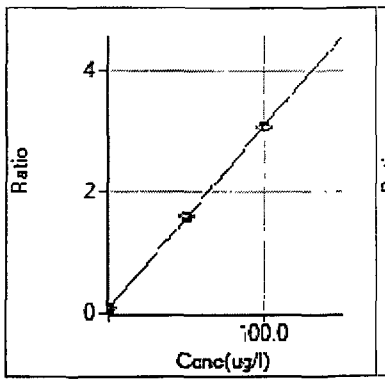
55 Mn [He]
ISTD: 45 Sc
y = 3.652E-2 x + 1.183E-2
R 1.0000
DL 0.03321
BEC 0.324



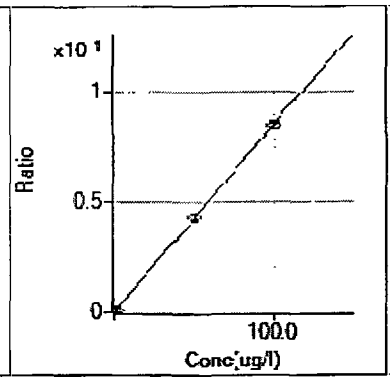
56 Fe [He]
ISTD: 45 Sc
y = 5.718E-2 x + 2.744E-1
R 0.9999
DL 0.06681
BEC 4.799



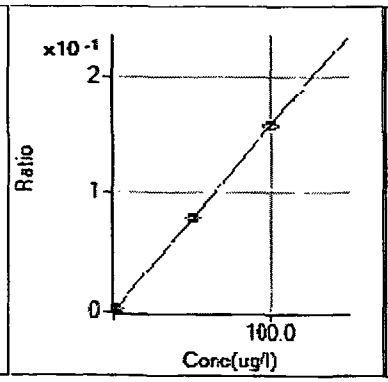
59 Co [He]
ISTD: 45 Sc
y = 1.129E-1 x + 1.374E-2
R 1.0000
DL 0.01277
BEC 0.1218



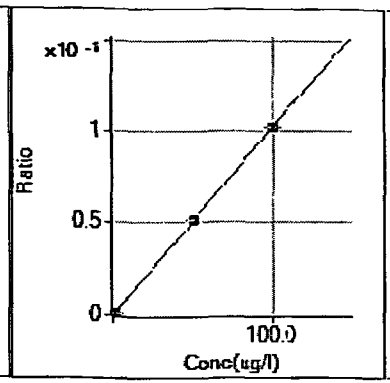
60 Ni [He]
ISTD: 45 Sc
y = 3.038E-2 x + 5.156E-2
R 0.9999
DL 0.3387
BEC 1.697



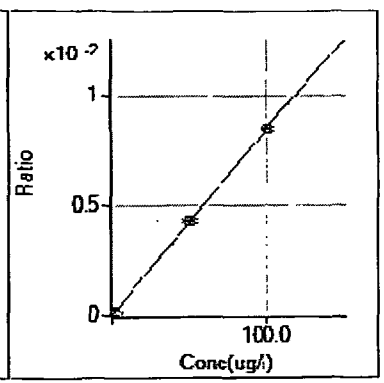
63 Cu [He]
ISTD: 45 Sc
y = 8.480E-2 x + 1.387E-2
R 1.0000
DL 0.007503
BEC 0.1636



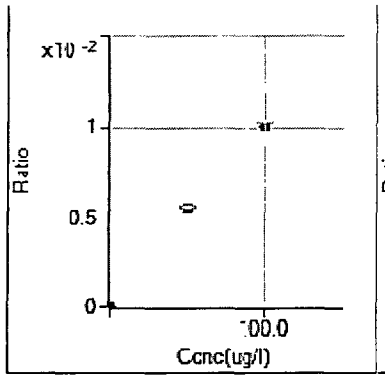
66 Zn [He]
ISTD: 115 In
y = 1.581E-3 x + 6.616E-4
R 1.0000
DL 0.151
BEC 0.4185



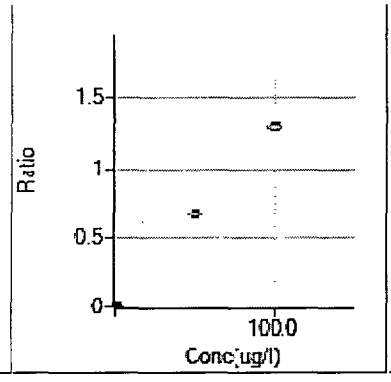
75 As [He]
ISTD: 115 In
y = 1.017E-3 x + 4.954E-5
R 1.0000
DL 0.03857
BEC 0.0487



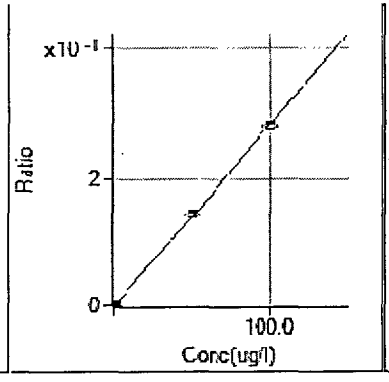
78 Se [He]
ISTD: 115 In
y = 8.453E-5 x + 4.071E-5
R 1.0000
DL 0.1586
BEC 0.4816



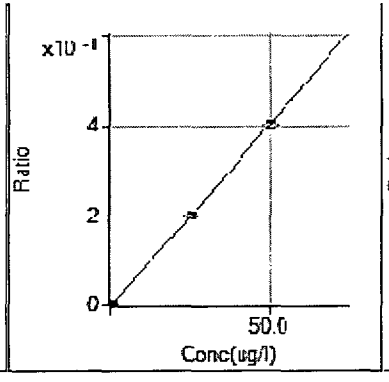
78 Se [H2]
ISTD: 115 In
Excluded
R



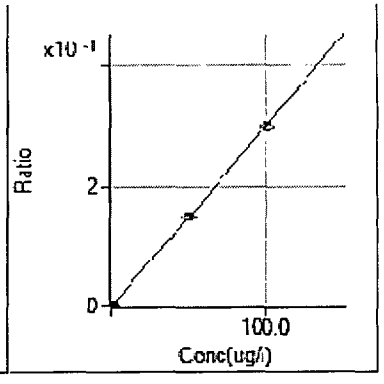
88 Sr [NoGas]
ISTD: 115 In
Excluded
R



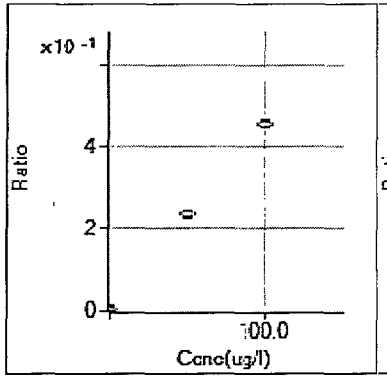
95 Mo [NoGas]
ISTD: 115 In
y = 2.844E-3 x + 1.609E-5
R 0.9999
DL 0.0155
BEC 0.005657



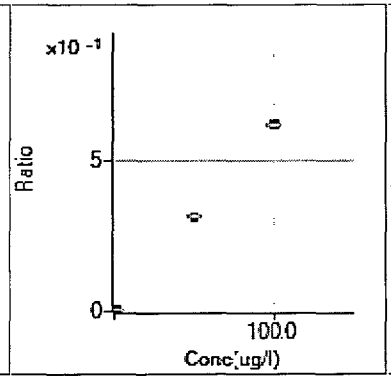
107 Ag [NoGas]
ISTD: 115 In
y = 8.059E-3 x + 6.409E-6
R 1.0000
DL 0.002067
BEC 0.0007952



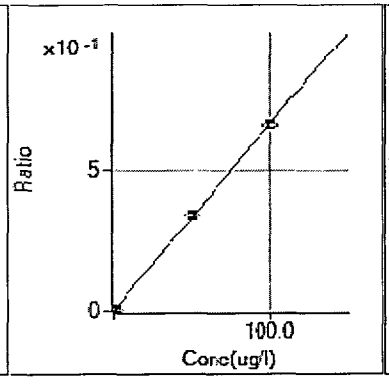
111 Cd [He]
ISTD: 115 In
y = 3.005E-3 x
R 1.0000
DL 0
BEC 0



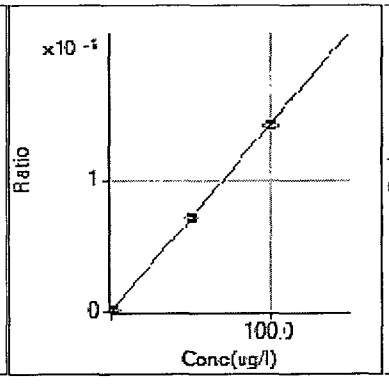
118 Sn [NoGas]
ISTD: 115 In
Excluded
R



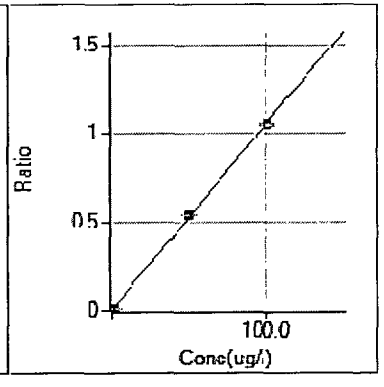
118 Sn [He]
ISTD: 115 In
Excluded
R



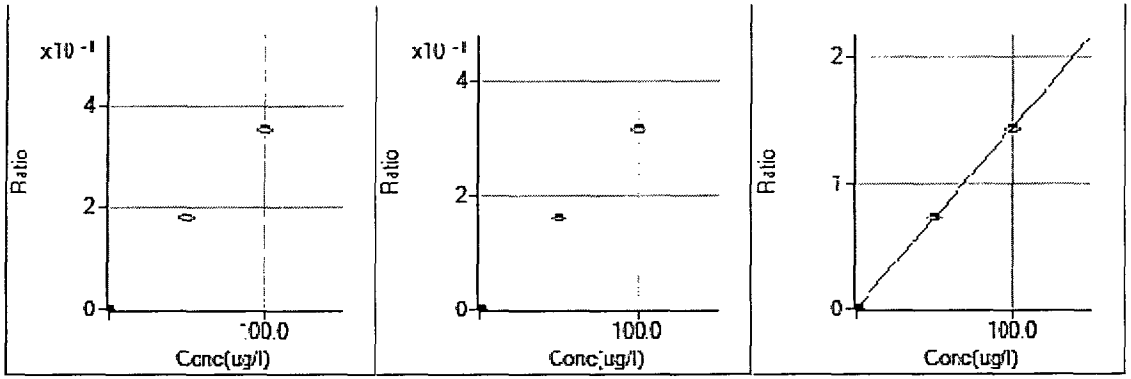
121 Sb [NoGas]
ISTD: 115 In
y = 6.677E-3 x + 1.150E-3
R 0.9999
DL 0.05614
BEC 0.1722



137 Ba [NoGas]
ISTD: 165 Ho
y = 1.421E-3 x + 1.772E-5
R 1.0000
DL 0.02976
BEC 0.01247



205 Tl [NoGas]
ISTD: 165 Ho
y = 1.057E-2 x + 4.167E-5
R 0.9999
DL 0.002745
BEC 0.003941



206 [Pb] [NoGas]
ISTD: 165 Ho
Excluded
R

207 [Pb] [NoGas]
ISTD: 165 Ho
Excluded
R

208 Pb [NoGas]
ISTD: 165 Ho
y = 1.454E-2 x + 1.891E-4

R	1.0000
DL	0.007086
BEC	0.01301

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech, Inc.

ARF No: 92647 SDG: 92647

Analysis Date: 07/13/20 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:31	%R(1)	True CCV1	Found 21:47	%R(1)	True CCV1	Found 0:40	%R(1)	
Arsenic (As)	50	53.7079	107	50	47.9642	95.9	50	47.2247	94.4	P
Lead (Pb)	50	55.0330	110	50	49.1848	98.4	50	49.0557	98.1	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech, Inc.

ARF No.: 92647 SDG: 92647

Preparation Blank Matrix (soil/water): soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/Kg

Analysis Date: 07/13/20

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	13:38		21:54		00:46				22:27		
Arsenic (As)	2.50	U	2.50	U	2.50	U			.50	U	P
Lead (Pb)	.50	U	.11	J	.50	U			.10	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: Tetra Tech, Inc.
ARF No.: 92647 SDG: 92647
ICP ID Number: Megatron ICS Source: Environmental Express

Analysis Date: 07/13/20 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 14:18	Sol AB 14:25	%R(1)
Arsenic (As)		50	0.017205	54.981746	110
Lead (Pb)		100	0.064521	104.007153	104

(1) Control Limits: Metals 80-120

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech, Inc.

ARF No: 92647 SDG: 92647

Analysis Date: 07/08/20 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 10:47	%R(1)	True CCV1	Found 11:27	%R(1)	True	Found	%R(1)	
Mercury (Hg)	4	4.222	106	5.208	5.498	106				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech, Inc.

ARF No.: 92647 SDG: 92647

Preparation Blank Matrix (soil/water): soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/Kg

Analysis Date: 07/08/20

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	10:49		11:29						10:52		
Mercury (Hg)	.63	U	.63	U					.10	U	P

A.P.P.L. INC.

LLQC Check

Lab Name: A.P.P.L. INC. Contract: Tetra Tech, Inc.

ARF No: 92647 SDG: 92647

Concentration Units: ug/L

Analysis Date: 07/08/20

Analyte	LLQC								
	True LLICV	Found 10:51	%R(1)	True	Found	%R(1)	True	Found	%R(1)
Mercury (Hg)	0.208	0.2123	102						

METALS

Raw Data

US EPA Tune Check Report

Operator Name	Chemist_Metals
Acq/Data Batch	C:\Agilent\ICPMH\1\DATA\200713A.b
Acq. Date-Time	07/13/20 11:20:45 AM
Report Comment	C:\Agilent\ICPMH\Report Templates\en\Letter\Tune Report\New and Improved 200_8TuneCheckSampleReport.xltx
Instrument Name	G3281A JP12101628

[NoGas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		17850	178504.00			0.887	5.000
24		50271	502708.31			0.739	5.000
25		6796	67955.55			0.547	5.000
26		8238	82384.41			0.749	5.000
59		77606	776059.27			0.371	5.000
115		132044	1320439.15			0.703	5.000
206		36940	369403.84			0.933	5.000
207		33398	333980.71			1.022	5.000
208		76915	769150.94			1.172	5.000

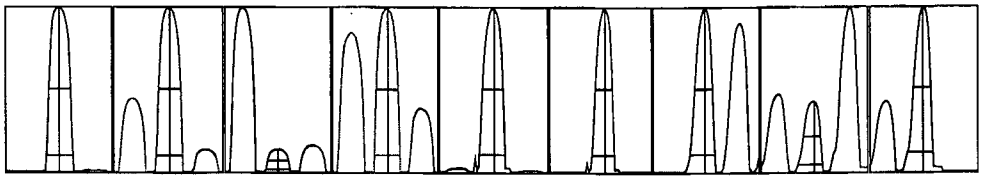
Mass	RSD% (Flag)
9	
24	
25	
26	
59	
115	
206	
207	
208	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	17609	17974	17885	17997	17787
24	49730	50187	50679	50557	50201
25	6750	6801	6831	6831	6765
26	8166	8256	8289	8300	8181
59	77122	77691	77865	77756	77596
115	130576	132282	132560	131805	132997
206	36360	37115	36965	37263	36999
207	32806	33446	33626	33631	33482
208	75397	76894	77748	77236	77301

Integration Time [sec] 0.1

Resolution/Axis

US EPA Tune Check Report



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	30143.20	9.05	8.90 - 9.10	
24	86791.37	24.05	23.90 - 24.10	
25	11711.10	25.05	24.90 - 25.10	
26	13792.53	26.05	25.90 - 26.10	
59	137552.70	59.10	58.90 - 59.10	
115	257915.89	115.10	114.90 - 115.10	
206	74722.78	206.00	205.90 - 206.10	
207	67546.82	207.00	206.90 - 207.10	
208	158743.89	208.00	207.90 - 208.10	

Mass	W-50%	W-10%	W-10% (Required)	W-10% (Flag)
9	0.61	0.750	0.900	
24	0.61	0.719	0.900	
25	0.61	0.698	0.900	
26	0.63	0.727	0.900	
59	0.57	0.718	0.900	
115	0.52	0.688	0.900	
206	0.50	0.714	0.900	
207	0.49	0.688	0.900	
208	0.48	0.712	0.900	

Integration Time [sec]	0.1
Acquisition Time [sec]	235
Y Axis	Linear

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.83 L/min	Dilution Gas	0.20 L/min
RF Power	1550 W	Option Gas	0.0 %	Auxiliary Gas	---
RF Matching	1.10 V	Nebulizer Pump	0.10 rps	Plasma Gas	---
Sample Depth	8.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	0.0 V	Omega Lens	10.0 V	Deflect	15.4 V
Extract 2	-135.0 V	Cell Entrance	-30 V	Plate Bias	-45 V
Omega Bias	-80 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	5.0 V

US EPA Tune Check Report

He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	0.0 mL/min	OctP RF	200 V		
QP Parameters					
Mass Gain	121	Axis Gain	0.9986	QP Bias	-3.0 V
Mass Offset	126	Axis Offset	0.11		
Hardware Settings					
Torch					
Torch H	-0.4 mm	Torch V	0.2 mm		
EM					
Discriminator	5.1 mV	Analog HV	1813 V	Pulse HV	1262 V

Metals Digestion Worksheet

Method Name 3050B Digestion (MULT INC SAMP) **Prep Method** M3050MIS **Set** 200707A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT #10064561-15-49937
Spiked ID 2	LCSW LOT #10064561-14-49904
Spiked ID 3	Balance WB2
Spiked ID 4	
Spiked By	NM Date: 07/07/20 8:43:00 AM
Witnessed By	NA Date: 07/07/20 8:43:00 AM

Starting Temp:	SLOT 9 THERM:Unbreakable 92.1C/95.1C
Ending Temp:	SLOT 9 90.1C/93.1C
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	07/07/20 13:35

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	200707A Blk				9.98g	100mL	07/07/20 8:43	equip: Modblock1
2	200707A LCS		1mL	1+2	10.01g	100mL	07/07/20 8:43	equip: Modblock1
3	200707A LCSD		1mL	1+2	9.97g	100mL	07/07/20 8:43	equip: Modblock1
4	BA13967	BA13967S01			9.94g	100mL	07/07/20 8:43	equip: Modblock1 92647
5	BA13967 MS	BA13967S01	8mL	1+2	9.94g	100mL	07/07/20 8:43	equip: Modblock1
6	BA13967 MSD	BA13967S01	8mL	1+2	9.94g	100mL	07/07/20 8:43	equip: Modblock1

Solvent and Lot#
1:1 HNO3 6-4-20
HNO3 BDH 1119110 18061
H2O2 242999
HCL BDH 4119060 16863
100mL vessel 3000000013

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	
Date	
Time	
Moved to	

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	07/07/20 9:35:58 AM

Reviewed By: **Date:**

Mercury Digestion Worksheet

Method Name 7471A Digestion (Mult Incr Sampl) **Prep Method** M7471MIS **Set** 200707A **Units** mL

Spikes			
Spiked ID 1	Hg WORKING STANDARD 7-7-20 Pipette M12		
Spiked ID 2	Hg WORKING ICV 7-7-20		
Spiked ID 3	BALANCE: WB2		
Spiked ID 4			
Spiked By	TH	Date:	07/07/20 2:00:00 PM
Witnessed By	NM	Date:	07/07/20 2:00:00 PM

Starting Temp:	SLOT 28 THERM:Unbreakable 91C/94C
Ending Temp:	SLOT 28 91C/94C
Temp Type:	Modblock1
End Date/Time	07/07/20 2:58:00 PM

Mercury Calibration			
Sample	**Spike Amount**	**Spike ID**	**Final Volume**
0 ppb		1	96 ml
0.2083 ppb	0.4 ml	1	96 ml
0.5208 ppb	1 ml	1	96 ml
1.0417 ppb	2 ml	1	96 ml
2.083 ppb	4ml	1	96 ml
5.208 ppb	10 ml	1	96 ml
5.208 ppb	10 ml	1	96 ml
10.417 ppb	20 ml	1	96 ml
ICV	8 ml	2	96 ml

Start Date/Time of Calibration 07/07/20 14:00

Sufficient Vol for Matrix QC:	YES

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	200707A Blk					96mL	07/07/20 14:00	equip: Modblock1
2	200707A LCS		8mL	2		96mL	07/07/20 14:00	equip: Modblock1
3	200707A LCSD		8mL	2		96mL	07/07/20 14:00	equip: Modblock1
4	BA13445	BA13445S07			2.54g	96mL	07/07/20 14:00	equip: Modblock1 92543
5	BA13445 MS	BA13445S07	8mL	2	2.54g	96mL	07/07/20 14:00	equip: Modblock1
6	BA13445 MSD	BA13445S07	8mL	2	2.54g	96mL	07/07/20 14:00	equip: Modblock1
7	BA13967	BA13967S01			2.54g	96mL	07/07/20 14:00	equip: Modblock1 92647

Solvent and Lot#
AQUAREGIA 7-7-20
KMnO4 6-19-20
DECOLORIZER 7-7-20
100mL vessel 200204

Sample COC Transfer	
Sample prep employee Initials	TH
Analyst's initials	
Date	
Time	
Moved to	

Technician's Initials	
Scanned By	TH
Sample Preparation	TH
Digestion	TH
Bring up to volume	TH
Modified	07/07/20 3:42:13 PM

Reviewed By: **Date:**

6020A/3050B Injection Log

Directory: K:\ICP-MS Megatron\raw data output csv\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	13 Jul 2020	12:23	Calibration Blank 07/09/2020		200713A Tetr	1.
2	13 Jul 2020	12:30	Standard 1 07/09/2020		200713A Tetr	1.
3	13 Jul 2020	12:37	Standard 2 07/09/2020		200713A Tetr	1.
4	13 Jul 2020	12:44	Standard 3 07/09/2020		200713A Tetr	1.
5	13 Jul 2020	12:51	Standard 4 07/09/2020		200713A Tetr	1.
6	13 Jul 2020	13:31	ICV 200709		200713A Tetr	1.
7	13 Jul 2020	13:38	ICB		200713A Tetr	1.
13	13 Jul 2020	14:18	ICSA 07/09/20		200713A Tetr	1.
14	13 Jul 2020	14:25	ICSAB 07/09/20		200713A Tetr	1.
15	13 Jul 2020	21:47	CCV 200701		200713A Tetr	1.
16	13 Jul 2020	21:54	CCB 200701		200713A Tetr	1.
17	13 Jul 2020	22:27	200707A BLK DF10		200713A Tetr	10.
18	13 Jul 2020	22:34	200707A LCS DF10		200713A Tetr	10.
19	13 Jul 2020	22:41	200707A LCSD DF10		200713A Tetr	10.
20	13 Jul 2020	22:48	BA13967S01 DF10		200713A Tetr	10.
25	14 Jul 2020	00:40	CCV 200701		200713A Tetr	1.
26	14 Jul 2020	00:46	CCB 200701		200713A Tetr	1.

EPA 7471B Injection Log

Directory: K:\FIMS Freddie\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	08 Jul 2020	10:36	Calib. Blank		200708S	1.
2	08 Jul 2020	10:37	ICAL 0.208ppb 7/8/20 TH		200708S	1.
3	08 Jul 2020	10:39	ICAL 0.521ppb 7/8/20 TH		200708S	1.
4	08 Jul 2020	10:41	ICAL 1.042ppb 7/8/20 TH		200708S	1.
5	08 Jul 2020	10:42	ICAL 2.083ppb 7/8/20 TH		200708S	1.
6	08 Jul 2020	10:44	ICAL 5.21ppb 7/8/20 TH		200708S	1.
7	08 Jul 2020	10:46	ICAL10.42ppb 7/8/20 TH		200708S	1.
8	08 Jul 2020	10:47	ICV 7/8/20 TH		200708S	1.
9	08 Jul 2020	10:49	ICB 7/8/20 TH		200708S	1.
10	08 Jul 2020	10:51	LLICV 7/8/20 TH		200708S	1.
11	08 Jul 2020	10:52	200707A BLK		200708S	1.
12	08 Jul 2020	10:54	200707A LCS		200708S	1.
13	08 Jul 2020	10:56	200707A LCSD		200708S	1.
17	08 Jul 2020	11:07	BA13967S01-DF 2		200708S	2.
29	08 Jul 2020	11:27	CCV 7/8/20 TH		200708S	1.
30	08 Jul 2020	11:29	CCB 7/8/20 TH		200708S	1.

% Moisture

Batch: QCG 200701-M008248

Method: CLP 4.0

Date: 07/01/20 15:19

Sample	Container	Pan (g)	Pan+Wet (g)	Pan+Dry 1 (g)	Pan+Dry 2 (g)	Moisture (%)	Comments
BA13967		0.8273 07/01/20 15:19	8.7250 07/01/20 15:20	8.4280 07/02/20 15:40	8.4281 07/02/20 15:40	3.759	
BA13947D		0.8371 07/01/20 15:18	7.8963 07/01/20 15:19	6.8973 07/02/20 15:39	6.8975 07/02/20 15:39	14.149	
BA13947		0.8441 07/01/20 15:17	7.8484 07/01/20 15:17	6.8429 07/02/20 15:39	6.8427	14.358	
BA13946		0.8457 07/01/20 15:16	9.4057 07/01/20 15:16	8.2225 07/02/20 15:39	8.2226	13.821	
BA13945		0.8428 07/01/20 15:15	8.5144 07/01/20 15:16	7.4824 07/02/20 15:38	7.4824	13.452	
BA13944		0.8393 07/01/20 15:14	8.0213 07/01/20 15:15	6.6820 07/02/20 15:38	6.6820 07/02/20 15:38	18.648	
BA13943		0.8405 07/01/20 15:13	9.0841 07/01/20 15:14	8.0718	8.0724 07/02/20 15:38	12.273	
BA13942		0.8416 07/01/20 15:12	7.4119 07/01/20 15:13	6.6624 07/02/20 15:37	6.6624 07/02/20 15:37	11.407	

Date/Time InOven@104ºC	Date/Time OutOven@104ºC	Date/Time InOven@104ºC	Date/Time OutOven@104ºC
07/01/20 3:20:00 PM			07/02/20 3:37:00 PM